

The Effects of HIV/AIDS on Household Agricultural Land Productivity in Southeastern Uganda

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This research brief contributes to the body of evidence available regarding the effects of HIV/AIDS on agricultural households and, in particular, the relationships between appropriate diet, labor, and health status in southeastern Uganda. We present preliminary results from a cross-sectional study that was conducted in summer 2007, which was a follow-up study to the semi-structured interviews conducted in 2006. We completed interviews with 322 adult residents of 246 households. Fifty-six were HIV-infected individuals, 120 were family members of persons living with HIV/AIDS, and 146 were people who were living with no HIV-infected household members. More than 90% of study participants knew someone with HIV/AIDS and correctly identified HIV transmission modes and prevention methods. Approximately 91.6% of participants believed that a person with HIV infection should eat special nutritious foods, and participants with HIV-infection reported eating more fruits and vegetables than other participants. Furthermore, 93.2% of participants believed that a person with HIV-infection should work fewer hours to conserve energy, but we found no differences in reported work hours by HIV status. Additional research is required to further examine health beliefs about special foods and reduced labor, and how these behaviors might contribute to longer, healthier lives for people living with HIV in Uganda.

Background

More than 40 million people are reported to have HIV around the globe (UNAIDS 2006). To date, HIV/AIDS has affected not only the health of HIV-infected individuals, but socioeconomic status of individuals with HIV infection and their families. In the early 1990s, Uganda's HIV prevalence rate was among the highest in the world, at about 15%, but open communication about HIV from both governmental and non-governmental organizations has helped to reduce the prevalence rate significantly (Green 2006; Slutkin 2006; Anabwani and Navario 2005; Low-Beer 2002; Stoneburner and Low-Beer 2004). Still, the estimated current adult prevalence of HIV infection is about 6.7%, which means that nearly 1 million Ugandans are HIV-infected (UNAIDS 2006). The vast majority of these infections are among adults 15 to 49 years of age, which is typically the most productive age group (UNAIDS 2006). Furthermore, the greatest burden of the disease has affected areas where agriculture prevails as a source of income and food. Therefore, a decrease in household labor reduces household nutritional status and household food-security. (Gillespie and Kadiyala, 2005). Well-established literature indicates that a high quality diet with a balanced nutritional component and good health are essential for people living with HIV/AIDS (Summerbell 1994).

This report draws on a survey examining the effects of HIV/AIDS on agricultural households that was conducted in rural communities of southeastern Uganda,

Mayuge district (Figure 1), in the summer of 2007. The main goal of the study was to examine the effects of HIV/AIDS on households and, in particular, to explore the relationships between diet, labor, and health status. The focus of this report is to present preliminary results on health beliefs related to diet, work, and HIV/AIDS. Further details are provided in Komwa et al. (Under Submission).

We began our research in 2006 by meeting local community leaders, including government officials, health officials, and employees of community-based non-governmental organizations, and holding focus group discussions with three community HIV support groups. Two commonly mentioned methods for improving health status and extending a healthy life for people with HIV infection drew our attention. First, the interviewees reported that HIV/AIDS counselors and health care officials advised people with HIV infection to limit their working hours and intensity of their work, even if they felt healthy enough to work longer days at more labor-intensive jobs, to save energy and thus extend both years of life and healthy years of life. Second, they reported that people with HIV infection should eat special foods from the time they are diagnosed through the end of their lives. In addition, our field studies provided narrative evidence showing declines in income on agricultural production in most of the households affected by AIDS, widows being displaced from land and clan territory,

declines in productivity as additional household labor is devoted to caring for a person with AIDS (PWAs), decreases in labor productivity and supply of a PWA, and increases in the numbers of orphans and in the level of drop-outs from schools.

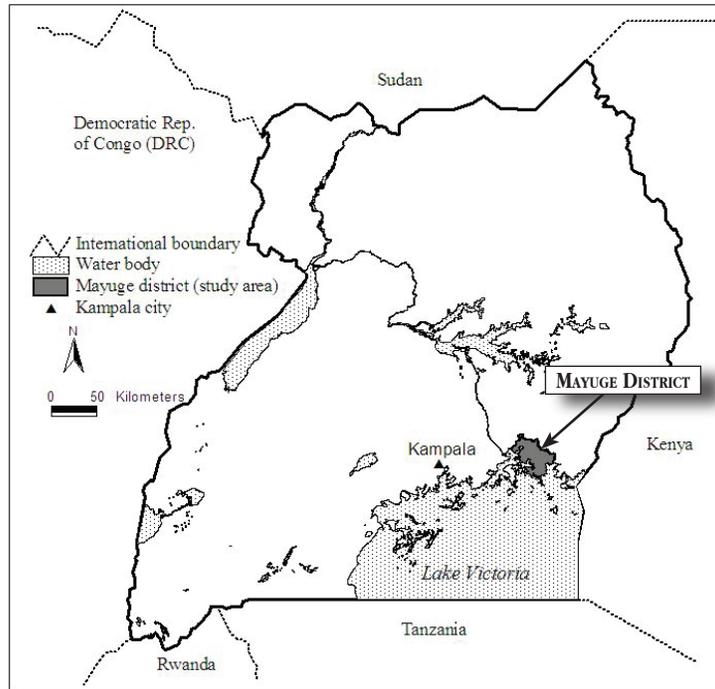
These observations and common beliefs in the area, taken from the preliminary qualitative study, were further explored in a larger, quantitative, cross-sectional survey in 2007. We completed interviews in 246 households, which represented the religious and socioeconomic diversity of Mayuge district, where the local economy is heavily based on subsistence agriculture and fishing.

We used three methods to recruit households for participation. First, we re-interviewed 93 households that had been sampled in two of the villages by the International Food Policy Research Institute and University of Hohenheim, Germany, during household surveys in 2001 and 2003 (Schreinemachers and Berger 2007). We also recruited members of AIDS support groups to participate in the study. Finally, we randomly selected households from four additional villages using the census provided by the chairman of each village. Two local research assistants, who were trained in research methodology, conducted the interviews in the local language, Lisoga, in the homes of participants. We asked the heads of households about household characteristics, including the number of residents, socioeconomic status, agricultural productivity, and labor allocation, and a GPS location for the household was taken. Then, we interviewed members of the household, who were 18 years and older and present at the time of the interview. Individual members were asked questions regarding daily activities, HIV/AIDS knowledge and beliefs, diet, and personal health status. We also measured each participant's height and weight if permission was granted for us to do so.

Findings

HIV Knowledge and HIV Testing. Our preliminary results showed that our study population was highly knowledgeable about HIV/AIDS. About 74.2% of our participants reported knowing someone living with HIV and almost 80.4% reported knowing someone who had died from AIDS. We inquired about HIV transmission modes and prevention methods. About 90.4% of those who participated reported that HIV could be spread through sexual intercourse, while one-tenth reported that it could be spread through needles and about 16.1% indicated that it could be spread through blood. Most participants agreed that HIV could be prevented by being faithful, abstaining from sexual intercourse and using a condom. Only a few participants thought that male circumcision could prevent HIV transmission. We also asked

Figure 1. The study site of Mayuge district in southeastern Uganda.



our participants a free response question on HIV testing and status. About 82.6% of our participants knew where to be tested for HIV and knew people who had been tested. More than half of participants reported that they had been tested for HIV and 96.2% of our respondents indicated that they found out the results of their HIV test. Fifty-six of our participants reported having HIV infection. There were no differences in HIV testing and status by sex.

HIV and Work. This section draws on the information from our participants on their belief concerning the link between HIV and workloads. Our results showed that the majority of participants were likely to report that they knew people with HIV infection who have worked less to save energy and believe that HIV-infected individuals should rest more to save energy. However, our results showed that HIV-infected people were not cutting back their working hours. Comments from several participants using our qualitative study provide an explanation for this finding: "In most cases people have to first work in order to get something to eat, so there is no way you can work less." "A person will work less depending on the size of family he has. If it is a big family, then he has to work a lot to sustain them." "A person living with HIV/AIDS should not work, but it depends. If he is the head of the house he is forced to work."

HIV and Food. Our study participants indicated a belief that highly nutritious foods, such as fruits and vegetables, ought to be consumed by people with HIV infection. This belief is in agreement with the Ugandan government's nutritional guidelines for people with HIV,

which suggest that people eat a variety of energy-giving foods (carbohydrates), body building foods (proteins), protective foods (fruits and vegetables), and ample amounts of water (from sources including tea, soups, milk, and juices). (Uganda MOH 2004) Our results showed that HIV-infected individuals were eating more fruits and vegetables than other members of their households. The findings support the critical messages by both the Ugandan government and non-governmental organizations, such as the AIDS Support Organization (TASO), that provide medical care, social support, free supplemental food, and HIV/AIDS education and counseling to its clients.

Practical Implications

We conclude with the following implications regarding our results from the study. First, despite the fact that government officials encourage HIV-infected individuals to reduce workloads, our HIV-infected participants are not reducing their work. The challenge is to develop and implement a comprehensive assistance strategy that can remove some of the problems faced by HIV-infected individuals as well as HIV-affected families. Although our participants supported the idea that HIV-infected people should work fewer hours to save energy, our results showed that most of our participants have limited resources to maintain their farms. In reality HIV/AIDS has worsened the financial status of most affected families and therefore it is not an easy task for a relatively healthy person with HIV infection to significantly cut back on work in order to rest more.

Second, HIV-infected participants in our study reported consuming more fruits and vegetables than other members of their households. This may put a strain on family members, who might have to eat less nutritious food to ensure that the person with HIV has access to these nutrients. Despite the fact that participants reported receiving free supplementary food from the AIDS support groups, these foods do not include fruits and vegetables. Although this free supplementary food could allow them to divert the resources they would have normally spent on staple foods, to the purchase of fruits and vegetables, many of our study participants reported difficulty in acquiring these foods. For example, one woman said, "It's true about [those with HIV needing to eat] special foods, but they just eat what is available." Another community leader said, "It is only when you have enough resources that you can eat special foods." Finally, a growing global food crisis reported by the United Nations indicates that 100 million are currently in danger of not having enough food to eat (US One World, 2008). This report suggests that this will likely affect HIV-infected people and their families. As food costs increase and household budgets are further stressed, it is less likely that these vulnerable groups will be able to purchase highly nutritious foods to meet the dietary requirements of HIV-affected individuals.

Further Reading

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This study was designed to gather data about the effects of HIV/AIDS on household agricultural production, food consumption, nutrition status, health status, household social demographics, and land holdings in the rural communities of southeastern Uganda.

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