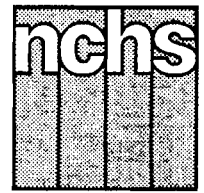


Advance Data



From Vital and Health Statistics of the National Center for Health Statistics

AIDS Knowledge and Attitudes for October–December 1990 Provisional Data From the National Health Interview Survey

by Ann M. Hardy, Dr.P.H., Division of Health Interview Statistics

Introduction

The National Center for Health Statistics has included questions about acquired immunodeficiency syndrome (AIDS) in the National Health Interview Survey (NHIS) since 1987. Data concerning the adult population's knowledge and attitudes about AIDS and transmission of the human immunodeficiency virus (HIV) are collected to assist in the planning of educational programs. Since the initiation of the NHIS AIDS survey, its scope has widened to include more questions on HIV testing and blood donation experience. In addition, the survey also assesses self-perceived risk of becoming infected with HIV, and includes a general risk behavior question similar to that asked by the Red Cross of potential blood donors. Information on the NHIS AIDS survey sample is contained in the Technical notes at the end of this report.

The first AIDS Knowledge and Attitudes Survey was in the field from August through December 1987. Provisional results of that survey were published monthly in *Advance Data*

From Vital and Health Statistics (Nos. 146, 148, 150, 151, and 153). During the first 4 months of 1988, the questionnaire was revised to meet program needs at that time. The revised AIDS Knowledge and Attitudes Survey entered the field in May 1988. Provisional findings for the remainder of 1988 were published periodically (*Advance Data From Vital and Health Statistics* Nos. 160, 161, 163, 164, 167, and 175); in addition, two special reports with a focus on minority populations were published from the 1988 data (*Advance Data From Vital and Health Statistics* Nos. 165 and 166).

The 1988 AIDS questionnaire was used without modification throughout 1989, and results were published on a quarterly basis (*Advance Data From Vital and Health Statistics* Nos. 176, 179, 183, and 186). For 1990 the AIDS questionnaire was revised again, with added emphasis on HIV testing procedures and on the distinction between testing in connection with blood donation and for other reasons. Provisional survey findings have been published on a

quarterly basis in *Advance Data From Vital and Health Statistics* Nos. 193, 195, and 198.

The NHIS AIDS questionnaires are developed by the National Center for Health Statistics and an Interagency Task Force created by the Public Health Service Health Data Policy Committee. The Task Force included representatives from the Centers for Disease Control; Office of the Assistant Secretary for Health; National AIDS Program Office; National Institutes of Health; Alcohol, Drug Abuse and Mental Health Administration; Food and Drug Administration; and Health Resources and Services Administration.

The *Advance Data* reports describing the NHIS AIDS data have been restricted to simple descriptive statistics to facilitate their timely release. Thus, these reports do not attempt to explain or interpret differences among population subgroups or to examine relationships among various measures of knowledge and behavior. The NHIS AIDS data bases permit more complex analyses than those



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presented in this series of *Advance Data* reports, and further exploration of the data is encouraged. Public use data tapes of the 1987, 1988, and 1989 AIDS Knowledge and Attitudes Surveys are available at this time.

This report presents provisional data for October–December 1990 for most items included in the NHIS AIDS questionnaire. Table 1 displays percent distributions of persons 18 years of age and over by response categories, according to age, sex, race and ethnicity, and education. In most cases, the actual questions asked of the respondents are reproduced verbatim in table 1 along with the coded response categories. In a few cases, questions or response categories have been rephrased or combined for clearer or more concise presentation of results. Refusals and other nonresponse categories (generally less than 1 percent of total responses) are excluded from the denominator in the calculation of estimates, but responses of “don’t know” are included. The NHIS AIDS questionnaire uses the phrase “the AIDS virus” rather than “HIV,” because it is felt to be more widely recognized and understood. In this

report the two terms are used synonymously.

The population subgroups used in presenting the 1990 NHIS AIDS data differ from those used in previous reports. In reports based on the 1987–89 surveys, two racial categories were shown—white and black. The 1990 reports show three categories that reflect both race and ethnic origin—non-Hispanic white, non-Hispanic black, and Hispanic. This change, which reflects the increasing demand for information about the Hispanic population, means that estimates by race cannot be compared directly between the 1990 and earlier NHIS AIDS *Advance Data* reports. In addition, the revisions in the questionnaire, whether in actual wording or in context and location of questions, must be considered when interpreting trend data.

Selected findings

The following highlights describe survey results of the NHIS AIDS Knowledge and Attitudes Survey for the period October–December 1990; comparisons with earlier quarters are

also made. Unless otherwise noted in the text, all measures described remained stable over the 3-month period. All differences cited in the text are statistically significant at the .05 level. Table II shows provisional estimates of the standard errors associated with these results.

Information and communication about AIDS—In the last quarter of 1990, 87 percent of adults stated that they had received information about AIDS from at least one source in the month preceding the NHIS AIDS survey. The most frequently cited sources of information were television (cited by 75 percent of adults), newspapers and magazines (50 and 41 percent, respectively), radio (28 percent), and health department brochures (16 percent). While the actual proportion of adults who mentioned these sources varied among sociodemographic groups, the ranking of these sources was the same in all subgroups. This rank ordering also remained the same throughout 1990.

In the fourth quarter of 1990, 69 percent of persons with children aged 10–17 years reported ever discussing AIDS with them. Females

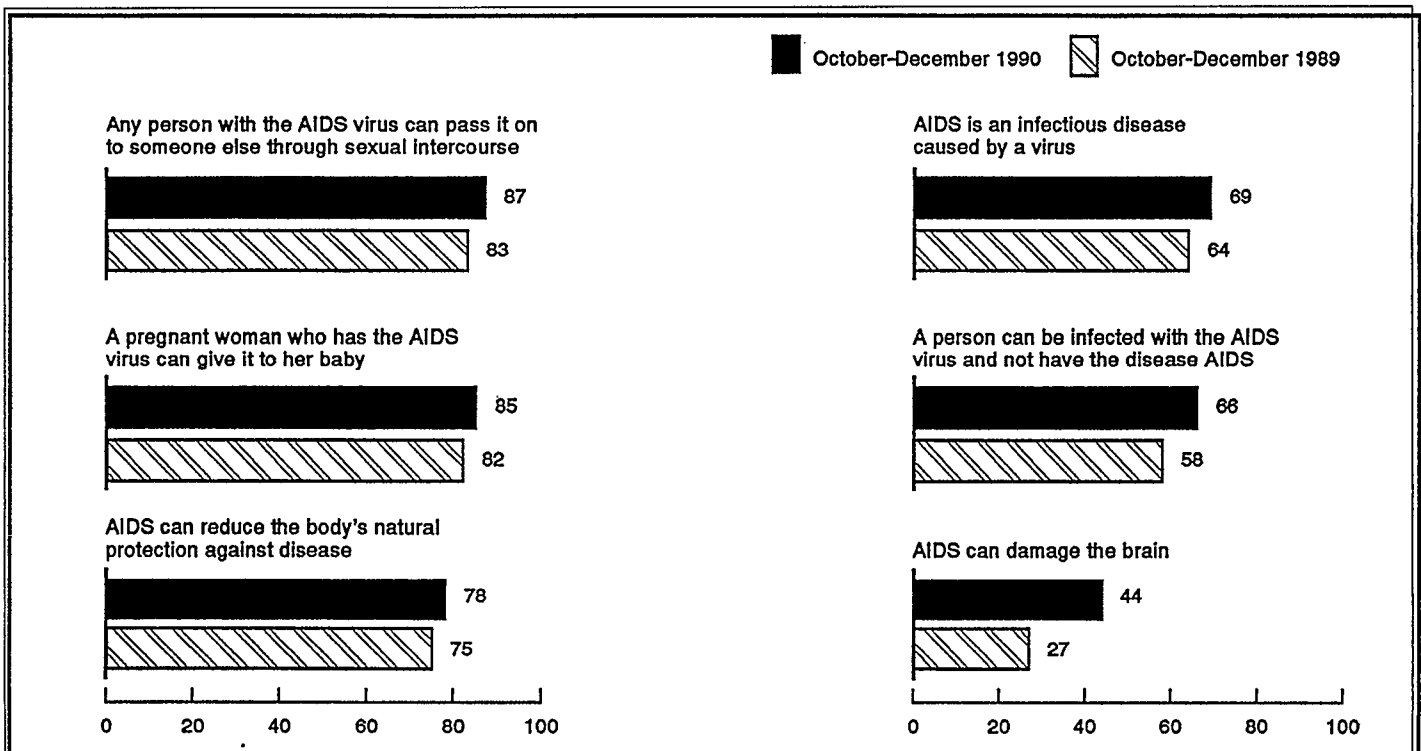


Figure 1. Provisional estimates of percent of adults reporting that selected statements are definitely true: United States, October–December 1990.

were more likely to report having discussed AIDS with their children than males (78 percent compared with 58 percent). Non-Hispanic white and black parents were also more likely than Hispanic parents to have had discussions with their children (71 and 73 percent, respectively, compared with 53 percent). The percent of parents discussing AIDS with their children also increased with years of education. Seventy-four percent of parents also reported that their children received instruction about AIDS in school. These figures are similar to those for the first three quarters of 1990 but are slightly higher than those reported for the last quarter of 1989.

General AIDS knowledge—Self-assessed knowledge about AIDS remained stable throughout 1990. In October–December 1990, 19 percent of adults stated they knew a lot about AIDS, 46 percent said they knew some, 25 percent claimed a little knowledge, and 10 percent stated they knew nothing about AIDS. This represents a slight decline in self-assessed levels of knowledge from that reported in 1989. The percent reporting a lot of knowledge declined 5 percentage points from the fourth quarter of 1989 to the fourth quarter of 1990, while the percent with no knowledge increased 3 percentage points over the same period. It is unclear if this shift is a result of an actual decrease in perceived knowledge or because of a change in the location of this question in the 1990 survey.

Objective measures of AIDS knowledge in the NHIS survey showed an increase for most questions between the fourth quarter of 1989 and the fourth quarter of 1990. Figure 1 illustrates specific areas in which gains were noted. The proportion of adults who said it was definitely true that AIDS can damage the brain increased 17 percentage points from 1989 to 1990. Increases in the percent of adults with the correct definitive responses for other questions were not as large and ranged from 3 to 8 percentage points.

A decrease in the percent of adults with the correct definitive

response was noted in 1990 for one question. In the fourth quarter of 1989, 75 percent of adults recognized that it was definitely false that there is a vaccine for AIDS. By the first quarter of 1990, this had decreased to 68 percent and remained at this lower level throughout 1990.

The changes in knowledge noted in 1990 were apparent in all sociodemographic groups examined. As in previous months, the proportions with the correct responses to the general AIDS knowledge questions did vary by sociodemographic factors. In general, adults less than 50 years of age were more knowledgeable than those 50 years of age and older and those with less than 12 years of education were less knowledgeable than those with 12 or more years of school.

Two new questionnaire items were added to the general knowledge section in the 1990 survey. The first assessed whether respondents had heard the AIDS virus called “HIV.” The percent of adults who were familiar with this term increased from 67 percent in the first quarter to 79 percent in the fourth quarter. Increases were noted in all the various sociodemographic groups. However, groups who continued to show less familiarity with the term “HIV” included those with less than 12 years of education and Hispanic adults (57 and 61 percent familiar with this term, respectively).

Another new question ascertained responses to the statement that there are drugs available which can extend the life of HIV-infected persons. As of October–December 1990, 45 percent of adults stated that this was definitely true, a figure similar to those for the earlier quarters in 1990.

Misperceptions about HIV transmission—The NHIS AIDS questionnaire asked respondents to estimate the risk of HIV transmission associated with several forms of casual contact with infected or potentially infected individuals, such as working with someone with AIDS, using public toilets, and so forth. Respondents were offered five response options for the likelihood of

transmission: very likely, somewhat likely, somewhat unlikely, very unlikely, and definitely not possible. Both “very unlikely” and “definitely not possible” were interpreted as correct responses, even for forms of contact where our current understanding of the virus indicates that there definitely is no possibility of transmission. The decision to accept “very unlikely” as correct was based on the large numbers of respondents who chose that option, seemingly unwilling to commit themselves to the concept of a zero probability.

Despite the generally high levels of understanding about AIDS, particularly about the three major modes of transmission, misperceptions about the likelihood of transmission through casual contact persist. The percent of adults who assessed the risk associated with the various forms of contact in this section of the survey as “very unlikely” or “definitely not possible” remained stable throughout 1990. These percents varied from less than half of adults who believed that transmission via insects, being coughed or sneezed on, and sharing eating utensils was not possible or very unlikely to three-fourths or more of adults for contact with infected individuals at work or school.

In general, misperceptions about HIV transmission varied by the same sociodemographic factors as general knowledge about AIDS. In particular, adults 50 years of age and over and those with fewer than 12 years of education were more likely than younger and more educated adults to be misinformed. Among these less informed population subgroups, the smaller proportion who correctly identified the low level of risk associated with casual contact was usually due to a larger proportion of these groups being unsure about these forms of transmission rather than to a larger percent believing they were likely modes of HIV transmission.

Blood donation and testing—As in the past, 40 percent of adults (2 of every 5) reported ever donating blood, 16 percent (1 in 6) donated

since March 1985 when blood donations were first routinely screened for antibodies to HIV, and 7 percent (1 in 14 adults) had donated in the preceding year. Of those who had given blood since March 1985, 70 percent had donated more than once and 3 percent indicated a desire to be tested for HIV as one reason for their donation.

Seventy-nine percent of U.S. adults had heard of the blood test to detect HIV antibodies. This percent remained unchanged throughout 1990 but was a slight percentage increase over that reported in 1989. Sixty-eight percent of all adults in October–December 1990 were aware that blood donations are routinely screened for HIV antibodies and 47 percent felt that the present supply of blood was safe.

Excluding testing performed in conjunction with blood donation, 11 percent of U.S. adults (1 of every 9) reported having had their blood tested for HIV antibodies. When including testing done as part of blood donation, an estimated 26 percent of the adult population had been tested for HIV antibodies as of the last quarter of 1990. This figure is slightly higher than the estimate of 23 percent tested by all means reported in the first two quarters of 1990.

The remainder of this section of the report deals only with HIV antibody testing exclusive of blood donation. As in previous quarters in 1990, testing was more common among those under 50 years of age (14–16 percent) than among older adults (2 percent) and more common among black non-Hispanic adults (15 percent) and Hispanic adults (16 percent) than among white non-Hispanic persons (10 percent). During October–December 1990, 56 percent of those tested stated the tests were required, 39 percent had voluntary testing, and 4 percent had some voluntary and some required tests. The percent reporting required testing increased, while the percent with voluntary tests decreased in the last quarter compared with previous quarters in 1990. This shift was also seen when the most recent HIV

antibody test was focused (58 percent required and 40 percent voluntary in the last quarter of 1990 compared with 52 percent and 47 percent in the first quarter).

Hospitalization or surgery was most often cited as the reason for required testing (mentioned by 12 percent of those tested overall and 24 percent of those 50 years of age and older who were tested). After this, the most commonly mentioned reasons for required HIV testing were military induction or service (reported by 11 percent of all persons tested and 18 percent of those 18–29 years) and life insurance (mentioned by 10 percent). Overall, 5 percent of all adults tested cited immigration as the reason for required testing. However, this reason was given by 34 percent of Hispanic adults and was by far the most common reason for required testing in this group.

The most commonly reported place for the last HIV antibody test was at a doctor's office or HMO (listed by 33 percent of those tested). Almost a fourth (24 percent) were tested at a hospital, emergency room, or outpatient clinic, another 10 percent were tested at a military induction site, and 7 percent at public health departments.

As of October–December 1990, 43 percent of those tested reported receiving counseling about AIDS and the meaning of the test before being tested. This represents a slight increase from January–March 1990 (38 percent). The proportion of tested adults who reported in the fourth quarter that they had received the results of their HIV test (78 percent) was similar to figures reported in earlier quarters. Of those who got their results, less than one-third (31 percent) reported also being given counseling about risk reduction or prevention of HIV transmission. Sixty-one percent of those who got their results received them in person and most (90 percent) felt their results were handled properly in terms of confidentiality.

Seven percent of U.S. adults reported that they plan to be tested for HIV antibodies in the next 12

months, according to the NHIS AIDS data for October–December 1990. This figure is essentially unchanged from figures reported in the past. The proportion with future plans for testing varied by age and race and ethnicity in much the same way that the proportion who had been tested varied. Eleven percent of those 18–29 years of age and 8 percent of those 30–49 years of age indicated that they plan to be tested, while only 2 percent of those 50 years of age and older reported such plans. Among non-Hispanic black adults, 16 percent plan to be tested compared with 9 percent of Hispanic and 5 percent of white non-Hispanic adults.

Reasons for future HIV testing in the last quarter of 1990 were similar to those mentioned in the previous three quarters. The majority (69 percent) of persons who plan to be tested stated that they would be tested voluntarily, because they personally wanted to know if they are infected; another 21 percent indicated they would be tested as part of blood donation. In general the locations at which persons plan to be tested are similar to those reported for tests already conducted, with 60 percent indicating they plan to go to either a private doctor or HMO (40 percent) or hospital, emergency rooms, or clinics (mentioned by 20 percent).

Risk of HIV infection—In the fourth quarter of 1990, as in previous months, 5 percent of U.S. adults reportedly received blood transfusions between 1977 and 1985. This figure is slightly higher among those 50 years of age and older (7 percent) than among those 18–29 years of age (3 percent). No other differences were noted across sociodemographic groups.

The 1990 NHIS again asked respondents about their perception of the efficacy of condoms as a means of preventing the sexual transmission of HIV. Respondents in the fourth quarter of 1990, as in the previous three quarters, were less certain about the effectiveness of condoms compared with respondents in 1989. The changes noted were a decreasing

proportion who rated condoms as "very effective" (25 percent in the last quarter of 1990 compared with 33 percent in the last quarter of 1989) and an increase in the percent who stated they did not know how effective condoms were (15 percent in 1990 compared with 7 percent in 1989). These changes were noted in all population subgroups examined.

Compared with 1989, a slight shift in the self-assessed chance of having or getting HIV was noted in 1990. Respondents in 1990 were less likely to indicate they had no chance of having or getting HIV infection (79 and 71 percent, respectively, compared with 83 and 77 percent in the fourth quarter of 1989). The proportion who rated their chances of having or getting HIV as "low" was greater in the last quarter of 1990 (17 and 23 percent) than in the same quarter in 1989 (13 and 18 percent). The proportion who indicated their chances were high or medium remained small (3 percent or less) in the fourth quarter of 1990.

In October–December 1990, only 2 percent of adults reported being in any of the behavior categories associated with an increased risk of HIV infection and AIDS. This figure was similar across the various sociodemographic groups and was unchanged from previous estimates.

Suggested citation

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Symbols

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Table 1. Provisional estimates of the percent of persons 18 years of age and over with selected AIDS knowledge and attitudes from the 1990 National Health Interview Survey, by selected characteristics: United States, October–December 1990

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in technical notes]

AIDS knowledge or attitude	Total	Age			Sex		Race or ethnicity			Education			
		18–29	30–49	50 years	Male	Female	Non-Hispanic	White	Black	Hispanic	Less than 12 years	12 years	More than 12 years
		years	years	and over			White	Black	Hispanic				
Total	100	100	100	100	100	100	100	100	100	100	100	100	
Percent distribution													
1. How much would you say you know about AIDS?													
A lot	19	23	23	12	18	20	20	16	20	10	15	28	
Some	46	52	52	36	46	46	48	39	38	27	50	53	
A little	25	21	22	30	26	24	24	27	30	32	28	17	
Nothing	10	3	3	22	10	10	8	18	11	30	6	2	
Don't know	0	0	–	0	0	0	0	–	0	0	0	0	
2. In the past month, have you received information about AIDS from any of these sources? ¹													
Television	75	74	77	74	76	74	75	78	75	71	76	76	
Radio	28	31	31	21	32	24	28	28	30	21	27	32	
Magazines	41	43	45	33	40	41	41	39	34	24	39	50	
Newspapers	50	44	54	50	52	48	52	44	39	32	49	60	
Street signs/billboards	11	16	12	6	13	10	10	17	13	7	10	14	
Store displays/store distributed brochures	6	10	7	4	7	6	5	11	9	5	7	7	
Bus/streetcar/subway displays	5	7	5	2	5	4	4	10	7	3	4	6	
Health department brochures	16	23	17	10	16	17	15	22	19	12	16	19	
Workplace distributed brochures	12	12	16	6	11	12	11	15	12	4	11	16	
School distributed brochures	9	17	9	3	8	9	8	10	10	6	7	12	
Church distributed brochures	4	5	4	3	4	4	3	8	7	4	4	5	
Community organization	4	5	5	3	4	4	4	7	5	3	4	5	
Friend/acquaintance	12	18	13	7	13	12	11	16	16	9	13	13	
Other	3	4	4	1	3	3	3	3	3	1	2	4	
Don't know	1	1	1	1	1	1	1	0	1	1	1	1	
Received no AIDS information in past month	13	11	11	16	13	13	13	13	13	20	13	9	
3. Have you heard of the AIDS virus called HIV?													
Yes	79	82	85	69	79	79	82	75	61	57	79	90	
No	19	16	13	27	19	19	16	21	36	38	19	9	
Don't know	2	1	2	4	2	3	2	3	3	6	2	1	
4a. AIDS can reduce the body's natural protection against disease.													
Definitely true	78	82	85	67	79	77	82	65	65	53	78	90	
Probably true	11	9	9	14	11	10	10	10	21	18	11	6	
Probably false	1	1	1	2	1	2	1	3	2	3	2	1	
Definitely false	2	2	1	3	2	3	1	7	3	5	2	1	
Don't know	8	5	4	15	7	9	6	15	9	21	7	2	
4b. AIDS can damage the brain.													
Definitely true	44	42	46	43	44	44	43	54	41	40	44	46	
Probably true	26	26	25	26	26	26	26	23	30	27	27	24	
Probably false	7	10	7	5	8	7	8	4	7	3	7	9	
Definitely false	4	6	5	2	5	4	5	3	4	3	4	6	
Don't know	19	16	16	24	18	19	19	17	19	26	19	15	
4c. AIDS is an infectious disease caused by a virus.													
Definitely true	69	76	77	55	71	68	70	72	62	54	69	78	
Probably true	15	14	13	19	15	15	15	12	22	19	16	13	
Probably false	2	2	2	3	2	2	2	1	1	2	2	2	
Definitely false	3	2	3	3	2	3	3	2	2	2	3	2	
Don't know	11	6	6	20	9	12	10	12	14	22	10	5	
4d. A person can be infected with the AIDS virus and not have the disease AIDS.													
Definitely true	66	70	75	54	66	67	69	62	55	46	66	78	
Probably true	16	14	14	20	16	16	16	15	19	19	17	13	
Probably false	3	3	2	3	3	2	2	2	4	3	3	2	
Definitely false	3	4	2	2	3	3	2	4	5	4	3	2	
Don't know	12	9	7	22	12	12	11	16	18	28	11	6	
4e. Any person with the AIDS virus can pass it on to someone else through sexual intercourse.													
Definitely true	87	91	90	80	85	88	87	89	80	78	88	90	
Probably true	9	7	7	13	10	8	9	7	16	12	9	8	
Probably false	1	0	1	1	1	0	1	0	1	1	1	0	
Definitely false	0	0	0	0	1	0	0	1	0	0	1	1	
Don't know	3	1	1	7	3	3	3	4	3	9	2	1	
4f. A pregnant woman who has the AIDS virus can give it to her baby.													
Definitely true	85	88	89	78	83	87	86	87	77	75	86	89	
Probably true	10	9	8	14	12	9	10	8	18	15	10	9	
Probably false	0	0	0	0	0	0	0	0	0	0	1	0	
Definitely false	0	0	0	0	0	0	0	0	0	0	0	0	
Don't know	4	3	2	7	5	3	4	4	4	10	4	1	

See footnotes at end of table.

Table 1. Provisional estimates of the percent of persons 18 years of age and over with selected AIDS knowledge and attitudes from the 1990 National Health Interview Survey, by selected characteristics: United States, October–December 1990—Con.

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in technical notes]

AIDS knowledge or attitude	Race or ethnicity											
	Age			Sex		Non-Hispanic			Education			
	Total	18–29 years	30–49 years	50 years and over	Male	Female	White	Black	Hispanic	Less than 12 years	12 years	More than 12 years
4g. There are drugs available to treat AIDS or the AIDS virus which can lengthen the life of an infected person.	Percent distribution ¹											
Definitely true	46	48	52	39	47	46	48	42	42	33	43	56
Probably true	27	26	27	27	27	26	27	24	25	23	28	27
Probably false	6	7	5	6	5	6	6	4	5	5	7	5
Definitely false	6	7	6	5	6	5	5	9	6	7	6	4
Don't know	16	13	11	24	15	17	14	21	21	32	16	8
4h. There is a vaccine available to the public that protects a person from getting the AIDS virus.												
Definitely true	3	3	3	2	3	3	2	4	6	4	3	2
Probably true	4	3	3	4	3	4	3	5	5	6	4	2
Probably false	10	10	9	10	9	10	10	8	11	9	10	9
Definitely false	68	71	75	58	70	66	72	58	53	48	68	79
Don't know	16	13	11	25	15	18	14	24	25	32	15	9
4i. There is no cure for AIDS at present.												
Definitely true	86	87	89	80	85	86	88	82	77	75	86	91
Probably true	6	6	6	8	7	6	6	7	10	9	6	5
Probably false	1	1	1	1	1	1	1	1	2	1	1	1
Definitely false	2	2	1	2	1	2	1	2	3	2	2	1
Don't know	5	4	3	9	5	5	4	8	8	13	5	2
5. How likely do you think it is that a person will get AIDS or the AIDS virus infection from—												
5a. Working near someone with the AIDS virus?												
Very likely	2	2	2	3	3	2	2	4	3	4	2	2
Somewhat likely	6	5	6	7	6	6	6	7	7	7	7	5
Somewhat unlikely	9	10	9	10	9	9	9	10	12	10	10	9
Very unlikely	40	40	42	40	41	40	42	35	31	34	40	44
Definitely not possible	35	40	37	29	34	36	35	34	39	30	35	38
Don't know	6	3	4	12	7	6	5	9	8	16	5	3
5b. Eating in a restaurant where the cook has the AIDS virus?												
Very likely	7	6	6	7	7	6	6	12	7	9	8	4
Somewhat likely	18	17	18	19	19	18	18	20	19	19	20	16
Somewhat unlikely	14	14	15	12	14	13	14	12	11	11	13	15
Very unlikely	32	34	33	28	32	31	33	26	26	22	31	37
Definitely not possible	20	23	22	17	19	21	20	18	25	18	19	22
Don't know	10	6	7	17	10	10	9	13	10	20	9	6
5c. Sharing plates, forks, or glasses with someone who has the AIDS virus?												
Very likely	11	10	10	12	11	11	10	16	11	14	13	8
Somewhat likely	21	19	22	23	22	21	21	22	19	21	22	20
Somewhat unlikely	14	14	14	13	14	13	14	9	13	11	13	16
Very unlikely	27	30	30	23	27	28	29	23	23	20	27	32
Definitely not possible	18	22	19	14	17	19	17	18	23	15	17	20
Don't know	9	5	6	15	9	9	8	11	10	19	8	5
5d. Using public toilets?												
Very likely	6	6	5	7	5	7	5	11	9	10	7	3
Somewhat likely	13	11	12	15	13	13	12	15	18	17	14	10
Somewhat unlikely	12	12	12	12	12	12	12	11	10	10	12	13
Very unlikely	35	36	38	31	36	34	37	30	25	25	35	41
Definitely not possible	26	29	28	20	26	26	26	23	27	21	25	29
Don't know	8	6	5	15	8	9	8	11	11	18	8	4
5e. Sharing needles for drug use with someone who has the AIDS virus?												
Very likely	95	98	97	91	95	95	96	94	95	89	96	97
Somewhat likely	2	1	2	3	2	2	2	2	2	3	2	1
Somewhat unlikely	0	0	0	0	0	0	0	0	0	0	0	0
Very unlikely	0	1	0	0	0	0	0	0	0	0	0	0
Definitely not possible	0	0	0	0	0	0	0	0	0	0	0	0
Don't know	2	1	1	5	2	2	2	3	2	7	1	1
5f. Being coughed or sneezed on by someone who has the AIDS virus?												
Very likely	8	7	7	11	8	9	8	11	8	12	9	6
Somewhat likely	20	16	19	23	19	20	20	19	17	19	21	19
Somewhat unlikely	14	15	15	12	15	13	14	12	14	10	13	16
Very unlikely	30	33	33	24	31	29	31	27	23	23	29	34
Definitely not possible	17	22	18	12	17	18	17	18	23	15	17	19
Don't know	11	7	7	18	10	11	10	13	15	21	10	6

See footnotes at end of table.

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AIDS knowledge or attitude	Race or ethnicity											
	Age			Sex		Non-Hispanic			Education			
	Total	18–29 years	30–49 years	50 years and over	Male	Female	White	Black	Hispanic	Less than 12 years	12 years	More than 12 years
5g. Attending school with a child who has the AIDS virus?	Percent distribution											
Very likely	2	2	2	2	2	2	2	3	2	3	2	1
Somewhat likely	5	4	5	7	6	5	5	7	8	6	5	4
Somewhat unlikely	9	9	9	9	9	8	9	8	9	8	9	8
Very unlikely	42	40	44	40	43	41	43	37	31	34	41	45
Definitely not possible	36	42	36	30	34	37	36	35	40	30	36	38
Don't know	7	3	5	13	8	7	6	10	9	17	6	3
5h. Mosquitoes or other insects?												
Very likely	10	12	10	10	11	10	9	18	16	15	12	7
Somewhat likely	19	22	18	16	19	18	18	21	25	21	20	16
Somewhat unlikely	8	9	8	8	8	8	8	6	8	6	8	9
Very unlikely	25	23	27	23	25	24	26	20	16	17	23	30
Definitely not possible	19	20	21	16	19	20	20	15	19	13	18	24
Don't know	19	14	17	27	17	21	19	21	17	28	19	15
8. Have you ever discussed AIDS with any of your children aged 10–17? ²												
Yes	69	64	71	60	58	78	71	73	53	61	68	74
No	30	34	29	39	41	21	28	27	47	37	31	26
Don't know	0	2	0	1	1	0	0	—	—	1	0	0
9. Have any or all of your children aged 10–17 had instruction at school about AIDS? ²												
Yes	74	68	74	77	71	76	75	77	61	66	74	78
No	9	15	9	9	8	10	10	8	10	13	10	7
Don't know	17	17	17	13	21	14	16	15	29	20	16	15
10. Have you ever donated blood?												
Yes	40	32	43	42	51	30	43	32	26	28	35	50
No	60	68	57	58	49	70	57	67	74	72	65	49
Don't know	0	0	0	0	0	0	0	0	0	1	0	0
11a. Have you donated blood since March 1985?												
Yes	17	24	21	8	21	13	19	11	11	6	15	25
No	82	75	79	92	78	86	81	88	88	93	85	75
Don't know	1	1	0	1	1	1	0	1	1	1	0	1
11b. Have you donated blood in the past 12 months?												
Yes	7	10	9	3	9	5	8	2	5	2	6	10
No	92	89	91	96	90	94	91	97	95	97	93	89
Don't know	1	1	1	1	1	1	1	1	1	1	1	1
12. How many times have you donated blood since March 1985?												
Once	5	9	5	2	6	4	5	4	5	2	5	6
Twice	3	5	4	1	4	3	3	3	2	1	3	5
Three times or more	9	10	11	5	11	6	10	4	4	2	7	13
Don't know	0	0	0	0	0	0	0	0	0	—	0	0
Did not donate blood since March 1985 ³	83	76	79	92	79	87	81	89	89	94	85	75
13. How many times have you donated blood in the past 12 months?												
Once	4	7	5	1	5	3	4	2	3	2	4	6
Twice	2	2	2	1	2	1	2	1	1	1	2	2
Three times or more	1	1	2	1	1	1	1	0	1	0	1	2
Don't know	0	0	0	0	0	0	0	—	—	0	0	0
Did not donate blood in the past 12 months ⁴	93	90	91	97	91	95	92	98	95	98	94	90
14. Have you ever heard of a blood test that can detect the AIDS virus infection?												
Yes	79	83	86	69	80	79	82	70	72	62	79	89
No	18	16	12	27	18	18	15	27	26	33	19	10
Don't know	2	2	1	4	2	3	2	3	2	5	2	1
15. To the best of your knowledge, are blood donations routinely tested for the AIDS virus infection?												
Yes	68	72	75	56	68	67	71	53	55	48	66	79
No	5	4	5	5	5	5	4	6	7	5	6	4
Don't know	7	6	6	9	7	7	6	10	10	10	7	5
Never heard of test ⁵	21	17	14	31	20	21	18	30	28	38	21	11
16. Was one of your reasons for donating blood because you wanted to be tested for the AIDS virus infection? ⁶												
Yes	3	3	3	2	3	2	3	2	4	3	3	3
No	82	82	82	80	79	86	83	73	77	71	75	87
Don't know	0	—	0	—	0	—	0	—	—	1	—	0
Never heard of test ⁵	8	7	8	11	8	7	7	13	9	18	11	4
17. Except for blood donations since 1985, have you had your blood tested for the AIDS virus infection?												
Yes	11	16	14	4	13	10	10	15	16	11	9	13
No	66	64	70	62	65	66	69	51	54	49	67	72
Don't know	3	2	3	3	3	3	3	4	2	2	3	3
Never heard of test ⁵	21	17	14	31	20	21	18	30	28	38	21	11

Table 1. Provisional estimates of the percent of persons 18 years of age and over with selected AIDS knowledge and attitudes from the 1990 National Health Interview Survey, by selected characteristics: United States, October–December 1990—Con.

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in technical notes]

AIDS knowledge or attitude	Race or ethnicity											
	Age			Sex		Non-Hispanic			Education			
	Total	18–29 years	30–49 years	50 years and over	Male	Female	White	Black	Hispanic	Less than 12 years	12 years	More than 12 years
18. How many times have you had your blood tested for the AIDS virus infection, not including blood donations?	Percent distribution											
Once	8	11	10	3	8	7	7	10	11	8	6	9
Twice	2	3	2	1	2	1	2	2	2	2	1	2
Three times or more	2	3	2	0	2	1	2	3	2	1	1	2
Don't know	0	0	0	0	0	0	0	—	1	0	0	0
Never heard of/had test ⁷	89	84	86	96	87	90	90	85	84	89	91	87
19. How many times in the past 12 months have you had your blood tested for the AIDS virus infection, not including blood donations?												
None	6	8	7	2	7	5	5	6	8	5	4	7
Once	5	7	5	2	5	4	4	7	7	4	4	5
Twice	1	1	1	0	1	1	1	1	1	1	0	1
Three times or more	0	0	0	0	0	0	0	1	—	0	0	0
Don't know	0	—	0	0	0	0	0	—	1	0	0	0
Never heard of/had test ⁷	89	84	86	96	87	90	90	85	84	89	91	87
20a. Were the blood tests, including those you had before the past 12 months, required or did you go for them voluntarily, or were there some of each? ⁸												
All required	56	60	52	54	58	53	56	50	64	60	51	57
All volunteered	39	35	42	39	36	42	38	45	35	36	44	37
Some of each	4	4	5	2	5	4	5	4	0	2	3	5
Don't know	1	0	1	5	1	2	1	1	—	2	2	0
20b. Were any of the blood tests required for: ⁸												
Hospitalization or a surgical procedure?	12	11	9	24	8	16	12	14	10	18	14	8
Health insurance?	3	2	5	2	4	2	4	1	2	4	1	5
Life insurance?	10	6	14	9	14	6	13	3	2	4	6	16
Employment?	7	7	7	7	8	5	7	7	6	5	5	9
Military induction or military service?	11	18	6	7	17	4	12	13	3	4	12	13
Immigration?	5	4	7	3	5	6	1	1	34	14	2	4
Other	14	19	12	7	9	20	14	16	8	17	15	12
Don't know	—	—	—	—	—	—	—	—	—	—	—	—
21. When was your last blood test for the AIDS virus infection? ⁸												
1990	45	45	45	41	44	46	44	53	48	48	45	43
1989	22	27	20	16	21	23	22	20	20	20	24	21
1988	15	17	15	11	15	16	15	14	20	17	12	17
1987	9	6	10	16	9	9	11	5	6	4	12	10
1986	4	3	4	2	5	2	3	5	2	4	3	4
1985	2	1	1	5	2	1	2	1	2	2	1	2
Don't know	2	1	2	7	3	2	3	3	1	3	2	2
22a. Was your last test required or did you go for it voluntarily? ⁸												
Required	58	64	55	55	61	56	59	53	66	62	53	60
Voluntary	40	36	44	40	38	43	40	46	34	36	45	39
Don't know	1	0	1	5	1	2	1	2	—	2	2	0
22b. Was the test required for: ⁸												
Hospitalization or a surgical procedure?	11	11	9	22	8	15	11	12	11	17	14	7
Health insurance?	3	1	5	0	4	2	4	0	2	2	1	5
Life insurance?	10	6	13	9	13	5	12	3	2	4	6	15
Employment?	6	6	7	7	7	5	6	7	6	5	5	7
Military induction or military service?	11	18	6	7	17	3	12	12	3	3	12	13
Immigration?	5	4	7	3	5	6	1	1	34	14	2	4
Other	13	19	10	7	8	19	13	17	8	18	14	11
Don't know	—	—	—	—	—	—	—	—	—	—	—	—
23. Not including a blood donation, where was your last blood test for the AIDS virus done? ⁸												
AIDS clinic/counseling/testing site	3	2	3	3	3	3	3	3	1	1	3	3
Clinic run by employer	4	3	4	3	5	2	3	4	5	3	2	5
Doctor/HMO	33	27	37	37	31	36	32	30	48	37	29	35
Public health department	7	9	7	6	6	9	5	12	12	11	8	6
Hospital/emergency room/outpatient clinic	24	21	23	32	18	30	24	26	19	29	30	17
STD clinic	0	0	0	0	0	—	0	1	—	—	1	—
Family planning clinic	2	3	1	—	1	3	2	1	3	3	2	1
Prenatal clinic	0	1	—	—	—	1	0	1	1	1	1	—
Tuberculosis clinic	—	—	—	—	—	—	—	—	—	—	—	—
Other clinic	6	7	5	4	7	4	5	8	3	6	5	6
Drug treatment facility	0	—	0	—	0	0	0	—	—	0	—	0
Military induction/service site	10	18	5	7	16	3	11	12	2	2	12	12
Immigration site	1	0	1	1	1	1	1	1	3	2	0	1
Other	10	8	12	7	12	7	13	3	2	5	7	14
Don't know	—	—	—	—	—	—	—	—	—	—	—	—

See footnotes at end of table.

Table 1. Provisional estimates of the percent of persons 18 years of age and over with selected AIDS knowledge and attitudes from the 1990 National Health Interview Survey, by selected characteristics: United States, October–December 1990—Con.

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in technical notes]

AIDS knowledge or attitude	Race or ethnicity											
	Total	Age			Sex		Non-Hispanic			Education		
		18–29 years	30–49 years	50 years and over	Male	Female	White	Black	Hispanic	Less than 12 years	12 years	More than 12 years
24. Before your last blood test for the AIDS virus infection, were you counseled about the AIDS virus and the meaning of the test? ⁸	Percent distribution											
Yes	43	43	45	33	43	43	40	57	42	39	40	46
No	56	56	54	65	56	56	59	43	57	58	60	53
Don't know	1	1	0	2	1	1	1	—	1	2	—	0
25. Did you get the results of your last test? ⁸												
Yes	78	77	80	73	78	77	77	80	79	73	80	79
No	22	23	20	27	21	22	23	20	20	27	20	21
Don't know	0	0	0	—	0	0	0	—	1	1	—	0
26. Did you want the results of your last test? ⁹												
Yes	35	40	36	17	34	36	34	37	33	34	31	37
No	58	56	56	70	60	56	61	43	63	56	65	55
Don't know	7	4	7	13	6	8	5	20	4	10	3	8
27. When you received the results of your last test, did you receive counseling or talk with a health professional about how to lower your chances of becoming infected with the AIDS virus or how to avoid passing it on to another person? ¹⁰												
Yes	31	35	29	27	29	34	25	48	39	44	31	26
No	68	64	70	72	70	66	74	51	61	55	68	73
Don't know	1	1	1	1	1	1	1	1	—	1	1	0
28. Were the results given in person, by telephone, by mail, or in some other way? ¹⁰												
In person	61	64	58	68	58	65	55	67	86	82	63	52
By telephone	16	11	19	15	17	14	18	12	5	10	16	18
By mail	16	17	16	10	18	12	18	16	5	5	15	20
Other	7	8	6	5	6	8	8	4	2	3	5	9
Don't know	0	—	1	1	0	1	1	—	1	1	0	0
29. Do you feel your last test for the AIDS virus infection was handled properly in terms of the confidentiality of your test results? ⁸												
Yes	90	91	90	89	90	91	89	92	92	91	89	91
No	4	4	3	4	4	3	4	6	3	2	5	4
Don't know	6	4	7	8	6	6	7	2	5	7	6	6
30. Do you expect to have a blood test for the AIDS virus infection in the next 12 months?												
Yes	7	11	8	2	8	6	5	16	9	7	6	7
No	69	66	75	64	68	70	74	47	58	51	69	78
Don't know	4	5	4	3	4	4	3	6	5	4	4	4
Never heard of test ⁵	21	17	14	31	20	21	18	30	28	38	21	11
31. Tell me which of these statements explain why you will have the blood test: ¹¹												
Voluntarily, because you personally want to know if you are infected	69	73	67	61	67	72	60	83	85	79	75	58
As part of a blood donation	21	24	19	20	26	16	26	13	13	13	19	27
As part of a hospitalization or surgical procedure	11	11	9	18	10	13	10	12	13	13	11	10
As a requirement for health insurance	10	12	8	12	10	10	8	14	11	11	10	9
As a requirement for life insurance	9	10	8	10	9	9	6	13	10	8	9	9
As a requirement for a job, other than military	13	13	14	11	14	12	11	17	14	9	15	13
As a requirement for the military	10	14	7	4	13	6	10	8	4	6	9	12
As a requirement for immigration	3	2	2	5	3	2	1	2	6	3	4	2
As a required part of some other activity that includes a blood sample and automatic AIDS testing	14	16	12	14	11	17	14	12	13	16	13	13
32. Where will you go to have a blood test for the AIDS virus infection? ¹¹												
AIDS clinic/counseling/testing site	2	2	1	—	1	2	1	2	—	0	2	2
Clinic run by employer	4	4	4	3	5	2	2	4	7	2	3	5
Doctor/HMO	40	33	45	45	38	42	39	43	43	34	43	40
Hospital/emergency room/outpatient clinic	20	20	20	17	17	23	19	20	19	29	18	15
Other clinic	8	12	3	6	8	6	6	9	9	11	8	5
Public health department	8	10	6	7	7	9	6	13	8	12	8	5
Red Cross/blood bank	8	5	10	13	10	6	12	3	4	3	7	12
Other	7	8	7	4	9	5	10	3	—	3	6	11
Don't know	5	6	4	6	4	6	4	3	10	7	4	4

See footnotes at end of table.

Table 1. Provisional estimates of the percent of persons 18 years of age and over with selected AIDS knowledge and attitudes from the 1990 National Health Interview Survey, by selected characteristics: United States, October–December 1990—Con.

[Data are based on household interviews of the civilian noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in technical notes]

AIDS knowledge or attitude	Race or ethnicity											
	Age			Sex		Non-Hispanic			Education			
	Total	18–29 years	30–49 years	50 years and over	Male	Female	White	Black	Hispanic	Less than 12 years	12 years	More than 12 years
33. Did you have a blood transfusion at any time between 1977 and 1985?	Percent distribution											
Yes	5	3	5	7	5	6	5	6	5	7	5	5
No	94	97	94	91	94	93	93	93	95	92	94	94
Don't know	1	0	1	2	1	1	1	1	0	1	1	1
34. Do you think the present supply of blood is safe for transfusions?												
Yes	47	52	49	40	51	43	50	35	38	34	45	55
No	30	30	29	31	27	33	28	39	38	36	32	25
Don't know	23	18	21	29	22	25	22	26	24	30	23	20
35. How effective do you think the use of a condom is to prevent getting the AIDS virus through sexual activity?												
Very effective	25	31	28	19	29	22	26	26	22	19	24	30
Somewhat effective	53	54	56	48	54	52	55	44	45	40	55	57
Not at all effective	5	4	4	5	3	6	4	6	8	7	5	3
Don't know how effective	15	10	11	24	12	18	13	21	18	28	15	8
Don't know method	2	1	1	4	2	3	2	3	6	6	2	1
36. What are your chances of having the AIDS virus?												
High	0	1	1	0	1	0	0	1	1	1	0	0
Medium	2	3	2	2	2	2	2	4	2	2	3	2
Low	17	23	19	10	19	14	17	17	10	10	15	22
None	79	72	77	86	76	81	79	74	85	83	80	75
Don't know	2	2	1	3	2	2	1	5	3	5	1	1
37. What are your chances of getting the AIDS virus?												
High	0	1	1	0	0	1	0	1	0	1	1	0
Medium	3	5	3	2	4	3	3	5	4	3	4	3
Low	23	29	26	14	25	21	24	20	17	13	21	30
None	71	62	68	80	68	73	71	69	73	78	73	65
Don't know	2	2	1	3	2	2	1	4	5	6	2	1
N/A—High chance of already having the AIDS virus	0	1	1	0	1	0	0	1	1	1	0	0
38. Have you ever personally known anyone with AIDS or the AIDS virus?												
Yes	15	15	19	11	14	17	15	18	14	9	12	22
No	82	82	79	86	84	81	83	79	84	88	86	76
Don't know	2	2	3	2	3	2	2	3	2	3	2	2
39. Are any of these statements true for you?												
a. You have hemophilia and have received clotting factor concentrates since 1977.												
b. You are a native of Haiti or Central or East Africa who has entered the United States since 1977.												
c. You are a man who has had sex with another man at some time since 1977, even 1 time.												
d. You have taken illegal drugs by needle at any time since 1977.												
e. Since 1977, you are or have been the sex partner of any person who would answer yes to any of the items above (39 a–d).												
f. You have had sex for money or drugs at any time since 1977.												
Yes to at least 1 statement	2	3	3	1	3	2	2	3	2	2	2	2
No to all statements	98	96	97	99	97	98	98	97	98	97	98	97
Don't know	0	0	0	0	1	0	0	1	0	1	0	0

¹Multiple responses may sum to more than 100.
²Based on persons answering yes to question 6, "Do you have any children aged 10 through 17?" Question 7 was "How many do you have?"
³Persons answering no or don't know to questions 10 or 11a.
⁴Persons answering no or don't know to questions 10, 11a, or 11b.
⁵Persons answering no or don't know to question 14.
⁶Based on persons answering yes to question 11a.
⁷Persons answering no or don't know to questions 14 or 17.
⁸Based on persons answering yes to question 17.
⁹Persons answering no or don't know to question 25.
¹⁰Based on persons answering yes to question 25.
¹¹Based on persons answering yes to question 30.

Technical notes

The National Health Interview Survey (NHIS) is a continuous, cross-sectional household interview survey. Each week, a probability sample of the civilian noninstitutionalized population is interviewed by personnel of the U.S. Bureau of the Census to obtain information on the health and other characteristics of each member of the household. Information on special health topics is collected for all or a sample of household members. The 1990 National Health Interview Survey of AIDS Knowledge and Attitudes is asked of one randomly chosen adult 18 years of age or over in each family. The estimates in this report are based on completed interviews with 10,331 persons or about 85 percent of eligible respondents.

Table I contains the estimated population size of each of the demographic subgroups included in table 1 to allow readers to derive

provisional estimates of the number of people in the United States with a given characteristic, for example, the number of men who have had their blood tested for HIV. The population figures in table I are based on 1989 data from the NHIS; they are not official population estimates. Table II shows approximate standard errors for most of the estimates presented in table 1. The reader is cautioned about comparing estimates when the denominator is small (for example, when looking only at people who plan to have an HIV antibody test in the next year). Both the estimates in table 1 and the standard errors in table II are provisional. They may differ from estimates made using the final data file because they were calculated using a simplified weighting procedure that does not adjust for all the factors used in weighting the final data file. A final data file covering the entire data collection period for 1990 will be available at the end of 1991.

Table I. Sample sizes for the 1990 National Health Interview Survey of AIDS Knowledge and Attitudes and estimated adult population 18 years of age and over, by selected characteristics: United States, October–December 1990

Characteristic	Sample Size	Estimated population in thousands
All adults	10,331	180,271
Age		
18–29 years	2,349	46,282
30–49 years	4,137	71,831
50 years and over	3,845	62,157
Sex		
Male	4,338	85,632
Female	5,993	94,638
Race and ethnicity		
Non-Hispanic white	8,013	139,440
Non-Hispanic black	1,329	19,585
Hispanic	654	14,118
Education		
Less than 12 years	2,172	36,782
12 years	3,927	72,418
More than 12 years	4,195	70,036

Table II. Standard errors, expressed in percentage points, of estimated percents from the 1990 National Health Interview Survey of AIDS Knowledge and Attitudes, by selected characteristics: United States, October–December 1990

Estimated percent	Age				Sex		Race and ethnicity			Education		
	Total	18–29 years	30–49 years	50 years and over	Male	Female	White	Black	Hispanic	Less than 12 years	12 years	More than 12 years
5 or 95	0.3	0.6	0.4	0.5	0.4	0.4	0.3	0.8	1.1	0.6	0.4	0.4
10 or 90	0.4	0.8	0.6	0.6	0.6	0.5	0.4	1.1	1.5	0.8	0.6	0.6
15 or 85	0.5	0.9	0.7	0.7	0.7	0.6	0.5	1.3	1.8	1.0	0.7	0.7
20 or 80	0.5	1.1	0.8	0.8	0.8	0.7	0.6	1.4	2.0	1.1	0.8	0.8
25 or 75	0.5	1.1	0.9	0.9	0.8	0.7	0.6	1.5	2.2	1.2	0.9	0.9
30 or 70	0.6	1.2	0.9	1.0	0.9	0.8	0.7	1.6	2.3	1.3	0.9	0.9
35 or 65	0.6	1.3	1.0	1.0	0.9	0.8	0.7	1.7	2.4	1.3	1.0	0.9
40 or 60	0.6	1.3	1.0	1.0	1.0	0.8	0.7	1.7	2.4	1.4	1.0	1.0
45 or 55	0.6	1.3	1.0	1.0	1.0	0.8	0.7	1.8	2.5	1.4	1.0	1.0
50	0.6	1.3	1.0	1.0	1.0	0.8	0.7	1.8	2.5	1.4	1.0	1.0

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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