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SOCIO-ECONOMIC EFFECTS OF HIV/AIDS ON HOUSEHOLD FOOD SECURITY IN RANGWE SUB COUNTY, HOMA-BAY COUNTY, KENYA

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Abstract.

Throughout history, few crises have presented such a threat to human health, social life as well as economic progress as does the HIV/AIDS epidemic. This is even more troubling given the realization that much of the suffering and destitution caused by the disease could have been presented. Hopefully, with concerted action lives can still be saved, suffering reduced and the impoverishment that often accompanies this disease minimized. Still, the global HIV/AIDS epidemic will have widespread adverse effects on social and economic development for years to come.In Kenya, the high level of food insecurity is related to poverty and a reduction in agricultural production. HIV/AIDS reduces a household's ability to produce and purchase food. Adults with HIV/AIDS are less able to work on their land or earn income from other livelihood activities. Increased healthcare costs decrease household food purchasing power and the coping mechanisms reduce household resilience. Kenya National HIV/AIDS Strategic Plan 2005/6-2009/10 has recommended for impacts studies of HIV/AIDS on the society as a basis of addressing them. This study was aimed at contributing to this purpose. In Rangwe sub County, perennial food insecurity has led to reliance on relief food for many years with average food production falling below the expected rates by 33%. HIV/AIDS prevalence in this area is 6.9% hence the need to establish the relationship between HIV/AIDS and food insecurity. The main objective of this study was to investigate the socioeconomic effects of HIV/AIDS burden on

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household food security in Rangwe Sub County. This was a descriptive survey design covering some parts of Rangwe Sub County. A sample size of 383 households, both affected and non-affected was randomly selected from the four location of Rangwe sub County. Research tools used included structured interview guides administered to the households, 20 key informants' interviews done to community leaders, and 7 focused group discussions conducted among 40 Community Health Workers. A combination of these enabled the collection of information on the households' HIV/AIDS status, food security and nutrition security. Data entry and analysis was done using SPSS Version 11.50. Households that were directly affected by HIV/AIDS formed 32.1% of 383 while those not affected formed 67.9%. Only 13.3% of the households that were directly affected by HIV/AIDS were food secure as opposed to 76.4% of the unaffected households. A higher proportion (86.7%) of the households affected directly by HIV/AIDS was found to be food insecure as compared to the 23.6% of those that were not affected. A significant relationship was established between household HIV/AIDS status and food security, AIDS – related chronic illness and food security, AIDS related death of a household member and food security as well as fostering AIDS orphans and food security. This study concludes that HIV/AIDS affected food security due to reduced labour and asset base erosion among others.

Key words: Effects, HIV/AIDS, Household, and Food Security.

Introduction

The main objective of this study was to investigate the effects of HIV/AIDS burden on household food security in Rangwe Sub County.

HIV/AIDS is a global pandemic that has threatened the very existence of the human race. In most countries the epidemic did not occur until the 1980's. At present there is no country in the world without HIV/AIDS cases (WHO 1995). It is estimated that in 2007, of the 330 million PLWHIV/AIDS, 22.0 million of them lived in Sub-Saharan Africa (UNAIDS, 2008). The earliest documented case of AIDS in Sub-Saharan Africa appears to have been in 1981, (Biggar and Aggius, 1987). The elusive nature of the disease and its re-occurrence has created a demand for increased research in the area of food security. The sub-Saharan African continent is said to hold the vast majority of the population with HIV and AIDS.

The FAO (1997) states that the results and findings of FAO's activitiescarried out in eastern Africa reveal that the impact of HIV/AIDS on agricultural production systems and rural livelihood cannot be generalized, even within one country, and must be disaggregated into spatial and temporal dimensions. Studies conducted in Uganda, the United Republic of Tanzania and Zambia have shown that HIV/AIDS follows a different pattern in each village and district. Geographic and ethnic factors, religion, gender, age, marriage customs and agro ecological conditions play a role in the pattern and impact of HIV/AIDS and in people's perception of the disease

According to Ministry of Health (MOH, Kenya 2001) 2.2 million Kenyans are now living with HIV/AIDS infection, but few know whether they are infected or show outward symptoms of the diseases. Only above 200,000 have AIDS. The prevalence of HIV infection is the percentage of people living with HIV and AIDS (PLWHIVAIDS).

Since Kenya recognized its first HIV case in 1984, the universe knowledge about the epidemic has continuously expanded providing national decision makers with a challenge of the overgrowing population that has led to lack of foundation for evidence informed strategies on HIV and AIDS. Although major progress has been achieved in Kenya's response to HIV, the epidemic remains one of the country's greatest health and development challenges. Moreover, the epidemic continues to evolve presenting both new challenges and new opportunities as Kenya look in to the future (UNAIDS 2012).

Nearly three decades into the national HIV response, there is substantial good news to report. The first-ever comprehensive update of the HIV and AIDS epidemic in Kenya summarizes the progress achieved over the last decade. The rate of new infections has fallen by 40 percent, 69percentage of HIV positive pregnant women received drug prophylaxis to prevent transmission of their infants in 2011, and antiretroviral therapy reached 83percent of all adults who were medically eligible (WHO, 1997).

According to NASCOP (2005) Kenya is still faced with an increasing problem from HIV infection and the vulnerability of the youth is a key concern. Although HIV occurs in all social

and economic classes, much research has concentrated on disadvantaged and deprived communities, leaving out youth.

Problem statement

The need to carry out this study baseson anthropological approach to human life where it is seen as one whole consisting of different aspects that are all inter-related. These aspects include economic, social, political and belief systems, physical environment and human behaviour. None of them may be considered entirely on its own or in isolation to others, as they all affect and depend on one another. HIV/AIDS is mostly contracted and transmitted because of human behaviour, but its effects on the health cause reduced economic productivity while at the same time straining the family resources, resulting in household food insecurity.

It has been demonstrated that (32.4%) of the population depends on farming as their main source of livelihood with a further 9.9% combining it with casual labour. In terms of source of food, 38.5% of the study population relied on farming alone, 43.9% combined farming and buying food. This forms 82.4% of the population, whose main source of food is farming, qualifying it as the backbone of food security in Rangwe. This is no wonder, as 70% of African populations are known to engage in agriculture (Liere, 2002). This implies that any interference with people's ability to engage in agricultural activities would have a direct impact on the area's food security and ultimately their health

Food insecurity has been a major setback to development in Rangwe sub- County for decades. The majority and the most active people in agricultural production are youth whose years are between18-49. It is notable that it is the same age bracket which is vulnerable to HIV infection.
Ideally, land in Rangwe is considerably fertile and favorable for agriculture. However, food insecurity is still reported. If this continues then Rangwe population stand a risk of not affording food which is a fundamental basic human need.

There are no studies that the researcher is aware of that have addressed the socioeconomic effects of HIV/AIDS on household food security in Rangwe. This study, therefore tried to establish whether the HIV/AIDS burden affects food availability in households affected directly.

Research objective

To compare the food security status between HIV/AIDS affected households and those which are not affected

Effects of HIV/AIDS on Individual's Nutrition

In infected individuals, HIV contributes to, and is affected by nutritional status. Consequences of HIV infection include inability to absorb nutrients from food, changes in metabolism and reduction of food intake due to HIV related symptoms (MOH, 2006). People living with HIV/AIDS have increased nutritional requirements: up to 50% greater for protein and 15% for energy (MOH, 2006). AIDS strains already meager diets and pushes many into a vicious circle: failure to maintain nutritional status weakens immunity and increases susceptibility to opportunistic infection, which in turn undermine nutritional status. People suffering from AIDS – linked illness have reduced capacity to participate in productive activities such as farming and office duties (Gillespie, 2003). Poor nutrition increases the vulnerability to the severity of, opportunistic infection as well as reducing medication efficacy and adherence, and can the progression of the disease. This progression of the disease and the worsening nutritional status reinforce each other in a series of unforeseen health complications that leads to death (Loevinsohn & Gillespie,2003)

Direct Impact on Household Food Security.

HIV/AIDS possess a direct threat to household food security as it affects the most productive household members. When a member is sick, the household not only has to struggle without his labor inputs, but also with the loss of labor from those who have to attend to the sick. A series of unpredictable economic, social and emotional problems of the household begins when the first adult in a household falls sick (Piot, 2002). There is increased spending for health care, decreased productivity and high demands for care, thus affecting food security. Once savings reduce, the families seek support from relatives, borrow money or sell productive assets. One study in Uganda show that 65% of the AIDS affected households were obliged to sell property to pay for medical care, (Government of Uganda, 2003).

Effects of HIV/AIDS on Food Production

According to Bonnard (2003), food security prevails when all people atall times have both physical and economical access to sufficient food to meet their dietary needs for a productive and healthy life. Food security has three distinct variables: food availability measured by food production and food supply; food access measured by the level of income; and food utilization measured by nutrition, health and care giving. In this study, a household was considered to be food secure if it had access to food either because it produced enough food for its consumption or if it had sufficient income to purchase it. A shift in spending on food items to spending on non-food items such as funerals and hospital bills may be a threat to food security. Similarly, a reduction in household income may threaten the household's purchasing power and thus its food security.

According to O'Donnell (2004), the impact of HIV/AIDS on households can be the result of chronic illness, the death of a household member, or having to support orphans as a result of a death. Chronic illness of an adult member may lead to loss of income and loss of outputs from agricultural activity – a double loss because the sick person is unable to work and because household members have to spend time caring for the sick person. This can make households food insecure, and on top of this there is need for further expenditure on health care, which may mean reducing the expenditure on food, or selling off assets for cash. The death of an adult household member may have a variety of effects: the member's contribution to agricultural production and income is permanently lost, there are immediate costs because of the funeral and loss of assets, and there may be orphans to support. In the case of households hosting orphans, there is no clear pattern of effects, since wealthy households may take in orphans without affecting their own food security (O'Donnell, 2004).

HIV/AIDS can no longer be considered only a human health phenomenon; it is also a social, economic and institutional problem. A livelihood analysis by Gillespie *et al*. (2001) of the links between HIV/AIDS and food security shows that the impact is systematic and affects all aspects of rural livelihoods. Whilst drought has been more pronounced as the cause of food insecurity, affecting nutrition and agricultural production in many developing countries, the pandemic

has exacerbated the situation through its systematic impact. Gillespie *et al*. (2001) state that where the prevalence of HIV/AIDS is high it affectsall dimensions of food security– the availability, stability, access and useof food. The pandemic systematically increases food insecurity byaffecting the family's ability to produce food, because productive and

skilled members of a household have become ill or died, making the household unable to cultivate land, and its ability to buy food, because members can no longer continue working, hence there is no income, or income is diverted to care for the sick. The SADC/FANR VAC (2003) examined the impact of HIV/AIDS proxy variables on household incomes and expenditure that directly affect household access to food. The study revealed that in Malawi,

while households with chronically ill adults received 4% less incomethan those without chronically ill adults, in the case of households with two chronically ill adults the decrease was as much as 66%. Using a variety of approaches to examine the potential impact of HIV/AIDS on food access, the study looked at the household purchasing power and expenditure patterns. It was observed that households with an infected person or that have recently experienced death have increased expenditures on non-food items such as health care, transport andfunerals. Finally, it was observed that the combined effect of reduced income and increased expenditure on non-food items means less economic access to food. In Zambia, for instance, the study found that households that had experienced death or illness of an adult member reduced their expenditure by 67%.

The fall in productivity and competitiveness results in decreased employments and local economic spin-offs. Thus, at macro level, HIV can affect healthy people's livelihoods, as some economic activities may no longer remain viable.This impacts negatively on economic production and consequently, food security.

HIV/AIDS poses a direct threat to household food security as it affects the most productive household members. When a person is sick the household not only has to manage without their labour inputs but with the loss of labour from those who have to care for the sick. AIDS is characterized by recurrent periods of sickness, and so loss of labour, which eventually erodes

agricultural production and food security. Much of rural agricultural production is highly labour dependent and often labour demands are concentrated in specific periods of the year. For instance, sickness or funeral attendance may mean that the planting season is missed and with it, a full crop.

Situation in Rangwe Sub-County

Some of the major challenges to development in Rangwe sub county are HIV/AIDS and poverty, characterized by food insecurity. Though there is little reliance on famine relief food by 27.2% of the sub county population to top-up the little produce, (MOH, 2003). Consequently, the low food production is an indicator of perennial food insecurity. The county poverty assessment report shows that Rangwe is one of the hardest hit areas with 60% poor; the most affected being young orphans, old people, children and women, (NASCOP, 2008). Its effects in the sub county have been identified as increased workload for the family members caring for the sick, reduced family income, increased family stress, poor work performance leading to reduced production, and increased poverty and expenditure due to reduced production.

Various strategies are in place to fight food insecurity at community level unfortunately, the effect of HIV/AIDS has not been addressed. HIV/AIDS is no longer exclusively health sector issues but rather, cuts across all sectors (O'Rourke, 2005; Smith, 2005). Its effects in Rangwe Sub County have been identified as increased workload for the family members caring for the sick, reduced family income, increased family stress, poor work performance leading to reduced production, increased poverty due to reduced production and increased expenditures.

There was need to find out whether HIV/AIDS also affects food security, and how this happened.

RESEARCH DESIGN AND METHODOLOGY

Research design

The research design refers to the overall strategy that a researcher chooses to integrate the different components of the study in a coherent and logical way, thereby, ensuring the research

problem is addressed; this constitutes the blueprint for the collection, measurement and the analysis of data. (Labare, 2009)

The researcher, in this case, used a descriptive research design to obtain information concerning the current status of the phenomena of Rangwe sub county and to describe what exists with respect to household food security and other related food conditions in that situation. Food security of household directly affected by HIV/AIDS was compared with those not affected

Sample and sampling Techniques

According to UNESCO(2005) a sample is a smaller and more accessible sub set of a population that adequately represents the overall group, thus enabling an accurate(within acceptable limits) picture of the population as a whole, with respect to particular aspects of interests of the study. Random sampling was used to select respondents from the four wards of Rangwesub county. Namely Gem East, Gem West, Kagan and Kochia Wards. Households were selected randomly from each Ward thus selected. Structured interview guides were administered to all the randomly selected households to obtain data on their HIV/AIDS and food security status. At least one Community Health Worker (CHW) accompanied the researcher in all households visited.

A sample size of 383 households, both affected and non-affected were randomly selected from the four location of the sub-county. Research tools used were structured interview guides administered to the households, 20 key informants' interviews done to community leaders, structured questionnaires and 7 focused group discussions conducted among 40 Community Health Workers. A combination of these enabled the collection of information on the households' HIV/AIDS status, food security and nutrition security.

Demographic information

Family Size

The findings of this study showed that the family size ranged from 2 to 12 members with 59 of the families having an average of 4 members**(**table1)

No.of family members	Frequency	Percentage
2	21	5.6

3	45	12.0
4	59	15.8
5	58	15.5
6	56	15.0
7	53	14.2
8	35	9.4
9	20	5.3
10	27	7.2
Total	374	100.0

Table 1: family size

There was a total of 1225 females in the study, forming 57.8% of the population studied. The males were 931, forming 43.2% of the study population

Food security

In the study, food security was determined using a combination of three variables. Namely;

- Level of food production
- Food anxiety checklist
- Number of meals taken in a household in a day

Level of food production

The household heads were asked to indicate the amount of maize produced in the last three consecutive seasons. The average was computed and considered as their level of production. Maize production was used to analyze level of food production as it is the main food crop grown in the area. The findings have been summarized in figure below.

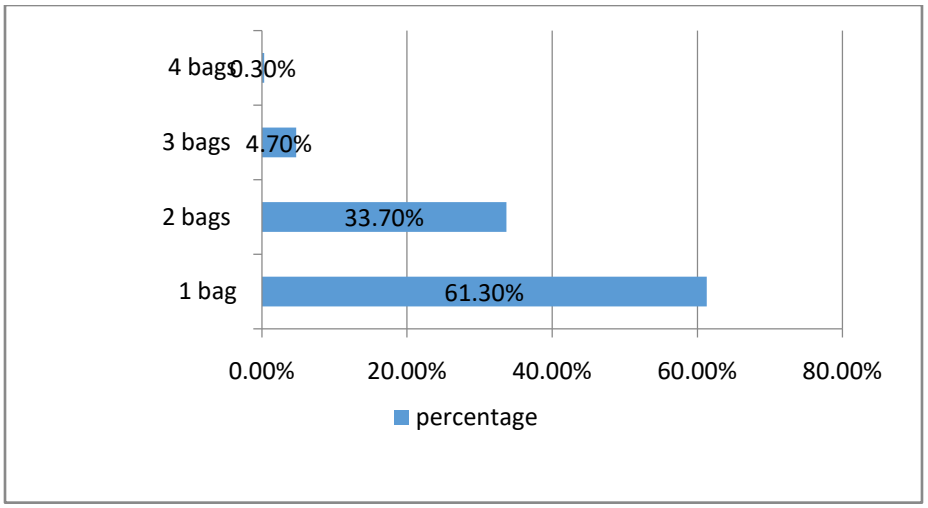

Figure 1: Level of food production

Number of meals per Day

In analyzing data on the number of meals consumed per day, households were categorized as either having one, two, or three meals per day. This is indicated in figure 4.9, 240(64.2%) of the household had the required three meals per day, while 112 (29.9%) had two. The rest 22(5.9%) had one meal per day.

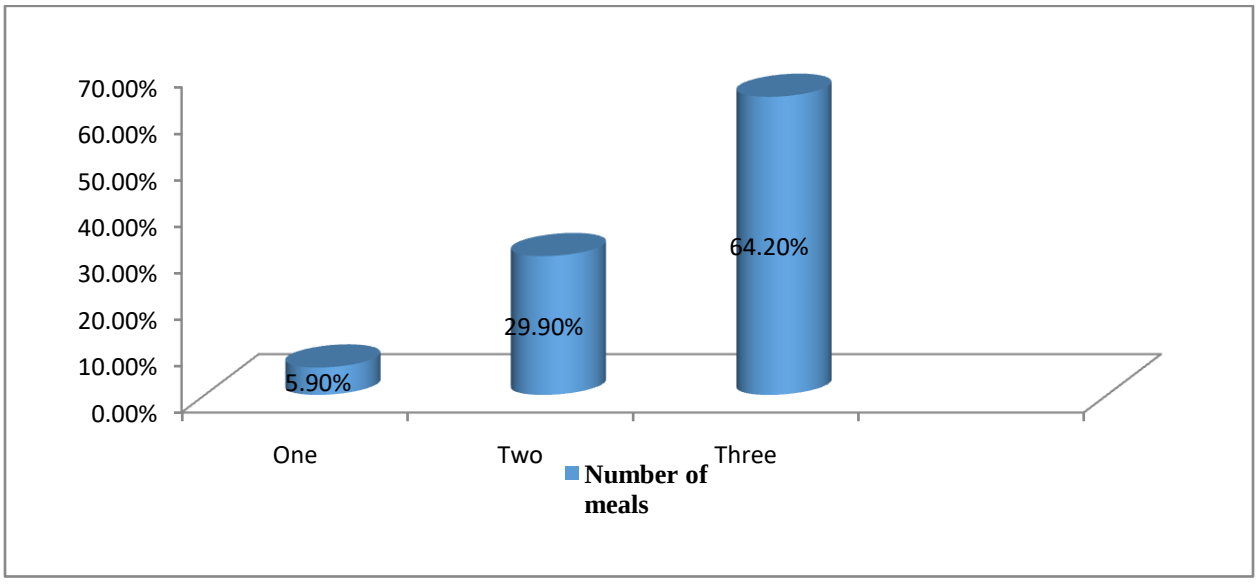

Figure 2: Number of meals per day

Food anxiety

Data on food anxiety was analyzed by rating the summary of the responses given in the food anxiety. Those whose response to half of the questions indicated anxiety in household food availability were rated as food anxious. From all the households studied 157 (42.0 %) were found to be food anxious while slightly over a half, 217 (58.0%) were not.

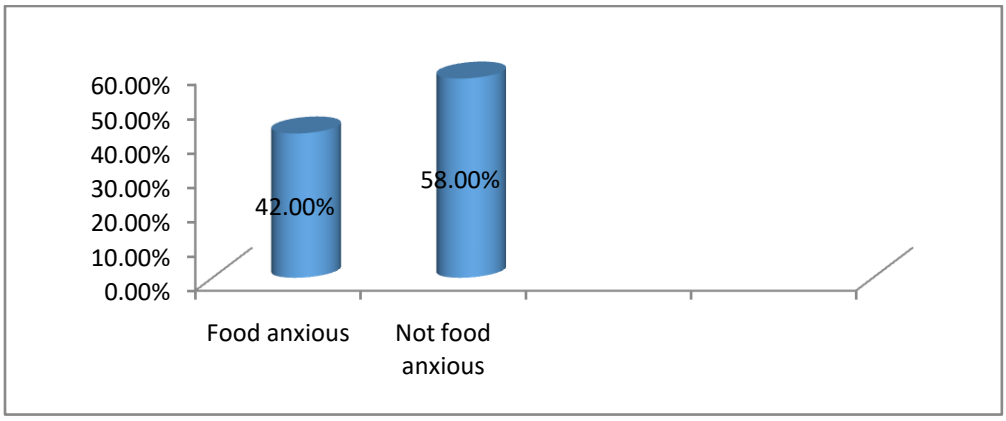

Figure 3: Food anxiety level

Conclusions

The households which were directly affected by HIV/AIDS were found to be more food insecure than those not affected. Therefore, it is clear that HIV/AIDS has contributed to food insecurity in the affected households. Household food security is important as it eventually define community food security and consequently health. Nutrition security is equally important as it determines productivity and eventually food security.

The researcher presented the findings of the study in accordance with the research questions and conclusions reached were based on the findings made. Nutrition insecurity was found to be higher among households directly affected by HIV/AIDS as only 1.3% of them were completely nutrition secure as compared to 26.8% of those who were not directly affected. Nutrition security is key in enhancing economic productivity of PLHA as malnutrition can aggravate the effects of HIV and hasten AIDS-related illnesses in them.

Literature review and the study revealed that, unlike many areas in the rural Kenya, Rangwe Sub County has enjoyed the services of development agencies such as World Vision for more than 10

years. This in conjunction with the government has facilitated the formation of CBOs, and quality training of community members to take up roles, which would have otherwise required specialized skills to accomplish.

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