

**THE ROLE OF INDIGENOUS MEDICINE IN
MATERNAL HEALTH: A CASE STUDY OF
NYAMACHE DIVISION IN KISII DISTRICT,
KENYA**

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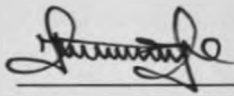
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**A Thesis submitted to the Institute of African Studies in partial
fulfillment of the requirements for the Degree of Master of Arts in
Anthropology of the University of Nairobi**

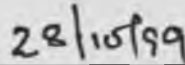
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DECLARATION

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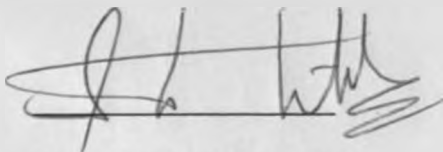


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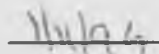


Date.

This thesis has been submitted for examination with my approval as a University Supervisor.



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DEDICATION

In memory of my late father, Chrisantus Omare Anunda

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LIST OF ABBREVIATIONS

CBS	-	Central Bureau of Statistics
D.O	-	District Officer
HBM	-	Health Belief Model
HSR	-	Health Systems Research
KEMRI	-	Kenya Medical Research Institute
KFCU	-	Kisii Farmers Co-operative Union
KTDA	-	Kenya Tea Development Authority
MTC	-	Medical Training Centre
NGOs	-	Non-Governmental Organizations
PHC	-	Primary Health Care
SAMTECH	-	School of Alternative Medicine and Technology
SPSS	-	Statistical Package for Social Sciences
TBAs	-	Traditional Birth Attendants
UNICEF	-	United Nations Children's Fund
USSR	-	Union of Soviet Socialist Republic
WHA	-	World Health Assembly
WHO	-	World Health Organization

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ABSTRACT

This study focuses on the role of indigenous medicine in maternal health services in Nyamache Division of Kisii District. The overall objective of this study was to evaluate the role of indigenous medicine as a community utilized health care service in maternal health. This study regarded indigenous medicine as a resource which plays an important function in maternal health services among the Abagusii. The fact that indigenous medicine continues to be used to complement the allopathic health services, implies that it has an important function in the society.

The data on which this study is based was obtained between November 1996 and early February 1997. A total of one hundred and forty-four respondents were randomly selected and interviewed. Owing to the fact that no single method is absolutely adequate to obtain data, the study employed both primary and secondary sources of data collection. These included documentary sources, survey method, informal interviews, direct observation and case studies. The health belief model and the theory of cognitive system were adopted as frames of reference to guide the study. Various statistical methods, such as frequency distribution, percentages, tables and cross-tabulations, were used to present the data.

The findings from the study indicate that the majority of people in the research area do not have ready access to modern health facilities. The existence of facilities for maternal health

care in the division does not necessarily mean that they will be used, even by the women who have been advised to use them. Sometimes, the health centre/dispensary lacks drugs or is far away from a woman's home and possibly the woman lacks time, money and even transport to reach the clinic. Accessibility and affordability of the treatment greatly influence the health seeking behaviour. As a result, many people make use of the services of traditional healers everyday.

The study also reveals that socio-cultural beliefs associated with difficult deliveries and miscarriage influence the continued use of traditional birth attendants by pregnant women for home deliveries. It is believed that difficult deliveries and miscarriage are caused by a woman's illicit sexual relations and, therefore, necessitates a confession of guilt on her part.

The findings suggest that there is an urgent need to train more TBAs in hygienic ways with regard to the improvement of delivery of their services because they are the closest to women when their services are needed. TBAs are well versed with ailments that are likely to affect a pregnant woman and treat mainly using indigenous medicine. Besides, efforts should be made to intensify mobile clinics in order to reach many people who have problems of travelling long distances to seek health care services. The government should enact favourable laws in licencing indigenous medical consultants who have efficacious concoctions to operate without fear since some of them are misconceived as practising magic and witchcraft.

CHAPTER ONE

INTRODUCTION

1:0 Introduction

In Kenya the antenatal and child health services were introduced at the turn of the century by missionaries. As an extension of their curative dispensaries, some expectant mothers were examined and, sometimes, given food supplements. Tetanus toxoid and vitamin supplement cases were introduced in the late 1930's, and the first facility for maternity cases was opened in the 1940's. It has been suggested that the main aim of the Missionaries in running antenatal services was an extension of the missionary work, where they saw antenatal and child care (with distinctly more emphasis on child care) as part of their work of producing as many new candidates as possible for baptism.

Kenya is a country which has been singled out as one of the countries with both the highest birth rates and high maternal mortality rates in the world, and Kisii District has the highest birth rate in the country (Raikes, 1990). Prolonged and obstructed labour, with its associated sepsis, delay in seeking medical attention, late referrals, unsafe abortion, overcrowding in health facilities, beliefs associated with infidelity, anaemia, retention of the placenta, uterine rupture and caesarean section in unfavourable circumstances, are among the chief causes of maternal death. The major causes of mortality and morbidity in women are closely tied in with their reproductive health. Illness and deaths from complications of pregnancy, child birth, unsafe abortions, and diseases of the reproductive tract, top the list of health threats to women

of reproductive age in Kenya. Complications arising during pregnancy and child birth cause deaths of a half a million women every year, the vast majority in the developing world. Studies on maternal mortality in developing countries show that 6,000 maternal deaths per 100,000 live births occur in Kenya (WHO, 1992). However, many of these deaths could be prevented through the use of simple and inexpensive technology.

Statistics from the largest maternity hospital in Kenya, the Pumwani Maternity Hospital, show that 26% of all maternal deaths occur in adolescent mothers and that two-thirds of hospital based maternal deaths occurred in women who did not attend antenatal clinics at all or attended clinics late in pregnancy. Women who had more than four pregnancies were also noted to be at increased risk of maternal mortality, accounting for 23% of deaths in all hospitalized cases (Njoka and Bansal, 1987).

1:1 Background to the research problem

Approximately 90 per cent of the population in Kenya live in rural areas and more than 70 per cent of this population consists of women. In the rural areas, most men have moved from home to towns for wage employment and this labour migration has led to double work for women. As a result of this, women have been forced to take up men's roles in addition to their usual roles of fetching water, firewood and maintaining family welfare. The rural women's increased workload, coupled with inadequate health care facilities, has created numerous health-related problems such as backaches, general malaise and miscarriage for pregnant women.

The numerous deaths and diseases which affect pregnant mothers in Nyamache Division are culturally attributed to supernatural punishment. For example, a mother may die during child birth if a woman with whom her husband was having an affair stepped over the birth blood. This is locally called *amasangia* (the spirit-caused punishment for adultery). *Amasangia*, the supernatural sanction against infidelity, affects the mother and the child and may cause death. When a woman has committed adultery, she could avoid the evil consequences by confessing to her husband and having a purifying sacrifice performed.

In Nyamache Division, indigenous medicines are used by pregnant mothers to cure pains during pregnancy, accelerate the labour process, reduce the stomach pains experienced by infants, protect both mothers and children against witchcraft, the evil eye, and, finally, protect them against evils brought about by infidelity. In fact, a good proportion of the people tend to go to indigenous healers even in the presence of modern health facilities.

More often, pregnant mothers and their young ones make use of indigenous medicines for common, simple ailments and preventive purposes. It is quite normal to see a pregnant woman chewing some herbs or eating certain red soils and stones with a belief that this will keep them well. By and large, women know the important medicinal herbs, fruits, fodder, seeds and flowers, and always preserve them.

There are many aspects of indigenous medicine which are not well understood and require research. Some doctors in the cosmopolitan health care system do not know whether to dismiss

the use of indigenous medicine or approve of it. Thus, because of the uncertainty surrounding the efficacy of indigenous medicine, it becomes difficult to refer patients to indigenous medical practitioners who are experts in treating some pregnancy related complications. This problem is compounded by the manner in which the provincial administration, particularly the chiefs and some politicians, ban the use of indigenous medicine out of ignorance. Although it is a good idea to dismiss "quacks" who exploit people, it is not rational to condemn every indigenous healer for if they were not significant in society, then none would seek their services.

1:2 Statement of the research problem

The health systems management of child birth has many functions, but the assumption which is most often put forward in relation to the antenatal and maternity services is that they are run to improve the outcome of child birth by providing universal access to medical care and medical solutions during pregnancy and child birth.

According to the Daily Nation of July 2nd, 1996:

Fifty-seven women in East Africa die hourly due to pregnancy-related complications. Ninety-nine per cent of women who die each year die of pregnancy related complications and one-third of these are from Africa. In Kenya, out of every 100,000 births at least 27% women die during child birth (p. 17).

The majority of pregnant women in Nyamache Division attend antenatal clinics, at least once during the pregnancy term. This study evaluated the factors which lead to the high rate of

maternal mortality in the Division. In the recent past, it would appear that some women have died while giving birth. Most of these maternal deaths would be preventable were the hospitals in the region and the community well equipped to deal with maternal health problems.

There is only one major health centre in Nyamache Division but unfortunately it does not have enough facilities for even normal deliveries. The expectant mothers are required to buy gloves, razor blades and other materials for delivery. In case of complications, the mothers are referred to Kilgoris Hospital in Trans-Mara District or Kisii Town which is about forty kilometres away. Nyamache Health Centre has only one Land Rover which serves as an ambulance but one has to fuel it in order to use it. Sometimes it has mechanical problems and cannot be used. Thus, poor patients find it difficult to hire alternative modes of transport.

Another problem experienced in the division is the fact that even though pregnant women attend antenatal clinics, they do not do so regularly. Even for those who do, they mix indigenous medicine with modern ones. This practice is dangerous for it could lead to overdose. Women who do not attend antenatal clinics are either those who have several births and resort to the use of indigenous medicine, or very young girls who are afraid and often hiding their first pregnancies, particularly in the case of unmarried girls.

This study, therefore, attempted to provide answers to the following questions: What is the role of indigenous medicine in the treatment of pregnancy-related complications? How does education influence the utilization of indigenous medicine by pregnant mothers? What are the

socio-cultural determinants which influence the continued use of indigenous medicine by pregnant mothers? How does the cost of modern medicine influence the use of indigenous medicine in the rural areas of Nyamache Division? What is the future of indigenous medical practitioners in Nyamache?

1.3 Study objectives

The overall objective of this study was to evaluate the role of indigenous medicine as a community utilized health care service in maternal health. The specific objectives of the study were:

- 1) To determine the impact of education on the utilization of indigenous medicine by pregnant mothers to treat pregnancy-related complications facing them.
- 2) To find out the socio-cultural factors which influence the continued use of traditional birth attendants (TBAs) by pregnant women for home deliveries.
- 3) To investigate the extent to which socio-economic factors influence the use of indigenous medicine in the rural areas.

1.4 Justification of the study

Nyamwaya (1992) argues that little has been written about indigenous medicine and the health practices of traditional healers. However, this is no longer the case since some studies are increasingly now being conducted on African indigenous medicines (e.g, Baba 1996; Kimani 1995; Murray and Shepherd 1993; Muya 1994; Okoth-Owiro 1994; Sindiga 1992; Sindiga *et*

al. 1995; Wembah-Rashid 1992;). Unfortunately, however, not much research has focused on the role of indigenous medicine in maternal health.

The curiosity of wanting to study the role of indigenous medicine in maternal and child health has been motivated by my own observations and experience in the rural areas. The majority of mothers in Nyamache Division use indigenous medicines to manage frequent miscarriages and other pregnancy-related complications.

Although cosmopolitan medicine is widely used in Kenya, the majority of lay people still hold concepts of health and illness which are largely indigenous, yet health workers have little understanding of such concepts (Nyamwaya, 1992). The process of urbanization, the forced introduction of Christianity, coupled with modern medical work, resulted in the condemnation not only of African religions but also of African medicines. In the process, African religious therapy is still an unwritten science. Traditional knowledge has always been passed on from generation to generation but with some of it dying with its guardians, thus the need to document such knowledge and expertise.

So far, maternal and child health has been viewed from the modern health sector, thereby ignoring the role played by indigenous medicine. Therefore, the study on the role of indigenous medicine in maternal and child health services is very necessary so that it can fill the gap, supplementing the work of modern medical services which cannot cope with the large numbers of people in the dispensaries, particularly in the rural areas. Closer association within the

medical system would be beneficial if modern doctors would be more tolerant. They could, for instance, train the traditional healers to understand the dangers of infection and the value of hygiene without having to abandon traditional healing altogether.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2:0 Introduction

In this study the literature review is divided into four major parts. These include the utilization of indigenous medicine in maternal and child health services, socio-cultural determinants for home deliveries, socio-economic factors in maternal and child health services and, finally, the perceived efficacy of indigenous medicine. This chapter also deals with the theoretical framework which guided the study as well as the research hypotheses.

2:1 Utilization of indigenous medicine in maternal and child health services

African traditional medicine is defined as all knowledge, explication or not, pertaining to illness, disease and misfortunes and its management within a given society. This knowledge includes the sum total of practices, measures, ingredients and procedures of all kinds, whether material or not which, from time immemorial, have enabled the African to guard against disease, to alleviate his/her suffering and to cure himself/herself (WHO, 1978).

Indigenous medicine has been used since time immemorial and is still an important resource which is widely used in Kenya today. Most Kenyan communities have a wealth of knowledge on different illnesses and indigenous ways of treating such illnesses. This wide use of indigenous medicine is due to a number of factors, some of which include poor socio-economic status, lack of medicines in Government hospitals, lack of adequate numbers of health

professionals, emergence of chronic and incurable diseases and, not least, many Kenyan cultures take traditional medicine to be efficacious for a wide range of illnesses. The Government's recognition of the important role of indigenous medicine was articulated in its 1979/83 Development Plan as follows:-

Traditional medicine and health care are an important part of life of the people in the rural areas. However, more information is needed and will be collected during this plan period with regard to both its substantive aspects and its potential link with the Government institutions. Further, considerations will be given to the manpower aspects of the traditional sector practitioners, such as midwives, might be encouraged to serve in Government health institutions in the rural areas (Republic of Kenya, 1979:136).

Indigenous medicine plays a vital role in the well-being and development of the rural population of Kenya. The role of traditional medicine in primary health care (PHC) was discussed in an international conference convened by WHO and UNICEF at Alma-Ata, U.S.S.R., in September 1978 (WHO,1978). Since the Alma-Ata conference, the focus has gone on to explore ways by which traditional therapies might be used in official health care delivery. The 1979/83 Development Plan further asserts that:-

The Government has, therefore, decided to promote and encourage investigations and research into different fields and aspects of traditional healing. Thus a traditional medicine Research Unit will be established during the plan period, to be located in Nairobi together with the drug quality control laboratory, with which it is to work in close co-operation (Republic of Kenya,1979:144).

It is because of the important role that indigenous medicine plays in the provision of primary health care that the Kenyan Government established the Traditional Medicinal and Drug

Research Centre at the Kenya Medical Research Institute (KEMRI) in July 1984.

Over the years pregnant mothers have made use of indigenous medicine, usually of plant origin, to treat pregnancy related complications. During pregnancy, women eat a lot of certain red soils and minerals to maintain iron balances. Other indigenous medicines are necessary, especially in the rural areas where the cosmopolitan drugs are lacking, in order to maintain the health of the pregnant mother. Pregnancy and birth are critical events in the life cycle of every woman. Pregnancy of a newly married woman brings joy to the families of both the man and, especially, the woman. It establishes and, in a way, consummates the marriage, while it confirms the fecundity of the man and reaffirms the femininity of the woman and gives expression to her maternal instinct. When pregnancy is firmly established, the early months of the pregnancy are very important in the woman's life.

Mbiti (1969) observes that for African people, marriage is the focus of existence, and that marriage and procreation are unity; without procreation, marriage is incomplete. It follows that inability to bear children is the greatest misfortune among women. He notes that unhappy is a woman who fails to get children for whatever qualities she might possess, this failure to bear children renders her a dead-end of a human life on both the genealogical line to keep her own line since nobody from her blood will remember her and keep her in a constant state of personal immortality when she dies. Mbiti adds that childlessness is an irreparable humiliation for which there is no source of comfort in traditional life.

Among the Akamba, one of the first things a husband does as soon as his wife becomes pregnant is to put her in the care of a medicineman or a midwife (Ayisi, 1992). The pregnant woman pays occasional visits to the medicineman or to the midwife, or both, to discuss antenatal problems with them.

The Abagusii have regulations governing all aspects of behaviour, including married life, pregnancy and sexual relations. *Amasangia*, the supernatural sanction against the infidelity of a wife involves a somewhat special and elaborate set of beliefs. *Amasangia* literally means "sharing" and refers to the consequences of illicit sharing of a married woman's sexual attentions. The Abagusii believe that if a woman has intercourse with a man other than her husband and continues to cohabit with her husband, then when the latter becomes ill, her presence in the same room may cause him death. The "shared" wife may also unintentionally kill her child by her proximity to him when he is ill and miscarriages are regularly attributed to adultery (LeVine and LeVine, 1966).

Any violations of the above have specific health complications, demanding certain remedies and therapies. Kawango (1995) argues that during pregnancy, the woman must observe certain taboos and regulations to protect herself and the unborn child. One of the leading regulations relates to sexual relationship, for example, the assertion that sex outside wedlock may lead to miscarriage or ante-partum haemorrhage, in which case *amanyaansi* or *amarongo* and other herbs are administered. In addition, protective charms may be worn or rubbed into small cuts

on the skin to ward off harmful intent by man or evil spirits towards the mother and the unborn child. For the most part, traditional drugs are herbal preparations. The roots, barks, leaves, branches, flowers, and seeds of the African flora are employed in remedies that are generations old. Minerals and animal products are also used, but less frequently.

For more than two decades now the World Health Organization (WHO) has encouraged the use of traditional medicine, especially in developing countries, by promoting the incorporation of its useful elements into national health care systems (Akerele, 1987). The use of traditional medicine can be traced back to 1977 when the Thirtieth World Health Assembly (WHA) of WHO passed a resolution promoting the development and training and research in traditional systems of medicine (Pillsbury, 1982; Akerele, 1987). In the following year, 1978, the international conference on primary health care held in Alma-Ata, under the auspices of WHO and UNICEF, passed additional resolutions supporting the utilization of indigenous practitioners in Government sponsored health care systems.

This definition emphasizes that traditional medicine is deeply rooted in people's culture. Traditional medicines, traditional healers and the midwives who practise the art are only an aspect of this culture. Observation in the rural areas indicates that a majority of the people do not have ready access to modern medicine and rely almost wholly on traditional ones.

However, neither indigenous nor allopathic health care system is by itself able to cope with all the health needs of Kenyans. In a study done by Good and Kimani (1980), it was revealed that in the quest for health and well-being, many Kenyan communities continue to seek and utilize services offered by traditional health practitioners (healers), either simultaneously or serially, with accessible orthodox health services for the same or different illness episodes.

Abagusii take various actions aimed at preventing the occurrence of disease, especially in children. Young babies in particular are routinely given medicines to prevent disease. For example, to prevent indigestion, babies are given a mixture made from a herb, *enyonyo*. On the other hand, to prevent oral thrush, a mixture made from a herb, *ekeng'enta mbori*, is taken orally (Nyamwaya, 1992).

Since the turn of the century, most societies where indigenous medicine plays an important role as a system for interpreting and coping with illness have undergone dramatic change. Following the Alma-Ata declaration in 1978, the Kenya Government conceded to the possible existence of medicinal value in traditional herbs and authorized the Kenya Medical Research Institute (KEMRI) to begin exploratory research in this area. KEMRI has since engaged in the analysis of herbal extractions and clinical trials to determine their pharmaceutical quality and efficacy.

Traditional medicine is a force to reckon with when attempting to isolate indigenous resources appropriate for development (Kimani, 1995). Bannerman *et al.* (1983) argue that indigenous medicine is readily available in many areas where western services are in short supply, and that indigenous medicine serves over 80% of the world's population who have no easy access to western type of health care. Practitioners of western medicine might find themselves suddenly deserted by their patients when the patients decide to seek help from an African healer. Often, patients try to combine Western treatment with that of their own healer and there are others who will not consult a western doctor at all (Beck, 1981). This pattern of behaviour can still be observed in hospitals and health centres to this day. Moreover, patients have testified that they have confidence in their traditional doctors and feel more at ease with them than in a modern hospital where a regular doctor takes their personal history in the restrained and impersonal manner of the scientist.

In present-day Kenya, the modern medical system and traditional one sometimes compete for clients. African herbal doctors have much to offer if only trained African researchers and others could evaluate their work and see how to integrate the curative value of African herbs into contemporary medicinal practice (Onwuanibe, 1978). Fako (1980) observes that traditional medicine could lay claim to a number of varied and powerful therapeutic effects calculated to restore and protect human health. For the members of their own particular culture, traditional healers offer real benefits. No wonder, then, that the World Health Organization has recommended co-operation and consultation between Western medicine and traditional medicine in developing countries around the World.

2:2 Socio-cultural determinants for home deliveries

Traditional birthing practices, although responsible for some of the pregnancy failures, may offer culturally defined support and comfort to women that are often removed when birthing takes place in the modern health sector. The wholesale acceptance of the value of removing the birth process to the modern health sector in developing countries, has been questioned by a number of authors who argue that it is a part of the destruction of the traditional value system that offers support (Anderson and Staugaard 1986, cited in Raikes 1990) and explanation for life events.

In its 1984/1988 Development Plan on maternal and child health, the Kenya Government states that:-

Proper care of expectant mothers and new born babies assures a healthy start for children as productive citizens of the country and ultimately ensures less costly curative services. During the plan period, therefore, ante-natal care will be further expanded... More traditional birth attendants will accordingly be selected and trained at the community level and equipped with simple instruments and drugs to assist in the programme (Republic of Kenya, 1984:242).

An important function of indigenous medicine in maternal and child health is to work towards the provision of appropriate care during pregnancy, delivery and the post-partum period. Traditional practices related to pregnancy and child birth must be evaluated as part of the process of the identification and promotion of appropriate technology. Maternal and child health unit points out clearly that neither knowledge nor technologies are lacking for the solution to the majority of health problems of mothers and children.

While traditional customs relating to pregnancy appear to be of declining importance, neither the fears surrounding the process of birth nor those for the well-being of the new child and mother appear to have declined. The fear of being bewitched in Nyamache Division still appear to be strong in relation to births, and the concern of the burial or disposal of the placenta is of crucial importance in the feeling of security over the birth. My observations in the division show that beliefs and socio-cultural expectations have a role in shaping the patterns of maternal health care utilization.

During pregnancy and birth, it is widely recognized in Gusii that women are vulnerable because they are in the most prized state of being fertile. This vulnerability relates to a situation where the jealousy of a woman who is pregnant felt by other women, including sisters, co-wives and friends, can manifest itself in many forms. In Nyamache Division it would appear that there is often anxiety during pregnancy and feelings are expressed by pregnant mothers concerning the constant need to protect and secure the pregnancy and birth. These feelings are strongly related to many traditional beliefs and taboos surrounding death as well as to customs relating to food and drink.

Traditional healers know that their services are in demand, not necessarily because communities lack other options, but mainly due to popularly held socio-cultural concepts on the etiology of most of the diseases they (healers) claim to manage with the best results, as well as the healers' easy accessibility and the respect they command in the community. Most of their medicines are easily obtained since they are extracted from locally available plant, animal

and mineral resources (Kimani, 1995).

The World Bank (1980) observes that the availability of care by traditional practitioners and insensitivity of modern health workers to traditional beliefs have also detracted from the use of modern services. The belief that the disease is an affliction due to a curse for various reasons usually result in the patient first trying alternative medicine through a traditional healer. This causes a delay in going to the hospital as she will only do so after some time when the traditional medicine fails to work. Equally stressful are certain beliefs associated with difficult deliveries and miscarriages. It is usually believed by the Abagusii that the events are caused by women's illicit sexual relations and, therefore, necessitate a confession of guilt on her part. Such stressful beliefs may contribute to post-partum illness and other psychological and anxiety symptoms associated with pregnancy and child birth.

To date, health service delivery in Kenya is mainly undertaken by the Government through the Ministry of Health and Non-Governmental Organizations (NGOs). The contribution of traditional healers has not been looked into seriously by the Government. However, despite the foregoing, traditional healers contribute significantly to the provision of health services, particularly in the rural areas. Child delivery with the assistance of traditional birth attendants (TBAs) is another positive practice common among the Abagusii (Nyamwaya, 1992). Even where the delivery itself occurs in a hospital setting, the mother receives the bulk of her prenatal and post-partum care from traditional birth attendants. TBAs have a very good understanding of the birth process and, where they have received training, are able to refer

clients with problems to relevant specialists. Experience gained from TBA training suggests that most effort goes to improving skills and knowledge in monitoring pregnancy, identifying women at risk for referral to hospitals, handling birth and providing maternal and child health.

In most cases, traditional birth attendants combine the work of both the gynaecologist and obstetrician and sometimes that of the herbalist. They examine and advise the expectant mother on diet, exercise and appropriate medicine to expel the retained placenta, to reduce post-partum abdominal pains, and to aid breast-milk production. In short, TBAs are preferred over hospital-trained midwives not only because of their accessibility, affordability and good personal relations, but also because of their apparently sound knowledge in maternal and health care (Kawango, 1995).

The traditional birth attendants help the mother during labour and continue to support her after delivery. It has been recognized that though the ministry of health has stepped up the training of midwives and has even taken to training traditional birth attendants in some areas, most women still deliver their babies with no trained personnel to assist them. The preliminary report of the 1993 Kenya Demographic Survey indicates that whereas 90% of pregnant women receive at least one ante-natal check-up, only 46% of the births were assisted at delivery by trained medical personnel.

Since the coverage of care surrounding birth by trained people is low in most developing countries, there is need to evaluate traditional practices and re-examine methods and technologies needed, including traditional ones in line with primary health care (WHO, 1991). Even with the training of more midwives and TBAs, the critical factor in averting morbidity and mortality is the availability of the machinery that will allow the prompt referral of complicated cases. Given the fact that the majority of women live in rural Kenya far from the centres where specialized facilities exist, the referral of cases can prove to be extremely difficult due to both financial and geographical barriers.

2:3 Socio-economic factors in maternal and health services

In the 1989/93 Development Plan, the Government introduced user fees in hospitals and health centres with the objective of increasing the Government's financial capacity to provide good quality health care in the face of the increased cost of health care services. With the implementation of the Structural Adjustment Programmes and the introduction of cost sharing in Government health facilities, those who are most affected are the poorest and most vulnerable members of the society, who are invariably women. It is gratifying to note that many aspects of promotive and preventive health remain free of charge. However, charging for delivery services may result in low utilization of the services.

The existence of facilities for maternal health care does not necessarily mean that they will be used even by women who have been advised to use them. Sometimes, the clinics or hospitals are far away from a woman's home while at other times the woman may lack time, money and

even transport to reach the clinics. As a result of this, women tend to visit the antenatal clinics fairly late in their pregnancy. Studies done by the World Bank have shown that the use of health centres diminishes sharply beyond a three to five kilometre radius, since people travel greater distances only in cases of very serious problems (World Bank, 1980). Because of lack of roads and reliable affordable transportation, access to health care is especially difficult for women with children.

Even where users are not charged for services, distance, the cost of transportation, waiting for services and time away from work can be prohibitive for the poor. The majority of Kenyan women live in the rural areas and do not have easy access to the specialized services available at the provincial and district hospitals which are largely located in the urban centres. In the absence of reliable supplies of drugs and other essentials for provision of services, patients become frustrated and cease to rely upon the services of Government facilities.

2:4 Perceived efficacy of indigenous medicine

While research and other evidence indicates that traditional medicine is widely used in Kenya, its use is largely informal and occurs outside the official health care system (Nyamwaya, 1995). Indigenous medicine is used widely in Kisii District to treat various diseases. However, most people do not admit that they use this medicine when asked by hospital workers. Some indigenous medical practices are harmful, some are useful, while others are harmless. The 1994/96 Development Plan states that:-

Over time Kenyans have developed a store of empirical information concerning the therapeutic values of local plants, minerals and fauna. They have used the

above sources of medicine for the treatment of various diseases. Some medical sources are worthy further investigations and evaluation in order to determine the efficacy (Republic of Kenya, 1994:249-250).

There is need for a dialogue between hospital workers and the people, especially healers, to identify the various practices which may hinder or promote health development.

Mbiti (1975:172) states that "whether traditional medicine functions in every case or not need not matter very much. It is the belief in the efficacy of such medicine which inspires hope in the sick, confidence in the hunter and businessman, courage in the sufferer and the traveller, and sense of security in the many who feel that they are surrounded by mystical and physical enemies". This, in itself, implies that valuable benefit is gained from the belief in traditional medicine as African peoples understand and apply it. Githae (1995) observes that to the individual patient, herbal medicines have greater advantage than conventional medicine (i.e., pharmaceutical drugs). They are cheaper and more readily available and since they are natural, they tend to be less toxic. They do not have the toxic preservatives, binder and dyes that characterize most biomedicines. Herbal medicines are also wholesome, so that besides controlling or curing illness, they provide the patient with nutrients such as carbohydrates, proteins, minerals, vitamins and hormones that are required in times of sickness to speed up recovery.

From the foregoing literature review, it is apparent that the use of indigenous medicine in the treatment of pregnancy-related complications still persists alongside the allopathic health care services. Various authors emphasize the co-existence between indigenous and western medicine. However, the contribution by indigenous healers in the provision of health services, particularly in rural areas, has not been evaluated properly in order to determine their efficacy. It is observed that traditional medicine is deeply rooted in peoples culture and most of their medicines are easily obtained for they are extracted from the local environment.

2.5:0 Theoretical framework

The role of theory in any scientific work is to explain the relevant phenomena. Health Systems Research (HSR) may incorporate a number of different theories and models to help explain both different and changing patterns of the use of health services. In this study, the health belief model (HBM) and the theory of cognitive system were adopted as frames of reference to both inform and guide the study. The health belief model focuses on an individual's psychological variables to explain decision making, i.e., the individual's view of his/her own vulnerability and severity to illness, and the benefits and evaluation of potential barriers associated with the proposed actions.

It was felt necessary to use the second theory of cognitive system to reinforce the health belief model. Unlike the health belief model, the theory of cognitive system was designed to explain symptomatic health seeking behaviour in decision making as a result of socio-psychological processes. Symptoms of illness are subject to personal interpretations and ecological

contingences. For instance, the occurrence of an illness is undesirable and the decisions individuals take are rational since they evaluate illness using economic or utility considerations. The theory sees an individual in form of biological, socio phenomenological systems whereby the relationship between an individual and others or institutions is important plus the individual's state of awareness and self definition.

2:5:1 Health belief model

The health belief model was formulated by Hochbaum, Kegeles, Leventhal and Rosenstock. It was later advanced by Rosenstock (1966) and modified by Gochman (1972) and Becker and Mainman (1974). The model was originally designed to explain illness behaviour. Health behaviour is perceived as " Any activity undertaken by a person believing to be healthy for the purpose of preventing disease or detecting it in a symptomatic stage" (Kasl and Cobb 1966:246).

Socio-cultural factors have an impact upon the pattern of health and disease in a community and they play a role in the etiology of certain diseases. These factors also play an important role in the organization and utilization of modern and traditional care. The success of preventive and promotive action programmes largely depends upon their acceptability and this is related to cultural norms and values.

The model assumes that beliefs and attitudes of persons are critical determinants of their health-related action. Becker and Mainman (1974:21-22) state that the model can be further explained using the following sets of variables:-

- (1) The individual's readiness to take action relative to a particular health condition, determined by both the person's perceived susceptibility or vulnerability to the condition and his perceptions of the severity of the consequence of being in that health condition.
- (2) The individual's estimates of the actions potential "benefits" in reducing actual or perceived susceptibility and/or severity weighed against his perception and barriers or costs of proposed action.
- (3) A stimulus either "internal" (perception of bodily state) or "external" (e.g., interpersonal interaction, mass media, personal knowledge, of someone affected by the condition) must occur to trigger the appropriate health behaviour or cue to action.

The model, therefore, assumes that motivation is a necessary condition for action and that motives selectively determine an individual's perception of the environment. The action an individual will take is related to the subjective desire to lower susceptibility and severity and positive estimation of benefits minus the probability of failure or costs (Fig. 2.1). However, convictions concerning the seriousness of a given health problem may also vary from person to person. The person may, of course, see a health problem in terms of its medical or clinical consequence. He/she would thus be concerned with such questions as whether a disease could lead to his/her death, or reduce his/her physical or mental functioning for long periods of time or disable him/her permanently.

This model is relevant to the study because it proposes that an individual's view of his/her own vulnerability to illness determines variation in health service utilization behaviour. Many underlying factors influence peoples patterns of the use of health services. For instance, factors like age, religion, education and income determine the pattern of the use of both preventive and detective service and the use of diagnostic and treatment/curative services.

INDIVIDUAL PERCEPTION

MODIFYING FACTORS

LIKELIHOOD OF ACTION

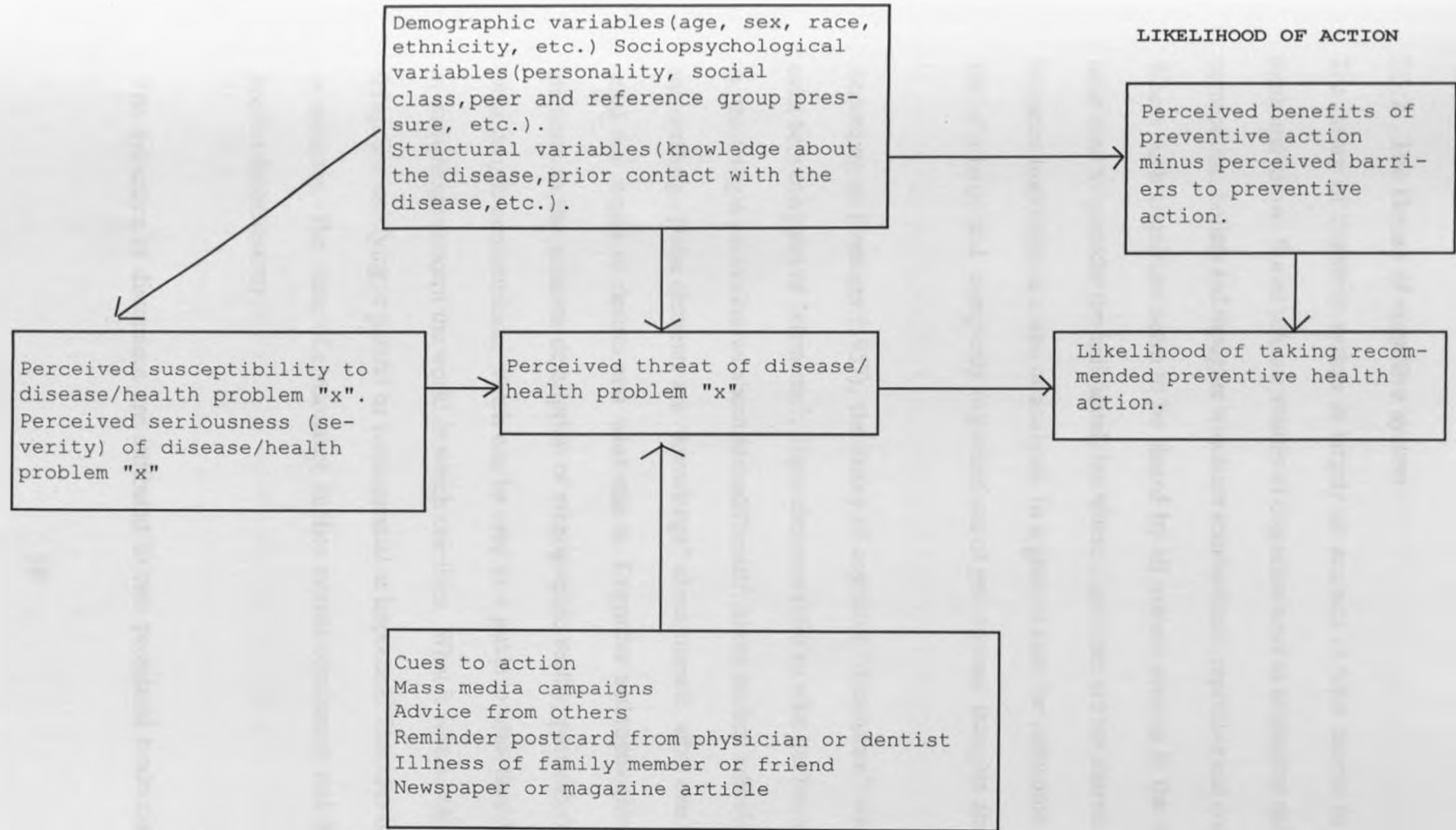


Fig.2.1 The Health Belief Model as predictor of preventive health behaviour
(Source: Becker et al. 1974)

2:5:2 The theory of cognitive system

The theory of cognitive system is largely an account of what people in a particular society, think and know. Social science studies of cognition tend to emphasize the description of those perceptions, beliefs and thoughts which are standardized, repetitive and conventional in society. Where such cognitions seem to be shared by all mature persons in the society, there may be little need to consider the individual, but where cognitions are not shared by all, the individual becomes important as a unit of analysis. In a general case the individual may be conceived as site of a large and complexly organized set of perceptions, thoughts and knowledge.

According to Festinger (1957), the theory of cognitive "dissonance" refers to relations which exist between pairs of "elements". These elements refer to what has been called cognition, that is, the thing a person knows about himself/herself, about his/her behaviour, and about his/her surrounding. These elements are "knowledge" about oneself, what one does, what one feels, what one wants or desires and what one is. Cognitive anthropologists devote considerable attention to the accurate description of ethnographic reality, particularly to the recording of what people communicate, which can be used as a guide to what they know. Other elements of knowledge concern the world in which one lives. What is where, what leads to what, what things are satisfying or painful or consequential or important? This also includes beliefs, values or attitudes. The state of consonance implies mutual consistency and the state of dissonance implies inconsistency.

The dynamics of dissonance are attributed to two postulated tendencies. On the one hand,

interaction of the individual with his/her "real" environment exerts pressure on his/her cognition to come into correspondence with "reality". But there is also a tendency to maintain consistency among the cognitions themselves. However, both the environment and the cognitive process are at the same time sources of consistency.

The theory is particularly important to this study as it examines the psychological pressure on an individual in decision making. Since decision making involves a selection of one among a set of alternatives, it necessarily entails forsaking the attractiveness of the rejected alternatives and accepting the negativity of the selected alternative. The theory provides a broad perspective of what people in a particular society think and know about themselves, including beliefs, values or attitudes which necessitated those who were disillusioned with Western medicine to go to traditional medical practitioners as a form of protest. According to Van Lwijk (1971), social and cultural factors have an impact upon the pattern of health and disease in the community and they play an important role in the organization and utilization of modern and traditional medical care. This, therefore, implies that the scientific or allopathic medical services were not introduced in a vacuum. There existed the indigenous medical system which was used to counter health problems.

2:6 Hypotheses

- H₁ There is a positive relationship between the level of education of pregnant mothers and their use of indigenous medicine in the treatment of pregnancy-related complications facing them.

- H₂ Socio-cultural factors influence the continued use of traditional birth attendants (TBAs) by pregnant women for home deliveries.
- H₃ The escalating costs of modern medical care in the rural areas positively influence usage of indigenous medicines.

2:7 Operational terms

Indigenous Medicine:

Used interchangeably with traditional medicine and refers to the sum total of all knowledge and practices, whether explicable or not, used in a diagnosis, preventive and elimination of physical, mental or social imbalance and relying exclusively on practical experience and observation handed down from generation to generation, whether verbally or in writing.

Level of Education:

Number of years one has spent in acquiring formal knowledge. In this study educational status was categorized into four levels, including no formal education, primary, secondary and post-secondary education.

Socio-cultural Factors:

These are beliefs, perceptions, assumptions, cultural norms and values which influence the continued use of traditional birth attendants for home deliveries.

Socio-economic Factors:

Relating to a person's social status and economic position. This variable refers to the monetary resources accessible to the household to expend on various

needs. It was measured by occupation and household monthly income.

Escalating Costs of Modern Medical Care:

The extent to which the cost of medical care has risen in the recent past. This was measured by the level of use of private health facilities and cost-sharing in hospitals and health centres.

Pregnancy-related Complications:

These are ailments such as backaches, headaches, general malaise, swelling of ankles, loss of appetite, abdominal pains, miscarriage, etc., which affect the health of the pregnant mother.

Traditional Birth Attendants:

Midwives with knowledge to take care of pregnant mothers during and after child-birth. TBAs in most cases combine the work of both the gynaecologist and obstetrician and sometimes that of a herbalist.

Utilization of Indigenous Medicine:

The extent of the use of indigenous medicine in maternal and child health services by the respondents. Questions which focused on this utilization included the accessible facilities, various options available for seeking medical care and the frequency of attendance at the health facilities and under what conditions.

CHAPTER THREE

METHODOLOGY

3:0 Introduction

This chapter focuses on the background to the study area, sampling design and the methods of data collection and data analysis.

3:1:0 Research site

Nyamache Division, in the Kisii District of Nyanza Province, constituted the study area. The present day inhabitants of the area are Abagusii, a group who belong to Bantu speaking peoples. Nyamache is one of the eleven divisions in Kisii and lies in the southern part of the district (Map 3.1). The other divisions include Nyacheiki, Sameta, Kenyenia, Nyamarambe, Keumbu, Suneka, Ogembo, Masaba, Marani and Mosochi. The division is bounded to the north by Sameta, Keumbu to the north east, Masaba to the east, Nyacheiki to the south and, finally, Kenyenia to the west. It covers an area of 78 square kilometres.

Nyamache division, with its headquarters at Nyamache urban centre, is divided into two locations and seven sub-locations. It is one of the three divisions in Bobasi constituency, the other two being Nyacheiki and Sameta divisions.



Map 3.1 : Location of Kisii District in Kenya
(Source: District Statistics Office, Kisii)



Map 3.2 : The position of Nyamache Division in Kisii District
 (Source: District Statistics Office, Kisii 1993)

3:1:1 Physical features and climate

The general slope of Nyamache Division is from East to West. The area lies at about 1,800 metres above sea level, with Kegochi, Igoma, Gionseri, Ebigogo and Turwa as the major hills. The division lies in a highland equatorial type of climate zone and receives rain almost throughout the year. The mean annual maximum temperatures range from 22 degrees to 26 degrees Celsius. Its average annual rainfall is usually over 1,500 mm and is highly reliable. There are several permanent rivers and streams which drain the area into Lake Victoria, the main ones being Enyamache, Rigare and Gucha.

3:1:2 Major economic activities

The division is favoured by fertile soils and well distributed reliable rainfall. Therefore, farming is the main economic activity undertaken in the division. The major cash crops and food crops grown include tea, coffee, pyrethrum, maize, finger millet, potatoes, bananas, beans, and other crops. Livestock production, particularly dairy farming, is also practised in the area.

There are two major factories, namely, Nyamache Tea Factory under the Kenya Tea Development Authority (K.T.D.A) and Nyamache Coffee Factory, under the Kisii Farmers Co-operative Union (KFCU). Business in the form of farm products and the sale of second hand clothes has spread throughout the division's centres.

3:1:3 Population size

The division had a population of 42,124 during the 1989 census. According to the District Development Plan 1994/96, the population of Nyamache was projected by the Central Bureau of Statistics (CBS) to be 54,975 by 1996. The number of households was estimated to be 8,537 by 1994 with a sex distribution of 24,534 males and 26,687 females. The projections were made using 1979 as the base year and a growth rate of 3.6% was assumed (Table 3.1).

Table 3.1: POPULATION PROJECTION BY DIVISION AND SEX, 1979, 1993, AND 1996

DIVISION	NO. OF H/Holds	1979		1993		1994		1996	
		M	F	M	F	M	F	M	F
Nyamarambe	17,879	33,890	29,288	55,604	47,942	57,606	49,668	61,828	53,308
Suneka	12,788	21,786	23,698	35,746	38,882	37,333	39,981	39,747	43,324
Nyamache	8,537	14,433	15,700	23,682	25,759	24,534	26,687	26,333	28,642
Nyachekei	8,215	13,541	15,455	22,217	25,358	23,017	26,272	24,704	28,196
Sameta	8,053	13,568	14,866	22,248	24,394	23,049	25,272	24,738	27,125
Kenyenya	13,047	22,658	23,394	37,176	38,385	38,514	39,767	41,336	42,682
Ogembo	11,758	19,175	22,326	31,462	36,636	32,593	37,956	34,982	40,738
Keumbu	26,093	4,950	47,155	73,752	77,368	76,407	80,154	82,007	86,030
Masaba	20,778	35,278	38,065	57,882	62,445	59,965	64,704	64,361	69,446
Mosocho	15,624	26,196	28,954	42,980	47,506	44,528	49,216	47,792	52,823
Marani	18,201	32,123	32,124	52,706	52,706	54,603	54,603	58,605	58,606
Total	161,072	276,056	292,500	452,574	480,272	469,209	497,219	503,231	534,032

SOURCE: District Statistical Office, Kisii, 1993.

3:1:4 Health facilities

Health facilities in the division include Nyamache Health Centre, Kionyo Dispensary and other several private clinics located at various shopping centres. The health centre and dispensaries are over-utilized due to the high population in the area and lack of the expansion of existing ones. Because of these factors, most people resort to the use of indigenous medicine to alleviate some of the health problems affecting them.

3:2:0 Sampling design

3:2:1 Population universe

In this study, the population universe was the entire population of Nyamache Division, which is about 54,975 people. However, due to the time factor and the cost involved, the entire population could not be studied; instead, a sample was drawn from the population universe. It is generally much more economical in terms of effort and money to get the desired information for some of the elements than for all of them.

3:2:2 Sample selection

Sampling is taking a portion of the population or universe as a representative of that population or universe. The main purpose of sampling was to avoid bias in the selection of the sample and to help achieve a maximum precision for a given outlay of resources.

This study was based on a sample of one hundred and forty-four (144) cases as explained below. In order to obtain the required sample, the researcher adopted purposive sampling, cluster sampling, multi-stage cluster sampling and simple random sampling. First, the selection of the study area was purposive due to the following reasons: Nyamache area is not very much developed and, therefore, provided a clear picture of the rural population's utilization of indigenous medicine. Second, due to the costs involved in research and the time factor, it could not have been possible to conduct the study throughout the entire district.

When selecting a sample using multi-stage cluster sampling, all locations in Nyamache Division were listed into clusters. The locations were then sub-divided into further clusters of sub-locations and by simple random sampling, two sub-locations were selected from each location. From each of the selected sub-location, nine (9) villages were randomly selected.

According to Bailey (1987) simple random sampling is that method of drawing a portion or universe so that each subject has an equal chance of being selected. That is to say, random sampling gives each individual a non-zero chance of being selected. In this sampling procedure, each element of the larger population was assigned a unique number and a lottery technique was used to select elements, one at a time, until the desired sample size was reached. Simple random sampling is usually considered adequate in the sampling process. Randomness is extremely important because the purpose of a research is to draw conclusions about the entire population, and not merely about the sample.

The next step was to get a list of households from each village with the assistance of the chiefs, assistant chiefs and village headmen. After listing households, four (4) households were picked from each village at random plus an extra two (2) households to serve as a reserve. At the household level, the study was interested in women of child bearing age. The final stage consisted of choosing a single woman within each household drawn. If two or more women resided in the same household, one of them was randomly selected using a lottery technique.

The household was the unit of analysis in this study. The household was a suitable unit of analysis because more than any other decision making unit, it determines what individuals do and what they consume. The way in which differences are resolved within the household significantly affects the well being of individual members. Since the study was concerned with the role of indigenous medicine on maternal health care service, one woman respondent from the selected households was interviewed to obtain data for analysis.

3:3:0 Methods of data collection

3:3:1 Introduction

This study required both primary and secondary methods of data collection to obtain quantitative and qualitative data so as to provide a clear picture of the role of indigenous medicine and its utilization in maternal health care services. Data were collected from both mothers and key informants such as herbalists and traditional birth attendants from the area of study. Therefore, this study used five major methods of data collection, namely, documentary

sources, the survey method, informal interviews, direct observation and case studies.

3:3:2 Documentary sources

According to Bailey (1987), documentation means any written material that contains information about the phenomena we wish to study. This study continued to look for more documentary information on the role of indigenous medicine in maternal and child health, that had not been availed to the researcher because they were based in the division or district. This type of information updated and guided the researcher on the topic of study.

3:3:3 The survey method

The study adopted the survey research design in which the basic tool for data collection was the structured interview. Surveys consisted of asking questions to respondents who were a representative cross-section of the population at a single point in time. They were usually conducted on a sample simply because it was generally not feasible to interview everyone in the population. Once the sample was selected, a structured questionnaire was administered to 144 women. The questionnaire was standardized to ensure that the questions asked were exactly the same to all respondents. The questions were both open- and closed-ended.

The kind of information obtained from the questionnaire included socio-cultural factors such as beliefs, perceptions and assumptions that influence deliveries. Among these were the socio-cultural beliefs associated with pregnancy and child bearing that affect the health of a woman. The level of education and socio-economic factors were also examined to determine the

relationship in the use of indigenous medicine for the treatment of pregnancy related complications.

3:3:4 Key informants

There were also informal interviews and discussions with key informants, such as traditional birth attendants and herbalists, to assess the quality of the services provided and the role of indigenous medicine in maternal and child health care services. These informal interviews complemented the information gathered through the structured questionnaire. The researcher probed for more specific answers and repeated questions when the response indicated that the respondent had misunderstood the question. Non-verbal behaviour was observed in order to assess the validity of the respondent's answers. The use of key informants (informal interviews) was to counter check the information obtained through the survey method.

3:3:5 Observation

This method was used to observe the socio-cultural and socio-economic context of the community. The method provided a first hand authentic picture of the maternal and child health situation in Nyamache Division. According to Bailey (1987), the observation method is the primary technique for collecting data on non-verbal behaviour. Observation is preferred when one wants to study in detail the behaviour that occurs in some particular setting or situation. The researcher attended traditional curing sessions and observed details of a healing process in the field and the various types of medicines that were administered to pregnant mothers.

The observation method was very flexible and allowed the researcher to concentrate on any variables that proved to be important. This method contributed to making the data valid and reliable as well as being a cross-check on the other methods described earlier.

3:3:6 Case studies

The study selected a few pregnant women who had utilized the services of indigenous medicine during their pregnancy, for an in-depth study. These mothers were asked to give a detailed account of the role of indigenous medicine in maternal and child care services. The case study approach allowed the researcher to select examples that illustrated the points he wished to make. This approach lends itself to qualitative rather than quantitative analysis.

3:4 Data analysis and presentation

Since most of the data collected were based on people's beliefs, perceptions and assumptions, the analysis was generally descriptive. Data obtained by use of the standard questionnaire were analyzed using the Statistical Package for Social Sciences (SPSS). The data were presented in terms of tables, frequencies, percentages, and cross tabulations. Cross tabulations were worked out to determine the strength of the relationship between the variables involved.

3:5 Data collection problems

Several problems emerged in the process of data collection. The study required a lot of walking for long distances to the furthest points of some sections of the sub-locations. This was energy

and time consuming. It, therefore, forced me to talk to the area District Officer and on my behalf he consulted other divisional heads in various ministries who had functions in those furthest parts to inform him in advance so that he, in turn, would inform me to schedule my interviews on such dates. In this way, I was able to make an extensive use of a motor cycle of the Agricultural Extension Officer, the D.O.'s Land Rover and any other vehicle used by the Registrar of Persons when going out for mobile registration of new generation identity cards.

Another constraint was that the study focused on women as the main respondents and so some men raised complaints as to why they had been left out. Some felt that the long interviews interfered with women's work. In some situations, certain men enjoyed contributing alongside their wives. Realizing these anomalies, I had to explain the need for privacy in an interview. I also cautioned the men that the study required independent views of women. Most men excused themselves from the interview but there were a few exceptions who wanted to hear the wife's responses to the questions. I had to be conscious of time and be brief and precise to avoid wastage of time. Where I found respondents working, especially in plucking tea, I joined them and the interview continued as the work was going on. After the interviews, I occasionally had to listen to the views of the husbands and in most cases they felt most honoured for their wives to have been chosen from among the many households for the interviews.

While most women volunteered information and wanted to be asked as many questions as possible, others avoided some questions or at times gave wrong answers. For instance, questions touching on their age and number of children were difficult to answer. To deal with this problem, I asked some on how old they were when they got married or when they got their first born children and finally asked how old their first born was, and then calculated their ages. On the issue of number of children, I opted to ask on how many of her children have been born in hospital and those born at home and most of them were quick to name them until I arrived at the actual number of children.

Some women related their experiences with the past researches and asked for payment. Most of them joked that some government officers had taken information from them concerning their economic status and promised to pay them later but had never been seen again. Here, I had to explain to them that I was a student with an interest in the study and their contribution would assist me to document information that is disappearing very fast.

Finally, during December holidays, there were festivities such as circumcision ceremonies and weddings which interfered with my interviews. As a result, most of my interview appointments were re-scheduled for other days. After the December holidays, January was very conducive since I interviewed most of the respondents while the remaining were covered in February. Despite the above problems, most of the respondents and the provincial administration were very co-operative.

CHAPTER FOUR

THE UTILIZATION OF INDIGENOUS MEDICINE IN MATERNAL AND CHILD HEALTH SERVICES

4:0 Introduction

This chapter is concerned with the presentation and analysis of data. It provides a comprehensive background information on the utilization of indigenous medicine in maternal and child health services by the people of Nyamache Division in Kisii District. The data are presented in the form of demographic characteristics, socio-economic features, socio-cultural factors and health issues. The presentation involves the use of frequencies, percentages and tables.

4:1 Demographic characteristics

According to the 1989 Kenya Population Census, Nyamache Division had 42,124 people. The 1994/96 District Development Plan projected that the division would have 54,975 people by 1996, with a sex distribution of 24,534 males and 26,687 females. The study was based on data obtained from one hundred and forty-four (144) women in the division. The women interviewed were between 20 to 65 years, with the majority ranging from 30 to 39 years. A total of 86.8 per cent of the women are married, 2.1 per cent are single, 9 per cent are widowed and another 2.1 per cent accounted for those who were divorced or separated.

4:2:0 Socio-economic features

In order to be able to assess the socio-economic status of the women being interviewed, a number of indicators were included in the household questionnaire, such as educational levels, occupation of the respondent and her husband, household income, other sources of income and how charging for delivery services in hospitals/health centres may result in the low utilization of the services.

As can be seen from the Table 4.1, the level of literacy among the respondents is quite low, with only 32.7 per cent having attained secondary school education and above. A large number of the respondents have primary level or no formal education and this makes them unable to participate in formal employment due to lack of knowledge and the necessary skills.

Table 4.1 Educational Levels of Respondents

Level of Education	No. of Respondents	Percentage (%)
No formal Education	22	15.28
Primary level	75	52.08
Secondary level	40	27.78
Post-secondary level	7	4.86
Total	144	100.00

As a result of the low levels of education, the majority (81.3%) of the women interviewed engaged in small scale farming. The rest were either involved in formal employment (11.1%) or were self-employed (7.6%). Further analysis reveals that out of the 144 women interviewed, 75 (52.1%) have a monthly income of less than Kshs. 2000 while 69 (47.9%) have a monthly income of Kshs. 2001 and over.

4:2:1 Factors affecting utilization of delivery services

The highest number of respondents (88) were of the opinion that charging for delivery services in hospitals/health centres may result in the low utilization of services. Thirty-three (22.9%) were uncertain while 23 (16%) disagreed that charging for delivery services would lead to low utilization of services. Those who disagreed argued that there were other factors other than payment which resulted in low utilization of delivery services. These other factors included mistreatment by hospital midwives, distance to the health facility and socio-cultural beliefs.

Payment for any sort of delivery has some significant effect on the use of health services. Affordability of the treatment greatly influences the health seeking behaviour. The cost of health care has escalated over the last decade and this influences the decision making process at the household level on whether to attend to a health centre or visit a traditional healer.

However, an independent view expressed by the clinical officer of Nyamache Health Centre indicates that the use of a health facility may be negatively affected by the general attitude of

the staff. For instance, where expectant mothers were kept away or waiting for long periods before being given any attention, this would reduce the number of women who deliver in the hospital. Therefore, according to him, many mothers may opt to deliver at home not necessarily due to payment but also because of other factors such as lack of attention from some hospital staff and beliefs associated with infidelity (see 4.4.1 on pp. 61-62).

4:3:0 Health facilities and use

Nyamache division has two government health facilities, namely, Nyamache Health Centre and Kionyo Dispensary. These facilities are inadequate and unevenly distributed. This situation forces people to seek for alternative ways of treatment such as self medication, traditional healers or to attend private clinics for treatment. In case of complications, patients are taken to Kilgoris Mission Hospital in Trans-Mara District or Kisii Town which are about thirty-five and forty kilometres away, respectively.

A majority (72.2%) of the respondents take their babies to Nyamache Health Centre, 6.3 per cent attend Kionyo Dispensary, another 6.3 per cent attend Nyamagwa Mission Hospital while the remaining 15.3 per cent do not take their babies to any clinic. Taking the baby to the clinic depends not only on the evaluation of treatment received but also on the distance covered. Considering all the relevant factors, including the cost involved, some informants opted for the use of indigenous medicine and, thus, never took their babies to any recognized clinic. The distance to the nearest health facility and transport facilities were determining factors in the choice of the place of treatment or delivery. Out of the total number of respondents, 81

(56.3%) travel a distance of more than four (4) kilometres to the nearest health facility. Only 63 (43.8%) cover a distance of less than three (3) kilometres.

The World Bank (1980) has observed that the use of health centres diminishes sharply beyond a three to five kilometre-radius since most people travel greater distances only in cases of very serious health problems. Due to poor infrastructure and inadequate transport facilities, a large number (93.1%) of patients walk to the nearest health facility while the rest (6.9%) use public means. The inability to reach modern health facilities in the rural areas has forced many Kenyans to resort to traditional medicine for the treatment of various ailments.

4:3:1 Diseases Treated Using Indigenous Medicine

The respondents were asked to name four diseases which were treated using indigenous medicine. Table 4.2 illustrates the responses given.

Table 4.2 :Diseases Treated Using Indigenous Medicine

Disease	Yes	%	No	%
Oral thrush	127	88.2	17	11.8
Evil eye	117	81.3	27	18.8
<i>Enyamorero</i> (wasting disease)	81	56.3	63	43.8
Stomach ailment	61	42.4	83	57.6
Backache	53	36.8	91	63.2
Measles	50	34.7	94	65.5
<i>Ebisara</i> (false teeth)	43	29.9	101	70.1
Infertility	23	16.0	121	84.0

N=144

From Table 4.2, it can be seen that the highest number (88.2%) of the respondents were of the opinion that oral thrush, which affects infants, is treated better using indigenous medicine. This disease was followed by the evil eye (81.3%), *enyamorero* (wasting disease) (56.3%), stomach ailments (42.4%), backache (36.8%), measles (34.7%), *ebisara* (false teeth) (29.9%) and, finally, infertility (16.0%), in that order of decreasing importance.

The respondents were also required to state what role indigenous medicine plays in the healing system. A vast majority (97.2%) of the respondents reported that indigenous medicine plays

a great role while only 4 (2.8%) of them felt that indigenous medicine plays a minor role in the healing process.

To treat and prevent oral thrush, various herbs are taken orally, either independently or as a mixture. The common herbs used include, *obwara inse*, *eteni teni*, *omonyaiboba*, *chinkenene*, *eng'urang'uri* and *ekeng'enta mbori*. Most of the women interviewed at least knew of *ekeng'enta mbori* (Plate 1) as a herb used to treat oral thrush.



Plate 1: In the middle ground is a herb, *ekeng'enta mbori*, used to treat oral thrush.

Despite the fact that no single remedy is sufficient on its own to manage illness in any community, indigenous medicine plays a great role in the rural areas due to its efficacy and accessibility to the majority of the people. This is because much of the indigenous medicines

are obtained from plant sources which are readily available within the rural environment. However, most people do not admit that they use this medicine when asked by hospital workers because they fear that they will not be attended to.

It must be emphasized here that due to the fact that traditional medicine is part of people's culture, the majority of Kenyans in the rural areas, at least, used some indigenous ways of treatment in order to keep off maladies that affect them. By and large, people in the rural areas grow up knowing that some particular plant or mineral is capable of treating certain diseases.

Like other societies, Abagusii seek to explain not only the "how" of an illness but also the "why" of the illness. This necessitates an attempt to impute responsibility to some member of society or the patient himself/herself. These beliefs include breach of taboo, a curse, a broken oath and evil eye. Thus, in one way or another, the belief system influences the health seeking behaviour of the community.

Another common illness which has persisted among Abagusii is the evil eye (*ebibiriria*). According to this community, infants are particularly susceptible to the evil eye, not because they are young but because their skin is still light brown and, therefore, delicate. According to one old woman herbalist who is well known for the treatment of the evil eye in Nyamache Division, this disease is brought about when a person who has *ebibiriria* looks at a child. In most cases women are believed to be carriers of *ebibiriria* and when such a woman looks at a child, any small objects near the child, such as soil, grass, sticks, hair, finger millet, pieces

of bottle, clothing, etc., enter the body, causing the baby to start crying violently and persistently. As a result of this, the temperature of the body rises, the stomach swells and turns brown, the skin-touch becomes painful while breathing is difficult. It is believed that when the child suffering from the evil eye is massaged (*okong'ura*) with oil early enough, the objects come out of the body. If the *okong'ura* is not performed in good time, severe conditions of the evil eye will kill the child. *Ebibiriria* is never referred to the hospital because it is believed that if an injection is given, the child will die. Most mothers argued that they use a charm stick on the clothes of the child to prevent suffering from the evil eye.

4:3:2 Main diseases among women of child bearing age

Maternal and child health is a component of primary health care which is basically provided to women of child bearing age (14-49 years) and their under five-year children on a daily basis. The purpose of maternal and child health is to lower the maternal and infant mortality rates in order to have a health nation.

The respondents were asked to name the main diseases among women of child bearing age and the majority of them mentioned persistent backache followed by chronic fatigue. Table 4.3 is an illustration of the main diseases mentioned by the respondents

Table 4.3 : Ailments among Women of Child Bearing Age.

Disease	Yes	%	No	%
Loss of appetite	95	66.0	49	34.0
Swelling of ankles	41	28.5	103	71.5
Persistent backache	125	86.8	19	13.2
Chronic fatigue	120	83.3	24	16.7
Abdominal pains	99	68.8	45	31.3
Fainting spells	110	76.4	34	23.6
Morning sickness	24	16.7	120	83.3

N=144

When asked how the above disorders were cured, 25 (17.4%) said that they use herbs at home, 60 (41.7%) visit health facilities, 54 (37.5%) argued that whether the above methods are used or not, the only sure cure of these disorders was after one had delivered. Illness and deaths from complications of pregnancy, delay in seeking medical attention, beliefs associated with infidelity, late referrals to hospital from other institutions, a high number of unsafe abortions, anaemia and overcrowding at medical facilities top the list of health threats to women of reproductive age in Nyamache Division (Table 4.4).

Table 4.4 : Health threats to women

Health Threats to Women	Yes	%	No	%
Delay in seeking medical attention	141	97.9	3	2.1
Late referrals from other institutions	127	88.2	17	11.8
Unsafe abortions	90	62.5	54	37.5
Overcrowding in facilities	61	42.4	83	57.6
Beliefs of infidelity	141	97.9	3	2.1
Caesarean section	23	16.0	121	84.0
Anaemia/overbleeding	72	50.0	72	50.0
Retention of placenta	16	11.1	128	88.9
Witchcraft	31	21.5	113	78.5

N=144

Table 4.4 depicts ideas on what are believed by the respondents to be the causes of maternal mortality in Nyamache Division. Most pregnant women lack regular access to modern health care or none at all and deliver without any access to skilled obstetrical care when complications occur. Some of these conditions can be checked by providing accessible roads, expanding existing facilities, increasing health personnel, opening more health centres in the rural areas, supplying enough drugs and creating more awareness in the people regarding the need to attend the clinic.

Inadequate management of the maternal and child health care services and the complications of pregnancy are increasingly occurring in young women who are also at an increased risk of pregnancy complications. Since Nyamache Health Centre lacks facilities to handle complications of pregnancy, the hospital personnel always encourage women with their first deliveries to go to Kisii Town or Kilgoris Mission Hospital. However, this is not possible because some of the young ladies fear attending antenatal clinics and sometimes they are uncertain of their exact time of delivery. To the majority of them, delivery just comes as a surprise.

Further analysis of the data obtained from the key informants showed that induced abortions were common, especially among girls. Deaths due to abortion result from the community's attitude towards pregnancy out of wedlock. The birth of an illegitimate child to an unmarried girl is regarded as an extremely disgraceful situation which leads to moral decay. As a result of this, parents, particularly mothers, join the practice of assisting their daughters to secure abortions through the use of herbs or illegal clinics. However, the herbalists interviewed would not readily accept that they have helped any person to undergo an abortion, although they were quick to point out that most of the chemical components used by the women who abort are quite crude. These chemical components range from herbs, a mixture of concentrated dry tea leaves and Omo to tablets such as Malaraquine. In most cases the results have been toxicity, leading to the death of both the mother and the foetus.

During the field research, the author witnessed a school girl who was pregnant and thereafter the pregnancy disappeared, although "nobody" knew the whereabouts of the child. Some reliable sources indicated that the baby was strangled and thrown into the toilet with the assistance of the girl's mother. In another instance, the researcher was informed of one woman believed to be an "expert" in aiding females to undergo abortions. This woman had, on several occasions, assisted her own daughters and those of a neighbour to abort successfully. When the researcher was about to conclude field work the same woman attempted to assist one of the daughters to abort but it was not easy. She advised the daughter to go to school and try on her own with full instructions but unfortunately the daughter died in the process. When the sad news reached the village, the mother was quick to point fingers at the neighbours for bewitching her daughter. However, when the post-mortem was carried out a six-month boy foetus was removed and the medical examination revealed that the mother had overdosed herself with Chloroquine tablets.

4:3:3 Health problems affecting children's lives

Respondents were asked to name five main health problems affecting the lives of children in the community. Their responses are summarized in Table 4.5.

Table 4.5 : Top Eight Diseases Affecting Children

Disease	Yes	%	No	%
Measles	120	83.3	24	16.7
Oral thrush	126	87.5	18	12.5
Malaria	110	76.4	34	23.6
Stomach ailments	62	43.1	82	56.9
Diarrhoea/vomiting	92	63.9	52	36.1
Evil eye	108	75.0	36	25.0
<i>Enyamorero</i> (wasting disease)	72	50.0	72	50.0
Backache	29	20.1	115	79.9

N=144

In order of severity, oral thrush (87.5%), measles (83.3%), malaria (76.4%), evil eye (75.0%), diarrhoea/vomiting (63.9%), *enyamorero* (wasting disease) (50.0%), stomach ailments (43.1%) and backache (20.1%), were considered to be the primary ailments interfering with children's health. However, the main killer diseases were listed as evil eye (71.5%), oral thrush (69.4%), diarrhoea/vomiting (51.4%), malaria (45.8%), measles (24.3%), *enyamorero* (24.3%) and backache (12.5%), in that descending order of importance.

Diarrhoea is among the most serious diseases among children aged 0-5 years. A child has

diarrhoea when she/he passes stool that is more loose and frequent than normal. Diarrhoea is dangerous because it removes a lot of water and other important mineral salts from the body. This leads to dehydration and later on malnutrition, thus weakening the body and making it more vulnerable by other diseases.

It is important to note, however, that diarrhoea is preventable by simple measures within the reach of every family. Giving the child more fluids than usual as soon as diarrhoea starts may protect the child from the fatal effects of the disease. The locally available fluids would help to replace what is being lost through diarrhoea, restore energy, strength and appetite. Breast milk is one of the best fluids for a child during diarrhoea.

Measles (*enyamoguku*) is also one of the diseases which cause deaths to many children. This disease is characterized by severe fever, coughing, nasal discharge, red eyes, high temperature and rashes. In Kenya, children are immunized against measles at the age of 9 months. It is argued by the medical personnel that when measles attacks children who have been immunized against it, the attack is mild and less dangerous. Parents should, therefore, ensure that their children complete the full immunization schedule. This protects the children against common childhood diseases which weaken their bodies and make it easy for other diseases to attack them.

There are a number of health problems which have persisted among the Abagusii because of their indigenous beliefs and practises. According to the key informants, measles should not be

referred to the hospital if the rash has not erupted. It is believed that if an injection is given before the rash comes out, the child will die. Traditionally, the first step taken was to look for the local traditional herb *eriogo riegenka* and boil the roots in a pot. The child was then covered with a blanket to inhale steam from the boiled medicine. Alternatively, a hen (*engoko*) was slaughtered, put into hot water in an open container, with its feathers, for steaming. Likewise, the local brew (*busaa*) was used for steaming and sometimes fermented eleusine flour was smeared on the child and the child was lain naked on the grass covered with a blanket to sweat. The steaming helped to reactivate the rashes to come out. The respondents reported that the above methods are still used to treat measles, particularly by elderly women. However, they did not rule out the possibility of taking the patient to hospital/health centre, after the rashes have erupted.

Although stomach ailments were mentioned as some of the main health problems among children, they are not categorized as a killer disease. Most respondents argued that, with time, the ailments subsided and disappeared as the child grew up. Unless the ailment was accompanied by other killer diseases, it never killed but only disturbed the child in infancy.

4:4:0 Socio-cultural determinants of home deliveries

4:4:1 Consequences of infidelity (*amasangia*)

The illicit sharing of a married woman's sex attentions (infidelity) may cause irreparable damage to the family. When asked about the consequences of infidelity, 128 (88.9%) respondents said that it could cause the death of a mother/child while 4 (2.8%) said that

infidelity could cause miscarriage. While suspicion of witchcraft arises among women when a wife becomes sterile or has a miscarriage or still birth, beliefs associated with infidelity are also linked to miscarriage. To prevent the occurrence of a miscarriage, the pregnant woman had to drink warm cattle blood and this had the effect of stopping the flow of blood and saving the pregnancy. Cattle blood is believed to replenish her blood supply.

On the other hand, 113 (78.5%) of the respondents reported that *amarongo/amanyansi* (herbal concoctions) were administered as a precaution in case of infidelity. Six (4.2%) respondents stated that sacrifices were performed as a precaution while 25 (17.4%) preferred both the use of *amarongo/amanyansi* and the offering of sacrifices.

4:4:2 Prevalence for home deliveries

The respondents were asked why they think most women preferred home deliveries. The majority were of the opinion that a high prevalence for home deliveries was due to traditional beliefs and practices. Their responses varied, as shown in Table 4.6.

Table 4.6 : Why most Women Prefer Home Deliveries

Reason	Yes	%	No	%
Home delivery are convenient	109	75.7	35	24.3
Other facilities are costly	92	63.9	52	36.1
Labour period is abrupt	112	77.8	32	22.2
Harassment by medical personnel	89	61.8	55	38.2
Pregnancy without complications	32	22.2	112	77.8
Fear of caesarean section	14	9.7	130	90.3

N=144

The reasons given for why most women prefer home deliveries included the labour period being abrupt, home delivery being convenient, other facilities being costly, harassment by medical personnel, pregnancy having no complications and, finally, fear of a caesarean section. All the respondents were of the opinion that be it hospital or home delivery, the most important thing is the safety of both the mother and the child. Depending on the outcome of the first deliveries, future deliveries were very much influenced by whether they were normal or had complications. For instance, if the delivery was a normal one without any complication, the second one was likely to be a home delivery.

4:4:3 Preference for traditional birth attendants in rural areas over hospital trained midwives

A statement that "Traditional birth attendants are preferred in rural areas over hospital trained midwives" was read to the respondents. The findings reveal that as many as 81 (56.25%) of the respondents agreed that women in the rural areas prefer traditional birth attendants to hospital trained midwives, 39 (27.1%) disagreed with the statement while 24 (16.7%) were uncertain. In addition, according to the information gathered from the case studies and the key informants, it was evident that there was preference for traditional birth attendants in rural areas over hospital trained midwives (see the two cases below).

4:4:3:1 Case 1 Mrs. Mary Ondieki (not her real name)

Mrs. Ondieki, a housewife, was forty years old. She had four daughters and one boy. By the time of the interview she was in her seventh month of pregnancy and was attending the clinic for the first time. She admitted that from the time of conception she had been using indeginous medicine to reduce pains at pregnancy. During her past pregnancies, she used indigenous medicines which she obtained from a TBA and she had known quite a number of herbs for her complications.

Mrs. Ondieki was of the opnion that indeginous medicine treats better than conventional medicine. She only came to the clinic because she felt that the pregnancy was too big and she

suspected of having twins. However, she was told by the clinical officer that the pregnancy was normal and after nine months she delivered a baby boy weighing four kilogrammes. Mrs. Ondieki categorically stated that had she known that the pregnancy was normal as the previous ones, she would not have wasted time to come to the clinic. However, she hastened to add that nowadays one cannot be pretty sure of the pregnancy until after delivery and it was safe to visit the clinic at least once so that if anything went wrong, the hospital personnel would assist.

4:4:3:2 **Case 2 Miss Jane Nyaboke (Not her real name)**

Miss Nyaboke was sixteen years and the youngest among the cases the author interviewed. She was a form three drop out and the last born in a family of five boys and one girl. The author met her at one of the traditional birth attendant's home when she had come to collect medicines. She was in her eighth month of pregnancy, and later on gave birth to a baby girl under the care of a traditional birth attendant. She was brought to the TBA by her maternal aunt.

When this author asked her why she did not go to the hospital, she said that she discovered the pregnancy when it was four months old and she feared attending the clinic at her tender age. She went on to say that she had not been sure that she was pregnant until her mother informed her that she was expectant. Even at the time of the interview, she retorted that very few people knew that she was pregnant and that she wanted to maintain it so as she stayed at her aunt's place which was thirty kilometres away from her home. She wanted to continue with her schooling after the delivery.

In Nyamache Division, most traditional birth attendants give herbal medicine to reduce labour pains, to accelerate the labour process, to expel a retained placenta (after birth) and to reduce post-partum abdominal pains, an element they claimed was lacking in modern health institutions. In recognition of the inevitable, Nyamache Health Centre has trained over twenty traditional birth attendants in hygienic and other safe practices that ensure the well being of the mother and the child.

4:4:4 Perception of pregnancy

According to the information gathered from traditional birth attendants and case studies, there was a great joy among the Abagusii when a wife found out that she was expecting a baby. The pregnant woman had to inform her husband and before long other people knew about it. The community regarded pregnancy as the most risky period because it was believed that some jealous women could cause harm to fellow women through witchcraft. Likewise, pregnancy was viewed as a health problem since it rendered the expectant mother incapable of doing any heavy work. In most cases, pregnant women complained of backache, abdominal pains, chronic fatigue, swelling of legs and fainting spells.

As a result of these, it was a common practice for the expectant mother to use herbs and wear charms which were believed to protect her and her baby from any harm. Pregnant women were also discouraged from doing certain types of work like fetching water and firewood, heavy digging, carrying heavy loads, and so on. In case the pregnant woman experienced any complication, she consulted elderly mothers or traditional birth attendants for advice. At this

stage, the expectant mother was treated with tenderness. Even if she abused the husband or any other person, she was not to be beaten or abused since great shame fell on anyone who showed no respect to a pregnant woman or did anything harmful to her whether by word or deed. The pregnant woman carried two lives, and these lives deserved double consideration and care.

Several issues have been raised in this chapter. It can be deduced that there exists a dual medical system, indigenous and western, operating side by side although not necessarily clearly defined. However, more people resort to indigenous medicine to treat a number of illnesses mostly thought to be best cured using indigenous therapies. This is partly due to the general attitude of health personnel towards patients, distance to the nearest health facility, beliefs associated with infidelity, transport, cost of drugs and scarcity of health facilities. Further, many of the health facilities have chronic shortages of trained staff and supplies of drugs. There was also high prevalence for home deliveries as most pregnant women preferred traditional birth attendants to hospital trained midwives.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5:0 Introduction

This chapter concludes and gives recommendations of the study. The recommendations are meant to help health planners and policy makers identify appropriate areas of collaboration. Emphasis is given to the implications of education on the use of indigenous medicine in the treatment of pregnancy related complications and the influence of socio-cultural factors on the continued use of traditional birth attendants by pregnant women for home deliveries. The chapter also deals with issues relating to the influence of the escalating costs of modern medical care on the usage of indigenous medicine in the rural areas.

5:1 Discussion

5:1:1 The impact of education on the utilization of indigenous medicine

One of the objectives of this study was to investigate the impact of education on the utilization of indigenous medicine by pregnant women to treat pregnancy related complications facing them. The study was geared to testing, among others, the hypothesis that "there is a positive relationship between the level of education of pregnant mothers and their use of indigenous medicine in the treatment of pregnancy related complications facing them". This implies that usage of indigenous medicine is dependent on the level of education of pregnant mothers.

As shown in Table 4.1, the majority ((67.36%) of the respondents have either primary level

of education or no formal education. The results indicate that mothers' level of education had a strong influence on their utilization of indigenous medicine to treat pregnancy related complications. This is supported by the fact that out of 25 (17.4%) of the respondents who had used herbs at home to cure pregnancy -related complications, 22 (88%) had either primary level or no formal education while only 3 (12%) had secondary education and above.

The implication here is that, low education reduces the mothers' utilization of services. The acquisition of education has contributed to the increasing differences between the well-off households and the poor, in turn, influences the health sector and access to the health services that different women have. These observations are similar to those expressed by Kinyanjui (1978), namely, that the position of women in formal sector employment is closely related to the opportunities available for them in formal education. The author further argues that, in Kenya, women have unequal access to education and this inequality, coupled with women's high rate of early school drop-out, leads to relatively fewer women than men having access to opportunities for higher education and training. The persisting low representation of women in higher education, their low levels of literacy and poor representation in well-paid jobs make the majority of women, especially those of child-bearing age, economically depended on men.

Further analysis reveals that out of 54 (37.5%) respondents who use herbs at home and at the same time visit a health facility, 48 (88.89%) had primary level of education or no formal education compared to 6 (11.11%) who had secondary level of education and above. Therefore, education is clearly a factor that influences the utilization patterns, where women with more

education are more likely to use antenatal services and even deliver in the maternity wards than are women with low education or no education. This conforms with the findings of Kawango (1995) who found that both biomedical and ethnomedical therapies are used for the same episodes of illness, either in sequence or in parallel. Similar findings are expressed by Spring (1980), Good and Kimani (1980), Good (1987), Sindiga (1992) and Kimani (1995).

The Kenya Government 1997/2001 Development Plan states that " Disease and conditions of pregnancy and child birth account for about 27 per cent of the total burden of disease, measured in terms of life years lost" (Republic of Kenya, 1997:155). Pregnancy related complications are a common problem among women of child-bearing age. It is a major cause of maternal mortality. The common diseases associated with pregnancy are loss of appetite, swelling of ankles, persistent backache, chronic fatigue, abdominal pains, fainting spells, anaemia and morning sickness. The severity of these conditions range from mild to severe states. According to K'okul (1991), mothers are easily susceptible to infectious diseases such as anaemia because they deliver in poor health conditions. He further asserts that the early phase of pregnancy is the most difficult period, since expectant mothers suffered from nausea, vomiting, headache, dizziness, and hunger (as most foods smell bad). These conditions are some of the characteristics experienced by most pregnant women in Nyamache Division.

On the other hand, 97 (67.36%) of the respondents who had primary level of education or no formal education reported that there are certain diseases which are treated better with indigenous medicine as compared to 42 (29.17%) who had secondary level of education and

above. For example, out of 97 respondents with primary level of education or no formal education, the majority (86.6%) were of the opinion that oral thrush is treated better using indigenous medicine while 13 (13.4%) mentioned other diseases. Likewise, out of the same 97 respondents, 82 (84.54%) were of the opinion that the evil eye is treated better using indigenous medicine while the remaining 15 (15.46%) mentioned other diseases.

Nyamwaya (1986) argues that over the years, Abagusii have, through experimentation and borrowing, developed a rich repertoire of therapeutic techniques for preventing and treating various medical conditions. In another contribution, the author asserts that people's response to disease is governed by their predominant concepts of health and illness (Nyamwaya, 1992). In Africa such concepts are largely indigenous and usually specific to each cultural group. According to the theory of cognitive system, socio-cultural factors have an impact upon the pattern of health and disease in the community and play an important role in the organization and utilization of health care. The theory examines the socio-psychological pressure on an individual in the decision making process. To support this theory, most of the herbalists interviewed argued that some people who were disillusioned with western medicine go to traditional medical practitioners as a form of protest. In this category are people suffering from chronic diseases such as asthma, infertility, epilepsy, diabetes, stomach ailments (peptic ulcers), mental illness, evil eye and other diseases believed to have been caused by ancestral spirits which cannot be explained.

From the above discussions, it can be discerned that the findings support the hypothesis that there is a positive relationship between the level of education of pregnant mothers and their use of indigenous medicine in the treatment of pregnancy related complications facing them.

5:1:2 The influence of socio-cultural factors and use of traditional birth attendants

The second objective of this study was to investigate the socio-cultural factors which influence the continued use of traditional birth attendants by pregnant women for home deliveries. With the persistent use of traditional birth attendants by pregnant women for home deliveries as the dependent variable, the socio-cultural factors selected as independent variables included beliefs associated with infidelity, witchcraft and home delivery being convenient.

The results indicate that a majority of the respondents were of the opinion that socio-cultural factors influence usage of indigenous medicine and traditional birth attendants by pregnant mothers for home deliveries. This study established that fear of witchcraft during pregnancy and birth are strongly related to traditional beliefs and taboos surrounding fertility and pregnancy. This is in line with the health belief model which supports any human activity undertaken by a person believing to be healthy for the purpose of preventing disease or detecting it in asymptomatic stage. For instance, 113 (78.47%) of the respondents reported that they used indigenous medicine to protect themselves against witchcraft. Most mothers in Nyamache Division argued that witchcraft and curses cause infertility and frequent maternal and child deaths. As many as 141 (97.9%) respondents argued that beliefs associated with infidelity contributed to maternal mortality rate in Nyamache Division while 109 (75.69%)

respondents said that most women preferred home deliveries because they found them to be convenient.

Traditional birth attendants are concerned with problems affecting pregnant women and they assist with deliveries. They are specialists in obstetrics on whom rests the responsibility for delivering the child and for seeing to the health of the mother. Traditional birth attendants carry out a bodily examination to ascertain when delivery would take place and whether the baby is lying in the correct position. According to Wandibba (1995), among Babukusu women having problems with their pregnancies or deliveries turned to traditional birth attendants (TBAs) who were always women. He further states that if a pregnant woman had constant abdominal pains she went to a traditional birth attendant who would massage her stomach or give her medicine to cure her. TBAs also had the knowledge to tell whether the foetus was lying in its proper position and how old such a foetus was.

Most of the traditional birth attendants interviewed argued that if there was a complication beyond the competence of a trained birth attendant during delivery, they would advise the patient and her relatives to see a modern health practitioner. In most cases women who became traditional birth attendants learnt their skills from relatives through observation and apprenticeship. More often than not, the traditional birth attendants use various herbal preparations as massage, as insertions, as food or as drinks for the expectant mother in the hope of aiding deliveries.

Among Abagusii, some indigenous leafy vegetables are used as medicine. According to Busolo and Wasike (1994), when regularly consumed, indigenous leafy vegetables can supply the body with adequate iron. The authors further assert that the leaves of the spider herb (*Gynandropsis gynandra*) are bound, soaked in water and the concoction drunk or the leaves are prepared and eaten for the treatment of nutritional anaemia, scurvy and stomach upsets. Nutritional anaemia makes women susceptible to disease, exacerbates fatigue, reduces working capacity in the work-place and at home and is dangerous to pregnant women. Among Abagusii, the spider herb (*chinsaga*) is recommended for pregnant and lactating mothers to increase the production of breast-milk (Buruchara and Okiomeri, 1986). Some pregnant women as well as some herbalists told the author that special "tea" made from spider herb roots was given to a mother who had immediately delivered to reactivate the flow of breast-milk.

Busolo and Wasike (1994) add that when the leaves of the blacknight shade (*Solanum nigrum*) are boiled and enriched with fresh milk, peanut or simsim paste, the mixture is drunk to relieve sudden stomach-ache. It is used as a meal to boost the health of expectant mothers, to restore strength and to prevent the eruption of skin disease. The roots of a blacknight shade (*rinagu*) are chewed by expectant mothers to reduce labour pains and prevent young children from getting marasmus and kwashiorkor.

Further analysis reveals that among the 109 (75.69%) respondents who stated that home delivery was convenient, 72 (66.06%) agreed that traditional birth attendants are preferred in the rural areas over hospital-trained midwives while 15 (13.76%) were uncertain and 22

(20.18%) disagreed with the opinion. On the other hand, out of 141 (97.92%) of the respondents who stated that beliefs associated with infidelity contribute to the maternal mortality rate in Nyamache Division, 80 (56.74%) were in agreement that traditional birth attendants are preferred in the rural areas over hospital-trained midwives while 23 (16.3%) and 38 (26.95%), respectively, were uncertain or disagreed with the opinion. Therefore, the findings of this study support the hypothesis that socio-cultural factors influence continued use of traditional birth attendants by pregnant women for home deliveries.

In the rural areas of Nyamache Division, a majority of women either deliver on their own or they are assisted by relatives and others. This is because women were pioneers in health care and they remain the major health care providers at the household level. Pillsbury (1982) supports the above view by asserting that traditional medical practitioners and birth attendants are found in most societies. They are often part of the local community, culture and traditions and continue to have high social standing in many places, exerting considerable influence on local practices. The role of traditional birth attendants (TBAs) has been recognized particularly in the rural areas where health clinics are often distant and sometimes unaffordable. The Ministry of Health, in recognition of this fact, has been providing basic training to TBAs to enhance their health knowledge though not all have yet to be trained.

5:1:3 The influence of socio-economic factors and use of indigenous medicine

This study was also designed to look at how the escalating costs of modern medical care in the rural areas positively influence usage of indigenous medicine. The findings indicate that the

mother's occupation, household income, distance to the nearest health facility, mode of transport, time taken to the nearest health facility and duration of treatment had a great influence on the use of indigenous medicine in the rural areas of Nyamache Division.

For instance, out of 75 (52.08%) respondents whose household income was below Kshs. 2000, 65 (86.67%) agreed that charging for delivery in hospitals/ health centres may result in the low utilization of services, 7 (9.33%) were uncertain while 3 (4%) disagreed. In comparison, out of 69 (47.92%) respondents with a household income of Kshs. 2001 and over, 23 (33.33%) agreed that charging for delivery may result in low utilization of services, 26 (37.68%) were uncertain while 20 (28.99%) disagreed with the statement. This implies that the total household income level has a significant influence on the utilization of health services for the majority of women, particularly in the rural areas of Nyamache Division. In addition to this, the current economic crisis and introduction of medical user fees under cost-sharing schemes make health care inaccessible to many poor families. Low incomes imply low purchasing power for the family, leading to reduced provision of services and poor health.

About 56.3 per cent of the respondents live more than four kilometres from a health facility. Although the distance is considered reasonable, it is hardly convenient for those with severe illness or in advanced pregnancy, especially if transport is not available. Out of the 81 (56.3%) respondents who travel a distance of more than four kilometres to the nearest health facility, 58 (71.6%) argued that charging for delivery services in hospitals/health centres may result in the low utilization of services, 11 (13.58%) were uncertain while 12 (14.82%) disagreed. On

the other hand, out of 134 (93.1%) respondents who walked to the nearest health facility, 83 (61.94%) reported that charging for delivery services in hospitals/health centres may result in the low utilization of services, 28 (20.9%) were uncertain while 23 (17.16%) disagreed.

Among the 75 (52.1%) respondents whose monthly income was less than Kshs. 2,000, 70 (93.33%) walked to the nearest health facility while 5 (6.67%) used public means. In comparison, out of 75 (52.1%) respondents whose monthly income was less than Kshs. 2,000, 6 (8%) of the respondents when asked to evaluate the treatment they received from the nearest health facility stated that it was very good, 41 (54.67%) said that it was fair while 28 (37.33%) reported it was poor. Since the majority of the people evaluated the treatment they received from the health centre as fair or poor, this encouraged them to resort to indigenous medicine to manage their pregnancies. Lack of proper maternal health care in the rural areas, particularly pre-natal check-ups, and lack of immediate health services in case of complications at birth, can cause high maternal mortality rates. It is no wonder then that high maternal mortality and chronic ill health related to pregnancy and child birth were the most prevalent factors of women's health problems in Nyamache Division.

This study has, therefore, come to the conclusion that the escalating costs of modern medical care in the rural areas positively influence usage of indigenous medicine. Over and above the factors already considered, the quality of health services offered to the public is a major key determinant of whether they use facilities or not; long waiting times, negative staff attitudes and unavailability of drugs and supplies are some of the reasons that have been commonly cited

as reasons for not using existing health facilities. The culture a woman grows in, the way in which she is socialised and her access to formal education, will all influence her ability to solicit health care in a timely and appropriate manner. Prevention and appropriate management of unwanted pregnancy, complications of pregnancy, labour and delivery would reduce the unacceptably high maternal morbidity and mortality.

It is very common to see women with obstructed labour arrive at the health centre with the baby undelivered but already dead in the uterus. This usually occurs due to the long distance covered by the pregnant mother in order to reach a health centre. The role of health personnel is to recognise in good time the expectant mothers who are at risk of obstructed labour, and to ensure they deliver where skilled medical staff is available. Even so, mothers can be made to understand that prolonged labour at home for twenty-four hours without delivery, immediate transfer to the health centre offers a chance of survival provided that the health centre is adequately equipped to handle complicated cases.

5:2 CONCLUSION

On the basis of the findings in chapter four and the discussion above, this study makes the following conclusions:

The findings indicate that the majority of people in Nyamache Division depend on indigenous medicine to alleviate various ailments facing them. The few health facilities within the division lack drugs, personnel and essential modern equipments to cope with the increasing demand.

The other factors that affect the utilization of the health facilities include education, distance, cost, duration of treatment, the quality of care available and the socio-cultural preferences. Sometimes the mothers lack time, money and even transport to reach the health facility resources.

The findings suggest that socio-cultural factors such as beliefs associated with difficult deliveries and miscarriages influence continued use of indigenous medicine for maternal and child health services. For instance, infidelity was regarded as a serious offence in the Gusii community which affected pregnancy as women could either have difficulties in conceiving or were faced with continuous miscarriage unless cleansing ceremonies were performed. The study found that the majority of the mothers delivered their babies at home with the assistance of traditional birth attendants because the TBAs were the closest to the needy mothers, both physically and emotionally.

The study indicates that the majority of the people have no access to modern medical facilities, while others walk over four kilometres to reach the nearest health facility. The negative attitude of the health personnel towards patients is a stigma in modern health care provision and these factors force people to resort to usage of indigenous medicine for treatment. Since indigenous medicine is culture-based, every member of a given community knows something about it and it plays a major role in our present society as most people have confidence in it.

Abortion was reported as one of the causes of maternal mortality. However, cases of abortion

are still under-reported, thereby making it difficult to assess its contribution to women's mortality. Most abortions were carried out illegally and, thus, it was difficult to trace fatal and non fatal complications.

5:3 RECOMMENDATIONS

The findings indicate that indigenous healers play a great role in maternal health care. However, to facilitate their role in society, it is recommended that the government should enact favourable laws in licensing indigenous medical consultants who have efficacious concoctions to operate without fear for some are misconceived as practising magic and witchcraft. This will create an environment whereby indigenous healers would be willing to share knowledge with modern health practitioners in the interest of humanity. Most indigenous healers are often fearful that on publicizing their knowledge, the active ingredients within their herbal medicine will be identified and mass produced and this will lead to their loss of patients. Thus, the enactment of patent rights for healers would make it mandatory for all indigenous medicines to be taken for laboratory analysis to ascertain the toxicity and efficacy of the medicine for future use before the mass production of the same. The mass production would lead to the reduction of the cost of drugs, improve hygienic practices, standardise dosage and alleviate the problems of overdose since most patients are hesitant to reveal to the clinical officer that they have taken herbal medicine.

Despite the fact that some TBAs have been trained, they lack the equipment to handle complicated births. With the prevalent cases of the HIV virus and AIDS infection, it is possible

for a TBA or a woman giving birth to be infected if the same instruments used on her have been used on another woman who is infected with the deadly virus. Steps are, therefore, urgently needed to train and equip TBAs with modern equipment and relevant skills to enable them deal with pregnancy related complications in the rural areas. This could be effected through the government's effort to provide proper facilities, equipment and drugs to adequately cater for the needs of women of child bearing age. It can be further argued that both traditional and allopathic systems of medicine are useful and necessary in disease management and this requires collaboration between the two health systems. Therefore, giving the TBAs refresher courses would be a starting point for co-operation. After training, as an incentive, the government should consider seriously to pay TBAs some token remuneration for their services. This is necessary because salaries and poor working conditions contribute significantly to a worker's morale.

Given the fact that health centres/dispensaries are scarce and far apart in the rural areas, there is need for improvement of the rural road network. In addition, there is need to deploy enough and qualified health personnel to handle specific complications at health centres.

A School of Alternative Medicine and Technology (SAMTECK) has been started in Nyeri under the directorship of a Mr. Jack Githae who is a traditional medical practitioner and so far about twenty students have graduated from the institution which opened its doors in 1994. It is, therefore, recommended that institutions of higher learning such as Medical Training Colleges (MTCs) and Universities start offering courses on basic operations in indigenous

medicine. Equally important, a training school should be established to train indigenous healers so that they can improve on their hygienic practises and help to minimise or drive away quacks from the practice of indigenous medicine.

Finally, there is need for further research to be conducted in other Kenya Communities for comparison purposes since every given situation is unique. This could help policy makers to understand the needs of the local population when designing health programmes.

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APPENDIX 1

CONFIDENTIAL

QUESTIONNAIRE NUMBER _____

UNIVERSITY OF NAIROBI
INSTITUTE OF AFRICAN STUDIES

THE ROLE OF INDIGENOUS MEDICINE IN MATERNAL AND
CHILD HEALTH CARE STUDY

STANDARD QUESTIONNAIRE
HOUSEHOLD IDENTIFICATION

NAME OF LOCATION _____

NAME OF SUB-LOCATION _____

NAME OF VILLAGE _____

NAME OF RESPONDENT _____

NO.	QUESTION	CODE CATEGORIES	RESPONSE CODE
1.	How old are you?	Circle the appropriate ranking 1. 20 - 24 2. 25 - 29 3. 30 - 34 4. 35 - 39 5. 40 - 44 6. 45 and above	
2.	What is your marital status?	1. Single 2. Married 3. Widowed 4. Divorced/Separated	
3.	What is your religion?	1. Catholic 2. Protestant 3. Other(Specify) _____	
4(a).	Have you ever attended a formal school?	1. Yes 2. No	
4(b).	If yes, What was the highest school that you attended?	1. Primary 2. Secondary 3. Post secondary	

5.	What is your main occupation?	1. Formal employment (salaried, commissions, wages, etc.) 2. Self-employment (business) 3. Agricultural 4. Other (specify)											
6.	What is the main occupation of your husband?	1. Formal employment (salaried, commissions, Wages, etc) 2. Self employment (business) 3. Agricultural 4. Other (specify)											
7.	What are your other sources of income?	<table border="0"> <thead> <tr> <th><u>Source</u></th> <th><u>Income (in Ksh)</u></th> </tr> </thead> <tbody> <tr><td>1.</td><td></td></tr> <tr><td>2.</td><td></td></tr> <tr><td>3.</td><td></td></tr> <tr><td>4.</td><td></td></tr> </tbody> </table>	<u>Source</u>	<u>Income (in Ksh)</u>	1.		2.		3.		4.		
<u>Source</u>	<u>Income (in Ksh)</u>												
1.													
2.													
3.													
4.													
8.	Indicate the appropriate total household income bracket per month?	1. 0 - 1000 2. 1001 - 2000 3. 2001 and above											
9(a).	Do you seek the approval of your husband before using your money?	1. Yes 2. No											

9(b).	If yes, why?	1. 2. 3. 4.	
10(a).	Do you consider pregnancy related complications as a problem?	1. Yes 2. No	
10(b).	Why?		
11.	What are the main diseases among women of child bearing age?	1. Loss of appetite 2. Swelling of ankles 3. Persistent backache 4. Chronic fatigue 5. Abdominal pains 6. Fainting spells 7. Other (specify) _____	
12.	In what ways are these disorders cured?	1. Use of herbs at home 2. Visit health facility 3. Other (specify) _____	
13(a).	Do you receive antenatal care?	1. Yes 2. No	

13(b).	If yes, where do you receive it?	1. Health centre/ dispensary 2. Traditional healer 3. Shared care 4. Other (specify) _____	
13(c).	If not, why?		
14(a).	In your opinion, do you think there are diseases which are treated better using indigenous medicine?	1. Yes 2. No	
14(b).	If yes, name them	1. _____ 2. _____ 3. _____ 4. _____	
15(a).	How far is your nearest health facility?	_____ kms	
15(b).	How long do you take to travel to the nearest facility?	_____ time in minutes/hours	
15(c).	What mode of transport do you use?	1. Walk 2. Public vehicle _____	
16.	How long do you take in the hospital in order to be treated?	_____ time in minutes/ hours	

17.	How would you evaluate the treatment you receive from the health facilities you have visited above?	1. Very good 2. Fair 3. Poor	
18.	Have you ever given birth to any children?	1. Yes 2. No	
19.	Do you intend to have more children in future?	1. Yes 2. No	
20.	How many of your children have been born in hospital?		
21.	How many of your children have been born through the assistance of traditional birth attendants?		
22.	Why do you think most women prefer home deliveries?	1. Convenient 2. Other health facilities are costly 3. Labour period very abrupt 4. Other (specify) _____	

23.	What are the factors that contribute to the mortality rate in this area?	1. Delay in seeking medical attention 2. Late referral to hospital from other institutions 3. High number of unsafe abortions 4. Overcrowding at medical facilities 5. Beliefs associated with infidelity 6. Other (specify) _____	
24.	What are the consequences of illicit sharing of married woman's sexual attentions (infidelity)?	1. May cause miscarriage 2. May cause death of a child _____	
25.	what precautions are taken in case of infidelity?	1. Certain herbs (<i>Amarongo/amanyansi</i>) are administered 2. Sacrifices are performed _____	
26.	Why do you think pregnant women prefer the use of indigenous medicine?	1. They are nutritious 2. Protect them against witchcraft 3. Accelerate labour process 4. protect them against infidelity. Other(specify) _____	

27(a).	Do you take your baby to the clinic?	1. Yes 2. No	
27(b).	If yes, which clinic?	_____	
27(c).	If no, why?		
28(a).	Name five main health problems affecting the lives of children in this area:	1. 2. 3. 4. 4. 5.	
28(b).	Which of these do you consider the main killer(s)?	1. 2. 3.	
29.	what role do you think the existing health services have played in an attempt to alleviate the identified diseases?	1. A big role 2. A small role	

30.	In your opinion, why do you think young babies are given indigenous medicine routinely?	1. To reduce stomach pains experienced in infancy 2. Protect them against witchcraft/evil eye 3. Prevent diseases such as indigestion/measles _____			
31.	What role does indigenous medicine play in the healing system?	1. A big role 2. A small role			
32.	What would you suggest for the improvement of accessibility of health facilities to the majority of rural people?	1. 2. 3. 4. 5.			
NO	STATEMENT	CODE CATEGORIES			RESPONSE
		Agree 1	Uncertain 2	Disagree 3	
33.	Charging for delivery services in hospitals/health may result in low utilization of services				
34.	Herbal medicines have greater advantage than conventional medicine.				

35.	Traditional birth attendants are preferred in rural area over hospital trained midwives				
36.	Traditional medicine is deeply rooted in peoples culture				
37.	Neither indigenous nor allopathic care system is by itself able to cope with health needs of any community				

APPENDIX 2

QUESTIONNAIRE FOR CASE STUDIES

1. Name of respondent
2. How old are you?
3. What is your marital status?
4. What is your main occupation?
5. Do you receive antenatal care?
6. If not, why?
7. How old is your pregnancy?
8. Now that you are pregnant, what is your perception of pregnancy?
9. How many of your children have been born through the assistance of traditional birth attendants?
10. Do you use indigenous medicines to manage pregnancy related complications?
11. If yes, where do you get your medicine?
12. What role does indigenous medicines play in the healing process?

APPENDIX 3
QUESTIONNAIRE FOR HERBALIST/TBAs

1. Name of respondent
2. How old are you?
3. What is your marital status?
4. What is your main occupation?
5. What are the common diseases that you treat better?
6. What category of clients who visit you for treatment?
7. What are your perceptions about pregnancy?
8. What type of pregnancy related complications do you handle better?
9. What do you do to a patient whose complications you cannot handle?
10. Why do you think pregnant women prefer the use of indigenous medicines?
11. In your opinion, do you think indigenous medicines are more effective than conventional medicines?
12. If yes, why?
13. How did you acquire your knowledge on herbal medicines?
14. How long did you train?

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS STUDY
