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HIV/AIDS and access to water: A case study of home-based care in Ngamiland, Botswana

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Abstract

This case study investigates access to potable water in HIV/AIDS related home-based care households in five rural communities in Ngamiland, Botswana. Primary data collected from five villages consisted of two parts. The first survey collected household data on demographic and rural livelihood features and impacts of HIV/AIDS. A total of 129 households were selected using a two-stage stratified random sampling method. In the second survey, a total of 39 family primary and community care givers of continuously ill, bed-ridden or non-bed-ridden HIV/AIDS patients were interviewed. A detailed questionnaire, with closed and open-ended questions, was used to collect household data. In addition to using the questionnaire, data were also collected through participant observation, informal interviews and secondary sources.

The study revealed that there are several sources of water for communities in Ngamiland such as off-plot, outdoor (communal) and on-plot outdoor and/or indoor (private) water connections, as well as other sources such as bowsed water, well-points, boreholes and open perennial/ephemeral water from river channels and pans. There was a serious problem of unreliable water supply caused by, among other things, the breakdown of diesel-powered water pumps, high frequency of HIV/AIDS related absenteeism, and the failure of timely delivery of diesel fuel. Some villages experienced chronic supply disruptions while others experienced seasonal or occasional water shortages. Strategies for coping with unreliability of water supply included economizing on water, reserve storage, buying water, and collection from river/dug wells or other alternative sources such as rain harvesting tanks in government institutions. The unreliability of water supply resulted in an increase in the use of water of poor quality and other practices of poor hygiene as well as a high opportunity cost of water collection. In such instances, bathing of patients was cut from twice daily to once or not at all. Depending on the severity of HIV/AIDS related symptoms, e.g. diarrhoea, 20–80 additional litres of water could be required daily. The case study demonstrates that, at individual level, access to water is an integral element of the patient's holistic healing process and psychosocial well being. At household and community levels, access to sufficient supplies of potable water when and where it is needed is central to mitigation of HIV/AIDS impacts. Access to water should therefore not be treated strictly as an economic good due to its importance as a basic human need, a social good and indeed a human right.

Keywords: Botswana; Community home-based care; HIV/AIDS; Water access

1. Introduction

According to a report of the World Commission on Water for the 21st Century, every human being should have access to safe drinking water as this resource is a necessary requirement for meeting basic human needs (Serageldin, 2000). Sustainable access to safe drinking water is one of the three targets set by the United Nations Millennium Declaration to achieve environmental sustainability (UNDP, 2005). The target is essential to achieve in order to decrease the prevalence of water related diseases. For those living with HIV/AIDS, access to safe drinking water is a critical factor due to their vulnerability to infections as

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their immune systems are impaired. As clearly put by Kaminga and Weglin-Schuringa (2003), access to safe water is an absolute necessity for people living with HIV/AIDS as it is needed for drinking, washing their soiled laundry, taking medicines, and keeping their home environment in hygienic conditions.

The HIV/AIDS epidemic poses a major threat to households in Ngamiland and the rest of Botswana and it is one of the development issues of major concern, worldwide. Though it is a global problem, its prevalence is concentrated in the developing countries, particularly in sub-Saharan Africa. Women are affected disproportionately and bear the main burden of care and support (Mutangadura, 2000; Budlender, 2004; Lesetedi et al., 2003; Ogden et al., 2004; Susser and Stein, 2004). The HIV prevalence rates for pregnant women in the sub-districts of Ngami and Okavango in Botswana were 34% and 41%, respectively, in 2002 as compared to the overall prevalence of all the districts of 35% (Ministry of State President, 2002). These figures can be compared with the recent figures of the Impact Survey II of 2004 which revealed that the proportions of the HIV positive people were 16% and 13% in Ngamiland South and Ngamiland North, respectively (Central Statistics Office, 2004). As result of this epidemic, development gains achieved before 1990 have been reversed. For instance, Botswana's rank for the human development index (HDI) has fallen by 21 places, between 1990 and 2003, to the 128th position out of a total of 177 countries (United Nations Development Program, 2005).

The increase in the impact of the HIV/AIDS epidemic led to the institutionalization of the home-based care programme in Botswana which aims at sharing the responsibility of caring for the terminally ill patients (Butale, 2005). Lack of access to safe drinking water will make the AIDS-afflicted persons, particularly those under home care, more vulnerable to HIV/AIDS as opportunistic infections are likely to thrive in poor hygienic conditions. HIV/AIDS is not simply a health issue; it is also a "social, economic, political, cultural and human rights problem, which cuts across all sectors of developing societies" (Kaminga and Weglin-Schuringa, 2003, p. 7). Thus strategies for prevention, treatment, care and support of those infected and affected by the disease should cut across all sectors of economy and society. This implies that the link between access to water and HIV/AIDS should necessarily be multidimensional.

This paper aims at assessing access to water in households with home-based care patients and the responses of households to limited access to water resources in an attempt to illustrate the inter-linkages between access to basic needs and HIV/AIDS. The paper first examines the context of the HIV/AIDS epidemic and the home-based care programme in Botswana, before providing a description of the study area and the methodology. The next section discusses the results, mainly based on fieldwork. The final section summarizes the discussion and also makes recommendations.

2. Conceptual framework

Although physical infrastructure for water may be available in the community, it may not be readily accessible to some social groups there. Access to natural resources such as water is determined by a number of factors such as social relations, institutions and organizations (Ellis, 2000). The indicators of access to water include the distance and time taken to the points of water collection (Howard and Bartram, 2003) and the ability to use water service delivery systems. Usability in turn depends on affordability as well as on institutional responsiveness and or accountability of service providers to client households.

Kaminga and Weglin-Schuringa (2003) have identified six perspectives that can be used to analyse the link between access to water and HIV/AIDS. These are consumer, health, gender, community, HIV/AIDS, poverty alleviation, and human rights perspectives. The consumer perspective posits that access to water is indispensable for provision of care and support to AIDS patients who need water for bathing, washing clothes and taking medication. The health perspective considers provision of safe water to be necessary for taking medication and for reducing the risk of diarrhoea and skin diseases. As Nxesi (quoted by Kaminga and Weglin-Schuringa, 2003) forcefully argues, access to safe water and sanitation is one strategy among others for managing opportunistic infections. Infected and affected individuals and families need to stay in hygienic conditions, free of harmful germs and bacteria. Access to sanitation, especially flush toilets for very sick patients, is important since they may be too weak to walk outside the house to relieve themselves. Regrettably, case studies on home-based care giving households in Botswana suggest the prevalence of poor management of home-based care clinical waste. In a sample of family care givers in Maun, Sehitwa and Shorobe, about 30% of care giving households used the 'bush' to relieve themselves (Butale, 2005; Phorano et al., 2005).

The gender perspective recognizes the fact that women predominate various types of care in the care economy both within and across generations (Elson, 2002), especially in households affected by HIV/AIDS (Budlender, 2004). Care-giving activities undertaken by women in AIDS affected households include collecting fuelwood and water; growing, storing, preparing and serving/distributing food; cleaning, washing, and bathing children and the sick. Gender refers to social roles, expectations, behaviours and attitudes of women and men defined by social mores and cultural norms of society. However, gender intersects with other variables such as economic status, race, ethnically, age, and religion.

The community driven development perspective focuses on how communities can develop 'HIV/AIDS competence', that is, the ability to accept the reality of the disease and to take necessary measures to minimize its impacts. The poverty alleviation perspective is about the impact of HIV in relation to other factors affecting livelihoods and