

CHAPTER 11

KNOWLEDGE OF AIDS

Acquired Immune Deficiency Syndrome, or AIDS, as it is more commonly known, was first recognized in 1981. Since the beginning of the pandemic, it is estimated that over 16 million individuals throughout the world have been infected with the human immunodeficiency virus (HIV), which causes AIDS, and between mid-1993 and mid-1994 about 1.5 million people developed AIDS - three times as many as in the previous 12-month period (World Health Organization, 1994). The estimated total number of actual AIDS cases in adults and children since 1981 is four million, of which over 240,000 (6.0 percent) are from Asia. A large proportion (30-50 percent) of these infected individuals are expected to die within 5-10 years of acquiring the infection (World Health Organization, 1992). Because of the high case fatality rate and the lack of a curative treatment or vaccine, the HIV/AIDS pandemic is one of the most serious health problems in the world.

Within a few years after AIDS was first identified, its cause and mode of transmission were documented. The virus that causes AIDS may remain in a state of latency for some time without causing clinical disease. It is thought that once an individual becomes infected with the virus, he or she remains infected for life. The clinical manifestations of AIDS result primarily from critical injury to the immune system. Soon after becoming infected with HIV, some people have an acute self-limiting illness, indistinguishable from many other mild viral illnesses. After the healthy carrier state, which may last as long as 10 years (longer in some cases), most infected people progress to the full long-term clinical illness stage - the stage at which AIDS itself is contracted.

Epidemiological studies have demonstrated that the major routes of HIV transmission are sexual intercourse, intravenous injections (e.g., transfusions of HIV-contaminated blood or injections using HIV-contaminated needles) and transmission from infected mothers to unborn foetuses through the placenta. Female sex workers in India have significant levels of HIV infection, and a major route of transmission of the virus is along well-established truck routes of the country, where contact between sex workers and the drivers is common. The available evidence indicates that HIV cannot be transmitted through food, water, vectors, or casual contact. Increasingly, HIV is found in association with sexually transmitted diseases (STDs) and tuberculosis, compounding an already alarming public health problem. In urban areas of Tamil Nadu, Gujarat, Karnataka, Punjab, and West Bengal, HIV prevalence levels in STD patients are now estimated to be about 1 percent (World Health Organization, 1994b).

India established a National AIDS Control Organization (NACO) under the Ministry of Health and Family Welfare in 1989. Prior to this, attempts were made by various non-governmental organizations (NGOs) to raise awareness of the AIDS syndrome and implement small-scale prevention programmes, concentrating in the perceived higher-risk areas of Bombay, Calcutta, Madras, and Delhi. As the NGO work continues to make important contributions in the field of AIDS prevention, statistics compiled at the national level reveal the spread of HIV in India (based on NACO's monthly update on HIV infection in India, compiled from medical records submitted by 59 hospitals and major medical research centres throughout India).

The updates show that by June of 1988 nearly 120,000 persons from high-risk groups in India had been screened for the virus. Of these cases, 370 tested HIV-positive, and 22 of them (15 Indians and 7 foreigners) were diagnosed as having actually contracted AIDS. It was subsequently determined that 21 of these 22 AIDS cases were transmitted through sexual intercourse, and one through blood transfusion. According to another set of estimates, by 1988 16 patients (14 Indians and 2 foreigners) had died of AIDS in India (Khurana, 1989). Approximately 600,000 persons were HIV positive in India in 1992, and the number of HIV positive cases among those screened (who tend to be from high-risk groups) had shown an increase from 2.5 per 1,000 population in 1986 to 11.2 per 1,000 in 1992 (Ministry of Health and Family Welfare, 1993a).

Three-fourths of AIDS cases identified up to March, 1993, had reportedly acquired the virus through sexual intercourse, 12 percent through blood transfusions, and 7 percent through sharing unsterilized needles. It is estimated that if the transmission of HIV continues at the same pace, about five million persons in India will be infected by the year 2000, and the number of AIDS cases will exceed one million (Ministry of Health and Family Welfare, 1993b).

Recent estimates from the NACO monthly updates show that as of 31 March 1994 a total of 15,017 cases were confirmed HIV-positive (using the Western Blot test), out of 2,052,856 samples screened, resulting in a sero-positivity rate of 7.3 per 1,000 (National AIDS Control Organization, 1994b). The number of AIDS cases *reported* in India was 713 (551 males and 162 females), although according to WHO estimates, the actual number is substantially larger.

The prevalence of the HIV infection as measured in 1994 was substantially larger than in 1988, when high-risk groups were first screened. Unless serious interventions are undertaken in the area of prevention, there is great potential for a further acceleration in HIV prevalence. To summarize the recent situation in India: (1) HIV infection is rapidly spreading beyond those few areas in the country considered to be of especially high risk, and is at different epidemiological stages even within the same state; (2) the epidemic has begun to spread to the general population, mainly through heterosexual contact with those categorized as "high-risk" groups; and (3) the interaction of HIV infection with sexually transmitted diseases (STDs) and tuberculosis, both widely prevalent throughout India, presents an even more challenging public health problem. The correlation between HIV and tuberculosis may result in a resurgence of tuberculosis (56 percent of reported AIDS cases in India have tuberculosis). Stemming STDs is essential to slowing the transmission of HIV. Fewer than 10 percent of STD patients seek treatment from public health centres, and the quality of case management and care provided at public as well as private centres is generally low (Lal, 1994).

In 13 out of 25 states, the NFHS included a series of questions on knowledge of AIDS, which were added to the core questions used in all Indian states¹. The AIDS questions enable measurement of the extent of knowledge about AIDS among women in different population subgroups, thus generating information that will be useful for planning and implementing AIDS prevention programmes. Ever-married women age 13-49 were first asked if they had ever heard

¹ Because the AIDS questions were not included in 12 states, no national estimates are presented in the tables in this chapter.

of an illness called AIDS. Respondents indicating knowledge of AIDS were asked further questions about the sources of their knowledge, the mechanisms of AIDS transmission, whether they believe the transmission of AIDS is preventable, and if so, their perception of the precautions a person can take to avoid AIDS.

11.1 Knowledge of AIDS

Table 11.1 shows the percentage of women who have heard about AIDS. In general, the knowledge that there is an illness called AIDS is very low. Even in Delhi, where considerable media attention has been focussed on AIDS, only 36 percent of women have heard of the disease. Among the other major states where the knowledge of AIDS has been investigated (Assam, Gujarat, Maharashtra, Tamil Nadu and West Bengal), the level of knowledge is highest in Tamil Nadu, where only 23 percent of women reported having heard about the disease. In Assam and West Bengal, less than 10 percent of women are aware of AIDS. A relatively high proportion of women in Goa (42 percent) have heard of AIDS. In the northeastern states, the level of knowledge varies substantially. In Mizoram and Manipur, where the incidence of AIDS is reported to be high, a large majority of women (85 and 73 percent, respectively) reported having heard about the disease. In Arunachal Pradesh and Tripura, on the other hand, fewer than 1 in 6 women have heard of AIDS.

State	Percentage who have heard about AIDS
Delhi	35.8
West Bengal	9.8
Arunachal Pradesh	16.2
Assam	8.4
Manipur	72.5
Meghalaya	26.7
Mizoram	84.8
Nagaland	40.9
Tripura	13.2
Goa	41.7
Gujarat	10.6
Maharashtra	18.6
Tamil Nadu	23.4

11.2 Source of Knowledge About AIDS

As a part of the AIDS prevention programme, the Government of India has been using the mass media, especially the electronic media, to create awareness among the general public about AIDS and how to prevent its spread. In the NFHS, women who had heard about AIDS were asked about the information sources through which they came to know about AIDS. Television is the most important source of knowledge about AIDS in most states (Table 11.2). More than four-fifths of women who had heard about AIDS in Delhi, Goa and Maharashtra heard about it through the television. Television was a source of knowledge for 60-70 of women in Arunachal Pradesh, Assam, Tamil Nadu and Gujarat. The role of television in spreading the

Table 11.2 Source of knowledge about AIDS

Among women who have heard about AIDS, the percentage obtaining knowledge of AIDS from different sources, by state, India, 1992-93

State	Among those who have heard about AIDS, percentage obtaining knowledge from:					
	Radio	Tele- vision	News- papers	Maga- zines	Friends/ relatives	Other sources
Delhi	27.9	84.0	44.7	29.4	10.2	9.4
West Bengal	20.6	59.1	54.1	11.6	20.7	8.7
Arunachal Pradesh	45.5	60.1	28.0	23.8	34.3	11.9
Assam	48.2	66.3	42.9	21.2	18.8	6.1
Manipur	62.8	22.3	20.8	4.6	54.4	28.5
Meghalaya	37.5	31.9	44.7	21.7	68.8	14.1
Mizoram	58.7	10.8	50.8	16.0	69.4	26.3
Nagaland	73.4	43.2	34.3	19.8	57.9	39.6
Tripura	44.8	53.8	40.0	11.7	22.1	20.7
Goa	35.6	82.3	45.3	20.2	22.3	13.7
Gujarat	23.1	70.5	54.8	17.0	6.9	3.9
Maharashtra	27.7	86.8	36.3	14.3	6.9	7.6
Tamil Nadu	49.5	64.3	37.1	31.1	14.2	8.2

Note: Percentages may sum to more than 100.0 because multiple responses were allowed.

knowledge of AIDS is limited in Manipur (where radio plays a major role) and in Meghalaya and Mizoram (where the majority of women heard about AIDS through friends and relatives). In addition, newspapers are an important source of AIDS information in every state.

11.3 Misconceptions About AIDS

Misconceptions about the disease among the general public make it difficult to implement preventive measures against AIDS and to provide effective care and treatment of the persons affected with AIDS. NFHS respondents were asked if they thought that one could get AIDS from various commonly occurring social situations such as shaking hands with someone who has AIDS, hugging or kissing someone with AIDS, sharing clothing or eating utensils with someone with AIDS, or stepping on the urine or stools of a person who has AIDS. Respondents were also asked whether they thought they could get AIDS from mosquito, flea or bedbug bites. Medical professionals believe that these situations pose an extremely low risk of transmission of AIDS. Women were also asked if they thought AIDS is curable or if they thought that an AIDS vaccine exists. Results are shown in Table 11.3.

Women who have heard about AIDS have a number of misconceptions about the disease, and states differ markedly in the extent and type of misconceptions. The most common misconceptions are that AIDS can be transmitted through kissing and bug bites. Large proportions of women also believe that a person can get AIDS by sharing eating utensils or clothes with a person with AIDS or stepping on their urine or stools. Misconceptions about the transmission of AIDS through shaking hands or hugging are least widespread. In every state, the majority of women who have heard of AIDS correctly perceive that AIDS is not curable and that there is no vaccine against AIDS. Women in Maharashtra, Gujarat and Nagaland are

Table 11.3 Misconceptions about AIDS

Among women who have heard about AIDS, the percentage having misconceptions about different ways of getting AIDS, and the percentage who think AIDS is curable or that there is a vaccine against AIDS, according to state, India, 1992-93

State	Percentage ¹ who think it is possible to get AIDS from:							Percentage who think:	
	Shaking hands with someone with AIDS	Hugging someone with AIDS	Kissing someone with AIDS	Wearing clothes of someone with AIDS	Sharing eating utensils with someone with AIDS	Stepping on urine/ stools of someone with AIDS	Mosquito, flea, bedbug bites	AIDS is curable	An AIDS vaccine exists
Delhi	16.8	18.7	40.8	28.7	33.8	31.5	25.4	19.7	5.6
West Bengal	19.8	29.5	59.6	53.8	67.7	62.1	76.7	34.9	2.0
Arunachal Pradesh	25.9	31.5	56.6	41.3	46.9	42.0	57.3	25.9	16.8
Assam	32.3	39.4	58.1	57.5	66.0	69.3	66.3	32.9	9.4
Manipur	11.4	16.9	55.4	32.9	28.2	16.9	30.2	14.9	14.6
Meghalaya	22.0	17.8	52.6	70.1	55.9	35.5	70.7	8.2	3.6
Mizoram	20.4	24.6	77.3	35.8	31.8	58.0	80.0	19.4	23.8
Nagaland	5.5	10.4	45.5	20.6	18.9	22.3	24.9	9.4	8.3
Tripura	34.5	45.5	64.8	69.7	73.1	76.6	82.1	41.4	3.4
Goa	17.4	24.0	38.4	28.5	31.1	31.1	31.5	20.7	14.7
Gujarat	13.8	15.2	26.0	21.9	23.3	16.7	20.6	19.2	4.4
Maharashtra	9.4	14.7	25.8	19.5	21.3	18.1	13.2	24.1	11.5
Tamil Nadu	29.5	36.5	48.1	42.0	42.6	51.5	47.4	33.0	22.2

¹Percentages may sum to more than 100.0 since multiple responses were allowed.

relatively well informed about the transmission of AIDS. On the other hand, misconceptions about AIDS abound in West Bengal and Assam (where knowledge that the disease exists is lowest), as well as in Tripura.

11.4 Knowledge of Prevention of AIDS

The responses to an open-ended question on the precautions to be taken to avoid AIDS are shown in Table 11.4. In almost every state, "safe sex" is spontaneously mentioned most frequently as a means of avoiding AIDS². More than half of women in Delhi, Meghalaya, Mizoram, Goa, Maharashtra and Tamil Nadu stated that AIDS can be avoided by practising safe sex. Relatively large proportions of women also specifically mentioned the use of condoms during intercourse as a means of avoiding AIDS. In every state, other precautionary measures such as checking blood prior to transfusion, sterilizing needles/syringes before injection, and avoiding pregnancy when infected with AIDS are mentioned by less than half of women who have heard about AIDS. In several of the northeastern states, where intravenous drug use is thought to be relatively common, substantial proportions of women mention that AIDS can be avoided by sterilizing needles and syringes.

² "Safe sex" was not defined for respondents, so different respondents might have had different prevention measures in mind when using that term.

Table 11.4 Knowledge about avoidance of AIDS

Among women who have heard about AIDS, the percentage who believe AIDS can be avoided by various means, according to state, India, 1992-93

State	Percentage who believe AIDS can be avoided by:				
	Using condoms during intercourse	Practising safe sex	Checking blood prior to transfusion	Sterilizing needles/syringes for injections	Avoiding pregnancy when infected with AIDS
Delhi	40.1	52.0	13.0	10.7	1.3
West Bengal	35.6	42.7	16.9	6.8	4.3
Arunachal Pradesh	47.6	24.5	21.0	18.9	9.8
Assam	25.2	36.1	22.6	21.5	15.5
Manipur	18.1	48.6	6.7	24.3	9.1
Meghalaya	19.4	67.8	23.0	23.7	13.5
Mizoram	13.4	88.1	11.9	45.5	2.7
Nagaland	58.9	48.1	28.1	45.1	34.5
Tripura	29.7	35.2	13.1	13.1	--
Goa	31.9	56.0	36.4	42.0	27.3
Gujarat	32.7	32.7	14.0	10.6	5.4
Maharashtra	32.1	57.1	17.9	15.8	3.4
Tamil Nadu	14.3	70.6	5.8	6.9	0.8

Note: Percentages may sum to more than 100.0 since multiple responses were allowed.
-- Less than 0.05 percent

The small percentage of respondents having knowledge of AIDS, as well as the major misconceptions about transmission and prevention of the disease among women who have heard of the disease, indicate that public education campaigns about AIDS are very much needed in India. It will be difficult to contain the spread of AIDS unless both women and men are provided with accurate knowledge about the disease.