

**FACTORS CONTRIBUTING TO PATIENTS BYPASSING THE 2ND AND 3RD
LEVELS OF PRIMARY HEALTH CARE FACILITIES IN KIRINYAGA
DISTRICT, KENYA.**

BY

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to patients by*



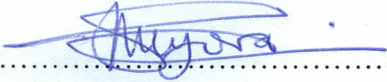
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DEDICATION

This thesis is dedicated to God the creator of heaven and earth, wife Mary Wanjiru who has been encouraging me to accomplish this work, my parents Elijah Kanyora and the late Lydia Gathoni who laid the foundation for my education and not forgetting my beloved daughter Maureen Gathoni for her concern and prayers during the time of study.

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ABBREVIATION AND ACRONYMS.

CHWs	Community Health Workers.
FBO	Faith Based Organizations.
HND	Higher National Diploma
GOK	Government of Kenya.
MOH	Ministry of Health.
PHC	Primary Health Care.
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization

DEFINITION OF TERMS.

- Community:** 1st level of PHC before contact to formal health care facilities
- Dispensary:** 2nd level of PHC where basic health care at community level is provided. Patients are referred to Health Centre from this level if necessary.
- Health centre:** 3rd level of PHC which provides basic health care at community level. Patients are referred to hospitals from this level if necessary
- District and Sub-District Hospital:** 4th level of PHC facilities. These are the main referral hospitals in the district
- Primary Health Care:** First contact of individual, family and community which brings health system as close as possible to where people live.

ABSTRACT

Provision of Primary Health Care moves a country towards a more efficient and higher quality health care system. Bypassing of 2nd and 3rd levels of Primary Health Care facilities reveal that the patients understand various measure of quality at the facilities that they visit and bypass. Patients seek medical services from the facilities that provide high quality consultations and prescriptions. There must be clear defined roles for different levels of health facilities as confusion in service delivery may exist between District Hospital and Health Centers. There is need to have well defined referral criteria within the health system from 2nd to 4th level of PHC facilities to avoid non referred patients overloading the District Hospital. The main objective of this study was to determine the factors contributing to patients bypassing the 2nd and 3rd levels of PHC facilities in Kirinyaga District. The study population involved patients attending both outpatient and family planning departments. Pretested interview schedules were used as research tools. In data analysis, Chi-square test was used to test relationships between variables. Results showed that 96.1% of respondents did not visit their nearest local facility for medical services but went direct to the district hospital. Significant relationship ($\chi^2 = 30.1$ df=12 p=0.003) was noted between age of the respondents and visit to local facilities. Also relationship between sex of respondents and visiting local facility ($\chi^2 = 9.6$; df=1, p=.001) was noted. About 42.1% of respondents believed the District Hospital had more qualified staff. There is therefore need for District Health Management Team (DHMT) to asses the requirement of both dispensaries and health centres in terms of staff and services as well as have defined referral criterion. Results of this study may be useful to policy makers within the district to improve the referral system so as to avoid overloading the district hospital with referral patients.

CHAPTER ONE: INTRODUCTION

1.1 Background information

In 1979, the World Health Assembly endorsed the declaration of *Alma-Ata*, which stated that Primary Health Care was to be the key to attaining the goal of health for all by the year 2000. Primary Health Care is essential health care based on practical, scientifically sound and socially acceptable methods and technologies that are made universally accessible to individuals and families in the community. This is attained through their full participation and at a cost that the community and country can afford (Obimbo, 2003).

In Kenya, the health centres and dispensaries constitute the first point of contact with the formal health system for a majority of the people whilst hospital out patient facilities still cater for sizable portion of the urban population. A typical dispensary is staffed by one enrolled community nurse and one or two upgraded staff and a health centre usually has up to twelve beds for inpatients, and provides a broad range of outpatient services and mobile outreach clinics to the outlying communities (Ministry of Health, 2006).

According to the government of Kenya, level 2 and 3 covers both dispensaries and health centres respectively. The overall health sector structure, in appendix 1, illustrates the intention of decentralization policy in order to enable the community to participate in decision making process related to matters of health at the community level, between interface 2 and 3.

The number of health facilities increased to a total of 5,589 at the end of 2007. The health facilities infrastructure in Kenya varies greatly in terms of size, staffing patterns and organizational structure. The establishments are mainly hospitals, health centres, dispensaries and specialized clinics manned by physicians, dentists, or other health practitioners. Although hospitals constitute only 7% of all health care institutions they have majority of health workers and also served the majority of patients (Ministry of Health, 2007).

The present policy of the ministry of health is aimed at increasing the number of activities in the health provision, by encouraging more community participation, change the attitude of health personnel towards PHC and strengthening collaboration with NGOs in the field of PHC. To achieve these aims, the District Medical Officers in particular and the District Health Teams in general are charged with the responsibility of coordinating the PHC activities in the district. A state of “laissez faire”, where everybody does what they wish, will only be avoided if the policy is explicit and the guidelines for the implementation of policy are closely followed by all the stakeholders in the improvement of Primary Health Care. It is hoped that these guidelines will go a long way in achieving this goal (Mhonoli, 1986).

In an integrated district health system, the role of the District hospital is to support the health centres and enable them to deliver Primary Health Care services to the community. Patients having direct access to the District hospital undermine the philosophy of integrated health care by means of referral system. Primary Health Care should be sustained by integrated functional and mutually supportive referral systems, leading to the progressive improvement of comprehensive health care for all (John *et al.*, 2003).

In Kenya, the District hospital links the 2nd and 3rd levels of Primary Health Care services of the community to the curative and rehabilitative services of secondary and tertiary referral hospitals.

Primary Health Care reflects the economic conditions of socio-cultural and political characteristics of the country and its communities. It addresses the main health problems in the community at the 2nd and 3rd levels of contact, providing promotive, preventive, curative and rehabilitative services. At the level of the first contact, information concerning prevailing health problems and the methods of preventing them can be disseminated (Einterez *et al.*, 1992).

It should be pointed out that the concept of community participation in development activities, a major cornerstone in the PHC strategy, is not new in Kenya. The harambee (self help) movement that has existed since independence has greatly contributed to the development activities, especially in health care delivery and education. However, most of the harambee efforts constitute a one time effort from the community and have often been directed towards the construction of physical facilities especially buildings, which the people hoped would be taken over and be run by the government or NGOs. What now remains is linking this abounding spirit of self- help among the people with sound policies in health care delivery through the new concept that has been embraced by government and all people closely involved in provision of health to Kenyans, the concept of Primary Health Care as enunciated in Alma Ata in 1978 (Ministry of Health, 2006).

The activities carried out by a health centre should be relevant to the priority health problems found in the particular community. This means that the health workers must be fully aware of the general situation of the community they serve. They should learn to appreciate the type and extent of community's health needs and know how to deal with them effectively, not only by

using simple epidemiological methods, but also by ascertaining the opinions of the community (Ministry of Health, 2006).

Kirinyaga District has 2 GOK hospitals and 48 dispensaries with a doctor/patient ratio of 1:75. The average distance to the nearest health centre is 6.32km, with 63.8 percent of the households having access to health centres (Kirinyaga District Development Plan 2002-2008).

The common illnesses for patients seeking medical attention at Kerugoya District Hospital include diarrhoeal diseases, malaria and respiratory diseases. The general trend in attendance has been increasing but most of the patients are not referred to Kerugoya District Hospital (Ministry of Health, 2006).

1.2 Problem statement

A large proportion of Kenyans continue to carry the highest preventable burdens of ill health in the world (WHO, 1992). Much of this burden can be lifted and prevented with existing knowledge and resources. Despite having well focused national health policies and a reform agenda, there has not been an improvement in the situation of households entrapped in the vicious cycle of poverty and ill health. Efforts to reform the health care sector are important because they can substantially influence the availability and quality of health care services, the efficiency and financial viability of the health sectors. 2nd and 3rd levels of health services are bypassed by the community they serve. Patients or clients having direct access to the district hospital bypass the dispensaries and health centres, which undermines the philosophy of integrated health care by means of a referral system. Weak referral systems and protocols, which link primary to secondary health care may be contributing factors to bypassing the 2nd and 3rd levels of PHC facilities. Community members feel that hospital services are better than those

provided at the health centres and dispensaries with the perception that a patient will be seen by more qualified medical personnel. Patients or clients move from community and bypass dispensaries and health centres overloading Kerugoya District Hospital without referral thus overburdening the District Hospital (Einterez *et al.*, 1992).

Variations in the range of essential drugs that the 2nd and 3rd levels of Primary Health Care personnel have at their disposal may result in large differences in the level of diagnostic, treatment and rehabilitative services available to the populations hence facilitating bypassing.

1.3 Justification of the study

The health system should be able to provide supportive supervision to level 2 and 3 services. When the health centre works adequately; it can carry out a number of tasks. Strengthening referral systems and protocols, which link primary and secondary health care, may help develop influencing skills amongst Primary Health Care workers and managers at local level. Higher cost of the health services may also be minimized as non severe conditions would probably be treated well by simple health centre drugs avoiding over prescribing at the hospital, where wider range of drugs are available. The study results will assist policy makers within the district to improve on referral system and hence reduce overloading the District Hospital with non-referred patients. This study is undertaken to establish the reason why there is this bypassing and results will be used by DHMT to implement adherence to referrals.

1.4 Research questions

1. Why do patients bypass PHC facilities and come to the District Hospital for PHC services?
2. How accessible are the 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District?
3. What protocols are used for referral system in the study area?
4. What is the client perception towards health workers in the 2nd and 3rd levels of PHC facilities?

1.5 Hypothesis

Patients attending District Hospital in Kerugoya District do not bypass 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District

1.6 Main objective

To determine factors contributing to patients bypassing the 2nd and 3rd levels of PHC facilities in Kirinyaga District.

1.7 Specific objectives

1. To find out the patterns that influence patients to bypass PHC facilities and instead visit the district hospital.
2. To establish the accessibility to the 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District.
3. To establish referral protocol from dispensaries and health centres to the district hospital in Kirinyaga District
4. To find out the clients' perceptions towards health workers in the 2nd and 3rd levels of PHC facilities in Kirinyaga District.

1.8 CONCEPTUAL FRAMEWORK.

The conceptual framework in Figure 1.1 shows that bypassing 2nd and 3rd levels of PHC facilities may be influenced by age and sex of the patients. Occupation, marital status and education level are socio-economic factors, which may also hinder utilization of local facilities. Among other factors that may determine utilization of dispensaries and health centres in Kirinyaga District. Accessibility, enough health workers, drug availability and type of diagnostic equipments are assumed in this study to have considerable influence on patients bypassing 2nd and 3rd levels of PHC facilities.

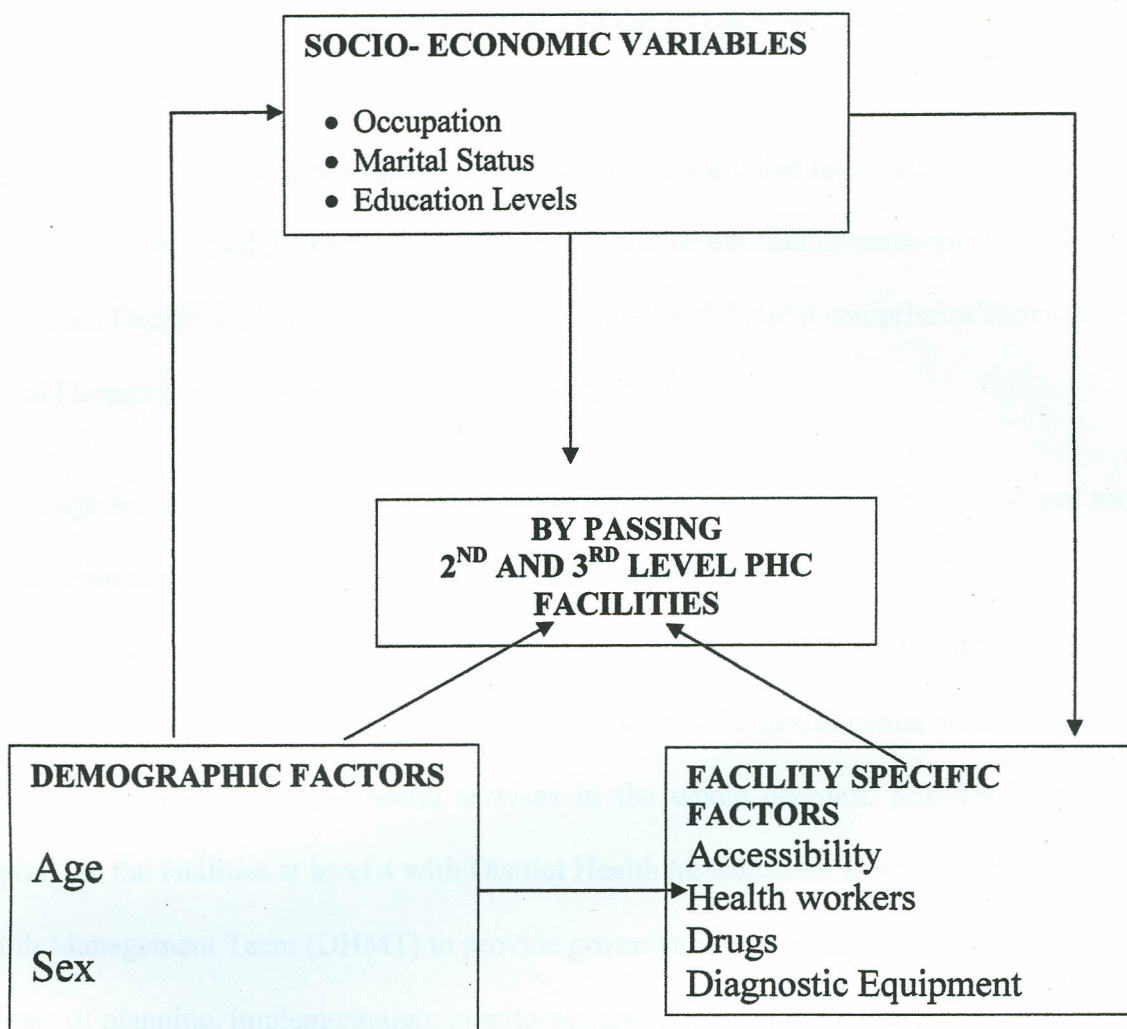


Figure1.1: A conceptual framework of the study

CHAPTER TWO: LITERATURE REVIEW

2.1 levels of facilities

According to the Kenyan government, health facilities are divided into levels. Level 1 is the community, level 2 and 3 comprise of dispensaries and health centres respectively. Level 4 covers both District and Sub-District Hospitals, while level 5 and 6 comprise of Provincial and referral Hospitals respectively (Ministry of Health, 2006).

The village health committee oversees operations of level one service in the village and serves as the link between village and the households. Level 2 health facilities is the level of first contact with the community and should have a dispensary health committee with representation from local and sub-locational structure. Level 3 is comprised of a health centre with divisional level subcommittee responsible for health services in the whole division. Sub-district and district hospital are the facilities at level 4 with District Health Management Board (DHMB) and District Health Management Team (DHMT) to provide governance and technical support to level 2 and 3 in terms of planning, implementation, monitoring and supervision, (Ministry of Health, 2006).

2.2 Accessibility to 2nd and 3rd levels of Primary Health Care facilities.

The Alma Ata declaration defined Primary Health Care (PHC) as “essential health care based on practical, scientifically sound and socially acceptable methods and technology that is universally accessible to individuals and families in the community at a cost the community and the country can afford with communities participating in spirit of self reliance and self determination. It forms an integral part of both of the country’s health system, of which it is the central function and main focus of the overall social and economic development of the community. It is the first

level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work and constitutes the first element of continuing health care process (Martin, 1994).

The basic concept of Primary Health Care has been served as a vehicle for the implementation of the Health For All strategy (HFA), a public health approach to health development based on the principles of social justice and equity. Adopted in 1979, HFA initially covered the period until the year 2000. However, HFA is a strategic process leading to progressive improvement of health for all (Ombibo, 2003).

During the 1977 World Health Assembly, the government of Kenya along with other member states of WHO endorsed the worldwide social objective: "The attainment by all people of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life". In recognition of the fact that it is unlikely that any existing health services strategy could achieve this objective, the government endorsed the primary care strategy for providing health services to the Kenyan population with emphasis on the rural areas where over 80% of population lives (Enterez *et al.*, 1992).

In the year 1970, the central government took over the running of most of the services in Kenya and established six Rural Health Training Centers, while the MCH/FP program was launched in 1974. Both projects ended in 1979. In 1982, the integrated rural health care unit was subsequently set up within this project (Ministry of Health, 2006).

In any health care system, an appropriate structure is essential for operational efficiency (Bridgman, 1988). Patients must be able to easily access health care workers and health facilities in their own communities. If the initial disease or condition cannot be managed, the decision would be made to refer the patient to a specialist. Except in an emergency, all patients should be seen, first, by a Primary Health Care worker who decides whether a referral to secondary care is necessary. The referral system offers one strategy for making the best use of secondary level of health care services (Rasouly *et al.*, 2004).

The whole Health Care system should be providing support to the peripheral services and complement their action by means of easy and timely channel of referrals for cases or problems beyond their competence. This facilitates integration of Primary Health Care to the development process at national and local levels of a country's health care system (WHO, 1983).

Primary Health Care workers may be able to influence patient's references so that a high health worker density in a retrospective reimbursement system may result in patient preferences. (Rasouly *et al.*, 2004). In such health care systems, Primary Health Care workers offer specialized care. These systems protect patients from unnecessary spending and limit the overall cost for health care services (Michael *et al.*, 2003).

Each hospital including teaching hospitals must have well-defined geographical catchment's areas. This is one way of achieving a strong bond between the hospital and Primary Health Care services. This also gives appropriate incentives for establishing an effective referral system (PCI, 1998).

Currently in western Kenya, the lack of transport hinders the effective management and supervision of the rural health facilities. DHMT members are not able to go out on regular supervision visits due to lack of either transport or fuel, or broken down vehicles. (JICA, 1998).

The basis for all health centre activities should be an understanding of health needs of the population in the catchments area. Integral to this is the principle that the health centre carries responsibility, in partnership with the community concerned, for the health of that particular community. This perspective will profoundly affect the long term success of the District Health System (WHO, 1994).

The development role of health centres deserves more careful consideration. With this perspective, it is not difficult to see health centres taking on a much broader "health and development role". They have potential to support local community workers and linking effectively to local social networks. By motivating and harnessing such resources, their potential for health promotion and community empowerment is greatly expanded (WHO, 1988).

A strong health centre related system can effectively act as the first contact for an optimal use of health services (gate keeper) where complete clinical and other health related activities are provided (Evans *et al.*, 1981).

When health centres are bypassed, treatment for simple ailments and the costs of care rise dramatically. This is because the unit cost is higher in hospitals than in health centres which lead to ineffective utilization of health centre resources (Melville, 1993).

Health centres should be strengthened to provide adequate 2nd level care that includes patient follow up. This leads to a far more rational use of resources throughout the health service (Anand *et al.*, 1993).

2.3 Referral procedure from 1st and 2nd levels of PHC facilities

There are major problems in classifications of health facilities in the ministry of public health and ministry of medical services. Example, a health centre is defined as a facility with beds, a clinical officer (or a doctor) and a laboratory. The majority of the government health centers follow this pattern although approximately 20 percent do not. The average Health Centre has 17 staff with an average of 10 beds and 6 nurses. Dispensaries are staffed with enrolled community nurse and a subordinate staff (Ministry of Health, 2006).

The effectiveness of referral systems depends on many factors including self-referral, the degree of differentiation in the medical-technical performances of the hospital at various levels, the effectiveness of the operational arrangement of the referral system and the population willingness to use lower level facilities as a point of entry into the health system. Patients should be treated at the appropriate level to improve access to health services and make optional use of available human resources (Walter *et al.*, 2001).

Hospital activities must be organized in such a way as to strengthen health centres instead of becoming an obstacle to their development by competing for the first contacts. A proper referral pattern must be put into effect, not merely for bureaucratic reasons, or to diminish workload, but to strengthen the 1st contact level. This means that hospitals see only referred patients and that its

direct access outpatient is closed down (PCI, 1998). In Sudan, a hospital was built to take care of referred patients only, while Primary Health Care would be offered by the existing health centres in the town (Larbergher *et al.*, 1999).

The starting point for re-orientating a hospital towards a role supportive of Primary Health Care is often the frustration of the physicians themselves with the irrational utilization of their hospital services. Carefully chosen health system on readily available data with explicit reference to a district model may be crucial. This may give enough intellectual strength to the district team to resist the pressure for an irrational response and to opt for a proper articulation of the hospital with the first contact level (Mutonya *et al.*, 1987).

The long-term policy of the district is to be the source of strength of health centres not only for overall decisions but for daily operations to confirm this support. According to Bridgman (1988) the support should touch on the allocation of resources, regular supplies, the delegation of certain functions and responsibilities from the district to the health centre workers, a supportive form of supervision and organized referral system. In fact, the dynamic interaction between district and the rest of the lower system should be characterized in terms of flow (Benet *et al.*, 1986). A long with making referrals more systematic, it is important to strengthen services at the health centres (Martin, 1994).

The system of back referral gives the opportunity to physicians to be able to follow up their patients. A proper referral system prevents both over and under utilization of the health facilities (Aitken, 1991).

It is of crucial importance to establish clear policies outlining what should be the desired situation as regards services to be delivered by Primary Health Care systems. A revision of present concepts is essential such as what situations pose potential health problems and what should be done at primary, secondary and tertiary levels. For example, vaccination is a Primary Health Care task and heart surgery is a highly specialized hospital task (Mahler, 1985).

The use of referral systems between primary and secondary care improves access to health services. The use of referral network is not limited to speeding up the information flow between health centres and hospital outpatient department only but also to higher level policy makers at the Ministry of Health for necessary policy formulation (Wooton *et al.*, 2003).

A hospital's support to Primary Health Care should be measured by the degree to which it is integrated in the district care system. The best support for Primary Health Care that a hospital can give is to fulfill its role as a referral unit for the health centre network (Malcon, 1994).

In Vietnam, statistics show that 37% of hospital consultations were self referred and 71% were consultations for common diseases that could have been taken care of at the health station level. The health stations were under utilized and the reasons given for this bypassing were that consultations at the hospitals were done by doctors. Health centres were not trusted and there was no difference in price (WHO, 1992).

The support given particularly by hospitals to the objective of attaining the best possible organization of the local health care system, to which they belong, may be measured through the

proportion of patients who are referred back to the first level of care with appropriate feedback information (Mutonya *et al.*, 1994).

Health centres, as agents of Primary Health Care, are expected to provide coverage of the total population. They must also promote health in the surrounding area by endeavoring, through effective inter-sectoral cooperation and community involvement, to improve the various components in terms of promotive, preventive and curative health delivery (WHO, 1992).

The health centre is theoretically and institutionally required to be functioning as the primary referral health facility linked with both the dispensary below and the district hospital at the higher level, as well as providing more extensive Primary Health Care to local people. Yet, most health centres in western part of Kenya generally had the same problems as those of dispensaries, such as shortage of staff, poor quality of health services, weak outreach activities, misuse and leakage of drugs and cold chain problems. Due to these constraints, the health centres are functioning worse than expected. The deficiency of basic functions of health centre is concomitant with poor health infrastructure. It was often observed that health centre in western Kenya did not have enough water supplies to provide health services for delivery, laboratory, utilization, as well as cooking and cleaning, which greatly limited its functioning (JICA, 1998).

In every District in western Kenya, there is a government District Hospital which serves as the referral centre for the District. In addition, all districts have the government health centres that offer preventive, curative and promotive services and have inpatient services for normal deliveries and acutely ill patients, most of whom are referred to the district hospital. Basic curative services are offered in all health facilities but most cases, the availability of services, including preventive services depends upon staff, equipment and supplies (JICA, 1998).

2.4 Referral organization: Referral order from 2nd to 3rd levels

Lack of organization in the patient referral system creates excessive patient load in District Hospitals. The Punjab Health System Corporation (PHSC) was set up as part of a World Bank project in 1995 to revamp the delivery of the secondary level government health care system in Nigeria which greatly limited patients accessing district hospitals without referral (Walter *et al.*, 2001).

Accordingly, hospitals should communicate with the health centres that refer patients and give them instructions for follow up. This two-way referral will primarily benefit patients and will also reduce congestion in hospitals (Mutonya *et al.*, 1987). In fact, the intention of decentralization policy is to enable the community to participate effectively in decision-making processes related to matters of health at the community level, as well as at the interface between level I, 2 and 3 of PHC. There is, thus, a need to establish effective linkages between the community and the health system (Ministry of Health, 2006).

In Bangkok, changes in the referral system have been introduced to improve the co-ordination of health services, in particular to relieve congestion in hospital outpatient departments and to provide more appropriate and accessible health care. Communities have established some 800 mini-health centres which are equipped to provide health education and promote disease prevention and other primary medical services Mutonya *et al.*, (1994). These are run by volunteers, while supervision and training are done by medical staff from health centres and hospitals. Cases that cannot be dealt with by these centres are referred to health centres and if necessary from there to hospitals, through a special green channel to reduce waiting time.

Mechanisms for feedback from hospitals to the health centres and from health centres to the mini-health centres are also in place Mutonya *et al.*, (1994).

Where fragmentation of patients care is to be avoided, the general practitioner must remain the focus of referral from primary to secondary care. People are vulnerable when ill and may not have enough information to select the most appropriate services. The erosion of the referral system may slow the development of specialized medicine and make it less effective, efficient and innovative (Sweeny, 1994).

Except in the case of accidents and emergencies and certain conditions such as venereal diseases for which direct access to hospital is allowed, it is a normal practice for a general practitioner to see the patient first and to refer if he/she finds it necessary (Pitchard, 1978).

To ensure a viable referral system and good communication between the health centre and the hospital, the teams of both facilities should hold regular joint consultative meetings. There is need for studies on such important aspects of health centres as coverage and quality health centres and hospital outpatient department only and also to higher level policy makers at the Ministry of Health for necessary policy formulation (Wooton *et al.*, 2003).

If the role of health centres in the district health system cannot be clearly articulated, the entire system will remain confused. Three elements need to be considered: referral and support network; step-ups in care; and relationship with district hospital (Broomberg *et al.*, 1993).

A referral network can only function if the skills and services available at the next tier within the district are markedly better than the tier below. Too often, this is not the case i.e. the intended first level is not seen, by the client, as offering a satisfactory level of care. The client then bypasses this level, usually to queue at an already overfull hospital outpatient departments, but where she or he is confident of seeing a doctor (WHO, 1988).

The ministry of health in Indonesia has facilitated accessibility and availability of health care services, especially in rural areas, by developing operational linkages between health facilities at different levels. Ministry has emphasized a functioning referral system as a key strategy in increasing equity in allocation of health resources (WHO, 1994).

Irrespective of the level of origin, or organization base, for health activities, the health centre has the capacity to function as an “end point integrator” of health services and activities to avoid unnecessary duplication of efforts and inefficient use of resources (WHO, 1992).

2.5 Quality of Service at PHC facilities.

The structure of a health centre should follow national guidelines, taking into account services to be provided, staffing, and availability of resources. The design of a facility can improve or impair the acceptability of the centre. When organizing space, it is useful for District Health Management team (DHMT) to start by asking simple questions like: what work is to be done here? Could this place be arranged in another way that would help the work and suit the patient better? (Massele *et al.*, 1994).

In fact, the current training of health centre care personnel in many countries does not include teaching staff on how to establish good public relations with members of community they serve. Yet, the success or failures of a health centre mostly depends on this very ability (Mills, 1990).

Bypassing observed in Iringa Rural District in Tanzania in the year 2002 shows the understanding of various measurement of quality by patients at facilities that they visited and bypassed. Conditional regression on patient choice of provider showed the relationship between patient behavior and objective measures of technical quality in the health facilities (Keneth, 2002). The referral system contributes to high standard of care, by permitting medical personnel to have an efficient division of task to develop and allow practitioners acquire special knowledge and by containing the cost of medical care (Sweeny, 1994).

Priority setting should be driven mainly by the objective to achieve equity in health and outcomes. Decentralization is likely to be advantageous in most health systems although exact forms should be selected with care and implementation should be phased in after adequate preparation (Lee *et al.*, 2003).

It was observed in Ghana that the health centres did not have enough water supplies to provide health services for delivering laboratory sterilization, as well as cooking and cleaning which greatly limited their functioning. Lack of strengthening of Health Centres is seen also to increase the congestion of district hospitals and worsen the referral system (PCI, 1998).

It is essential that an adequate quantity of the most essential drugs be available at reasonable cost in rural areas. A list of such drugs must be prepared and updated at frequent intervals. The rural

health centres should get regular supplies from the District Hospitals. The Dispensaries should get their supplies from the Health Centers. The Dispensaries on a regular basis should supply the village health posts. (Mhonoli, 1986).

The major concern in Tanzania's health services has been to ensure availability of safe and effective drugs of acceptable quality. This was followed by introduction of essential lists based on level of health care and disease patterns. The mean drug exposure was 2.4, 2.1, and 1.9 for Hospitals, Health Centres and Dispensaries respectively. The higher drug exposure in hospitals and health centres (2.4 and 2.1) was due to different disease patterns of patients in these facilities compared to Dispensaries (Massele *et al.*, 1994).

Patients have paid substantial amounts to obtain incomplete or substandard services. For example, transport to and from clinics, for admission, for child delivery, and sometimes irregular payments to staff to facilitate access to valuable services and scarce resources (Osuga *et al.*, 1993).

It can be seen that the facilities most seriously affected by the shortage of staff in western Kenya are the health centres and dispensaries. Only half of the health centres have even one clinical officer. The average number of enrolled community nurse as per dispensary is less than two. Patients care was sometimes seen to be administered by unqualified staff due to the unavailability of trained staff (JICA, 1998).

To improve the health services provided at various levels in the health system, we must focus on the role of health centres. Improving the quality of health services provided by health centres, will increase the utilization of facilities by patients and reduce by-passing to hospitals, thus

reducing congestion of hospitals. Health centres can be strengthened to directly supervise the community activities in health promotion, and to supervise and strengthen the role of dispensaries in this regard (Larberger *et al.*, 1990).

Congestion of district hospitals is one of the most serious problems which directly affect quality of services. It is common that two or three patients share the same bed, and the study done in western Kenya revealed that patients are even lying on the floor. The congestion is most severe at Kisii District Hospital, especially during malaria seasons. The congestion problem is thought to be interrelated with factors like poor functioning of health centres at the lower referral levels (JICA, 1998).

The quality of health services at the dispensary level depends on personality of the health staff. In some dispensaries, in western Kenya, it was often observed that no qualified staff was at post during working time. Only one nurse was available and could not get into the community for extended health services, including health education and promotion. There were some cases in which even though a community built its own dispensary with its funds raised through "Harambee," MOH could not staff it at all. So alternatively, would dispatch an unqualified staff, often resulting in poor services (JICA, 1998).

The main problem facing the delivery of rural health services continues to be the standard of services provided at the facilities, due to constraints in the budget. Funds allocated for drugs supplies and fuel and the maintenance of equipment, buildings and vehicles, are inadequate. While numbers and patterns of staffing have improved considerably since 1970, the Ministry of Health is now confronted with a situation where buildings and staff may lie idle because of lack

of funds to run the facilities. This problem is aggravated by low morale of staff resulting in a further deterioration of the quality of services provided (Ministry of Health, 2006).

All health related facilities within the district need a clear relationship with each other. Most commonly, district health system consists of a combination of health centres and dispensaries. These facilities should be networked to each other from the most basic to those centres offering the most comprehensive service, with an objective of creating a referral network that operates throughout the district (Wagstaff *et al.*, 1992).

The health centre management structure which allows members of the community to participate in decision making has an important role to play. Joint problem identification by health workers and community members can lead to productive joint action. This allows community capacity to be harnessed to health problems, like transport and referral problems (WHO, 1994). The basis for all health centre activities should be an understanding of health needs of the population in the catchments area. Integral to this principle that the health centre carries responsibility in partnership with the community concerned, for the health of that particular community. This perspective will profoundly affect the long term successes of the District Health System (WHO, 1988).

In Cairo, the monthly supply of drugs lasted only for one week (Massele *et al.*, 1994). Since demand for drugs for the Health Centres were double those of hospitals, patients were highly dissatisfied at not receiving all the drugs they required. The Ministry of Health supplied the same drugs to all Health Centres without ascertaining local needs. As a result, some of the drugs were not used (Malcolm, 1994).

2.6 Clients perception towards health workers

Health workers are the cornerstone of a functioning health system. Chronic under-funding of health systems in developing countries like Sudan has led to the current health workers crises which has lead to dissatisfaction of health services offered at both dispensaries and health centres (Kharal, 2006).

The training and development of health personnel must be determined by the role they will play in the health centre. For the health centre to play the pivotal role that is envisaged, careful attention to their staffing needs is essential (WHO, 1992).

Patients seek facilities that provide high quality consultation, and prescriptions, are staffed by more knowledgeable physicians and are better stocked with basic supplies. Furthermore, the patterns differ significantly by illness conditions and show evidence that patients understand the relative importance of these qualities for the condition from which they suffer (Kenneth, 2002).

A study in the coast region of Tanzania found that patients were generally satisfied with services but complained mainly of lack of drugs in public dispensaries (Ahmed *et al.*, 1996). Health centres and dispensaries in Tanzania, have struggled to maintain fiscal viability in a market environment characterized by declining patient volume and revenues (Kenneth, 2000). They have not generally adopted specialized services and advanced technologies due to fiscal problems. Consequently, rural residents are often referred to urban hospitals for specialized care. Nearly one third of rural medicare beneficiaries in Tanzania who were hospitalized in 1989 ‘bypassed’ their local rural hospital in favor of admission to an urban hospital (Tai *et al.*, 1995).

CHAPTER THREE: MATERIALS AND METHODS

3.1 Research design

This is a descriptive cross sectional survey design. The design is justified as it will capture information on the factors contributing to patients bypassing 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District as it has occurred.

3.2 Study Area

The study was conducted in Kerugoya District hospital, Kirinyaga district (Appendix ii). The district covers a total of 1,478km square, which is 11.2 percent and 0.3 percent of Central Province and Kenya's total area respectively. According to 1999 census report, Kirinyaga district has a population of 499,818. The district has an equatorial type of climate with long rains averaging 710mm and short rains 640mm.

The District has four administrative Divisions namely Gichugu, Ndia, Mwea and Central. Central division is the most densely populated with 794 persons per square Km, followed by Gichugu with 554 persons per Km square, while the least densely populated division is Mwea with 257 persons per Km square.

The District has annual crude death rate of 10/1000, infant mortality rate of 72/1000 and immunization coverage of 60%. The district has 2 GOK hospitals, 1 rural demonstration hospital, 3 health centres and 23 dispensaries. (Kirinyaga District Development Plan, 2002-2008). The rationale behind the selection of Kerugoya district hospital for the study is that the hospital is the main referral centre in the district. Importantly, this makes it easy to explore and understand the factors that contribute to patients bypassing 2nd and 3rd levels of PHC facilities in the area.

3.3 Target population

The study targeted all people coming from Kirinyaga District. According to 1999 population census report, Kirinyaga district has a population of 499, 818 people.

3.4 Study population

The study population is comprised of all adults aged 18 years and above attending both outpatient and family planning department of Kerugoya District Hospital from all the four divisions of Kirinyaga district namely, Central, Gichigu, Ndia and Mwea.

3.5 Inclusion criteria

The study included all patients aged 18 years and above attending outpatient and family planning departments in Kerugoya District Hospital, the main referral hospital and those who consented to the study.

3.6 Exclusion criteria

The study excluded all the patients attending Kerugoya District Hospital for PHC services coming from outside the district and those below 18 years. Those coming from within 3Km radius of central division, those who needed emergency attention and those who did not consent to the study were also excluded.

3.7 Sampling procedure.

Central province was conveniently selected while simple random sampling was used to select kirinyaga district as the study area. Systematic sampling was used to select the study respondents. The respondents were captured as they registered in both family planning and outpatient departments in Kerugoya District hospital. Focus group discussion constituted of youth aged between 18-30 years, young mothers and middle aged men. 10 respondents in each group

were randomly selected. They sat at a semi-circle and questions were asked for discussion.

Response were recorded.

3.8 Sample Size

A sample size was obtained using the formula as used by Fisher *et al* (1990).

$$n = \frac{z^2 pq}{d^2}$$

n = Desired sample size (population > 10,000).

z = Standard normal deviation at the required confidence level (set at 1.96).

p = 0.5 as the preference is unknown,

q = 1 – p = 0.5, d = level of statistical significance (usually 0.05)

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 384.16 \text{ minimum of } 385 \text{ respondents}$$

3.9 Data Collection

Structured interview schedules, focus group discussion and in-depth interviews were used as data collection methods. The data collection assistants were trained on how to fill the interview schedule. The research tool was pre-tested at Kimbimbi Sub-District hospital before the data collection. The respondents were interviewed in both the outpatient and family planning departments of Kerugoya District Hospital. Focus group discussion constituted of Youth aged between 18-30 years, young mothers and middle aged men.

3.10 Ethical considerations

Permission was obtained from Kenyatta University, Ministry of Education Science and Technology, Provincial Administration and Ministry of Health. Consent was also obtained from respondents and interview was treated with confidentiality.

3.11 Data Analysis.

Data were processed using Statistical Package for social Sciences (SPSS), version 11.0. The results were presented using descriptive and inferential statistics. Chi-square was used to test the relationship between categorical variables and bypassing of PHC facilities.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1 Demographic characteristic of the study population

4.1.1 Gender.

Majority of the respondents were females (68.2%). This finding could probably be explained by the fact that women are the custodians of family welfare and are the ones who mostly take family members including children to hospital and attend family planning clinics.

Results also reveal that two hundred and eighty (73.7%) respondents had visited their nearest local facilities before, while one hundred (26.3%) had not. This may be that most of the people had at least visited their nearest health care facility probably due to its convenience. However, the study tested the relationship between sex and visit to local health care facilities to ascertain who between the males and females visit local facilities more than the other.

Findings show that there was a statistically significant relationship between sex of respondents and visiting local facility. ($\chi^2=9.6$; $df=1$, $p=0.001$). Results reveal that females seek Health Care services more than men.

4.1.2 Age.

Results in Figure 4.1 show that two hundred and eleven (54.5%) of respondents were aged 15-30 while only 10 respondents (2.6%) were over 62 years old. There was a statistically significant relationship between age of the respondents and visiting district hospital instead of local facility ($\chi^2 =30.1$; $df =12$ $p=0.003$). This shows that young people seek medical attention from district hospital more than they do to local PHC facilities. This age variation may be explained by the fact that young people are mobile than the old in search for job opportunities.

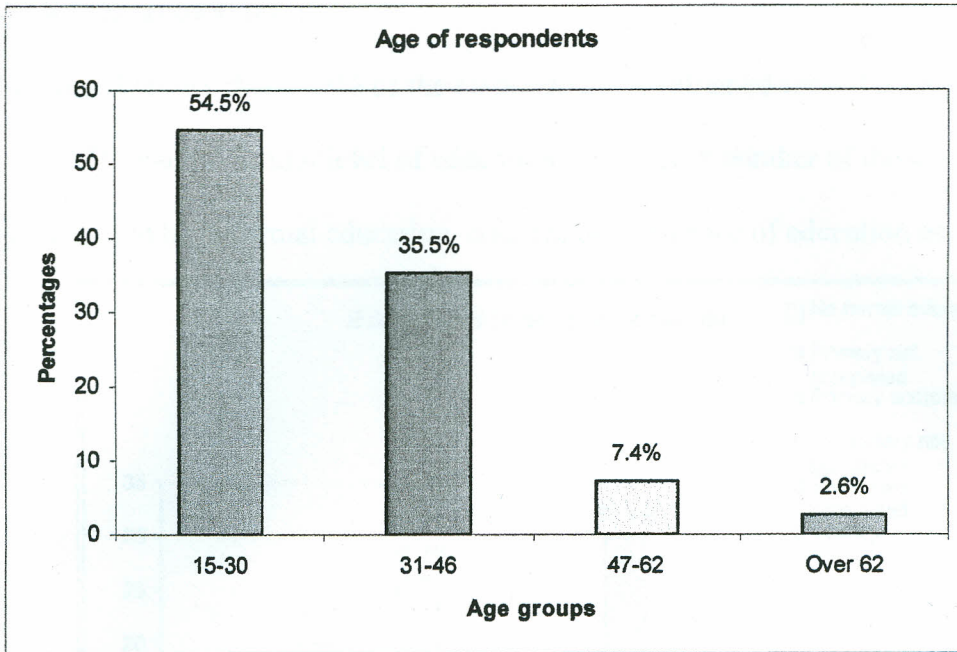


Figure 4.1: Age distribution of respondents

4.1.3 Occupation.

Figure 1.3 shows that seventy-four (44.7%) of the respondents were unemployed while six (2.8%) had other type of occupations such as hawking.

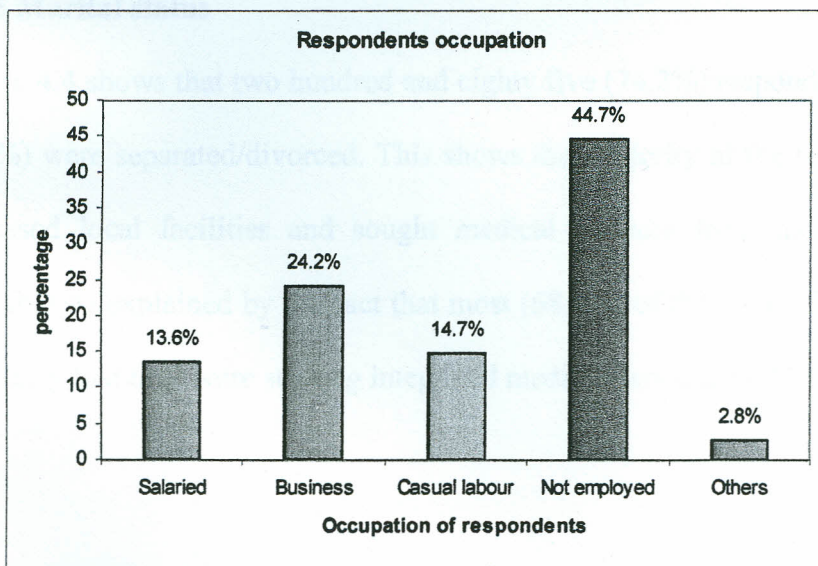


Figure 4.2: Respondents occupation

4.1.4 Educational level

Figure 4.3 shows that 29.8% of the respondents had attained secondary level of education, while only 9.3% had no formal level of education. The higher number of those who seek medical services and have formal education, confirm the influence of education on people's health status

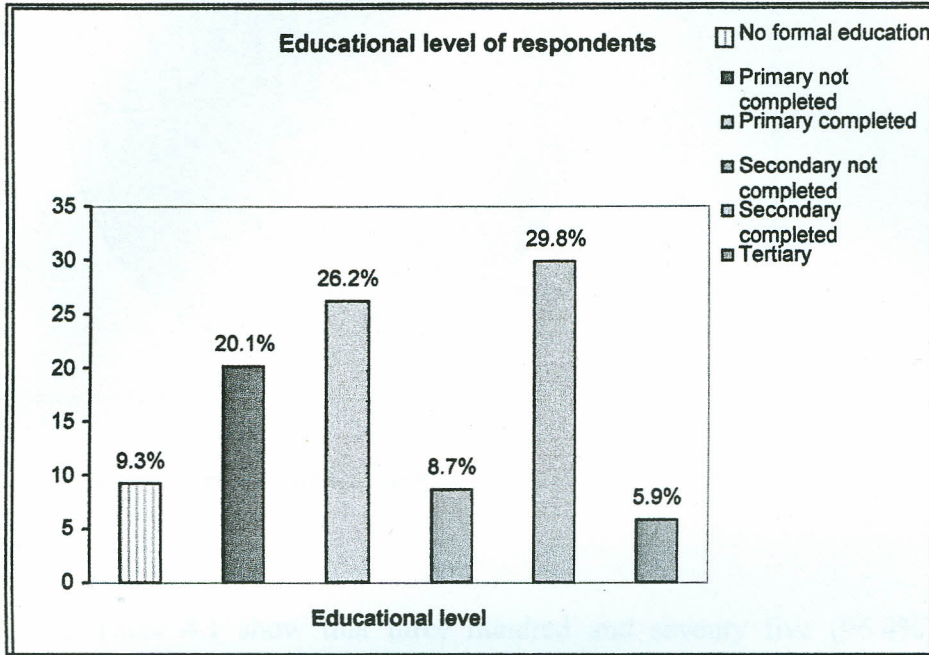


Figure 4.3: Educational level of respondents

4.1.5 Marital status

Figure 4.4 shows that two hundred and eighty five (74.2%) respondents were married, while five (1.7%) were separated/divorced. This shows that majority of the respondents who were married bypassed local facilities and sought medical services from the district hospital. This may probably be explained by the fact that most (68.2%) of the respondents were females and hence it's likely that they were seeking integrated medical services for themselves and their children.

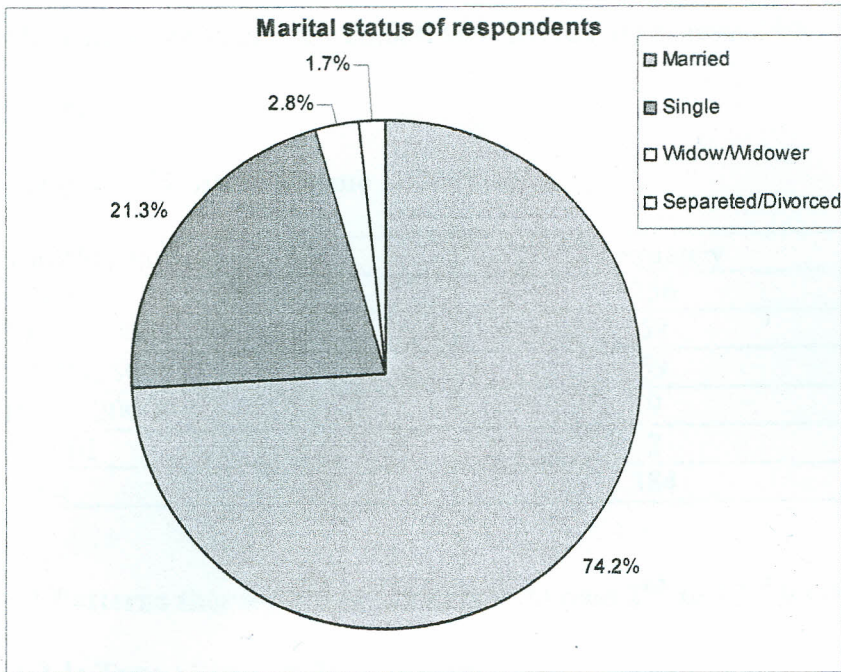


Figure 4.4: Marital status of the respondents

4.1.6 Religious affiliation

Results in Table 4.1 show that three hundred and seventy five (96.4%) respondents were Christians, while only eight (2.1%) were Muslims.

Table 4.1: Religious affiliation of respondents

Religious affiliations	Frequency	Percentage
Christians	375	96.4
Muslims	8	2.1
Other religions	1	1.5
Total	384	100

4.1.7 Respondents income level

Table 4.2 reveals that two hundred and fifty six of the respondents (66.7%) earned less than Kshs 5,000, while only (0.5%) earned above Kshs 20,000. These figures indicate that majority of people within the research area earn less than ksh 5,000. This implies that it is not only those

who earn more than Kshs 20,000 who bypass lower level PHC facilities but also those with low income.

Table 4.2: Monthly income

Monthly income	Frequency	Percentage
≤ 5000	256	66.7
5001-10000	58	15.1
10001-15000	59	15.4
15001-20000	9	2.3
≥20001	2	0.5
Total	384	100

4.2 Patterns that influence patients to bypass 2nd and 3rd levels of PHC facilities

4.2.1: Type of road to local facility

Figure 4.5 shows that one hundred and eighty (46.3%) of the respondents reported that the roads used to the local facilities were earth roads, while only (8.7%) reported that they used tarmacked roads. Both young mothers and middle aged men also reported that there was lack of means to the local facilities due to poor road network.

Figure 4.5: Type of road to the local health facility

4.2.2 Fare to local facility

Figure 1.7 reveals that one hundred and fifty (38.6%) respondents did not use fare to the local facility, while only sixty three (17.4%) used more than Kshs 40. This finding indicates that majority of the patients use less than Kshs 40 to access their local facilities.

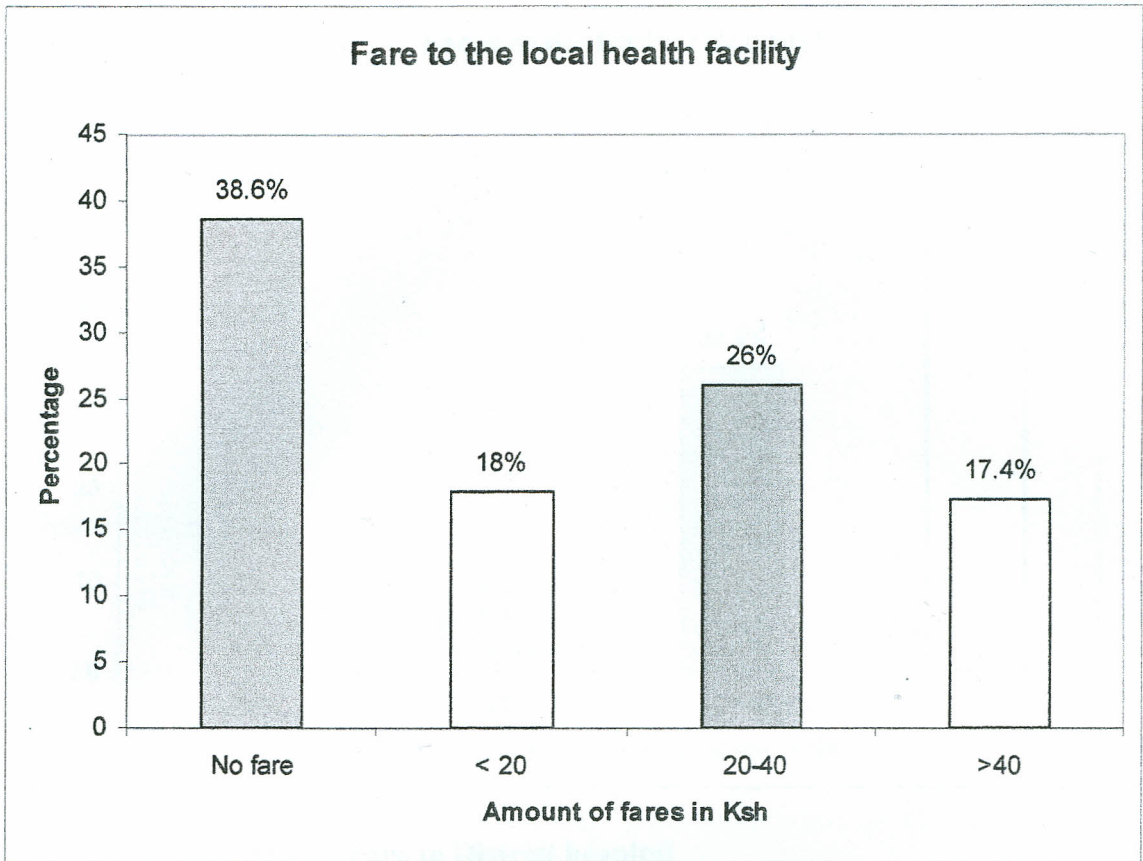


Figure 4.6: Fare to local health facility

4.2.3 Fare to District Hospital

Figure 4.6 shows that only twenty five (6.4%) of respondents did not use fare to Kerugoya District Hospital, while two hundred and four (53.8%) used more than Kshs 40. This is a clear indication that most of the people in Kirinyaga district did not mind using more money to visit the district hospital. .

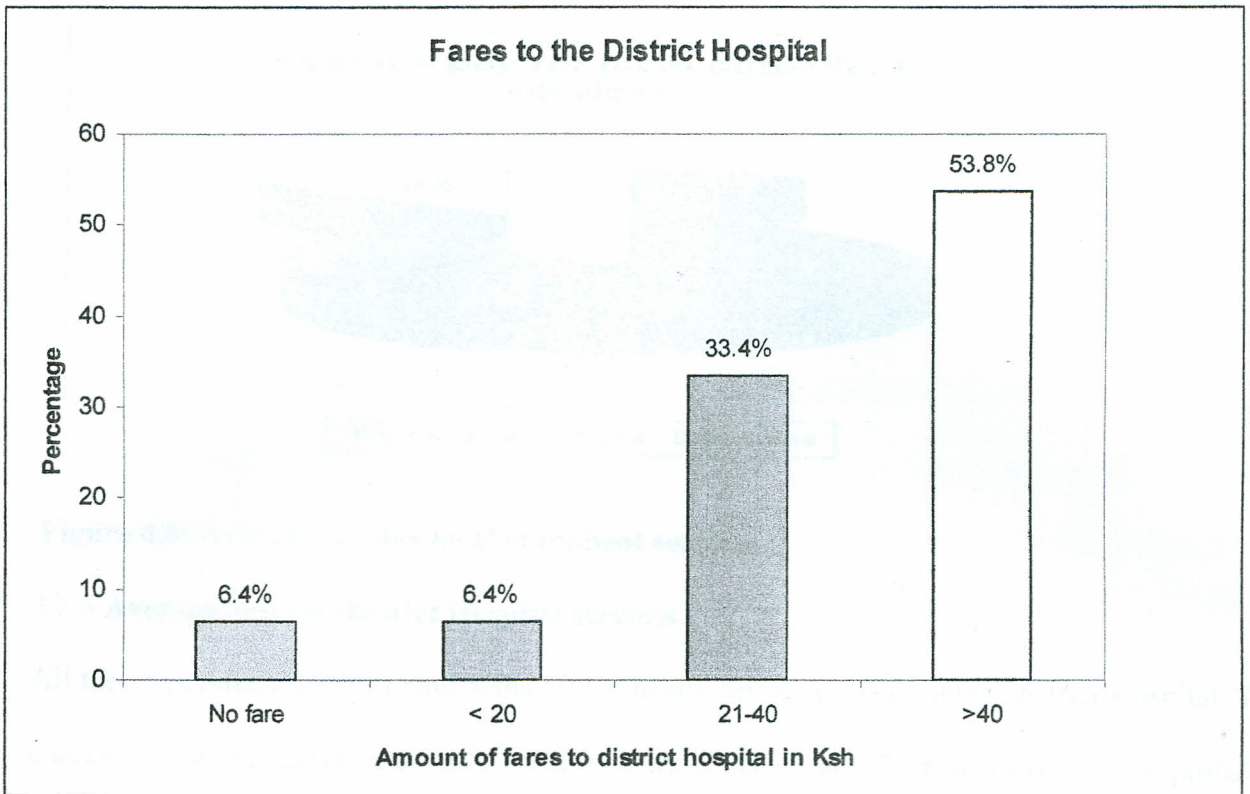


Figure 4.7: Fare to District hospital

4.2.4 Average pay for local outpatient services

Figure 4.7 shows that two hundred and ninety six (77 %) of the respondents paid Kshs 10.00 for out-patient services, while only fifty-three (14%) paid Kshs 20. This implies that payment for services in the local facilities is minimal. This finding confirms the reason why most (55%) people visited the district hospital for treatment as they could afford the services offered in the facility.

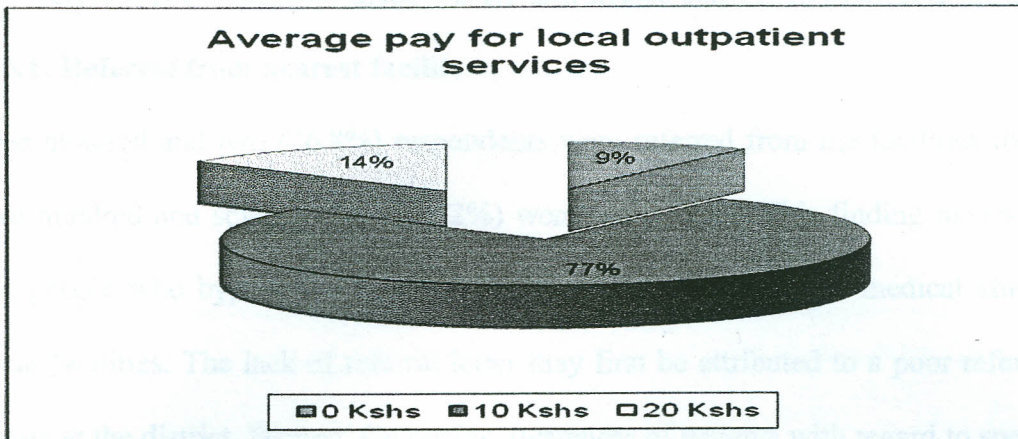


Figure 4.8: Average pay for local outpatient services

4.2.5 Average pay for District Hospital services

All the respondents (100%) paid Kshs 50 for health services at Kerugoya District Hospital. The charges for dispensaries and health centres were Kshs 10 and 20 respectively. This probably creates opportunity for patients to seek health services from the district hospital due to the minimal user charge difference between the district hospital and local PHC facilities in the area. It can also be possible that the higher charges at Kerugoya are perceived by the patients as a proxy measure of quality of services.

4.2.6: Operation at night hours

One hundred and four (27.2%) of the studied patients visited facilities that operated at night, while two hundred and seventy nine (72.8%) visited facilities that did not operate at night. During group discussion, young mothers also reported that their nearest dispensaries do not operate during night hours. The over one quarter (27.2 %) of the patients who had made night visits probably provide one of the reasons why people opt to seek services from the district hospital, which offers services on a 24 hour basis.

4.3 Referral protocol from dispensaries and health centres to district hospital

4.3.1: Referral from nearest facility

One hundred and two (26.8%) respondents were referred from the facilities they visited, while two hundred and seventy eight (73.2%) were not referred. This finding means that majority of the people who bypassed 2nd and 3rd levels of PHC did not seek medical attention from their local facilities. The lack of referral letter may first be attributed to a poor referral protocol that exists at the district. Second, the raising awareness of patients with regard to specialized services and quality of staff and diagnosis available at the district hospital compared to the local facilities.

4.3.2: Reasons for respondents not producing referral letters.

Table 4.3 reveals that three hundred and forty (88.5%) respondents said that they did not pass through their nearest facilities, while thirty eight (9.8%) were not given referral letters. Both young mothers and middle aged males reported that dispensaries and health centre personnel were not issuing referral letters.

Table 4.3: Reasons for respondents not producing referral letters

Reasons for patients not producing referral letters	Frequency	Percentage
Did not pass through the health facility	340	88.5
Was not given	38	9.8
Others	6	1.6
Total	384	100

4.3.3: Duration taken after the last visit to the local facility.

Figure 4.8 indicates that (13%) of the respondents visited their local facility less than a month before the study, while (66%) visited their local facility more than two months before the study.

The later results imply that majority of the people do not frequently seek medical attention from

the 2nd and 3rd levels of PHC facilities. This may be so because they do not fall sick most often and/or bypass them to the district hospital at Kerugoya whenever sickness strikes. This finding may explain why there were more patients at Kerugoya District hospital seeking treatment without referral letters during the time of the study.

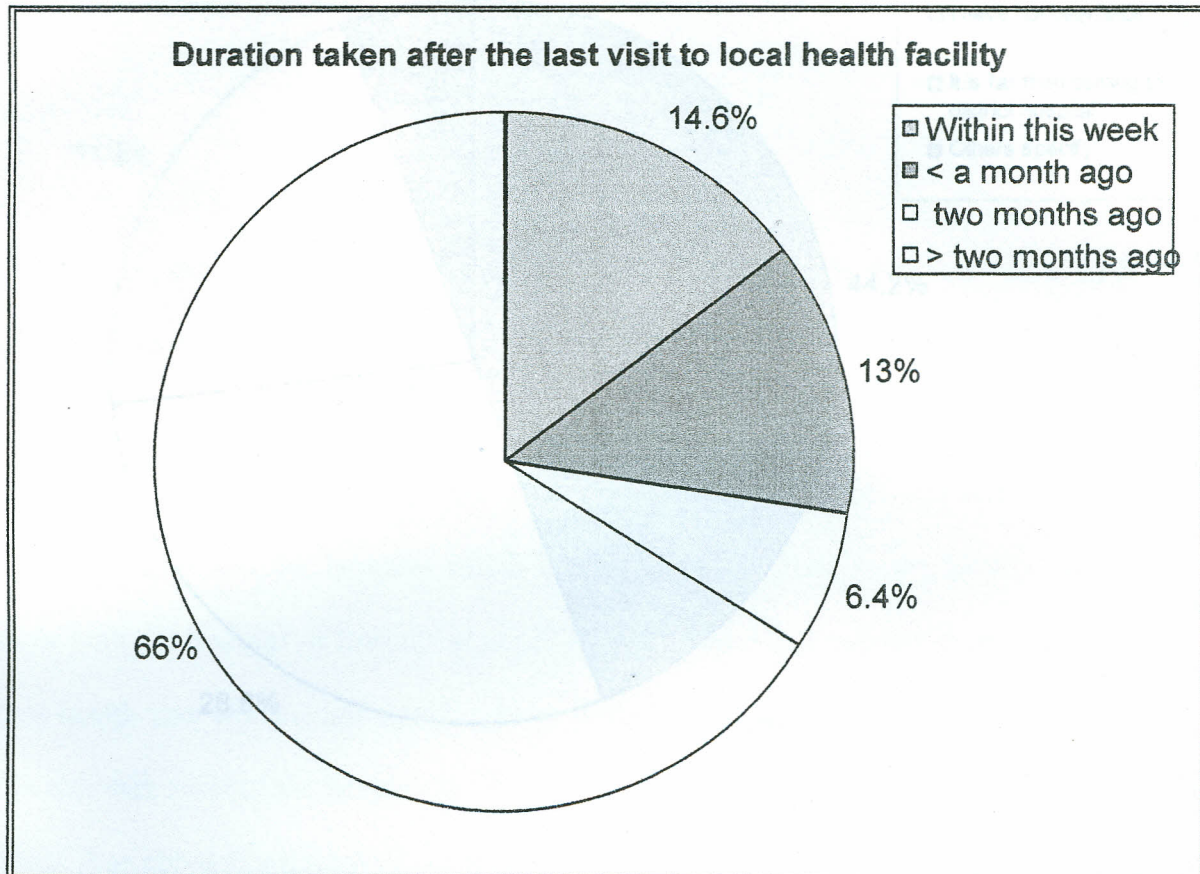


Figure 4.9: Duration taken after the last visit to the local facility.

4.3.4: Reasons for not visiting local facilities

Figure 4.9 depicts that forty-seven (44.2%) of the informants reported that staff members were not friendly, while seven (6.5%) respondents had other reasons like visiting private clinics. This shows that most (44.2%) of the patients bypassed 2nd and 3rd levels of PHC facilities due to poor

staff-patient relationship. Where staffs are friendly and cordial, patients feel relaxed and confident that their medical needs are being handled competently.

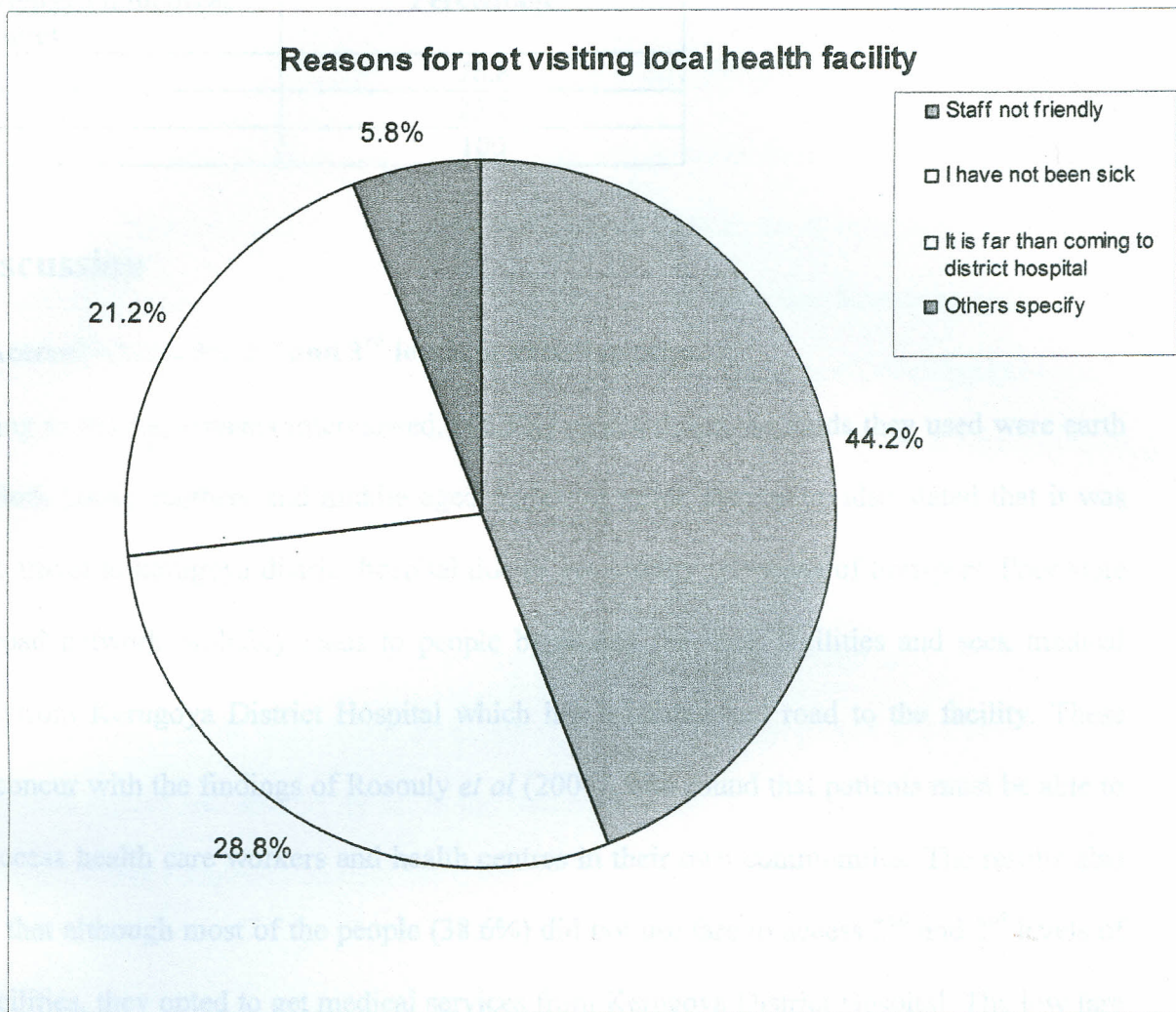


Figure 4.10: Reason for not visiting local facility

4.4 Clients perception towards health workers in 2nd and 3rd levels of PHC facilities.

4.4.1: Knowledge of medical personnel who offered previous services

Table 4.4 shows that two hundred and fifty (84.5%) informants knew who attended them in their last visit to the health care facility, while forty six (15.5%) didn't know. The findings reveal that most (84.5%) patients knew the title of medical personnel who served them in the last facility they visited.

Table 4.4: Knowledge on who offered previous services

Knowledge on medical personnel	Percentage
Yes	76.8
No	23.2
Total	100

4.5 Discussion

4.5.1: Accessibility to the 2nd and 3rd levels of PHC facilities.

According to the respondents interviewed, (46.3%) reported that the roads they used were earth roads. Both young mothers and middle aged males on group discussion also stated that it was easier to travel to kerugoya district hospital due to availability of means of transport. Poor state of the road network probably leads to people bypassing the local facilities and seek medical services from Kerugoya District Hospital which has a tammacked road to the facility. These results concur with the findings of Rosouly *et al* (2004), who found that patients must be able to easily access health care workers and health centres in their own communities. The results also showed that although most of the people (38.6%) did not use fare to access 2nd and 3rd levels of PHC facilities, they opted to get medical services from Kerugoya District Hospital. The low fare used to access Kerugoya District Hospital probably explains why patients bypass these facilities as they can afford to do so. The easy access to district hospital also probably explains why patients bypass 2nd and 3rd level PHC facilities.

Results show that two hundred and eleven (54.5%) of respondents were aged 18-30 while only 10 respondents (2.6%) were over 62 years old. This age variation may be explained by the fact that young people are more mobile than the old in search for job opportunities. Indeed, most of

them move to the District headquarters, where most district hospitals are located, in search of jobs making the district hospital more accessible to them due to their nearness to such facilities.

Most of the respondents interviewed, (72.8%) reported that 2nd and 3rd level facilities do not operate at night. Young mothers also reported that dispensaries do not operate during night hours. The 27.2 % of the patients who had made night visits to the district hospital probably provide one of the reasons why people opt to seek services from the district hospital, which offers services at night. The limited hours of operation hinders utilization of local facilities where patients seek assistance from district hospital which operates during the day and at night. Similar findings were found by Tai *et al.*, (1995), which reported that nearly a third of rural medicine beneficiaries in Tanzania who were hospitalized in 1989 bypassed their local hospitals in favour of admission in urban hospitals due to the feeling that services are better and staff are available at all times. The same results were found by Evans *et al.*, (1981) who reported that a strong health centre related system can effectively act as the first contact for an optimal use of health services (gate keeper) where competent clinical and other health related activities are provided.

Majority of the respondents, (68.%) visiting Kerugoya district hospital were females and it is likely that they were seeking integrated medical services for themselves and their children as well as shopping during market days.

4.5.2: Referral criteria from dispensaries and health centers to the district hospital.

The study showed that 73.2% of respondents were not referred from their nearest facilities. The study also showed that 96.1% did not pass through the nearest facility but went direct to the district hospital. This finding means that majority of the people who bypassed 2nd and 3rd levels

of PHC facilities did not seek medical attention from their local facilities. Similar findings were reported by WHO (2000) that a referral network can only function if the skills and services available at the next tier within the district are markedly better than the tier below. Too often, this is not the case intended because first referral level is not seen by the client as offering a satisfactory level of care. The client then bypasses this level, usually to queue at an already full hospital outpatient department, where he or she is confident of seeing a doctor. This problem may, first, be attributed to a poor referral protocol that exists at the district. Second, the raising awareness of patients with regards to specialized services and quality of staff and diagnosis available at the district hospital compared to local facilities may explain this trend.

Majority of the respondents, (88.5%) said that they did not pass through their nearest facilities while, thirty eight (9.8%) were not given referral letters. Also (Broomberg *et al.*, 1993) reported similar results that if the role of health centres in the district health system cannot be articulated, their role in the entire system will remain confused. Three systems need to be considered: referral and support network; step up in care; and relationship with district hospital. The results show that community members ignore the referral protocol of PHC services. Both the group discussions for young mothers and middle aged males reported that most of the dispensaries and health centres do not issue referral letters. This finding is also encouraged by medical personnel in these facilities in that they were found not to be keen in issuing official referral documents. When health centres are bypassed, treatment for simple ailments and the cost of care rise dramatically. This is because the unit cost is higher in hospitals than in health centres which lead to ineffective utilization of health centre resources.

Bypassing the local facilities overload the district hospital with non-referred patients and this makes health workers at this level to have no time left for more serious cases. However, this may be a clear indication that people are not satisfied with the services being rendered at local facilities and opt to seek attention from higher level facilities. This finding supports that of (John *et al.*, (2003) who says that patients having direct access to the district hospital undermine the philosophy of integrated health care by means of referral system. Primary Health Care should be sustained by integrated functional and mutually supportive referral systems, leading to progressive improvement of comprehensive care for all. In addition, (Benet *et al.*, 1986) had similar findings that the dynamic interaction between the district hospital and the rest of the lower health system should be characterized in terms of flow. Similar results were reported by Pacific Consultant International (1998) when it was reported that lack of strengthening of health centres would also increase the congestion of district hospitals and worsen the referral system.

4.5.3: Patient's perception towards health workers in the 2nd and 3rd levels of PHC facilities.

Results showed that 73.7% of respondents had visited their nearest local facilities before the study. Results also revealed that 44.2% of staff members were not friendly to the patients while offering services. This poor relationship between patients/clients and the members of staff is an indication that patients' attitude towards staff is negative which contribute to patients bypassing local facilities and accessing district hospital directly. Kenneth (2002) found that patients seek facilities that provide high quality consultations and prescriptions and are staffed by more knowledgeable and friendly physicians.

The Study also revealed that 42% of respondents said that district hospital has more qualified staff compared to the rest who gave other reasons. This was also reported by both young mothers and middle aged males on group discussion. They also felt that enough and varieties of drugs were available in district hospitals. This is an indication that more experienced staff members are in the district hospital who can handle most of the diseases and conditions. This is inline with the findings of Kenneth (2002) who reported that patients seek facilities that provide high quality consultations, and prescriptions and are staffed with more knowledgeable physicians. Lack of enough staff in the 2nd and 3rd levels of PHC facilities inconvenience patients as they wait for long in queues. With such kind of experience, patients bypass and seek medical attention from the district hospital. All the three key informants admitted that lack of enough staff like doctors in health centres was a major hindrance in service delivery. They also reported that relevant drugs supply major problem to both dispensaries and health centres. This concurs with the findings of WHO (1992) which stated that the health stations were under utilized and the reasons given for this bypassing were that the consultations at the hospitals were done by the doctors. Health centres were not trusted and there was no difference in price.

Two hundred and four (53.8%) used more than Kshs 40 as fare to travel to the District hospital. This indicates that most of the people in Kirinyaga district did not mind using more money to visit the district hospital. This could probably be explained by the fact that district hospitals offer quality and specialized services than other Public Health Care facilities in the area. Hence patients perceive quality of services offered in these facilities as justified to go for them despite the higher cost of transport to access their services.

Two hundred and fifty four (91.0%) of the respondents did not know the reason why local facilities did not operate at night. This indicates that majority of the people were ignorant of health care facilities operational schedules. This finding implies that they could be bypassing these facilities without knowledge of their hours of operation and also indicates lack of community involvement in their operations. This concurs with the findings of WHO (1998) which stated that health centres, as agents of Primary Health Care, are expected to provide coverage of the total populations. They must also promote health in the surrounding area by endeavoring through effective inter-sectoral collaboration and community involvement, to improve various components in terms of promotive, preventive and curative health delivery.

Patients' knowledge of who attended them during their previous visit may be advantageous based on the quality and services received. Where the quality and services offered by such staff previously is rated favourable by the patients, it improves the likelihood of subsequent visits to the facility once sickness strikes. Similar findings were reported by WHO (1992) that training and development of health personnel must be determined by the role they will play in the health centre. For the health centre to play a pivotal role that is envisaged, careful attention to their staffing needs is essential.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1: Conclusions

Several factors were found to influence patients bypassing the 2nd and 3rd level of PHC facilities. Such factors included the age where 54.5% the respondents were aged between 18-30 years. Similarly, gender seems to be a contributing factor to this phenomenon of bypassing the 2nd and 3rd levels of PHC facilities. It was established that out of all the patients who bypassed the 2nd and 3rd level of PHC facilities, 68.2% were females.

Patients were having direct access to the district hospital due to poor referral protocol. From the study findings, 73.2% of the patients interviewed were not referred from their local health facilities. In addition 9.8% of those interviewed visited their local health facilities but were not issued with referral letters.

With regards to accessibility, roads leading to the Kerugoya District Hospital, are more accessible since they are tarmacked while roads leading to other local facilities are earth roads. This is indicated by 46% of the respondents using earth roads to their local health facilities.

There is a poor health personnel and patients/clients relationship in the 2nd and 3rd levels PHC facilities as reported by 44.2% of the informants that staff members were not friendly.

5.1.1: Recommendations.

Study findings has shown that there is a poor referral protocol from 2nd and 3rd levels of PHC facilities as indicated by 73.2% of those interviewed at Kerugoya District Hospital having not been referred from local facilities. Therefore ministry of medical services needs to formulate an

appropriate referral protocols for efficient use of 2nd and 3rd levels of PHC facilities as well as district hospitals.

According to the study findings, 46% of respondents used earth roads leading to the local health facilities while most major roads leading to district hospital were tarmacked. This needs to be addressed since inaccessibility to local health facilities is a contributing factor to the bypassing of 2nd and 3rd levels of PHC facilities. Therefore there is need for government through ministry of roads and available NGOs to improve the quality of roads leading to local facilities.

From the study results 91% of the respondents did not know why local facilities did not operate at night, while 4.3% argued that it was due to lack of electricity. There is need therefore for DHMT to involve the community in decision making with regards to schedule of operations since the facilities may be operating even at night but many people may not be aware as indicated by the study results. In addition, the ministry of energy should give a priority in putting up power supplies in rural health facilities through rural electrification programme.

As revealed by the study findings, there was a poor relationship between the health workers and their patients attending 2nd and 3rd level of PHC facilities as reported by 44.2% of the informants. The DHMT should address this issue through conducting seminars and refresher courses for the staff working in 2nd and 3rd level of PHC facilities and to enforce the staff code of regulation or take appropriate disciplinary measures against undisciplined officers in order to maintain good relationship between the health workers and their patients/clients.

5.1.2: Recommendations for further research

To find out how the reasons for failure to referral from lower level facilities can be addressed.

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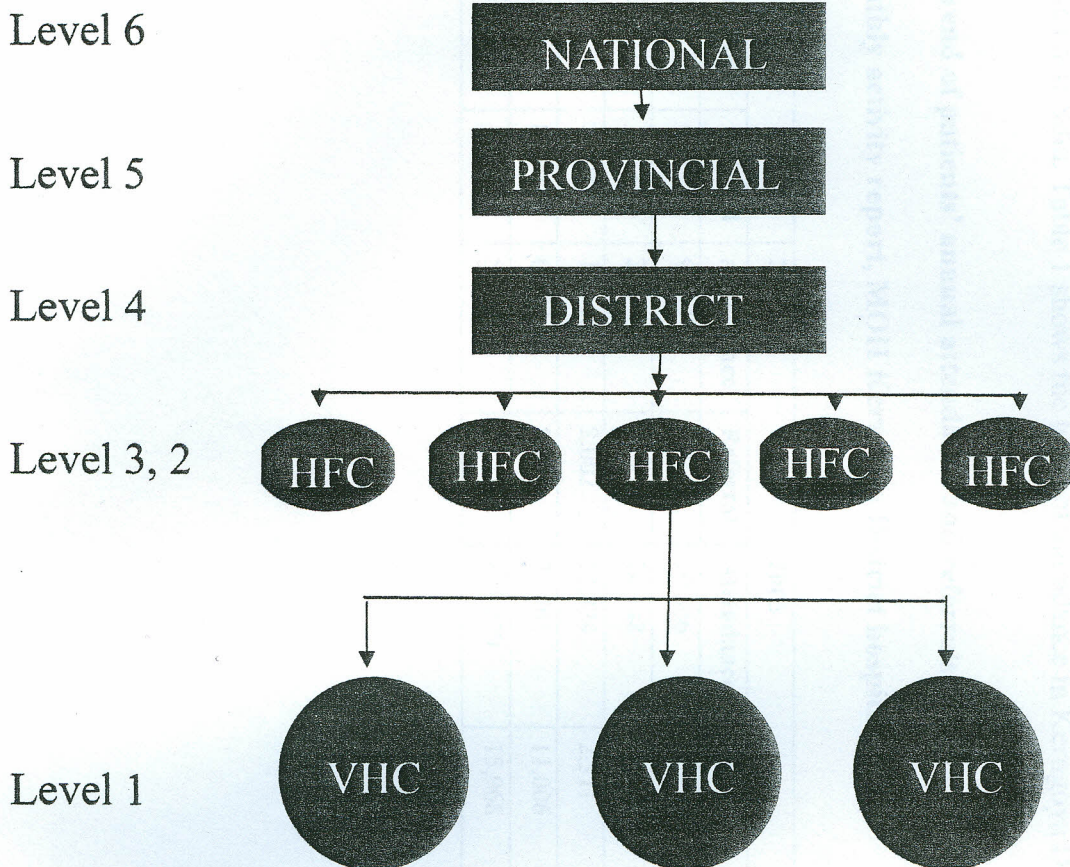
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APPENDIX I



VFC= Health facility committee
VHC= Village health committee

Figure 2.2: Overall health sector structure

Appendix II

In the study area, the main referral hospital is Kerugoya District Hospital. It has a catchments area of 4 divisions namely, Central, Gichugu, Mwea and Ndia. Table 1 shows the trend of attendance in Kerugoya District Hospital.

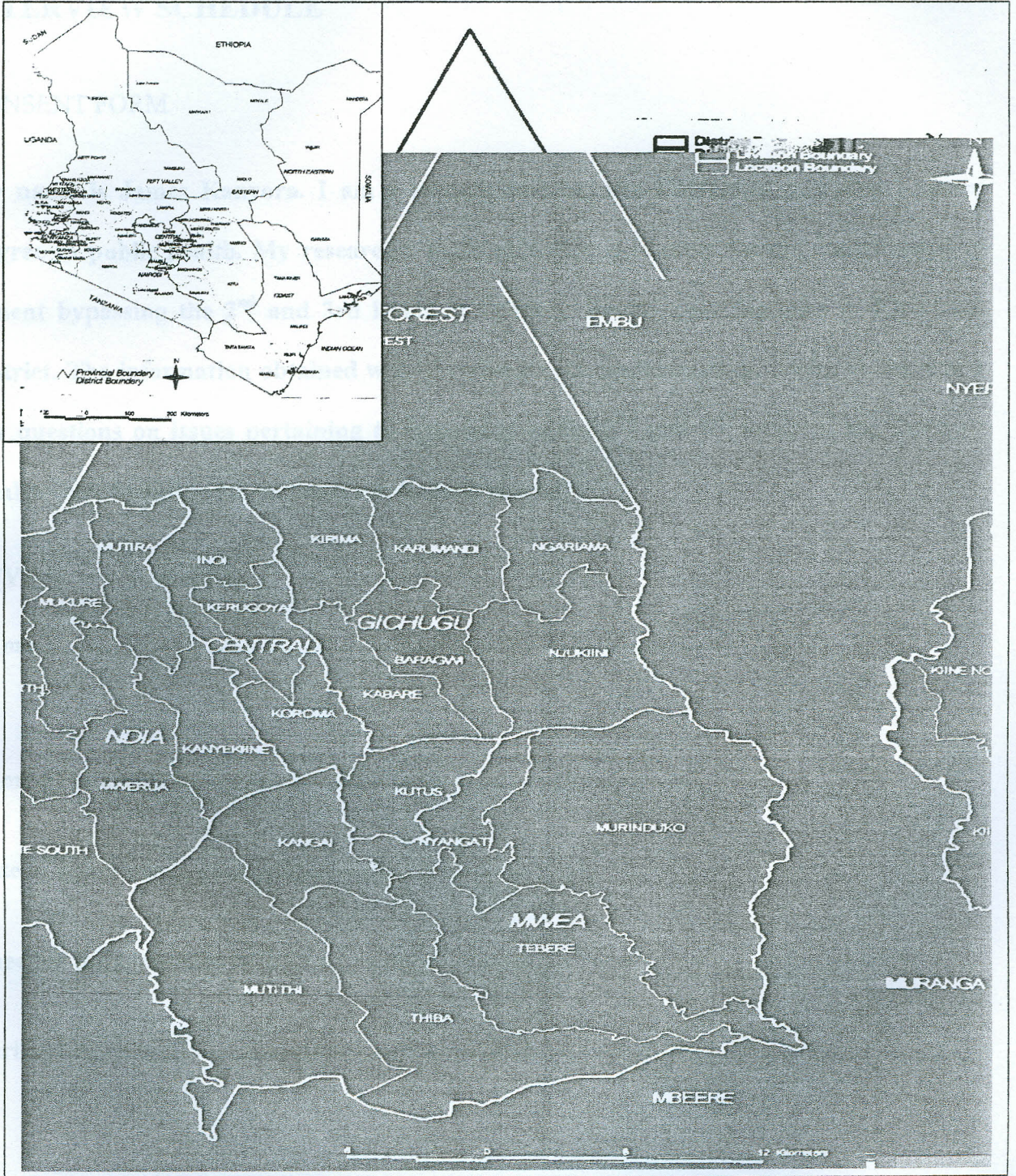
Table 5.1: Trend of patients' annual attendance and referrals to Kerugoya District hospital (2003-2007)

Source: monthly activity report, MOH Kerugoya District hospital

Division	2003		2004		2005		2006		2007	
	Attendance	Referral	Attendance	Referral	Attendance	Referral	Attendance	Referral	Attendance	Referral
Gichugu	8,920	929	9,421	1,011	10,506	1,222	12,224	1,303	41,071	4,465
Mwea	20,286	1,411	22,246	1,322	24,148	1,429	28,211	1,556	74,891	5,718
Ndia	10,101	1,924	11,998	2,002	13,874	2,311	14,359	2,232	50,332	8,469
Central	66,846	8,404	6,972	8,246	72,701	11,006	74,307	9,242	220,826	36,898
Total	106,153	12,668	50,637	12,581	121,229	15,968	239,118	14,333	387,120	55,550

Appendix III

3.23 MAP OF THE STUDY AREA: KIRINYAGA DISTRICT (INSET MAP OF KENYA)



Appendix IV

INTERVIEW SCHEDULE

CONSENT FORM

My name is James Kanyora. I am a student at Kenyatta University pursuing Masters Degree in public health. My research's main objective is to asses factors contributing to patient bypassing the 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District. The information obtained will be treated with confidentiality. I wish to ask you a few questions on issues pertaining to bypassing of the 2nd and 3rd levels of the Primary Health Care facilities. Do you agree to be interviewed?

A (YES) B (NO)

Name.....Sign.....

Name of interviewer.....

Date of interview.....

Checked for completeness by.....

Verified by.....

Serial No.....

Social Demographic Information

1. What is your home district?-----
2. Division?.....
3. Location?.....
4. Sub-location?
5. Sex of the respondent A {Male} B {Female}
6. In which year were you born?.....
7. What is your highest level of education?.....
 - a) None
 - b) Primary not completed
 - c) Primary completed
 - d) Secondary not completed
 - e) Secondary completed
 - f) Tertiary
8. What do you do for a living?
 - a) Salaried
 - b) Business
 - c) Casual laborer
 - d) Not employed
 - e) Others specify.....

9. What is your marital status?

- a) Married
- b) Single
- c) Widow/widower
- d) Separated/divorced

10. Which is your religion?

- a) Christian
- b) Muslim
- c) Hindu
- d) Buddhism
- e) Others specify.....

11. What is your average income per month in Kenya shillings?

- a) Less than 5000
- b) 5000-9000
- c) 10,000-19,000
- d) 20,000-29,000
- e) 30,000 and above

ACCESSIBILITY TO THE 2ND AND 3RD LEVELS OF PHC FACILITIES

12. What type of road leads to your nearest health facility?

- a) Tarmacked

- b) Murramed
- c) Earth road
- d) Foot path

13. What type of road leads to the district hospital?

- a) Tarmacked
- b) Murramed
- c) Earth road
- d) Foot path

14. How much do you pay for transport to the nearest health facility in Kenya Shillings?

- a) None
- b) Less than 20
- c) 20-40
- d) More than 40
- e) Others specify.....

15. How much money do you pay for transport to the district hospital in Kenya Shillings?

- a) None
- b) Less than 20
- c) 20 to 40
- d) More than 40
- e) Others specify.....

16. How much on average do you pay for outpatient services in the nearest health facility?.....

17. How much on average do you pay for outpatient services in the nearest district hospital?.....

18. Does your health facility operate during night hours?

- a) Yes b) No

19. If no (in question 19), Why?

- a) No electricity
 b) No adequate staff
 c) Do not know
 d) Others specify.....

REFERRAL CRITERIA TO DISTRICT HOSPITAL

20. Were you referred from your nearest facility to this district hospital?

- a) Yes b) No
 21. If yes (IN QUESTION 21 ABOVE), do you have a referral letter?
 a) Yes b) No

22. If no (IN QUESTION 21 ABOVE), why?

- a) Did not pass through the facility

- b) Was not given
- c) Others (specify).....

ALTITUDE OF RESPONDENTS TOWARDS HEALTH FACILITY

23. Why did you prefer to visit district hospital instead of nearest health facility? (Multiple answers allowed)

- a) I have been referred
- b) Has more qualified staff
- c) Has better equipments
- d) Has enough drugs
- e) Others (specify).....

24. Have you ever visited your nearest health facility?

- a) Yes
- b) No

25. If yes in (QUESTION 25), when did you last visit?

- a) Within this week
- b) Less than a month ago
- c) Less than 2 months ago
- d) More than 2 months ago

26. If no (IN QUESTION 25), what are your reasons?

- a) Staff not friendly
- b) Have not been sick
- c) Its far than coming to District Hospital
- d) Others (specify).....

27 .If yes (IN QUESTION 25), do you know who attended you during the last visit?

- a) Yes
- b) No

28. If yes (IN QUESTION 24), who was the health worker?

- a) A doctor
- b) A clinical officer
- c) A nurse
- d) A subordinate staff
- e) Others specify.....

- 1. Why did you prefer visiting district hospital instead of your local facilities?
- 2. How accessible is the district hospital from your houses?
- 3. Don't you think it is costly to visit district hospital instead of local facilities?
- 4. When did you last visit your local facilities?
- 5. How were the services offered compared to district hospital?
- 6. Which services are offered in your nearest facilities?
- 7. What are the types of the medical personnel working there?
- 8. Are the facilities open at night or day?
- 9. Are the facilities open at night?
- 10. Are the facilities open at night?

APPENDIX V

Focus group discussion

Youth group (19-30) years

Venue: Kerugoya District Hospital

Introduction

My name is James Kanyora, a student from Kenyatta University pursuing a masters degree in Public Health. My research topic is "factors contributing to patients bypassing the 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District". Information given will be used entirely for academic purposes only. In Kirinyaga District, it is known that some people come straight to Kerugoya District Hospital and would like to know why this is the case. I hope we are all comfortable with all this. (The following questions were posed the group and not necessarily in any order).

1. Why did you prefer visiting district hospital instead of your nearest facilities?
2. How accessible are your homes from health facilities?
3. How accessible is the district hospital from your homes?
4. Don't you think it is costly to visit district hospital instead of local facilities?
5. When did you last visit your local facilities?
6. How were the services offered compared to district hospital?
7. Which services are offered in your nearest facilities?
8. What are the titles of the medical personnel offering services?
9. Are the facilities open through out the day?
10. Are the facilities open at night?

APPENDEX V1

Young mothers (19-30 years)

Venue: Kerugoya District Hospital

Introduction

My name is James Kanyora, a student from Kenyatta University pursuing a masters degree in Public Health. My research topic is” factors contributing to patients bypassing the 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District”. Information given will be used entirely for academic purposes only. In Kirinyaga District, it is known that some people come straight to Kerugoya District Hospital and would like to know why this is the case. I hope we are all comfortable with all this. (The following questions were posed the group and not necessarily in any order).

1. Why did you prefer visiting district hospital instead of your nearest facilities?
2. How accessible are your homes from health facilities?
3. How accessible is the district hospital from your homes?
4. Don't you think it is costly to visit district hospital instead of local facilities?
5. When did you last visit your local facilities?
6. How were the services offered compared to district hospital?
7. Which services are offered in your nearest facilities?
8. What are the titles of the medical personnel offering services?
9. Are the facilities open through out the day?
10. Are the facilities open at night?

APPENDIX V11

Focus group discussion

Middle aged males (30-40 years)

Venue: Kerugoya District Hospital

Introduction

My name is James Kanyora, a student from Kenyatta University pursuing a masters degree in Public Health. My research topic is "factors contributing to patients bypassing the 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District". Information given will be used entirely for academic purposes only. In Kirinyaga District, it is known that some people come straight to Kerugoya District Hospital and would like to know why this is the case. I hope we are all comfortable with all this. The following questions were posed the group and not necessarily in any order.

1. Why did you prefer visiting district hospital instead of your nearest facilities?
2. How accessible are your homes from health facilities?
3. How accessible is the district hospital from your homes?
4. Don't you think it is costly to visit district hospital instead of local facilities?
5. When did you last visit your local facilities?
6. How were the services offered compared to district hospital?
7. Which services are offered in your nearest facilities?
8. What are the titles of the medical personnel offering services?
9. Are the facilities open through out the day?
10. Are the facilities open at night?

APPENDIX V111

INTERVIEW GUIDE FOR KEY INFORMANTS

- ❖ MEDICAL OFFICER OF HEALTH (MOH)
- ❖ DISTRICT CLINICAL OFFICER (DCO)
- ❖ DISTRICT PUBLIC HEALTH NURSE (DPHN)

Introduction

My name is James Kanyora, a student from Kenyatta University pursuing a masters degree in Public Health. My research topic is” factors contributing to patients bypassing the 2nd and 3rd levels of Primary Health Care facilities in Kirinyaga District”. Information given will be used entirely for academic purposes only. In Kirinyaga District, it is known that some people come straight to Kerugoya District Hospital and would like to know why this is the case. I hope you are comfortable with all this. (The following questions were posed the staff members)

- How many dispensaries are in the district?
- How many health centres are in the district?
- How often are drugs supplied to the dispensaries?
- How often are drugs supplied to the health centres?
- How much money is charged for dispensaries out patient services?
- How much money is charged for health centres out patient services?
- How much money is charged for district hospital out patient services?
- Who among the males and females visit dispensaries and health centres often when sick?
- Reasons
- Who among the youth and the old visit dispensaries and health centres often when sick?
- Reasons
- Is there referral protocol in use from 2nd to 3rd levels of PHC facilities to the District hospital?

a Yes

b No

- If yes above, why?
- If no why?
- Are the local facilities accessible to the community members?

a Yes

b No

- If no, why?
- Is the district hospital accessible to the community members?

a Yes

b No

- If no, why?
- Are all the local facilities opened through out the week

Yes

No

- If no, why
- Are all the local facilities opened at night?

Yes

No

- If no why?

APPENDIX IX



**KENYATTA UNIVERSITY
GRADUATE SCHOOL**

P.O. Box 43844,
NAIROBI
Tel. No. 310901/9 Ext. 57530
E-mail: kubps@yahoo.com

Our Ref: I57/5670/03
Your Ref:

Date: 15th December, 2008

The Permanent Secretary,
Ministry of Education, Science & Technology,
P.O. Box 30040,
NAIROBI.

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION

I write to introduce Mr. James Njogu Kanyora who is a Postgraduate Student of this University. He is registered for M.P.H. degree programme in the Department of Public Health.

Mr. Kanyora intends to conduct research for a project entitled, "Factors Contributing to Patients Bypassing the 2nd and 3rd Levels of Primary Health Care Facilities in Kirinyaga District, Kenya."

Any assistance given to him will be highly appreciated.

Yours faithfully,

15 DEC 2008

JOHN M. ODONGI
FOR: DEAN, GRADUATE SCHOOL

JMO/bkk

APPENDIX X**NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY**

Telegrams: "SCIENCETECH", Nairobi
 Telephone: 254-20-241331, 241349,
 254-20- 311761, 241376,
 Fax: 254-20- 213215



P. O. Box 30623 -00100
NAIROBI- KENYA

When replying please quote

NCST5/002/R/075/4

20th January 2009

Kanyora James Njogu
 Kenyatta University
 P O Box 43844
NAIROBI


Dear Sir

REF: RESEARCH AUTHORIZATION

Following your application for authority to conduct research on: Factors Contributing to Patients By passing the second and third Levels of Primary Health care facilities in Kirinyaga District. I am pleased to inform you that you have been authorized to conduct research in Kirinyaga District for a period ending 31st December 2009.

You are advised to report to the District Commissioner, the District Education Officer and the Medical Officer of Health Kirinyaga District before embarking on your research project.

On completion, you are expected to submit two copies of your research report to this office.


SAID S. HUSSEIN
FOR EXECUTIVE SECRETARY

cc:
 The District Commissioner
Kirinyaga District

The District Education Officer
Kirinyaga District

The Medical Officer of Health
Kirinyaga District