Determinants Of Knowledge And Awareness About AIDS: Urban -Rural Differentials In Bangladesh

M Rahman, A Islam, M Islam

Citation

M Rahman, A Islam, M Islam. *Determinants Of Knowledge And Awareness About AIDS: Urban -Rural Differentials In Bangladesh*. The Internet Journal of Health. 2008 Volume 9 Number 2.

Abstract

This study utilized data from Bangladesh Demographic and Health Survey 2004 to identify the determinants of knowledge about AIDS for women of urban and rural area of Bangladesh, Bi-variate and multivariate logistic regression methods were employed in analyzing data. This study found that a wider gap exists between urban and rural areas regarding knowledge about AIDS, where every 8 out of 10 urban women know about AIDS but almost half of the rural women still do not know about AIDS. Mass media play a major role for growing awareness about AIDS in both of these areas. In the urban area 61.6 percent women knew at least one correct way to avoid AIDS but rural women are in miserable condition because the corresponding figure for rural women was only 31.3 percent that means 37.7 percent and 67.7 percent among urban and rural women respectively still did not know how to avoid AID. Binary logistic regression method shows that that education, occupation, ever use of contraception, currently using condom, permission to go to hospital/health center, mass media exposure, region of residence and wealth index significantly influence the knowledge about AIDS among rural women, whereas, in the urban areas except occupation and currently using condom all these remaining variables appear as the significant predictors of knowledge about AIDS.

INTRODUCTION

Bangladesh with its 127 million populations is still considered as a low HIV/AIDS prevalent country. However, it is at a critical moment in the course of its AIDS epidemic. It is estimated that there are 13,000 HIV-positive people in the country and that HIV prevalence in the adult population is less than 0.01 percent [1] . However, the country's vulnerability is very high. The presence of covert multi-partner sexual activity and denial, the low level of knowledge and low condom use, unsafe professional blood donations, lack of a desirable environment and violation of Human Rights, all contribute to the spread of HIV in Bangladesh [2] .

Since the first detection of HIV in Bangladesh in 1989, the rate of infection has not been increased in comparison to our neighbors. A total of 240 AIDS cases were detected so far of which 109 have already died [3] . Indeed, there is a host of factors that render the country highly vulnerable to a surge in the epidemic [4] . These include the overall poverty levels, the documented risk behaviors including injecting drug use, growing sex work, considerable population movements in and out of the country, persisting gender disparities and inequities, not to mention low levels of general awareness and knowledge about HIV/AIDS among the population in general and, critically, among those who are most vulnerable and/ or engaging in risk behaviors. Meanwhile, most of the people of country are unaware about the deadly disease. The 1999-2000 Bangladesh Demographic and Health Survey found that only 31 per cent of married women and 50 per cent of newly married men had heard of AIDS [5.] Over 90 per cent of rickshaw pullers could not identify a single method of HIV prevention. There is also a relative lack of availability and access to relevant services (sexual and reproductive health, HIV counseling and testing). There is also HIV/AIDS-related stigma and discrimination prevalent in the society. Bangladesh is therefore geographically vulnerable to HIV and AIDS, and at risk due to the prevalence of high-risk behaviors like injecting drug use, commercial unprotected sex with an overlap between more vulnerable and bridging populations, and high rates of sexually transmitted infections (STIs). There are also low levels of HIV and AIDS awareness; migration and trafficking; poverty gaps; low nutritional status; gender inequalities that place women and young girls at risk; and gaps in the healthcare delivery system To meet the targets and goals of AIDS prevention and control, there is strong need to assess the current levels of specific knowledge about AIDS transmission and prevention by urban rural residence and other key socioeconomic factors. Therefore the purpose

of this study is to examine the knowledge and awareness about AIDS of urban and rural women of Bangladesh.

MATERIALS AND METHODS

DATA SOURCE

This study utilizes the data extracted from Bangladesh Demographic and Health Survey (BDHS) 2004, which were conducted under the authority of the National Institute of Population Research and Training (NIPORT) of the Ministry of Health and Family Welfare. The BDHS survey was implemented by Mitra and Associates, a private research firm located in Dhaka. Macro International Inc. of Calverton, Maryland provided technical assistance to the project as a part of its international Demographic and Health Survey (DHS) program, while financial assistance was provided by United States Agency for International Development (USAID) Bangladesh. The BDHS 2004 is a nationally representative survey from 11,440 ever married women of age 10-49 and 4297 men age 15-54 from 10,500 households covering 361 sample points (clusters) throughout Bangladesh, 122 urban areas and 239 in the rural areas. Out of 11,440 ever-married samples, 2586 women and 8854 women are taken from urban and rural areas respectively. The data has collected from six administrative divisions of the country- Barisal, Chittagong, Dhaka, Khulna, Rajshahi and Sylhet. Data collection took place over a five-month period from 1 January to 25 May 2004.

METHODOLOGY

This study considers bivariate and multivariate analysis to meet the objectives. Chi-square test is performed among the variables to identify interrelationship between the variables. Binary logistic regression model is used to examine the effects of demographic and socio-economic characteristics on the knowledge about AIDS treated as dependent variable in this study. The dependent variable, knowledge about AIDS, is dichotomized as follows:

Y = 1, who have ever heard about AIDS

0, otherwise

It is noted that logistic regression model has been run two times for urban and rural areas separately. Explanatory variables are indicated in Table 5.

RESULTS

KNOWLEDGE ABOUT AIDS

AIDS was recognized as a global problem by mid 1980s.Worldwide experience has suggested that public knowledge on AIDS is the most fundamental weapons against the AIDS pandemic as long as a vaccine or cure has not been developed [6] .The table 1 presents the percentage distribution of urban and rural women according to their knowledge about AIDS.

Figure 1

Table 1: Percentage distribution of women ranked according to their knowledge about AIDS.

	Urban		Rural	
Knowledge about AIDS	Number of women	Percentage	Number of women	Percentage
Heard about AIDS				
Yes	2113	81.7	4751	53.7
No	473	18.3	4103	46.3
Total	2586	100.0	8854	100.0

Table 1 depicts that 82 percent among the urban women knew about AIDS. The results were more worrying in all regards especially for rural women. For example, almost half of the rural women (46 percent) in Bangladesh did not hear about AIDS. The possible reasons of the low awareness may be limited access to sexual health information and unavailability of adequate health care services, poor literacy, poverty, and unemployment

KNOWLEDGE ABOUT AIDS FROM DIFFERENT SOURCES

Mass media that includes radio, television (TV), newspapers, magazine, cinema, and press has been used primarily as the most effective methods for disseminating HIV/AIDS prevention messages worldwide [7] . These medias are fighting against HIV/AIDS pandemic by raising awareness and knowledge, changing attitudes and behaviors [8] . However, mass media effectiveness on AIDS knowledge and condom use in Bangladesh is almost unknown. It also remains unclear whether the exposures to AIDS messages through multiple media/source have greater impact than exposure to only one media/source. Therefore the main purpose of the study is to assess the effectiveness of various sources of AIDS information individually as well as by number of sources for disseminating AIDS and related information among urban and rural women in Bangladesh.

The percentage distribution of urban and rural women by different sources of AIDS information is presented in Table 2. Television was the major source of AIDS information to both the urban (72.7 percent) and rural (36.8 percent) women. It is obvious from the study that TV played almost two times higher role in the urban area as compared with the rural area to uplift AIDS awareness. It is also observed that

Radio and friends / relatives played the same role for growing consciousness of AIDS (22.3 percent among rural women). On the other hand, 30 percent of the urban women knew about AIDS from their friends or relatives and 21.3 percent from radio. Radio was reported as powerful, credible and entertainment medium in most developing countries because of its big and diverse audiences even in rural places due to affordability, accessibility and move ability.

Figure 2

Table 2: Percentage distribution of urban-rural women according to the reported sources of AIDS information

	Urban		Rural	
Sources of AIDS information	Number of women	Percentage	Number of women	Percentage
Radio	550	21.3	1971	22.3
TV	1881	72.7	3257	36.8
Newspaper / magazine	210	8.1	212	2.4
Pamphlets / posters	97	3.8	148	1.7
Health workers	217	8.4	465	5.3
Schools / teachers	20	0.8	32	0.4
Mosques/temples/churches	0	0.0	5	0.1
Community meeting	24	0.9	81	0.9
Friends /relatives	776	30	1971	22.3
Work place	18	0.7	37	0.4
Bill board /sign board	124	4.8	140	1.6
Others	12	0.5	53	0.6
Knowledge of AIDS from multiple sources				
no source	475	18.4	4108	46.4
1 source	854	33.0	2145	24.2
2 sources	819	31.7	1722	19.5
3 sources	338	13.1	749	8.5
4 and more sources	101	3.9	130	1.5

The use of other mass media such as newspapers/magazines, pamphlets/posters and bill board / sign board is generally very limited in Bangladesh especially in rural areas as compared to urban areas. Urban women became more conscious about AIDS from health workers (8.4 percent) and newspapers/magazines (8.1 percent) respectively than their rural counterparts (5.3 percent and 2.4 percent respectively). Bill board / sign board, pamphlets / posters (4.8 percent and 3.8 percent respectively) had more contribution to grow consciousness about AIDS among urban women than that of (1.6 percent and 1.7 percent respectively) among the rural women. By the number of sources, higher percent of urban women compared with rural women reported 1 or more sources of AIDS information. The study clearly indicated that only mass media are not enough for disseminating the HIV/AIDS information in rural areas. Thus some additional programs such as face-to-face communication and sexual education at institutions may be effective in Bangladesh (Kiragu K, 2001). Though WHO/EMRO (2001) reported that adequate, well-trained and motivated human resources such as religious leaders, teachers, and community leaders are important for achieving success in HIV/AIDS/STD interventions at all levels, unfortunately in Bangladesh the performance of health workers, school/teachers, mosques/church/temples in disseminating AIDS information is very poor. To improve the situation, HIV/AIDS campaigns will have to pay a lot attention to educate religious and traditional leaders.

KNOWLEDGE OF WAYS TO AVOID AIDS

Prevention such as condom use during sex is the best strategy for controlling HIV/AIDS. For improving the prevention activities among the general people some strategies like awareness creation and motivational activities are very important. Information and education on HIV/AIDS and STD prevention can help people take necessary decisions for their health and development. Therefore World Health Organization (WHO) has advocated the role of education in spreading knowledge of AIDS transmission [9] . Until a vaccine or cure for AIDS is found, the only available means at present is health education to enable people to make life-saving choice (i.e. indiscriminate sex, using condoms). There is however, no guarantee that the use of condom will give full protection. Women suffering from AIDS or who are at high risks of infection should avoid becoming pregnant since infection can be transmitted to the unborn or newborn. People in high risk groups should be urged to restrain from blood donation. The following table provides the information regarding to the question ‘what can a person do to avoid getting AIDS’. It is exhibited that the ways to avoid AIDS among the urban-rural women who have known at least one way to avoid getting AIDS.

Figure 3

Table 3: Percentage distribution of women according to their knowledge about the ways to avoid AIDS

	Urban		Rural	
Ways to avoid AIDS	Number of women	Percentage (percent)	Number of women	Percentage (percent)
Correct way				
Abstain from sex	248	9.6	512	5.8
Use condom during sex	972	37.6	1530	17.3
Only one sex partner	151	5.9	231	2.6
Avoid sex with prostitute	451	17.4	693	7.8
Avoid sex with homosexuals	14	0.5	20	0.2
Avoid blood transfusions	372	14.4	416	4.7
Avoid non-sterilized injection	683	26.4	934	10.6
Avoid partner who have many partners	475	18.4	744	8.4
Avoid sex with intravenous drug users	32	1.2	51	0.6
Incorrect way				
Avoid sharing razor blades with aids patient	22	0.8	31	0.4
Avoid kissing	6	0.2	6	0.1
Avoid mosquito bites	5	0.2	15	0.2
Seek protection from traditional healer	11	0.4	73	0.8
Others	24	0.9	57	0.6
Knowledge of ways to avoid AIDS				
Correct way	1594	61.6	2773	31.3
Incorrect way	17	0.7	84	0.9
Do not know	975	37.7	5994	67.7
Number of correct ways reported to avoid AIDS				
None	992	38.4	6078	68.7
1	507	19.6	1203	13.6
2	572	22.1	964	10.9
3	347	13.4	455	5.1
4+	167	6.5	151	1.7

Table 3 reveals that in the urban area 61.6 percent women knew at least one correct way to avoid AIDS but rural women are in miserable condition because the corresponding figure for rural women was only 31.3 percent that means 37.7 percent and 67.7 percent among urban and rural women respectively still did not know how to avoid AIDS. About 37.6 percent of the urban women reported that AIDS could be prevented by using condom during sex, 26.4 percent among the urban women said that AIDS could be prevented by avoiding non-sterilized injections, moreover, avoid sex with partner who had many partners (18.4 percent), avoid sex with prostitute (17.4 percent), avoid blood transfusion (14.4 percent), abstain from sex (9.6 percent) and limit sex with only one partner (5.9 percent) were also reported by the urban women as the way to avoid getting AIDS. On the other hand, the corresponding figures for rural women are 17.3 percent, 10.6 percent, 8.4 percent, 7.8 percent, 4.7 percent, 5.8 percent, and 2.6 percent. Urban women reported one or multiple number of correct ways to avoid AIDS more than their rural counterparts. Misconception about getting AIDS through mosquito bites, kissing, and sharing razors were found by our study like other studies

URBAN – RURAL DIFFERENTIALS IN KNOWLEDGE ABOUT AIDS

Knowledge of AIDS among the women of urban and rural area of Bangladesh varies greatly by different characteristics. The percentage distribution of urban-rural women who had heard about AIDS by some selected background characteristics are demonstrated in Table 4. It is shown from the Table 4 that respondent's age, education and occupation, husband's education and occupation, religion, ever using contraception, currently using condom, discussion about FP with husband, go to hospital or health center, access to mass media, region and wealth index are strongly significantly associated with knowledge on AIDS. The study reveals that knowledge about AIDS is higher among younger women both in the urban and rural area of Bangladesh. Here it is also notable that urban women are more conscious about AIDS than their rural counterparts in each age group. It is seen as the education level of women increases, the knowledge about AIDS is also increased both in the urban and rural area of Bangladesh from Table 4. But the illiterate women of Bangladesh especially in the rural area are in vulnerable condition because of having very poor knowledge on AIDS. Women with primary level education in the rural area are not also in the satisfactory condition in respect of AIDS awareness. Almost the same result is observed for the education level of husband.

Figure 4

Table 4: Percentage distribution of women regarding AIDS knowledge according to some background characteristics

Characteristics	Ever heard of AIDS			
	Urban		Rural	
	Yes	No	Yes	No
Respondent's age	***		***	
<20	84.5	15.5	67.8	32.2
20-34	85.4	14.6	55.2	44.8
35-49	74.6	25.4	42.5	57.5
Respondent's education	***		***	
Illiterate	62.5	37.5	31.5	68.5
Primary	81.4	18.6	57.9	42.1
Secondary	96.9	3.1	83.8	16.2
Higher	99.7	0.3	97.9	2.1
Husband's education	***		***	
Illiterate	62.7	37.3	36.0	64.0
Primary	80.1	19.9	54.5	45.5
Secondary	90.2	9.8	72.5	27.5
Higher	98.1	1.9	86.3	13.7
Respondent's occupation	***		***	
did not work	83.7	16.3	54.7	45.3
work	75.8	24.2	49.8	50.2
Husband's occupation	***		***	
Manual	76.3	23.7	50.7	49.3
Non manual	90.5	9.5	63.7	36.3
Did not work	78.6	21.4	57.4	42.6
Religion	-		***	
Non muslim	84.0	16.0	61.3	38.7
Muslim	81.5	18.5	52.8	47.2
Ever use any contraception	***		***	
Yes	84.7	15.3	57.5	42.5
No	64.7	35.3	39.3	60.7
Currently using condom	***		***	
Yes	98.0	2.0	81.6	18.4
No	80.4	19.6	52.9	47.1
Discussed FP with husband	***		***	
Yes	89.0	11.0	60.1	39.9
No	77.4	22.6	51.2	48.8
Goes to a hospital or health center	***		***	
No	69.6	30.4	46.0	54.0
Alone	85.3	14.7	58.1	41.9
With someone	80.3	19.7	53.1	46.9
Mass media exposure	***		***	
Yes	89.1	10.9	70.1	29.9
No	37.7	62.3	24.9	75.1
Region	***		***	
Barisal	79.0	21.0	57.0	43.0
Chittagong	75.0	25.0	53.6	46.4
Dhaka	86.4	13.6	57.7	42.3
Khulna	90.8	9.2	67.6	32.4
Rajshahi	72.4	27.6	46.5	53.5
Sylhet	76.4	23.6	39.8	60.2
Wealth index	***		***	
Poor	51.6	48.4	35.0	65.0
Middle	69.3	30.7	56.9	43.1
Rich	92.2	7.8	78.3	21.7

Note: Significant level: ***, ** and * indicate p<0.001, p<0.01 and p<0.05 respectively.

An interesting condition is observed in case of women's occupation. Women, who work for cash, have less knowledge of AIDS than their counterparts who do not work for cash both in the urban and rural area. Non manual workers know about AIDS more than manual workers both in the urban and rural area of Bangladesh. We also observe that non-muslim area more conscious about AIDS than their Muslim counterparts both in the urban and rural Bangladesh. Here it is observed that knowledge about AIDS is higher in the urban area (84.7 percent) than that of rural area (57.5 percent) among women who have ever used contraception. Women who are currently using condom know about AIDS more than their counterparts who are not currently using condom both in the urban and rural area of Bangladesh. Condom is the only contraceptive method that can protect both pregnancy and HIV transmission. So increasing condom use is crucial in controlling the spread of HIV/AIDS.

There is a clear difference of having knowledge on AIDS between urban (89 percent) and rural (60 percent) area among women who have discussed about FP with their husband. Urban women who are permitted to go to hospital/health center alone know (85.3 percent) more about AIDS than their rural counterparts (58.1 percent). Mass media plays an important role to grow consciousness of AIDS among urban (89 percent) and rural (70 percent) women. Rural-urban differentials of AIDS knowledge are undoubtedly notable for each divisions of Bangladesh. As the wealth index increases from the poor to the rich knowledge about AIDS is also increased evidently both among the urban and rural women of Bangladesh. We can conclude from this study that though urban women are more conscious about AIDS than their rural counterparts.

DETERMINANTS OF KNOWLEDGE ABOUT AIDS

Knowledge of urban and rural women about AIDS is considered as dependent variable which is dichotomous taking the value 1 for those who have ever heard about AIDS and 0 for otherwise. The results of logistic regression model are presented in the Table 5.It is found from Table 5 that education of husband and wife, occupation, ever use of contraception, currently using condom, permission to go to hospital/health center, mass media exposure, region of residence and wealth index significantly influence the knowledge about AIDS among rural women, whereas, except occupation and currently using condom the remaining variables appear as the significant predictors of knowledge about AIDS among urban women.

Model 1 reveals that highly educated urban women know 35.379 times more about AIDS as compared with the illiterate women. We also observe that women with primary and secondary education have 1.926 and 6.801 times respectively more knowledge on AIDS than their illiterate counterparts in the reference category. Women, who have ever used any contraceptives, have 2 times more knowledge about AIDS as against their counterparts who never use contraception. Women who go to hospital or health center alone are 1.926 times more likely to know about AIDS than their counterparts in the reference category. Urban women, who access to mass media, know about AIDS 5.821 times more than those women who do not access to mass media. Urban women living in Dhaka and Khulna divisions know about AIDS 2.385 and 4.616 times more than their counterparts who live in Barisal division, respectively. Middle class and rich women have 1.506 and 3.162 times

more knowledge on AIDS than their poor counterparts in the urban area of Bangladesh.

Figure 5

Table 5: Logistic regression results for knowledge about AIDS

	Model 1 (Urban)		Model 2 (Rural)	
Characteristics	Coefficient of β	Odds ratio	Coefficient of β	Odds ratio
Respondent's education				
Illiterate (Ref)	-	1.000	-	1.000
Primary	0.656	1.926***	0.709	2.033***
Secondary	1.917	6.801***	1.652	5.217***
Higher	3.566	35.379**	3.264	26.161***
Husband's education				
Illiterate (Ref)	-	1.000	-	1.000
Primary	0.241	1.273	0.248	1.281***
Secondary	0.620	1.859***	0.474	1.607***
Higher	0.706	2.026	0.475	1.608***
Respondent's occupation				
did not work (Ref)	-	1.000	-	1.000
work	-0.170	0.844	0.253	1.288***
Ever use any contraception				
No (Ref)	-	1.000	-	1.000
Yes	0.713	2.040***	0.413	1.511***
Currently using condom				
No (Ref)	-	1.000	-	1.000
Yes	0.850	2.339	0.617	1.852**
Goes to a hospital or health center				
No (Ref)	-	1.000	-	1.000
With someone	0.396	1.485	0.210	1.233*
Alone	0.655	1.926**	0.302	1.353**
Mass media exposure				
No (Ref)	-	1.000	-	1.000
Yes	1.762	5.821***	1.433	4.191***
Region				
Barisal (Ref)	-	1.000	-	1.000
Chittagong	0.133	1.143	-0.171	0.843
Dhaka	0.869	2.385**	0.247	1.280*
Khulna	1.530	4.616***	0.414	1.513***
Rajshahi	0.093	1.097	-0.368	0.692***
Sylhet	0.269	1.308	-0.429	0.651**
Wealth index				
Poor (Ref)	-	1.000	-	1.000
Middle	0.410	1.506*	0.410	1.507***
Rich	1.151	3.162***	0.970	2.638***
Constant	-3.022	0.049***	-2.518	0.081***

Note: Ref = Reference Category and ***, ** and * indicate p<0.001, p<0.01 and p<0.05 respectively.

Model 2 suggests that in the rural area women with primary, secondary and higher education know about AIDS 2.033, 5.217 and 26.161 times more as compared with their illiterate counterparts, respectively. Here it is also observed from this study that knowledge about AIDS increases with increasing husband's educational level. Rural women, who work for cash, have 1.288 times more knowledge on AIDS than their counterparts who do not work for cash. Women who have ever used any contraceptives know about AIDS 1.511 times more as against their counterparts who never use contraception. Women whose husbands are using condom currently know about AIDS 1.852 times more than the reference category. Women, who go to hospital or health center alone, have knowledge on AIDS 1.353 times more than their counterparts in the reference category. Rural women who access to mass media are 4.191 times more likely to know about AIDS as compared with reference category. Women in the Dhaka and Khulna divisions have more knowledge on AIDS but women in Rajshahi and Sylhet divisions have less knowledge on AIDS than their counterparts in the reference category. Middle class and rich women in the rural area have knowledge about AIDS 1.507 and 2.638 times more as against their poor counterparts, respectively.

DISCUSSIONS AND IMPLICATIONS

This study has examined the differentials and determinants of knowledge about AIDS among the urban and rural women of Bangladesh and the impact of various sources on the knowledge of AIDS. It also examines. The study found a wider gap between urban and rural areas regarding Knowledge about AIDS (Where 82 percent among the urban women know about AIDS but almost half of the rural women do not hear about AIDS). Mass media play a major role for growing awareness about AIDS in both of the urban and rural areas. TV is the most influential source, by which 72.7 percent urban women and 36.8 percent rural women have known about AIDS. Radio and friends / relatives also play important role for growing consciousness of AIDS. The study also reveals that in the urban area 61.6 percent women knew at least one correct way to avoid AIDS but rural women are in miserable condition because the corresponding figure for rural women was only 31.3 percent that means 37.7 percent and 67.7 percent among urban and rural women respectively still did not know how to avoid AIDS. Logistic regression model is adjusted by education of husband and wife, occupation, ever use of contraception, currently using condom, permission for going to hospital/health center, mass media exposure, region of residence and wealth index for the knowledge about AIDS because all these variables are found associated with knowledge about AIDS. All these predictor variables significantly influence the knowledge of AIDS among rural women, whereas among urban women, except occupation and currently using condom all theses variables appear as the significant predictors of knowledge about AIDS.

Hopefully the findings of the study would help policy makers, executive agents and health managers to formulate appropriate strategies to improve the HIV/AIDS awareness and preventive activities. Although mass media plays an important role in gaining knowledge about AIDS, only mass media are not enough for disseminating the AIDS information especially in the rural area. Thus some

additional program such as face-to-face communication and sexual education at institution may be effective. Government should encourage religious leaders, teachers, health workers, principles of mosques/church/temples and community leaders for achieving the success in HIV/AIDS both in the urban and rural area of Bangladesh.

References

1. UNAIDS (2002). AIDS Epidemic Update. UNAIDS and WHO, Geneva.
2. Khan MA (2002). Knowledge on AIDS among Female Adolescents in Bangladesh: Evidence from the Bangladesh Demographic and Health Survey Data. Journal of Health Population and Nutrition. 20:130-137
3. DGHS (2000). Strategic Plan of the National AIDS Programme of Bangladesh: 1997-2002. Bangladesh AIDS Prevention and Control Programme. Directorate General of Health Services, Ministry of Health and Family Welfare, Government of the People's Republic of Bangladesh, Dhaka.
4. Khairul MA (2007). AIDS situation in Bangladesh. Rainbow Nari O Shishu kallan Foundation. News Letter of Bangladesh, Dhaka
5. BDHS (2000). Bangladesh Demographic and Health Survey, 1999-2000. National institute for population research and training, Dhaka, Bangladesh. Mitra associate and Macro International INC. Calverton Maryland, USA, 1999
6. World Health Organization (1999). Programming for Adolescent Health and Development. Geneva, World Health Organization. WHO Technical Report Series No. 886.
7. WHO/EMRO (2001). World AIDS campaign 2001. Men and AIDS. WHO Regional Office for the Eastern Mediterranean, Cairo
8. Myhre, SL. and Flora J A. (2000). HIV/AIDS communication campaigns: Progress and prospects. Journal of Health Communication. 5 (Suppl):29-45.
9. Owaish R A , Moussa M A, Anwar S, Shoumer H A and Sharma P (1995). Knowledge, Attitudes, Beliefs and Practices of the Population in Kuwait about AIDS- A Pilot Study. Eastern Mediterranean Health Journal (EMHJ). 1:235-240

Author Information

Md. Mosiur Rahman
Lecturer, Department of Population Science and Human Resource Development, University of Rajshahi, Rajshahi-6205, Bangladesh

Ahmad Zohirul Islam
Mphill Fellow, Department of Population Science and Human Resource Development, University of Rajshahi, Rajshahi-6205, Bangladesh.

Md. Rafiqul Islam
Associate professor, Department of Population Science and Human Resource Development, University of Rajshahi, Rajshahi-6205, Bangladesh.