

BRAC HIV/AIDS program

Baseline Survey, 2003¹

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Introduction

AIDS (Acquired Immune Deficiency Syndrome) with 100% mortality rate is considered as one of the most dangerous disease condition ever recorded in the history of medicine. There is no drug to cure or prevent AIDS. Another feature of HIV (Human Immune-deficiency Virus, the cause of AIDS) infection is that every infected person develops long carrier state before developing full-blown AIDS and during this time the carrier transmits HIV to others. HIV usually affects people aged 15-40 years, the most economically productive years (VHSS, 1994), and thus poses a real threat to economic development of a country. Though there is no cure or vaccine for HIV infection, it can be prevented by raising people's awareness through massive public information and education campaign. Strategies for the prevention and control must be based on a better understanding of sociocultural domain, and on the people's current awareness of HIV/AIDS and reproductive and sexual behaviour.

To date Bangladesh, a country of 135+ million people, is a low HIV/AIDS prevalence (<0.2%) country (UNAIDS, 2004). However there is no reason to assume that Bangladesh will be immune to the Asian AIDS threat. The location of Bangladesh between Thailand and India, with their recent AIDS explosions, points to its susceptibility. Such AIDS risk indicators as a high STD prevalence (Sabin, 1997), widespread sexual networking and a large market in commercial sex (Naved, 1996), untested blood supplies (Bhuiya, 1995), homosexual activities (Khan, 1997), and low condom use (Folamar, 1996) also point to a high risk of AIDS in Bangladesh.

Many decision-makers in Bangladesh see the immediate need for prevention efforts, mostly in the form of education for behavior modification (Choudhury, 1992). Most of the current effort is focussed on "high risk populations" like commercial sex workers and truck drivers (as their main 'targetable' clients). While this may be expedient, it has been shown that the general public is also at risk, since many 'untargetable' people are exposing themselves to "high risk behaviors", and must also be made aware of the "high

risk activities” to avoid (Brown & Xenos, 1994). On the other hand, due to the Bengali tradition of shyness and modesty particularly about sex-related topics (Maloney, 1981), educating the general public about AIDS - a decidedly taboo topic - must be carried out carefully (Folamar, 1996).

With the above perspective in mind, BRAC undertook several studies on HIV/AIDS awareness in Matlab in the late 1990’s. In one study covering 3,687 household in fourteen villages, 16% of men were aware of AIDS but only 15% of them knew how to prevent it (Fulton, 1996). Compared to men, far fewer women were aware of AIDS – a mere 7%, and of these, 80% did not know how to prevent it. In response to this concern, BRAC’s Research and Evaluation Division developed and tested an HIV/AIDS awareness education module in Matlab which was delivered through its grassroots network of women’s credit and development groups (Nasreen 1998). After piloting the module in Mirzapur/Kalihati and Tangail in 2000 for replicability, BRAC undertook an HIV/AIDS programme in 2002, initiated in two districts of Jamalpur and Faridpur and targeted towards high-risk groups. A baseline survey was done before the programme begun and this report presents preliminary findings from this survey.

Objectives

The Objectives of the baseline survey was to assess the current level of knowledge on HIV/AIDS among community people (men and women in rural areas), students (Classes IX & X), commercial sex workers (CSWs), bus & truck drivers, construction workers in two districts of Jamalpur and Faridpur. More specifically, it aimed to assess knowledge on three aspects of HIV/AIDS:

- 1) How HIV/AIDS is transmitted
- 2) How it does not spread, and
- 3) How it can be prevented

Sampling and data collection

Three Area Offices (AOs) (including the sadar upazilla) from each of the two districts were randomly selected for this study during Jan.-Feb 2003. Purposive sampling was done to recruit respondents on the basis of availability at the time of survey. A tentative sample size was decided using EPI INFO ver 6.0 but for most of the groups, target could not be reached due to unavailability. The CSWs, bus/truck drivers and the construction workers samples were drawn from purposively selected spots, i.e., places where they were concentrated in the two sadar upazillas. Students were recruited from schools in the sadar upazillas while community people were recruited from villages under the four rural AOs randomly, including VO members. Structured pre-tested questionnaire was used in face-to-face interview for collecting quantitative information. Bivariate analysis and multivariate techniques were used to determine predictors of AIDS awareness in the study population. In multivariate analysis, the awareness about AIDS was regressed on several selected SES variables using logistic regression.

Results

Table 1 presents responses related to basic knowledge on AIDS. The proportion of those who have heard about AIDS, henceforth termed 'AIDS aware', were significantly less among the sample of community people (60%) compared to other groups (80-90%). That unsafe sex is the principal route of transmission was common knowledge among majority of the respondents of different categories (55-95%) (Table 2). Greater proportion of students and CSWs possessed knowledge on key routes of HIV/AIDS transmission while substantial proportion (20-30%) of the community people, bus/truck drivers and construction workers knew nothing about how AIDS is transmitted. Compared to routes of transmission, the level of knowledge regarding how HIV/AIDS is not transmitted was found to be much lower among all the groups studied. In this case also, the students and the CSWs fared well compared to other groups. Around 60-70% of the community people, bus and truck drivers and construction workers had no idea that usual social interactions (such as shaking hands, eating together, sharing toilet etc.) are in no way

related to the transmission of AIDS. Presumably, knowledge on prevention of AIDS was much higher among students and CSWs compared to others. Only students possessed

Table 1: AIDS aware population among different groups of people	Community	Student	Commercial Sex Worker	Bus/truck Driver	Construction Worker
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
	1	2	3	4	5
Have heard of AIDS	1647 (60.3)	1189 (97.9)	566 (98.3)	224 (97.0)	136 (86.1)
Total valid cases	2730	1214	576	231	158
χ^2 significance	1 vs. 2 = <.001 1 vs. 3 = <.001 1 vs. 4 = <.001 1 vs. 5 = <.001	2 vs. 3 = ns 2 vs. 4 = ns 2 vs. 5 = <.001	3 vs. 4 = ns 3 vs. 5 = <.001	4 vs. 5 = <.001	

substantial knowledge (43%) on the fact that treatment of STIs can prevent AIDS as well. Around 1/3rd of the community people, bus/truck drivers and construction workers were in the dark about how to prevent AIDS.

Next we tried to explore the proportion who possessed correct knowledge on basic facts about AIDS e.g., transmission, non-transmission and prevention (Table 3). As before, the students and the CSWs topped the groups in correctly knowing the facts (around 90%). Interestingly, the knowledge of the community people, bus/truck drivers and construction workers regarding the ways by which AIDS is not transmitted was very low (around 30%), compared to risks of transmission and prevention (50-60%).

Table 2: Knowledge of ‘AIDS-aware’ population on transmission, non-transmission and prevention of AIDS

	Community	Student	Commercial Sex Worker	Bus/truck Driver	Construction Worker
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
How one gets AIDS					
Unsafe sex	933 (56.6)	1024 (86.1)	533 (94.2)	173 (77.2)	83 (61.0)
Blood transfusion	367 (22.3)	673 (56.6)	400 (70.7)	76 (33.9)	42 (30.9)
Using infected needle	352 (21.4)	649 (54.6)	302 (53.4)	75 (33.5)	36 (26.5)
Mother-to-child	127 (7.7)	572 (48.1)	110 (19.4)	12 (5.4)	9 (6.6)
Others	151 (9.2)	5 (0.4)	37 (6.5)	29 (12.9)	4 (2.9)
Don't know	628 (38.1)	65 (5.5)	23 (4.1)	46 (20.5)	50 (36.8)
Total valid cases	1647	1189	566	224	136
How AIDS doesn't spread					
Shaking hand	113 (6.9)	617 (51.9)	9 (1.6)	13 (5.8)	3 (2.2)
Insect bite	31 (1.9)	377 (31.7)	5 (0.9)	5 (2.2)	2 (1.5)
Living together	390 (23.7)	675 (56.8)	392 (69.3)	87 (38.8)	40 (29.4)
Eating in same plate	278 (16.9)	539 (45.3)	392 (69.3)	54 (24.1)	12 (8.8)
Sharing cloths	132 (8.0)	501 (42.1)	204 (36.0)	13 (5.8)	6 (4.4)
Sharing latrine	73 (4.4)	501 (42.1)	27 (4.8)	8 (3.6)	2 (1.5)
Bathing in same pond	75 (4.6)	514 (43.2)	1 (0.2)	6 (2.7)	1 (0.7)
Don't know	1189 (72.2)	230 (19.3)	146 (25.8)	137 (61.2)	95 (69.9)
Total valid cases	1647	1189	566	224	136
How to prevent AIDS					
Safe sex					
Transfusion of screened blood	775 (47.1)	987 (83.0)	529 (93.5)	147 (65.6)	81 (59.6)
Use of sterilized needle	304 (18.5)	664 (55.8)	357 (63.1)	65 (29.0)	41 (30.1)
Treatment of STIs	303 (18.4)	694 (58.4)	278 (49.1)	56 (25.0)	36 (26.5)
Raising awareness					
Others	133 (8.1)	516 (43.4)	27 (4.8)	21 (9.4)	14 (10.3)
Don't know	90 (5.5)	6 (0.5)	5 (0.9)	20 (8.9)	2 (1.5)
	-	16 (1.3)	-	-	-
	727 (44.1)	105 (8.8)	26 (4.6)	58 (25.9)	50 (36.8)
Total valid cases	1647	1189	566	224	136

Table 3: Aware respondents' correct knowledge on AIDS

	Community (%)	Student (%)	Community Sex Worker (%)	Bus/truck Driver (%)	Construction Worker (%)
Transmission	868 (52.7)	1124 (94.5)	506 (89.4)	149 (66.5)	82 (60.3)
χ^2 significance	Com vs stu = <.001 Com vs csw = <.001 Com vs driv = <.001 Com vs work = ns	Stu vs csw = <.001 Stu vs driv = <.001 Stu vs work = <.001	CSW vs driv = <.001 CSW vs work = <.001 Driv vs work = ns		
Non-transmission	429 (26.0)	959 (80.7)	420 (74.2)	87 (38.8)	41 (30.1)
χ^2 significance	Com vs stu = <.001 Com vs csw = <.001 Com vs driv = <.001 Com vs work = ns	Stu vs csw = <.01 Stu vs driv = <.001 Stu vs work = <.001	CSW vs driv = <.001 CSW vs work = <.001 Driv vs work = ns		
Prevention	830 (50.4)	1084 (91.2)	535 (94.5)	146 (65.2)	84 (61.8)
χ^2 significance	Com vs stu = <.001 Com vs csw = <.001 Com vs driv = <.001 Com vs work = <.05	Stu vs csw = <.05 Stu vs driv = <.001 Stu vs work = <.001	CSW vs driv = <.001 CSW vs work = <.001 Driv vs work = ns		

Finally, we did a logistic regression analysis to identify predictors of AIDS awareness among the different groups of study population (Tables 4 and 5). Formal schooling, male sex and study location (Jamalpur) was found to be significant predictors of AIDS awareness among community people. In addition to these, better socioeconomic condition (e.g., BRAC non-eligibility), 'muslim' status and 'CSW' category was also significant for predicting AIDS awareness among high risk population (Table 4). For students, level of educational achievement, mother's formal schooling, study location

Table 4: Odds ratio for AIDS awareness status of community and high-risk population (CSW)

Variable	Community		High Risk population*	
	OR	95% CI	OR	95% CI
Education				
Formal schooling (none)	4.67	3.91-5.58	2.67	1.24-5.78
Occupation				
Involved in income earning (not involved in income)	1.32	1.00-1.74	-	
Economic status				
BRAC non-eligible (BRAC-eligible)	1.21	1.01-1.44	2.62	1.13-6.10
Sex				
Male (Female)	1.62	1.22-2.15	11.90	3.33-42.51
Sex of household head				
Male (Female)	0.50	0.30-0.85	0.15	0.02-1.32
Marital status				
Married (not currently married)	0.16	0.05-0.55	0.65	0.21-2.07
Religion				
Muslim (non-muslim)	0.59	0.36-0.97	1.72	0.31-9.64
District				
Jamalpur (Faridpur)	1.85	1.55-2.20	2.38	1.16-4.89
High risk population				
CSW (other high risk groups)	-		11.69	1.34-101.9

*bus and truck drivers, construction workers and CSWs

Table 5: Odds ratio (OR) for AIDS awareness status of students

Variable	Students	
	OR	CI
Years of schooling		
9 and above (<9)	0.78	0.29-2.12
Mark obtained in the last class		
>450 (<450)	2.56	0.76-8.57
Father's occupation		
Service/business (Others)	0.45	0.15-1.35
Mother's occupation		
Household work (Others)	3.72	1.23-11.22
Father's education		
Formal schooling (None)	0.70	0.21-2.29
Mother's education		
Formal schooling (None)	4.59	1.28-16.41
Sex		
Male (Female)	0.51	0.18-1.43
Religion		
Muslim (Non-muslim)	2.55	0.51-12.77
District		
Jamalpur (Faridpur)	3.30	0.97-11.22
NGO membership of a HH member		
Yes (No)	2.39	0.75-7.60

(Jamalpur), 'Muslim' status, NGO membership and surprisingly, mother's engagement in household chores was found to be significant factors for predicting AIDS awareness.

Discussion and conclusion

An impressive level of AIDS awareness (>80%) was observed among different population groups studied, especially among the high-risk groups. This is a reflection of the success of substantial health education campaign by the government and the NGOs in recent years. However, level of correct knowledge on transmission and prevention was much less, especially among some of the high-risk groups such as the drivers/workers, compared to the students and CSWs. All the groups had substantial misconception about transmission of AIDS through daily social activities such as shaking hands, eating from the same plate or sharing latrine etc. The group of community people appeared to be marginalized in every aspects of AIDS knowledge explored while the CSWs among the high risk population were advanced in this respect.

The knowledge on AIDS was very much influenced by socio-demographic factors such as literacy, affluency, gender, religion and location as found in logistic regression. That literacy was found to be an important factor for AIDS awareness is not surprising. Literate individuals have more capacity to gather useful information, especially from print medium such as newspaper, leaflets, hoarding etc. It also draws our attention to the importance of developing non-written messages on AIDS prevention in order to reach vast majority of illiterate population, especially in the rural areas. Better-off socioeconomic condition (BRAC non-eligibility), presumably also related to greater literacy, was predictive of more AIDS awareness. Effect of gender on AIDS awareness in multivariate analysis points to the marginalized position of women in the society in terms of literacy, poverty etc. Simultaneous with efforts to improve the condition of women, targeted health education campaign is needed for them to increase basic knowledge on AIDS. More in-depth information is needed to explain why AIDS awareness was found to be greater among Muslims. One factor which the programme planners need to keep in

mind is the location: the level of knowledge varies location wise and programmes of different intensity is needed for different areas.

Of concern to note is the fact that the knowledge on non-transmission i.e., how AIDS is not spread was much lower compared to knowledge on transmission and prevention. To avoid stigma and create an atmosphere of empathy around the HIV +ve/AIDS patients, substantial removal of these misconceptions are needed. Any future AIDS awareness campaign should focus on bridging this knowledge gap.

A note of caution: the findings may not be generalizable for whole of Bangladesh as the study was done in two specific areas only and the sampling was not random, mostly. However, much of Bangladesh is homogeneous with respect to economic activity, language and culture, social norms, life styles etc. and the findings give a fair idea about the AIDS awareness level of the high-risk population in rest of the country as well.

Policy Implications

From the above discussion, following issues emerge for policy considerations:

- AIDS awareness campaign should be focused more towards general population in the community because their level of AIDS knowledge is much lower compared to the high-risk groups
- Among the high-risk groups, construction workers and bus/truck drivers need to be addressed more by the programme
- In order to eliminate much of the misconceptions, AIDS awareness campaign should focus more on the modes of transmission/non-transmission of AIDS; this will remove stigma associated with social interaction with HIV+ve/AIDS patients and help create an environment of empathy for them
- Condom promotion through demonstration is needed, especially for the high-risk groups like CSWs
- Programme should work to raise AIDS knowledge among the various target population irrespective of SES indicators: the less the influence of SES variables on AIDS knowledge, the more the effect of the programme demonstrated

References

- Bhuiya, I., S.M.I. Hossain, K. Streatfield. *Situation of Blood Testing/Screening in Relation to HIV/AIDS in Dhaka City*. The Population Council, 1995.
- Brown, T. and P. Xenos. *AIDS in Asia: The Gathering Storm*. Asia Pacific Issues 16. 1994.
- Chowdhury, M. R., A.K.S. Siddiquey, and E. Jesuthansan. "HIV/AIDS Prevention in Bangladesh." Paper presented in the 2nd International Congress on AIDS, New Delhi. 1992.
- Folamar, S. and S. M. Alam. 1996. Sex, Condoms and Risk of AIDS in Bangladesh. PP. 262-275 in *Society, Health and Disease : Transcultural Perspectives*, ed. Janardan Subedi and Eugene Gallager. USA : Prentice Hall.
- Fulton E.L., Kamal N., Ahmed S.M., Khan M.I., "Determinants of knowledge of AIDS among a rural population in Bangladesh", Research and Evaluation Division, BRAC, 1996.
- Khan, S. and M. H. Faraaz. 1997 "Male-to-Male Sexual behavior and sexual health concern in Bangladesh". Paper presented at ICDDR,B's 6th Annual Scientific Conference (ASCON VI), Dhaka.
- Maloney, C., K. M. A. Aziz, and P.C. Sarker 1981. *Beliefs and Fertility in Bangladesh*. Dhaka: International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR,B).
- Nasreen HE, Chowdhury M, Ahmed SM, Bhuiya A, Rana AKM. Providing AIDS awareness through village based women's organizations. BRAC-IDDDR,B Joint Research Project Working Paper Number 21. 1998.
- Naved, R. T. 1996 *Risky Sexual Behavior in a Conservative Society*. Save the children, Dhaka.
- Sabin, K., M. Rahman, S. Hawkes, K. Ahsan, L. Begum, S. El Arifeen, A. H. Baqui, "A Cross-sectional study on the prevalence of sexual transmitted infections among Dhaka Slum Dwellers". Paper presented at ASCON VI, Dhaka 1997.
- UNAIDS. 2004 Report on the global AIDS epidemic, July 2004. Available from: [http://www.unaids.org/bangkok2004 / GAR2004_html/GAR2004_14_en.htm](http://www.unaids.org/bangkok2004/GAR2004_html/GAR2004_14_en.htm) (accessed on 5th August, 2004).
- VHSS. "HIV/AIDS, Transmission, Facts and Impacts in Bangladesh." In: In Touch, VHSS Health Newsletter, Vol.13, No.136, 1994.