

Community knowledge and information communication gaps on HIV/AIDS in Iringa Municipality, Tanzania

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Abstract: This study was carried out to determine community knowledge and information communication gaps on HIV/AIDS in Iringa Municipality, Tanzania. In-depth interviews and focus group discussions were used to collect data from both the community and health workers. Results showed that eighty-one percent of the respondents were knowledgeable of at least one mode of HIV/AIDS transmission. Sexual intercourse, sharing of sharp instruments, blood transfusion and mother to child transmission were known to be the most common ways on how HIV is transmitted. The community knowledge on the symptoms of AIDS was poor. The main sources of information on HIV/AIDS were health facilities, radio, televisions, religious leaders and relatives. The information covered in most of the health education programmes included prevention, treatment and care for AIDS patients. The understanding of HIV/AIDS messages was found to vary significantly between respondents with different levels of education and marital status. It was higher among those with at least a primary school education than in those without education. Singles and individuals with primary or post-primary education sought more new information than those who had no education at all. Among the respondents, 59.7% reported to have difficulties in adopting and utilising HIV/AIDS educational messages. Singles had a better understanding of information provided than married respondents. However, the former had more difficulties in adopting and utilising health education information. Poor utilisation of the HIV/AIDS messages was attributed to culture, poverty, and illiteracy. The majority of the respondents, 370 (92.8%) reported to often carry out discussions with their family members (including children) on HIV/AIDS. It is concluded that health education should identify community needs and address economic and socio-cultural barriers to facilitate education utilisation and behavioural changes required in HIV/AIDS prevention and control in Tanzania.

Key words: HIV/AIDS, knowledge, information communication, Tanzania

Introduction

Globally, over 20 million people have died from AIDS since the pandemic first began during the 1980s. To-date millions more are becoming ill and dying every day with sub-Saharan Africa being the most affected region. An estimated 26.6 million people are living with HIV/AIDS (Boto *et al.*, 2004). In 2003, approximately 4.8 million people became infected and 2.9 million people died. In 2002, nearly 11 million children orphaned by AIDS were living in Sub-Saharan Africa (UNAIDS, 2004). The AIDS pandemic continues to pose severe public health and socio-economic problems for many African countries. High-prevalence countries are experiencing dramatic drops in life expectancy, the ill and the dying are overwhelming the already strained public health services, and millions of children are being orphaned, often without adequate socio-economic security (Forman, 2004).

According to the 2003-2004 Tanzania HIV Indicator Survey (THIS), of the 34.5 million people, 7% of adults aged 15-49 years were infected with the human immunodeficiency virus. Tanzania is, therefore, among the countries that suffer from the

huge toll of HIV/AIDS pandemic despite heavy investments in health education campaigns aimed at reducing the transmission rate.

In Tanzania, like many other countries, an effective HIV/AIDS prevention and control requires prompt and adequate action towards reduction and preventing the occurrence of new infections. Such actions can only be made if correct information reaches and is adopted by the community. Information and communication hold vast potential to hinder the spread of the disease, as key elements of all aspects of HIV/AIDS strategies, including prevention. They offer potential solutions to misinformation and myths, silence and denial, and stigma and discrimination against people living with HIV/AIDS (PLWHA). They are also keys to a civil society response to the pandemic, enabling advocacy, mobilization, empowerment, participation and facilitating greater accountability (Forman, 2004). The lack of proper information and communication strategies about the disease is likely to be one of the primary impediments in the fight against AIDS in many of the developing countries, including Tanzania.

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Community knowledge and effective communication about health problems and greater flow of information are central to the success of any disease control programme. They are the major sources of power in AIDS control as they confer the power to protect against infection, to influence decision makers, and to live lives of dignity and equality once infected. Nonetheless, in many developing countries like Tanzania, the community is likely to be aware of far less than this because of existing information gaps (Mboera, 1998). The main objective of this study was therefore, to determine knowledge and information communication gaps on HIV/AIDS among communities of Iringa Municipality, Tanzania.

Materials and Methods

Study area

Iringa Municipality (7°49'S, 35°39'E) is located in the southern highlands of Tanzania. It covers an area of 162 km² and about 15 km² is water shade of little Ruaha Basin and its tributaries. The Municipality is made up of 14 wards, 162 neighbourhoods (*mitaa*) and three villages. It has two hospitals, three health centres and 24 dispensaries. Inhabitants of the Municipality are mostly involved in petty businesses, poultry and small ruminant production. Some are working as civil servants in government and parastatal organizations. The study was carried out in November 2004 and involved communities in Wards of Ilala, Kihesa, Kitanzini, Mwangata and Ruaha.

In-depth interviews

At each ward, the purpose and objectives of the study were discussed and consent sought from the local ward leaders. The local leaders were informed on the schedule for their respective areas before the day of interview. Interviews were carried through house-to-house visit. In each household, a single adult (≥ 18 years old) was interviewed. Efforts were made to alternate between female and male interviewee when moving from one household to another.

The structured questionnaires explored the knowledge of the community on HIV/AIDS, its modes of transmission, symptoms and control. The interviewees were asked of where they obtained information about the disease and how accessible were these sources. Exploration was made as to the type of information and most preferable channels of information delivery within the respective communities. Exploration on the constraints in the delivery of information was recorded. Information on the clarity of the information/ messages given

on health education materials was sought and whether health education messages were socially acceptable by the community. Information was also sought on whether individuals passed new information on HIV/AIDS to members of their households. All interviews were conducted in Kiswahili, the national language which is understood by all Tanzanians.

Interviews with health workers at facilities and district levels were organized to gather information about health education and communication activities that are carried out in the district. At the district level, discussions were held with the key members of the Council Health Management Team (CHMT), including the District Medical Officer (DMO), the District Health Officer (DHO), and District Health Education Officer. At the end of data collection a debriefing meeting was held with members of the CHMT to discuss the preliminary results and other observations.

Focus Group Discussions

In addition, 10 focus group discussions each with 8-11 participants were conducted. Both men and women were involved in the discussions but in different session using the same guiding questions. Each focus group discussion session took 1-2 hours. Discussions were conducted in Ward offices.

Data analysis

Quantitative data were entered in Epi Info database version 6 (Centres for Disease Control and Prevention, U.S.A) and then transferred to STATA statistical package (Stata Corp 2001) for further analysis. All tests were done at 5% level of significance. For qualitative data, results were coded, summarised and conclusions were drawn and verified.

Results

A total of 596 household members were interviewed with females accounting for 68% of the respondents. A larger proportion (69.9%) of the respondents had completed primary school education. Over half of the interviewees were married (Table 1). The community's major sources of information on HIV/AIDS included radio, newspapers, television (TV), religious leaders and relatives (Figure 1). The least common sources (23.5%), included traditional healers. Health facility (HF) and village health workers (VHW) were perceived to be the most reliable sources of HIV/AIDS information (Figure 1). However, people living far away from health facilities did not support HF's as right place for providing health education. One interviewee had this to say, "Someone who is not sick and/or not pregnant cannot just

go to the health facility for the purpose of getting education. Even if you accompany someone who is sick, you will be busy with your patient (s); it is not easy to get time to read anything even if it is displayed at the waiting room.”

and control has been provided and viewers are allowed to ask questions. However, most of the community members could not remember advertisements/health information provided by different media.

Table 1: Demographic characteristics of the study population

Characteristics	Number	Percentage
Ward of residence		
Ilala	61	10.2
Kihesa	176	29.6
Kitanzini	59	9.9
Mwangata	121	20.3
Ruaha	179	30.0
Sex		
Male	191	32.0
Female	405	68.0
Marital status		
Single	187	29.9
Married	76	34
Widow/widower	31.4	50.2
Other	12.8	5.7
Education level		
Not completed primary education	72	12.1
Completed primary education	362	60.7
Post-primary education	55	9.2
No education	107	18.0

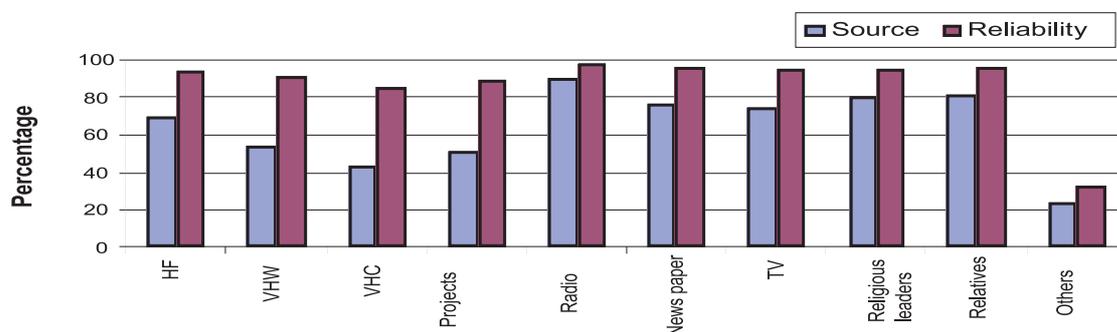


Figure 1: Sources and reliability of HIV/AIDS information in Iringa

Newspapers mentioned to carry articles on HIV/AIDS included *Alasiri, Ijumaa, Uhuru, Mtanzania, Nipashe, Kasheshe, Majira, Mzalendo and Uwazi*. They included information on the use of condoms, abstaining from sex and the impacts of HIV/AIDS. Despite all, newspapers were observed not to be an effective way of educating the community due to affordability and illiteracy among the community members.

The radio also provided information on use of condoms and voluntary HIV testing. Although most of the respondent agreed that the radio programmes were informative and educative, but most of the radio stations were not accessible in the some areas.

Among the popular HIV/AIDS television programmes included '*Afya ya jamii*' and '*UKIMWI ni huu*'. It was stated that through these programmes information on HIV/AIDS prevention

Knowledge on the mode of spread of HIV/AIDS was high among communities in Iringa. Most of the respondents (81%) knew that the disease is spread through sexual intercourse. Transmission through sharing of sharp instruments was mentioned by 28% of the respondents. Fewer than 10% of the respondents associated HIV transmission with blood transfusion whereas only 0.8% of the respondents were aware of the mother to child transmission. Twenty-one percent of the respondents did not know how HIV was transmitted.

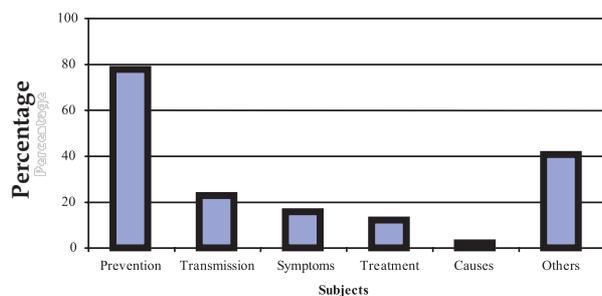
Loss of body weight, diarrhoea and recurrent fevers was the most frequently mentioned symptoms of AIDS (Table 2). However, eight-six (14.4%) of the respondents were not knowledgeable of the symptoms of AIDS.

Most (78%) of the HIV/AIDS information provided to community carried messages on

Table 2: Number (%) of respondents and their knowledge on symptoms of HIV/AIDS

Symptoms	Number of respondents	Percentage
Loss of weight + tiredness	343	57.6
Diarrhoea	173	29.0
Recurrent fever	158	26.5
Loss of hair lustre	60	10.1
Skin lesions	34	5.7
Prolonged cough	25	4.2
Other symptoms	186	31.2

prevention and control. These included safe sex (e.g. use of condoms), abstinence and faithfulness to one partner. According to the respondents, subjects such as caring for AIDS patients and orphans, socio-economic impact of HIV/AIDS, stigma and discrimination were rarely covered in health education programmes or materials (Figure 2).

**Figure 3: Subjects covered in HIV/AIDS education programmes/ materials**

The understanding of HIV/AIDS messages was found to vary significantly between respondents with different levels of education and marital status. It was higher among those with at least a primary school education than in those without education. On average, 19.1-32.7% of the respondents had some difficulties in adopting and utilising health education messages on HIV/AIDS. Level of education was also an important factor for someone to seek for new information on HIV/AIDS. Singles and individuals with primary or post-primary education sought more new information than those who had no education at all. Moreover, it was also observed that singles had a better understanding of information provided, though they had more difficulties in adopting and utilising it (Table 3).

Further analysis showed that the understanding of HIV/AIDS messages was higher by 50% at Kihesa than in other areas. Reasons mentioned by those who reported to have difficulties in understanding HIV/AIDS messages included unclearness of the messages, illiteracy and poverty. Acceptability of the messages given in

health education was also 20% higher in Kihesa than in other parts of the Municipality. Reasons for poor acceptability rate included the perceptions that some messages were either promoting sex, frightening, or were against local norms and culture. Moreover, some respondents believed that HIV/AIDS was caused by witchcraft.

Illiteracy, especially among women was pointed out to influence poor understanding and utilisation of messages provided in health communication programmes. Respondents from Mwangata and Ruaha (in the sub-urban areas of Iringa) had more difficulties in adopting and utilising health education messages provided on HIV/AIDS. Alcoholism was also perceived to contribute to increased HIV/AIDS transmission. Religious teachings were also blamed to create confusions to the general community when compared with what has been emphasized by the other non-religious groups. The fact that religious leaders do not advocate the use of condoms in the prevention of HIV/AIDS placed many believers in a dilemma into what to follow.

Some 92.8% of the respondents reported to discuss HIV/AIDS with their family members; however, most of these discussions (70%) were guided by the parents. Less than half (43.6%) of the respondents admitted to have involved their children on HIV/AIDS discussions. Few parents were not able to discuss HIV/AIDS issues with their children due culture/taboo and age and sex barrier. One parent said, *“According to our customs and traditions it is not allowed for a father to talk to his daughter on HIV and sexually-related issues as it is interpreted as a sign of accusation”*. In addition, a total of 129 respondents (21.6%) reported to have searched for new information on HIV/AIDS from various sources. The information included HIV/AIDS prevention, transmission, diagnosis and treatment.

At the health facilities 30 health workers were interviewed. These included assistant medical officers, clinical officers, assistant dental officer, health officer, nursing officers, nurse midwives, trained nurses, nurse auxiliaries and medical attendants.

Table 3: HIV/AIDS information in relation to education level, sex and marital status

	Understanding HIV/AIDS messages	Difficulties in adopting and use of information	Seeking of new information
Education level			
Not completed primary school	67(97.1)	15(23.1)	8(17.8)
Completed primary school	327(93.4)	66(19.1)	88(35.2)
Post primary school	54(98.2)	18(32.7)	22(46.8)
No education	86(86.0)	25(25.8)	11(15.9)
<i>P-value</i>	<i>0.01</i>	<i>0.1</i>	<i><0.01</i>
Sex			
Males	172(94.0)	48(29.1)	48(35.8)
Females	362(92.6)	76(20.1)	81(29.2)
<i>P-value</i>	<i>0.5</i>	<i>0.1</i>	<i>0.2</i>
Marital status			
Single	176(97.2)	42(23.1)	39(36.4)
Married	265(92.3)	63(22.6)	72(31.3)
Widow/widower	29(90.6)	4(12.5)	6(30.0)
Others	64(86.5)	15(21.4)	12(22.2)
<i>P-value</i>	<i>0.01</i>	<i>0.5</i>	<i>0.3</i>
Ward of residence			
Ilala	53(91.4)	10(17.9)	16(34.8)
Kihesa	161(95.3)	25(14.9)	29(26.4)
Kitanzini	57(100.0)	10(17.2)	21(43.8)
Mwangata	109(89.3)	25(22.1)	30(38.5)
Ruaha	154(91.7)	54(32.1)	33(25.6)
<i>P-value</i>	<i>0.3</i>	<i>< 0.01</i>	<i>0.07</i>

Most of the HIV/AIDS information, education and communication materials found at health facilities were in the forms of posters, leaflets, calendars and stickers. These materials carried messages on general information on HIV/AIDS, caring of AIDS patients, use of VCT and PMTCT, diet for AIDS patients, stigmatisation and discrimination, prevention and control as well as treatment of opportunistic infections. Other HIV/AIDS education materials were found in public places as billboards, posters and stickers. Most of them had information on prevention with messages like: *stop practicing unsafe sex and use of condoms and voluntary counselling and testing*.

It was found that only four out of eleven health facilities visited provided health education to the community. Guidelines on "Prevention of mother to child on transmission of HIV" and "HIV/AIDS and STI counselling" were available at health facilities.

Other responsible people for providing HIV information to the community were counsellors and home-based care providers. Sixty-seven respondents (12.8%) admitted to have been aware of a special group of HIV/AIDS health educators, of whom 86% of them were known to have received special training on HIV.

Only 1 health worker mentioned that

review of IEC materials is done at the facility level. These findings was substantiated with the CHMT members who said that there is no system in place to discuss, review or share any new HIV/AIDS information received by the district. Six out of ten health facilities admitted to have received requests for HIV/AIDS information from the community. These were on general information on HIV/AIDS and care and treatment and prevention.

A larger proportion (71.4%) of health workers were of the opinion that HIV/AIDS messages provided by the mass media were informative and educative whereas. However, 18% said that the messages were less informative. The major reason mentioned for being less informative was that, some of the messages were encouraging people/youth to indulge into sex. In addition, 10.7% of the respondents said although the messages were informative and educative but they were frightening. Similarly, focus group discussants complained of the advertisements on television that encourage sexual activities.

A total of 14 out of 30 health workers interviewed could not know if the community was able to utilize the HIV/AIDS education/information provided. This was due to absence of indicators for monitoring the utilization of the HIV/AIDS health information. Some

communities reported to have used the information to prevent from getting HIV infections. For instance, they reported to use condoms, changed behaviour by being faithful to their partners. One said, *"We are listening to the messages and change our behaviours"*. Men reported to have shared information with their wives and other relatives. Focus group discussants pointed out that some youths were testing for HIV before marriage, and they would HIV/AIDS information among themselves.

Some participants were aware of the national plan/policy on HIV/AIDS care and treatment and the provision of antiretroviral (ARV) treatment free of charge. However, most of them were sceptical that people living with HIV/AIDS could use the opportunity to spread the virus to others. The discussants wanted more education to be provided to HIV victims before ARV treatment is provided. Some said that ARV drugs should not be used, as they will encourage promiscuity. They also wanted the Ministry of Health to make a close follow-up to ensure that the drugs are provided free of charge and reach the targeted audiences.

Respondents had different knowledge and understanding about the "Red Ribbon" (used internationally as symbol of AIDS awareness, symbolising care and concern about HIV and AIDS). Their responses on its meaning included "Lets prevent from getting HIV/AIDS", an "indicator that someone has attended seminar on HIV", a sign that the bearer is a "member of HIV campaigns", "I care how about you?" or a sign that the bearing has "undergone HIV testing and he/she is not infected". Yet other discussed thought the symbol has not meaning at all and is just a decoration.

More HIV/AIDS information needed by the community included stigma and discrimination, transmission from mother to child, care and treatment, proper use of condom and its disposal, HIV testing. They also wanted the government to enact a law that would allow names of those who die from AIDS are made public.

It was found that provision of HIV/AIDS education to the community depended on donor contribution (on materials like leaflets), availability of trained health workers on HIV/AIDS education and IEC materials, community gathering, church leaders and support from friends and organizations. Other factors included availability of tools and resources e.g. vehicles and loud speakers, availability of enough trained peer educators at the community level, presence of HIV/AIDS clubs at secondary schools and the use of school teachers for teaching HIV/AIDS in school.

Constraining factors mentioned by health workers included, lack of job aids, inadequate IEC

materials, lack of funds to conduct seminars and training on HIV/AIDS, lack of reliable transport to reach remote areas, impassable roads during rain seasons and poor compliance in utilizing education provided. Others were lack of adequate trained health workers (educators) on HIV/AIDS, religious teachings which restrict the use of condom and poverty. Health educators themselves were not regarded as good models as they were also practicing unsafe sex openly (promiscuous).

Illiteracy was mentioned in most focus groups discussion (8/12) as the main constraint in information sharing in Iringa district. Another problem was unemployment among youth. This was associated with youth malpractice since they have nothing to do. And in most of the areas HIV was considered as a youth's problem. However, ignorance, poverty and lack of transparency as regards to the cause of death when HIV/AIDS is involved were also mentioned to play a role in hindering efforts to control HIV/AIDS. One said, *"Government laws do not allow people with HIV to be mentioned in public"*.

Beliefs and cultural practices were also mentioned to play a role in the spread of HIV. These included beliefs in witchcraft, polygamy, widow inheritance, alcoholism, and female genital mutilation, gender inequality. Some of the discussants believed that HIV is not a new disease and was there long ago, and was known as *"Ndyamugongo or Lugandaganda"*. They said, that this belief makes many people not to fear the disease.

Discussion

The knowledge on HIV/AIDS transmission among communities of Iringa Municipality is relatively high, with sexual intercourse been associated with most of HIV infection. Studies elsewhere in Tanzania have already shown that community knowledge on HIV transmission is high. For instance, recently, it has been reported that more than 93% of women and 89% of men believed that one can reduce the risk of getting AIDS virus through abstinence (TDHS, 2005). However, a significant proportion of the community had little knowledge of the symptoms of AIDS. In this study, persistent coughing and likelihood of having tuberculosis was poorly associated with the syndrome. In a recent study in Tanzania, persistent coughing and chest pain were among the major clinical symptoms observed among tuberculosis (Kilale et al. 2003). Poor knowledge of the symptoms and signs of AIDS is an indication of how little information is given to the community on this subject area.

Communities in Iringa obtain information on HIV/AIDS from various sources. Health facilities are among the most reliable sources of health education in Tanzania although they are not easily accessible to majority of community members due to various reasons including distance and cost of transport. Similar findings have been reported in a recent study in Dodoma (Mboera *et al.*, 2005). However, it was not gathered whether the health information from health facilities was through provider-client interaction or the print materials that were available as posters and leaflets. Focus group discussions indicated that rarely people visiting health facilities have time to read messages contained in posters as they attend facilities for reasons of seeking care and not health information. Recently, Lwoga & Matovelo (2005) observed that health facilities that regularly conduct health sessions were among the least preferred ways of getting health information in urban areas of Dar es Salaam and Morogoro in Tanzania. This observation may be a reflection of the unpopularity of the health sessions conducted to the patients who are obliged to attend them before presenting their medical problems for attention.

The mass media such as radio and newspapers are among the most common and popular source of health education and information. The broadcasting technologies of radio and television are the most prevalent forms of information communication technologies in Africa, and are the primary vehicles both for transmitting information about prevention and treatment services to large sectors of the population, and for reducing the silence, stigma, myths, and misconceptions associated with the disease. However, accessibility, affordability and illiteracy should be considered when developing health education programmes. Television viewing is still available to the minority and mainly in urban and it still looked as a luxury item and can be affordable by a few Tanzanians (Bomani, 2000). Tanzania has so far 37 radio stations and 17 TV stations (Tanzania Communication Regulatory Authority, 2006, unpubl.). The relative prevalence of radio and television in Tanzania makes these key technologies for disseminating information on AIDS and other health problems. Already, in South Africa, where media penetration of radio and television is extremely high, it has been shown that social marketing using mass media is a highly effective means of disseminating HIV/AIDS information (Boto *et al.* 2004).

In Iringa, HIV/AIDS information mainly focused on prevention of the disease, with little knowledge on the disease itself, its clinical manifestation and its socio-economic impact. Lack of information on the transmission will continue to

be a primary stumbling block, which together with several other factors will likely to limit the effectiveness of efforts to counter the spread and impact of the disease.

It was encouraging to learn that discussions on HIV/AIDS were done at household level. However, such discussions are facing some problems such as cultural and gender barriers. For instance, in only a few occasions children are involved in household discussion about diseases and such discussions are always lead by the parents.

Local beliefs and poverty were associated with failure of the community to adopt and utilise health messages provided in health education programmes. It is a fact that some of the interventions require financial inputs. In such situation, prompt behavioural changes may not be realized in the pace expected by health providers. Poverty has also been linked to other factors like illiteracy, unemployment among youth and ignorance.

This study looked and examined information communication at the community level. The cause of information gap at this level was likely to be due to channels used in information communication and utilisation (dissemination and reception gap). These gaps are most likely to be among many factors affecting proper communication and utilization of the health information.

Effective communication of valid and appropriate information is the specific remedy for infection rates attributable to a lack of information, and for many of the social ills associated with misinformation and myths about HIV/AIDS (Boto *et al.*, 2004). Information can confer the capacity to act appropriately, whether by protecting oneself from infection or taking steps to influence decision makers. Appropriate information is the source of considerable personal and social power, with the capacity to shift some of the power differentials at the heart of the pandemic (Forman, 2004).

AIDS pandemic will continue to pose severe public health and socio-economic problems in Tanzania due to lack of appropriate and effective information and communication about the disease. Similar findings have been reported elsewhere. For instance, UNICEF reports that more than one-half of all young people (15-20 years old) in a number of African countries have never heard of AIDS or have a serious misconceptions about how HIV is transmitted (Boto *et al.*, 2004). These are indications that current HIV/AIDS programmes are failing amongst the highest risk groups in the epidemic. Source of appropriate information and communication is key to a community response to the pandemic. There is therefore need to provide

appropriate HIV/AIDS education to community addressing subjects that facilitate their understanding of the disease in general. It is also important that effective strategies are used to convey health education messages to the community. Effective communication about the disease and greater flow of information are central to the success of AIDS strategies and to reducing vulnerability to HIV infection. Health education should be demand-driven, thus it is important that communities are involved in identifying their needs.

No available mechanism for the health workers at the ground level (local areas) to review and assess the health education materials to see if they match with the customs of their respective areas before disseminating, as a result some of the messages were not understood, not accepted and some were wrongly interpreted by the community. Although there are many and different excellent ways of disseminating information to the society, there is no clear mechanism for monitoring and evaluating the whole process of provision of health education. As a results it is very difficult to assess the acceptance and utilization of the education provided in the community and the appropriateness of the method used.

In conclusion, an effective health information communication requires partnerships between health providers, religious and community leaders, parents, and media. A community oriented approach holds great promise for bridging gaps in HIV/AIDS information and communication. This is especially so since the primary and largest contribution towards the response to HIV/AIDS is said to come from individuals, families and communities confronted with HIV, rather than from national and international efforts. An effective response relies on community mobilisation and active participation in all aspects of the AIDS pandemic. Given resource constraints and absolutely overwhelming needs within the pandemic, while the government has a role to play in promoting and expanding the opportunity for access to information by its citizens, faith-based organisations, schools, and community-based organizations are the key community links for the flow of reliable information within the community.

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