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Title: The effect of HIV/AIDS on households' access to, perceptions and determinants of

willingness to pay for Water, sanitation and hygiene in Uganda

## **ABSTRACT**

**Introduction:** Integration of water, sanitation and hygiene (WASH) into HIV/AIDS programs has been strongly recommended but this will only be practically feasible with a good understanding of: access to and perceptions to WASH; barriers to access among people living with HIV/AIDS (PLWHA) as well as willingness to pay for water supply improvements among HIV/AIDS affected and non-affected households. This thesis explores the levels of access to, perceptions and determinants of willingness to pay for water supply improvements amongst HIV/AIDS affected households as compared to non-affected households in Uganda.

**Methods:** A cross sectional study was conducted. Quantitative data analysis was done using descriptive and inferential statistics (logistic regression). Qualitative methods using focus group discussions and key informant interviews were also employed and analysis of data was done by latent content analysis. A laboratory procedure using a portable laboratory was used to determine the quality of drinking water with Escherichia coli (E.coli) as the indicator organism.

**Results:** Results indicate that HIV affected households had better drinking water practices compared to non-affected households. As expected (based on the conceptual framework), perceptions, perceived barriers and benefits as well as cues to action influenced access to and use of WASH. At multivariable analysis, the perception that fetching water takes lot of time (AOR = 2.15; 95% CI: 1.21 – 3.82) and having a person living with HIV in the household (AOR = 0.58; 95% CI: 0.38 – 0.88) were significant predicators of buying water from vendors. In accessing WASH, PLWHA face financial, social, institutional, knowledge, attitudinal and physical barriers. The determinants of minimal willingness to pay (WTP) for water included: household income above 100,000 Uganda shillings (40 US dollars); age; education; being a vendor customer; making financial contributions towards the operation and maintenance of the primary water source as well as sleeping in own house.

Conclusions and recommendations: Based on the findings, it was realized that: knowledge of the public health benefits of sanitation is low in some households; water practices such as boiling drinking water and hygienically storing drinking water were better in HIV/AIDS affected households. Having a person (s) living with HIV/AIDS in a household is not to a significant explanatory factor of WTP for water but buying water from vendors and making payments at primary water sources were significant explanatory factors for WTP for water supply improvements. Future water supply projects should mobilize, train and use water vendors and WUC members as entry points not only for providing local leadership but also for encouraging people to pay water user fees. Water subsidies (cross-subsidies) under a community based targeting approach should be designed to benefit especially the very poor who may include some PLWHA and the elderly but generally efforts should be made to improve access to improved water sources for all. Sustained WASH health education messages targeting both affected and non-affected households should be developed and implemented.