THE INFLUENCE OF REFERRAL SERVICE ON HOUSEHOLD ACCESS TO HEALTHCARE SERVICES IN ELDORET MUNICIPALITY, KENYA

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Abstract:

The severe shortage and unfavourable distribution of health services continues to widen with observed disparities and imbalance in funding and poor distribution of human resources that continues to be limited since those in medical training have also been increasing slowly. The main objective of the study was to establish the influence of referral service on household access to healthcare services in Eldoret Municipality, Kenya. The specific objectives of the study were: to examine the influence of referral service on household access to a healthcare provider; and to examine the influence of referral services on household access to healthcare services. Results of the study will widen understanding on the referral system and access to healthcare. Survey research design was employed for the study. The unit of analysis constituted household heads in Eldoret. Stratified, systematic, purposive and convenience sampling procedures were used to arrive at a sample of 260 household heads whom were systematically interviewed concerning matters relating to access to referral care services. An interview schedule prepared especially for the study was administered to the selected household heads. Attention was paid to the factors which predispose the decision to access or not to access the available referral care services. Data was analysed using Statistical Package for Social Sciences (SPSS). On the basis of this study, a number of considerations are derived for the planning of healthcare in the country. Also a number of recommendations are given for future studies that will improve access to healthcare.

Key words: Access Africa, Eldoret, Healthcare, Household

1. Introduction

Healthcare is essential for the socio-economic development of a nation and it has been at the top of public policy agenda since Kenya's independence. Making healthcare services accessible to everyone is a duty imposed by the Kenyan constitution, yet it remains a great challenge to the existing healthcare system. Health services and policies to promote health have developed as part of modern welfare states and the form they have taken has been shaped by the social structure and institutions in different countries as well as by socio-demographic and economic factors (Allsop 1995). In Kenya, just like in other developing nations, health facilities are concentrated in the urban areas and are used mainly by higher income groups (Westendorf and Ghai 1995). Though Kenya remains, as it has always been, the best-off country in the region of East Africa (EA), it has high unequal income distributions (Ellis and Freeman 2007). The diversity and disparity of income pose a great challenge to comparable global standards for human well-being and safety.   The Kenya National Bureau of Statistics (KNBS) indicates that the percentage of hard core poverty has increased in urban areas and that inequality and disparity in the country remains high (Republic of Kenya 2007).

According to Moi Teaching and Referral Hospital (MTRH), as far as financial and health sector resources are concerned, a large proportion of Kenya's population has limited access to affordable and adequate healthcare services (MTRH 2005). The Kenyan Government acknowledges in its national development plan that unfavourable distribution of health services continues to widen with observed disparities in access and affordability across the country (Republic of Kenya 2002a). It further states that disparities also exist in the distribution of medical personnel, distance to healthcare facility and expenditure allocated to rural and urban areas. In addition to this unfavourable distribution, retention of medical personnel in the public health facilities has remained a major challenge due to poor remuneration. Further, the health sector faces significant constraints due to inadequate funding and poor distribution of human resources (Republic of Kenya 2009).

The main objective of the study was to establish the influence of referral service on household access to healthcare services in Eldoret Municipality, Kenya. The specific objectives of the study were: to examine the influence of referral service on household access to a healthcare provider; and to examine the influence of referral services on household access to healthcare services. Results of the study will hopefully widen understanding on the referral system and access to healthcare.

2. Literature Review

The literature is drawn from works of various scholars and organizations of different but relevant fields of study. The literature material assembled is meant to provide the current state of knowledge on the research topic, show gaps in the area of study and to provide background information related to the research problem. At the end of the literature review, the theoretical framework and the conceptual framework used in the study are presented.

2.1 Situating the Research

Along with other countries of Eastern Africa (EA), Kenya endorsed the World Health Organization (WHO) world-wide social aim of 'Health for all by the year 2000' (WHO 1978). The WHO defines health as a 'state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity in an individual'. Kitts and Roberts (1996) observe that the WHO definition of health emphasizes the significance of the social welfare of populations and not only merely the medicalization of disease. It allows for the consideration of the complex set of social and economic components that influence the health and well-being of populations. This broad definition acknowledges the role of social structures and human economic activities to good health.

Issues in healthcare are salient not only because they touch us individually in important respects, but because it exposes many of the political, economic, social and ethical dilemmas of our time. United Nations Children's Fund -UNICEF- (1991), reports that health for all remains inaccessible due to lack of quality, unresponsiveness of services, inadequate funding and staff. In the United Kingdom, O'Reilly *et al.* (2001) in Heenan (2006) states that increasing distance from the healthcare centre reduced the likelihood of using the service. In India access to healthcare is reported to be guided by notions of efficiency rather than equity, and focus on supply, rather than demand side issues (Iyer 2005). He reports that in such a context, access to healthcare is a double edged sword. Not having it, is disempowering and amounts to denial of one's rights, but the consequences of having accessed and paid substantial sums for healthcare could also be detrimental to the economic and social well-being of the household. This cannot be farther from the truth even in Kenya.

It is acknowledged in various works that the need for treatment and cure of disease is universal in time. As a result access to healthcare services has generated considerable debate and discussion, and a number of studies have formulated frameworks or models to represent the influences on it (Andersen and Newman 1973; Penchansky and Thomas 1981; Andersen 1995; Arksey *et al.* 2003) in (Heenan 2006). Indeed, access is a shorthand term referring to the timely use of health services to achieve the best possible health outcomes (Patrick and Erickson 1993). March *et al.* (1999) reports that access to a resource refer to the opportunity available to use it. They acknowledge that these opportunities are socially constructed and constrained by structural inequalities. Healthcare service on the other hand, is broadly defined by Oleske (2001) as physician or other individual healthcare professional services, facility use, prescription use, or even the use of medical devices.

Currently, the issue of access to healthcare is critically important to households experiencing the effects of economic and health sector reform (Iyer 2005). He reports that it is now common knowledge that such reforms have benefited the rich and middle classes but not the poor. In addition, he notes that individuals may lack usual source of healthcare or may face other barriers to receiving services including financial barriers (having no health insurance or being underinsured). Scambler (2003) also found that health varies with social class. Carr (2004) observes that, poor communities typically face multiple health risks related to their location in remote areas lacking infrastructure, services and trained personnel. Further he states that health services and trained health personnel are less accessible to the poor than for the better off groups. This study takes this inquiry forward by looking at the influence of the referral system on household access to healthcare services, using data from Eldoret, Kenya. Considering the magnitude of health problems in Kenya and the global concern

for health for all, the research is not merely a curious one, but an important practical guide to understanding the referral system.

2.2 Formal Referral and Access to Healthcare

Health services are provided at different levels depending on the type of intervention the patient requires. Indeed, referral is defined as any process in which healthcare providers at lower levels of the health system, who lack the skills, the facilities, or both to manage a given clinical condition, seek the assistance of providers who are better equipped or specially trained to guide them in managing or to take over responsibility for a particular episode of a clinical condition in a patient (Al-Mazrou *et al.,* 1990). Hence individual patients need to get direct clinical services provided at lower levels of the system, before accessing upward referral which is frequently the most functional component of the health system (Hensher *et al.,* 2006), paying greatest attention to quality of care with elaborate equipment involved in diagnosis and treatment.

Early referral helps to optimize healthcare use and patient management (Wavamunno and Harris, 2005). Musgrove (2004) states that a sick or injured person can be referred "up" from a health centre or physician to a hospital and referred "down" when hospital care is no longer required. He states that there is natural hierarchy of organizations and treatment in healthcare, but there is no natural sequence like primary education followed by secondary schooling followed by university or other higher level training. In schooling, the worse results are at one level, the harder it is to proceed to the next higher one. In healthcare the exact opposite is true. The aim of this study is to determine the extent of the use that urban people are now making of available referral healthcare services available.

Referral has two faces: one, formal referral and two, self-referral. Formal referral refers to official movement to a different healthcare facility to seek further treatment, while self-referral refers to the choice of healthcare facility by the patient seeking treatment on his or her own accord. The former primarily is done within the healthcare set-up. The latter, self- referral is done by individual patients. Although self-referral has been the subject of extensive research *(ibid),* formal referral has received less attention. Studies on referrals have continuously demonstrated that it is not adhered to as it should be. Preker *and Carrin* (2004) found that among other factors, improving quality and increasing the referral rates would increase the utilization rates of health services. However, they report that analysis of the value of referral hospitals is bedevilled by the fact that, when judged empirically, they do not work as they are supposed to. Similarly, Kiranandana and Apairatr (1990) have also documented that people still do not follow the referral system.

The reasons for the concentration of research efforts on self-referral may be the assumption that the factors that determine formal referral are the same as those that determine self-referral. However, if the determinants of self-referral and formal referral are different, then there may be need to look more closely at existing policies and strategies in order to ensure that both types of referrals are taken into account. Moreover, if formal referral is likely to have a multiplier effect on self-referral, then the effect on overall utilization would be much greater. The study examined whether formal referral facilitated greater ability to seek specialist treatment.

In Kenya, the health sector comprises the public system, with major players including the Ministry of Health (MOH) and parastatal organizations, and the private sector, which includes private for-profit, Faith Based Organizations (FBOs), and NGO facilities (see for example, NCAPD *et al.,* 2005; Ndetei *et al.,* 2008). Further, the public health system consists of levels of health facilities: national referral hospitals, provincial general hospitals, district hospitals, health centres, and dispensaries. The public delivery system is organised in a traditional pyramidal structure (KNBS and ICF Macro, 2010). They state that the first level care is provided at dispensaries and medical clinics. The next level comprises health centres and sub-district hospitals. Third-level care is provided at district hospitals and provincial general hospitals. They further report that there are two national hospitals - Moi Referral and Teaching Hospital in Eldoret and Kenyatta National Hospital in Nairobi.

The national referral hospitals are at the apex of the healthcare system, providing sophisticated diagnostic, therapeutic, and rehabilitative services. Provincial hospitals act as referral hospitals to their district hospitals. They act as an intermediary between the national level and the districts. The district hospitals are the first referral hospitals. Health centres offer preventive and curative services. Dispensaries (lowest level) are meant to be the system's first line of contact with patients (See Figure 1).

Institute for Policy Analysis and Research -IPAR- (2003) reports that user charges were introduced to among other reasons to improve the functioning of the referral system and rationalize utilization of health services in Kenya. But the MOH *et al.* (2004) found out that referral for complicated cases are still not working well. The referral system has also been used to determine the amount of user fees charged in healthcare outlets. In Kenya, inpatient and outpatient fees were envisaged to be higher at hospitals, lower at health centres, and almost non-existent at dispensaries to encourage the first use of lower level facilities (Republic of Kenya, 2001).

The different health systems categorize hospitals and services rendered differently discouraging access by the poor to expensive facilities. Mills (1990) reports that her analysis of available data indicated that secondary-level hospitals were typically twice as expensive per bed day as district hospitals and that tertiary hospitals were typically between twice and five times as expensive per bed day as district hospitals. Other facets is when clients are referred to another facility without any formal documentation, they risk being refused services, or having services delayed if the referral facility must assess them as totally new clients (Republic of Kenya, 2005).

The appropriate allocation of resources to referral hospitals within a national health system has long been a controversial issue in health system planning in developing countries (Hensher *et al.,* 2006). They indicate that consensus appears to be widespread that a referral hospital consume an excessive share of health budgets and that their contribution to improving health and welfare is low relative to the expenditure on these facilities. For instance, Barnum and Kutzin (1993) found Kenya to be among five countries (Belize, Indonesia, Kenya, Zambia, and Zimbabwe), that tertiary hospitals account for between 45 and 69 per cent of total public expenditure on health.

A number of studies have indicated that public hospitals in many poor countries disproportionately benefit the better off, leading their authors to argue that diverting public funds from hospitals and toward primary healthcare would be pro-poor (Castro-Leal *et al.,* 2000; Filmer *et al.,* 1997). Yet, Family Care International Kenya (2007) reports that peripheral health facilities are the most accessible, especially for the poor. In addition, the cost of care is lowest at these sites. It states that traditionally these sites have received little investment and support, and many, if not most are challenged by a crumbling physical infrastructure, shortages of skilled personnel, serious gaps in and limited referral capacity. As a result, they are often bypassed by communities in preference for hospital-level care. However, if clients are confident that they will be assisted in gaining access to higher-level facilities when needed, they may be less likely to by-pass lower-level care facilities for their health needs (NCAPD, 2005).

In developing countries the higher-level hospitals do not treat only referred patients; rather they are frequently the first point of contact with health services for many patients (Nordberg *et al.,* 1996). Perhaps the most frequent theme in research literature on referral hospitals in developing countries is the inappropriate utilization of higher-level facilities and the apparent failure of most referral systems in developing countries to function as intended (Holdsworth *et al.,* 1993). Broadly speaking, hospitals of all levels, up to and including national tertiary centres -especially in their outpatients departments- are overwhelmed by patients who could have been treated successfully at lower-level facilities, many of whom have self-referred, bypassing primary healthcare or district hospitals in the process (Sanders *et al.,* 2001). The problem of bypassing typically seems to be driven by a number of factors, including patients' perception of superior quality of care and resource availability at referral hospitals (London and Bachmann 1997); the desire to avoid delays in care if referral to a higher-level facility proves to be necessary. The current study assessed the relation between formal referral and availability of medical review services.

There is excessive and inappropriate use of referral hospitals for primary care by urban residents. The urban phenomenon of widespread bypassing and formal referral is frequently accompanied by low rates of formal referral from outlying facilities (Nordberg *et al.,* 1996). These problems have a number of negative impacts and consequences. Simple conditions are unnecessarily treated in a high-cost environment; outpatient departments are congested by patients requiring primary care, thus causing long waiting times; scarce staff time is diverted from specialized areas and into inappropriate care; and more complex cases requiring specialized care are crowded out by more urgent but less technically demanding cases that could be cared for at lower levels (Stefanini, 1994).

The World Bank (1994), reports of the phenomenon of the ill travelling past a free or subsidized public clinic (or other public facility) to get to an alternative source of care at which they pay a considerable amount for healthcare. They observe that when it is a poor person choosing to bypass a free public facility and pay for care further away, such an action is especially bothersome. It states that bypassing behaviour is not very different across income groups, as is the fact that the more severely ill tend to bypass and travel further for care than do the less severely ill. To them prices tend to deter use, and improved quality of services to increase the likelihood of a facility being chosen. Such care-seeking patterns result in higher costs to households, as well as to the health system as a whole, in that resources are not used efficiently. There is therefore a need to gain a more detailed picture of the relation between a formal referral and the preferred healthcare facility.

Hensher *et al.,* (2006), reports that particular problems may also arise in the referral system where the same doctors provide care in both public and private hospitals. Under fee-for-service arrangements, physicians may focus on their more lucrative private patients to the disadvantage of public hospital patients, refer patients with adequate insurance to their private practices and private hospitals, and transfer patients with expensive diseases or inadequate insurance to public hospitals. Patients need satisfaction and convenience in accessing healthcare. The study sought to identify the services obtained as a result of referral cases.

Studies on the accessibility of referral hospital care have repeatedly confirmed the existence of a steep distance-decay function, in countries such as Ethiopia (Kloos, 1990) and Nigeria (Lyun, 1983), indicating that individuals with a given need for a clinical service will be less likely to access that service the farther away from the referral centre they live. In Kenya, (Mbeya, 1997) found that the location of healthcare facilities far away from the population affects the level of use of health services. He found that the more accessible one is to a health facility the more one is able to make use of it. He found that most of the respondents do not visit far away facilities. Further, the respondents still frequented nearer facilities despite poor services offered. He credits this to their closeness. In addition the far away facility, is visited only when the closer facility lacks medicine or equipment necessary for treatment. The study went further and examined the influence of the referral system on household access to care.

2.3 Theoretical Framework

The study used the Health Belief Model (HBM) to test the field data. It should be noted that the term model and theory are being used interchangeably in this section of the chapter for the sake of convenience.

2.3.1 Health Belief Model

A model can be seen as a 'theory' or a set of 'hypotheses' which attempt to explain the connections and interrelationships between components of the study phenomena (Gilbert, 1993). It is a representation of the significant features of the problem under study (Tones and Tilford, 2001). Health Belief Model (HBM) was originally developed to explain why people failed to utilize health services (Hochbaum, 1958; Rosentock, 1966). It has since undergone various revisions (Becker, 1974; Janz and Becker, 1984).

The HBM centers on three beliefs that account for the variance in predispositions to adopt a recommended health practice (Becker, 1974). These include a belief that individuals will not adopt health behaviours, unless they believe they are susceptible to a disease or disorder (belief that you could have the disease and not know it in the case of undertaking screening or treatment for conditions such as hypertension), and they believe it is serious (a belief in the severity of the consequence of not taking action). The third belief influencing action is that the benefits of treatment or intervention will outweigh the costs (including social benefits and costs such as inconvenience, discomfort, or embarrassment). That is, they accept that the recommended preventive actions will be effective and that the benefits accruing from their actions will outweigh any costs or disadvantages that they believe that they will incur as a result.

According to Cockerham (1986) individuals will seek healthcare when they believe they are susceptible to disease, consider the disease to be serious and accept that benefits of their action outweigh the costs. This is incorporated as a motivational element, in that, beliefs about susceptibility and seriousness are considered to generate a level of 'perceived threat' which in turn contributes ultimately to health choices-together with beliefs about cost and benefit. The assumption of this

model is that by taking a particular action, susceptibility would be reduced, or severity would be reduced. Thus the HBM components of perceived susceptibility, perceived severity and perceived benefits of taking health action of interest aided this present study.

2.4 Conceptual Framework
        The study adopted and modified the Health Delivery System in Kenya framework by Ndetei *et al*. (2008). The lowest level of care is the dispensary and the highest level of care is the national referral hospital. There are private care outlets that do offer the same level of care as the public care outlets.
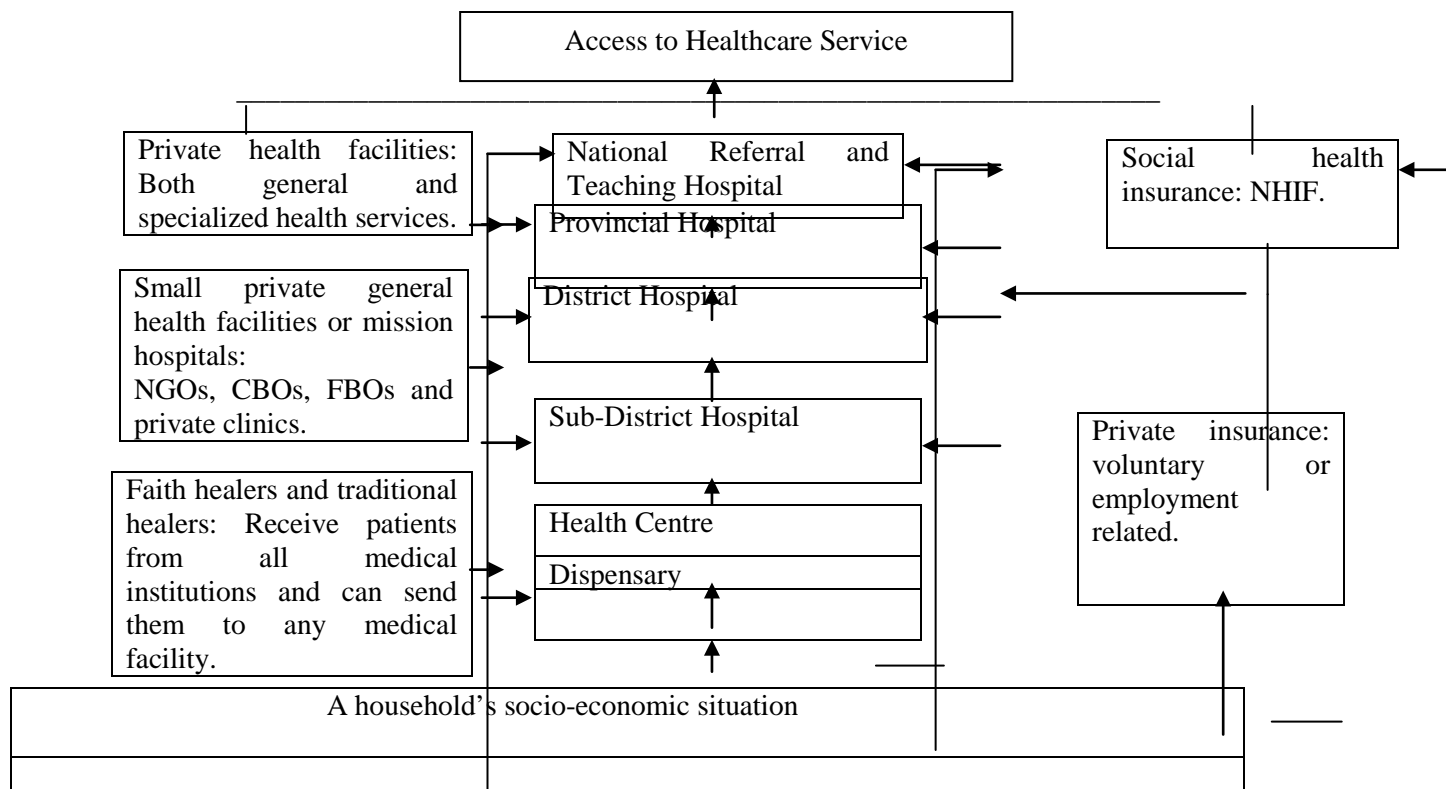

Figure 1. Conceptual Framework (Adopted and Modified from Health Delivery System in Kenya, Ndetei et al. 2008).

3. Methodology
3.1 The study area
        The Republic of Kenya is located on the eastern coast of Sub-Saharan Africa (SSA). According to KBNS and ICF Macro, the country lies between 5 degrees north and 5 degrees south latitude and between 24 and 31 degrees east longitude (KNBS and ICF Macro, 2010). It is almost bisected by the equator. The country is bordered by Ethiopia (north), Somalia (northeast), Tanzania (south), Uganda and Lake Victoria (west), and Sudan (northwest). It is bordered on the east by the Indian Ocean. It has a total area of 582,646 square kilometres of which 571,466 square kilometers form the land area. Approximately 80 percent of the land area of the country is arid or semiarid, and only 20 percent is arable.
        The study area is Eldoret Municipality, the capital and administrative centre of Uasin Gishu County, Rift Valley Province, Kenya. The map is presented in fig. 2. The town has undergone rapid economic development since 1974 and this has caused rapid population growth and physical expansion (Nyakaana 1996; Republic of Kenya 2002b). The urban population is indicated as 144,223 in Eldoret West, 80,729 in Eldoret East and 120,607 in Wareng districts all of Uasin Gishu County according to the 2009 Kenya population and housing census (Republic of Kenya, 2010). Further, the number of urban households is recorded as 88,956 in Eldoret West, 51,486 in Eldoret East and 61,866 in Wareng districts.

The towns' rapid urbanization has led to a lure for jobs, amenities and stimulation. But despite this impressive urban growth, economic gains have not benefited everyone as real incomes of people have decreased substantially and disparities between the rich and the poor have increased. Its health facilities specifically the public ones, are over utilized (Republic of Kenya 1997). The area is among the country's most 'land-rich' areas and agriculture (crop and dairy farming) is the mainstay of the economy and the vast majority of the population is composed of agricultural producers. Commerce, tourism, tertiary services and industry also form part of the economy of the county. The industries located in the county are mainly agro-based (Republic of Kenya, 2005). They include textiles, wheat, pyrethrum, milk and corn. Commercial agriculture tends to be highly vulnerable to fluctuations of the world market. Further, many people are unable to afford the private hospital charges. Hence, they resort to public facilities.

The health sector is characterised by high under five mortality rates, and its health facilities are located far apart (Republic of Kenya 2008a; Republic of Kenya 2008b). Like other urban centres in the country, it is better served with both Government and private hospitals and health centres. The municipality was selected for study due to its easy access, its relatively static population and numerous healthcare facilities (Republic of Kenya 2005).
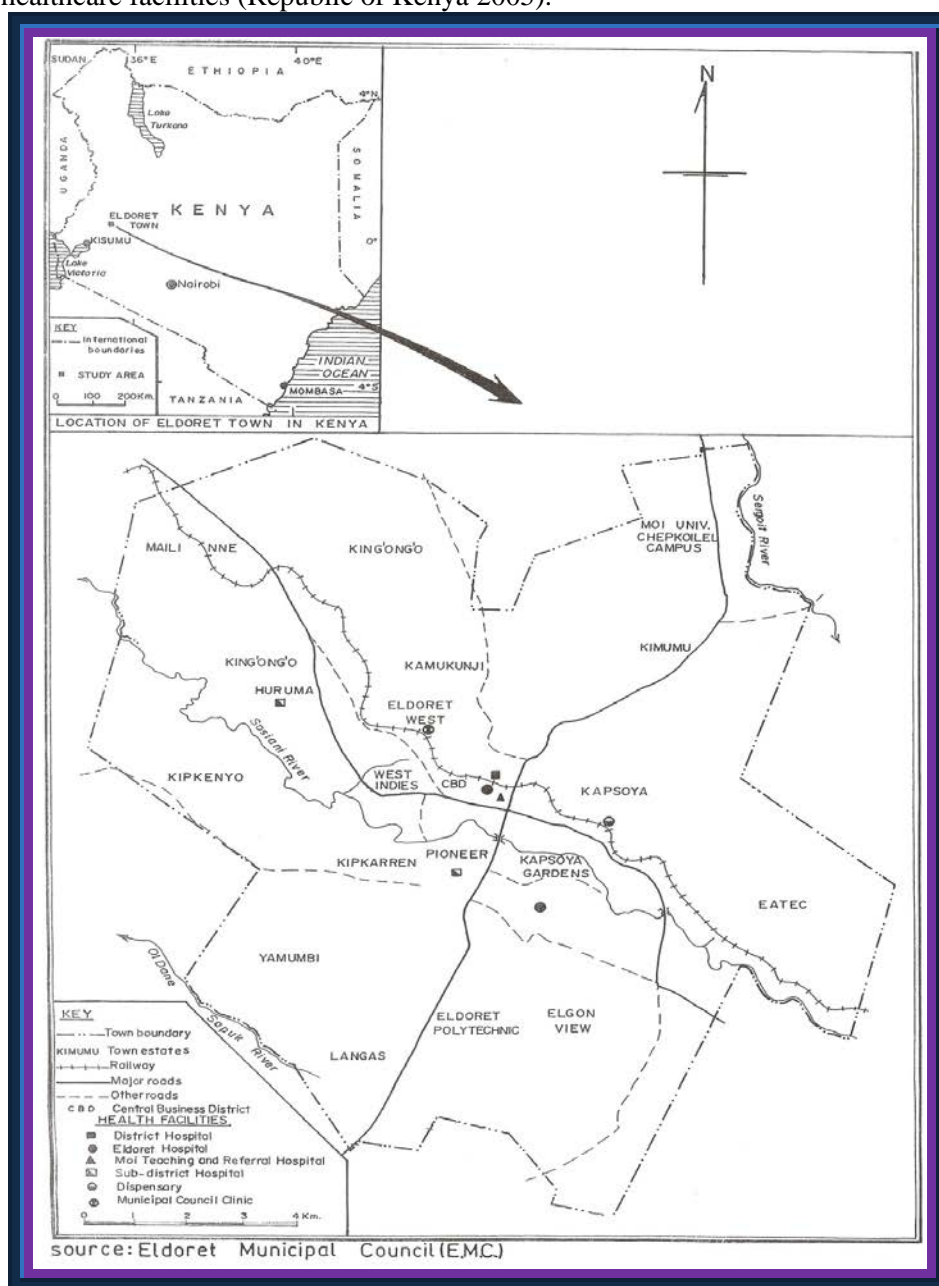

Fig, 2. Map of Eldoret Municipality (From a drawing by Eldoret Municipal Council E.M.C.).

3.2 Research design

The study employed survey research design.   Data for the study was derived from primary source through quantitative method because it seeks measurement as the basis for forming generalizations concerning social reality and employs survey method which is concerned with establishing statistical associations between variables (Ridsdale 1998; Mwanje 2001). Primary data was created using a pre-tested interview-administered schedule. It was both closed-ended (structured, fixed response) for quick and easy response; and open-ended (unstructured, free response) to help learn how a respondent thinks, to discover what is really important to him or her, or to get an answer to a question with many possible or sensitive answers. The study strived to identify the various heads of households within Eldoret municipality among the urban population as the unit of analysis. A household represents the most important unit in terms of time and resources invested to attain health. In the study, the research questions for the quantitative method were predefined, so that the study tested a precise set of research questions.

3.3 Sampling Procedure

In order to obtain representative samples of households belonging to different groups, distribution across geographical location, as well as economic classes, a four-stage sampling procedure was adopted. The first stage involved obtaining representative samples of households by stratification. This divided the population into mutually exclusive sets or strata to ensure that all the classes/cadres of estates were adequately represented and no bias prevailed. The municipal residential type is low, medium and upper income. An equal number of three estates were drawn from each stratum. The estates are namely, Huruma, Kamukunji, and Langas, (low income), Pioneer, Kapsoya, and Kimumu (middle income), Elgon View, West Indies and Garden Estate (upper income).

The second step of selection involved the systematic sampling procedure. In this case, units for the study were selected directly. This procedure was used to select twenty heads of households (male or female) from each of the estates at a constant interval of ten. Using such a sampling procedure, every tenth household head was selected in a circular systematic fashion, with equal probability, after a random start. The sampling strategy allowed for substitution of the households in the field, if they were not available despite repeated attempts to contact them, or if they refused to participate in the survey. The procedure resulted in a sample size of 180 household heads from the nine estates.

In the third stage, healthcare facilities were purposely selected to obtain two Government hospitals, two private hospitals, two health centres, and two dispensaries. Purposive sampling also known as deliberate or judgmental sampling of the healthcare facilities enabled selection of all categories and cadres of healthcare service outlets located in the study area. Lastly, based on the ease of access, convenience sampling also called haphazard or accidental sampling was applied to obtain ten household heads seeking healthcare service in each facility for an in-depth interview that included patient exit interviews. This procedure generated an addition of 80 household heads. Therefore, the total sample for the study was 260 household heads.

3.4 Strengths, Limitations and Ethical Considerations of the Research

The study was faced with certain limitations but efforts were made to ensure that they were adequately addressed so as to limit their impact on the findings. The study was restricted to residents of Eldoret, Kenya. This excluded the population that commutes to the town every day for work, business and healthcare. Respondents were reluctant and suspicious at the beginning but after explaining the study objectives they were receptive and provided the information. In addition, the study was limited by the self-reporting accuracy of the participants.

Ethical issues in social science research were considered including the importance of voluntary and informed participation and the preservation of the participants' anonymity. The work aimed at projecting an ethos that encouraged trust; hence permission to carry out the study was sought from Eldoret Municipality's Medical Officer of Health (MoH), Uasin Gishu County MoH and the Uasin Gishu County Hospital Medical Superintendent. Last but not least, debriefing of participants in the research will take place at the conclusion of the study, and it will involve revealing the purposes of the research in both written and oral form. The written form will leave participants in the research experience with a tangible description of the activities they performed. An oral debriefing will be done to simplify the research findings.

4. Data Presentation and Analysis
4.1 Results

Table 1 lists the profiles of households that were slotted into this study. Household level data were merged with healthcare facility-level data. While the data collected from the households in the residential areas had twenty heads from each sampled estate, data collected from the sampled healthcare facilities contained varied number of individual respondents from the sampled estates of study. As is presented in Table 1, the survey contains information on 260 interviewed households, and data set on 1,349 persons from nine estates within Eldoret. Male household heads accounted for 79% and females 21% of all the surveyed households. The males mostly headed married families. However, due to changes in gender relations and family patterns that could be said to jeopardize the institutional underpinnings of the traditional male breadwinner family, females headed separated, divorced, widowed families, as well as families where males had migrated for various reasons including migrant labour.

From the survey, it is revealed that female adults (29.5%) were the majority followed by male adults (27.4%). In terms of age, 88.4% of the respondents were aged below 55 years while 11.6% were above 55 years. Christians were a majority contributing to 84.2% to the overall distribution of the survey. Muslims were 7%, Hindu 8%, and other religions were a minority, representing 1% of the surveyed households. Respondents from the up-market residential areas were 29%, from middle income estates 32% and those from the low income estates 39%. In terms of education majority of the respondents (87.3%) had at least attained secondary school education. The respondents with no formal education represented 2.3% of the total distribution.

Table 2 presents the information about chronic illness, illness prevalence and treatment in the household during a four week recall period preceding the survey. As is presented, the vast majority of the respondents (81.2%) had no incidences of chronic illness, while 18.8% did state presence of chronic illness in the household. A vast majority (66.5%) reported incidences of illness four weeks prior to the survey while 33.5% had no incidence of illness in the same period. A higher proportion of females in the households (82.2%) reported illness than their male counterparts. This is higher than the 51.5% distribution of females in the overall sample. Out of the households who had been ill during the four weeks preceding the survey, 62.3% had sought healthcare outside the home. Most of the households had experienced only one treatment episode (73.5%), while 25.4%, had two and above episodes of treatment four weeks prior to the survey.

Table 1 Socio-Demographic Data

Characteristics	Category	*f*	%
Household Head	Yes	260	100.0
	No	-	-
Gender of head	Male	205	78.8
	Female	55	21.2
Age (years)	18-39	160	61.5
	40-54	70	26.9
	55-70	29	11.2
	Over 70	1	0.4
	Female Adults	398	29.5
Total household	Male Adults	369	27.4
population size	Female children	297	22.0
	Male children	285	21.1
Marital Status	Single/ (Separated/ Divorced/ Widowed)	92	35.4
	Married	168	64.7

Education level	None	6	2.3
	Primary	27	10.4
	Secondary	74	28.5
	Tertiary	153	58.8
Religion	Christian	219	84.2
	Muslim	17	6.5
	Hindu	21	8.1
	Other	3	1.2
Residence	Upper income	74	28.5
	Middle income	84	32.4
	Low income	102	39.2
Household Population Size	1-5	161	61.9
	6 and above	99	38.1

SOURCE: Field Data (2012).

Table 2 Households' Illness and Treatment Characteristics

Characteristics	Category	*f*	%
Number of sick members	None	211	81.2
with chronic illness	1	45	17.3
	2	4	1.5
Presence of illness	Yes	173	66.5
in last one month	No	87	33.5
Sought treatment	At a healthcare outlet	108	62.3
	At home	65	37.7
Gender of the invalid	Male	31	17.8
	Female	142	82.2
	None	2	1.2
Treatment episodes	1	119	73.5
in last one month	2 >	41	25.4

SOURCE: Field Data (2012).

4.2 Incidence of Referral and Access to Healthcare Provider

The results in terms of the determinants of formal referral on access to healthcare are varied. Table 3 presents the basic information on referral and access to healthcare that was found in the household survey. The most important variable to be looked at in the context of the research question is formal referral and its effect on access to healthcare services. As shown in table 3, referral awareness is close to 89% over the entire sample with only about 11% reporting that they are not aware of the existence of the referral system. However, the use of the referral system is lower in Eldoret. There are variations on reasons for seeking healthcare, as only about 26.5% of healthcare cases are as a result of being referred and 73.5% are as a result of other reasons including a first contact with a service provider. However, the results show that a greater proportion of the referral cases were formal referrals with written documentation representing 73.9% of the referrals, while 26.1% indicated that they had self-referred.

With Referral cases originating from the public healthcare outlets totaling about 33% of the overall share of the referrals, the bulk of the referral cases were from the private healthcare providers

with about 67% of the referred cases coming from private healthcare outlets. It is important to note that no respondent indicated to have been referred from the national referral hospital. It might be that the facility does not refer patients down to lower cadre facilities as should be the case in a proper referral system which can be either up or down the referral system. It should be noted that most of the referrals ended up in the public healthcare outlets representing 79.7%, with private healthcare facilities receiving 20.2% in the distribution (see Table 3) of all the referred cases. The first referral level facility which is the district hospital received 20.6% of the overall referral cases in the distribution.

Table 3. Seeking a Provider as a Function of Formal Referral

Characteristics	*f*	%
Aware of existence of referral		
Yes	231	88.8
No	29	11.2
Reasons for seeking care		
Referral	69	26.5
Other	191	73.5
Referral used		
Formal referral	68	73.9
Self-referral	24	26.1
Referred from		
Public healthcare outlet	23	33.0
Private healthcare outlet	46	66.7
Referred to		
Public healthcare outlet	55	79.7
Private healthcare outlet	14	20.2
Facility preferred		
Private healthcare outlet	51	73.9
Public healthcare outlet	17	24.6
Self-treatment	1	1.4
Neighbourhood of referred case		
High Class	41	59.4
Middle class	14	20.2
Low class	14	20.2

Source: Field Data (2012).

As a matter of interest the study went further and looked at the direction of the referrals and the category (public or private) of healthcare accessed. As presented in Table 4, majority of the referrals were from the private sector to public sector at 79.6%. Referrals between private to private was 17.4%, public to public 26% and public to private 2.9%.

The overall chi-squared test for the data gives a *p*-value of 0.000 which is less than the set criterion of 0.05. It is concluded that the two variables are not independent or, put another way, there is a statistically significant difference in the proportions. This is an illustration of how statistically significant with a very strong association as indicated in Cramer's v of 0.737.

Table 4 Healthcare Facility Referred to

Category of Care	*f*	%
Private – Public	37	53.6
Private – Private	12	17.4

Public – Private	2	2.9
Public – Public	18	26.0
Total	69	100.0

x^2 = 1.500, *df* = 24, *phi* = 1.475, *Cramer's V* = 0.737, *p* < 0.05 (*p* = 0.000)

Source: Field Data (2012).

4.3 Services Accessed from Referral

Table 5 below presents the various reasons why households are formally referred from one healthcare outlet to the other. The reasons given for the referrals were to seek specialist treatment, better equipment, drugs and quality care. Majority of the formal referrals are for specialist treatment at 58% followed by need for equipment at 23.2%. Drugs and quality come at 11.6% and 7.2% respectively. Chi-square test conducted for the cross-tabulation indicates that specialist treatment, drug, equipment and quality are not statistically significant. These show that there is no relationship between access to these services and formal referral.

Table 5 Services Obtained from the Formal Referral

Referral Services	*f*	%
Specialist treatment	40	58.0
Drug/medicine	8	11.6
Equipment	16	23.2
Quality	5	7.2
Total	69	100.0

x^2 = 7.856, *df* = 12, *phi* = 0.337, *Cramer's V* = 0.195, *p* > 0.05 (*p* = 0.796)

Source: Field Data (2012).

As presented in Table 6 below, most of the referral cases ended up in the hands of a medical doctor at 68.1%. This was followed by the clinical officer at 17.4% and pharmacist at 5.8%. The nurse was consulted by 4.3% of the overall respondents in the distribution. Other medical specialist (physio-therapist, medical social workers etc) also recorded 4.3% of the respondents consulting them. Since the chi-squared test is less than 0.05 we can conclude that the variables are not independent. Put another way, there is a statistically significant difference in the proportions as *p* = 0.023. From the *phi* values it can be concluded that the relationship is positive as well.

Table 6 Specialist Consulted Based on Formal Referral

Medical Specialist	*f*	%
Doctor	47	68.1
Clinical Officer	12	17.4
Nurse	3	4.3

Pharmacist	4	5.8
Other	3	4.3
Total	69	100

x^2 = 29.217, *df* = 16, *phi* = 0.651, *Cramer's V* = 0.325, *p* < 0.05 (*p* = 0.023)

Source: Field Data (2012).

As is presented in table 7 majority of the respondents who had gone through the formal referral indicated that they had been booked for review or further consultation as a result of the referral. About 94% had been booked for review while about 6% had not been booked for review. The chi-squared value for the test item was higher than 0.05 (*p* =0.428) indicating there is no statistical relationship between the items.

Table 7 Booked for Review from the Formal Referral

Booked for review	*f*	%
Yes	65	94.2
No	4	5.8
Total	69	100.0

x^2 = 3.838, *df* = 4, *phi* = 0.236, *Cramer's V* = 0.236, *p* > 0.05 (*p* = 0.428)

Source: Field Data (2012).

5. Discussion
5.1 Formal Referral Determinant
Results of the study showed that in general, usage of referral was very low in Eldoret municipality as previously documented elsewhere in the municipality (Nyakaana, 1996) and beyond (Kiranandana and Apairatr, 1990). Nyakaana's findings that there are fewer number of residents using the national referral hospital confirms the study. He notes that though the demand for medical facilities is on the increase in the municipality, the increase is especially cases from outside the municipality, which has outnumbered those from within the council. This characteristic can be seen in light of Hensher *et al.* (2006) view that referral hospitals consume an excessive share of health budgets and that their contribution to improving health and welfare is low relative to the expenditure on them. This can be one of the reasons why healthcare is increasingly becoming inaccessible to households (Maliyamkono and Ogbu 1999).

Only about 27% of the respondents in the overall distribution received referral healthcare in the four weeks preceding the survey. Such levels of referrals are considered low. All indicators are that most of the cases in healthcare facilities are not as a result of referrals. This evidence supports the conclusion made by Atkinson *et al.* (1999) that the smaller number of referrals may be traced to referral facilities acting as first contact provider for most households in developing countries. The low participation by households in the referral system strongly suggests that the level of adherence to the system is below the potentially attainable. London and Bachmann (1997) attributed this phenomenon to patients' perception of superior quality of healthcare and resource availability at referral hospitals, which often may be entirely well founded and rational; the desire to avoid delays in healthcare if referral to a higher-level facility proves to be necessary; and the fact that for many urban populations a referral hospital may simply be the closest health facility.

The findings indicate that the proportion of households reporting awareness of the referral services is enormous at 88.8%. The more common reason for this phenomenon is that there are varied categories of healthcare outlets in the municipality ranging from the lowest, the dispensary, to the highest, the national hospital. However, of the respondents surveyed only 26.5% had accessed

healthcare as a result of referred cases. The results also indicate that a large proportion of the referral cases are directed to the public healthcare outlets (79.7%) compared to the private outlets (20.2%). However, majority of the referrals originated from the private healthcare outlets (66.7%) compared to 33.0% from the public outlets.

Formal referral will in most cases send a patient to a public healthcare outlet. This was found to be statistically significant. Additional insights can be obtained by examining access to healthcare disaggregated by the type of specialist sought. The results suggests that for the referred households 68.1% of them accessed a doctor; either a general practitioner or a medical specialist, while 17.4% accessed clinical officers and 14.4% accessed the other lower qualified medical specialists. Analysis of the surveyed data reveals that while most of the referrals are directed to public healthcare outlets at 79.7%, this is more than the percentage of patients who prefer the facilities who are 24.6%. This finding was as well found to be positively significant. The households that preferred private healthcare facilities were 73.9%. However, about 20% were referred to these private facilities for healthcare services. It can also be reported that the use of services in a healthcare facility is not tied to the formal referral as the test statistic was found to be greater than the set criterion of 0.05.

In general, the potential of referral in accessing healthcare services in the lives of Eldoret municipal people is evident in the high incidence reported of awareness of one or more type of referral facilities by household members. Overall, awareness of the existence of referral system is 88.8% among the respondents. However, the notion of referral awareness do not necessarily entail sustained adherence to the system as indicated above. But the results of the study from the cases of referrals in the municipality, reinforces the notion that referrals increases access to healthcare. This calls for the strengthening of referral capacity in the various Government healthcare organs vested with the responsibility of providing healthcare.

Formal referral is an important entitlement that enables access to healthcare services. This observation in itself implies that for healthcare access programmes to achieve their intended purpose, they have to be designed and implemented in a manner that takes into account the referral system. About 74% of the referral cases in the survey are as a result of formal referral, meaning that cases of formal referral are prevalent compared to self-referral in the municipality. This finding is unlike that of Nordberg *et al.* (1996) and Omaha *et al.* (1998) who report that the urban phenomenon of widespread bypassing and self-referral is frequently accompanied by low rates of formal referral from outlying facilities.

Findings confirm that formal referral in Eldoret contributes to access to healthcare for the concerned households. Critical to the question of access to healthcare services is the one of access to better facility outlet and medical specialist. Formal referral has significantly improved accessibility to healthcare for households by increasing probability of visit to a higher cadre health facility. The study emphasises and shows trends toward higher rates of access to specialist care (medical specialist). Access to a medical specialist as opposed to a general physician increases with formal referral. About half of all referred persons had accessed specialist treatment in one facility or the other. Formal referral enhances proper use of specialists as well. Overuse of specialists care has often been blamed for the explosion in healthcare costs when too many patients go to specialists for common conditions that need primary healthcare physicians (Gatsonis *et al.,* 2005). Inevitably, the individuals with formal referral also have greater and better chance of being assessed faster. This has been indicated by NCAPD (2005) as one of the merits of formal referral. It reports that when clients are referred to another facility without any formal documentation, they risk being refused services, or having services delayed if the referral facility must assess them as totally new clients.

Survey findings also allude to the fact that the formal referral is closely associated with accessing the higher cadre care. Though most of the referral cases are from the private sector, the private healthcare outlets also do receive cases of referral. Referral cases from the public facilities were more and they referred cases among themselves. There is some association between formal referral and access to preferred healthcare as well. Formal referrals help to strengthen the link between the healthcare facility preference (the healthcare facilities where people would like to seek healthcare) and where they actually do seek healthcare. About 74% of the respondents preferred private healthcare facilities though only 20.2% were referred to the private healthcare outlets. In addition to improved access to private healthcare there is also increased satisfaction with the services received in the healthcare outlets they were referred to.

Respondents in the survey tended to relate formal referral with quality of healthcare. The fact that formal referral is a determinant of household access to healthcare, as a result of perceived quality of healthcare is in line with health belief models (Hochbaum, 1958; Rosentock, 1966). One of the key descriptors of health belief model is the perceived benefit of taking action; taking action toward the prevention of disease or toward dealing with an illness is the next step to accept after the individual has accepted that they are susceptible to a disease and recognised it is as serious. During the initial contact of seeking healthcare, the household chooses a facility because the associated benefits are perceived to be higher than those of alternative outlets. However, with formal referral contacts, the quality of healthcare previously received is used as a learning opportunity and the household will only return to the same provider if there is a perceived benefit.

The lack of relation between higher existence of chronic illness in a household and formal referral suggest that most of the referred cases are not as a result of chronic illness after all. This finding is surprising in view that healthcare providers at lower levels of the health system, who lack the skills, the facilities, or both to manage a given clinical condition, are supposed to seek the assistance of providers who are better equipped or specially trained to guide them in managing or to take over responsibility for a particular episode of a clinical condition in a patient (Al-Mazrou *et al.,* 1990). This kind of skills and facilities are normally located in referral outlets. Finally, though the familiarity of the respondents with referral system does not translate to high usage, the referral system is meant to improve access to healthcare among the populace and to protect the poor from the cost of medication by accessing the lower cadre facilities before moving to the upper cadre ones (see related works in Bedi *et al.,* 2004; and Owino and Were, 1997). It is evident from the study findings that strengthening of the referral system would help increase access to healthcare services for the households.

6. Conclusion and Recommendation
6.2.1 Conclusion

The data used for this particular analysis can be considered unique in terms of content, geographic coverage, and timeliness on households' access to healthcare services. The data collected was in appropriate form, in desired detail and accuracy. The research question had asked to what extent formal referral influence household access to healthcare services. Results of the study showed that in general, usage of referral was very low in Eldoret municipality as previously documented elsewhere in the municipality (Nyakaana, 1996) and beyond (Kiranandana and Apairatr, 1990). Nyakaana found that the fewer number of residents using the national referral hospital confirms the findings. He notes that though the demand for medical facilities is on the increase in the municipality, the increase is especially cases from outside the municipality, which has outnumbered those from within the council. This characteristic can be seen in light of Hensher *et al.* (2006) view that referral hospitals consume an excessive share of health budgets and that their contribution to improving health and welfare is low relative to the expenditure on them.

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The results of the study showed that in general, usage of referral was very low in Eldoret municipality as previously documented elsewhere in the municipality (Nyakaana, 1996). However, in terms of referrals, formal referral is higher compared to self-referral. Findings confirm that formal referral in Eldoret contributes to access to healthcare for the concerned households. Critical to the question of access to healthcare services is the one of access to better facility outlet and medical specialist. Formal referral has significantly improved accessibility to healthcare for households by increasing their probability of visit to a higher cadre health facility. The study emphasises and shows trends toward higher rates of access to specialist care (medical specialist). Access to a medical specialist as opposed to a general physician increases with formal referral.

6.2 Recommendations

Social science research aims at evolving new possibilities for action. This research finding is available for the attainment of social action and change. Therefore, the recommendation to policy-makers is to focus attention on improving access not only healthcare services, but the referral system. The study found that most households in urban areas rely on public healthcare facilities. However, majority of these are from the lower income households and without health insurance plans. An implication is that majority of the poor (who already have multiple health needs and are vulnerable) are not able to access proper healthcare in the private sector, hence their reliance on public sector outlets, which are considered to be of 'lower quality'. This is indeed a double tragedy. Consequently, provision of 'better' private healthcare is skewed towards the well off in the community.

Even as households are educated on the importance of adhering to the referral system, the referral hospitals need to move some of their services from their main hub to other parts of towns' healthcare facilities to increase their visibility, and expand access to treatment, care, and support services. Further, to be effective, referrals must be linked to referral documentation to ensure appropriate follow up of the system by clients.

Investigations are needed to better understand self-treatment form of healthcare so that policy can be designed to improve its use by the invalid, or if necessary to divert demand to other providers of healthcare. In addition there is also need to investigate further the reasons for their increased use. With the increasing prevalence of drug resistant strains of illness, there is a risk of self-treatment contributing to prevalence of diseases exacerbating problem of access to healthcare.

Finally, the work, however, is far from done. Indeed, many studies on healthcare access have been conducted in the past. In recent years, the results of various research studies have taken center stage in the popular media. More informed policies can be formulated as a consequence. It is my hope that the findings of this present study, along with the several others produced, will now stimulate greater interest in this line of inquiry. Further, the conclusions made in this study can later be verified

in different research areas taking into account of particular local circumstances, cultural beliefs, and characteristics of health systems. Hopefully, findings from this study will now be used to help focus and prioritize interventions aimed at improving the performance of the health facilities up the referral ladder.

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