FACTORS INFLUENCING SUCCESS OF INTEGRATED EDUCATION IN PUBLIC SECONDARY SCHOOLS; THE CASE OF MOI GIRLS' SCHOOL NAIROBI, DAGORRETI DISTRICT, NAIROBI COUNTY

By

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DECLARATION

This project report is my original work and has not been presented for a degree in any other university.

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This project report has been submitted for examination with my approval as university supervisor.

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DEDICATION

To Dad, Alex K'Achilla and Mum, Florence Kadeiza, for your LOVE of education, support, concern, sacrifice and patience. God Bless you ABUNDANTLY. To son Albright, may you grow up to acquire and love knowledge and pursue education to the highest possible levels of your ability. To the rest of my family, thank you for believing in me and your support during the period of my Masters program.

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Glowing tribute to Shighadi Mercy for her unwavering support throughout the duration of this masters program, thank you madam. To my colleague Andrew Ngeti and nephew Kevin, for helping with the formatting, editing and proof-reading my work, thank you guys. I am for ever indebted to you.

Special tribute goes to the Principal, teachers and students of Moi Girls' School Nairobi for their cooperation without which my study would have been difficult to carry out. This report would be incomplete without their cooperation in providing primary data upon which analysis and recommendations in this paper were done.

A big thank you to all those who made it possible to write and complete this project report. Without mentioning all of you, I am indeed greatful.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

EFA	Education For All
HIV/AIDS	Human Immuno-deficiency Virus/Acquired Immune-Deficiency Syndrome
IDEA	Individuals with Disabilities Education Act
IEDC	Integrated Education of Disabled Children
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KIE	Kenya Institute of education
KIEP	Kenya Integrated Education Programme
KISE	Kenya Institute of Special Education
KSB	Kenya Society for the Blind
MDGs	Millennium Development Goals
MGSN	Moi Girls' School Nairobi
NCERT	National Council of Educational Research and Training
NGO	Non-Governmental Organization
OECD	Organization for Economic Cooperation and Development
PIED	Project for Integrated Education for the Disabled
RC	Rehabilitation Council
RoK	Republic of Kenya
SEN	Special Needs Education
SSI	SightSavers International
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children Education Fund
V.Is	Visually Impaired Learners/Students
WHO	World Health Organization

ABSTRACT

This study is about the Success of Integrated Education with specific interest in learners with visual impairment. The integration is in a regular public girls' boarding school where sighted and visually impaired learners learn and live together. The study is confined to Moi Girls' School Nairobi, Dagoretti District in Nairobi County. The study assessed the success factors of the integrated program in a public girls' boarding school.

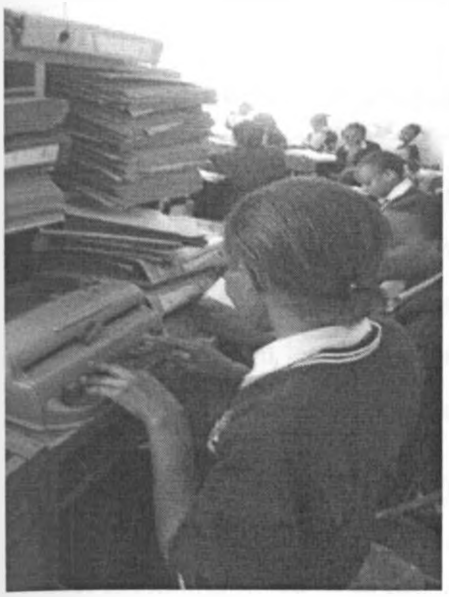
Integration of children with special needs in regular schools is quickly taking shape. It gives all children a chance to be incorporated in the communities in which they will always work and live in after completing school. In 2007, there were nineteen integrated programmes in Kenya. These were started in 1989 after the success of the Nairobi Integrated Education Program (NIEP) in Nairobi County.

The areas that were looked into in detail in this study include teacher training and development, suitability of the school environment for the visually impaired, provision of support services and availability of teaching/ learning resources within the school.

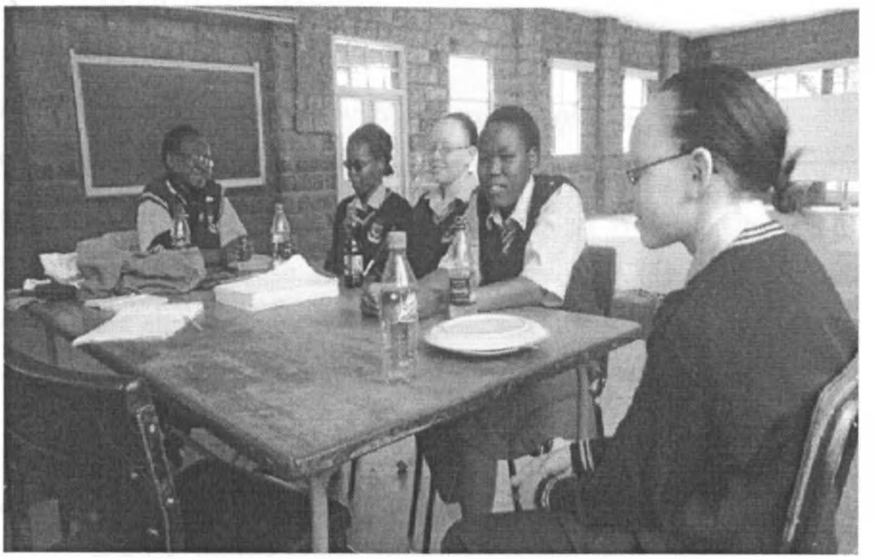
The study came up with suggestions on how best other institutions can successfully implement the integrated program. This will not only improve the teaching/learning of the visually impaired and increase the access of education to the disabled, but also share the success story with other institutions capable of taking up integrated teaching/learning environments.

Data was collected from 40 sighted girls, 9 visually impaired, 30 teachers, and 6 key informants. The data collected was analyzed and presented. The findings from the analysis enabled the researcher to make appropriate recommendations on how best other institutions could adopt and successfully run an integrated program. The researcher has also made recommendations for further studies to be carried out in future. This is because even though the visually impaired are getting an education in an integrated environment, more can be done to enhance and ensure that the EFA Goal is attained independent of a person's disability.

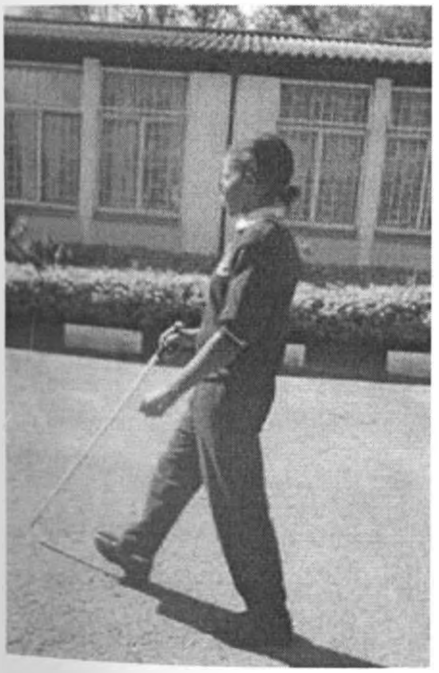
PHOTOGRAPHS OF STUDENTS WITHIN AN INTEGRATED EDUCATION ENVIRONMENT



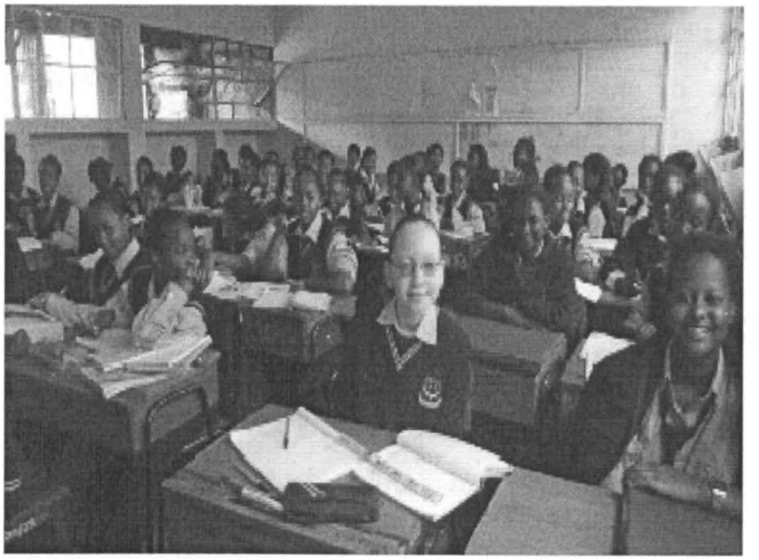
A V.I at her special desk typing notes on a Braille Machine



Some of the VIIs during the F.G.D. at M.G.S.N



A V.I walking past the Administration Block with the aid of a white cane



A V.I. (low vision) who also lives with albinism in a crowded class at M.G.S.N

CHAPTER ONE

INTRODUCTION

1.1 Background Information

A visually impaired person is "one whose sight interferes with optimal learning and achievement unless adaptation is made, in the methods of presenting the learning experiences, the nature of materials used, and/or in learning experiences" (Baraga 1976). This problem is caused by eye diseases, accidents or an eye condition present from birth. It includes both low vision and the totally blind. Low vision learners are those whose sight is substantially below that of an average person. Totally blind have no ability to see light. This affects learning of both groups negatively.

According to Shea *et al,* (1997), the first school for the blind was established in 1784 in Paris by Valentine Hally. More schools came into being in Europe and America by the end of 18^{th} century and beginning of 19^{th} century. These institutions were residential providing oral education rather than training for employment and independence. In America, there have been attempts since 1940 to integrate blind children into society by enabling them to study in regular schools together with sighted ones. This has been pursued more vigorous since 1950's to date.

In Kenya, education for the visually impaired is of a recent origin compared to Europe and America. In 1946, the Salvation Army in Nairobi collected a group of war victims blinded during the Mau Mau wars. This establishment was basically rehabilitation. It was then moved to Thika in 1953 (current Thika school for the blind) due to the lack of space within the city. The rehabilitation was meant to teach the blind soldiers how to read Braille to enable them read the Bible and manage small businesses. (Education in Kenya KISE bulletin vol.1, 1980).

Integrated education brings students with disabilities into daily contact with non handicapped students in an educational setting (Njoroge, 1991). Disabilities could be visual, hearing, movement and even mental. This means that both categories of students sit in the same classroom, taught by the same teachers and share in all school activities. This is the best ideal situation because, having been born in a family with sighted members, it helps the visually impaired to integrate and adjust well in the community after school. Putting a visually impaired student in a special school thus removes the individual from the reality of life.

In 1986, the Ministry of Education in collaboration with sight savers international initiated Nairobi Integrated Education Program (NIEP). This was later initiated in 19 Districts by 1989 (Ndicu, 2002). These were basically in primary schools. NIEP is still being coordinated from Kilimani primary school.

In 1991, there was a serious drawback on the provision of low vision services to children in the schools for the blind. Thika School for the blind, the only high school for the blind then, informed the primary schools that all those who would be admitted had to be proficient in Braille reading and writing irrespective of their level of vision loss (Ndicu, 2003). This meant other secondary schools were needed to integrate the visually impaired. Various secondary schools were identified in Nairobi. These included, Moi Girls' School Nairobi, Eastleigh Boys, Lenana, Upper Hill, SSD sec school, Dagoretti and Khalsa Secondary school.

Though they were earmarked by the MoE, only Moi Girls' School Nairobi has been steady with this program. There are 19 counties in Kenya with integrated programs. Nairobi integrated program is coordinated at Kilimani primary school. Nairobi has the highest population of visually impaired students both in public and private secondary schools, majority of which are at Moi Girls' School Nairobi, thus the choice of the school, as a case study and research centre.

1.2 Statement of the Problem

The goal of integrated education is to provide the most appropriate education for all children in the most enabling environment. Such an environment brings students with disabilities into daily contact with non handicapped ones in an education setting. This means both categories share in all school activities, teachers and classrooms (Heganty *et al*, 1981). The net effect is to get all children to have a quality education. According to Dunn (1993), handicapped children did better in integrated environments compared to special schools.

Students with disabilities learning together in a regular classroom benefit more than those who are segregated in special schools. This is because, in special schools, all the students have a common challenge and easily cope with their disabilities. Integrated schools help those with visual impairment to learn from the sighted ones. Just like the sighted, they need the opportunity to learn and attain their full potential, work and live independently. Additionally, they require extra services, tailored to compensate for their handicapping limitation.

The National Development Plan 2003-2008 indicates that approximately 1.8% of persons living with disability are between 0-19 years (RoK, 2003). The MoE (2003) contends that only 26885 (or 1.5%) of children with disability were in school by 2002. Yet all children regardless of their ability should be in school getting an education in the regular classroom (Fulton, 2006). The EFA Goal may not be a reality despite FPE and free tuition in public secondary schools in Kenya. This calls for effecting of equalization of opportunities for special children's right to education (RoK, 2007).

The challenging issue is how to constructively understand and implement integration in the best interest of all children. Most of the problems faced in integrated systems are system problems. Thus school policies, structures and attitudes have to be changed (Turnbull, 1977). As a system problem, integration affects all participants in the educational system; from the child, school, MoE, the government and beyond.

For effective implementation of an integrated system, leadership and planning are extremely important. Since the focus is the regular school, headteachers are the ones in a position to provide necessary guidance and direction. They need to be trained to acquire adequate knowledge and skills in certain specific areas. Teachers have to be prepared attitudinally and provided with the relevant knowledge and skills to handle handicapped children (Cruickshane, 1974). Rigid methodologies of teaching and evaluation criteria can be an impediment (KISE, 2000). Training and development must include knowledge of various disabilities, encouragement of appropriate attitudes, effective practices for direct instruction and service delivery, transition and evaluation of educational outcomes (Lombadi, 1994).

In Nairobi County, there are eight earmarked public secondary schools for integrated education. Ironically, only one has successfully run the program since 1981 consistently and sustainably. The heavy task of rendering education to the visually impaired child within an integrated environment remains with this single institution. It is with the described situation that Moi Girls' School Nairobi was picked for the study. This study will seek to examine in depth the Factors that have Influenced the Successful Implementation of Integrated Education in Public Secondary Schools.

Some studies have been done before with regard to integrated education. Wanyani (2009) studied the *Challenges Facing Headteachers in Administration of Inclusive Education in Public Primary Schools*. Thuo (2009) and Kadima (2006) both studied *Factors Influencing Implementation of Inclusive Education in Regular Public Schools* while Gathigia (2007) studied *Challenges Facing*

the Visually Impaired Students in Integrated Public Secondary Schools. None of these studies appreciates the fact that despite the newness of integrated educational program and the teething challenges it may continuously face, there exists a fact, - the existence of the integrated program on which their studies were based. There is indeed an element of success and this is the knowledge gap that the researcher intends to fill.

1.3 Purpose of the Study

This study investigated the Factors that Influence Success of Integrated Education in Public boarding Secondary Schools. The study has provided founded information on integrated education which will be useful to other heads of institutions who wish to implement the integrated program, teachers, the government and other stake holders e.g. donors.

1.4 Objective of the Study

The broad objective was to examine the factors influencing the success of integrated education in public secondary schools.

1.4.1 Specific Objectives

i. To assess the suitability of the school learning environment for the visually impaired on success of integrated education.

ii. To investigate the availability of teaching/learning resources on success of integrated education.

iii. To establish the influence of availability of support services on success of integrated education.

iv. To investigate the influence of teacher-training and development on success of integrated education

1.5 Research Questions

i. Is the school learning environment and the available physical facilities suitable for the visually impaired?

ii. How does the availability of teaching/learning resources influence the success of integrated education?

iii. Does the provision of support services influence success of integrated education?

iv. How effective is teacher training and development in handling and curriculum delivery to the visually impaired learner?

1.6 Significance of the study

This study contributes to the theoretical and practical knowledge towards solving problems that hinder the implementation of integrated education in regular public boarding schools. The information that was gathered during the study may help education planners to design appropriate and effective strategies for implementing integrated education for visually impaired learners in a regular school system. The information can also be used by curriculum developers to improve the curriculum to accommodate the needs of all learners

The study documents that, for secondary schools to be successful in their role of teaching within an integrated education environment, they must integrate the following three dimensions; Education in the integrated environment. Education about the integrated environment and Education for the visually impaired within the integrated environment.

Education *in* the integrated environment: Experiences beyond the classroom in both natural and built environment not only provide opportunities for students to gain first-hand experience in their environment but also enhance classroom-based work. These opportunities can be used to develop skills in observation (touch, hear, smell), data collection, practical inquiry, investigation, and the use of specialist technology. Such situations can also require social and cooperative skills, group-work skills, communication skills, problem-solving skills (MoE, 2003).

Education *about* the integrated environment: knowing about and understanding the natural and built environments, and appreciating the key social, political, ecological, and economic factors that influence decision making on local, national, and global issues is critical if students are to meet the aims of environmental education (MoE, 2003).

Education *for* the visually impaired within the integrated environment: education for the visually impaired within an integrated environment is intrinsically linked to the "affective" aspects of education as it deals with people's emotions and their willingness to make lifestyle choices that help maintain and improve the quality of the visually impaired.

Education within such an environment is based on students' skills, knowledge, understanding and their practical experiences.

1.7 Justification of the Study

The Dakar declaration on Education for All has widely been accepted and adopted by the UNICEF, UNESCO and many world states. It classified education as a fundamental human right and all children are entitled to it. These included the handicapped child. Despite the adopted policy, very few institutions have successfully managed to operationalize it. Most have failed to sustainably manage such a project. It is in this context that the study has come up with the assessment of factors that have influenced the success of integrated education in one particular institution. This study has come up with counseling interventions to enable other institutions to successfully adopt and implement integrated education.

The findings and recommendations of this study are useful to school administrators charged with implementing the integrated program, teachers who handle the visually impaired, sighted students who interact with the visually impaired, and the visually impaired to whom a conducive learning environment will be created. Findings of this study also provide useful information to K.I.E which is responsible for developing curriculum in Kenya, develop a curriculum that would be appropriate for the visually impaired learner, curriculum implementers, KNEC, MoE, and the government.

The results also form a basis for developing guidelines in teacher training. Trained and qualified teachers positively stimulate the teaching/learning process in an integrated environment due to their knowledge skills. This would further positively reinforce the students learning interests.

1.8 Limitation

The study only addressed itself to the conduciveness of an integrated school environment while taking into consideration the low vision, totally blind, sighted students and teachers within one school. This might not provide a wide enough scope to make a generalization for other schools although inputs for key informants were also be included. Despite the issues regarding gender parity, the study did not include a public boys' boarding school because the disability in consideration is independent of sex and challenges faced by a visually impaired boy or girl within a normal learning environment are almost the same (KISE, 2000).

The study did not address itself to academic performance. This is because, despite the many challenges that come with the integrated environment, the visually impaired learners, just like the sighted, manage to pass their exams.

Since the school is a public school funded through the MoE, findings can only be generalized to other public schools in the country. This should be done with a lot of caution since the factors affecting integrated education vary from one place to another.

1.9 Delimitation

Due to lack of funds and time, the study limited itself to one public boarding secondary school in Dagoretti District, Nairobi County. This is because it is the only public secondary school in Nairobi that has been most successful than all other schools that should hitherto offer integrated education.

1.10 Basic Assumptions

In the course of the study, the researcher made a few assumptions. It was assumed that the school follows K.I.E guidelines in curriculum implementation. The researcher further assumed that respondents were aware of the integrated education program, and gave honest and accurate answers. That they were objective and competent in answering questions as captured in the research instruments.

1.11 Definition of Key Terms

Braille refers to a system of writing and reading (using raising dots) to enable the blind to read by touch.

Disability refers to restriction or lack of ability to perform any activity in a manner within the range considered normal for human beings.

Education refers to the process of proving people with necessary education, skills, knowledge and attitudes through teaching schools, colleges and universities.

Integration refers to the process of bringing students with disabilities into daily contact with non-handicapped students in an educational setting. Its goal in society to ensure that all people regardless of their social, economic, political, racial and (or) any physical differences are not excluded from any of the society's activities.

Integrated Education refers to a process of addressing the disabled learners' needs within the mainstream of education using the available resources so as to create opportunities for learning and preparing them for life.

Orientation refers to a mental process of utilizing the remaining senses after loss of sight in establishing one's position in relation to all other significant objects in the environment.

Special needs refer to a condition that may hinder normal learning and development for an individual.

Special education refers to the individualized application of procedures that are designed to accommodate unusual form or rate of development in children.

Special Needs Education refers to education which provides appropriate modifications in the curriculum, teaching methods, educational resources, medium of communication or the learning environment meant to meet special educational needs.

Special School refers to one that is built and organized to provide education services to learners with one type of disability.

Visually Impaired refers to children who after correction by all possible means have such severe limitations in vision and their use of it.

Organization of the Study

This report is organized into five main chapters. Chapter one consists of the background of the study, statement of the problem, purpose of the study, objectives and research questions, limitations and delimitations of the study, basic assumptions, significance and organization of the study. Chapter two includes a comprehensive literature review under the following subheadings; concept of integrated education, situation of integrated education in Kenya, teachers training, development and their preparedness, curriculum appropriateness, availability of physical facilities, resources, support services, attitudes of headteacher, teachers and students, theoretical perspective and the conceptual framework. Chapter three describes the research methodology under the following subheadings; research designs, study area and site description, target population, sample and sampling techniques, research instruments that will be used, validity of instruments, reliability, data collection procedures and data analysis techniques. Chapter four presents the findings of the research questions. Further views on how the institution's effectiveness could be enhanced are also captured. The findings have been presented using Tables. Chapter five summarizes the methodology and findings of the study. It also draws conclusions from the findings of the study. Further, it gives recommendations in line with the study findings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a comprehensive literature review of several parts including the introduction, concept of integrated education, situation of integrated education in Kenya, teachers training, development and their preparedness, curriculum appropriateness, availability of physical facilities, resources, support services, attitudes of headteacher, teachers and students, theoretical perspective and the conceptual framework.

2.2 Concept of Integrated Education

For a long time, children with special needs have been confined to special schools under the assumption that they offer safer and conducive learning environment for their rehabilitation and academic growth (UNESCO, 1994). Special education critics have argued that when disabled children are labeled, classified and excluded from general education, a strong social message that is discriminatory and personally offensive in sent (Sands *et al*, 2000). Against this background, regular schools should be designed, equipped with resources and qualified teachers posted in order for them to enroll children with special learning needs. Current trends in education are also calling for all children regardless of their disabilities to access with equal rights, the culturally valued curriculum of their society as full time members of the appropriate mainstream classroom (Booth *et al*, 2000).

Integrated education enables visually impaired students to receive educational services and support appropriate to their needs in a general educational setting (Hardmen and Egen, 2005). It involves a series of shift from focusing on the child's disability as a problem for the school to focusing on changes in the management of the classroom. This benefits those who traditionally have been excluded from learning as well as all the others in the classroom. It aims at achieving quality education for all by making changes to accommodate all learners regardless of their physical, social or psychological differences (Savoliner, 2006).

Addressing this widely recognized need for change, the Dakar Framework for Action adopted a World Declaration on Education for All in 2000 which affirmed the notion of education as a fundamental right and established the new millennium goal to provide every girl and boy with primary school education by 2015. EFA also clearly identified Inclusive Education as one of the

key strategies to address issues of marginalization and exclusion. "Inclusion was seen as the fundamental philosophy throughout UNESCO's programs and the guiding principle for the development of EFA" (UNESCO, 2002).

The World Education Forum confirmed that education plays a major role in overcoming exclusion of the disabled. The strong international endorsement of the convention of Rights of Persons with disabilities adopted by the national general assembly in 2006 represents an important shift from a '*medical welfare*' perspective to a human rights one. It called for an inclusive and integrated education system at all levels which ensures that all persons with disabilities are not excluded from the general education system on the basis of disability (UNESCO, 2001).

The Salamanca Statement also asserts that educational systems that take into account the wide diversity of children's characteristics and needs "are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system."

The fundamental principle of the inclusive school is that all children should learn together, wherever possible, regardless of any difficulties or differences they may have. Inclusive schools must recognize and respond to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnerships with their communities. There should be a continuum of support and services to match the continuum of special needs encountered in every school. Salamanca Framework for Action, 1994.

Because of the high level of global participation in its development, the Salamanca Framework for Action provides Perhaps the best cross-cultural definition of Inclusive Education in action. A growing body of research supports the Salamanca Statement and its principles. Metts' (2000) report is typical of the evidence in support of Inclusive Education. Specifically, Metts cites a 1993 World Bank study of Special Education in Asia which concluded that: One, there are personal, social and economic dividends to educating primary school aged children with Special Education Needs in mainstream schools; Two, most Special Education Needs can be successfully and less expensively accommodated in integrated schools than in segregated institutional settings; and three, the vast majority of children with special education needs can be cost-effectively accommodated in regular primary schools.

Provision of SEN services began with residential schools for blind and deaf students. First established in the eighteenth century in Europe, these schools grew rapidly during the 19th century. Special schools for those with mobility impairments came later around the turn of the 20th century. North America followed a similar route, although beginning later than in Europe. At the same time, those with intellectual impairments were largely institutionalized as uneducable in both Europe and North America. These beginnings of SEN provision in the North were driven by professionals who developed diagnoses, interventions and treatment focused on specific impairments. As a result, the medical model of disability became thoroughly accepted and entrenched. Charitable and religious organizations played a major role during these early years in the provision of services, leading to what became known as the 'charity' model of services; i.e., education of disabled children and youth was not viewed as a right, but as a charitable means of providing *for* them.

World War II and its aftermath witnessed the emergence of family, community and consumer models of service delivery for SEN students. The social model began to be developed and parents pressured for deinstitutionalization in both Europe (e.g., the concept of normalization promoted by Wolfensberger) and in North America (e.g. the landmark decision of PARC vs. the Board of Education in the US). A growing number of disabled people, parents and coalitions of advocates began to organize for political action to redress discrimination and inequities in society and in education. By the 1970s, the Independent Living Movement and principles of self-advocacy gathered strength.

One result was the landmark US Education Act, PL-94-142. Passed in 1975, this act mandated access to education for students with all types and degrees of disability. PL94-142 underwent several amendments (every 5 years) and culminated in the 1997 amendments and a change of title: Individuals with Disabilities Education Act (IDEA). IDEA raised the level of expectations, requiring maximum access to the general education curriculum for students with disabilities and mandating new accountability measures to assure their progress and success. Unique to Europe, Italy's National Law 118 (1971) and National Law 517 (1977) established Inclusive Education as national policy. Other major disability rights laws in Canada, Britain (the Disability Discrimination Act of 1995) and the US (Americans with Disabilities Act of 1990) mandated an end to discrimination in all aspects of life and required the elimination of all types of barriers to participation in society. As a result, the end of the 20th century saw the establishment of a new era based on civil rights, social participation, and an emerging cross-disability perspective.

At the opening of the 21st century, School Effectiveness reform, based on a market-driven approach to education has taken root in countries of the North. Inclusive Education, with its emphasis on equality and social capital benefits (in addition to excellence and academic achievement) has often seemed at odds with the School Effectiveness movement. For example, while it has been argued that School Effectiveness reform benefits all students, Shea *et al* (1994) assert that school effectiveness reform is excluding of children with special needs, "it is normative and regulatory (operating within narrow sets of performance indicators), it is bureaucratic and disempowering. It focuses exclusively on the processes and internal constructs of schooling, apparently disconnected from education's social end—adulthood. School effectiveness seems to be neither interested nor very effective in preparing children for citizenship, parenthood or work (Ranson, 1997)."

There is now growing certainty among educators that inclusive reforms in education must be pursued in terms of the general education restructuring and improvement and that unless this merging of efforts occurs, special education only achieve partial success at best and end up reinforcing and maintaining the very assumptions and practices that the reforms [in Inclusive Education] seek to change."

Within the mainstream literature on change and educational reform, Michael Fullan's work reinforces the parallels between general education and Inclusive Education reform. According to Fullan (1991), three core dimensions constitute educational change: beliefs, methods, and material resources. These three dimensions exist in a dynamic interrelationship. Addressing Inclusive Education within the overall context of school reform, Fullan states: Mainstreaming is one of the more complex changes on the current educational scene.and as such it highlights the dimensions of change and the magnitude of the task in bringing about major educational reform—valuing new beliefs; cognitively understanding the interrelationship between the philosophical principles and concrete diagnosis and treatment; changing the roles and role relationships between regular classroom teachers and special education teachers, and between school personnel and community members and professionals outside the school.

Supporting this notion of a merger, Lynch (2001) reports that many world organizations (e.g.,Save the Children and Individuals with Disabilities Education Act) and donor agencies such as the World Bank have begun to build on the work of effective schools, "combining it with the results of work and research from the developing world to identify policies, approaches and inputs which can

optimize learning opportunities for all, based on a participatory assessment of local needs." The Salamanca Framework for Action also calls for a "clear and forceful policy on inclusion" and asserts that most of the required changes to meet the needs of SEN students "are part of a wider reform of education needed to improve its quality and relevance and to promote higher levels of learning achievement by all students." The Salamanca Framework also underscores that the World Declaration on Education for All calls for child-centered approaches to learning, and flexible adaptive systems capable of serving a wide range of students with diverse needs—all of which are compatible with recognized Inclusive Education best practices.

However, in sub Sub-Saharan Africa, most of the children with disabilities are out of school due to financial constraints, lack of facilities, lack of qualified teachers to implement the curriculum and negative attitudes towards the disabled (UNESCO, 2005)

2.3 Situation of Inclusive Education in Kenya

The foundation of the current integrated education system dates back to 1968 when the government published Sessional Paper No.5 on Special Education. This laid a policy framework for children with special needs (MoE, 2000). The main objective was to assist children with special needs get an education and develop towards realization of their full potential and participation in social life and equality (MoE, 2003).

The population of people with disabilities in Kenya is estimated to be 10% of the total population (MoE, 2009). About 25% of these are children of school going age. However, out of the 750,000, only about 90,000 have been identified and accessed while only 26,000 are enrolled in education programs (MoE, 2009). Of these, only about 1500 are visually impaired, majority of whom are in special schools like Thika School of the Blind. The MoE (2009) estimates that only a poultry 8% of the visually impaired are in integrated schools country wide.

Allen and Schwartz (2001) noted that the integration of children with special needs into mainstream schools ensured equal status with other children. Integrated education identifies the uniqueness of a learner and provides resources within a normal learning environment to facilitate equality and Education for All (Savolainer, 2006). Although free primary education (FPE) and free tuition fees in secondary schools has opened doors for many students, the visually impaired are not as advantaged as the rest.

The Government of Kenya has however taken measures by providing finances to each public school to remove barriers in integrated education and making the school environment friendlier to the visually impaired (MoE, 2009).

To date, there are nineteen counties in the country which are integrated. The Nairobi Integrated Program is managed from Kilimani Primary School.

2.4 Integration at Moi Girls' School, Nairobi

Integration of the visually impaired started in 1981 when a student from Thika School for the Blind was admitted in form five. Another one followed in 1982 and then another in 1984 (School Magazine, 1984). The girls wanted to try life in an ordinary school environment to prepare them for life in higher institutions of learning where there were no special schools. The school was also willing to help them achieve their goals.

The result has been far above the school expectations both academically and socially. The entry was not smooth as there was a lot of opposition and resistance from teachers when the first student arrived in 1981. It was a shock for teachers to see a white cane, "you cannot learn here", they told her, "your place is in Thika. No one will be able to mark your work". The girl responded by saying, "this is my school. I am here by choice, not by chance". With a little difficulty, the students were able to settle down. (School Magazine, 1984). The school community helped the girl to fit into the normal school routine.

The first two students performed very well and were admitted to the University of Nairobi. When the third student joined in 1984, she said she had learnt to cope with her visual impairment and wanted to be in the school to enable her learn and interact with the sighted. She also accredited this to the good reports she had received from the two girls who had completed there A-Levels at the school. This was sufficient for her to be ready to interact with the wider society and world when she got out (school magazine, 1984).

2.5 Availability of Physical Facilities

The quality and adequacy of physical resources and equipment for teaching and learning is an important determinant of quality education. This determines the effectiveness of curriculum implementation (Rok, 1999). Children with special educational needs require specific resources put in place for proper learning. Facilities needed for special education are expensive and hinder most

children with disabilities from accessing education (Saitoti, 2003). Most countries have realized the efficiency of multiple systems of administration and organizations, structures and services is unrealistic option of special education (UNESCO 2005). Thus integrated education has become an option to this unrealistic option.

Children with special needs require special facilities to help them cope with barriers in learning. The physical access and learning environment posess a barrier to implementation of integrated education. There is need for simple ramps and internal classroom arrangement to accommodate the visually impaired (UNESCO 2003). The task force on implementation of FPE (MoE, 2003) gave a general report on environmental requirement for learners with special needs in integrated schools. These include barrier free environments, adopted toilets, bathrooms with added bars, ramps with recommended gradients to entries and exits of classrooms and hostels (MoE 2003).

According to Kithuka (2008), marked progress has been made in getting new buildings. However, there is still inappropriate infrastructure like buildings and toilets to make learning friendlier for the handicapped (UNESCO, 2008).

The majority of schools are poorly designed and few are equipped to meet the unique needs of students with disabilities. The lack of disability friendly services and accessible buildings are considered by some to be far a greater problem than social prejudice and negative attitudes (Chatterjee, 2003). Both the Central and county governments need to provide increased resources to this aspect of education to ensure successful implementation of integrated practices in schools.

Over and above some of these challenges that developing countries face, there are some distinctive features that make the implementation of integrated education reform particularly difficult. Kenya is a multilingual, multicultural, multireligious country, and its people are stratified along sharp socio-economic lines. Therefore, unless the challenges are carefully identified and systematically addressed, inclusion will remain a policy on paper.

2.6 Availability of Teaching and Learning Resources

There is need for adequate resources to make teaching and learning effective in integrated environments. Government resources are inadequate and cannot meet all the basic needs in education. The special facilities such as, special spectacles, Braille materials and the white cane are not always enough for all learners with special needs (UNESCO, 2005). The assessment equipment,

learning and teaching aids, and other specialized materials are also inadequate. The government has however set aside grants to facilitate purchase of necessary teaching and learning aids, provision of instructional materials through waving of duty on specialized equipment/materials and incentives for local production on such equipment to reduce costs (MoE, 2000).

The KIE develops teaching/learning materials in line with regular school approaches (MoE, 2003). There is need to recognize the difficulties children with special needs face and improve on pedagogical approaches that respond positively to their diversity (UNESCO, 2005). There is need to include essential skills and life-long learning and focus on needs in terms of resources and activities aimed at the realization of EFA (UNESCO, 2006). Adequate resources must be matched with political will and pressure for government to live up to its obligation of making education accessible to even those who are disadvantaged.

2.7 Availability of Support Services

Learners with special education needs require basic support services if they are to learn effectively in integrated environments (KISE, 2000). Support Services enable the visually impaired to be given help to aid them in performing an activity e.g. the white cane that aids the visually impaired with their movements and the Resource Centre. This is a specially established and managed room that provides special materials and other necessary teaching/learning aids for proper education of the visually impaired.

Teachers also need a lot of support from quality assurance and standard officers, educational administrators, and educational authorities. The cadre should be strengthened in number and made more effective by providing them with better facilities to enable them support educational programmes. However, there has been an acute shortage of trained personnel to monitor the program. There is also inadequate logistic support for evaluation of the program and lack of coordination and support from decision makers (RoK, 2005).

The government funding is low and insufficient in spite of the importance accorded to education (RoK, 2005). Funding is also done by donors (MoE, 2001). However, with free secondary tuition, the government has provided an additional ksh. 2000 per every child with special needs (MoE, 2003). The government is also implementing measures aimed at improving participation of children by providing initial support to public schools to remove existing barriers to those who are handicapped. Government has also intensified provision for learning materials to integrated schools

to increase enrolment of learners with special needs and also put in place investment programs to coordinate the construction and rehabilitation of physical facilities (MoE, 2005).

School administrators advocate for the students within the community and set goals and objectives to further children's education according to the American Association of school administration (www.aasa.org). The head teacher's major role is to manage the school by leading the school community to operate as a Centre of active teaching and learning. The head teacher is normally assisted by the deputy head teacher. Each school has a policy that is followed and it's determined by the school administrators. Though school administrators are under the ministry of education, they have the powers to decide what to be done in a school.

This has an effect in the teaching. School administrators command the distribution of the school resources. Most of the time, they hold for those they think are important. Resources should also be updated and stop using resources of the past. School administrators should provide good teaching and learning conditions for both teachers and students. A school administrator decides on the co-curriculum activities that are of his own interest and resources diverted to it. This affects the attitude of students.

The fundamental principle of EFA is that all children should have the opportunity to learn. The fundamental principle of Inclusive Education is that all children should have the opportunity to learn together. Diversity is a characteristic that all children and youth have in common—both within each individual child and across individual children. There is strength in diversity, and all children have strengths. It is the fundamental responsibility of all those who teach and of all those who support teachers to build on children's strength, to believe in all children's capacity to learn, and to uphold their right to learn. Children are our future. As Ms. Gabriela Arrieta and Ms. Audrey Cheynut put it in their opening address at the UN Special Session on Children (May 2002): "We are not the sources of problems.

2.8 Teachers' Training and Development

Teaching has been defined as '*causing to learn*'. Nothing has been taught until it has been learnt. Teaching is more than just preparing neat notes. A good teacher must fist have the knowledge of how children learn (Kapas, 1963). As a result of their handicap, the visually impaired, is slow. They become discouraged when continuously compared with others in the class until a situation of hopelessness is reached.

Sometimes, a learner, consciously or unconsciously resists all efforts to be taught. The harder the teacher tries, the less progress the learner makes. In their anxiety, a teacher may tell the visually impaired that they cannot learn. This way, pain is inflicted on a student who is already handicapped. Every care should thus be taken to refrain from referring to the visually impaired in any derogatory way (Hughes, 1959). In the process of working towards the goals of the psychodynamic interpersonal strategy, the teacher must posses expertise. A teacher thus requires special skills in order to handle them competently. The teacher may also need to offer some type of counseling.

Teachers are crucial in influencing learning of students. Therefore, for effective implementation of the integrated program, there is need for teaches handling special needs learners to have special skills to enable them handle children responsibly. In Kenya, special education teachers are trained at KISE, Kenyatta and Maseno Universities. KISE trains all teachers in certificate and diploma. But they don't have capacity to meet the national demand (MoE, 2000). Since KISE was established, it has trained 741 diploma teachers and 3,214 teachers at certificate level. This shows that indeed they have limited capacity.

The majority of school personnel are not trained to design and implement educational programs for students with disabilities in regular schools. Most teacher training programs do not have a unit on Disability Studies (Myreddi and Narayan, 2000). The universities, which do cover some aspects of special education in their teacher training programs, fail to train teachers adequately to work in integrated settings. For example, there is limited coverage of information about practical strategies (Myreddi and Narayan, 2000). Also, placement of pre-service teachers in special or integrated schools is rarely given consideration (Jangira *et al,* 1995).

If integrated education is to become a reality, there is need for teacher education to involve every teacher in every school as well as those training as teachers in teacher training institutions (UNESCO, 1994). Majority of teachers lack experience and skills to work in integrated settings. There is thus need to incorporate special education curriculum in the training of teachers and in-service those already teaching. This is to equip them with skills and knowledge to enable them handle learners with special needs (Kadima, 2006). Skills, abilities and knowledge acquired during training enable the teacher to stimulate and foster the interest of the learner. Therefore, the teacher education system should be adjusted with greater diversity of the learner in mind.

Great variations are noted in the content, process, and examination of existing special education programs as well in the country (Myreddi and Narayan, 2000). However, the situation may improve in the coming years. KIE should periodically evaluate special education programs to ensure that each program meets minimum standards (Rehabilitation Council, 1996). The number of trained special educators is also limited. The 1996 report of the Rehabilitation Council states that the number of trained special education teachers is extremely small considering the number of children with disabilities that require their services. To address this severe shortage of trained teachers, the Rehabilitation Council recommended that an additional 4,000 teachers needed to be trained by the end of the Ninth Five-Year Plan (1997-2002). However, it should be noted that even if these targets were to be achieved, *only* less than 10 percent of the population of children with disabilities would be served. KIE must consider reformulating existing teacher training programs for special educators, with a greater emphasis on integrated education.

Shea *et al* (1994) says that in the United States, only about 40% of regular teachers had any training in special education. Majority of educators agree that modification of teaching and testing requirements are necessary if visually impaired learners are to be accommodated. In Kenya, a great shortage of specially trained teachers and adequate facilities makes the integrated program an uphill task. Special educators could be a key resource as they can be used to train regular school educators in implementing integrated education. They can also act as an itinerant teachers working in partnership with a number of regular school educators to advise them on practical issues related to education of students with disabilities. Teachers of special needs education have an understanding of the diverse theoretical approaches to the field in diagnostic procedures, skills in the art of clinical teaching and familiarity with teaching techniques and materials (Learner, 1976). All this calls for dynamic responsive and well co-ordinated system of in-service training to equip teachers with skills and capacity to implement the curriculum.

2.9 Curriculum Appropriateness

The Koech Report (RoK, 1999) noted that the curriculum for learners with special needs is complex and cannot be like that of regular education. This is because it involves more than the processes of teaching and learning. These special needs thus affect their learning directly and indirectly. The education curriculum is the major obstacle to integrated education since it is extensive, demanding and centrally designed. The content is sometimes distant to reality of the learner which makes it inaccessible and unmotivating. There is therefore need to develop and implement a flexible

curriculum that is child centered to meet the needs of the child with visual impairment (MoE, 2005). Mundia (1993) stated that, education for special children has three major aims; To help the individual to develop their talent to the maximum. To help individuals to develop their positive self concept. To help individuals to lead a relatively independent life meant to promote self sufficiency in order to boost the development of a positive self image.

This structure is broad and complex as it as in comprises a number of inter disciplinary fields like: the regular curriculum, adapted curriculum, specialized curriculum and so on (Kephart and Ebersole, 1968). The curriculum does not however cater for all these. Although it is broad and includes the compensatory skills like reading and writing in Braille, orientation and mobility, listening and social skills, and the modification and adoption of some subjects, it is broad and requires more time. This is currently not catered for and it affects the learning of the visually impaired.

Curriculum thus plays an instrumental role in fostering tolerance and promoting human rights. It is a means by which respect for dignity of all persons and awareness of responsibility at national and global level are instilled into children (Booth, 1996). Allen and Schwatic (2001) show that the primary purpose of the curriculum is to establish a foundation of lifelong learning and create a positive school experience to a child.

Children are unique individuals. The school environment should meet their needs regardless of their strengths and weaknesses (UNESCO, 1994). In Kenya, the KIE is mandated to develop relevant curriculum, conduct research and develop relevant curriculum support materials for use. Regular and special needs education is disseminated through centralized curriculum and all learners go through the same learning experiences irrespective of their condition (MoE, 2008). The development of the curriculum is also rigid with no possibilities of adjustment to individual needs, and does not stimulate teachers to seek solutions that match the disability of the learner.

Evaluation should be based on the capacity and ability of the learner, respecting time and making available particular procedures. KNEC has not put in place effective measures to ensure those children with special needs are tested within their knowledge in view of their disability (KNHCR 2007). These children compete with their sighted counterparts equally while the school system is examination oriented. Those unlikely to succeed in national examinations find the benefit of education being unclear (Muchiri and Robertson, 2007).

The lack of coordination and unity of purpose between and among special education stake holders affects greatly the design and appropriateness of the curriculum. For example, there is no body to coordinate activities between KNEC, KIE, Inspectorate, publishing firms and the integrated schools to harmonize and reduce frustrations in the activities of departments like the MoE. This ultimately affects the academic performance of the visually impaired learner.

Teachers are never included in the material development of the curriculum (Omorwa, 2004). This becomes a problem for them to make adjustments and solutions to match the abilities of the visually impaired learner. The teaching strategies that they adopt and use in the implementation of the curriculum then become a key barrier to integrated education (UNESCO, 2005).

The co-curriculum activities for the visually impaired are also minimal. Most of them are left sitting in class during sports and physical education lessons.

2.10 Attitudes of Headteachers, Teachers and Students

Attitudes of the non-disabled are proving to be a major barrier in the social integration of persons with disabilities. "The more severe and visible the deformity is, the greater is the fear of contagion, hence the attitudes of aversion and segregation" (Desai,1990). Such attitudes reinforced by religious institutions may militate against any attempts to include students with disabilities into regular schools. For example, Hindus (who constitute 85 percent of the total population in India) believe that disability is a consequence of misdeeds performed in the previous life (often referred to as the doctrine of Karma). Many Hindu religious institutions and temple trusts, therefore, do not think a part of their duty is to help persons with disabilities, because they consider the disability to be the result of a person's misdeeds in his previous life (Rao, 1990).

Any attempts to improve the life of a person with a disability may be considered a "defiance of the wills of Allah or as interference with a person's karma" (Harriss-White, 1996). Alur (2001), in her study found that disability is not seen as something "normal" or "natural," rather it is seen as an "evil eye." Guilt, stigma and different kinds of fears tend to be paramount in such families. She further concludes that "the contradiction here was that society, although integrated in accepting and valuing diversity in so many ways, has a social role construct of disability which is negative, discriminatory and exclusionary". Kannan (2000), states that in order to harness the great potential of more than people with disabilities, it is essential that "prejudice, mental and irrational myths concerning disability, is eradicated."

People, including parents and school personnel, are largely unaware of the full intent of legislation passed by Parliament. A large number of school personnel are also not aware of funding available to include students with disabilities in regular schools. There is some evidence that those educators who are knowledgeable about government policies and laws concerning integrated education tend to have positive attitudes toward implementing such programs (U. Sharma, 2001). There is also evidence when parents are knowledgeable and supportive of integrated education, they tend to have a positive effect on school personnel (U. Sharma, 2001).

Thus, unless people, especially parents of children with disabilities and school personnel, are made knowledgeable about the various provisions enshrined in the Act, the Central and State governments' commitment to providing integrated education will be in vain. Although some attempts are being made to disseminate information about the Persons with Disabilities Act to parents, to government officials and non government organizations (B. L. Sharma, 2001), they have been extremely limited in coverage (Chatterjee, 2003).

2.11 Constraints the Visually Impaired have to Contend with

The visually impaired face numerous challenges. They include both individual and environmental. The curriculum for instance is designed for the sighted in a regular school, and is delivered through sight related tasks in the classroom. Communication thus needs to be reduced to subtle ways since the student cannot see the expressions on the teachers face and interpret gestures and body language adequately. A little modification of the curriculum therefore needs to be made to suit them. The fact that they don't use the same curriculum makes them feel sidelined. This is because they are not given a chance to try their hand on the curriculum, thus they may feel inferior (Rose-Marie *et al*, 1987).

Teachers are also a major challenge. It has been observed that teachers in most integrated schools do not integrate fully the visually impaired into the school. The visually impaired are sometimes treated coldly and without compassion and suffer discouragement (Hewet, 1970).

Some of the visually impaired may have lost their sight traumatically due to sickness or accidents. As such, they need assurance, great understanding and warmth from all those around them. When this kind of warmth lacks, they feel unaccepted, which can adversely affect their academic performance. The teacher may also lack adequate and sufficient training required to handle children with special needs. They therefore don't know the language that is understood by the visually

impaired student. In many occasions, teachers may without taking into consideration the presence of the visually impaired student in class illustrate work using a diagram on the chalkboard making the student feel lost. Visually impaired students are generally slow and can't learn at the same pace as the sighted. This calls for more patience and extra time which would only be available out of class.

Low esteem is another aspect. It is the self worth or self image. It is formed from beliefs about oneself integrated with those others hold of us. The visually impaired want to feel that they are worthy and are a contributing member of the class, school, family and peer group. The impairment is part of the self and be incorporated into the total self image, including feelings and emotions. Exaggerated feelings about the limitations imposed by the impairment gives it a large role than it deserves. The visually impaired should be made to understand that opportunities are open and available because of their abilities and not disabilities. Because of feelings of loneliness and rejection within the classroom, the visually impaired may sit apart from the other students, surrounded by bulky text books and Braille machine.

Adolescence is a turbulent time for children. Its effects are characterized by major social, biological and psychological changes. Individuals begin to adopt and adjust their behavior and thinking to a new set of challenges and opportunities which they face (Mwiti, 2005). It is difficult for the visually impaired. Establishing an identity is determined by the way we relate to and are influence by those around us. The sighted learn through observation of behavior of those around them. The lack of sight makes this period of adolescence more difficult than it might otherwise be. Effects of social impairment on adolescents vary according to the extent of sight loss and the age at which the condition occurred (Mason *et al*, 1997). Adolescents who lose their sight need to come to terms with the fact e.g. they may never hold driving licenses.

The visually impaired also come from families which probably provided an over protective home environment. They thus could have had little opportunity to mix with others therefore developing poor social skills. It may be very hard for such a student to mix with others. Negative comments from the peer affects them thus need for positive reinforcement of good behavior from those around them. Those around the visually impaired should adopt the practice of referring to the visually impaired as "persons with visual impairment". This is to acknowledge the fact that the person should be the emphasis rather than the disability (Rose-Marie *et al*, 1987).

2.12 Theoretical Perspective

This study was guided by the Systems Theory developed by Bertalanffy (1993). A system is made of interrelated parts that function together to achieve a common purpose (Schemerhorn, 1993). The theory attempts to explain and predict behavior of a complete organization, its people, environment, structure and technology. All systems have common elements e.g. input, output, goals, process and feedback; information about some aspect of a system that can be used to evaluate and monitor the system and guide towards a more effective performance.

This was further emphasized by Gross (1971). He argued that for any program to be implemented successfully, facilities, individual skills and capacity, and management support compatibility with organizational arrangements must be geared towards the identified goal. Integrated education can also be viewed as an open system as it receives inputs from the environment inform of learners, finances, equipment, teachers, parents e.t.c. which it utilizes to produce a result which is successful implementation. The output from these is visually impaired learners ready to live and serve in a wider integrated society.

For successful implementation of integrated education in regular schools, the members of the institution should have a clear understanding of the program. The teachers must be provided with necessary skills and posses capabilities required to handle children with special needs. Physical facilities also need to be provided (or improved, where they already exist) to accommodate the visually impaired. The necessary materials and support services need to be made available to allow successful implementation. Teachers need to be motivated to spend the required time and effort to make integrated education a success. Headteacher's, teachers' and students' attitudes towards integrated education will promote successful implementation of the program. Ultimately, all subsystems have to perform in ways that facilitate high achievement for the institution.

According to the systems theory, if one subsystem fails, all the others are put in jeopardy. This study therefore seeks to investigate how these subsystems are combined and coordinated by the school administration to effectively achieve an integrated environment that is conducive for all learners.

2.13 The Conceptual Framework

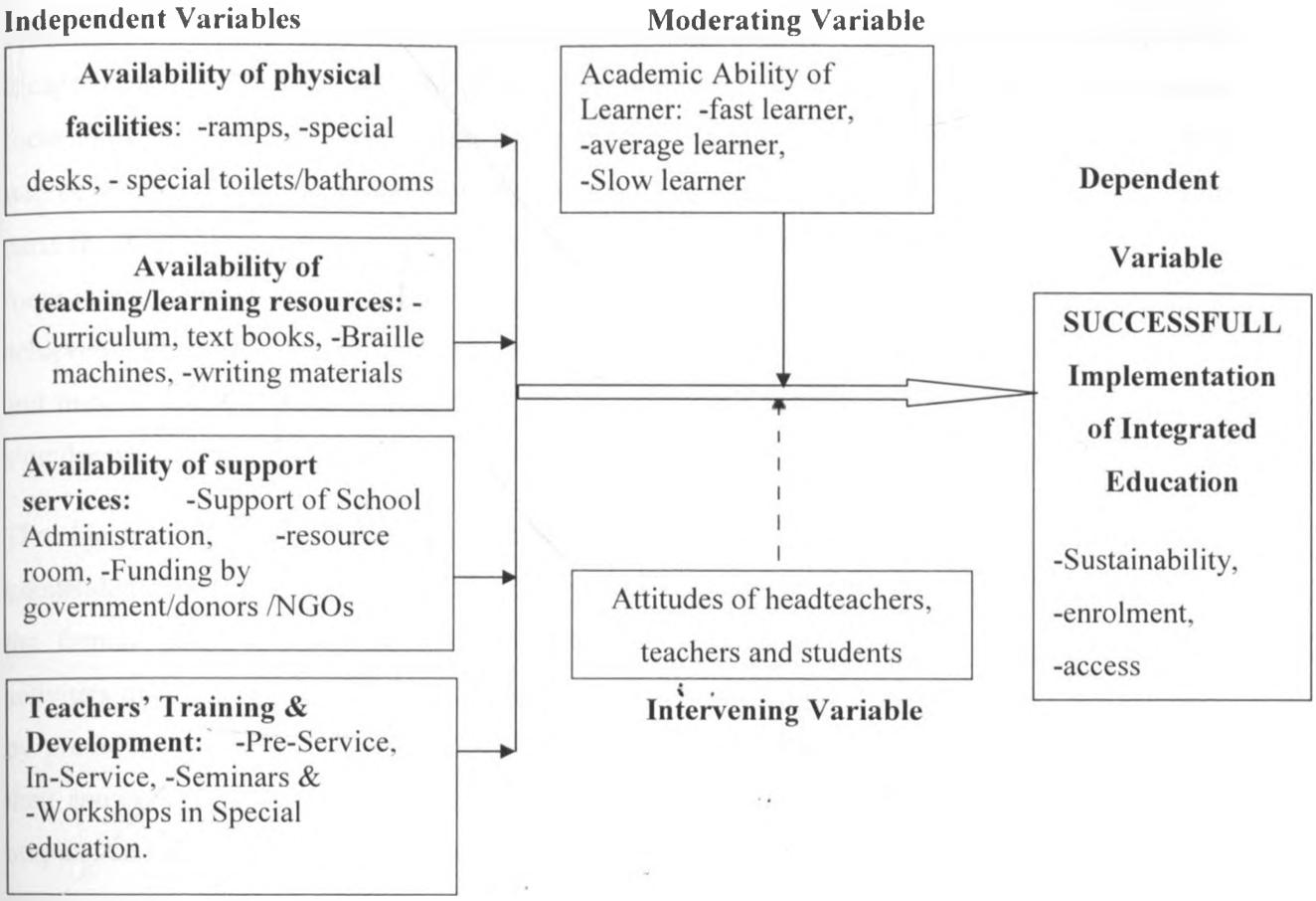


Fig. 1: Conceptual framework

The conceptual framework above shows that there are direct positive relationships between Availability of physical facilities, teaching/learning resources, support services and Teachers' Training & Development in the implementation of integrated education. For example, the school administration has influence on the resources available which then influence students' skills, knowledge and attitudes thus influencing teaching/learning in an integrated environment. The conceptual framework also suggests that curriculum appropriateness and the attitudes of the headteachers, teachers and students also affect the implementation of integrated education and its ultimate success.

It is important to note that while other numerous variables such as location of the school, available of space in the school compound as well as the relationships between the visually impaired students with other sighted students and their teachers influence teaching/learning in an integrated environment; this study will address itself mostly to the factors already listed above.

Just like in systems theory, the integrated education program is a set of interrelated subsystems. This means that each component must be designed recognizing its impact on the other components It captures the idea that the behavior of the whole is greater than the sum of its parts. Holism means focus must be on the interrelationships between parts and linkages to understand the system. There will be unintended consequences if we fail to appreciate the linkages and focus exclusively on the parts (Kast and Rosenzweig, 1972). For example, we must consider how a well equipped resource room will impact teaching/learning. There has to be proper Control if the strategic objective is to be achieved. This means that the challenge is to bring together an organization's structural components and mesh it together with its behavioral and cultural components so all three work together as a singular whole.

The objectives must be achieved at a superior level of performance while minimizing any chance of unintended consequences. The structures and processes must then be clearly defined. Structures are the formal tasks, authority and responsibility assignments in an organization. Processes are activities through which control is accomplished. Subsystems support the structures and processes by providing the right incentives to shape behavior. The concept of input-transformation-output then comes into play. Organizations obtain inputs from their environment, transform them into outputs, and then send the outputs back into the environment. It is thus imperative that there is a proper understanding of where in the environment to find the right inputs, what kind of transformation to perform, and what output to produce. Understanding the input-transformation-output process will help to determine the special parameters of a system for a well run and managed integrated school environment.

2.14 Summary

Education should be accessed by all who desire it, independent of their ability or disability. The handicapped should be granted the option of being in regular schools and not being isolated. There is also the need to eliminate inequalities in school systems and stigmatization of children with special needs. Programs also need to be put in place to cater for the gifted and talented child. Despite the numerous challenges that schools offering integrated education face, there are some success stories. This study thus delves into the factors influencing successful implementation of integrated education in a public boarding school.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with the procedures and strategies to be used in this study. It consists of research designs, study area and site description, target population, sample and sampling techniques, research instruments that will be used, validity of instruments, reliability, data collection procedures and data analysis techniques.

3.2 Research Design

Research design is a logical and valuable way of looking at the world (Borg and Gall, 1994). According to Stufflebeam (1981), the method should be a respectable methodology, thus its techniques of evaluation must be built on the needs of the clients. For the purposes of this study, the researcher used a case analysis while including a mixed mode approach. This is an in depth investigation of a phenomena. The investigation makes a detailed examination of a single group or phenomenon (Mugenda and Mugenda, 1999), using both qualitative and quantitative data and information. Creswell (1994) defined a case analysis as "a researcher's exploration of a single entity or phenomenon (the case), bounded by time and activity (a program, event, process, institution or social group) and collection of detailed information by using a variety of data-collecting procedures during a sustained period of time". The study investigated the day to day activities of visually impaired learners in an integrated school environment. Both quantitative and qualitative data were collected and analyzed. Research instruments included questionnaires for teachers and sighted students, an FGD with the visually impaired, interview guide for six key informants and an observation schedule.

The primary purpose was to determine factors and relationships among the factors that have resulted in the successful implementation of integrated education. The visually impaired learners were examined closely as they walked around the school compound meant for the sighted students, the boarding facilities and the layout of the entire school compound. A case study approach was preferred because of the naturalistic style of the research which makes it appropriate to study phenomena as they happen in reality (Gillham, 2000).

The study addressed itself to teacher development, curriculum appropriateness, availability of physical resources, and availability of techniques/learning resources, support services and attitude

of head teacher, teachers and students. The relationship between all these factors was critically looked into to provide knowledge on how they worked to ensure success.

3.3 Site Description

The study was conducted at the Moi Girls' School Nairobi, a public boarding secondary school in Dagoretti District, Nairobi County. It is among eight schools within the County with integrated programs. The school is among the top performing schools in the county in KCSE. It is situated along Joseph Kangethe Road, Kibera Division and is a boarding school for girls.

3.4 Target Population

Population refers to an entire group of individuals, events or objects having a common observable characteristic (Mugenda and Mugenda, 1999). In MGSN, the population comprises of about 1000 students, 9 of whom are Visually Impaired. It has a teaching population of 58 sighted teachers including one V.I. It has a non teaching staff of 60 members who help in various areas in the school. The study picked on the whole population of 9 visually impaired learners and, 40 sighted students and 33 teachers.

3.5 Sampling Procedure

According to Mugenda and Mugenda (2003), sampling is the process of selecting a small group of individuals to represent a larger group in a study. A sampling procedure is a definite plan determined before any data is collected. An ideal sample should be large enough to serve as an adequate representation of the population about which the researcher wishes to generalize and small enough to be selected economically in terms of subject availability, expenses in both time and money and complexity of data analysis. The purpose is to secure a representative group which will help the researcher gain information about the population. Gray (1992) recommends a sample size of 10-30%.

In this study, the sampling method to be used was purposive sampling. This technique allows the researcher to use cases that have the required information with respect to the objectives of the study (Mugenda and Mugenda, 2003). In this case, all the V.Is were interviewed since they make part of the unit of analysis. A unit of analysis is an object about which the researcher wants to produce knowledge (à la Verschuren, 2003).

3.6 Sample Size

The researcher opted for Moi Girls' School Nairobi because it has the required characteristics. It has a population of visually impaired students. Due to their small numbers, all were interviewed. The sighted were stratified and simple random sampling method used. This ensured every student had an equal chance of being picked. The visually impaired were distributed in only four classes. The school has five streams and they are distributed as follows:

Form 1.....3 Form 3.....2 Form 2.....2 Form 4.....2

Out of the twenty classes in the school, the V.Is are in one class per stream. The total number of student per class is 50, four classes have 200. 20% of these were picked using simple random sampling, thus giving a total of 40 girls. Gray (1992) suggests that for a homogeneous population, 15-20% is sufficient because they have the same characteristics and will give almost the same information. Furthermore, the researcher will be conducting a qualitative study, thus such a small population is easy to study in depth. A bigger population of the sighted would also overshadow the visually impaired who are the core basis of the study.

Table 3.1 Summary of the sample

Category of interviewees	**Number**
V.Is	9
Sighted students	40
Teachers	33
Principal	1
Resource officer	1
K.I.E official	1
KNEC official	1
Parents	2
Total	**88**

Teachers were sampled in the same way as the sighted students. They were stratified into stratum as; Science ..... 6, Languages .... 8, Humanities .... 6, Math ..... 6, Technicals' .... 6, and V.I ...1.

Six teachers (3 male and 3 female) were picked from each department except languages where eight were picked using random sampling. However, since there is only one teacher with visual impairment, she was picked purposively. Therefore, there were a total of 33 teachers, 40 sighted students, 9 V.Is. The resource officer and the head teacher were picked purposively.

3.7 Research instruments/Data collection

Data refers to all the information a researcher gathers for his or her study. The study used both primary and secondary data sources. Quantitative data was gathered through survey of the teachers in the school. A quantitative method is defined by Kasomo (2006) as that which yields data which is quantifiable. Qualitative data was collected by in depth interviews of all the respondents. In depth interview is distinguished as a method that allows the researcher to explore the deeper structure of ideas and also verify the ideas presented (Stylianou, 2008). An interview guide was used to get in depth answers from the respondents.

The visually impaired were interviewed through FGDs using a scheduled structured interview based on a set of questions. The questions were open ended and asked in a reasonable and consistent manner. Follow up probes were also used by asking questions informally and at specified points so that respondents can have some 'stimuli' presented for response. The same was used for sighted students. Probes generally encourage respondents to think more deeply about an issue, to expand or explain a preliminary response (Mugenda and Mugenda, 1999). The researcher sought maximum co-operation from respondents by establishing a friendly relationship prior to conducting the interviews. They were assured of confidentiality of information given.

A part from interviewing the V.Is, a case was done on two students on a daily basis. The researcher sought to establish their life on a day-to-day basis while in and out of classes and during their leisure time. This provided in depth information about them by not only interacting with them but also observing from a distance. Photographs were taken to back the information provided with permission of the respondents. The other tool used was a tape recorder with the permission of respondents. Questions were recorded as asked as well as the answers provided.

Teachers were given questionnaires. This is because they are highly educated and did not find it difficult to understand and answer the questions. Additionally, they enjoyed their privacy to enable them answer questions honestly. Questionnaires were administered to the teachers personally by the researcher. The teachers' questionnaires covered areas of study such as attitudes, environment,

training, development and curriculum. The researcher went through the questions with the respondent to ensure a common understanding of the questions and ability to answer them correctly. They were open and closed ended.

Table 3.2 Data Needs Table

Research Question	Data Needs	Instrument	Analysis
1. Are physical facilities such as ramps, special desks, and other special facilities available in the school?	Physical setup	Observation Checklist	Thematic analysis
2. How does the availability of support services such as support of administration, resource rooms, funding and grants influence success of integrated education?	Information and Services offered	i.Observation ii.Interviews	Thematic analysis
3. How effective is teacher-training and development in handling and curriculum delivery to the visually impaired learner?	level of education, training in special education	Structured survey Questionnaire	Frequencies
	Reasons for non-training by some teachers	Structured Survey, Questionnaire	Thematic analysis
4. How does the availability of teaching/learning resources such as textbooks for teachers/ learners, writing materials, and teaching aids influence success of integrated education?	Types of information and resources provided at the resources school	Structured survey Questionnaire, interviews, observation	Frequencies

The researcher observed the respondents keenly at all times and collected information on their behavior as they interacted with students. According to Babbie (2001) observation means watching and noting phenomena as they occur in nature with regard to cause and effect or mutual relation. This information will help verify information given in the questionnaires and interviews. The

respondents will not be aware of this to avoid behavioral changes. The behavior to be observed will include non-verbal behavior such as body language and facial expressions which convey a range of emotions like fear, surprise, anger, disgust and sadness. This will indicate their feelings at different times.

The other behavior observed was spatial behavior. This is an attempt by individuals to structure the physical space around them (Chava and David, 1996). Observation helps the researcher to study behavior as it occurs and does not have to ask the respondent about it (Chava and David, 1996). This helped the researcher to have first hand information preventing any contamination of facts.

Personal interviews were used on the six key informants. They include the coordinator of the integrated program in Nairobi County, the principal, KIE official, KNEC official, resource officer and two parents. Secondary data was obtained from published books such as journals and the Internet and unpublished literature such as policy statements, regulations and official reports/records relating to integrated education environments.

Coordinator of the Integrated Program in Nairobi County is in charge of placing visually impaired students in integrated schools. He acts as the mediator between schools and the M.o.E. He is also in charge of sight screening in schools. He will shed light on the criterion used to place students and the preparations schools make before a student is placed. All key issues raised will be recorded.

The Principal will provide information about the preparations she puts in place to receive and host the visually impaired for four years. She will also give information on how the visually impaired are properly oriented for the school environment.

KIE Official will give information on how the curriculum is developed and what criteria is used to determine what is suitable for the visually impaired. He will also provide information on teacher training, workshops, seminars and in-service if any for teachers handling special learners and how often this is done.

KNEC Official is responsible for evaluating the curriculum for the visually impaired on behalf of KNEC. He will provide crucial information on the mode of evaluating the visually impaired and the suitability of such a method.

Parents are responsible for bringing up the visually impaired child. They will provide information on their role in the family and school life of their children including education. Their satisfaction with the curriculum given to their children will be established.

The School Resource Officer is in charge of the resource room. The keeps the ledger on all the resources used by the visually impaired. She will provide crucial information regarding facilities and equipment used by the visually impaired including Braille machines, text books, writing materials among others.

All these key informants are crucial to the comfort of the visually impaired in an integrated environment. The research findings will also be useful to them.

Observation Checklist will help collect data on availability of physical facilities and learning resources

Table 3.3: Summary of data Collection tools and Methods

Method	Interview Guide	Sources
Focus Group Discussion	Interview Guide	-Visually Impaired -the sighted
Questionnaire	Questionnaire	All teachers
Observation	Observation checklist	-Visually Impaired -the sighted - teachers
Personal interview	Interview guide	-Principal, -Program coordinator -KIE Official, -Knec Official -Resource Officer, -Parents

3.8 Validity of Instrument

Validity seeks to establish if the instrument measures what it is purported to measure (Orodho, 2004). This was ascertained by professionals such as the supervisor and lecturers in the department. To enhance validity, and reliability, a pilot study was done at Upper Hill High School in Nairobi through administering the instruments to randomly selected respondents. The school was chosen

because it is an earmarked integration centre though there are currently no visually impaired students in it.

Before the main study, the pilot study was necessary to test the validity and reliability of instruments. The pre-test was done to ensure that the questions were captured correctly and also to provide room for amendments of the questionnaire before the actual data collection. The research instruments were ascertained to be valid and reliable. This enhanced the making of necessary adjustments to the questionnaire because most teachers in the institution have experience teaching the visually impaired.

3.9 Reliability

Reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials (Gray, 1992). The researcher used test-retest technique to evaluate reliability of the questionnaires. The same instrument was then re-administered to the same respondents after three weeks to test whether similar responses emerged. The two scores of the respondent were checked to analyze the consistency of responses. Scores from the first test were correlated with scores from the final test.

3.10 Data Collection Procedure

Data collection began by a pre-test of the survey questionnaire involving six respondents. In the course of piloting, the researcher personally visited the piloting school and administered the instruments. Piloting is an accepted pre-research exercise where the researcher visits the location of the study or a different site to administer a few of the data collection instruments on test basis. This helped detect the anomalies in the instruments that were corrected before the main data collection exercise was launched. Permission was then sought from the principal of the school. The research instruments were administered on the respondents within the school after the go ahead was granted. The researcher booked appointments with all the key informants in order to interview them. All the information gathered was coded according to the themes from respondents own words.

The pre-test was followed by an actual field survey of 40 sighted students and 33 teachers who were respondents at Moi Girls' School Nairobi. After the field survey, the researcher held a Focus Group Discussion (FGD) with the visually impaired. The researcher later met the school's Principal for a face-to-face interview. Telephone interviews were also conducted. The telephone interviews involved two parents and the K.I.E and KNEC officials. The researcher changed from face-to face

interviews to telephone interviews because of the transport logistics that were involved. The assigned officials were mostly out of office on field assignments. The parents were residents of other counties outside Nairobi. The researcher therefore relied on telephone numbers obtained from help desks in the respective organizations, while two visually impaired students offered the telephone numbers of their parents.

3.11 Data Analysis Techniques

Analysis is the process categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions. It is done to reduce data to intelligible and interpretable form using Statistics. Data analysis refers to the process of examining what has been collected and making deductions and inferences out of it (Kombo & Tromp, 2006). It is the process of making meaning from the data. After fieldwork, the researcher edited and counter checked questionnaires for completion of questions in order to identify items which were not appropriately responded to.

Quantitative data was coded manually, organized, and analyzed using descriptive statistics, percentages and frequencies. The results were presented in tabulated form for easy interpretation. Descriptive statistics was used to present information on the characteristics of the respondents. Interpretation refers to searching for meaning and implication of research results, in order to make inferences and draw conclusions and relate to the theory. Tables represent research results more clearly and economically than text presentations (Mwiria & Wamahiu, 1995). Qualitative data analysis involved analysis of data from key informants and the visually impaired students. The data was typed in a word document and then sorted according to the themes that emerged. The information was then presented based on these themes.

Table 3.4 Operation Definition of Variables

Objective	Type of Variable	Indicators	Measure	Type of Tool	Measurement Scale	Tools of Analysis	Specific Tool
For all the Objectives i-iv	**Dependent** Success of integrated education	-Enrollment -Sustainability -Access	-Number of V.Is -Rate of increase in enrollment -Duration of existence of the I.E Program	-Document Analysis	-Ordinal	-Descriptive statistics -Frequency Table	-Mean
1.To Assess the suitability of the school environment for the V.Is on Success of I.E	**Independent Variable** Suitability of school environment	-ramps -special facilities	Existence of facilities	-Observation Schedule	-Nominal	-Narrative Thematic Analysis	Mode
2.To investigate the availability of teaching/learning resources on success of I.E	**Independent Variable** Teaching/ Learning Resources	-Textbooks -Brail machines -Writing materials	Number of resources available	-Document Analysis	-Ordinal	-Descriptive -Narrative	Mode
3.To Establish the influence of support services on success of I.E	**Independent Variable** -Support services	-Resource room -Management support -Funding	Level of Support	-Interviews -F.G.Ds, Questionnaire	-Interval -Narrative -Descriptive	-Frequencies -Narrative -Thematic analysis	Mean
4.To investigate the influence of teacher training & development on success of I.E	**Independent Variable** -Teacher training and development	-Highest level of education -Training in Special education	-Number of trainings attended -Type of Training -Duration of Training	-Interviews -Questionnaire	-Ordinal -Narrative	-Frequency table -Narrative	Mode

From the interviews, data was sifted through, sorted and coded. This assisted in developing the narrative descriptions, defining the themes and finally connecting and inter-relating themes along the objectives of the study. A description is a detailed rendering of people, places, or events in a setting in qualitative research. To develop the descriptions, the researcher assigned a code word or phrase that accurately describes the meaning of the text segments.

Themes were developed through the process of looking for categories that cut across all data sets (Pendy 1994 cited in Alexiadou, 2001). Themes are similar codes aggregated together to form a major idea in the database. Results have been presented descriptively. This was done by making a list of all code words. Similar codes were clustered together. The objective was to look for redundant codes and eliminate them to reduce the long list of codes to a smaller, more manageable number of 5-7 themes by constantly comparing the data (Constant Comparative Analysis).

The researcher ensured that the themes not only reflect the purpose of the research, but are exhaustive with all data placed in their respective categories. Of significance too was ensuring the conceptual congruency of the themes, i.e. the same level of abstraction that characterized all categories of information provided. He also ensured that themes are sensitizing and sensitive to the content of data. To add weight to the findings, the researcher requested for personal reflections especially from the visually impaired. This is because personal views can never be kept separate from the meaning of the data which is included in a research study.

From the coding and the themes, the researcher constructed a narrative description and a visual display of the findings for the research report. Based on the findings, the researcher has interpreted the data and made recommendations. The report is not limited to academic benefits, but will be shared with key stakeholders in the management of integrated education programs. It is hoped that this will make a positive contribution to the education system.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents a descriptive analysis of data gathered in relation to the study. The descriptive method has also been used to organize, summarize and interpret information collected. Further, views on how the school's effectiveness could be enhanced are also captured. The findings have been presented using frequency tables. This presentation is based on questionnaires administered, interviews conducted and the observations made.

4.2 Questionnaire Return Rate

The returned questionnaires were 30 from teachers, a 90.9% return rate and forty from students, a 100% return. According to Orodho (2004), 50-60% returns rate is fair, 60-70% good and an over 70% return rate as very good. Six key informants were also interviewed while a Focus Group Discussion was held with nine visually impaired girls. There were four research questions raised in the study. The representation of the research findings attempted to answer those questions.

4.3 General Information on Respondents

This section provides demographic information on the respondents in the study.

4.3.1 Visually Impaired Learners

In this study, there were a total of nine learners living with visual impairment. They were aged between 15 and 19 years as captured in Table 4.1.

Table 4.1 : Table of Ages of the Visually Impaired Learners

Age	Frequency	Percent
15	1	11.1
16	2	22.3
17	3	33.3
18	2	22.2
19	1	11.1
Total	**9**	**100.0**

Source: Field Data 2012

The visually impaired were asked the type of primary school they had attended before joining secondary school. Their responses were captured as shown in Table 4.2.

Table 4.2: Type of Primary School Attended by the Visually Impaired

Response	Frequency	Percent
Integrated School	6	66.7
Special School	3	33.3
Total	**9**	**100**

Source: Field Data 2012

The visually impaired were also asked who brought them to school on their first day of admission to the school. Most of the respondents (88.9%) indicated that it was either both the parents, one parent or a close member of the family. Only 11.1% were brought to school by an officer of the organization that sponsor's her. This indicates that visually impaired learners are brought to school by those family members who are closely related to them.

The visually impaired were asked who received them as soon as they arrived in school. Most of the respondents (87.8%) indicated that they had been received by either the class teacher, deputy principal or the principal as soon as they arrived in school. Only 22.2% were received by either the boarding master or the matron since they arrived on a weekend. This indicates that the school has proper stipulated mechanisms of receiving the visually impaired when they first arrive in school. They however indicated that they were fearful at the beginning since they were not sure how some of the sighted would react towards them. This made them keep to themselves even when they needed help.

The researcher sought to know how the visually impaired were received in class by the other sighted students when they first reported to school. The majority of the visually impaired (44.5%) indicated that they were received in a friendly way, 22.2% indicated that the sighted were overjoyed and did everything for them, another 22.2% indicated that the sighted were happy to have them in the same class while only 11.1% felt that they all loved each other in their class and that there was no discrimination. These findings indicate that the social environments within which the visually impaired learn and live are conducive for learning. The results were as shown in Table 4.3.

Table 4.3: Reception in Class by the Sighted Students

Response	Frequency	Percent
Received in a friendly way	4	44.5
Overjoyed and did everything for me	2	22.2
They were Happy	2	22.2
No discrimination in our class and we all love each other	1	11.1
Total	**9**	**100.0**

Source: Field Data 2012

The visually impaired were required to indicate their expectations during their stay in the school. All the respondents indicated that they were confident they would do well in their studies. They were confident, strong willed and able to socialize with other students. They indicated that they expected to find a place like their former school or even better, with adequate Braille Machines, supportive teachers and other visually impaired learners whom they would share their experiences with. However, those from special schools who are totally blind originally felt lost because the majority had low vision. But those from integrated schools felt normal since they were used to an integrated school environment.

The researcher wanted to know further the views of the visually impaired regarding integration. The results were as indicated in Table 4.4.

Table 4.4: View of the Visually impaired about Integration

Response	Frequency	Percent
Integrated schools are good. They enables us to interact and share experiences with the sighted	6	66.7
Other students are supportive and helpful to us academically, morally and socially	1	11.1
Previous school was integrated and I feel integration is good because one gets to interact with others and get assistance	2	22.2
Integration is not good and special schools are much better	0	0.0
Total	**9**	**100.0**

Source: Field Data 2012

From the findings, the visually impaired are positive and supportive of the integrated program. A good majority of them (66.7%) felt that integrated schools are good since they enabled them to interact and share experiences with the sighted. Twenty two point two percent indicated that since their previous schools were integrated, they felt comfortable since one could easily get assistance from the other members of the school community. Only 11.1% indicated that integration put them in an environment where they could get help morally, academically and socially. None of the visually impaired respondents felt that integration was not good and that special schools were much better.

When asked to shed light on how they lost their sights, the results were as shown in Table 4.5.

Table 4.5: How the Visually Impaired Lost their Sight

Response	Frequency	Percent
Born Blind	1	11.1
While Growing up	5	55.6
Due to Sickness	3	33.3
Total	**9**	**100.0**

Source: Field Data 2012

The findings indicate that 55.6% lost their sight as they grew up, 33% lost their sight due to sickness while only 11.1% were born blind. These findings indicate that most children (88.9%) living with visual impairment get handicapped as they grow up and only 11.1% are born blind.

4.3.2 Sighted Students

In this study, there were a total of 40 sighted students. The researcher enquired the forms in which the sighted students were in. They were from Form 1 to Form Four as captured in Table 4.6.

Table 4.6: Form Distribution of Sighted Respondents

Form	Frequency	Percent
1	10	25
2	10	25
3	10	25
4	10	25
Total	**40**	**100**

Source: Field Data 2012

From the table, each form had a 25% representation to reduce as much as possible any biases with regard to the information provided.

The sighted students were also asked to indicate their ages. From the findings, 7.5% indicated that they were 14 years old, 17.5% indicated that they were 15 years old, 30% indicated that they were 16 years old, 22.5% indicated that they were 17 years old, 15% indicated that they were 18 years old, 5% indicated that they were 19 years old while only 2.5% indicated that they were 20 years old. These findings indicate that the majority of sighted students (92.5%) were at the stipulated high school age of 14-18 years while only 7.5% were above 18 years old. These results were captured as shown in Table 4.7.

Table 4.7: Age of Respondents

Age in Years	Frequency	Percent
14	3	7.5
15	7	17.5
16	12	30.0
17	9	22.5
18	6	15.0
19	2	5.0
20	1	2.5
Total	**40**	**100.0**

Source: Field Data 2012

Knowledge on Integration of the School

The sighted students were asked whether they were aware that the school was integrated since this would affect the way they related with the visually impaired. Almost two thirds (65%) of them indicated that they were not aware that the school was integrated while 35% indicated that were aware that the school was integrated.

The sighted were further probed the to know exactly how they responded when they discovered that the visually impaired would be joining them in their classes. From the findings, it was clear that majority of the sighted (52.5%) were surprised and shocked on realizing that they would be learning with the visually impaired not only in the same school, but same class. However, 30% percent felt it was just normal since their former schools were integrated and that the visually impaired were students just like them, 10% indicated that they were fascinated by such an idea since they either had never seen a visually impaired learner or been in the same class with one before. Only 5% were worried for them since they could be looked down upon and 2.5% of the sighted respondents chose not to respond to this question. The results were as captured in the Table 4.8.

Table 4.8: Reaction of the sighted on Realizing they would Learn with the Visually Impaired

Response	Frequency	Percent
Fascinated by it	4	10.0
I was surprised and shocked since I was not aware	21	52.5
I was worried for them since they could be looked down upon	2	5.0
It was just normal	12	30.0
No response	1	2.5
Total	**40**	**100.0**

Source: Field Data 2012

The sighted respondents were asked for their view on integration of the visually impaired in a regular school. Most of the respondents were positive and readily embraced integration. A good majority (60%) of them indicated that integration gave them a good opportunity to interact and learn with the visually impaired in a regular school environment, 20% fully supported the integrated program, 15% felt that the visually impaired will not live alone but with them and only 5% were of the view that the visually impaired should be restricted to special schools where they are better taken care of. Their views were captured in Table 4.9.

Table 4.9: View of Sighted Learners on integration

Response	Frequency	Percent
Good opportunity to interact and learn with them in a regular school environment	24	60.0
The V.Is will not live alone but with the sighted too	6	15.0
Support integration	8	20.0
V.Is should be restricted to special schools where they are better taken care of	2	5.0
Total	**40**	**100.0**

Source: Field Data 2012

4.3.3 Teachers

The gender of the respondents was sought. The results were as shown in Table 4.10.

Table 4.10: Respondents Gender

Response	Frequency	Percent
Male	9	30.0
Female	21	70.0
Total	**30**	**100.0**

Source: Field Data 2012

From the findings, 70% of the respondents were female while 10% of the respondents were female. These findings indicate that majority of teachers teaching in public secondary schools in Nairobi are female and therefore they are the ones who are mostly involved in teaching the visually impaired within integrated education environments.

The academic level and professional training of the teachers was also sought. Majority of the respondents (60%) indicated that they had attained a Bachelor of Education, 10% held a Master of education while another 10% held a Diploma in Education. Only 6.7% were trained in special education. These findings indicate that majority of teachers in public secondary schools are not trained to handle handicapped children and therefore lack the necessary knowledge and skills to positively stimulate learning among them. The researcher further asked the teachers if they were pursuing any further professional or academic training. Of those who had diplomas, 66.7% were

pursuing a Bachelor of Education while 33.3% of those who held a Bachelor of education were pursuing a Masters degree in education. The results were as captured in Table 4.11.

Table 4.11: Professional Training of Teachers

Level of Education/Training	Frequency	Percent
M.Ed	3	10.0
B.Ed (Special Education)	1	3.3
B.Ed	18	60.0
Diploma (Education)	3	10.0
Special Education Trained	2	6.7
Others	2	6.7
No Response	1	3.3
Total	**30**	**100**

Source: Field Data

The teachers were asked to indicate their ages. The results were as shown in Table 4.12.

Table 4.12: Age Brackets

Age	Frequency	Percent
Above 50	9	30.0
40-49	12	40.0
30-39	3	10.0
21-29	6	20.0
Total	**30**	**100**

Source: Field Data 2012

The findings indicate that 40% of the teachers were aged between 40-49 years, 30% of them were over 50 years, 20% were aged between 21-29 while only 10% were aged between 30-39 years.

The researcher sought to know from the respondents the teaching experience in years they had in teaching. The findings indicate that 40% of the respondents have been teaching for over 20 years, 30% had been teaching for 10 years and below and another 30% having taught for 11-20 years. The results were as shown in Table 4.13.

Table 4.13: Teaching Experience

Teaching Experience in Years	Frequency	Percent
Below 5 years	2	6.7
5-10	7	23.3
11-15	6	20.0
16-20	3	10.0
Over 20	12	40.0
Total	**30**	**100.0**

Source: Field Data 2012

The respondents were asked to indicate the teaching experience they had had in teaching learners with visual impairment and for how long. The results were as indicated in Table 4.14.

Table 4.14: Experience in Teaching Visually Impaired Learners

Years	Frequency	Percent
Below 5	3	10.0
5-9	4	13.3
10-14	6	20.0
Over 15	15	50.0
No Response	2	6.7
Total	**30**	**100.0**

Source: Field Data 2012

The findings indicate that 50% of teachers had taught the visually impaired learners for over 15 years, 20% for 10-14 years, 13.3% for 5-9 years and only 10% had taught the visually impaired for under 5 years. 6.7% did not respond to the question. This shows that teachers teaching the visually impaired have been the same over the years.

Teachers were asked to indicate whether they were aware of the presence of the visually impaired in their classes when they first reported. Most of them (73.3%) indicated that they were not aware while only 26.7% knew there would be visually impaired learners in their classes. The researcher observed that most of those were aware that there would be visually impaired learners in their

classes are teachers who had served in the school for long hence knew all along that the visually impaired would join the school at the beginning of every year. Teachers who indicated they were not aware were the ones who were newly posted to the institution.

Teachers were then asked how they responded to the presence of the visually impaired in their classes. A good number of them (40%) indicated that although they were shocked, felt a sense of helplessness, and wondered how the visually impaired would be taught alongside the sighted, they still welcomed them warmly. A third or (33.3%) felt fearful since they did not know how to handle the visually impaired and did not know what to do at first. Sixteen point seven percent (16.7%) of the teachers indicated that they were at first hostile to the visually impaired since they made a lot of noise with their Braille machines, sometimes out of mischief. Only 10% felt confident since they were trained in special education and therefore could handle handicapped learners. From observation, the researcher observed that the reactions of the teachers towards the visually impaired can directly result to mixed feelings and hostility since they are not trained on special education. These findings concur with sentiments of Bukhala (2002), who felt that integration lacks the services of trained and qualified teachers in special education. The results were as captured in Table 4.15.

Table 4.15: Reactions of Teachers to Presence of V.Is in their Classes

Response	Frequency	Percent
Shocked	12	40.0
Did not know what to do	10	33.3
Hostile	5	16.7
Confident and normal	3	10.0
Total	**30**	**100.0**

Source: Field Data: 2012

But when asked to give their view on integration, 80% of the teachers thought that integration was much better compared to special education, 13.3% indicated that the handicapped are better taken care of in special schools while 6.7% did not know. These findings indicate that teachers, just like their students support the integrated program and would therefore work hard to ensure its success despite the hurdles they may have to overcome in carrying out their duties.

4.4 The Learning Environment

This sub-section looks at the location and the physical environment of the institution. According to RoK (1999), the quality and adequacy of physical facilities and equipment for teaching is an important determinant of the quality of education a child receives. This in a way contributed directly towards the effectiveness of curriculum implementation. One of the objectives of the study was to investigate the suitability of the learning environment within Moi Girls' School Nairobi as an integrated institution for the visually impaired and its effectiveness in the successful implementation of integrated education. To achieve this objective, this section describes the physical setup of the school, and availability of physical facilities to enhance the comfortable learning of the visually impaired in an integrated environment.

4.4.1 Physical Setup of the Centre

The school is located on a vast relatively flat piece of land. It is thus relatively easy for the visually impaired to navigate. Given its huge size, it is a challenge for the visually impaired to move from one corner to another especially when they are still new. They constantly require assistance from the sighted to get to their destinations.

4.4.2 Physical Facilities

To investigate the state of physical facilities in public secondary schools in relation to successful implementation of integrated education, the respondents were asked to indicate whether the school had put in place physical facilities fashioned to accommodate the visually impaired. From the findings, 70% of the teachers indicated that physical facilities were available but inadequate while 30% of them indicated that they were available and adequate. According to the visually impaired, 66.7% felt that the facilities were available but inadequate while 33.3 felt that they were available and adequate. 62.5% of the sighted students indicated that the available physical facilities were inadequate, 30% indicated that the available physical facilities were adequate while only 7.5% there were no physical facilities fashioned to accommodate the visually impaired. These findings show that although the school had physical facilities, they were not adequate and thus needed to be improved to enhance the implementation of integrated education. The responses were as shown in Table 4.16.

Table 4.16: Availability and Adequacy of Physical Facilities for the Visually Impaired

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Available and adequate	3	33.3	12	30.0	9	30.0
Available but inadequate	6	66.7	25	62.5	21	70.0
Not available	0	0.0	3	7.5	0	0.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

The respondents were asked what facilities were necessary to enhance the implementation of integrated education with regard to the visually impaired. The responses were as captured in Table 4.17.

Table 4.17: Necessary Physical facilities

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Well equipped Resource room	4	44.5	27	67.5	16	53.4
Special chairs/desks	2	22.2	6	15.0	7	23.3
Special toilets/bathrooms	1	11.1	2	5.0	4	13.3
Ramps	2	22.2	5	12.5	3	10.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

From the findings, 67.5% of the sighted indicated that a fully well equipped resource room was a very necessary facility in the successful implementation of integrated education, 53.4% of teachers and 44.5% of the visually impaired shared the same opinion. Twenty three point three percent (23.3%) of teachers, 22.2% of the visually impaired and 15% of the sighted students indicated that special chairs/desks were necessary in the successful implementation of integrated education. Another 22.2% of the visually impaired, 12.5% of the sighted and 10% of the teachers felt that the presence of ramps alongside staircases would go along way in ensuring comfortability of the visually impaired while walking within an integrated school environment. These findings indicate

that although the school has some facilities, more needs to be done in the acquisition and provision of more.

An observation checklist was used to identify the availability, adequacy or absence of physical facilities within the school and the findings recorded (see Appendix VII).

The results indicate that the school had well lit and ventilated classrooms which are very appropriate for learners to learn under a conducive and protected environment. However, they were overcrowded thus inadequate. More classrooms need to be constructed. Observations showed that the totally blind were provided with adequate special desks which are appropriate for them. There is a resource room within the school which has special chairs for the use of the visually impaired. It is however small and not adequately equipped with current materials and equipment. The researcher also observed that it is appropriate for the school to have toilets and bathrooms, since they are inadequate. More therefore need to be constructed.

The school is built on a massive piece of land which is relatively flat. To ensure that the learners keep physically fit, it has adequate playgrounds which are appropriate for the learners' physical activities and physical education. However, they are not well leveled and the depression should be filled. At times, students need to take a swim in the school's swimming pool. But the researcher observed that the safety of the swimmer could be in jeopardy since there are no swimming chins which are very appropriate.

The school does not have any ramps alongside staircases, neither does it have leveled door steps which are very necessary in ensuring that the visually impaired do not trip over them. These findings indicate that though the school has provided some of the physical facilities that help influence the successful implementation of integrated education, more can be done in terms of either upgrading and improving the existing ones or making arrangements to provide new ones. This is in agreement with UNESCO (2008) that the infrastructure is not yet well established to make the learning environment much friendlier for the visually impaired.

4.4.3 Conduciveness of the Learning Environment

The researcher wanted to know how conducive the environment around the school was for the visually impaired the results were as shown in Table 4.18.

Table 4.18: School Compound in Relation to Mobility of the Visually Impaired

Response	Frequency	Percent
School compound is too big thus a challenge to navigate	1	11.1
A lot of inconveniencing open drainages and one can fall into them	2	22.3
All facilities are accessible	4	44.4
Cars are parked haphazardly	1	11.1
There are no ramps	1	11.1
Total	**9**	**100.0**

Source: Field Data 2012

When the visually impaired were asked to indicate the conduciveness of the compound with regard to their mobility, 44.4% indicated that all the facilities were accessible, 22.3% felt that the compound had a lot of open drainages which inconvenienced them and one could easily fall into them. Eleven point one percent (11.1%) noted that cars were haphazardly parked in the compound thus obstructing them, another 11.1 observed that the compound was too big. This was in comparison with their former special school. Another 11.1% noted there where there were stair cases, there were no ramps.

The sighted too were asked to give their views on how conducive the school compound was for the visually impaired. A good number (40%) thought that the school compound is small and most of the facilities accessible, 30% felt that the school had paths and routes that were easy to follow, 20% indicated that there were bumps open drainages and trenches in the school that could disrupt the mobility of the visually impaired and only 10% indicated that the compound was flat and the ground well leveled for the visually impaired to walk comfortably. The results were as captured in Table 4.19.

Table 4.19: Views of others Regarding the Conduciveness of the school for the V.Is

Response	Sighted Students		Teachers	
	Frequency	Percent	Frequency	Percent
School compound is small and facilities are accessible	16	40.0	19	63.3
Routes and paths easy to follow	12	30.0	2	6.7
Compound flat and well leveled	4	10.0	4	13.3
Bumps, open drainages , trenches that could disrupt mobility and no centralized parking	8	20.0	5	16.7
Total	**40**	**100.0**	**30**	**100.0**

Source: Field data 2012

The sighted were asked to indicate how conducive the school environment was with regard to the mobility of the visually impaired.

When the teachers were asked to give their opinions on the conduciveness of the compound with regard to mobility of the visually impaired, 63.3% indicated that the compound was small and all facilities easily accessible, 16.7% indicated that the compound had bumps, open drainages trenches and no centralized parking and cars were parked haphazardly thus disrupting their mobility hence not suitable for the visually impaired, 13.3% felt that the compound was flat and well leveled aiding easy and comfortable walking. Only 6.7% felt that routes and paths were easy to follow. The researcher observed that although there were no ramps, adaptations had been made for the visually impaired even though the school was not originally designed for the visually impaired.

The respondents were asked to give suggestions on what should be done to improve mobility of the visually impaired in the school compound. A third, or 33.4% of the visually impaired, 72.5% sighted students and 33.3% of teachers suggested that drainages be covered, trenches be filled and the ground be leveled. Eleven point one percent (11.1%) of the visually impaired thought that the school should have an expanded, spacious centralized parking that could accommodate all the cars to avoid them from being parked haphazardly in the compound, 12.5% of the sighted students and 43.4% of the teachers agreed with them. 33.3% of the visually impaired suggested that ramps be constructed alongside staircases, 7.3 of the sighted students and 13.3% of the teachers concurred. On the suggestion to provide the visually impaired with the white cane, 10% of the teachers though

that could go a long way in aiding them with mobility, 5% of the sighted students shared the same sentiments while none of the visually impaired gave such a response. This could be attributed to the fact that the totally blind already had the white canes and the low vision did not require the use of one. The results were as shown in the Table 4.20.

Table 4.20: Suggestions on Improving Mobility of the Visually Impaired in the Compound

Response	Visually Impaired		Sighted Students		Teachers	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Covering drainages	2	22.3	19	47.5	6	20.0
Filling trenches and leveling ground	1	11.1	11	27.5	4	13.3
Have expanded, spacious centralized parking	3	33.3	5	12.5	13	43.4
Create ramps alongside staircases	3	33.3	3	7.5	4	13.3
Provide visually impaired with the white cane	0	0.0	2	5.0	3	10.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field data 2012

4.4.4 Condition of Toilets/Bathrooms

The sighted and the visually impaired learners were required to indicate whether they used the same toilets/bathrooms. All the respondents indicated that they did share these facilities and the school had no special facilities for the visually impaired.

Based on the response above, the respondents were required to indicate the condition of these facilities. The results were as shown in Table 4.21.

Table 4.21: Condition of Toilets/Bathrooms

Response	Visually Impaired		Sighted Students		Teachers	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
They are good and usable	3	33.4	6	15.0	14	46.7
Flooded	1	11.1	4	10.0	3	10.0
Not good	2	22.2	5	12.5	1	3.3
Dirty, pathetic, unkempt and disgusting	2	22.2	18	45.0	5	16.7
Toilets are flushable but can be made better	1	11.1	7	17.5	7	23.3
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

From the table above, 46.7% of the teachers felt that the toilets/bathrooms were good and usable, a sentiment shared by 33.4% of the visually impaired, but only 15% of the sighted thought the toilets were good despite being in use. Eleven point one percent (11.1%) of the visually impaired indicated that these facilities are normally flooded, a position shared by 10% of the sighted students and 10% of the teachers. A majority of the sighted students (45%) indicated that the toilets were dirty, pathetic and in a bad condition. They therefore felt the facilities were unkempt, filthy, neglected, often blocked and a health hazard. This strongly contradicts a position held by 33.4% of the visually impaired that the facilities are good and usable. This can be attributed to the fact that the visually impaired do not see and they can not exactly tell the actual condition of the facilities. Only 22.2% of the visually impaired felt that the facilities were dirty and in a pathetic state, a position shared by16.7% of their teachers. A good number of the teacher (23.3%), 17.5% of the sighted and 11.1% of the visually impaired felt that although the toilets were flushable, they can be made better. The researcher observed that the entire student population used one block of toilets during class hours because they were not allowed to go back to the hostels. The toilets were however conveniently located and accessible to students, clean in the morning after being washed but in a mess later in the

day. These findings indicate that the school has a big responsibility of not only providing these facilities, but ensuring that they are enough and clean. The students should also ensure that they use them responsibly.

The respondents gave suggestions that would help make toilets/bathrooms not to be a disadvantage to the visually impaired. The results were as in Table 4.22.

Table 4.22: Improving Toilets/Bathroom not to Disadvantage the Visually Impaired

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Provide enough water throughout the day	2	22.2	13	32.5	18	60.0
Be cleaned more often and the sighted to use them properly	3	33.3	7	17.5	2	6.7
Toilets be renovated and made flushable	3	33.3	18	45.0	7	23.3
Build new spacious toilets/bathrooms for the visually impaired	1	11.2	2	5.0	3	10.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

Form the table, 60% of the teachers indicated that enough water should be provided throughout the day. This can be attributed to the fact that the school not only has too boreholes, but also receives water supply from the City Council of Nairobi. About a third, 32.5% of the sighted and 22.2% shared the opinion of the teachers. A third, 33.3% of the visually impaired and 17.5% of the sighted learners felt that the toilets/bathrooms should be cleaned more often and the sighted to use them more responsibly, only 6.7% of the teachers agreed with them. A good number of the sighted (45%) indicated that the need to be renovated and made flushable, 33.3% of the visually impaired and 23.3% of the teachers also felt the same. However, 11.2% of the visually impaired felt the school should build new spacious toilets/bathrooms for them, 10% of the teachers felt the same way and

only 5% of the sighted shared the same opinion. This could be attributed to the fact that doing so would be tantamount to segregation within the student body and all of them want to be treated equally.

These findings indicate that the school needs to provide water throughout the day, renovate the toilets and make the flushable. They also need to be cleaned and the students be responsible in using them so as not to disadvantage the visually impaired.

4.5 Teaching/Learning Resources

The main objective of a learning institution is to effectively implement the curriculum. In order to make teaching learning effective, there is need to utilize teaching and learning resources. This section aims at analyzing the role of teaching/learning resources. To this effect, the researcher wanted to establish the effectiveness of the availability of teaching learning resources such as text books to the visually impaired and its influence on the success of integrated education. This was to help establish whether or not the visually impaired relied heavily on the sighted to read for them printed material. The respondents were asked to indicate whether the school had enough teaching/learning resources for the visually impaired.

Majority of the visually impaired (55.6%) indicated that learning resources were available but inadequate, 22.2% felt that they were available but outdated, 11.1% felt that the resources were available and adequate and another 11.1% indicated that the resources were available and adequate. When the sighted were asked the same question, 50% of them indicated that the visually impaired had enough learning resources, 30% indicated that they had learning resources which were old and outdated, 17.5% felt that the resources were available but not adequate and only 7.5% indicated that they did not have any learning materials and depended on the sighted to read for them printed materials.

Teachers were asked to indicate whether they had enough teaching and learning resources for the visually impaired, 50% concurred with the visually impaired that indeed the resources are available but inadequate, 23.3% felt that the resources were available but old and outdated while only 10% indicated that the school did not have resources for the teaching and learning of the visually impaired and that the V.Is depended heavily on the sighted to read for them printed materials. The results were as shown in Table 4.23.

Table 4.23: Availability of Teaching/Learning Resources for Visually Impaired

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Available and adequate	1	11.1	20.0	50.0	5	16.7
Available but inadequate	5	55.6	7	17.5	15	50.0
Available but old and outdated	2	22.2	12	30.0	7	23.3
Not available and relied on the sighted to read for them printed material	1	11.1	3	7.5	3	10.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

These findings indicate that though the school had made available resources for the teaching and learning of the visually impaired, they were yet to be adequate and enough for effective teaching and learning.

The frequent changes in the curriculum could be a contributory factor to these findings. According to the K.I.E official, it takes time for books to be brailed. Those that have been brailed are also more expensive than the printed ones. Therefore, when curriculum changes are effected, the visually impaired are most affected since their books are not availed on time. This could be the reason why a good number feel that books for the visually impaired are old and outdated.

The respondents were asked what teaching/learning resources were necessary to enhance the implementation of integrated education with regard to the visually impaired. From the findings, 67.5% of the sighted indicated that teaching aids are very necessary in the successful implementation of integrated education, 53.4% of teachers and 44.5% of the visually impaired shared the same opinion. Twenty three point three percent (23.3%) of teachers, 22.2% of the visually impaired and 15% of the sighted students indicated that Braille Machines were necessary in the successful implementation of integrated education. Another 22.2% of the visually impaired, 12.5% of the sighted and 10% of the teachers felt that adapted books would go a long way in ensuring teaching and learning within an integrated school environment. The headteacher indicated that adapted books 'were very expensive and could not shelve all of them to meet the learners' needs. These findings indicate reveal that public secondary schools offering integrated education

lack sufficient teaching/learning resources. Although the school has some teaching/learning resources, more needs to be done in the acquisition and provision of more. UNESCO (2005 shows that) there are no adequate teaching/learning resources for children with special learning needs. The responses were as captured in Table 4.24.

Table 4.24: Necessary Physical facilities

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Teaching Aids	4	44.5	27	67.5	16	53.4
Braille Machines	2	22.2	6	15.0	7	23.3
Sight Aids	1	11.1	2	5.0	4	13.3
Adapted Books	2	22.2	5	12.5	3	10.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

An observation checklist was used to identify the availability, adequacy or absence of teaching/learning resources within the school and the findings recorded as presented in the Table 4.25, (Also see Appendix VII).

Table 4.25: State of Teaching/Learning Resources According to the Observation Checklist

Facilities	Observation	Comment
Adapted Text books	Available Not Adequate But Appropriate	Some of the books are available but they are old and outdated. No adapted set books have been stocked
Braille Machine	Available Adequate and Appropriate	They have been provided for use. But they are old, breakdown often and produce a lot of noise. New modern ones need to be acquired
Writing Materials	Available Adequate and Appropriate	Braille machines need special papers which have been provided
Sight Aids	Available Not Adequate But Appropriate	The low vision need to use high density lenses or the binoculars.

Source: Field Data 2012

From the table above, although adapted textbooks are available they are not adequate and inappropriate. Some of the books are old and outdated. There are no adapted set books that have been provided and the visually impaired depend on the sighted students to read for them.

The school has provided the visually impaired with adequate Braille machines which are available and very appropriate in the learning of the visually impaired. However, the researcher observed that they are old, breakdown often and produce a lot of noise that interfere with the sighted students who are in the same class. New modern ones need to be acquired by the school. Learners use special writing materials/papers to type their work in Braille hence they are appropriate. These are adequate and available in the resource room.

To help the low vision read, the low vision need sight aids. These should either be high density lenses of special binoculars to help them read materials written on the chalkboard. Although these are learning aids appropriate and available, they are not adequate and only a few of the low vision learners have them.

4.6 Curriculum

4.6.1 Appropriateness of the Curriculum

The respondents were asked to indicate their feelings on how the curriculum offered to the visually impaired was. More than half (55.6%) of the visually impaired felt that they should be given an opportunity to choose the subjects they like so as to help their talents grow. Twenty two point two percent (22.2%) felt that the curriculum was good enough, 11.1% felt that they should continue with the primary school syllabus while another 11% felt the curriculum was not quite good.

The sighted students were asked to indicate what they felt about the curriculum offered to the visually impaired. From the findings, Majority of the sighted students (72.5%) felt that the visually impaired should be given an opportunity to choose subjects they like to help their talents grow, 17.5% felt that the curriculum was good enough while 10% felt that the curriculum was not good enough. None of the sighted respondents preferred a continuation of primary school studies.

The teachers were asked to also indicate their feelings on the curriculum offered to the visually impaired. Most of them (60%) felt that the visually impaired, just like the sighted, should be able to choose subjects they like to help their talents grow, 23.3 % felt that the curriculum was good enough, 13.4% felt it was not quite good while only 3.3% preferred a continuation of primary school studies by the visually impaired.

These findings indicate that the visually impaired should be given an opportunity to choose the subjects that they prefer and therefore the curriculum is not appropriate since it does not address their needs. However, according to the K.I.E official, this is not possible since some subjects like chemistry need the students to be able to conceptualize colors yet the low vision cannot. According to UNESCO (2003), educational curriculum is a major obstacle to integrated education since it is extensive and demanding or centrally designed. The content is sometimes distant to the realities of the learner which makes it inaccessible and unmotivating. Therefore the practicality of the learning subject should be taken into consideration before a visually impaired learner chooses a subject. The results were as provided in Table 4.26.

Table 4.26: Feelings About the Curriculum offered to the Visually Impaired

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Be given an opportunity to choose subjects they like to help their talents grow	5	55.6	29	72.5	18	60.0
Good Enough	2	22.2	7	17.5	7	23.3
Prefer a continuation of primary school studies	1	11.1	0	0.0	1	3.3
It is not quite good	1	11.1	4	10.0	4	13.4
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

It was also observed that students with low vision were forced to learn and use Braille yet they have a little sight. The K.I.E officer later clarified that it was important for them just in case they lost their sight completely. There have been cases where the low vision had lost their sight. Mason *et al,* (1997) contends that every child should be considered as individuals who should be educated in accordance with his/her unique abilities. The use of Braille among the low vision has caused differences between them and the teachers since they believe Braille should be used by the totally blind. The K.I.E official clarified that they only cater for the sighted and the blind without necessarily taking into consideration the low vision.

It was observed that the low vision should particularly be allowed to choose and do subjects that they feel suit them best. They should not be classified with the totally blind and forced to do Braille.

The visually impaired were asked whether they were given an opportunity to choose subjects that suit their impairment. 85% indicated that they were not given an opportunity to choose subjects while 15% indicated that they had never had of subject choices for the visually impaired. When the sighted students were asked the same question, only 10% felt that the visually impaired should not just be allowed to do what they want. Only 3% held the opinion that the curriculum for the blind should be much like that of the sighted, but adapted where need arises.

There researcher wanted to know from the respondents whether the curriculum was well adapted to suit the needs of the visually impaired. The results were as captured in the Table 4.27.

Table 4.27: Adaptability of the Curriculum to needs of the Visually impaired

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Well Adapted and useful	4	45.5	30	75.0	20	66.7
Not well Adapted	3	33.3	6	15.0	10	33.3
Don't know	2	11.2	4	10.0	0	0.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

From the table, 45.5% of the visually impaired felt that it was well adapted and would help them when they finished school, 33.3% indicated that that the curriculum was not well adapted to suit their special needs and could not help them when they finished school and 11.2% did not know. When the sighted students were asked the same question, 75% of them felt that the subjects the visually impaired do are useful and will help them grow their talents even after finishing school. 15% indicated that the subjects were not entirely adapted but were adequate and 10% said they did not know. The teachers also agreed with their students. 66.7% of them indicated that the curriculum was well adapted and would help them in future once they cleared school. Only 33.3% felt that it would not. A view which almost concurs with that of the sighted students.

These findings indicate that as much as there is a general feeling that the visually impaired are not allowed to choose the subjects that they like, the ones that they do are still good for they in future when they finish school. Thus can help them nature develop their talents.

4.6.2 Curriculum Delivery

The researcher wanted to know how effectively the curriculum was delivered to the visually impaired. The visually were asked to indicate whether the adapted curriculum suited their specific needs. More than half (55.6%) were positive they can get a job after finishing school, 22.2% felt this curriculum was not well adapted for their specific needs while only 22.2% felt that teachers used teaching methods that were ineffective to deliver the curriculum to them. The sighted also gave their opinion regarding curriculum delivery to the visually impaired. A good majority (60%) of the sighted thought that the teaching methods used to implement the curriculum to the visually impaired were good but specifically added that trained teachers on special education could do better, 25% thought that the teaching methods were good since they were individualized to the

visually impaired's specific needs and the low vision actively participated in class, and 15% believed that the visually impaired can get a job after finishing high school. The results were captured in Table 4.28.

Table 4.28: Effectiveness of the Teaching Methods in Delivering the Curriculum

	Visually Impaired		Sighted Students	
Response	**Frequency**	**Percent**	**Frequency**	**Frequency**
Believe can get a job after finishing high school	5	55.6	6	15.0
Curriculum delivery method individualized to V.Is specific needs	2	22.2	10	25.0
Teaching methods used are effective	2	22.2	24	60.0
Total	**9**	**100.0**	**40**	**100.0**

Source: Field Data 2012

These findings indicate that generally, the methods used by the teachers to deliver the curriculum were averagely fair. These indicate an attempt by the teachers to ensure that the visually impaired learn despite their handicap. However, a higher level of achievement can be reached if specially trained teachers were to implement the same curriculum.

The sighted students were asked to indicate whether the teachers took time to explain to the visually impaired clearly or they teach as though the visually impaired were not in class. The results were as shown in the Table 4.29.

Table 4.29: How Teachers Teach with regard to Visually Impaired Students

	Teachers		Sighted Students	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**
Teach as though V.Is are not in class	21	70.0	20	50.0
Forget V.Is are in class	6	20.0	12	30.0
Don't forget the V.Is	3	10.0	8	20.0
Total	**30**	**100.0**	**40**	**100.0**

Source: Field Data 2012

From the table above, 50% of them indicated that they teach as though the visually impaired were not present in class. This concurred with the view of majority of the teachers (70%) that sometimes they teach as though there are no visually impaired learners in class. This being that most of the syllabus is for the sighted and so when explaining particularly the diagrams, they ignore the visually impaired. 20% indicated that they sometimes forget while giving explanations while 10% indicated that they could not forget them. The visually impaired teacher in particular indicated to the researcher that she could not forget the visually impaired since she herself lived with the same condition.

It was also observed that the number of students in class is too big and it was difficult for the teachers to give the visually impaired specific attention. Mason *et al* (1997), recommends that classes should be small and students few in number. This would be a challenge to meet especially in Kenyan public school where there is a biting shortage of teachers countrywide. Hence may only apply to private schools where classes are smaller with few students.

One of the teachers indicated that when they are in class, they preferred dictation as a method of giving notes to enable the visually impaired type them using their Braille machines. This however slows down teaching/learning since the teacher has to dictate and explain at the same time. The teachers therefore have to go out of their way to assist the visually impaired catch up with other students in class. These findings indicate that though the implementation of the curriculum may take time, the visually impaired finally get to learn.

From the findings, the curriculum in the regular school is designed for the sighted, a little modification may be made to suit the visually impaired. If both the sighted and the visually impaired do not use the same curriculum to learn, then the visually impaired may feel inferior to the sighted (Rose-More *et al*, 1987). The notion that certain subjects like physics, chemistry and music among others are for the sighted makes the visually impaired feel they are sidelined. Hence they are viewed as helpless and incapable.

4.6.3 Adequacy of Time Allocated for Content Delivery

The study sought to establish from the teachers and the visually impaired whether the time allocated for content delivery was adequate. The findings showed that 73.3% of the teachers and 66.7% of the visually impaired did not think the time allocated for content delivery was adequate and therefore could hamper the success of integrated education. Only 33.3% of the visually impaired and 26.7%

of the teachers indicated that the time allocation was adequate. The principal resonated with the views of her teachers and students and indicated that the visually impaired needed more time for explanations and that could not fit into the allocated time slot. The responses were as in Table 4.30.

Table 4.30: Time Allocated for Content Delivery

Response	Visually Impaired		Teachers	
	Frequency	Percent	Frequency	Percent
Adequate	3	33.3	8	26.7
Not Adequate	6	66.7	22	73.3
Total	**9**	**100.0**	**30**	**100.0**

Source: Field Data 2012

4.6.4 Quality of Curriculum Offered in Inclusive education

The curriculum offered in integrated education is a key determinant to the success of Integrated Education in public secondary schools. The respondents were asked to rate the quality of the curriculum offered to the visually impaired and the results were as presented in the Table 4.31.

Table 4.31: Quality of Curriculum Offered in Inclusive education

Response	Visually Impaired		Sighted Students		Teachers	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Very Good	0	0.0	0	0.0	1	3.3
Good	3	33.3	8	20.0	7	23.4
Fair	4	44.5	22	55.0	18	60.0
Poor	2	22.2	7	17.5	3	10.0
Very Poor	0	0.0	3	7.5	1	3.3
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

From the table above, only 3.3% of the teachers indicated that the curriculum offered to the visually impaired was very good. All the other respondents did not respond to this option. 33.3% of the visually impaired felt it was good. Their opinion was shared by 23.4% of the teachers and 20% of the sighted students. More than half (60%), of the teachers indicated that it was fair, followed by 55% of the sighted and 44.5% of the sighted students who held the same view. Twenty two point two (22.2%) of the visually indicated that it was poor, a position shared by 17.5% of the sighted 10% of the teachers. Only 7.5% and 3.3% of the teachers felt that it was very poor, none of the visually impaired held the same opinion. The principal held the position that the curriculum offered to the visually impaired was good. The curriculum officer from K.I.E indicated that though it was not the best yet, it had researched on and successfully implemented. These findings present an agreement that the curriculum offered in integrated education is fair and so if implemented correctly can yield desired outcomes.

4.6.5 Ability of Learner to Cope with Present Curriculum

Teachers were asked to indicate whether the visually impaired learners are able to cope with the current curriculum. The results were captured as in the Table 4.32.

Table 4.32: Ability of Learner to Cope with Present Curriculum

Response	Visually Impaired		Teachers	
	Frequency	Percent	Frequency	Percent
Able	6	66.7	17	56.7
Unable	3	33.3	13	43.3
Total	**9**	**100.0**	**30**	**100.0**

Source: Field Data 2012

From the table above, 66.7% of the visually impaired felt that they were able to cope with the current curriculum while 56.7% of their teachers agreed with them. 43.3% of the teachers indicated that they were unable to cope with the curriculum, an opinion only 33.3% of the visually impaired shared. The principal said the visually impaired were able to cope very well since some of them performed much better than the sighted in the national examination. These findings indicate that the visually impaired are able to adequately cope with the Integrated Education curriculum albeit with a

little difficulty. According to RoK (2005), the curriculum should be adjusted and engineered to suit the individual needs of the visually impaired.

4.6.6 Quality Assurance

According to KISE (2000), learners with special needs need an assurance that there learning is supported by the Ministry of Education if the implementation of integrated education is to be effective and successful. Teachers also need constant support and guidance from quality assurance and standards officers, educational administrators and other educational authorities. It is with this in mind that the researcher asked the teachers whether MoE inspectors have visited the school. The responses showed that; 60% of teachers indicating that the MoE inspector don't visit the school with only 40% indicating that they have been visited by the MoE inspectors.

Teachers were then asked how often the MoE inspectors visited. The results were as presented in the Table 4.33.

Table 4.33: Frequency of Visitations by MoE Inspectors

	Distribution	
Response	**Frequency**	**Percent**
Once a year	4	13.3
Once in several years	5	16.7
Once in over five years	3	10.0
Never	18	60.0
Total	**30**	**100.0**

Source: Field Data 2012

From the table above, 60% of the teachers indicated that the MoE inspectors have never visited them in the school to monitor the implementation of integrated education, 16.7% of the teachers indicated that the inspectors visited once in several years, 13.3% indicated that they visited only once a year and only 10% felt that they have been visited only once in over 5 years. The principal indicated that the inspectors visited once in several years, and when they did, they only concentrated on the visually impaired and the teachers teaching them. These findings indicate that public secondary schools providing integrated education hardly receive visitations from MoE inspectors. This shows that implementation of integrated education has not been adequately appraised. The rare

visitations to monitor quality for which it is meant beats the purpose for which it is meant thus defeating the logic behind the visits. This is in line with RoK (2005) that there are inadequate quality assurance mechanisms for support and evaluation of the program, lack of coordination and commitment between different education departments.

4.6.7 Curriculum Evaluation

Suggestions were sought on the evaluation of the curriculum for the visually impaired. The majority (55.6%) felt that they are disadvantaged particularly in practical subjects while 44.4% felt that the curriculum evaluation was good. When the sighted students were asked to indicate their suggestions on the same, their responses were captured as shown on Table 4.34.

Table 4.34: Evaluation of the Curriculum for the Visually Impaired

Response	Frequency	Percentage
Exams be simpler especially in practical subjects	14	35.0
Exams be easier than for the sighted	5	12.5
Same exam as for the sighted	9	22.5
Curriculum to be evaluated to suit the V.Is	10	25.0
Don't Know	2	5.0
Total	**40**	**100.0**

Source: Field Data 2012

A good number of the sighted (35%) felt that the practical examinations given to the visually impaired should be simpler compared to those given to them, 25% felt that the curriculum should be evaluated to suit the handicap of the visually impaired, 22% indicated that they should be given the same examinations as the visually impaired to avoid feelings of discontent are discrimination while 12.5% felt that the visually impaired should be given easier examinations compared to the visually impaired and only 5% indicated that they did not know. When the sighted were further probed on how the examinations were to be set, there was a general view that teachers should set adapted questions and not drawings or experiments that are hard for them to comprehend. They also felt that the marking should be fair for all and teachers should not be in a hurry to finish.

The teachers indicated that the brailled examinations take time to get to the teacher concerned. They have to go through the transcriber to be debrailled. By the time they get to the teacher, the papers

for the sighted have been marked and returned thus the hurry in marking. Teachers also indicated that the low vision experience serious difficulties when doing the examinations. The examination council should therefore put in place friendly measures like allocating extra time according to the level of handicap and not allocating it across the board. The KNEC official in charge of curriculum evaluation indicated that institutions should alert them on the kind and degree of disability of their students. It is upon the information provided that they take it upon themselves to evaluate the situation and accord necessary measures.

Despite the challenges faced by the visually impaired, their academic performance is generally good. Some manage to score better grades than their sighted counter parts. However if these challenges are addressed, their performance is bound to improve even higher.

4.6.8 Help Given to the Visually Impaired

Respondents were asked to indicate the kind of help given and also the resource materials available for the visually impaired. The visually impaired were asked to indicate the kind of help they often get particularly with practical subjects offered to them. Almost all (87.5%) felt that they were helped by the sighted students during their practical work in biology and home science, while only 12.5% indicated that they did not receive any help. When the sighted were asked to respond to the same question, the 62.5% indicated that they always helped them especially in home science classes by informing the visually impaired what was expected of them. 22.5% of the sighted indicated that they did not help them while only 15% indicated that they did not have visually impaired learners in their classes hence don't offer help. The results are as shown in Table 4.35.

Table 4.35: Help Given to the Visually Impaired by the Sighted

Response	Frequency	Percent
Helped especially during practical lessons	25	62.5
Did not give any form of help	9	22.5
Could not help because there are no V.Is in our class	6	15.0
Total	**40**	**100.0**

Source: field Data 2012

It was observed that some of the sighted students go out of their way to help the visually impaired out of sympathy hence tend to overdo it while others do not care. A majority of the teachers

indicated that due to the large number of students in the classes, and the relatively slower pace at which the visually impaired learn compared to the sighted, they go out of their way and help the visually impaired even out of class to enable them catch up with the rest.

4.6.9 Adaptations

Respondents were required to indicate if there were any adaptations made for the visually impaired in the school. The results were as captured in Table 4.36.

Table 4.36: Adaptations made for the Visually impaired

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Yes	5	55.7	25	62.5	21	70.0
Some	2	22.2	10	25.0	9	30.0
None	1	11.1	5	12.5	0.0	0.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

From the table, all the teachers indicated that adaptations had been made for the visually impaired and though the resource room was available, it needed to be restocked with not only important but updated resources. Most (87.5%) of the sighted agreed that adaptations had been made for the visually impaired and 77.9% of the visually impaired agreed with the other respondents. These findings indicate that the school has managed to achieve a big milestone by making adaptations for the sake of the visually impaired to ensure that they were comfortable in the school.

The views of the respondents were sought on anything that could be done to make the learning of the visually impaired more fun and enjoyable. From the table, 20% of the teachers, 12.5% of the sighted students and 11.1% of the visually impaired indicated that there was need to post teachers trained in special education who would competently handle the visually impaired. A handful of the visually impaired (22.2%) indicated that they be provided with tapes in literature to listen to, 15% of the sighted and 10% of the teachers shared the same opinion. A good majority of the sighted students (65%) indicated that the school needed to provide adapted set books and textbooks. This same opinion was held by 63.3% of the teachers and 55.6% of the visually impaired. A small number of teachers (6.7%) indicated that organized workshops/symposium with other schools to

enable the visually impaired share experiences would help make their learning fun and enjoyable. A small minority (7.5%) of the sighted and 11.1% of the visually impaired held the same opinion. The results were as in Table 4.37.

Table 4.37: Suggestions to Improve Learning of the Visually Impaired Learners

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Post teachers trained in special education	1	11.1	5	12.5	6	20.0
Provide tapes in literature to listen to	2	22.2	6	15.0	3	10.0
Buy adapted set/text books	5	55.6	26	65.0	19	63.3
Organize workshops/symposium with other schools to share experiences	1	11.1	3	7.5	2	6.7
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

These findings indicate that a big emphasis by the respondents is put on the provision of adapted textbooks and set books. The idea being that if they have their own books, they will read them without having to depend on the sighted. Not much emphasis is put on the posting of qualified teachers on special education to handle the visually impaired. This could be attributed to the fact that the students feel that their teachers competently handle their duties with regard to teaching them.

4.6.10 Co-Curriculum Activities

The role of physical body activity cannot be underscored in the growth and development of a child, whether handicapped or not. As the saying goes, all work without play makes Jack a dull boy. It is with this in mind that the researcher wanted to know if the visually impaired are allowed to take part in any co-curriculum activities while in the school. The results were as shown in Table 4.38.

Table 4.38: Participation of Visually Impaired in Co-Curriculum Activities

Response	Visually Impaired		Sighted Students		Teachers	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
No	8	88.9	30	75.0	21	70.0
Yes	1	11.1	10	25.0	9	30.0
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

From the findings, 88.9% of the visually impaired indicated that they are not allowed to participate in any co-curriculum activities, 75% of the sighted students and 70% of the teachers also held the same view. However, 30% of the teachers, 25% of the sighted and 11.1% of the visually impaired indicated that the visually impaired are allowed to take part in co-curriculum activities.

To help clarify the sentiments above, respondents who held that the visually impaired are allowed to take part in co-curriculum activities, were asked to specific which activities they were allowed to participate in. The visually impaired indicated that they were allowed to take part only in athletics and not any ball games, drama or music. The sighted indicated that the visually impaired took part in athletics and were involved in the cheering squad. Teachers indicated that only the low vision were allowed to participate in athletics, walking race and jogging. They further clarified that no one seemed to care about the totally blind during sports and they were even ignored during physical education lessons. The researcher thus concluded that the talents of these students may not be discovered and nurtured at all.

4.7 Support services

This section aims at analyzing the importance of support services on implementation of integrated education. For integrated education to be a success, it must be supported financially, materially, administratively and logistically. Learners with special needs require extra services and resources to be able to learn.

4.7.1 Administrative Support

For integrated education to succeed, it needs administrative support from the headteacher in the school. All the resources available for the program are subject to financial allocation from the administration. The administration also ensures that the teaching staff is positively motivated to

handle the visually impaired albeit the challenges faced. School administrators advocate for the students within the community and set goals and objectives to further children's education. The researcher asked the headteacher what her role was with regard to the successful implementation of integrated education. The head teacher indicated that her major role was to manage the school by leading the school community to operate as a Centre of active teaching and learning. She also has the powers to decide what to be done in her school. This has an effect in the teaching. She commands the distribution of the school resources. Most of the time, the ones she holds for and thinks are important for the school.

It was observed that the school had a resource room which was equipped though not adequately. This room should have the materials and resources that aid stimulate the learning of the visually impaired. There is a resource officer in charge of the room. The officer debrailles the V.Is examinations for the regular teacher to be able to mark she also helps the visually impaired with most of the information regarding their learning. She also guides and counsels them on their day to day challenges and how to cope with them.

Resources should be updated and the use of the old and outdated ones either stopped or be limited. The headteacher indicated that she helps provide good teaching and learning conditions for both teachers and students. She also decides on the co-curriculum activities that are of her own interest and resources diverted to it. This affects the attitude of students.

The fundamental principle of EFA is that all children should have the opportunity to learn. The fundamental principle of Inclusive Education is that all children should have the opportunity to learn together. Diversity is a characteristic that all children and youth have in common—both within each individual child and across individual children. There is strength in diversity, and all children have strengths. From the findings, it is the fundamental responsibility of all those who teach and of all those who support teachers to build on children's strength, to believe in all children's capacity to learn, and to uphold their right to learn. As Ms. Gabriela Arrieta and Ms. Audrey Cheynut (two disabled children) put it in their opening address at the UN Special Session on Children in May 2002, "Children are our future, and they are not the sources of problems in the society."

4.7.2 Government Support

The government plays a crucial role in the implementation of integrated education. The government, in partnership with the community also supports the school and the program if it is to

succeed. The Principal was asked to rate the government's financial support towards improvement and implementation of integrated education. She acknowledged that indeed the government makes substantial financial contribution towards the program and is the chief financier towards its implementation. This is in tandem with MoE (2005) that the government should provide initial and sustainable support to public schools and remove any existing barriers to education of children with special needs.

When asked to rate the level of government support. The Principal indicated that it was average though not adequate. This therefore leaves her with a budgetary deficit and had to look for external partners to partner with so that she can bridge the budgetary deficit. These findings indicate that the government funding for the Integrated Education program is not adequate and heads of public secondary schools who run integrated programs have to source for extra fund to help meet budgetary requirements. This reveals that if the school does not have other sources of funding, the successful implementation of Integrated education could be jeopardized.

From the findings, it is indeed factual that the implementation of integrated education can be successful if only it gets the necessary support from stake holders (RoK 2005).

4.8 Teacher Training and Development

According to Okumbe (2000), teachers are crucial in influencing the learning of a student. Therefore, for effective and successful implementation of the integrated program, there is need for teachers handling children with special educational needs to have special skills.

4.8.1 SNE Training

The teachers teaching within an integrated environment were asked to indicate whether they had any training to handle the visually impaired learners. The results were as captured in Table 4.39.

Table 4.39: Are you Trained to Handle Children with Special Education Needs

Response	Frequency	Percent
No	27	90.0
Yes	3	10.0
Total	**30**	**100.0**

Source: Field Data 2012

From the table, 90% of the teachers have not been trained to handle children with SNE while only 10% have been trained. This is an indication that majority of the teachers are yet to be trained on how to handle the visually impaired. This concurs with Kithuka (2008) who noticed that since KISE was established, it had only trained 741 Diploma and 3241Certificate level teachers by 2007. This presents the country with an acute shortage of teachers trained in SNE since most teachers do not have specialized necessary skills to handle children with SNE (Robertson, 2007).

4.8.2 Measures taken to Handle Children with Special Needs

With regard to the teachers who were yet to be trained on special education within an integrated environment, they were asked to indicate measures that ought to be taken to ensure that they are able to competently handle the visually impaired in the school. The results are shown in Table 4.40.

Table 4.40: Measures to be Taken to help teachers handle Children with Special Needs

	Distribution	
Response	**Frequency**	**Percent**
Be trained	17	56.7
Appraised through workshops/seminars	9	30.0
Provided with information on integrated education	4	13.3
Total	**30**	**100.0**

Source: Field Data 2012

The findings indicate that the most preferred measure in learning how to handle the visually impaired is through training, with 56.7% of the teachers approving of it, 30% indicated that they preferred to be appraised through workshops and seminars while only 13.3% felt comfortable with being provided with information on integrated education. These findings are in agreement with Kadima (2006), that skills, abilities and acquired in training enables a teacher to positively stimulate and foster the interest of a learner. Therefore the teacher education system must be adjusted with greater diversity of the learner.

4.8.3 Adequacy of the Current Training

Teachers who indicated that they have had training in SNE were asked to state if they felt that the current training was adequate. Two thirds, or 66.7% indicated that the current training was adequate

against 33.3% who said it was not. This implies that the curriculum is adequately covered only that implementation should be improved.

4.8.4 Teachers Frequency of Attending Seminars/Workshops

In order to establish teachers' preparedness, the 13.3% who indicated that they have attended seminars/workshops on integrated education were asked how often they attended them. Their responses were as captured in the Table 4.41.

Table 4.41: Frequency of Attendance of Seminars/Workshops by Teachers

	Distribution	
Response	**Frequency**	**Percent**
Once a term	0	0.0
Once a year	1	25.0
Once in several years	2	50.0
Once in over 5 years	1	25.0
Total	**4**	**100.0**

Source: Field Data 2012

From the table, 50% of those who had been trained on special education were appraised once in several years, only 25% were appraised once in a year while others took over five years to be appraised. These findings indicate that teachers who had attended seminars/workshops were appraised once in several years while others taking longer than 5 years to be appraised. This shows that teachers in public secondary schools are not well appraised to teach in integrated environments through seminars/workshops.

4.8.5 Reasons for Non-Attendance of Seminars/Workshops

As a follow-up on teachers who said that they had not been trained on special education and yet had not attended any seminars/workshops on integrated education, the researcher wanted to know why they had not attended any. The study findings indicate that 42.4% did not attend these seminars/workshops because they have never heard of them, 34.6% indicated that they were not invited for any, 15.4% cited the lack of time, and only 3.8% indicated that they lacked interest while another 3.8% felt that they did not have funds. These findings indicate that teachers don't attend seminars/workshops due to lack of information about them and lack of invitation. The Principal

agreed with her teachers indicating that they hardly received any information regarding any seminars/workshops or letters inviting teachers to these seminars/workshops. The reasons were as presented on Table 4.42.

Table 4.42: Reasons for Non-Attendance of Seminars/Workshops

	Distribution	
Response	**Frequency**	**Percent**
Never been invited	11	34.6
Never heard of one	9	42.4
Lack of time	4	15.4
Lack of interest	1	3.8
Lack of funds	1	3.8
Total	**26**	**100.0**

Source: Field Data 2012

4.9 Existing Relationships

Like in any other community, the visually impaired have to relate on a day to day basis with the other members of the school community. It is with this in mind that the researcher wanted to know how the visually impaired related with the teachers, sighted students and the non-teaching staff within the school. The results were as shown in the Table 4.43.

Table 4.43: Existing Relationships with other Members of the School Community

Response	**Frequency**	**Percent**
Strained	3	33.3
Quite good	3	33.3
Not quite good	2	22.2
Going on well	1	11.2
Total	**9**	**100.0**

Source: Field Data 2012

The visually impaired indicated their relationships with the other members of the school community such as teachers, the sighted students and members of the non-teaching staff. A third, or 33.3% felt

that with certain sighted students and teachers, the relationship is a bit strained, another 33.3% felt that the relationship was quite good especially with the teachers since they were guiding them well and preparing them for the future, 22.2% indicated that their relationship particularly with the sighted was not quite good since they felt that they sometimes bothered the sighted whenever they were being helped. Only 11.1% felt that their relationships were happy with their relationships with the rest, things were going on well and that they were comfortable.

When the sighted were asked on their relationships with the visually impaired, the results were as shown in Table 4.44.

Table 4.44: Existing relationships of the Sighted and the Visually Impaired

Response	Frequency	Percent
Good friends, bond well and share in and out of class	26	65.0
Casual friends	11	27.5
They are just like other students	3	7.5
Total	**40**	**100.0**

Source: Field Data 2012

From the table above, 65% of the sighted students indicated that they were good friends with the visually impaired, bonded well with them and shared well in and out of class, 27.5% indicated that they were just casual friends and only 7.5% felt that the visually impaired were just like the other students and thus related to them normally like they would relate to the others.

4.9.1 Sharing of Items

The sighted students were asked to indicate what they mostly shared with the visually impaired while in the school. From the findings, 37.5% of the sighted students indicated that they shared all school facilities, 25% indicated that they only shared the hostels, the dining hall (DH), toilets and showers, while 17.5% indicated that they shared classes, the library and books, 12.5% indicated that they mostly shared snacks and drinks especially during visiting days and soon after school opening days while only 7.5% felt that they did not have much to share with the visually impaired. When teachers were asked the same question, 90% of them indicated that the sighted and the visually learners shared the school facilities while only 10% indicated that they were not shared. These

findings indicate that the sighted students did not have any problem sharing both the school resources and personal effects with the visually impaired. The results were as shown in Table 4.45.

Table 4.45: Sharing of Items in School

Response	Frequency	Percent
All school facilities	15	37.5
Hostels, DH, Toilets, Showers	10	25.0
Classes, library, Books	7	17.5
Snacks and Drinks	5	12.5
Nothing much	3	7.5
Total	**40**	**100.0**

Source: Field Data 2012

The visually impaired were asked whether they always sought help from the sighted and what the sighted did when approached for such help. More than three quarters, or 77.8% of the visually impaired indicated that they always sought help from the sighted when they felt they needed it. Two thirds or 66.7% of those who sought help said that this was especially when nearing examinations and would therefore seek help from their teachers and the sighted. Most of the sighted (85%) indicated that they helped the visually impaired when stranded in the compound to their destinations. Only 15% of the sighted indicated that they don't help the sighted either because they don't ask for help or usually demand it and feel that they have a right to it hence they are not ready to offer the help where necessary. The researcher observed that when some sighted students were politely asked by the visually impaired for help, they easily agreed without any resistance.

4.9.2 Sensitivity of Members of the School Community to needs of the visually impaired

Respondents were asked to indicate whether the other members of the school community were sensitive to their needs. The visually impaired felt that 77.8% of the school community was sensitive to their needs, 95% of the sighted students and 73.3% of the teachers concurred with the feelings of the visually impaired. However, 26.7% of the teachers thought that the other members of the school community were insensitive to the needs of the visually impaired, 22.2% of the visually impaired agreed with their teachers and only 5% of the sighted indicated that members of the school community were insensitive to the needs of the visually impaired. These findings indicate that

members of the school community are sensitive to the needs of the visually impaired. The results were as shown in Table 4.46.

Table 4.46: Sensitivity of Members of the School Community to needs of the visually impaired

	Visually Impaired		Sighted Students		Teachers	
Response	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Sensitive	7	77.8	38	95.0	22	73.3
Not sensitive	2	22.2	2	5.0	8	26.7
Total	**9**	**100.0**	**40**	**100.0**	**30**	**100.0**

Source: Field Data 2012

The respondents were further probed on how they would tell that members of the school community were either sensitive or insensitive to the needs of the visually impaired. Majority of the visually impaired (88.9%) felt that the sighted were sensitive to their needs since they read for them printed material and helped them especially during the practical lessons in biology and home science. Most of the teachers (70%) indicated that the sighted were sensitive since they guided the visually impaired not only indoors but outdoors too. More than half (55%) of the sighted indicated that they read printed material for the visually impaired whenever they were requested to do so and thus felt they were sensitive to their needs. The researcher observed that some teachers parked their cars insensitively along common paths thus obstructing the visually impaired.

4.10 Attitudes

4.10.1 Attitudes towards the Visually impaired

The sighted were asked to indicate the reactions of teachers towards the visually impaired. From the findings, most of the sighted students (60%) indicated that teachers paid close attention to the visually impaired, 17.5% felt that they are treated indifferently by the teachers, 15% said the teachers were understanding but expected too much from them academically while only 7.5% indicated that the visually impaired are treated by the teachers just like any other student. These findings indicate that teachers are not only approachable, but went out of their way to try and help the visually impaired whenever they are approached. The results were as captured in Table 4.47.

Table 4.47: Reaction of Teachers towards the Visually Impaired

Response	Frequency	Percent
Pay close attention to them	24	60.0
Treated indifferently	7	17.5
Understanding but expect too much from them	6	15.0
Normal like any other student	3	7.5
Total	**40**	**100.0**

Source: Field Data 2012

4.10.2 Attitudes of Teachers Towards the implementation of Integrated Education

Teachers' views were sought on the information that could help establish their attitudes towards the implementation of integrated education in public boarding schools. The responses were tabulated as Strongly Agree (**SA**), Agree (**A**), Disagree (**D**), Strongly Disagree (**SD**) and Uncertain (**U**) and a summary presented in Table 4.48 below (also see Appendix IX).

From the results as captured in Appendix IX, 53.3% of the teachers indicated they agreed integration was best compared to special education, 23.3% indicated that they strongly agreed, 16.7% disagreed while only 6.7% strongly disagreed. These findings indicate that the teachers agree with the notion that integrated education is best for the visually impaired compared to special education thus has a providing a positive academic growth to children with special learning needs.

On whether majority of teachers had undergone special education courses, 56.7% strongly disagreed, 36.7% disagreed, and only 6.6% agreed. This indicates that indeed majority of teachers teach without the skills and knowledge to handle the visually impaired. The teachers were asked to indicate their feelings on the adequacy of specially trained teachers to handle the visually impaired within an integrated education environment. Almost half, 46.7% indicated that they strongly disagreed, 36.7% disagreed, and only 16.6% agreed. The findings indicate that public secondary schools offering integrated education do not have adequate special trained teachers to handle the visually impaired.

Table 4.48: Attitudes of Teachers Towards the implementation of Integrated Education

	Statement	Comment based on response
1	Integrated education is best compared to special education	Teachers strongly agreed
2	Majority of teachers have undergone special education courses	Teachers strongly disagreed
3	Teachers have a negative attitude towards the visually impaired	Teachers disagreed
4	Teachers feel that visually impaired learners are better cared for in special schools	Teachers agreed
5	Right text books are available for teachers/learners reference	Teachers disagreed
6	The school community is always psychologically prepared before arrival of the visually impaired	Teachers disagreed
7	There are adequate special trained teachers to handle the Visually impaired	Teachers disagreed
8	Teachers go out of their way to help the visually impaired	Teachers strongly disagreed
9	The visually impaired are not prepared enough for an integrated Environment	Teachers were uncertain
10	Teachers who teach the visually impaired are well motivated	Teachers strongly disagreed
11	The school's resource room has adequate materials for use by teachers and the visually impaired	Teachers disagreed
12	The relationship between the visually impaired and the sighted is Warm	Teachers agreed
13	The visually impaired are able to move freely in/around the school compound without any problem	Teachers disagreed
14	The visually impaired are easily and readily assisted by the sighted whenever the need arises	Teachers strongly disagreed
15	The visually impaired are unfriendly, easily lose their temper and decline any help from the others	Teachers strongly disagreed
16	The general public has enough knowledge on the existence of the integrated program	Teachers strongly disagreed
17	Methods of instruction used are the best ones for the visually impaired	Teachers disagreed
18	The integrated program has been a success despite the challenges faced	Teachers strongly disagreed

19	Integration will help the sighted in understanding and accepting the visually impaired	Teachers strongly disagreed
20	Integration has a positive effect on the social and emotional development of the visually impaired	Teachers strongly disagreed
21	Integration requires teachers to make significant changes in the way they organize and teach their lessons	Teachers strongly disagreed

Source: Field Data 2012

Given the slow pace at which the visually impaired learn relative to that of the sighted, the teachers were asked if they go out of their way to help the visually impaired. A majority of them (56.7%) agreed, 26.7% strongly agreed, 13.3% disagreed while 3.3% strongly disagreed. The findings indicate that teachers indeed go out of their way to help the visually impaired to catch up with the sighted regarding syllabus coverage. This shows that integration does not lower the quality of education for the handicapped learner. The teachers were asked to indicate whether they have a negative attitude towards the visually impaired.43.3% disagreed, 26.7% strongly disagreed, 16.7% indeed agreed that teachers have a negative attitude towards the visually impaired and only 3.3% were uncertain about teachers' attitudes towards the visually impaired. These findings indicate that teachers do not have a negative attitude towards the visually impaired.

In every learning institution, the learners must be taken care of. It is in this regard that the teachers' feelings were sought. Slightly less than half or 43.3% strongly agreed that they felt that the visually impaired learners are better taken care of in special schools than within an integrated setting. However, almost more than half of that (23.4%) strongly disagreed with their colleagues, 16.7% agreed, 13.3% disagreed while 3.3% indicated that they were uncertain. The findings indicate that, generally, teachers felt that visually impaired learners are better taken care of in special schools.

The main objective of a learning institution is to effectively implement the curriculum. In order to make teaching learning effective, there is need to utilize teaching and learning resources. To this effect, the researcher wanted to establish the availability of the right text books teachers'/learners' reference. Majority of the respondents (63.3%) strongly disagreed, 23.4% disagreed with such a proposition, while 10% agreed. Only 3.3% of the teachers strongly agreed. These findings indicate that the right text books for teachers'/learners' reference with regard to integrated learning are not available. This implies that public secondary schools offering integrated education do not have the right text books teachers'/learners' reference.

To increase productivity of any work force, they must be well motivated. Teachers are not left out of this to provide their teaching services optimally. It is with regard to this that the feelings of the teachers were sought regarding the motivation of those of them who directly handle the visually impaired. More than two thirds of them (70%) strongly disagreed with the notion that those of them who teach the visually impaired are well motivated, 23.3% disagreed while only 3.3% agreed. These findings indicate that teachers who teach the visually impaired in integrated public secondary schools are not well motivated and this could lead to lethargy.

ne of the most important physical facilities in the implementation of integrated education is the resource room. The teachers were required to indicate if the school's resource room has adequate materials for use by teachers and the visually impaired. A small majority of 43.3% of disagreed while a close 30% agreed that it had adequate materials, 16.7% strongly disagreed while only 10% strongly agreed. These findings indicate that though the resource room could be having some materials, they are not adequate and more needs to be done in terms of providing adequate materials for use by the visually impaired and the teachers in public secondary schools providing integrated education

When asked whether the relationship between the visually impaired and the sighted is warm, 36.7% of the teachers agreed while 26.7% strongly agreed, 23.3% disagreed while 13.3% strongly disagreed. These findings indicate that the visually impaired and the sighted students relate well within integrated education environments. However more need to be done to ensure that their relationship improves. It has been alleged that the visually impaired are unfriendly, easily lose their temper and decline any help from the others. Teachers' feelings were on this allegation was sought. A third (33.3%) of the teachers strongly disagreed and 26.7% disagreed, 20% agreed, 13.3% strongly agreed and 6.7% were uncertain. These findings indicate that such allegations are unfounded and based on stereotypes.

With regard to mobility, the teachers were asked if the visually impaired are able to move freely in/around the school compound without any problem, 40% disagreed, 33.3% of them agreed that the visually impaired are able to move freely in/around the school compound without any problem while 16.7% strongly agreed. Only 10% strongly disagreed. The findings show that although the visually impaired are able to move around the school compound, they do so with some difficulty.

The public secondary schools offering integrated education therefore need to reengineer their schools in such a way that the mobility of the handicapped is made relatively easy.

Teachers were asked to indicate if the visually impaired are easily and readily assisted by the sighted whenever the need arises. Almost half of teachers (46.6%) indicated they agreed, followed by 20% who indicated that they strongly agreed, 16.7% disagreed and 10% were uncertain while 6.7% strongly disagreed. These findings indicate that the visually impaired somehow get assisted by the sighted but not always. This is a good reminder to heads of public schools offering integrated education that the visually impaired need to be trained on skills on self reliance and independence so that they don't rely on the sighted who may not always be willing to help.

When asked if they felt that the methods of instruction they used were the best ones for the visually impaired, 36.6% of the teachers agreed and 16.7% strongly agreed. However, 26.7% disagreed and 20% strongly disagreed. This shows that the methods of instruction they used were relatively fair and thus the teachers needed to be trained in special education to equip them with skills and knowledge in SNE. They also need to be inspected regularly by the MoE inspectors to monitor the quality of education the handicapped child receives. Based on these responses, teachers were required to clarify if integration required significant changes in the way they organize and teach their lessons in class. More than two thirds of the teachers (70%) strongly agreed while the other 30% agreed. This goes to confirm that teaching an integrated class requires the right knowledge, attitudes and skills for a teacher to positively stimulate and foster the interest of a learner. They need to adequately be trained.

Teachers were asked to indicate if integration would help the sighted in understanding and accepting the visually impaired not only in the normal classroom but also as complete members of the society when they finished high school. 56.7% of the teachers agreed while 30% strongly agreed. However, 10% disagreed and 3.3% strongly disagreed. The researcher went on to ask the teachers if indeed integration has a positive effect on the social and emotional development of the visually impaired. 50% indicated that they strongly agreed while 40% agreed, only 10% seemed to disagree. These findings indicate that integration plays a major role in the emotional and social development of learners thus help build a firm and cohesive society without discrimination based on disability and stereotyped prejudices.

Teachers were asked whether the school community is always psychologically prepared before the arrival of the visually impaired learners. Most of the respondents (73.3%) strongly disagreed, 20% disagreed while only 6.7% agreed. These findings indicate that public secondary schools offering integrated education do not adequately prepare the school community psychologically before the arrival of the visually impaired learners. The feelings of the teachers were sought on the notion that the visually impaired are not prepared enough for an integrated educational environment, 40% were uncertain about this notion. This can be attributed to the fact the visually impaired come from diverse backgrounds not well to the teachers. 26.7% strongly agreed, 16.6% disagreed, and 10% strongly disagreed while only 6.7% agreed.

Teachers' feelings on whether the integrated program had been a success despite the challenges faced, 60% of the teachers agreed while 23.4% strongly agreed. However, 13.3% disagreed with another 3.3% strongly disagreeing. These findings strongly indicate that the integrated education program is an endeavor that can be pursued, successfully implemented, run and sustainably managed without compromising the quality of education for all children. From the findings, teachers have a positive attitude towards integrated education and its implementation in public secondary schools. But it is clear that they also need support from the quality assurance department and adequate training on how to handle learners with special learning needs.

On whether the general public has enough knowledge on the existence of the integrated program in public secondary schools, 63.4% strongly disagreed and 33.3% disagreed that the general public has enough knowledge on the existence of the integrated program in public secondary schools. Only 3.3% of the teachers seemed to agree. The findings indicate that there is lack of information about integrated schools and the public is not informed. The government should therefore educate and inform the public about integrated education.

This study achieved its objective of examining the factors influencing successful implementation of integrated education in public secondary schools. The study found a strong need for integration since the basic infrastructural, human resource requirements and financing already exists.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings of the study. It also draws conclusions from the findings of the study. Further, it gives recommendations in line with the study findings. This study aimed at establishing the factors that influence success of integrated education in public boarding schools. Areas of further research are also suggested. The study was guided by the following specific objectives: To assess the suitability of the school learning environment for the visually impaired on success of integrated education, to investigate the availability of teaching/learning resources on success of integrated education, to establish the influence of availability of support services on success of integrated education, and to investigate the influence of teacher-training and development on success of integrated education

5.2 Summary of Findings

This section summarizes the findings of the study based on the following; Suitability of the School Learning Environment for the Visually Impaired, Availability of Teaching/Learning Resources, Availability of Teaching/Learning Resources, and the Influence of Teacher-Training and Development in the successful implementation of integrated education.

5.2.1 Suitability of the School Learning Environment for the Visually Impaired

Moi Girls' School Nairobi in built on a relatively flat expansive piece of land. Therefore the topography of the school does not provide a challenge to the visually impaired. This makes its fields very good for sporting activities. It was however noted that the totally blind are not allowed to participate in any sporting activities like athletics. One student put it that "it's like they don't exist. Yet they can participate in the special athletic games where they run with a guide". They are however allowed to participate in singing and recitation of choral verses.

There were bumps and trenches in the compound. This explains why 90% of the teachers felt that the school was not conducive for the visually impaired since trenches and drainages were not covered. The central parking zone for cars is also small hence some cars are parked along paths where they shouldn't be parked. They therefore obstruct the visually impaired. They suggested that the trenches and drainages be covered and the central parking zone be expanded.

The sighted indicated that toilets/bathrooms are in a pathetic state. They suggested that they should be allocated their own special facilities or the existing ones be adapted and modified for the visually impaired. However, the visually impaired felt that the toilets/bathrooms were okay. This could be attributed to the fact that they do not see them. Both the sighted and the visually impaired were excited about the fact that they share sleeping cubicles.

The study revealed that the school had adequate facilities to support the implementation of integrated education. However, they can be improved to make the learning of the visually impaired more fun and enjoyable. The school could therefore do with additional facilities.

5.3.2 Availability of Teaching/Learning Resources

If teaching/learning is to take place effectively, then the teaching/learning resources should also be provided and adequate. This would ensure that the curriculum is delivered to the learner as indicated in the K.I.E guidelines. The school has a resource room where textbooks in Braille are available. It was however noted by the visually impaired that some of the textbooks in the resource room are old and outdated. The visually impaired are also provided with Braille machines and papers that they use to type their notes. The study findings revealed that though the school had some resources, they were inadequate.

On the curriculum, the study findings indicate that it was not appropriate and did not cater for the visually impaired and their needs. The visually impaired felt that there is need for them to be allowed to choose subjects that would stimulate the growth and development of their talents. Those with low vision felt that their curriculum should be different from that of the totally blind and the sighted since they had little sight. They felt that the examinations are sometimes not adapted for them like their sighted counterparts. A few felt that the exams given to them should be compared to the rest, others felt that the exams should be the same while the rest thought that exams should be removed.

On curriculum delivery, the visually impaired strongly felt that students and teachers helped them whenever possible with their studies. They however indicated that sometimes teachers taught as though they were not in class. That they could teach in class using visual images to explain concepts yet they cannot see. They appreciated the fact that they have enough books and materials for their reference purposes in the resource room. A few noted that this could be enhanced by bringing in more recently published and updated material.

On quality assurance and visitations by the MoE inspectors, the study revealed that the inspectors rarely visit the school to establish and monitor the quality standards of the curriculum as delivered in an integrated environment. This therefore puts the credibility on the appraisals on the curriculum to question beating the purpose and logic of the visitations.

The study established that the current curriculum is not appropriate since it does not suit the individual needs and interests of the learners. The study also established that time allocated to coverage of the curriculum is not adequate and could hamper the successful implementation of integrated education.

5.2.3 Influence of Support Services

If integrated education is to succeed, support is key and central. The headteacher is the chief administrator in the school and her support towards the program is very important. She allocates both physical and financial resources that go a long way in keeping the program running. She however indicated that some of the equipment and materials used are very expensive and this sometimes strained the budget. She must also continuously give moral support to the teachers that handle the visually impaired and to an extent direct the attitudes that the teachers, students and other staff have towards the visually impaired.

The researcher observed that the school has a resource room It is from this room that the needs and requirements of the visually impaired are taken care of. This includes allocation of the Braille machines and their maintenance. The school has employed the resource officer who is in charge of the resource room. The principal suggested that the government should take up the responsibility of employing the resource officer and not leave it to the school It is the resource officer who also transcribes the work of the visually impaired for the teachers to mark.

For the integrated program to be sustainable and succeed, it must be funded. The Principal indicated that she is funded by the government through the MoE. The community, through the parents association also contributes significantly. However these funds are sometimes not enough. The principal felt that to bridge the deficit, more donors should come in to support the program either financially or donating materials such as Braille textbooks and equipment to the resource room

5.2.4 Influence of Teacher-Training and Development

For learning to occur, the teaching must be effective. Effective and competence in handling the curriculum in an integrated environment can only take place if the teachers are competent, qualified and well trained. The study found out that over 95% of teachers had not undergone any further training in special education. This is despite the fact that 60% of them held Bachelor of Education degrees. Another 20% had either completed their masters' degrees or were pursuing it while only 10% held Diploma in education. Only 5% had either been trained in special education or attended seminars and workshops on SEN. Most of the teachers thus could not effectively pass their knowledge and skills to the visually impaired learner. They felt helpless and could not do much.

The Principal acknowledged that there was indeed a severe lack of teachers trained in special education in her school. She however indicated that she has raised the issue severally with the Teachers Service Commission, the teachers' employer and all she gets are promises that teachers will be deployed. All she has to do now is contend with the teachers she has. Asked why most of her teachers have not been attending seminars/workshops on special education, she said that such seminars should be organized by the K.I.E and the teachers invited to attend. So far, this has not been happening. The K.I.E official confirmed the same and promised that they would organize more seminars/workshops in future and invite teachers. But he noted that this would call for additional funding from the government and donors.

The study established that despite the training inadequacies, the teachers learnt how to handle the visually impaired while on the job. This was through constant consultation with their peers who had been in the school for a longer period. But such a technique, however helpful, may not take care of the uniqueness of the differences within each individual student. They also have a positive attitude towards the implementation of integrated education and therefore support it fully.

5.2.5 Relationships

Majority of the sighted students (90%) indicated that they were not aware of the integrated program in the school when they first reported. 70% of the teachers were shocked/surprised to find out that there were visually impaired learners in their classes when they were first deployed to the school. They in fact confessed that they did not know how to handle them at first. The teachers thus felt helpless and further sympathized with the visually impaired.

Nearly all (90%) of the sighted students indicated that they offered help to the visually impaired when they needed it. However, only 10% felt that they would not give any kind of help particularly if the V.Is demanded it. Sighted students were however unhappy with the noise that came from the Braille machines as the V.Is typed.

5.3 Discussion

These section discuses the findings of the study based on the variables. It helps put the study into perspective, presents the findings in comparison to the findings of other similar studies done before.

5.3.1 Availability of Physical Facilities

The physical access and learning environment possess a barrier to implementation of integrated education. According to Kithuka (2008), marked progress has been made in getting new buildings. However, there is still inappropriate infrastructure like buildings and toilets to make learning friendlier for the handicapped (UNESCO, 2008). Facilities needed for special education are expensive and hinder most children with disabilities from accessing education (Saitoti, 2003). Children with special needs require special facilities to help them cope with barriers in learning. The lack of disability friendly services and accessible buildings are considered by some to be far a greater problem than social prejudice and negative attitudes (Chatterjee, 2003). Therefore, unless the challenges are carefully identified and systematically addressed, inclusion will remain a challenge that only few schools can face.

5.3.2 Availability of Teaching and Learning Resources

There is need for adequate resources to make teaching and learning effective in integrated environments. The special facilities such as, special spectacles, Braille materials and the white cane are not always enough for all learners with special needs (UNESCO, 2005). The government has however set aside grants to facilitate purchase of necessary teaching and learning aids, provision of instructional materials through waving of duty on specialized equipment/materials and incentives for local production on such equipment to reduce costs (MoE, 2000). The KIE develops teaching/learning materials in line with regular school approaches (MoE, 2003). There is need to recognize the difficulties children with special needs face and improve on pedagogical approaches that respond positively to their diversity (UNESCO, 2005).

5.3.3 Availability of Support Services

Learners with special education needs require basic support services if they are to learn effectively in integrated environments (KISE 2000). Teachers also need a lot of support from quality assurance and standard officers, educational administrators, and educational authorities. There is also inadequate logistic support for evaluation of the program and lack of coordination and support from decision makers (RoK 2005). The government funding is low and insufficient in spite of the importance accorded to education (RoK 2005). Funding is also done by donors (MoE 2001). The head teacher's major role is to manage the school by leading the school community to operate as a Centre of active teaching and learning. They help provide a good teaching and learning conditions for both teachers and students. Though school administrators are under the ministry of education, they have the powers to direct resource distribution in a school. Resources should also be updated and stop using resources of the past.

5.3.4 Teachers' Training and Development

Teachers are crucial in influencing learning of students. Therefore, for effective implementation of the integrated program, there is need for teaches handling special needs learners to have special skills to enable them handle children responsibly. A good teacher must fist have the knowledge of how children learn (Kapas, 1963). In the process of working towards the goals of the psychodynamic interpersonal strategy, the teacher must posses expertise. A teacher thus requires special skills in order to handle them competently. The teacher may also need to offer some type of counseling. The majority of school personnel are not trained to design and implement educational programs for students with disabilities in regular schools. Most teacher training programs do not have a unit on Disability Studies (Myreddi and Narayan, 2000).

If integrated education is to become a reality, there is need for teacher education to involve every teacher in every school as well as those training as teachers in teacher training institutions (UNESCO, 1994). Majority of teachers lack experience and skills to work in integrated settings. There is thus need to incorporate special education curriculum in the training of teachers and in-service those already teaching. This is to equip them with skills and knowledge to enable them handle learners with special needs (Kadima 2006). Skills, abilities and knowledge acquired during training enable the teacher to stimulate and foster the interest of the learner. Therefore, the teacher education system should be adjusted with greater diversity of the learner in mind.

5.3.5 Curriculum Appropriateness

The Koech Report (RoK, 1999) noted that the curriculum for learners with special needs is complex and cannot be like that of regular education. This is because it involves more than the processes of teaching and learning. Allen and Schwatic (2001) show that the primary purpose of the curriculum is to establish a foundation of lifelong learning and create a positive school experience to a child. The education curriculum is the major obstacle to integrated education since it is extensive, demanding and centrally designed. The content is sometimes distant to reality of the learner which makes it inaccessible and unmotivating. There is therefore need to develop and implement a flexible curriculum that is child centered to meet the needs of the child with visual impairment (MoE, 2005).

This structure is broad and complex as it as in comprises a number of inter disciplinary fields like: the regular curriculum, adapted curriculum, specialized curriculum and so on (Kephart and Ebersole, 1968). The curriculum does not however cater for all these. Although it is broad and includes the compensatory skills like reading and writing in Braille, orientation and mobility, listening and social skills, and the modification and adoption of some subjects, it is broad and requires more time. This is currently not catered for and it affects the learning of the visually impaired. The co-curriculum activities for the visually impaired are also minimal. Most of them are left sitting in class during sports and physical education lessons.

Evaluation should be based on the capacity and ability of the learner, respecting time and making available particular procedures. KNEC has not put in place effective measures to ensure those children with special needs are tested within their knowledge in view of their disability (KNHCR 2007). These children compete with their sighted counterparts equally while the school system is examination oriented. Those unlikely to succeed in national examinations find the benefit of education being unclear (Muchiri and Robertson, 2007). This becomes a problem for them to make adjustments and solutions to match the abilities of the visually impaired learner.

5.3.6 Attitudes of Headteachers, Teachers and Students

Attitudes of the non-disabled are proving to be a major barrier in the social integration of persons with disabilities. "The more severe and visible the deformity is, the greater is the fear of contagion, hence the attitudes of aversion and segregation" (Desai,1990). Alur (2001), in her study found that disability is not seen as something "normal" or "natural," rather it is seen as an "evil eye." Guilt, stigma and different kinds of fears tend to be paramount in such families. She further concludes that

5.4.2 Teaching/Learning Resources

The curriculum needs to be planned in such a way that it takes care of diversity. A lot of care needs to be taken during the design, development and implementation stages. All key stake holders must be involved and the views of the learners and teachers sought. Implementation and delivery of the curriculum cannot be effective if there is lack of sufficient and necessary materials like textbooks. The resource room therefore needs to be equipped by modern and updated materials and books for use by both teachers and students.

The researcher thus concludes that being in an integrated education environment is not enough. The visually impaired, just like the sighted should be provided with the resources and materials required for them to get a quality education. Those with low vision low vision should be allowed to choose subjects that suit them so that they build careers in their areas of interest. There is also a need for a clear explanation to them on why they still need to learn Braille instead of forcing them.

Although teaching/learning resources are available in the school, they are still inadequate. Some of the textbooks are outdated. The set books are not in Braille and thus the sighted must read for the visually impaired.

5.4.3 Support Services

For an integrated program to succeed there has to be support right from the school administration. It should not only be moral support, but also financial. It is the Principal who allocates resources used in the school and therefore must be willing to fully support the integration.

The school is funded by the government through the M.o.E. using government grants. The funds are however insufficient. Other organizations like the Rotaract and Lion's Clubs also have had to come in to help fund the program though on an on/off basis. The M.o.E needs to increase its funding to the program. Other partners also need to come in to help increase the extent of access. This is very key as already shown in this study.

Not all the visually impaired had the white cane yet it is very essential in helping them navigate the school's vast compound. The visually impaired had had Braille machines for their typing. It was however noted that most of them are old and keep on breaking down. The school should source for better modern ones that are easy to maintain and produce less noise.

"the contradiction here was that society, although integrated in accepting and valuing diversity in so many ways, has a social role construct of disability which is negative, discriminatory and exclusionary". Kannan, (2000), states that in order to harness the great potential of more than people with disabilities, it is essential that "prejudice, mental and irrational myths concerning disability, is eradicated."

There is some evidence that those educators who are knowledgeable about government policies and laws concerning integrated education tend to have positive attitudes toward implementing such programs (U. Sharma, 2001). There is also evidence when parents are knowledgeable and supportive of integrated education, they tend to have a positive effect on school personnel (U. Sharma, 2001). Thus, unless people, especially parents of children with disabilities and school personnel, are made knowledgeable, commitment to providing integrated education will be in vain.

5.4 Conclusions

The study concluded that for integration to be successful, there are several factors that must come into play. This was evident from the findings and responses that respondents gave on suitability of the school learning environment, availability of teaching/learning resources, the curriculum and its implementation, provision of support services, teacher training and development, and the existing relationships among the visually impaired, the sighted, their teachers and the schools administration. All these when coherent, provide the right conditions for the success of integrated education. Integration is finally here with us and nobody should downplay this reality any more.

5.4.1 Suitability of the School Learning Environment for the Visually Impaired

Most of the physical facilities should either be improved or modified to make the life of the visually impaired comfortable. The central car park is small. Cars are therefore parked anywhere and arbitrarily. They therefore obstruct the visually impaired particularly when parked along common paths. There is need for a larger space that can accommodate cars that belong to the staff and visitors.

The current bathrooms and toilets are not tailored for the visually impaired. They should either be modified to suit them or theirs separately constructed. The school should also construct ramps alongside staircases to prevent the visually impaired from frequent slips/trips/falls since they can't see the staircases and some of them don't have the white cane. There is need to cover the trenches and drainages.

The research showed that the visually impaired were offered help by their colleagues. However a few were rude and not easily approachable. They also received help easily from teachers whenever they sought it. New teachers and students should be made aware of the integrated program in the school to prepare them psychologically. The school does not provide the dense spectacles for the low vision. It was up to the parents to do so.

Although the school has a resource room, it is ill equipped. Both the teachers and students need modern and adequate teaching/learning materials stocked in the resource room if curriculum delivery is to be efficient and effective. There is also need for the TSC to deploy more trained special education teachers to integrated schools.

5.5.4 Teacher Training and Development

Although the teachers are highly qualified and well trained in their profession, very few have been further trained in special education. This renders them helpless and ineffective when it comes to handling the visually impaired. Teachers need to be offered in service courses, workshops and seminars on special education, especially those who handle the V.Is. They should also be given a special allowance due to the extra demand/work, time and energy spent on the V.Is. It is worth noting that this allowance was previously there but was withdrawn by the government. It should be reinstated.

The K.I.E, teacher training institutions and other partners like KISE need to include more modules on special education with emphasis on integration. Teachers need to be trained since most lack the skills and knowledge to effectively handle the handicapped.

Table 5.1: Contribution to Knowledge

Research Question	Contribution to Knowledge
1. Is the school learning environment and the available physical facilities available suitable for the visually impaired?	Man by his nature continuously interacts with his environment on a daily basis. For the visually impaired, the physical environment should be modified and adapted to their needs. Ramps should be provided as an alternative to stair cases. The ground be relatively flat without unnecessary bumps on the path ways. All open drainages and ditches should be covered. Toilets and bathrooms be modified and adapted for the use of the V.Is.
2. How does the availability of teaching/learning resources in the school influence the success of integrated education?	The success or failure of the curriculum implementation depends on availability of facilities and equipment for use by the V.Is. Some of the resources like the Braille textbooks and machines are expensive to acquire. Government, donors and the community should play an active role in helping the schools through funding and donations to help in acquisition and provision of these resources. This would make it possible for the visually impaired to learn comfortably.
3. Does the provision of support services influence success of integrated education?	The school administration plays a key role in the success of integrated education. The Principal decides and determines the financial resource allocations meant for integrated education. She needs to network with other professionals like health and social workers, politicians etc to enhance provision of support services. The resource room is very essential. It should be provided for since it`s the central management point for most, if not all the resources required by the visually impaired. It should be well equipped to enhance effective delivery and implementation of the curriculum. The visually impaired should be provided with the white cane to help them easily navigate through the

school. The low vision need heavy magnifying lenses to help them read since their sight ability is limited.

4. How effective is teacher training and development in handling and curriculum delivery to the visually impaired learner?

Teachers should be trained in the proper use of their knowledge, skills and attitudes in handling the visually impaired. This will not only prepare the learners for the examinations, but also their future roles in integrated environments. If methods of transmitting knowledge to learners are sensitive to the needs of all, then they will maximally get the knowledge, while positively and adequately preparing them for further education, work and life.

Teachers should be trained in the proper use of their knowledge, skills and attitudes in handling the visually impaired. This will not only prepare the learners for the examinations, but also their future roles in integrated environments. If methods of transmitting knowledge to learners are sensitive to the needs of all, then they will maximally get the knowledge, while positively and adequately preparing them for further education, work and life.

5.6 Recommendations

This section gives the recommendations of the study based on the findings. The recommendations are given both to the case school to represent schools that provide integrated education and for further research.

5.6.1 Recommendations for the School

The study established that an integrated environment does well in improving the social and academic well being of both sighted and visually impaired learners. However, due to challenges experienced in and out of the school, its optimal effect is lower than it should be. The study therefore makes following recommendations:

First, the administration should modify the school's physical environment to cater for the presence of the visually impaired. Ramps are constructed alongside staircases, open ditches and drainages be covered and new toilets/bathrooms be constructed to cater for the needs of the visually impaired or the existing ones be modified and adapted to cater for their uniqueness. The classrooms need to be spacious, well aerated and comfortable since the special desks used by the V.Is are larger than the normal ones used by the sighted. The school should provide alternative parking lot or expand the existing one. The current one is small and cannot accommodate all cars. They are thus parked haphazardly along common paths obstructing the V.Is. All these will ensure that environmental concerns for the V.Is within the school are catered for and that quality comfortable life is offered to them during their stay as students.

Second, modern and adequate teaching/learning resources should be made available to both the teachers and students if the curriculum delivery and implementation is to be effective. The government should also consider developing a curriculum that would suit the diversity of the visually impaired learners through the K.I.E. This should be done comprehensively in such a way that teachers are able to translate the curriculum well and deliver the content appropriately. On curriculum evaluation, the examination council should put in friendly measures such as allowing extra time according to the level of handicap of an individual. It should not allocate the same time across the board. This is because some candidates experience severe difficulties when doing examinations particularly those with low vision.

Third, support services should be provided to the visually handicapped to the extent of their impairment. There is need for a resource room that is equipped with adequate, relevant, and modern

materials, textbooks and Braille machines and papers. The white should also be provided to all the totally blind and not just to those who can afford it. The government, donors, the community and well wishers should come out strongly to fund integrated institutions adequately. For example, Braille machines should be given to all the visually impaired and not shared among them.

Fourth, Curriculum delivery and implementation can only be effective if the teachers handling the handicapped are well trained to meet the specific needs of learners with special needs. Trained teachers will plan their methods of instruction in such a way that it suits individual learners through proper use of pedagogy. The study thus recommends proper training and capacity building for practicing teachers. Teacher training institutions should also train teachers to handle diversity e.g Braille, activities of daily living of the handicapped and other necessary technical skills. This would eliminate barriers to integrated education thus avoid discrimination and create welcoming communities.

Fifth, counseling interventions for the sighted and visually impaired students, teachers and all members of the school community should be put in place. This will help all to co-exist harmoniously. Negative attitudes towards persons' with disabilities and their stigmatization inhibit personal development and lead to low self esteem to the visually impaired who already could have it and need help to regain positive self image. Both the sighted and visually impaired also need counseling if they are to adopt well integrated educational environments.

Sixth, parents recommended that the coordinators of the integrated programs in each county should organize support groups for parents with handicapped children in integrated schools. This will help them encourage and assist each other come out strong in the face of challenges they encounter in bringing up handicapped children. This will enable them realize that they are not alone but that there are many more out there, who are happy and have since unconditionally accepted their children the way they are. Thus reducing stigmatization in communities due to lack awareness.

Seventh, due to the importance of information, the government should sensitize communities on the availability of integrated education and its role. Proper sensitization will also reduce chances of misinformation regarding the program. Communities will know that the institution is not only meant for only the sighted learners, but also the visually impaired hence there will increased ownership and sustainability of such program. Government should also streamline its policies and realign them with the realities of integrated education the enhance the achievement of EFA.

Eight, the study recommends that the school should develop other ways of generating revenue to meet its recurrent budget. Such means may include: Fund raisers and organizing recreation for the community at a fee thanks to the swimming pool it has. This will enhance the sustainability of the school even if funders pull out. It worthy to not that the school has expansive land it could use to produce its own food. It could also sell any excess.

Ninth, the study also recommends that the partnership between the school, government and private institutions that support the establishment and development of integrated programs. This would help improve the quality of resources and support. To achieve this, proper sensitization and mobilization needs to be done as already discussed. This will increase the utility of such a school to those who access them. Further subsidies on equipment used for the integration program is also necessary if the government is to achieve its goal of having a globally competitive youth by 2030, as the school will open its doors to many learners who cannot it due to financial constraints.

5.6.2 Recommendations for Further Research

Due to time and resource limitations, the study focused on only one institution and more specifically on the visually impaired and sighted students and teachers within it. This study recommends that further studies should focus on all such institutions countrywide to establish the status of the integrated education program in public schools. This will provide insights on access of education to all independent of their disability. Another study can also be carried out on how to establish effective criteria to be followed in integrating children with visual impairment or any other disability in ordinary schools. Further, more research needs to be done on ways of improving the curriculum and its evaluation especially with K.I.E and KNEC. The study also recommends comparative studies of two or more institutions to establish how access to integrated education would impact on persons with different disabilities in different environments.

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APPENDIX I: INTRODUCTION LETTER

DENNIS STANLEY O. OTIENO,

UNIVERSITY OF NAIROBI,

CENTRE FOR OPEN AND DISTANCE LEARNING,

DEPARTMENT OF EXTRA-MURAL STUDIES,

P.O. BOX 30197,

NAIROBI.

4TH APRIL 2012.

Dear Respondent,

RE: A STUDY ON THE FACTORS INFLUENCING SUCCESSFUL IMPLEMENTATION OF INTEGRATED EDUCATION IN PUBLIC SECONDARY SCHOOLS – THE CASE OF MOI GIRLS' SCHOOL, NAIROBI

I am a graduate student pursuing a Master of Arts degree in Project Planning and Management at the University of Nairobi. I am conducting a study titled "Factors Influencing Successful Implementation of Integrated education in Public Secondary Schools: The Case of Moi Girls' School – Nairobi". I do not represent the government or any political party.

You are kindly requested to take part in the study. All the information you give will be treated with utmost confidentiality. They will be used only for the purposes of this study.

I look forward to your honest participation.

Thank you.

Yours Faithfully,

Otieno, D.S Okinyi.

APPENDIX II: INTERVIEW GUIDE FOR VISUALLY IMPAIRED

SECTION A: PERSONAL DATA

1. Were you born with visual impairment?
2. If not, at what stage did you get this challenge?
3. What effect did you have on you emotionally, psychologically and physically?
4. Was your previous school integrated or special?
5. If yes, what is your view about integration?
6. Did you come to this school by choice?
7. Who brought you to school on the first day of admission?
8. Who received you immediately you were admitted?
9. What was your experience on the first day in school?
10. What were your expectations?

SECTION B: CURRICULUM AND CURRICULUM

11. What is your feeling about the curriculum that is offered to you?
12. Are you given an opportunity to choose the subjects that suit your impairment?
13. Is the curriculum adapted to suit your impairment?
14. Do you get any kind of help from sighted students in class especially in practical subjects?
15. How can you rate their commitment in helping you?
16. Do you have enough books and materials to help you learn effectively?
17. Newspapers are not in Braille, how do you get to know what is happening? Briefly explain.
18. Set books are not written in Braille, do other sighted girls read them for you?
19. Do sighted girls read other materials for you?
20. What is your view about evaluation of the curriculum (Examinations)? Briefly comment.

SECTION C: PHYSICAL FACILITIES

21. What is your view about the position in which you sit in class?
22. Do you have special facilities in class to cater for your special needs?

23. Is the school compound planned to make your movement around the school easy?

24. Are other members of the school sensitive to your needs such as helping you to your destination when you are stranded?

25. Do you share bathrooms/toilets with other students?

26. What is their condition?

27. What suggestions would you make about the bathrooms/toilets so that you are not disadvantaged?

28. Do you also share sleeping cubicles with other students?

29. If not, what is your view about this?

30. Do you participate in sporting activities or any other activities? If yes, which ones?

31. What adaptation has been made for you?

32. What do you suggest should be done in school to make your life in school more comfortable?

SECTION D: EXISTING RELATIONSHIPS

33. When you first came to this school, were you introduced to the other students?

34. When you were taken to your classroom, how did other students receive you?

35. How were you able to meet;

-Teachers -Cooks -The Matron -Councellor

Any other school staff.

Briefly explain on each.

36. What is your relationship with all the above named now that you have been in school for quite a while?

37. How often do you see them just for a chart?

APPENDIX III: OBSERVATION CHECKLIST

FACILITIES	AVAILABLE	NOT AVAILABLE	ADEQUATE	APPROPRIATE
Classroom				
Special Desks				
Chairs				
Toilets				
Playground				
Teaching Aids				
Text books				
Braille Machine				
Writing Materials				
Walking Sticks				
Ramps/leveled Doorsteps				
Swimming Chin				
Others				

APPENDIX IV: QUESTIONNAIRE FOR SIGHTED STUDENTS

General Instructions

Hello, my name is **Dennis Stanley O. Otieno**. I am a Graduate student from the University of Nairobi. I am conducting a research on ***Factors that Influence Successful Implementation of Integrated Education in Public Secondary Schools***, which will lead to the award of a Master of Arts degree. I therefore do not represent the government, any organization or political party. You are kindly requested to take part in the study by completing this questionnaire as sincerely as possible. Give your honest responses by putting a circle (○) around your answer and filling the bank spaces to give additional information where necessary. There is no correct or wrong answer. The information you give will be treated with utmost confidentiality. Do not write your name anywhere in this questionnaire. Please respond to all questions.

General Information

Respondents Number	

Date	
Time	

1. What is your gender?	Male	Female
	1	2

2. How old are you?	
Age	

3.In which form are you?	

4. How many years of formal schooling do you have? ----------

5. How far is your home from the School (*in Kilometres*)? ----------

SECTION A: PHYSICAL FACILITIES

5.Do you support the integration of visually impaired learners into regular schools?

Yes	No
1	2

6. How conducive is the school compound for the visually impaired?

Very Conducive	Fairly Conducive	Unconducive	Don't know
1	2	3	4

7. What suggestions would you like to give that would make their mobility round the school more comfortable

i.....
ii.....
iii.....
iv.....

8. Are other members of the school sensitive to their needs such as assisting them to their destination when stranded?

Yes	No
1	2

Give your view on this.....

9. Do you share toilets/bathrooms with them?

Yes	No
1	2

or they have their own special ones?. Explain.....
.....

10. In what condition are they?

Very Good	Good	Bad	Very Bad
1	2	3	4

11. What suggestions would you like to make about the toilets/bathrooms so that the visually impaired are not disadvantaged?

i.....
ii.....
iii.....
iv.....
v.....

12. Do you share sleeping cubicles with the visually impaired?

Yes	No
1	2

13. If yes, what adaptation has been made for them in the cubicles?

.....
.....

14. Do they participate in sports or any co-curriculum activities?

Yes	No
1	2

Specify.....

15. Please list any other things you feel can be done to make the learning and stay of visually impaired girls in school more comfortable and enjoyable?

.....
.....
.....
.....
.....

SECTION B: CURRICULUM AND CURRICULUM DELIVERY

16. What do you feel about the curriculum that is offered to the visually impaired students?

Very Good	Good	Bad	Very Bad	Don't Know
1	2	3	4	5

17. Do you think they should be given an opportunity select subjects that suit their special needs and interests?

Yes	No
1	2

Explain Your Reason.....

18. Do you give them any kind of help in the classroom particularly with practical subjects?

Yes	No
1	2

19. If yes, what is this help that you provide and how did they respond to it?

.....
.....

20. Do you volunteer to read for them or you find them as a bother to you?

Yes	No
1	2

21. How often?

Very Often	Often	Only once	Never	find them as a bother
1	2	3	4	5

22. What is your view about the curriculum delivery (teaching methods) used by the teachers?

Very Good	Good	Poor	Very Poor	Don't Know
1	2	3	4	5

23. Do teachers take time to explain to them clearly or they teach as though the visually impaired are not in class? Explain.....
.....

What suggestions would you make about the evaluations (Examinations) of the curriculum?

.....
.....
.....
.....

SECTION C: EXISTING RELATIONSHIPS

24. When you came to this school, did you know it was integrated?

Yes	No
1	2

25. Were you told that you would sit with the visually impaired students in the classroom and stay with them in the hostels?

Yes	No
1	2

26. If yes, how did you react?.....
.....

27. If no, how did you react when she was brought to your class?.....
.....

29. What is your relationship and level of interaction with the visually impaired students?

Very Good	Good	Poor	Very Poor	Don't Interact
1	2	3	4	5

30. List What you mostly share with them?
i.....
ii.....
iii.....
iv.....

31. Is there any other time you find them coming for your help?

Yes	No
1	2

32. What do you do when you find them stranded in the compound?

Help them to their destination	Give them direction	Ask a friend to help	Ignore Them	Don't Know
1	2	3	4	5

33.How do teachers react towards them?

Very well	Relatively well	Poorly	Very Poorly	Don't Know
1	2	3	4	5

34. When they make too much noise with their Braille machines, how do you react? Explain.

.....

.....

35. Have you ever offered to read for them freely any printed material you think would be of help to them?

Yes	No
1	2

36. Please add any other thing you feel has not been addressed adequately with regard to the integrated program in your school.

.....

.....

.....

.....

.....

.....

Thank You for your time and agreeing to take part in this study. God Bless You.

APPENDIX V: INTERVIEW GUIDE FOR KEY INFORMANTS

SECTION A: GENERAL QUESTIONS

1. How do you view the integrated program?
2. The enrolment of visually impaired learners to integrated schools is very low. In some schools, it is off and on. What is your comment on this?
3. What challenges do you face when placing visually impaired learners in schools?

SECTION B: QUESTIONS ON INTEGRATION

4. Are there any preparations that are put in place to enable the visually impaired learners to settle down in a new environment?
5. What challenges do you face in settling the visually impaired learners in schools?
6. Before they are placed in high schools, do they undergo any form of counseling to prepare them for the new environment? Please explain.
7. What are the successes of this program since inception?
8. In your own opinion, what more needs to be done to ensure complete success of this program?

SECTION C: QUESTIONS ON FACILITIES

9. What modifications on existing facilities have you put in place to ensure that the visually impaired girls move around the compound with ease?
10. Is the resource room well equipped to cater for all the needs of the teachers and the visually impaired learner?
11. If no, what is missing and how then do you cope?
12. How would you rate your school in terms of availability of teaching/learning resources for the visually impaired
13. Braille machines and writing materials for the visually impaired are very expensive, how do you ensure they are constantly supplied to your special learners who use them?
14. What needs to be improved in the physical facilities within your school to make the visually impaired more comfortable?

SECTION D: FUNDING

15. Do you receive any form of external funding/help from the government?
16. If Yes, is the government funding sufficient to cater for the improvement of the integrated program?
17. Do you receive any other form of external funding/help other than from the government?

18. If yes, from whom and in what form?

19. Are the funds sufficient?

20. If NO. how do you bridge the deficit?

SECTION E: QUESTIONS ON CURRICULUM DEVELOPMENT

21. You are charged with developing the curriculum for the visually impaired. What is your major challenge in this area?

22. How do you determine the suitability of the curriculum to the needs of the visually impaired?

23. In your panel, is a person with a visual impairment included to help you with the suitability and relevance of the curriculum?

24. Do you ever consult them?

25. Do you ensure that teachers handling the visually impaired learner are specially trained on curriculum implementation?

26. Are the teachers able to read the Braille work?

27. Do you have a transcriber? If yes, who pays him/her?

28. What advice would you give to the government on the improvement of the integrated program?

SECTION F: QUESTIONS ON CURRICULUM EVALUATION

29. What major challenges do you face with the evaluation of the curriculum for the visually impaired?

30. The visually impaired are divided into two categories; low vision and totally blind. How do you cater for their individual needs?

31. Apart from the extra time they are given during examinations, do you look into the degree of impairment before you decide on the adaptability of the examination?

32. Do you have trained examiners to handle the marking?

33. How do you rate the performance of the visually impaired vis a vis the sighted in your examinations?

34. If the performance is good, what do you attribute it to? Briefly explain.

35. If it is poor, what do you think is the cause and how can it then be improved

36. Do you have anything you would like to add that you feel has not been adequately addressed?

INTERVIEW GUIDE FOR PARENTS

SECTION A: TO BE FILLED BY RESEARCHER

1. Sex : Male ☐ Female ☐
2. Age: 25-30 ☐ 31-40 ☐ 41-50 ☐ over 50 ☐
3. Marital Status: Single ☐ Married ☐ Separated ☐ Widowed ☐ Divorced ☐

SECTION B: DIRECTED TO PARENT

4. Are you handicapped in any way?
5. At what stage did your daughter loose her sight?
6. What is your view on stigmatization of the handicapped?
7. Have you faced any form of stigmatization due to the handicap of your daughter?
8. Do you think stigmatization affects the learning/growing process of the visually impaired?
9. What motivated you to bring her here?
10. What challenges does she have when she is at home?
11. How do you help her overcome them?
12. Do you think the same challenges are replicated in school or she is better off?
13. What challenges did you face while bringing her up?
14. How did you know about this integrated program?
15. Was your daughter's previous school integrated or special?
16. How do you view integration?
17. Do you think the presence of your daughter in a normal class affects the sighted learners?
18. What has she told you about how the rest handle her in class?
19. How does your daughter react to help, from either strangers or people known to her? Does she decline or accept? Explain briefly.
20. If she declines, can she loose her temper thinking the help was offered out of sympathy?
21. Do you think your daughter still remains a confident girl with high self esteem despite being constantly helped?
22. Do you have any other thing you would want to add that is not covered here?

APPENDIX VI: QUESTIONNAIRE FOR TEACHERS

General Instructions

Hello, my name **is Dennis Stanley Otieno.** I am a Graduate student from the University o
I am conducting a research **on *Factors that Influence Successful Implementation of I
Education in Public Secondary Schools*,** that will lead to the award of a Master of Arts
therefore do not represent the government, any organization or political party. You a
requested to take part in the study by completing this questionnaire. Give your honest resp
putting a tick (√) against your answer and filling the bank spaces. The information you giv
treated with utmost confidentiality. Do not write your name anywhere in this questionnair
respond to all questions.

Respondent's number	

Date	
Time	

SECTION A: BACKGROUND INFORMATION

1. Please indicate your sex Male ☐ Female ☐
2. Kindly tick your age bracket Below 25 ☐ 25-29 ☐ 30-39 ☐ 40-49 ☐ Over 5
3. What is your highest academic/professional qualification

   Diploma ☐

   Diploma (Special Education) ☐

   B. Ed ☐

   B.Ed (Special Education) ☐

   M.Ed ☐

   Others, specify.....
4. Teaching experience

   Below 5years ☐ 6-10 years ☐ 11-15years ☐ 16-20yrs ☐ Over 20yrs ☐
5. How long have you taught learners with visual impairment?

   Below 5years ☐ 6-10 years ☐ 11-15years ☐ 16-20yrs ☐ Over 20yrs ☐

   Others. Specify.....

6. What responsibility do you hold in the school?

   Boarding Mistress ☐ Games Teacher ☐ Class Teacher ☐

7. What is your opinion regarding integration in public boarding secondary schools?
   .....
   .....

8. Have you been trained to handle children with special needs? ☐Yes ☐NO

9. If NO, what can be done to help you handle these children adequately?

10. If Yes, do you consider the current training adequate? Explain
    .....
    .....

11. Have you been attending in-service workshops/seminars on special education? Yes ☐NO ☐

12. It Yes, how often? Once a term ☐ Once a year ☐ often ☐

Any other? Specify.....

13. If NO, what are your reasons?

.....
.....
.....

Appropriateness of the Physical Facilities

14. Do you have any physical facilities structured to accommodate the visually impaired in the classroom? Yes ☐ NO ☐

15. If no, what physical facilities are needed to make them comfortable in the classroom?

i.....
ii.....
ii.....
iv.....

16. Where do the visually impaired sit in the classroom? Front ☐ Back ☐ Centre ☐

Appropriateness of Curriculum

17. In your opinion, do learners with special needs cope with the present curriculum? Yes☐ NO ☐

18. If Yes, Explain.....

19. If No, What should be done? .....
.....
.....

20. Is time allocated for content delivery enough? Yes ☐ NO ☐

21. How do you rate the quality of curriculum offered in integrated education?

Very Good ☐ Good ☐ Fair ☐ Poor ☐ Very Poor ☐

22. Availability of Resources and Support Services

23. Dou you have teaching/learning resources to accommodate the visually impaired?

Yes ☐ NO ☐

24. If yes, are they adequate? Yes ☐ NO ☐

25. If Yes, Explain?.....
.....

26. If NO, what are the necessary teaching/learning materials needed?

i.....ii.....
iii.....iv.....
v.....vi.....

27. Have the MoE inspectors visited your class/school this year? Yes ☐ NO ☐

28. How often do they visit? Once a term ☐Once a year ☐Once in several years☐ Never ☐

29. When they do visit, how supportive are they in the improvement of integrated education? Explain.....
.....
.....
.....

SECTION B

For the following items, please read the questions and indicate the extent to which you Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD) Uncertain(U), with the statements.

N0:	Item	SA	A	D	SD	U
31.	Integrated education is best compared to special education					
32.	Majority of teachers have undergone special education courses					
33.	Teachers have a negative attitude towards the visually impaired					
34.	Teachers feel that visually impaired learners are better cared for in special schools					
35.	Special physical facilities are put in place in favor of the V.Is					
36.	Right text books are available for teachers/learners reference					
37.	The school community is always psychologically prepared for before arrival of the visually impaired					
38.	There are adequate special trained teachers to handle the Visually impaired					
39.	Teachers go out of their way to help the visually impaired					
40.	The V.Is are not prepared enough for an integrated Environment					
41.	Teachers who teach the visually impaired are well motivated					
42.	The school's resource room has adequate materials for the use by teachers and the visually impaired					
43.	The relationship between the visually impaired and the sighted is Warm					
44.	The visually impaired are able to move freely in/around the school compound without any problem					
45.	The visually impaired are easily and readily assisted by the sighted whenever the need arises					

46.	The visually impaired are unfriendly, easily lose their temper and decline any help from the others					
47.	The general public has enough knowledge on the existence of the integrated program					
48.	Methods of instruction used are the best ones for the visually impaired					
49.	The integrated program has been a success despite the challenges faced					
50.	Integration will help the sighted in understanding and accepting the visually impaired					
51.	Integration has a positive effect on the social and emotional development of the visually impaired					
52.	Integration requires teachers to make significant changes in the way they organize and teach their lessons					

SECTION C

This section allows you to give comments and recommendations on how the integrated program can be improved.

53. How many students are in your class? .....

54. How many visually impaired learners are in your class? .....

55. Do you think the regular classroom benefits the visually impaired? Yes ☐ No ☐

56. If yes, how?.....

57. Do you know of any successful visually impaired adult? Yes ☐ NO ☐

58. What problems do you experience in implementing the integrated program in your school?

.....
.....

59. Suggest some ways and means of overcoming the problems identified in 56 above.

.....
.....

APPENDIX VII: STATE OF TEACHING/LEARNING RESOURCES ACCORDING TO THE OBSERVATION CHECKLIST

Facilities	Observation	Availability	Researcher's Comment
Adapted Text books	Available	[√]	
	Not Available	[ ]	Some of the books are available but they are old and outdated. No adapted set books have been stocked
	Adequate	[ ]	
	Not Adequate	[√]	
	Appropriate	[√]	
Braille Machine	Available	[√]	
	Not Available	[ ]	They have been provided for use. But they are old, breakdown often and produce a lot of noise. New modern ones need to be acquired
	Adequate	[√]	
	Not Adequate	[ ]	
	Appropriate	[√]	
Writing Materials	Available	[√]	
	Not Available	[ ]	Braille machines need special papers which have been provided
	Adequate	[√]	
	Not Adequate	[ ]	
	Appropriate	[√]	
Sight Aids	Available	[√]	
	Not Available	[ ]	The low vision need to use high density lenses or the binoculars.
	Adequate	[ ]	
	Not Adequate	[√]	
	Appropriate	[√]	

Source: Field Data 2012

APPENDIX VIII: STATE OF PHYSICAL FACILITIES ACCORDING TO THE OBSERVATION CHECKLIST

Facilities	Observation	Availability	Researcher's Comment
Classrooms	Available	[√]	
	Not Available	[ ]	
	Adequate	[ ]	Classes are large, well aerated but congested
	Not Adequate	[√]	
	Appropriate	[√]	
Desks/chairs	Available	[√]	
	Not Available	[ ]	
	Adequate	[√]	Special desks provided for the totally blind. The resource also has special chairs
	Not Adequate	[ ]	
	Appropriate	[√]	
Resource room	Available	[√]	
	Not Available	[ ]	The room needs to be well equipped with modern and current reading materials in Braille
	Adequate	[√]	
	Not Adequate	[ ]	
	Appropriate	[√]	
Playgrounds	Available	[√]	
	Not Available	[ ]	

	Adequate	[√]	Some leveling needs to be done
	Not Adequate	[ ]	
	Appropriate	[√]	
Ramps/Leveled door steps	Available	[ ]	
	Not Available	[√]	
	Adequate	[ ]	Be built alongside stairs
	Not Adequate	[ ]	
	Appropriate	[√]	
Toilets/bathrooms	Available	[√]	
	Not Available	[ ]	
	Adequate	[ ]	Are very important facility and more need to be constructed
	Not Adequate	[√]	
	Appropriate	[√]	
Swimming Chin	Available	[ ]	
	Not Available	[√]	
	Adequate	[ ]	The school has a swimming pool and this would help in the safety of the swimmer
	Not Adequate	[ ]	
	Appropriate	[√]	

Source: Field Data 2012

APPENDIX IX: Teachers' Attitudes Towards the implementation of Integrated Education

Statement	Response	Distribution	
		Frequency	Percent
Integrated education is best compared to special education	SA	7	23.3
	A	16	53.3
	D	5	16.7
	SD	2	6.7
	U	0	0
Majority of teachers have undergone special education courses	SA	0	0.0
	A	2	6.6
	D	11	36.7
	SD	17	56.7
	U	0	0.0
Teachers have a negative attitude towards the visually impaired	SA	3	10.0
	A	5	16.7
	D	13	43.3
	SD	8	26.7
	U	1	3.3
Teachers feel that visually impaired learners are better cared for in special schools	SA	13	43.3
	A	5	16.7
	D	4	13.3
	SD	7	23.4
	U	1	3.3

Right text books are available for teachers/learners reference	**SA**	1	3.3
	A	3	10.0
	D	7	23.4
	SD	19	63.3
	U	0	0.0
The school community is always psychologically prepared before arrival of the visually impaired	**SA**	0	0.0
	A	2	6.7
	D	6	20.0
	SD	22	73.3
	U	0	0.0
There are adequate special trained teachers to handle the Visually impaired	**SA**	0	0.0
	A	5	16.6
	D	11	36.7
	SD	14	46.7
	U	0	0.0
Teachers go out of their way to help the visually impaired	**SA**	8	26.7
	A	17	56.7
	D	4	13.3
	SD	1	3.3
	U	0	0.0
The visually impaired are not prepared enough for an integrated Environment	**SA**	8	26.7
	A	2	6.7
	D	5	16.6

	SD	3	10.0
	U	12	40.0
Teachers who teach the visually impaired are well motivated	**SA**	0	0.0
	A	1	3.3
	D	7	23.4
	SD	21	70.0
	U	0	0.0
The school's resource room has adequate materials for use by teachers and the visually impaired	**SA**	3	10.0
	A	9	30.0
	D	13	43.3
	SD	5	16.7
	U	0	0.0
The relationship between the visually impaired and the sighted is Warm	**SA**	8	26.7
	A	11	36.7
	D	7	23.3
	SD	4	13.3
	U	0	0.0
The visually impaired are able to move freely in/around the school compound without any problem	**SA**	5	16.7
	A	10	33.3
	D	12	40.0
	SD	3	10.0
	U	0	0.0

The visually impaired are easily and readily assisted by the sighted whenever the need arises	**SA**	6	20.0
	A	14	46.6
	D	5	16.7
	SD	2	6.7
	U	3	10.0
The visually impaired are unfriendly, easily lose their temper and decline any help from the others	**SA**	4	13.3
	A	6	20.0
	D	8	26.7
	SD	10	33.3
	U	2	6.7
The general public has enough knowledge on the existence of the integrated program	**SA**	0	0.0
	A	1	3.3
	D	10	33.3
	SD	19	63.4
	U	0	0.0
Methods of instruction used are the best ones for the visually impaired	**SA**	5	16.7
	A	11	36.6
	D	8	26.7
	SD	6	20.0
	U	0	0.0
The integrated program has been a success despite the challenges faced	**SA**	7	23.4
	A	18	60.0
	D	4	13.3

	SD	1	3.3
	U	0	0.0
Integration will help the sighted in understanding and accepting the visually impaired	**SA**	9	30.0
	A	17	56.7
	D	3	10.0
	SD	1	3.3
	U	0	0.0
Integration has a positive effect on the social and emotional development of the visually impaired	**SA**	15	50.0
	A	12	40.0
	D	3	10.0
	SD	0	0.0
	U	0	0.0
Integration requires teachers to make significant changes in the way they organize and teach their lessons	**SA**	21	70.0
	A	9	30.0
	D	0	0.0
	SD	0	0.0
	U	0	0.0

Source: Field Data 2012

	SD	1	3.3
	U	0	0.0
Integration will help the sighted in understanding and accepting the visually impaired	**SA**	9	30.0
	A	17	56.7
	D	3	10.0
	SD	1	3.3
	U	0	0.0
Integration has a positive effect on the social and emotional development of the visually impaired	**SA**	15	50.0
	A	12	40.0
	D	3	10.0
	SD	0	0.0
	U	0	0.0
Integration requires teachers to make significant changes in the way they organize and teach their lessons	**SA**	21	70.0
	A	9	30.0
	D	0	0.0
	SD	0	0.0
	U	0	0.0

Source: Field Data 2012

FACTORS INFLUENCING UTILIZATION OF HEALTH SERVICES IN KENYA: THE CASE OF HOMA BAY COUNTY

BY
OTIENO STEPHEN ODIWUOR

A PROJECT REPORT IN PARTIAL FULFILMENT FOR THE REQUIREMENTS OF THE MASTER OF ARTS DEGREE IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI

2012

DECLARATION

This research report is my original work and has not been submitted for an award of a degree in any university.

Signed: _____ Date: 7th June 2012

Otieno Stephen Odiwuor

L50/76516/2009

This research report has been submitted for examination with my approval as University Supervisor.

Signed: _____ Date: 8th June 2012

Professor David Macharia, EBS

Chairman, Department of Distance Studies

University of Nairobi

DEDICATION

This research report is dedicated to my dear wife Seline and our lovely twins, Nicole and Jeremy.

ACKNOWLEDGEMENT

This research project would not have been completed without the commitment and patient guidance of Prof. David Macharia, supervisor, instructor and mentor. I am grateful for his focused and analytical review of the proposal. Mr. Samuel Obara, a colleague at work deserves special mention for assisting in the research design and review of proposal as well as provision of relevant materials for this study.

Prof. Richard O. Muga, Chairman National Health Insurance Fund (NHIF) Board and Deputy Vice Chancellor, Great Lakes University of Kisumu (GLUK) gave me a lot of encouragement to determine the factors that influence utilization of health services in Homa Bay County as the findings will inform health systems strengthening in the county as well as provide evidence to inform national response in reversing trends in health sector. Dr. S. M. Magada of Ministry of Medical Services was very instrumental in providing authorization to conduct this research.

Utilization of health services has been a concern for various health stakeholders in Homa Bay County based on my discussions with Dr. Akeche, Dr. Oluoch and Dr. Omondi, the DMOHs for Rachuonyo, Homa Bay and Suba Districts respectively, and representatives from some health NGOs in Nyanza Province; Mildmay International, APHIA, Plan International, AMREF, MSF and RTI. Their influence on my decision to research on the subject is gratefully acknowledged.

Lastly but by no means the least, the lecturers as well as my fellow students were of great support to my studies and particularly this study. I wish to give them special thanks.

LIST OF ABBREVIATIONS

AIA	- Appropriation in Aid
AIDS	- Acquired Immune Deficiency Syndrome
AMREF	- Africa Medical and Research Foundation
AOP	- Annual Operational Plan
APHIA	- The AIDS, Population and Health Integrated Assistance Program
CBOs	- Community Based Organizations
CDF	- Constituency Development Funds
CHF	- Community Health Fund
CORPs	- Community-Owned Resource Persons
DHMB	- District Health Management Board
DHMT	- District Health Management Team
DMOHs	- District Medical Officers of Health
FBOs	- Faith Based Organizations
FY	- Financial Year
GDP	- Gross Domestic Product
GOK	- Government of Kenya
HC	- Health Centre
HIV	- Human Immune-deficiency Virus
HMIS	- Health Management Information System
HMSF	- Hospital Management Services Fund
HSRS	- Health Sector Reform Secretariat
HSSF	- Health Sector Services Fund
IMR	- Infant Mortality Rate
KAIS	- Kenya AIDS Indicator Survey
KHHEU	- Kenya Household Health Expenditure and Utilization Survey
KHPF	- Kenya Health Policy Framework

LATF	- Local Authority Transfer Fund
MCH	- Maternal and Child Health
MOH	- Ministry of Health
MOMS	- Ministry of Medical Services
MOPHS	- Ministry of Public Health and Sanitation
MRC	- Ministerial Reform Committee
MSF	- Medicines San Frontiers
NGOs	- Non Governmental Organizations
NHIF	- National Health Insurance Fund
NHSSP	- National Health Sector Strategic Plan
NSHIF	- National Social Health Insurance Fund
PASW	- Predictive Analytics Software
PHMT	- Provincial Health Management Team
RAs	- Research Assistants
RTI	- Research Triangle International (NGO)
RTI	- Respiratory Tract Infection (ailment/disease)
SAM	- Service Availability Mapping
SPSS	- Statistical Package for Social Sciences
U5MR	- Under-five Mortality Rate
WHO	- World Health Organization

ABSTRACT

Kenya's form of governance has moved gradually from centralized systems of the 1960s, 70s and 80s to more democratic and decentralized forms. However, challenges still remain for provision of health services to the citizens. In order to improve efficiency in delivery of services, the Ministry of Health has developed structures to deliver financial resources direct to rural health facilities and hospitals, whose management consists of both government, private sector, civil society organizations and community representatives as one mechanism of increasing access to quality and affordable health services. Despite efforts by the government and key stakeholders to improve health sector, utilization of health services still remains a major challenge in Kenya.

This study assessed some of the factors influencing utilization of health services in Homa Bay County. The study employed survey design and focused on health beneficiaries, District Health management Team and other key health stakeholders, and used both quantitative and qualitative data. The findings revealed some of the factors affecting utilization of health services in the county are; inadequate health financing, weak health service delivery systems, poor quality of health services, lack of accessibility to healthcare services, and equity in healthcare provision. The findings corroborate with most of the studies conducted in Kenya and elsewhere around the globe, and we can conclude that the five independent variables that were studied affect utilization of health services in Homa Bay County.

In order for the government and other stakeholders to respond to the key findings of this study, there is need for the government to allocate adequate budget towards health services in Homa Bay County, avail adequate trained health workers, improved infrastructure in health facilities as well as drugs and other supplies. There is also need for further research on cultural factors influencing utilization of health services, and effectiveness of government budget allocation to health on the utilization of health services in Kenya.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In 1994, the Government of Kenya (GOK) approved the Kenya Health Policy Framework (KHPF) as a blueprint for developing and managing health services. It spells out the long-term strategic imperatives and the agenda for Kenya's health sector. To operationalise the document, the Ministry of Health (MOH) developed the Kenya Health Policy Framework Implementation Action Plan and established the Health Sector Reform Secretariat (HSRS) in 1996 under a Ministerial Reform Committee (MRC) in 1997 to spearhead and oversee the implementation process. A rationalization programme within the MOH was also initiated. The above policy initiatives aimed at responding to the following constraints: decline in health sector expenditure, inefficient utilization of resources, centralized decision making, inequitable management information systems, outdated health laws, inadequate management skills at the district level, worsening poverty levels, increasing burden of disease, and rapid population growth (Muga et al, 2004).

The challenge facing the government is to reverse this decline. The National Health Sector Strategic Plan II (2005-2010) proposes to improve service delivery by using six levels of care delivery: Level 1, the community level; Levels 2 and 3 (dispensaries, health centres, and maternity/nursing homes); and Levels 4-6 (primary, secondary and tertiary hospitals). In this way, the existing vertical programmes will come together to provide services to the age groups at these various levels. The plan adopts a broader approach—a move from the emphasis on disease burden to the promotion of individual health based on the various stages of the human cycle: pregnancy and the newborn (up to two weeks of age); early childhood (two weeks to five years); late childhood (6-12 years); youth and adolescence (13-24 years); adulthood (25-59); and the elderly (60+ years).

The health sector comprises the public system, with major players including the MOH and parastatal organizations, and the private sector, which includes private for-profit, NGO, and FBO facilities. According to the most recent health management information system (HMIS) data, there are over 5,000 health facilities across the country operated by three owner systems, with the government running 41% of the facilities, non-

governmental organizations (NGOs) 15%, and private businesses 43% (MOH, 2007). The government owns most of the hospitals, health centers, and dispensaries, while clinics and nursing homes are entirely in the hands of the private sector. In Homa Bay County, there are 165 health facilities spread across the three districts forming Homa Bay County; Homa Bay, Rachuonyo and Suba Districts (MOMS, 2011).

The public health system consists of the following levels of health facilities: national referral hospitals, provincial general hospitals, district hospitals, health centres, and dispensaries. National referral hospitals are at the apex of the health care system, providing sophisticated diagnostic, therapeutic, and rehabilitative services. The two national referral hospitals are Kenyatta National Hospital in Nairobi and Moi Referral and Teaching Hospital in Eldoret. The equivalent private referral hospitals are Nairobi Hospital and Aga Khan Hospital in Nairobi. Provincial hospitals act as referral hospitals to their district hospitals. They also provide very specialized care. The provincial level acts as an intermediary between the national central level and the districts. They oversee the implementation of health policy at the district level, maintain quality standards, and coordinate and control all district health activities. Similar private hospitals at the provincial level include Aga Khan Hospitals in Kisumu and Mombasa. New Nyanza Provincial General Hospital is the referral hospital for Homa Bay County.

As a result of health sector reforms that have decentralized health services, services are integrated as one goes down the hierarchy of health structure from the national level to the provincial and district levels. Under decentralisation, the district handles supervisory responsibilities. Unfortunately, supervision has not been very effective, as one technical person may supervise several technical areas of service delivery at lower levels. The Provincial Health Management Team (PHMT) provides supervision and management support to the districts and sub-districts within the province. At the district level, curative services are provided by district hospitals and mission hospitals. Public health services are managed by the District Health Management Team (DHMT) and Public Health Unit of the district hospitals. The DHMT and District Health Management Board (DHMB) provide management and supervision support to rural health facilities (sub-district hospitals, health centres, and dispensaries). At the sub-district level, both preventive and curative services are provided by the health centres as well as dispensaries and outreach

services to the communities within the catchment areas. Basic preventive and curative services for minor ailments are being addressed at the community and household level with the introduction of the community package (Muga et al, 2004).

Although several health-oriented NGOs operate throughout the country, the population covered by these NGO health services cannot be easily determined. The MOH and external donors support the health services offered by NGOs and the private sector in several ways. Depending on their comparative advantage, NGOs, FBOs, and community-based organisations (CBOs) undertake specific health services. The MOH provides support to mission health facilities by training their staff as well as seconding staff to these facilities and offering drugs and vaccines.

Currently, the private sector (both for-profit and not-for-profit) contributes over 40 percent of health services in the country, providing mainly curative health services and very few preventive services. Modalities exist for MOH supervision and monitoring of NGO, FBO and other private-sector facilities. The NGOs and private facilities work with communities in collaboration with the DHMT. The community programmes report to the DHMBs, which reports to the headquarters through the Provincial Health Management Boards. Their activities are guided by MOH standards and protocols.

While there are efforts by the government and other stakeholders to improve provision of health services in Kenya, there are major gaps in relation to utilization of healthcare services especially at community level. Various studies have been conducted to assess factors that influence utilization of health services internationally and even in Kenya and some of the factors include; cost of health services and quality of services. This study sought to establish key factors that influence utilization of health services in Homa Bay County.

1.2 Statement of the problem

The current literature acknowledges that there are multiple determinants of health, which recognize the role of biology, behaviour, culture, economics, psychological, environmental and social factors and the interconnectedness of these (Ansari, et al., 2003; Celik and Hotchkiss, 2000; Hunt, 1994; Thisted, 2003). In developing countries, these

factors are newer considerations as countries with limited resources struggle to cope with mortality and morbidity as a result of communicable disease, injury, poverty, sexual and reproductive health issues, and more recent concerns such as hypertension, heart disease (Naicker, 2003) and diabetes that are more lifestyle-oriented results of development (Correa-Rotter et al., 2004). However, more recent studies are beginning to discover that unless health and ill-health in less developed countries is considered in this broader context, inequalities will only become more evident (Gwatkin, 2000). Therefore, knowledge of the patterns that influence the use of health and medical services in developing countries are needed to address this.

Studies conducted in Kenya and other developing countries reveal the following factors as influencing utilization of health services: cost/financing, access, health delivery, attitude, traditional health services, low education level, awareness of health services, quality of health services, and equity in healthcare provision. According to a study conducted by Dustin (2010), the two biggest factors currently preventing healthcare from reaching a larger proportion of the population are the high cost of services, and poor access to health facilities.

While studies have been done on utilization in some regions in Kenya and other countries, including the 2003 Kenya Household Health Expenditure and Utilization Survey, no study have been done in Homa Bay County, comprising the three districts; Rachuonyo, Homa Bay and Suba. This study therefore sought to investigate factors that influence utilization of health services in Homa Bay County.

1.3 Purpose of the study

The purpose of this study was to investigate factors that influence utilization of health services in Homa Bay County, Kenya.

1.4 Objectives of the study

The study was guided by the following five objectives:

i. To establish the influence of health financing on utilization of health services in Homa Bay County
ii. To assess the influence of service delivery on utilization of health services in Homa Bay County

iii. To establish the influence of quality health services on utilization of health services in Homa Bay County

iv. To assess influence of accessibility to healthcare services on utilization of health services in Homa Bay Country

v. To establish influence of equity in healthcare provision on utilization of health services in Homa Bay County

1.5 Research Questions

Based on the above objectives, the following were the research questions:

1. How does health financing influence utilization of health services in Homa Bay County?
2. To what extent does health service delivery influence utilization of health services in Homa Bay County?
3. To what extent does quality of health services influence utilization by the people in Homa Bay County?
4. How does accessibility to healthcare services influence utilization of health services in Homa Bay County?
5. To what extent does equity in healthcare provision influence utilization of health services in Homa Bay County?

1.6 Justification of the study

High poverty levels of 68% (average) across the three districts forming Homa Bay County coupled with inadequate health infrastructure and other factors influence utilization of health services in this county.. Health, being an important aspect of livelihood, it is important to assess the level of utilization of such services depending on the prevailing circumstances. The study was necessary for Homa Bay County being in Nyanza province, where health service provision and utilization remains a major concern.

1.7 Significance of the study

In order to improve provision of health services in Kenya, the National Health Sector Strategic Plan II (2005-2010) proposes to improve service delivery by using six levels of care delivery. Homa Bay County has 165 health facilities across levels 1 to 4 (MOMS, 2011), providing health services to the people but various factors limit utilization of such services in the county. This study has generated evidence on some of the key factors that

influence utilization of health services in order to inform policy makers, Ministry of health both at county level and central government to effectively respond to health systems in the county. The study would benefit the local community by identifying key factors influencing utilization of health services and suggesting how to improve the situation. Finally, the study would benefit researchers by providing evidence for reference regarding utilization of health services in many places including Homa Bay County.

1.8 Limitations of the study

It had been envisaged that time and finances would be limitations of this study. However, to overcome these limitations, proper sample size of individual interviews was obtained to avoid extensive work and long distances during the survey. Additionally, the study was designed in such a way that the DHMT members could provide all relevant information on health issues within the three districts and therefore reduced the burden of visiting all health facilities. In terms of time constraint; the researcher together with the health management teams in the three districts developed a plan and involved key stakeholders to ensure effective execution of the exercise.

1.9 Delimitation of the study

The study was conducted across the three districts; Homa Bay, Rachuonyo and Suba, forming Homa Bay County. The study targeted local community who are the health beneficiaries, public and private health facilities and key health stakeholders, especially health NGO representatives in the county.

1.10 Assumption of the study

In carrying out this study, two assumptions were taken into consideration; that the respondents would agree to participate in the survey, and that they would be truthful – providing accurate information useful for the study. Based on this report, the expected respondents participated in the study and the findings are in line with other relevant studies that have been done elsewhere within the country and outside, which implies that most of the respondents were truthful.

1.11 Definition of significant terms

Utilization of health services: People's ability to access the health facilities and to make use of the services offered

	therein that include drugs, treatment, referral etc
Health financing:	Allocation of resources from the government, non-governmental organizations, private agencies and cost sharing to support health services in Homa Bay County.
Health service delivery:	This is a set of structures aimed at facilitating delivery of health services to the people, including health facilities, health personnel and drugs.
Quality of health services:	This refers to availability and adequacy of the right drugs, length of time taken to get the needed services and the quality of the services and care given by the health services staff to the patients
Accessibility:	This refers to how health services can easily be reached geographically in terms of availability of transport facilities, roads and time taken to reach such health facilities.
Equity:	This implies availing health services to those who need them most and ensuring that they access these services easily and in an affordable manner

1.12 Organization of the study

In this report, Chapter one gives introduction to the study. ChapterTwo presents review of literature focusing on key factors that influence utilization of health services, while Chapter Three highlights research methodology that was used for this study. Chapter Four deals with data analysis, presentation and interpretation, and Chapter Five focuses on the summary of findings, discussion, conclusions and recommendations. Relevant references are also included together with relevant appendices.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature on utilization of health services, health financing/funding, health service delivery, quality of health services, accessibility and equity in healthcare provision from global, Kenyan and local perspectives. It also presents a conceptual framework on which the study is based.

2.2 Utilization of health services

Utilization of healthcare services is an important determinant of health (Makenback, et al, 1988; Bonneaux, et al, 1997; Bayo, et al, 1996), and has particular relevance as a public health and development issue in low income countries (Obrist, 2007). In fact, utilization of healthcare services for the most vulnerable and an underprivileged population has been recommended by the World Health Organization as a basic primary healthcare concept (WHO, 1978). It has been suggested that healthcare should be universally accessible without barriers based on affordability, physical accessibility, or acceptability of services (Obrist, et al, 2007; Gulliford, et al, 2002). Accordingly, increased use of health services is a major target in many developing countries (Sepehri, et al, 2008).

The current literature acknowledges that there are multiple determinants of health from which we discern there are many factors that influence utilization of health services. This review provides an outline of the literature on factors that influence utilization of health services. As there are many factors that could be discussed a number have been singled out from the literature. Each is presented in a discussion of its significance to the study and why it was chosen as a factor. These factors reflect on people's ability to access health care services. This study investigated the factors that influence utilization of health services in Homa Bay County.

Across the three districts of Homa Bay County, the health sector is experiencing an increase in the number of people seeking health services due to mushrooming of the opportunistic infections, high competition for hospital bed between infected persons and general patients. At the same time, accessibility of the health facilities is a challenging

factor as people have to walk long distances to access such services, especially from the GoK health facilities. This situation influences utilization of health services in the county and this study seeks to establish the extent to which this holds.

2.3Health Financing

Understanding how countries finance their health care system is of critical importance for industrial and developing counties alike. The methods used to mobilize the resources that support basic public health programs, provide access to basic health services, and configure health service delivery systems people's health status – as well as every aspect of a country's social, economic and political well-being. Moreover, health care systems account for 9 percent of global production and a significant portion of global employment. Health care system also affect imports and, in some countries, exports (George and Akiko, 1997).

While the challenge of running an effective health system is not limited to resource-poor setting, those with few resources face even greater obstacles. The amount of money in the system and how it is collected, pooled and distributed are critical elements for providing essential services, ensuring financial protection against high medical costs and improving equity and access to care. The Kenya policy framework of 1994 identified several methods of health services financing, including taxation, user fees, donor funds, and health insurance. These methods have evolved into important mechanisms for funding health services in the country. They should reflect the cost of service provision as well as the ability of the population to pay. In the non-governmental sector, health services are financed primarily through the revenue collected from fees and insurance premiums charged to service users. These are based on costs of service provision and on ability to pay (Muga, et al, 2004).

2.2.1 Current Financing Trends, Policies, and Expenditures in Kenya

Over the past decade, real financing allocations to the public sector have declined or remained constant. Reviews of public expenditures and budgets in Kenya show that total health spending constitutes about 8 percent of the total government expenditure and that recurrent expenditures have been consistently higher than the development expenditures, both in absolute terms, and as a percentage of the GDP. Per capita total health spending

stands at about Ksh. 500 (US$6.2), far below the World Health Organization's recommended level of US$34 per capita (Muga, et al, 2004).

The per capita expenditure falls short of the Government of Kenya's commitment to spend 15 percent of its total budget on health, as agreed in the Abuja Declaration. The under-financing of the health sector has thus reduced its ability to ensure an adequate level of service provision to the population. The GOK funds the health sector through budgetary allocations to the MOH and related government departments. However, tax revenues are unreliable sources of health finance, because of macroeconomic conditions such as poor growth, national debt, and inflation, which often affect health allocations. A manifestation of the health budget shortfalls is the widespread lack of adequate drugs and pharmaceuticals, staff shortages, and poor maintenance of equipment, transport, and facilities.

Over the past two decades, the GOK has pursued a policy of cost sharing to bridge the gap between actual budgets and the level of resources needed to fund public health sector activities. The revenue from the cost-sharing programme has continued to grow in absolute terms and as a percentage of the recurrent government budget. In 2002-03, cost sharing contributed over 8 percent of the recurrent expenditure and about 21 percent of the non-wage recurrent budget of the MOH. However, because of the worsening poverty situation in the country, the MOH has changed its cost sharing policy and replaced it with a "10/20" policy, in which dispensaries and health centres are not to charge user fees for curative care other than 10 or 20 Ksh for client cards (Muga, et al, 2004).

In addition, the MOH is planning to introduce a National Social Health Insurance Fund (NSHIF). This is a social health insurance scheme to which everyone would contribute without exemption. For administrative purposes, contributions should be per head and not per family, although current entitlements in the National Hospital Insurance Fund also include family members of the insured. For those too poor to pay, the government would pay for them. In its tenth year of phased implementation, the scheme would be targeted to give comprehensive health care to 80 percent of the population. The sources of funding would include payroll harmonization, general taxation, informed sector contributions,

donations and grants. The scheme is outlined in Sessional Paper No. 2 of 2004 (MOH, 2004c).

The health budget allocation has continued to be skewed in favour of tertiary and secondary care facilities, which absorb 70 percent of health expenditures. Yet primary care units, being the first line of contact with the population, provide the bulk of health services and are cost effective in dealing with the disease conditions prevalent in communities.

Health personnel expenditures are high, compared to expenditures on drugs, pharmaceuticals, and other medical inputs such as medical equipment and supplies. Personnel spending accounts for about 50 percent of the budget, leaving 30 percent for drugs and medical supplies, 11 percent for operations and maintenance (O&M) at the facility level and 10 percent for other recurrent expenses. Expenditures for curative care constitute more than 48 percent of the total MOH budget (Muga, et al, 2004).

The GOK works closely with development partners to raise money for the health sector. Donor contributions to the health sector have been on the increase, rising from 8 percent of the health budget in 1994-95 to 16 percent in the fiscal 2001-2002. In some years, donor contributions accounted for over 90 percent of the development budget of the MOH.

The Ministry of Health Public Expenditure Review (Ministry of Health, 2004b) reported that the flow of funding to health facilities, especially at the primary care level, is poor. Leakages amount to 22 percent of the user fee revenue collected. The review advised allocating more resources to community based facilities, where health resources have been shown to be most effective in dealing with prevailing disease conditions and in promoting and improving people's health.

2.2.2 Ministry of Health Total Expenditures

The budget allocation to the health sector - Ministry of Medical Services (MOMS) and Ministry of Public Health and Sanitation (MOPHS) for the Financial Year (FY) 2010/11 accumulated to a total of KSh 41.5 billion of government resources which represents

6.5% of the total estimated government budget and 1.5% of the Gross Domestic Product (GDP). That amounts to KSh 1,064 (13.1 USD) per capita. The total Government budget increased by 9.9% from 2009/10 to 2010/11. The proportion allocated to the health sector decreased from 7.0% in 2009/10 to 6.5% in 2010/11 (Budget Estimates 2010/2011). Table 2.1 below represents breakdown of total government health budget.

Table 2.1: Breakdown of total government health budget, excluding AIA *(in billion KSh; % of total government health budget)*

Ministry	Sub-vote	Recurrent Budget		Development Budget		Total per Ministry	
		Total	%	Total	%	Total	%
MOMS		**21.8**	**52.5%**	**2.3**	**5.6%**	**24.1**	**58.1%**
	General Administration and Planning	2.7	6.5%	0.2	0.6%	3.0	7.1%
	Curative Care	12.5	30.2%	1.8	4.4%	14.4	34.6%
	KNH and MTRH	4.9	11.7%	0.1	0.3%	5.0	12.0%
	Others	1.7	4.1%	0.1	0.3%	1.8	4.4%
MOPHS		**9.5**	**23.0%**	**7.8**	**18.9%**	**17.4**	**41.9%**
	General Administration and Planning	1.5	3.7%	3.8	9.1%	5.3	12.8%
	Preventive Medicine and Promotive Health	3.2	7.8%	2.7	6.6%	6.0	14.4%
	Primary Health Services	4.6	11.2%	1.2	2.9%	5.8	14.1%
	Others	0.1	0.3%	0.1	0.3%	0.2	0.6%
Total per Budget		**31.3**	**75.5%**	**10.2**	**24.5%**	**41.5**	**100%**

Source: Budget Estimates, 2010/11

While the share of government spending is slightly less in 2010/11 than it was in 2009/10, the increase in resources allocated to the health sector in total numbers is a positive signal, particularly given that the health budget as a percent of the total budget does not change substantially (7.0% in 2009/10; 6.5% in 2010/11). While the overall health budget including AIA increases by 17.9% this is almost all due to the substantial increase in AIA (130%). The increase in AIA is positive; however, if increases in donor aid are not met with increases in government contributions, the question of sustainability arises.

Regarding the allocation within the health sector, there is a sizeable shift from MOMS to MOPHS. While there is a slight overall shift from development budget to the recurrent budget, within MOMS, the development budget increases (17.3%) and the recurrent budget shrinks and within MOPHS the recurrent budget increases (30.7%) and the development budget shrinks.

Analyzing the Sub-votes, the share of total health allocation to *Primary Health Services* and *Curative Health Services* declined significantly, by 34.6% and 17.9% respectively. The overall decline in *Primary Health Services* is somewhat expected given the fairly large appropriation made in the 2009/10 budget; nonetheless it is concerning given that primary health facilities are still overtaxed and unable to meet demand and are a significant point of care for the poor. The decrease in *Curative Health Services* is mainly due to the transfer of staff from MOMS to MOPHS. Kenyatta National Hospital and Moi Teaching and Referral Hospital stagnate in terms of budget allocation, which is in line with agreed priorities in HSSP II.

Additional resources have been allocated to *Preventive Medicine and Promotive Health*. The development budget for *Preventive Medicine and Promotive Health* increased by 0.9 billion Kenya Shillings or 45.6% compared to the previous year. This is a very positive development and in line with the Minister of Finance's explanation that preventive health is a focus of the 2010/11 budget. Since in prior years there have been problems in spending the allocated funds for the development budget, the shift to recurrent budget will likely result in an overall higher absorption rate.

However, it is a major concern that a significant portion of development partner funds are not noted anywhere in the budget. This is problematic because the general health community is not aware of them and cannot factor them into plans or assess alignment with areas of priority. While the government has made tremendous efforts in allocating resources for health services, this may not be sufficient to address existing health needs of the citizens. Insufficient resources implies that there will be effects on availability and pricing and this can influence utilization of health services as it has been found out from various studies in Kenya and across the world.

Mwabu, et al (1991) sought to test the effect of the pricing reforms to health care demand in Kenya. They tested the hypothesis that user-charges have a negative effect on demand for health care. They used data on when user-charges were in place and when the Government had suspended it. They used a utility maximization model. The results showed that user-charges discourage the utilization of health services.

Glick, et al (2000) researched on utilization patterns and demand determinants for education and health services in Madagascar. They used nested logic models in their estimation. They found that cost of treatment (price) has negative and significant effects on hospital care. Household income, as represented by household expenditures per capita had strong effects on choice of care, as the better off individuals were more likely to seek care from private doctors, private clinics and private pharmacies than the poor. Availability of vaccines in hospitals and availability of malaria medicines increased demand at these facilities.

Lindelow (2002) tested the demand for health care in rural Mozambique using the 1996/97 household survey data in a multinomial logic model. The study findings were that household characteristics (e.g. age, education and reported symptoms) significantly affect the demand for health care. Prices, defined in the study as the composite user fees and time costs associated with consultations at different providers were found to be important determinants of choice.

Quaye et al (2004) conducted a study in Uganda which observed that the problem for Uganda is not the will, but revenue to support such a program. They estimated that in

1999/2000, the total public expenditure was equal to 20.7% of GDP, while the total revenue was only 11.9%. While external budget supports 30% of total government expenditure, such reliance on external sources creates problems for effective planning and raises questions of 'sustainability and affordability' (The Republic of Uganda, 2000). A quick review of funding sources indicates that about 43% of the total sources of revenue come from donors (internal and external), households contribute 34%, 3% from employers and 30% came from the government (Ministry of Health, 2000). This shows that increasingly, the Ugandan government is playing a smaller role in this area and yet at the same time has a wider mandate for promoting health services. What is also clear is that the poor contribute 27.4% to healthcare expenditure. The major source of revenue for the government is from income tax revenues. This is obtained from 27% of individuals in the private and parastatal sector, and from 16.5% of civil servants (Government of Uganda, 2001, p. 18).

In Tanzania, what appears to work is the primary healthcare approach, evidenced in the introduction of the Community Health Fund (CHF) as a way for communities to finance health services (Quaye, 2004). The Tanzanian Health Sector Policy document states that the objective of the policy is 'to improve the health and wellbeing of all Tanzanians with a focus on those most at risk by ensuring that health services are responsive to the needs of the population' (Ministry of Health, 1994). As explicitly stated by Hemed (1999, p. 219), 'CHF is a rural health financing scheme in which households prepay a predetermined amount of money to cover health care services of house members.' Experiences from other countries where CHF has been introduced suggest that community involvement in health care has been positive.

Individual and community members report greater satisfaction with the services they received from these centers and generally believed that access to drugs has markedly improved. As reported by Hiza and Masanja (1997), the experience from Guinea Bissau suggests that the program has been quite successful in addressing the key elements of equity, cost and accessibility. In their evaluation of the program in Igunga district where the scheme has been introduced, Hiza and Masanja (1997) reported that the scheme has made cheap prescription drugs widely available. Given the fact that about 75% of

Tanzanians live in the rural areas, CHF has worked very well in addressing the problem of access.

Recent studies in Kenya on healthcare financing (Wamai, 2004) show that out of pocket expenditure constitutes the highest proportion of the total health expenditure. The total out of pocket expenditure in health in Kenya stands at about 35.9 percent while public expenditure as a proportion of total health expenditure is 29.1 percent. About 30 per cent of the total health expenditure comes from the development partners. This kind of scenario makes access to health a big problem for the majority of the people below the poverty line that constitute about 45.9 per cent of the population. It has further been established that almost 40 percent of the people who fall sick during the year do not seek medical care due to the high cost of healthcare.

In response to this, Government is implementing a number of reforms geared towards increasing access. These measures include the establishment of the Health Sector Services Fund (HSSF) and Hospital Management Services Fund (HMSF). The main objective of HSSF is to deliver finances for operations direct to the point of use in the dispensaries and health centres. Prior to that, only about 50 per cent of targeted funds could reach these facilities.

On the other hand, HMSF is meant to provide a framework for better management of finances at the hospital level. The management of both of these initiatives includes community members and women representatives to take care of citizen interests. The overall objectives of these initiatives are to give autonomy to facilities to manage their own responsibilities and therefore respond adequately to citizen concerns. Other measures also being taken include developing a financing strategy that ensures that the poor have access to quality healthcare through either the government providing free healthcare or a fund being created to manage prepaid schemes. The National Hospital Insurance Fund, a national health insurance scheme plays a greater role in this arrangement by receiving funds for covering the poor and other categories of the population either from the government or from the development partners.

Indeed, the high burden of health care costs was immediately apparent during a joint field visit, with University of Nairobi medical students to the Githunguri community outside Nairobi. The medical students were operating a free health clinic for one day after several weeks of conducting local surveys and data collection. The makeshift facility, which was set up in a local primary school, had long lines of patients interested in the free consultations. In talks with one medical student, Frank Gakuru, he commented on the high turnout, saying, "women here come out because they can get a free medical consultation and free medicine," when normally both of these services must be paid for out of pocket. Many people were lined up to receive free medicine, and nearly all who were asked cited the cost (free) as their primary reason for coming out. On the contrary, the high cost of medicine and health services under normal conditions is a major impediment to health seeking behavior (Dustin, 2010).

Various studies have found out that health financing has some influence on access and utilization of health services, this particular study sought to investigate the influence of health financing on utilization of health services in Homa Bay County.

2.3 Health Services Delivery

The effective service delivery for all citizens depends on a proper organization of the healthcare system. In Kenya, the health delivery system is organized in six levels. Level 1 is the Community Level. It consists of using Community-Owned Resource Persons (CORPs) and Community Health Extension Workers in health promotion as well as the household and the village health committees. Level 2 and 3 consists of primary health services where health promotion and basic treatment services are provided. Only simple diagnostic and short term in-patient services are provided at this level such as maternity and short recuperative observations. Major treatments are offered in Levels 4 and 5 which comprise District and Provincial/Regional General Hospitals which also serve as referral centres for Levels 1, 2 and 3. Level 6 are the national referral and teaching hospitals.

However, given the weaknesses in governance system in Kenya in the 1980s and 90s, the number of facilities increased but which were not meeting the required level of care. This scenario significantly weakened the referral system to the extent that patients could just seek services from the higher levels of care without exhausting the services at lower

levels. The result was a breakdown of the referral system with the consequent compromise of the quality of care at the referral levels due to excess demand. For example, Kenyatta National and Referral Hospital in Nairobi (capital city) receives only one per cent of patients on proper referral arrangements. The rest are brought in from around the city and other parts of the country without any prior arrangements. The consequence of this is that most of the patients brought in are those who are unable to pay for services or whose condition has already deteriorated. The quality of services at the hospital has also gone down. It is for this reason that strengthening the referral system is one of the reform areas that Government is focusing on (Nyong'o, 2008). This can only be achieved through effective health services delivery system. For the purpose of this study, the focus was on three main components of service delivery; health facilities themselves, human resource and training, and pharmaceutical services (e.g. drugs) and health commodities.

2.3.1 Health Facilities

The provinces and districts vary in geographical size and population, as well as overall health and socio-economic indicators. Table 2.2 shows the structure and distribution of the health system by facility type and ownership per population, as well as the number of hospital beds and costs for each provincial region. According to the most recent health management information system (HMIS) data, there are over 5,000 health facilities across the country operated by three owner systems, with the government running 41% of the facilities, non-governmental organizations (NGOs) 15%, and private businesses 43%. The government owns most of the hospitals, health centers, and dispensaries, while clinics and nursing homes are entirely in the hands of the private sector.

As Table 2.2 shows, health facilities are unevenly distributed across the country's eight provinces. For instance, the best-off Central Province has about twice the number of facilities per population as the worst-off provinces (Nyanza and Western). Central, Coast, and Eastern provinces have better ratios than the national average. On the other hand, Nyanza has a higher number of hospital beds and cots per 100,000 populations than Central. Northeastern and Eastern provinces have the worst ratios of hospital beds and cots per 100,000 populations, while Coast has the best (144, 145 and 274, respectively). Because of their relatively small geographical sizes, Nairobi followed by Central

Province has the shortest distances to a health facility. Comparatively, Central Province has the best health and socioeconomic indicators according to the 2003 Kenya Household Health Expenditure and Utilization Survey (KHHEU, 2003; Wamai, 2004). For instance, levels are higher for life expectancy, literacy rate, income, contraception use, sanitation coverage, immunization coverage, and attended deliveries (except for Nairobi). The province also has the lowest IMR and U5MR trends (over thrice lower than the worst-off province, Nyanza). In 2002, the overall total number of health personnel was 59,000 (about 189 per 100,000 population), including about 5,000 doctors. About 60% of total health personnel work in the public sector, of which about 70% are concentrated in hospitals (James and Muchiri, 2009).

Table 2.2: Demographic and Health System by Regions in Kenya (2006)

Type of facility	Manning agency	Nairobi	Central	Coast	Eastern	North Eastern	Nyanza	Rift Valley	Western	Total
Hospitals	GOK	5	8	9	15	4	13	21	10	85
	Miss/NGO	7	15	2	16	-	9	15	10	74
	Private	11	10	10	4	-	19	19	1	68
Sub. District hospitals	GOK	-	8	7	14	6	20	13	5	73
Nursing homes	Private	27	26	23	26	3	35	24	27	191
Health centres	GOK	23	51	32	70	8	72	138	65	459
	Miss/NGO	50	5	2	11	-	48	40	16	172
	Private	3	3	1	2	-	7	5	-	21
Dispensaries	GOK	18	222	152	302	63	183	489	74	1,503
	Miss/NGO	26	98	55	117	1	45	184	20	546
	Private	57	8	9	16	-	12	84	17	203
Clinics	Private	141	487	294	301	61	79	211	160	1,734
Grand Total		**368**	**941**	**596**	**894**	**146**	**536**	**1,243**	**405**	**5,129**

Source: Health Management Information System, 2006 (Ministry of Health, 2007)

In Nyanza province, most parts have a well-developed infrastructure owing to the fact that the province hosts ports and is the centre of the fishing industry in Kenya. In addition Nyanza Province borders Uganda via Lake Victoria making it an important transit route for goods going into the neighbouring country (Bujra and Keriga, 2009). It expected that availability of infrastructure such as roads has positive influence on utilization of health services in terms of accessibility. Despite these developments, health indicators present a different picture. Nyanza recorded among the lowest child immunization of 38% (KDHS, 2003), high infant mortality rates of 19.8% and the highest HIV prevalence rates of 15.3% in Kenya (KAIS, 2007). Hot and humid climatic conditions that characterize the region due to its proximity to Lake Victoria make it a malaria prone zone. Most affected districts include; Nyando, Kisii, and Kisumu. Table 2.3 shows distribution of health facilities within the province.

Table 2.3: Health facilities in Nyanza Province from 2003 to 2007

Year	**2003-2004**	**2005**	**2006-2007**
		No. of health facilities	
Hospitals			
GOK	13	13	18
Mission/NGO	9	9	7
Private	13	13	0
Dispensaries			
GOK	183	183	198
Mission/NGO	45	45	54
Private	12	12	26
CDF	-	-	202
Health centres			
GOK	72	72	60
Mission/NGO	48	48	35
Private	7	7	2
CDF	-	-	1
Grand Total	**402**	**402**	**603**

Source: HMIS 2005 and 2007

From the table above health facilities run by GOK are the majority with an aggregate of 544 facilities. This is followed by NGO/Mission health facilities with an aggregate of 198 facilities. Health facilities constructed through CDF have made a significant contribution in the health care landscape of the Province, contributing 42% (dispensaries) of all facilities by the end of 2007. Even with health care facilities increasing in the duration 2006 to 2007, Nyanza Province remains one of the Provinces with the highest HIV prevalence rates, malaria and cholera incidences. Additionally, these health facilities are not able to address the health needs of the population.

In Homa Bay County, there are 165 health facilities spread across the three districts making Homa Bay County; Rachuonyo, Homa Bay and Suba. These facilities include hospitals, health centres, dispensaries and clinics. Table 2.4 provides these details as well as other relevant health information from the three districts that constitute Homa Bay County.

Table 2.4: Health facilities and selected health indicators in Homa Bay County

Indicator	**District**		
	Homa Bay	**Rachuonyo**	**Suba**
Hospitals	3	4	4
Health centres	9	13	15
Dispensaries	34	34	25
Medical Clinics	5	6	
Nursing Homes	2	3	
VCT centres		5	2
Other		1	
Doctor: Patient ratio	1:38,707	1:150,000	1:85,036
Most prevalent diseases	Malaria, diarrhea, eye infection, skin infection	Malaria, Pneumonia	Malaria, Respiratory disorders, diarrhea
HIV prevalence	24%	30%	34%

Source: MoMS, 2011; District Strategic Plans 2005-2010

2.3.2 Human Resources and Training

The attenuation of the human capital base due to decimation or diversion of productive labour force by HIV & AIDS and/or conflicts, as well as rising school dropout rates is a reality in much of the developing world. Paradoxically, this occurs against the backdrop of growing populations to feed and care for. In addition to the above mentioned factors, there is massive brain drain from the areas where the problem is more intense to better endowed areas, both internally and externally, as health personnel are attracted from public service to either greener pastures or more fulfilling job situations (Juma, 2006). For example, in Zimbabwe, 1,500 registered nurses left the public system annually between 1991 and 1995 (WHO, 1994). Attrition is high in many African countries and this is costly given the fact that the government spends a lot of money on training them.

The Service Availability Mapping (SAM) conducted by World Health Organization in 2007 in six districts across Kenya reveal a worrying trend of health worker density per 100,000 patients. Table 2.5 gives summary of the SAM findings.

Table 2.5: Health worker density per 100,000 patients

Health workers	Kilifi	Kisumu	Mombasa	Nairobi	Nakuru	Thika
Physicians	1.6	8.2	11.7	28.5	1.5	5.3
Specialists	0.3	8.9	9.4	44.1	4.9	6.2
Dentists	0.2	1.1	2.5	3.5	2.2	1.1
Nurses	33.0	117.1	136.4	132.2	48.1	59.1
Clinical officers	8.5	10.5	15.9	5.5	6.1	4.2
Laboratory technicians	8.2	12.6	23.2	16.1	6.1	10.9
Pharmacists	0.9	6.1	14.0	7.4	1.7	3.1
Record assistants	0.8	2.8	3.6	3.5	1.2	2.3
Total	**53.5**	**167.3**	**216.7**	**240.8**	**71.7**	**92.1**

Source: Service Availability Mapping (WHO, 2007)

From the summary in Table 2.5, Nairobi has the highest health workers to patients ratio compared with other districts. One of the reasons for this may be the fact that it is the capital city and has fairly adequate facilities and resources. Kilifi district, with the lowest

number of health workers may have challenges in reaching the population and this has influence in the utilization of health services.

Inappropriate preparation of human resources is also a widespread, relentless problem. Health professionals are poorly prepared for the current, the emerging and the future situation, since training curricula and approaches still focus on the problems of the past, and training contexts are overly facility rather than community based. This approach provides little interaction with communities in their own domain of power, leading to isolated learning and socialization among health professionals. Thus, in spite of the realization that the majority of illnesses are cared for within households, health care professionals often only view people as vulnerable, powerless and sick rather than as partners that have the capacity to participate in joint problem solving, (WHO, 2000).

Human resource tooling training is largely based on this needs focused approach, which is not appropriate for addressing health needs. It is important to appreciate the fact that the human resource issue is both a quantitative (appropriate numbers) and qualitative (appropriate skills, mix, motivation) issue. Focusing on such issues as the shortage of the right people in the right place and with the right attitudes and skills mix must be addressed in order to produce professionals with skills that are not only technical but also managerial and relational (Juma, 2006).

Appropriate health professionals must conceive health problems not only in terms of direct causes of ill health, but also in terms of indirect, and proximate determinants of health such as poverty, disparity, ignorance, and marginalization. They should be able to facilitate, mobilize, organize, enter into a dialogue, and provide feedback, and work with people as partners (World Bank, 2004). African countries must have proper policies and human resource plans to address human resource issues. This is because studies have shown that child and maternal mortality and mortality rates tend to be low where there is adequate human resource. This is eventually less costly in terms of management of diseases in the system. Some countries in Africa like Tanzania, Ghana and Lesotho have demonstrated successful health personnel planning following the Arusha declaration in 1967 (World Bank, 1994).

It is in this regard that the study assessed how human resources and training as a component of health service delivery system influences utilization of health services in Homa Bay County in comparison with what other studies have found out in other countries in Africa.

2.3.3 Pharmaceutical services and health commodities

The pharmaceutical sector in Kenya is part of a specialized and highly globalized industry, in which pharmaceutical products, trade, personnel and services are intrinsically linked in a complex and dynamic matrix of health, economic and political issues; each with national, regional and global dimensions. This multi-dimensional nature encompasses numerous externalities, often conflicting with public health principles for ensuring equitable access to essential medicines (Nyong'o, 2008). Although the first national drug policy of 1994 realized some achievements, its implementation was constrained by lack of an enabling legal and institutional framework. Consequently, the policy and strategic direction for the pharmaceutical sector has remained weak, with low prioritization in health decision making and failure to address the rapid development and externalities of the sector. This has consequently hindered access and utilization of drugs, especially in the local communities.

Pharmaceutical sector problems have manifested in public sector stock-outs of essential medicines, incidences of counterfeit and substandard medicines in the market, unauthorized dispensing and illegal medicines outlets; and inappropriate medicines utilization leading to resource wastage and poor health outcomes. These challenges hinder universal access to essential medicines to the citizenry. However, Government is currently in the process of developing a new pharmaceutical policy to address these weaknesses (Nyong'o, 2008).

The support by Government to health facilities managed by Faith Based Organizations (FBOs) has been going on within the framework of the Health Policy Framework of 1994 and National Health Sector Strategic Plan II, though not on a consistent basis. This is in recognition of the fact that FBOs have a better reach to the grassroots level and in the hard to reach areas. The rural faith based health facilities have been receiving medical kits as well as staff. The FBOs hospitals have also been receiving doctors and nurses and

other key health personnel to assist them reduce their operational costs and maintain efficiency in their services (Nyong'o, 2008).

About 43 per cent of the nurses, 57 per of the doctors, 55 per cent of the clinical officers and 74 per cent of the pharmacists and pharmaceutical technologist are found either in the private for profit or private not profit facilities. This demonstrates the important role that the private sector has towards reaching the citizenry in Kenya. With the Sector Wide approach being implemented, the private sector and other non-state actors will continue to play a greater role in healthcare provision in future (Nyong'o, 2008).

2.4 Quality of health services

There is continued concern about unequal access to quality health care. In its policy framework, the Ministry of Health recognizes the challenges these emerging health issues entail. The 1994 Health Policy Framework and the Nation Health Sector Strategic Plan (NHSSP, 1999-2004) provide the vision and the agenda for the Ministry of Health (MOH). The aim of the Kenya Government is to expand coverage of health services and their accessibility to vulnerable groups. The Ministry of Health also identified and committed to focus and allocate more resources on (a) preventive and promotive health care, (b) rural dispensaries and health centers, (c) primary health care, (d) family planning and Maternal and Child Health (MCH), (e) control of T8, HrVfArOS, marana; communicable and vector borne diseases; environmental health services, and (f) nutrition programs as core poverty programs (MOH, 2007).

According to the World Health Report (2000), Sub-Saharan Africa where Kenya falls is ranked among the lower 50% in terms of performance health systems where infectious diseases contributed to mortality. Kenya like most developing countries is experiencing a double pattern of disease: the traditional communicable diseases and the affluent chronic illnesses. These demand well developed performance health systems to efficiently and effectively address this challenge (The Kenya Health Sector Integrity Study Report, 2011).

The Ministry of Health institutions form a pyramidal structure of facilities with the system being key component of overall health care system. Also there is emphasis on

curative versus primary and preventive health care. The GOK through the ministry of health contributes about 42% of the total spending on health and individuals through the out of pocket expenditures contribute 40% towards health financing (Republic of Kenya, 1977).

If care is to be effective it should be of good quality. Quality of care, though, is a complex term. Donabedian (1988) developed a framework for defining quality of care. She differentiated between observed quality of care and perceived quality of care. The observed quality of care focuses merely on the structure, the process and the outcome. Structure refers to facilities, personnel and organisation. Process refers to interaction between provider and consumer. Outcome measures the extent to which the service interaction meets the consumers' expectations. The observed quality of care relates to professionally defined standards of care and the perceived quality of care reflects the views of the patients. For example, patients can be satisfied even after receiving treatment in a health system which does not offer quality of care according to professional standards. The opposite is true if a doctor offers good quality of care but communication with the patient does not satisfy the patient (Jan and Maaike, 2010).

The few studies that have directly investigated the role of quality of care by health care providers suggest that user fees will not result in reduced utilization if the revenue generated is used to improve the quality of services (David, 1998). Two studies that are relevant here are: (1) cross-sectional studies with policy simulations of the effect of user fee increases and quality improvements (Lavy and Germain; Mwabu et al., 1994; Akin et al., 1995); (2) experimental design studies of health care utilization in communities experiencing price increases and quality improvements (Litvack and Bodart, 1993).

Cross-sectional studies that explicitly address the role of quality on demand for health care use information gathered through household surveys complemented by provider-specific information on characteristics of health care facilities. All of these studies use objectively measurable characteristics of healthcare providers as proxies of quality of care. These characteristics include availability of drugs and equipment, practitioner training, and administrative structure. Although indicators of the process of care and the outcome of care are not measured in these studies, the use of provider attributes provides

a tractable approach to measuring the multiple dimensions (Alderman and Lavy, 1996). The study employed this approach with modification on relevant characteristics that may have strong influence on utilization of health services in Homa Bay County.

An important finding from these studies is that quality has a positive and significant role in determining where people seek health care. For example, Lavy and Germain (1994) and Akin, et al (1995) found that improving the availability of drugs would increase the probability of using health care. Whereas Mwabu et al. (1994) also found out that the availability of certain drugs, such as aspirin is positively associated with utilization rates, the availability of other drugs, such as anti-malarial drugs, was found to be negatively associated with utilization. Other health care attributes have also been found to be positively associated with utilization. In terms of the consumer tradeoff between cost and quality, Lavy and Germain (1994) and Akin et al. (1995) concluded that the strong positive effect of improvements in quality on utilization offers policymakers ample opportunities to implement cost recovery schemes without compromising utilization. This study therefore established how these findings relate to the situation in Homa Bay County.

Mwabu (1984) developed theoretical and empirical frameworks for analyzing choices of health care facilities by households during episodes of illness. Data for the study was collected in Meru district of Kenya. The study considered the quality of health care facilities and that consumer have partial knowledge about the facilities. The study established that education, quality of health care facilities and religion had a statistically significant effect on the choice of facility. The study found economic variables such as time and money costs to marginally influence demand for medical care. My study borrowed mostly from this study, but with changes in the factors considered.

Results from a study conducted by Ngure, et al. (2007) in Nyeri district, Kenya, and the literature review shows that unmeasured factors and their perception by patients are important determinants of health service demand. In particular, patients' perceptions about quality of health facilities are important factors in utilization of health services. The study revealed that 31.9% of patients at the health facilities in Nyeri District are below the age of five years. Moreover, a significant number of patients lived between 1 and 5 km from

the health facility (40.5%). The results further showed that public hospitals were the preferred source of care (45.8%). Contrary to the current perception about the quality of health care in public facilities being poor, the results of this study indicate that demand is high at these facilities despite the unfavorable attitude of patients about medical personnel.

This finding was due to the presence of doctors in hospitals and easy accessibility of patients to many government health facilities. The presence of doctors and drugs, combined with facility proximity lead to overcrowding at public health facilities, which typically would be associated with friction between patients and health personnel. Other factors influencing the utilization of health facilities include travel time, age of adult caregivers, household size, gender of the patient, education and user charges. However, while the effects of perceived quality under different model specifications persists, the effects of user charges become insignificant when social and demographic factors are added into the demand model (Ngure, 2007). The findings about the influence of quality of care on utilization of health services formed the basis of this study.

Jan and Maaike (2010) on their study on health seeking behavior in Webuye, Kenya found out that households do not always visit the nearest health facility, but rather bypass that facility and travel to facilities with higher quality. This behavior changes expected benefits of health interventions. In particular, interventions that focus on improving quality in all health facilities (such as eliminating vacancies or upgrading staffing levels) are less beneficial when patients bypass because their behavior had already improved the quality of care received. Klemick (2008) suggest that policies improving the quality of care provided at a few facilities have greater benefits when taking into account the fact that patients will respond by seeking out these improved facilities. They indicate that aggressive policies of staff training and hiring— such as filling vacant posts and upgrading the average qualifications at rural facilities— are required to achieve significant improvements in access to competent health care. While reducing absenteeism alone has a minor impact, coupling absenteeism reductions with stronger incentives for clinicians at public facilities to perform up to the level of their non-public sector counterparts does improve the quality of care.

Audo, et al. (2005) conducted a descriptive cross-section survey to assess the quality of care provided by the Kisumu Municipal health facilities, with special reference to Maternal and Child health services (MCH). A total of 482 mothers were interviewed in the household survey. Out of these, only 40.4%, 53.7% and 45.7% had respectively used Municipal facilities for antenatal services (ANC), immunisation and treatment of their children the last time they required such a service. This translates to by-pass rates for Municipal health facilities of 59.5%, 46.3% and 54.3% respectively for the three services. By-pass was higher for the more central urban catchment areas than the more peripheral ones, a finding that was associated with the socio-economic status of the respondents and the relative location of the municipal facilities vis-à-vis competing facilities, mainly the District and Provincial hospitals.

The main reasons cited for by-pass were poor care (21%), lack of drugs and supplies (17%) and lack of/poor laboratory services (12%). From the facility audit, most of the clinics had a reasonable capacity to offer basic health care with only three scoring less than 50% in the scale used. The worst areas were in availability of drugs, equipment and management issues. There was a strong relationship between the perceived quality of care and utilization of MCH services as well as by-pass. The capacity of the facilities to offer care was however not associated with utilization of MCH services or by-pass. This study borrowed some of the aspects employed by Audo, et al, (2005) in establishing influence of quality of health services on utilization of health services in Homa Bay County.

The Kenya Health Sector Integrity Study (2011) findings from focus group discussions and observations indicated a general delay in service delivery to clients/patients. In some institutions, patients/clients waited for long hours before receiving attention. In some health facilities it would take almost four hours for a client to conclude medical consultations and other treatment procedures. In others, patients reported spending a whole day at the facilities for them to be attended while others reported that they arrived at the facility at 6 a.m. and had to wait up to receive medical attention.

Furthermore, based on interviews and observations, most of the facility health workers were very arrogant and unfriendly leading the mistreatment and harassment of patients. In the rural community facilities, staff availability was a concern especially in the provision

of emergency services during the odd hours, weekends and at night. Nyamusi and Bokoli in Nyamira and Bungoma counties respectively were the most highly affected by the lack of staff to offer services to public. However, in most rural facilities this was due to lack of sufficient personnel since the few staff members in the facility were most likely overwhelmed and fatigued (The Kenya Health Sector Integrity Study Report, 2011). This situation affects delivery of quality health services thereby influencing utilization of such services. These are common cases and the same may be happening in Homa Bay County.

2.5 Accessibility to healthcare services

The effect of geographical accessibility as a factor for utilization of health services is well documented in the literature (Buor, 2003; Noor et al., 2003). These studies include, but are not limited to, the issues of distance to health facilities, availability of transportation, mode of transportation, the condition of the roads, and the time taken to travel there. Usually these studies are also inclusive of another variable such as gender, cost (of transport and service), education level or some other socio-economic marker. With so many studies (Hjortsberg, 2003; Peterson et al., 2004; Rani and Bonu, 2003; Stekelenburg, et al., 2004) widely postulating these issues as factors of health care seeking, barriers to health care and as representing inequalities in health care use. Study conducted by BPsych (2007) also found similar results for the use of formal and informal, private and public health care services.

Buor (2003) contends that while the impact of distance in terms of using health care services is important, distance cannot be considered in isolation. There are other factors that are interrelated and are relative to the necessity of seeking health care for an individual and for a specific health complaint. These factors are identified as "predisposing and enabling" (p. 294) and include literacy, poverty, age, and gender. Using education as an example, Buor questions whether an individual with a high income would be discouraged by high transport costs to a health facility, if he does not see the need to travel there in the first place (p.294). Despite the discussion of predisposing and enabling factors, Buor found the primacy of distance was the factor that superseded all others in rural areas of Ghana and named other key factors as being income, service cost and education.

The results of other studies conclude that access to transport is a condition for better health and more reliable treatment (Amin et al., 2003; Peterson et al., 2004). There is a body of literature highlighting the prohibition of cost for accessing transport to facilitate health care (Buor, 2003; Macintyre et al., 2003; Needham et al., 1998). This could as well be the case for Homa Bay County. Further investigation into the specific issues of accessibility would be needed in the county with regard to private health care use and in this case, more specifically the role of self-medicating. These were also focused on during the survey.

2.6 Equity in healthcare provision

Applied research on equity in the delivery of health care often focuses on horizontal equity- that is, whether people with equal needs (in terms of morbidity) are treated the same (in terms of utilization) regardless of income (Wagstaff and van Doorslaer, 1993). A major argument for public financing of health care is to guarantee everyone, including people who are too poor to buy private health insurance or to pay out-of-pocket for health care, access to a minimum package of health services. People with the lowest incomes and wealth are generally in the worst health and thus have a greater need for services. One reason is that both health and income are often low among the elderly. Thus equity aspects are central to discussions of health care financing for individual services (Jonsson and Musgrove, 1997).

The equity argument may be less important for financing of public goods. Interventions to improve public health, such as sanitation and vaccination programs, generally benefit the entire population. Depending on the program, the benefits may be more or less important for some groups. It can be argued that the poor generally gain the most, since people with more money can compensate by substituting private for public expenditures. On the other hand, health promotion activities may be of particular benefit for people with more education and greater capacity to benefit from such activities. Such groups are often the first to change their behavior to improve their health, as with reduced smoking and increased physical exercise (Jonsson and Musgrove, 1997). These arguments therefore formed the basis of this study.

In Namibia, a study on equity of service provision was conducted by the World Health Organization (2002) and it aimed at improving equity by allocating available resources in a manner that would more closely match the needs of local populations. They used attendances as a measure of underlying population needs, but this took no account of unmet needs, which might have been higher in the more deprived communities. However, in urban Windhoek the distances that people had to travel were relatively small, and the poor were exempt from user fees. This suggested that unmet needs (WHO, 2002) were unlikely to vary greatly between localities, and that utilization was a satisfactory measure of underlying population needs for planning purposes. It could be less appropriate in areas where access is more difficult and where there may be high variations in the level of unmet needs (WHO, 2002).

In their approach it was assumed that patients who did not use their nearest clinic would do so if local provision were increased. This was supported by the finding that clinics with the highest nurse workloads were localities where the lowest proportion of residents were treated locally, suggesting that a lack of capacity was driving residents to attend more distant clinics. Drugs were equally available in all clinics but other factors, such as the range and perspective quality of services, and, in particular, the availability of a doctor could influence the choice of a clinic (Kloos, 1990; Holdsworth, et al., 1993; Pepperal, et al., 1995). The potential advantages of centralized services may outweigh issues of local access in some situations.

For a majority of Kenyans, access to healthcare is limited with many succumbing to disease burden. Even with continued health care policy revision, health care is elusive to most households and individuals especially in rural areas. Kenya still lags behind in achieving overall well-being for its citizens (Bujra and Keriga, 2009).

Duba, et al., (2001) conducted a study on pastoralist health care in Kenya mainly focusing on aspects of equity. For the pastoralists the Kenyan health system has serious shortcomings and services must be delivered under difficult circumstances. Often, the most basic requirements cannot be met, thus adding major problems to the daily struggle for life. They argue that the implementation of community based, integrated primary health care could contribute to remedying the inadequacies in the health system. They

recommend that to achieve this, it is necessary that the government gradually work towards an appropriate mix of types of decentralization to the district level. While this study was conducted in Northern Kenya, the findings may not be different from Homa Bay County and hence the need to establish the influence of equity in health care provision on the utilization of health services in Homa Bay County.

2.7 Theoretical Framework

Andersen's Behavioral Model of Health Service Utilization (BMHSU) (Andersen and Newman, 1973; Andersen, 1995) is the most frequently used theoretical model for predicting and explaining health services use. The model consists of three determinant factors: *predisposing, enabling*, and *needs factors. Predisposing factors* are exogenous factors such as demographics, social structure, and health beliefs. *Enabling factors* are necessary but not sufficient conditions for service use. They include community and personal enabling resources. *Needs factors* must be present for service use to happen. There are two types of needs variables: *evaluated needs* and *perceived needs*. The needs experienced by the caregivers are the perceived needs. Figure 1 outlines the different categories. An adaptation of the model has been proposed for studying health-seeking behavior for malaria (Rauyajin, 1991).

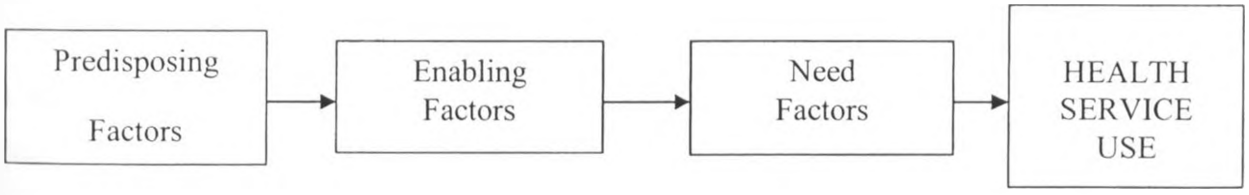

Figure 1: Health Care Utilization Model

Examples of the factors organized in the categories of the Health Care Utilization Model (mainly following Weller et al. 1997) are; *Predisposing factors:* age, gender, religion, global health assessment, prior experiences with illness, formal education, general attitudes towards health services, knowledge about the illness etc. *Enabling factors:* availability of services, financial resources to purchase services, health insurance, social network support etc. *Need factors:* perception of severity, total number of sick days for a reported illness, total number of days in bed, days missed from work or school, help from outside for caring etc; and *Treatment actions:* home remedies (herbal, pharmaceuticals),

pharmacy, over the counter drugs from shops, injectionists, traditional healers, private medical facilities, public health services etc.

The model centres specifically on treatment selection. It includes both material and structural factors, which are barely taken into account in the social psychology models. Weller and colleagues (1997) emphasized its particular use for working with statistical data on actual cases. The model has also been used for gaining evidence on the weight of different factors for health service use. Based on the data of Demographic and Health Surveys, a comparative study of six African countries has been carried out, using the categories proposed by Andersen (Fosu, 1994).

Andersen's model has been modified in the International Collaborative Study on Health Care (Kroeger, 1983). In addition to the predisposing factors and enabling factors, this version includes Health Service System factors, referring to the structure of the health care system and its link to a country's social and political macro-system. This is a valuable extension as it puts emphasis on the link of health-seeking behaviour with structural levels within a macro-political and economic context. However, the model omits the 'need factors' which are central for understanding health-seeking behaviour (Weller et al., 1997).

A further variant of Andersen's model was elaborated by Kroeger (1983). Based on an extensive and well-elaborated literature revision, he proposed the following framework (Figure 2):

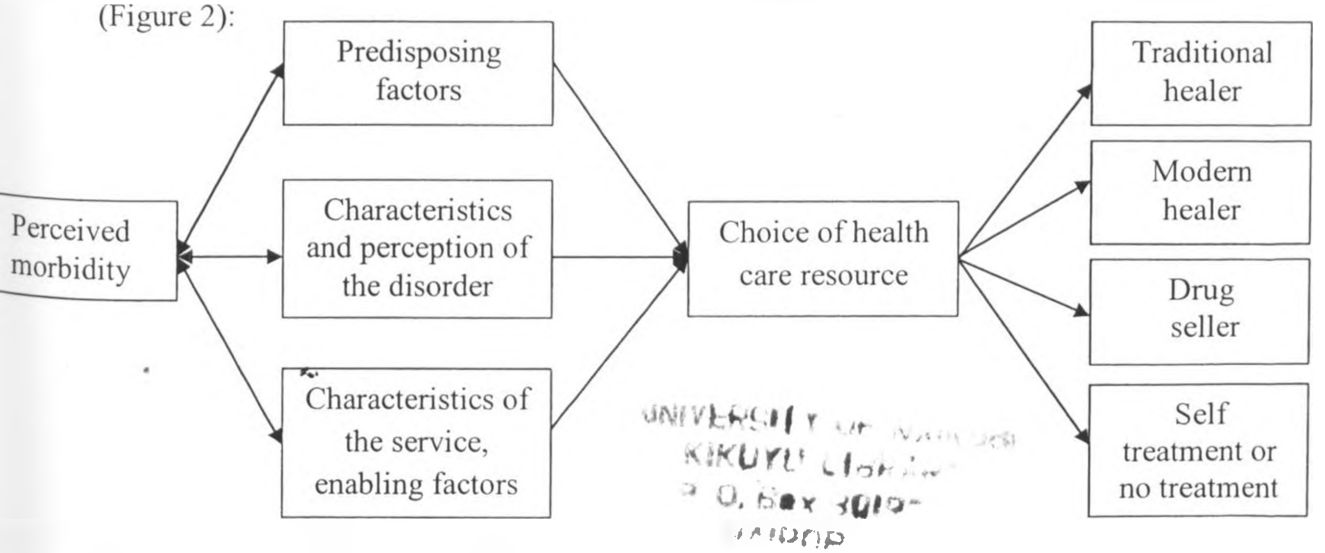

Figure 2: Kroeger's Model, 1983

Kroeger's Model (above) outlines interrelated explanatory variables, all of which are affected by perceived morbidity. One of the variables is an individual's traits or predisposing factors that include age, sex, marital status, status in the household, household size, ethnic group, degree of cultural adaptation, formal education, occupation, assets (land, livestock, cash, income), social network interactions. Another component is characteristics of the disorder and their perception that include chronic or acute, severe or trivial, etiological model, expected benefits or treatment (modern versus traditional), psychosomatic versus somatic disorders. Finally, characteristics of the service (health service system factors and enabling factors) that include accessibility, appeal (opinions and attitudes towards traditional and modern healers), acceptability, quality, communication and costs are outlined in the model.

The interaction of these factors guides the election of health care resources (dependent variables). The advantage of socio-behavioural models is the variety of the factors which are organized in categories, making interventions on therapeutic actions (or lack of actions) feasible. They permit the establishment of correlations with good predictability, but not specification of how and why the different factors affect therapeutic selection (Weller et al. 1997). This study borrowed a lot from these models with modifications on various variables as found necessary.

2.8 Conceptual Framework

Based on the Andersen's Behavioral Model of Health Service Utilization (BMHSU), there are a number of factors influencing utilization of health services that have been outlined generally in the model. The literature has also provided references on factors that influence utilization of health services. These are as shown as a concept in Figure 3.

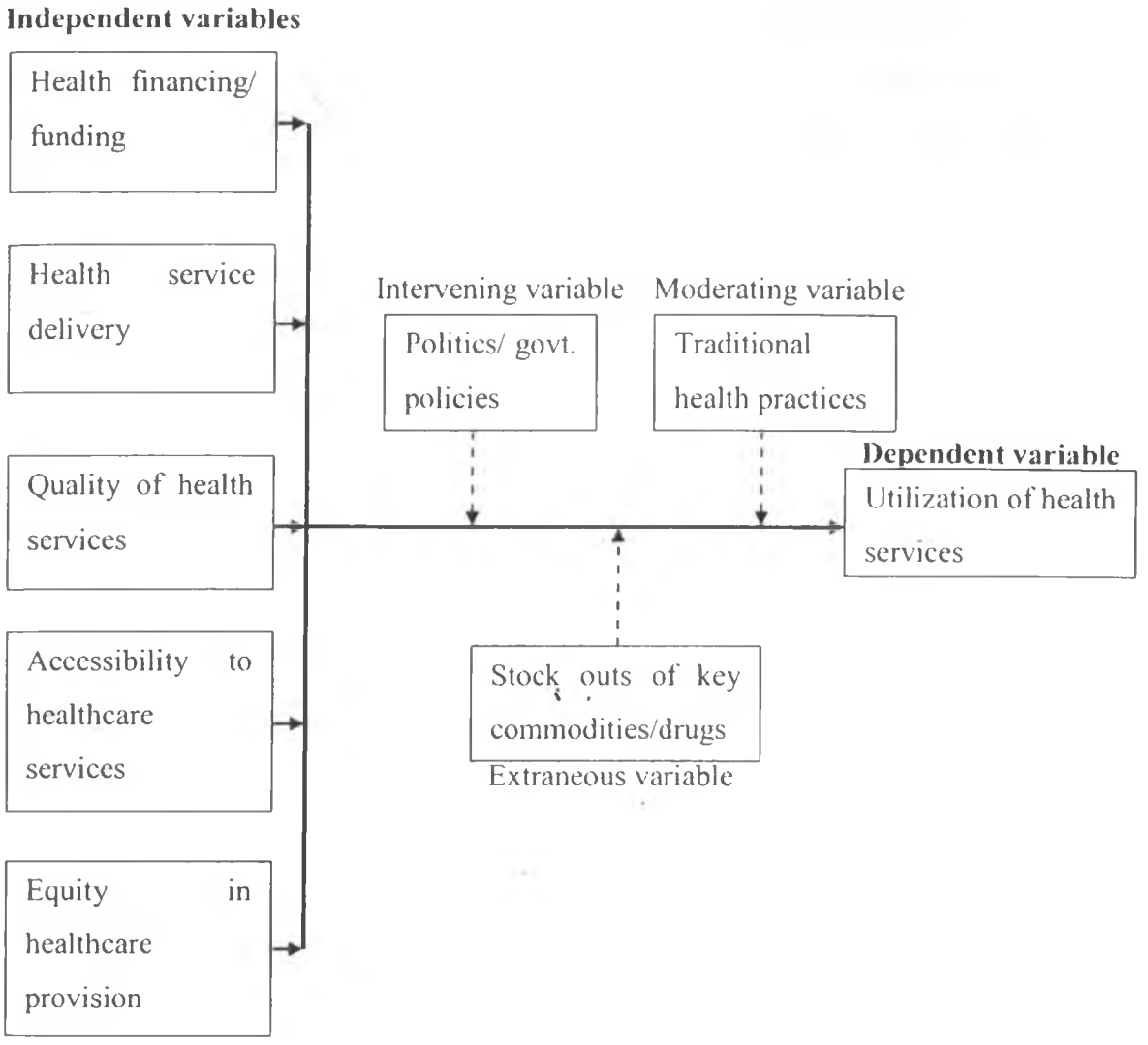

Figure 3: Conceptual Framework

Figure 3 outlines utilization of health services as dependent variable and five independent variables namely health financing/funding, health service delivery, quality of health services, accessibility of healthcare services and equity in healthcare provision. Other variables were; politic/government policies (intervening variable), stock outs of key commodities including drugs (extraneous variable), and traditional health practices/cultural factors (moderating variables).

2.9 Summary

This chapter provides a review of literature based on key factors that influence utilization of health services and these include; health financing/funding, health service delivery, quality of health services, accessibility to healthcare services and equity in healthcare provision. The chapter outlines the Andersen's Behavioral Model of Health Service

Utilization (BMHSU), which is the most frequently used theoretical model for predicting and explaining health services use. Finally, the conceptual framework that outlines dependent and independent variables as well as intervening, moderating and extraneous variables in this study, is presented.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

This chapter outlines key components of research methodology of this study. These include research design, target population, sampling design, data collection as well as analysis.

3.1 Research Design

Research Design is a plan for collecting and utilizing data so that desired information can be obtained with sufficient precision or so that a hypothesis can be tested properly (Holsti, 1969). This involved developing of research proposal with full complement of data collection tools, discussion with key stakeholders, data collection, entry, analysis, interpretation and reporting. In terms of the design, the study employed survey research design.

Gay (1983) defines a survey as an "attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables". It is claimed to be the best available method to social scientists who are interested in collecting original data for the purpose of describing a population which is too large to observe directly (Mugenda and Mugenda, 2003). The study's purpose was to establish the factors that influence utilization of health services and to what extent this happens in Homa Bay County. This involved interviewing the local community members who are the recipients of health services, health workers and professionals as well as other key stakeholders.

3.2 Target population

Population refers to the target group under investigation (Thyrian and John, 2007). In this case it refers to the total household population of Homa Bay County which is 206,255 according to the 2009 Kenya Population and Housing Census. This household population is distributed across the three districts; Homa Bay (79,540), Rachuonyo (81,395) and Suba (45,320). In addition to the households, there are 21 DHMT members from the three districts forming Homa Bay County as well as 23 health NGOs. The population is the entire set under consideration; this will inform determination of sampling size

3.3 Sampling Design

In the theory of finite population sampling, a sampling design specifies for every possible sample its probability of being drawn (Kulathinal, 2007). Mathematically, a sampling design is denoted by the function $P(S)$ which gives the probability of drawing a sample S. In this study, the design was guided by the overall population then the population of the three districts. Additionally, distribution of health facilities within the three districts was considered.

3.3.1 Sampling Frame

Sampling frame refers to all possible units that might be drawn from a sample (Robin, et al, 2009). In this study, the units included households in Homa Bay County, health facilities, health workers, NGOs, among others, that provided key information for the study.

3.3.2 Sampling Techniques

Statistical sampling techniques are the strategies applied by researchers during the statistical sampling process (Farrell, 2008). This process is done when the researchers aims to draw conclusions for the entire population after conducting a study on a sample taken from the same population. It addresses three key concerns; representativeness, practicability, and sampling risks. This study adopted stratified random sampling.

3.3.3 Sampling Size

The sample size of a statistical sample is the number of observations that constitute it (Jain, 1978). It is typically denoted n, a positive integer (natural number). This was guided by the sample frame outlined in 3.3.1 as well as by Benard (1994) in his summarized sample size determination table in Appendix 1.

In this regard, if we worked on sample size at 95% confidence level then the study had 384 respondents from Homa Bay County. In order to take care of any non respondents, we targeted 400 respondents. Table 3.1 provides breakdown of respondents to be interviewed.

Table 3.1: Breakdown of study respondents

Category	Sub category	Total Population	Percentage	Sample size
Community	Household interviewees	206,255 households	18.62%	384
Key Informants	DHMT	21	43%	9
	NGOs/CBO representatives	23	30%	7
Total				**400**

3.4 Data Collection Methods

This is covered in terms of methods of data collection, validity and reliability of the process. These are discussed below.

3.4.1 Data Collection

To effectively get accurate and representative data, two broad data collection methods will be used; secondary and primary data collection. Secondary data collection was done through desk review and discussion with key stakeholders while primary data collection was done through individual household interviews and key informant interviews with health workers and other key stakeholders.

3.4.2 Validity of the instruments

Validity is the degree to which evidence supports inferences based on the data collected using a particular instrument. It is concerned with whether or not the information is relevant to the purpose of the study (Winter, 2000; Joppe, 2000). The first level of validation involved review of key variables with the guidance of my supervisor. This was followed by defense in which a team of panelists provided further guidance.

3.4.3 Reliability of the instruments

Reliability is a measure of the consistency of results or scores obtained. It is improved by standardizing the conditions under which the measurement takes place (Joppe, 2000). Rehearsals were done with the assistant(s) to ensure that they fully understood the instruments and were motivated enough to carry out the work without introducing any auxiliary questions which may distort the responses. The prepared interview guides were

pre-tested with some of the target population before full administration to the selected sample.

3.5 Data Analysis Methods

The data captured constituted both quantitative and qualitative data. Quantitative data were analyzed using SPSS 17.0 by running frequencies, cross-tabulations, chi square tests, correlation and regression to generate various relationships, frequencies and comparisons. Qualitative data were transcribed and summarized to back up quantitative data.

3.6 Operationalization of Variables Table

Table 3.2 outlines the operationalization of variables table that provides indicators for various variables and how they were measured. It also indicates variable types as well as data collection and analysis methods.

Table 3.2: Operationalization of Variables Table

Objective	Variables	Indicators	Measurement	Variable type	Data collection method	Data analysis
i. To establish the influence of health financing/funding on utilization of health services in Homa Bay County	Independent Variable: health financing/funding	• GoK/MOH cash envelope • Contribution from NGOs User fees/ cost sharing • NHIF contribution	a) Amounts in Kshs Receipts b) NHIF cards	Ratio and nominal	• Budget Analysis • Key Informant Interview • AOP	Correlation and descriptive statistics
ii. To assess the influence of service delivery on utilization of health services in Homa Bay County	Independent Variable: health service delivery	• No. of health facilities • Adequate medical staff • No. of health workers trained • Other health facilities	a) Health facilities list b) Staff list c) Trained personnel d) Drugs and equipment	Interval, Ordinal	• KII • Desk review of health returns/ reports • HMIS	Cross-tabulation, correlation and descriptive statistics
iii. To establish the influence of quality of health services on utilization of health services in Homa Bay County	Independent Variable: Quality of health services	• Availability of right drugs • Handling of patients • Adequacy of right drugs	a) Service charter b) Drugs list c) Adequate staff d) Relevant HMIS tools	Ratio, Nominal, Interval	• KII • Desk review • Service availability mapping	Cross-tabulation, correlation and descriptive statistics

Objective	Variables	Indicators	Measurement	Variable type	Data collection method	Data analysis
iv. To assess influence of accessibility to healthcare services on utilization of health services in Homa Bay County	Independent variable: accessibility to healthcare services	• Distance to health facilities • Means of transport	a) Distribution of health facilities b) Distance to health facilities c) Availability of required drugs d) Access roads	Ratio, Nominal, Interval, Ordinal	• KII • Service accessibility	Cross-tabulation, correlation and descriptive statistics
v. To establish influence of equity in healthcare provision on utilization of health services	Independent Variable: equity in healthcare provision	• Common ailments • Availability of required drugs • Referrals • Outreach services	a) Diagnostic sheets b) Prescription sheets	Ratio, Nominal, Interval, Ordinal	• KII • HMIS	Cross-tabulation, correlation and descriptive statistics
	Dependent variable: utilization of health services	• No. of patients diagnosed for various ailments • Acceptability – cultural issues • No. of patients aware and benefiting from outreach services	a) Feedback from clients b) Data on referrals and outreach services	Interval, Ordinal	Household interview	Cross-tabulation, correlation and descriptive statistics

3.7 Summary

This chapter outlines research methodology used in this study in order to test the five independent variables in relation to the dependent variable.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This part of the report focuses on data analysis, presentation and interpretation based on the data collected from individual interviews and key informant interviews. It provides overview of respondents' demographic characteristics and factors influencing utilization of health services in Homa Bay County. The sections are based on the five independent variables.

4.2 Socio-economic and demographic characteristics of respondents

The study was conducted through individual interviews of 384 (179 males and 205 females), key informant interviews with nine DMHT representatives and seven NGOs representatives.

4.2.1 Age distribution of respondents

Health is an issue for all age groups in the county and therefore the respondents interviewed were in different age groups from 18 to 70 years and above, as presented in Table 4.1

Table 4.1: Age Distribution of study respondents

Age group	Frequency	Percentage
18 – 25	35	9.1%
26 – 35	105	27.3%
36 – 50	108	28.1%
51 – 60	72	18.8%
61 – 70	46	12%
70+	18	4.7%

From the age distribution, majority of those interviewed fell between 36 and 50 years followed by 26-35 then 51-60, 61-70, 18-25 and the least falling above 70 years.

4.2.2 Level of education

Level of education is an important element as it informs awareness of health issues in the county and elsewhere across the country. Table 4.2 represents level of education of the respondents targeted through household interviews.

Table 4.2: Highest level of education completed

Level	Frequency	Percentage
None/not gone to school at all	49	12.8%
Primary school	44	11.5%
Secondary school	120	31.3%
Tertiary college	113	29.4%
University	58	15%
Total	**384**	**100%**

The table indicates that majority of respondents had completed secondary school education.

4.2.3 Average monthly household income

Household income determines people's ability to pay for health services. Table 4.3 shows average monthly household income, this was computed with reference to household expenditure since it is sensitive to get information on income directly from the respondents.

Table 4.3: Average monthly household income

Income levels	Frequency	Percentage
0 – 5,000/=	114	29.7%
5,001 – 10,000/=	150	39%
10,001 – 20,000/=	72	18.8%
20,001 – 50,000/=	31	8.1%
Above 50,000/=	17	4.4%
Total	**384**	**100%**

The table indicates that majority have household income of less than five thousand shillings and with increasing cost of treatment, this may hinder ability to pay for health services.

4.3 Health Financing

The ability to pay for health services determines whether people visit health facilities or not. Table 4.4 shows frequency of visits to health facility by type based on the findings from the study

Table 4.4: Frequency of visits to health facilities by type

Type of health facilities visited	Frequency	Percentage frequency of visits
Government manned	189	49%
NGO/FBO manned	135	35%
Private	60	16%

The study revealed that among those who had visited health facilities to access health services, 49% had been to government health facilities, 35% had been to NGO/FBO manned health facilities while 16% had been to private health facilities within the county. This implies that majority get health services from public/government health facilities.

4.3.1 Payment for health services

Payment for health services varies according to categories of health facilities. A cross tabulation of those who visited various health facilities and paid money is represented in Table 4.5.

Table 4.5: Cross tabulation of type of health facility visited and payment of money

		Paid for services		
		Yes	No	Total
Type facility visited	Government hospital (Health Centre, Dispensary, Hospital)	172 (91%)	17 (9%)	189 (100%)
	NGO/FBO manned health facility	103 (76%)	32 (24%)	135 (100%)
	Private	57 (95%)	3 (5%)	60 (100%)
Total		332 (86%)	52 (14%)	384 (100%)

Among 189 respondents who visited public health facilities, 172 paid money while 17 did not. Among 135 who visited NGO/FBO manned health facilities, 103 paid while 32 did not while among the 60 respondents who visited private health facilities, 57 paid while 3

did not. Looking across the three categories of health facilities visited, the study revealed that 86% paid for health services while 14% did not.

4.3.2 Amount paid to access health services

Cost of health services determines whether most people are able to pay for such services or not. Table 4.6 presents average amount paid to access health services based on the findings from the study.

Table 4.6: Amount paid by patients to receive treatment

Amount paid	Frequency	Percentage frequency
1 – 100/=	31	8%
101 – 200/=	92	24%
201 – 500/=	119	31%
501 – 1,000/=	100	26%
More than 1,000/=	42	11%

Regarding the amount of money paid by those who visited health facilities, 8% paid at most 100/=, 24% paid between 101and 200/=, 31% paid between 201 and 500/=, 26% paid between 501 and 1,000/= while 11% paid more than 1,000/=. While most of those who visited health facilities paid money for treatment, 55% of them mentioned that the money was sufficient to receive health services, 44% mentioned that the money paid was not sufficient while 1% did not know whether the money was sufficient or not since they did not pay for themselves. Additionally, interviews with DHMT and NGOs representatives revealed that most people are not able to pay for health services.

4.3.3 NHIF contribution

National Health Insurance Fund (NHIF) is one of the options contributing to health financing through members' monthly contributions. Table 4.7 presents feedback from respondents regarding NHIF contribution.

Table 4.7: NHIF contribution

NHIF contribution	Frequency	Percentage
Yes	46	12%
No	338	88%
Total	**384**	**100%**

Another source of health financing is through NHIF contribution and the study established those who contribute and those who do not. It was revealed that 12% make NHIF contributions while 88% do not. This implies that only a few (12%) are able to access health services through NHIF contribution.

4.4 Health Service Delivery

Health service delivery was assessed in terms of availability of health facilities, availability of trained staff and existence of various support facilities like ambulances that can be used during emergency cases.

4.4.1 Health facilities

Availability of health facilities determines whether people utilize the services in those facilities or not. Table 4.8 provides summary of feedback from respondents regarding availability of health facilities that they can reach whenever they require medical attention.

Table 4.8 Availability of health facilities

Availability of health facilities	Frequency	Percentage
Yes	238	62%
No	146	38%
Total	**384**	**100%**

In terms of availability of health facilities at the community level, 62% of those interviewed mentioned that there are health facilities around where they live. This means that 38% of residents of Homa Bay County still have difficulty accessing health services since health facilities are not readily available.

4.4.2 Staffing

Staffing levels within health facilities may influence service delivery and hence utilization of health services. Table 4.9 shows respondents' feedback on staff adequacy in health facilities within Homa Bay County.

Table 4.9: Staffing levels in health facilities

Staffing levels	Frequency	Percentage
Adequate	146	38%
Inadequate	211	55%
Do not know	27	7%
Total	**384**	**100%**

In terms of staffing, 38% of those interviewed mentioned that the health facilities visited had adequate staff, 55% of those interviewed mentioned that staffing was inadequate while 7% did not know. According to this assessment, there is work over load on the existing health workers and this is likely to affect delivery of health services.

4.4.3 Staff training

Level of training of staff as perceived by patients may influence their health seeking behaviour. Table 4.10 represents responses regarding training levels of health workers in health facilities.

Table 4.10: Patients' perception on the training levels of health workers

Training levels of health workers	Frequency	Percentage
Adequate staff training	131	34%
Average staff training	180	47%
Inadequate staff training	73	19%

In terms of training of health workers, 34% of respondents mentioned that staff members had adequate training, 47% mentioned average training while 19% mentioned that health workers had inadequate training. Level of training of health workers influences their ability to respond to health needs of patients and hence influence utilization of health services.

4.4.4 Existence of ambulances for emergency services

Availability of ambulances enables health facilities to respond to emergency health needs of the people and hence utilization of health services by those who need them. Table 4.11 shows availability of ambulances in health facilities within Homa Bay County

Table 4.11: Availability of ambulances in health facilities

Availability of ambulances	Frequency	Percentage
Have ambulance	35	9%
Don't have	319	83%
Don't know	31	8%

When asked if the health facilities they have visited have ambulances, 9% mentioned that there are ambulances, 83% mentioned that the health facilities don't have/own ambulances while 8% had no idea. In this regard, response to emergency health situations may be difficult due to lack of sufficient ambulances in the country. Cross tabulation of type of facility visited and ownership, further revealed that most health facilities, whether public, NGO/FBO manned or private, don't have ambulance to be used during emergencies. This is represented by table 4.12.

Table 4.12: Cross tabulation of type of health facility and ownership of ambulances

		Does the facility have ambulance for emergency services?			
		Yes	No	Don't know	Total
Type facility visited	Government health facilities	14 (8%)	165 (87%)	10 (5%)	189 (100%)
	NGO/FBO manned health facilities	46 (34%)	75 (56%)	14 (10%)	135 (100%)
	Private health facilities	15 (25%)	39 (66%)	6 (10%)	60 (100%)
Total		75 (20%)	279 (73%)	30 (8%)	384 (100%)

4.5 Quality of health services

Quality of health services has great influence on utilization of health services and the study assessed this in terms of time taken within the health facility to receive treatment, how health workers handle patients, availability of other basic amenities and whether patients are given adequate time to explain their problems whenever they visit health facilities.

4.5.1 Time taken to receive medical attention

Time taken within the health facilities to receive medical attention may influence health seeking behaviour of the people. Table 4.13 shows time taken between arrival to and departure from health facilities when patients visit health facilities to receive health services.

Table 4.13: Time taken within the health facility to receive treatment

Time taken within health facility	Frequency	Percentage
Less than 1 hour	10	2.6%
2 – 3 hours	64	16.7%
3 – 4 hours	135	35.5%
4 – 5 hours	126	32.8%
More than 5 hours	49	12.8%

Regarding time taken between arrival and departure time within the health facility, most of those interviewed (35.2%) spent between 3-4 hours, 32.8% spent between 4 and 5 hours, 16.7% spent 2-3 hours, 12.8% spent more than 5 hours while only 2.6% spent less than 1 hour. This implies that majority will have to spend a lot of time within the facility in order to access medical services and this may in the long run hinder utilization of such services.

4.5.2 Handling of patients by health workers

Perception on how health workers handle patients whenever they visit health facilities may encourage or discourage them from seeking health services in those facilities. Table 4.14 presents respondents' feedback on how they are handled by health workers whenever they visit health facilities.

Table 4.14: Handling of patients by health workers

Handling of patients	Frequency	Percentage
Friendly	60	15.6%
Averagely	160	41.7%
Poorly	164	42.7%
Total	**384**	**100%**

Another aspect quality of health services that was assessed was how health worker handle patients. This study revealed that 15.6% of those interviewed had received friendly treatment by health workers, 41.7% mentioned that they were handled averagely while 42.7% mentioned that they were handled poorly. One NGO representative gave her experience with a patient in one of the district hospitals regarding how health workers handle patients:

> *"There was no consistency in monitoring and administration of medication. Relatives seemed in fear of the hospital regime rather than reassured by it. They talked of corruption and neglect, with underpaid and under pressure medical staff taking a harsh and dismissive approach to the patients."*

4.5.3 Time for consultation

Giving patients adequate time to explain their problems when they visit health facilities ensures adequate diagnosis and hence relevant medication; this may also influence utilization of health services. Table 4.15 shows respondents' feedback regarding opportunity to explain their problems whenever they visit health facilities.

Table 4.15: Time adequacy during consultation

Time adequacy	Frequency	Percentage
Adequate	245	63.8%
Inadequate	139	36.2%
Total	**384**	**100%**

Table 4.15 indicates that 63.8% of those interviewed mentioned that they were given adequate time to explain their problems while 36.2% mentioned that they were not given adequate time.

4.6 Accessibility to healthcare services

This study assessed accessibility to healthcare services in terms of distance to health facility, means of transport and availability of means of transport.

4.6.1 Distance to health facilities

Distance to health facilities determines people's ability to travel to such health facilities to seek medical attention. Table 4.16 shows average distance to health facilities according to the respondents interviewed.

Table 4.16: Average distance to health facilities

Distance to health facilities	Frequency	Percentage
Less than 1 km	32	8.3%
2 – 3 km	137	35.7%
5 km	144	37.5%
10 km	60	15.6%
More than 10 km	11	2.9%

As far as distance is concerned, most of the respondents (37.5%) mentioned distance to health facility as 5 km, 35.7% mentioned 2-3 km, 15.6% mentioned 10 km, 8.3% mentioned less than 1 km while 2.9% mentioned more than 10 km.

4.6.2 Means of transport

Availability of adequate means of transport and the ability of people to afford such means determines their choice of which means of transport to use for them to reach health facilities. Table 4.17 shows means of transport to health facilities as revealed by the study.

Table 4.17: Means of transport to the nearest health facility

Means of transport	**Frequency**	**Percentage**
Walking of foot	128	33.3%
Bicycles/motor cycles	155	40.4%
Public transport (vehicles)	84	21.9%
Private vehicles	17	4.4%
Total	**384**	**100%**

Means of transport can facilitate movement to health facilities even if the distance to health facility is long. The study revealed that 33.3% walk to the health facilities, 40.4% use bicycles/motor cycles to reach health facilities, 21.9% use public vehicles while 4.4% use private vehicles to reach health facilities. A further cross tabulation of distance to health facility and means of transport in represented in table 4.18.

Table 4.18: Cross tabulation of distance to health facility and means of transport

		Means of transport to the nearest health facility				
		Walking	Bicycle/motor cycle	Public transport	Private transport	Total
Distance to the nearest health facility	Less than 1 km	11 (34.4%)	12 (37.5%)	8(25%)	1 (3.1%)	32 (100%)
	2-3 km	41 (29.9%)	57 (41.6%)	29 (21.2%)	10 (7.3%)	137 (100%)
	5 km	53 (36.8%)	59 (41%)	29 (20.1%)	3 (2.1%)	144 (100%)
	10 km	19 (31.7%)	24 (40%)	15 (25%)	2 (3.3%)	60 (100%)
	More than 10 km	4 (36.4%)	3 (27.3%)	3 (27.3%)	1 (9%)	11 (100%)
Total		128 (33.3%)	155 (40.4%)	84 (21.9%)	17 (4.4%)	384 (100%)

From this cross tabulation, most of the respondents either walk or use bicycles/motor cycles to health facilities to access health services. Most of these respondents travel for a distance ranging from less than 1 km to more than 10 km.

4.7 Equity in healthcare provision

The study assessed equity in healthcare provision in terms of responding to the health needs of the people especially the ability of health facilities to respond common ailments in the county. Health needs were assessed in terms common ailments in Homa Bay County.

4.7.1 Common ailments

Knowledge of common ailments informs the decision by health facilities to stock relevant drugs that can adequately address such common ailments in Homa Bay County. Table 4.19 shows common ailments in Homa Bay County as found out from the study.

Table 4.19: Common ailments

Type of ailment	Frequency	Percentage
Malaria	114	29.7%
Respiratory Tract Infection	113	29.4%
Diarrhoea	42	10.9%
Pneumonia	85	22.1%
Skin infection	30	7.8%

As far as common ailments are concerned, 29.7% mentioned malaria, 29.4% mentioned respiratory tract infection, 10.9% mentioned diarrhea, and 22.1% mentioned pneumonia while 7.8% mentioned skin infection. This implies that common ailment in the county is malaria followed by respiratory tract infection and pneumonia.

3.7.2 Availability of relevant drugs

Availability of relevant drugs is informed by knowledge of common ailments outlined above and this has influence on effective health response by the health facilities. Table 4.20 shows responses regarding availability of relevant drugs whenever patients visit health facilities.

Table 4.20: Availability of relevant drugs for common ailments

Availability of all prescribed drugs	Frequency	Percentage
All drugs	171	44.5%
Not all drugs	213	55.5%
Total	**384**	**100%**

Respondents were asked whether they get all the drugs whenever they visit health facilities and 55.5% said that they received all drugs while 44.5% mentioned that they don't get all drugs. This implies that majority of patients do not receive all prescribed drugs and hence may not be able benefit fully from the available health services.

3.7.3 Outreach services

In some cases, not everyone can reach health facilities to access health services. In this regard outreach services may facilitate utilization of health services by those who are unable to reach health facilities. Table 4.21 shows respondents feedback regarding outreach services organized by health facilities in order to respond to health needs of the community.

Table 4.21: Outreach services

Outreach services	Frequency	Percentage
There are outreach services	85	22.1%
No outreach services	258	67.2%
Don't know	41	10.7%
Total	**384**	**100%**

When asked if the health facilities organize outreach services, 22.1% said that health facilities organize outreach services, 67.2% mentioned that health facilities don't conduct outreach services and 10.7% had no idea. This implies that most of those who are sick but cannot reach health facilities may not as well received medical services at community level and this may influence utilization of health services by such people.

4. 8 Summary

In this chapter, data analysis, presentation and interpretation have been outlined in line with the five study objectives.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the results and findings according to the research objectives. These are presented in this section as they correspond to the research questions of the study as outlined in chapter one of the report. The questionnaire covered the demographic characteristics of the respondents, health financing/funding, health service delivery, quality of health services, and accessibility to healthcare services as well as equity in healthcare provision. Additionally, this chapter outlines discussion based on findings followed by conclusions and recommendations.

5.2 Summary of Findings

Based on the study, below is the summary of key findings focusing on the five objectives.

5.2.1 Health Financing

Health financing in government health facilities is mainly from government cash envelope and contributions from NGOs within the three districts of Homa Bay County. In some cases, there is support from CDF and LATF. This is complemented by cost-sharing fees paid by patients when they visit various health facilities. There are also NGOs that are involved in direct healthcare provision to the community at various levels. The study revealed that most people utilized health services available in the county and government is the main. However, as far as cost sharing was concerned, most people are unable to pay for the health services.

5.2.2 Health Service Delivery

Effective health service delivery is determined by the existence of health facilities, staffing and availability of drugs and other equipment/supplies. The study revealed that there were health facilities providing various health services to the people. However, such facilities have inadequate staffing of health workers and some of the health workers do not have adequate skills.

5.2.3 Quality of health services

This study revealed that majority of the patients were handled in a good manner when they visited health facilities while a few mentioned that they were handled poorly. Despite poor handling by health workers, most people mentioned that they were given adequate opportunity to explain their problems to the doctors in order to provide relevant diagnosis.

5.2.4 Accessibility to healthcare services

This study assessed accessibility to healthcare services in terms of distance to health facility, means of transport and availability of means of transport. As far as distance is concerned, most of the respondents mentioned that they travel for long distance of about 5 km to reach health facilities.

5.2.5 Equity in healthcare provision

The study assessed equity in healthcare provision in terms of responding to the health needs of the people especially the ability of health facilities to respond common ailments in the county. The study has revealed that common ailments in Homa Bay country are; Malaria, Respiratory Tract Infection and pneumonia, others also mentioned diarrhoeal diseases and skin infect. Despite knowledge of common ailments, the health facilities in country are not able to adequately respond to such demands due to lack of relevant drugs. Additionally, those who are unable to reach health facilities to access medical attention cannot benefit from outreach services since such services are rarely being organized at community level.

5.3 Discussion

Based on the key findings from the study, it is evident that there are various factors that influence utilization of health services in Homa Bay County. The study also confirms how these factors have influenced utilization of health services in others areas in Kenya as well as in other countries. This study has established how health financing, health service delivery, quality of health services, accessibility to healthcare services and equity on healthcare provision influence utilization of health services in Homa Bay County.

5.2.1 Health financing

Health financing/funding is mainly from government budget, NGOs contributions, cost sharing, CDF, LATF among other stakeholders. The government of Kenya has always indicated the commitment to support health needs of her people and in this regard, is a signatory to Abuja Declaration which requires government to allocate at least 15% of national budget to health services. This, however, has not been accomplished as can be evident from 2010/2011 national budget where the government allocated 6.5% of the budget to health while in 2011/2012 the allocation towards health is 5.5% (Government budget estimates for 2010/2011 and 2011/2012).

Focusing on Homa Bay County, Homa Bay district has allocated KShs 4,170,000. Rachuonyo District has allocated KShs 9,482,400 while Suba District has allocated KShs 18,935,831 towards health services (AOP 7). This allocation comprises GoK budget, NGOs contribution, CDF and LATF. Discussions with DHMT representative revealed that learning from previous budgets, this allocation cannot adequately support health requirements in the county. This implies that the deficit will have to be raised from cost-sharing that is to be paid by patients whenever they visit the health facilities.

Hjortsberg (2003) studied income as a determinant of health care seeking behavior in Zambia. For Hjortsberg, financial resources in terms of income were found to be better correlated with health, particularly in rural populations. One consideration for those that are self-employed in farming or small business from fish trade for example, is that income can be unpredictable in terms of amount and regularity and this can be problematic in using health care. Onwujekwe and Uzochukwu (2005) in a study in Southeast Nigeria found that rural populations were less likely to pay the cost of health care treatment upfront and more likely to pay in installments. The assumption in the study therefore was that regularity of income may be a more appropriate predictor, for these particular survey populations, of not just willingness to pay for health care services, but ability to do so. This is also the case for Homa Bay County in Kenya where most people live below poverty line.

From the findings, most people are not able to pay for adequate health services due to low income and this corroborates the findings of a study conducted in Madagascar by Glick,

et al (2000). This situation may even be worse considering the high standard of living which forces people to spend the little they have on food rather than spending on treatment. The linkages of health to poverty reduction and to long-term economic growth are powerful, much stronger than is generally understood (WHO, 2001a). Poverty has adverse effects on health status; conversely, poor health contributes to being poor. This scenario implies that most people are not able to access health services due to inability to pay for such services considering high level of poverty in the county.

5.2.2 Health service delivery

The study assessed health service delivery in terms of health facilities, staffing and availability of other equipment that facilitate delivery of health services. In Homa Bay County, district hospitals concentrate on the delivery of health care services and generate their own expenditure plans and budget requirements based on guidelines from headquarters through the provinces. The government health service is supplemented by privately owned and operated hospitals and clinics and faith-based organisations' hospitals and clinics, which together provide between 30 and 40 percent of the hospital beds in Kenya (Muga, et al., 2008). This was reflected by the study as government manned health facilities account for 49%, NGOs/FBOs accounted for 35% and private health facilities accounted for 16%.

The study revealed that while Homa Bay County has a considerable number of health facilities to address health needs of the people, health service delivery is hindered due to lack of enough health workers, inadequate training of health workers themselves, lack of enough drugs as well as other required equipment and supplies, for instance, in Homa Bay district there are 11 health facilities without all tracer drugs for more than two weeks (AOP 7). This implies that those who are sick cannot be able to receive required services and this in the long run influence utilization of health services in Homa Bay County. The findings corroborate that of WHO (2000) and Juma (2006)

5.2.3 Quality of Health Services

This study assessed quality of health services in terms of time taken within the health facility to receive medical attention, how health workers handle patients, existence of support facilities and whether patients are given adequate time to explain their problems

whenever they visit health facilities. As far as time taken within the health facility, most (35.2%) of those interviewed mentioned that they took between 3 and 4 hours and 32.8% mentioned that they took between 4 and 5 hours to receive medical attention. When patients a long time to get medical attention when they visit, those who have severe cases may end up suffering more and this discourages patients to visit such health facilities. In terms of how health workers handle the patients, 42.7% mentioned that they were treated poorly. When patients perceive quality of health services as poor or low due to the above factors, their health seeking behavior reduces as found out by Alderman and Lavy (1996) as well as the findings of the study conducted in Nyeri, Kenya by Ngure (2007).

5.2.4 Accessibility to healthcare services

While there may be health facilities to provide health services in Homa Bay County, accessibility is an important issue. This determinant is concerned with which type of health facility is more available to prospective users. This would include the level of expertise and treatment that could be assumed from the type of facility, that is a hospital versus a dispensary, or if public facilities are limited and not accessible, so private facilities have filled the gap, as is the case in Vietnam (Ha et al., 2002; Tuan et al, 2005), or Uganda (Birungi et al, 2001; Witter & Osiga, 2004), or India (Rajeswari et al., 2002; Sudha et al., 2003).

Accessibility issues for those living in rural areas are well documented, whether it be in developed countries (Andrews, 2001), or developing countries (Mehrotra & Jarrett, 2002). This is not the only issue facing those in rural areas, where there may be questions about the quality of the service, capacity or the facilities of the nearest service. Perhaps there are few options for residents of that area, and with limited choices they are bound to use any health facility, over taking no action at all. Or perhaps instead they turn to alternative therapies (Eisenberg et al., 1998), traditional methods (Good & Kimani, 1980) and/or self-medications (McCombie, 2002; Schulpen & Swinkels, 1980). Findings from this study also point towards the direction of the above research studies.

A number of factors influence the choice of a health service; physical access to health care, including distance from the health facility, availability of transportation, and the condition of the roads. As found out by Noorali et al., (1999), the distance separating

potential patients from the nearest health facility is an important barrier to its use, particularly in rural areas. This was actually confirmed by the study and these factors individually and collectively influence utilization of health services in Homa Bay County especially in rural areas where there are no proper roads and long distances to health facilities coupled with lack of adequate means of transport to reach those facilities.

5.2.5 Equity in healthcare provision

Kenya is a low-income country with a severely limited health budget (World Bank, 2006). Access to good health services is poor especially in rural areas. In the late 1970s Kenya expanded its rural health facilities to meet the needs of its predominantly rural poor population adopting the 1978 Alma Ata Declaration on Primary health care (WHO, 1978). In the 1990s Kenya followed the shift in health policy towards institutional and structural reform and market orientation of health services based on the 1993 World Development Report (World Bank, 1993).

Within this political and economic climate, diseases such as malaria and HIV&AIDS have a large impact in Kenya and place a heavy disease burden on the State, the economy, on families and on social networks. Malaria accounts for more than a million deaths per year, 90 per cent occurring in sub-Saharan Africa and affecting children under five years of age (WHO, 2004). In Homa Bay County, 29.7% of those interviewed mentioned that they had been to the health facility due to malaria and 29.4% had visited health facilities because of RTI, these being common ailments in the county, which is in line with the MoMS data of 2011 from the three districts. In order to address health needs of the people in Homa Bay County, health services should target the common ailments mentioned by the respondents. The study revealed that 55.5% of those interviewed received drugs whenever they visited health facilities and this implies that 44.5% don't get drugs. This means that a good proportion is not able to utilize health services when in need because the drugs are not adequate.

5.3 Conclusions

Provision of adequate health services is important in addressing the health needs of the people in order to improve their quality of life. With increasing health demands, utilization of such services needs to be assessed critically. The government of Kenya and

other stakeholders have made efforts to improve utilization of health services; however, there are a number of factors that affect utilization as has been found out from the study.

5.3.1 Health Financing

While the government has allocated budget to health services at the district level in Homa Bay County, this budget is not sufficient and additional resources is raised from cost-sharing. With low income level of most people in Homa Bay County, raising money to pay for health services is a challenge and hence this affects utilization of health services in Homa Bay County.

5.3.2 Health Service Delivery

Availability of health facilities is an important aspect of service delivery and 28% of those interviewed are still not able to reach health facilities. Additionally, staffing is inadequate in most of the health facilities in Homa Bay County. Other aspects that were assessed were availability of required drugs as well another supplies and equipment. s Inadequate staffing in most health facilities as well as lack of enough drugs and other relevant supplies in these facilities hinder utilization of health services.

5.3.3 Quality of health services

Quality of health services in Homa Bay County was assesses in terms of time taken within the health facilities, how health workers handle patients and availability of relevant drugs. From these findings, it can be concluded that quality of health services affect utilization of such services in Homa Bay County due to long time taken on the queue to receive treatment and how most health workers handle patients when they visit health facilities.

5.3.4 Accessibility to healthcare services

The study assessed accessibility to healthcare services in terms of distance to health facilities and means of transport to those health facilities as well as means of transport to reach the health facilities. The findings of the study reveal that most people travel long distances in order to receive health services and majority of them use bicycles and motor cycles to reach those health facilities. These factors imply that they cannot fully benefit from the services provided by these health facilities.

5.3.5 Equity in healthcare provision

Capacity to respond to the health needs of the people in Homa Bay County is a critical aspect of equity in healthcare provision. The study has revealed that relevant drugs are not sufficient to treat common ailments in Homa Bay County. Additionally, most people interviewed felt that health facilities do not respond fully to the community's health needs in Homa Bay County.

5.4 Recommendations

From these findings, we suggest the following recommendations for improvement;

i. Government to improve budget allocation towards health care in order to cater for required health services and where there are deficits there should be plans for financial support from development and other implementing partners.
ii. The government should ensure adequate and trained health staff in the health facilities. In addition, these health facilities should be equipped with adequate drugs and other required supplies, including ambulances where necessary, in order to provide relevant health support as and when required.
iii. At health facilities level, there is need to improve service delivery by adhering to the service charters that have been developed by most health facilities in Homa Bay County
iv. The government should improve rural access roads in order to facilitate movement to reach health facilities in the rural areas. This can be done through locally available resources and also through partnership with other relevant agencies.
v. Ministry of Medical Services should strengthen partnership with other NGOs to improve outreach services in order to reach local communities who are unable to reach health facilities.

5.5 Suggestions for further research

Based on the findings of this study, the following areas are being recommended for further research;

i. Influence of culture on utilization of health services
ii. Effectiveness of government's budget allocation to health on utilization of health services in Kenya

5.6 Summary

In this chapter, summary of findings of the study along the five study objectives has been highlighted and discussed. Conclusions have been drawn; finally recommendations for improvement and further research have been outlined.

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APPENDIX 1: SUMMARIZED SAMPLE SIZE DETERMINATION TABLE

	Sample size needed			
Population size	**(+_10%)**	**(+_5%)**	**(+_4%)**	**(+_3%)**
50	33	44	46	48
200	67	133	150	168
500	81	217	273	340
1000	88	278	375	516
2000	92	323	462	696
2500	92	333	484	748
3000	93	341	500	787
4000	98	364	522	870
5000	100	384	600	1067

Source: Benard (1994)

APPENDIX 2: INDIVIDUAL/HOUSEHOLD QUESTIONNAIRE

QUESTIONNAIRE CODE: _____

FACTORS INFLUENCING UTILIZATION OF HEALTH SERVICES IN KENYA: THE CASE OF HOMA BAY COUNTY

HOUSEHOLD/INDIVIDUAL QUESTIONNAIRE

This questionnaire should be administered to adults above the age of 18 years and if possible those with household responsibility with information regarding health services in the district/county

Good morning/afternoon/evening. My name is (we are)..... and I am/we are conducting this interview in your community on behalf of Stephen Otieno who is pursuing his studies at the University of Nairobi and he is interested to carrying out a study to establish key factors that influence utilization of health services in Homa Bay County. You (your facility/organization) have/has been randomly selected (for organizations and facilities, use identified) to participate in this study in order to provide information on utilization of health services in your community. The information provided will be treated with utmost confidentiality and will be used for sole purpose of this study, participation in this study is voluntary but considering the purpose of the study I would encourage you to participate. The interview will take about 30 minutes.

For Official Use Only

I certify to the best of my knowledge that I have conducted the interview according to the study brief I was given.

Interviewer Code: _____

Supervisor: Signature: _____ **Date:** _____

NO.	QUESTION	RESPONSE	ANY COMMENT	SKIP
SECTION 1: SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS				
101	Name of District:	1 = Homa Bay 2 = Rachuonyo 3 = Suba		
102	Name of Location:			
103	Name of Sub-Location:			
104	Gender/sex	1 = Male 2 = Female		
105	Age (in years)	Exact age: _____ years 1 = 18-25 year 2 = 26-35 years 3 = 36 – 50 years 4 = 51 – 60 years 5 = 61 – 70 years 6 = 70 years and above		
106	Highest level of education completed	0 = None 1 = Primary School 2 = Secondary school 3 = Tertiary college 4 = University		
107	What is your average monthly income? (estimate from expenditure)	1 = 0-5,000 2 = 5,001-10,000 3 = 10,001 – 20,000 4 = 20,001 – 50,000 5 = 50,000 and above		
108	What is your source of income?	1 = Business 2 = Pension 3 = Handouts 4 = donations from relatives		

NO.	QUESTION	RESPONSE	ANY COMMENT	SKIP
		5 = regular employment 6 = Other (specify)		
SECTION 2: HEALTH FINANCING/FUNDING				
201	Have you visited health facility for treatment in the last six months?	1 = Yes 2 = No		
202	If yes, which type of facility did you visit?	<table><tr><td></td><td>GoK</td><td>NGO</td><td>Private</td></tr><tr><td>Hosp.</td><td></td><td></td><td></td></tr><tr><td>HC</td><td></td><td></td><td></td></tr><tr><td>Disp.</td><td></td><td></td><td></td></tr><tr><td>Clinic</td><td></td><td></td><td></td></tr></table>		
203	When you visited the hospital the last time, did you pay money?	1 = Yes 2 = No		**If no, skip to Q 208**
204	If yes, how much did you pay?	1 = 0-100 (KShs) 2 = 101-200 3 = 201 – 500 4 = 501 – 1000 5 = 1000 and above		
205	Was it sufficient for the services required?	1 = Yes 2 = No 99 = don't know		
206	Did you have any difficulty paying for the treatment?	1 = Yes 2 = No 3 = I dint pay myself		**If No, skip to Q 208**
207	If you did, what was the difficulty?	1 = High bills 2 = Lack of money 3 = unnecessary payments 4 = Other (specify)___		

NO.	QUESTION	RESPONSE	ANY COMMENT	SKIP
		5 = Not Applicable		
208	Do you make NHIF contributions?	1 = Yes 2 = No 99 = Know answer		
209	What is the importance of NHIF contribution?	1 = settling in-patient bills 2 = settling out-patient bills 3 = settling both in and out-patient bills 4 = Other (specify) ____ 99 = Don't know		
SECTION 3: HEALTH SERVICE DELIVERY				
301	Are there health facilities around here?	1 = Yes 2 = No 99 = Don't know		
302	Are there adequate staff in the health facility that you visit whenever you or your family member is sick?	1 = Yes 2 = No 99 = don't know		
303	For the staff available, how do you consider their level of training (skills)?	1 = Adequate 2 = Average 3 = Inadequate		
304	When you visited the health facility last, did you get all the drugs that were prescribed?	1= Yes, all drugs 2 = No/Yes, some drugs 3 = No, not at all		
305	Apart from the drugs,	1 = Yes		

NO.	QUESTION	RESPONSE	ANY COMMENT	SKIP
	did you get other services (like Lab. Tests, X-ray, etc) – if required?	2 = No 3 = No other service was recommended		
306	Does the facility have ambulance for emergencies?	1 = Yes 2 = No 99 = Don't know		
SECTION 4: QUALITY OF HEALTH SERVICE				
401	When you visit health facility for treatment, averagely, how long do you take, between arrival and departure time?	1 = less than 1 hour 2 = 2 – 3 hrs 3 = 3 – 4 hrs 4 = 4 – 5hrs 5 = more than 5 hrs		
402	How to health worker handle patients?	1 = friendly 2 = averagely 3 = poorly		
403	Does the health facility have triage/waiting bay?	1 = Yes 2 = No 99 = Don't know		
404	Are there enough seats in the waiting bay?	1 = Yes 2 = No 99 = Don't know		
405	Do you have/get adequate time to explain your problems?	1 = Yes 2 = No 99 = Don't know		
406	Generally, how is the quality of health services in the facility?	1 = Poor 2 = Below average 3 = Good 4 = Excellent		

NO.	QUESTION	RESPONSE	ANY COMMENT	SKIP
SECTION 5: ACCESSIBILITY TO HEALTHCARE SERVICES				
501	How far is the nearest health facility from here?	1 = Less than 1 km 2 = 2-3km 3 = 5 km 4 = 10 km 5 = More than 10 km		
502	Which means of transport do you use to the hospital?	1 = Walking 2 = Bicycle/ motor cycle 3 = Public transport 4 = Private transport 5 = Other (specify) ____		
503	Is the means of transport above readily available?	1 = Yes 2 = No 3 = Don't know		
504	Do you have any difficulty accessing health services from here?	1 = Yes 2 = No		**If no, skip to Q 506**
505	If yes, what are the difficulties?	1 = long distance 2 = high bills/amount 3 = poor quality of health services 4 = attitude of health workers 5 = lack of drugs 6 = Other (specify) ____		
506	How do you consider accessibility to the nearest heath facility in terms of roads (access	1 = Poor 2 = Below average 3 = Good 4 = Excellent/very		

NO.	QUESTION	RESPONSE	ANY COMMENT	SKIP
	roads)?	accessible		
SECTION 6: EQUITY IN HEALTHCARE PROVISION				
601	For the instances you have been to the hospital, what has been the problem (sickness/disease)?	1 = Malaria 2 = diarrhea 3 = Respiratory problem 4 = Pneumonia 5 = Skin infection 6 = Eye infection 7 = Other (specify)___		
602	Whenever you visit the hospital, do you get all the drugs?	1 = Yes 2 = No		
603	Do you think the health facilities respond to the community's health needs?	1 = Yes, fully 2 = Yes/No, to some extent 3 = No, not at all		
604	If no, what are the key problems/challenges?			
605	Are there any cultural barriers hindering you to visit health facilities?	1 = Yes 2 = No 99 = Don't know		
606	Does health facilities/MoH conduct outreach services to provide health services in the community?	1 = Yes 2 = No 99 = don't know		

This is the end of the interview, thank you very much for taking your time to participate in the discussion! Do you have any question(s) for me?

APPENDIX 3: KEY INFORMANT INTERVIEW (KII) GUIDE FOR DHMOH/DHMT AND HEALTH FACILITY STAFF

This is the guide as a reference for discussion with DMOH, heads of departments or facility in-charges

1. What are the main sources of health financing in the district? Provide amount by source and comment whether its sufficient. Copy of district health budget, AOP, etc.
2. How do you spend this money? Distribution by vote heads- key areas of priorities.
3. Considering what the government and other stakeholders contribute to the health sector in the district is it sustainable? And how can this be improved?
4. How effective are these in addressing health needs of the community?
5. In your view, how does health financing/funding influence utilization of health services in the district/county?
6. How many health facilities are in the district/division/village and are they sufficient to support the current health needs?
7. In terms of staffing, are there sufficient staff and are they adequately trained to support the health needs of the district/community?
8. Comment on the availability of drugs and other health commodities? Other facilities and transport means (e.g. ambulance) for emergencies
9. How are referrals done in the district and how are they effective in addressing health concerns? Which NGOs and private are you partnering with? Comment on the extent of partnership.
10. How do you manage time management in this facility? Reporting time, leaving time, etc.
11. Averagely, how long do patients have to wait to get the services? Is it in order, what do patients think about it?
12. Are the right drugs available for different ailments? Any comment on this
13. What are the major health needs within this district/community? Are you able to meet these needs? How are existing health facilities supporting these needs?
14. How are these facilities accessible in terms of roads and existing means of transport?

APPENDIX 4: KEY INFORMANT INTERVIEW (KII) GUIDE FOR HEALTH NGOS REPRESENTATIVES AND OTHER STAKEHOLDERS

This guide is to be used for health NGO representatives and other key stakeholders.

1. Regarding health needs of this district, do you think there are gaps in financing? How are you supporting in filling this gap? What is your relationship with the MOH/DMOH? Participation in AOP process? How does health financing influence utilization of health services in the district/county?
2. Are the people able to afford the current health services, comment based on poverty levels of the district.
3. Apart from financial support, is there any technical support you provide to the ministry of health? Please give details and health facilities involved. Do you support any staffing needs of the facilities? Any details. Provision of drugs and other health commodities. How does health service delivery influence utilization of health services in the district/county?
4. How do you view the quality of health services provided by the health facilities in the district/county and how does this influence utilization of health services?
5. What are the health needs of the people in the community and how are current health services meeting these needs? As a key stakeholder in health, how are you contributing to these efforts?
6. Are the health facilities available in the local community and how are they accessible? Comment on the accessibility in terms of roads and existing means of transport.
7. How does equity in healthcare provision influence utilization of health services in the district/county?

APPENDIX 5: AUTHORIZATION LETTER FROM THE MINISTRY OF MEDICAL SERVICES

MINISTRY OF MEDICAL SERVICES
OFFICE OF DIRECTOR OF MEDICAL SERVICES

Telegrams:"MINHEALTH". Nairobi
Telephone; Nairobi 2717077 Fax: 2715239

OFFICE OF DIRECTOR OF
MEDICAL SERVICES
AFYA HOUSE
CATHEDRAL ROAD
P.O. BOX 30016
NAIROBI

MMS/ADM/3/8/VOL.111

31th October, 2011

Mr. Stephen O Otieno
University of Nairobi,
(School of Distance and Continuing education)
University of Nairobi
P O Box 30197 – 00100
GPO Nairobi

Dear Otieno,

REF: AUTHORITY TO CONDUCT RESEARCH

Your communication dated 26/8/2011 refers.

The title of your study is noted to be ***"Factors influencing utilization of health services in Kenya: the case of Homa Bay County".***

Authority is hereby granted to conduct the said study and this office should be notified of the results following its completion. A copy of your research report should be submitted to the Ministry of Medical Services. Division of Research and Development.

DR. S. M. MAGADA
FOR: DIRECTOR OF MEDICAL SERVICES

Copy to:

DMOH - Homa Bay

- Rachuonyo

- Suba