

**MATERNAL AND CHILD HEALTH CARE DELIVERY AND  
UTILIZATION IN LOW INCOME URBAN SETTLEMENTS:  
A CASE OF NYALENDA AND PANDIPIERI, KISUMU, KENYA**

**BY**

**CHARLES OMONDI OYAYA**  
**(B.A. Sociology)Hons.**

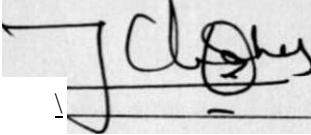
**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
DEGREE OF MASTERS OF ARTS IN PLANNING OF THE  
UNIVERSITY OF NAIROBI**

JUNE 1991

*io ? ] 1 ' \* ^*

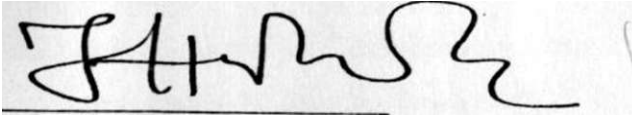
**DECLARATION**

This Thesis is my original work and has not been presented for a degree in any other University

Signed 

**(Candidate) CHARLES OMONDI OYAYA**

This Thesis has been submitted for examination with my approval as University supervisor

Signed 

**(Supervisor) DR. JASON MOCHACHE**

**DEDICATION**

**TO  
MY PARENTS**

## ACKNOWLEDGEMENTS

This is to register my innermost appreciation to all those whose assistance and co-operation aided me to complete this work.

I am immensely indebted to my supervisor Dr. Jason Mochache for his selfless, candid and valuable guidance during the whole process of producing this work. His criticisms and suggestions were most appreciated.

Many thanks to my uncle Elly Oduol for assisting me with the books and other publications which greatly helped me during the formulatory stage of this study. From him, I got a lot of inspiration.

I am sincerely thankful to my uncle and peer, Mr. Peter Oginga for saving his time to mobilize for me his fellow public health technicians as my Research Assistants. To him and his friends, I owe the success of this study.

I am deeply and especially indebted to my parents, Mr. Christopher Oyaya and Mrs. Mary Anyango Oyaya for their constant prayers and support. To them I owe the entirety of my life dynamics.

As an obligation, I specially thank my respondents for rendering to me and my assistants their valuable time and information without which this work would have not been possible.

Special thanks to my Sponsors, the Canadian International Development Agency (C.I.D.A), the chairman of the Department of Urban and Regional Planning, Dr. Elijah Ndegwa and indeed the entire department for all the facilities and support they availed towards the completion of this work. Finally, to George Otiu Kidenda who helped a lot in giving the document its present form.

**ABSTRACT**

Health care services are among the public services that profoundly affect human wellbeing. The provision of health services therefore need to demonstrate sensitivity to social, economic, cultural, environmental and spatial components which influence the configuration of health care systems and personal health behaviours. The scarcity of health care services in urban areas has been exacerbated by rapid population growth and lack of planning for such rapid increases resulting in high demand for health services, problems of housing, sanitation, pollution and family dislocation. The intra-urban patterns of accessibility to health care have hence shown a general picture whereby the poor people and poor neighbourhoods suffer some disadvantage. This finds expression in the urban structure and its constraining effects on locational decisions.

The study sought to examine the factors which affect the delivery and utilization of maternal and child health care services in the low income urban settlements and their implications on planning of health services for the urban poor. It is demonstrated that while the greatest attention of health care should lie directed to the poor and those who can not afford to compete effectively in the market place of health care, it is most unfortunate that the urban slums receive the least attention from policy makers and health planners. It then follows that these settlements are often subjected to untold environmental insults, insecurity and poor infrastructural base for the delivery of primary health care. In this situation, the worst hit are the women and children who constitute over 60% of the total urban population. They are in turn subjected to suffer from multiplicity of health problems which are otherwise preventable.

The author critically analyses the theoretical formulations in literature which govern the delivery and response to the health care interventions provided. These include issues of public health policy, health education, family planning, the role of hospitals in MCH/FP delivery, community participation in the health care delivery process. Also critically reviewed are the the Health Belief model and Health planning approach which provided the theoretical framework on

which the study was based. Out of the inadequacies of the two models, the author empirically formulated an alternative model to explain further the interplay of various factors at different levels in affecting the delivery and utilization of health care in low income urban settlements.

Both primary data and secondary data was collected. The primary data was obtained from 80 household respondents sampled using the cluster sampling technique and the key informants whose choice was based on non probability sampling technique. Of the techniques used, the use of questionnaires and participant observation proved the most valuable. Various descriptive and inferential statistics were performed including percentages, averages cross tabulations and chi square. The data is graphically presented using bar graphs and pie charts.

The main body of the work presents the analysis of the general health determinants in the study area and the factors influencing the delivery and use of MCH/FP services. The author argues that poor health status of the people living in the low income urban settlements of whom the majority are women and children, result from a combination of both structural and situational factors. In the examination of factors, financial resources, formal education, functional efficiency of health facilities and location were found to exert a lot of influence on the provision of MCH/FP services and therapeutic behaviour of users.

It is therefore recommended that greater attention should be directed on the adoption of an integrated and comprehensive approach to the planning of health care services including the provision of health education, public health infrastructure such as sanitation, motivation of health workers and the recognition of traditional health systems by the health policy.

**TABLE OF CONTENTS**

	Pages
Declaration	ii
Judication	iii
Acknowledgements	iv
Abstract	v
Table of content	vii
List of tables	xi
List of Charts	xi
List of Maps	xii
List of Figures	xii
List of Abbreviations	xiii

**CHAPTER ONE: THE FORGOTTEN TARGET: THE PROBLEM  
OF INADEQUATE PROVISION OF HEALTH CARE  
SERVICES FOR THE URBAN POOR**

1.0 Introduction	1
1.1 Problem statement	3
1.2 Objectives of the study	5
1.3 Rationale of the study	6
1.4 The study assumptions	7
1.5 Hypotheses	8
1.6 Summary and Conclusion	9

**CHAPTER TWO: THEORETICAL FORMULATIONS IN HEALTH  
CARE PROVISION AND PERSONAL HEALTH BEHAVIOUR: A  
LITERATURE REVIEW**

Introduction	10
2.1 Literature Review	10
2.1.1 Health services and public health policy	11
2.1.2 Public health policy	14
2.1.3 The coverage of health services	16

2.1.4	Family planning and the reduction of mortality and morbidity	18
2.1.5	Community participation in health services	19
2.1.6	Health education and Maternal and child health	22
2.1.7	The role hospitals in maternal and child health	23
2.2	Theoretical framework	26
2.2.1	The Health Belief Model	27
2.2.1.1	Problems and issues with belief model	30
2.2.2	Health planning ( Primary health care) approach	31
2.2.3	The Alternative model	35
2.3	Summary and Conclusion	37

### **CHAPTER THREE: THE STUDY AREA AND METHODOLOGY**

3.1	Location and physical features of the study area	38
3.2	The existing condition of the study area	42
33	The study area within the context of Kisumu municipality	42
3.3.1	Physical extent	43
3.3.2	Demographic profile	42
33.3	Economic characteristics	45
3.3.4	Human ecology and settlement in Kisumu	45
3.3.5	Health profile	50
3.3.6	The ecology of diseases and morbidity in Kisumu	50
3.4	Methodology	53
3.4.1	Research methods	53



3.4.1.1	Library research	53
3.4.1.2	The survey method	54
3.4.1.3	Participant observation	55
3.4.1.4	Key informant technique	55
3.5	Sampling technique	56
3.5.1	Interview of health workers	57
3.6	Units of observation	57
3.6.1	The health facility	57
3.6.2	The settlement community	58
3.6.3	The individuals	58
3.6.4	The household	59
3.6.5	The health care systems	59
3.7	Operational definition and measurement of variables	60
3.7.1	Independent variables	60
3.7.2	Dependent variables	61
3.8	Limitations of the study	61
3.9	Instrumentation	64
3.10	Data analysis and presentation	64
3.11	Summary and Conclusion	65

## **CHAPTER FOUR: HEALTH DETERMINANTS IN LOW INCOME URBAN SETTLEMENT**

4.1	Introduction	66
4.2	Demographic characteristics	67
4.3	Education and health	68
4.4	Employment, Income and health	70
4.5	Housing and Health	75
4.6	Environment and health	80
4.7	Other influences on health	82
4.8	Summary and Conclusion	86

**CHAPTER FIVE: THE PROVISION AND UTILIZATION OF  
HEALTH CARE SERVICES IN LOW INCOME URBAN  
SETTLEMENTS**

5.1	Introduction	88
5.2	Provision of health care in Kisumu municipality	88
5.2.1	Spatial distribution and catchment areas of health facilities	90
5.2.2	General characteristics of health facilities	92
5.2.3	Maternal and child health and family planning services	94
5.3	Other programmes related to MCH/FP services	95
5.3.1	Health education	95
5.3.2	Nutrition and food supply	98
5.3.3	Water and Sanitation	98
5.4	Factors of utilization of MCH/FP services	99
5.4.1	Level of MCH/FP services' utilization	99
5.4.2	Ante-natal care	100
5.4.3	Ante-natal classes	104
5.4.4	Breastfeeding	105
5.4.5	Child mortality	105
5.4.6	Immunization	106
5.4.7	Family planning	111
5.5	Factors influencing Utilization of MCH/FP services	114
5.5.1	Distance traveled and Utilization	114
5.5.2	Education and Use of MCH/FP services	115
5.5.3	Financial resources and Use of MCH/FP services	118

5.6	Summary and Conclusion	122
-----	------------------------	-----

## **CHAPTER SIX: SUMMARY, CONCLUSION AND**

### **RECOMMENDATIONS**

6.1	Introduction	124
6.1	Summary of findings	124
6.2	Conclusion	128
6.3	Policy Recommendations	131

<b>BIBLIOGRAPHY</b>	137
---------------------	-----

<b>APPENDIX</b>	143
-----------------	-----

### **LIST OF TABLES**

Table 1	Health facilities by type and provider in Kisumu	89
Table 2	The health facilities and catchment areas	91
Table 3	Kisumu District: Immunization coverage 1986	107
Table 4	Level of education by MCH/FP utilization	117
Table 5	Income by use of MCH/FP services	118

### **LIST OF CHARTS**

Chart 1	The ten leading diseases	52
Chart 2	Age-sex distribution	68
Chart 3	Major health problems reported	71
Chart 4	Income by health problems (mothers)	72
Chart 5	Income by health problems (children)	73
Chart 6	House quality by accommodation problems	76
Chart 7	House quality by health state (children and mothers)	77

Chart 8 Accommodation problems by health state (adults)	78
Chart 9 Accommodation problems by health state (children)	79
Chart 10 Influences on health by a range of experiences	82
Chart 11 Type of ante-natal care experienced by two groups	100
Chart 12 Areas of improvements suggested	102
Chart 13 Polio immunization	108
Chart 14 Diphtheria/Tetanus immunization	109
Chart 15 Whooping cough immunization	109
Chart 16 Tuberculosis immunization	110
Chart 17 Measles vaccination	110
Chart 18 Family planning-constraints to use	112
Chart 19 Health facilities attended	115
Chart 20 Level of education by use of Family planning	116

### **LIST OF MAPS**

Map 1 Study area in National context	39
Map 2 Study area in Kisumu municipality context	40
Map 3 Drainage	41
Map 4 Population distribution	44
Map 5 Existing housing distribution	47
Map 6 Administration and services	48

### **LIST OF FIGURES**

Figure 1 Organization of health planning functions	13
Figure 2 The health belief model	29

Figure 3 The alternative model	36
Figure 4 The socio-ecological model of health	87
Figure 5 Conceptual framework maternal and child deaths	123

#### **LIST OF ABBREVIATIONS**

<b>MCH/FP</b>	Maternal and child health and family planning
<b>MOH</b>	Ministry of Health
<b>MOPND</b>	Ministry of Planning and National Development
<b>MOF</b>	Ministry of Finance
<b>CIIW</b>	Community Health worker
<b>TBA</b>	Traditional Birth Attendant
<b>KEPI</b>	Kenya Expanded Programme for Immunization
<b>RTI</b>	Respirator) Tract Infection
<b>UTI</b>	Urinary Tract Infection
<b>NFW</b>	Nutrition Field workers
<b>FHE</b>	Family Health Educators
<b>WHO</b>	World Health Organization
<b>UNICEF</b>	United Nations Children's Education Fund
<b>NGO</b>	Non Governmental Organization

**CHAPTER ONE**  
**THE FORGOTTEN TARGET: THE PROBLEM OF**  
**INADEQUATE PROVISION OF HEALTH CARE SERVICES FOR**  
**THE URBAN POOR**

**1.0 Introduction**

Urbanization is an aspect of development in the social and economic field which always is accompanied by problems of housing, sanitation and pollution and so are problems resulting from the rising demands for medical and social services. Most towns in Africa are comparatively recent in origin and in a majority of them, there has been an explosive growth of population. Such rapid increases in numbers, with the consequent strain on health and social facilities, the dislocation of family life and adjustments tailed upon by various members of the family to suit new modes of life, have created some of the major problems of our age.

If the growth of the towns is not planned, ever increasing numbers from rural areas migrate to towns in search of work. Until suitable employment is found, such families may end up 'squatting' in overcrowded conditions scrounging from friends and relatives. Such areas of the towns are often sources of epidemics of various kinds affecting the city population. On the other hand, if urbanization is properly planned, social and health services can reach out to a larger number of people and the benefits of preventive medicine can be enjoyed by the people. Institutional care for sickness comes within easy reach of the population with better environmental sanitation, waterborne diseases are abolished and transmission rate of vector-borne diseases like malaria are reduced.

While it is desirable that people should always understand and support health measures, it is unfortunate that the urban slums have the poorest infrastructure for primary health care delivery systems. In these areas, the danger of spread of disease is multiplied a thousand times and yet disease can easily be prevented by simple measures such as vigorous health education and

regulations by enlisting the public support. Thus, health education, environmental sanitation including sewerage and garbage disposal, and immunization should be important aspects of health work in the towns.

It is also important to note that the health of mothers and children is closely related to the general health of the community, and therefore public health measures that will bring about an improvement in general health will also produce improved maternal and child health - better sanitation and water supply, for example and control of such communicable diseases as tuberculosis. The service for maternal and child health should be thought of as a channel for directing medical and health services to special groups and not a new subject or speciality. It is a service encompassing the preventive aspects of pediatrics, obstetrics, nutrition, health education and child development. The service providers and health planners should redefine their targets and channel services to where the least benefits have gone before i.e. rural and urban poor. These services should be adopted to the needs and resources of the community they intend to serve.

In this way, the overall objective of attaining health for all by the year 2000 and the maintenance of better health thereafter can be viewed as feasible. That the health policy to provide health supervision for children from conception to the age of five years, the surveillance of pregnant mothers, new born babies, nursing infants and young children can be achieved.

### **1.1 Problem statement**

This study examines the factors that affect the delivery and level of utilization of maternal and child health services and their implications on the planning of health services especially for the urban poor. The need to focus on maternal and child health services arises from the premise that mothers and children are the most vulnerable groups in our society and more so their health is closely linked.

In most developing countries, children and young adults under the age of 15 years constitute about 40% of the population and if to this were added the number of expectant and lactating mothers, then about 60% of the population would need to be covered by the maternal and child health services (Ebrahim, G.J. 1972). WHO (1988) and Ebrahim (1972) state that the health problems encountered by this part of the population in the developing countries are preventable either by means of health education or by regular supervision and immunization; yet it is these illnesses that take heavy toll of young lives, so much so that about a quarter to a third of the babies born do not reach the age of Five years. On the other hand, it is estimated that about 500,000 women die from causes related to pregnancy and child birth in the developing world and that for every maternal death, there are fifteen more women who suffer chronic ill health also related to pregnancy and child birth. About 99% of the maternal deaths occur in the developing world, Kenya being one of them.

Manguyu Florence (1991: 7) however, notes that the true picture or magnitude of the problem is rather fuzzy since the information pertaining to maternal and child morbidity and mortality are based on hospital admissions and do not reflect the real situation in the country (Kenya). 75 - 80% of births occur at home unassisted or assisted by untrained non-health workers. This is coupled with the problem of non-reporting of the outcome of pregnancies i.e. births, deaths, abortions and related illnesses due to low acceptance of maternal child health and family planning services.

Bwibo, (1991) notes further that the impediments that cause heavy toll among children result in as 20 times as much chance of death before the Fifth



birthday as in developed countries. It is interesting to note that in many developed societies of western Europe and America, the health problems were very similar not so long ago and have been finally controlled by the development of suitable health programmes. The diseases that cause heavy mortality in the children and mothers of tropical countries are thus global and not necessarily confined to the tropics. The causes lie in ignorance, lack of hygiene, lack of sanitation and inadequate health facilities.

The following impediments were therefore identified and confirmed by the study to be the major threats to maternal and child survival in the study area and the town in general. These were found to coexist one perpetuating the other. They include the six immunizable disease of childhood, acute respiratory infections, malnutrition and low birth weight, anaemia, diarrhoeal diseases, malaria, accidents and Aids, High risk fertility behaviour and other forms of maternal depletion syndrome.

When one views the social statistics maps of Kenya based on the 1979 census, some important characteristics emerge that can be summarised as follows; that the impediments to maternal child health tend to coincide with areas of high population concentration, they tend to be enhanced by poor socio-economic status, they have mutual relationship to access to water, sanitation and housing and that they are mutually interactive, the presence of one predisposing, aggravating or enhancing the occurrence or complication of the other. It can be observed that when maps for the individual impediments are superimposed on each other, areas most commonly affected will coincide. Coincidentally, these areas also have poorer infrastructure for primary health care delivery systems. These include urban slums which pose even greater challenge because they form one backbone of the labour force which support the economies (in the manufacturing sector) of the developing countries. Yet most unfortunately, notes Bwibo, N. (1991: 3), these communities tend to be forgotten when it comes to planning of basic service needs. In a way it is assumed most often that being in the urban areas means having access to these needs. The clinic attendance is very high and a large number of women and children have to be catered for. The availability of time to care for children is

impeded by search for water, food and health interventions. Lack of security of tenure often obstruct even a determined individual from participating in planning or implementing programmes for basic needs. The settlements of these communities are not often recognised as legitimate residential settlements and this coupled with recurrent evictions make them apathetic to participation in health concerning behaviours. Houses are not well ventilated and provision for safety are seriously neglected. In many respects therefore, these communities have equally poor access to basic needs services as their counterparts in the rural areas, sometimes worse. Indeed, these problems were found to equally apply to the study area and are illustrated in chapters four and five.

Looking at the above information, one is prompted to ask, why has the situation persisted and yet we have the ability and technology to attack and ameliorate the few known impediments to maternal and child health? Could it be because of poor socio-economic conditions that make people apathetic to participating in responsible health behaviour or inadequacy of the provision of health facilities or lack of involvement of the people to take responsibility of their own health or socio-cultural beliefs that impede the adoption of rational health practices or could it be because people have simply accepted these burdens and their plight as normal states of life and hence take little or no initiative to improve their health? Why are people not taking full advantage of the existing facilities? Is it because of the quality of services at the health facilities or poor working conditions of health workers or is it because of the lack of involvement of the beneficiaries in mobilizing their own interest, efforts and resources in health care?

These are some of the issues that are considered in the attempt to analyse and understand the maternal and child health needs and the factors that affect the delivery and utilization of the health services in low income urban settlements.

## **1.2 Objectives of the study**

This study examined a number of objectives which the researcher considered pertinent while attempting to assess those factors which affect the delivery and utilization of maternal and child health services among the urban

poor and their planning implications. The objectives of the study thus included:-

- 1) To assess the health needs of the population in the study area.
- 2) To evaluate the constraints to quality delivery and utilisation of MCH/FP services in the area.
- 3) To assess the availability and adequacy of health interventions in the study area and the town in general in addressing the health needs identified.

### **1.3 Rationale of the study**

The number of children (0-15 years old), expectant and lactating mothers constitute about 60% of the population and yet they are the most vulnerable group in our society, urban and rural alike. It is this fact that makes the importance of maternal and child health apparent to the policy makers, health planners and health workers in Kenya. The local health problems of mothers and children must therefore be clearly defined and appropriate interventions be planned and provided.

As articulated in the Sessional Paper No. 10, 1965, Kenya Constitution and the successive Development Plans since independence, health is one of the fundamental basic human needs and is essential as a prerequisite for overall economic and social development. The improvement of health of the population thus is an integral part of the overall development package. It is in this light that a study of this nature becomes a worthwhile endeavour as it attempts to unearth the pertinent issues that impede the satisfaction of health needs of a substantial part of the population. Any workable solutions obtained from the study would therefore help health planners and policy makers to formulate viable policies and interventions that will in turn help in improving the health status of those living in the appalling conditions of the urban slums and rural areas as well. To improve the maternal and child health is to improve the general health of the

community as the health of mothers and children is closely related to the general health of the community.

Secondly, the study focused on the human elements that tend to impede or accelerate the utilization of the health facilities. This qualifies the study to be of immense importance. It is when the human elements such as physical, social, cultural and economic milieu of the people are stressed, when the planners and policy makers realise that these elements are indispensable in the identification of the 'real' needs and subsequent provision of services, that any effort to provide affective and efficient health care, whether promotive, preventive or curative can be possible. With the understanding of these elements, enlisting public support for health care measures would be possible to assess whether the advantages are going to those having the least and whose needs are the greatest under the auspice of Primary Health Care.

And thirdly, not only little attention has been directed to the human elements in relation to the provision of health care services to the urban poor, but also little literature exists on the Primary Health Care delivery in the urban slums. This study therefore not only brings to light those factors that affect the delivery and utilization of health service among the urban poor and their planning implications, but also contributes additional literature on the subject of maternal and child health that future scholars can draw upon for references.

#### **1.4 The study assumptions**

Kisumu being the largest and most important urban centre west of the Rift valley and enjoying a hinterland of about seven million people, its development in all sectors is likely to continue unabated. Owing to this fact, the demand for various services including health will increase unchecked due to population growth associated with urban development. The following assumptions were therefore made with due regard to the development of effective and efficient health delivery systems in the town.

- I. That the population of the study area and the town in general will

continue to rise rapidly both from natural increase and in-migration. This increase will equally propel the demand for health facilities which will continue to be inadequate. This implies that congestion and inefficiency of health care delivery in the facilities might not be adequately checked unless very drastic measures and re—organization in the system are undertaken.

2. That the environmental conditions in the low income neighbourhoods of the town including the study area, in terms of poor sanitation and housing conditions will continue to worsen off thereby greatly jeopardising the health status of residents.
3. That the demand for family planning services will increase with behavioural, economic and structural changes at the societal, individual and institutional levels.

### **1.5 Hypotheses**

Following the research problem highlighted, the objectives set and the subsequent review of literature, the following research hypotheses were formulated and tested:—

- 1) The environmental conditions in which people live have a direct relationship to their health status.
- 2) The level of formal education influences the level of utilisation of MCH/FP services.
- 3) The level of access to financial resources has a significant relationship to the provision and utilisation of MCH/FP services.

**1.6 Summary and conclusion:**

Chapter one has presented the general background to the research problem which the study sought to investigate. It has been shown that rapid urban growth without proper and co-ordinated planning result into numerous problems including overcrowding and galloping demand of services such as health. In this scenario, the most affected are the mothers and children who together constitute over 60% of the urban population.

The Chapter also notes that the most affected areas when it comes to the provision of basic services, are the urban informal settlements which have the most needs and yet have the poorest infrastructure for the delivery of these services including health.

In a nutshell, chapter one presents the problem statement of the study, the study objectives, rationale for the study, the study hypotheses and the study assumptions.

In Chapter two, the review of theoretical formulations in the literature pertaining to health care provision and health behaviour is presented.

**THEORETICAL FORMULATIONS IN HEALTH CARE PROVISION AND HEALTH BEHAVIOUR: A LITERATURE REVIEW****Introduction**

The purpose of this chapter is two-fold. First, it reviews literature on the subject of Public health policy, the provision of maternal and child health services and their utilization in the low-income urban settlements. This helped the researcher to formulate a few hypotheses for empirical testing and verification by means of the data collected from the area of study. The literature review also helped to illuminate the gaps that may exist in our knowledge of the subject matter of the study.

Secondly, the chapter reviews the main theoretical perspective(s) on which the study is based. Out of the inadequacies of the theoretical perspectives reviewed, the author formulated an alternative operational model to explain the delivery of Maternal and Child health services and their utilization in the low income urban settlements.

**2.1 Literature review**

Conrad and Kern (1986:24) note that a growing number of researchers have found that there is a significant association between a range of social, economic and cultural factors and the risk of disease and death. Syme, L.S. and Berkman, L. F. (1986: 24) further state that disease is not distributed evenly throughout the population. Certain groups of people get sick more often than others. One of the most striking and consistent patterns in the distribution of disease anywhere in the world is its relationship to poverty. By and large, death and disease rates vary inversely with social class; that is, the poorer the population, the higher the risk for sickness and death.

In their article "Social Class, Susceptibility and Sickness", (1986:28) Syme and Berkman, explore the relationship between social class and sickness and review the evidence of the influence of stress, living conditions, nutrition and medical services on the pattern of death and disease among the poor. They

particularly focus on how the living conditions of the lower class may compromise "disease defense system" and engender vulnerability to disease. It has also been noted that women and children have higher illness rates than men. Infact, there is evidence that the distribution of disease and death within male and female population is patterned by other social factors and importantly, that these patterns differ from men and women. Social class, race, age, marital status, presence and number of children in the home, and employment outside the home have all been found to be associated with rates of disease within the male and female population.

By implication, the foregoing literature impress upon the need for a new and broader conceptualization of disease production than the conventional medical model can provide. The attention must shift from the individual to the social and physical environments in which people live and work. From various research contributions from different disciplines, an adequate model should be developed, that not only identifies the social production of disease but also to elaborate this process and provide important information on which to base effective and efficient primary interventions and preventive strategies. This would hence lead to the formulation of viable health policies and sound foundation for health service planning especially for the urban poor.

### **2.1.1 Health services and public health policy**

#### **The overall Organizational structure**

The Ministry of Health is responsible for running health services for the entire population. National leadership is provided by parliament and planning is done at the Ministry's head quarters in Nairobi. However, since 1984, there has been a trend towards decentralization of planning to the District level.

Overall technical leadership is provided by the Director of Medical Services (D. M. S). Sections in the ministry are geared toward such areas as manpower development, maternal and child health and family planning. Curative and preventive sections undertake responsibilities specific for each section. Under the preventive section, the unit is responsible for overall environmental health

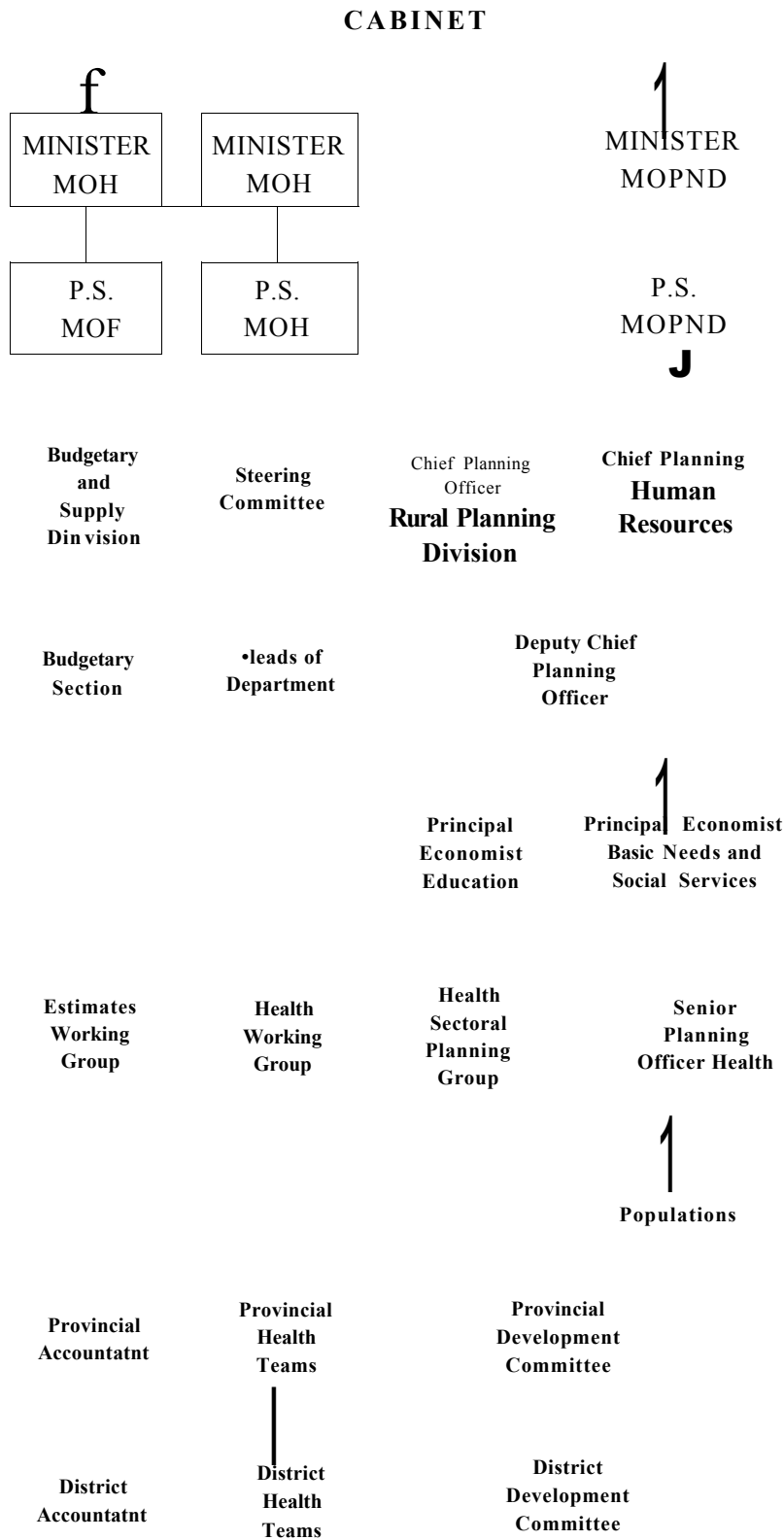


aspects of public health.

Service delivery of both preventive and curative nature is predominantly provided at the hospital and health facilities in the country. The Kenyatta National Hospital in Nairobi is the national referral and teaching hospital. Subsequently, services are organized according to the administrative set up. There are Provincial and District hospitals, health centres, and dispensaries. The organizational structure is such that a smaller unit refers difficult cases to the health facility immediately bigger than itself and the provincial hospitals then refer what can not be managed at that level to the national referral and teaching hospital.

The central government has been responsible for the provision of all health services at all levels since 1970. Before 1970, health centres and dispensaries were under the hands of the Local authorities except for the provincial and district hospitals which were under the central government. This takeover was prompted by the great variations in the services provided by the local authorities, discrepancies in management of these centres and the general fact that it was difficult to work for an equitable distribution of health facilities and the benefits in the structure that existed then. However, the management and operation of health facilities in the urban areas are still in the hands of the local authorities. The central government has also found shouldering of the responsibility of providing health services to all citizens too heavy a burden to carry hence the introduction of cost-sharing in the provision of health services. Figure 1 below shows the organization of health planning functions in Kenya.

FIGURE 1: ORGANISATION OF HEALTH PLANNING FUNCTIONS



Source:  
Ministry of Health (1983)

### 2.1.2 The public health policy

The government policy on health as outlined in her policy documents such as Sessional Paper No. 10 of 1965, the Kenya constitution, the ruling party's manifesto and the successive development plans since independence is to provide health services to the whole population thereby addressing one of the most basic human needs that is essential as a pre-condition for overall economic and social progress. The achievement of the physical and mental well being of the people is thus inevitably critical to the development of the human resources.

The government's main objectives for the development of health services since independence have been:-

- 1) to strengthen and carry out measures for the eradication, prevention and control of diseases;
- 2) to provide adequate and effective diagnostic, therapeutic and rehabilitative services for the whole population; and
- 3) to carry out biomedical and health service researches as means of identifying more efficient and cost-effective methods for the health delivery systems.

To achieve these objectives, the government enacted major health policies to guide the course of health development in Kenya. These include;

- a) to increase coverage and accessibility of health services in rural areas;
- b) to further consolidate urban, rural curative and preventive services;
- c) to increase emphasis on maternal child health and family planning services in order to reduce morbidity, mortality and fertility;
- d) to strengthen Ministry of Health management capabilities with an emphasis on the district level;
- e) to increase interministerial coordination;

**0 to increase alternative financing mechanisms for health care.**

Bennett, F. J. and Maneno, J. (1986:5) state that the recent efforts by the Ministry of Health to develop Primary Health Care is putting more emphasis on the following:

- i) improving family health with particular focus on mothers and children;
- ii) increasing coverage and accessibility and improving the quality of the essential health services;
- iii) pursuing an integrated, intersectoral and multi-disciplinary approach with the community participation in the health delivery systems at the helm.

However as noted in the 1989-1993 development plan, there have been a number of constraints that have tended to impede the achievement of the stated health objectives.

They include;

- 1) Increasing pressure on public sector financial resources not only for expanding health facilities and services, but also in responding to increasing demands arising from the high population growth rates;
- 2) an inequitable spatial distribution of health services due to low community participation in some areas and the difficult physical environment obtaining especially in Arid and Semi arid lands;
- 3) shortage of manpower and management expertise for the efficient and effective running of health services;
- 4) low level of hospital operational efficiency epitomised by a more than 100% bed-occupancy rate co-existing with high cost per in-patient per day;and
- 5) lack of proper public information and education which would guide people themselves to develop competence in meeting the basic requirements of good health.

From the above outlined government policy on health, although it is

implied that the maternal and child health needs would be given priority in the national health programmes, it is not clear whether such health provisions are considered as channels for directing medical and health services to a special group. A group whose health is closely related to the general health community. Any public health measures that would bring about an improvement in general health would also produce improved maternal and child health. The services should therefore be provided according to the needs and the resources of the local community they intend to serve.

Secondly, although the health policies recognize the difficulties encountered while attempting to provide the health services especially to Arid and Semi-arid lands, and the rural areas, the policies assume that being in urban areas means easy access to health services. The policy, is silent about the income and social disparities that are rife and immensely affect the course to maintaining good health in the urban areas. The fact that relative access in tens of the population per health facility is very high in urban area is almost totally ignored by the policy. The policy and its objectives can therefore be considered to be too grandiose that effective evaluation of the tangible results accruing from their implementation is difficult to determine.

### **2.1.3 The coverage of health services**

Available evidence indicates that public health services cover a small part of population in parts of Kenya. This failure has been attributed to various factors. According to World Bank (1980:39), most patients visiting health facilities in Kenya come from immediate vicinity. 40% of the outpatients attending a health centre lived within 8 kilometers; 30% lived (8-16) kilometers away and only 30% lived more than 16 kilometers away. To a large extent, the area of influence of an outpatient health facility is limited by the distance patients are prepared to travel. Access is especially difficult for women with children.

The health facilities are frequently bogged down by interruptions of the supplies and distributions of drugs and other materials thus making them unable to provide services. Mobile clinics often do not reach out because vehicles breakdown or fuel is not available. In the absence of reliable provision of health

services, patients become frustrated and cease to rely upon the services of the government facilities.

Were. M. K (1978) notes that in majority of cases, the services provided may not meet the minimum acceptable standards of quality as perceived by the patients. Undertrained staff, inadequate supervision, lack of equipments, low staff morale, and casual distribution of drugs and materials are frequent problems.

Even where free care is available, the cost of transport and work loss may exceed the economic resources of many people, particularly those who live in the urban areas. Where charges for services or drugs are imposed, the costs are often difficult for people in the subsistence sector to meet. The provision of services therefore, are frequently typically inefficient and procedures being offered are often ineffective.

World Bank (1980) states that there exists too much emphasis put on the curative health services which reflects the professional bias of physicians and sometimes the mystique and popular appeal of hospital based health care. However, scientifically based interventions may not comply with local understanding of the prevailing health problems. Consequently, underutilization of health facilities has sometimes resulted due to lack of confidence in the quality or range of services offered and the discontent with the style of care provided. Omondi, C. O. (1991) also observes that underutilization may occur because of the gap between the personnel at the modern facility and the tradition bound people it is designed to serve. People thus often turn to such alternatives as traditional medicine, spirit doctors, "quack" injections, traditional midwives, shop medicine etc.

From the preceding literature, it is evident that the most persistent problems in improving health do not result from the complexity of medical technology, and only partially from the scarcity of financial resources, rather, they derive basically from problems of design and implementation of policy, management and logistics. Often, little attention is given to diagnosis of problems and intervention at the community level. Instead, services are provided to individuals who actively seek care. Consequently, community

practices, beliefs, and attitudes toward health care are not improved as rapidly as desirable.

#### **2.1.4 Family planning and the reduction of mortality and morbidity**

Rhode (1983:48) notes that extremely low peri-natal and neonatal death rates are associated with the careful planning of pregnancies, which effectively eliminates births in high risk groups. Allan and Rhode (1982) add that fertility control itself contributes to a substantial lowering of infant mortality rates, by selectively reducing fertility in higher risk groups of women. Smaller sibship and longer spacing between pregnancies are associated in all societies with improved maternal, infant and child survival.

In the past, large families have been considered as assets; many pairs of hands could help to grow food and many children would ensure that the parents were looked after in their old age. However at present, this may be true only in a limited sense because when food is scarce, there will be enough for everyone when there are fewer mouths to feed; there is better clothing when few backs have to be covered, and a better chance of education when there are fewer children to be paid for at school, and there is better health when there are fewer mouths to take medicine.

According to Ebrahim (1972), spacing of children has an effect on the health of the mother and the whole family in many ways. Too many pregnancies and too many children to care for will make the mother exhausted and even ill. In some cases, there may be medical contra-indication to pregnancy like hypertension, anaemia, obstetric injury, recurrent abortions or still births or neonatal deaths. By planning the pregnancy either in relation to the physical health of the mother to the family circumstances, the prospects for the care and mothering of the newborn may be improved. The family in which there are strains due to chronic illnesses such as malnutrition, sickle cell anaemia, a chronic disease, a physical handicap or poor economic circumstances may find it desirable to postpone pregnancy until these problems

are well out of the way.

Nevertheless, although family planning has come to play a prominent part in the national health plans, it is essentially thought of in isolation. This was confirmed by the study. The study revealed that in many cases, family planning is being treated as a different entity from the maternal and child health. Family planning service should reach the community from the same centre and health team that provides maternal and child health. It must be seen as an integral part of the maternal and child health.

The provision of family planning in many ways has not been done with regard to the local needs and the resources of the target community. The services appeared not to be moulded according to the local cultures and social fabrics but modeled on a set patterns copied from the western world. Supporting these arguments, the study revealed that family planning providers in majority of cases, disregard the traditional approaches to birth control assuming that the concept of family planning is new to the community to the contrary of their own perceptions.

#### **2.1.5 Community participation in health services**

Bennett and Maneno (1986:67) define community participation as "the process by which a community mobilizes its resources, initiating and taking responsibility for its own development activities and sharing in decision making for, and implementation of all other development programmes for overall improvements of its health status". The community in this context refers to a social entity made up of people who may be found in a small administrative area or share common goals and problems and a common systems of communication. They may be both sociologically and psychologically linked or have common leadership and traditions.

Community participation and awareness therefore form the starting point for problem identification which then requires community involvement for its solutions. Community involvement entails active and willing participation in planning, management and evaluation of programmes which contribute towards a feeling of responsibility and of involvement in such programmes. It is a



process by which active partnership is established between development programmes within the community and the community itself.

Adcgoroye, Anu (1983) states that community sensitization, motivation and mobilization are central to effective community health care. The healthcare belongs to the people and they should be sensitised to the need of the health care until it becomes the people's felt need. The effectiveness of the health care service will therefore depend on the extent to which the service is relevant to the economic, socio-cultural and health needs of the community, and the extent to which the community itself has been actively involved in the programme's planning, organization, implementation, supervision and evaluation.

The health care should be health oriented and not medical oriented. The health care should recognize, incorporate and utilize other health related services which provide a better water supply, improved housing etc. In order to achieve better health and improved living standards, it is important to know what the people themselves believe about the disease, what they can recognize or think they can recognize and their idea about the good health which the medically oriented services found in institutions seldom concerns itself with (Ebrahim 1972:93-96).

Hollnsteiner, M. R. (1982) adds that Primary Health Care therefore provides an apt umbrella for the health care provision to the community. It assumes accessibility of services to everyone with the poor receiving priority attention and these health services being socially and culturally acceptable. It emphasizes community participation in planning, management and evaluation of health services at all levels as well as intersectoral collaboration.

However, the overemphasis of community participation as the panacea to health problems may be misleading. Although people's wants of a particular service may be very crucial and vital in the provision of health care, in many cases, some services are not included when the community expresses its needs and allocates priorities. For instance the community may not recognize the benefits of family planning to the mother and the child and its contribution to the quality of life. If health activities are not consciously desired, one can not expect enthusiasm and eagerness towards participating in them.

Secondly, the concept of community participation presupposes that true participation is only achieved when people are fully in control of the process of decision making to decide entirely for themselves which health activities need to be embarked upon. This is unrealistic and would be very difficult to implement by any development agency. Autonomy of this sort may only be considered as a special form of participation to be achieved only in particular situations.

And thirdly, health care services based on the concept of community participation stands the risk of being mistaken as a level of health care at the periphery of the health system and a set of activities performed at the point of contact between a health care system and the community. Accordingly such health care service may be inappropriately stereotyped as second class medicine meant for the poor thus failing to win the support of the target beneficiaries. Furthermore, the concept appears to be easily achievable in the rural areas where homogeneity is assumed than in the urban areas where people are as diverse as their activities and beliefs.

### **2.1.6 Health education and maternal and child health**

The primary goal of health education is to improve people's health by promoting better health practices. The necessary steps in effective health education are usually listed as changes in knowledge, attitude and practice. All health workers know about health education because everyone has been told and usually agrees it is important. Any one dealing with sick people sees many illness that could have been prevented with adequate knowledge and motivation. But inspite of this general support, the number of people who actually do effective health education remains small (Balldin Bo. 1975).

Adegoroye Anu (1986:48) notes that health education should run like a thread through and be built into, all the clinic activities. It should be in the family health care carried out at group and individual levels in the clinic and in the homes. Traditionally, a health education talk on specific topic of common concern is given by health workers before the beginning of a clinic. Adegoroye argues that this should be carried out with the full involvement and participation of mothers and children who are old enough to join in.

Ebrahim (1972) further notes that health education is an integral part of all maternal and child health activities. When the health worker tells a pregnant woman what to eat, or give advice on immunization or works in liaison with the community development worker, he/she is infact carrying out health education in one way or the other. An educational approach is thus particularly necessary in nutrition, child rearing practice, environmental sanitation and hygiene.

During many maternal and child health activities the health worker will meet with parents in need of advice and help, which may vary from occasional comments on some aspects of child health to intensive health education. The whole community may also need some advice on subjects like food habits, weaning practices and family planning. The subjects to be discussed would depend on the clinic and the people who attend. In antenatal clinics, mothers want to know about pregnancy and child birth, and in children's clinics, the appropriate subjects may include infant feeding, diet, immunization etc. (Balldin Bo 1975). Health education orientation should be reinforced by

mothers, who are encouraged to take lead in the singing of various health education songs, some of which teach the need for immunization, improved nutrition and the virtues of better personal and environment hygiene.

Omondi, C.O. (1991:50) however notes that when we discuss education, it should not only be education of the patients and the public that needs to be considered but more importantly is the education of health workers, so that they take a rational and helpful attitudes toward the patients. This is the most significant thing the health workers can do for the patients.

On the other hand, although health education is such an important part of maternal and child health, its dissemination may not be as easy as it may appear because it has to take into account the emotional response of the people. Most health educationists tend to expect people to accept everything they give as the unquestionable truth and change their behaviour. Human behaviour is very complex and this is not always the case. It is therefore essential to hold frequent meetings of those involved in health education to chart out a common approach to teaching health to the people. The literature has also dwelt on how health education should be disseminated but little indication of whether there should be prior planning before undertaking a health education activity. While individual health education is best done during a clinic session or home visits and is directed towards a specific topic, the approach to the community education needs prior planning. Planning such community education needs the collection of all basic data on such areas as locally available foods, methods of infant feeding, local forms of disease partners and the socio-economic conditions including demographic indicators.

### **2.1.7 The role of hospital in maternal and child health**

Though the goals of maternal and child health care are in people's homes, in schools and in clinics, it is found upon a hospital ward or clinic where adequate attention to sick children and mothers can be promptly given.

According to the first Report of the Expert Committee on Organization of Medical Care, 1957 the hospital was defined as:-

"an integral part of a social and medical organization, the

function of which is to provide a population complete health care, both curative and preventive, and those outpatient services reach out to the hospital is also a centre for the training of health workers and for bio-medical research".

Traditionally, the hospital has been thought of as being concerned mainly with the individual patients, and with acute curative care in a one-to-one relationship. The hospital is resource intensive and values high technology and the role of well trained professional manpower relationship. Ethical aspects often focus on doctor-patient relationship and on the interactions of technology and the individuals.

World Health Organization (1981) on the "Role of hospitals in primary health care" notes that "health system based on primary care cannot be realised, cannot be developed, cannot function and simply cannot exist without a network of hospitals with responsibilities for supporting community health development action; basic and continuing education of all categories of health personnel and research".

On entering a dialogue on the role of the hospital in support of maternal and child health, a basic premise must therefore be that hospitals should accept at least the general spirit and principles of Health for all through primary health care. They must identify specific communities within their catchment areas, and participate with these communities in Community Based Health Care Programmes. Such programmes would not only be helpful to the community, but would also provide fertile ground for training (Were, M. K. (1978).

Bennett and Maneno (1986) state that the contribution of hospitals to the support of maternal - child health and family planning which include carrying out health education; delivery of maternal—child health and family planning services; static and outreach; supply of drugs and making available transport for extension work; training and reorienting hospital and primary health care workers; provide specialised manpower, curative services and information system (education materials, data bank, audio visual methods, procurement and development of training materials) education and nutrition; water and sanitation;

monitoring and evaluation of community based healthcare programmes.

Through the referral system therefore, there exists a dynamic interaction between the hospital and the rest of the health system. This is characterised by inward flow of patients from the home, community dispensary, and health centre to the hospital; and the outward flow from the hospital to the health centre, dispensary, home and the community on the other hand.

However, the narrow medically oriented services given focus on the disease rather than the patient, where to question is to disobey obscures the role of the hospital in the effective support of maternal and child health. There is a need therefore to strengthen the bond between the hospital and the community. The community should be encouraged to come into the hospital and provide more help. Can there be "Open days" in hospitals when the community can get to know what is done in them?

### **Conclusion**

The literature review has covered various interest areas for the study such as health policy, organization of health industry, social class and health, community involvement in health care, family planning, health education, maternal and child health care and the role of hospitals in the delivery of maternal and child health care. The literature demonstrates that there is lack of clear policy conceptualization that takes into account the social production of disease. The public policy on health should therefore take into consideration the income and social differentials of people if it hopes to attain the objective of health for all.

The major constraints to the delivery of health care hence do not entirely result from the complexity of medical technology and scarce financial resources but they derive from the problems of design and implementation of policy, management of delivery systems and logistics. In short we can aptly state that the health care delivery system at all levels is based on the conventional medical models which are basically insensitive to the community practices, beliefs, **socio-economic conditions** and the **general environment** which greatly determine their health status and health behaviours. The use of maternal and

child health services would therefore depend on social, economic, cultural and physical environment in which people live and which must be given serious considerations in health policy and plan formulation if such interventions are to reach and benefit the target population.

The next sub-section of this chapter presents the theoretical framework on which the study was based. Two models, namely Health Belief Model and Health Planning Approach are reviewed and out of which the author formulated an alternative model. These models attempt to explain the delivery of health care to the population and utilization of the same.

## **2.2 Theoretical framework**

Whether called Theory' 'Framework' or 'Model' there are a number of formulations in the literature that attempt to account for the health behaviour. Omondi, C.O. (1991: 30) notes that disease not only involves the body, it also affects people's social relationships, self-image and behaviour. The social psychological aspects of illness are related in part, to the bio-physiological manifestations of disease but are also independent of them. The very act of defining something as illness has consequences that are independent of any effects of bio-physiology.

Fricdson (1970:223) adds that when a physician diagnoses a human condition as an illness, he changes the person's behaviour by diagnosis; a social state is added to a bio-physiological state by assigning the meaning of illness to the disease.

Against this background, it is pertinent for the researcher to review the main social science model(s) that are used in the Health Systems research especially with regard to the provision and utilization of health interventions availed to the population. In the recent past much of the Health Systems research have been based on the Health belief model and Primary Health Care (Health planning) approach. These two therefore provided the basis to undertake the study. However, because of the various weaknesses with the two models, the author formulated an alternative model to further explain the delivery and utilization of health services.

### 2.2.1 Health belief model

Formulated by Hochbanm, Leventhal, Kegeles and Rosenstock, Health belief model was meant to explain the preventive health behaviour by the use of socio-psychological variables. It was essential in a choice situation to an individual about alternative health behaviour. Health belief was therefore defined as the propositions accepted as true by people about the causes, symptoms and remedies related to illness ( Cioldenough, 1963, Chrisman, 1977).

Health behaviour as defined by Kasl and Cobb (1966). is "any activity undertaken by a person who believes himself to be healthy for the purpose of preventing disease or detecting disease in an asymptomatic stage". However to date, three modes of behaviours have been incorporated in the Health belief model. These include health behaviour which is already defined, illness behaviour and sick role behaviour. As opposed to health behaviour, illness behaviour is defined as "any activity undertaken by a person who feels ill, for the purpose of defining the state of his health and of discovering suitable remedy". Sick role behaviour on the other hand is defined as "the activity undertaken by those who consider themselves ill for the purpose of getting well" (Becker, H.M. 1974).

Health belief model therefore can be reviewed as being concerned with the subjective world of the acting individual. Mainman and Becker (1974: 21-22) state that the model is based on the following conditions and components:-

- 1) The individual's readiness to take action relative to a particular health condition, determined by both the person's perceived susceptibility or vulnerability to the condition, and his perceptions of the severity of the consequences of being in that health condition.
- 2) The individual's estimates of the actions potential "benefits" in reducing actual or perceived susceptibility and/or severity weighed against his perception, and barriers or costs of the proposed action.

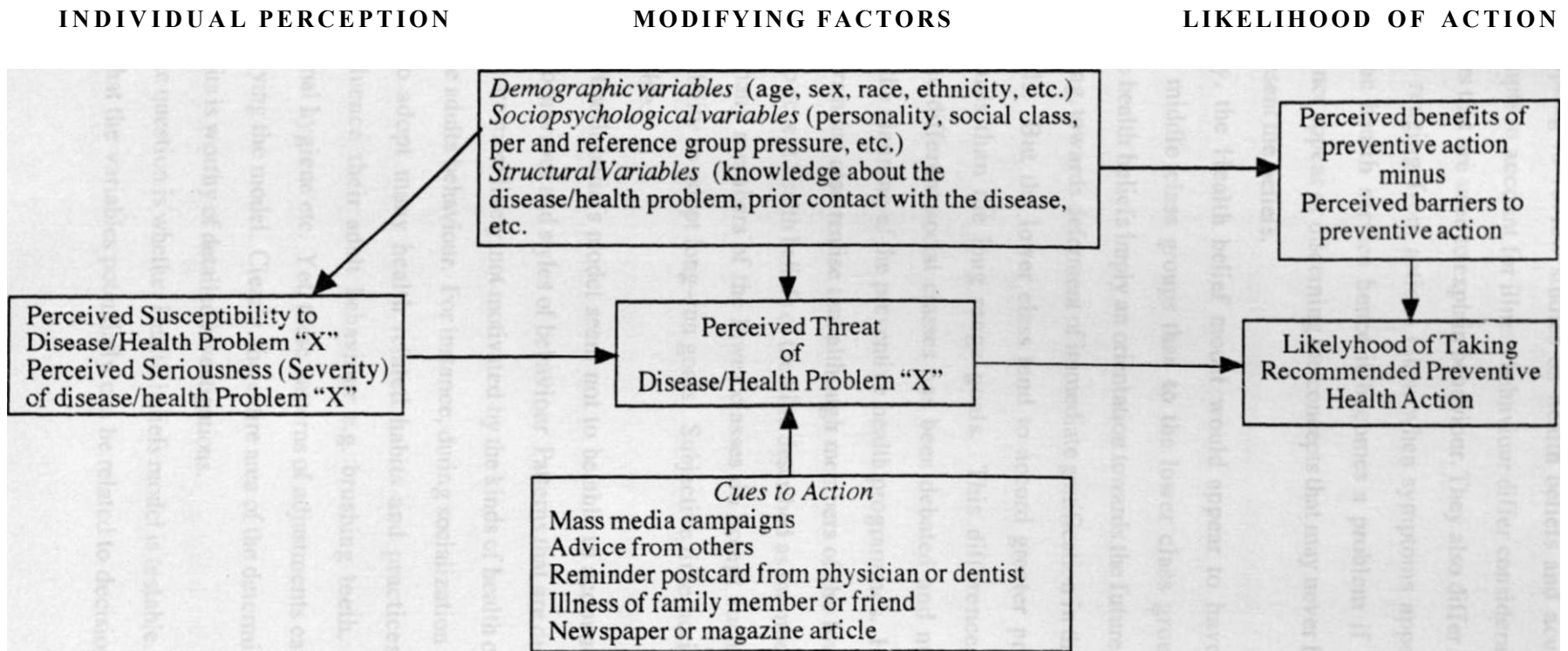


- 3) A stimulus either "internal" (perception of bodily state) or "external" (e.g. interpersonal interaction, mass media, personal knowledge of someone affected by the condition) must occur to trigger the appropriate health behaviour or cue to action.

The model therefore assumes that motivation is a necessary condition for action and that motives selectively determine an individual's perception of the environment. The action an individual will take is related to the subjective desire to lower susceptibility and severity, the desire to prevent a state of illness or higher susceptibility and severity and positive estimation of benefits minus the probability of failure or costs.

Rosenstock I. M. (1974: 271) states that utilization studies undertaken as means to achieve the broader aim of increased understanding of why health services are used, however have generally failed to accomplish their purpose. However, some generalizations show high association of personal characteristics with the use of health services. Factors like age, sex, education and income determined the pattern of use of both preventive and detective service, and the use of diagnostic and treatment/curative services. Other factors included perception of symptoms and health education through various channels of mass media or communication.

Kirtcht (1974: 6Q-61) also notes that for instance, illness behaviour is important especially for the utilization of health services, for promptness or delay in seeking for medical care and for the use of non-medically approved remedies. As a model of decision making, symptoms become important not as feelings per se but for what they represent as threats to the individual's well being. Figure 2 below shows the health belief model.

**Figure 2: Health Belief Model**

**The Health Belief Model as predictor of preventive health behaviour**  
 Source: Becker et al, 1974

### **2.2.1.1 Problems and issues with Health belief model**

In attempting to review studies on health beliefs and acute illness behaviour, attempts to account for illness behaviour differ considerably in the domain of factors that are used to explain behaviour. They also differ in what is to be explained ranging from actions taken when symptoms appear to the utilization of the health service hence it becomes a problem if expected relationships do not appear or discerning the concepts that may never have been intended to represent the beliefs.

Secondly, the Health belief model would appear to have greater applicability to middle class groups than to the lower class groups since possession of the health beliefs imply an orientation towards the future, towards deliberate planning, towards deferment of immediate gratification in the interest of long run goals. But the lower class tend to accord greater priority to immediate rewards than the long range goals. This difference in time orientation of the different social classes has been debated and may have implications for the planning of the preventive health programmes. However, the health workers must also realise that although members of the lower class are not as prone to accept health beliefs of the kind described as members of the higher classes, many members of the lower classes do accept such beliefs, indicating their ability to adopt long-run goals. Subjective time horizons are hence not immutable.

Thirdly, Health beliefs model seem not to be able to account for the people's habitual behaviour and styles of behaviour. Patterns that are developed in early life which are most likely not motivated by the kinds of health concerns that may guide the adults behaviour. For instance, during socialization process, children learn to adopt many health related habits and practices which permanently influence their adult behaviour e.g. brushing teeth, visiting physicians, personal hygiene etc. Yet, these patterns of adjustments can not be explained by applying the model. Clearly, the entire area of the determinants of health related habits is worthy of detailed investigations.

Finally, the question is whether Health beliefs model is testable. Kirtcht (1974:78) notes that the variables potentially can be related to decision in the

face of illness either for oneself or for the 'dependent'. The threat present in occurrence of symptoms demonstrates some association with seeking care, but the results are not always clear as they might be. Practically no results can be cited to show that the various beliefs combine in a decision. Are the elements additive, multiplicative or interactive? The structure of such a test in fact is not even clear.

Secondly, while evidence can be adduced that health beliefs mediate the relationship between socio-structural characteristics, and illness decisions, it does not help the researcher to assess a wide assortment of factors ranging from family size to satisfaction with a physician. It would be much more fruitful to develop a model in which factors at different levels have explicit status and can be fitted together conceptually while focusing on specific dependent variables.

However, despite these shortcomings identifiable in the model, continued work with it may have great ultimate benefits to the health systems research. The model could be useful as a rubric for further research on patient-related aspects of health care delivery and in avoiding expenditure of large amount of time and effort on additional examination of variables found in most instances to be unrelated to utilization behaviour.

The aim is to increase the proportion of people who consistently, rationally and freely take preventive, promotive and curative actions. Careful analysis of the health decision processes in what is currently a small group of people may well be useful in subsequent planning efforts to modify behaviour of very large groups of people. Health beliefs model therefore is suitable to form part of the framework on which to base this study.

### **2.2.2 Primary health care (Health planning) approach**

Also referred to as Health Planning approach in other quarters was adopted by World Health Organization in 1978, in Alma-Ata as the organizing principle around which to provide health for all. It is based on the view that health is essentially the result of the appropriate delivery of health services. The approach sees that good delivery must be based on planning which ensures that all community members have access to some type of service and that people

who have great need but few financial resources still get proper care. Unlike the Health belief model therefore. Health planning model focuses on the community dynamics of delivery and utilization of health care rather than the individual behaviours.

The approach emerged from the critique of the medical approach to health care delivery. The approach denies the hypothesis that medical science and medical knowledge technology alone can result in measurable health improvements among large numbers of people. It argues that medical advances must be integrated into a health care delivery system which ensures that health resources are allocated to meet community needs, and that the community itself needs to be involved in this care. It expects that the community involvement in not only the delivery but the decisions about health care will cause rapid and radical health improvements.

Hollnsteiner, M. R. (1982: 37), outlines some of the principles and values, embodying the Primary Health Care approach and which are considered as requisites of good health care delivery.

These includes:-

- 1) **Equity and justice:** The basic right of every individual to health implies the reduction of gaps between those who have access and those who don't to health and other resources necessary for maintaining health. It postulates a redistribution of resources with particular advantages going to those having the least and whose needs are the greatest.
- 2) Recognizing that health is the result of a complex set of socio-cultural, economic, physical, biological and other components. This principle points to the eradication of poverty as the basic requirement for health.
- 3) People imbued with a strong sense of self-reliance and control over their lives exercising responsibility over their own health. The role of the government and other development agencies is not to act on people's

behalf to deliver health but rather to support their efforts and take joint responsibility for health.

A health care system based on this approach will therefore possess some features that comply with the above principles and values. The features may include; accessibility of services to everyone, relevant and effective services which meet the health needs of the majority, functional integration with higher technical levels of the health system, cost-effectiveness through improved efficiency and the allocation of resources so as to achieve the greatest benefits with the lowest costs, intersectoral collaboration, and community participation in the planning, management, and evaluation of health services at all levels. This model unlike health belief model that assumes that all roads lead to doctor centred medical care, provides a policy framework for health care delivery centred on the people and is socially and culturally acceptable.

#### **2.2.2.1 Problems and issues with Health planning (Primary Health Care approach)**

While the planners view this approach as essentially the result of appropriate delivery of health services to be based on planning to ensure that everyone has access to services, creating conditions for this objective is rather difficult. First it is hard to identify "community" among a large migrant population having in common virtually only their residence in a large crowded urban settlement area. This implies that the approach can best be suited to the rural areas where homogeneity is assumed, where the community can easily be defined, where there may exist strong allegiance to the locally-elected village leader and a spirit of mutual self-help.

Secondly, it is hard to maintain the high quality of services if lay people were to decide how those services should be developed and utilized. Thus community participation has been limited to activities defined by planners thus leading to sporadic development and a high attrition rate for lay people involved with the programme. Inevitably, it has also led to the community identifying the programmes as part of the programmes of the hospital and not their own. To the planners, community health is health care by the people while on the

other hand, to the community it is often health care for the people. The proponents of this approach have generally proceeded without adequate data to define clearly their objectives. The assumptions they make about their approach often are based on observations or feelings. This approach needs therefore, to be critically analysed. In doing so, community diversities, power groups and basic economic inequalities should be critically put in their right perspectives.

However, despite its inadequacies, the model is central in explaining factors that affect the delivery and utilization of health services and their planning implications on the development of health care services for the urban poor.

### **Conclusion:**

Implicit in both Health belief model and health planning approach is the idea that all roads should lead to modern medical alternatives. While Health Belief model appears to have greater applicability to the middle class groups whose time horizons is oriented to the future goals, health planning model seems to be more suited to the rural areas where a kind of homogeneity is assumed.

The models therefore fail to appreciate the existence of both folk/traditional and spiritual remedies. We can therefore state that both models are insensitive to community diversities, power groups, cultural diversities, and basic socio-economic inequalities which are critical to the delivery and utilization of health services in urban and rural areas alike. Given the above weaknesses of the two models, below is the alternative model which attempts to fill in the glaring shortcomings of both Health Belief model and Health planning model in explaining the factors of delivery and utilization of health services in urban settings.

### 2.2.3 The alternative model:

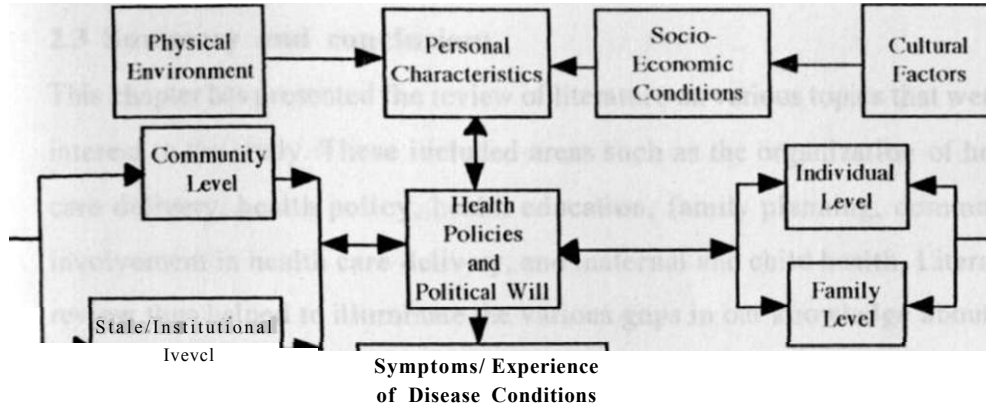
This model aims at providing an alternative framework in which factors at different levels, for instance, state/ institutional, individual, community and family have explicit status and can be fitted conceptually to explain factors affecting the delivery and utilization of health care services to the population of whatever nature while focusing on specific dependent variables. These factors may include: environment (geography, climate, drainage, pollution, overcrowding), socio-economic conditions, cultural, personal characteristics (sex, age socio-economic status), and political. These factors combine with the local epidemiological patterns of diseases and the genetic endowment and susceptibility of the population to influence health and shape the configuration of health care systems (health behaviour, healing practices and the type of health care sought). These factors combine to reflect the alienation and powerlessness of the poor to participate fully in the health care systems.

The model posits that poor health, the response to it, individuals experiencing it and treating it, the social institutions relating to it and the environment in which it occurs are all systematically interconnected. Unlike the Health belief model and health planning model, the model recognizes the important role played by the non conventional alternatives such as traditional medicine, spiritual healing, symbolic non sacred healing, special systems of exercises, traditional surgical and manipulative treatments. These alternatives however, have been dismissed or ignored by the conventional medical practitioners as irrational and unscientific thereby glorifying their own as being rational.

The model therefore postulates that people have their own alternative places to seek for care that might not necessarily follow the so called conventional remedies. Their own health beliefs and the popular environment in which they find themselves determine how, when and where they may decide to seek for health care and for how long. In a nutshell, these factors must be taken into account in the health service planning for any given community, nation, region or settlement. The model is graphically presented below in figure 3.



FIGURE 3: Factors Of Delivery and Utilization of Health Services Model

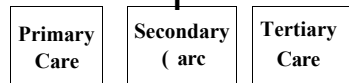


Negative  
Evaluation  
Health State

Motivation to Act  
Mass Media  
Health Education  
- Content of  
Service  
• Personal  
Knowledge  
- Advice from  
others

**T**  
Courses of  
Actions

Self care      Lay  
Therapy      (Conventional  
Medical Care      Traditional  
Medical  
Care      Spiritual  
Remedies



Structural Barriers  
- Financial  
Resources  
- Health Policy  
- functional  
Inefficiency  
- Clinic Procedures  
Procurement of  
Drugs and  
Equipment

Evaluation of  
Health Care  
Systems

Situational Barriers  
- Cultural Beliefs  
- Poverty  
- Level of Education  
Interaction with  
Health  
Workers  
- Dissatisfaction with  
Service  
- Negative Experience  
With  
Service

**2.3 Summary and conclusion:**

This chapter has presented the review of literature on various topics that were of interest to the study. These included areas such as the organization of health care delivery, health policy, health education, family planning, community involvement in health care delivery, and maternal and child health. Literature review thus helped to illuminate the various gaps in our knowledge about the subject of the study leading to the formulation of the hypotheses tested. Also presented in this chapter is the review of Health belief model and Health planning model on which the study was based. Out of the weaknesses of these two models, the author formulated an alternative model to explain further, the factors that influence the delivery and utilization of health services. Chapter three therefore presents the background to the study area where data was collected to verify the hypotheses formulated and the applicability of the models outlined in this chapter. It also presents the different methodological techniques employed to collect data required for adequate satisfaction of the study objectives and verification of the hypotheses formulated.

**THE STUDY AREA AND METHODOLOGY**

This chapter provides the discussion on the background to the study area and the methodological techniques employed to collect the necessary data required to satisfy the study objectives and in testing the hypotheses formulated. The chapter also presents the operational definitions of variables and the units of observation.

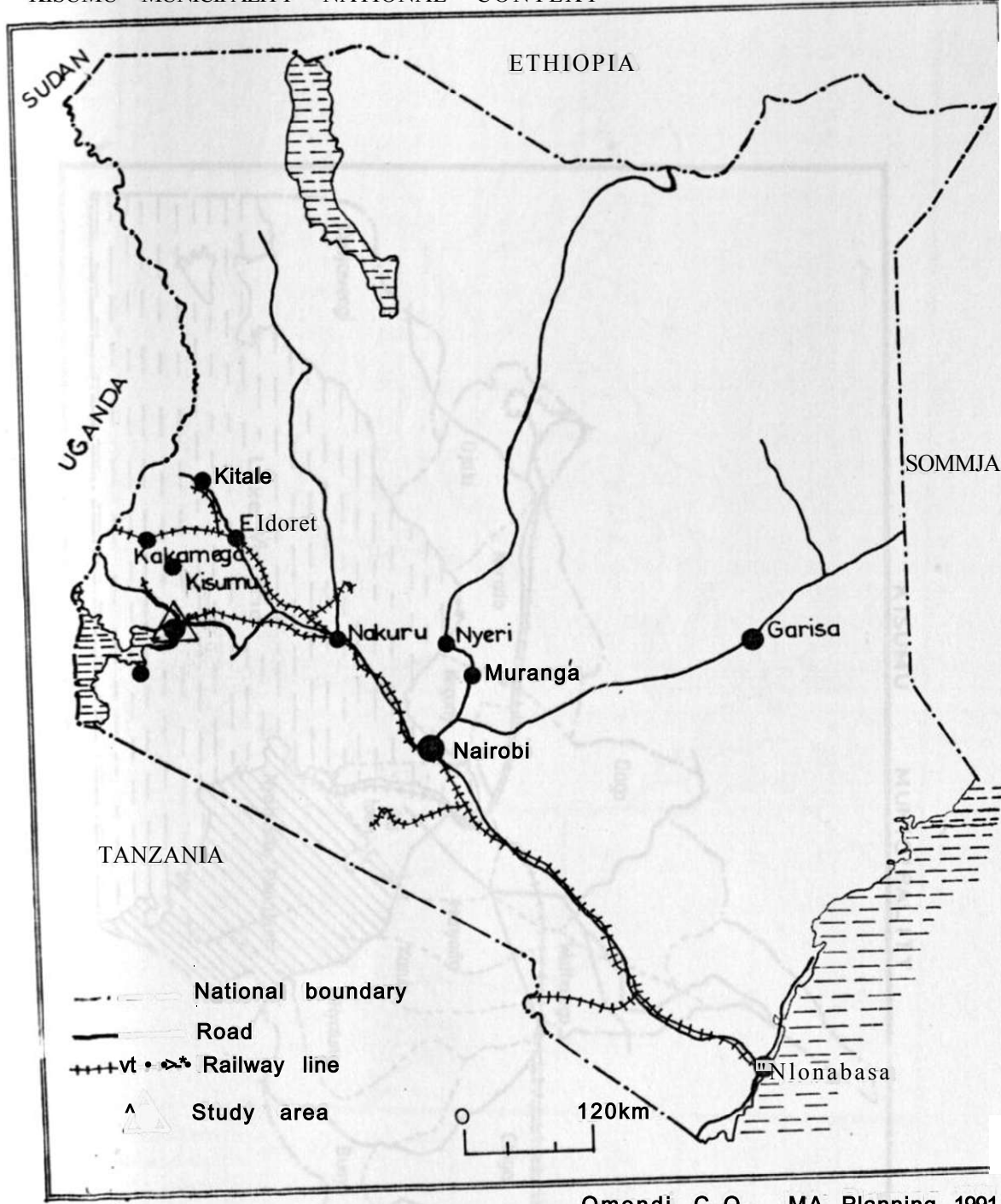
**3.1 Location and Physical Features of the study area**

Nyalenda and Pandipieri in Kisumu Municipality, Kisumu District constituted the study area. The area is situated between 0° 00'S and 0° 12'S Latitude, and between 34° 35'H and 34° 55'H Longitude. It is bounded by the Old town and Lake Victoria to the west and South west, Kasule Sub-location to the east and Manyatta to the North east.

The area lies at about 1,144 metres above sea level on the southern plains of the town . The area is hot and humid but the well marked lake breezes during the afternoons do help to keep the temperatures down. In general the area experiences high temperatures throughout the year. The mean maximum monthly temperature ranges from 27.7°C - 30.8°C. The annual rainfall received in the area varies between 876mm-1306mm. The rainfall is bimodal in nature with more than 40% occurring between March and May (first peak) and second peak being received between September and December

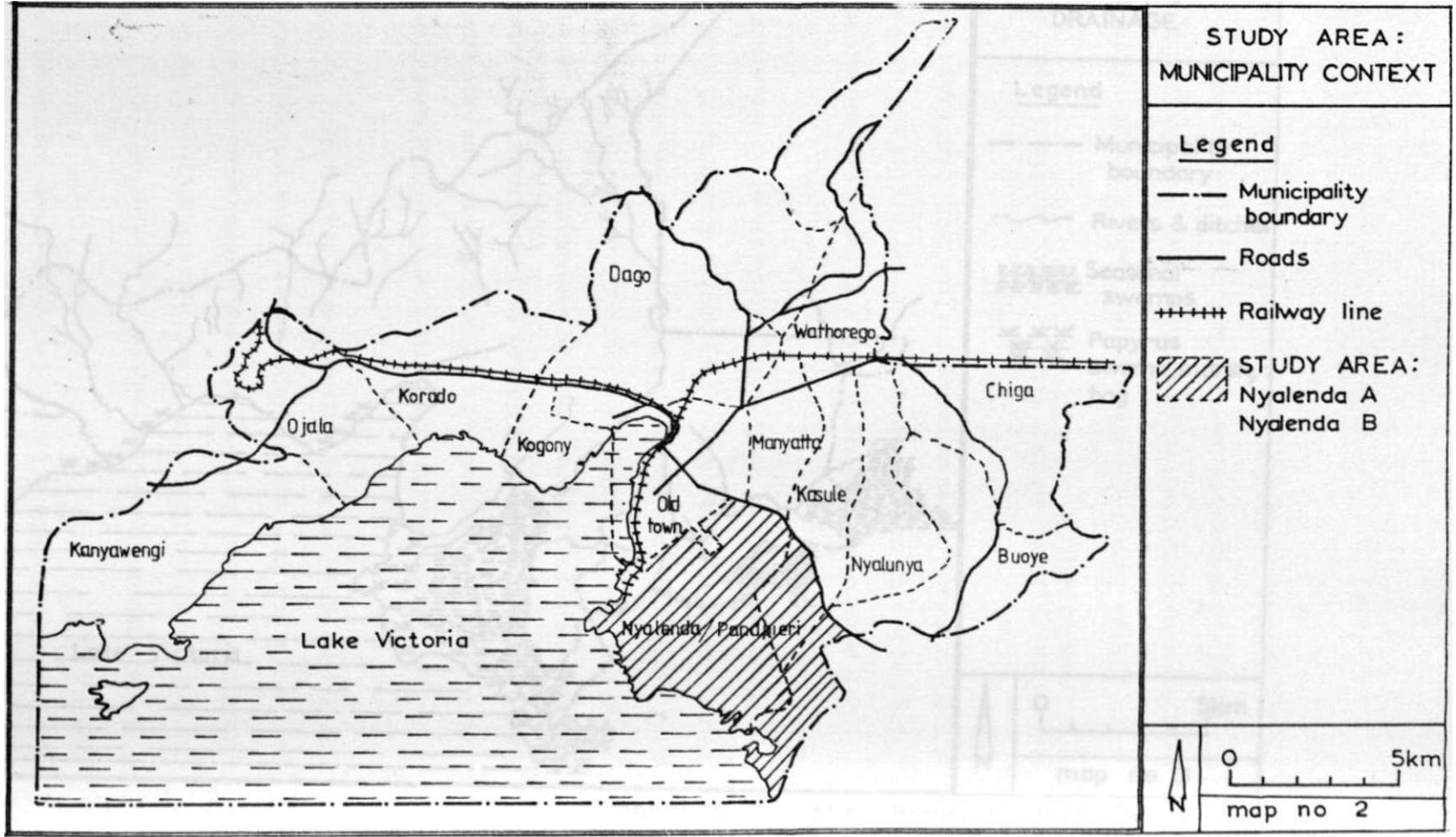
Topographically, the study area lies in the piedmont plains (hat spread across the Kano plains. The plains often experience frequent floods which cause loss of life and property and crops destructions.

Administratively, the Nyalenda A and Nyalenda B (Pandipieri) Sub locations fall within the confines of Kolwa West Location of Winam Division, Kisumu District.



Omondi C-O. MA Planning 1991

KISUMU MUNICIPALITY

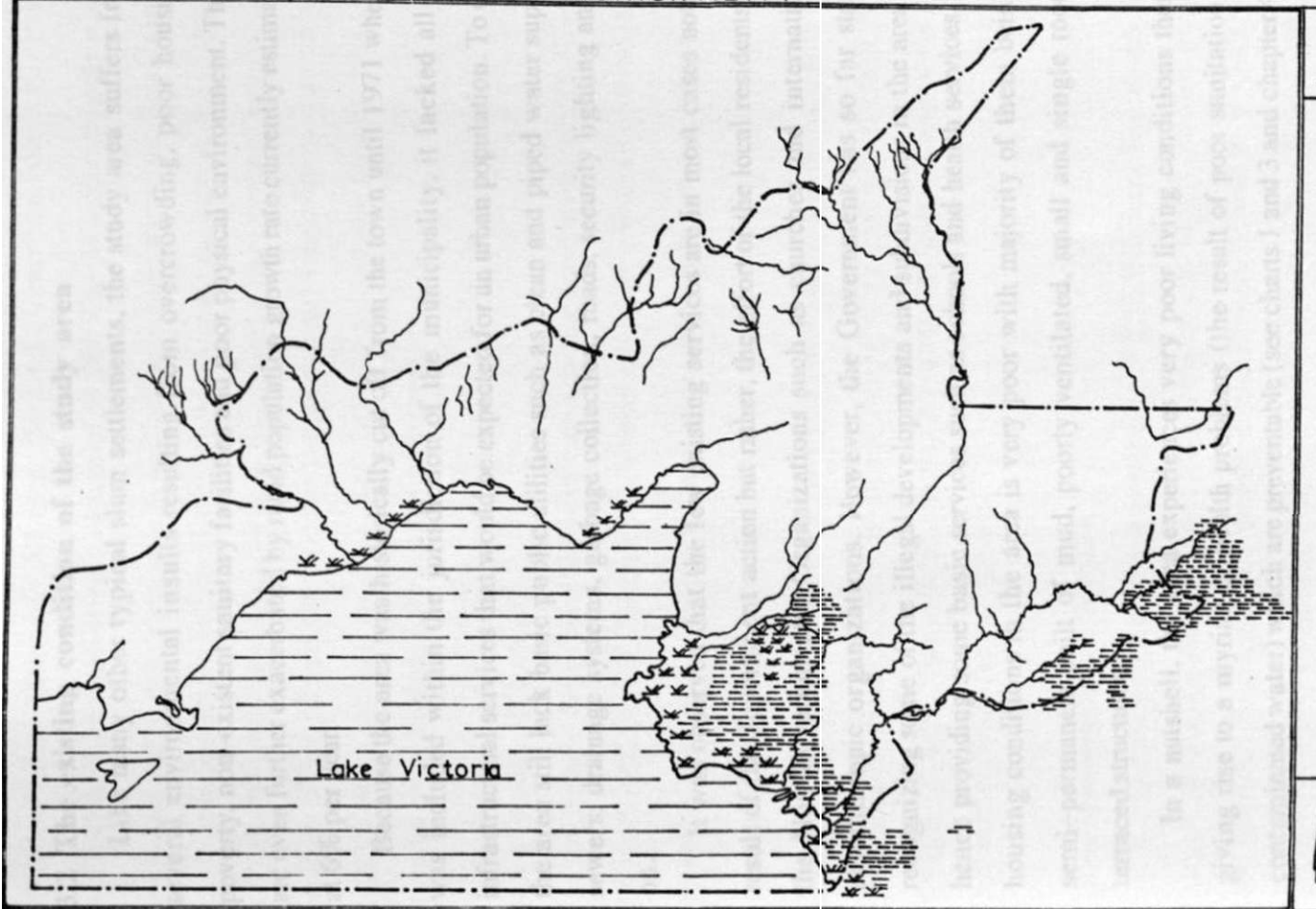


STUDY AREA :  
MUNICIPALITY CONTEXT

- Legend**
- Municipality boundary
  - Roads
  - +++++ Railway line
  - ▨ STUDY AREA:  
Nyalenda A  
Nyalenda B

N  
0 5km  
map no 2

KISUMU MUNICIPALITY



**DRAINAGE**

**Legend**

**Municipality boundary**

^—^— Rivers & ditches

Stlss\* Seasonal swamps

**Papyrus swamp, marsh, bog**

0 5km  
L I

map no 3

Omondi C. O. M.A. Planning

1991 / '93

### **3.2 The existing condition of the study area**

Like many other typical slum settlements, the study area suffers from several environmental insults resulting from overcrowding, poor housing, poverty, non-existent sanitary facilities and poor physical environment. These are even further exacerbated by rapid population growth rate currently estimated at 6% per year.

Because the area was historically cut off from the town until 1971 when it was included within the jurisdiction of the municipality, it lacked all the infrastructure! services that would be expected for an urban population. To date the area still lack basic public utilities such as clean and piped water supply, sewers, drainage systems, garbage collection, roads, security lighting and so on.

It was observed that the few existing services are in most cases not the result of the Government action but rather, the effort of the local residents and the Non Governmental Organizations such as churches and international philanthropic organizations. However, the Government has so far started recognizing some of the illegal developments and subdivisions in the area and hence providing some basic services such as schools and health services. The housing conditions in the area is very poor with majority of them being of semi-permanent.built of mud, poorly ventilated, small and single roomed terraced structures.

In a nutshell, the area experiences very poor living conditions thereby giving rise to a myriad of health problems (the result of poor sanitation and contaminated water) which are preventable (see charts 1 and 3 and chapter 4).

### **3.3 The study area within the context of Kisumu municipality**

Kisumu Town within which the study area is located is the largest and most important urban centre west of the Rift Valley. It is strategically located at the hub of communication network which serves most of west Kenya. This factor has effectively facilitated its dominance as an administrative, industrial

and commercial centre for this area. Kisumu's hinterland boasts of some 7 million inhabitants and covers an area of 31,000 Km<sup>2</sup> incorporating the whole of western and Nyanza provinces as well as the western part of the Rift Valley.

Kisumu also owes its dominance to its nodal position as the only port on Lake Victoria providing Marine Engineering Services and prior to the breakup of East African Community, freight and rail-ferry communication with Uganda and Tanzania. Its dominance is likely to continue thereby attracting even larger population from its rural hinterland.

### **3.3.1 Physical Extent**

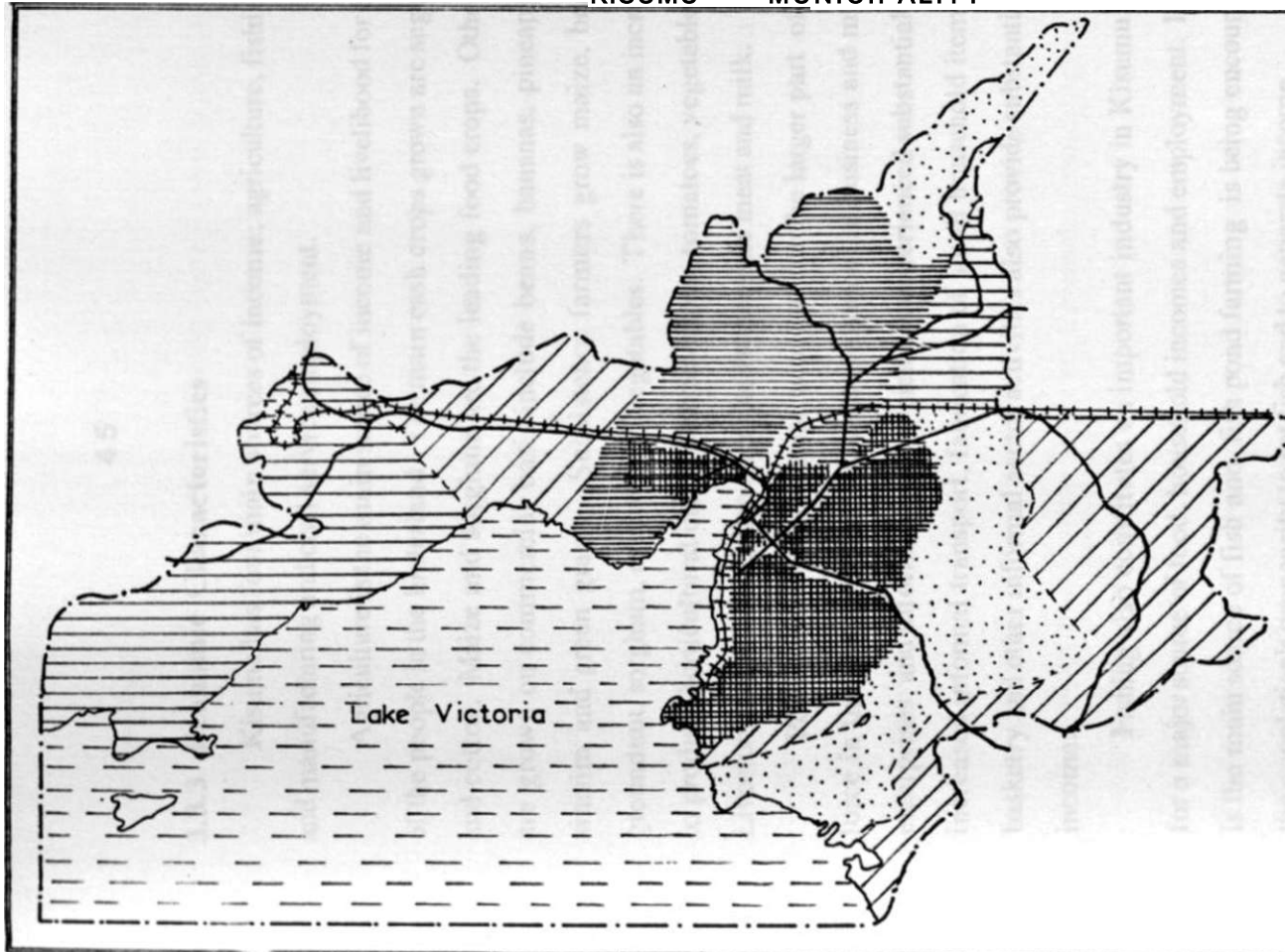
Prior to the expansion of the municipality boundaries in 1971, Kisumu Municipality covered a modest 19 km<sup>2</sup> excluding the peri-urban settlements of Nyalenda, Nyawita, Obunga, Pandipieri, Manyatta among others. The expansion thus absorbed some 398 km<sup>2</sup> of the adjacent hinterland to raise the area to 417 km<sup>2</sup> of which 157 km<sup>2</sup> falls under water. The municipality now embraces Nyalenda, Kasule, Nyalunya Buoye, Chiga, Manyatta, Dago, Wath Orego, Kadero, Kanyawegi, Ojola, Korando, Kogony, Kanyakwar and Mkendwa (swahili) sub-locations.

### **3.3.2 Demographic Profile**

The municipality had a population of 152,643 according to the 1979 census, with a sex distribution of 77,722 males and 74,921 females giving a sex ratio of 1.03 : 1, just the opposite of the Kisumu District of 1 : 1.03. The population was projected by CBS to be 229,418 by 1988 derived from the growth rate of 6% for the Old town and the Manyatta and Nyalenda settlements and 3.3% for the adjacent rural areas incorporated in the municipality. The population density varies from 850 persons/km<sup>2</sup> for the whole municipality and 1929 person/km<sup>2</sup> for the old town, Nyalenda and Manyatta settlements. Table 1 below shows the population projections of the town age group cohorts. Map 4 also shows the population distribution of the town.



# KISUMU MUNICIPALITY



## POPULATION DISTRIBUTION

### Legend

Persons per sq km

above 800

600 - 800

400 - 600

*m* 200-400

0 - 200

Municipality boundary

Roads

Railway line



map no 4

Omondi C.O. M.A. Planning 1991/'93

### 3.3.3 Economic Characteristics

Kisumu has four main sources of income; agriculture, fishing, business and manufacturing and civil service employment.

Agriculture is the main source of income and livelihood for the majority of the people in the hinterland. The main cash crops grown are sugar cane, rice and cotton. Maize and sorghum are the leading food crops. Other crops that are grown on commercial basis include beans, bananas, pineapples, citrus, simsim and green grams. Subsistence farmers grow maize, beans, millet, groundnut, sorghum, cassava and vegetables. There is also an increasing effort to produce horticultural crops such as onions, tomatoes, vegetables and fruits. Livestock production is also attempted to provide meat and milk.

Public sector employment accounts for the larger part of total labour force in the Town. Private sector employment in business and manufacturing enterprises; and informal sector which has experienced substantial growth with increased informal transport, fabrication of small household items, woodcraft basketry and other informal sector activities also provide substantial sources of income.

Fishing also constitutes an important industry in Kisumu. It accounts for a major source of food, household incomes and employment. Lake Victoria is the main source of fish and fish pond farming is being encouraged to meet the population's propensity to eat fish and to generate income.

### 3.3.4 Human Ecology and Settlement in Kisumu

Human settlement in Kisumu is diverse and can be categorised into five main human ecological zones. These consist of the planned and laid out areas of the built-up town and the unplanned urban squatter settlements forming almost a semi-circle around the town. Map 5 provides the spatial location of these zones.

**Zone 1:** Constitutes the town centre which commands commerce, public administration and major business activities. It also includes the

industrial area.

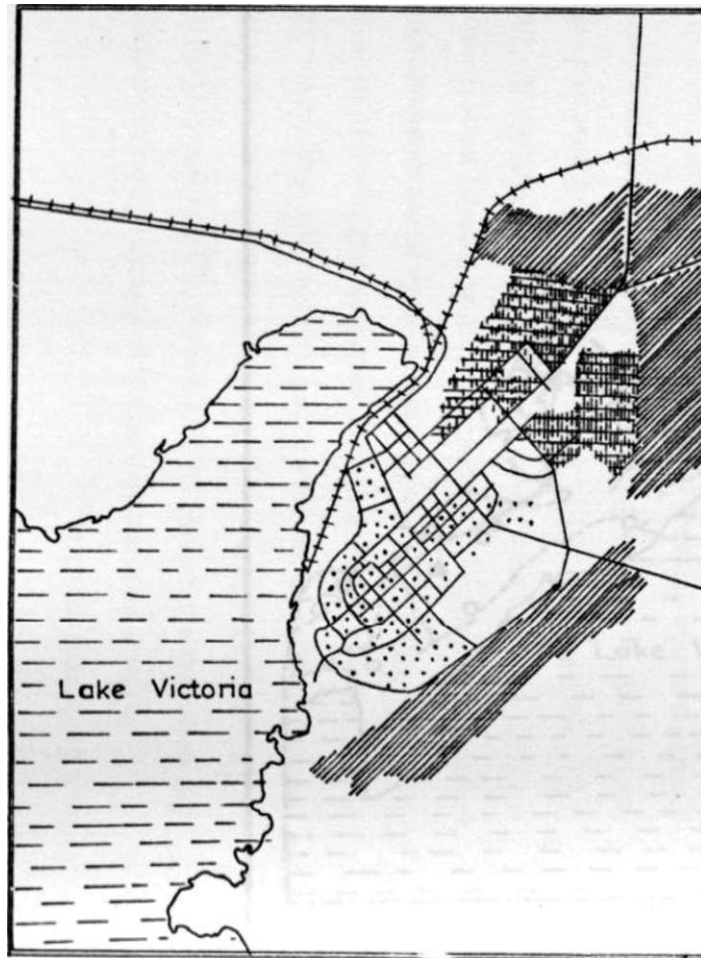
**Zone 2:** This is the low density expensive residential area of milimani. planned in the tradition of the colonialist with road layouts shaded by beautiful trees and pleasantly coloured shrubs.

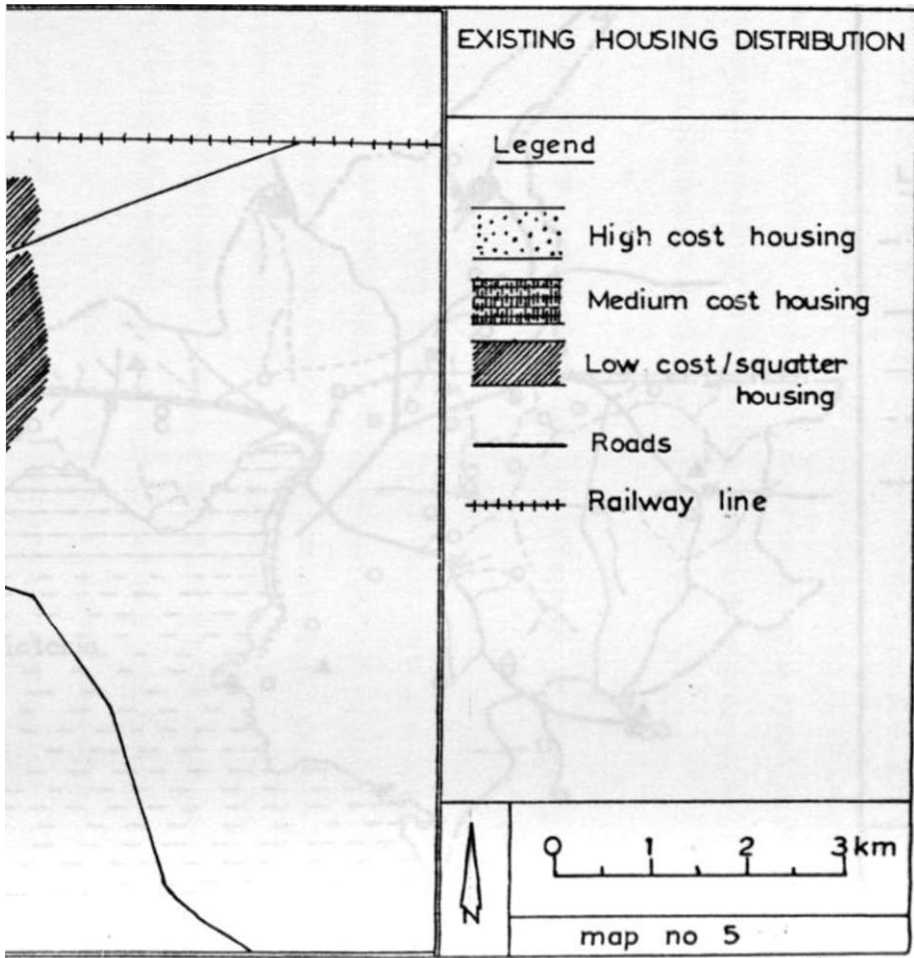
**Zone 3:** This constitutes the medium density housing zone, mostly in the form of semi-detached dwellings formerly exclusively reserved for Asian residents. But now more African-middle class have moved to the area. It is in the northern part of Milimani.

**Zone 4:** This is the popular residential housing estates zone. Here we have Makasembo, Ondiek, Lumumba, Nubian village, Shauri Moyo, Shauri Yako, Arina, Hospital, Okore, Tom Mboya, Mosque, Railways, Argwings Kodhek etc. They are situated in a semi-circle around the Down Town from lower part of Milimani to the area north east of the Industrial area.

**Zone 5:** This is now the slum /one formerly constituting the peri-urban areas of Kisumu. They are the areas of mostly substandard housing hugging the town like an uncomfortably tight girdle. These are where the African Native District Council allowed the growing number of indigenous people migrating into the town to seek employment to develop high density residential areas. They include Pandipieri, Nyalenda, Manyatta, Nyawita, Obungo and Bondeni. These areas carry about three quarters of the total municipality population. The standards of living is typical of what can be associated with the term "squatter colony". The biggest problems include overcrowding, absence of hygiene, lack of infrastructure such as sanitation, clean water supply, health facilities, and communicable and respiratory tract diseases as well as water and vector borne diseases.

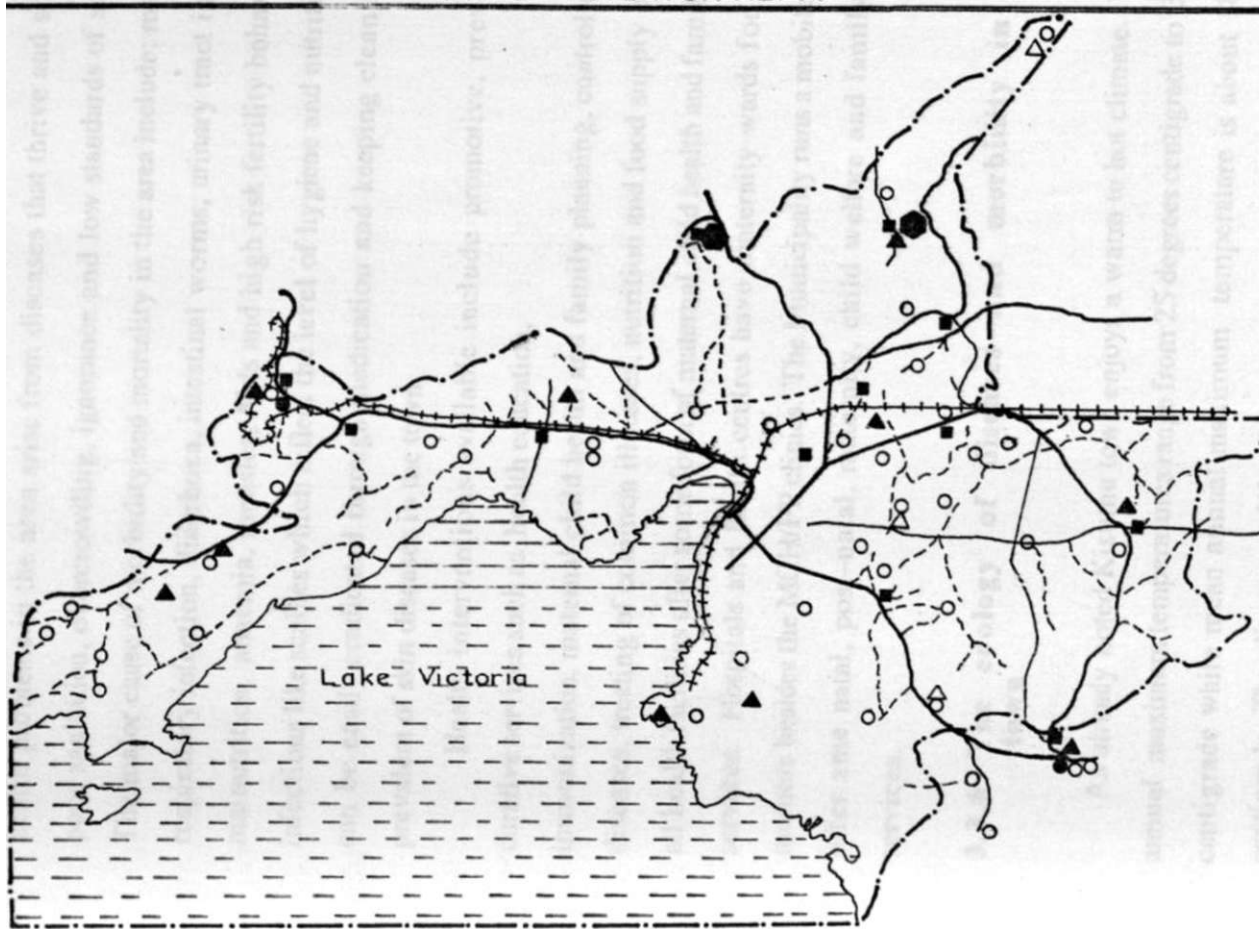
KISUMU MUNICIPALITY





Omondi C.O. M.A. Planning 1991 / '93

KISUMU MUNICIPALITY



ADMINISTRATION  
&  
SERVICES

Legend

- Municipality boundary
- Roads
- Main tracks
- Other tracks (footpaths)
- Railway line
- # Administrative centres
- \* Market centres
- A Health centres & dispensaries
- O Schools
- A Proposed health centres & dispensaries

km  
map no 6

Omondi C O. MA Planning 1991/ 93

### **3.3.5 Health profile**

Kisumu has complex health problems. It is not however possible with the information available to give a complete epidemiological picture of health and disease in the town. Various sources indicate that the major public health problems in the area arise from diseases that thrive and spread due to poor sanitation, overcrowding, ignorance and low standards of social ethics. The major cause of morbidity and mortality in the area include; malaria, upper respiratory infection, diarrhoea, intestinal worms, urinary tract infection and malnutrition, anaemia, measles. Aids and high risk fertility behaviour. Skin infections like scabies which reflect the level of hygiene and nutrition and that can be easily eradicated through medication and keeping clean is the most prevalent of skin diseases in the town.

Health interventions available include promotive, preventive and curative services such as health education, immunization, maternal child health and family planning, control of endemic diseases, treating of common illnesses, nutrition and food supply etc. Nearly all health facilities offer some form of maternal child health and family planning services. Hospitals and health centres have maternity wards for delivering mothers besides the MCH/FP clinics. The Municipality runs a mobile clinic and offer ante natal, post-natal, maternity, child welfare and family planning services.

### **3.3.6 The ecology of diseases and morbidity in Kisumu town**

As already noted Kisumu town enjoys a warm to hot climate. The mean annual maximum temperatures range from 25 degrees centigrade to 30 degrees centigrade while mean annual maximum temperature is about 18 degrees centigrade. The climate and the physical environment of the town have always had a very strong linkage with the disease and morbidity patterns of the town. The poor environmental conditions such as poor drainage, overgrown bushes, uncollected garbage and clogged sewer systems provide sanctuary to

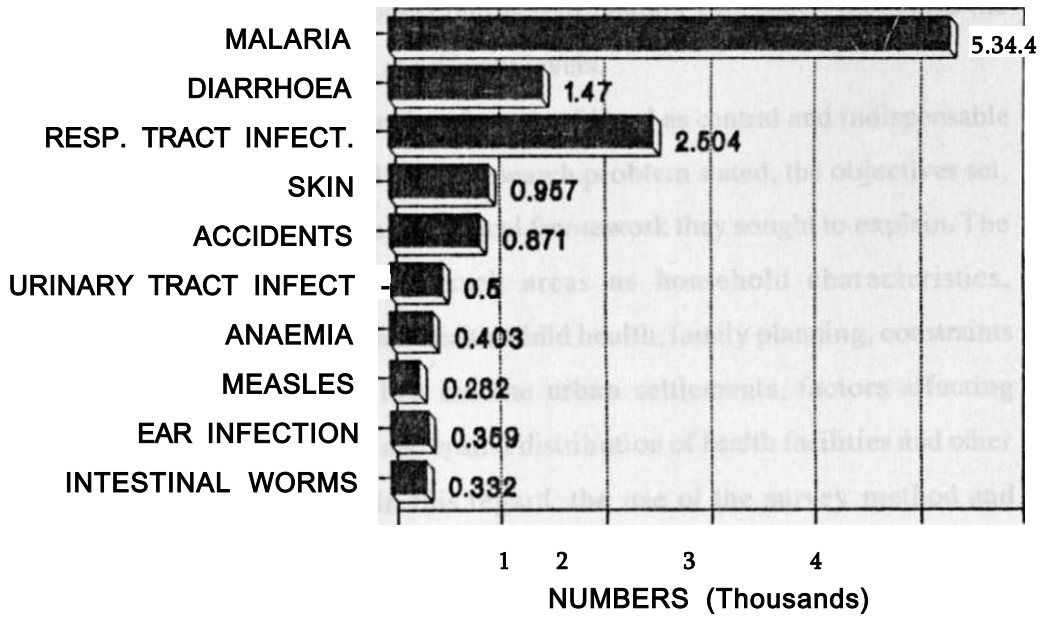
mosquitoes and other disease carriers which increase morbidity levels in Kisumu.

Lake Victoria with its marshes and stagnant water ponds provide suitable breeding environment for mosquitoes leading to the severity of malaria prevalence and incidence. Kisumu has thus been referred to as the "Malaria Capital" of Kenya. Other leading diseases in the town include diarrhoea, Respiratory Tract Infection (RTI), Disease of the Skin, Accidents, Urinary Tract Infection (UTI), Anaemia, measles, ear infection and intestinal worms. Various health facilities reported that typhoid was on the increase due to the poor drinking water quality. It was reported that sometimes water is pumped directly from the lake without treatment and then distributed for household and industrial use. Chart I shows the ten leading diseases in the town.



mon?h ofSy ie9^adin8 d,SCaSCS recorded in four health facilities during the

### DISEASES



NUMBERS ↑

### **3.4 Methodology**

As stated earlier, this study sought to examine the factors that affect the delivery and utilization of maternal and child health services and their implications on the planning of health care delivery in the low-income urban settlements. In this sub section the author discusses the methods of data collection adopted, sampling techniques used, the units of observation, operational definition and measurement of variables, the study instrumentation and the techniques of data analysis and presentation used. The methodology is based on the operational models outlined in chapter two which recognize the operation of different factors at different levels.

The above methods were therefore considered as central and indispensable to the study with due regard to the research problem stated, the objectives set, the hypotheses tested and the theoretical framework they sought to explain. The data was hence collected in such areas as household characteristics, environmental health, maternal health, child health, family planning, constraints of health care delivery in low income urban settlements, factors affecting utilization issues of location and spatial distribution of health facilities and other components of the study. In this regard, the use of the survey method and participant observation proved most valuable in the process of data collection.

#### **3.4.1 Research methods**

The researcher therefore employed the following techniques of data collection:

##### **3.4.1.1 Library Research**

The library was a major source of information particularly at the formulatory stage where the literature pertaining to the subject matter of this study was reviewed. The literature reviewed encompassed; the public health policy, coverage of health services, family planning, community participation in health care, health education, and the role of hospitals in maternal and child health care delivery. Also reviewed was the literature pertaining to Health Belief model and Health Planning Approach on which this study was based. Health

statistics records were also quite handy in the study. These enabled the researcher to extract a few research hypotheses as clues to the issues investigated. Library research therefore provided valuable background information to the study itself.

#### **3.4.1.2 The Survey Method**

This method constituted the researcher's key research method. Both structured and unstructured interviews were conducted. For the structured interviews, the questionnaire was prepared beforehand and the respondents were asked questions as ordered so as to allow the comparison of responses from all the respondents. This method also facilitated the computation of the summary statistics. The household questionnaire was divided into five parts namely; household characteristics, environmental health, maternal health, child health and family planning. These delineations were made with due regard to the objectives of the study and hypotheses set for testing. The questionnaire was also designed to unearth the basic health beliefs of the respondents with regard to actions they undertake when confronted by an illness situation and why they undertake such actions. This method thus facilitated the analysis of the respondents health behaviour as explained by both Health Planning and Health Belief models.

The unstructured interview method was used where the need arose to elicit more information especially about the sensitive areas such as family planning where the respondent appeared elusive or uneasy in their responses. It was observed that the majority of respondents were not free to answer questions pertaining to the subject of family planning and children's death. To achieve this, it required that a sound rapport was created between the researcher and the respondents as a relaxed and confident respondent in a friendly atmosphere would provide spontaneous answers which he/she did not anticipate that revealed a lot about the respondents attitude towards the subject at hand. This method thus compelled the researchers) to be observant enough to note whether the respondents were tense, uncooperative, untruthful or genuine.

#### **3.4.1.3 Participant Observation**

This method was used basically to facilitate the extraction of information from the respondents concerning family planning, child mortality, number of children born, income and other sensitive areas regarding family wellbeing. It simply refers to a research characterised by a period of intense social interaction between the researcher and the researched in their social environment. The researcher(s) sought to involve themselves with the community and closely observing their values, daily life and social relationships. At the same time, the researchers) sought to remain as scientific observers by making the research purpose open and known thus making the respondent aware that their relationship with the researcher(s) is that based on field work. The method made it easy for the researcher to employ other methods of data collection such as structured interviews without any difficulty or antagonisms. This method was based on the assumption that when spoken to face to face, people tend to provide more sincere and reliable information. Participant observation method therefore responds to one of the major tenets of Health Planning model which requires identification of health needs from the people themselves by trying to understand that health is the result of a complex set of socio-cultural, economic, physical, biological and other components.

#### **3.4.1.4 Key Informant Technique**

This method was employed by the researcher to obtain information from the key persons in the mainstream of maternal and child health services delivery. Structured questionnaires were administered among various cadres of health workers such as public health officer, medical officers (municipality and district hospital), nurses in charge of MCH/FP clinics and a questionnaire for recording the activities at health facilities was also administered. This technique was employed with a view to getting information from health workers about their own perception of the maternal and child health care, constraints to effective and efficient provision and utilization of the health services and what can be done to improve the provision of maternal and child health services. The respondents were also asked to give a catalogue of the leading health problems

in the settlement and factors contributing to the problems identified. The method was therefore used to understand from the health workers themselves the efficacy of their services and the barriers to effective use of health care interventions. The idea was to cross check the objective and subjective explanations of health problems experienced, health service utilization and barriers to use as perceived by the experts/providers and the beneficiaries themselves.

### **3.5 Sampling techniques**

The main purposes of sampling are to avoid biasness in the selection of the sample and to help achieve a maximum precision for a given outlay of resources.

The sample was drawn from two low-income urban settlements of Kisumu Municipality namely: Nyalenda "A" and Pandipieri (Nyalenda "B") Sub-locations. The researcher used the 1989 population census maps as the basis for sampling. Nyalenda "A" was divided into a total of 34 census areas with about 1558 building structures. Nyalenda "B" (Pandipieri) had a total of 27 census areas with 1741 building structures. To obtain the required sample therefore, the researcher adopted the cluster random sampling technique.

In order to ensure that all individuals in the study area were given equal chance of selection, out of the 61 census areas with a total of 3299 building structures from both sub-locations, an adequate sampling frame was constructed. On this sampling frame, each structure was listed once and only once. By assigning a number to each structure in the frame, the researcher found it possible to use the table of random numbers to choose the 80 required random numbers of structures to represent the respondents. That means from each structure chosen, a respondent was drawn for the interview. In the final analysis each cluster of buildings structures (census area) at least a respondent was drawn. This was done to ensure the representiveness of the sample and to enable the researcher to make effective and reliable generalization for the whole population.

### **3.5.1 The Interview of Health Workers**

To obtain required sample of the health workers to interview, the researcher resorted to the non-probability sampling technique. The selection of the sample was deliberate and not attached to any mechanical devices of sampling. The main goal was to obtain valuable insights which ultimately, will lead to testable hypotheses. The idea hence was to interview persons in position or most conveniently placed to provide information about the issues addressed by the study. The interviews therefore focused on the various cadres of health workers in the study area and other health facilities in the town.

### **3.6.Units of observation**

In the attempt to examine the factors that affect the delivery and utilization of maternal and child health services in low income urban settlements, the following units of observation were considered as valuable and central in understanding peoples health behaviour and health planning needs.

#### **3.6.1 The Health Facility**

This refers to the structure offering preventive, curative and promotive health services to the people. It may be either a hospital or dispensary or a health centre or mobile clinic. It was important to analyse the health facility as a unit of observation because the quality of services provided, the attitude adopted by the health workers towards their work and the recipients of the services as well as the relationship between the health workers and the patients play a very significant role in determining the level of utilization of a given health facility.

The example that the health workers set in the community and the way they behave towards the patients both greatly influence the patients' attitudes towards the services provided and the perception of the health problems prevailing in the community. The goals therefore of, for instance maternal and child health, are not only found in people's homes and schools or clinics but are also found upon the hospital or health centre ward or clinic where adequate attention can be promptly given. The health facility was thus a valuable centre of focus in this study.

### **3.6.2 The Settlement Community**

This refers to the social group of people living in the low-income urban settlements or slums. They tolerate an appalling lack of amenities such as clean water supply, sanitation and housing which is coupled with high levels of unemployment and poor condition leave them in the most deprived of situations.

However loose or informal the community may be, social pressures may be effective in stimulating health action. People's social and health beliefs attitudes, values and socio-economic activities play a vital role in determining the level of use of the health services that may be provided. It is the community in which the people live that give a particular health problem or disease meaning and explanation, that stigmatises the disease and can help combat the stigma by changing their beliefs and health practices. In this light therefore, the community became an important unit of observation in this study.

### **3.6.3 The Individuals**

The individuals in this study refer to the mother and the child as the unit of observation. With the growing recognition of the limitation of medical care, and the environmental and behavioural components of much of the disease, individual change must be the focus of the nations efforts to promote and maintain health. The individual responsibility thus becomes the key ingredient. To what extent are we as individuals responsible for preventing disease and maintaining our own health?

Knowles, J. H. (1973: 301), former president of the Rockefeller Foundation argues that people are born healthy and made sick by personal "misbehaviour" and environmental conditions. Solutions of health problems should by and large focus on changing the behaviour of people, who are themselves simultaneously victims and victimi/ers, via education, rewards, and punishments thus allowing them to improve their health through their own efforts. Most individuals do not worry about their health until they lose it.

The individual has the power - indeed, the moral responsibility to

**maintain** his own health by observation of simple, prudent rules of behavior to control disease provoking environmental contaminants, but with knowledge, he can participate in public debates of awareness creation and the support of government's controls. The cost of individuals irresponsibility has become prohibitive, and unless we assume such individual and moral responsibility for our own health, we will learn in time what a cruel and expensive hoax we have worked upon ourselves through our belief that more money spent on health care is the way to better health. Owing to the above therefore, the individual was a very significant unit of observation in this study.

#### **3.6.4 The Household**

The household here refers to social group of people usually living together, eating from a common kitchen, contributing to and drawing from a common source and with competing needs and aspirations. The household is a suitable unit of analysis because more than any other decision making unit, it determines what individuals do or what they consume. The ways in which differences are resolved within the households significantly affects the well being of individuals members.

Golladay (1983: 4, 15) notes that frequently, experts have been dismayed by the refusal of the households to adopt new ideas and practices that professional judgments indicate are in their interest. A host of examples can be identified where the quality of life as reflected in nutritional status, good health, literacy and social participation is severely limited by misuse of consumption and ignorance. In many cases people hold views that when acted upon are often harmful to their physical health. These views often reflect cultural barriers to development or inherent conservatism of the poor. The household hence was a significant unit of the observation since its members are the ones who directly interact with health workers and decide whether to use the health facilities or not.

#### **3.6.5 Health Care Systems**

This term is used to encompass the various institutions by which the



health needs of a community are satisfied. This is an important unit observation because various people have different sources from which they seek care. In the modern Kenya, it is dominated by the conventional medicine provided in hospitals, health centres and dispensaries and offering both general and specialised services as it is associated with the professionalisation of medicine and nursing and in hygiene for the management of infections. Other health systems largely used include; Traditional medicine. Lay therapy and even spiritual healing.

Health care systems can also be considered in terms of the level of health delivery and the means of sustenance. In terms of levels of delivery, it is conventional to distinguish between Primary, secondary and tertiary health care. Primary care refers to all forms of outpatient care including MCH/FP typically provided by a general practitioner. Secondary refers to more specialized forms of service such as the services of a cardiologist. Tertiary care refers to the incorporation of complex procedures provided within specialized hospital or hospital unit such as open heart surgery.

In terms of their sustenance, health care systems can be considered along a continuum of private and public health care. Public health care are more or less based on egalitarian principles providing a minimum standard of health. It is often perceived as an economic burden on the state. Private health care is not an economic burden on the state but provide highly in egalitarian services since it is only the privileged groups who enjoy its high standards of health care.

### **3.7 Operational definition and measurement of variables**

#### **3.7.1 Independent variables**

##### **Financial Resources**

This variable referred to the monetary resources accessible to the households to expend on various needs. It was measured by; household monthly income, monthly expenditure on various household needs, level of use of private health facilities and the quality of services provided at the facilities.

### **Kmironnu'iital Conditions**

This variable referred to the respondents' social and physical milieu in which they live. Its indicators were social status, economic status, housing conditions, availability of clean water and sanitary provisions.

### **Formal Education**

This variable referred to the number of years spent in acquiring formal knowledge in an educational institution such as school or college. Four categories of this variable are established. These include; No education, primary education, secondary education, and post secondary education.

## **3.7.2 Dependent variables**

### **Health Status**

This variable was used to refer to the quality of life of the people as reflected in their nutritional status and good health. It was measured by collecting information on the ailments experienced by the respondents and child and maternal feeding habits, practices regarding human waste disposal and the actions they take if they are dissatisfied with their health. The respondents in short were about their health related problems.

### **Level of Utilization of Maternal Child Health Services**

This variable was used to refer to the extent of use of the maternal and child health services by the respondents. Questions were asked about the accessible facilities, various options available for seeking both medical and non-medical attention and the frequency of attendance at the health facilities and under what conditions.

## **3.8 Limitations of the study**

Although the researcher collected adequate data to answer the objectives and hypotheses formulated, the study had a number of methodological limitations experienced during the period of data collection;

- I. The time and financial resource constraints greatly impeded the adequate

coverage of the scope of the study. Due to inadequate funds, there was very little time allocated for adequate data collection. With adequate time and financial resources therefore, the scope of the study would have included all the low income settlements in the Kisumu town.

2. The survey method which constituted the main method of data collection had a number of shortcomings. In a number of cases, the researchers were unable to obtain accurate information when questions on sensitive issues were asked. For instance, the respondents were not quite willing to respond to questions pertaining to family planning and the number of children who have died in the household. The researchers tried to overcome such problems by using acceptable and euphemistic language to get reliable data.
3. Another problem arose when other people would literally come to hijack the interview and provide all the information required and in so doing intimidating the respondent who would in turn withdraw from the conversation. To solve such a problem, the researchers avoided creating ill-feelings by asking for the opinion of all those present during the interview to the same question, but only recording the responses from the relevant respondent.
4. Sometimes, even where there was no intention to do so, the interview created unnatural situations and some of the respondents would yield inaccurate data. This could have been attributed to suspicions that the respondents might have developed at the initial stages of the interviews. Some respondents also felt coerced into being interviewed and they often showed hostility or unreadiness to be interviewed. This problem was solved by being explicit and honest about the researchers' intentions.
5. Some of the key informants were also quite unco-operative and

unwilling to be interviewed. They felt that yielding to an interview was a waste of time.

However, the majority of the respondents were very eager to be interviewed and provided very valuable data to the study which were adequately and reliably analysed and presented in chapters four and five.

### **3.9 Instrumentation**

Both the household and key informant questionnaires were designed and pretested by members of the research team. Although majority of questions were closed, provision was made for the recording of relevant comments by respondents during the interviews (see Q13 in appendix-household questionnaire).

### **3.10 Data analysis and presentation**

The researcher used both descriptive and quantitative methods of analysis. Various statistical analyses including percentages, frequency distribution, and Chi-square, were performed using SPSS/PC, and Gw Basic (Epistat) computer programmes. For graphic presentation, Harvard Graphics was used to produce the graphs to illustrate various findings. The data interpretation and presentation was organised into two chapters. Chapter four presents the analysis of various health determinants in the study area while chapter five analyses the provision and utilization of maternal and child health care services. The analysis of the data therefore dealt with the factors which affect the delivery and utilisation of maternal and child health services and their implications on the planning of health care delivery for the urban poor.

### **3.11 Summary and conclusion**

Chapter three has presented the general background to the study area. The area was analysed in relation to its physical characteristics, demographic aspects, economic activities, human ecology, and the ecology of diseases and health problems both at the local and municipality levels. As already noted in the theoretical framework, environmental, economic and socio-cultural factors are central in the analysis of the provision and utilization of health services and must be given due consideration in the planning of the same. These factors are examined in Chapters four and five with the data collected from the study area.

Chapter four examines the influences of environmental, socio-economic and cultural variables on the health status of people and the subsequent definition of health needs in the area. Chapter five analyses the provision of various alternatives of health care, their spatial location, adequacy and quality as well as the level of their utilization and factors affecting the same.

## HEALTH DETERMINANTS IN LOW-INCOME URBAN SETTLEMENTS

### 4.1 Introduction

The purpose of this chapter is to explore the various health determinants in low income urban settlements and their implications on the need for various health care interventions. The following factors are examined: demographic characteristics, housing condition, employment, education, incomes and the environment conditions and how these influence the health status of the inhabitants in the study area. These factors are considered in general because the author assumes that their influence on health not only affect the wellbeing of mothers and children but the whole population of whom the majority are women and children. Secondly, the general health needs of the population directly reflect those of mothers and children. In planning for the maternal and child health care services for the urban population of which the majority are the poor, cognisance must hence be taken of not only the disaggregate parts of health care but rather in view of the overall health care system.

It is the author's contention therefore, that lack of sensitive local information on the above elements often limit the effectiveness and efficiency of the following groups in addressing the health needs of the urban poor:

1. Planners in the planning and allocation of resources;
2. Local health workers in planning their work load;
3. The community itself in participating in informed debate about their health and the services provided.

## 4.2 Demographic characteristics

There were 80 households in the sample. This comprised 167 adults of whom 90 were females and 77 were males. The total number of children were 209 of whom 118 were females and 91 were males. These totaled to 376 persons in 80 households surveyed. The average household size was 5 persons. About three quarters of households had three or less number of children and another 2.6% had no children at all. Some 23.5% of households had four or more children.

The study area had predominantly young population with a total of 43% under the age of 17 years and a third were of under the age of 30 years. Of the remaining 26%, 9% of the population are aged between 31-40 years, 4.5% are aged between 41-50 years and only 3.1% are aged 50 years and above.

Among the adult population, 46% were males while females consisted 54%. There were 48% males and 52% females among the children's population. However, when viewed by age, there is majority of males (11.44%) in the 31-40 years age bracket compared to females (8.43%). On the other hand, there are more females (26%) in the 21-30 years age bracket as compared to males (17.46%).

Of the total 180 children, about half were under the age of 5 years, a third were aged between 6-10 years and 19% were aged between 11-17 years. 25.4% were in their third to fifth years while the remaining three quarters were in their zero to less than 3rd years. The mean children's age was 6 years while the mean adults' age was 25 years. Majority of the respondents (82.5%) were married, 5% were single, 6.3% were widowed and 6.3% were either divorced or separated.

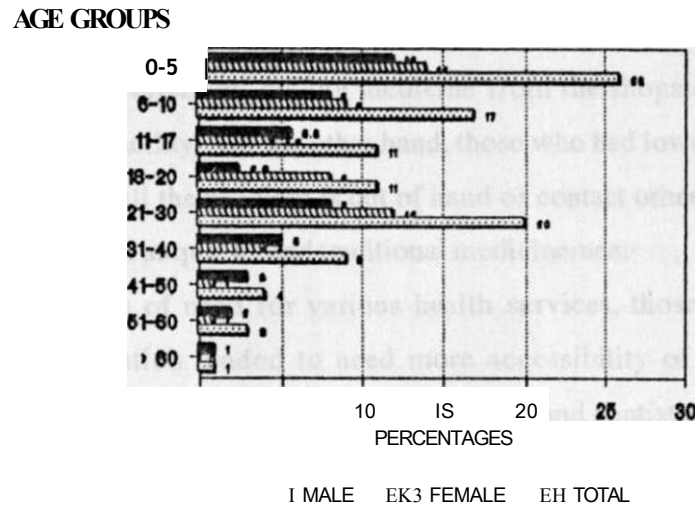
From the above findings, it becomes quite apparent that the need or demand for health services especially MCH/FP would be quite high owing to the fact that the population is largely young and the majority of whom are women in their reproductive ages and children. The service providers and planners should therefore clearly redefine their targets and channel services to where they are most needed. This should be based on the assumption that the



health of mothers and children is closely related and MCH/FP services should hence be thought of as a channel for directing medical and health services to a special group. Any health measures that will bring about an improvement in general health will also produce improved maternal and child health.

Chart 2 below illustrates the age-sex distribution of the study population.

**Chart 2: Age-sex distribution**



FIELD SURVEY

### 4.3 Education and health

Of the 80 respondents interviewed, only 10.7% reported not attending any formal school. About half attained at least primary education, 36% attained secondary education and only 1.3% attained post-secondary education. The

mean education level attained was 7 years. They all considered education an important asset and wished to see their children participate fully in the formal education system.

When cross-examined by various aspects of health, the study revealed that education had positive association with health beliefs and behaviours that people hold. For instance, those who had higher levels of education tended to use ante-natal care services more than those who attained lower primary education or no education. Over half of those using family planning services either had upper primary or secondary education as compared to 25% who used the services who had either no education or lower primary education. The positive influence of education on health was also reflected on the health actions taken when confronted by a health or illness situation. Those who attained higher level of education tended to take positive action when confronted by a health problem either by buying medicine from the shops or by visiting the nearest health facility. On the other hand, those who had lower or no education tended to wait till the problem is out of hand or contact other informal sources of remedies such as quacks and traditional medicinemen.

In terms of need for various health services, those who had higher levels of education tended to need more accessibility of such services as community health visitor, nurse/doctor services and dentist services compared to the 25% of the respondents who achieved lower or no education levels.

However, when asked about their opinion on the influence of education on their own personal health states, the overwhelming opinion was that it had no or very little effects on their lives. Many reported grave dissatisfaction with the influence of education on their health status.

Education was therefore found to be very important if the local people were to deal adequately with those in authority. Access, to information is a key ingredient in gaining confidence to enable people to feel positive about their lives. It is important that information is given when it is relevant to their health needs. It is also important that all the information belonging to various groups is shared throughout the whole neighbourhood. However, at present there is no central facility where everyone can meet and exchange ideas. This denies

local people the opportunity of exchanging their information and experience with each other. Education therefore enhances both the ability and opportunity for an individual to have greater access to health information. If patterns of health and disease in a community are to be influenced, then that community needs to know the state of their health not just as individuals, but within the context of the community. They need to have access to knowledge about the major influence on their health, such as environmental conditions.

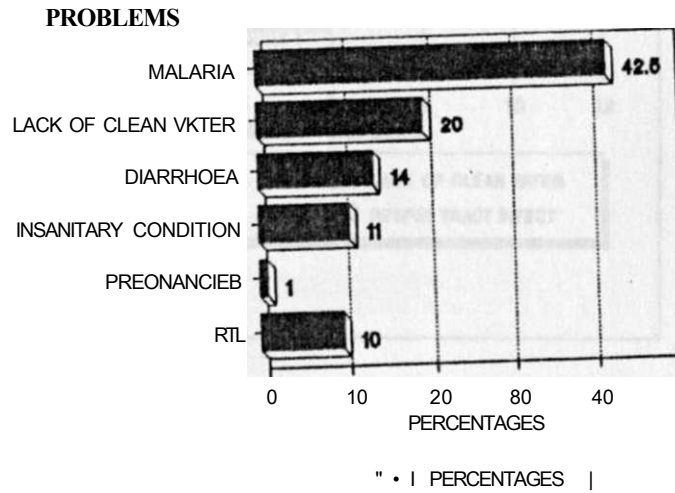
#### **4.4 Employment, income and health**

The level of formal employment among women in the study was 15%. 38% of the respondents were housewives while 40.5% considered themselves involved in petty businesses. 6.3% were engaged in other income generating activities. On the other hand about half of men were considered formally employed while about a quarter were engaged in jua kali (informal sector) and 15.5% were operating their own petty businesses. Only 2.8% were considered not engaged in any income generating activity hence absolutely unemployed. It was however, noted that the majority of those considered formally employed were doing blue collar jobs in industries and public service.

The mean household monthly income was 2850 Kenya Shillings with the majority of households (70.2%) earning Kenya Shillings 3000 and below. Only 28.8% of households earned over Kenya Shillings 3000 per month. The mean monthly expenditure per household per month was Kenya Shillings 900 on various aspects such as food, rent, water, education, medical attention, leisure and others. Of these uses food claimed the largest share of the family income, averaging about Kenya Shillings 1200 per month. About two thirds of the households spent between 100-1200 Kenya Shillings on food per month. This was followed by children's education claiming an average of Kenya Shillings 970 of household income per month. Medical attention claimed only an average Kenya Shillings 300 per month with majority of households (70%) spending up to Kenya Shillings 350 only. This implies that majority use public health interventions where little or no payments are required for the services offered.

The findings thus imply that majority of the households depend on low income generating activities which have a significant bearing on the health problems faced. The study reveals that those who were getting relatively lower incomes tended to experience multiplicity of health problems among mothers and children. Chart 4 below shows household incomes by health problems experienced by mothers while chart 3 shows the major health problems reported. Of the six health problems listed, malaria cut across all the income groups. 34.5% of the respondents reported malaria as the major health problem while 20% report lack of clean water, 13.75% reported diarrhoea and 13.75% complained of insanitary conditions as the major health problem. 10% of the respondents complained about respiratory tract infections and only 1.25% cited frequent pregnancies as the major health problem.

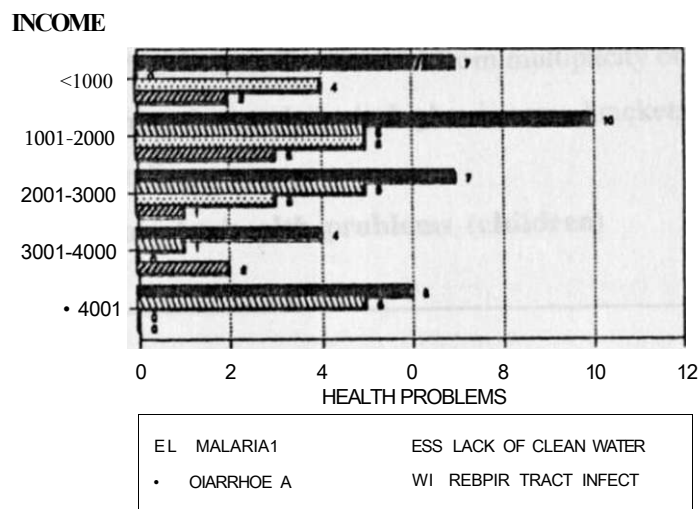
**Chart 3: Major health problems reported by respondents**



FIELD WBVTY

Shortage of clean water however was cited as a major health problem to those of relatively higher brackets. Those in lower income brackets (<2000) seemed to complain more of diarrhoea and insanitary conditions. Frequent pregnancies was an insignificant problem to all income brackets. Overall, over two thirds of households earning between 0-3000/= per month seemed to complain about multiple of health problems as compared to 37.5% of households earning over 3001/= per month.

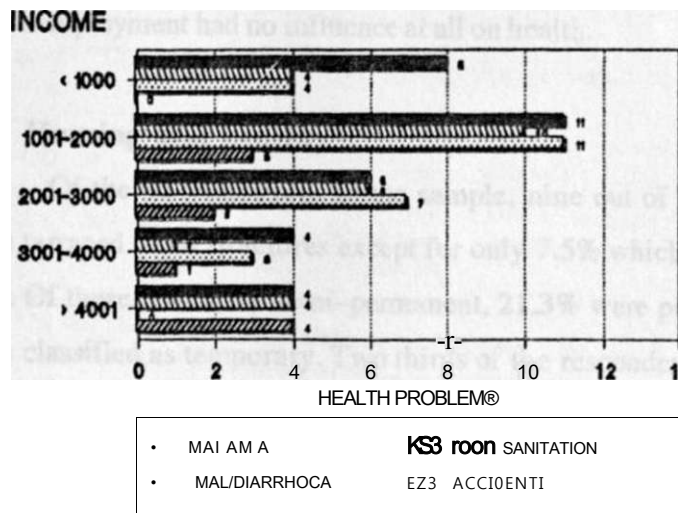
**Chart 4: Income by health problems (mothers)**



FIELD SURVEY

On the health of children, the study again revealed that malaria was a major health problem in a cross section of households irrespective of income brackets, accounting for 37.5% of which 20% earned Kenya Shillings <2000 per month. A third of households cited diarrhoea and malnutrition as major health problems among children, especially from the relatively low income brackets. Insanitary conditions was another health problem associated with poor child health with higher incidence among the relatively low income brackets. 28.75% cited it as a major health problem. Measles accounting for 5% of the major health problems reported was most prevalent among the 0-2000 income bracket. Accidents which accounted for 12.25% of the health problems reported was a basic problem among children of relatively higher income brackets. Respiratory tract infection was considered as a major health problem, especially among the relatively lower income brackets. Skin infection was not considered as a major health problem as such. Overall, children from the lower income brackets tended to suffer from multiplicity of health problems as compared to those from relatively higher income brackets. Chart 5 below illustrates these findings.

**Chart 5: Income by health problems (children)**



From the findings, we can therefore deduce that the majority of health problems afflicting the lives of those living in informal settlements are closely associated with the environment within which they live. The health problems reported by the respondents such as malaria, diarrhoea, respiratory tract infections, malnutrition, among others, directly find their causal explanations from the physical environment. However, it was found that the problem of poor environment is further enhanced and complicated by the problem of poverty. Low incomes imply high levels of vulnerability to environmental impediments to better health. Nearly all the health problems cited above are preventable but because of poverty, majority of people have very few options or alternative to adequately attack and ameliorate such problems. The type and nature of the income generating activity one is engaged in and the level of household income will greatly determine the type of environment one lives in and the mode of health action open to an individual when confronted by a given health situation. In short, employment and income greatly influence people's health beliefs and behaviours. These variables will determine when, how, what and where an individual would seek either preventive or remedial health action and under what conditions one lives. Indeed, when asked about the influence of unemployment on health, over two thirds of the respondents expressed a very strong relationship, 13.4% considered it having little influence and 17.6% felt unemployment had no influence at all on health.

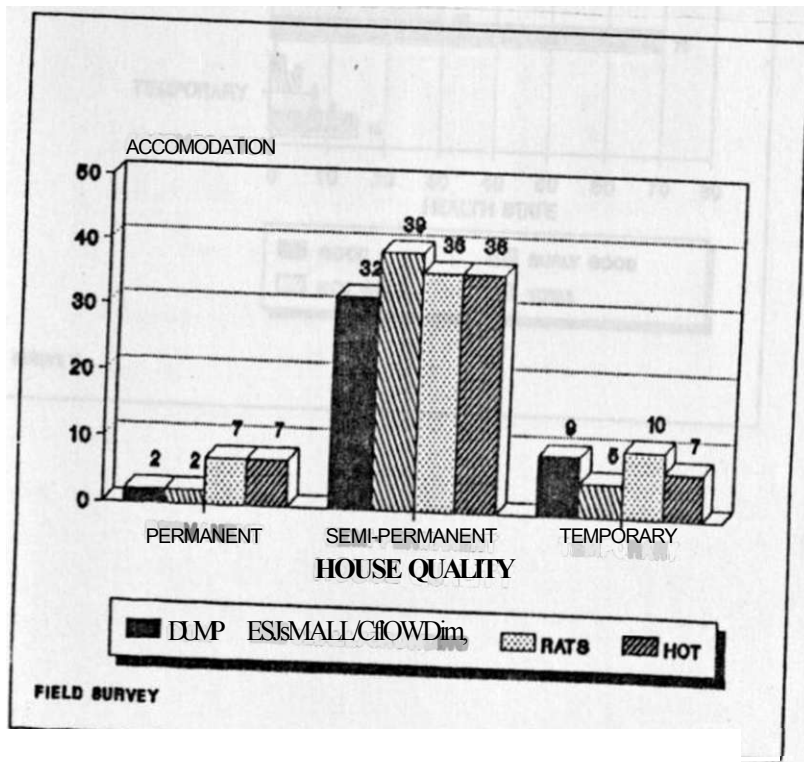
#### **4.5 Housing and health**

Of the 80 households in the sample, nine out of ten of the dwellings were terraced room structures except for only 7.5% which were categorised as flats. Of these 65% were semi-permanent, 21.3% were permanent and 13.8% were classified as temporary. Two thirds of the respondents reported that they were satisfied with the accommodation and 40% showed dissatisfaction with their accommodation. However, it is worth noting that those reporting satisfaction with accommodation in the area despite their appalling housing conditions, have most likely accepted their conditions as normal states of life

and do not perceive housing as problem as may be seen by outsiders. Secondly, the area is occupied by a number of indigenous people who consider it as their home hence have to contend with the existing situation.

When asked about the accommodation problems faced, again nine out of ten of the respondents experienced and complained about various problems including: crowding and small house sizes, rats, hotness and dampness. Of these rats infestation was the most pronounced accommodation problem accounting for 27.5%. The respondents felt that lack of rubbish collection aggravated the problem. When viewed in relation to house quality, problems of dampness, heat, noise, crowding, rats and dust were reported highest by those living in semi-permanent houses (75.2%) and among those living in temporary dwellings. Those living in permanent houses complained mostly about heat and rats. Chart 6 below shows the problems of accommodation in relation to housing quality.

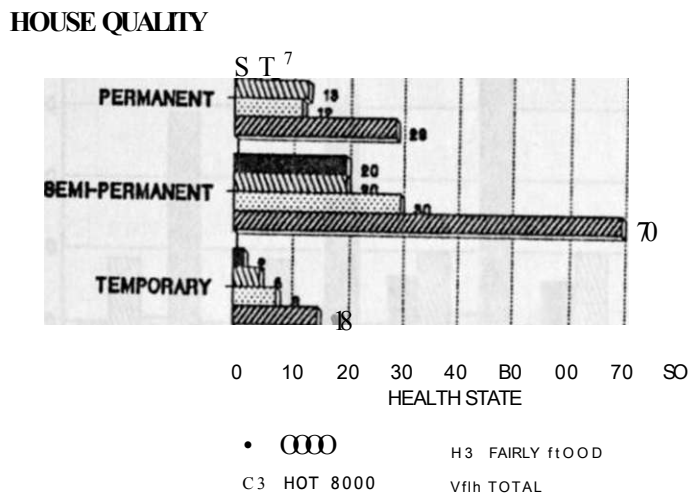
**Chart 6: House quality by accommodation problems**





On the other hand, health states of children and adults in the past 12 months was associated with the house quality and accommodation problems experienced. In relation to children's health state, the association was even more pronounced with the health of more than twice as many children living in semi-permanent houses reporting their health as not good in the past 12 months as compared to children living in permanent houses. Chart 7 shows the picture described above.

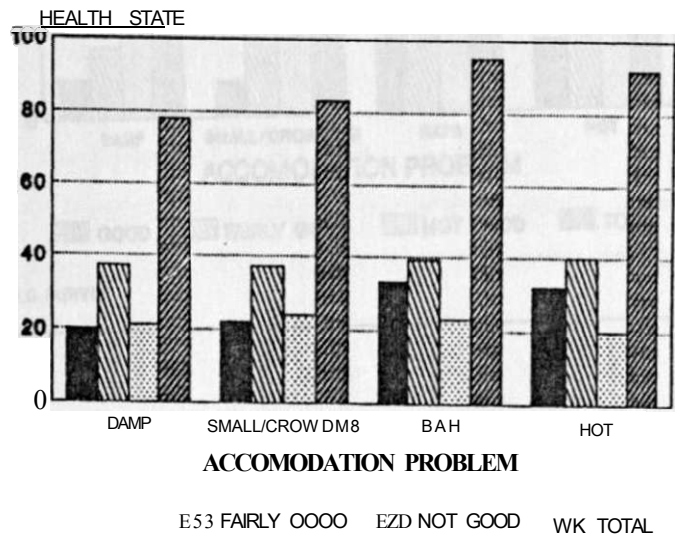
**Chart 7: House quality by health state (mothers and children)**



anviy

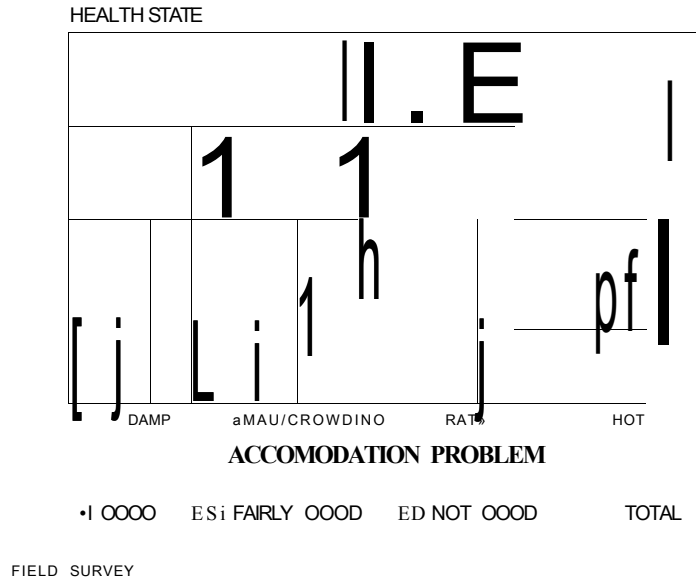
When the problems experienced with accommodation were associated with adults' and children's health state in the past 12 months, the outcome showed that rats, heat crowding, dampness and the general environment were more frequently associated with poor health. Charts 8 and 9 show the effects of accommodation problems on the general state of health of adults and children in the study area.

**Chart 8: Accommodation problems by health state in the past 12 months (adults)**



FIELD CURVEY

**Chart 9:Accommodation problems by health state in the past 12 months (children)**



From the picture presented above majority of the adults (43.8%) designated their health state as fairly good. 31% considered their health to be good in the past 12 months and only 25.2% considered their health to have been not good. The picture presented by the children however, appears different with the majority (52%)reporting their health to have been not good, 29% being fairly good and 19% being in good health state in the past 12 months.

We can therefore aptly conclude that the general state of housing and the

neighbourhood in which people live have more than just physical consequences to health. Although people felt that dirty and unkempt surroundings reflect on the individual's negligence, these conditions are outside his/her control. Very often, poor health has been cited as a reason for re-housing but the information available always understates the effects of poor housing on some of the worst states of health. Attention should hence be drawn to this shortage of accurate data and further research is required to explore the way in which housing and health interact over time. Indeed when asked to rate the influence of housing on health, 60% of the respondents felt that it has a lot of influence on health with 16% considering it as having just some influence on health. Only 24% of the respondents felt housing has no influence at all on health. These findings hence reflect on the magnitude of the role housing plays in ensuring better health for those in the low-income urban settlements.

#### **4.6 Environment and health**

Poor health is just one of the many social and economic ills to which many people in low-income urban settlements are vulnerable to. The link between health and various environmental variables such as sanitation have long been recognised. A number of studies have shown that those living in neighbourhoods classified as slums are more likely than others to experience environmentally related diseases such as respiratory tract infections, malaria, diarrhoea, etc. The responses to questions on environmental influences to health in the study area support these premises.

Much dissatisfaction was expressed about the overall physical environment in the study area. Majority of the respondents considered that the provision and maintenance of sanitary and security facilities was inadequate, particularly street cleaning, drains, houses and street lighting. Nearly all the respondents reported the lacking state of various sanitary provisions such as garbage collection, street cleaning, drains provisions to collect both storm and domestic waste water, house maintenance services and street lighting. The **scenario presented** by these findings reflect the appalling insanitary and **insecure** conditions in the area that is associated with conditions of ill-health as already

noted. The public health inspectors in the area corroborated these responses by admitting that the majority of health complaints reported were closely related to the insanitary conditions prevailing in the area.

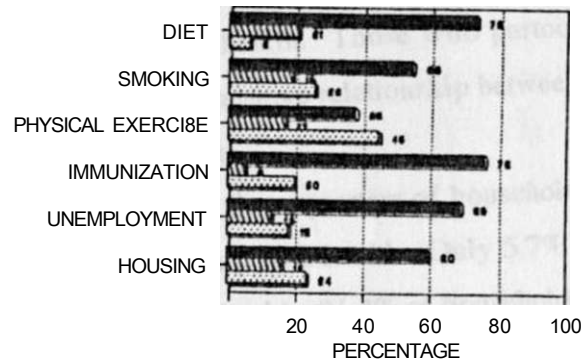
The majority of the respondents interviewed hence showed their dissatisfaction with the conditions in the neighbourhood and showed their willingness to shift to other better places citing basically the unhealthy state of the environment, poor state of dwellings and congestion as their major reasons. These reasons are also heavily founded on the environmental health problems associated with the neighbourhood as earlier noted. However, it is important to note that those who would want to shift are curtailed by such factors as social networks already created and economic incapacities to afford better housing and neighbourhoods.

**4.7 Other influences on health**

The respondents were asked about their own perceptions of the influences of diet, smoking, physical exercise and immunization on health.

**Chart 10: Perceived influence of a range of experiences on health (by household)**

**RANGE OF EXPERIENCES**



• ALOT            £53 NOT A10T  
 E 3 NOT AT ALL

About three-quarters of households reported strong link between the influence of food, immunization and unemployment with health.

Just over half (55%) considered smoking as influencing health a lot. Only 19% felt smoking influences health not a lot and 26% felt it does not influence at all. However, the influence was felt to be least strong between physical exercise and health with only 38% feeling that it has a lot of influence while 45% felt it has no influence at all on health. Only 17% of the respondents felt physical exercise has little influence on health. This means that very few of the household members partake physical exercise thus leading to insensitivity to the relevance of it to sound health. Those who partook of some physical activity tended to see a more positive relationship between exercise and health than those who do not exercise.

Respondents in about three quarters of households considered diet as having very strong relationship with health. Only 5.7% considered eating as having no influence at all on health. 21.4% of households felt eating has some influence on health.

The perception of the role of immunization in promoting good health reflects the degree of confidence that people are now gaining with it. 76% of the respondents considered immunization as having a lot of influence on health while only 4% felt it has little influence on health. 20% of the respondents however felt that immunization has no influence at all on people's health. This reflects the picture of skepticism that some people still have and which needs to be overcome if the target of all children being protected against infectious diseases is to be met.

### **Deductions**

The analysis of this chapter has shown that the study did not only seek to concentrate on maternal and child health issues but rather recognises the interrelatedness of many of the social, economic and environmental influences on the health of people in general.

**A holistic strategy is therefore required to change the conditions in**

which people live, of which the most obvious are housing and unemployment which were found to significantly influence people's wellbeing of whom the majority are mothers and children. These are the issues over which the local people have little direct control and yet which influence their health profoundly. They are widespread problems which overshadow all other difficulties facing those living in low income urban settlements and exert a powerful negative influence on their lives. Health promotion should therefore seek to create opportunities for control and personal choice and promote an environment which does support health and which enables people to increase control over and improve their health.

Information about health issues must hence be disseminated and made widely available to the local people. One of the constraints the study revealed about the individual's sense of power was the lack of knowledge (about health) which necessarily implied lack of control over that particular area of life. Local community and health workers should act as enablers and provide access to health information. This would help in demystifying health and the health services.

Health education should take note of the gap in local people's knowledge with regard to various influences on health. Consideration hence needs to be given to patient and consumer education so that an informed public can influence development of the health and social services to best meet the needs it wishes to serve.

Obviously, there is also a great need for good local information for health workers working in an area. Health workers and, by the same token, social workers, may need help in order to change the emphasis of their work. If they have inadequate information then their picture of the community's health will also be inadequate. This can often lead to an individualised approach which ignores the social context in which people live out their lives. This approach reinforces the idea that good health is a product of an individual's lifestyle, and the take-up of approved medical services. It ignores the social basis of disease and does not encourage a view of the total health of the community. This is what sometimes is called "victim blaming" because the



individual is held responsible for their ill-health without due recognition or importance given to the events which lead to this, e.g. lack of control over major stressful events in life such as financial considerations, poor environmental conditions, lack of alternative pleasurable outlets, etc. Health workers can aid the process of improving health by being aware of these broader issues. It would also help them to recognise health trends within communities and to take appropriate action.

The model of health education that needs to be promoted therefore, is that which sees it as being about informed choices, about developing people's self-concept and self-esteem and the consequent development of a sense of personal power. These issues are recognised as important in education generally and are crucial to health, in the broadest sense.

However, it should be noted that a possible drawback in using people's subjective assessment of their own health as one of the measures of need, is that there will be an under-estimation of need. There are examples in the survey of the relatively low expectations that people had of their own lifestyle. For example, 40% of those whose accommodation was rated as hot, damp, crowded and infested with rats, nevertheless expressed satisfaction with them. This point must be borne in mind when results are being interpreted and recommendations are made.

Finally, there is need to increase understanding of the impact on health of the policies and programmes of various agencies in the neighbourhood. There is need to increase our understanding of the influences on health and their development overtime. Health promotion needs to be assessed in this context so that effectiveness of certain approaches to health planning can be evaluated and the health of the people of low income urban settlements improved and protected.

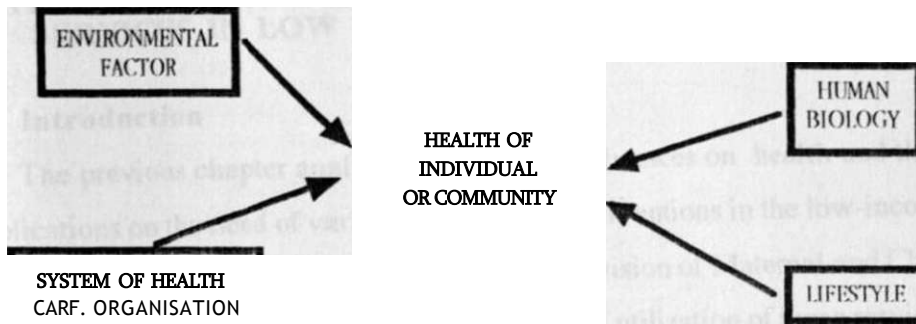
#### **4.8 Summary and conclusion**

This chapter has presented the various determinants of health in the study area. In the health needs assessment of the area, the study established that health status of the population in the study area had strong association with the socio-economic conditions and environmental factors. The author therefore argues that the built environment in which people live greatly influence lifestyles and health of those who shape and use them. The leading diseases in the area were hence found to be closely related to these factors. The scenario therefore imply greater requirements for promotive, preventive and curative health services.

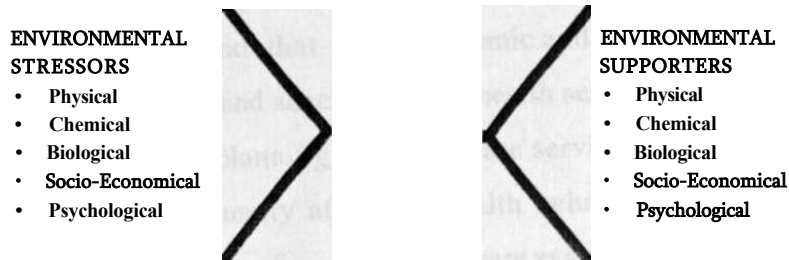
These findings support the arguments presented by the alternative model (see chapter two. figure 3 and figure 4 below) that recognize the interplay of various factors ( physical environment, social, cultural, economic, political etc.) at different levels in shaping peoples' health behaviour and the organization of health care systems.

The approach to health delivery needs hence to be redefined to include all the agents of urban built environment development to enhance promotive and preventive safety and health measures. Figure 4 below shows the Socio-ecological model of Health drawn by the World Health Organization (1980). The model is in three parts. Part I shows the factors which influence the health status of an individual or a given community. Part II elaborates on how the environmental factor impacts on health and Part HI focuses on the physiological and psychological processes through which environmental stressors and supporters impact on health.

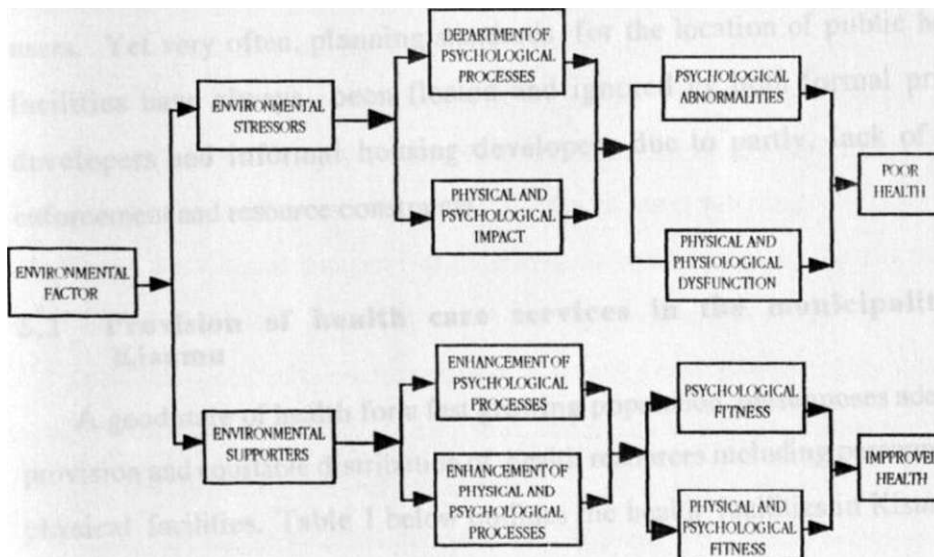
FIGURE 4: THE SOCIO-ECOLOGICAL MODEL OF HEALTH



PART I: FACTORS WHICH INFLUENCE HEALTH



PART II: ENVIRONMENTAL STRESSORS AND SUPPORTERS



PART III: PHYSIOLOGICAL AND PSYCHOLOGICAL PROCESSES OF ENVIRONMENTAL STRESSORS AND SUPPORTERS

SOURCE: WHO (1986)

**THE PROVISION AND UTILIZATION OF HEALTH CARE SERVICES IN LOW INCOME URBAN SETTLEMENTS****5.1 Introduction**

The previous chapter analysed the various influences on health and their implications on the need of various health care interventions in the low-income urban settlements. This chapter examines the provision of Maternal and Child health care and the factors that affecting the level of utilization of these services. While the focus is on the study area, the study took a wider view of the health care delivery in the whole municipality of Kisumu since various categories of health services do not operate within finite areas of jurisdictions.

The author contends that socio-economic and cultural issues and issues of location, distribution and accessibility of health services need to be considered as central factors in planning for health care services in urban centres. These were found to profoundly affect the health behaviour of beneficiaries with regard to the utilization of various health care systems. This support Shannon's (1975) argument that the manner in which medical and health facilities are distributed has a demonstrated effect on illness and therapeutic behaviour of users. Yet very often, planning standards for the location of public health facilities have always been floated and ignored by both formal private developers and informal housing developers due to partly, lack of law enforcement and resource constraints.

**5.2 Provision of health care services in the municipality of Kisumu**

A good state of health for a fast growing population presupposes adequate provision and equitable distribution of health resources including personnel and physical facilities. Table 1 below outlines the health facilities in Kisumu by type and provider.

**Table 1: Health facilities by type and provider in Kisumu**

	INSTITUTION	TITLE	PROVIDER
1.	New Nyanza	Provincial Hospital	GOK
2.	Old Nyanza	District Hospital	GOK
3.	Lumumba	Health Centre	Municipality
4.	Ober Kamoth	Health Centre	Municipality
5.	Joel Omino	Sub-Health Centre	Municipality
6.	Kajulu	Sub-Health Centre	Municipality
7.	Chiga	Sub-Health Centre	Municipality
8.	Oiola	Sub-Health Centre	Municipality
9.	Airport	Dispensary	Municipality
10.	Railway	Dispensary	Municipality
11.	Mosque	Dispensary	Municipality
12.	Town Hall	Clinic	Municipality
13.	Aga Khan	Medical Centre	Private
14.	Lake Nursing	Nursing Home	Private
15.	Matanicare	Hospital	Private
16.	Kibos Road	Nursing Home	Private
17.	Nvawita	Nursing Home	Private
18.	Migosi	Dispensary	Municipality
19.	Dunga	Health Post	Municipality
20.	Victoria	Hospital	Government

Source: Ministry of Health

### **Hospitals**

There are three public hospitals located within Kisumu municipality. These include New Nyanza Hospital popularly known as "Russia", Old Nyanza and Victoria hospitals. New Nyanza functions as the provincial referral hospital while Old Nyanza functions as the district hospital. Victoria is an amenity Government hospital that is mostly used by those having health insurance or those who are ready to pay for the services rendered.

The hospitals cater for the wider region of Nyanza province and their roles are complimentary to each other. Their management fall within the Ministry Health, and organization of the central government.

There are also Aga Khan Hospital and Matanicare hospital which are run privately private. A number of private clinics and Nursing Homes also provide medical services in the town. The Nursing homes include; Kibos Road and Lake Nursing.

### **Health Centres**

The municipal authority is charged with the responsibility of providing health services to the people. Falling under the Management of Municipal authority are the health centres and dispensaries and related health services.

It is only one Lumumba health centre that has reached the full status of a health centre. It is located at the town centre. The health centre offers out-patient treatment. Family planning, nutrition, health education, maternity, ambulance services and supervision of other health facilities of lower grades within the municipality. They include; Ober Kamoth, Joel Omino (Nyalenda) located in the study area, Kajulu, Chiga and Ojola. The sub-health centres mostly offer out-patient services.

### **Dispensaries**

There are five dispensaries within the confines of the municipality. They include: Airport, Railway, Mosque, Nyawita and Dunga which is located in the lower parts of Pandipieri. Dispensaries and clinics offer complimentary services to the health centres. In addition, the municipal authority operates a mobile clinic to serve the remote areas of the municipality where there are no other facilities existing.

#### **5.2.1 Spatial Distribution and Catchment areas of Health facilities**

Health services are available to people if they are accessible. Map 6 shows the location of existing and proposed public health facilities in Kisumu. There appears a marked concentration of the majority of facilities in central parts of the town. This reflects the inability of the municipal authority to expand and establish new facilities in the peri-urban settlements which were incorporated into the municipality and to match the ever growing town population. The result of this scenario has been the inadequate and poor quality health services provided, over crowding at the facilities and high transport costs incurred while seeking for better services by those coming from the under served areas.

Table 2 below shows some health facilities by patients attendance per

month and the catchment areas. The catchment area of a health facility is the area in the vicinity of the facility in which the majority of the people use to obtain health care attention (Kisumu District Physical Development Plan 1983:).

**Table 2: The health facilities by patient attendance per month and the catchment areas**

	INSTITUTION	TITLE	PROVIDER
1.	New Nyanza	Provincial Hospital	GOK
2.	Old Nyanza	District Hospital	GOK
3.	Lumumba	Health Centre	Municipality
4.	Obcr Kamoth	Health Centre	Municipality
5.	Joel Omino	Sub-Health Centre	Municipality
6.	Kajulu	Sub-Health Centre	Municipality
7.	Chiga	Sub-Health Centre	Municipality
8.	Ojola	Sub-Health Centre	Municipality
9.	Airport	Dispensary	Municipality
10.	Railway	Dispensary	Municipality
11.	Mosque	Dispensary	Municipality
12.	Town Hall	Clinic	Municipality
13.	Aga Khan	Medical Centre	Private
14.	Lake Nursing	Nursing Home	Private
15.	Matanicarc	Hospital	Private
16.	Kibos Road	Nursing Home	Private
17.	Nyawita	Nursing Home	Private
18.	Migosi	Dispensary	Municipality
19.	Dunga	Health Post	Municipality
20.	Victoria	Hospital	Government

Source: Ministry of Health

From the table, it is clear that the existing health facilities are quite inadequate. The number of existing health centres and dispensaries cannot adequately serve the expansive areas of the municipality (417 Km<sup>2</sup>) especially the area within the expanded boundaries which account for 360 Km<sup>2</sup>. There is hence congestion and lack of adequate staff in the existing inadequate health facilities.

Going by the standards provided in the Town Planning Handbook, a dispensary should serve a population catchment of 5000, a health centre with maternity (40000), health centre (15000) and a hospital (100000). If these standards were to follow, then there should be about 20 health centres without maternity, 8 health centre with maternity three public hospitals and 60

dispensaries in the municipality by 1992. It therefore implies that all categories of health facilities are in short supply hence the congestions observed. Although we can argue that even fewer health facilities can be organised to provide adequate and efficient services for an expansive population, the study revealed that the existing public health facilities in Kisumu as few as they are, are profoundly inefficient and frequently bogged down by lack of essential supplies of drugs and equipments.

With specific reference to the study area, there exists only one sub-health centre and one dispensary . The catchment area of the facilities include Nyalenda, Pandipieri and the neighbouring Milimani and Dunga areas.

The facilities provides minor curative and Maternal and Child Health services excluding family planning. According to the planning standards, there should be two health centres without maternity, one health centre with maternity and three dispensaries. This means that even this level the health facilities are inadequate and the residents have to travel further afield to seek for care. Some 83.8% pregnant mothers and 51% lactating mothers expressed dissatisfaction with the services offered at the local facilities.

### **5:2.2 General characteristics of health facilities in the municipality**

The study revealed the following features as characterizing health facilities in the municipality:

1. Old facilities particularly those constructed during colonial era are short of space and are thus congested. The best example is old Nyanza General Hospital.
2. Some of the facilities are underutilised due to inadequate personnel and equipments.
3. The personnel running municipal health facilities have low remuneration and unreliability of salary or wage payment. This was identified as a major constraint to effective and



efficient delivery of health care in the town.

4. Health facilities expressed dire shortage of essential drugs. Not only do drugs miss but a number of facilities lacked things like washing soap, wound dressing lotion, plaster of Paris, and gauze. Patients are thus often asked to purchase their own drugs and other items they need for treatment and take them to the facilities. In several desperate cases, the attending health personnel turn to their own financial resources to purchase the required items for treatment.
  
5. Shortage of clean water is a problem in nearly all the health facilities.
  
6. Transport facilities are desperately deficient in the whole of the health care delivery system. The system is characterised by too few vehicles allocated, poor maintenance of the vehicles and continuous shortage of fuel. These have greatly affected ambulance services, mobile clinics and other outreach health services.  
Deficient transport facilities have also adversely affected supervision of facilities and personnel due to the inability to have frequent visits.
  
7. Health Facilities that are fully private reported problems pertaining to high drug and equipment prices and the difficulty in ordering and purchasing drugs from Nairobi. NGO facilities cited the inability of clients to pay for services rendered to them as a serious problem.

Many households therefore have to travel considerable distances to the relatively more equipped health facilities in search of better services. Thus not all who get ill have the opportunity to get a health facility and those who get

there are not always guaranteed of getting treatment they need. Access to private health institutions and clinics operated by doctors is even more limited due to high fees charged for services. This implies that many people have very limited alternatives when confronted with an illness situation. Financial inaccessibility hence is a real constraint in the consumption of health care services in urban areas where the majority of the population fall in the low income brackets. Some of the respondents confided that because of the rising cost of obtaining conventional medical services, a number of people are now turning to the traditional remedies which are perceived to be more cheaper and effective.

### **5:2:3 Maternal and child health and family planning services**

Nearly all the health facilities in Kisumu offer some form of maternal and child health and family planning (MCH/FP) services. All the Hospitals, Lumumba and Ober Kamoth health centres offer maternity wards for delivering mothers besides MCH/FP clinics.

The MCH/FP services offered include: Ante-natal and Post-natal care, maternity services, child welfare and family planning. Pregnant mothers are encouraged to attend ante-natal clinics at least three times before delivery and to receive both anti-tetanus doses. Those at risk are encouraged to deliver their babies in the hospital.

While the clinic remains central to the delivery of MCH/FP services, community health workers (CHWs) and the Traditional Birth Attendants (TBAs) are being trained and are becoming increasingly useful in the outdoor delivery of MCH/FP services. They are trained in participatory growth monitoring with emphasis on weighing the child, plotting the weight on a card and discussing the results with the mother. TBAs are encouraged to assist at the clinics where they are taught the high risk factors in pregnancy so that they can help women at high risk in good time. Oral pills and injectionables contraceptions are the most, widely used or acceptable methods of family planning.

However, the provision of MCH/FP has been constrained by a number of factors as reported by the health workers interviewed:

- a) Inaccessibility to the services by women due to taboos particularly against Family Planning.  
Many people do not see the benefits of family planning.
- b) Shortage of qualified personnel and limited facility space.  
This was seen as a major constraint to the effective and efficient delivery of MCH/FP services.
- c) Lack of co-operation from husbands on the practice of family planning. Many people still attach high value to large families.

In conclusion, MCH/FP services particularly maternal and child health has met with considerable acceptance in the study area and the Town at large. This is supported by the fact that clinics observed were often packed to capacity. However family planning services have met little response.

### **5:3 Other programmes related to MCH/FP services**

The study revealed that there are a number of other programmes providing services closely linked to maternal and child health care. These include:

#### **5:3:1 Health Education**

Health education is one of the foundation stones upon which maternal and child is laid. Ministry of Health, Kisumu Municipality and a number of NCiOs collaborate on an expanded coverage of Health Education Programme in the town. The programme consists of three phases:-

- (i) Training of trainers
- (ii) Training of Community health workers (CHWs), Family

Health Educators (FHEs), and Nutrition Field workers (NFWs) with emphasis on community health workers.

(iii) Imparting health education to individuals and communities.

The Health education activities thus include school health education, community health education carried out through Barazas, group health talks in clinics, home visits and mass media. Health education teaching materials are distributed for use by field staff and agencies. These include nutrition posters, MCH/FP posters and handouts on a variety of other health subjects. However, a number of constraints were identified that tend to impede effective provision of health education.

- a) Shortage of staff: in general, it was apparent that more community health workers are required for community health sensitization and health education implementation.
- b) Non-participation by CHWs: Considerable number of CHWs disappear for long periods or consistently miss meetings and other activities. It was reported that only 61.6% of trained CHWs are still active. This was attributed to poor remuneration for their service.
- c) Shortage of appropriate audio-visual teaching materials.
- d) Lack of means by people to implement practically what is imparted through health education.
- e) Inadequate co-ordination among various agencies dealing with health education. Efforts to establish who is responsible for what activity have been fruitless thus the people end up being confused.

The outcome of these constraints has been the discouragement and indifference evident among the community and demotivation for the community health workers (CHWs).

### 5:3:2 Nutrition and food supply

The delivery of this programme is conducted by health workers in various health facilities and communities within the Municipality. Health education personnel also participate in nutritional education activities. The programme activities include:

- a) Nutrition education at MCH clinics, community group meetings and during home visits by health workers.
- b) Surveillance work on the community nutritional status.
- c) Promotion of and motivation on health and other gainful activities related to adequate community nutrition such as Family Planning, ante-natal and post-natal care, organization and preparation of balanced diet, causes and prevention of diarrhoeal diseases, environmental cleanliness, personal hygiene, child care, food production, etc.
- d) Training of community health workers (CHWs) in growth monitoring.

The delivery of this programme however has been impeded by shortage of weighing machines. Thus training of more personnel in growth monitoring and the acquisition and maintenance of baby weighing machines are of utmost priority for the programme.

### 5:3:3 Water and sanitation

The water and sanitation department of Kisumu Municipality is charged with the provision of adequate and wholesome water provision to the residents of the town. Water consumed comes from an antiquated water supply system which breaks down often and from water wells. Apart from water supply, the Municipality also provides **sanitation** services. NGOs have worked very closely with the Municipality to provide these services to the residents of the

town.

The programme activities include: Town cleaning services, refuse collection and disposal, cesspool services, street cleaning, storm drain construction and cleaning and premises inspectorate services. The provision of these services were however found to non-existent in majority of cases in the study area.

The Municipality however reported that lack of adequate funds for the construction, maintenance and up-grading of the water and sanitation services is a major constraint. The Municipal authority also cited shortage of qualified manpower as another problem impeding the provision of the services.

Indeed about nine out of ten of the respondents complained about the shortage of clean and wholesome water, absence of refuse collection services, street cleaning services and drain systems in the study area.

#### **5:4 Factors of utilization of maternal and child health and family planning services**

In the previous chapter, various determinants of health in the study area were examined and their possible implications to the planning of health services. The first section of this chapter has also assessed the provision of various health services including maternal and child health care in the study area and the town at large. The study recognised the limitations of the existing health care facilities in relation to their numbers, spatial distribution and adequacy of the qualified personnel and facilities in the delivery system. These were all perceived to greatly impede the effectiveness and efficiency in the provision of health care to the people in the urban settings.

This section therefore analyses the factors of utilization of maternal and child health and family planning services in the study area.

##### **5:4:1 The level of MCH/F1' services' utilization**

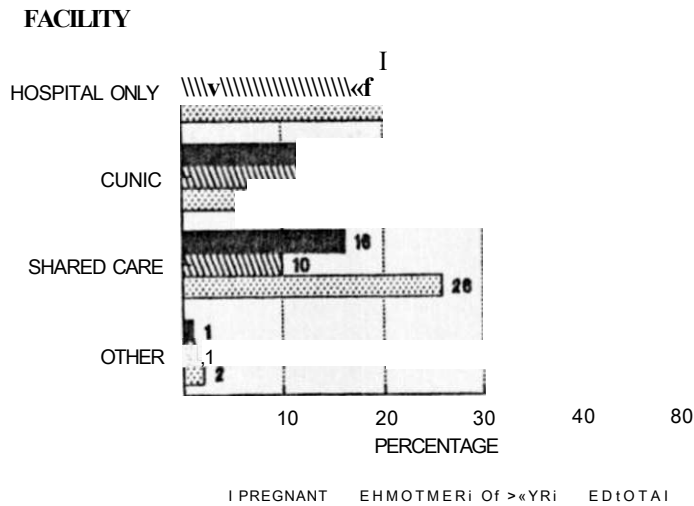
With the increasing investment in primary health care made by the Government and related NGOs, significant progress in improving access to primary care for the poor and other disadvantaged groups is being achieved.

However, use of these including the preventive and promotive health services by the poor would continue to lag well behind use by those not facing similar barriers to health care.

**5:4:2 Ante-natal care**

Chart 11 outlines the number of both pregnant and mothers with children under the age of 5 years who reported using various outlets for the delivery of ante-natal care. 23.75% of the women interviewed reported being pregnant at the time of survey and a further 65% had children under the age of 5 years. Only 11.25% women reported neither having children below the age of 5 years nor being pregnant. That means a large population of women in the study area are still reproductive and greatly need adequate and efficient MCH/FP services. Nearly all the respondents had contact with MCH/FP services in one way or the other.

**Chart 11: Type of ante-natal care experienced by two groups**



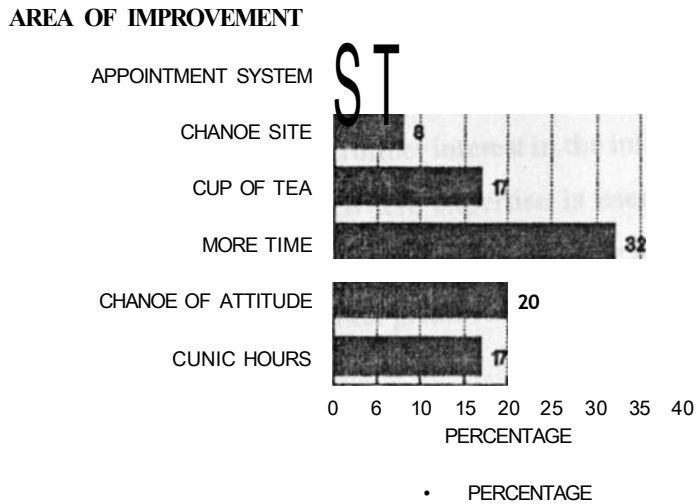


When asked of where they received the ante-natal care, a third of the respondents said that they use hospital services, half said they use health clinics and 16% reported using shared care. Only 3% reported using other alternatives of care including traditional remedies.

As viewed from chart 1 1 above, only a third of mothers were using hospital care as compared to those using clinic care. This can be attributed to the greater involvement of the lower hierarchies of health facilities in the provision of MCH/FP services which fall within the category of primary health care.

Although more than two thirds of the respondents reported that they were satisfied with services rendered at the facilities, they suggested various areas that need improvements in the delivery system. The suggestions reflect the respondents' feelings about the quality of services provided at the facilities. Table 12 below shows the area that need improvements in the delivery of ante-natal care at the facilities. Majority of the respondents (32%) felt that they need more time to talk to the nurses or physicians dealing with them. This imply that the MCH/FP clinics observed to be very crowded and busy could be making the health workers develop a kind of impersonal relationship with the patients. They are forced to move from patient to patient spending brief moments thus making some patients feel disillusioned and inadequately served.

**Chart 12: Areas of improvement clinics suggested**



FIELD MJRVIY

Another 20% felt that the health workers dealing with them need to change their attitudes towards patients. They reported that a number of health workers are quite insulting to patients. Some 17% of the respondents felt that because of long hours taken in the waiting queue before being attended to, a cup of tea should be introduced while another 17% felt that the clinic hours were quite inconvenient and the long waiting quite irritating. Only 8% had a feeling that different sites should be designed for the clinics where they are more accessible

and convenient.

In the whole, it was observed that the delivery of the maternal and child health in the clinics was marked by five categories of behaviours. The first category is where expertise is used perfunctorily (superficially). The health worker seems obliged to conduct some minimal amount of conversation, so he whips out an assessment of the patient's status. The discussion is apparently intrinsic to the rendering of his services. The health worker merely verbalizes some pieces of his assessment while writing down his notes on the medical record. The patient expresses no further interest in the information.

The second category is where expertise is used protectively. The interaction is limited to "Just leave these things to me and everything will be fine". This allows the health worker greater autonomy by asking the patient to entrust herself to the expert.

In the third category, the transmittal of information is an intrinsic part of the delivery of the health worker's service. The expertise is used to enhance the patient's decision-making responsibility for a therapeutic matter.

In the fourth and fifth categories of informing interactions, expertise is used to maximise the health worker's power over the patient or the lay person's dependency on the expert's control. The health worker conveys information in two ways:

- i) In an antagonistic situation, where she provides an assessment of the patient's health status which exaggerates her problems by accusing her of non-compliance and threatening her with a description of the risks she runs by not abiding by health worker's orders.
- ii) A more balanced assessment would describe the outcome potential both for doing what the health worker suggests and for not complying, thereby leaving the choice and risk-taking up to the patient herself.

The health worker thus frames her/his expertise in an argument that

suggest that she/he has no choice but to submit to her authority.

Finally, is the arrogant type of hostile exchange which quite a number of the respondents complained about. Here, the health worker reacts negatively to a patient's request for information. The health worker interprets the patient's request or interest as troublesome, as a misguided or inappropriate interest in health expertise. The health worker masks her intolerance of the patients input by claiming her privileged access to superior knowledge. She uses her expertise to deny the patient the prerogative to question her on her own territory as she defines it.

These behavioural scenarios explain why communication always fails in the delivery system of health care to the people. Although the providers of health care at the facilities in most cases have little control over the nature of their work and since they are responsible typically for seeing large numbers of patients in block appointments, such behavioural and structural constraints can have negative implications for the utilization of MCH/FP services. The result often is multiple negative experiences with the organization of health care delivery leading to avoidance behaviour, lack of trust and hence a disinclination to seek care and follow medical regimens except in dire need. This situation is further complicated by the fact that several health facilities lack adequate equipments and drugs forcing the patients to purchase their own to be used at the facilities.

#### **5:4:3 Ante-natal classes**

Only 58% of the currently pregnant mothers attended ante-natal classes as compared to 75% of mothers of children under the age of 5 years. This difference can be explained by the stages of pregnancy. Women start attending classes usually after 28 weeks of pregnancy. However, the proportion of women who had not attended the classes suggest that they considered them as not very necessary or relevant. Eight out of ten of respondents non-the less reported that the facilities where the ante natal classes are conducted are **convenient and accessible**.

As concerns the use of maternity wards, 82.5% of the respondents

reported having had hospital births in their reproductive life cycles. An average of two children had been born in hospital or maternity ward. 42.4% of the respondents had more than three births in a hospital ward. However when viewed from the total number of births in the wards and the average number of children per household, more than 50% of children were born at home under the care of untrained birth attendants. From the hospital records it was nevertheless reported that the level of acceptance of maternity services is increasing steadily.

#### **5.4.4 Breastfeeding**

Of the 92 children under the age of 5 years, 20.4% were exclusively breastfed while some three quarters of children were both breastfed and bottlefed. More than half of children were breastfed for a period of 1-2 years and only 16.7% were breastfed for a period of over 2 years. 10% of children had between one month to six months breastfeeding while a negligible 1.3% of children had less than one month's stint of breastfeeding. These findings show that majority of mothers conform with nutritional requirement of absolute breastfeeding of children for not less than six months.

When asked about an estimate of child weight, 70% reported that their children had normal weight while 23% perceived their children as being underweight. Only 7% said their children were overweight. Majority of mothers said their assessments of children's weight were based on the weighting results got from the clinics. Nine out of ten of the respondents reported taking their children to baby clinics or child welfare clinics as required. 4% said they do not take their children to baby or child welfare clinics.

#### **5.4.5 Child Mortality**

The study revealed that about half of the households in the sample had lost at least a child in deaths. An average of one child had died in each family. More than three quarters of the households had lost one child, 18% had lost two children and only 3% had lost three children. The average age of child

deaths was one year. These findings show the need for the intensification of the provision of primary health care services for the urban poor if this scenario is to be changed for the better.

In conclusion therefore, it is important to note that with increasing realization that child and maternal deaths are related to poor maternal and child care, there is an expected vertical development in the general delivery of primary care to mothers and children. The findings support various studies that have shown that the number of hospital deliveries are increasing as well as developments in better programmes in obstetrics for both obstetricians and general practitioners, screening programmes for pregnant women and an increased supervision for women who show significant abnormalities during pregnancies. These reflect the decreasing maternal and infant mortality rates at the national level.

#### **5:4:6 Immunization**

Kisumu municipality has a vigorous immunization programme particularly through Kenya Expanded Programme for Immunization (KEPI). KEPI runs clinics at health facilities and mobile clinics through which immunization of children is conducted. UNICEF's child survival and development programme has also given strong support to the programme.

The immunization of children is emphasized because of the high incidence of considerable diseases such as polio, measles, whooping cough, tetanus, tuberculosis and diphtheria which are responsible for high infant deaths. Between 1985 and 1986 immunization coverage of Kisumu Municipality rose by 79% due to the intensification of the immunization programme. Table 3 below shows the numbers of those immunised in 1986.

**Table 3: Kisumu District: Immunization coverage\* 1 986**

DISEASE	KISUMU DISTRICT	KISUMU MUNICIPALITY
Polio 1st	23, 346	16, 119
Polio 2nd	21,893	16, 119
Polio 3rd	16, 881	16, 119
Polio 4th	10, 129	16, 1 19
DPI 1st	23, 883	11, 892
DPI 2nd	21, 226	11,892
DPT 3rd	14, 134	11. 892
T/Toxoid 1st	20, 750	3, 405
T/Toxoid	13, 538	3, 405
BCG - Under 1 Year	24, 360	4, 835
- One Year and above	2, 751	4, 835
MEASLES - Under 1 Year	14,669	2, 938
- One Year and above	3,411	2, 938

Source: AMREF/MOH

Table3 Immunization target for the year was 27,301

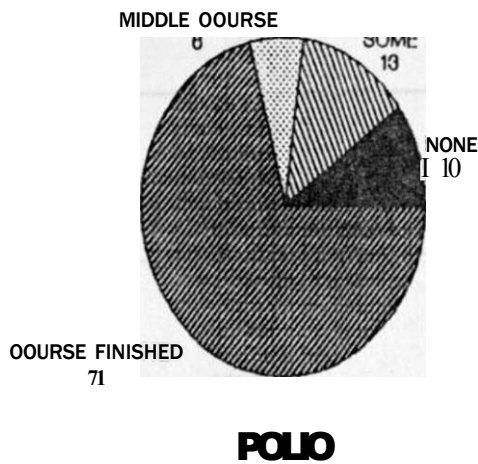
children based on the population of 136,506 0-5 years old children in Kisumu District. 8,090 children completed the last dose for all vaccines. This gives a 66% target coverage and a 34% of defaulters.

Despite these achievements, some constraints were reported that hinder the effective utilization of the immunization services in the area.

- a) Some adults who have not been immunized do not see the need for being immunized themselves or their children.
- b) Distribution of vaccines to health facilities has not been effectively conducted due to poor maintenance of KEPI vehicles and the failure to get alternative vehicles to deliver vaccines.
- c) In some cases, there have been shortage of vaccines and empty gas cylinders. Gas cylinders allocated to facilities have sometimes disappeared imperceptibly.

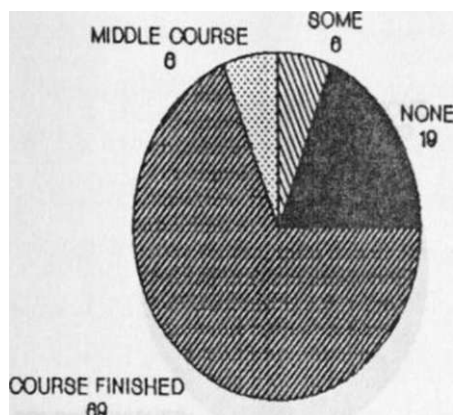
The above information about the use and constraints to the provision and utilization were confirmed by the data on immunization as was collected from the study area. The respondents with children between the ages of 0-17 years were asked about the immunization status of their children in relation to polio, whooping cough, tuberculosis, measles and diphtheria/Tetanus. Charts 13, 14, 15, 16 and 17 below shows the level of immunization among children between 0-17 years.

**Chart 13: Immunization status of children (0-17 years)**





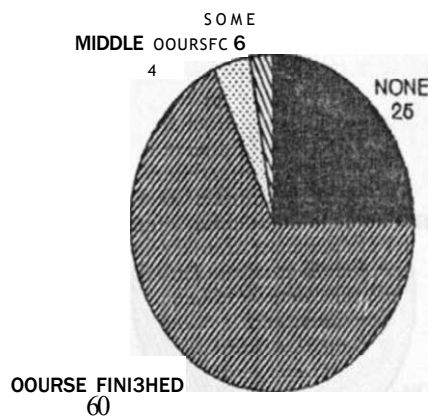
**Chart 14: Immunization status of children (0-17 years)**



**DIPHTHERIA/TETANUS**

FIELD SURVEY

**Chart 15: Immunization status of children (0-17 years)**

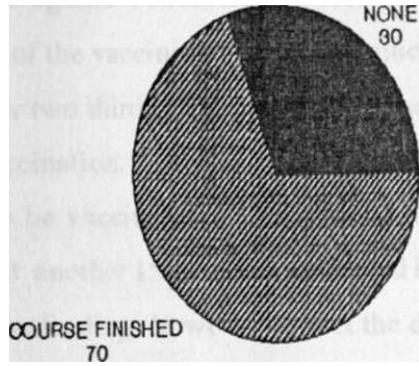


**WHOOPIING COUGH**

FKLD SURVEY

**Chart 16: Immunization status of children (0-17 years)**

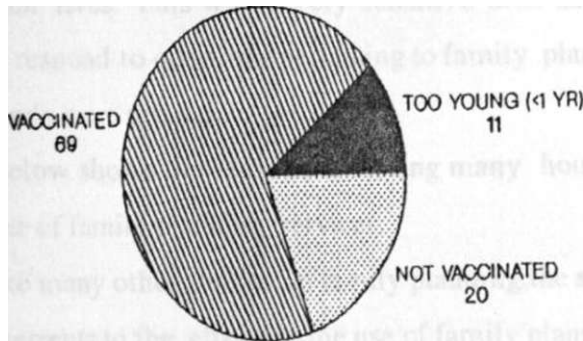
I



**TUBERCULOSIS**

FIELD SURVEY

**Chart 17: Immunization status of children (0-17 years)**



**MEASLES**

FIELD SURVEY

The findings show that there was a noticeable difference between the level of non-immunised children against polio (10%) and whooping cough (25%) and tuberculosis (30%). The comparatively low level of immunization of children against Tuberculosis could be reflecting the residual anxiety about the safety of the vaccines about which much controversy has arisen.

Over two thirds of children were vaccinated against measles while 20% got no vaccination. Only 11.25% of children were reported to be too young (< 1 year) to be vaccinated. 85% of children were immunised in child health clinics and another 15% were immunized in hospitals.

These findings however reflect the degree of skepticism that a number of people have about the efficacy of immunization. This needs to be overcome if we wish to try and protect effectively all children against infectious diseases.

#### **5:4:7 Family planning**

Unlike ante-natal care, there were very low levels of family planning services utilization. Only 39.2% reported having used family planning techniques in child spacing in their reproductive lives. However, some differences were noted when the respondents were asked if they are still using family planning services. 18.9% responded on the affirmative while eight out of reported that they had stopped using the services or they had never used them in their lives. This was a very sensitive area and most women were reluctant to respond to questions pertaining to family planning especially when their husbands were around.

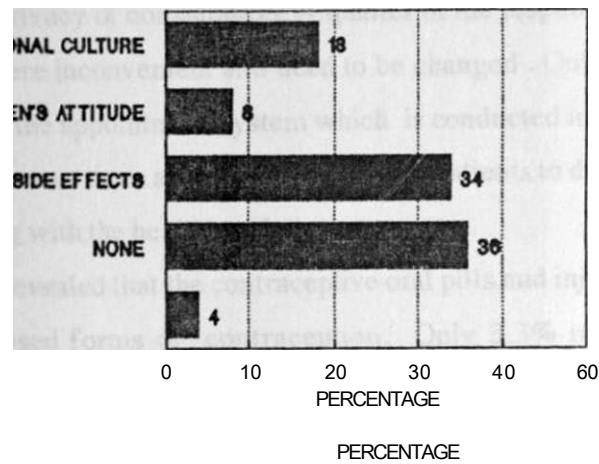
Chart 18 below shows the reasons hindering many households from making effective use of family planning services.

Just like many other studies on family planning, the study revealed that the leading deterrents to the effective use of family planning services were the side effects of the family planning techniques employed (36%) and men's negative attitude towards the practice of family planning (34%). Many families were found to still value the idea of having many children. Closely related to men's attitude was the traditional cultural beliefs which require people to bear

1 1 4  
 many children to prolong their names to several generations to come. 18% cited this as a barrier to the utilization of family planning services. The least considered barrier was religion (8%).

**Chart 18: Reasons for low utilization of family planning services**

**CONSTRAINTS**



FIELD SURVEY

When asked about what they thought could be done to ensure more effective use of family planning services, the respondents suggested both behavioural and structural solutions. The majority of the respondents felt that more aggressiveness should be put in the dissemination of family planning education. 31% of the respondents actually suggested that men should be

involved in family planning education. Others thought that it would be positive if the family planners visited their homes and discussed the subject in the presence of their husbands.

While majority of the respondents reported being satisfied with the services at family planning clinics, they suggested a number of structural changes that need to be input in the delivery system. Two thirds of the respondents felt that there is great need for more privacy for consultation in the clinic. This question of privacy would require organizational changes within the clinics through better arrangement of waiting rooms, reception and consequently privacy of consultation. A quarter of the respondents felt that the clinic hours were inconvenient and need to be changed. Only 3% felt there is need to change the appointment system which is conducted in block. 10% said there should be more time allocated to individual patients to discuss more about family planning with the health workers.

The study revealed that the contraceptive oral pills and injectionable are the most widely used forms of contraception. Only 3.3% reported using the natural method of family planning while 6.7% reported using the coil. Another 6.7% said they use condoms. The reason behind the widespread use of oral pills and injectionables was their secrecy. A number of the respondents said that their husbands cannot find out that they contracepted plan if either of the techniques are used. Those who used condoms said that their husbands are more receptive to the idea of family planning.

Some 60.5% of the respondents reported receiving family planning advice either from the clinics or through other means such as radio, television, books, magazines and public forums. However, only 3% said they receive insights on family planning from public meetings. This implies that dissemination through community groups is very minimal, it confirms the need for more aggressive community based family planning education as advocated by the majority of the respondents.

**However**, despite the encouraging and increasing responses toward Maternal and child health services as already shown, the poor application of public health measures and poor socio-economic conditions in urban areas, as

demonstrated by overcrowding, poor housing, lack of sanitation facilities, lack of clean water supply and poor nutritional status, much improvements in maternal and child health care cannot be expected.

## **5.5 Factors influencing MCH/FP services utilization**

### **5.5.1 Distance Traveled to facility and utilization**

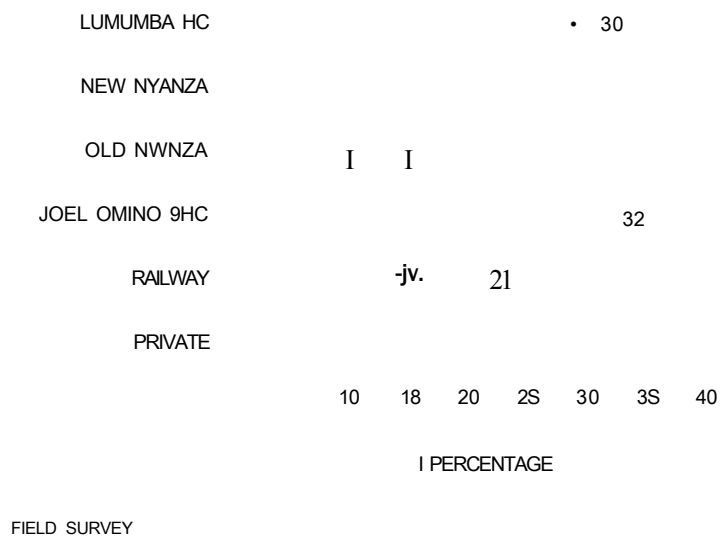
From the findings, it was implied that there is a non linear, inverse relationship between distance and attraction to health facilities. The further a facility is from the potential users, the less likely they are to use it. However, the higher the hierarchical order of a health facility, the further it will attract the patients. This is so because of the higher order services provided at the facilities of higher hierarchy.

Chart 19 below shows that the majority of respondents attended the nearest and most convenient health facility. Some 32% of the respondents attended Joel Omino/Nyalenda sub-health centre which is located in Nyalenda and Pandipieri neighbourhood while 30% attended Lumumba Health Centre which include the study area as part of its catchment area.

21% of the respondents attended Railway Dispensary and only 11% and 4% attended New Nyanza hospital and old Nyanza hospitals respectively. The latter health facilities are the furthest from the study area. Only 2% attended private health facilities.

These findings therefore correspond to Zipfs (1949) principle of least effort whereby it is argued that people prefer shorter distances over long distances in the procurement of services and goods. However, it is poor quality of services offered including lack of drugs and poor patient-health worker relationships that can lead to seeking care further afield. The findings also imply a relatively stronger vertical referral system. Lumumba Health Centre is designated to perform referral and supervisory functions for the lower hierarchies of health facilities such as sub-health centres and dispensaries. Lumumba in turn refers the complicated health cases to general hospitals respectively.

**Chart 19: Health facilities attended**

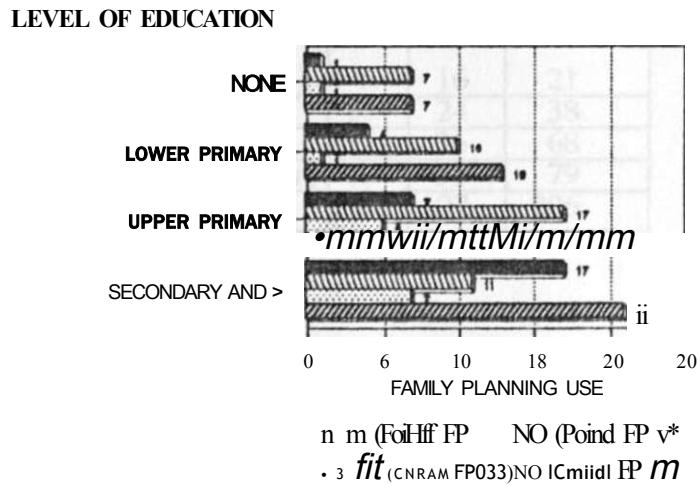


**5:5.2 Education and use of MCH/FP services**

The patterns of utilization of MCH/FP services provide some insights into the relative importances of formal education barrier to care. The level of formal awareness of care is clearly one of the most important factors affecting use.

The level of formal education attained is a key ingredient in gaining confidence to enable people to feel positive about the health interventions and their lives. For example, out of 84.2% of the respondents who reported using ante-natal care services, 59% had primary certificate (29%) and secondary school education (30%). Only 8.6% had no education and 17% attained less than five years in school. Of the 16% who reported not using ante-natal care services, 9% had not education and 7% had less than five years of education. The above pattern of utilization applies to the use of family planning services by education. Chart 20 below shows the pattern of family planning utilization with education.

**Chart 20: Level of education by use of family planning**



HELD SURVEY



The above ante-natal care and family planning services utilization differentials clearly demonstrate that the educated fare much better than the uneducated in obtaining health care services. Since those with education are likely to have basic access to information on health care services, the table below provide the statistical assessment of the influence of formal education in the use of **MCH/FP** services. The respondents were asked enumerate other members of the household who are either in contact with MCH/FP services currently or have had contact with the same before. Prom table 4, 99 members of the 80 households sampled either are in contact or have had contact with **MCH/FP** services while **107** members reported no use of the services across all levels of education.

**Table 4: Level of Education by MCH/FP Utilization**

Level of Education	MCH/FP Utilization		
	Yes	No	Total
None	5	16	21
Lower Primary	14	24	38
Upper Primary	32	36	68
Secondary & Post Secondary	48	31	79
Total	99	107	206

$$X^2 = 11.99 \quad df = 3$$

Source: Fieldwork

Since the value of  $X^2$  is 11.99 at 0.05 level of significance, we reject the null hypothesis and note that there is a very significant relationship between the level of formal education attained and the use of MCH/FP services. These findings support the dictum that "a literate nation is a healthy nation". As earlier noted in section 4:2, education gives the local people the power to deal with those in authority. It enhances both the ability and opportunity for an individual or the community to have greater access to health information and to develop positive health beliefs. Education hence gives people an access to rational knowledge about the major influences on their health and the appropriate course of action to take in turn.

### 5.5.3 Financial resources and use of MCH/FP services

This study posited that the relationship between household income and the level of utilization of MCH/FP is not statistically significant. Out of the 80 respondents interviewed, a total of 83 members of the households were reported to have either had contact with MCH/FP services or are currently using the same across all the income brackets. Some 73 members of the household were reported to non users of MCH/FP services across all the income brackets

**Table 5: Income by use of MCH/FP Services**

	MCH/FP		Jtilization
	Yes	No	Total
Lower Income	28	28	56
Middle Lower Income	26	27	53
Upper Lower Income	29	18	47
Total	83	73	156

$$X^2 = 1.96 \quad df = 2$$

Source: Fieldwork

Since the actual value of  $X^2$  is 1.96, the alternative hypothesis is inferred at 0.05 level of significance, it hence means that there is no significant relationship between income and use of MCH/FP services. However, this analysis can be severely misleading because it fails to take into account the poor health state of the economically disadvantaged. If the study sought to compare individuals with the same level of illness among mothers and children, then those with lower incomes would have been depicted as having the lowest use of services.

By definition, poor people have fewer financial resources with which to purchase care in the medical market place. In our two-class system of health care, higher income or middle class people are likely to receive care in private health institutions whereas the poor are most likely to receive care in public clinics or in out-patient departments of general hospitals as already noted. The study revealed that nine out of ten of the respondents sought health attention from the public institutions while only 8% sought attention from the private sector. With an average Kshs. 2,800 household income per month, the larger

percentage of the respondents were presented with very limited array of choices in relation to where, when and how to seek health care. This scenario is further compounded with problem of inconvenient clinic hours and long waits in the clinics themselves.

The Government has not also been able to adjust income levels to account for inflation, resulting in tremendous reduction of people's purchasing power.

Thus, while the poor are obviously the least able to pay for care directly, they are mostly not eligible for the Government programmes such as health insurance, hospital fund or private insurance. Lack of insurance is inversely related to ability to bear the economic consequences of ill health. The strain of meagre financial resources is hence felt most acutely by the poor, who must worry about family members (a sick child, an adult afflicted by deteriorating health condition, a pregnant mother) going without needed health assistance. Those doctors, other health professionals and institutions that try to assist this poor group also incur serious strain. Demands typically outstrip available time and resources. The financial strain has not also spared the local Government whose communities include many poor persons, because locally funded public health facilities inevitably incur major financial deficits. In the recent past, through the policy of cost-sharing, many of the public facilities that have traditionally been the source of last-resort care have been forced to ask for some fee for their services thus pushing many more to the periphery of suffering, disability and death.

As unemployment also rises and the numbers of the poor grow, fewer and fewer resources are available to fill the gaps in health care coverage. Major reductions in funding for health services especially for the poor have been made in last few years and further reductions are likely as the structural adjustment programme (SAD continues to be implemented. Deepening economic recession, high unemployment and declining sales revenues are thus strapping the fiscal resources of the Government/state and the local governments and the private sector can not be expected to bridge this gap. The "health industry" therefore is becoming increasingly an entrepreneurial business endeavour - with little room for charitable actions for the poor.

Willi this picture, many in the urban low-income settlements are forced to neglect obtaining preventive or early care, often postponing care until conditions have become life-threatening. Others struggle with burdensome medical bills and many continue to rely upon crowded, understaffed, equipment and drug deficient public health facilities as the only source of reliable, available care.

Against this background, the author argues that the primary responsibility for the alienation of the low-income patients from using health services could be attributed to their material disadvantage and the systems barriers they face when seeking care at the facilities. The author therefore does not subscribe to the school of thought that attributes low utilization of services to the "culture of poverty". Those who belong to this school argue that low income people use health services less and are less knowledgeable about appropriate health behaviour because their culture does not place a high value on health. They have negative attitudes towards medical care and do not believe in its efficacy.

f ^ Cumulatively, the study reveals and emphasizes the structural constraints which prevent low-income people from having genuine access to quality health care. The data reveals that the health behaviour of the poor could be radically altered, and within a relatively short period of time, by introducing structural changes in the delivery system. The research findings overwhelmingly support the significance of structural change, as opposed to changing individual attitudes and behaviours. Increasing access by itself is not enough, it is necessary to alter the nature of the service itself. There is need to change how health care is experienced by the low income patients. Simply put, poor health is the outcome of the circumstances of poor people's lives. Thus if the health status of people were to improved, then mere spatial accessibility is not enough but what need to be given emphasis is the potent community medicine.

The study hence posited that the problem lies in broader economic arrangements which insure a two class system of health care. These findings are aptly underscored by Dianna Dutton who states that:

".....neither improved financial access nor health education alone will eliminate current income differentials in health care use, unless accompanied by structural improvements in existing delivery systems. Fundamental changes in the organization and distribution must occur, if equitable patterns of use are to be more than health policy **rhetoric**".

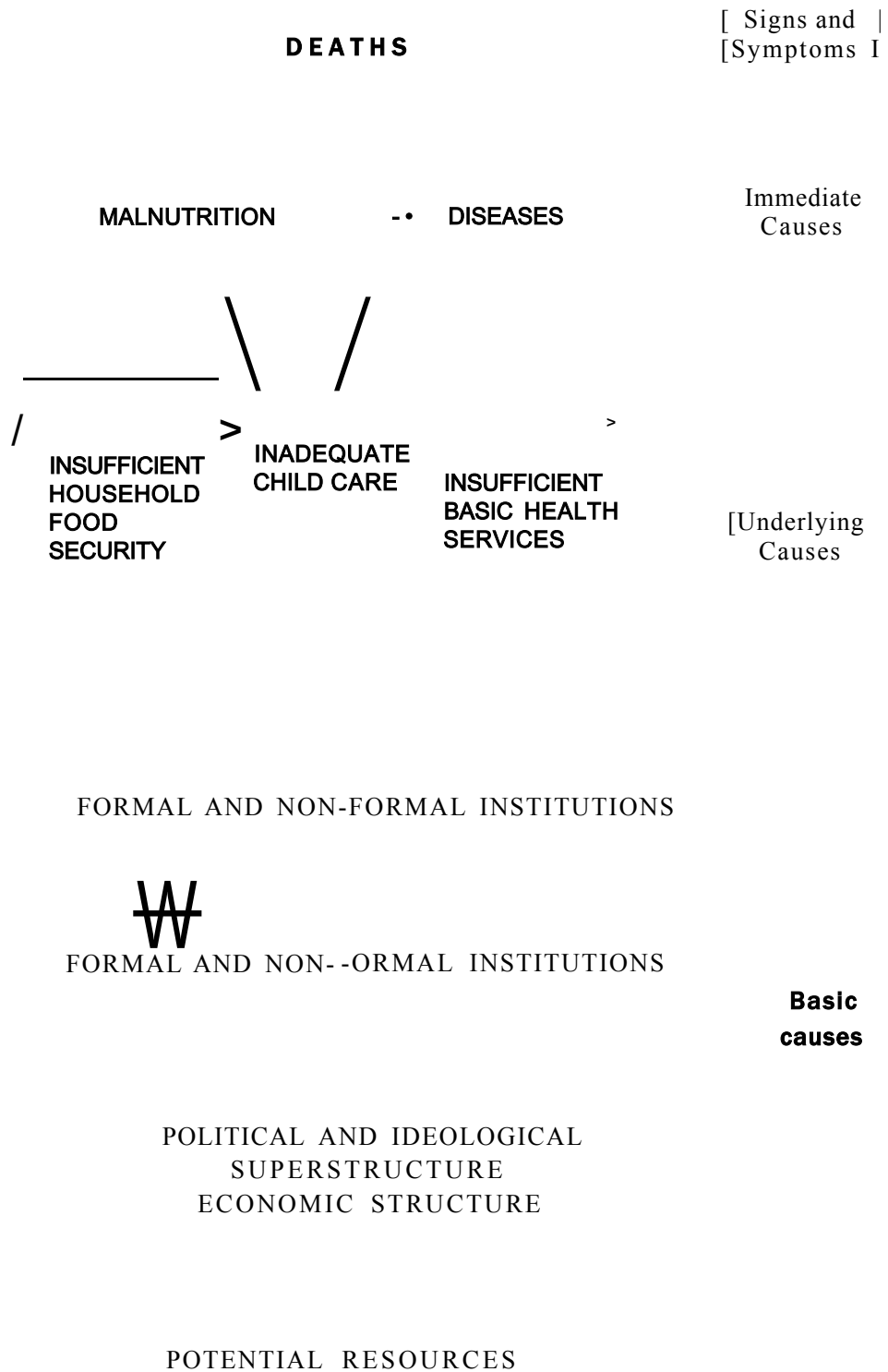
Figure 5 below shows a model that attempts to illustrate the basic and underlying causes of maternal and child deaths whose understanding is very pertinent in planning for health services for different classes of people..

**5.6 Summary and conclusion:**

This chapter has presented the issues of location, distribution and accessibility of health facilities and the provision of maternal and child health and family planning services in the study area and the town at large. The study also revealed various factors affecting the provision and use of MCH/I I\* services in the study area. The study therefore concludes that if the organizational barriers and financial constraints were removed, then the use of MCH/FP among llio poor would increase to the level of the non poor. The study implies that comprehensive exposure of the poor to health care through formal education and health education would result in increased likelihood of using health services including Maternal and child health care and experience more satisfaction with the same.

In short, the author concludes that mere increase in numbers of physical health facilities alone does not necessarily result in better health care utilization but it has to be accompanied by both structural changes in the overall organization of the health care delivery systems and changes in consumer behaviour. The next chapter therefore gives the overall summary of findings, conclusions and policy recommendations in line with study findings.

Figure 5: Conceptual Framework Maternal and child deaths



## CHAPTER SIX

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 6.1 Introduction

The study sought to examine the factors that affect the delivery and utilization of maternal and child care services in Nyalenda and Pandipieri slums of Kisumu and their relevance to the planning of health services for the urban poor. It was therefore the objective of the study to critically assess the health needs of the study area and evaluate the existing health care systems available and accessible to fulfill the needs identified.

Various factors including socio-economic, environmental, personal behaviours, accessibility and functional efficiency of health systems including the constraints faced in health care delivery among others have been analysed with respect to their effect on the utilization of MHC/FP services.

To obtain the necessary and reliable data on these aspects, a sample size of 80 respondents was selected using the cluster sampling technique which was greatly influenced by the financial and temporal resource constraints. Of the different techniques of data collection adopted, the use of questionnaires and participant observation proved the most valuable. Theoretically, the study was based on the Health Belief model. Primary Health care approach and the Alternative Operational model empirically derived by the author from the inadequacies of the two models reviewed.

This chapter therefore presents the summary of the study findings, the conclusions arrived at and the policy recommendations which would ensure better delivery and utilization of maternal and child health care services for not only the urban poor but the entire urban population.

#### 6.2 Summary of findings

Following the research problem, objectives and the hypotheses which the study sought to test and provide solutions to, the following are contended to be a fair summary of the study findings.



The study area is a predominantly young population with 84% under the age of 30 years. Only 3% of residents were over the age of 50 years. Of the adult population about eight out of ten of women were unemployed while about half of men considered themselves formally unemployed. The majority of respondents felt that their education had little or no effect on their health although they acknowledged its importance to the development of their children.

Some 40% of residents were dissatisfied with their accommodation. Nine out of ten of the respondents reported crowding, high interior temperature levels, house sizes, dampness and rats as the main problems. A higher percentage of people living in semi-permanent and temporary houses experienced these problems. Despite these problems many people still preferred living in the neighbourhood, mainly because of the good social networks created.

There was concern about the poor level of maintenance of dwellings and the co-ordination of services in the area. Street lighting, garbage collection, street cleaning and drains were all mentioned and led to varying degree of dissatisfaction with the general environmental state of the neighbourhood.

Considering the relative youth of this population, it is a matter of concern that only 31.9% of adults rated their health as being good. Malaria was the most commonly reported problem. Most semi-permanent and temporary house-dwellers report bad health states than the permanent house-dwellers.

The association between housing and reported state of health was even more pronounced among children. Twice as many children in semi-permanent and temporary houses reported their health as not good. Malaria, respiratory tract infection and diarrhoea were the major problems. Overall immunization levels were not very low but with noticeable contrasts between polio and whooping cough immunization.

Over two thirds of the respondents rated immunization, food and **unemployment (in that order) as having major influences on health.** However, only 38% and 55% perceived physical exercise and smoking respectively as

strong influences on health.

The ten leading diseases include malaria, respiratory tract infection, diarrhoea, the disease of the skin, accidents, urinary tract infection, anaemia, measles, ear infection and intestinal worms.

Poor environmental conditions such as overgrown bushes, uncollected garbage, clogged sewer systems, and the lake with its marshes and stagnant ponds, greatly influence the pattern of disease and morbidity in the town.

The existing health facilities are inadequate, maldistributed in relation to the population and experience overcrowding. The facilities suffer from continuous shortage of qualified personnel, equipments and drugs. The patients in most cases are forced to purchase their own drugs and equipments.

The transport facilities are deficient due to poor vehicic maintenance and perpetual fuel shortages. This greatly affects the outreach health services and the distribution of vaccines.

Various organizations including the municipality, Ministry of Health and NGOs run various Primary Health Care programmes such as health education, water and sanitation, food and nutrition, immunization and MCH/FP. All these are impeded by various factors like lack of funds, shortage of qualified personnel and lack of personnel motivation.

The major wish of pregnant women was greater opportunity to talk to the health workers and the change in attitude of the health workers. Clinic hours were also felt to be inconvenient. Majority of the respondents use public health facilities. Only 3% use private MCH/FP facilities.

Only 58% of the pregnant women and 75% of the group who had previously been pregnant attended ante-natal care classes. The proportion of the women who do not attend consider that they are neither necessary nor relevant.

Majority of children get breastfeeding for the right length of period recommended. 57.4% of the children are breastfed for a period of between 1-2 years. Majority of children had hospital births. An average of two children per family were born in an hospital ward.

Family planning services register very low levels of utilization. Only

39% reported having previously used the family planning services. 18.9% of women are currently using family planning services. Side effects of family planning methods and negative men's attitude were reported as the major factors hindering utilization of family planning services. 62% expressed a wish for greater privacy and once again greater opportunity to talk with health professionals. The question of privacy would require organizational change within clinics, i.e. better arrangements of waiting areas, reception and finally privacy of consultation.

Formal education was found to have greater influence on the utilization of MCH/FP services. Utilization of MCH/FP services increase with the number of years or level of education attained at school. Education enhances the opportunities for acquisition of greater knowledge about health and health information, thereby leading to greater confidence and ability to deal with illness-in authority.

Although the study shows that there is no significant relationship between financial resources or household income with utilization of MCH/FP services, financial access to care remains clearly one of the most important factors affecting use. The strain of financial resources is felt by the poor households, the institutions that try to help the poor, and the local government whose health facilities are funded locally. In our two-class system of health-care, higher income people are most likely to receive care in private health facilities while the poor receive care in public clinics or out-patient departments which are crowded, under-staffed and lack adequate equipments and drugs.

The study reveals and emphasizes structural constraints that prevent people from having genuine access to quality health care. The focus should therefore be on introducing structural changes as opposed to changing the individual and behaviour. Increasing access by itself is not enough but it is necessary to alter the nature of the service and its delivery systems. The next sub-section presents the conclusions derived from these study findings.

### 6.3 Conclusion

The previous subsection has outlined the major summary of the study findings following the analysis and presentation of the data obtained from the field, this subsection presents the overriding conclusions or derivations against the backdrop of these findings.

1). While the study appreciate the general aim of the Health Belief Model and the Primary Health Care (Health Planning) approach of maximizing the public response towards the health care services, the models ignore very pertinent factors which the study found to exert powerful influence on the beneficiaries health behaviour. These include the existence of other health care systems such as folk medicine, lay therapy, spiritual healing which in the eye of conventional medical approach have no place in the modern world and yet from which people seek attention. The two models were hence found not to adequately address the socio-cultural, economic and environmental variables which profoundly affect the configuration of health care systems and their utilization.

2). Many problem areas in relation to life in the study area which influence the health and well-being of its residents were revealed. These included unemployment, housing, low incomes, education and poor environmental conditions. While many agencies are responsible for the delivery of a wide range of services to the neighbourhood, there is a profound lack of co-operation and co-ordination. This inefficient and uncoordinated method of working among these agencies is the most serious obstacle to the improvements of the quality of life in the neighbourhood.

3). The findings confirmed generally known issues and problems regarding MCH/FP and general health care and identified areas of action and additional research. The most significant all encompassing conclusion that could be drawn from the findings was that the links between health delivery systems, the providers of health services and the clients they are intended to serve has become extremely weak. This was found to be characteristic of all the public health facilities in the town. This conclusion was evidenced by the following findings, among others:

- Health facilities, were generally seen by their users as providing inadequate and poor services.
- Due to lack of drugs health workers, in most cases prescribed medications to be bought by clients without apparent consideration for their economic ability.
- Most clients relied on the public health facilities for their MCH/FP services because of their limited financial resources hence limiting their use of available alternatives in the health care market place.
- Health workers' ideas of their clients' health attitudes and behaviour were different from their clients' actual attitudes and behaviours.

4). The utilization differentials between the socio-economic groups (defined in-terms of educational levels) underscore the importance of financial barriers to health care. Lack of adequate financial resources was found to have three major consequences: It contributes to unnecessary pain, suffering, disability and even death among the poor; it places a financial burden on those who are poor who struggle to pay burdensome medical bills; and thirdly it places a financial strain on health facilities, physicians.

and other health care providers who attempt to provide care to the poor. Therefore for any given order or type of health care facility, varying levels of financial resources and of commitment are often reflected.

One can conclude therefore, that the collective effects of the political and ideological superstructure demonstrated through the government policies on various aspects of the economy including health have a demonstrated bearing on the delivery and subsequent utilization of the health services. Numbers of facilities and personnel may therefore increase but areas of great need such as low income urban settlements may not necessarily get more than areas of less need. It is also important to note that there is a subtle but important difference between an increase in the quantity and geographical spread of health facilities and their quality delivery and equitable distribution. An integrated approach to health planning is therefore required that takes into account the environmental and socio-cultural factors, personal characteristics and, the political and economic superstructure of the state.

### 6.3 Policy recommendations

Although the primary research question basically focused on maternal and child health care services delivery and utilization, the study considered this as part of the whole health care delivery system and any recommendations made must reflect the overall improvements needed for the totality of the delivery system. On the same strength, the policy recommendations should not only be seen to apply to the study area but also to other areas with similar problems.

Obviously health care delivery is only one of many determinants of health status but it is important to transform the people from being passive recipients of services into active protagonists for good health. This would develop the ability to identify and combat (he elements in their personal, social and economic environment which are not conducive to health. On this basis the following policy recommendations are made:

1. From the study, it was evident that there is glaring lack of health inventory or profile of the study area and this implies that there is lack of basic information on which effective planning can be based. There is therefore great need to develop a health information system which measures the health status of the community including data on lifestyle, health knowledge and beliefs as well as environmental and socio-economic data in the study area. These health related information should be available and accessible to the people both directly and through local health workers. This is particularly relevant in relation to preventive measures, such as immunization. Information of this kind would help planners in the health and social services determine priorities based on local needs and to allocate resources accordingly. It would also help Field workers focus on their own work and on health needs in the area in which they work. Thus adopting the health profiles model for health planning in

small neighbourhoods is the only way to ensure an all round community health development and monitoring.

2. As revealed by the study, the major determinants of health such as water and sanitation, housing among others were found to be too wanting in the study area. These have extra-ordinary pressures on health sector and they are factors over which it has little control which require comprehensive approach to ensure that the health status of the population is improved. Involving clients and potential clients in the health systems planning and service delivery processes is an important mechanism for improving the effectiveness and efficiency of the health care delivery system. There is therefore a great need for the establishment of a neighbourhood health group which would bring together all professional and lay workers with interest in the local public health. These may include the general practitioners, health educationist, community health workers, Traditional Birth Attendants (TBA), nutritionists, social workers, probation officers, housing inspectors as well as the local people for the promotion of health in the area. Application of this principle in national and local policy and planning of alternative strategies would eventually ensure that the systems and services they offer are complementary and not overlapping or conflicting.
3. The physicians, nurses, pharmacists, traditional healers and other health workers in the study area represent a great human resource and should be working together. As a group, these health workers should work closely with the community. Strengthening the link between these health workers and those they have been trained to serve will lead



to better self-care and utilization of the health care services including maternal and child health care and ultimately, improve the health status of the population in low-income urban settlements.

4. From the study findings, it was established that there poorly developed infrastructure for the delivery of health education in the study area. The provision of Health education should hence be developed further in the communities and schools in the study area and special consideration needs to be given to maternal and child health and family planning, hygiene, patient and consumer education so that an informed public can influence the development of the health and social services to best meet the needs of those it wishes to serve. Low levels of education was found to be a major constraint to the delivery of health care in general and makes effective communication between educators and recipients really difficult. It is therefore imperative that folk media like songs, dance and drama are used to disseminate information about maternal and child health and family planning and other aspects of health. This can be done through co-operate group or community activities such as women groups, barazas and appropriate public gatherings. The mass media on the other hand should be used in a way that it neither exaggerates nor minimizes the magnitude of the health problems and their impact. The provision or delivery of adult education to raise the level of literacy among the illiterates should be intensified and better organized. Health education should touch on subjects such as timing births, safe motherhood, breastfeeding, child growth, immunization, diarrhoea, malaria, home hygiene, coughs and colds, aids, etc.

5. The low-morale and apathy experienced by especially municipal health workers revealed by the study can only be eliminated if remedies are obtained for the problems affecting not only the health service but the whole fraternity of public service. Ramtu 1985, observed that civil service is plagued by malpractices arising from "unregulated participation in private interests, poor deployment, inefficient utilization of personnel and inadequate system of incentives."

To attain efficiency and discipline, the public servants must be dedicated to their work. This can only be achieved if effective incentives are provided to attract, retain and motivate staff. There should be appropriate career prospects, schemes of service and attractive pay package to encourage conducive atmosphere for better work performance. The author thus supports Ramtu's 1985 recommendation that the government should ensure that staff remuneration is reviewed every two years to enable, in this case, health workers work better despite the fast rising costs of living.

6. The study revealed various structural constraints or barriers to effective use of the maternal and child health care. Organizational changes should therefore be made wherever possible in the public health facilities especially with regard to clinic hours, privacy of consultation, and appointment systems. These would be to facilitate communication and in particular longer consultation and privacy should be of utmost priority in MCH/FP clinics. The sub health centre (Joel Omino-Nyalenda) in the study area need to introduce family planning services.

7. Lack of adequate financial resources was cited in all instances to be the foremost impedance in the provision of adequate health services. It would therefore be impractable to advocate for the construction of all the health facilities as required by the planning standards. It would hence be realistic and cheap given the current economic recession, to propose for the expansion and upgrading of existing health facilities to provide higher quality of services than they do at the moment in addition to minimal construction of more facilities. Ideally the study area should have another health centre and a dispensary.
  
8. To strengthen the utilization and delivery of MCH/FP services, the following measures should be undertaken in view to the various constraints to the delivery and utilization of the same that the study revealed:
  - a) Intensifying health education on the benefits of Maternal and Child Health and family planning both at the household and community levels.
  - b) Increasing the number of facilities and communities where MCH/FP services are offered such that the services are within easy reach of households and fully equipping the delivery points.
  - c) Training more nurse? in family planning and Community Health workers, Traditional Birth Attendants on community based distribution of contraceptives.
  - d) Continuous monitoring and evaluation of the MCH/FP activities to the local health facilities and auxiliary health services.
  - c) Providing supplies and logistic support.

9. Further research should be undertaken on the impact of housing policies and planning standards on the provision of health care in the informal urban settlements.

**BIBLIOGRAPHY**

1. ADEGOROYE, ANU 1984,  
Community Health Care. Macmillan Publishers, London, pp43-50.
2. BALLDIN, BO 1975,  
Child Health : A Manual for Medical Assistant and Other Rural Health Workers. Amref. Nairobi, pp7.1-7.1 L
3. BECKER, MARSHALL H (Ed) 1974  
The Health Belief Model and Personal Health Behaviour, Charles B. Slack, Inc. Thorofare, New Jersey, U.S.A.
4. BECKER MARSHALL, H. 1974  
"The Health Belief Model and Sick Role Behaviour" In the Health Belief Model and Personal Health Behaviour (ed) Becker Marshall. Charles B. Slack, Inc. Thorofare, New Jersey, U.S.A. pp.82-93.
5. BECKER. M. H. AND MAIMAN, L.A., 1974,  
"The Health Belief Model : Origin and Correlates in Psychological Theory" in the Health Belief Model and Personal Health Behaviour (ed) Becker Marshall, Charles B. Slack, Inc. Thorofare, New Jersey. U.S.A. pp9-27.
6. BERKMAN. L. F. and SYME, L.S. 1986,  
"Who Gets Sick? The Unequal Social Distribution of Disease" in the Sociology of Health and Illness.
7. BERKMAN. L. F. and SYME, L.S. 1979,  
"Social Networks. Host Resistance, and Mortality : A Nine Year Follow-up Study of Alameda County Residents". American Journal

of Epidemiology. 109 (July) 186-204.

8. BERKMAN. L. F. and SYME L.S. 1986.  
"Social Class, Susceptibility, and Sickness" in the Sociology of Health and Illness (eds) Conrad P. and Kern, R. St. Martin's Press, New York. pp28-32.
9. BLALOCK, H.M. Jr. 1987,  
Social Statistics. Mc Graw-Hill Book Company, Washington, DC.
10. BWIBO. N. (1991),  
The Impediments to Child Survival and Development in Kenya  
(Unpublished) pp. 1-34.
11. CHEGE, P.G. (1992).  
Provision of public health services in Nairobi: Analysis of Distribution, Location and Utilization. M.A Thesis, University of Nairobi (Unpublished).
12. CHRISTIAN MEDICAL COMMISSION. 1983  
Contract: Planners' Approaches to Community Participation in Health Programmes : Theory and Reality, World Council of Churches, No.75 Pages 2-16, Geneva.
13. CONRAD PETER and KERN ROCHELLE, (ed) 1986,  
The Sociology of Health and Illness : Critical Perspectives, St Martin's Press, New York.
14. EBRAHIM. G.J., (ed) 1972,  
Practical Mother and Child Health In Developing Countries East African Literature **Bureau**, Nairobi, ppl-6,80-84.93-%.

15. GISH. O. (1975),  
Health Economics in Developing World, Oxford University Press.  
London.
16. GOLLADAY, F.L. (1983),  
Appropriate Technology for Water Supply and Sanitation : Meeting  
the Needs of the Poor for Water Supply and Waste Disposal, A World  
Bank Technical Paper, World Bank, Washington. D.C. U.S.A.
17. GROOF, FRANCIS 1975,  
African Lakeside Town : A Study of Urbanization in Western Kenya,  
PhD Dissertation, Pontifica University, Gregariana, Rome.
18. HOLLNSTEINER. 1982,  
The Participatory Imperative in Primary Health Care" in Assignment  
Children, No.59/60, UNICEF, Geneva, pp35-66.
19. IKIARA, G.K. (1988),  
Health Care Provision, A paper presented at the First International  
Conference on Urban Growth and Spatial Planning of Nairobi Dec.  
13th-17th, 1988, Nairobi Kenya.
20. KASL, S.V. and COBB, S. 1966.  
Health Belief, Illness Behaviour and Sick Role Behaviour. Arch.  
Environmental Health I 12:246-266.
21. KENYA REPUBLIC 1984/88), Ministry of Finance and Planning :  
Kisumu District Development Plan, Government Printer. Nairobi.
22. KENYA REPUBLIC (1988/1993), Ministry of Health : Primary  
Health Care Programme. Kisumu District, Annex One pp. 1-41.

23. KIRSCHT, J. P. 1974,  
The Health Belief Model and Illness Behaviour" in the Health Belief Model and Personal Health Behaviour (ed) Becker Marshall. Charles B. Slack, Inc. Thorofare, New Jersey. pp60-82.
24. MANGUYU, Florence 1991,  
The Health of Women in Kenya, Unpublished, pp. 1-12.
25. MATI, J.K. 1989,  
The Health of Women in Kenya, A Paper Presented at the KMWA Workshop on Women and Health - March 1989.
26. MORRIL, R. C. FT AL (1970),  
Factors Influencing Distance traveled to Hospital, in Economic Geographer Journal Vol. 46.
27. MUGO, W. 1974,  
"Health Problems in Urban Areas" in Health and Disease in Kenya (eds) Vogel, L.C., Muller, A.S.; Odingo, R.S. Onyango. Z. and De Geus, A. East African Literature Bureau, Nairobi, ppl61-169.
28. NANCY, Kohner 1984.  
Pregnancy Book : A Guide to Becoming Pregnant and Caring for your Newborn Baby. Health Education Council, 78 New Oxford Street, London.
29. OMONDI, C.O. 1991,  
Socio-Economic and Psychological Aspects of Leprosy : A Case of Leprosy Patients in Alupe, Busia District. B.A. (Sociology) dissertation, University of Nairobi, Kenya.



30. REACH. (1988),  
Resources For Child Health Care, Nairobi Area study vol. 2 1988.
31. REPUBLIC OF KENYA,(1986),  
National Guidelines for the Implementation of Primary Health Care in Kenya. Ministry of Health, Government Printer. Nairobi. Kenya.
32. ROHDE, J.E. 1983,  
"Why the Other Half Dies : The Science and Politics of Child Mortality in the Third World", in Assignment Children. No.61/62, UNICEF, Geneva. pp35-65.
33. ROSENSTOCK, I.W. 1974,  
"The Health Belief Model and Preventive Health Behaviour" in the Health Belief Model and Personal Health Behaviour (ed) Becker Marshall, Charles B. Slack, Inc. Thorofare, New Jersey, pp27-60.
34. TOWN PLANNING HANDBOOK. 1974
35. UNICEF, 1983,  
A Child Survival and Development Revolution, Assignment Children, No.61/62, UNICEF, Geneva.
36. UNICEF 1982,  
Community Participation : Current Issues and Lessons Learned, Assignment Children No.59/60 UNICEF, Geneva. pp17-35.
37. UNICEF<sup>7</sup>/WHO 1977,  
Community Involvement in Primary Health Care : A Study of the Process of Community Motivation and Continued Participation.

Report for the 1977 UNICEF - WHO Joint Committee on Health Policy, Geneva. (Unpublished).

38. WERE. M. K. 1978,  
Organization and Management of Community Based Health Care  
National Pilot Project of Kenya, Ministry of Health/UNICEF,  
Nairobi, pp.I—11.
  
39. WHO 1978,  
Chronicle : The Alma-Ata Conference on Primary Health Care.  
Vol.32, No. 11, pp407-458, World Health Organization, Geneva.
  
40. WHO 1988.  
Health Systems Research in Action. World Health Organization,  
Geneva. pp53-63.
  
41. WHO 1980,  
World Health Forum : An International Journal of Health Development.  
Vol.I, Nos. 1 and 2, WHO Geneva.
  
42. WORLD BANK,1980  
Health Sector Policy Paper. World Bank, Washington D.C, USA.
  
43. ZIPF, G.K. 1949,  
Human behaviour and principle of least effort, Cambridge Mass.

APPENDIX

UNIVERSITY OF NAIROBI

DEPARTMENT OF URBAN AND REGIONAL PLANNING

HOUSEHOLD QUESTIONNAIRE

Questionnaire Number

Respondent's Name

Area

Date

HOUSEHOLD CHARACTERISTICS

1. Total number in household

2. Number of adults in house

Ages	Male	Female
1.		
2.		
3.		
4.		

3. Number of children in house

Ages	Male	Female
1.		

4. Marital status

1. Married
2. Single
3. Widow
4. Divorced/separated

5. Level of education(number of years completed)

6. Occupation of respondent

1. Housewife
2. Formal employment
3. Petty business
4. Other (specify)

7. Occupation of head of household

1. Formal employment
2. Jua kali
3. Business
4. Housewife
5. Unemployed
6. Other (specify)

8. Total household income per month

9. Household monthly expenditure (Kshs.)

1. Food
2. Rent
3. Water
4. Children's education\_\_\_\_\_—
5. Medical attention\_
6. Leisure

7. Other (specify)

ENVIRONMENTAL HEALTH

10. Type of house

1. Flat

2. House (terraced)

3. Massionette

11. Quality of house

1. Permanent

2. Semi-permanent

3. Temporary

12. Are you satisfied with your accommodation?

1. Yes          2. No

13. What problems do you have with the accommodation and how do these affect you?

Comment

1. Damp.

2. Noisy.

3. Too small.

4. Dusty.

5. Rats\_

6. Crowded\_\_

7. Hot\_

8. Other (specify)\_\_\_

14. Are the family bothered by dogs in the area ?

1. Yes          2. No

Comment

15. How long have you been staying here? \_\_\_\_\_ years.

16. Do you like living here?

1. Yes            2. No

17. Why is this?

1.  
2.  
3.  
4.

18. Do members of the household feel there is adequate provision and maintenance of the following?

Yes            No

1. Street lighting  
2. Bin collection  
3. Street cleaning  
4. Drains  
5. House maintenance

19. Over the last 12 months would you say the health of each adult members of the household has been :

Males    1. Good    2. Fairly good    3. Not good

Females 1. Good    2. Fairly good    3. Not good

20. Over the last 12 months has the health of children been:

Males 1. Good 2. Fairly good 3. Not good

Females 1. Good 2. Fairly good 3. Not good

21. Name the five main health problems affecting the lives of mothers in this area?

- 1.
- 2.
- 3.
- 4.
- 5.

22. Name the five main health problems affecting the lives of children in this area

- 1.
- 2.
- 3.
- 4.
- 5.

23. How do you think the following influence the health of adults in the house?

Alot Not a lot Not at all

1. What you eat
2. Smoking
3. Physical exercisc

- 4. Unemployment
- 5. housing
- 6. Immunization

24. What role, if any, have the existing health services played in helping mothers and children to solve the problems you have mentioned above?

1 .

2 .

3 \_

4 \_

25. Were any members of the household in contact with any of the following in the last one month?

- 1. Nurse/doctor
- 2. Community health visitor
- 3. Dentist
- 4. Social worker/welfare officer
- 5. Sisters/clergy

26. Do you feel the need for any of the above services?

- 1. Yes
- 2. No

27. If yes which?\_

28. Do members of the household attend a dental clinic?

- 1. Check up 6 monthly
- 2. Check up yearly
- 3. Check up at longer interval
- 4. If in pain



5. No check up

29. If you get sick or suspect to be getting sick, what action do you take?

1. Buy medicine from the shop
2. Go to the nearest health facility
3. Go for prayers
4. Contact traditional doctor
5. Call for a "Quack"
6. Wait until it is worse then go to hospital

#### MATERNAL HEALTH

30. (To be answered if any woman in the household is pregnant -otherwise move to the next question).

a). Do you receive any ante-natal care?

1. Yes
2. No

b). If yes, where do you receive it?

1. Hospital only
2. Dispensary/health centre only
3. Shared care
4. Other (specify)

c). What benefits do you receive by attending ante-natal care facility you have mentioned?

2.

3 \_

4 \_

d). Are you satisfied with the ante-natal care service as a whole?

1. Yes            2. No

e) If no would changes in the following improve things?

1. Appointment system
2. Clinic hours
3. Different site for clinic( improved accessibility)
4. Cup of tea
5. More opportunity to talk to nurse/doctor
6. Nurses/doctors should be more friendly
7. Other (specify)

f). Do you attend ante-natal classes/parentcraft classes?

1. Yes            2. No

g). If yes, are the classes easily accessible?

1. Yes            2. No

Comment

h). If no, why don't you go?

1. Situation not convenient
2. Time not convenient
3. Educators not good
4. Other (specify)



h) If yes were the ante-natal classes easily accessible?

1. Yes      2. No

Comment

i) If you didn't attend why didn't you?

1. Situation not convenient (far)
2. Time not convenient
3. Educators not good
4. Other (specify)

32. How many children in the house have been born in the maternity ward?

### CHILD HEALTH

33. (If there are children under 5 years in the household)

a) As babies were/are they: (Fill in numbers)

1. Bottle fed
2. Breast fed
3. Both

b) If breast feed how long?

1. < 1 month
2. 1-6 months
3. 6 months-1 year
4. 1-2 years
5. >2 years

c) Do you think children at less than 5 years are of:

1. Under weight
2. Normal weight
3. Overweight

d) Do(es) the child/children attend a baby clinic?

1. Yes

2. No

e) If no, why?

1.

2.

f) If yes which clinic do(es) she/they attend?

g) Is the clinic easy to get to?

1. Yes

2. No

h) Why do(es) the child/children go to the clinic?

1.

2.

3.

4.

i) Would you like to see an improvement in any of the following at the clinic?

1. Appointment system

2. Clinic hours

3. Different side for the clinic

4. More opportunity to talk to the nurse/doctor

5. Quality of service

6. Doctor's/Nurse' attitude

34. ( If there are children of 5 years and over in the household).

a) Have children had a full course of:

1. polio immunization

2. Tetanus Immunization

3. Whooping cough Immunization

4. Measles Immunization

5. Diphtheria immunization

6. Tuberculosis

b) Do the children have the Immunization

1. Hospital

2. Baby clinic/child health clinic

3. School/Mobile clinic

c) Are the child (0-15) years on any Medication at the moment?

1. Yes            2. No

d). If yes, for what reasons?

- 1.
- 2. \_
- 3. \_\_
- 4.

e). Have you lost any child in the household?

1. Yes            2. No

f). If yes, how many?

Males\_\_  
Females\_

FAMILY PLANNING

35. Have you ever used any method to space out your children or prevent you from becoming pregnant?

1. Yes            2. No

36. If yes, which method? \_\_\_\_\_

37. Are you currently using any method?

1. Yes            2. No

38. If yes, which?

39. Do you receive any family planning advice?

1. Yes                      2. No

40. If yes, where do you receive the advice?

1. Clinic  
2. Hospital  
3. Other (specify)

41. Where is it situated?

Distance: 1. 0.5 Km 2. 1 Km 3. 2 Km 4. 3 Km 5. >3 Km

42. Is it easy to get to?

1. Yes                      2. No

43. Are you satisfied with the service?

1. Yes                      2. No

Comment

44. Do you use the following channels to learn more about family planning?

1. Radio  
2. T.v.  
3. Books  
4. Magazines/newspapers  
5. Baraza

45. Would you like to see improvements in the following at the clinic?

1. Appointment system  
2. Clinic hours



3. Privacy (private room for consultation)
4. More time to talk to nurse/doctor

46. What problems do think can prevent one from practicing family planning?

1. Traditions/customs (culture)
2. Religion
3. Men's attitude
4. Methods of family planning (side effects)
5. None
6. Other (specify)

47. How can these problems be solved?

1. Provide more family planning education
2. Involving men in family planning education
3. Open more family planning clinics
4. Home visits by family planners

48. How do you think your community has participated in the improvement of health conditions in his area?

49. How have you personally been involved in the improvement of health conditions in this area?

50. What activity in the community can you say is health related ?

UNIVERSITY OF NAIROBI  
DEPARTMENT OF URBAN AND REGIONAL PLANNING  
QUESTIONNAIRE FOR PUBLIC HEALTH OFFICER  
(MUNICIPAL COUNCIL) AND PMO

1. What is the role of the department of public health in the Primary Health care delivery in Kisumu Town?

2- Briefly describe the changing patterns of people's health status in Kisumu in the last 10 years?

**I. Morbidity levels.**

Reasons:

**2. Life expectancy.**

Reasons:

**3. Infant mortality.**

Reasons:

3. Outline the leading five health problems faced in this area?

4. What are the major problems faced in delivering health care to the residents of the town?

5. How many health facilities do you operate within the municipality?

**HOSPITALS**

1.

HEALTH CENTRES (WITH MATERNITY)

- 1.
- 2.
- 3.

HEALTH CENTRES (WITHOUT MATERNITY)

- 1.
- 2.
- 3.

DISPENSARIES

- 1.
- 2.
- 3.
- 4.

MCH/CLINICS

- 1.
- 2.
- 3.
- 4.
- 5.

MOBILE CLINICS

- 1
- 2
- »

6. Which criteria do you use in locating /distributing these facilities?

- 1.Hospital
- 2.Health centres
- 3.Dispensaries
- 4.MCH/FP

7. What major interventions are you currently undertaking to improve the health status of the people and health services in the area.

Q8. Would you please outline the number of personnel you have and their ratio to the patients.

<u>CADRE</u>	<u>NUMBER</u>	<u>CADRE/PATIENT RATIO</u>
--------------	---------------	----------------------------

DOCTORS

CLINICAL OFFICER

COMMUNITY NURSES

REGISTERED NURSES

ENROLLED NURSES

REGISTERED MIDWIVES

TOTAL

9. Comment on the utilization level of the MCH/FP facility in Kisumu?

10. How much do you spend on PHI/health care delivery per year (on average)

a). What are your sources of funds?

11. What are the major problems you face in your delivery of public health care?

- 1.
- 2.**
- 3.
- 4.
- 5.

12. Briefly comment on the effects of cost-share in health care delivery on the utilization of MCH/FP and health care in general?

13. What would you suggest for the improvement of accessibility of health facilities to the majority of people?

13. Do you have special health programmes for the low-income settlement in Kisumu?      1. yes      2. no

If yes which ones?

- 1
- 2**
- 3

14. Please list the agencies involved in the area of PHI in Kisumu?

15. What do you think are the effects of environmental conditions in Kisumu on the health of those living in the informal settlements (slums) ?

**UNIVERSITY OF NAIROBI****DEPARTMENT OF URBAN AND REGIONAL PLANNING****FORM FOR RECORDING THE ACTIVITIES OF HEALTH FACILITY: FROM THE PREVIOUS MONTH S RECORDS**

Name of Health Facility.

Type of Health Facility \_\_\_\_\_ Date.

Form Completed by.

Activity	No.	Comment
Total No. of outpatients Consultation		
No. of well baby care visits: First Visit Repeat Visit		
No of Injections and Dressings		
Total no. of ante-natal care visits		
Total No. of Family Planning Consultation (any Method) First Visit Repeat Visit		
Total No. of mobile clinic outreach		
Total No. of Home Visits by Community Health Workers		



UNIVERSITY OF NAIROBIDEPARTMENT OF URBAN AND REGIONAL PLANNINGHEALTH WORKERS' QUESTIONNAIRE

Date \_\_\_\_\_

Questionnaire Number \_\_\_\_\_

Respondents' Name \_\_\_\_\_

Area \_\_\_\_\_

Name of Facility \_\_\_\_\_

Position of Respondent \_\_\_\_\_

Type of Health facility \_\_\_\_\_

Q 1 Does this facility provide MCH/FP services?

Yes • No I I

2. If Yes, which aspects of MCH/FP?

1.

2.

3.

4.

5.

3. Number of each Category of Staff employed in the Health Facility

	Category	Number
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		

4. How long have you been based in this facility?      Years.

- 1. less than 6 months
- 2. more than 6 months but < 1 year
- 3. 1 - 2 years
- 4. more than 3 years

5. What do you consider to be your 5 most important tasks ?

- 1.
- 2.
- 3.
- 4.
- 5.

6. Would you say the state of health in this area is

- 1. Good •
- 2. Fairly good •
- 3. Not good •

7. How do you think the following influence the quality of health services provided in the facility ?

	A lot	Not a lot	Not at all
1.Low salaries			
2. Lack of equipment			
3. Not good			
4. Shortage of drugs and materials			
5. Shortage of trained Personnel			
6. High number of patients to be attended to			

8. List in order of magnitude, the major impediments to Maternal and Child Health in this area.

Maternal	Cases in 1 month	Child	Cases in 1 month
I.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
7.		7.	
8.		8.	

9. What additional manpower do you think would be needed to improve the delivery of maternal and child health services in this area?

10. Do you think it is necessary to develop new facilities in the area? 1. Yes  1 2. No  1

Comment

11. In your opinion, what do you think can be done to improve the utilization and quality of MCH/FP

- 1.
- 2.**
- 3.
- 4.
- 5.

12. Do you think that Family Planning Services are effectively being used?

1. Yes • 2. No •

13. If no. What are the reasons?

- 1.
- 2.**
- 3.
- 4.

14. What do you think can be done to improve the situation?

By the Agencies

By the People

2.	2.
3.	3.
4.	4.
S.	5.