



Factors affecting Knowledge, Attitudes and Behavior of HIV/AIDS: A Study on Bangladesh

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Abstract

This research study is designed to investigate the factors affecting the knowledge, attitudes, and behavior of HIV/AIDS. The variable under consideration is the ever heard of HIV/AIDS as a dependent variable and the age, place of residence, educational level, partner's educational level, reading newspaper, watching television, listening radio and wealth quintile were independent variables. Division, marital status, prevention methods, misconceptions, and HIV transmission also used in descriptive analysis. The secondary data is collected from Bangladesh Demographic and Health Survey 2014, Mitra and Associates, Dhaka, Bangladesh. For analysis, multinomial logistic regression model and descriptive analysis were used. The findings revealed that age, place of residence, educational level, partner's educational level, reading newspaper, watching television, listening radio and wealth quintile significantly contribute the knowledge, attitudes and behavior of HIV/AIDS.

Key words: HIV/AIDS, Knowledge, Attitudes, Behavior, Multinomial logistic regression.

1.0 Introduction

HIV/AIDS is an emerging public health issue in Bangladesh. Bangladesh is a low prevalence country for HIV/AIDS. Now AIDS disease is a major concern in each country for survival. Bangladesh has made significant progress in recent times in many of its social development indicators particularly in the health sector. Health indicators show steady gains in many respects and the health status of the population has improved. But Bangladesh also faces different health problems and diseases. Acquired immune deficiency syndrome (AIDS) is a disease of the human immune system caused by infection with human immunodeficiency virus (HIV). During the initial infection, a person may experience a brief period of influenza-like illness. This is typically followed by a prolonged period without symptoms. As the illness progresses, it interferes more and more with the immune system, making the person much more likely to get infections, including opportunistic infections and tumors that do not usually affect people who have working immune systems. According to World Health Organization (WHO), human immunodeficiency virus (HIV) is "a retrovirus that infects cells of the immune system, destroying or impairing their function", which can lead to acquired immunodeficiency syndrome (AIDS), the latest stage of HIV infection when the body's immune system has been severely damaged and lacks of capacity to fight against diseases.

Scientists believed that HIV was originated from the mutation of Simian immunodeficiency virus (SIV) found in a type of chimpanzee in West Africa. People got infected with the virus because of contacting with infected blood of this type of chimpanzees when people hunted them for meat. AIDS was first recognized internationally in 1981. The cases of AIDS were recognized in 1981 when the Centers for Disease Control and Prevention (CDC) reported the rare cases of unusual clusters of *Pneumocystis carinii* pneumonia and Kaposi's sarcoma among homosexual men in New York and California (Tun, 2013).

With less than 0.1 percent of the population estimated to be HIV-positive, Bangladesh is a



low HIV-prevalence country. The country faces a concentrated epidemic, and its very low HIV-prevalence rate is partly due to prevention efforts, focusing on men who have sex with men, female sex workers, and intravenous drug users. In Bangladesh, the first case of HIV was detected in 1989. In 2014, a total of 445 new cases of HIV infection, 251 new AIDS cases, and 84 deaths due to AIDS were reported. The reported number of HIV-positive people in Bangladesh increased from 363 in 2003 to 1207 in 2007. By the end of 2014, the number of HIV-positive people had increased to 2533, an increase of more than double in four years. However, the estimated number of HIV/AIDS cases remains at 7500, indicating both the likelihood of incomplete reporting and the potential for growth of the epidemic in Bangladesh (NASP, 2012).

Epidemiology studies have since identified the main routes of transmission of HIV to be unsafe sexual intercourse, intravenous injections with contaminated needles, unscreened or contaminated blood transfusions, and transmission from an infected mother to her child during pregnancy, delivery, or breastfeeding. HIV cannot be transmitted through food, water, insect vectors, or casual contact. HIV infection weakens the immune systems and makes the body susceptible to and unable to recover from other opportunistic diseases. Secondary infections, if not adequately treated, can lead to death (NIPORT, 2013).

In this study, we will explore the factors affecting the knowledge, attitudes, and behaviors of HIV/AIDS. For this study, at first we will clearly present the descriptive characteristics of HIV related knowledge, attitudes, and behaviors among ever-married women aged 15-49 years of BDHS 2014 by frequency distribution. Finally, we want to identify the important factors closely related to the change of the knowledge, attitudes, and behaviors of HIV/AIDS by multinomial logistic regression.

2.0 HIV Situation in Bangladesh

People of Bangladesh are mostly religious and therefore we generally feel that the HIV/AIDS situation is not that much alarming here like many western countries. But the reality is different. Our younger generations no longer uphold the moral religious values that they used to hold earlier. Obscene activities are often frequent and thereby the moral value system is getting degraded day by day. Apart from 14 well established prostitutions, many residential hotels, river ports, seaports etc. are believed to be the hub of flesh trade. Nobody knows the exact number of floating sex workers working in different parks, especially in Dhaka city and other urban areas throughout the country. It is believed that about half a million males' everyday go to the female sex workers. A large number of youth and single female textile and garment workers are suspected to be involved in different illegal and unsafe sexual activities. Premarital and extramarital sexual relationships of course exist but usually do not come into light. Different types of illegal sexual relations take place in the society behind the curtain, though not acknowledged. It is also alleged that truck drivers driving through longer routes often go to commercial sex workers without taking any precautions against HIV infections. Allegations are frequently made by the sex workers in Bangladesh that the police maltreat them and do not pay any money after having sex at night. Sometimes the sex workers express their frustration and helplessness for being inhumanely treated by our police personnel and other law enforcing agencies.

Homosexuality and lesbianism have been identified as the key for spreading HIV/AIDS all over the world. In fact, homosexuality is specially emphasized for causing HIV infections. But unfortunately any kind of discussion on homosexuality is almost a taboo in our society. In rural areas of Bangladesh the situation is worse. Rural people neither have the knowledge of



homosexuality nor have the knowledge of HIV/AIDS. But most of the people seriously lack the knowledge as to how homosexuality could be very dangerous for spreading HIV/AIDS in our society. So mass awareness campaign must be launched to combat HIV/AIDS both in rural as well as urban areas of Bangladesh keeping the above-mentioned reasons in mind (Das, 2008). HIV/AIDS is also transmitted by using intravenous injections with contaminated needles, unscreened or contaminated blood transfusions, and from an infected mother to her child during pregnancy, delivery, or breastfeeding.

2.1 Impact of HIV/AIDS

The statistics about the impact of HIV/AIDS world-wide are overwhelming. Estimates of the United Nations Agency for AIDS (UNAIDS) indicate that over 40 million people were living with HIV/AIDS in 2001, that nearly 25 million people have died of AIDS since the disease was first discovered in the early 1980's and that more than 15.6 million children under 15, have lost either their mother, their father or both parents as a direct results of AIDS. Well over two thirds of the HIV/AIDS related deaths (18 million, or 72%) are from Africa (World Bank, 2002) and almost one in every ten adults in sub-Saharan Africa are HIV positive, although infection rates in individual countries such as South Africa, Botswana, Malawi, and Swaziland are much higher. HIV/AIDS leads to financial, resource and income impoverishment, and puts severe strain on individuals and households. The psychological stress that is a direct consequence of the impact of HIV on individuals and families can compromise school and work performance, family relationships, and the capacity to take care of children, and may also culminate in risk behavior such as alcohol and drug abuse and in unsafe sexual behavior (Coombe, 2002).

3.0 Objectives of the Research Study

The major objectives of this study are as follows:

1. To determine the level of knowledge about HIV/AIDS,
2. To identify the factors which are responsible for changing the knowledge, attitudes, and behaviors of HIV/AIDS, and
3. To generate recommendations and policy implications for required improvement of the knowledge of HIV/AIDS on the basis of the findings.

4.0 Literature Review

Different research have been done by different authors and different organizations of the world based on HIV/AIDS disease, especially to assess the level of knowledge, attitudes and behavior related HIV/AIDS and to identify the important factors that affect the HIV/AIDS disease. A research was conducted by Mohammad Tajul Islam, et al in 2002. They conducted a study to assess their knowledge on, and attitude toward, human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS). Their study was titled as: *Knowledge on, and Attitude Toward, HIV/AIDS among Staff of an International Organization in Bangladesh*, ICDDR,B, Dhaka, Bangladesh. All except 1.4% heard of AIDS. Main sources of information were radio and television (93%), newspapers and magazines (84.8%), posters and leaflets (70.2%), and friends (59.2%). About 94% of the respondents believed that HIV might spread in Bangladesh. The findings of the study suggest that the members of the Centre's staff have a satisfactory level of essential knowledge on HIV/AIDS, although half of them have poor attitudes toward persons with HIV/AIDS. Therefore, preventive strategy for the staff should be directed toward behavior change communication.

A research paper was published by Md. Nazrul Islam Mondal, et al. This paper examines the determinants of HIV/AIDS awareness among garments workers in Dhaka City, Bangladesh.



Their study was titled as: *Determinants of HIV/AIDS Awareness among Garments Workers in Dhaka City, Bangladesh*. The logistic regression model has been used for predicting of the probability occurrence of the events. The results revealed that the majority of garments workers (63.5%) are very young (18-27 years of age), almost all (97.5%) are literate and most of them (57.0%) used contraceptives. Importantly, most of the respondents (84.5%) knew that HIV/AIDS is a dangerous and life threatening disease. The logistic regression model identified that the respondents' education level, contraceptive usage, mass media and HIV workshops have statistically positive significant effects on HIV/AIDS awareness. Various media campaigns are strongly suggested to increase the level of knowledge and awareness so that the spread of HIV as well as STDs among garments workers in Bangladesh can be controlled.

Another research paper was published by Prosannajid Sarkar, et al in 2013. This paper identifies the vulnerable groups which have lower level of specific knowledge about transmission and ways of avoiding human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS). Their study was titled as: *Knowledge of fearfulness of HIV/AIDS between floating and frequently moving population of three metropolitan cities in Bangladesh*, Department of Population Science and Human Resource Development, University of Rajshahi, Rajshahi, Bangladesh. Majority of respondents, about 92% floating and 99% frequently moving, heard the name HIV/AIDS from various sources of media, but 52% floating and 31% frequently moving respondents do not know the fearfulness of HIV/AIDS. Electronic media is the most dominant source of hearing about HIV/AIDS. In this study, it was also found that uncontrolled and unsafe sexual relation is the main cause of HIV/AIDS (answer given by the respondents). Further, all the variables (respondents' age, marital status, educational level and occupation) of contingency analysis were significantly associated with HIV/AIDS in frequently moving respondents but the same variables were not seen in floating respondents. In multivariate logistic analysis, we found that in case of frequently moving respondents, variables like respondents' age, marital status, education and occupation exert significant effect on the knowledge about the fearfulness of HIV/AIDS; whereas in floating respondents, only education variable exerts significant effect on the knowledge about the fearfulness of HIV/AIDS.

A progress report was published by UNAIDS, et al in 2014. This progress report was titled as: *Global HIV/AIDS Response: Epidemic update and health sector progress towards Universal Access*. This report documents the extraordinary progress achieved over the past decade in the health sector response to HIV. Access to evidence-informed HIV prevention, testing and counselling, treatment and care services in low- and middle-income countries has expanded dramatically. This progress demonstrates how countries can surmount seemingly intractable health and development challenges through commitment, investment and collective action. The global incidence of HIV infection has stabilized and begun to decline in many countries with generalized epidemics. The number of people receiving antiretroviral therapy continues to increase, with 6.65 million people getting treatment at the end of 2010.

Another research work was published by World Health Organization in 2012. This progress report was titled as: *HIV Operational Plan 2012-2013: WHO's support to implement the Global Health Sector Strategy on HIV/AIDS*. This HIV Operational Plan describes how WHO will implement the strategy in 2012/2013. It outlines WHO's priority work areas for

2012/2013, providing details of the normative guidance, policy advice, technical assistance and other products and services that will be implemented within each strategic direction across WHO's HIV program within each of the three levels of the Organization (headquarters,



regional offices and country offices), all of which are aimed at delivering robust, coordinated support for country HIV programs.

From the aforesaid literature review, it is evident that AIDS is one of the most complicated diseases. The prevalence of HIV/AIDS in Bangladesh is still low, although infection rate is increasing since 1994, especially among heterosexual males and injecting drug users (Islam, 1999). About half of all males and probably a lower proportion of females in Bangladesh experience premarital and/or extramarital sexual relations. So it is necessary to spread the knowledge, attitudes and behavior of HIV/AIDS and identify the factors affecting knowledge, attitudes and behavior of HIV/AIDS.

5.0 Research Methodology

The study is based on secondary sources. The success of any analysis ultimately depends on the availability of the appropriate data. In this study, we have used the secondary data collected from BDHS. We have collected the secondary data based on the background characteristics, socio-demographic characteristics, and HIV/AIDS related knowledge, attitudes and behaviors with 17864 ever-married women aged 15-49 years by omitting some cases whose contain missing value in 2014 from Bangladesh Demographic and Health Survey (BDHS), Mitra and Associates, Dhaka, Bangladesh. So the sample size of this study is 17864.

The study was conducted to the knowledge, attitudes and behavior of HIV/AIDS among women in BDHS 2014. In this research, we have selected the age of the respondents, place of residence, division of the respondents, educational level, partner's educational level, reading newspaper or magazine, listening to radio, watching television and wealth quintile as socio-economic and demographic variables. Some variables related knowledge, attitudes, and sexual behavior have selected and categorized based on the knowledge, prevention methods, transmission, and misconceptions of HIV/AIDS.

For the descriptive analysis, frequency distribution is used to provide the descriptive characteristics of all independent and dependent variables. Multinomial logistic regression would be used for multivariate analysis to identify the important factors affecting HIV/AIDS related knowledge, attitudes, and behavior. To identify the factors affecting HIV/AIDS knowledge, we will use the ever heard of HIV/AIDS as dependent variable in this study. The explanatory variables used in the multinomial logistic regression analysis are as follows: age, type of place of residence, highest educational level, partner's educational level, reading newspaper, watching television, listening radio and wealth quintile. The selected variables of HIV-related knowledge, attitudes, and behavior included 'knowledge of hearing HIV/AIDS', 'knowledge of HIV prevention methods', 'knowledge of misconceptions about HIV transmission', 'knowledge of HIV Transmission' for the surveys. Odds ratios and 95 percent confidence interval would be calculated to see their associations for the surveys. For all types of analysis, this study used 5% level of significance.

6.0 Results and Discussion

6.1 Knowledge level of HIV/AIDS: The result of some major variables related to the knowledge of HIV/AIDS of 17864 ever-married women aged 15-49 years for BDHS 2014 is presented in the table 1.



Table 1: Knowledge level of HIV/AIDS of ever-married women aged 15-49 years.

Background Characteristics	Category	Ever Heard of HIV/AIDS			
		Yes		No	
		Frequency	Percent	Frequency	Percent
Division	Barisal	793	71.4	318	28.6
	Chittagong	2274	68.9	1027	31.1
	Dhaka	4605	74.0	1618	26
	Khulna	1413	76.9	425	23.1
	Rajshahi	1327	63.1	776	36.9
	Rangpur	1275	62.0	781	38
	Sylhet	733	59.5	499	40.5
Age	15-19	1461	72	568	28
	20-24	2499	77.5	725	22.5
	25-29	2604	76.8	786	23.2
	30-39	3641	67.9	1721	32.1
	40-49	2215	57.4	1644	42.6
Marital status	Married	11868	70.4	4990	29.6
	Divorced/separated/ widowed	551	54.8	455	45.2
Residence	Urban	4281	84.8	767	15.2
	Rural	8138	63.5	4678	36.5
Education	No education	1795	40.3	2660	59.7
	Primary incomplete	1892	58.7	1331	41.3
	Primary complete	1408	70.9	578	29.1
	Secondary incomplete	4795	85.2	833	14.8
	Secondary complete or higher	2533	98.5	39	1.5
Wealth quintile	Lowest	1368	42.8	1829	57.2
	Second	1745	54.3	1468	45.7
	Middle	2411	70.1	1028	29.9
	Fourth	2967	79.3	775	20.7
	Highest	3931	92	342	8

Table 1 shows the result of the knowledge level of HIV/AIDS. We find that the women in Dhaka (74 percent) and Khulna (76.9 percent) have satisfactory knowledge of HIV. We observe that the knowledge level is not satisfactory in Sylhet (59.5 percent). The knowledge of ever-married women aged 20-24 is sound (77.5 percent). From the result, we conclude that the knowledge of young women is satisfactory but older women are not sound. The knowledge of married women (except Divorced/separated/ widowed) is 70.4 percent. Urban women (84.8 percent) have sufficient knowledge regarding HIV. We observe that educated women (98.5 percent) has better knowledge related AIDS than uneducated women (40.3 percent). Richest women also have sufficient knowledge than poorest women. So within this time, Government, NGOs and other development agencies should take sufficient intervention programs and awareness raising programs for the general population at large to increase the HIV knowledge. So it is stated that division, age, marital status, place of residence, education, and wealth quintile play significant role for changing the knowledge of AIDS.

6.2 Knowledge level of Prevention Methods, Misconceptions, and Transmission of HIV:

The result of some variables related to the attitudes and behavior of HIV/AIDS of 17864 ever-married women aged 15-49 years for BDHS 2014 is presented in the table 2.



Table 2: Knowledge of Prevention Methods, Misconceptions, and Transmission of HIV.

Variables	Category	Frequency	Percent
HIV prevention methods	Always using Condom during sex	7414	41.5%
	Have one sex partner only with no other sex partner	9093	50.9%
	Using condoms and limiting sexual intercourse to one uninfected partner	6127	34.3%
Misconceptions about HIV Transmission	HIV can be transmitted through mosquito bites	5931	33.2%
	HIV can be transmitted by sharing food with person who has AIDS	5877	32.9%
	A healthy looking person can have HIV	9486	53.1%
HIV Transmission	HIV can be transmitted by using an unsterilized needle/syringe	12005	67.2%
	HIV can be transmitted by receiving an unsafe blood transfusion	11701	65.5%

Table 2 shows the results of the knowledge level of HIV/AIDS related to Attitudes and behavior. We obtain that 41.5 percent of women know that the chance of getting AIDS can be reduced by using condom during every sexual encounter. Again 50.9 percent of women are aware that the chance of getting AIDS can be reduced by having one sex partner only with no other sex partner. Only 34.3 percent of women are aware that the chance of getting AIDS can be reduced by using condoms and limiting sexual intercourse to one uninfected partner. We observe that the result of misconceptions of women is that HIV can be transmitted through mosquito bites (33.2 percent), HIV can be transmitted by sharing food with person who has AIDS (32.9 percent) and a healthy looking person can have HIV (53.1 percent). Table 2 shows that 67.2 percent of ever-married women know that HIV can be transmitted by using an unsterilized needle/syringe. Again 65.5 percent of ever-married women know that HIV can be transmitted by receiving an unsafe blood transfusion. From the above analysis, we conclude that Women in Bangladesh have very satisfactory knowledge about HIV/AIDS. But it is necessary that the knowledge level of HIV/AIDS should be increased to reduce the risk of the AIDS disease.

6.3 Identification of factors affecting HIV/AIDS knowledge: To identify the factors affecting HIV/AIDS knowledge, we will use the ever heard of HIV/AIDS as dependent variable and age, place of residence, educational level, partner's educational level, reading newspaper, watching television, listening radio and wealth quintile as independent variable. The result of multivariate analysis is shown in the table 3.

Table 3: Result of multivariate analysis to identify the factors affecting HIV/AIDS knowledge.

Factors	Coefficient	SE	Sig.	Odds Ratio	95% CI for OR
Intercept	6.241	0.495	.000		
Age					
15-19	0.128	0.089	.151	1.136	(0.954, 1.354)
20-24	0.481	0.079	.000	1.618***	(1.386, 1.888)
25-29	0.522	0.076	.000	1.685***	(1.451, 1.958)
30-39	0.455	0.078	.000	1.576***	(1.353, 1.835)
40-49 ^(r)	.	.	.	.	.



Place of residence					
Urban	0.325	0.051	.000	1.384***	(1.253, 1.529)
Rural ^(r)	.	.	.	.	.
Educational Level					
No education	-4.002	0.460	.000	0.018***	(0.007, 0.045)
Primary incomplete	-3.674	0.445	.000	0.023***	(0.011, 0.062)
Primary complete	-3.376	0.458	.000	0.034***	(0.014, 0.084)
Secondary incomplete	-2.324	0.457	.000	0.098***	(0.040, 0.240)
Secondary or higher ^(r)	.	.	.	.	.
Reading Newspaper					
Not at all	-0.708	0.218	.001	0.493**	(0.321, 0.755)
Less than once a week	-0.026	0.244	.913	0.974	(0.604, 1.570)
At least once a week ^(r)	.	.	.	.	.
Listening to Radio					
Not at all	-0.295	0.103	.004	0.745**	(0.608, .911)
Less than once a week	-0.028	0.241	.929	0.965	(0.609, 1.538)
At least once a week ^(r)	.	.	.	.	.
Watching Television					
Not at all	-1.030	0.050	.000	0.357***	(0.324, 0.394)
Less than once a week	-0.518	0.065	.000	0.596***	(0.524, 0.677)
At least once a week ^(r)	.	.	.	.	.
Partner's Education					
No education	-0.841	0.121	.000	0.431***	(0.340, 0.547)
Primary incomplete	-0.721	0.112	.000	0.473***	(0.382, 0.615)
Primary complete	-0.598	0.120	.000	0.550***	(0.435, 0.696)
Secondary incomplete	-0.297	0.119	.013	0.743*	(0.588, 0.939)
Secondary or Higher ^(r)	.	.	.	.	.
Wealth quintile					
Lowest	-0.930	0.092	.000	0.394***	(0.329, 0.472)
Second	-0.828	0.089	.000	0.437***	(0.367, 0.520)
Middle	-0.529	0.086	.000	0.589***	(0.497, 0.698)
Fourth	-0.447	0.083	.000	0.640***	(0.543, 0.753)
Highest ^(r)	.	.	.	.	.

^(r) indicates the reference category in each variable. *P<0.05, **P<0.01, ***P<0.001.

* indicates less significant, ** indicates significant, *** indicates highly significant.

Table 3 shows that age, place of residence, educational level, partner's educational level, reading newspaper, watching television, listening radio and wealth quintile are statistically significant with ever heard of HIV/AIDS at 5% level of significance.

From the table 3, we can conclude the following conclusions.

It is evident that the knowledge of HIV/AIDS is higher of women aged 15-19, 20-24, 25-29, and 30-39 respectively compared to women aged 40-49. Women aged 20-24, 25-29 and 30-39 are highly significant. The odds ratio 1.384 indicates that the knowledge of HIV/AIDS is 1.384 times higher of urban women compared to rural women. Urban women can receive more educational facilities, mass media facilities and health care services compared to rural women. Educational institutions and hospitals are available in urban area. So the knowledge of HIV/AIDS is higher of urban women compared to rural women.



It is evident that the knowledge of HIV/AIDS is 55.55 times (OR=reciprocal of 0.018), 43.48 times (OR=reciprocal of 0.023), 29.41 times (OR=reciprocal of 0.034), and 10.20 times (OR=reciprocal of 0.098) less for uneducated, primary incomplete, primary complete and secondary incomplete educated women respectively compared to secondary or higher educated women. Educated women are aware about their health. They can know about HIV/AIDS by mass media. So the knowledge about HIV/AIDS is less for uneducated women compared to higher educated women.

The knowledge of HIV/AIDS is 2.03 times less for women who do not read newspaper at all compared to women who read newspaper at least once a week. Awareness programs about HIV/AIDS are advertised by newspaper or magazine. So women can know about HIV/AIDS by reading newspaper or magazine. For this reason, the knowledge of HIV/AIDS is higher of women who read newspaper compared to women who do not read newspaper. The knowledge of HIV/AIDS of women who do not listen to radio at all is 1.34 times less than women who listen to radio at least once a week. The knowledge of HIV/AIDS of women who do not watch television at all is 2.8 times less than women who watch television at least once a week. The knowledge of HIV/AIDS of women who partner has no education is 2.3 times less than women who partner have secondary or higher education. The knowledge of HIV/AIDS of poorest women is 2.5 times less than richest women. So age, place of residence, educational level, partner's educational level, reading newspaper, watching television, listening radio and wealth quintile play important role for affecting the knowledge of HIV/AIDS.

7.0 Summary and Recommendations

In this study, from the descriptive analysis, we conclude that women in Bangladesh have very satisfactory knowledge about HIV/AIDS. But it is necessary that the knowledge level of HIV/AIDS should be increased to reduce the risk of the AIDS disease. And from the multivariate analysis, we find that age, place of residence, educational level, partner's educational level, reading newspaper, watching television, listening radio and wealth quintile are statistically significant with ever heard of HIV/AIDS at 5% level of significance.

AIDS disease has spread in Bangladesh. It is showing increasing tendency and has been considered as one of the leading medical problem in our country. Therefore, for preventing HIV/AIDS and for improving the awareness and knowledge of HIV/AIDS, the respective authority should take effective and proper steps. This work proposed some effective recommendations. These are as follows:

1. The budget of HIV/AIDS prevention programs should be increased for arranging sufficient intervention programs and awareness raising programs for the population for enhancing the knowledge, prevention and removal of common misconceptions about HIV and AIDS in Bangladesh.
2. For the awareness of local community and the people, the authority should take some advocacy programs involving the chairman, members, local elites, teachers, religious leaders and local political leaders etc. in the form of community meetings or orientation in Bangladesh.
3. Mass media can play a strong role to aware peoples by different activities of HIV/AIDS programs.
4. The fresher training is necessary to revive the idea and knowledge of HIV/AIDS.



5. Engage female trainers in all the training centres. Because the ultra-poor women are usually uneducated and religiously conservative. Most of the time they do not feel free to discuss the issue of HIV/AIDS with male trainers.
6. Condom availability and quality should be ensured to the people and the people should be aware about injecting drug use and blood transfusion.
7. Education is one of the most influential determinants of an individual's knowledge, attitudes and behaviors. So education should be ensured for every child and every people to improving the knowledge of HIV/AIDS.

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