

# NATIONAL FAMILY HEALTH SURVEY

## BULLETIN

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*The NFHS BULLETIN summarizes findings from the 1992-93 National Family Health Survey (NFHS), which collected information from nearly 90,000 Indian women on a range of demographic and health topics. The NFHS was conducted under the auspices of the Indian Ministry of Health and Family Welfare to provide national and state-level estimates of fertility, infant and child mortality, family planning practice, maternal and child health, and the utilization of services available to mothers and children.*

*The International Institute for Population Sciences (IIPS), Bombay, conducted the NFHS in cooperation with various consulting organizations and 18 population research centres throughout India and with the East-West Center Program on Population of Honolulu, Hawaii, and Macro International of Calverton, Maryland. The U.S. Agency for International Development provided funding for the NFHS and this publication.*

## Women in 13 States Have Little Knowledge of AIDS

In 13 Indian states where HIV, the AIDS virus, is thought to be especially prevalent, only one in six ever-married women has ever heard of AIDS. Women in Maharashtra, West Bengal, Tamil Nadu, and 10 other less populous states were asked about their knowledge of AIDS during the 1992-93 National Family Health Survey (NFHS). Those who had heard of AIDS were asked questions about the sources of their knowledge, the ways in which AIDS is transmitted, whether AIDS can be prevented, and, if so, what measures can be taken to avoid it. Their responses revealed that rural and poorly educated women have the least awareness and understanding of the disease. The majority of women who are aware of AIDS know that it is a sexually transmitted, incurable disease, but many have misconceptions about how it can be contracted. Most have learned about AIDS from television, radio, and newspapers.

Since 1986, when HIV was first detected in India, prevalence of the infection has greatly increased: the National AIDS Control Organization estimates that the prevalence of HIV infection has grown at least threefold among high-risk groups. The World Health Organization estimates that by 2000, India will have at least 5 million HIV-infected individuals and more than 1 million cases of AIDS.

There is no vaccine to prevent HIV infection and no cure for AIDS, which is almost always fatal. The AIDS epidemic is thus a major health threat in areas where knowledge about how to prevent it is poor. HIV infection is transmitted primarily through heterosexual contact in India, except in the northeastern states, where intravenous drug use is believed to be the primary route of transmission.

In the mid-1980s, the Indian government began HIV testing, surveillance of AIDS cases, and assessments of the public's knowledge about AIDS. The NFHS included questions on AIDS awareness in 13 states where health authorities have heightened concern about AIDS. The results presented here, which are based on interviews with a representative sample of 32,077 ever-married women of reproductive age in those states, are not representative of India as a whole.

Table 1 compares the official estimate of HIV prevalence for each of the 13 states with the percentage of women who said that they had heard of AIDS. Overall,

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only about one-sixth of the women interviewed had heard of AIDS. AIDS awareness is especially low in the populous states of West Bengal, Gujarat, and Assam. It is also low in Maharashtra, where HIV is believed to be especially prevalent among high-risk groups. Awareness of AIDS is generally greater in the smaller northeastern states, except in Tripura and Arunachal Pradesh. Even in Delhi, where the media have given considerable attention to AIDS, only slightly more than one-third of respondents had heard of the disease.

## Measuring AIDS knowledge

Women who said they had heard about AIDS were asked follow-up questions to probe the extent of their knowledge. One

**Table 1. HIV prevalence and awareness of AIDS in 13 states**

State	Population in 1991 (millions)	HIV infections per 1,000 high-risk persons	% of women who had heard of AIDS
Assam	22.4	0.6	8
West Bengal	68.1	1.4	10
Gujarat	41.3	0.8	11
Tripura	2.8	u	13
Arunachal Pradesh	0.9	u	16
Maharashtra	78.9	30.6	19
Tamil Nadu	55.9	4.4	23
Meghalaya	1.8	u	27
Delhi	9.4	3.2	36
Nagaland	1.2	90.4	41
Goa	1.2	4.6	42
Manipur	1.8	129.4	72
Mizoram	0.7	4.0	85
Total/average for 13 states	286.3	8.7	17

Sources: (col. 1) 1991 Census of India; (col. 2) National AIDS Control Organization, 1993; (col. 3) NFHS.

u—data are unavailable.

question was: How is AIDS transmitted? Sexual (or heterosexual) intercourse was the most commonly identified mode of transmission, spontaneously mentioned by 78% of the respondents. Of these women, one-third also mentioned at least one other mode, including homosexual intercourse, skin punctures, transmission from mother to unborn child, or blood transfusions. (Fewer than 1% of women identified any of these as the sole mode.) Eighteen percent of the respondents who had heard of AIDS could not accurately identify a single mode of transmission.

Because misunderstanding of AIDS transmission is widespread, AIDS-aware respondents were next asked whether they believed that AIDS could be transmitted by seven types of casual contact—insect bites or having contact with an AIDS-infected person through kissing, hugging, shaking hands, sharing eating utensils, stepping on that person's urine or stools, or wearing that person's clothes. Twenty-two percent of the women could not give a correct answer to any of these questions, but 49% gave five or more correct answers. The most common misperception, shared by 42% of respondents, was that AIDS could be contacted through kissing; the least common (19%) was that it could be spread through handshaking. Although each question elicited a high proportion of incorrect answers, only 10% of respondents admitted not knowing the correct answer to any question. Such misinformation may lead people to adopt inappropriate prevention strategies and stigmatize those infected.

Respondents were also asked if they could identify ways to avoid AIDS. Fifty-five percent spontaneously mentioned practicing "safe sex" and 28% mentioned using condoms. About one-third of the women who mentioned either or both of these methods also identified at least one

other way to avoid AIDS: checking blood before transfusions (13%), sterilizing needles and syringes used for injections (12%), and avoiding pregnancy if infected with AIDS (4%). Rarely did women who knew of only one way to avoid AIDS mention these precautions. About one in five women could not identify a correct way to avoid AIDS. Thus, Indian women who have heard of AIDS regard it primarily as a sexually transmitted disease.

Four general questions were asked that probed how well respondents understood the life-threatening risks associated with AIDS: (1) Can a healthy-looking person be infected with the AIDS virus? (2) Is AIDS a curable disease? (3) Is there any vaccine to prevent AIDS? and (4) Can a woman who has the AIDS virus give birth to a child with the virus? Twenty-three percent of respondents who had heard of AIDS answered all four questions correctly. Although only 9% answered none of the questions correctly, 50% answered at least one question incorrectly and 47% responded that they did not know the answer to at least one question.

The number of correct answers to these general questions serves as a measure of the respondents' general understanding of AIDS and provides a basis for examining differences in knowledge by women's social and demographic characteristics. As shown in Table 2, knowledge about AIDS varies considerably among ever-married women. For example, those under age 20 had the poorest understanding of AIDS. Among the rural majority, few had heard of AIDS. Residents of big cities had the best understanding of AIDS (not shown).

More-educated women were much more likely than others to have heard of AIDS and to have a good general understanding of the disease. Formal education, however, did not ensure knowledge. Only 31% of those who had ever attended

school had heard of AIDS (not shown). Exposure to mass media also improved knowledge. Respondents who watched television, listened to the radio, or attended the cinema regularly were much better informed about AIDS than were those with no media exposure.

## Sources of AIDS information

The single most common source of information about AIDS was television. Among women aware of AIDS, 43% had heard about it from one source, mostly from television. Identified less frequently by those who mentioned only one source were newspapers (15%), friends or relatives (14%), and radio (10%). Thirty-two percent had heard about AIDS from two sources, 18% identified three sources, and the remaining 8% identified four or more sources.

Among those who had heard about AIDS from more than one source, the most common sources were television (48%), newspapers (35%), and radio (31%). Less frequently mentioned sources were magazines (18%) and friends or relatives (10%). Sources rarely mentioned (by fewer than 3%) were slogans, pamphlets, and posters; health workers; community meetings; and school teachers. School teachers were mentioned least (by fewer than 1% of women) regardless of the number of sources identified.

Women with more education were significantly more likely than others to have learned about AIDS from more than one source. Those who identified four or more sources had an average of 12 years of schooling, whereas those who named a single source had an average of only 8.5 years. More education therefore appears to give women greater access to AIDS information and better skills with which to understand it.

**Table 2. Knowledge of AIDS, by selected characteristics of ever-married women**

Characteristic	% of women who had not heard of AIDS	% of women, by number of correct answers they gave to general questions			Number of women
		0-1	2-3	4	
<b>Age (years)</b>					
<20	94	2	3	1	2,958
20-29	83	4	9	4	12,571
30-39	80	5	11	5	9,996
40+	84	3	9	4	6,571
<b>Residence</b>					
Urban	67	7	18	8	11,148
Rural	92	2	4	2	20,929
<b>Education</b>					
Illiterate	98	1	1	*	16,368
Literate, < middle school	88	4	6	2	8,286
Middle school completed	69	8	17	6	2,949
High school and higher	29	13	39	19	4,474
<b>Exposure to mass media<sup>a</sup></b>					
Television	66	8	18	8	13,349
Radio	74	6	14	6	16,326
Cinema	72	7	14	6	5,875
Any of the above	75	6	14	6	20,269
None of the above	98	1	1	*	11,808
<b>Total for 13 states</b>	<b>83</b>	<b>4</b>	<b>9</b>	<b>4</b>	<b>32,077</b>

Note: Percentages may not sum exactly to 100 because of rounding.

\* Less than 0.5.

a. Watches television or listens to radio at least once a week; attends cinema at least once a month.

Because television is the most common source of AIDS information, it is appropriate to ask how effective is it as a medium. Owning a television set appears to be highly associated with AIDS knowledge: 85% of those who identified television as a source of information lived in households that owned a television set. Among the 13% of women whose households owned neither a television set nor a radio, however, 50% had heard about AIDS from one or both of these sources. Television and radio are therefore important information media even among the less privileged.

Viewing frequency, however, seems to be a poor predictor of AIDS knowledge. Of the women who reported watching television at least once a week (42%), only one-third had heard of AIDS; of those who reported listening to the radio at least once a week (51%), only one-quarter were aware of AIDS. Thus, the majority of those who watched television or listened to the radio regularly had not heard of AIDS. It is unclear whether television and radio are ineffective in conveying AIDS information, or instead certain characteristics make some individuals poor receptors of such information. In any case, these find-

ings suggest that more can be done with these popular media to convey information about AIDS more effectively.

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*Television is by far the most common source of information about AIDS, but only one-third of respondents regularly exposed to television had heard of AIDS.*

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By comparing women's general knowledge about AIDS with their information sources, it is possible to draw inferences about the quality of information provided and the effectiveness of various media. Women who identified several sources of information had the greatest understanding of AIDS. Among respondents identifying the four most widely mentioned information sources—television, radio, newspapers, and friends or relatives—those who had learned about AIDS from television or newspapers tended to have the highest level of understanding,

whereas those whose only source of information was friends or relatives had the poorest understanding.

Respondents who received their information from television and newspapers were more educated than average and probably wealthier (because they were more likely to own consumer durables such as television sets), whereas those who relied exclusively on friends or relatives for their information were much more likely to be illiterate and poor. Further inquiry should attempt to distinguish the effect of these background characteristics on knowledge from the effectiveness of specific media.

## Conclusions

In the 13 states where questions about AIDS were included in the NFHS, only one in six ever-married women had heard of it. Even among those aware of its existence, only about one-fourth seemed to have a solid understanding of AIDS. This group tended to be more educated, wealthier, and more likely to live in urban areas than women who were unaware of

AIDS or whose understanding of the disease was limited.

The most common sources of AIDS information—television, radio, and print media—are those readily available to those who are the better-off, urban literate. The vast majority of their audiences, however, are unaware of AIDS. Therefore these media need to become more effective communicators about AIDS. The finding that teachers are rarely a source of AIDS information suggests that a comprehensive AIDS-awareness program should include an expanded role for schools. Most important, effective ways to convey AIDS information to the rural majority and the illiterate must be developed—for example, through new uses of film, health workers, and community meetings.

The NFHS findings indicate that effectively disseminating information about AIDS to the majority of Indians, who currently know little or nothing about AIDS, will be a formidable task. Without such efforts to inform the public about AIDS, the challenge of bringing the AIDS epidemic under control will be even greater.

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The **International Institute for Population Sciences** was established at Bombay in 1956 as the regional institute for training and research in population studies for the Asia and Pacific region of the United Nations. Now also a deemed university, it is an autonomous institution sponsored jointly by the Government of India, the United Nations Population Fund, and Sir Dorabji Tata Trust.

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