THE CARE OF ORPHANS AND VULNERABLE CHILDREN IN KENYA: A COST EFFECTIVENESS ANALYSIS

BY

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DECLARATION

I, Elizabeth A. Owiti, declare that, this Research paper is my original work and has not been presented for a degree in any other university

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This Research Paper has been submitted for examination with our approval as university supervisors

Professor. G.M. Mwabu

12/09/2003

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12/09/2003

DEDICATION

To all the children affected by HIV/AIDS and their families.
It's my hope that this paper will make a contribution
in facilitating your care.

and

To my parents, Julius and Linet;
my loving husband, Dr Wasonga;
and our daughter, Ivy.

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However, the results of this study reflect my own ideas and not necessarily those of the personalities mentioned above. I am, therefore, solely responsible for the contents and any shortcomings therein.

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
CABA	Children Affected By AIDS
CBA	Cost-Benefit Analysis
CBC	Community-Based Care
CBO	Community-Based Organization
CEA	Cost-Effectiveness Analysis
CHWs	Community Health Workers
CRS	Catholic Relief Services
GOK	Government of Kenya
HBC	Home-Based Care
HIV	Human Immunodeficiency Virus
LRCDP	Lake Region Community Development Program
MOH	Ministry of health
NACC	National AIDS Control Council
NASCOP	National AIDS and STDs Control Program
NGO	Non-Governmental Organization
OVC	Orphans and Vulnerable Children
UNAIDS	United Nations Programme on HIV/AIDS
UNICEF	United Nations Children Fund
USAID	United States Agency for international Development
VCT	Voluntary Counseling And Testing
VOSC	Village Orphan Support Committee
WHO	World Health Organization

ABSTRACT

Currently in Kenya, an estimated 2.2million people are infected with HIV. These infections are concentrated in the 15-49 years old age group. The vast majority of these persons are parents and so, AIDS has been responsible for orphaning millions of children in the Kenya. In Kenya, approximately 1.1 million children have lost either mother or both parents due to HIV/AIDS. The number of orphans continues to grow.

The traditional means of caring for orphans have had to adapt, in addition, other responses have emerged and continue to evolve to avoid rapid increase in child headed households and street children. Some of the OVC care models in Kenya include: independent orphan households, informal foster care, community based support structures, institutional based and home-based care and support models. This study analyzes cost effectiveness of the last four models of OVC care.

The study finds that Grace- Outreach provides services that are above the minimum standard, and the best quality of services to OVC. However, it employs the most expensive structure and resources. Informal foster care provides services that generally meet the minimum standard of care and can be classified as good quality care. However, the CEA ratio shows that the informal foster care model is less cost effective. Sony HBC provides services that are generally below the minimum standards of care. LRCDP provides care that is also below the minimum standard. Though it claims to provide holistic care, no orphan receives that holistic package. The study concludes with policy recommendations based on these findings.

CHAPTER ONE: INTRODUCTION

1.0 BACKGROUND

In 2001, the world marked 20 years of AIDS. It was an occasion to lament the fact that, the pandemic has turned out to be far worse than predicted (UNAIDS, 2002). The HIV/AIDS crisis has continued to rise with sub- Saharan Africa being the hardest hit. By the end of 2002, 42 million people were living with HIV/AIDS, 70 percent living in sub-Saharan Africa. In 2002 alone 5 million new infections occurred globally, with 3.5 million occurring in sub-Saharan Africa. During the same year, 3.1million people are estimated to have died of AIDS, 77.5 percent of these deaths were in sub-Saharan Africa (UNAIDS, 2002).

The AIDS pandemic is distinctive among the lethal epidemics in that most of the lives it takes are those from 15-49 years old. The vast majority of these persons are parents and so, AIDS has been responsible for orphaning millions of children in the world[1]. By the end of 2001, AIDS had orphaned 14 million children, and 80 percent of them (11 million) were living in sub-Saharan Africa (UNAIDS, 2002).

The magnitude and impact of HIV/AIDS in Kenya is not just a major public health and development challenge, but it is increasingly creating a severe negative socio-economic impact (NACC, 2001). It has reversed decades of development gains in health, and slowed economic and social improvement across the nation and in ways that will change relationships at family, community and national levels forever. The realization that Kenya is losing between 500-700 of her people daily to HIV/AIDS has led the government to declare HIV/AIDS a national disaster. Currently in Kenya, an estimated 2.2million people are infected with HIV. These infections are concentrated in the 15-49 years old age group.

More than 1.5 million Kenyans have died due to AIDS since 1984 (Ministry of Health, 2001; Donahue et al.1999). In one year alone, over 300,000 new HIV infections occur in

[1] Child is any person under the age of 18, unless by law attains majority at an earlier age (Convention of the Right of Children).

the country and about 73 percent of those already infected live in rural areas. Deaths caused by HIV will continue to rise because of the number of people already infected with HIV who will develop AIDS each year. AIDS has been reported in every district in Kenya (NACC, 2000; Hunter and Williamson, 2000).

HIV/AIDS prevalence is still increasing in some areas in Kenya and is stabilizing in others. It is, therefore, likely that prevalence will continue to rise, at least for the next few years. The national prevalence in 2000 was estimated at 13 to 14 percent, however, it was 17 to 18 percent in urban areas. Today in certain urban areas the prevalence is 20 to 30 percent.

1.1 The Situation of Orphans in Kenya

Living in Kenya today are approximately 1.1 million children who have lost either mother or both parents due to HIV/AIDS. The number of orphans continues to grow[2]. Experts suggest that orphanhood peaks 7 to 10 years after the peaks in HIV seroprevalence occur. Planning for resource allocation to the models that are aimed at mitigating the impact of the epidemic on surviving children is therefore urgently needed.

Children orphaned by AIDS are vulnerable[3] in almost all aspects of their lives (Huworth et al.1991; Foster et al 1997). Invariably, orphans witness the prolonged illness and death of one or more family members, and suffer mental distress as a result. Some the of many challenges faced by these orphans are loss of family, increased malnutrition, lack of immunization and health-care, lack of schooling, entry into paid or unpaid labour, loss of inheritance through "property grabbing", homelessness, early marriage exposure to abuse and increased risk of HIV/AIDS (Hunter and Williamson, 1997).

The toll of HIV/AIDS on households is very severe. In many cases, the presence of AIDS means that the households will be dissolved as parents die and orphans are sent to relatives for care and upbringing. A study in Zambia revealed that 65 percent of households in which the mother had died had dissolved.

[2] An orphan is a child who has lost either mother or both parents before the age of 15 (UNICEF).

The loss of income, additional expenses, medical fees and funeral expenses collectively push the affected households deeper into poverty. Property grabbing that is widespread against women and children especially vulnerable ones increasingly undermines the livelihood of the household already weakened by the death of an adult breadwinner. Therefore, the orphans and vulnerable children (OVC) always find themselves in extremely impoverished situations not even able to receive adequate care.

1.2 Responses to OVC Problems

Orphanhood is not a new phenomenon in Kenya. Initially the care and support of the orphans was the responsibility of the extended family. This was because of our African culture characterized by strong family and kinship networks that functioned as social support systems in times of need. Within this system, an uncle or an aunt typically took in orphans. These kinship support systems served to ensure that the death of one or both parents did not necessarily spell destitution for orphans or other family members in deprived and difficult circumstances. These support networks had the potential to reduce destitute children in the family or community. Such children did not have to be left to cope on their own or to turn to the streets to beg or to be taken into any institution. In this study, the above traditional care model is termed the informal foster care model.

Given the high HIV/AIDS prevalence and death, the extended family is now over-extended and is unable to provide its traditional level of care and protection. "In the body, HIV gets into the defensive system and knocks it out. It does that sociologically too. It gets into the extended family support system and decimates it" (Foster AFXB, 1999). Though, culturally accepted, traditional care systems have their drawbacks, like property grabbing, child abuse etc.

community of origin. However, communities less prefer them since they remove the OVC from their traditions, property and relatives. It is also argued that reintegration of children raised in an institutional setting is psychologically difficult (UNICEF, 1998).

The Community Based Care and Support Structures have also evolved. This is one of the most recent types of response. These are communities' own initiatives to mitigate the impact of HIV/AIDS within their societies. Here, the organizations offer support to indigenous, informal caregivers. Their support varies between provision of basic needs, information provision, advocacy, emotional support etc.

The other model is Home Based Care Structures; here care offered to chronically ill people (adults and children) is extended to the dependants and caregivers of the patients. It is a health and social program, which assesses the needs of persons who are terminally ill and unable to function independently in their families and communities. It mobilizes the appropriate health and social resources to meet the needs of these persons and their families. It is inherent in the home care philosophy that the responsibility of maintaining an individual's health lies initially with the client, his/her family, and community resources. The home-based care provides the supplementary services necessary to ensure the health care needs are being met.

Lastly, the Child Headed Households have also evolved. In these households children live independently without any formal help. This emerged due to the fact that in some homes in Kenya no adult is remaining. Secondly, some caregivers only grab the little property that the OVC inherits, while other OVC experience severe abuse. These, has led to the mushrooming of orphan households. They either get into child labour, early marriages e.t.c to provide for their siblings. This is the most strenuous coping mechanism.

1.3 The Study Area

The research area was Migori district. This is one of the nine districts of Nyanza province. It covers an area of 2505 square kilometers, including 475 square kilometers covered by Lake Victoria. It is divided into 8 administrative divisions, which include, Rongo, Awendo, Uriri, Suba East and West, Muhuru, Karungu and Nyatike. The population of the

district was 514,897 as recorded from the 1999 population and housing census and was projected to be 565,080 in 2002.

Migori is one of the poorest districts in Kenya, with 58 percent of the district population living in absolute poverty (GoK, 2002). At the same time the HIV/AIDS prevalence is very high at 27%. The prevalence of other regions being 26% for Embu, 16% for Nairobi, 7% for Baringo etc. Those living with HIV/AIDS are estimated to be 70,380, out of which 67,866 live in rural areas (MoH, 2001). Currently, there are over 12,000 orphans suspected to be due HIV/AIDS in various schools in the district (GoK, 2002).

This study was, however, based in 4 administrative divisions of Migori district namely: Rongo, Awendo, Nyatike and Uriri divisions. The choice of the district was based on the availability of the models that clearly indicate that they support OVC and has existed for 2 years or more, the high level of prevalence, as well as positive response to mitigate impact of HIV/AIDS.

1.4 THE PROBLEM STATEMENT

The National AIDS Control Council (NACC) estimated that by July 2002, Kenya had 1.1 million orphans, and this was expected to rise to 1.5 million by 2005 as a result of AIDS deaths.

The human and social costs these estimates represent are staggering. Although the overwhelming majority of orphans and vulnerable children are living with surviving parents or extended family, many of them are being cared for by a remaining parent who is sick or dying, elderly grandparents who themselves are often in need of care and support, or impoverished relatives struggling to meet the needs of their own children. Children living in these situations are at increased risk of losing opportunities for school, health care, growth, development, nutrition, and shelter; in short, their rights to a decent and fulfilling human existence. Moreover, with the death of a parent, children experience profound loss and a heavy burden falls to the surviving parent. If the second parent also dies, all aspects of that child's world are threatened. However, as the number of adults dying of AIDS rises over the next decade, increasing numbers of orphans will grow up

without parental care and love, and be deprived of their basic rights to shelter, food, health and education (UNAIDS, 2002).

Studies in many countries find that families and communities will absorb orphaned and affected children as long as their resources are sufficient. When the family and community capacity to absorb children has been exhausted, increasing numbers of children must look after themselves. Oftentimes the eldest child takes responsibility as the head of the household. Some of these children are left with no other option than to live on the streets, exposing them to even greater medical, social, and psychological difficulties.

The growing demand for care and support of orphans and vulnerable children at the community level has strained traditional coping mechanisms to a crisis stage in Kenya. An increasing number of communities and government structures are struggling to harness the impact of AIDS on children and their families. In the absence of support there will be long-term developmental impacts on children and the future of these countries. Failure to support children to overcome this trauma will have a very negative impact on society and might cause dysfunctional societies, jeopardizing years of investment in national development.

Due to rising numbers of OVC, the community support systems especially foster families are increasingly over burdened. Our family structure as Kenyans is almost collapsing under the weight of AIDS and the caregivers are increasingly over burdened. The traditional means of caring for orphans have had to adapt, in addition, other responses have emerged and continue to evolve to avoid rapid increase in child headed households and street children. Some of the OVC care models in Kenya are: Independent orphan households, Informal foster care, Community Based support structures, Institutional based and Home-Based care and support models. To replicate, scale-up, and sustain these approaches to meet the short- and long-term care and support needs of orphans and other vulnerable children, the cost-effectiveness of these approaches needs to be analyzed.

However, in this study, due to resource and time constraints we only analyzed informal foster, community based, institutional based and home-based OVC care models.

The quality and costs of care provided by these models however, differs (Desmond and Gow, 2001). To plan for the most efficient and effective response the relationship between the quality and costs of care provided by each of these models needs to be more clearly understood. This research, therefore, examined variations in costs among the four mentioned model types using Cost-Effectiveness Analysis (CEA) to allow for comparison of resource requirement of each model. A comprehensive study of cost- effectiveness of these models has not been done in Kenya.

In general, this study seeks to address one broad question, *Are there measurable significant differences in terms of cost-effectiveness among the four models of OVC care?*

1.5 RATIONALE

" All children have physical, emotional, social and intellectual needs which must be met if they are to enjoy life, develop their full potential and develop into participating, contributing adults. If any one of these basic needs remains unmet or inadequately met, then, development may become stunted or distorted" (Pringle, 1980).

The growing numbers of orphans and vulnerable children represent a grave concern for education, health and social development organizations. The HIV /AIDS epidemic is the primary contributing factor of these orphans as Kenya experiences one of the worst HIV/AIDS epidemic in Africa.

The AIDS orphans are distributed among world areas in the same pattern as HIV prevalence (Hunter and Williamson 2000). Hence countries like Kenya, with high prevalence rates often have high orphan rates. The increase in orphan rates lags behind HIV infection levels by about 7 to10 years (UNAIDS, 2002). It is estimated that, 2.2 million Kenyans are now living with HIV infection and that there are 1.1 million orphans, these are expected to rise to 1.5 million in 2002 due AIDS deaths (NACC, 2002)

The loss of income, additional care-related expenses, the reduced ability of caregivers to work and mounting medical fees and funeral expenses, collectively, push affected households into deeper poverty. Property grabbing, which is widespread, with women and

children especially vulnerable ones only undermines the livelihood of households already weakened by death of adult breadwinner. Hence, the loss of a productive adult means that more children are living with caregivers too old or too young and are impoverished to provide adequate cares.

Given Kenya's current poverty levels, i.e., 56 percent of the population are living below poverty levels (GOK, 2001), which is exacerbated by the epidemic, it is now almost nationally accepted that the resources available to meet the demands for OVC care are limited. This fact was not, perhaps, perceived to be so two decades ago before HIV/AIDS epidemic.

The limit of OVC care resources mandate that resource allocation decisions be guided by considerations of cost in relation to expected benefits. In this cost–effectiveness analysis, the ratio of OVC care cost to OVC benefits will provide an index by which priorities may be set.

In Kenya research of cost–effectiveness of models of OVC care are very scarce, however, to facilitate critical decisions on allocative efficiency, the best current information on both effectiveness of OVC care models and their costs must be made available to decision makers in a systematic fashion that will allow them to make valid comparisons among alternative use of resources.

This study, therefore, examined the variation in costs and benefits among the Community Based, Institution Based, Home Based and Informal Foster care models for OVC care, using CEA to allow for comparisons of resource requirements of each model. Failure to consider costs and quality of care offered to OVC will likely lead to allocative inefficiency and inappropriate care of theses children, the long-term implication being that of a lost

supported by one model. The models therefore are not complimenting each other but are substitutes.

1.6 STUDY OBJECTIVES

The broad objective of the study is to compare the cost-effectiveness among Institution Based, Community Based, Home-Based and Informal Foster care models of orphans and vulnerable children in Kenya.

The Specific Objectives are to:

- Establish the total costs of alternative methods of caring for OVC;
- Establish the total benefits of alternative methods of caring for OVC;
- Assess the quality of care offered to OVC by different providers of care;
- To investigate the determinants of utilization of healthcare facilities by OVC;
- To make policy recommendations;

1.7 SIGNIFICANCE OF THE STUDY

This study looked into the cost-effectiveness of alternative OVC care methods. This issue is important since there is no study of this kind that has been done in this nation. In a country like Kenya, where HIV/AIDS has led to large numbers of OVC and high poverty levels, the resources of OVC care are limited. The government, NGOs and the communities must mobilize and allocate resources in order to take care of OVC. They will use the findings of this study to institute intervention programs that are more cost-effective and able to address the needs of OVC.

This study will also sensitize the players in the OVC field on the importance of economic analysis as opposed to social study showing only the social impacts and benefits of the models. It will show the need to always compare the costs and benefits of alternative care structures. Finally, it is hoped that, this study will stimulate further research in this field.

CHAPTER TWO: LITERATURE REVIEW

2.0 Theoretical Literature

Weinstein and Stason (1977) came up with a description of the basic foundation of the method of cost effectiveness Analysis (CEA) in allocation of health care resources. They argued that, the limits of health care resources mandated that resource allocation decisions be guided by considerations of cost in relation to expected benefits. They suggested that in CEA, the ratio of net health care costs to net health benefits provide an index by which priorities may be set.

They futher, suggested that a useful CEA must be comprehensive and broad application and that, estimates of medical effectiveness and cost that enter into analysis should be expressed to reflect explicitly the uncertainties surrounding those estimates. They added that the measures of effectiveness of health practices used in the CEA should be outcome oriented with length of life and quality of life as the ultimate measure.

The cost-effectiveness analysis and cost-benefit analysis

CEA and cost benefit analysis (CBA) are two related but quite different approaches to the assessment of health practices. The key distinction is that a CBA must value outcomes in economic (e.g. shillings or dollars) terms including lives or years of life and morbidity. Whereas a CEA serves to place priorities on alternative expenditures without requiring that the dollars value of life and health be assessed.

Weinstein and Stason (1977) noted that, the underlying premise of CEA in health problems is that, for any level of resources available, society wishes to maximize the total aggregate health benefits conferred. Alternatively, for a given health- benefit goal the objective is to minimize the costs of achieving it. However, in either formulation, the analytical methodology is the same.

The ratio of costs to benefits, expressed, as cost per year of life saved or cost per quality - adjusted year of life saved becomes the cost effectiveness measures. Alternative

programmes or services are ranked from the lowest value of this cost per effectiveness ratio to the highest.

They further noted that, application of this procedure ensures that the maximum possible expected health benefits are realized subject to whatever resource constraint is in effect.

Major disadvantage of CBA framework is the requirement that human lives and quality of life be valued in monetary terms. CEA on the other hand, requires only that health outcomes be expressed in commensurate units.

Elements of cost-effectiveness analysis

Weinstein and Stason (1977) further highlighted the following elements of a cost-effectiveness analysis:

Cost-effectiveness ratio: The criterion for cost-effectiveness is the ratio of the net increase of health care costs to the net effectiveness in terms of enhanced life expectancy and quality of life. The lower the value of this ratio, the higher the priority in terms of maximizing benefits derived from a given health expenditure. The rationale for division between the elements of the numerator (cost) and denominator (effectiveness) is that costs only includes resources drawn from health care budget, it describes the net change in total number of dollars /shillings spent on health care as a result of the program in question. The denominator, net health effectiveness, includes the life and other health benefits conferred measured in lives, life years of quality – adjusted life years.

Net health care costs: Analytically, the net health care costs (ΔC) of a program may be calculated from the following expression.

$$\Delta C=\Delta C_{Rx} +\Delta C_{SE} -\Delta C_{Morb}+\Delta C_{Rx\Delta LE} \quad \ldots\ldots 1$$

where:

ΔC_{Rx} = All direct medical and health care costs e.g. hospitalization, medication e.t.c

ΔC_{SE} = All healthcare costs associated with adverse side effects of treatment

ΔC_{Morb} = Savings in health care, rehabilitation and custodial costs due to prevention

or alleviation of disease, hence the negative sign.

ΔC_{RxALE} = All costs of treating diseases that would not have occurred if the patients have or lived longer as a result of the original treatment.

Net health effectiveness: The basic qualitative measure of health effectiveness is the increase in the expected number of life years. Given a schedule of age- specific mortality probabilities with and without the program, the life table analysis can compute life expectancies with and without the program and their difference is the expected net increase in life years (ΔY)

Weinstein and Stason (1977) further noted that the effects of health practices on quality of life occupy an equally prominent role in the objectives of the providers and consumers of health care, hence the concern over the side effects of medications must be factored into the analysis. Secondly, the quality of - life - improving effects of a health care is vital and must be considered.

The expected numbers of quality adjusted life years, is the expected number of unadjusted life years (ΔY), adjusted for improvements in quality of life years due to alleviation or prevention of morbidity (ΔY_{Morb}) and for side effects of treatment (ΔY_{SE}). The sum

$$\Delta E = \Delta Y + \Delta Y_{Morb} - \Delta Y_{SE} \quad \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

thus represents the net health effectiveness of the program in question, measured in quality- adjusted life years (QALY). However, the use of (QALY) was noted to be very difficulty and mostly avoided, hence most analysis only quantify the change in life expectancy.

Discounting future costs and health benefits: Weinstein and Stason (1977) also highlighted the need for present value analysis. Noting that, rarely do all costs and benefits occur at the same time, hence the importance of combining present and future costs as well as present and future benefits. Then, weighing future dollars /shillings by discount factor to make

them comparable to present dollars. For consistency, the same discount factor should be applied to future health benefits.

Sensitivity analysis: Unfortunately, estimates of the benefits of health practices in terms of mortality and morbidity probabilities are rarely known with certainty to deal with these uncertainties we use sensitivity analysis. Here, the most uncertain features and assumptions in cost-effectiveness calculations are varied one at a time over a range of possible values. If the basic conclusions do not change when a particular features or assumption is varied, confidence in the conclusion is increased.

Lastly, Weinstein and Stason concluded by saying that, CEA was very important in health care, since, it forces one to be explicit about the beliefs and values that underline allocation decisions. Secondly, CEA often takes the societal point of view and is therefore directed at decision-makers who act as agents for society as a whole.

2.1 Empirical Literature

A study done by UNICEF in Zimbabwe about community response to care for OVC indicated that compared to institutionalization, community based care was more preferred. This was because it kept children in a familiar social, cultural and ethnic environment. It reduced their stress. The crucial role played by the extended families came out clearly, out of 11,514 orphans needing protection, over 11,000 of them were being cared for by relatives living in the same community (UNICEF, 1999).

Lee (2000), in his evaluation of one community based orphan care program in Zimbabwe, concluded that the program was low cost and that evidence from children and caregivers suggested that it was cost-effective. A study by UNICEF in Malawi on community based orphan assistance, showed the model to be culturally accepted and supported. It targeted most OVC and their family members through a right-based approach[4]. The model was also found to be flexible, responsive to OVC needs and gave them a chance to participate in issues affecting them (UNICEF, 1998).

[4] Providing care and support that meets the rights of the OVC.

Subbarao et al (2001), in their study about the orphans and vulnerable children in Africa found out that informal fostering within an extended family was considered the best intervention provided that care given was of an acceptable level. This model was found to promote OVC integration into mainstream society, reduces their risk of being marginalized, and promotes their psychological as well as intellectual development. This study further revealed that, within informal foster care, family members were likely to act in the best interest of the child. They concluded that, this model was the most culturally appropriate, sustainable and cost-effective.

According to WHO Home Care Handbook of 1993, Home-based care is not the same as home care as often assumed. Home care describes "any form of care given to sick people in their homes". This can mean care given to persons by their families or health care workers or what the sick might do to take care of themselves in the homes. A Home – Based Care Program (HBCP) however is a planned and organized effort, with the overall goal to strengthen and support the existing capacity of the family and community to care for their sick and ailing members particularly those infected by AIDS."

This approach of care was initiated in late eighties by mission hospitals in eastern and southern Africa, due to a combination of the following factors:

The inadequacy of existing health services in those areas to provide long term inpatient care for the continuously increasing number of seriously ill and dying HIV infected persons as a result of the actual logistic and financial constraints in hospitals and; the breakdown of care traditionally provided by extended family for sick persons particularly those with AIDS- for a number of reasons: the socio-economic conditions of poverty and lack of a functioning public social network of support making appropriate care at home unrealistic. Secondly, the predominantly heterosexual nature of the transmission in these countries, which often led to simultaneous illness of husband and wife, the latter being the traditional care provider. Finally, the lack of support from the extended family due to fear of rejection and stigmatization common in the context of HIV/AIDS; AIDS related decrease in the number of young and middle – aged adult in family and high rates of out – migration due to natural disasters as well as urbanization.

Desmond C. and J. Gow (2001) in a study of cost-effectiveness of six models of OVC care in South Africa found out that the costs of care varied greatly among the alternative models. In this study the opportunity costs were used and the effectiveness measure was the childcare months or years. The results suggested that the most cost-effective method of OVC care is through community-based organizations. However, it was noted that, there was difference in quality of care amongst the models.

The differences in the type of services offered, structure of the organizations, quality of care and use of cheaper alternatives was responsible for the variations in costs. For example, institutional based model had to hire supervisors while community based structures did not, since most of their caregivers were grandparents who were expected to act in the interest of the OVC. Secondly, organizations that provided more services were more costly to run than those that provided fewer services. The model's fundraising externally also had additional costs. Though access to grants provided more services and security to OVC it also increased costs.

The models also had different success in providing for the minimum standard of care. In some settings the minimum standard was not achieved, hence inadequate resources necessary in childcare made the most cost-effective methods not to be viable ways of meeting basic needs of childcare.

Generally, the most cost effective models of care are those based in the homes and the community. They however, noted that, these models struggle to provide adequate material care, and hence need more external support. In this study, two avenues of obtaining support were identified: the government grants and income generating projects.

The study also found out that, the residential based models of care examined were comparatively very expensive. However, these models were found to have two major roles, firstly, they provided emergency care and cared for very ill children who are difficult to place. Hence, although expensive and apparently ineffective, the residential models represented end of the road. Children placed in them have no alternative accommodation in the community.

2.2 Overview of Literature

Most of the literature shows only social analysis, where only benefits of alternative models were studied. Those showing costs, only concentrate on financial as opposed to economic costs. The volunteer work and donations are not valued but considered as free goods. The literature either concentrates on costs or benefits but misses comparing both. However, some literature only looks at one model and concludes that it is cost-effective.

In this study we used opportunity costs of each and every service to measure the costs. Both the costs and benefits will be enumerated and measured in this CEA. This economic analysis will therefore show relative cost-effectiveness of each model.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

Cost-effectiveness analysis (CEA) is a technique for identifying the most effective use of limited resources. Originally developed in the military realm, CEA has come to be applied in many areas of social policy including health care (Shepard and Thomas, 1979).

CEA is one form of full economic evaluation, where both the costs and consequences of health programs or treatment are examined. It is a way of summarizing health benefits resources used by health programs so that policy makers can choose among them. It summarizes all programs cost into one number and all programs benefits (effectiveness) into a second number, and it prescribes rules for making decisions based on the relationship between the two.

CEA does not provide solutions as to which option to select, but clarifies the costs and effects of achieving specific objectives. In CEA, the ratio of net health costs to net health benefits provides an index by which priorities may be set.

CEA requires fewer troublesome steps than its close relative, the cost-benefit analysis (CBA). CEA does not attempt to assign monetary value to health outcomes or benefits. Rather, it expresses health benefits in a simple more descriptive term, i.e., years of life gained (Shepard and Thomson, 1979). In CEA, however, the health costs are measured in monetary terms (i.e. in shillings).

CEA is used for more focused comparisons than CBA. Where as CBA involves placing all monetary value on all relevant costs and benefits of alternative schemes and assessing which one produces the greatest benefits, CEA is used when an outcome has already been deemed worthwhile and the main objective of the analysis is to determine how to allocate resources between the different options (Desmond and Gow, 2001).

A CEA produces a ratio, such as the cost per year of life gained, where the denominator reflects the gain in health from specific intervention (e.g., life- years gained, number of

additional survivors, or number of pneumonias averted) and the numerator reflects the costs in shillings, dollars etc of obtaining the goal (Gold et al., 1996).

The core purpose of a CEA is to determine the value or trade-off of therapy or program. In other words, for a therapy known to be effective (e.g., the therapy produces additional survivors), a CEA asks, "What is the cost of achieving that effect (gain in survival)?" The underlying premise of CEA in health problems is that, for any given level of resource available, the society or decision-maker wishes to maximize the total aggregate health benefits conferred. Alternatively, for a given health benefit goal, the objective is to minimize cost of achieving it (Weinstein and Stason, 1970).

3.1 Application of CEA

Cost-effectiveness analysis (CEA) provides one means by which decision makers may assess and potentially improve the performance of health systems. This process helps to ensure that resources devoted to health systems are achieving maximum possible benefits in terms of outcomes that people value. It is concerned with assessing the type of service likely to be the most beneficial and appropriate given the resources available. Cost-effectiveness analysis can also be used to address issues of how much more effective the service might be if using additional resources expands it, or how much reduction in effectiveness is probable from a contraction of the resources available.

While this technique does not have the theoretical rigor of cost-benefit analysis, cost-effectiveness analysis has the advantage of practical simplicity. It can be readily applied to help assess whether the resources that are available are being used to best effect, and to assess in what way new resources could be used to meet the service objectives and provide the greatest returns.

3.2 Undertaking the CEA

The steps for carrying out a CEA are as follows:

Define the program's objective. A precise definition of the program is critical since minor differences in the definition can have large differences in costs and effects. This definition should include the program's focus, processes and limits. Then identify the possible ways of achieving that objective since a given problem may be amenable to a variety of approaches. All these approaches should be enumerated.

Enumerate and measure the cost of each option. Compute the costs the costs for the prevention and treatment of illness under the proposed program compared with the status quo. Generally costs are computed from the societal point of view. It is always convenient to compute the cost on per participant basis. Computing costing involves discounting to the present value.

Compute the effects or benefits of each option. Here, any commensurate measure of benefits can be used e.g. lives saved, complications averted etc. The health benefits or effects are calculated from the same perspective as costs.

Apply the decision rules based on the costs and health effects. In our case, the costs and benefits are expected to be positive, that is, there are true benefits but also real costs. Here, OVC is judged to be better with the proposed program than it would be without the program, but the program uses resources. The cost-effectiveness ratio is calculated by dividing cost and the childcare years. The result is a measure of efficiency, expressed as shillings per childcare year. The lower this number the more efficient is the program.

Lastly, perform sensitivity analysis. Many of the procedures required to estimate costs and benefits require estimates and data that are not known with certainty. For example it is not possible to predict exactly the future discount rate. The sensitivity analysis is the process used to predict exactly the future discount rate.

3.3 CEA and the Models of Care

The objective under consideration here is the holistic care of orphaned and vulnerable children. Holistic care refers to provision of support and care for all the needs of OVC, these includes; *Survival Needs* like food, clothing, shelter, and health care. *Security needs* like, love, affection, protection against abuse neglect and exploitation. Also important are socialization and self-actualization needs.

The possible ways of achieving this objective are; the informal foster care, community based care structures, the institutional based care and home-based care models.

3.4 Cost Determination

The costs identified are the economic costs of each alternative. The analysis uses 'opportunity costs', which are equal to the value of the best available alternative use of resources. Opportunity costs differ from what are conventionally considered costs. For example, volunteers' time has a positive opportunity cost despite having no financial implications for the organization. Volunteers' time could be invested elsewhere to generate value, and it is this foregone value, which represents the opportunity cost. This method of costing measures the cost to society, rather than to an organization or an individual. This is done so that the most cost-effective result for society is identified. All the care and support elements will be listed and their total costs summed up (appendices table 1-3).

3.5 Determining Benefits

The benefits are the improvement in the quality of OVC life, measured using quality of care as proxy. This improvement is assumed to reduce or remove OVC pain and suffering. The benefits of OVC care are not confined to the OVC themselves. However, most of the community members derive benefits from the better lifestyle of the OVC. As much as possible then, we included the total societal benefit to our study.

The effectiveness measure was the number of months or years each child is cared for, multiplied by the number of children (Desmond and Gow, 2001). The effectiveness

measure was, therefore, the childcare months or years. The effectiveness measure does need, however, to be the same for each alternative. All the alternatives under analysis have as their objective the care of orphaned and vulnerable children. However, we will assume that the quality of care varies between models, with some not providing even a minimum standard, probably not meeting the basic rights of the children.

The minimum standard is defined as the availability of a caregiver and the achievement of the survival category of the essential element. This is not to suggest that at a minimum children do not require the other essential elements, but rather that the realization of these elements, given the presence of a caregiver, is determined not so much by resources, but by the type of care and decisions of the caregiver. The minimum standard comprises, therefore, of the caregivers' time, the provision of food, clothing, shelter, hygiene, education and health care.

3.6 The CEA Ratio

The CEA of each mode of care delivery was obtained using the formula:

$$\text{CEA} = \frac{\text{Cost in Kenya shillings}}{\text{Childcare Month or Year}}$$

The mode with the lowest ratio is the most efficient mode of care.

3.7 Empirical Model

After finding the most cost-effective care model, we need to identify the factors determining the utilization of the health care facilities.

This study will use a logit model in which the dependent variable (treatment) is a binary random variable that takes only the values 0 and 1. The logit model will also be used in analyzing the decision to report morbidity or not. This approach rests on the assumption that the probability of seeking treatment is determined by an underlying response variable.

In this case, let the underlying response variable Z* be defined by the regression relationship:

$Z^* = \Sigma x'_i\beta + u_i$ .....(1)

Where $\beta' = [\beta_1, \beta_2, ...\beta_k]$ and $x'_i = [1, x_{i2}, x_{i3}, ... x_{ik}]$

In equation 1, Z^* is not observable, as it is a latent variable. What is an event represented by a dummy variable Z defined by

$Z = 1$ if $Z^* > 0$ and

$Z = 0$ otherwise.....(2)

From equation 1 and 2 we can derive the following expression:

$$1-F(-\Sigma x'_i\beta) = \frac{e^{\Sigma x'i\beta}}{1+e^{\Sigma x'i\beta}} .....(3)$$

$$F(1-\Sigma x'_i\beta) = \frac{e^{-\Sigma x'i\beta}}{1+e^{-\Sigma x'i\beta}} = \frac{1}{1+e^{-\Sigma x'i\beta}} ....(4)$$

In this case x'_i are characteristics of households of the OVC and β_i are the coefficients for respective variables in the logit regression. Equation (3) gives the probability of choosing to seek treatment (prob(i=1)) and equations (4) , the probability of choosing not to seek treatment [prob(i=0)]

The method used to estimate the model is the maximum likelihood (ML) technique, and the associated likelihood function

$$L = \prod_{zi=0} [F(-\Sigma x'_i\beta)] \prod_{zi=1} [1- F(-\Sigma x'_i\beta)].....(5)$$

Which can also be written as:

$$L = \prod_{zi} [F(-\Sigma x'_i\beta)] [1- F(-\Sigma x'_i\beta)]..... .....(6)$$

The same model will be used in determining which explanatory variable are important in explaining whether the orphans will choose to report morbidity or not.

CHAPTER FOUR: THE DATA

4.0 Introduction

The data used in this study are from four administrative divisions of Migori district, Nyanza province. During this study, both secondary and primary data collection methods were employed. The cost data for home-based, community-based and institutional-based models were primarily obtained from the financial reports.

The data was collected over a period of two weeks from 6th to 23rd June using stratified and systematic randomized survey procedure. The sample size was 430, this included 170 adult caregivers and 260 orphans and vulnerable children. Three types of data sets are used in this study. They are: (1) Data from institutions supporting OVC, (2) Data from the OVC attached to each approach and finally, (3) Data from the OVC caregivers in each of the models.

The data sets are adequate for the purpose of this paper because they show the quality of services provided to OVC, the cost of these services, the effectiveness of each model and finally the determinants of utilization of health care services by OVC.

The sample for logistic regression analysis consists of 170 individuals (caregivers). For each of these individuals, information was obtained on the OVC sickness, whether they sought treatment and the type of healthcare facility they used. In addition to illness related information, data was also collected on demographic and socio-economic characteristics of the caregivers, health facility attributes such as distance to the nearest hospital or health facility. The prices or cost of the most recent treatment and the type of hospital in which the OVC was last treated were also obtained.

Although the quality of data we use is in general relatively high, it is important to note that most of the OVC interviewed were school going OVC and were in schools at the time of data collection. This was due to the fact that two models [Sony HBC and LRCDP CBC) only supported school going OVC and secondly, the non-school OVC were either engaged in child labour away from home or could not be traced.

4.1 Variable Definitions

The dependent and explanatory variables are explained as follows:

Dummy variables

ovcsick = 1 If the child reported sickness and ovcsick = 0 otherwise. The other dummy variables are defined similarly as follows

Treatment (= 1) If the child sought treatment;

Educlev1 (= 1) If the caregiver is illiterate (no education)

Educlev2 (= 1) If the caregiver's highest level of education is primary

Educlev3 (= 1) If the caregiver's highest level of education is secondary and above

Marital1 (= 1) If caregiver is married

Marital2 (= 1) If caregiver is single

Marital3 (= 1) If caregiver is widowed

Sexd (= 1) If caregiver is female

Continuous Variables

Loginc3 = the natural logarithm of monthly income of the caregiver +1, shillings

Logcost = the natural logarithm of treatment cost per OVC. The mean of treatment price was assigned to the OVC who didn't seek treatment. The assumption being, though they didn't seek treatment, the price they face is the mean of the market price.

Logdist = the natural logarithm of hospital distance.

Logovc = the natural logarithm of the number of orphans and vulnerable children in a household

ovcsq. = The natural logarithm of the number of OVC in a household squared

Loghsize = the natural logarithm of the household size.

CHAPTER FIVE: PROFILES OF OVC CARE MODELS

5.0 INTRODUCTION

In this chapter, we discuss the profiles of the models studied. In chapter six the finding of quality of orphan care, the cost-effectiveness analysis results are discussed in chapter seven and, in chapter eight results of the determinants of the demand for health care are presented.

5.1 THE PROFILES OF OVC CARE MODELS

The following section describes the identifying features, constraints and facilitating factors of each approach.

5.2 Grace Outreach Mission Orphanage

This is an institutional based care model. It is run by the church and is situated in Uriri Division of Migori district. It was founded in 1999; however, the orphan support was initiated in 2000. It provides residential care, outside the child's community of origin. It is a home for children, who are abandoned, abused or who have no family who cares for them. Currently, it provides support to orphans of ages 8 months to 18years old. However, the model initially planned to recruit orphans of ages 4 to 5 years old and support them until they are 21 years old. However, due to high demand it was forced to go out of this age bracket.

Grace Outreach has an organizational structure consisting of the management committee, employees and volunteers. Its objective is to provide bright future for destitute children, bringing them up in the fear of the Lord and God.

This model recruits and supports only total orphans from various areas and outside their community of origin. They initially advertised; however, today caregivers just find their way to orphanage. These caregivers are given application forms, which they fill in and return. They then bring the orphans and the deaths certificates of their parents (where possible). The orphans are interviewed to verify the truth of the details provided in the forms. Based on the above the child is either recruited or not. The orphans is recruited

irrespective of their HIV/AIDS status, since the Grace Outreach believes that HIV + orphans are the ones in extreme need of care and support.

Grace Outreach arranges for the orphans to participate in their family activities like attending funerals, they regularly visit their homes once a year in December. This is to ensure that child's bond to their family; their inheritance, family's and cultural identity are maintained.

Major Challenges

There are resource constraints and insufficient support from the community, who also have high expectations making it difficult to involve them in the orphanage activities. Secondly, the orphanage also experiences frequent sickness of the OVC especially the HIV+ ones who come in, in very poor health and nutritional status. Thirdly, some orphans find it very difficult to adjust and cope in the new environment. Fourthly, the number of total orphans continues to rise everyday and the institution is unable to absorb all of them.

There is also lack of support from government officials who only act as faultfinders and not supporters when they visit the orphanage. The government regulations requires OVC to be committed to the orphanages by court order, however, the director made visits 5 times with OVC last year to the court and despite payments nothing has been done. Complying with the government requirement therefore is very frustrating.

Major Achievements

The OVC in the institution are happy and peaceful. They are able to get their rights as children. It's also a relief to the caregivers, and finally, it's a contribution to the development of Uriri community through job creation thereby trying to alleviate poverty.

5.3 The Informal Foster Care (Traditional HBC)

This is the traditional orphan care system. The family members assume the responsibility of caring for the orphans and the vulnerable children within their midst. Children cared for in this approach are external to any welfare support or system. The family members who

don't receive any external grant or support voluntarily absorb these children. Care are motivated by kinship obligations, family preservation and a sense of personal calling. There is no organizational structure except the normal family structure. The number of children in informal care is difficult to quantify, but without it, the other care systems would be completely overwhelmed

In this study, 60 caregivers and 100 OVC in four villages of Rongo division of Migori district were interviewed. 30% of the children were total orphans. The study confirmed that all the caregivers were related to the OVC and that they felt that it was their responsibility to support the orphans.

The Challenges

Most of the caregivers (60%) were parents who were already widowed and some of them were very weak and sick. The remaining 40% consisted of grandparents 26%, who were too old to provide care to the OVC. This therefore means that though living with caregivers, the OVC themselves still become caregivers to their sick and old guardians. There is generally financial and resource constraints, therefore meeting most of the basic needs of OVC is challenging. Needs like for food, education etc is not always met.

Major achievements

To the guardians, their achievement was to provide a new family for the OVC and give them some love and care. Secondly, they enabled OVC to be retained in schools and improve on their academic performance. There was also improvement in health and nutritional status of OVC.

5.4 The Lake Region Community Development Program (LRCDP).

This is a community-based organization situated in Nyatike division of Migori District. It was founded and is run by the local community members who felt the need to empower and support each other. LRCDP runs different projects and the orphans care and support

termed children affected by AIDS (CABA) Project is one of their major projects[5]. LRCDP-CABA Project is an organized and planned manner of strengthening the capacity of existing indigenous informal caregivers, in terms of provision of resources and services. The OVC stay in their communities of origin and are cared for by family members of the same community. LRCDP is a community-based organization (CBO) registered with the Ministry of Social Services and has an organizational structure consisting of board of management, management committees, employees and volunteers.

Her initial objective was to economically empower and build the capacity of the Nyatike people. However, with time, they realized that HIV/AIDS pandemic had highly hit the region and that the people were dying leaving behind orphans. This was weakening the same people; hence the organization was prompted to come up with OVC support project.

The OVC project was initiated 2000. It has a functioning structure including, community health workers (CHWs), village orphan support committee (VOSC) consisting of members elected by the community, functional groups, community leaders, teachers and the coordinating office. Each part of the structure has a role it plays to ensure that the CABA project runs successfully.

LRCDP also recognizes the fact that the family and community members are in better position to identify the OVC who needs support. The community members therefore identify the OVC, however, the CHWs and VOSCs as well as the functional groups verify and confirm that the identified child truly needs support. Based on their report, the child is recruited. The emphasis, however, is laid on total orphans and after some orphans whose family members are unable to support.

Currently LRCDP supports 500 OVC from 364 families (households). It cares for OVC ages between 4 years and 18 years. However, emphasis is laid on ensuring that OVC are in primary school and the support basically targets OVC in Schools.

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[5] Children affected by aids (CABA) are children who are either infected with HIV or who are ill and/or who live in households where members are either infected with HIV, are ill or have died of AIDS (Voysey and Wilson, 2001).

Services provided to OVC include educational support, health care, clothing, psychological support, recreational activities, participatory training of caregivers on OVC needs identification and care school feeding programme to early childhood development centers. The social workers, nurse counselor and the community owned resource persons (CORP) visit OVC at home and in school in order to evaluate their living and school environments. This enables LRCDP staff to verify that OVC needs were assessed well and that the provisions reached the target OVC. It's important to note that the support is given to OVC based on their specific needs and not able to meet all of them. The project only complements the services provided to OVC by the caregiver.

Major Challenges

LRCDP in their support to OVC has had major challenges in several aspects of orphans growth and development. In terms of education, the project only support pre-primary to primary level of education. The plight of the orphans at post-primary level is not addressed, making it very difficult for OVC who normally have no one to pay for them school fees.

In healthcare, LRCDP is based in the rural area where the government health facility is sparse and resources are scarce. The only available government health care is very far approximately 7km from the facility and often lacks drugs. There is no package for healthcare provisions to the caregivers though when they are unwell, and this definitely affects the OVC.

LRCDP operates in the rural set-up where several cultural practices are still valued. Hence widow inheritance/ men remarrying are very much practiced. In most situation the VCT facility are not available and there is the belief that condoms are only used by prostitutes, hence the spread of HIV is still on the rise. There is resistance to behavior change, leading to high HIV infection and death of the youth, caregivers etc. Even the OVC themselves are infected and die of HIV/AIDS. And the OVC number keeps on shooting everyday. LRCDP is therefore unable to absorb and support all orphans.

The organization does not support all orphans in a given household. Sometimes only one is recruited in the project. This makes it very difficult for those not supported since they all experience same difficulties. It also hinders the success of the of the programme as some of these children drop out of school in order to seek attention and support from LRCDP

The community is very poor and its poor climatic conditions make it difficult for them to even have food. There is also financial and resource constraints hence sustaining the CABA project after the end of donor support almost impossible.

Great Achievements

LRCDP has been able to give OVC new hope and meaning of life. The orphans now have hope and joy. Some OVC told their caregivers that they now have new father (Nurse counselor) and mother (social worker) that they can share their stresses and challenges with.

Secondly, they enabled OVC to be retained in schools and improve on their academic performance. Schooling has also been linked of children and Gilborn e.t a.l (2001), found out that it improves the moral of children sustaining them through difficult transitions. There is also improvement in health and nutritional status of OVC especially those under the intensive feeding programs.

LRCDP through participatory education and safe-life skills have been able to successful/positively influence caregivers and the community's attitude towards OVC, now they absorb and readily a support them. The safe-life skills education to OVC on the other hand has changed their perspective towards life and HIV/AIDS most of them have adopted safe behavior.

5.5 The Sony Home-Based Care

Sony Home-based care initiative provides care to households of people living with AIDS. It was stated in 1998 and it is an independent organization registered with the Ministry of Social Services. The Ministry of Health and Sony Sugar Company run it. It however has a

community base, in that it recruits community members to visit and care for the needy people in their homes. Its emphasis is placed on collaborating with community leaders in enlisting community members to be trained as voluntary home-based care workers in order to create a comprehensive, community owned service.

It provides services to households of people living with AIDS. Its core function is to equip the family to care for sick and dying person in the home. This model tries to mitigate the socio-economic impacts of HIV/AIDS to those infected and affected families. Sony HBC has an organizational structure and management staff.

Sony home-based care also identifies and supports orphaned and vulnerable children. Initially, the objective of Sony HBC was to care for sick people, however, as their clients died and the numbers of vulnerable children increased they have found their services extending to orphan related care. A part from client support (food, healthcare to the guardian) that benefits the OVC indirectly and directly, the direct orphan support however is only educational support.

Constraints

This model faces some challenges including the high death rate of their clients living behind a very large number of orphans. Since inception (four years ago) it has recruited 1300 clients, however, only 220 are still alive. They are therefore unable to provide care to all the OVC. Secondly, the project mainly provides educational support to the children, yet the OVC needs do vary hence not all needs are catered for.

This model operates in a poverty stricken community where state health systems are inadequately resourced and sparse, making referral to professionals very difficult. There is also high drop out of the volunteers making work very challenging.

Though they provide treatment for opportunistic infections the price of anti-retroviral therapy (ARVs) are still very high and their clients are unable to benefit from them.

CHAPTER SIX: QUALITY OF CARE

6.0 INTRODUCTION

This chapter assesses the extent to which the various approaches to OVC care meet the needs and rights of OVC. Maslow's *Hierarchy of Needs* (1954) and Manfred Max-Neef's *Theory on Human Scale Development* (1991) are used as framework for understanding children's fundamental needs, which in this study are seen as basis for understanding children's rights.

Abraham Maslow's hierarchy of needs is based on two groupings: deficiency needs and growth needs. Within the deficiency needs, there are: 1) *Physiological*: hunger, thirst, bodily comforts, etc.; 2) *Safety/security*: out of danger; 3) *Belongingness and Love*: need to affiliate with others, be accepted; and 4) *Esteem*: to achieve, be competent, gain approval and recognition, each lower need must be met before moving to the next higher level (satisfaction progression principle).

The growth needs and self-actualization needs on the other hand are: 5) *Cognitive*: to know, to understand, and explore; 6) *Aesthetic*: symmetry, order, and beauty; 7) *Self-actualization*: to find self-fulfillment and realize one's potential; 8) *Self-transcendence*: to connect to something beyond the ego or to help others find self-fulfillment and realize their potential. However, an individual only acts upon the growth needs after the deficiency needs are already met (a graphical illustration in appendix 4).

In terms of Max-Neef's theory, human needs are seen as an interactive and interrelated system and not as a hierarchy (appendix 5). The checklist of essential elements, provided in the appendix 6, is used as a framework for the analysis. The analysis focuses on the extent to which rights are upheld by each approach.

For the purpose of presenting the quality of care findings, needs and rights are clustered into the following broad categories:

Survival	- food, clothing, shelter and health care
Security	- love; affection; protection against abuse, neglect and exploitation

Socialization – understanding; identity; participation and basic psychosocial services

Self-actualization – recreation; leisure and freedom of expression

Palliative care – health care for the HIV+ children

Although survival needs and rights are recognized as a priority, it must be noted that without affection, protection and understanding, children are less likely to grow up into well functioning adults. The categories of needs and rights may appear to be in a hierarchy, but this is not intended. In terms of human scale development theory and the rights based approach to meeting needs, all needs are of equal importance and are non- negotiable (Voysey and Wilson, 2001).

6.1 Grace Outreach Orphanage

Survival: Grace Outreach through her partner is able to access funds and other materials for the children. Because of this it is theoretical at least, well placed to satisfy the children's need for survival. It is well-equipped and maintained, providing a comfortable, child-friendly and healthy environment. The results of this model were very exciting as all the children interviewed received adequate, regular and well-balanced food. None of the children mention clothing as a problem as they had enough change of clothes for different season. They were very clean and well maintained. All the children interviewed, enjoyed spacious and healthy shelter. However, 19% of the OVC reported inadequate health care provision. In model, all the basic amenities with in-house water, sanitation and electricity were available.

***Security*:** In Grace Outreach Orphanage a child experiences security in having a routine and being associated with children like themselves. There is protection since there is a constant presence of an adult caregiver. The staffs are closely monitored and supervised, there is also supportive network between the staff and volunteers in the home.

The staffs are trained in childcare and healthy discipline practices. The orphanage accepts all total orphans regardless of their HIV status. However, 13% of the OVC interviewed reported having experienced some kind of abuse and lack of parental love and care. The model protects the child's identify and culture by letting them participate in all their family functions and have a mandatory visit to their homes once a year, in December.

Socialization: A weakness of this approach is the exclusion of children from every-day household and community function, as it is not based in the community from which the children originate. This model however, ensures that the children maintain contact with family and community members. The staff to child ratio is 1:4 and there is high staff turn over. This affects the children negatively. The orphanage director expressed concern that some orphans were clingy and attention seeking.

All the school age orphans in this model attended school regularly. The orphanage however is not able to provide education for those children with physical or learning disabilities. Most of the children in this model were young hence participatory discussions were not possible. However, the orphan's views were taken into account when recruiting them. Secondly, providing safe-life skills for the orphans was a major challenge to the orphanage staff as they lacked necessary skills. The orphanage has a full-time social worker at the home that offers supportive services/counseling to the orphans. However, 31% of the OVC studied expressed having experienced psychological stress.

Self-Actualization: The orphanage provides time and recreational facilities to the orphans. Quality educational playing equipment is provided. There is freedom of expression and child is raised in a God- fearing environment.

Palliative care. For the HIV+ children, health care is available and this model is well - placed to cater for these needs.

6.2 Informal Foster Care Model (Traditional HBC)

The survival needs: In this model, the total sample size was 160, out of which 100 were the OVC and 60 the guardians. For children being cared for in this model, 29% reported

that meals tended to be sporadic, unbalanced and depended on what was available. Son of the children looked malnourished and underfeed. For 62% of the caregivers, subsisten farming could supplement food requirements and provide income. 32% of the OVC ha only one change of clothes, which were not clean, while 12% and 28% identifie congested shelter and inadequate health care services their major challenges.

Security: In this model, the orphans are cared for in a home environment basically by the extended family that are assumed to be reliable and always available for the OVC However, 35% of the caregivers reported time constraint, as they have to work away fro home for longer hours in order to provide for the increased number of the dependants. Th arrangement is informal since caregivers are not legally bound to provide care and there i no formal supervision. 14% of the OVC studied reported various cases of abuse while 20% expressed lack of parental love and affection as their major problem.

***Socialization*:** Education and schooling, 68% of the OVC reported that they regularl attended school with no problem at all. However, the remaining 32% reported attendin school irregularly due to lack of school uniform, too much work at home etc. All th children studied lived with their relatives in their communities retaining their kinship link and cultural history.

In terms of participation, children's participation varied with each informal caregiver however the adult generally makes decisions and the child is not included in decision making. This is culturally appropriate. The children assisted with household chores including collecting water, fetching firewood, in this way they are exposed to basic lif skills. However, 20% of the caregivers reported that HIV and other sexuality issues wer not spoken about with children.

activities. This gave them a strong sense of belonging and bonding which nurtured and sustained them.

Self-actualization: there was no awareness of the right of children to play. However, 37% of OVC interviewed said that if their chores and other responsibilities were completed, such as collecting water, fetching firewood and herding the cattle, they were free to play. However, 20% of the respondents reported that they had too much work to do. It is a culturally sanctioned practice for children to assist adults with work in the home. Freedom of expression was a foreign concept to caregivers and this is culturally accepted.

Palliative care: No bereavement counseling

6.3 Sony Home Based Care

Survival needs: This data was collected from a sample size of 93 respondents out of which 46 were children and the rest, caregivers. 61% of the OVC interviewed were total orphans 50% of the OVC interviewed reported that their food was inadequate, irregular and unbalanced and only depended on what was available. 57% of the OVC had only one change of clothes while 15% and 44% reported congested shelter and inadequate health care as threats to their survival. It was also noted that the community health workers and the project staff offered basic training and guidance on infection control and hygiene.

Security: As their relatives, caregivers (33% being grandparents) care for the OVC at home. However 35% of OVC interviewed reported having been abused. In this model only 15% of caregivers reported staying away from the OVC for longer hours as they have to over-work in order to provide for them. 44% of the OVC in this model expressed lack of parental love, care and affection as a major problem, affecting their growth and development.

A major strength of Sony HBC is that when CHWs and project staff visits the ill parents, they are able to assess whether fundamental rights of the children in the homes were being observed. They were further in an unique position to identify those children who were vulnerable and in need of care.

Socialization: Sony HBC mainly focuses on educating the OVC, though only at the primary level. They provide school uniforms, buy books and support one early childhood education center. However, 35% of the OVC interviewed reported attending school irregularly. In terms of participation, children were generally not listed to at home. They had no role to play in decision-making.

All children interviewed in this model lived with their relatives and supported them with household work. This exposed them to basic life skills. Sony HBC employs several social workers that provide professional counseling to the OVC and their families. However, 37% of the OVC reported psychological stress as one of their challenges.

Self-actualization: There was no awareness of the right of children to play, however 76% of the OVC interviewed had time to play with their friends in the community though after finishing the allocated household chores.

Palliative care: The Sony HBC staff and CHWs offered participatory training in caring for chronically and terminally ill adults and children. The OVC are able to get treatment from the facility hospital and the health center. There is reluctance on the part of many caregivers to talk to children about death and the reasons of parents' death. This stems largely from their own perceptions of what was culturally acceptable and their own personal comfort levels.

6.4 Lake Region Community Development Program (LRCDP)

This, model recruits school going OVC from pre- primary-to-primary level. These OVC live with their caregivers. LRCDP provides holistic care support consisting of survival, socialism, self –actualization and palliative care. However, all OVC does not receive holistic package of care, hence some may only receive food and nutritional support, others clothing other even shelter support, all of these under survival needs.

The survival needs: In this model, the total sample size was 168, out of which 105 were the OVC and 63 the guardians. For children being cared for in this model, 73% reported that meals tended to be sporadic, unbalanced and depended on what was available. And that going without a meal for a day was normal. It should be noted LRCDP is situated in an

area with poor climatic conditions, which does not support agriculture, and over reliance on small-scale mining that undermines food production and storage. Of all the study areas, this is the area that is worst hit by food poverty.

Some of the children looked malnourished and underfeed. For 44% of the caregivers, subsistence farming could supplement food requirements and provide income. 82% of the OVC had only one change of clothes which were not clean, while 34% and 19% identified congested shelter and inadequate health care services their major challenges.

Security: In this model, all OVC live with their relatives, 68 widowed percent of caregivers are parents, 17% grandparents and the rest are uncles, aunts and siblings.15% report cases of abuse and 11% state missing parental love and care. The arrangement is informal since caregivers are not legally bound to provide care and there is no formal supervision.

Socialization: Education and schooling, 96% of the OVC reported that they regularly attended school. However, 6% reported lack of school uniform as a major problem. All the children studied lived with their relatives in their communities retaining their kinship links and cultural history. In terms of participation, children's participation varied with each informal caregiver, however the adult generally makes decisions and the child is not included in decision-making. This is culturally appropriate.

The children assisted with household chores, including collecting water, fetching firewood, in this way they are exposed to basic life skills. In this model, 60% and 50% of OVC had received safe life skills and psychological support from LRCDP staff respectively.

In this model too, children were jovial, friendly and welcoming and for the most part energetic and interested in life. Most of them were caring to each other and 79% responsible with duties assigned to them. This positive communal attitude could possibly be attributed to the fact that these children were being cared for in their communities of origin within culturally sanctioned kinship ties and networks. They participated in all the

households and community traditions and activities. This gave them a strong sense of belonging and bonding which nurtured and sustained them.

Self-actualization: All OVC interviewed regularly participated in recreational activities organized by LRCDP. Some have also had exchange visits to Nairobi and Meru, they enjoyed this and it motivated their thinking. This model encouraged the OVC to freely express themselves and their views were considered in implementation of the activities.

6.5 Summary of the Findings of Quality of orphan care

Grace- Outreach provides services that are above the minimum standard, and the best quality of services to OVC. Informal foster care provides services that generally meet the minimum standard of care and can be classified as good quality care. Sony HBC provides care that is generally below the minimum standards of care and hence low quality care. LRCDP provides care that is also below minimum standard. Though it provides holistic care, no orphan receives that holistic package. The quality of care is therefore very low, with needs like food, clothes and shelter unmet.

CHAPTER SEVEN: COST-EFFECTIVENESS OF OVC CARE MODELS

7.0 INTRODUCTION

The results of the CEA are outlined in this section, beginning with Grace – Outreach institutional based care and ending with the LRCDP CBC model. The cost estimates are based on the expected length of the child's stay. For example, the cost of capital goods are amortized across the length of the child's stay which is the expected project period for all the models except the traditional care model. The expected length of stay differs.

It should be noted that to compare the institutional and community/home-based care models, it would require estimating/valuing the caregivers time, resources like water, firewood etc that are used in OVC care but have no financial value. However, these extensions are beyond the scope of this study.

To make the results more useful and comparable, we also used discounted costs. The rationale for discounting of costs is that, a society generally prefers to spend later than sooner. In this study, our rate of time preference for money is the Kenyan accounting rate of interest. To estimate the discounted costs we used the rate of 10% per year.

7.1 Grace Outreach Orphanage

This institutional based care model recruits both HIV positive and negative orphans. It also cares for younger children requiring a higher staff to child ratio than the care of older children. The youngest orphan they support is 8months old. All the children in this orphanage except one who is 18years old, are below 12years old.

The institutional care is expensive and with young and HIV positive children, it is even more so. However, HIV positive children are the ones whose caregivers are most likely to be unable to cope with and provide necessary level of care.

The results

The cost per childcare month was estimated using the data from the financial reports. All the costs are estimated as the average over the project period.

Table 7.1: Cost per month based on financial reports, Grace Outreach orphanage

Components of costs	Cost per child per month (Kenya shillings)	Discounted cost per child per month (Kenya shillings)	Percentage of total cost
Fixed costs	1570.10	1297.60	27%
Variable costs	4334.90	3567.00	73%
Total costs (CEA ratio)	5905.00	4864.60	100%

Financial Report Analysis

Grace outreach maintains a comprehensive financial record. The real financial costs from the financial report were used as the starting point for the analysis. The number of children in the orphanage is 21. The total cost of the children's home was therefore divided by 252(21 children multiplied by 12 months) to obtain the costs per childcare month according to financial reports.

A number of costs reported in the financial report did not reflect economic costs but rather financial costs. These costs were adjusted as follows:

Depreciation: The depreciation change reported was divided into three categories: Buildings, furniture and equipment, and motor vehicle. All were calculated in straight-line basis. The buildings were assumed to have useful life of 30years, furniture and equipment

10%. The same was done to motor vehicle, which was amortized over the useful life of 5years.

7.2 The Informal Foster Care (Traditional HBC)

The caregivers studied in this model live in Rongo division of Migori district. This is a rural area where resources and facilities are very scarce. There is no running water; electricity and the health care facilities are poorly stocked. However, the caregivers still operate in this resource constrained environment to care for the OVC in their homes, they are resource constrained and are only able to provide minimal services.

In this model, costs were not grouped in terms of fixed versus variable components as household expenditures were generalized. The average household monthly expenditure, average number of orphans per household and mean household size were used in the study. For the purposes of comparability, the expenditures were discounted over a period of three years and discount rate of 10% was used. On average, in each household 58% of the members were orphans; therefore we assigned 58% of the monthly household expenditure to OVC care as an approximation of the monthly cost of orphan care.

Table 7.2: Cost per month based on financial reports, informal foster care

Cost	Cost per child per month (Kenya shillings)	Discounted cost per child per month (Kenya shillings)
Total costs (CEA ratio)	534.70	400.10

7.3 Sony Home- Based Care

This is home- based care organization dealing with OVC care and other projects. The OVC care consumes only 25% of the model's resource and time.

Table 7.3: Cost per month based on financial reports, Sony HBC

Cost components	Cost per child per month (Kenya shillings)	Discounted cost per child per month (Kenya shillings)	Percentage of total cost
Fixed costs	26.80	17.90	7%
Variable costs	378.80	300.20	93%
Total costs (CEA ratio)	405.60	318.10	100%

Financial Report Analysis

Sony HBC maintains a comprehensive financial record. The real financial costs from the financial report were used as the starting point for the analysis. The model only uses 25 percent of its resources and time on OVC support. Adjustments on its total cost were made to this effect. The number of children supported by Sony HBC is 140. The total cost of the children's home was therefore divided by 420 (140 children multiplied by 12 months multiplied by 25%) to obtain the costs per childcare month according to financial reports.

A number of costs reported in the financial report did not reflect economic costs but rather financial costs. These costs were adjusted as follows:

Depreciation: The depreciation change reported was divided into two categories: motor cycle and bicycles. All were calculated in straight-line basis. The motorcycle was assumed to have useful life of 5years and bicycles 3years. They were dealt with separately. The motorcycle value was amortized over the useful life of 5years with a discount of 10% While the value of bicycles were amortized over the useful life of 3years.

7.4 Lake Region Community Development Project.

This is a community-based organization dealing with OVC care and other projects. The OVC project has it's own staff and separate costs, which were derived from the project financial records. The care provided by LRCDP to the OVC involves two types of costs

first, the administrative costs of managing the project and second, the programme costs that directly reach the OVC.

Table 7.4: Cost per month based on financial reports, LRCDP

Cost components	Cost per child per month (Kenya shillings)	Discounted cost per child per month (Kenya shillings)	Percentage of total cost
Fixed costs	15.00	12.40	4%
Variable costs	320.30	264.70	96%
Total costs (CEA ratio)	335.30	277.10	100%

Financial Report Analysis

LRCDP maintains a comprehensive financial record. The real financial costs from the financial report were used as the starting point for the analysis. The number of children in the orphanage is 500. The total cost of the children's home was therefore divided by 6000(500 children multiplied by 12 months) to obtain the costs per childcare month according to financial reports.

A number of costs reported in the financial report did not reflect economic costs but rather financial costs. These costs were adjusted as follows.

Depreciation: The depreciation change reported was divided into four categories: Furniture, equipment, motorcycle and bicycles. All were calculated in straight-line basis. The furniture and equipment values were amortized over the useful life of 10 and 8 years respectively with a discount of 10%. The same was done to motor vehicle and bicycles, which were amortized over the useful life of 5 and 3 years respectively.

7.5 Discussion of CEA Results

The costs of OVC care vary greatly between the models. The table below summarizes the results of CEA of all the four approaches; both for actual costs per child care month and the discounted costs per childcare month.

Table 7.5: CEA of the four models of orphan care

Mode of Care	Shillings per childcare month	Discounted costs per childcare month
Grace Outreach orphanage	5905.00	4864.60
Informal Foster care	534.70	400.10
Sony HBC	405.60	300.20
LRCDP Comm. Based care	335.30	277.10

The results suggest that the most cost-effective way of caring for orphans and vulnerable children is LRCDP community based care model. However, further discussion are required to highlight other issues of relevance, the main one being the difference in the quality of care and that LRCDP only complements the support offered by the family members of the orphans.

The difference in the services offered, the structure of the organization and the quality of the care provided helps in explaining the varying CE ratio of the various models.

In terms of the service offered, LRCDP provides services based on the needs of the OVC. It's important to note that the OVC supported by the LRCDP live with their caregivers who also provide for their needs depending on resource availability. LRCDP therefore only supports the efforts of these caregivers. Left on their own, the services provided by the model will not even meet the essential growth requirements of the children and the costs of care will definitely increase.

In terms of LRCDP's structure, it engages the community members, leaders and community owned resource persons, it therefore employs more of locally available cheaper alternatives. i.e. instead of employing several nurses and social workers, it uses trained

CHWs in reaching primary health care issues. These community-owned resource persons also provide a supervisory role ensuring that orphans lives in a conducive environment. Grace Outreach Orphanage is the most cost ineffective model from the results. However its important to note that, it provides all care and support needed by the orphans. Secondly, it is the model that provides the best quality of care to the children.

Thirdly, the majority of children it supports are very young, the youngest being 8 months old. This requires high staff to children ratio, which means that it has to employ several care providers. However, these care providers must also be supervised since they are not related to the children and may not act to the best interest of the child.

Grace Outreach expects to care for the OVC until they are 21 years old. They therefore are heavily investing on fixed goods as compared to LRCDP that plans to care for OVC for a shorter period just depending on further support.

Sony HBC on the other hand provides care that is less than minimum standard since it dose not directly support the survival needs of the OVC but only educational needs. Though it's the second cost effective model, it should be noted that the children cannot survive on education only. This model also employs locally available resources in meeting the OVC needs and this accounts for part of the low costs.

Lastly, that traditional HBC (Informal foster care) is the second most ineffective model. It should be noted however that the traditional caregivers provide for all the needs of the OVC. Secondly, it's assumed that these caregivers act on the best interest of the child hence no one to supervise them. In our costing analysis, to be more comparative, we aught to have valued the fixed costs of the household including building, furniture and equipment used in OVC care. However these extensions were beyond this study.

7.6 Summary of the Findings of CEA and Quality of orphan care

Grace Outreach provides services that are above the minimum standard, and the best quality of services to OVC. However, it employs the most expensive structure and resources, therefore its not cost –effective.

Informal foster care provides services that generally meet the minimum standard of care and can be classified as good quality care. It employs cheap alternatives too. However, the CEA ratio shows that it is less cost effective. It must be noted that the ratio is high due to the fact that it provides for all the OVC needs without any external support, though according to caregiver ability.

Sony HBC provides care that is generally below the minimum standards of care and hence low quality care. It must be noted that, though its CEA ratio is low, this may be due to the fact it does not provide for all the basic needs, hence lower cost of OVC care.

LRCDP provides care that is also below minimum standard. Though it provides holistic care, no orphan receives that holistic package. The quality of care is therefore very low, with needs like food, clothes and shelter unmet. Though the CEA ratio is lowest and hence the most cost effective model. This low ratio may be due to inadequate care. This model employs locally available structure and hence with adequate resources, it would still be very cost effective.

CHAPTER EIGHT: OVC'S DEMAND FOR HEALTH CARE

8.0 Descriptive Statistics

The tables below show descriptive statistics for all the households, for those whose orphans reported morbidity and for the households whose orphans sought treatment.

Table 8.1: Descriptive statistics for households

(Observations=170)

Variable	Mean	Std. Dev	Min	Max
monthly3	2898.1120	1280.1200	2501.0000	7001.0000
Rxctov	210.6000	227.3133	8.0000	2000.0000
hospdist	2.7464	3.7325	0.0000	36.0000
Sexd	0.7412	0.4393	0.0000	1.0000
educlev1	0.2706	0.4456	0.0000	1.0000
educlev2	0.5647	0.4973	0.0000	1.0000
marital3	0.5765	0.4956	0.0000	1.0000
Ovcno	3.7294	2.6598	1.0000	18.0000
ovcnosq	20.9412	35.9962	1.0000	324.0000

Table 8.2: Descriptive statistics for households whose orphans sought health care

(Observations = 111)

Variable	Mean	Std. Dev	Min	Max
monthly3	2784.7840	1098.8040	2501.0000	7001.0000
rxctov	164.1441	270.3905	8.0000	2000.0000
hospdist	3.9585	4.0229	0.0000	36.0000
Sexd	0.7838	0.4135	0.0000	1.0000
educlev1	0.2432	0.4310	0.0000	1.0000
educlev2	0.6216	0.4872	0.0000	1.0000
marital3	0.5495	0.4998	0.0000	1.0000
ovcno	4.0000	2.5584	1.0000	18.0000
ovcnosq	22.4865	38.2634	1.0000	324.0000

From the above tables, average monthly household income per the sample is higher than for those seeking care. From this it may seem that average monthly household income was not a key determinant for the care seeking behaviour by the caregivers

Reported hospital distance is greatest in the group of caregivers that sought health care as compared with those of the total sample. This could be due to the fact that those seeking care might have a higher tendency to complain of the distances.

In the subgroup that sought treatment, 78% of caregivers were females as compared with 74% female caregivers for the whole sample. This implies increased tendency for female caregivers to facilitate OVC's care provision. It may be true that sex of caregiver influences health care seeking behaviour of the OVC.

In the sample, 56% caregivers had primary level of education, while in the group that sought health care, they were 62%. The education level of the caregiver therefore is an important determinant of health care seeking by the orphans.

The mean of treatment price in the sample is higher than the average price for those seeking health care. At the same time, the average number of orphans per household in the subgroup that sought health care was higher than, the average number of orphans per household in the sample.

8.1 Binary Logit Results

In this subsection we discuss determinants of OVC health seeking behaviour. The logit model has been used to determine the explanatory variables that will explain the probability that an orphan would seek medical care or not.

8.2 Estimation Results: Binomial logit results for morbidity reporting.

The estimation was carried out for models with two types of explanatory variables: The access variables, which include distance to the nearest health facility; hospital type and the price (cost) of treatment. The second type of independent variables includes the caregivers' characteristics like sex, level of education, monthly income and marital status.

Table 8.3: The Probability of Reporting Morbidity

(Dependent Variable =1, if the orphan reported sickness and 0 otherwise)

Variables	Coefficient	Standard Error.	Z-statistic	P>|z|
cons (CONSTANT)	3.64856	1.85788	1.96	0.05000
Loginc3 (Log of Monthly Household Income)	0.98102	0.92634	1.06	0.29000
Logcost (Log of Treatment Cost Per OVC)	- 0.78828	0.29285	-2.69*	0.00700
Logdist (Log Of Distance)	-0.16081	0.31540	-0.51	0.61000
Sexd (Sex of Caregiver-Dummy, F=1, M=0)	0.42056	0.48896	0.86	0.39000
Educlev1 (Education-Dummy, Illiteracy=1, 0 Otherwise)	1.29284	0.66639	1.94	0.05200
Educlev2 (Education-Dummy, Primary=1, 0 Otherwise)	1.60309	0.58046	2.76*	0.00600
Marital3 (Marital Status-Dummy, Widowed=1, 0 Otherwise)	-1.81697	0.55471	-3.28*	0.00100
Logovc (Log of OVC Number)	2.21546	0.87774	2.52*	0.01200
Ovcsq (Log of OVC Number Squared)	-0.78097	0.39729	-1.97*	0.04900
Pseudo R2 = 0.2232 Log likelihood = -72.9535 No. of Observations = 170 LR chi2(9) = 41.9200				

*Statistically significant at the 5% level

As the pseudo R^2 indicates, the explanatory variables account for 22.3 percent of variations in the probability of reporting morbidity.

According to the estimation results, the effect of income is not statistically significant. This shows that the caregivers' monthly income level is not an important determinant of reporting morbidity by the OVC. However, the sign of coefficient is positive, showing that as caregivers' monthly income increases, the likelihood of the orphans to report morbidity increases.

The coefficient of cost/price variable is statistically significant. This implies that price is an important determinant of reporting OVC sickness. From the negative sign, we deduce that

an increase in the price of healthcare, other things being equal, means a reduction in the likelihood of reporting ill-health.

The effect of hospital distance is not statistically significant. This shows that distance is not an important determinant of reporting morbidity by the OVC. The sign of the coefficient is negative implying that the likelihood of OVC reporting sickness reduces with the hospital distance. The explanatory power of the hospital distance is however weak.

The coefficient of the sex of the caregiver is not statistically significant. This means that it is not an important determinant of reporting morbidity. The positive sign of the coefficient implies that if the caregiver is female, then the OVC are more likely to report morbidity. This is associated with the fact that women have different health care seeking behaviour from that of men.

The coefficient of illiteracy dummy is statistically significant. This means that it is an important determinant of OVC reporting sickness. The sign of coefficient implies that as the number of illiterate caregiver increases, the likelihood of the OVC reporting morbidity also increases. This may be explained by the assumption that caregivers have low levels of income and hence are more likely to provide inadequate and unbalanced food, keep OVC in unsafe environments making them more prone to ill health. Secondly these caregivers are less likely to provide adequate health care hence more frequent bouts of sickness of OVC may be reported.

Primary level of education exerts a strong positive effect on the likelihood of reporting morbidity. This means that primary level of education is a significant determinant of OVC reporting sickness. The positive sign shows that, as the number of caregivers with only primary level of education increases, the likelihood of the OVC reporting morbidity also increases. A possible explanation for this is that these caregivers can easily identify sickness and provide the needed health care and this motivates the OVC to report morbidity.

The coefficient of widowhood is statistically significant depicting that marital status is an important determinant of reporting morbidity. The sign of the coefficient is as expected showing that as the number of widowed caregivers increase, the logistic index of reporting sickness decreases. This shows that the probability of OVC reporting illness decreases as the widowed caregivers increases. This may be associated with the finding that some of the widowed caregivers have low income and some are sick themselves, having HIV Aids and are less likely to provide adequate healthcare to the orphans.

The coefficient of OVC number is statistically significant. This indicates that the number of orphans and vulnerable children in a household is an important determinant of reporting morbidity. The positive sign implies that as the number of OVC in a household increase, the logit index of reporting morbidity increases. This shows that, the probability of OVC reporting morbidity increases with their number.

The coefficient of OVC squared is statistically significant. This indicates that the number of orphans squared in a household is an important determinant of reporting morbidity. The negative sign implies that if the numbers of OVC in a household are squared, the logit index of reporting morbidity decreases and the probability of reporting sickness decreases.

8.3 Estimation Results: Binomial logit results for healthcare seeking behaviour

Table 8.4: The Probability of Seeking Treatment

(Dependent Variable =1, if the orphan sought health care and 0 otherwise)

Variables	Coefficient	Standard Error	Z-statistic	P>|z|
_cons (CONSTANT)	4.08448	1.77432	2.30	0.02100
Loginc3 (Log of Monthly Household Income)	1.85937	0.86218	2.16*	0.03100
Logcost (Log of Treatment Cost Per OVC)	-1.16181	0.27741	-4.19*	0.00000
Logdist (Log Of Distance)	-0.05451	0.28523	-0.19	0.84800
Sexd (Sex of Caregiver-Dummy, F=1, M=2)	0.62442	0 .43814	1.43	0.15400
Educlev1 (Education-Dummy, Illiteracy=1, 0 otherwise)	-0.23650	0.60747	-0.39	0.69700
Educlev2 (Education-Dummy, Primary=1, 0 otherwise)	0.43738	0.53976	0.81	0.41800
Marital3 (Marital Status-Dummy, Widowed=1, 0 Otherwise)	-0.77808	0.40738	-1.91	0.05600
Loghsize (Log of Household size)	0.91816	0.42366	2.17*	0.03000
Pseudo R2 = 0.1917 Log likelihood = - 88.7155 No. of Observations = 170 LR chi2(8) = 42.0800				

* Statistically significant at the 5% level

As the pseudo R^2 indicates, the explanatory variables account for 19.2 percent of variation in the probability of seeking health care.

The effect of the caregivers' monthly income level is statistically significant, implying that it is a major determinant of demand for healthcare by the OVC. It's positive sign shows that demand for treatment increases with the caregivers' monthly income.

The coefficient for treatment price is statistically significant. This means that price is a key factor in explaining the probability of OVC seeking healthcare. It has a negative sign as expected; therefore, holding other things constant, as the price of healthcare increases, its demand decreases.

The effect of distance is not statistically significant. Distance therefore, does not strongly explain the demand for health care. However, the negative sign shows that, as the hospital distance increases, the logit index decreases and the probability of seeking treatment decreases. Hence, distance discourages demand for healthcare.

The coefficient for sex dummy is not statistically significant. This means that the gender of the caregivers does not strongly explain the OVC health care seeking behaviour. The positive sign of coefficient shows that relative to male caregivers, female caregivers have a higher tendency to facilitate the provision of healthcare to orphans.

The coefficient for dummy for illiteracy is not statistically significant implying that it is not an important determinant of demand for healthcare. However the negative coefficient shows that as the number of illiterate caregivers increases the OVC seeking treatment decreases.

The coefficient of dummy for primary level of education is not statistically significant hence it is not a key explanatory variable of demand for healthcare. The positive sign indicates that as the number of caregivers whose level of education is primary increases the number of orphans seeking treatment increases.

The effect of the dummy for widowhood is statistically significant and exerts a strong negative effect on the probability of OVC seeking health care. It, therefore, strongly explains the OVC's demand for healthcare. The negative sign however, shows that as the number of widowed caregivers increases the logit index decreases, hence, the probability of seeking treatment decreases.

The coefficient of OVC number is statistically significant hence the number of orphans and vulnerable children in a household is a major factor influencing their demand for healthcare. The positive sign shows that the demand for treatment increases with the OVC number.

8.4 Summary of findings

The findings of this study show that the price of treatment, education level and marital status of the caregivers, the number of orphans per household are the main determinants of orphans' morbidity reporting. An increase in prices of health care services and the number of widowed caregivers will deter reporting of morbidity. Subsequently, as the number of orphans per household rises, morbidity reporting increases

The main determinants of orphans seeking treatment are household monthly income, treatment price, caregivers' marital status and the household size .An increase in monthly household income and household size will encourage the demand for the health care. On the other hand, an increase in treatment price and the number of widowed caregivers will reduce the demand for health care. This means that, for the orphans' probability of seeking care to increase substantially, emphasis should be placed on changing these factors.

CHAPTER NINE: CONCLUSIONS

9.0 Summary and policy implications

The orphans like other children have a right to be cared for. This study's main objective was to analyze four models of care for orphaned and vulnerable children that already exist in Kenya. However, the quality of care offered by these models was also studied. Based on the results of this study, a number of conclusions and recommendations can be made regarding the formulation of appropriate policy to address the needs of growing orphan population.

9.1 Quality of care and CEA

This section summarizes the quality and CEA of care parts of the study. The information is organized into four categories – the continuum of approaches to the care of OVC, the capacity of households to care for OVC, mobilizing communities to care for OVC and providing a safety net for OVC. Recommendations are made for improving the functioning of each type of care.

Continuum of approaches to the care and support f OVC. Given the spectrum of needs of OVC, it is clear that a multi-layered and integrated response to their care and support is required, involving households, communities, non-governmental and community-based organizations and the state.

This study confirms the conclusions of other investigations, namely, that the care-giving efforts of extended families and kinship networks be supported and strengthened, ensuring they have the necessary resources to care and protect OVC. The costing part of the study also confirmed the potential of community-based models of care to provide care at a significantly lower cost than residential-based models of care.

The study confirmed the need for alternative substitute care option such as residential care models, where extended family members are not willing or available to care, or where it is not in the best interest of the child to remain within the extended family. However, the

increasing demand for this type of care to cope with the growing number of abandoned HIV-positive OVC poses a serious challenge to the state.

The Department of Social Development to review the existing regulatory framework for the registration of organizations either supporting households in caring for OVC or providing a direct service to OVC. The review must address accountability and funding issues.

Secondly, service providers to identify, recognize and acknowledge the continuum of approaches to care and support and to explore ways in which partnerships and networks can be built between services so as to optimize the utilization of human and financial resources.

Strengthening the capacity of households to care to OVC. At the heart of all community-based responses lies the availability and willingness of households to take responsibility for the care of OVC. A recurring theme throughout this study shows how poverty, specifically lack of access to resources, weakens the capacity of the household to care for OVC. Currently, many households do not have access to the necessary financial or human resources to enable them to provide adequate care for their own children, let alone OVC. Because of the nature and extent of poverty in Kenya and the challenges facing government in delivering basic services, the burden of care currently falls primarily on households. This results, in many instances, in inadequate, poor quality care for OVC.

The Department of Education to ensure that children who cannot afford to pay school fees or a uniform are not denied access to an education secondly, the school fees bursaries should be given based on needs focusing on OVC as opposed to performance. These requires close monitoring of schools admission policies and practices as well as providing clear communication channels should a dispute arises.

The Department of Health to ensure that primary health care clinics are equipped with supplies required for home-based nursing care and that clinic personnel have a positive and accepting attitude towards home-based care programmes. The Government to implement

the policy on provision of anti-retroviral therapies in the government hospital both to children and adults. This will control opportunistic infections in both the HIV+ children and adults.

Mobilizing community support for the care of OVC. Stigma and discrimination of people living with AIDS poses one of the greatest threats to the successful scaling-up of community-based responses. HIV-positive mothers who are themselves rejected and unsupported, abandon their HIV-positive babies. For many of these abandoned children, residential care settings are the only option.

Government should promote positive images of caring for OVC and to acknowledge and recognize the vast numbers of volunteer workers throughout the country who devote time and energy to assist OVC.

Practical guidelines for community-based programmes to care for OVC to be developed encompassing the selection, training, supervision/nurturing of informal caregivers and care supporters; networking; financing; advocacy and community development.

Providing a comprehensive safety net. A comprehensive safety net is needed to identify and "pick-up" OVC who are in need of care, identify appropriate service providers and link children to these services, regulate and monitor the quality of care provided to these children, and track the progression of the child through the various systems of care.

There is limited information on the prevalence and incidence of OVC, which impedes proper planning. A comprehensive service provider database, which spans the continuum of approaches, is also lacking. In addition, the supervision and monitoring of childcare services are largely absent and where they exist tend to be ineffectual.

The Department of Social Development to compile a comprehensive database of service providers spanning the continuum of approaches. This database to be updated regularly and to be made freely available to the players in the OVC support field. Census data to be used to pinpoint areas of highest need.

And lastly, the Government should comprehensively review the Child Care Act using of the recommendations of the finding of the Task force on Human rights and HIV/AIDS, this findings and any other reports available in order to ensure that OVC's rights are protected.

9.3 Determinants of demand for health care

Price of health care was found to be an important determinant of demand for care. This means that if prices increase, the probability of seeking care decreases. To increase the OVC demand for health care the government should review the prices that orphans and children are charged or reverse its policy on cost sharing for orphans. Review of this policy in favour of OVC will increase the probability of orphans seeking healthcare.

There is also need to encourage the enrolment in schools. This has an impact on the OVC'S demand for health care. More educated caregivers appreciate more the existence of health care facilities. In pursuit of the goal of health for all, education has also to be emphasized. Ensuring that basic education is compulsory for all as well as encouraging adult education in Migori district could stimulate the demand for health for health care.

Increased household incomes will lead to increased probability of orphans seeking health care. Hence the government and orphan support organizations should incorporate poverty reduction strategies into their programs, aimed at stimulating demand for health care.

The government should increase the fight against HIV/AIDS as results to many remaining as widows /widowers this is because widowhood is a major determinant of demand for health, by the OVC.

9.4 Limitations of the study

This study may be limited by the differences in the primary goals of the organizations. Comparisons may be hindered as one of the sites selected provides care, which differ from others in fundamental terms. The home-based care for example; do not have OVC care as a primary goal. The OVC care is an offshoot of its focus in caring for the AIDS patients. The estimation of costs associated with OVC care is, thus, expected to be problematic.

9.5 Suggestions for further work

There is need for further research is this area, especially when services lacking financial value like the traditional caregivers' time, non-marketed resources like firewood and water etc are valued. This study only looked at services with market value. Such a study may give clear costs of care of orphan by the informal foster care model and a different CEA ratio for comparisons.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE FOR CAREGIVERS

Questionnaire No. _____ **Name of the Village** _____ *(Confidential)*

1. Age of caregiver _____years.
2. Sex a) female b) male
3. What is your marital status?
   a) Married (go to 7) b) Single c) Widowed d) Divorced
   e) Other (specify) _____
4. What is your educational level?
   a) Illiterate c) Secondary
   b) Primary d) College
   e) University
5. What is your source of income?
   a) Employment
   b) Business
   c) Subsistence farming
   d) Sugarcane farming
   e) Domestic work (informal employment)
   f) Mining
   g) Other (specify) _____
6. In what range does your monthly income in Kshs fall?
   a) Below 5000 c) 10001-15000
   b) 5001-10000 d) 15001and over
7. If married, what is your spouse's level of education?
   a) Illiterate b) Primary
   c) Secondary d) College
   e) University
8. What is your spouse's source of income?
   a) Employment
   b) Business
   c) Subsistence farming
   d) Domestic work (informal employment)
   e) Sugarcane farming
   f) Mining
   g) Other (specify) _____
9. What is the range of your spouse's income per month?
   a) Below 5000 c) 10001-15000
   b) 5001-10000 d) 15001and over
10. How many children (your own) do you have? _____
11. How many orphans live in your house? _____

Name of OVC	Age	Sex (Female/ Male)	In School? (Yes/No) Class	Relationship with caregiver
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

12. How long have you been taking care of them? _____

_____

13. Is every child you are staying with other than your own children orphaned?
    a) Yes b) No (indicate the number) _____
14. Approximately, how much money do you use in the house per month?
    a) Below 3000 c) 5001-8000 d) 8001-10000
    b) 3001-5000 e) 10001 and above
15. How much were you spending (per month) before taking the orphans?_____Kshs
16. Name the services .
    a) Adequate, balanced and frequent food
    b) Educational support
    a) Medical care
    b) Clothing
    c) Psychological
    d) Safe-life skills education
    e) Parental love and care
    f) Time for playing
    g) Understanding
    h) Other (specify) _____
17. Are all school age orphans attending school?
    a) Yes b) No c) Some
18. If (16) is yes / some, indicate the cost of the following per year / term.

Service Type	**Costs in Shillings**
a) Education I) school levies/fees	_____
ii) Uniform	_____
iii) Books	_____

19. How far is the nearest school that the children attend?
    1. Nearest primary school _____KM
    2. Nearest secondary school _____ KM

20. Please indicate the quantities and the cost of the items that your family consumes per month.

Items Type	**Cost in Shillings**
Food	
I) Maize/millet	_____
ii) Beans	_____
iii) Meat	_____
iv) Fish	_____
v) Oils and fats	_____
vi) Vegetables and fruits	_____
vii) Cassava and potatoes	_____
viii) Sugar	_____
ix) Beverage	_____
x) Chicken	_____
xi) Eggs	_____
xii) Milk	_____
a) Fuel	
a) Paraffin	_____
b) Charcoal	_____
c) Firewood	_____
d) **Soap**	_____
e) **Clothing for children**	_____

21. What problems do you encounter?
   a) Orphans commitment and respect to you
   b) Correcting OVC when thy make mistakes
   c) Time you can be present at home
   d) Recovery of orphans after death of parents
   e) Children assisting with household work
   f) Discussing issues of HIV/AIDS and sexuality with orphans
   g) Congestion in the house
   h) Financial constraints
   i) Other (specify) _____

22. How do you address the problems in (20) above?
   a) I use my family's and own resources
   b) I receive support from
      1) LRCDP (go to 22)
      2) Sony HBC (go to 22)
      3) Other (specify) _____
   c) The orphans work and bring income

23. Please indicate the type and the costs of the services you receive from the organization per month.

Service Type	Cost in Kenya Shillings
a) Food	_____
b) School levies	_____
c) Uniform	_____
d) Books	_____
e) Clothing	_____
f) Medical care	_____
g) Home visits	_____
h) Psychological support	_____
i) Other (specify)	_____

24. Was any of the children sick over the past four weeks?
    a) Yes b) No
25. If (23) is yes, how many?
26 Were they all treated? A) Yes b) No (go to 29)
27. Kindly indicate the type of clinic in which the last one was treated
    a) Government hospital
    b) Missionary hospital
    c) Orphan care facility
    d) Private hospital
    e) Other (specify) _____
28. What was the cost of treatment? _____ Shillings.
29.How far do you live from the hospital?
30. Kindly indicate the reason why they were not able to receive healthcare. _____
_____
31. Name four orphan care services that are most important to you.
_____
_____
32. What is your rating of the services provided to you by OVC facilities / organizations?
    a) Excellent
    b) Good
    c) Bad
33. What is the name and type of OVC facility that supports you? _____
34. What are the major challenges you face in orphan care? _____
_____
35. How best can these challenges be addressed? _____
_____
_____
_____

36 Any other suggestion that you may want to let orphan support organizations and the government to know? _____
_____
_____
_____

THANKS FOR GIVING ME YOUR TIME.

APPENDIX 2: QUESTIONNAIRE FOR ORPHANS.

Questionnaire No. ____ Name of the OVC facility / village _____(Confidential)

1. Age _____years.
2. Sex a) Female b) Male
3. Have you lost any of your parents?

   a) Yes b) No
4. If (3) is yes, which one and in which year?

   a) Mother _____ year _____

   b) Father _____year _____
5. Please indicate the number of siblings, their ages, sex, level of education and where they stay

Name of orphan	Age (years)	Sex Female/ Male	Education (class/ form)	Where they stay
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

6. What are the problems that you experience as an orphan?

a) Inadequate, irregular and unbalanced food
b) Lack of parental love
c) Physical and verbal abuse
d) Too much household work
e) Lack of friends
f) No time to play
g) Psychological stress
h) Lack of change of clothes
i) Congested Shelter
j) Inadequate healthcare
k) Irregular school attendance
l) Other (specify) _____

7. How do you cope with the above-mentioned problems?

(i) Only the caregiver provides help

(ii) We receive support from a) LRCDP
b) Sony HBC
c) Other (specify) _____

_____

9 What are the services provided to you by the caregivers?

a) Adequate, balanced and frequent food
b) Educational support
c) Medical care
d) Clothing
e) Psychological
f) Safe-life skills education
g) Parental love and care
h) Time for playing
i) Understanding
j) Other (specify) _____

10. Have you been sick over the past four weeks?

a) Yes b) No

11. If (10) is yes, have you sought / received treatment?

a) Yes b) No (go to 14)

12. If (11) is yes; name the type of healthcare giver

a) Government hospital
b) Mission hospital
c) Private hospital
d) Community health workers
e) Other (specify) _____

13. What is the distance between the healthcare provider and your OVC facility?

_____

14. Why were you unable to seek health care?

a) No one to take you to hospital
b) The hospital is too far away
c) The caregiver didn't allow you to go to hospital
d) Other (specify) _____

15. Are you currently enrolled in school?

a) Yes b) No (go to 19)

16 If (15) is yes name the type of school

a) Government
b) Private
c) Missionary
d) Other (specify) _____

17. In which class are you?

a) Standard _____ b) Form _____

18. How far is the school from your OVC facility? _____ KM

19. Indicate the reasons why you are not going to school.

a) Unfriendly school environment
b) Too much work to do at home
c) Denied the chance by the caregiver
d) Left school before parent's death
e) Generating income for the family
f) The school is to far
g) Lost interest in school work
h) Dropped out due to pregnancy
i) Finished secondary
j) Lack of school fees
k) Other (specify) _____

20. How can you rate the services provided to you?

a) Excellent
b) Good
c) Bad.

21. What are the major challenges you face as an orphan?

_____

22. How best can these challenges be addressed? _____

_____

_____

23. Any other suggestion or recommendation that you may want let us know?

_____

_____

THANKS FOR GIVING ME YOUR TIM E.

APPENDIX 3: INTERVIEW GUIDES FOR THE ORGANIZATIONS

(Home-based, Institutional-based and Community based care Models).

Name of the facility _____ *(Confidential)*

1. Indicate whether the your OVC facility is
   a) Community -Based
   b) Institutional - Based
   c) Home- Based.
2. In which year was it started? _____
3. Is the facility registered with the Ministry of Social Services?
   a) Yes
   b) No
4. If (4) is yes, when was it registered?
5. Who runs this facility?
   a) The community
   b) The church
   c) Non-government organization
   d) Other (specify) _____
6. How long has the facility been operating?
7. What kind of an organization structure do you have?
   a) Employees
   b) Management committee
   c) Board of Governors
   d) Board of management
   e) Volunteers
   f) Other (specify) _____
8. What was the initial objective of the facility?
   a) Orphan care and support
   b) Self-help group
   c) Care and support of terminally ill/HIV/AIDS patients
   d) Other (specify) _____

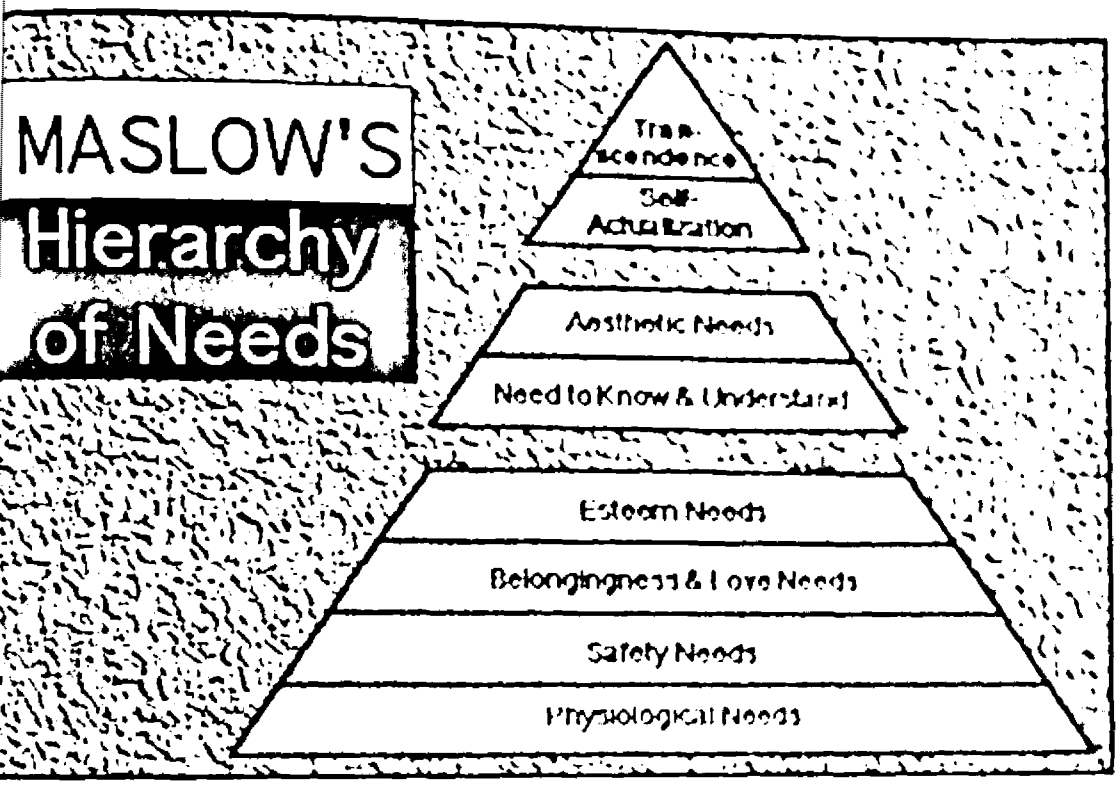
9. If (8) was not (a), what prompted the present orphan care and support?
10. How many OVC care units (families) does the facility support?
11. How many OVC does the facility support?
12. In which year did the facility start supporting OVC?
13. What age group does it support?
14. How are the OVC identified and admitted? _____

_____

15. What type of support services do you provide to the orphans?
    a) Educational support
    b) Food and nutritional support
    c) Health care
    d) Shelter
    e) Clothing
    f) Psychological support
    g) Recreation activities
    h) Safe-life skills
    i) Other (specify) _____
16. How are the OVC needs identified?
17. How do you ensure that the services you provide meet the target OVC needs?
18. Is a standard level of care expected for OVC?
19. Do you have any partners? If yes, what type of support do you receive from them?
20. What was the cost of setting up the facility?
21. What has been the cost of running the facility per month since the facility started?
22. What have been your major achievements in OVC care and support?
23. What are the challenges that you face in providing support and care to OVC?
24. How best can they be addressed?
25. Any other suggestions or recommendations that you may want to let me know?

THANKS VERY MUCH FOR YOUR TIME.

ENDIX 4: MASLOW'S HIERACHY OF NEEDS



hin the deficiency needs, each lower need must be met before moving to the next
her level. Once each of these needs has been satisfied, if at some future time a
iciency is detected, the individual will act to remove the deficiency. The eight levels
:

1) *Physiological:* hunger, thirst, bodily comforts, etc.

2) *Safety/security:* out of danger;

3) *Belongingness and Love:* affiliate with others, be accepted, and

4) Esteem: to achieve, be competent, gain approval and recognition

5) *Cognitive:* to know, to understand, and explore,

6) *Aesthetic:* symmetry, order, and beauty,

7) *Self-actualization*: to find self-fulfillment and realize one's potential, and

8) *Self-transcendence*: to connect to something beyond the ego or to help others find self-fulfillment and realize their potential

APPENDIX 5: COMMON DEVELOPMENTAL NEEDS AND RIGHTS OF CHILDREN

RIGHT/NEED	*MANIFESTATION OF REALIZED RIGHTS SATISFIERS*	*RIGHTS AT RISK & IMPLICATIONS OF IMPAIRED NEED SATISFACTION*
SURVIVAL		
Subsistence Survival as a human being	Adequate nutritious food, Secure dwelling, Appropriate clothes, Accessible health care, Social security	Malnutrition and stunted growth High mortality and morbidity rate Common disabilities not prevented
SECURITY		
Protection From exploitation, abuse and neglect	A caregiver who knows the child's whereabouts and protects the child's rights Consistent and healthy discipline Familiar place and known routine Law and law enforcement	Troubled and disturbed children Dysfunctional families Homeless children Children live in harmful environments
Love *Affection*	Stable, continuous, dependable and loving relationships Unconditional love Friendships Intimacy	Lack of concern for others and lack of conscience are probable reactions to being unloved and rejected Vandalism, violence and delinquency are not infrequently an outward expression of these feelings and of the need for love
SOCIALIZATION		
Identity Uniqueness as person Sense of personal continuity	Name and kinship Customs and traditions Memories and knowledge of personal and family origin Sense of future and direction	Sense of alienation Apathy Low self esteem Lack of direction
Understanding Insight, direction and knowledge	Information Positive communication Schooling/education Cultural guidance Mentoring	Illiteracy and poor employment prospects Ill-informed Disempowered Lack of self direction

Participation Valued as a contributor to society, Considered a person with own rights	Community, neighbourhood and cultural activities Discussions involving children Positive communication Opportunities to exercise responsibility Equality of opportunity	Isolation Lack of concern and respect for communal good Lack of confidence in tackling new situations, tasks or relationships Lack of sense of responsibility for self, others and material objects
SELF-ACTUALIZATION		
Recreation/ Leisure New experiences	Time and space to play Stimulation Recreational facilities	Inertia and apathy Low morale Unresponsive to environmental stimuli
Freedom of expression Expression as individual	Flexibility/space for children's exploration and expression of different views Opportunities to exercise independence and to explore thoughts, views, ways of doing things and philosophies	Disempowerment Voicelessness Apathy Stereotypical views

(Drawn from Max-Neef, 1991 and Pringle, 1980)

APPENDIX 6: ESSENTIAL ELEMENTS FOR REALIZING OVC RIGHTS

SURVIVAL
Food
• Nutritious and balanced diet with 3 meals a day as an absolute minimum • Involve children in the preparation and choice of food
Clothing
• At least one change of clothing that offer protection against the weather • Nappies
Home environment
• Shelter against the weather • Protection against environmental hazards, pests and intruders • A personal and safe sleeping space • Cleanliness and spare bedding
Hygiene/infection control
• Positive personal hygiene practices • Use of universal precaution guidelines where there is risk of infection • Access to water and sanitation
Treatment and health care
• Full immunization and access to basic treatment and health care • Reliable caregiver to administer medicines, and home remedies
SECURITY
Protection
• Protection from abuse, neglect and exploitation. • Protection against discrimination, and stigmatization. • Acceptance of the HIV positive child. • Arrangements to be made for the care of the child before the parent dies, including drawing up of a will / expressed wish nominating a legal guardian for the child and stipulating the child's inheritance. • A caring, constant and reliable adult presence with whom the child can disclose abuse, and who can access help for the child. • Healthy discipline practices including setting rules and limits
Affection
• A caring, constant and reliable adult presence who offers security and continuity and with whom the child can communicate openly. • The adult caregiver to have a positive communication style which includes "being there" for the child, taking time to listen, and communicating at the child's level.

)CIALISATION

entity

- Birth registration. Retention and respect for the child's name, kinship and identity
- Captured memories for the child such as photos, artifacts, details of significant others and cultural connections.
- Acknowledgement of the individuality of the child, for example celebration of birthdays

lucation/Schooling

- Free and accessible primary and secondary education.
- Advocacy for and protection of children's rights to free schooling.
- Time to go to school and time and space to do homework
- An adult caregiver or older child to be available to do homework with the child.
- Entrepreneurship skills to increase capacity for self-sufficiency.

ticipation

- Children to contribute to their own care plans, their views are to be sought and listened to.
- Children are given opportunities to participate in all decisions affecting their lives.
- Children to participate in social, cultural and kinship activities and occasions.

rstanding, Information and Communication

Training for children in basic survival skills and life skills

Caregivers to communicate, at least on a basic level, with children in the language of their community of origin

Information and open communication with children about their own health status if HIV positive.

Information and open communication with children on health issues, including sexuality and relationships.

ling/supportive services

Support and guidance for children who are experiencing social and emotional difficulties.

Where caregivers are unable to do this, to access appropriate assistance.

Communicate openly with children about death, of a parent, family member, friend or their own death and provide emotional and spiritual support.

Caregivers need to understand implications of loss and children's expression of grief.

CTUALISATION

n/Idleness

lance between household chores, recreation and leisure time

ne to play and to be children

creational opportunities with peers

f Expression

e and opportunities for children to question and discuss values, ethics and als.

e and opportunities for children to be able to freely seek information and ess their ideas

PALLIATIVE CARE
• A caring presence and pain relief during the transitional phase • Acknowledgement of death to children • Provision of opportunities for closure when a child, parent, family member or friend dies. • After-death services including transport of body to mortuary and a dignified burial

(Drawn from Voysey and Wilson, 2001)

APPENDIX TABLE 1: COSTS USED FOR GRACE OUTREACH

Line items	*Monthly project cost (Kshs)*	*OVC number*	*Cost per childcare month*	*Adjusted cost per month*	*Adjusted cost per childcare month*
Fixed costs					
Buildings	12500.00	21	595.24	10330.58	491.93
Furniture	4166.66	21	198.41	3443.52	163.98
Vehicle	14166.65	21	674.60	11707.98	557.52
Bore hole and cisterns	888.88	21	42.33	734.61	34.98
Dairy unit	1249.99	21	59.52	1033.05	49.19
Total fixed costs	**32972.18**		**1570.10**		**1297.61**
Variable costs					
Salaries and wages	10000.00	21	476.19	8264.46	393.55
Administrative costs	10000.00	21	476.19	8264.46	393.55
Postage and communication	5000.00	21	238.10	4132.23	196.77
Medical care	10000.00	21	476.19	8264.46	393.55
Insurance and service	8333.33	21	396.83	6559.10	312.34
Fuel and electricity	13000.00	21	619.05	10743.80	511.61
Water	3000.00	21	142.86	2479.34	118.06
Education	4500.00	21	214.29	3719.01	177.10
Clothing, laundry and toys	4200.00	21	200.00	3471.07	165.29
Food and nutrition	20000.00	21	952.38	16528.93	787.09
Cleaning materials	3000.00	21	142.86	2479.34	118.06
Total variable costs	**91033.33**		**4334.92**		**3566.96**
Total costs	**124005.51**		**5905.02**		**4864.57**

APPENDIX TABLE 2: COSTS USED FOR SONY HBC

Line items	*Monthly project cost (Kshs)*	*% Of OVC time and resources*	*Monthly OVC project cost*	*OVC number*	*Cost per childcare month*	*Monthly adjusted OVC project cost*	*Adjusted Cost per childcare month*
Fixed costs							
Motor cycle	11666.65	25	2916.66	140	20.83	2311.36	16.51
Bicycles	3333.31	25	833.33	140	5.92	189.39	1.35
Total Fixed costs	**14999.96**		**3749.99**		**26.75**	**2500.75**	**17.86**
Variable costs							
Salaries and wages	52708.33	25	13177.08	140	94.12	10442.40	74.59
Professional services	7697.92	25	1924.48	140	13.75	1525.09	10.89
Administrative costs	33565.52	25	8391.38	140	59.94	6649.89	47.50
Assessments	2761.67	25	690.42	140	4.93	547.13	3.91
Training	30445.83	25	7611.46	140	54.37	6031.82	43.08
Patient support	57958.33	25	14489.58	140	103.50	11482.51	82.02
Group activities	5833.33	25	1458.33	140	10.42	1155.68	8.25
IEC materials	7635.42	25	1908.85	140	13.63	1512.70	10.81
Exchange visits	8093.75	25	2023.44	140	14.45	1603.51	11.45
Project evaluation	5430.83	25	1357.71	140	9.70	1075.94	7.69
Total Variable costs	**212130.94**		**53032.73**		**378.81**	**42026.66**	**300.19**
Total costs	**227,130.90**		**56,782.72**		**405.56**	**44527.41**	**318.05**

APPENDIX TABLE 3: COSTS USED FOR LRCDP

Line items	*Monthly project cost (Kshs)*	*OVC number*	*Cost per childcare month*	*Adjusted cost per month*	*Adjusted cost per childcare month*
Motorbike	5833.33	500	11.67	4820.92	9.64
Furniture	291.66	500	0.58	241.04	0.48
Generator	277.77	500	0.56	229.56	0.46
Bicycles	1111.08	500	2.22	918.25	1.84
Total fixed costs			**15.03**	**6209.77**	**12.42**
Variable costs					
Salaries and wages	52960.00	500	105.92	43768.60	87.54
Office expenses	7203.33	500	14.41	5953.17	11.91
Transport	4413.33	500	8.83	3647.38	7.29
Trainings	4166.67	500	8.33	3443.53	6.89
Insurance	1944.44	500	3.89	1606.98	3.21
Fuel and maintenance	4620.00	500	9.24	3818.18	7.64
Client support	22066.67	500	44.13	18236.91	36.47
Education support	16090.28	500	32.18	13297.75	26.60
Recreation	4722.22	500	9.44	3902.66	7.81
Clothing	7708.33	500	15.42	6370.52	12.74
Food support	14666.67	500	29.33	12121.21	24.24
IGA support	9722.22	500	19.44	8034.89	16.07
Other variable costs	9845.56	500	19.69	8136.82	16.27
Total variable costs			**320.26**		**264.68**
Total costs			**335.29**		**277.10**