



GSJ: Volume 7, Issue 9, September 2019, Online: ISSN 2320-9186

www.globalscientificjournal.com

THE INFLUENCE OF INSTITUTIONAL FACTORS IN ACCESS TO HEALTHCARE IN KENYA: A CASE OF NAIROBI COUNTY, KENYA.

1. *Davies N. Chelogoi: (Ph.D candidate, Department of Political Science and Public Administration, University of Nairobi*
2. *Professor Fred Jonyo, Associate Professor, Department of Political Science and Public Administration, University of Nairobi*
3. *Dr. Henry Amadi, Lecturer, Department of Political Science and Public Administration, University of Nairobi*

Abstract

Objective

This study examines the influence of institutional factors on access to public healthcare in Kenya, a case for Nairobi County. It focused on the influences of health policies, leadership and governance, health infrastructure, health facilities, health workers, health finances and health insurance. The objective of the study is to evaluate the influence of institutional variables in access of public healthcare.

Method

The study used data from a sample of 1066 households purposively selected from Nairobi County. All households were aged 15 years and above. The households were subjected to interviews that covered a wide range of topics. Descriptive design was chosen for the study. The study adopted multiple sampling methods for the study. These included purposive sampling, systematic sampling, snowball sampling and multi stage cluster sampling frame.

The data was collected using various techniques or instruments which included observation, key informant interviews, questionnaires, in-depth interviews, and focus-group discussions. The data was processed using descriptive statistics. Correlation and regression analyses were used to correlate and interpret the data of the study.

Results

The findings show that access to healthcare is inadequate and unevenly distributed among the households in Nairobi County. The factors attributed to these inequalities were inadequate and poorly implemented health policies, inadequate health facilities, and inadequate health workers, shortage of essential drugs, low level funding and poorly managed health insurance. Multivariate analysis shows the linear relationships between the variables. The relationship is mutually inclusive and highly correlated. The relationship has 2-tailed significance and it is significant at the 0.01 level. This is less than 0.05 significant level used in most research ($0.01 < 0.05$). This correlation rejects the null hypothesis and accepts the alternate hypothesis. Pearson Product Moment correlation was used to show this statistical relationship. The results are important and are not by chance or due to chance. The independent variable has significant influence on access to healthcare.

This study argues that these institutional factors should be made adequate, accessible and quality improved. The focus should be on the lower social classes, who are deprived, and denied capabilities to access healthcare.

Key words: *Access, inequality, health inequality and socio-economic inequalities*

Introduction

A robust health system is essential in order to reverse the declining trends in health. Improved health systems lead to increased productivity and it increases life expectancy, decreases health expenditure, and reduces infant mortalities. Improved health is a key factor for development. However the current efforts to improve health systems are not satisfactory. The efforts have not been able to promote healthcare for all.

At the global level, advances have been made to improve health systems (WHO, 2002). Health infrastructure has been expanded and socioeconomic opportunities have improved as well. These interventions have reduced mortality rates and raised life expectancy. However, despite the advances, gaps still exist (Von Schirnding, 2000). Disparities have increased and the majority continues to live in poverty (Taylor and Taylor, 2000). More than 100 million children die every year due to health inequalities worldwide (Gwatkin et al. 2000).

Most SSA countries are constrained by resource scarcity. Most SSA countries still finance their healthcare far below the Abuja Declaration of 15%. Their average health expenditure rarely exceeds 5% of their GDP. They spend less than 10% per person per year on healthcare compared to US \$ 27 needed. More than 50% of SSA countries have no access to modern facilities; 40% have no access to clean water, high levels of maternal, child and infant mortalities. Immunization is at low rates especially in the rural areas (WB, 2006).

In Kenya, the health sector comprises three owner systems, which include Government of Kenya, which owns hospitals, referrals, health centers and dispensaries, and the Non-Governmental Organizations and Private Business organizations. The Government owns 40%, NGO 15% and Private 43%. Health care financing depends on out-of-pocket payments (52%). The donor or bilateral funds are complicated and they are spent on non-health services. The Ministry has to conform to donor demands. Government of Kenya contributes about 30%, households 51% (out-of-pocket), donors 16% and NHIF and private insurance, the rest.

The public health workforce is 3,695 comprising nurses, clinical officers, and public health officers. The doctor patient ratio is 1: 17,000 (CIDP, 2012-2018). However, healthcare resources or capital has deteriorated due to death, disease and brain drain. Other changes include

inappropriate training, inability to hire more, poor motivation, conflict of interests, corruption, and misuse of resources. The majority of health personnel are concentrated in urban areas, leaving the countryside poorly staffed.

Poor governance has also been a major challenge in access healthcare. Governance in health facilities lack inclusivity, accountability and transparency (Bossert, 2000). Poor leadership reduces access to healthcare (Sohani et al 2003).

The socio-economic conditions in the County pose major challenges to access to healthcare. Even the advances made against poverty and high mortality rates have deteriorated due to increasing population and worsening socio-economic conditions. The political and environmental conditions have also worsened the situation (Mwabu G et al. 1998). More than 60% of Kenyans live below poverty line (less than \$ 1.25 a day and they are unable to buy basic needs. The households face many socio-economic challenges and all these have been documented (Vision 2030, 2014).

There are areas with significant problem of lack of space for household toilets, and lack of land for public toilets. These include: Kiambu, Kinyago, Kibera, Korogocho, Mathare, Sinai, Mukuru Kwa Njenga and Reuben, Kangemi and Githunguri. These factors have not been addressed comprehensively, and they continue to be sources of health inequalities in the County. Shortage of land is a major issue in the County because available land is overstretched and scarce parcels of land that belong to the Nairobi City County or public utility have been illegally allocated to developers. This is a challenge because the projects planned for the same land cannot be implemented. The main cause of illegal allocation of land results from unresolved land disputes, inefficient land information management system and lack of secure land tenure especially for the vulnerable groups, corruption at County and Ministry of Lands (Obudho, R. 1992).

Methods

Sample Selection

This study purposively selected Nairobi County, from the 47 Counties of Kenya, following the adoption of the 2010 constitution in which Kenya was divided into 47 Counties. The County has 17 constituencies, sub-divided further into wards that constitute county assemblies. The

constituencies purposively selected are: Starehe, Dagoretti North, Langata, Westlands and Mathare.

Descriptive research design (quantitative) was chosen for the study. This was chosen because it involves large samples and can help define sets of variables. Specifically, cross-sectional design was used to determine what extent variables were related. The study used field studies and survey to collect data, which essentially is numerical. The target population, 1066 households was purposively selected from Nairobi County. Chardha's formula was used to estimate the sample size. Other key informants include 20 officials from the County Government and 100 health workers. Questionnaires were sent to these target and key informant groups for purposes of carrying out all the interviews.

The study adopted multiple sampling methods to formulate procedures of selecting the subjects or cases to be included in the sample. These were purposive, systematic, snowball and multistage cluster sampling techniques.

Data collections techniques

There are two types of data which were collected: primary and secondary data. Primary data refers to information collected from the field. Secondary data refers to information collected from research articles, books, and interviews. The techniques used included observation, key informant interviews, questionnaires, face-to-face interviews, in-depth interviews and focus group discussions.

Data analysis

Raw data was ordered in a way that the researcher was able to make sense of the information. Using statistical technique, the Pearson Correlation Coefficient, the study measured the linear correlation between the two variables x and y . The conventional 5% ($P < 0.05$) was used to determine the significant of the results. This enabled the study to develop predictions based on the relationships. The results were interpreted using correlation statistics. This provided information that was easility interpreted and conclusions made to support the decision on whether to reject or accepts the null hypothesis.

Definitions of Terms

Access

Access to healthcare has been a difficult concept to define. Many researchers have used the concept “access” as synonymous with “utilization”, implying that an individual’s use of health services is a testimony that he or she can access these services. However, access refers to opportunities, while utilization is the manifestation of these opportunities. Whitehead M. et al defines access to refer to the ability to secure a specified range of services, at a specified level of quality, subject to a specified maximum (Whitehead M. et al. 1997). He goes further to make a distinction between ‘having access’-the possibility of using a service if required; and ‘gaining access’-actually using a service. A precondition for access is an adequate supply of services, so that individuals have the potential to use a health service (Gulliford, Figueroa-Munoz. et al. 2002).

According to these researchers, an individual faces many challenges when attempting to access healthcare. Some of these challenges include financial, organizational, social or cultural barriers that limit access to resources. He further argues that access is affected by timing and outcomes, and the receipt of services when the individual needs it. He further points out that equity needs to be considered for all social groups who are different in terms of need, socio-economic status, culture, language, and religion.

According to this research, both supply and demand factors influence equal access to healthcare. On the supply side, healthcare resources have to be distributed to Counties according to population size, healthcare needs, and income (Oliver and Mossialos 2004). This calls for sufficient incentives, facilities and staff to be retained in underserved areas.

However, on the demand side, we must consider the ability of individuals to pay. He cites use of user charges but these have also faced numerous challenges especially with regard to upper and lower social groups (Mossialos and Thomson, 2003). The use of user charges must be consistent with the accepted principles of equity. Other factors like waiting times should not differ between social classes or income groups. This re-known researcher further argues that demand is also influenced by other factors like knowledge, information, cultural beliefs, indirect financial costs (e.g travel costs), the opportunity costs of patient’s time, and their preferences. Some of these could be addressed by providing healthcare information and health promotion strategies.

Health inequalities

The study used both group- level differences and health distribution to study health inequality in the County. The study examined differences in health outcomes at the group level in order to understand social health inequalities. This was found useful because it policy makers to target investments in areas, that are worst hit by inequalities; this can also help create policies and programs that try to eliminate such group differences. Tracking social group differences can also help shape unfair distributions and monitor health inequalities in the County (WHO, 2005). This approach can also help understand health inequalities in a historical and cultural context; it provides some understanding of how such health differences could have arisen. For example, it helps us understand how health inequalities occurred in Nairobi during and after independence. This approach helps to guide interventions, equity issues, and understanding of health inequalities (Kawachi I. et al. 2002).

The study also focused on health differences across individuals, for example describing the range or variance of a given measure across the entire population. This method puts all households into one distribution (Murray CJL, et al. 1999). The study used such factors as income, education and employment to determine the wealthy individuals in given areas of the County and the poor in informal settlements (Milanovic B. 2012). This method is useful because you get to understand for example how resources are so unequally distributed amongst the households, and the factors that drive such differences.

Social groups

The study identified and defined social groups based on age, gender, ethnicity, and place of residence, occupation/employment, income, education, SES, social capital, and other resources that helped define social groups (5). Access to healthcare means that the households are not restricted by barriers such as geography, cost, language, lack of facilities, poor infrastructure and other institutional deficits (Brawley M. 2000).

Socio-economic status (education, income and occupation) creates divisions among households. They are skewed in favor of the upper and middle class groups. The upper and middle class have adequate socio-economic resources which provide information and skills necessary for accessing healthcare. They have adequate capabilities that access them better healthcare than the lower social groups. On the hand, the lower social classes, deprived of all these socio-economic

resources, remain poor and vulnerable to diseases. Lack of these resources deprives them the capabilities to raise resources to access healthcare. This is compounded by poor living conditions, congested housing, lack of water and proper sanitation. The unhygienic environment acts as a major deterrent to accessing healthcare. This leads to fall of life expectancy, infant mortality rates, and this increases any gains made. Poverty creates misery and missed opportunities. Due to poverty deprivations, they cannot afford access to healthcare. Healthcare therefore remains unequal between the social classes and this inequality is perpetuated.

The study was designed to investigate the influence of institutional factors on access to public healthcare. The focus was households who provided information for the study. Specifically, the study set out to evaluate the influence of institutional factors in access to public health care.

Multivariate Analysis

Multivariate analysis was performed to study how independent variables were related to access (dependent) to healthcare. The analysis used as its framework Capability Approach of health access as proposed by Sen Amartya (Sen A. 1990). This approach, which seeks to explain variations in access to healthcare, divides determinants of health care into commodities, human functioning/capability and utility. In this analysis, Sen emphasizes that economic growth and expansion of goods and services are necessary for human development. Economic growth has a bearing on human development. This is because growth provides economic opportunities, incomes and jobs. Income provides the capability to access the basic necessities of life such as food, shelter and health. It also provides a purchasing power for participation in the economy.

In his analysis in judging the quality of life, it is important to consider what people are able to achieve. He observes that different people and societies differ in their capacity to convert income and commodities into valuable achievements. In comparing the well-being of different people, it is imperative to consider how people are able to function with the goods and services at their disposal (Sen A. 1985; 25026). The analysis focuses on human functioning (ing)s and the capability to achieve valuable function(ing)s.

Functioning is an achievement of a person: what she or he manages to do or able. It reflects a part of the “state” of that person. Achieving a functioning depends on a range of personal and

social factors: age, gender, health, access to medical services, knowledge, education, employment and environmental conditions. A functioning therefore refers to the use a person makes of the commodities at his or her command. A capability reflects a person's ability to achieve a given functioning (Saith, 2001; 8).

In this analysis, resources and their overall distribution are important in society. These resources include institutional factors (policies, leadership and governance, health infrastructure, health workers, health finances and insurance covers). Multivariate models were constructed using the ordinary squares method. The results indicate the independent effects of institutional factors.

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Institutional variables

Health policies

Health policies are defined as the decisions, plans, and actions that are undertaken to achieve specific health goals within society (WHO, 2013). Health policy can achieve several things; it defines a vision for the future, it outlines priorities and outlines priorities and the expected roles of different groups, and it builds consensus and informs people (WHO, 2013). There are many categories of health policies including global health policy, public health policies and others.

The Kenya health sector has developed many policies to improve and monitor aspirations of the constitution 2010 and Vision 2030. The policies are necessary to protect, promote, improve and maintain health. Such policies include Kenya Health Sector Strategic and Investment Plan (KHSSPI, 2013-2017), Health Reforms in Kenya (Mwabu G. 1995); Enhancing Healthcare among the Vulnerable Groups, the System Waivers and Exemptions (Owino, P. 1998) and Health Financing in Kenya (Collins D. 1996), Kenya Health Policy Framework of 1994 and Kenya Health Policy.

Respondents were asked if health policies influenced their health outcomes, and the findings were as follows: 10% (107) of the respondents said health policies influenced their health outcomes, 40% (426) said that health policies somehow influenced their health outcomes, and the majority 50% (533) said health policies did not alter or influence their health outcomes.

The 10% were respondents mainly from high income areas, who found that health policies had influenced their health outcomes. They had altered the determinants of health and had made provision for social policies, finance, insurance, housing, employment, incomes, education and families. These were households who lived in high income areas, with high education and employment status. They therefore needed health policies that protected their interests so that they could use their resources to access healthcare services in private facilities. 20 Their fairly medium socio-economic resources/commodities were fairly protected by the existing health policies.

But the majority 50% was very unhappy with the current health policies. These were residents who lived in informal settlements with low incomes, high population densities, spontaneous,

mushrooming of squatter influx, created by migrants from other parts of the country. The social services were scarce; for example poor housing. The materials used in construction are characterized by stones, bricks, blocks, wood and corrugated iron sheets.

The policies failed to address poor housing issues as shown by the types of houses. Overcrowding, low schooling, infrastructure, lack of opportunities, poor distribution of health facilities, lack of water and sanitation too were not adequately addressed by health policies. These health policies had done little to alter these crucial determinants of health in their environment (CIDP, 2018-2022). The policies had not altered their health outcomes. Therefore, health policies were significant independent variables that influenced access (dependent variable) to healthcare services. The influence nullified the null hypothesis and upheld the alternate hypothesis.

Leadership and Governance

The leadership and governance is critical to any health system (WHO, 2005). It is about the role of government in health and its relationships with other actors whose activities impact on health. This involves overseeing and guiding the entire health system, private as well as public in order to protect (public interest. It calls for both political and technical support, given that it involves reconciling competing interests against scarce resources and changing situations or circumstances. For example, the ever increasing demands, increasing population, new policies like devolution, and the expansive private sector. There are increased demands for attention on corrupt practices and calls for human rights based-issues.

Therefore, there is no blue print for health leadership and governance. Some functions include policy guidance, intelligence and oversight, collaboration and coalition building, regulation systems and accountability.

The findings show that 15% (160) said that leadership and governance was good, as it addressed all the challenges affecting accessing to healthcare, 25% (266) said that leadership was fair, and the majority 60% (640) of the respondents said leadership was poor.

The 15% respondents were households in high income areas, with high incomes, high education and occupational status. To them leadership and governance was good as it provided and

protected their interest. It protected their financial needs, insurance policies, housing and other relevant infrastructure. It ensured social services including healthcare services were provided for.

The 25% findings show that respondents were households in medium income areas, with medium incomes, education and employment. Health services and other correlates were somehow available in their areas of residents. Leadership and governance was therefore fair since the altered their health determinants.

However, the majority of the County residents 60% (640) said that was poor, biased, pro-rich and having little regard for their well-being. The leadership had no proper policies to manage ever increasing migrant from the other Counties in search for employment, lacked capacity to provide social amenities to match the increasing population, poor living conditions, congested housing, overcrowding, shortage of water and poor sanitation. Poor and inadequate health facilities were the dominant feature in all informal settlements (Kibera, Kawangware, Mathare and etc.)

Security is a vital leadership and governance issue and yet insecurity was a dominant feature in the settlements. The households were not safe and neither was their property. High insecurity and crimes by organized groups due to high unemployment rates was escalating in the County. Leadership and governance of the health systems had failed to tame all these vices and this had adversely affected access to healthcare. Leadership and governance was therefore an important independent variable that had significant influence on access (dependent variable) to healthcare.

Public health facilities

Public health facilities were vital in providing access to healthcare (Odaga J. 2004: 192-208). The County health system is categorized into five levels. Kenyatta National hospital is National and it is supported by other health facilities like Mbagathi, Dagoretti, Mama Lucy Kibaki, and a host of health centers and dispensaries. The County has 45 hospitals with a bed capacity of 6,990. There are 141 health centers, 200 dispensaries and 551 clinics (CIDP, 2018-2022).

The study findings show that 17% (175) kept away from public health facilities, 33% (358) used some of these health facilities, and the majority 50% (533) depended on public health facilities. A population of 17% (175) kept away from the public facilities and they did not use them at all.

These were people who had high incomes and relied on private healthcare, given that they could use health insurance to supplement the costs. This population lived in wealthy areas like Karen, Muthaiga, Lavington and Westlands.

On the other hand, 33% (358) partly used public health facilities and partly used private facilities. This population is middle class and they have some moderate incomes. They lived in fairly wealthy estates like Nairobi West, Parklands and South C.

However, 50% of the respondents used public health facilities. These were households who lived in low income areas like Mathare, Kibera, Kawangware and many more other informal settlements where social services were scarce or not available at all (CIDP, 2018-2022). They therefore failed to access healthcare due to their deprived positions in society. Such deprivations include social services like education, occupation and health services. This curtailed their capacities to function well, and had to remain with unequal access to healthcare. Public health factors were therefore important independent variables that had significant influence on access to healthcare services.

Health Workers

The study found that health workers were a critical element in accessing healthcare services in Nairobi County. The total workforce in the County is 3695 comprising physicians, nurses, hospital administrators, and pharmacists, many of whom interact with each other and with patients (CIDP, 2018-2022). The study findings show that that 10% (106) of the respondents had opted to use private health facilities where there was no shortage of health personnel. About 30% (320) also to some extent opted to use private health facilities, and the majority 60% (640) had to continue searching healthcare from public facilities because they could not afford the costs. The 10% were wealthy and lived in high income areas, and above all, they could afford private healthcare. The public health workers were inadequate and did not match their living standards. They are supported by health insurance schemes. This population lived in upper residential estates. This is the higher class population the County.

On the other hand, the middle class cared a little about use of health workers. They sometimes visited public facilities and so could find nurses useful. However, they had moderate incomes

and could therefore afford private healthcare. They lived in areas like South B, Nairobi West and Parklands.

However, the majority of the respondents said they cared so much about health workers. They gave them care and without them they can just die. 640 (60%) confirmed that they needed health workers. This group of households lived low income areas, where conditions were very unpleasant. Mathare, Kibera and Kawangware were their homes. They preferred health workers at the public facilities because they cannot access private healthcare. They are so poor and without health insurance to support their healthcare. In fact, they relied on out-of-pocket to pay for their healthcare. This resulted in catastrophic consequences to the few resources available for the household members. Health workers were an important independent variable that influenced access (dependent variable) to healthcare services.

Health infrastructure

The health infrastructure which included medical equipment, medicines and drugs were vital for access to healthcare. Lack of equipment affects the capacity to diagnose and treat patients. The findings show that many health facilities lacked functional health equipments for theatre and other general operations. Kenyatta National Hospital, Mbagathi and Pumwani lacked cancer facilities, adequate trained staff, oncologists, intensive care units, poor operations rooms, fewer dialysis units and even imaging equipments. In both Mbagathi and Lucy hospitals, the facilities lacked adequate ultrasound machines, gynecology, chemotherapy, transplant surgery, orthopadict surgery, heart surgery and CT scans amongst others.

The findings show that patients had to seek for care where these facilities were available. The households reported that they went to government facilities because of access to free services. They gave examples where access had increased because increased provision of equipment (GOK, 2000a). The study findings show that 10% (106) of the respondents did not go to government because the facilities did not have adequate infrastructure, 25% (267) somehow visited government facilities, and 65% (693) visited government very frequently. The 10% of the households, with high incomes supported by lucrative insurance coverage, sought healthcare in private facilities. Their socio-economic status supported access to information and skills that

could easily afford them access to healthcare. These capabilities are critical for access to healthcare.

The middle class (25%) of the respondents somehow visited public facilities. These are households with moderate incomes and they partly supported by their socio-economic benefits; they supported by health insurance covers, and to some degree, have some viable commodities to access health. These households live in middle income areas and they aspire to climb the social hierarchy to join the upper class. Even with limited access, the group has capabilities that can access them some healthcare.

However, at the bottom, 65% (693) of the respondents were the lower classes, who struggle to survive against a very harsh socio-economic environment (GOK, 1999 c). They generally depend on public facilities for healthcare. They live in areas that lack water, sanitation is poor and housing is very bad. The garbage menace is too bad and they have to manage to live with it. They are deprived of socioeconomic benefits and they find themselves in extreme poverty. They have no commodities at their command to manage healthcare demands. Poverty has deprived them the capacities to acquire the necessary individual and social bundles of commodities to purchase healthcare. Health infrastructure is therefore an important independent variable that has significant influence on access (dependent variable) to healthcare.

Health finances

County expenditures on health continue to be inadequate to support the health needs of the County. Review of public health expenditures and budgets indicate that the health budgets continue to decline. The government expenditures on health have remained way below government's commitment to spend 15% of total government expenditures on health in line with the Abuja Declaration. These health expenditures are even far below the WHO recommended level of USD 34 per capita per annum for a basic package of health services (CIDP, 2018-2022). Poor funding has resulted in health facilities being unable to offer healthcare to the households. The health system is unable to equip and renovate old facilities; it is unable to purchase drugs, supplies and equipment, unable to recruit and retain more health workers and cannot even improve the hygiene of the facilities. This makes health facilities unattractive to both the upper and middle class social groups. Instead they opt to use private health facilities for their

healthcare. Their socio-economic advantages give them capabilities to seek alternative healthcare facilities.

However, the lower social class has to contend with these poor facilities, given their disadvantaged backgrounds. The lacks of socio-economic opportunities confine them to the use of public facilities. They have limited choices because they lack the capabilities to access healthcare in high cost private facilities. This increases health inequalities in the County. In that regard, health finance has a relationship with access to healthcare. The health finance was an important independent variable, which had considerable influence on access (dependent variable) to healthcare.

Health insurance

Health insurance in the County is predominantly based on OOP payments. There are low levels of prepayment insurance mechanisms and this affect access to healthcare. Three types of insurance were available in the county and these included: National Hospital Insurance Fund, Private Health Insurance, Community-based Insurance and others.

Health insurance is low among the city residents and this had increased the risks of impoverishments due to high illness costs. The survey shows that health expenditures have driven individuals and households into poverty. The survey findings show that 10% (107) of the respondents had high premium insurance, 20% (213) had medium insurances, and the majority 70% (746) had no insurance coverage. The 10% of the respondents were high income earners, living in upper income areas, and had high socio-economic opportunities compared to the rest of the households. Because of having premium health insurance, their health was good, characterized by low infant and morbidity rates and high life expectancy. They had a full range of individual and social commodities to support their functionings. These commodities increased their capabilities to access healthcare.

On the other hand, the 20% (213) of the respondents had medium insurance covers. These households had fairly high socio-economic status and lived in proximity to social services. Insurance cover could afford them opportunities to access private healthcare, ultimately that determined their health status. Their health was characterized by medium mortality and

morbidity rates, average life expectancy and expects live quality life.

However, the majority 70% (746) do not have insurance covers. The uninsured households formed the bulk of the County population. These households have serious socio-economic challenges. The advances made against poverty and high mortality rates have deteriorated due to increasing population and worsened socio-economic and political environments (Mwabu G. 1998). These households mainly live in informal settlements where water and sanitation is inadequate, and solid waste management is poor. High population growth coupled with insecurity all combines to increase poverty levels. Rural –urban migration is a critical factor on population growth. The County is the Capital city of Kenya and therefore receives the highest percentage of job seekers from other parts of the Country. Part of this population end up in informal settlements within the County. This has led to mushrooming of informal settlements.

This has exerted pressure on the existing physical facilities, including housing of the low and middle income earners; facilities like water and sewerage have been overstretched and this has been worsened by poor laws and providing adequate social amenities to this increasing population continues to be a major challenge. Areas like Kibera, Kawangware, Mathare, Viwandani, Kiambu, Kinyengo and Mukuru have fallen behind in healthcare because of the factors cited above.

And yet the County is not able to provide effective and efficient services, partly because of lack of resources to invest. No new facilities are coming up and even the existing ones are not being upgraded or modernized. This has limited the capacity of the households in these areas to access equal care like the households in the middle and upper households.

NHIF has also been faced with management challenges. It owes private health facilities millions of money in unpaid bills. For example, it owes the Catholic church 1.3 billion since 2017; Mater hospital 350 million; Our Lady of Lords hospital in Mwea 120 million; Consolata hospital in Mathira 110 million, North Kinangop hospital 81 million and a conglomeration of health facilities owned by Protestant churches, Christian Health Associations of Kenya (Kijabe, Tenwek and Tumutumu) hundreds of millions. The institution is also marred with corruption. The electronic machines have been grounded so that they don't capture all the data about

supplies and claims lodged. This incapacitates these institutions from providing care to households who depend on private facilities. This therefore affects access to healthcare.

Their deprived socio-economic environments impede access to healthcare insurance and that affects equitable distribution of healthcare. In this regard, health insurance is a very important variable in the studies of access to healthcare. It is an independent variable that has significant influence on access (dependent variable) to healthcare services.

Discussion

Institutional factors like supply of drugs, equipment, medicine, staff, health facilities and financial resources should be evenly distributed and that they must be well equipped to service the health sector needs. This has not been the case in Nairobi County. These institutional factors are not evenly distributed; and even where there are efforts to do so, they are skewed in favor of the upper and middle social classes. This increases their capabilities to access healthcare. But the lower class and other vulnerable groups are deprived of these factors, making them vulnerable to diseases due to their incapacities to access healthcare services.

Access still has some definitions that deserve additional analyses. For example, access to health services means the timely use of health services to achieve the best health outcomes (Millman M. 1993). The emphasis here is that services must be provided on timely basis. It means giving entry to health facilities system and accessing actual location where services are to be provided. This is important because quite often, facilities are available but the services are delayed, and at times making households go home without a service. This focuses on the health providers as well because households who seek healthcare from them (Bierman A. et al. 1998; 17-26). These definitions are all important because they define the critical factors that determine access to healthcare. Adequacy, timely, and having the right provider are essential in determining access to healthcare.

The study found that institutional facilities were inadequate or were poorly managed and this affected access to healthcare. The key respondents mentioned that there had been a drastic decline in access to healthcare, especially in public facilities. This poor usage and decline was

attributed to poor health policies, poor leadership and governance, few health facilities, poor infrastructure, inadequate health personnel, poor health financing and low coverage of insurances under the NHIF.

The County had developed many policies to conform to the 2010 constitution and Vision 2030 but these policies had not effectively dealt with the objectives they had set to achieve. The Kenya Health Sector Strategic and Investment Plan 2013-2017, the health reforms (Mwabu G. 1995), The System Waivers and Exemptions (Owino P. 1998), The Rise and the Fall of Cost Sharing (Collins D. 1960) All these policies had not achieved anything tangible. Socio-economic inequalities persisted, skewed allocations remained un challenged, and poverty perpetuated, thereby increasing inequalities in healthcare.

Leadership and governance in the health system in the county remained poor and riddled with massive corruption allegations. The key respondents mentioned that Kenyatta National hospital, Mbagathi, Pumwani and Mama Lucy hospital were rife with scandals of mismanagement and corruption. The facilities lacked drugs as most of them were stolen; and households seeking care were being asked to pay for drugs but using unofficial receipts. This was so because there was no closer monitoring and supervision of the facilities. Health workers were absent and the key informants reported that these workers were working elsewhere to top up their monthly earnings. All these went on unchecked due to poor management styles, lack of transparency and accountability. This affected access to public healthcare, and this explains why the upper and middle social classes shunned public facilities in preference to private sector. This has a relationship with access to healthcare.

Public health facilities were inadequate and poorly equipped. In the County, Nairobi has only 9 hospitals, 32 health facilities, 83 dispensaries and 36 clinics (District Development Plan, 2008-2012). These are few to cater for healthcare for a population of about 4-5 million people, especially in the informal settlements where the majority of this population live (at least 70%).

Infrastructure in these facilities was also a major challenge. The facilities lacked essential medicine, equipment and supplies and this adversely affected the 705 of the households who depended on public health facilities. The majorities of these households is of low incomes,

education and employment and therefore have no capabilities to access costly healthcare in private sector. This forced the upper and the middle classes to shun public hospitals and move to private health care facilities where they can afford. The lower class on the other hand cannot afford private facilities because of their disadvantaged positions. This perpetuated inequalities in healthcare.

The findings also show that health personnel were inadequate, given that the County had only about 4,000 comprising doctors, nurses, physicians, pharmacists and technicians. Besides, these personnel were not adequately remunerated, and their working conditions were totally below standards. The doctor/ population ratio was only 1:133, 576, nurse ratio was 1: 2,658 and clinical officer ratio was 1; 31,430 (District Development Plan, 2008-2012). This made some of them to leave working in informal settlements, and concentrating in CBD, where the population was about 20% of the total population in the county. This left the majority of the population with less access to healthcare. This only increased inequalities in access to healthcare. There is a relationship between access and health workers.

The County has limited budgetary allocations for both development and recurrent expenditures. The allocations are low and the County does not have enough cash to meet health demands. It cannot purchase adequate drugs, supplies and equipment (CIDP, 2012-2018). This is made by delayed disbursements by National government allocations, low revenue collections as all these have fallen below targets.

Even at the National level, the government has been unable to spend 15% of the total government expenditure in line with Abuja Declaration. The current expenditures are even below the WHO recommended level of USD 34 per capita per annum for basic packages of health services. These financial inadequacies affected access to healthcare, especially the lower social classes who depended on public healthcare. It is the reason why the upper and middle class social groups moved to private health facilities like Nairobi, Agha Khan, Nairobi hospital and MP Shah amongst others, for more specialized healthcare. This increases inequalities in access to healthcare services.

Social differences in access to health were found to be attributable in part to a lack of health insurance. The study recognizes the benefits of health insurance but these benefits have been lopsided. The upper and middle classes have been the sole beneficiaries of health insurance. The health schemes favor households with high incomes, education and employment. The study findings show that this is only 30% of the entire population in the County. This is attributable to their advantaged social positions that are characterized by high incomes, education, occupation and wealth. These factors increase their capabilities to access healthcare, especially in private facilities.

On the hand, the lower socio-economic classes lack these opportunities-lack incomes, education, occupation and wealth. Therefore, the absence of these factors denies them the requisite capabilities to access healthcare in private facilities. They are confined to use of public health facilities which are inflicted with multitudes of problems. This explains why they have poor access to healthcare compared to the other social groups. To this extent therefore, health insurance has a significant effect on access to healthcare.

However, health insurance is plagued with many challenges. It owes a lot of money to private hospitals. Private health facilities offer about 40% of healthcare services to the households in Nairobi. The health facilities most affected by these indebtedness include the catholic churches, 1.3 billion, Mater hospital 350 million and Lady of Mercy 120 million and many others including North Kinagop 81 million. This affects the efficiency and effectiveness of these facilities to offer healthcare for their customers. This affects access to healthcare.

Corruption has also been identified as a major problem in the insurance industry. Electronic systems are not working and there are claims that they have been made dysfunctional to avoid exposing corrupt practices. The top management has been indicted on massive corrupt deals and this has affected access to healthcare. These factors have delayed further recruitment especially from the private sector. The general public are slow in responding to calls to register as members because of such claims. Health insurance has a relationship with access to healthcare. Those with health insurance have better access and opportunities to use health insurance. The lower social groups hardly have health insurance and therefore have to continue to depend on public health facilities. This explains continued health inequalities among the social groups in Nairobi County.

Limitations

This study has important limitations. First, there respondents who were not co-operative and un willing to answer questionnaires. However, the researcher explained to the potential interviewees that the information given shall be treated with utmost confidentiality, and that the research was purely for academic purposes, helped to mitigate the problem.

A second limitation lies in the quantitative methods. It was difficult to conclusively draw conclusions from the sample data. It was limited to a few selected areas of the city, and this could have had an impact in the generalizations and application.

A third limitation is with the sample selected. The sample used was small and this affected generalizations as some important areas were not included in the sample. But the researcher managed to capture as much information as possible and this again mitigated the problem.

Conclusions

This study demonstrates that access to healthcare is unequal among the social classes in the County. The lower social economic groups, which include the poor, vulnerable groups like children, street children, PWDs, migrants, youth and women cannot access healthcare because the institutional facilities are either inadequate or poorly managed and unfairly distributed. These groups are disadvantaged lack the capabilities to address these deficits, hence being unable to access healthcare. The distribution of these resources is lopsided in favor of the upper and middle social classes. This allows them to have better capabilities to access better healthcare, given the vast opportunities endowed upon them. This duality increases inequalities in access to healthcare.

These health inequalities have been attributed to unequal distribution of health policies, poor leadership and governance, inadequate infrastructure (lack of medicine, drugs, medicine), inadequate health personnel, low health financing and poorly managed insurance policies and programmes.

This analysis suggest that there are several areas for further research: how socio-economic groups can access healthcare in equal terms; how poverty and other health determinants can be reduced or eliminated; and how capabilities can be spread across all social groups in the County.

This study argues that these factors should be equitably spread across all the households in the County. All the factors discussed need to be increased or improved so that they can effectively provide access to healthcare for all. All social groups including the low social classes should be involved in addressing the challenges facing the sector.

Acknowledgements

This work could not have been successful without the contribution of various institutions, institutions and organizations. I appreciate the useful information, materials and support I received from the field study from Office of the President, the Ministry of Health, Ministry of Planning and Devolution, Ministry of Education and the County Government of Nairobi County. Special thanks go to the Office of the President for partial scholarship and study leave during the time I was conducting the research. I cannot forget thank the University of Nairobi, Department of Political Science and Public Administration for their enduring support during the study. In equal measure, I thank all the staff for facilitating my field study.

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