HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

12

James N. Muttunga, Robert C. Buluma, and Boaz K. Cheluget

12.1 INTRODUCTION

Acquired Immune Deficiency Syndrome (AIDS), is caused by a human immunodeficiency virus (HIV) that weakens the immune system, making the body susceptible to and unable to recover from other opportunistic diseases that lead to death through these secondary infections. This is a serious public health and socioeconomic problem in many countries around the world. The most affected countries are found in sub-Saharan Africa, especially those located in the eastern, central, and southern parts of the continent.

HIV/AIDS remains a major concern in Kenya because of relatively high prevalence rates reported among adult populations and significantly higher rates among younger ages (Ministry of Health, 2001). The prevalence rate of HIV is lower in rural areas, where about 80 percent of the total population lives, than urban areas. About 75 percent of all AIDS cases occur among people in the most economically productive age group, 20 to 45 years (Ministry of Health, 2001). The deaths of these individuals constitute a serious economic and social tragedy in the lives of surviving family, friends, and employers.

The principal mode of transmission of HIV is through heterosexual contact. This accounts for 75 percent of all HIV infections in Kenya (Ministry of Health, 2001). Although the probability of transmitting HIV in a single act of intercourse may be low, a number of factors increase the risk. These factors include the viral load of the infected partner; the presence in either partner of sexually transmitted diseases (STDs), such as syphilis, chancroid, or herpes, which cause genital ulcers; lack of male circumcision; or trauma during sexual contact. A significant number of Kenyan adults suffer from STDs and some have multiple sexual partners, which increases their vulnerability and exposure to HIV. Consequently, most new HIV infections are because of heterosexual contact.

This is followed in importance by perinatal transmission, whereby the mother passes the HIV virus to the child during pregnancy, at the time of birth, or through breastfeeding. Approximately 30 to 40 percent of babies born to HIV-positive mothers in Kenya will themselves be infected with the HIV virus. The remainder may not be infected by HIV but are at risk of becoming orphans when one or both of their parents die from AIDS-related diseases. More than 100,000 children under the age of five are estimated to be infected (Ministry of Health, 2002).

Programmes designed to slow the spread of HIV need to focus on reducing transmission through sexual contact. Transmission risk is also high among men who have sex with other men, through blood transfusions, and use of unsterilised needles and skin piercing instruments.

The future direction of this pandemic depends on the level of knowledge of how the virus is spread and changes in sexual behaviour. The information obtained from the 2003 KDHS provides a unique opportunity to assess the level of knowledge and practices regarding transmission of the AIDS virus and other STDs. The main objective of this chapter is to determine the level of relevant knowledge, perceptions, attitudes, and behaviours at the national and provincial levels and for socioeconomic subgroups of the population. The results are useful for AIDS control programmes to target those individuals and groups of individuals most in need of information and those who are at risk of contracting the disease.

The 2003 KDHS included a series of questions related to HIV/AIDS and STDs in both the woman's and man's questionnaires. Both female and male respondents were asked if they have ever heard of AIDS; what a person could do to avoid getting AIDS; if they know a person with AIDS or who died of AIDS; if they are aware of mother-to-child transmission; and if they ever talked to their spouse about ways of preventing AIDS. Other questions concerned stigma or discrimination towards people with HIV/AIDS; attitudes towards teaching children about condom use; chances of getting HIV/AIDS; testing for HIV/AIDS; knowledge of other STDs and infection with STDs.

12.2 KNOWLEDGE OF AIDS AND HIV TRANSMISSION

Awareness of AIDS

Table 12.1 shows the percentage of women and men who have heard of AIDS and the percentage who know someone personally who has the AIDS virus or has died of AIDS, according to background characteristics. The data show that the level of knowledge of AIDS is almost universal, with 99 percent of women and men indicating that they have heard about AIDS. The results further show that there are almost no differences in level of knowledge by age, marital status, urban-rural residence, province, level of education, and wealth index, with the possible exception of respondents in North Eastern Province and those with no education, fewer of whom have heard of AIDS. The level of awareness about HIV/AIDS for both women and men has been very high since the 1993 KDHS (98 percent of women and 99 percent of men).

The table also shows that three in four respondents either know someone who is HIV positive or has died of AIDS. This proportion is high throughout all groups of Kenyans, although North Eastern Province appears to have been far less affected by the epidemic than other provinces.

Table 12.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Kenya 2003

Background characteristic	Women			Men		
	Has heard of AIDS	Percentage who know someone personally who has AIDS or died of AIDS	Number of women	Has heard of AIDS	Percentage who know someone personally who has AIDS or died of AIDS	Number of men
Age						
15-19	98.0	65.3	1,856	98.9	60.2	856
20-24	98.6	72.7	1,691	99.7	77.9	681
25-29	98.1	74.2	1,382	99.6	77.5	509
30-39	98.9	77.5	1,957	99.8	80.9	811
40-49	99.0	80.6	1,309	99.3	79.4	506
15-24	98.3	68.8	3,547	99.3	68.0	1,537
Marital status						
Never married	98.4	69.4	2,443	99.3	68.7	1,611
Ever had sex	99.2	74.1	1,055	99.9	75.6	1,073
Never had sex	97.8	65.9	1,388	97.9	54.8	537
Married/living together	98.5	74.8	4,919	99.7	79.3	1,615
Divorced/separated/ widowed	98.9	79.4	833	98.7	81.9	137
Residence						
Urban	99.2	74.9	2,056	99.8	82.8	856
Rural	98.3	73.3	6,139	99.3	71.8	2,506
Province						
Nairobi	99.6	71.1	835	99.8	81.9	376
Central	99.8	89.0	1,181	99.7	85.7	515
Coast	99.1	68.4	667	99.4	77.0	234
Eastern	99.2	68.7	1,325	99.8	63.8	541
Nyanza	99.9	74.0	1,222	99.7	75.8	443
Rift Valley	95.4	69.8	1,872	99.6	70.5	818
Western	99.7	86.7	927	99.8	84.5	378
North Eastern	94.1	8.3	168	86.0	7.9	57
Education						
No education	92.6	51.6	1,039	94.5	41.3	191
Primary incomplete	98.8	70.6	2,685	99.4	67.8	1,148
Primary complete	99.6	76.1	2,069	100.0	78.3	769
Secondary+	99.8	84.6	2,403	100.0	84.4	1,254
Wealth quintile						
Lowest	95.4	61.4	1,364	97.6	52.5	510
Second	98.3	70.7	1,475	99.9	71.7	572
Middle	99.1	76.4	1,503	99.7	74.1	616
Fourth	99.7	79.7	1,711	99.6	81.0	741
Highest	99.2	76.8	2,141	99.9	84.0	924
Total	98.5	73.7	8,195	99.4	74.6	3,363

Knowledge of Ways to Reduce AIDS Transmission

Abstaining from sex, being faithful to one uninfected partner, and using condoms are important ways to avoid the spread of HIV/AIDS. To ascertain the depth of knowledge about modes of HIV/AIDS transmission, respondents were asked general questions as to whether there is anything a person can do to avoid getting AIDS or the virus that causes AIDS, and if so, what can be done. They were further prompted with specific questions about whether it is possible to reduce the chance of getting AIDS by having just one faithful sexual partner, using a condom at every sexual encounter, and not having sex at all. Table 12.2 shows the percentage of women and men by their answers to these questions, according to background characteristics.

Table 12.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to a prompted question, say that people can reduce the risk of getting the AIDS virus by using condoms, by having sex with just one partner who has no other partners, or by abstaining from sex, by background characteristics, Kenya 2003

Background characteristic	Women					Men				
	Using condoms	Limiting sex to one faithful partner	Using condoms and limiting sex to one faithful partner	Abstaining from sex	Number of women	Using condoms	Limiting sex to one faithful partner	Using condoms and limiting sex to one faithful partner	Abstaining from sex	Number of men
Age										
15-19	52.6	72.0	47.8	74.2	1,856	60.4	77.2	56.9	80.5	856
20-24	65.1	82.9	61.8	80.0	1,691	78.1	92.5	75.6	93.4	681
25-29	69.7	84.1	67.0	80.3	1,382	75.7	90.9	74.0	90.6	509
30-39	65.2	84.2	62.5	83.1	1,957	77.6	94.5	76.7	92.1	811
40-49	52.3	79.9	50.1	78.5	1,309	71.0	92.2	69.2	90.3	506
15-24	58.6	77.2	54.5	76.9	3,547	68.3	84.0	65.2	86.2	1,537
Marital status										
Never married	57.5	77.5	53.6	79.2	2,443	68.5	84.6	65.7	86.5	1,611
Ever had sex	69.1	82.9	65.1	82.6	1,055	79.5	91.1	76.3	91.6	1,073
Never had sex	48.7	73.3	44.8	76.6	1,388	46.5	71.6	44.5	76.4	537
Married/living together	62.6	81.8	59.8	79.3	4,919	75.1	93.2	73.8	91.6	1,615
Divorced/separated/ widowed	62.0	81.2	58.5	79	833	77.7	87.4	73.8	86.0	137
Residence										
Urban	69.2	85.2	66.3	83.5	2,056	79.6	92.3	77.6	90.8	856
Rural	58.3	78.9	55.0	77.8	6,139	69.5	87.6	67.3	88.3	2,506
Province										
Nairobi	75.2	88.7	71.8	86.2	835	82.1	93.6	80.7	92.2	376
Central	62.4	87.3	60.4	87.0	1,181	68.6	94.1	67.9	93.0	515
Coast	57.8	72.5	55.6	69.7	667	72.8	79.0	64.4	80.6	234
Eastern	62.7	85.5	60.3	84.4	1,325	59.2	82.9	57.7	84.7	541
Nyanza	62.0	84.9	60.1	83.0	1,222	76.7	90.6	75.1	90.1	443
Rift Valley	56.1	71.7	50.1	71.0	1,872	77.4	91.8	75.5	90.9	818
Western	65.2	85.4	62.4	84.0	927	76.8	89.3	73.4	91.3	378
North Eastern	6.1	21.6	5.3	25.1	168	11.3	46.6	11.3	51.6	57
Education										
No education	29.8	51.9	27.2	49.4	1,039	39.9	61.5	37.1	63.9	191
Primary incomplete	57.8	76.4	53.9	76.9	2,685	66.6	81.5	63.7	83.1	1,148
Primary complete	67.3	86.0	63.9	83.2	2,069	71.8	92.6	69.8	93.0	769
Secondary+	72.8	92.6	70.3	91.3	2,403	82.1	97.3	80.7	95.6	1,254
Wealth quintile										
Lowest	46.2	66.6	43.0	64.6	1,364	63.0	79.0	59.9	81.2	510
Second	56.5	76.4	52.6	76.6	1,475	68.4	86.3	66.4	86.5	572
Middle	60.7	81.7	57.4	79.9	1,503	69.1	88.6	67.2	90.5	616
Fourth	64.6	85.5	61.6	85.8	1,711	72.1	90.8	69.8	89.5	741
Highest	71.0	87.2	68.2	84.7	2,141	81.2	94.4	79.4	93.2	924
Total	61.0	80.5	57.8	79.2	8,195	72.0	88.8	69.9	88.9	3,363

The results show that knowledge of HIV prevention methods is widespread, although there are differences between women and men. More than four in five respondents (81 and 89 percent of women and men, respectively) indicate that the chances of getting the AIDS virus can be reduced by limiting sex to one faithful partner. Similarly, 61 percent of women and 72 percent of men know that condoms can reduce the risk of contracting the HIV virus during sexual intercourse. Knowledge of both these means of avoiding HIV transmission is also high, with 58 percent of women and 70 percent of men citing both as ways of reducing the risk of getting the AIDS virus. As expected, the proportion of both women and men who know that abstaining from sex reduces the chances of getting the AIDS virus is high—79 percent among women and 89 percent among men.

Knowledge of HIV prevention methods among women and men age 15 to 19 is lower for all methods compared with people age 20 years and above. Likewise, knowledge of how people can reduce the risk of getting AIDS is lower among those who have never had sex than among those who are married or living together with a partner, and those who are divorced/separated/widowed or those who never married but have had sex.

For all methods of reducing the risk of HIV infection, urban dwellers are more knowledgeable than their rural counterparts. The level of awareness by province shows that women and men in Nairobi Province are better informed than those in other provinces. By far the most disadvantaged region is North Eastern Province, which shows the lowest levels of knowledge for all methods of reducing the risk of contracting HIV/AIDS.

The level of education attained is strongly related to respondents' knowledge of ways to avoid contracting HIV/AIDS. Women and men who have no education exhibit considerably lower levels of knowledge of HIV/AIDS prevention than those with some education. The data show that the poorest, irrespective of sex, are the most disadvantaged in terms of knowledge about methods that can be used to reduce the risk of getting HIV/AIDS virus.

Knowledge of Mother-to-Child Transmission

Current strategies on HIV/AIDS in Kenya are geared towards improving the health of the HIV-infected mother and reducing the transmission to their children during pregnancy, labour, delivery, and post-delivery through breastfeeding as outlined in the National HIV/AIDS Strategic Plan 2000-2004 and the National Prevention of Mother-to-Child Transmission Strategic Plan (Ministry of Health, 1999b). Increasing the level of general knowledge of transmission of the virus from mother to child and of reducing the risk of transmission by use of antiretroviral drugs is critical to achieving this goal.

All women and men interviewed in the 2003 KDHS were asked if the virus that causes AIDS can be transmitted from a mother to a child. If the answer was in the affirmative, they were further asked whether the virus could be transmitted during pregnancy, during delivery, or during breastfeeding. They were also asked if a mother who is infected with the AIDS virus can reduce the risk of giving the virus to the baby by taking certain drugs during pregnancy. The results of the responses are shown in Table 12.3.

Almost three-quarters of women (72 percent) and two-thirds of men (68 percent) know that HIV can be transmitted by breastfeeding. Only one-third of women (33 percent) and 38 percent of men know that the risk of mother-to-child transmission can be reduced by the mother taking certain drugs during pregnancy. Only 28 percent of women and 30 percent of men know that HIV can be transmitted through breastfeeding and that the risk can be reduced with drugs.

The knowledge of transmission through breastfeeding and knowledge of antiretroviral drugs is lower for the youngest women and men, as well as those who have never had sex. It is also lower for rural women and men and substantially lower among women and men in North Eastern Province than elsewhere. Kenyans with no education and those who have not completed primary education are less likely to know about the transmission of HIV through breastfeeding than those who have completed primary or have some secondary and higher education. The data also show that wealth is positively associated with knowledge of HIV transmission. The poorest are disadvantaged in all aspects of HIV knowledge as shown in Table 12.3.

Table 12.3 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of maternal to child transmission (MTCT) of HIV can be reduced by a mother taking special drugs during pregnancy, by background characteristics, Kenya 2003

	Women				Men			
Background characteristic	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking drugs in pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking drugs in pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking drugs during pregnancy	Number of men
Age								
15-19	66.1	24.6	21.4	1,856	62.3	25.5	21.0	856
20-24	75.2	36.1	31.1	1,691	71.2	37.6	31.3	681
25-29	75.8	38.6	34.2	1,382	69.7	41.3	32.6	509
30-39	72.7	35.8	30.6	1,957	72.8	44.9	36.7	811
40-49	69.7	28.3	23.8	1,309	66.8	42.1	31.7	506
15-24	70.5	30.1	26.0	3,547	66.2	30.8	25.5	1,537
Marital status								
Never married	69.1	28.6	24.5	2,443	66.6	31.7	26.2	1,611
Ever had sex	72.7	34.1	29.1	1,055	70.6	36.4	30.1	1,073
Never had sex	66.3	24.5	21.0	1,388	58.6	22.3	18.5	537
Married/living together	73.3	34.9	30.2	4,919	69.9	43.5	34.4	1,615
Divorced/separated/ widowed	70.4	30.7	26.2	833	72.0	34.6	28.3	137
Residence								
Urban	76.5	40.8	35.7	2,056	71.8	45.4	37.0	856
Rural	70.2	29.8	25.6	6,139	67.3	34.8	27.9	2,506
Province								
Nairobi	77.4	45.0	39.9	835	69.9	49.2	39.7	376
Central	75.3	37.3	32.5	1,181	73.5	27.8	22.3	515
Coast	71.5	24.8	22.7	667	69.4	31.1	26.7	234
Eastern	78.4	25.2	22.1	1,325	65.0	30.2	24.5	541
Nyanza	71.9	37.5	31.7	1,222	66.6	45.3	36.8	443
Rift Valley	65.4	30.4	25.3	1,872	70.8	39.3	31.6	818
Western	72.1	35.1	30.4	927	67.4	45.8	35.7	378
North Eastern	35.6	1.1	1.1	168	27.8	2.5	2.1	57
Education								
No education	50.8	12.1	10.4	1,039	47.7	11.0	8.5	191
Primary incomplete	69.4	25.9	22.4	2,685	65.1	28.2	22.1	1,148
Primary complete	76.1	35.6	30.1	2,069	69.2	34.5	28.0	769
Secondary+	79.7	46.3	40.4	2,403	74.2	51.9	42.4	1,254
Wealth quintile								
Lowest	60.4	19.0	16.0	1,364	57.3	24.6	18.2	510
Second	69.2	28.7	24.6	1,475	69.1	36.4	29.0	572
Middle	74.5	33.4	29.4	1,503	70.6	38.3	33.4	616
Fourth	74.5	33.6	28.1	1,711	68.0	36.3	28.8	741
Highest	76.6	42.5	37.4	2,141	73.0	45.8	36.7	924
Total	71.8	32.6	28.1	8,195	68.4	37.5	30.2	3,363

Rejection of Misconceptions about AIDS Transmission

In addition to knowing about effective ways to avoid contracting HIV/AIDS, it is also useful to be able to identify incorrect ways of avoiding the virus, in order to eliminate misconceptions. Common misconceptions about AIDS include fear of contracting AIDS by sharing utensils with someone who is infected, transmission by mosquito or other insect bites, and a belief that people who are infected will show signs of illness. Respondents were asked about these three misconceptions.

The data as shown in Tables 12.4.1 and 12.4.2 indicate that not all Kenyans understand that AIDS cannot be transmitted by mosquito bites; only 61 percent of women and 74 percent of men know that AIDS cannot be transmitted by mosquito bites. Similarly, 71 percent of women and 81 percent of men know that a person cannot become infected with the AIDS virus by sharing utensils with a person who has AIDS.

Table 12.4.1 Beliefs about AIDS: women

Percentage of women 15-49 who, in response to a prompted question, reject local misconceptions about AIDS transmission or prevention, and who know that a healthy-looking person can have the AIDS virus, by background characteristics, Kenya 2003

Background characteristic	Percentage of women who know that: AIDS cannot be transmitted by mosquito bites	A person cannot become infected by sharing utensils with someone with AIDS	A healthy-looking person can have the AIDS virus	Percentage who reject both misconceptions and says a healthy-looking person can have the AIDS virus	Number of women
Age					
15-19	57.3	65.3	78.3	43.5	1,856
20-24	66.2	74.2	87.8	56.0	1,691
25-29	65.3	77.0	85.6	55.7	1,382
30-39	62.6	73.9	87.8	53.6	1,957
40-49	52.7	66.0	84.5	44.2	1,309
15-24	61.6	69.5	82.9	49.4	3,547
Marital status					
Never married	65.2	72.6	83.7	53.9	2,443
Ever had sex	69.5	78.9	88.2	60.0	1,055
Never had sex	61.9	67.9	80.3	49.3	1,388
Married/living together	60.0	71.0	84.7	49.7	4,919
Divorced/separated/ widowed	55.2	68.9	87.9	46.7	833
Residence					
Urban	75.2	80.9	91.2	66.6	2,056
Rural	56.3	68.0	82.6	45.3	6,139
Province					
Nairobi	83.0	84.8	90.9	72.4	835
Central	69.1	82.6	93.8	63.2	1,181
Coast	56.9	57.3	79.1	44.6	667
Eastern	62.1	69.2	92.3	50.1	1,325
Nyanza	54.7	69.8	88.5	46.0	1,222
Rift Valley	56.2	69.8	74.1	43.7	1,872
Western	59.1	72.4	87.3	48.6	927
North Eastern	13.5	15.6	31.1	5.7	168
Education					
No education	25.2	36.1	57.3	16.3	1,039
Primary incomplete	49.5	63.4	79.6	35.3	2,685
Primary complete	68.1	79.1	91.7	58.5	2,069
Secondary+	83.3	88.6	96.5	75.9	2,403
Wealth quintile					
Lowest	39.4	50.3	67.0	27.1	1,364
Second	51.7	65.6	81.9	40.3	1,475
Middle	58.1	70.9	86.4	47.6	1,503
Fourth	67.0	78.3	90.5	56.7	1,711
Highest	78.6	83.2	92.2	70.1	2,141
Total	61.0	71.3	84.7	50.7	8,195

Table 12.4.2 Beliefs about AIDS: men

Percentage of men 15-49 who, in response to a prompted question, reject local misconceptions about AIDS transmission or prevention, and who know that a healthy-looking person can have the AIDS virus, by background characteristics, Kenya 2003

Background characteristic	Percentage of men who know that: AIDS cannot be transmitted by mosquito bites	A person cannot become infected by sharing utensils with someone with AIDS	A healthy-looking person can have the AIDS virus	Percentage who reject both misconceptions and says a healthy-looking person can have the AIDS virus	Number of men
Age					
15-19	64.6	70.5	79.0	50.3	856
20-24	84.3	86.5	94.6	75.3	681
25-29	78.7	82.6	93.6	71.3	509
30-39	76.3	85.6	95.0	70.0	811
40-49	68.9	78.9	90.4	60.2	506
15-24	73.3	77.6	85.9	61.4	1,537
Marital status					
Never married	74.1	78.1	85.9	62.4	1,611
Ever had sex	79.9	84.7	91.4	70.2	1,073
Never had sex	62.4	64.9	75.0	46.6	537
Married/living together	74.9	83.0	93.7	67.6	1,615
Divorced/separated/ widowed	66.8	78.3	92.4	59.9	137
Residence					
Urban	86.8	87.7	93.6	78.2	856
Rural	69.9	78.0	88.7	60.2	2,506
Province					
Nairobi	90.4	88.8	95.2	83.5	376
Central	73.1	85.1	94.5	66.6	515
Coast	80.7	82.4	87.4	71.6	234
Eastern	72.0	73.7	90.2	61.2	541
Nyanza	62.3	73.9	92.5	54.4	443
Rift Valley	76.2	83.5	88.5	66.2	818
Western	74.1	82.2	86.0	59.9	378
North Eastern	34.8	35.8	49.4	25.2	57
Education					
No education	37.1	41.9	60.3	23.7	191
Primary incomplete	61.3	70.7	83.0	48.3	1,148
Primary complete	76.2	85.2	93.6	67.5	769
Secondary+	90.4	92.4	98.5	84.5	1,254
Wealth quintile					
Lowest	57.0	66.0	80.3	45.8	510
Second	69.1	76.2	87.7	58.3	572
Middle	72.1	80.8	89.0	62.7	616
Fourth	77.8	83.4	92.2	68.4	741
Highest	85.3	88.5	95.4	77.7	924
Total	74.2	80.5	89.9	64.8	3,363

Knowledge that a healthy-looking person can have the AIDS virus is more widespread. Eighty-five percent of women and 90 percent of men know that a healthy-looking person can have the AIDS virus. This reflects a moderate rise from the 1998 KDHS data, from 79 to 87 percent of women and from 85 to 91 percent of men, excluding the northern areas. Looking at all three beliefs together, 51 percent of women and 65 percent of men have correct knowledge on all these issues.

The analysis shows considerable differentials in the levels of rejection of these misconceptions regarding AIDS transmission. The proportions of women and men who know that AIDS cannot be transmitted by mosquitoes or by sharing utensils with a person who has AIDS and who know that a healthy-looking person can have the AIDS virus are lower among those age 15 to 19, those from rural areas, those with less education, and those who are poorer. North Eastern Province has the lowest levels of correct knowledge about HIV/AIDS transmission, with only 6 percent of women and 25 percent of men rejecting all the three misconceptions, while those from Nairobi are better informed, with 72 and 84 percent of women and men, respectively, reporting correct conceptions. It is also important to note that women are less knowledgeable than men about these misconceptions.

The level of education is highly associated with misconceptions about methods of transmission of the AIDS virus, with the lowest levels of correct understanding among those with no education and increasing with rising educational level among both women and men.

12.3 Stigma Towards HIV-Infected People

Beliefs about HIV/AIDS show the extent of stigma or discrimination towards people with HIV/AIDS. In the 2003 KDHS, questions were posed to respondents to measure their attitudes towards HIV-infected people, their willingness to buy vegetables from infected vegetable sellers, their willingness to let others know the HIV status of family members, and their willingness to take care of relatives who have the AIDS virus in their own households. Additionally, they were asked whether HIV-positive women teachers should be allowed to continue teaching. Tables 12.5.1 and 12.5.2 show the percentage of women and men who have heard about AIDS and who express positive attitudes toward people with HIV, by background characteristics.

Large majorities of women and men (84 and 88 percent, respectively) express their willingness to care for a relative sick with the virus that causes AIDS in their own household, while far fewer (60 and 74 percent, respectively) say they would be willing to buy fresh vegetables from a vendor who has the AIDS virus. The results further indicate that only 57 and 60 percent of women and men, respectively, believe that a female teacher who has the AIDS virus should be allowed to continue teaching in school. Finally, 59 percent of women and 72 percent of men say that if a member of their family got infected with the virus that causes AIDS, they would not want it to remain a secret. The percentage expressing acceptance on all the four measures is quite low at 27 and 40 percent for women and men, respectively. It is striking to note that women express less accepting attitudes towards people with HIV/AIDS than men.

A lower proportion of both women (20 percent) and men (25 percent) age 15 to 19 express accepting attitudes on all four measures towards people infected with HIV/AIDS, compared with those age 20 years and above. Urban women (35 percent) and men (48 percent) are more likely than rural women (24 percent) and men (37 percent) to accept all four measures towards people infected with HIV/AIDS. Accepting attitudes towards HIV-infected people are more common in Nairobi Province and least common in North Eastern Province, where only 1 and 2 percent of women and men, respectively, accept all four measures.

Education is strongly related to positive attitudes towards those who are HIV-positive. The proportion of women and men who accept all four measures increases steadily with education as well as with the wealth index.

Table 12.5.1 Accepting attitudes towards those living with HIV: women

Percentage of women age 15-49 who have heard about AIDS who express accepting attitudes toward people with HIV, by background characteristics, Kenya 2003

Background characteristic	Percentage of respondents who: Are willing to care for relative with HIV at home	Would buy fresh vegetables from a vendor with AIDS	Believe an HIV-positive female teacher should be allowed to continue teaching	Would not want an HIV-positive status of family member to remain secret	Percentage expressing accepting attitudes on all four measures	Number of women who have heard of HIV/AIDS
Age						
15-19	78.7	57.1	51.0	52.4	20.0	1,818
20-24	84.8	64.1	59.8	58.4	30.2	1,668
25-29	83.7	61.4	62.8	60.3	28.3	1,356
30-39	87.4	60.3	60.4	62.4	29.4	1,935
40-49	86.5	57.8	50.9	61.4	24.8	1,296
15-24	81.6	60.5	55.2	55.3	24.9	3,486
Marital status						
Never married	84.4	65.7	62.2	57.1	29.7	2,404
Ever had sex	87.7	71.3	67.1	58.6	33.1	1,046
Never had sex	81.9	61.3	58.5	55.9	27.1	1,358
Married/living together	83.7	57.1	54.6	59.8	25.0	4,846
Divorced/separated/ widowed	85.7	62.0	56.0	58.4	26.0	824
Residence						
Urban	87.4	68.7	71.6	59.0	34.9	2,040
Rural	83.0	57.2	52.1	58.8	23.7	6,033
Province						
Nairobi	87.4	71.4	76.9	59.9	36.2	832
Central	91.3	69.6	72.3	68.3	39.1	1,178
Coast	82.8	43.6	50.8	55.7	20.5	661
Eastern	86.2	55.1	47.4	54.1	17.0	1,314
Nyanza	80.8	64.6	53.5	47.3	20.9	1,220
Rift Valley	85.6	60.4	53.6	65.4	29.4	1,786
Western	83.1	58.8	57.1	54.0	25.8	924
North Eastern	15.4	11.0	10.2	79.1	0.9	158
Education						
No education	65.0	28.4	27.4	61.8	8.5	961
Primary incomplete	80.0	49.0	42.2	53.7	15.6	2,653
Primary complete	87.9	66.3	60.6	59.2	28.2	2,060
Secondary+	93.1	79.8	82.2	63.0	44.4	2,398
Wealth quintile						
Lowest	73.2	39.8	34.1	56.8	12.6	1,301
Second	80.2	53.2	46.7	56.6	18.9	1,451
Middle	84.7	57.8	52.4	57.7	23.3	1,490
Fourth	88.8	68.3	64.5	60.4	31.7	1,706
Highest	89.2	72.4	75.3	61.1	38.3	2,125
Total	84.1	60.1	57.0	58.8	26.5	8,073

Table 12.5.2 Accepting attitudes towards those living with HIV: men

Percentage of men 15-49 who have heard about AIDS who express accepting attitudes toward people with HIV, by background characteristics, Kenya 2003

Background characteristic	Percentage of respondents who:					
	Are willing to care for relative with HIV at home	Would buy fresh vegetables from a vendor with AIDS	Believe an HIV-positive female teacher should be allowed to continue teaching	Would not want an HIV-positive status of family member to remain secret	Percentage expressing accepting attitudes on all four measures	Number of men who have heard of HIV/AIDS
Age						
15-19	81.3	64.3	46.1	59.3	24.9	847
20-24	90.4	78.1	61.5	74.8	40.5	679
25-29	90.2	75.9	63.0	74.1	42.8	506
30-39	89.2	79.0	69.2	78.9	50.4	809
40-49	88.3	71.5	61.7	73.0	41.8	502
15-24	85.4	70.4	53.0	66.2	31.8	1,526
Marital status						
Never married	86.0	71.7	55.3	67.4	34.4	1,599
Ever had sex	88.8	76.1	57.6	71.4	37.9	1,073
Never had sex	80.3	62.8	50.6	59.1	27.3	526
Married/living together	89.1	75.2	64.4	75.7	44.7	1,610
Divorced/separated/ widowed	86.1	74.4	56.7	69.3	36.9	135
Residence						
Urban	89.1	80.5	70.8	72.7	47.7	854
Rural	86.9	71.1	55.9	71.1	36.7	2,490
Province						
Nairobi	91.3	83.5	78.4	73.4	52.5	375
Central	91.8	81.0	72.4	70.2	45.2	514
Coast	90.4	74.4	63.9	64.2	38.6	232
Eastern	86.8	65.3	46.2	74.1	29.4	540
Nyanza	88.0	72.4	48.2	62.0	31.7	442
Rift Valley	85.0	70.6	58.8	79.1	43.4	814
Western	84.9	77.3	61.5	72.9	39.3	377
North Eastern	63.1	33.2	18.7	23.8	2.2	49
Education						
No education	61.9	37.1	21.2	57.5	9.4	181
Primary incomplete	81.1	60.8	39.3	67.0	23.9	1,141
Primary complete	91.6	77.7	63.7	72.7	39.8	769
Secondary+	94.4	87.7	81.5	76.8	57.8	1,254
Wealth quintile						
Lowest	78.8	53.3	39.0	65.2	23.4	498
Second	86.6	70.3	49.9	70.3	30.6	571
Middle	87.0	72.6	56.8	71.9	38.7	614
Fourth	91.4	78.5	64.9	72.4	44.0	738
Highest	89.8	82.9	74.8	74.5	50.6	923
Total	87.5	73.5	59.7	71.5	39.5	3,344

12.4 PERCEIVED RISK OF GETTING AIDS

In order to gauge people's perceptions of their risk of getting HIV, respondents in the 2003 KDHS were asked if they thought their chances of getting AIDS were small, moderate, great, or if they had no risk at all. Table 12.6 shows the results regarding self-perception of risk to HIV infection.

About one-third of women and men say they have no risk of getting AIDS, while 40 percent of women and 52 percent of men say they have only a small chance. Fifteen percent of women and 10 percent of men feel they have a moderate risk of getting AIDS, while only 9 percent of women and 5 percent

Table 12.6 Perception of risk of getting AIDS

Percent distribution of women and men age 15-49 who know about AIDS by perception of risk of getting AIDS, by background characteristics, Kenya 2003

Background characteristic	Women							Men							
	No chance	Small chance	Moderate chance	Great chance	Don't know/ missing	Total	Number of women	No chance	Small chance	Moderate chance	Great chance	Has AIDS	Don't know/ missing	Total	Number of men
Age															
15-19	51.8	36.2	6.7	5.0	0.3	100.0	1,818	43.5	45.6	6.7	4.2	0.0	0.1	100.0	847
20-24	35.7	41.8	14.4	8.0	0.1	100.0	1,668	25.3	57.7	11.1	6.0	0.0	0.0	100.0	679
25-29	31.2	39.0	18.4	11.2	0.3	100.0	1,356	33.2	50.8	11.3	4.5	0.0	0.2	100.0	506
30-39	26.0	42.0	20.2	11.5	0.3	100.0	1,935	31.1	53.5	10.3	4.8	0.3	0.0	100.0	809
40-49	32.4	38.0	18.7	10.5	0.4	100.0	1,296	32.9	52.6	11.2	3.4	0.0	0.0	100.0	502
Marital status															
Never married	50.8	36.6	7.7	4.6	0.2	100.0	2,404	35.8	51.0	8.2	5.0	0.0	0.0	100.0	1,599
Currently married	28.6	40.6	19.2	11.4	0.2	100.0	4,846	31.9	53.2	10.9	3.8	0.1	0.1	100.0	1,610
Formerly married	33.5	41.7	15.6	8.8	0.5	100.0	824	29.0	44.4	16.7	9.9	0.0	0.0	100.0	135
Number of partners other than spouse															
No partner other than spouse	37.5	39.0	14.6	8.7	0.2	100.0	7,054	39.2	50.9	7.1	2.6	0.1	0.1	100.0	2,406
1 partner	23.9	44.9	20.7	10.1	0.4	100.0	934	19.8	56.8	16.4	7.0	0.0	0.0	100.0	716
2-3 partners	9.9	24.6	28.9	35.2	1.4	100.0	68	17.6	47.1	18.4	16.9	0.0	0.0	100.0	187
Residence															
Urban	36.8	38.9	13.6	10.2	0.4	100.0	2,040	31.7	53.4	10.5	4.2	0.0	0.2	100.0	854
Rural	35.3	39.7	16.0	8.7	0.2	100.0	6,033	34.3	51.3	9.6	4.8	0.1	0.0	100.0	2,490
Province															
Nairobi	31.1	45.2	13.3	10.1	0.4	100.0	832	23.4	58.1	13.9	4.1	0.0	0.5	100.0	375
Central	41.4	37.0	18.1	3.2	0.2	100.0	1,178	19.5	71.3	6.4	2.8	0.0	0.0	100.0	514
Coast	45.7	33.5	13.8	7.0	0.0	100.0	661	44.3	42.4	6.7	6.6	0.0	0.0	100.0	232
Eastern	28.1	53.7	14.0	4.2	0.1	100.0	1,314	25.5	61.0	9.8	3.7	0.0	0.0	100.0	540
Nyanza	25.1	42.8	17.5	14.5	0.2	100.0	1,220	36.8	41.0	12.8	8.9	0.5	0.0	100.0	442
Rift Valley	38.6	35.3	16.0	9.9	0.1	100.0	1,786	44.0	41.4	10.0	4.5	0.0	0.0	100.0	814
Western	37.5	28.6	15.8	17.0	1.0	100.0	924	33.5	53.6	9.5	3.4	0.0	0.1	100.0	377
North Eastern	77.7	21.6	0.6	0.2	0.0	100.0	158	97.8	0.0	1.4	0.8	0.0	0.0	100.0	49
Education															
No education	46.0	33.8	12.0	8.0	0.2	100.0	961	56.0	30.8	7.9	5.3	0.0	0.0	100.0	181
Primary incomplete	35.2	38.4	16.1	10.1	0.2	100.0	2,653	38.7	46.9	9.2	5.1	0.0	0.1	100.0	1,141
Primary complete	33.9	40.7	15.7	9.5	0.3	100.0	2,060	32.3	55.3	6.5	5.4	0.3	0.1	100.0	769
Secondary+	33.6	42.0	15.8	8.1	0.4	100.0	2,398	26.6	57.2	12.7	3.6	0.0	0.0	100.0	1,254
Wealth quintile															
Lowest	38.1	39.3	14.0	8.6	0.0	100.0	1,301	41.5	44.9	7.8	5.7	0.0	0.0	100.0	498
Second	34.6	36.9	16.8	11.4	0.3	100.0	1,451	36.4	48.2	9.9	5.0	0.4	0.0	100.0	571
Middle	33.5	41.1	16.7	8.5	0.2	100.0	1,490	34.3	52.3	8.2	5.2	0.0	0.0	100.0	614
Fourth	36.2	39.4	16.1	8.0	0.3	100.0	1,706	32.9	52.9	10.5	3.7	0.0	0.0	100.0	738
Highest	36.2	40.3	13.9	9.1	0.4	100.0	2,125	27.8	56.5	11.4	4.1	0.0	0.2	100.0	923
Total	35.7	39.5	15.4	9.1	0.3	100.0	8,073	33.6	51.8	9.8	4.6	0.1	0.1	100.0	3,344

Note: Total includes those with 4+ partners and number of partners missing.

of men think they have a great chance of getting AIDS. In general, women perceive their risks as greater than men.

Younger respondents are more likely to believe they have no chance of getting AIDS than older respondents. Similarly, those who have never married and those who have not had sex with anyone other than their spouse are more likely to fall in the "no risk" category. Risk perception is surprisingly similar among urban and rural respondents.

The distribution of respondents' perception of risk of getting AIDS by province shows that the largest proportions who think they have no chance of getting AIDS are found in North Eastern Province (78 and 98 percent of women and men, respectively). Women in Western and Nyanza provinces are the most likely to think they have a moderate or great chance of getting AIDS, while men in Nyanza, Coast, and Nairobi provinces are more likely to feel they have a great chance of getting AIDS. Differences by education and wealth index are not large.

The main reasons that individual men and women provide to explain the perception of AIDS risk as low or nil are presented in Table 12.7. The most common reason for both men and women is that they have had just one partner (56 and 53 percent of women and men, respectively). Next in importance is that they are not having sex; 35 percent of women and 30 percent of men think they have a low risk of getting the AIDS virus because they have not been having sex. Those who have never married or who are no longer married are more likely to say they are at low risk because they are not having sex.

Table 12.7 Reasons for perception of small/no risk of getting AIDS

Among respondents who think they have small or no risk of getting AIDS, percentage who cite specific reasons for perception of risk, Kenya 2003

	Women				Men			
Reason	Never married	Currently married	Formerly married	Total	Never married	Currently married	Formerly married	Total
Not having sex	76.3	2.4	67.8	34.6	57.7	0.6	33.0	29.5
Uses condoms	4.5	0.7	5.2	2.5	19.2	9.4	31.0	14.9
Has only 1 partner	16.4	87.8	21.2	56.3	23.9	83.1	28.3	52.5
Limits the number of partners	2.5	2.9	5.5	3.0	9.4	11.8	23.9	11.0
Partner has no other partners	1.6	13.5	1.2	8.2	3.9	18.5	3.0	10.9
Doesn't fully trust partner	0.5	3.9	0.8	2.4	0.0	0.0	0.0	0.0
Religious	0.3	1.2	0.7	0.8	0.0	0.0	0.0	0.0
Other	4.5	2.4	3.4	3.2	6.0	7.0	9.5	6.6
Number	2,101	3,352	619	6,071	1,388	1,370	99	2,857

Table 12.8 shows the distribution of men and women who believe they are at moderate or great risk of getting AIDS, by reasons for this perception. Seventy percent of women who think they are at moderate to great risk of getting AIDS, think so because their partners have other partners, compared with 29 percent of the men. Almost four in ten men think they are at moderate or great risk because they have multiple partners.

Table 12.8 Reasons for perception of moderate/great risk of getting AIDS

Among respondents who think they have a moderate or great risk of getting AIDS, percentage who cite specific reasons for perception of risk, Kenya 2003

	Women				Men			
Reason	Never married	Currently married	Formerly married	Total	Never married	Currently married	Formerly married	Total
Doesn't use condoms	19.7	11.8	21.0	13.9	28.9	16.7	12.5	21.7
Has more than 1 sex partner	15.5	7.0	16.3	9.2	37.3	35.6	61.3	38.2
Partner has other partners	35.4	78.5	54.6	69.6	23.5	31.0	43.0	28.6
Homosexual contacts	0.0	0.1	0.4	0.1	0.0	0.0	0.9	0.1
Has had blood transfusions/injections	15.0	6.5	6.5	7.8	10.4	17.0	8.4	13.4
Other	23.0	5.5	11.8	8.7	26.7	19.8	16.4	22.6
Number	296	1,482	200	1,979	211	236	36	483

12.5 MULTIPLE SEXUAL PARTNERSHIPS

Because the most important mechanism of HIV transmission is sexual intercourse, it is important to know the extent of multiple sexual partners. Consequently, women and men interviewed in the 2003 KDHS were asked questions about the number of partners with whom they had had sex in the 12 months preceding the survey. Information on the percentage of women and men age 15 to 49 who have had more than one sexual partner in the 12 months preceding the survey is presented in Table 12.9.

The data show that only 2 percent of women and 12 percent of men report having had more than one sexual partner in the 12 months prior to the survey. Differentials by background characteristics among women are minimal. However, among men, those who are in their early twenties, ever-married, urban, and those in Coast, Nairobi, and Nyanza provinces are more likely than others to have had multiple partners.

Table 12.9 Multiple sex partnerships among women and men

Among women and men age 15-49, percentage who have had sex with more than one partner in the 12 months preceding the survey, by background characteristics, Kenya 2003

Background characteristic	Women		Men	
	Percentage	Number of women	Percentage	Number of men
Age				
15-19	1.5	1,856	7.3	856
20-24	1.8	1,691	16.4	681
25-29	1.9	1,382	13.1	509
30-39	1.7	1,957	12.5	811
40-49	2.0	1,309	10.2	506
15-24	1.6	3,547	11.3	1,537
Marital status				
Never married	0.9	2,443	10.3	1,611
Ever married	2.1	5,752	13.0	1,752
Residence				
Urban	2.1	2,056	15.4	856
Rural	1.6	6,139	10.4	2,506
Province				
Nairobi	1.7	835	15.9	376
Central	1.1	1,181	4.3	515
Coast	2.1	667	19.2	234
Eastern	1.9	1,325	7.9	541
Nyanza	3.4	1,222	15.2	443
Rift Valley	1.1	1,872	13.7	818
Western	1.5	927	11.7	378
North Eastern	0.2	168	0.0	57
Education				
No education	1.4	1,039	12.4	191
Primary incomplete	2.3	2,685	13.2	1,148
Primary complete	2.3	2,069	11.4	769
Secondary+	0.8	2,403	10.4	1,254
Wealth quintile				
Lowest	2.1	1,364	10.7	510
Second	1.5	1,475	11.6	572
Middle	1.5	1,503	9.1	616
Fourth	1.5	1,711	11.0	741
Highest	2.0	2,141	14.7	924
Total	1.7	8,195	11.7	3,363

12.6 TESTING AND COUNSELLING FOR HIV

Voluntary counselling and testing (VCT) is now acknowledged as an effective strategy for HIV prevention. HIV testing through VCT or in clinical settings is essential for access to AIDS care. Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so they can remain disease-free. For those who are HIV-infected, knowledge of their status allows them to better protect their sexual partners, to access treatment for HIV disease, and to plan for their future.

In order to gauge the coverage of HIV testing as well as the unmet need for testing, respondents in the 2003 KDHS were asked if they have ever heard of "VCT." Similarly, the interviewer asked respondents if they had ever been tested to see if they have the AIDS virus. Those who had been tested were asked when they were last tested, whether they had asked for the test or were required to take it, and whether they received their results. Those who had not been tested were asked if they would like to be tested and whether they know of a place to go for an AIDS test. Table 12.10 shows the percentage of women and men who have ever heard of VCT, who have ever been tested, and those who were tested and received the test results in the 12 months preceding the survey, by background characteristics.

Nearly half of all women (48 percent) and three-fifths of men (62 percent) have heard of VCT. Knowledge of VCT is highest among those in their early 20s and among never-married women and men who have ever had sex. Urban respondents are one and a half times more likely to have heard of VCT as their rural counterparts. Knowledge of VCT is highest in Nairobi and Central provinces and among men in Coast Province; it is by far the lowest in North Eastern Province, where only 2 percent of women and 15 percent of men have ever heard of VCT. Knowledge of VCT increases dramatically as the level of education and the wealth index rise.

Although knowledge of VCT services is quite widespread, Table 12.10 shows that the majority of those who are aware have not used the services. Only 15 percent of women and 16 percent of men say that they have ever been tested for HIV, almost identical to the levels reported in the 1998 KDHS. It is reassuring, however, that about 90 percent of those who have been tested received the test results. Half of those ever tested said they had been tested and received results in the 12 months preceding the survey.

Those most likely to have ever received an HIV test are women and men in their 20s and early 30s, those living in urban areas, and those in Nairobi Province. The percentage who have been tested increases with education level and wealth index.

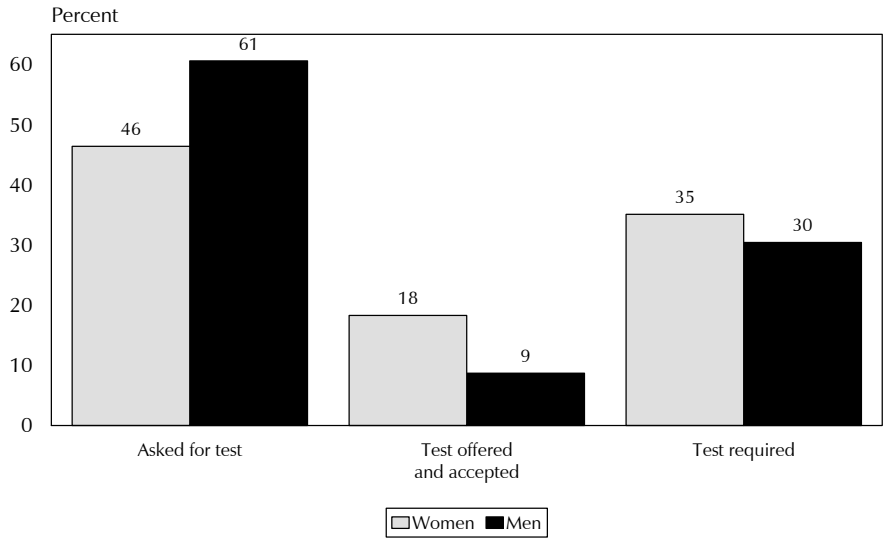
Among those who were tested for HIV, 46 percent of women and 61 percent of men asked for the test, while 18 percent of women and 9 percent of men were offered the test and accepted (Figure 12.1). About one-third of those tested (35 and 30 percent of women and men, respectively) indicated that the HIV test was required.

Table 12.10 Population who had an HIV test and received test results

Percent distribution of women and men age 15-49 by status of HIV testing, and percentage of women and men who were tested for HIV and received test results in the last 12 months, by background characteristics, Kenya 2003

	Women								Men							
		Ever tested								Ever tested						
Background characteristic	Heard of VCT	Received results	No results	Never tested	Don't know/ missing	Total	Tested and received results in past 12 months	Number of women	Heard of VCT	Received results	No results	Never tested	Don't know/ missing	Total	Tested and received results in past 12 months	Number of men
Age																
15-19	43.9	6.5	0.6	90.9	2.0	100.0	4.1	1,856	47.1	5.2	0.7	93.0	1.1	100.0	3.6	856
20-24	57.4	17.8	1.5	79.2	1.5	100.0	9.3	1,691	73.4	14.5	0.8	84.5	0.3	100.0	9.1	681
25-29	51.9	16.9	2.9	78.2	2.0	100.0	8.7	1,382	67.9	21.2	3.0	75.3	0.6	100.0	10.7	509
30-39	47.9	15.4	2.1	81.3	1.1	100.0	7.4	1,957	69.2	18.6	1.9	79.4	0.2	100.0	9.3	811
40-49	38.1	9.1	0.9	89.0	1.0	100.0	3.9	1,309	56.9	15.9	1.1	82.1	0.8	100.0	6.3	506
15-24	50.3	11.9	1.0	85.3	1.8	100.0	6.6	3,547	58.8	9.3	0.7	89.2	0.7	100.0	6.0	1,537
Marital status																
Never married	54.8	9.3	1.3	87.9	1.6	100.0	5.6	2,443	60.6	9.7	1.0	88.5	0.7	100.0	6.3	1,611
Ever had sex	60.4	16.0	2.2	81.0	0.8	100.0	9.7	1,055	66.5	12.4	1.3	86.2	0.1	100.0	7.9	1,073
Never had sex	50.5	4.1	0.5	93.2	2.2	100.0	2.4	1,388	48.8	4.3	0.4	93.2	2.1	100.0	3.3	537
Married/living together	45.0	14.6	1.8	82.0	1.6	100.0	7.1	4,919	64.4	18.1	1.8	79.8	0.4	100.0	8.3	1,615
Divorced/separated/ widowed	46.5	15.6	1.5	81.8	1.1	100.0	7.9	833	59.4	24.5	1.2	73.0	1.3	100.0	13.1	137
Residence																
Urban	70.0	22.4	1.5	75.3	0.8	100.0	11.3	2,056	81.7	22.0	1.8	75.8	0.4	100.0	12.5	856
Rural	40.7	10.0	1.6	86.6	1.8	100.0	5.1	6,139	55.8	11.7	1.3	86.4	0.7	100.0	5.9	2,506
Province																
Nairobi	79.6	27.0	1.5	71.2	0.4	100.0	13.1	835	86.0	25.4	1.7	72.5	0.4	100.0	14.8	376
Central	59.3	17.7	2.7	79.4	0.2	100.0	8.6	1,181	70.1	16.3	1.9	81.4	0.3	100.0	8.8	515
Coast	42.5	10.2	0.3	88.6	0.9	100.0	5.6	667	71.5	18.5	1.3	79.6	0.6	100.0	7.5	234
Eastern	32.9	10.3	1.5	87.4	0.9	100.0	4.1	1,325	46.0	9.1	1.2	89.4	0.2	100.0	3.4	541
Nyanza	47.6	10.3	1.7	87.8	0.1	100.0	6.6	1,222	58.3	15.9	1.6	82.2	0.3	100.0	8.8	443
Rift Valley	43.0	12.4	2.2	80.8	4.6	100.0	6.4	1,872	58.5	11.1	1.3	87.2	0.4	100.0	6.8	818
Western	50.5	8.4	0.4	90.8	0.4	100.0	5.0	927	66.6	12.4	0.9	86.4	0.3	100.0	5.8	378
North Eastern	2.1	0.6	0.0	93.5	5.9	100.0	0.2	168	15.1	2.6	0.7	82.7	14.0	100.0	1.3	57
Education																
No education	13.4	5.1	1.0	86.5	7.4	100.0	2.7	1,039	20.0	8.4	1.0	85.1	5.5	100.0	5.5	191
Primary incomplete	34.1	7.6	1.6	89.6	1.2	100.0	4.5	2,685	40.7	8.9	0.9	89.5	0.7	100.0	4.6	1,148
Primary complete	49.0	13.6	1.4	84.4	0.5	100.0	7.0	2,069	64.6	14.1	1.2	84.7	0.0	100.0	7.2	769
Secondary+	77.9	22.4	2.0	75.4	0.2	100.0	10.7	2,403	87.4	20.4	2.0	77.6	0.0	100.0	10.8	1,254
Wealth quintile																
Lowest	23.3	5.0	0.8	89.6	4.6	100.0	2.8	1,364	36.0	9.4	1.1	87.1	2.4	100.0	5.1	510
Second	35.6	8.7	1.2	88.5	1.7	100.0	4.9	1,475	52.8	10.7	0.4	88.8	0.1	100.0	6.0	572
Middle	41.8	11.5	1.7	85.9	0.9	100.0	5.1	1,503	52.0	11.1	1.4	87.3	0.3	100.0	4.9	616
Fourth	52.0	12.9	2.3	84.5	0.3	100.0	7.2	1,711	69.4	12.4	1.7	85.5	0.4	100.0	6.1	741
Highest	73.7	22.7	1.7	74.7	0.9	100.0	11.2	2,141	84.1	23.0	2.0	74.8	0.3	100.0	12.8	924
Total	48.1	13.1	1.6	83.8	1.5	100.0	6.7	8,195	62.4	14.3	1.4	83.7	0.6	100.0	7.6	3,363

Figure 12.1 Reason for Getting HIV Test among Women and Men Age 15-49 Who Have Ever Been Tested



KDHS 2003

12.7 ATTITUDES TOWARDS NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it are useless if people feel powerless to negotiate safer sex practices with their partners. To gauge attitudes towards safer sex, respondents in the 2003 KDHS were asked if they think a woman is justified in refusing to have sex with her husband if she knows he has an STD. They were also asked if they think that a woman in the same circumstances is justified in asking her husband to use a condom. The results are shown in Table 12.11.

About 90 percent of women and men feel that a woman is justified in refusing to have sex with her husband if she knows he has an STD, while around 80 percent believe that a woman is justified in asking her husband to use a condom if he has an STD. Ninety-four percent of women and 96 percent of men agree with one or both statements.

Differences in these attitudes by background characteristics are minimal. However, women in North Eastern Province appear to be less accepting of requesting a husband to use condoms.

Table 12.11 Attitudes towards negotiating safer sex

Percentage of women and men who believe that, if a husband has a sexually transmitted disease, his wife is justified in either refusing to have sex with him or asking that he use a condom, by background characteristics, Kenya 2003

Background characteristic	Women				Men			
	Refuse sex	Propose condom use	Refuse sex or propose condom use	Number of women	Refuse sex	Propose condom use	Refuse sex or propose condom use	Number of men
Age								
15-19	80.9	70.1	88.4	1,856	86.1	72.0	90.3	856
20-24	88.7	82.5	95.0	1,691	92.2	86.0	96.3	681
25-29	88.9	83.1	96.1	1,382	94.8	83.6	96.8	509
30-39	89.5	82.3	96.1	1,957	96.5	85.3	98.7	811
40-49	88.1	73.8	94.2	1,309	95.0	77.8	97.7	506
15-24	84.6	76.0	91.5	3,547	88.8	78.2	93.0	1,537
Current marital status								
Never married	83.4	75.6	90.7	2,443	89.2	77.9	93.1	1,611
Ever had sex	86.7	84.9	95.5	1,055	92.0	84.5	96.0	1,073
Never had sex	80.9	68.6	87.0	1,388	83.7	64.9	87.3	537
Married/living together	88.4	79.3	94.8	4,919	95.6	83.6	98.2	1,615
Divorced/separated/ widowed	89.9	80.7	97.0	833	95.0	78.4	96.0	137
Residence								
Urban	92.1	87.5	97.2	2,056	94.2	86.3	97.4	856
Rural	85.4	75.3	92.6	6,139	91.9	78.7	95.1	2,506
Province								
Nairobi	94.1	88.9	97.7	835	93.7	89.6	96.9	376
Central	91.4	85.3	97.4	1,181	93.1	69.0	95.9	515
Coast	88.1	79.3	93.5	667	92.5	81.6	94.4	234
Eastern	89.0	83.9	96.1	1,325	89.0	75.0	91.0	541
Nyanza	80.5	70.7	91.3	1,222	93.1	82.9	95.6	443
Rift Valley	83.2	75.6	90.7	1,872	93.0	84.1	98.0	818
Western	89.2	76.0	94.1	927	93.3	86.2	96.5	378
North Eastern	81.4	27.4	82.8	168	95.7	73.9	95.7	57
Education								
No education	78.6	53.9	84.6	1,039	91.3	67.7	94.5	191
Primary incomplete	83.6	74.4	91.4	2,685	88.5	73.9	91.8	1,148
Primary complete	90.1	84.2	96.5	2,069	93.5	80.2	96.9	769
Secondary+	92.0	88.2	98.1	2,403	95.8	89.1	98.6	1,254
Wealth quintile								
Lowest	82.5	64.2	89.0	1,364	89.5	73.9	92.5	510
Second	82.9	72.5	91.1	1,475	90.8	78.3	93.5	572
Middle	84.9	77.3	93.5	1,503	92.0	78.0	96.0	616
Fourth	89.4	82.6	95.7	1,711	92.8	81.5	96.5	741
Highest	92.6	88.8	97.4	2,141	95.4	87.0	97.8	924
Total	87.1	78.3	93.8	8,195	92.5	80.7	95.7	3,363

12.8 CONDOM USE AT HIGHER-RISK SEX

As mentioned above, condom use is an important tool in the fight to curtail the spread of HIV/AIDS. Although truly effective protection would require condom use at every sexual encounter, the most important sexual encounters to cover are those considered to be "higher risk." In the context of this survey, higher-risk sex is defined as sex with a nonmarital, noncohabitating partner in the 12 months preceding the survey. Table 12.12 shows the proportion of women and men who have been sexually active in the 12 months before the survey who have engaged in higher-risk sex and use of condom during sex with such partners.

Table 12.12 Higher-risk sex and condom use at last higher-risk sex

Among women and men who had sex in the last 12 months, percentage who had sex with a nonmarital, noncohabiting partner in the last 12 months and among women and men who have had higher-risk sex in the last 12 months, percentage who say they used a condom the last time they had sex with a nonmarital, noncohabiting partner, by background characteristics, Kenya 2003

Background characteristic	Women				Men			
	Percentage engaging in higher-risk sex in the past 12 months	Number of women who had sex in the past 12 months	Percentage who used condom at last higher-risk sex	Number of women who had higher-risk sex in past 12 months	Percentage engaging in higher-risk sex in the past 12 months	Number of men who had sex in the past 12 months	Percentage who used condom at last higher-risk sex	Number of men who had higher-risk sex in past 12 months
Age								
15-19	46.7	619	23.4	289	97.1	258	41.3	250
20-24	21.4	1,207	27.6	258	77.2	459	50.7	355
25-29	13.9	1,190	25.8	166	35.3	421	51.8	149
30-39	10.8	1,693	23.1	184	18.6	765	38.6	142
40-49	10.9	1,000	14.9	109	9.6	476	50.0	46
15-24	30.0	1,826	25.4	547	84.4	717	46.8	605
Marital status								
Never married	99.9	597	27.9	596	99.8	681	48.9	680
Married/living together	2.4	4,693	18.8	112	11.1	1,597	44.9	177
Divorced/separated/ widowed	70.9	420	17.8	298	84.1	101	30.6	85
Residence								
Urban	23.8	1,381	33.0	328	42.5	655	59.1	279
Rural	15.7	4,329	19.5	678	38.5	1,725	41.2	663
Province								
Nairobi	26.7	554	31.7	148	42.9	285	64.4	122
Central	16.4	790	20.8	129	32.6	321	33.1	105
Coast	16.6	482	27.3	80	45.0	178	56.3	80
Eastern	18.9	958	25.2	181	39.1	348	43.7	136
Nyanza	21.0	946	16.5	199	39.2	304	35.2	119
Rift Valley	14.3	1,236	27.5	177	42.5	659	48.7	280
Western	14.8	625	19.4	93	39.8	250	42.0	99
North Eastern	0.0	118	*	0	0.0	35	*	0
Education								
No education	10.3	727	10.5	75	24.5	144	(40.6)	35
Primary incomplete	17.8	1,843	17.0	328	48.9	708	36.5	346
Primary complete	18.2	1,575	23.2	286	35.1	591	43.8	207
Secondary+	20.2	1,565	35.0	316	37.7	938	58.5	353
Wealth quintile								
Lowest	12.8	975	11.4	124	31.4	359	39.8	113
Second	14.5	1,067	13.8	155	42.1	379	39.1	160
Middle	16.6	1,064	15.0	177	35.3	395	33.7	139
Fourth	17.9	1,165	25.5	209	44.0	526	47.9	231
Highest	23.7	1,439	36.7	341	41.4	721	57.9	299
Total	17.6	5,710	23.9	1,006	39.6	2,380	46.5	942

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indictes that a figure is based on fewer than 25 unweighted cases and has been suppressed. Higher-risk sex refers to sex with a non-marital, non-cohabiting partner.

The results show that 18 percent of sexually active women and 40 percent of sexually active men engaged in higher-risk sex in the 12 months prior to the survey. Of them, only one-quarter of women (24 percent) and half of men (47 percent) report using condoms at the most recent occurrence of higher-risk sex. Because the definition of higher-risk sex includes premarital sex, involvement in higher-risk sex is highest among women and men age 15-19 years, and decreases with increasing age. The percentage of those who used a condom at last higher-risk sex is alarmingly low for women (15 percent) age 40 to 49 years, compared with the highest rate of 28 percent of men age 20 to 24 years. However, among men, it is

lowest (39 percent) in the age cohort of 30 to 39 as compared with the highest (52 percent) in the age group 25 to 29 years.

By definition, all sexually active women and men who have never married engage in higher-risk sex, compared with only 2 percent of married women and 11 percent of married men. Condom use during higher-risk sex is more pronounced among women who have never married (28 percent) than those married (19 percent) or divorced/widowed/separated (18 percent).

Sexually active women and men (24 and 43 percent, respectively) from urban areas are more likely to be involved in higher risk sex than women and men (16 and 39 percent, respectively) from rural areas. They are also considerably more likely to use condoms than rural respondents. Women in Nairobi Province and men in Coast and Nairobi provinces are more likely to engage in higher-risk sex and to use condoms than respondents in other provinces, especially North Eastern Province, where no women or men reported sexual activity outside of marriage.

Among women, there is an increase in higher-risk sex and condom use with increasing level of education and increasing wealth index, while among men, engagement in higher-risk sex is lower for those with no education but fluctuates for other groups as well as by wealth index.

12.9 Paid Sex and Condom Use

A special category of higher-risk sex is sex for which compensation is paid. In the 2003 KDHS, men were asked if they had ever paid for sex and, if so, when the most recent encounter took place and if they used condoms at that most recent sex. Women were asked if they had given or received money, gifts, or favours in return for sex in the 12 months preceding the survey.

Results shown in Table 12.13 indicate that only 3 percent of men have had sex with prostitutes in the 12 months before the survey, 65 percent of whom report that they used condoms at the most recent paid sex. Six percent of women indicate that they received money, gifts, or favours in exchange for sex.

There are no significant variations by age in the percentage of men having paid sex in the 12 months preceding the survey. However, younger women age 15 to 19 are more likely than older women to receive money, gifts, or favours in exchange for sex (16 and 3 to 5 percent, respectively).

Divorced, widowed, or separated men are more likely than married and never-married men to have paid for sex. On the other hand, never-married women are the most likely to have received money, gifts, or favours for sex, with one in four reporting such activity in the 12 months preceding the survey.

The proportion of men having paid sex is higher among men in urban areas and in Coast Province than among other men. Education seems not to play a significant role among men reporting sex with prostitutes. Men in the lowest wealth quintile are lightly less likely than those in the highest quintile to have paid for sex.

Table 12.13 Paid sex in last year and condom use at last paid sex

Percentage of men reporting that they paid for sex in the 12 months preceding the survey and among them, percentage reporting condom use the last time they had paid sex, and percentage of women reporting they received money, gifts, or favours in return for sex in the 12 months preceding the survey, by background characteristics, Kenya 2003

Background characteristic	Percentage reporting paid sex in past 12 months	Number of men	Percentage reporting condom use at last paid sex	Number of men reporting paid sex in past 12 months	Number of women reporting receiving money, gifts, or favours for sex	Number of women who had sex in the past 12 months
Age						
15-19	3.6	856	(35.1)	30	16.2	619
20-24	3.5	681	(86.4)	24	5.3	1,207
25-29	2.6	509	*	13	4.3	1,190
30-39	2.7	811	*	22	3.1	1,693
40-49	2.0	506	*	10	4.5	1,000
15-24	3.5	1,537	57.6	54	9.0	1,826
Marital status						
Never married	3.3	1,611	63.2	53	23.2	597
Married/living together	2.0	1,615	(63.5)	32	2.2	4,693
Divorced/separated/ widowed	10.3	137	*	14	17.4	420
Residence						
Urban	4.6	856	81.3	39	6.6	1,381
Rural	2.4	2,506	(53.7)	60	5.1	4,329
Province						
Nairobi	1.5	376	*	6	6.0	554
Central	1.0	515	*	5	2.2	790
Coast	10.0	234	(90.4)	23	6.3	482
Eastern	1.0	541	*	5	7.6	958
Nyanza	3.4	443	*	15	7.6	946
Rift Valley	3.9	818	*	32	4.3	1,236
Western	3.4	378	*	13	5.5	625
North Eastern	0.0	57	*	0	0.0	118
Education						
No education	3.2	191	*	6	3.8	727
Primary incomplete	4.0	1,148	(47.4)	46	7.5	1,843
Primary complete	2.5	769	*	19	4.7	1,575
Secondary+	2.2	1,254	(81.9)	28	4.7	1,565
Wealth quintile						
Lowest	1.5	510	*	8	6.2	975
Second	2.4	572	*	14	5.9	1,067
Middle	2.1	616	*	13	5.2	1,064
Fourth	3.2	741	(61.3)	23	3.9	1,165
Highest	4.5	924	(84.6)	41	6.2	1,439
Total	2.9	3,363	64.5	99	5.5	5,710

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

12.10 Attitudes Towards Condoms

Questions were added in the man's questionnaire to gauge attitudes towards condom use among men. Respondents were asked to say whether they agree or disagree with several statements about condoms that were read by the interviewer. The statements included the following: 1) condoms diminish a man's sexual pleasure; 2) it's okay to reuse a condom if you wash it; 3) condoms protect against disease; 4) buying condoms is embarrassing; 5) a woman has no right to tell a man to use a condom; and (6) condoms contain HIV. Table 12.14 presents the percentage of men who agree with each of these statements about condoms, according to background characteristics.

Table 12.14 Attitude towards condoms

Percentage of men age 15-49 who agree with particular statements about condoms, by background characteristics, Kenya 2003

Background characteristic	Attitudes about condoms: Diminish pleasure	Can reuse condom	Condoms protect against disease	Buying condoms is embarrassing	Woman has no right to tell man to use condom	Condoms contain HIV	Number of men
Age							
15-19	29.9	5.0	67.1	36.1	31.7	9.2	856
20-24	52.8	4.0	84.8	29.0	26.9	9.5	681
25-29	52.2	4.7	80.4	33.9	24.0	6.8	509
30-39	51.3	4.5	84.0	32.9	26.5	6.7	811
40-49	47.1	5.7	74.2	39.6	28.8	6.6	506
Marital status							
Never married	40.5	4.6	74.6	33.2	27.3	8.6	1,611
Ever had sex	53.4	4.2	84.7	30.8	30.1	8.8	1,073
Never had sex	14.8	5.5	54.6	37.8	21.5	8.1	537
Married/living together	49.7	4.8	80.4	35.0	27.4	7.0	1,615
Divorced/separated/ widowed	58.6	5.6	85.1	33.8	41.6	10.5	137
Residence							
Urban	54.1	2.1	80.7	32.9	22.4	5.4	856
Rural	42.8	5.6	76.9	34.5	29.8	8.7	2,506
Province							
Nairobi	55.2	2.4	83.2	29.5	17.9	5.5	376
Central	41.5	3.0	70.2	32.6	20.3	13.0	515
Coast	63.0	1.5	79.9	35.5	28.1	3.0	234
Eastern	43.9	5.8	74.7	46.5	26.6	12.8	541
Nyanza	40.1	6.2	82.7	34.5	38.0	10.6	443
Rift Valley	46.9	7.7	79.5	33.0	34.4	3.6	818
Western	42.3	2.3	86.1	22.3	25.0	5.6	378
North Eastern	13.7	1.3	17.9	44.8	21.2	5.9	57
Education							
No education	22.5	12.6	44.9	37.2	26.6	7.3	191
Primary incomplete	43.6	7.2	75.5	38.0	38.8	12.0	1,148
Primary complete	49.1	4.4	77.8	32.2	30.3	7.7	769
Secondary+	49.0	1.5	85.0	31.2	16.6	4.3	1,254
Wealth quintile							
Lowest	36.7	11.8	69.4	36.4	33.8	8.3	510
Second	40.3	4.0	79.7	34.9	34.5	9.5	572
Middle	42.2	5.7	73.8	33.4	28.1	10.3	616
Fourth	49.3	3.1	80.4	35.8	28.5	7.6	741
Highest	53.3	2.0	82.1	31.4	20.0	5.2	924
Total	45.7	4.7	77.9	34.1	27.9	7.9	3,363

It is encouraging to note that 78 percent of men indicate that condoms protect against disease. It is also notable that only 5 percent believe that it is ok to reuse a condom if it is washed and that only 8 percent believe that condoms contain the HIV virus. As for attitudes, 46 percent of men agree with the statement that condoms diminish a man's sexual pleasure and 34 percent say that buying condoms is embarrassing. More than one-quarter of men (28 percent) say that a woman has no right to tell a man to use a condom.

With regard to differentials, teenage men (age 15-19) are less likely than older men to know that condoms can protect against disease and are more likely to believe that condoms contain HIV. They are also less likely to think that condoms diminish a man's pleasure. Similarly, men who have never had sex

are less likely to know that condoms can protect against disease and less likely to say that condoms diminish pleasure.

Rural men are slightly more likely than urban men to believe that condoms can be reused and that they contain HIV. They are also somewhat less likely to agree that condoms diminish pleasure or that they protect against disease. A larger proportion of rural than urban men feel that a woman has no right to tell a man to use a condom.

Men in Coast and Nairobi provinces are the most likely to say that condoms diminish a man's sexual pleasure, while men in Western, Nairobi, and Nyanza provinces are most likely to know that condoms protect against disease. The belief that condoms can be reused is relatively higher among men in Rift Valley and Nyanza provinces than men in other provinces, while the belief that condoms contain HIV is highest among men in Central, Eastern, and Nyanza provinces. Men in North Eastern Province are the least likely to believe that condoms diminish pleasure or that they can be reused; however, they are also the least likely to know that condoms protect against disease.

The results show that men with no education and those with only primary level of education are somewhat disadvantaged in knowledge about condoms, compared with men with at least some secondary education. Men in the highest wealth quintile are most likely to know that condoms protect against disease and least likely to believe that condoms can be reused.

12.11 CONDOM BRANDS

Table 12.15 shows the percent distribution of men who have ever used condoms by brand of condoms usually used, according to residence. The majority of respondents in both urban and rural (68 and 54 percent, respectively) areas indicate that they usually use Trust condoms, the brand that is socially marketed by Population Services International. A sizeable proportion of men either do not know the brand (16 percent) or use an unbranded condom (11 percent). Condoms such as Rough Rider are more widely used in urban than rural areas, probably due to their higher cost as compared with Trust.

Table 12.15 Condom brands

Percent distribution of men who have ever used condoms by brand of condoms usually used, according to residence, Kenya 2003

Brand of condom	Residence		Total
	Urban	Rural	
Durex	5.7	6.3	6.1
Rough Rider	4.5	0.9	2.1
Sure	0.9	0.7	0.8
Trust	68.1	54.3	58.7
No brand	9.0	11.9	11.0
Other	2.6	3.5	3.2
Don't know brand	8.3	20.3	16.4
Missing	0.7	2.2	1.7
Total	100.0	100.0	100.0
Number	459	965	1,424

12.12 SELF-REPORTING OF SEXUALLY TRANSMITTED INFECTIONS

Information about the incidence of sexually transmitted infections (STIs) is not only useful as a marker of unprotected sexual intercourse but also as a cofactor for HIV transmission. Surveillance systems for STIs in Kenya have primarily focused on collection of incidence and prevalence data through passive case reporting and routine screening systems. The World Health Organisation, the Joint United Nations Programme on HIV/AIDS, and other partners have been promoting the tracking of STI epidemics in the region as part of the second generation HIV surveillance programmes. Nationally, the prevalence of syphilis and other STIs is reported from seroprevalence testing among pregnant women attending antenatal care clinics and STI clients attending clinics at selected health facilities ("sentinel sites") annually. Studies have shown that reported declines in prevalence of HIV have been accompanied by declines in the prevalence of other STIs. Additionally, studies among sex workers and adults in the general population have shown that infections with syphilis, gonorrhoea, chlamydia, and trichomonas are common and are potential agents for the spread of HIV via unprotected sex (MOH, 2001).

The 2003 KDHS elicited information from both female and male respondents about their knowledge of infections other than HIV that can be transmitted sexually. Additionally, respondents who had ever had sex were asked if they had had a sexually transmitted disease in the previous 12 months or if they had had either of two symptoms associated with STIs (a bad-smelling, unusual discharge from the vagina/penis or a genital sore or ulcer).

As shown in Table 12.16, only 2 percent of women and men who have ever had sex reported having had an STI in the 12 months before the survey. Three percent of women and 2 percent of men reported having had an abnormal genital discharge, and 2 percent of each sex reported having had a genital sore or ulcer in the 12 months before the survey. Only 4 percent of women and 3 percent of men reported having either an STI, an abnormal discharge, or a genital sore.

Table 12.16 Self-reporting of a sexually transmitted infection (STI) and STI symptoms

Among women and men who ever had sex, percentage self-reporting an STI and/or symptoms of an STI in the last 12 months, by background characteristics, Kenya 2003

	Women					Men				
Background characteristic	Percentage with an STI	Percentage with abnormal genital discharge	Percentage with genital sore/ulcer	Percentage with STI/ discharge/ genital sore/ ulcer	Number of women who ever had sex	Percentage with an STI	Percentage with abnormal genital discharge	Percentage with genital sore/ulcer	Percentage with STI/ discharge/ genital sore/ ulcer	Number of men who ever had sex
Age										
15-19	1.1	2.7	1.5	3.9	782	1.1	1.4	1.7	2.2	432
20-24	1.6	3.4	2.5	4.7	1,438	2.2	3.0	1.3	3.7	591
25-29	1.8	2.8	2.6	4.4	1,337	2.6	2.6	1.6	3.6	492
30-39	1.5	3.3	2.1	4.1	1,941	2.1	2.1	1.3	3.1	805
40-49	1.9	3.3	2.9	4.6	1,307	2.5	1.5	1.7	2.9	506
Marital status										
Never married	1.1	1.5	0.9	2.4	1,055	1.4	1.9	1.3	2.5	1,073
Married/living together	1.7	3.5	2.6	4.8	4,918	2.3	2.0	1.4	3.0	1,615
Divorced/separated/ widowed	2.1	3.4	2.7	4.5	833	5.5	5.9	3.8	9.0	137
Residence										
Urban	1.6	3.1	2.2	4.1	1,702	2.0	1.7	1.7	3.1	748
Rural	1.6	3.2	2.4	4.4	5,104	2.1	2.3	1.4	3.1	2,077
Province										
Nairobi	1.6	3.7	2.2	4.3	684	1.6	0.9	1.7	3.2	327
Central	1.4	3.6	1.9	5.0	961	0.3	0.3	0.7	0.7	403
Coast	2.3	4.7	2.5	5.1	557	3.5	4.1	2.1	5.1	196
Eastern	1.0	2.0	1.1	2.3	1,092	0.7	0.7	0.0	0.7	442
Nyanza	0.9	3.8	4.1	6.6	1,069	5.1	6.0	4.8	7.6	359
Rift Valley	1.6	1.4	1.6	2.8	1,569	2.5	1.6	0.3	2.5	762
Western	3.6	6.0	4.4	6.8	736	2.1	4.2	3.4	5.4	300
North Eastern	0.0	0.3	0.0	0.3	138	0.0	0.0	0.0	0.0	35
Education										
No education	0.9	2.9	1.6	3.3	975	6.1	4.5	1.9	6.5	160
Primary incomplete	2.5	4.3	3.4	5.9	2,122	2.9	3.2	1.6	4.1	866
Primary complete	1.5	3.2	2.3	4.5	1,828	2.5	2.6	2.3	3.9	687
Secondary+	1.2	2.0	1.6	3.0	1,880	0.7	0.8	0.8	1.4	1,112
Wealth quintile										
Lowest	1.4	3.4	3.0	4.4	1,169	4.1	3.4	2.2	5.5	419
Second	1.5	2.8	2.7	4.6	1,257	1.5	2.8	1.8	3.3	475
Middle	1.5	3.3	1.5	3.8	1,244	1.9	1.7	1.5	2.2	478
Fourth	2.3	3.2	2.3	4.7	1,389	1.5	1.6	0.9	2.3	633
Highest	1.4	3.1	2.3	4.2	1,746	2.0	1.9	1.4	3.0	820
Total	1.6	3.2	2.4	4.4	6,806	2.1	2.2	1.5	3.1	2,825

Differentials in the proportion who report having an STI or a symptom of an STI are muted, with only slightly higher levels among men who are divorced/separated or widowed and among women in Western Province and women and men in Nyanza Province. The latter finding could be one factor in the higher levels of HIV prevalence found in Nyanza Province (see Chapter 14).

Table 12.17 shows the percentage of women and men who reported having an STI or symptoms of an STI in the past 12 months who sought specific types of care. Ninety percent of men and 68 percent of women sought some sort of advice or treatment for their symptoms. Proportionally more men than women (71 and 59 percent, respectively) sought treatment from a health facility or health professional. Fifteen percent of women and one-third of men sought treatment from traditional healers, while about 16 percent of each sex sought advice or medicine from a shop or pharmacy.

Table 12.17 Women and men seeking treatment for sexually transmitted infections (STIs)

Percentage of women and men reporting an STI or symptoms of an STI in the past 12 months who sought care, by source of advice or treatment, Kenya 2003

Source of advice or treatment	Sought care for STI	
	Women	Men
Clinic/hospital/health professional	59.0	70.8
Traditional healer	14.8	33.1
Advice or medicine from shop/pharmacy	15.7	16.9
Advice from friends/relatives	8.7	28.5
Advice or treatment from any source	68.2	89.6
No advice or treatment	31.8	10.4
Number with STI or symptoms of STI	296	88

12.13 MALE CIRCUMCISION

Circumcision is practiced in many communities in Kenya and often serves as a rite of passage to adulthood. Recently, male circumcision has been associated with lower transmission of STIs, including HIV. In order to investigate this relationship, men interviewed in the 2003 KDHS were asked if they were circumcised.

Table 12.18 shows that 84 percent of Kenyan men are circumcised. A lower proportion of men age 15 to 19 are circumcised (72 percent) than those at older ages (minimum of 84 percent). This could indicate a decline in the practice, although it is also possible that some young men may not have yet gone through the circumcision process. Men living in urban and rural areas are equally likely to be circumcised.

At least 80 percent of men are circumcised in all provinces except Nyanza Province, where less than half of the men are circumcised (46 percent). Muslims (almost 100 percent) are more likely to be circumcised than those who belong to other religious groups (82 percent). Luo (17 percent) men are the least likely to be circumcised.

Table 12.18 Male circumcision

Percentage of men age 15-49 who have been circumcised, by background characteristics, Kenya 2003

Background characteristic	Percent circum-cised	Number of men
Age		
15-19	71.5	856
20-24	89.0	681
25-29	88.3	509
30-39	89.3	811
40-49	83.7	506
Residence		
Urban	83.5	856
Rural	83.8	2,506
Province		
Nairobi	81.5	376
Central	90.3	515
Coast	96.1	234
Eastern	96.2	541
Nyanza	46.4	443
Rift Valley	86.6	818
Western	86.4	378
North Eastern	100.0	57
Education		
No education	85.3	191
Primary incomplete	76.5	1,148
Primary complete	85.3	769
Secondary+	89.1	1,254
Religion		
Protestant	82.4	2,041
Roman Catholic	82.1	879
Muslim	99.6	214
No religion/other/missing	87.1	229
Ethnicity		
Embu	96.6	54
Kalenjin	90.5	409
Kamba	99.5	397
Kikuyu	93.7	758
Kisii	99.1	191
Kuria	(76.1)	24
Luhya	92.5	503
Luo	16.9	396
Maasai	76.5	82
Meru	91.2	180
Mijikenda/Swahili	99.4	136
Somali	100.0	101
Taita/Taveta	97.3	35
Turkana	(39.7)	47
Other/missing	64.1	47
Wealth quintile		
Lowest	75.3	510
Second	82.5	572
Middle	88.9	616
Fourth	86.6	741
Highest	83.3	924
Total	83.7	3,363

12.14 AGE AT FIRST SEX AMONG YOUTH

Table 12.19 shows the proportion of women and men age 15 to 24 who had sex before age 15 years, by background characteristics. Fourteen percent of young women and 29 percent of young men had sex by age 15. As expected, the proportion of young people who had sex before age 15 is higher among those who have been married. It is also higher among women in Nyanza Province and among men in Rift Valley Province.

Level of education is strongly related to age at first sex, especially for women. While one-quarter of women age 15 to 24 with no education had sex by age 15, the proportion declines to only 4 percent among those with at least some secondary education.

Table 12.19 Age at first sex among young women and men

Percentage of women and men age 15-24 who had sex by exact age 15, by background characteristics, Kenya 2003

Background characteristic	Women		Men	
	Percentage who had sex by age 15	Number of women age 15-24	Percentage who had sex by age 15	Number of men age 15-24
Age				
15-17	14.5	1,076	29.3	536
18-19	14.4	780	33.5	320
15-19	14.5	1,856	30.9	856
20-22	12.0	1,027	26.6	426
23-24	14.1	665	25.5	255
20-24	12.8	1,691	26.2	681
Marital status				
Never married	8.6	2,090	28.2	1,379
Ever married	20.9	1,457	34.5	158
Residence				
Urban	10.0	912	23.5	353
Rural	15.0	2,635	30.4	1,184
Province				
Nairobi	8.2	381	19.6	149
Central	7.9	458	12.0	236
Coast	12.7	272	21.4	99
Eastern	16.5	580	30.4	264
Nyanza	24.2	563	29.2	219
Rift Valley	11.7	782	48.0	355
Western	12.3	444	25.3	195
North Eastern	7.8	68	0.0	20
Education				
No education	25.5	250	37.4	55
Primary incomplete	18.4	1,390	32.6	695
Primary complete	13.7	906	28.5	298
Secondary+	4.1	1,001	22.6	490
Wealth quintile				
Lowest	17.9	536	35.9	232
Second	18.4	624	31.9	286
Middle	13.6	674	29.2	312
Fourth	11.6	764	27.5	347
Highest	9.9	948	22.8	360
Total	13.7	3,547	28.8	1,537

12.15 KNOWLEDGE OF CONDOM SOURCES AMONG YOUTH

Knowledge of sources of condoms plays an important role in prevention of STI/HIV transmission and unwanted pregnancies. Younger people are often at a higher risk of contracting STIs, as they are more likely to be experimenting with sex before marriage.

As shown in Table 12.20, about half of young women and three-quarters of young men say that they know of a place where one can get a condom. Knowledge of a source for condoms is considerably higher among women and men age 20 to 24 than among those age 15 to 19. Urban women and men are more likely to know a source of condoms than rural women and men. Never-married women and men are less likely to know of a source of male condoms than ever-married women and men. Women from North Eastern Province are least knowledgeable (3 percent) about a source for condoms, compared with all other women (42 percent or more) and their male counterparts (43 percent).

Table 12.20 Knowledge of a source for condoms among young people

Percentage of women and men age 15-24 who know at least one source of male condoms, by background characteristics, Kenya 2003

Background characteristic	Women		Men	
	Know a source for male condom	Number of women age 15-24	Know a source for male condom	Number of men age 15-24
Age				
15-19	42.7	1,856	63.2	856
20-24	63.7	1,691	89.6	681
Marital status				
Never married	48.8	2,090	73.6	1,379
Ever had sex	61.5	765	85.0	865
Never had sex	41.4	1,326	54.3	514
Ever married	58.4	1,457	86.2	158
Residence				
Urban	69.0	912	89.4	353
Rural	47.1	2,635	70.6	1,184
Province				
Nairobi	73.0	381	87.7	149
Central	51.2	458	78.0	236
Coast	44.9	272	77.6	99
Eastern	41.6	580	60.2	264
Nyanza	58.2	563	64.4	219
Rift Valley	55.9	782	83.8	355
Western	51.4	444	78.8	195
North Eastern	2.9	68	42.6	20
Education				
No education	19.0	250	38.5	55
Primary incomplete	40.1	1,390	62.2	695
Primary complete	57.4	906	83.7	298
Secondary+	74.4	1,001	91.6	490
Wealth quintile				
Lowest	33.3	536	59.0	232
Second	46.0	624	72.0	286
Middle	44.9	674	67.1	312
Fourth	54.8	764	78.9	347
Highest	72.0	948	90.3	360
Total	52.7	3,547	74.9	1,537

Knowledge of a source of condoms increases with increasing educational level and wealth index of both women and men. Women and men (19 and 39 percent, respectively) with no education are less likely to know a source of condoms than women and men (74 and 92 percent, respectively) who have at least some secondary education. The poorest women and men (33 and 59 percent, respectively) are least

likely to know of a source of condoms, compared with the richest women and men (72 and 90 percent, respectively).

12.16 CONDOM USE AT FIRST SEX AMONG YOUTH

Table 12.21 presents the percentage of youth age 15 to 24 years who used a condom during first sex by background characteristics. Only 12 percent of young women and 14 percent of young men used condoms during their first sexual encounter. Never-married women and men are more likely to use a condom the first time they ever have sex than ever-married young people. Similarly, urban women and men (17 and 20 percent, respectively) tend to use condoms at first sexual activity more than rural women and men (10 and 12 percent, respectively).

Table 12.21 Condom use at first sex among young women and men

Among women and men age 15-24 who have ever had sex, percentage who used a condom the first time they had sex, by background characteristics, Kenya 2003

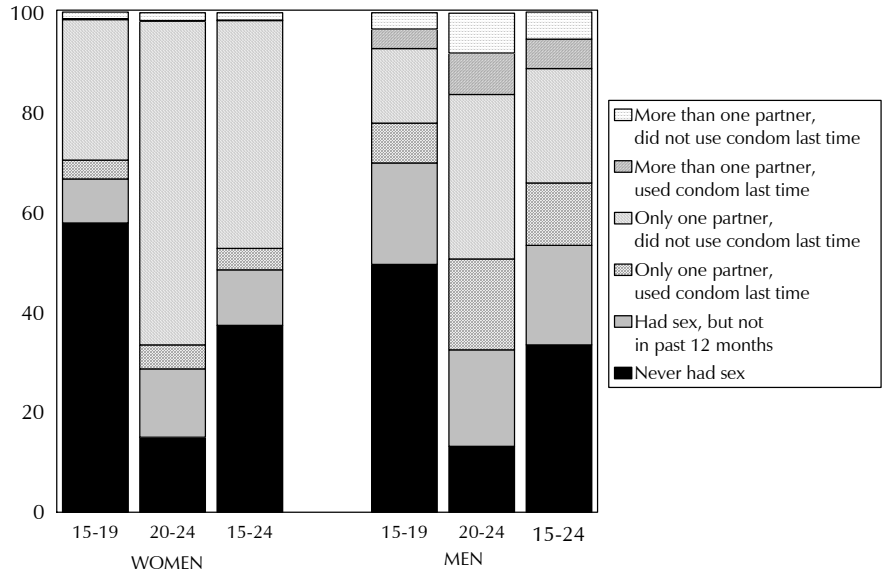
Background characteristic	Women		Men	
	Used a condom at first sex	Number of women age 15-24 who have ever had sex	Used a condom at first sex	Number of men age 15-24 who have ever had sex
Age				
15-19	12.3	782	10.0	432
20-24	11.7	1,438	16.8	591
Marital status				
Never married	20.3	765	14.8	865
Ever married	7.5	1,455	9.2	158
Residence				
Urban	17.1	592	19.9	252
Rural	10.0	1,628	12.0	771
Province				
Nairobi	19.7	249	19.1	103
Central	11.4	248	20.1	127
Coast	8.7	165	21.8	64
Eastern	11.5	356	5.7	166
Nyanza	9.9	410	11.0	135
Rift Valley	12.5	496	12.3	305
Western	11.3	257	18.0	119
North Eastern	0.0	39	*	4
Education				
No education	1.3	188	12.3	32
Primary incomplete	7.2	832	9.0	419
Primary complete	12.7	676	13.1	223
Secondary+	22.2	523	20.5	349
Wealth quintile				
Lowest	3.5	343	12.4	147
Second	10.0	409	10.3	191
Middle	9.4	415	10.1	176
Fourth	12.8	450	13.7	245
Highest	19.1	603	20.2	263
Total	11.9	2,220	13.9	1,023

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Among women, condom use at first sex is highest among those in Nairobi Province and lowest in North Eastern province. Among men, it is highest in Coast Province, followed closely by Central and Nairobi Provinces. Level of education is strongly related to condom use at first sexual activity among women, rising from only 1 percent of young women with no education to 22 percent among those with some secondary education. Wealth index is also related to condom use at first sex among women, although the pattern is variable.

Figure 12.2 summarises data on the proportion of young people who fall into various categories of risk for HIV. For example, 37 percent of young women and 34 percent of young men age 15 to 24 have never had sex, while 11 and 20 percent, respectively, have had sex but not in the last 12 months. Four percent of women and 13 percent of men have had sex with only one partner in the 12 months prior to the survey and used a condom at the most recent sex. Moving up the scale of risk, 46 percent of women and 23 percent of men had sex with only one partner but did use condoms at the most recent sex. Less than 1 percent of women and 6 percent of men had sex with more than one partner in the last 12 months and used a condom the last time. Finally, 2 percent of women and 5 percent of men have had sex with more than one partner in the preceding 12 months and did not use condoms at the most recent sex. As expected, a much larger proportion of women and men in the younger age group (age 15 to 19) are at lower risk because they have not yet had sex. Among those age 20 to 24, a large majority of women and one-third of men have only one partner, with whom condom use is not common. Very few young women report having more than one partner, however, 16 percent of men age 20 to 24 report having had multiple partners.

Figure 12.2 **Abstinence, Being Faithful, and Using Condoms Among Young Women and Men**



Note: Refers to partners in the 12 months prior to the survey and condom use at most recent sexual encounter.

KDHS 2003

12.17 PREMARITAL SEX

The period between age at first sex and age at marriage is often a time of sexual experimentation. Unfortunately, in the era of HIV/AIDS, it can also be a risky time. Information is shown in Table 12.22 on the percentage of never-married women and men age 15 to 24 years who have had sex in the 12 months before the survey and the percentage who used condoms during last sex.

Table 12.22 Premarital sex and condom use among youth

Among never-married women and men age 15-24, percentage who have had sex in the last 12 months, and, among those who had premarital sex in the last 12 months, percentage who used a condom at last sex, by background characteristics, Kenya 2003

Background characteristic	Women				Men			
	Had sex in past 12 months	Number of never-married women age 15-24	Used condom at last sex	Number of women age 15-24 who had sex in the past 12 months	Had sex in past 12 months	Number of never-married men age 15-24	Used condom at last sex	Number of men age 15-24 who had sex in the past 12 months
Age								
15-19	17.6	1,478	24.7	260	28.8	839	41.1	241
20-24	30.8	612	30.5	188	58.9	540	52.3	318
Residence								
Urban	23.6	550	32.5	130	49.5	313	58.1	155
Rural	20.7	1,540	25.0	319	37.9	1,066	43.4	404
Province								
Nairobi	27.4	245	31.4	67	47.1	135	65.6	64
Central	18.1	315	15.0	57	30.8	220	27.4	68
Coast	16.1	137	(30.2)	22	46.2	86	59.0	40
Eastern	23.8	371	30.7	88	31.0	242	44.0	75
Nyanza	31.7	301	20.7	95	35.6	183	39.5	65
Rift Valley	16.4	415	(40.1)	68	58.9	318	51.6	187
Western	18.3	278	22.6	51	33.8	178	43.6	60
North Eastern	0.0	29	*	0	0.0	16	*	0
Education								
No education	1.9	76	*	1	35.8	46	*	17
Primary incomplete	17.8	796	21.3	142	35.7	619	40.2	221
Primary complete	31.4	475	20.7	149	47.6	260	50.0	124
Secondary+	21.0	743	38.9	156	43.6	453	54.6	197
Wealth quintile								
Lowest	17.9	268	(20.4)	48	36.0	194	47.2	70
Second	21.9	350	14.0	77	39.1	261	40.1	102
Middle	20.1	404	19.8	81	31.2	290	39.9	90
Fourth	20.7	480	28.9	99	41.4	311	49.5	128
Highest	24.4	588	39.4	144	52.0	324	54.5	168
Total	21.5	2,090	27.2	449	40.5	1,379	47.5	559

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Twenty-two percent of never-married women age 15 to 24 years indicate that they have had sex in the 12 months before the survey compared with 41 percent of men of the same age. About one-quarter of these women and half of the men reported having used condoms the most recent time they had sex.

As expected, premarital sex and condom use at last sex is higher among older respondents (age 20 to 24) than younger ones. Both are also higher among urban than rural youth. There are regional differentials in the percentage of never-married young people who have had sex in last 12 months. Among never-married women, those in Nyanza and Nairobi provinces are more likely to have had sex in the previous 12 months than other women. Among men, Rift Valley Province leads in the proportion of those who have had premarital sex. On the other hand, no never-married young women or men in North Eastern Province reported having had sex in the previous 12 months.

Fewer never-married young women and men with no education report having had sex in the last 12 months than those with some education. Level of education is also associated with condom use during sexual intercourse among youth. Women and men with at least some secondary education are more likely to use condoms during sex than those with less education. Wealth seems to have a mixed relationship with premarital sex and condom use.

12.18 HIGHER-RISK SEX AND CONDOM USE AMONG YOUTH

The most common means of transmission of HIV in Kenya is through unprotected sex with an infected person (Ministry of Health, 2001). To prevent HIV/AIDS virus transmission, it is important that young people practice safe sex through the most advocated "ABC" methods (abstinence, being faithful to one uninfected partner, and condom use). Table 12.23 indicates the percentage of young people who engage in higher-risk sex and the extent to which they use condoms in higher-risk sexual encounters (i.e., with nonmarital, noncohabiting partners). Among sexually active youths age 15 to 24 years, results show that the percentage of women and men who have engaged in higher-risk sex activity in the last 12 months is 30 and 84 percent, respectively. Men (47 percent) who engage in higher-risk sex are more likely to use condoms than women (25 percent).

Table 12.23 Higher-risk sex and condom use among young women and men

Among women and men age 15-24 who had sex in the 12 months preceding the survey, percentage who had sexual relations with a nonmarital, noncohabiting partner in the past 12 months, and among women and men age 15-24 who have had higher-risk sex in the past 12 months, percentage who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, by background characteristics, Kenya 2003

	Women				Men			
Background characteristic	Percentage engaging in higher-risk sex in past 12 months	Number of women who had sex in the past 12 months	Percentage used condom at last higher-risk sex	Number of women age 15-24 who had higher-risk sex in the past 12 months	Percentage engaging in higher-risk sex in past 12 months	Number of men who had sex in the past 12 months	Percentage used condom at last higher-risk sex	Number of men age 15-24 who had higher-risk sex in the past 12 months
Age								
15-19	46.7	619	23.4	289	97.1	258	41.3	250
20-24	21.4	1,207	27.6	258	77.2	459	50.7	355
Marital status								
Never married	100.0	449	27.2	449	99.8	559	47.6	558
Ever married	7.1	1,377	17.4	98	29.8	158	37.9	47
Residence								
Urban	32.5	475	32.4	154	85.0	195	58.2	166
Rural	29.1	1,351	22.6	393	84.1	522	42.6	439
Province								
Nairobi	36.8	200	30.6	74	87.7	77	66.3	68
Central	36.1	194	14.3	70	86.1	83	26.0	72
Coast	20.2	146	29.5	29	84.9	53	53.3	45
Eastern	35.3	284	29.4	100	80.1	97	42.7	78
Nyanza	36.4	354	17.0	129	74.0	101	38.0	75
Rift Valley	22.2	400	36.7	89	89.4	224	51.8	200
Western	26.2	213	24.5	56	87.6	77	44.9	68
North Eastern	0.0	35	*	0	*	4	*	0
Education								
No education	6.3	156	0.0	10	79.4	25	34.4	20
Primary incomplete	26.2	710	19.3	186	83.6	296	39.9	248
Primary complete	31.5	557	21.3	176	83.0	162	49.1	135
Secondary+	43.5	404	37.3	176	86.8	234	55.0	203
Wealth quintile								
Lowest	21.4	294	15.6	63	77.3	108	44.6	83
Second	26.4	342	15.0	90	86.4	127	39.7	110
Middle	30.6	334	17.0	102	84.1	112	38.8	94
Fourth	35.1	366	26.2	128	85.8	165	48.2	142
Highest	33.4	491	39.4	164	85.8	205	55.6	176
Total	30.0	1,826	25.4	547	84.4	717	46.8	605

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

A higher proportion of young women (47 percent) age 15 to 19 engage in higher-risk sex than those age 20 to 24 (21 percent). Similarly, almost all sexually active young men (97 percent) age 15 to 19 engage in higher-risk sex, compared with those age 20 to 24 (77 percent). However, older women and men (age 20–24) are more likely than those age 15 to 19 to have used a condom when they had higher-risk sex.

By definition, all sexually active women and men who have never married engage in higher-risk sex. Those who have never married are more likely to use condoms during higher-risk sexual activity than ever-married women and men.

Differences in the extent of higher risk sex among youth by province are not large. Among those having higher-risk sex, women in Rift Valley Province are the most likely to use condoms, while those in Central Province are the least likely. Among men, Nairobi Province leads, while Central Province is the lowest.

Higher-risk sexual activity increases dramatically with education among sexually active young women, from 6 percent among those with no education to 44 percent among those with some secondary education; however, there is little difference among young men by education. Among both sexes who engage in higher-risk sex, condom use increases with level of education. Engaging in higher-risk sexual behaviour and especially condom use during higher-risk sex rises with increasing wealth index, although the differences are greater among young women than young men.

12.19 Age-Mixing in Sexual Relationships

In many societies, young women have sexual relationships with men who are considerably older than they are. This practice can contribute to the wider spread of HIV and other STDs. To investigate this practice, in the 2003 KDHS, women age 15 to 19 who had sex in the 12 months preceding the survey with a nonmarital partner were asked whether the man was younger, about the same age, or older than they. If older, they were asked if they thought he was less than 10 years older or 10 or more years older.

The results show that only 4 percent of women age 15 to 19 have had nonmarital sex with a man 10 years or more older than themselves in the last 12 months (data not shown). Differences by background characteristics are small, especially since the number of cases is also small.

12.20 Orphanhood and Children's Living Arrangements

Kenya has observed an upsurge in the number of orphans due to the higher deaths occasioned from HIV/AIDS related infections. The 2003 KDHS sought information on orphanhood and fostering. Table 12.24 shows the percent distribution of children under age 15, by children's living arrangements and survival status of parents, according to background characteristics.

Almost three in five children (58 percent) under age 15 live with both their parents, while 25 percent live with their mothers but not their fathers, 3 percent live with their fathers but not their mothers, and 11 percent do not live with either of their parents (i.e., they are considered to be "fostered"). The observed pattern has not changed much since the 1998 KDHS. Younger children and those in Nairobi Province are more likely than other children to be living with both their natural parents.

Data on orphaned children (i.e., children under 15 who have lost either one or both of their natural parents) show that 9 percent have lost their fathers, 4 percent have lost their mothers, and 2 percent have lost both of their biological parents. Altogether, 11 percent of children under 15 have lost one or both parents (i.e., they are considered orphans). Corresponding data from the 1998 KDHS show a slight increase in the level of orphanhood, from 9 to 11 percent of children under 15.

Nyanza Province has by far the highest level of orphanhood, with almost one in five (19 percent) children under 15 having lost one or both of their biological parents.

Orphans are usually considered to be disadvantaged compared with children whose parents are living. To assess whether orphans are educationally disadvantaged, an indicator was devised that compares the proportion of children age 10 to 14 who are attending school among those whose parents are both dead to those whose parents are both alive and who are living with one of them. The results indicate that 92 percent of children whose parents are both alive and who are living with one or both parents are in school compared with 88 percent of children who have lost both parents ("double orphaned"). The ratio of school attendance among orphaned to non-orphaned children is 0.95 (data not shown). This implies that orphans have only a slight disadvantage in school attendance compared with children who are living with one or both parents. Interpretation of this index by background characteristics is hampered by small numbers of orphans in many categories.

Table 12.24 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 15, by children's living arrangements and survival status of parents, according to background characteristics, Kenya 2003

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with with either parent				Missing information on father/ mother	Total	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead			
Age												
<2	68.5	26.0	2.1	0.2	0.0	0.5	0.1	0.2	0.1	2.3	100.0	2,433
2-4	65.2	20.3	4.0	1.2	0.5	4.5	0.7	0.6	0.9	2.2	100.0	3,443
5-9	56.7	18.9	6.4	2.3	1.2	7.5	0.6	1.6	2.3	2.5	100.0	5,348
10-14	50.6	16.5	8.3	3.1	1.8	9.6	0.9	2.1	3.7	3.5	100.0	5,304
Sex												
Male	58.7	19.5	5.8	2.2	1.0	6.2	0.6	1.2	2.3	2.5	100.0	8,372
Female	57.8	19.5	5.9	1.8	1.2	6.9	0.7	1.5	1.9	3.0	100.0	8,154
Residence												
Urban	60.5	18.2	4.8	2.4	2.0	4.9	0.8	1.4	2.0	2.9	100.0	2,609
Rural	57.8	19.7	6.0	1.9	0.9	6.8	0.6	1.3	2.1	2.7	100.0	13,918
Province												
Nairobi	71.5	12.8	2.7	1.8	1.8	4.6	0.6	0.9	1.0	2.4	100.0	781
Central	58.2	20.1	7.1	1.1	1.0	2.9	0.3	1.9	1.1	6.4	100.0	1,960
Coast	58.6	19.9	5.6	3.8	1.1	6.1	1.2	1.1	1.1	1.6	100.0	1,338
Eastern	51.3	27.3	4.9	2.5	1.0	5.7	0.4	1.0	2.0	4.0	100.0	2,806
Nyanza	55.9	16.7	8.2	1.4	1.4	6.0	0.9	2.0	6.0	1.5	100.0	2,614
Rift Valley	63.3	16.7	5.8	1.9	1.1	6.8	0.6	1.0	1.1	1.7	100.0	4,326
Western	52.8	21.5	4.6	2.2	0.6	11.9	0.4	1.7	1.8	2.5	100.0	2,113
North Eastern	65.8	13.1	5.2	2.7	1.7	6.9	1.9	1.2	1.0	0.4	100.0	588
Wealth quintile												
Lowest	64.4	15.3	6.7	1.5	1.2	5.6	0.8	1.1	1.9	1.6	100.0	3,981
Second	55.2	20.7	7.2	2.0	0.5	7.7	0.8	1.2	1.8	2.8	100.0	3,558
Middle	55.3	21.9	5.6	1.9	1.0	6.9	0.4	1.4	2.7	2.9	100.0	3,397
Fourth	53.5	22.5	4.5	2.1	1.0	7.1	0.6	2.0	2.6	4.2	100.0	3,080
Highest	62.7	17.4	4.5	2.9	2.0	5.1	0.6	1.1	1.6	2.2	100.0	2,511
Total	58.2	19.5	5.8	2.0	1.1	6.5	0.6	1.3	2.1	2.7	100.0	16,527