



Sources of information for clients seeking HIV Counseling and Testing Services at AIDS Information Centre (AIC) Uganda 2004 – 2008

Robert Ntalaka

E-mail: ntalaka@aicug.org / ntalaka@yahoo.com

and

Fred Baruga

Email: baruga@aicug.org

AIDS Information Centre - Uganda
Kampala, Uganda

Meeting: 100. Health and Biosciences

WORLD LIBRARY AND INFORMATION CONGRESS: 76TH IFLA GENERAL CONFERENCE AND ASSEMBLY

10-15 August 2010, Gothenburg, Sweden

<http://www.ifla.org/en/ifla76>

Abstract:

Background: AIC is a national NGO established in 1990 to provide HIV Counselling and Testing (HCT) services to the public. Over time AIC has employed different approaches to promote HCT services. These approaches include clients who have already accessed HCT services, mass media, posters, collaborations with government and private institutions, community and health workers. A study was conducted to assess the various methods through which clients received information about HIV Counselling and Testing services at AIC Uganda in order to recommend the cost reliable means to reach the public.

Methods: Data was collected from 235,235 clients aged 12 years and above who accessed HCT at 8 AIC service centres from 2004 - 2008. Clients were asked how they learnt about HCT services at AIC and this information was recorded on the client cards. This data was analyzed using descriptive statistics to identify the source of information and establish the relationships between the source of information against variables like sex, age groups, rural-urban setting, education levels and sero-status.

Results: Of the total 235,235 clients surveyed, 31% received information from relatives/friends, 23% from radio, 10% from sign posts and less than 1% from television. Information from Radio contributed 51% among clients in rural areas compared to 49% of those in urban areas. Equally low for rural compared to urban was information from newspapers (13% vs. 87% respectively.) Among clients aged 36 years and above, 30% received information

through radio compared to 70% among those aged 35 years and below. Few men received information from their partners/spouses compared to females (18% vs. 82% respectively).

Conclusion: *Interpersonal communication is the most effective mode of informing clients about VCT services, followed by radio and posters. Radio is a good media for young people to access information than old clients. For rural clients word mouth and radio is a more appropriate means of communication. In conclusion no single medium of communication is effective for all categories of individuals and therefore it requires employing a combination of mediums for a successful intervention.*

Introduction

Since the breaking onto the scene over 2 decades ago, HIV and AIDS remain among the most serious disease epidemic of modern times. The epidemic continues to have an enormous impact on households, communities, businesses, public services and national economies. Epidemiological data indicate that in 2008, an estimated 2.7 million [2.4 million–3.0 million] new HIV infections occurred. It is also estimated that 2 million [1.7 million–2.4 million] deaths due to AIDS-related illnesses occurred worldwide and the number of people living with HIV worldwide continued to grow reaching an estimated 33.4 million [31.1 million–35.8 million]. The total number of people living with the virus in 2008 was more than 20% higher than the number in 2000, and the prevalence was roughly threefold higher than in 1990. [1]

In Uganda earliest cases of HIV/AIDS were reported in 1982 in Kasensero and Lukunyu landing sites, which are located on the shores of Lake Victoria, in Rakai district in southwestern Uganda. These early cases were initially diagnosed among traders on the lake who were plying between Uganda and Tanzania. Subsequently, the disease spread internally, mainly along busy highways into the major towns, and eventually spread into the countryside into all parts of the country, affecting virtually all population groups. [3][10].

Currently, it is estimated that a cumulative total of 2.6 million people have been infected with HIV in Uganda. Of these, approximately 1.6 million have died and about 1 million are living with the disease [2]. People's knowledge of their HIV status is considered a key motivating factor for behaviour change and a critical linkage to care, treatment, and support services for infected individuals. The HIV/AIDS programme has been engaged in increasing coverage of HIV counselling and testing services based on a multiple programme approach.[3]. However, the 2000-2001 Uganda Demographic Health Survey (UDHS) and the 2004-2005 Uganda HIV Sero Behavioral Survey (UHSBS) indicated that a high proportion of Ugandans have never been tested for HIV and do not know their status. In the 2006 UDHS, respondents were asked if they have ever undergone an HIV test and if they received the results of the test. One-quarter of women and one fifth of men (21%) age 15-49 have ever been tested for HIV and received their results. An additional 5 % of women and 3 percent of men have ever been tested but never received their test results. Seventy-one percent of women and 77 % of men have never been tested at all, implying that they are very unlikely to know their HIV status. [4]

Since the earliest days of the epidemic, information has been understood as a critical resource in efforts to prevent transmission of HIV, manage complications that accompany the disease, and prolong People Living With HIV/AIDS (PLWHA)'s lives [5]. According to UNAIDS HIV testing and counselling is essential to promoting earlier diagnosis of HIV infection,

which in turn can maximize the potential benefits of life-extending treatment and care. [11][14]

Recent evidence suggests that inadequate testing rates impede national AIDS responses, contributing to late entry into medical care for people who are HIV-infected and unknowing HIV transmission, especially within sero-discordant couples. Widespread provision of ARVs is a reality in many countries including Uganda. VCT is the gateway to the long-term management and treatment of HIV (Day et al., 2003) [7]. There are, however, benefits to VCT beyond accessing treatment. In adult populations, VCT has been demonstrated to be effective in lowering HIV risk and has been linked to increased safer sexual behavior (Valdiserri RO, Holtgrave DR, & West GR. 1999; Coates, Kamenga, Sweat, & De Zoysa, 2000) [6] [8]. A household survey in Uganda indicated that HIV-infected individuals who knew their HIV status were more than three times more likely to use a condom during their last sexual encounter compared with those who did not know their status (Bunnell et al., 2008) [9].

AIDS Information centre, Uganda (AIC) a pioneer non governmental organization in Sub Saharan Africa to provide HIV counseling and testing services has been at the forefront of interventions aimed at increasing the percentage of people with knowledge about their HIV status and similarly providing them with HIV and AIDS related information. [3][12][13]

Over time AIC has employed different approaches to promote HCT services. These approaches include clients who have already accessed HCT services, mass media, posters and sign posters, music dance and drama, collaborations with government and private institutions, community and health workers [12]. A study was conducted to assess the various methods through which clients received information about HIV Counselling and Testing services at AIC Uganda in order to recommend the cost reliable means to reach the public.

Purpose

According to WHO HIV counseling and testing (HCT) is a key intervention for HIV/AIDS control in developing countries. HCT increases knowledge of HIV status, encourages safer sex, and is an entry point for HIV care and treatment services. Increasing HCT coverage can reduce HIV-associated denial, stigma, and discrimination, and mobilize communities to respond to the HIV epidemic. [14]. In view of this, it is apparent that organizations understand the best channel of reaching different communities with HIV and AIDS related information and motivate them to go for HIV counseling and testing. It is against this background that the study set to assess the various methods through which clients received information about HCT services at AIC upon which recommendations on the most reliable means to reach the various categories would be made thus increase HCT uptake.

Data and Methods

To provide HIV counseling and testing services, AIC employs different approaches that include provider initiated and client initiated. In the provider initiated approach HIV testing is offered to a patient as standard part of medical care while the client initiated approach the individual seeks HIV testing at a testing facility. Client initiated approach was the focus for purposes of this study.

Study participants

The study was carried out between 2004 – 2008 among 235,235 clients aged 12 years and above who presented for HIV counseling and testing at the 8 AIC regional service centres

that include Kampala, Jinja, Mbale, Soroti, Arua, Lira, Mbarara and Kabale. These centres were selected because here individuals voluntarily present themselves for testing after learning about the service or because of a particular reason.

Table 1: Demographic Characteristics of Study Participants

| Characteristic | Number | Percentage (%) |
|--------------------|--------|----------------|
| Sex | | |
| <i>Female</i> | 112958 | 50.4 |
| <i>Male</i> | 111006 | 49.6 |
| Age (Years) | | |
| <i>12 – 24</i> | 72749 | 32.5 |
| <i>25 -35</i> | 88784 | 39.6 |
| <i>36 – 45</i> | 40176 | 17.9 |
| <i>46 – 55</i> | 14753 | 6.6 |
| <i>≥56</i> | 7502 | 3.3 |
| Residence | | |
| <i>Urban</i> | 133767 | 60.8 |
| <i>Rural</i> | 86099 | 39.2 |

Procedures

When a client presents for HIV counseling and testing s/he goes through the process of registration, orientation and test decision counseling, blood draw, prevention counseling and test result counseling. At the point of registration the counselor presents the client with a form that captures the bio- data, information on behaviors and reasons for testing. New clients are assigned a unique number that apply at all AIC service points. The client fills the form and hands it back to counselor. The client then waits in the waiting area at the reception to be picked by counselors to be taken through the other processes until the test result is given.

Instruments

A voluntary counseling and testing (VCT) card was designed by AIC that had to be filled by the clients whenever they presented for HCT. And among the questions on card were level of education (0=None, 1=P1-P6, 2=P7, 3=S1-S4, 4=S5-S6, 5=Diploma, 6 =University), Sex (1=Male, 2=Female), Residence (1=Rural, 2=Urban), Residence details(1= district, 2=sub-County, 3=village) and how the client learnt about HCT services at AIC.

Data Analysis

The data were entered in pre-designed views of EPI2000 and analyzed using descriptive statistics in SPSS Ver.12 to identify the source of information and establish the relationships between the source of information against variables like sex, age groups, rural-urban setting, education levels and sero-status. For purposes of this study we limited ourselves on the sources of information and therefore didn't include questions like the reasons for testing, marital status, and condom use.

Results

Demography

In all 235,235 individuals participated in the study. There was no significant gender differences among the participants as females were 50.4% compared to males at 49.6%. Majority of the participants (60.8%) indicated were living in urban settings compared to 39.2% who were from rural settings. They also identified their age ranges as 12 – 24 years (32.5%), 25 – 35 years (39.6 %), 36 – 45 years (17.9%), 46 – 55 years (6.6 %) and over 56 years (3.3%). The demographic characteristics are as shown in table 1.

Source of Information

Overall 31.3% (n=73530) of the respondents reported receiving information from friends and relatives. This was followed by radio 23.2% (n=54600). Sign posts (10.8%) and spouses/partners (6.8%) were also popular information sources. Sources of information less significance were health workers (2.4%), church/pastor (1.3%), VCT clients (1.5%), music dance and drama (0.2%); community based organizations (CBOs) (0.7%), newspapers (0.5%) and outreach activities (0.7%). The least reported sources of less than 1% were TV and local leaders as shown in Table 3.

Table 2: Sources of information among participants

| Information Source | Total Number | Percentage (%) Response |
|---------------------------|---------------------|--------------------------------|
| Health(Unit/Worker) | 5731 | 2.4 |
| Church/Pastor | 3133 | 1.3 |
| Relative/Friends | 73530 | 31.3 |
| Spouse/Partner | 15929 | 6.8 |
| VCT Clients | 3537 | 1.5 |
| PTC/Drama | 492 | 0.2 |
| CBO | 1633 | 0.7 |
| Local Council | 113 | 0.0 |
| radio | 54600 | 23.2 |
| TV | 102 | 0.0 |
| Mob/Outreach | 1694 | 0.7 |
| News Paper | 1101 | 0.5 |
| Sign Posts | 25609 | 10.9 |
| Tested Before | 25325 | 10.8 |
| Others | 11435 | 4.9 |
| Missing | 11271 | 4.8 |

For this study 4.8% of the respondents didn't specify the source of information and 10.8% of the participants were also excluded from the analysis because they were repeat testers.

Source of information by sex

Analyses were conducted to establish the source of information in respect to gender. As indicated in Table 3 the popular source of information among female respondents were relatives and friends (35.9%). Other sources of significance mentioned by females were radio (21.5%) and spouse/partners (11.6%). On the other hand relatives and friends (29.7%), radio (27.4%) and sign posts (13.4%) were the most popular sources among the males.

Table 3: Source of information by gender

| Information Source | Sex | | Effectiveness by Gender (%) | | Effectiveness by Source (%) | |
|---------------------|-------|--------|-----------------------------|--------|-----------------------------|--------|
| | Male | Female | Male | Female | Male | Female |
| Health(Unit/Worker) | 2798 | 2933 | 48.8 | 51.2 | 2.5 | 2.6 |
| Church/Pastor | 1485 | 1648 | 47.4 | 52.6 | 1.3 | 1.5 |
| Relative/Friends | 32924 | 40606 | 44.8 | 55.2 | 29.7 | 35.9 |
| Spouse/Partner | 2819 | 13110 | 17.7 | 82.3 | 2.5 | 11.6 |
| VCT Clients | 1656 | 1881 | 46.8 | 53.2 | 1.5 | 1.7 |
| PTC/Drama | 259 | 233 | 52.6 | 47.4 | 0.2 | 0.2 |
| CBO | 851 | 782 | 52.1 | 47.9 | 0.8 | 0.7 |
| Local Council | 53 | 60 | 46.9 | 53.1 | 0.0 | 0.1 |
| radio | 30369 | 24231 | 55.6 | 44.4 | 27.4 | 21.5 |
| TV | 57 | 45 | 55.9 | 44.1 | 0.1 | 0.0 |
| Mob/Outreach | 939 | 755 | 55.4 | 44.6 | 0.8 | 0.7 |
| News Paper | 726 | 375 | 65.9 | 34.1 | 0.7 | 0.3 |
| Sign Posts | 14856 | 10753 | 58.0 | 42.0 | 13.4 | 9.5 |
| Tested Before | 14888 | 10437 | 58.8 | 41.2 | 13.4 | 9.2 |
| Others | 6326 | 5109 | 55.3 | 44.7 | 5.7 | 4.5 |

Meanwhile as indicated in table 3, males are more likely to get information from newspapers (65.9%), sign posts (58.1%), TV (55.9%), radio (55.6%) and outreaches (55.4%) than females. While females are more likely to get information from their partners/spouses (82.3%), relatives/friends (55.2%), local leaders (53.1%) and church (52.6%) than their male counter parts.

Source of information in relation to age group

With respect to age Table 4 shows that there were no significant differences in the sources of information in terms age as those aged 12 – 24 years indicated the major source of information as relatives and friends (34.4%) followed by radio (23.6%). Similarly those aged 25 – 35 years indicated their source of information as mainly relatives and friends (31.4%) and radio (23.9%). Even those aged 36 years and above also indicated the most popular source as friends/relatives and radio.

In terms of the effectiveness of source across age groups those aged 12 – 24 years are more likely to receive information from church and pastor (48.1%), their partner (46.6%), music dance and drama (41.9%), outreaches (37.9%) than any other age group. While those aged 25 – 35 are likely to receive information from TV (54.9%), News Paper (53.1%), health units/workers (41.3%), radio (38.9%), relatives and friends (38.0%), VCT Clients (34.8%), Community Based Organisations (CBO) (39.6%), and Sign Posts (39.4%) than the other age groups as shown in table 5.

Table 4: Effectives of the source of information by age

| Source | Age Groups | | | | | Effectiveness by Source (%) | | | | |
|---------------------|------------|----------|-------|-------|------|-----------------------------|----------|-------|-------|-----|
| | 12-24yrs | 25-35yrs | 36-45 | 46-55 | 56+ | 12-24yrs | 25-35yrs | 36-45 | 46-55 | 56+ |
| Health(Unit/Worker) | 1108 | 2366 | 1418 | 572 | 267 | 19.3 | 41.3 | 24.7 | 10.0 | 4.7 |
| Church/Pastor | 1506 | 1139 | 319 | 115 | 54 | 48.1 | 36.4 | 10.2 | 3.7 | 1.7 |
| Relative/Friends | 24993 | 27917 | 13050 | 4869 | 2701 | 34.0 | 38.0 | 17.7 | 6.6 | 3.7 |
| Spouse/Partner | 7423 | 5954 | 1867 | 515 | 170 | 46.6 | 37.4 | 11.7 | 3.2 | 1.1 |
| VCT Clients | 818 | 1230 | 811 | 411 | 267 | 23.1 | 34.8 | 22.9 | 11.6 | 7.5 |
| PTC/Drama | 206 | 169 | 71 | 34 | 12 | 41.9 | 34.3 | 14.4 | 6.9 | 2.4 |
| CBO | 474 | 647 | 341 | 120 | 51 | 29.0 | 39.6 | 20.9 | 7.3 | 3.1 |
| Local Council | 18 | 36 | 28 | 20 | 11 | 15.9 | 31.9 | 24.8 | 17.7 | 9.7 |
| radio | 17202 | 21251 | 9987 | 4024 | 2136 | 31.5 | 38.9 | 18.3 | 7.4 | 3.9 |
| TV | 18 | 56 | 21 | 5 | 2 | 17.6 | 54.9 | 20.6 | 4.9 | 2.0 |
| Mob/Outreach | 643 | 582 | 269 | 133 | 67 | 38.0 | 34.4 | 15.9 | 7.9 | 4.0 |
| News Paper | 272 | 585 | 190 | 42 | 12 | 24.7 | 53.1 | 17.3 | 3.8 | 1.1 |
| Sign Posts | 8890 | 10094 | 4366 | 1590 | 669 | 34.7 | 39.4 | 17.0 | 6.2 | 2.6 |
| Tested Before | 5395 | 12149 | 5459 | 1606 | 716 | 21.3 | 48.0 | 21.6 | 6.3 | 2.8 |
| Others | 3783 | 4609 | 1979 | 697 | 367 | 33.1 | 40.3 | 17.3 | 6.1 | 3.2 |

Table 5: Effectiveness by age range

| Source | Age Groups | | | | | Effectiveness by age (%) | | | | |
|---------------------|------------|----------|-------|-------|------|--------------------------|----------|-------|-------|------|
| | 12-24yrs | 25-35yrs | 36-45 | 46-55 | 56+ | 12-24yrs | 25-35yrs | 36-45 | 46-55 | 56+ |
| Health(Unit/Worker) | 1108 | 2366 | 1418 | 572 | 267 | 1.5 | 2.7 | 3.5 | 3.9 | 3.6 |
| Church/Pastor | 1506 | 1139 | 319 | 115 | 54 | 2.1 | 1.3 | 0.8 | 0.8 | 0.7 |
| Relative/Friends | 24993 | 27917 | 13050 | 4869 | 2701 | 34.4 | 31.4 | 32.5 | 33.0 | 36.0 |
| Spouse/Partner | 7423 | 5954 | 1867 | 515 | 170 | 10.2 | 6.7 | 4.6 | 3.5 | 2.3 |
| VCT Clients | 818 | 1230 | 811 | 411 | 267 | 1.1 | 1.4 | 2.0 | 2.8 | 3.6 |
| PTC/Drama | 206 | 169 | 71 | 34 | 12 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| CBO | 474 | 647 | 341 | 120 | 51 | 0.7 | 0.7 | 0.8 | 0.8 | 0.7 |
| Local Council | 18 | 36 | 28 | 20 | 11 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| radio | 17202 | 21251 | 9987 | 4024 | 2136 | 23.6 | 23.9 | 24.9 | 27.3 | 28.5 |
| TV | 18 | 56 | 21 | 5 | 2 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| Mob/Outreach | 643 | 582 | 269 | 133 | 67 | 0.9 | 0.7 | 0.7 | 0.9 | 0.9 |
| News Paper | 272 | 585 | 190 | 42 | 12 | 0.4 | 0.7 | 0.5 | 0.3 | 0.2 |
| Sign Posts | 8890 | 10094 | 4366 | 1590 | 669 | 12.2 | 11.4 | 10.9 | 10.8 | 8.9 |
| Tested Before | 5395 | 12149 | 5459 | 1606 | 716 | 7.4 | 13.7 | 13.6 | 10.9 | 9.5 |
| Others | 3783 | 4609 | 1979 | 697 | 367 | 5.2 | 5.2 | 4.9 | 4.7 | 4.9 |

Relationship of information with residence

The participants were also asked about their place of residence in order to establish the effectiveness of each of the source of information for those in urban and rural setting. The most frequently mentioned sources of information by the rural participants were radio (31.8%) and relatives or friends (28.3%). The urban participants reported relatives and friends (35.6%) as the major source of information. Other frequently reported source of information among the urban respondents was and radio (19.9%) closely followed by sign posts (11.9%).

Similarly urban people are more likely to receive information from newspapers (87.2%) than the rural people. Other sources of significance where urban people are likely to receive information than those in rural settings are TV (76.3%), partners or spouses (74.3%) friends or relatives (66.1%) and sign posts (63.1%). Sources where rural people are more likely to receive information than their urban counterparts are VCT Clients (64.1%), local leaders (61.9%), church/pastors (58.8%), and radio (50.7%). Table 6 shows the effectiveness of the source by residence setting.

Table6: Relationship of information by residence

| Source | Setting | | Effectiveness by Setting (%) | | Effectiveness by Source (%) | |
|---------------------|---------|-------|------------------------------|-------|-----------------------------|-------|
| | Rural | Urban | Rural | Urban | Urban | Rural |
| Health(Unit/Worker) | 2519 | 3076 | 2.9 | 2.3 | 55.0 | 45.0 |
| Church/Pastor | 1780 | 1246 | 2.1 | 0.9 | 41.2 | 58.8 |
| Relative/Friends | 24378 | 47585 | 28.3 | 35.6 | 66.1 | 33.9 |
| Spouse/Partner | 4043 | 11525 | 4.7 | 8.6 | 74.0 | 26.0 |
| VCT Clients | 2250 | 1265 | 2.6 | 0.9 | 36.0 | 64.0 |
| PTC/Drama | 228 | 253 | 0.3 | 0.2 | 52.6 | 47.4 |
| CBO | 618 | 970 | 0.7 | 0.7 | 61.1 | 38.9 |
| Local Council | 70 | 43 | 0.1 | 0.0 | 38.1 | 61.9 |
| radio | 27381 | 26626 | 31.8 | 19.9 | 49.3 | 50.7 |
| TV | 23 | 74 | 0.0 | 0.1 | 76.3 | 23.7 |
| Mob/Outreach | 771 | 896 | 0.9 | 0.7 | 53.7 | 46.3 |
| News Paper | 136 | 926 | 0.2 | 0.7 | 87.2 | 12.8 |
| Sign Posts | 9304 | 15902 | 10.8 | 11.9 | 63.1 | 36.9 |
| Tested Before | 8232 | 16455 | 9.6 | 12.3 | 66.7 | 33.3 |
| Others | 4366 | 6925 | 5.1 | 5.2 | 61.3 | 38.7 |

Discussion

As previous research shows, targeted campaigns can lead to an increase in VCT utilization in participating sites (Elizabeth Maruma et al 2008). However audience segmentation is an important consideration when attempting to promote early HIV diagnosis especially for those who are unaware of their status. [15].

This study sought to identify the most frequently source of information in a diverse sample of 235,235 individuals seeking HIV counseling and testing at 8 AIC regional testing centres. Data were examined regarding how people received information about HIV testing and other services at AIDS information centre.

Like the study conducted by Sagrestano et al (2001)[16] the results have important implications for health care providers interested in communicating HIV prevention messages to their clients and community. For example, with respect to sources from which individuals had heard HIV testing and prevention messages, friends and relatives, radio, sign posts were the top sources cited by the full sample. These results are similar to the findings of (Nwagwu 2008; Krauss et al 1999; Wolitski RJ, Fishbein et al 1996) [17, 18, 19] in their studies on

sources of HIV&AIDS awareness and sources of HIV information among injecting drug users respectively. It is interesting to note that these sources were generally uniform across gender, age groups, and place of residence.

In regard to radio, ever since the government of Uganda liberalized the media industry there has been significant growth in the number of FM radio stations set up across the country and most of them broadcast in the local languages of these communities. So it is likely that this has also contributed a lot to this development. Like Kendra (2007) [20] recommended in her paper on HIV&AIDS information seeking and healthcare communication in Sub-Saharan Africa, when radio programmes are designed in local languages they are likely to have an impact on the community. This was evident in this study. Secondly radios are relatively affordable in terms of cost, running shows and spots. And this coupled with their ability to reach large audiences at the same time; they will continue to play a very important role in providing information [36].

The remarkable low information source from TV is not surprising considering their limitation in transmission and affordability in terms of running health programmes and acquiring among many individuals compared to radios. This calls for creation of partnerships with such TV stations to ensure that HIV messages are conveyed to the public at subsidized rates.

In the present study relatives and friends were the most prominent sources among respondents. This shows that the role of friends and relatives in HIV&AIDS information dissemination is very significant and emerging as an effective method. It tends to appear that people share information on HIV&AIDS. Like in other studies interpersonal communication continues to be prominent indicating that people are communicating with other on HIV&AIDS related issues [17, 18, 19, 24]. This is a challenge to organizations to ensure that there increased access to scientific facts and information by communities packaged in away they can easily comprehend. The person to person method can also be employed by educators when disseminating HIV information. The same view is shared by Nwagwa 2008 in his study on the effectiveness of sources of HIV/AIDS awareness in Nigeria [17]. Similar findings were also reported by Henderson S J et al (2004) [22] in his study on older women and HIV and how they were getting information. Interesting to note though is that women are 82.3% more likely to get information from their partners than vice versa. This may be associated with culture and gender issues that limit their capacity to negotiate well matters on HIV & AIDS and other health related issues and as such they do not discuss with their husbands about personal risk [23]. Therefore it would be important empower women to negotiate health issues with their partners. But it is also important to keep involving men in health intervention programmes because they are more likely to share the information with their partners. It should however be noted that a significant number of women also indicated getting information from the radios (21.5%) and this was the second prominent source. This calls for an urgent need to examine the timing of these programmes and their design to make them more appealing to women. Organizations should also ensure that media professionals are equipped with up-to-date information in all aspects of HIV.

Comparison of source of information against age groups reveals that there is no significant difference in the source of information across all age groups as the most predominant source was friends, relatives and radio. Studies conducted Zimbabwe, Iran, Sudan, USA, Korea etc among young indicate similar results [25 - 33]. These findings warrant young people are equipped with adequate and correct knowledge on HIV and AIDS considering that 12-24 get information from their friends. This is also qualified by the findings of Bankole A,et al

(2007) in his study on sexual Behavior, knowledge and information sources of adolescents in four Sub-Saharan African countries [32]

TV, radio and newspapers were more popular among those aged 25 – 35 years. This is likely because of the ease to access these mediums at that age. The findings also indicate that plays and drama are appealing to young people between 12 – 24 years. And this age group is more likely get messages through this means than any other age group. Plays tend to be informative, entertaining and brings out messages that are close to real life and according to Mitchell et al (2001) findings plays were found to be acceptable in communities [34]. Schools and organizations therefore need to utilize this channel when communicating to young people.

Results of the study further indicate that there is a high likelihood that people from rural settings won't receive information through newspapers. We consider this to be caused by the high illiteracy levels that hinder their ability to read and understand messages in newspapers.

There are several components in the results of this study that show that increasing person to person contact in AIDS awareness programmes might be of great advantage. Lack of knowledge and limited access to proper information sources of information on HIV&AIDS causes unnecessary vulnerability.

Generally the findings of this study may be limited by the number of survey sites, lack of randomization but non the less this is one of the studies that identifies the key sources of information among those seeking HIV counseling and testing services. The study findings will prove useful to health workers, program developers and organizations offering similar services to be able select channels for interventions that address the different categories of individuals. And as highlighted by Leach et al (1997) in his paper, it is important to bear in mind that the findings regarding the source of information are influenced both by the ability of a particular information source to reach the people as well as the presence or absence of salient HIV related message disseminated through a given channel.

In summary, it appears interpersonal communication is a more effective mode of informing the clients about HIV counseling and testing services, followed by radio. But a successful intervention may require all channels of communication intertwined.

References

1. UNAIDS/WHO, AIDS Epidemic Update December 2009.
2. Uganda Ministry of Health and Micro International Inc 2008. Uganda Service Provision Assessment Survey 2007, Maryland, USA
3. Kaleeba, N., Kadowe, J., Lalinaki, D., & Williams, G. (2000) Open Secret, People facing up to HIV and AIDS in Uganda, *Strategies for Hope Series* No. 15, ACTIONAID, London.
4. Uganda Bureau of Statistics (UBOS) and Micro International Inc 2007. Uganda Demographic and Health Survey 2006. Maryland, USA
5. Huber, J. T., Gillaspay M. L. (1998) Social constructs and disease: implications for a controlled vocabulary for HIV/AIDS. *Library Trends*, 47(2): 190-208.

6. Valdiserri RO, Holtgrave DR, West GR. (1999) Promoting early HIV diagnosis and entry into care. *AIDS*. 13:17, 2317-30
7. Day, J. H., Miyamura, K., Grant, A. D., Leeuw, A., Munsamy, J., Baggaley, R., et al. (2003). Attitudes to HIV voluntary counselling and testing among mineworkers in South Africa: Will availability of antiretroviral therapy encourage testing? *AIDS Care*, 15(5), 665-672
8. Coates, T. J., Kamenga, M. C., Sweat, M. D., & De Zoysa, I. (2000). Efficacy of voluntary HIV-1 counselling and testing in individuals and couples in Kenya, Tanzania, and Trinidad: A randomised trial. *Lancet*, 356: 9224, 103-112.
9. Bunnell R, Opio A, Musinguzi J, Kirungi W, Ekwaru P, Mishra V, Hladik W, Kafuko J, Madraa E, Mermin J. (2008). HIV transmission risk behavior among HIV-infected adults in Uganda: results of a nationally representative survey. *AIDS*, 22, 617–624.
10. Serwadda, D., Mugerwa, R. D., Sewankambo, N. K., Lwegaba, A., Carswell, J. W., Kirya, G. B., Bayley, A. C. *et al.*, (1985) Slim disease: a new disease in Uganda and its association with HTLV-III infection. *Lancet* 2: 8460 849-852.
11. WHO/UNAIDS (2007) Guidance on provider-initiated HIV testing and counselling in health facilities, Geneva, Switzerland
12. AIDS Information Centre, Annual Report 2007.
13. Alwano-Edyegu M, Marume (1999) Knowledge is power: voluntary HIV counseling and testing in Uganda. Geneva: UNAIDS; 1999.
14. WHO. The right to know: new approaches to HIV testing and counselling. Geneva: WHO; 2003.
15. Marum E, Morgan G, Hightower A, Ngare C, Taegtmeier M. (2008) Using mass media campaigns to promote voluntary counseling and HIV-testing services in Kenya. *AIDS*. 22:15, 2019-24
16. Sagrestano LM, Heiss-Wendt RM, Mizan AN, Kittleson MJ, Sarvela PD. (2001) Sources of HIV-prevention information for individuals at high risk. *American Journal Health Behavior*. 25:6, 545-56
17. Nwagwu WE. (2008) Effectiveness of sources of HIV/AIDS awareness in a rural community in Imo State, Nigeria. *Health Information and Libraries Journal*; 25:1, 38-45.
18. Wolitski RJ, Fishbein M, Johnson WD, Schnell DJ, Esacove A. (1996) Sources of HIV information among injecting drug users: association with gender, ethnicity, and risk behaviour. *AIDS Community Demonstration Projects AIDS Care*. 8:5, 541-55
19. Krauss BJ, Wolitski RJ, Tross S, Corby NH, Fishbein M. (1999) Getting the message: HIV information sources of women who have sex with injecting drug users- a two-site study. *Applied Psychology*. 48:2, 153-73.
20. K. Albright, (2007) HIV/AIDS Information Seeking and Healthcare Communication in Sub-Saharan Africa. Proceedings from the 73rd General IFLA Conference and Council, Durban, South Africa: The Association, 2007
21. Bastien S, Sango W, Mnyika KS, Masatu MC, Klepp KI. (2008) Changes in exposure to information, communication and knowledge about AIDS among school children in Northern Tanzania, 1992-2005. *AIDS Care*. 20:3, 382-7.
22. Henderson SJ, Bernstein LB, George DM, Doyle JP, Paranjape AS, Corbie-Smith G (2004) Older women and HIV: how much do they know and where are they getting their information? *Journal of the American Geriatrics Society* 52:9, 1549-53.

23. Pallikadavath, S., Sreedharan, C. and Stones, R. W. (2006) Sources of AIDS awareness among women in India. *AIDS Care*, 18:1, 44-48.
24. Otte WM, van der Maas F, de Boer A. (2008) Comparison of knowledge and accessibility to information sources of HIV/AIDS between blind and sighted populations in Nigeria. *AIDS Care*. 20:9,1093-7.
25. Ndlovu RJ, Sihlangu RH.(1992) Preferred sources of information on AIDS among high school students from selected schools in Zimbabwe, *Journal of Advanced Nursing*. 17:4,507-13
26. Van der Maas F, Otte WM.(2009) Evaluation of HIV/AIDS secondary school peer education in rural Nigeria *Health Education Research*, 24:4,547-57
27. Yazdi CA, Aschbacher K, Arvantaj A, Naser HM, Abdollahi E, Asadi A, Mousavi M, Narmani MR, Kianpishie M, Nicfallah F, Moghadam AK.(2006) 'Knowledge, attitudes and sources of information regarding HIV/AIDS in Iranian adolescents'. *AIDS Care*.18:8, 1004-1010
28. Leach, M.P , Wolitiski R. J Goldbaum, G. M And Fishbein, M (1997) HIV risk and sources of information among urban street youth. *Psychology, Health And Medicine*, 2: 2 119 - 134
29. Hillier L. , Warr D., Haste B. (1998) Rural youth: HIV/STD knowledge levels and sources of information, *The Australian Journal of Health* 6:1, 18 -26
30. Nasir EF, Astrøm AN, David J, Ali RW (2008) HIV and AIDS related knowledge, sources of information, and reported need for further education among dental students in Sudan--a cross sectional study, *BMC Public Health*. 14:8, 286.
31. Yoo H, Lee SH, Kwon BE, Chung S, Kim S.(2005) HIV/AIDS knowledge, attitudes, related behaviors, and sources of information among Korean adolescents, *Journal of School Health*, 75:10,393-9.
32. Bankole A, Biddlecom A, Guiella G, Singh S, Zulu E.(2007) Sexual Behavior, Knowledge and Information Sources of Very Young Adolescents in Four Sub-Saharan African Countries. *African Journal of Reproductive Health*. 11:3, 28-43.
33. Harden A, Oakley A, Oliver S (2001) Peer-delivered health promotion for young people: A systematic review of different study designs, *Health Education Journal* 60:4, 339 - 353
34. Mitchell K, Nakamanya S, Kamali A, Whitworth JA.(2001) Community-based HIV/AIDS education in rural Uganda: which channel is most effective? *Health Education Research*. 16:4,411-23.
35. Nyanzi-Wakholi, Barbara , Lara, Antonieta Medina , Watera, Christine, Munderi, Paula , Gilks, Charles and Grosskurth, Heiner (2009) 'The role of HIV testing, counselling, and treatment in coping with HIV/AIDS in Uganda: a qualitative analysis', *AIDS Care*, 21:7, 903 - 908
36. Buseh AG, Glass LK, McElmurry BJ, Mkhabela M, Sukati NA.(2001) Primary and preferred sources for HIV/AIDS and sexual risk behavior information among adolescents in Swaziland, Southern Africa, *International Journal of Nursing Studies*.39:5,525-38