Republic of Kenya

KENYA AIDS INDICATOR SURVEY 2012

KAIS

Final Report

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FINAL REPORT

June 2014

KAIS 2012 Collaborating Institutions

Collaborating Institutions

Ministry of Health:
- National AIDS and STI Control Programme (NASCOP)
- National Public Health Laboratory Services (NPHLS)
- Kenya Medical Research Institute (KEMRI)
- National AIDS Control Council (NACC)

Ministry of Devolution and Planning:
- Kenya National Bureau of Statistics (KNBS)
- National Council for Population and Development (NCPD)

U.S. Centers for Disease Control and Prevention (CDC), Kenya/Atlanta
University of California, San Francisco (UCSF)
U.S. Agency for International Development (USAID), Kenya
Japan International Cooperation Agency (JICA)
Joint United Nations Team on HIV/AIDS
Amref Health Africa in Kenya
Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)
Association of Public Health Laboratories (APHL)
World Health Organization (WHO)
Liverpool Voluntary Counselling and Testing (LVCT)
Global Fund
World Bank

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Disclaimer

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the CDC and collaborating institutions.

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ABBREVIATIONS

AIDS	Acquired immunodeficiency syndrome
AIS	AIDS Indicator Survey
ANC	Antenatal clinic
ART	Antiretroviral therapy
ARV	Antiretroviral
BD	Becton Dickinson
CDC	Centers for Disease Control and Prevention
CD4	CD4 T-lymphocyte Cell
CI	Confidence interval
CIN	Cervical Intraepithelial Neoplasia
CTX	Cotrimoxazole
DBS	Dried blood spot
EA	Enumeration area
EIA	Enzyme Immunoassay
eMTCT	Elimination of Mother-to-Child Transmission
EPSEM	Equal probability selection method
FRR	False-recent Rate
GOK	Government of Kenya
GSHS	Global School-based Student Health Survey
HH	Household
HIV	Human immunodeficiency virus
HSV-2	Herpes simplex virus-2
HBV	Hepatitis B Virus
HBTC	Home-based Testing and Couselling
HPV	Human Papilloma Virus
HTC	HIV Testing and Counselling
ITN	Insecticide-treated bed net
KAIS	Kenya AIDS Indicator Survey
KAPC	Kenya Association of Professional Counsellors
KDHS	Kenya Demographic and Health Survey
KEMRI	Kenya Medical Research Institute
KNASP	Kenya National HIV/AIDS Strategic Plan
KNBS	Kenya National Bureau of Statistics
KNBTS	Kenya National Blood Transfusion Service
KP	Key Populations
KSPA	Kenya Service Provision Assessment
MOH	Ministry of Health
LAg	Limiting Antigen

MTCT	Mother-to-child transmission for HIV
NACC	National AIDS Control Council
NASCOP	National AIDS/STI Control Programme
NASSEP V	National Sample Survey and Evaluation Programme (Fifth Edition)
NHRL	National HIV Reference Laboratory
OVC	Orphans and vulnerable children
PITC	Provider-Initiated Testing and Counselling
PMTCT	Prevention of mother-to-child transmission of HIV
POC	Point of Care
PrEP	Pre-Exposure Prophylaxis
SABSSM	South African HIV/AIDS Behavioural Risk, Serostatus and Media Impact Survey
SAS	Statistical Analysis Software
STI	Sexually transmitted infection
TB	Tuberculosis or Tubercle Bacillus
TWG	Technical working group
TBA	Traditional Birth Attendant
UAIS	Uganda AIS Indicator Survey
UNAIDS	Joint United Nations Programme on HIV/AIDS
UCSF	University of California, San Francisco
VCT	Voluntary counselling and testing
VMMC	Voluntary Medical Male Circumcision
VNRD	Voluntary, non-remunerated donors
WHO	World Health Organization

Foreword

It is with great pleasure that we launch this report, which presents the major findings of the second Kenya AIDS Indicator Survey (KAIS 2012). This study was planned, conducted and analysed by a team of survey experts, technical advisors and government officials for the people of Kenya. KAIS 2012 continues the innovative pathway begun in the first Kenya AIDS Indicator Survey (KAIS 2007). KAIS 2012 included children 18 months to 14 years old, data on knowledge, attitudes and behaviours of y oung adolescents, and new questions on high-risk behaviours such as transactional sex, same-sex behaviours and injection drug use. Additionally, we incorporated plasma viral load testing for individuals found to be HIV-infected in the survey in order to understand the population level of viral suppression among all persons infected with HIV, including those who were unaware of their infection, and newer laboratory methods to understand the epidemiology of incident HIV infection.

Like KAIS 2007, the objective of KAIS 2012 was to provide comprehensive information on indicators of HIV/AIDS that build upon KAIS 2007 and the 2003 and 2008-09 Kenya Demographic and Health Surveys. Using data from these surveys, we are able to measure progress in a number of key areas, such as HIV testing and counselling, behaviour change, male circumcision, injection safety and HIV care and treatment.

This report provides public health planners, policymakers and researchers with valuable insights into the HIV epidemic in Kenya and allows them to tailor interventions to population groups and regions with greatest needs to maximize impact. It also provides data necessary to evaluate the reach and effectiveness of current prevention and treatment programmes. This remarkable effort has provided useful results. These results are presented in this report and additionally in a special supplement to the Journal of Acquired Immune Deficiency Syndromes[1].

We wish to acknowledge the contributions of a number of organizations towards the completion of the survey and this report. We would like to recognize the NASCOP, NPHLS, KEMRI, NACC, KNBS, NCPD, CDC Kenya/Atlanta, UCSF, USAID, Kenya, JICA, Joint United Nations Team on HIV/AIDS, Amref Health Africa in Kenya, EGPAF, APHL and LVCT. We are grateful to the hundreds of survey personnel who devoted many hours to conduct this survey. For their technical assistance we wish in particular to thank the CDC and UCSF.

For financial support, we wish to thank PEPFAR through CDC and USAID, the Joint UN team on HIV/AIDS, JICA, World Bank and Global Fund.

We commend the people of Kenya who embraced this project, allowed survey personnel into their homes and generously offered their time, personal information and blood samples to make KAIS 2012 a success.

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[1] Kenya AIDS Indicator Survey 2012. J Acquir Immune Defic Syndr 2014 May 1; 66 (Suppl 1):S1-S137.

Executive Summary

Obtaining nationally representative estimates for HIV indicators is critical for evaluating a country's response to the HIV epidemic. Population-based surveys with HIV testing provide national-level prevalence estimates and the opportunity to link HIV status with behavioural, social and other biological information.

Over the past decade, impressive strides have been made by the Government of Kenya in scaling up HIV prevention, care, and treatment programs in response to the Kenya's HIV epidemic. The 2012 Kenya AIDS Indicator Survey (KAIS 2012) was the second AIDS Indicator Survey conducted in Kenya. KAIS 2012 provides comprehensive information on trends in HIV infection, behaviors that place persons at risk for HIV infection, knowledge and attitudes around HIV/AIDS, and population-based coverage of HIV prevention, care, and treatment programs to understand the status of the HIV epidemic and impact of the national HIV response. These data provide the information needed for advocacy and for evaluating and improving interventions for HIV prevention, treatment and care. The KAIS 2012 builds upon the previous population-based HIV estimates derived in the first Kenya AIDS Indicator Survey (KAIS 2007), allowing for comparisons of prevalence estimates and behavioural and programmatic indicators over time.

Findings from KAIS 2012 are summarised below and are described in detail in the chapters and Appendices of this report. Estimates have been weighted for the two-stage cluster sample design. This report presents the results of univariate and bivariate analyses only; analyses are not adjusted for potential confounding factors. Throughout the report, the term significant indicates a p-value less than 0.05. Marginally significant indicates a p-value between 0.05 and 0.10, inclusive; and not significant indicates a p-value greater than 0.10.

Key Features of KAIS 2012

- KAIS 2012 was the second AIDS Indicator Survey conducted in Kenya.
- Provided nationally-representative information about the status of the HIV/AIDS epidemic.
- Reached approximately 18,000 individuals from approximately 8,000 households.
- Excluded North Eastern region due to regional security issues during the survey.
- Included children aged 18 months to 14 years for the first time in a national HIV survey.
- Estimated prevalence and incidence of HIV and measured CD4 cell counts and viral load for those with HIV infection.
- Measured use of and unmet need for HIV prevention, care and treatment services.
- Provided home-based testing and counselling services for persons who wanted to learn their HIV status on the day of the survey.

Key Findings for HIV Prevalence and Incidence

- Among persons aged 15-64 years, 5.6% were living with HIV infection in 2012, representing a statistically significant decline from 2007, when HIV prevalence was estimated to be 7.1%.
- HIV incidence was 0.5% in 2012, representing an estimated 106,000 new infections that year.
- There was wide regional variation in HIV prevalence among adults and adolescents aged 15-64 years, ranging from 15.1% in Nyanza region to 2.1% in Eastern North region.
- HIV prevalence was significantly higher among widowed men (19.2%) and women (20.3%) than men (1.4%) and women (3.5%) who had never married or cohabited.
- HIV prevalence was higher among women (6.9%) than among men (4.4%). In particular, young women aged 20-24 years were over three times more likely to be infected (4.6%) than young men of the same age group (1.3%).
- HIV prevalence among uncircumcised men aged 15-64 years (16.9%) was at least five times greater than circumcised men (3.1%).

HIV PREVALENCE AND INCIDENCE

In 2012, national HIV prevalence was estimated to be 5.6% among Kenyans aged 15-64 years, significantly lower than the HIV prevalence estimate in 2007, which was reported at 7.2% (excluding the North Eastern region). The significant decline in HIV prevalence was observed among both women and men. Still, women aged 15-64 years had higher HIV prevalence rates (6.9%) than men (4.4%) aged 15-64 years, and young women aged 20-24 years were at least three times more likely to be infected (4.6%) than young men of the same age group (1.3%). HIV prevalence in older adults aged 50-54 years remained high, at 8.4%, but was lower among those aged 55-59 years (4.4%) and aged 60-64 years (4.0%).

Significant differences in HIV prevalence were found across regions, with the highest levels observed in Nyanza, at 15.1% and lowest levels in Eastern North, at 2.1%. HIV prevalence in urban areas (6.5%) was higher than that of rural areas (5.1%) among adults and adolescents aged 15-64 years. These proportions represent an estimated 677,000 persons aged 15 to 64 years living with HIV in rural areas and 515,000 in urban areas in 2012.

Among persons aged 15-49 years, HIV prevalence declined significantly between 2007 and 2012 among younger women aged 15-19 years (3.1% in 2007 to 1.1% to 2012), 20-24 years (7.5% in 2007 to 4.6% in 2012), and 30-34 years (18.7% to 6.6%). During the same time period, significant declines in HIV prevalence among women (8.5% vs. 6.2%, respectively) and men (5.4% vs. 3.6%, respectively) were observed.

HIV incidence was 0.5 new infections per 100 persons per year in 2012, representing an estimated 106,000 new infections. The highest number of new infections occurred in persons aged 25-34 years. HIV incidence was stable between 2007 and 2012 overall and across age and sex.

Key Findings for HIV Prevention

- Among adults and adolescents aged 15-64 years, 71.3% had tested for HIV at least once and received a result, nearly reaching Kenya's national goal of 80% testing coverage by 2013.
- Knowledge of HIV status among HIV-infected persons tripled from 16.3% in 2007 to 46.9% in 2012. Among HIV-infected persons who reported one or more sexual partners in the past 12 months, approximately two- thirds (65.4%) reported disclosing their HIV positive status to their last sexual partner in the past 12 months.
- Among women who visited an antenatal clinic (ANC) in the past five years, HIV testing increased from 89.2% in 2008 to 94.4% in 2012.
- Among women who were diagnosed with HIV at an ANC in the past 5 years or any time prior, 71.2% received maternal prophylaxis during their pregnancy, 67.1% at delivery, and 92.6% while breastfeeding for prevention of mother-to-child transmission of HIV.
- Among married or cohabiting women of reproductive age who did not want a child in the future or in the next two years, 60.8% were using modern contraceptives to prevent pregnancy.
- Male circumcision coverage increased from 85.0% in 2007 to 91.2% in 2012, with Nyanza region observing the highest percentage increase over the past five years (18.1%).
- Condom use with sexual partners of unknown HIV status in the past 12 months was low (7.1% among women and 27.1% among men). Rates of condom use with partners of unknown HIV status varied by type of partnership, with highest rates among casual and other partners (35.1% among women and 48.5% among men) and lowest rates among married and cohabiting partners (2.5% among women and 3.4% among men).
- Among married/cohabiting partnerships, 4.8% were HIV sero-discordant, where one partner was HIV infected and the other was not.
- Among men, 0.6% had ever had sex with another man, 3.1% had ever received money, gifts, or favours in exchange for sex, and 17.4% had ever given money, gifts, or favours in exchange for sex. Among women, 1.8% had ever engaged in anal intercourse, and 4.4% had ever received money, gifts, or favours in exchange for sex.

HIV TESTING

HIV counselling and testing are key elements in a comprehensive response to the HIV epidemic. The proportion of adults and adolescents who had ever been tested for HIV increased from 34.3% in 2007 to 71.3% in 2012. Women were more likely to have ever been tested for HIV (79.8%) than men (62.5%). Of those that had ever been tested, one in five had tested in the past 3 months, and over half had been tested within the 12 months prior to the survey. Among persons who had visited a health facility in the past 12 months, only 34.5% were offered an HIV test. However, among those offered the test, the test acceptance rate high, at 91.5%.

Among participants who had never tested for HIV in the past, over 80% (83.2% of women and 81.3% of men) accepted home-based testing and counselling services in KAIS 2012.

COUPLES AND DISCLOSURE

Overall, 65.4% of HIV-infected Kenyans who had one or more sex partners in the past 12 months had disclosed their HIV status to the most recent partner in the past 12 months. However, 46.4% of these individuals in the past 12 months reported they did not know their most recent partners' HIV status. Overall, 4.8% of married or cohabitating couples in Kenya were HIV-sero-discordant, where one partner was infected and the other was not. Among HIV-concordant couples, where both partners were HIV-infected, 68.4% of women and 70.7% of men had accurate knowledge of their partner's HIV status. Among HIV-sero-discordant couples with an HIV-infected male partner and HIV-uninfected female partner, 72.6% of women knew their male partner was HIV infected. In contrast, among sero-discordant

couples with an HIV-infected female partner and HIV-uninfected male partner, 58.4% of men knew their female partner was HIV infected. Among all HIV-sero-discordant couples, only 24.2% of the HIV-infected partners were on ART, and 56.3% of HIV-infected partners in the couple relationship were virologically suppressed (defined as HIV RNA concentration <1,000 copies per millimetre).

Sexual behaviour

Overall, 46.4% of women and 64.4% of men had more than one sexual partner in their lifetime, lower than observed in 2007, when the majority of Kenyans (52.2% of women and 73.1% of men) had more than one partner in their lifetime. In the 12 months preceding the survey, 2.2% of women and 14.2% of men had more than one sexual partner. Among persons who were sexually active in the past 12 months, concurrent partners were reported by 1.5% of women and 15.5% of men. Condom use was low with partners of unknown HIV status, with 22.5% of women and 33.2% of men reporting condom use in casual partnerships. Anal sex was not common, reported by only 1.8% of women and men. Among men, 0.6% reported ever having sex with another man. Among women and men, 4.4% and 3.1% respectively, had ever received money, gifts or favours in exchange for sex. Among men, 17.4% had ever given money, gifts or favours in exchange for sex.

Circumcision

In 2012, 91.2% of Kenyan men were circumcised. This proportion is higher than was observed in 2007, where 85.0% of men were circumcised. Circumcision among men increased in the four priority regions for the national voluntary male medical circumcision program (Nairobi, Nyanza, Western, and Rift Valley region), with the largest increase in male circumcision observed in Nyanza region; from 48.2% in 2007 to 66.3% in 2012.

HIV knowledge and beliefs

Nearly half (46.5%) of Kenyan adults and adolescents were unaware that HIV can be transmitted from mother-to-child during pregnancy. Similarly, 46.7% of persons believed that a partner of an HIV-infected person is always infected. Eight in ten (80.9%) men and seven in ten (68.8%) women believed themselves to be at small or no risk for acquiring HIV infection. Among those who perceived themselves to be at no or at small risk of HIV infection, HIV prevalence ranged from 2.1% to 3.5%. Overall, among adults and adolescents, 44.5% and 48.3% were willing to use microbicides and pre-exposure prophylaxis with antiretroviral therapy respectively, to reduce their chances of getting HIV infection. If an HIV self-test kit were available, 67.3% of women and 74.1% of men were willing to use this kit for HIV testing.

Mother-to-child transmission

The prevention of mother-to-child transmission (PMTCT) program in Kenya was implemented in 2000 and has undergone a substantial scale-up since 2003, with nearly 10,000 health facilities offering PMTCT interventions in 2012. A total of 95.4% of women between the ages of 15-54 years who were pregnant between 2008 and 2012 reported attending an antenatal clinic (ANC) at least once during their pregnancy, with the majority (66.0%) reporting their first visit to the ANC during month 4-6 of pregnancy. HIV testing rates at ANC were high, ranging from 89.2% among women who gave birth in 2008 to 94.4% among those who gave birth in 2012. Among women who were diagnosed with HIV infection at ANC or at any time prior to the ANC visit, 71.2% reported that they received maternal prophylaxis during their pregnancy, 67.1% during delivery, and 82.6% during breastfeeding to prevent mother-to-child transmission of HIV infection.

Family planning

Among married or cohabiting women aged 15-49 years, 73.3% either did not want a child within the next two years or did not want a child (or more children) in the future. Among these, 60.8% were using modern contraception to prevent pregnancy. More women who self-reported HIV infection (79.1%) than those who self-reported no HIV infection (49.8%) did not want a child in the future. Among women with self-reported HIV infection and who did not want a child within the next two years or ever in the future, 62.0% were using modern contraception. This rate was similar to women who self-reported no HIV infection and did not desire a child within the next two years or in the future, of whom 62.9% were using modern contraception.

Key Findings for HIV Care and Treatment

- Among HIV-infected persons who were aware of their infection, 89.3% were enrolled in HIV care programs and 88.6% were taking co-trimoxazole.

- Among HIV-infected persons, 58.8% were eligible for antiretroviral therapy (ART) based on the 2011 Kenyan ART guidelines; of those, 60.5% were receiving ART. Among those who were eligible for ART and knew they were infected, 84.5% were receiving ART.

- If Kenya adopts the 2013 World Health Organization guidelines for ART initiation, 77.4% of all HIV-infected persons would be eligible for ART based on higher CD4 criteria, pregnancy and breastfeeding status, sero- discordant couple status, and co-infection with active tuberculosis. Of those, only 45.9% were currently receiving it.

- Among persons who were receiving ART, 16.3% had missed taking a pill in the past 30 days. Among persons on ART who had not missed taking a pill in the past 30 days, 78.5% were virologically suppressed. In comparison, only 57.9% of persons who had missed taking a pill in the past 30 days were virologically suppressed.

- Among all HIV-infected persons, 11.9% had a history of tuberculosis disease. Among all persons with a history of tuberculosis disease, about one-third (33.2%) were HIV-infected.

- Among persons who reported genital discharge in the past 12 months, 11.8% were HIV infected; among those that reported a genital ulcer in the past 12 months, 17.5% were HIV infected.

Care and treatment and HIV co-morbidity

Nationwide, an estimated 1.2 million persons aged 15-64 years were HIV-infected at the time of KAIS 2012 and therefore could benefit from care and treatment services. Among HIV-infected persons who were aware of their infection, 89.3% were currently enrolled in an HIV care clinic. The majority of these (79.4%) had enrolled into care within 3 months of their HIV diagnosis. Among all HIV-infected adults and adolescents, co-trimoxazole coverage was 41.5%. Among those who were aware of their status, however, co-trimoxazole use was higher (88.6%). Among all HIV-infected adults and adolescents aged 15-64 years, 58.8% were eligible for ART under the 2011 national guidelines for ART initiation in Kenya, and 60.5% of those eligible were taking ART. This means that close to 40% of HIV-infected persons in need of ART were not receiving it at the time of the survey. Among those aware of their HIV infection and eligible for ART, coverage of ART was 84.5%. Still, 15.5% of persons who were aware of their infection and in need of ART were not receiving it. Based on the 2013 World Health Organization (WHO) recommendations for ART initiation, all persons eligible according to the 2011 Kenya ART guidelines remain eligible. In addition, the WHO guidance raises the immunologic threshold for ART eligibility from 350 cells per microliter to 500 cells per microliter and includes women who are pregnant or breastfeeding and HIV-infected persons in a discordant couple relationship, regardless of CD4 count. Persons with chronic Hepatitis B virus co-infection requiring therapy are also eligible for treatment; however, hepatitis infection was not measured in KAIS 2012 and therefore was not included in our estimates of ART need and coverage. Should Kenya adopt the WHO recommendations for ART initiation, coverage of ART using these eligibility criteria was 45.9% in 2012, and of those aware of their HIV infection, coverage was 75.6%. Among persons who were on ART, 16.3% had missed taking a pill in the past 30 days, and among those, only 57.9% were virologically suppressed (defined as HIV RNA concentration < 1,000 copies per millimetre). In contrast, among those that did not miss taking a pill in the past 30 days, 78.5% were virologically suppressed, similar to levels observed in developed countries.

HIV prevalence was high among persons who had ever had tuberculosis (TB) disease, at 33.2%. In contrast among persons who had never had TB disease, only 5.1% were HIV-infected. Among all HIV-infected persons, 11.9% had a history of TB disease. Among all persons living with HIV and who had a history of TB disease, 73.6% had received and completed TB treatment, and 75.9% were taking co-trimoxazole. This means that about over one- quarter (26.4%) of TB/HIV co-infected persons were not taking co-trimoxazole, which is recommended for all HIV-infected persons. Among HIV-infected persons who were aware of their HIV infection and had a history of TB disease, 81.3% completed TB treatment, and 98.4% were taking co-trimoxazole.

Sexually transmitted infections play an important role in transmission and acquisition of HIV infection. KAIS 2012 collected information on self-reported symptoms in the past 12 months as a proxy for sexually transmitted infection. Overall, 6.2% of women and 1.5% of men reported abnormal genital discharge in the past 12 months. Genital ulcers in the past 12 months were reported by 3.8% of women and 1.6% of men. Among persons who reported genital discharge in the past 12 months, 11.8% were HIV infected; among those that reported a genital ulcer in the past 12 months, 17.5% were HIV infected.

Cervical cancer is a disease that is caused by a sexually transmitted infection from the genital human papillomavirus (HPV). Screening for cervical cancer was higher among HIV-infected women (12.3%) compared with HIV-uninfected women (7.4%). Among women who had ever been screened for cervical cancer, 3.1% of HIV-infected women and 5.6% of HIV-uninfected women received an abnormal screening result.

Many HIV-infected individuals have chronic health care needs and benefit from an array of preventive, acute and long-term services. In particular, the GOK recommends protection against malaria by sleeping under an insecticide-treated net (ITN) for all HIV-infected persons. The proportion of persons who slept under an ITN on the night prior to the survey was higher among HIV-infected persons (59.2%) compared with HIV-uninfected persons (49.2%). This was an improvement from 2007, when only 20.2% of HIV-infected and 16.9% of HIV-uninfected persons slept under an ITN on the night before the survey.

Key Findings for Children

- HIV prevalence among children aged 18 months to 14 years was 0.9% in 2012.
- Among children of HIV-infected parents, only 45.4% had ever been tested for HIV.
- Parents reported that 21.8% of their boys aged 18 months to 14 years had been circumcised.
- Eighty-nine percent of children aged 10-14 years had heard of HIV. However, only 17.4% had correct knowledge about HIV prevention and treatment.
- Five in 100 of children aged 10-14 years had ever drunk alcohol; one in 100 had ever tried drugs.
- Seven in 100 children aged 12-14 years had ever had sex. Of those, 22.8% had used a condom at first sex.
- Among all children aged 0-17 years, 14.4% were orphans or vulnerable children (OVC). Both parents had died among 10.8% of OVC, one parent had died among 60.4% of OVC, and 28.9% of OVC were vulnerable children.
- Only nine in 100 OVC had received at least one type of OVC support service.

Children

KAIS 2012 was the first nationally representative population-based survey in Kenya to estimate HIV prevalence in children. In 2012, HIV prevalence among children aged 18 months to 14 years was 0.9%, representing approximately 101,000 HIV-infected children. HIV prevalence decreased with increasing age among children, from 1.6% among children aged 18 months to 4 years, 0.8% among children aged 5-9 years, and 0.6% among children aged 10-14 years. HIV testing rates among children were low, at 16.4%, but regional variations were observed with highest testing rates among children in Nyanza region, at 28.1%, and lowest testing rates among children in Rift Valley North region, at 8.3%. Among children of HIV-infected parents, only 45.4% had ever tested for HIV.

Approximately one in five (21.8%) boys aged 18 months 14 years had been circumcised, with highest circumcision rates reported for boys aged 10-14 years (41.1%) and boys residing in Coast region (54.8%). Nationwide, 92.0% of parents of uncircumcised boys intended to circumcise their sons in the future. However, in Nyanza region, only 69.8% intended to circumcise their boys. These rates of "intent to circumcise" reflect the actual rates of male circumcision among the general male population aged 15-64 years.

The vast majority of children aged 10-14 years had heard of HIV (89.0%). The most common source of information about HIV was from school, including teachers (89.9%). Though awareness of HIV infection was high among children, only 17.4% had correct knowledge about HIV prevention and treatment. Among all children aged 10-14 years, 28.6% had discussed HIV with their parents, and 29.7% had ever participated in a HIV prevention education program.

A history of alcohol use was reported by 4.8% and drug use was reported by 1.4% of children aged 10-14 years. The most common drug used was khat or miraa (61.6%). A history of sexual intercourse was reported by 6.7% of children aged 12-14 years, with a higher proportion of boys reporting sexual intercourse (8.8%) than girls (4.5%). Among children who had ever had sex, condom use at first sex was low, at 22.8%. While the majority of children who had ever had sex had only one sexual partner (70.8%), 18.3% reported having had 3 to 6 sexual partners. Among children aged 12-14 years who had never had sex, 68.3% intended to wait until marriage to have sex, and 91.8% reported that they would be able to tell someone that they did not want to have sex with him or her.

In the survey, an orphan was defined as a child less than 18 years of age whose mother, father, or both had died. Children who had lost one parent were classified as a single orphan, and those that had lost both parents were classified as double orphans. A vulnerable child was defined as a child less than 18 years of age whose mother, father, and/or a household member had been very sick for at least three of the past 12 months preceding the survey. In 2012, there were an estimated 2.6 million orphans and vulnerable children (OVC) aged 0-17 years in Kenya. Among OVC, 60.4% were single orphans (one parent dead) and 10.8% were double orphans (both parents dead). Among all OVC, about one-quarter resided in Nyanza region (23.5%), and the majority were between the ages of 10-14 years (37.1%). Among orphans, one in ten had a parent who was infected with HIV. Among vulnerable children, 3.7% had at least one parent with HIV infection. Among OVC households, over one in five had experienced moderate to severe hunger (21.7%) and only 9.3% reported receiving at least one free OVC support service (i.e., medical, material, emotional, social support) in the past.

Key Findings for Households

- One in eight households in Kenya was affected by HIV in 2012, where at least one person in the household was infected with HIV.
- Approximately 5% of households had a head of household who was HIV-infected; of these, 8.5% were headed by women and 3.6% by men.
- The mean household size was 4.1 members. Rural residences more likely to have more household members than urban residences.
- Almost half (48.0%) of urban households were in the highest wealth quintile while majority of rural households fell within the lowest, second and middle wealth quintiles.

Household characteristics

In KAIS 2012, 8,035 households participated in the survey. The majority of households were headed by men (64.1%), and the average household size was 4.1 members. A household with at least one individual who was infected with HIV was considered an HIV-affected household. Among all households, 7.4% were HIV-affected. Among those, 5.0% of the heads of households were HIV-infected, with a significantly higher proportion of HIV-infected female headed households (8.5%) compared with HIV-infected male headed households (3.6%).

The most common source of drinking water for urban households was piped water (51.1%) followed by public tap (18.8%), while the most common source of water for rural households was surface water (31.7%) and well water (21.6%). The majority of urban (43.8%) and rural (51.7%) households did not treat their drinking water. However, among those that did treat their water, boiling and disinfection

were the most common treatment methods. The primary source of fuel for cooking was firewood in rural households (83.0%) and charcoal (29.9%), kerosene (29.1%) and natural gas (18.3%) in urban households.

Among rural households, 73.4% used traditional pit latrines as toilets compared with 45.9% of urban households. In contrast, 36.6% of urban households used flush toilets, compared with 2.0% of rural households. No toilet facility was reported by 12.7% of rural and 1.7% of urban households.
While the majority of households experienced little to no hunger, the level of low to no hunger varied by household wealth. Among households in the lowest and second to lowest wealth index, 73.8% and 80.4% had experienced little to no hunger, respectively. Among households in the middle, second highest, and highest wealth index, low to no hunger was experienced by 85.7%, 89.2%, and 95.8% of households, respectively.

1 Introduction, Overview of Methods and Response Rates

1.1 Background

Globally, an estimated 35.3 million people were living with HIV in 2012.[1] Sub-Saharan Africa is the region most affected by HIV, accounting for 25,000,000 people living with HIV, 1,600,000 estimated new HIV infections, and 1,200,000 estimated HIV deaths in 2012.[1]

The HIV epidemic in Kenya is characterized as a generalised epidemic, primarily driven by heterosexual transmission. There is considerable variation in HIV prevalence in Kenya. In 2008, HIV prevalence was reported to be as high as 13.9% in Nyanza region to as low as 0.9% in North Eastern region.2 Women continued to carry a higher burden of HIV infection compared to men. Significant differences existed in HIV prevalence by age and gender, with rates peaking approximately 10 years earlier for women compared to men. Education and income appeared to be inversely related with HIV prevalence, with persons of higher education and income less likely to be HIV-infected than their counterparts.

The control of HIV/AIDS remains a priority in Kenya. The Government of Kenya (GOK) developed the Kenya National HIV/AIDS Strategic Plan (KNASP III)2 for the 2009/10–2012/13 implementation period, continuing a comprehensive national response to the epidemic in partnership with civil society, the private sector and development partners. The core of the KNASP III is to provide universal access to essential services which will lead to a reduction in high-risk behaviour among the general, HIV-infected, key and vulnerable populations; an increase in the proportion of HIV-infected individuals in care and treatment; development of health systems that provide comprehensive HIV services; a community-level response to HIV and coordination of stakeholders in achieving goals within a nationally owned strategy.[2]

Four strategies were identified to achieve current KNASP III goals:

Strategy 1: Provision of cost-effective prevention, treatment, care and support services, informed by an engendered rights-based approach, to realise universal access.

Strategy 2: HIV mainstreamed in key sectors through long-term programming, addressing both the root causes and effects of the epidemic.

Strategy 3: Targeted, community-based programmes supporting achievement of universal access and social transformation into an AIDS–competent society.

Strategy 4: All stakeholders coordinated and operating within a nationally owned strategy and aligned results framework, grounded in mutual accountability, gender equality, and human rights.

[1] United Nations Programme on HIV/AIDS (UNAIDS). Report on the global AIDS epidemic 2013. Geneva: UNAIDS; 2013.
[2] Kenya National AIDS Strategic Plan (KNASP) 2009/10–2012/13. Available at http://www.nacc.or.ke.

Since implementation of KNASP III, the GOK has implemented a number of initiatives to address the epidemic. The country has witnessed a significant expansion of HIV testing and counselling (HTC) services and a significant increase in the number of sites providing prevention of mother-to-child transmission (PMTCT) services. Voluntary medical male circumcision (VMMC) services have been rapidly scaled up and antiretroviral therapy (ART) programmes have expanded.

As the country continues to scale up HIV care, prevention, and treatment interventions, policy makers and programme planners need scientifically sound evidence to evaluate the progress of the KNASP III and to effectively plan for future strategies and interventions for a more efficient and effective response to the HIV epidemic. Population-based surveys can provide a comprehensive picture of the HIV epidemic in the areas of HIV prevalence, new infections, behaviour, and access to HIV services and serve as a rich source of data to guide the response to the HIV epidemic.

The AIDS Indicator Survey (AIS) is a standardised surveillance tool used by many countries to monitor nationally representative HIV/AIDS indicators in the general population in order to evaluate the response to the HIV epidemic, inform HIV policy, and to ensure comparability across countries and time. The first AIS in Kenya (KAIS 2007) was conducted in 2007 and provided epidemiologic information on HIV, sexually transmitted infections, risk behaviours, and access to HIV prevention, care, and treatment services.[3]

Results from KAIS 2007 led to important changes in HIV policy and programming for HIV prevention, care, and treatment in the country. In 2012 a second AIS (KAIS 2012) was implemented to monitor progress on the key indicators for HIV prevention, care, and treatment. This report presents the key findings of KAIS 2012.

1.2 Purpose and Objectives of the Survey

The KAIS 2012 was a nationally representative population-based survey of children, adults and adolescents aged 15 to 64 years and children aged 18 months to 14 years. KAIS 2012 provides programme managers and policy makers with the information needed to effectively plan and implement future interventions and to assist with the monitoring and evaluation of current programmes targeting HIV and related diseases. The overall objectives of KAIS 2012 were to: estimate the prevalence and incidence of HIV among adult women and men, and children; collect high-quality representative data on knowledge, attitudes, and behaviours regarding HIV/AIDS; and estimate coverage and unmet needs of HIV prevention, care, and treatment services.

[3] National AIDS/STI Control Programme (NASCOP). Kenya AIDS Indicator Survey 2007 (KAIS 2007) Final Report. Nairobi: NACC; 2009. Available at http://www.nascop.or.ke

KAIS 2012 utilised methodology similar to the KAIS 2007 to allow for comparison across the two surveys. Table 1.2 compares elements of survey design and methodology between KAIS 2007 and 2012.

Table 1.2 Comparison of survey designs between the KAIS 2007 and KAIS 2012

Characteristic	KAIS 2007	KAIS 2012
Target populations	Adults and adolescents aged 15 to 64 years	Children aged 18 months to 14 years; adults and adolescents aged 15 to 64 years
Sampling frame	National Sample Survey and Evaluation Programme (NASSEP) IV	NASSEP V
Sampling design	Two-stage stratified cluster sample, where the first stage included selection of clusters from the NASSEP IV and the second stage included selection of 25 households within each selected cluster.	Two-stage stratified cluster sample, where the first stage included selection of clusters from the NASSEP V and the second stage included selection of 25 households within each selected cluster. For child sample, every other household from the 25 households was selected.
Mode of data collection	Paper-based questionnaire	Electronic data capture using portable netbook computers
Questionnaire	Household questionnaires and individual male and female questionnaires administered in Kiswahili, English, and 11 local languages.	Household questionnaires, individual female and male questionnaires for adults and adolescents and adolescents aged 15 to 64 years, and child questionnaires for children aged 10 to 14 years administered in Kiswahili, English, and 11 local languages.
	Paper-based questionnaire	Use of Netbooks where the questionnaires had been programmed
Interviews	Interviews among men and women aged 15 to 64 years	Interviews among men and women aged 15 to 64 years, including a paediatric module that collected information on children aged 18 months to 14 years in the household. Children aged 10 to14 years in child-eligible households.
Blood draw	Blood draw among eligible participants using venepuncture or finger prick where venepuncture was not feasible	Blood draw among eligible participants using venepuncture or finger prick where venepuncture was not feasible
Central laboratory tests conducted	HIV, HSV-2 and syphilis testing and CD4+ T-cell counts for HIV-infected samples	HIV, CD4+ T-cell counts for HIV-infected persons and 10% of HIV-uninfected persons, and viral load for HIV-infected persons, recency testing
Provision of test results	Result voucher provided to participants to access test results at nearby facilities six weeks after blood draw	Home-based testing and counselling and point-of-care CD4+ T-cell count testing provided for immediate access to test results. Referrals provided for follow-up services where needed.

There were key differences between KAIS 2007 and KAIS 2012 (Table 1.2). The target population for KAIS 2007 was adults and adolescents aged 15 to 64 years, while the target population for KAIS 2012 was adults and adolescents aged 15 to 64 years and children aged 18 months to 14 years. KAIS 2012 took advantage of advances in technology and used electronic data capture to collect information from households. To allow for comparability across the two surveys, KAIS 2012 used similar questions as KAIS 2007, but expanded questionnaire modules to include additional questions about concurrency

and HIV testing in partnerships; high-risk behaviours, including anal sex, transactional sex, and drug use; and migration. In KAIS 2007, blood was tested for HIV, syphilis, and herpes simplex virus type 2 infections. If samples were HIV positive, they were tested for CD4+ T-cell count and recent infection whereas in KAIS 2012, samples were tested for HIV, and if positive for HIV infection, samples were tested for CD4+ T-cell count, HIV RNA, and recent infection. Different from KAIS 2007, where participants received their results six weeks after the blood draw, KAIS 2012 offered home-based testing and counselling (HBTC), as well as point-of-care (POC) CD4 testing in the home, for participants to immediately know their HIV status and need for care and treatment. In KAIS 2012, participants who were found to be HIV positive during HBTC were given referrals to nearby facilities for treatment and care services.

1.3 Survey Design and Sample Frame

Geographic Coverage, Target Population, and Eligibility

KAIS 2012 was a cross-sectional, population-based survey that was conducted among a sample of 9,300 households within 372 clusters. These clusters were drawn from 9 of 10 National AIDS and STI Control Programme (NASCOP) programmatic regions, including the urban and rural areas of Central, Coast, Eastern North, Eastern South, Nyanza, Nairobi, Upper Rift, Lower Rift, and Western regions. The North Eastern region was excluded due to regional insecurity during the development of the sampling frame. Household questionnaires were administered to consenting heads of sampled, occupied households to determine eligibility of household members. All women and men aged 15 to 64 years in selected households and children aged 18 months to 14 years in child-eligible households who were either usual residents or visitors present the night before the survey were eligible to participate in the survey.

Sampling Frame and Design

KAIS 2012 used the fifth National Sample Survey and Evaluation Programme (NASSEP V) frame, which is a household-based sampling frame developed and maintained by the Kenya National Bureau of Statistics (KNBS). The frame was implemented using a multi-tiered structure, in which a set of four independent samples (C1, C2, C3, C4) were developed. The samples are based on the list of enumeration areas (EAs) from the 2009 Kenya Population and Housing Census. The frame is stratified according to county, and further into rural and urban residences. Each of these four independent samples is representative at county level and at national (i.e. urban/rural) level and contains 1,340 clusters within its sampling frame, for a total of 5360 clusters in full NASSEPV frame. All national surveys that utilize the NASSEP V frame are assigned one of the independent samples (C1, C2, C3, or C4) as the sampling frame from which the survey's sample is drawn.

In 2010 Kenya passed a new constitution in which a devolved system of government was adopted. In this devolved system, a total of 47 counties were created. Prior to the passage of the new constitution, Kenya was administratively divided into eight regions. In turn, each region was subdivided into district units, each district into divisions, each division into locations, and each location into sublocations. During the 2009 population and housing census, each sublocation was subdivided into census enumeration areas (EAs), i.e. small geographic units with clearly defined boundaries. The primary sampling unit for the NASSEP V master sampling frame and for the KAIS 2012 is a cluster, which comprises one or more EAs, with an average of 100 households per cluster.

The survey used two-stage stratified cluster sampling, where the first stage selected the 372 KAIS clusters from NASSEP V's 5630 total clusters using equal probability selection method (EPSEM). The second stage randomly selected a uniform sample of 25 households in each cluster from a roster of households in the cluster using systematic random sampling method. Households that were eligible for the child sample (50% of the overall sample) were preselected during the sampling phase. During data collection, if a pre-selected household did not have an eligible child, the next preselected household was visited until all preselected households in the clusters with at least one eligible child were identified.

Household residents aged 18 months to 64 years who had been present at the survey-eligible household on the night before the survey were considered eligible to participate. Adults or children with cognitive or hearing disabilities that would prohibit them from effectively participating in the survey were excluded. Emancipated minors aged 17 years or younger were included in the survey.
An emancipated minor was defined as a person less than 18 years who as married, pregnant, or a parent.

The sample size was calculated to provide representative estimates of HIV infection among adults and adolescents aged 15 to 64 years and children aged 18 months to 14 years for the main domains of interest: urban, rural, and national. For adults and adolescents aged 15 to 64 years, NASCOP regions were also domains of interest. The target number of households was 10,475. The target sample size was approximately 24,000 for women and men aged 15 to 64 years, and 8,000 for children aged 18 months to 14 years. Table 1.3 below shows the distribution of sampled clusters and households by region.

Table 1.3: Distribution of sampled clusters and households by NASCOP region

	Clusters			Households		
	Rural	Urban	Total	Rural	Urban	Total
Nairobi	0	51	51	-	1,275	1,275
Central	31	16	47	775	400	1,175
Nyanza	33	12	45	825	300	1,125
North Rift	23	8	31	575	200	775
South Rift	23	11	34	575	275	850
Eastern North	24	11	35	600	275	875
Eastern South	33	9	42	825	225	1,050
Western	33	8	41	825	200	1,025
Coast	25	21	46	625	525	1,150
Total	225	147	372	5,625	3,675	9,300

Out of the 372 sampled clusters, 371 were accessed and surveyed. One cluster in Tana-River county was inaccessible due to regional insecurity that prevailed during the survey. All reported estimates and design weights for households, individual interviews, and blood draws were based on data from the 371 clusters. The survey was not designed to produce reliable county-level estimates. Estimates are presented by rural/urban residence, and by NASCOP programmatic region.

1.4 Data Collection Tools

Questionnaires

We used four questionnaires: a household questionnaire; individual male and female questionnaires; and a child questionnaire. The content of the household and individual questionnaires were adapted from several instruments used in previous national surveys. These included standard AIS questionnaires developed by Measure DHS/ICF Macro (Calverton, MD), the HIV module used in the 2003 and 2008-09 Kenya Demographic and Health Surveys (KDHS 2003 & 2008-09), and the adult individual questionnaire used in the KAIS 2007. The children's questionnaire was adapted from the Global School- based Student Health Survey (GSHS) questionnaire, the youth questionnaires used in the 2008 South African HIV/AIDS Behavioural Risks, Sero-Status, and Media impact survey (SABSSM)[4] and the Uganda AIS Indicator Survey 2010 (UAIS 2011). The questions for parents or guardians of children aged 18 months to 9 years were adapted from the SABSSM and UAIS 2011. Various stakeholders worked within the KAIS Technical Working Group (TWG) to modify existing questions and design new questions in order to reflect current and emerging issues in HIV/AIDS in the country. The final questionnaires were translated from English into Kiswahili and 11 vernacular languages and back-translated into English to ensure accuracy. The questionnaires were further refined after a pilot study prior to distribution of the final versions to field staff.

The household questionnaire gathered basic information from the head of the household on usual members and visitors in the household, including age, sex, education, relationship to the head of household, and orphan hood among children (Table 1.4). Information used to construct a wealth index,[5] such as characteristics of the household's dwelling unit, the source of water, type of toilet facilities, etc.,

[4] Shisana O, Rehle T, Simbayi L, Zuma K, Jooste S, et al. (2009) South African national HIV prevalence, incidence, behaviour and communication survey 2008: A turning tide among teenagers? Cape Town.
[5] Rutstein SO, Johnson K. The DHS Wealth Index. DHS Comparative Reports No. 6. Calverton (MD): ORC Macro; 2004.

was collected. Information was also collected on whether the household had received specific types of care and support for any chronically ill adults and adolescents, any household members who died, and any orphans and vulnerable children (OVC). To determine levels of food security within households, questions derived from the hunger household scale[6] were administered.

The individual questionnaires collected information from eligible adults and adolescents aged 15 to 64 years on basic demographic characteristics, reproductive history, marriage, sexual activity, fertility, and family planning. In addition, the tool included questions regarding HIV and STI knowledge, attitudes and behaviours, HIV testing, HIV care and treatment uptake, and other health issues, such as tuberculosis, blood donation, and medical injections (Table 1.4). Separate questionnaires were developed for women and men.

Eligible children aged 10 to 14 years were administered a children's questionnaire that collected information on demographic, knowledge, and behavioural characteristics, circumcision status, HIV testing, alcohol and drug use, participation in prevention interventions, and HIV stigma (Table 1.4). Children aged 12 to 14 years were also asked questions about sexual activity.

Table 1.4 Data sources in KAIS 2012

Household questionnaire	Child questionnaire (10–14 years)
• Household membership listing • Parental survivorship • Household characteristics and possessions • Support for orphans and vulnerable children	• Socio-demographic characteristics • HIV/STI knowledge, attitudes, and perceptions • Sexual activity (for children aged 12–14 years only) • HIV testing • Male circumcision • Alcohol and drug use • Participation in HIV prevention interventions • HIV stigma
Adult questionnaires (15–64 years)	**Biologic testing**
• Socio-demographic characteristics • Reproduction, fertility, and family planning • Male circumcision • Marriage and sexual history • Drug use • HIV/STI knowledge, attitudes, and behaviours • HIV testing • Access to HIV prevention, care, and treatment services • Tuberculosis and other health issues • Blood and injection safety • Migration	• Venous and dried blood spot specimens collected to test for HIV (DBS), CD4 (venous blood), viral load (DBS), and future tests (DBS) at the NHRL • In home HIV and POC CD4 testing offered • Referral to treatment and care services for those found HIV positive through HBTC • HIV incidence testing

Electronic Data Collection

Household-level data were collected on netbooks (Mirus Innovations, Mississauga, Ontario, Canada) using a software application developed for KAIS 2012 with automated skip patterns which restricted responses to valid ranges. Data were transmitted on a regular basis from the field to the central data server in Nairobi, allowing for real-time data monitoring. Cellular modems were used to transmit collected data through a secure virtual private network with the country's largest network service provider; Safaricom.

[6] Ballard T, Coates J, Swindale A, et al. Household Hunger Scale: Indicator Definition and Measurement Guide. Food and Nutrition Technical Assistance III Project (FANTA). Washington, DC: FHI 360; 2011.

Blood Draw

Venous blood was collected from participants for HIV and CD4+ T-cell count testing at the National HIV Reference Laboratory (NHRL). If HIV-infected, the samples were further tested for HIV RNA and recent infection. Remnant specimens after testing were stored for future unspecified testing.
If a participant was unable to or refused to provide a venous blood sample, a dried blood spot (DBS) sample from a finger prick was requested. At the end of each day, up to four DBS cards per person were prepared from venous blood samples. Both the DBS cards and venous blood samples were transported several times a week to NHRL for laboratory testing.

Ethical Approvals

The KAIS 2012 protocol was approved by the Scientific Steering Committee and the Ethical Review Committee at the Kenya Medical Research Institute (KEMRI) and by the Institutional Review Board at the U.S. Centers for Disease Control and Prevention (CDC) and the Committee on Human Research of the University of California, San Francisco (UCSF).

Informed Consent

All participants provided verbal informed consent and had the choice to consent separately to the interview, the blood draw, HBTC and the storage of their specimens for future testing.

Women and men aged 18 to 64 years were eligible to participate in the survey, provided they gave informed consent. For minors aged 10 to 17 years, parental or guardian consent and minor assent were both required for participation in the interview and the blood draw. Parental or guardian consent was required for children aged 18 months to 9 years to participate in the blood draw.

For those less than age 18 years who were married, had children, or pregnant, they were considered as emancipated minors, using the criteria from the 2006 HIV Prevention and Control Act, and were able to provide their own consent to participate in the adult interview and blood draw.

Referral Procedures for Children

For the child questionnaire, only children aged 12 to14 years were asked questions about their sexual history and behaviours. Given the sensitivity of interviewing children about this particular topic and the potential for reports of sexual violence and/or abuse during the interview, KAIS 2012 offered counselling support services to any child who reported experiencing sexual abuse or violence through the Kenya Association of Professional Counsellors (KAPC). If sexual violence or abuse was mentioned by the child during the interview, the child was then connected to KAPC by the interviewer and field team supervisor for counselling support.

1.5 Point of Care

HIV Home-Based Testing and Counselling

Survey participants completing an adult questionnaire could learn their HIV status within their home through HBTC using the venous blood samples they provided or a separate finger prick. HBTC used a parallel HIV testing algorithm with two rapid tests: Determine HIV-1/2 (Inverness Medical, Massachusetts, USA) and Unigold (Trinity Biotech PLC, Ireland).

Participants with discrepant results (i.e. a positive result on one rapid test and negative result on the other rapid test) were referred to a health facility for retesting using the same rapid testing algorithm and an enzyme immunoassay as a tie-breaker if the results were discordant. Methods for HBTC were consistent with national guidelines for rapid HIV testing in Kenya.[7]

The parent or guardian of children aged 18 months to 9 years received the results on children's behalf and was counselled by the HBTC service provider on how to disclose results to children. Children aged 10 to 14 years received results in the presence of a parent or guardian, while adolescents aged 15-17 years were given an opportunity to receive their results with or without a parent or guardian present, provided that their parent or guardian consented to this. Couples within a household were given the opportunity to receive their results together.

[7] National AIDS and STI control Programme (NASCOP). National Guidelines for HIV Testing and Counselling in Kenya, 2nd Edition, NASCOP Nairobi, Kenya, 2010. Available at http://www.nascop.or.ke

PIMA Point of Care CD4 Testing

If a participant tested HIV positive in HBTC, they were offered the opportunity to receive a POC CD4 cell count test to help determine their care and treatment needs. The POC CD4 cell count test was done using a PIMA CD4 analyser (Alere, Inc., Waltham, Massachusetts, USA).

Referrals

All participants were counselled on their test results. If they tested HIV positive or required further clinical services, they were provided with a KAIS 2012 referral form and referred to comprehensive care facilities to seek treatment and care services.

1.6 Survey Implementation

Training

Training of the KAIS 2012 data collection personnel was conducted in September 2012. A total of 350 personnel comprising field supervisors, interviewers, registered laboratory technicians, certified HBTC service providers, and community mobilizers attended the three-week training. Training involved didactic presentations, small group discussions, and practical sessions, such as mock interviews and blood draws. Survey team members were also trained on the use of netbooks for data collection. The team practiced data collection in designated clusters as part of their practical training.

Field supervisors were trained on overall supervision of drivers, interviewers, laboratory technicians, and HBTC service providers. They were also trained on identification of sampled clusters and eligible households, ethics and informed consent, protocol adherence, electronic data sharing and transmission, how to troubleshoot basic technology issues and conduct daily quality control checks, and team well-being. Interviewers were trained on eligibility criteria, ethics and informed consent, completion of questionnaires, interviewing techniques, and use of technology/netbooks to document data collection. Field supervisors and interviewers were also trained on the protocol for referring children who reported sexual abuse or violence during the child interview for counselling support with KAPC.

Field laboratory technicians were trained on ethics and informed consent, phlebotomy, processing and transporting blood samples, use of POC CD4 analyser, bio-safety, and completion of survey data collection using netbooks. The HBTC service providers were trained on the national HBTC protocol for adults and children, how to perform and interpret the POC CD4 test results, ethics and informed consent, and use of netbooks for completing HBTC data collection.

Field supervisor training
- Survey eligibility criteria
- Consent procedures
- Protocol adherence for interviews, specimen collection, processing, storage, transport, and all documentation
- Checking and submission of data
- Well-being and safety of team members

Interviewer Training
- Survey eligibility criteria
- KAIS modules/topical areas
- Obtaining participant consent
- Objective interview techniques
- Administering questionnaires
- Use of netbooks to document interview data

Laboratory Technician training
- Informed consent for blood draw
- Universal precautions
- Phlebotomy
- Sample processing
- Point-of-care CD4 tests
- Use of netbooks to document laboratory data

HBTC service provider training
- Informed consent for HBTC
- HIV testing and Counselling
- Use of netbooks to document HBTC data

Community Mobilization

Print and electronic media were used to raise awareness and facilitate communication about the survey at the cluster, district, regional, and national level. In addition, district- and cluster-level mobilization was conducted, with mobilizers working with local leaders and key organizations to gain access and acceptability in the community and to disseminate information on the survey prior to arrival of field teams.

Field Work and National Supervision

On September 29, 2012, 40 field teams were deployed for KAIS 2012 data collection. Each team consisted of a supervisor, three interviewers, two laboratory technicians, and one HBTC service provider. One of the two laboratory technicians on each team was a certified HIV testing counsellor and provided backup support to the HBTC service provider as needed.

Data collection teams were supervised by teams of national supervisors with representation from different KAIS collaborating institutions. These supervision teams travelled throughout the country to visit field teams, deliver survey supplies, perform quality checks on data completeness, provide technology support, assess mobilization efforts, and help address challenges to data collection. Supervision reports were circulated to the KAIS 2012 technical working group for review and response to any issues.

1.7 Laboratory Logistics

Blood specimens were transported to NHRL for biological testing. Specimens were tested for HIV antibody using the Vironostika HIV-1/2 UNIF II Plus O Enzyme Immunoassay (bioMérieux, Marcy d'Etoile, France) and reactive results were confirmed using the Murex HIV.1.2.O HIV Enzyme Immunoassay (DiaSorin, SpA, Saluggia, Italy). Repeat testing was conducted for discordant results, and if results remained discordant, final results were obtained using polymerase chain reaction (Cobas AmplicorHIV-1 Monitor Test, v1.5, Roche Molecular Diagnostics, Pleasanton, California, U.S.A.). CD4+ T-cell counts and percentages were measured using BD FACSCalibur flow cytometer (Becton Dickinson BioSciences, San Jose, CA). CD4+ T-cell counts from a 10% random sample of HIV negative specimens were measured to quantify reference values. All laboratory- confirmed HIV positive specimens were tested for HIV RNA (Abbott M2000 Real-Time HIV-1 Assay, Abbott Laboratories, Abbott Park, Illinois, USA). Specimens with HIV RNA concentrations of fewer than 1,000 copies per mL were classified as clinically suppressed.

1.8 Data Processing and Analysis

Data cleaning was conducted for questionnaire data using Microsoft SQL Server 2008 (Microsoft Corporation, Redmond, Washington, USA) and SAS version 9.3 (SAS Institute Inc., Cary, North Carolina, USA). Laboratory data were cleaned at the NHRL and merged with the final questionnaire database using unique specimen barcodes and study identification numbers. Original cluster and household numbers, barcodes, and individual survey identification numbers were stripped from the final database prior to weighting and analysis to ensure anonymity of survey participants.

All results presented in the report are based on the weighted data to account for the survey sampling design and survey nonresponse. Several weights were calculated for analyses: a household weight, individual male and female interview weights, individual male and female blood draw weights, child interview and blood draw weights, and couples interview and blood draw weights. Due to oversampling of female participants in KAIS 2012, a post-stratification adjustment was applied during the analysis phase to ensure that the weighted sex distribution in the KAIS 2012 sample was reflective of the true sex distribution in the referent population.

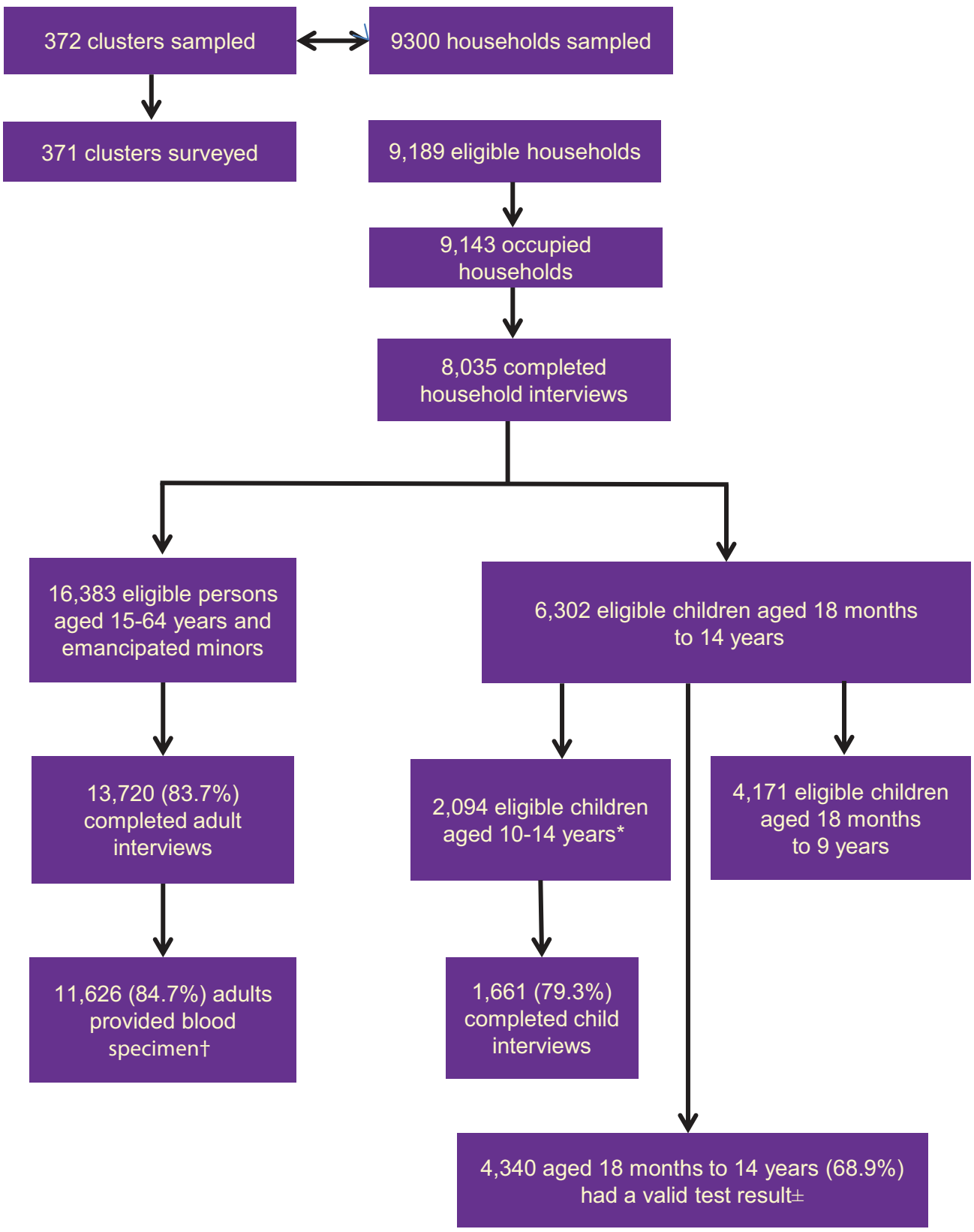
This report presents the results of univariate and bivariate analyses; analyses are not adjusted for confounding factors. Multivariate analyses of KAIS 2012 data will be presented in other dissemination materials, such as peer-reviewed scientific publications. Analyses were conducted using STATA version 12.0 (STATA Corporation, College Station, Texas, USA) and SAS version 9.3 (SAS Institute Inc., Cary, North Carolina, USA).

There have been four population-based surveys in Kenya that have included HIV testing; the KDHS 2003, KAIS 2007, KDHS 2008-09 and KAIS 2012. In chapter 4 we present trends in HIV prevalence between 2003 and 2012. Given that KDHS 2008-09 was conducted within one year of KAIS 2007, we excluded this survey in the trend analysis. In addition, we removed North Eastern region from KDHS 2003 and KAIS 2007 to ensure comparability across the surveys. For estimates that are compared across surveys, error bars representing the 95% confidence intervals for the estimates have been included in the figures.

Statistical significance was assessed based on chi-square p-values, except in cases where estimates from two time points were compared. In the latter scenario, we used the z-test to compare two weighted estimates and to determine if differences between the two time points were statistically significant. Of note, any comparisons between surveys excluded North Eastern region to ensure comparability across the surveys. Throughout the report, the term 'significant' indicates a p-value less than 0.05. Marginally significant indicates a p-value between 0.05 and 0.10, inclusive; and not significant indicates a p-value greater than 0.10. Due to rounding error, the sum of weighted estimates presented in this report may not equal to 100%.

1.9 Response Rates

Figure 1.9 illustrates a diagram of sampled clusters, households, and individual participation in KAIS 2012. Household response rates were calculated as the number of households consenting to the household interview out of the total households eligible. Vacant, destroyed, or missing households were excluded from the study. Individual interview response rates were calculated as the number of persons who completed the interview divided by the number of persons who were eligible for the survey in the sampled households. Only those consenting to an interview could participate in the blood draw component of KAIS 2012. However, one could give an interview and decline to provide a blood specimen.



*2,131 children aged 10-14 years were eligible at the household level for children's interview, however 37 were found to be ineligible based on their self-reported age during the interview.
†Blood response rate for 1564 year olds was calculated among those who were interviewed.
± Blood response rates among children 18months to 14 years was calculated among all those who were eligible.

Overall, participation rates in KAIS 2012 were high (Table 1.9). Of the 9,300 sampled households, 9,189 (98.8%) were eligible for the survey, out of which 8,035 (87.4%) completed the household interview. Rural households had higher (89.3%) household-level interview response rates than urban households (84.7%). Of 16,383 eligible individuals aged 15-64 years and emancipated minors in these households, 13,720 (83.7%) completed individual interviews, and 11,626 (84.7%) provided a valid blood specimen. There were a total of 6,302 children aged 18 months to 14 years who were eligible for a blood draw, and of these 4,340 (68.9%) provided a valid blood specimen. There were a total of 2,094 children aged 10-14 years eligible for interview, and of these, 1,661 (79.3%) completed child interviews.

Table 1.9: Survey response rates, KAIS 2012

	Total	Women	Men	Urban	Rural
Eligible households	9,189	-	-	3,683	5,506
Household interview response	87.4%	-	-	84.7%	89.3%
Individuals aged 15-64 years	**Total**	**Women**	**Men**	**Urban**	**Rural**
Eligible for interview	16,383	8,931	7,452	6,093	10,290
Interview response rate	83.7%	89.1%	77.4%	83.4%	84.0%
Eligible for blood draw	13,720	7,954	5,766	5,082	8,638
Blood draw response rate (15-64 years)*	84.7%	85.3%	83.8%	81.2%	86.8%
Children aged 18 months to 14 years	**Total**	**Girl**	**Boy**	**Urban**	**Rural**
Eligible for blood draw (18 months to 14 years)	6,302	3,196	3,106	1,682	4,620
Blood draw response rate (18 months-14 years)	68.9%	69.1%	68.6%	62.8%	71.1%
Eligible for interview (10-14 years)	2,094	1,037	1,057	543	1,551
Interview response rate (10-14 years)	79.3%	80.2%	78.4%	78.3%	79.7%

*The blood draw response rate among individuals aged 15-64 years was calculated among eligible individuals who completed an interview whereas the interview response rate among individuals aged 15-64 years was calculated among individuals who were eligible for the survey.

Of 16,383 eligible persons aged 15 to 64 years, 13,720 (83.7%) completed adult interviews. Response rates for adult interviews were higher among women (89.1%) compared to men (77.4%). A similar proportion of women and men provided blood specimens (85.3% vs. 83.8%, respectively) and urban residents were less likely to provide a blood specimen compared to rural residents (81.2% vs. 86.8%, respectively). There were a total of 6,302 children eligible for a blood draw. The blood response rate for all children aged 18 months to 14 years was 68.9%. There were 2,094 children aged 10 to 14 years eligible for an interview; of those, 79.3% completed interviews.

1.10 Chapter Summary

- The KAIS 2012 was a representative, population-based survey of households which includes adults and adolescents aged 15 to 64 years and children aged 18 months to14 years.
- The survey design and methods were comparable to the KAIS 2007.
- New features of the KAIS 2012 included the participation of children aged 18 months to 14 years, the provision of HBTC and POC CD4 testing in the home for immediate access to results, the use of electronic data capture for data collection, and the addition of new topics to the questionnaires.
- Laboratory data included HIV and CD4+ T-cell counts. HIV positive samples were further tested for HIV RNA concentration and recent infection.
- Participation rates were 87.4% for the household survey, 83.7% for 15-64 individual interviews and 84.7% for blood draw among individuals 15-64 years.
- For children aged 10 to 14 years the interview response rate was 79.8%. The Blood draw response rate for children aged 18 months to 14 years was 69.0%.

2 HOUSEHOLD CHARACTERISTICS

2.1 Key Findings

- Nationally, 7.7% of households were affected by HIV, where at least one person in the household infected with HIV. The majority of these households had only one HIV-infected person within the household.
- Approximately 5% of households had a head of household who was HIV-infected; of these, 8.5% were headed by women and 3.6% by men.
- The mean household size was 4.1 members. Rural residences more likely to have more household members than urban residences.
- Almost half (48.0%) of urban households were in the highest wealth quintile while majority of rural households fell within the lowest, second and middle wealth quintiles.

2.2 Introduction

This chapter summarizes demographic and socioeconomic characteristics of the households sampled in KAIS 2012. Identifying the effects of HIV in households is an important aspect in planning for financial and logistical planning to provide support systems and health services for households affected by HIV/AIDS.

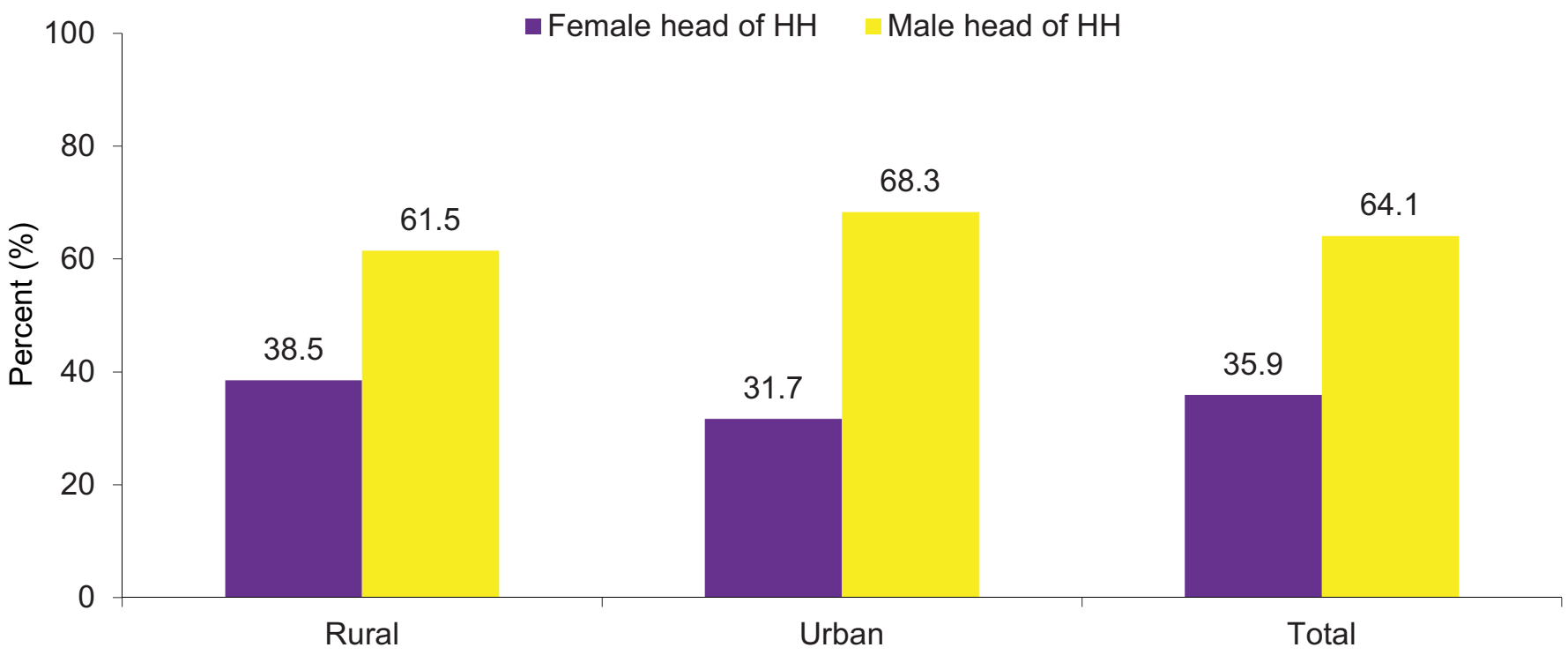
A household questionnaire was administered to the head of household. The head of household was a usual resident member of the household, the key decision maker for the household, and the person whose authority was acknowledged by all members of the household. While this authority often comes with economic responsibility for the household, this is not always the case, and therefore for KAIS 2012 it was not necessary that the head of household was the breadwinner, nor was it necessary for the head of household to fall with the age range of 18 to 64 years.

The household questionnaire was used to collect information on all usual residents and visitors who spent the night preceding the interview in the dwelling to determine eligibility of potential participants. Usual residents were defined as members of the household who stayed in the household most of the time in a year. Questions in the household questionnaire included relationship to the head of the household, sex, place of residence, age, emancipation status, orphan hood, disability, sickness, and residence of biological parents. Additionally, information on parental survivorship and living arrangements for children under the age of 18 years, as well as social, medical, emotional/ psychological, material support for ill adult members, or adult members who died in the year before the survey, was included in the household questionnaire. Other household-level questions included ownership and the type of toilet facilities, main source of water, main source of cooking fuel, physical attributes of the household, nutritional status, and migration status.

Appendix B provides sample sizes, standard errors, and 95% confidence intervals for estimates presented in this chapter. Population estimates reported in this chapter were calculated using un-normalized survey weights which were reflective of the 2012 projected population data in the 2009 Kenya Population and Housing Census. Detailed methods used for calculating population estimates are described in Appendix A.

2.3 Household Composition

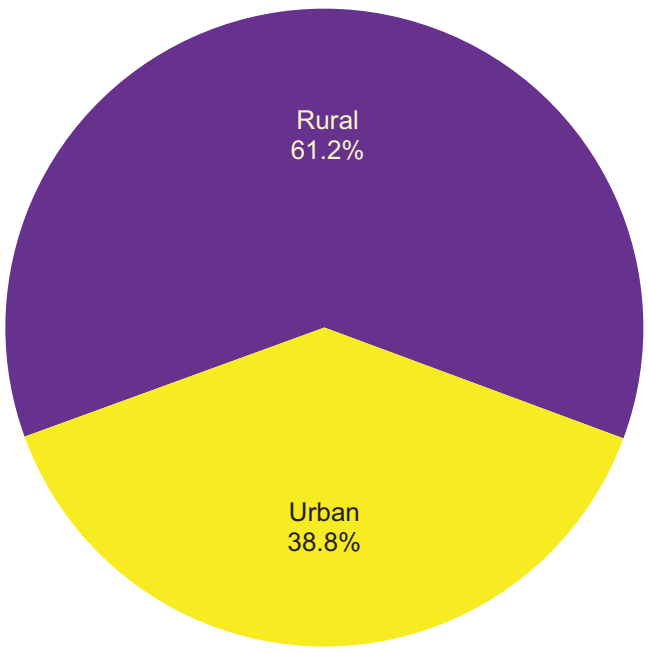
Figure: 2.3a: Sex of head of household by residence, KAIS 2012



A majority of households are headed by males (64%), and this was more likely in urban areas (68%) than in rural areas (62%).

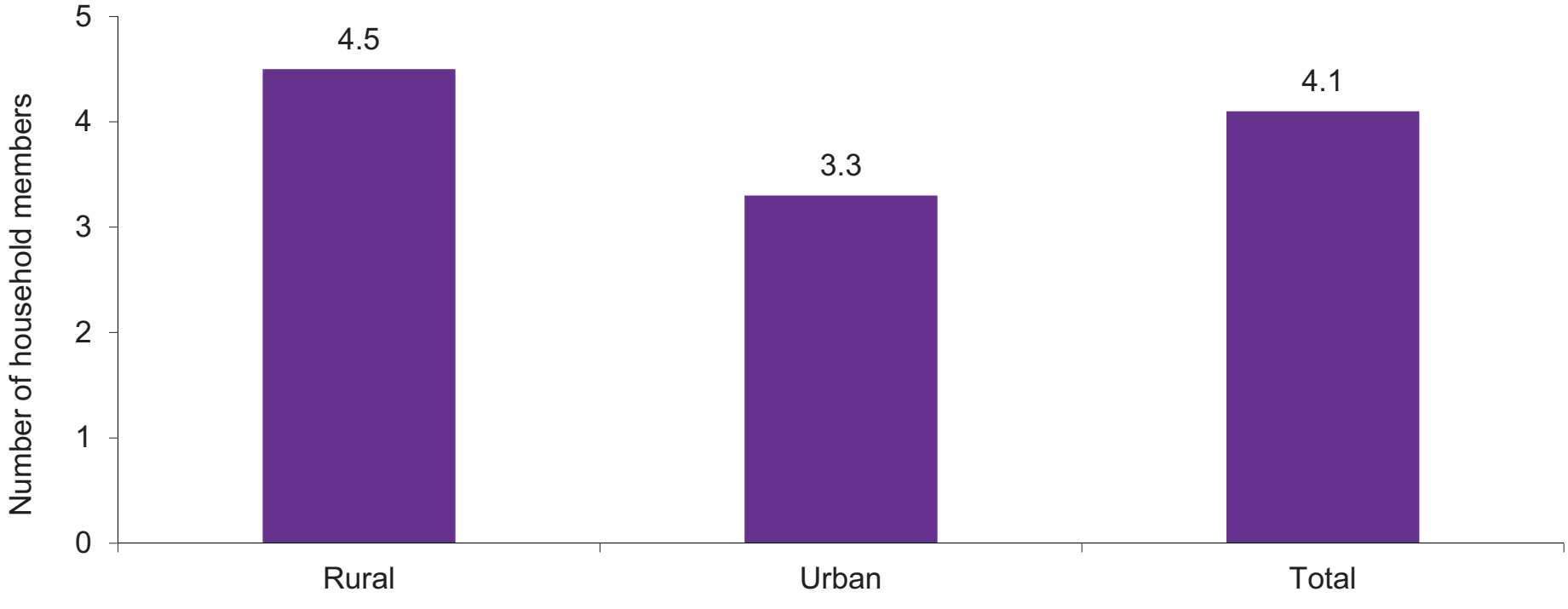
Among all households interviewed in KAIS 2012, a majority (64.1%) were headed by men compared to 35.9% headed by women. There was very little difference for households headed by women in 2008/9 KDHS (34%) compared to those in KAIS 2012 (35.9%). More households headed by men were found in urban residences (68.3%) than rural residences (61.5%). Additionally, more of the households headed by women (38.5%) were in rural residences as opposed to urban residences (31.7%). The majority of all households were located in rural residences (61.2%) rather than urban residences (38.8%).

Figure 2.3b: Distribution of households by residence, KAIS 2012



A majority of the households were located in rural residences (61%) compared to urban residences (39%).

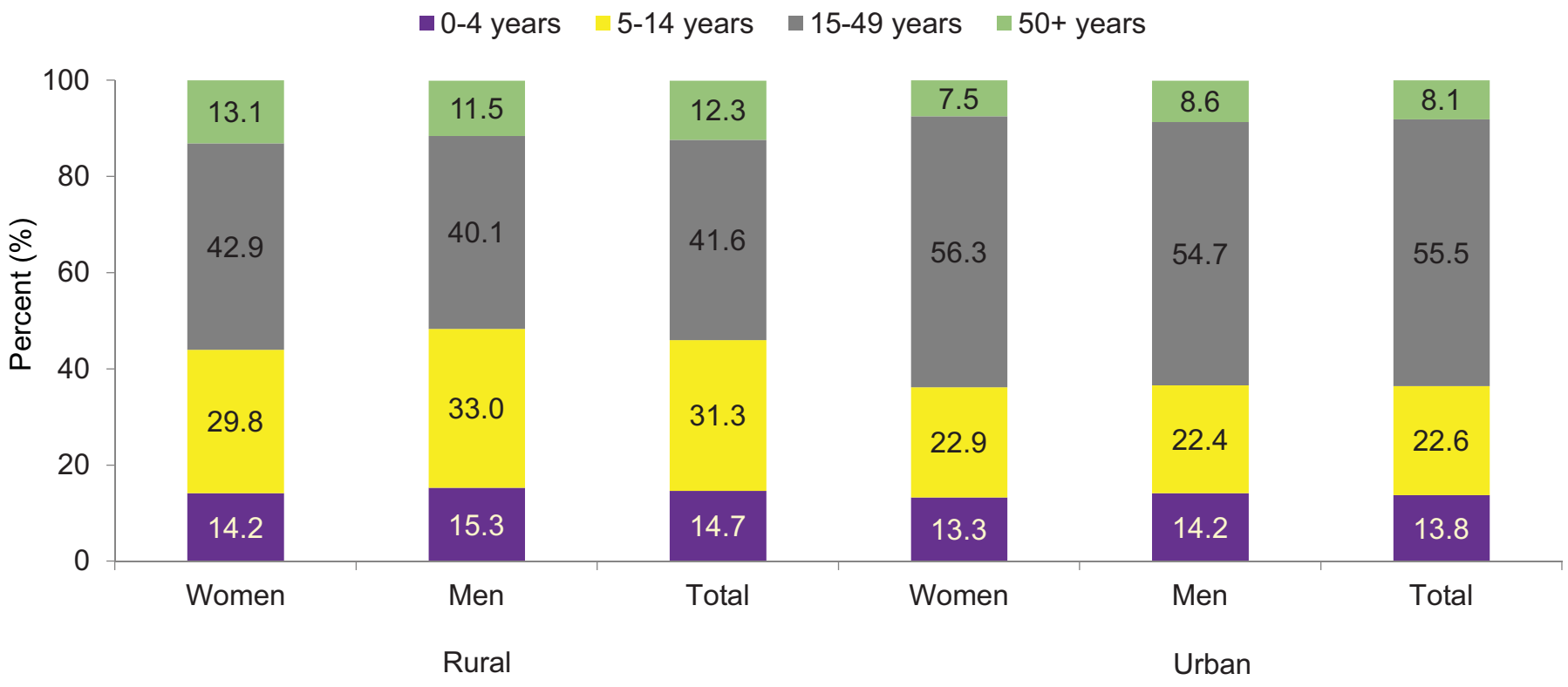
Figure 2.3c: Mean household size by residence, KAIS 2012



The mean household size was 4.1 members. Rural residences were likely to have more household members than urban residences (rural mean 4.5 vs. urban mean 3.3).

The analysis on the mean household size was limited to usual members of households only. Visitors the night prior to conducting the survey in all households were excluded. The mean household size in 2012 was 4.1 persons per household, with a higher mean size among rural households com- pared to urban households (4.5 persons vs. 3.3 persons, respectively). KAIS 2012 data remained similar to the 2008 KDHS data, which showed the national mean 4.2, and where the mean number of households in rural residences was 4.6 and 3.1 in urban residences.

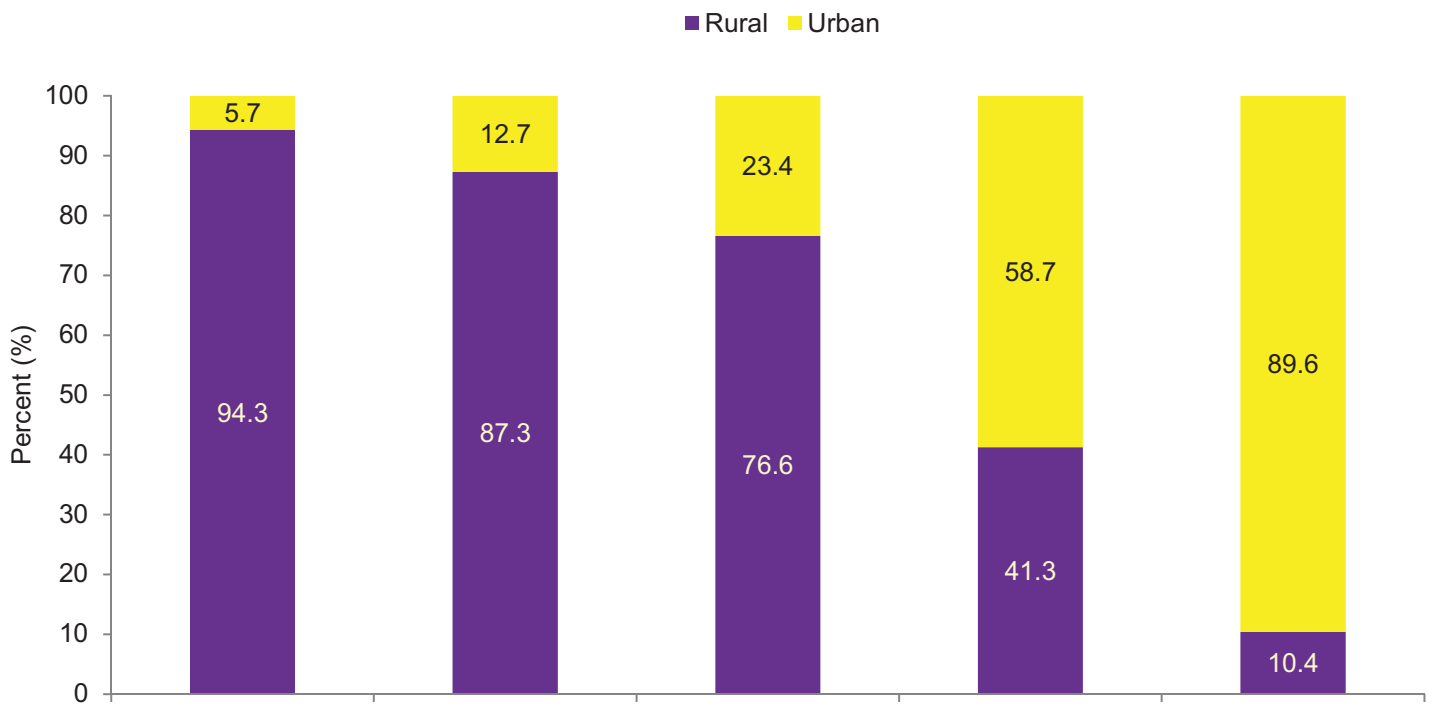
Figure 2.3d: Household population, by age group, sex, and residence, KAIS 2012



Adults and adolescents aged 15-49 years made up the majority of households, followed by children aged 5-14 years.

In rural households, 14.7% of household members were aged 0–4 years, 31.3% were aged 5–14 years, 46.1% were aged 15–49 years, and 12.3% were aged 50 years and older. In contrast, in urban households, a lower proportion was aged 5–14 years (22.6%) and a higher proportion was aged 15–49 years (55.5%).

Figure 2.3e: Wealth index[1] by residence, KAIS 2012

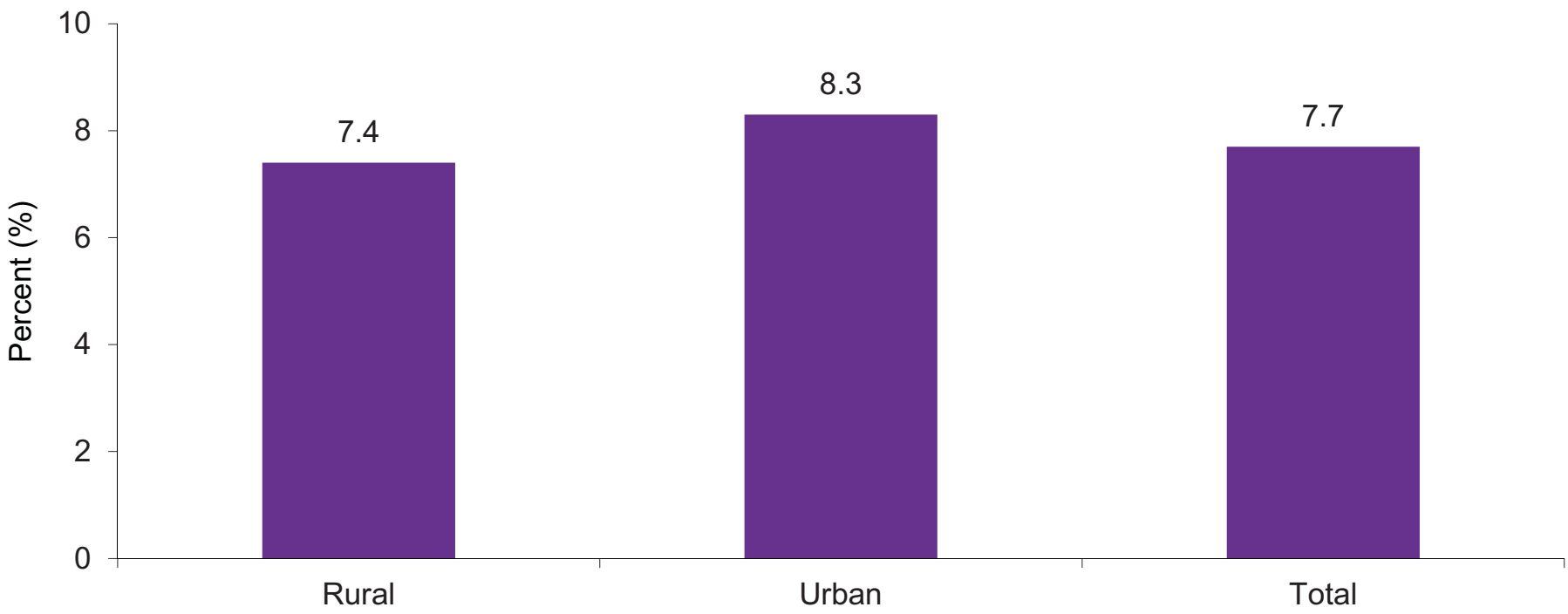


Wealth index distribution differs greatly between rural and urban households.

In urban households, 89.6% were in the highest wealth quintile and 58.7% fell within the fourth wealth quintile. In contrast, among rural households, the majority fell within the lowest (94.3%), second (87.3%), and middle (76.6%) wealth quintile.

2.4 Prevalence of HIV-Affected Households

Figure 2.4a: Households with at least one HIV-infected person by residence, KAIS 2012

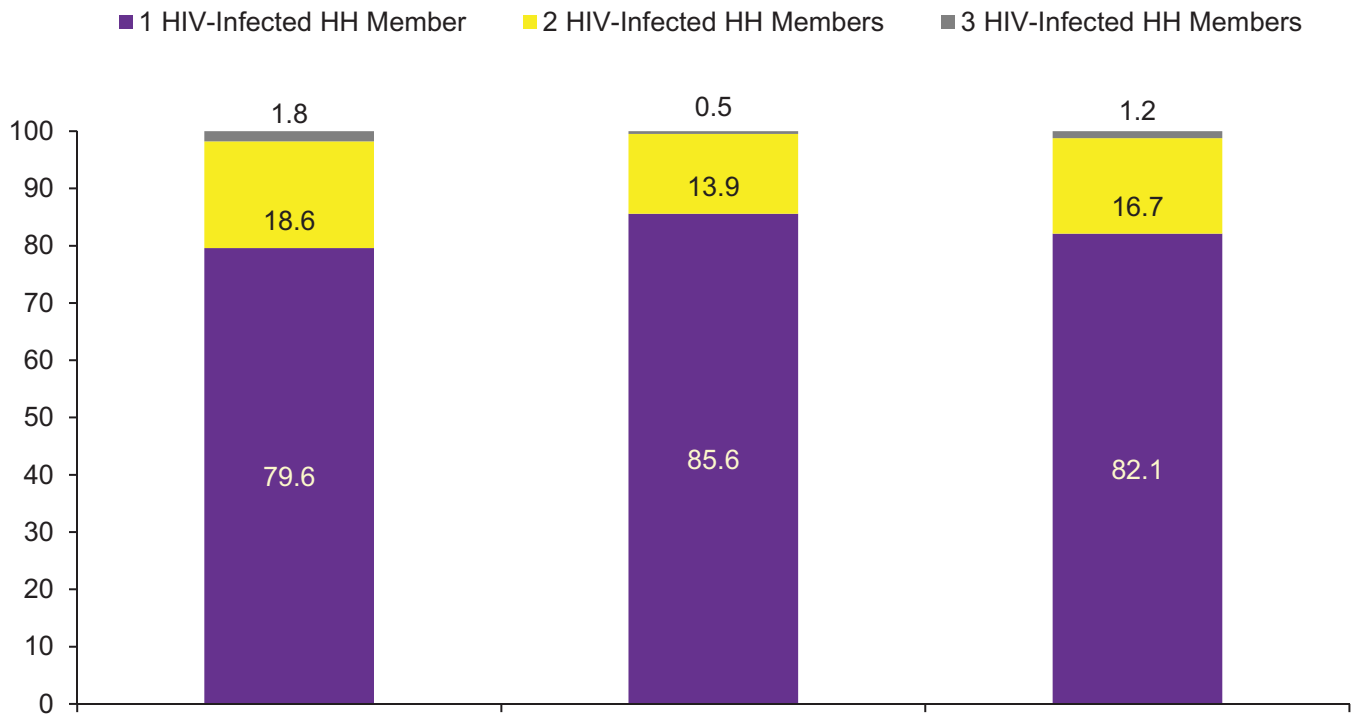


We found that 7. 7% of households have at least one HIV-infected person.

The 2012 KAIS survey defined any household with at least one living HIV-infected member as HIV-affected. Using this definition, 7.7% of households in Kenya were affected by HIV, compared to 11% of households in 2007. In urban households, 8.3% were affected by HIV compared to 7.4% of rural households.

[1] Wealth index was a composite measure of the living standard of a household calculated using data on household's ownership of selected assets, materials used for housing construction, water access and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principle component analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with equal number of individuals (quintiles), ranging from lowest to highest level of wealth.

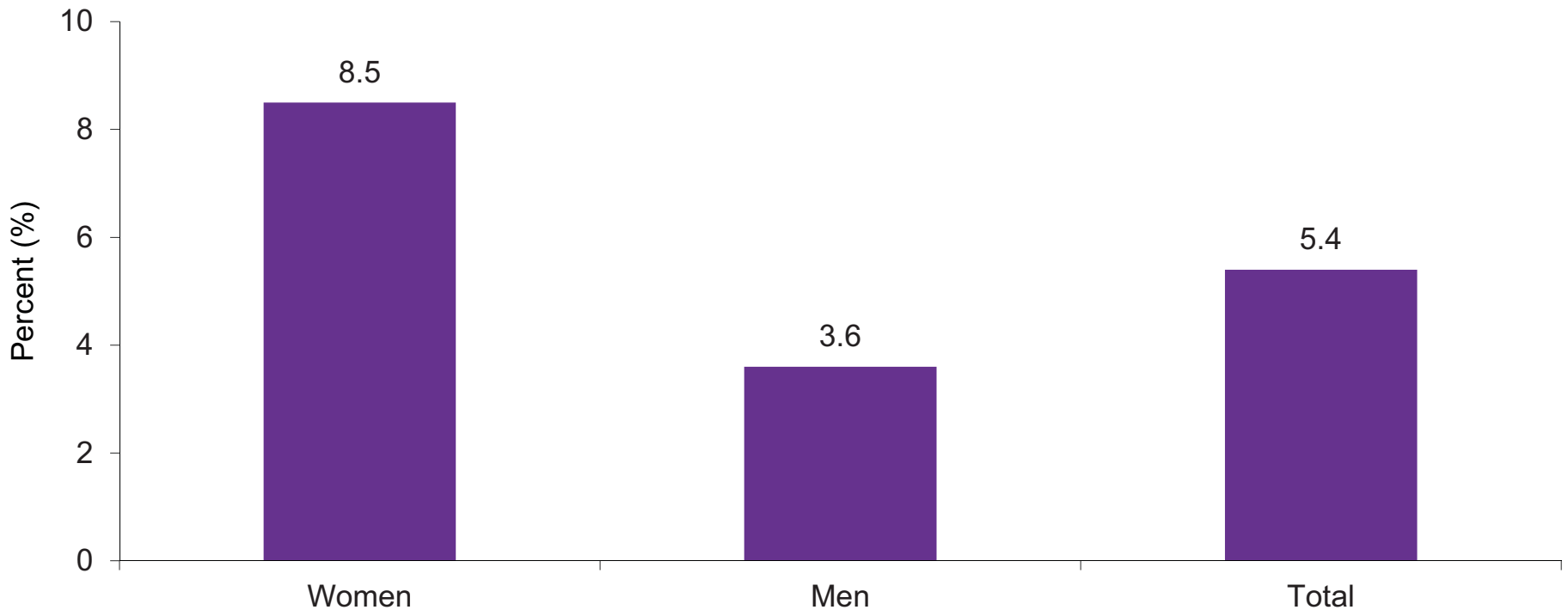
Figure 2.4b: HIV-affected households by number of HIV-infected members and residence, KAIS 2012



Over 82% of HIV-affected households had only one HIV-infected household member.

Overall, the majority (82.1%) of HIV-affected households had one HIV-infected member. The percentage is slightly higher in urban residences (85.6%) than rural residences (79.6%). In contrast, 16.7% of households had two HIV-infected members, with a higher proportion in rural households compared to urban households (18.6% vs. 13.9%, respectively). There was no variation in distribution of HIV-affected households by wealth index and hunger scale (data not shown).

Figure 2.4c: Households with HIV-infected head of household by sex, KAIS 2012

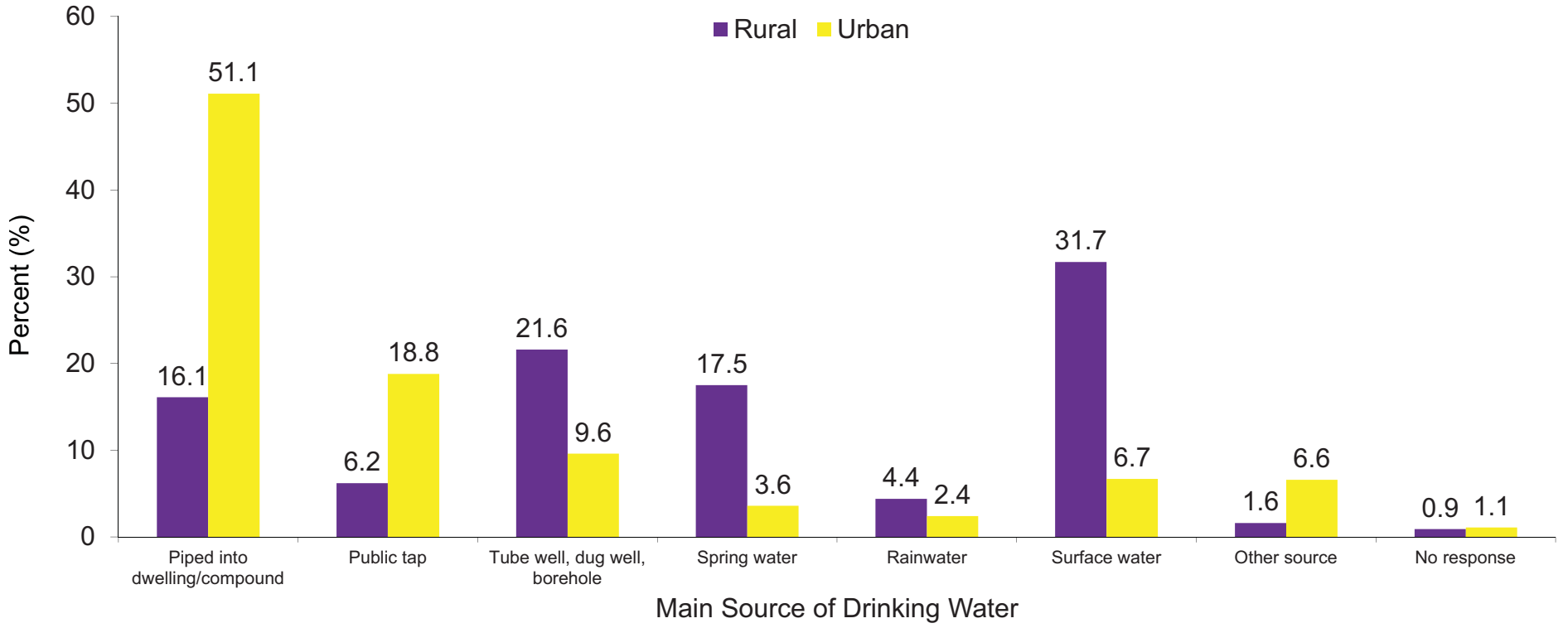


Approximately 5% of HIV-affected households had an HIV-infected head of household.

Overall, five percent of household heads were HIV-infected. A significantly higher proportion of female household heads (8.5%) were HIV-infected than male household heads (3.6%).

2.5 Toilet Facilities and Source of Drinking Water

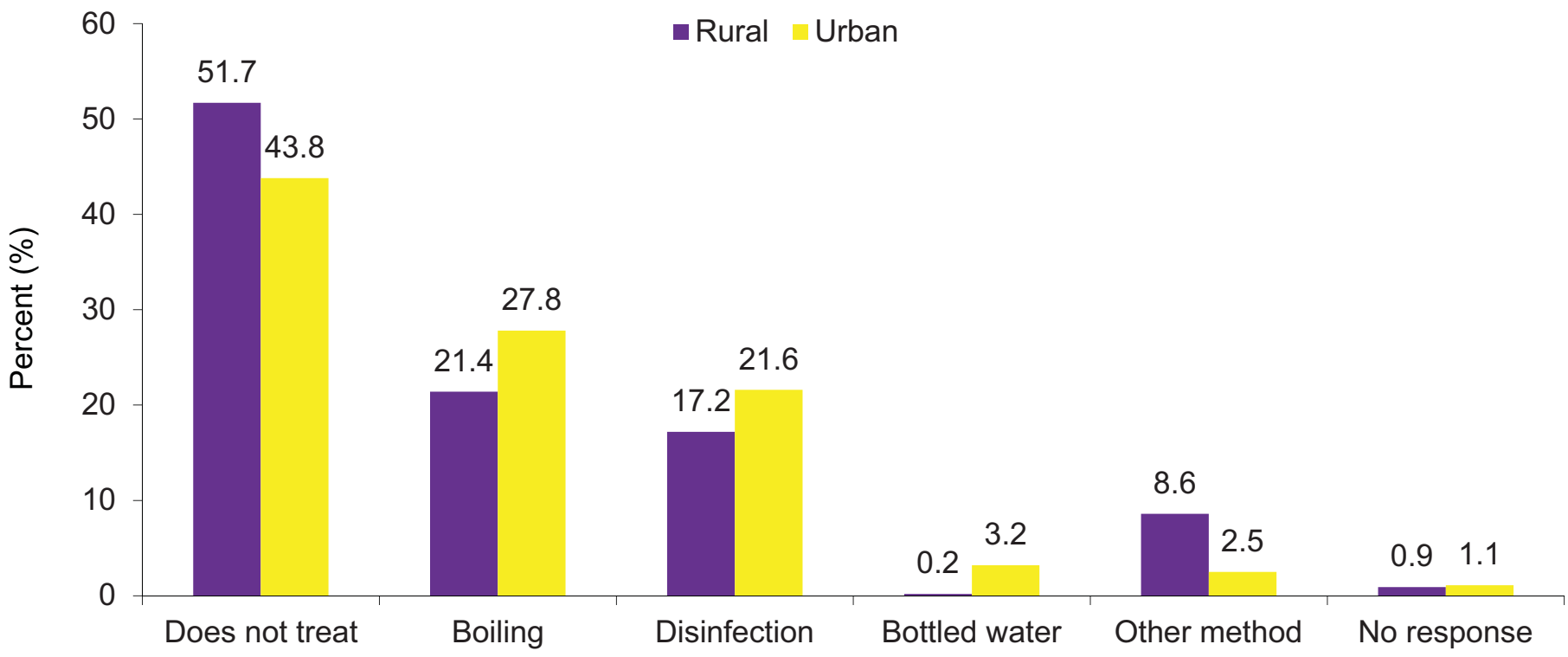
Figure 2.5a: Main source of drinking water by residence, KAIS 2012



Half (51%) of households in urban residences reported that their main source of drinking water was piped into dwelling/compound, while one-third (32%) of households in rural residences depended on surface water.

Household sources of drinking water differed significantly by residence. Almost one-third (31.7%) of rural households collected their drinking water from surface water compared to 6.7% of urban households. In contrast, the main source of water for urban households was piped into the compound, while only 16.1% of rural households had piped drinking water. Among rural households, 21.6% received their drinking water from wells while only 9.6% of urban households received their drinking water from wells.

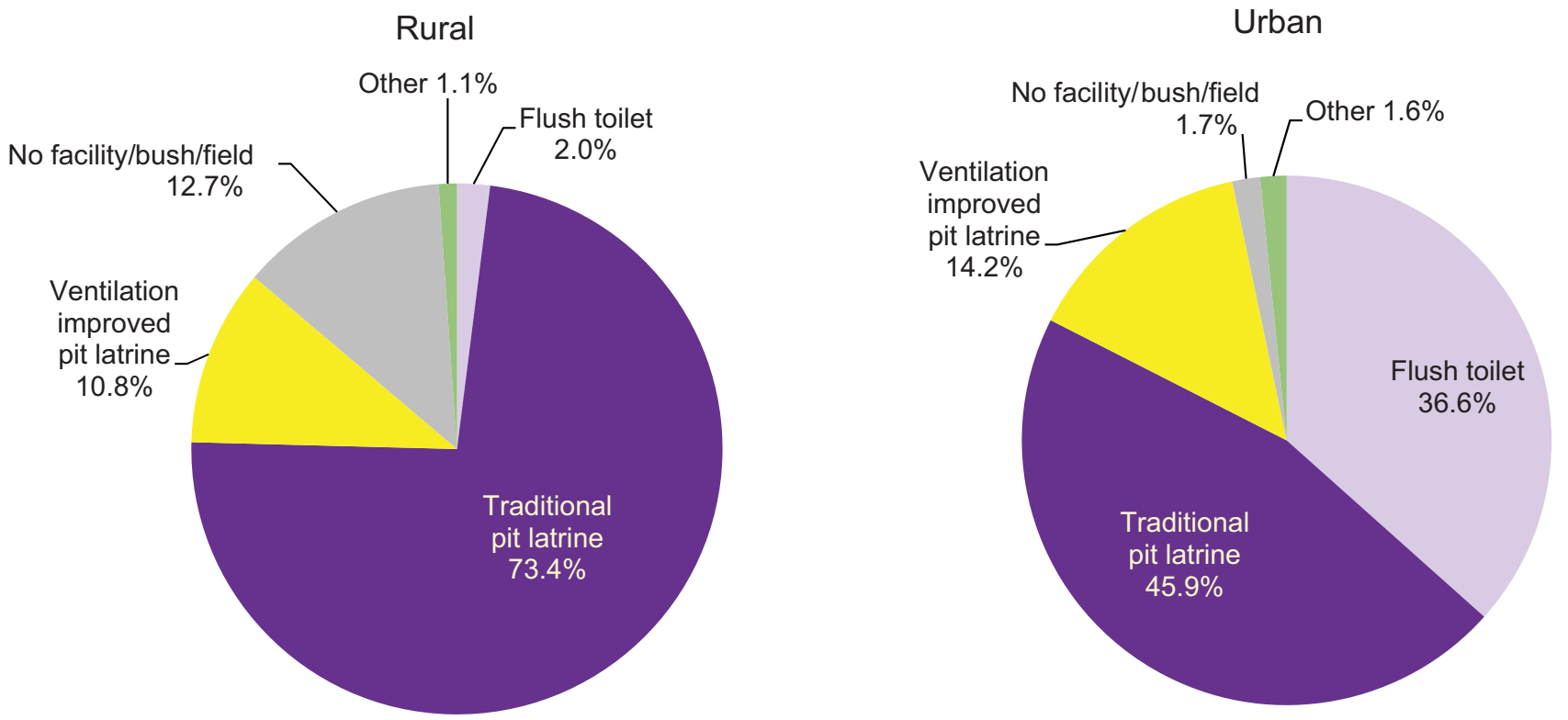
Figure 2.5b: Method of treating drinking water by residence, KAIS 2012



The majority of rural and urban households do not treat their drinking water.

The majority of households in rural (51.7%) and urban (43.8%) residences did not treat their drinking water. However, we found that more urban households boiled their drinking water (27.8%) compared to the rural households (21.4%). In addition, more urban households disinfected their water compared to rural households (21.6% vs. 17.2%, respectively).

Figure 2.5c: Type of household toilet facility by residence, KAIS 2012

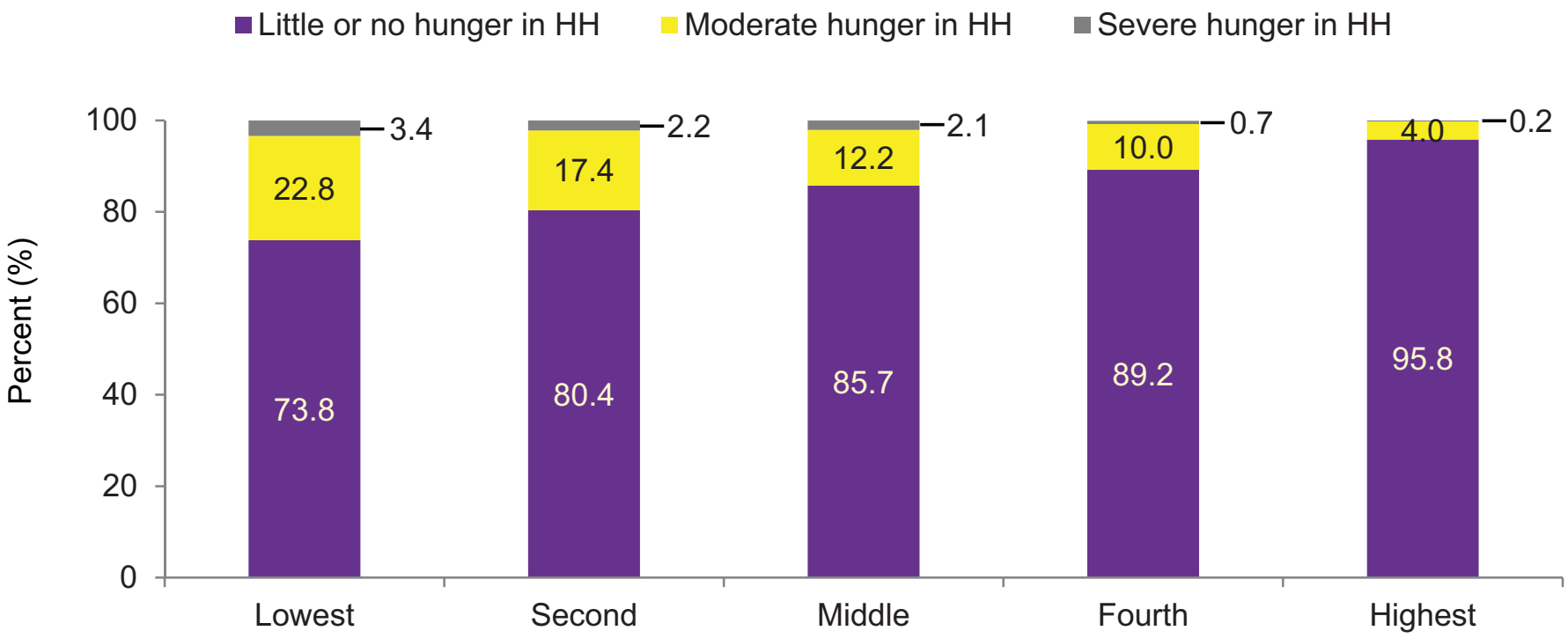


The majority of households in both urban and rural household used traditional pit latrines.

The type of household toilet facility differed between rural and urban residences. Three quarters (73.4%) of the rural households used traditional pit latrines compared to less than half (45.9%) of the urban households. While only 2% of rural households had flush toilets, 36.6% of urban households had these toilets. In rural households, 12.7% had no toilet facility compared to only 1.7% of urban households.

2.6 Hunger Scale and Wealth Index in Households

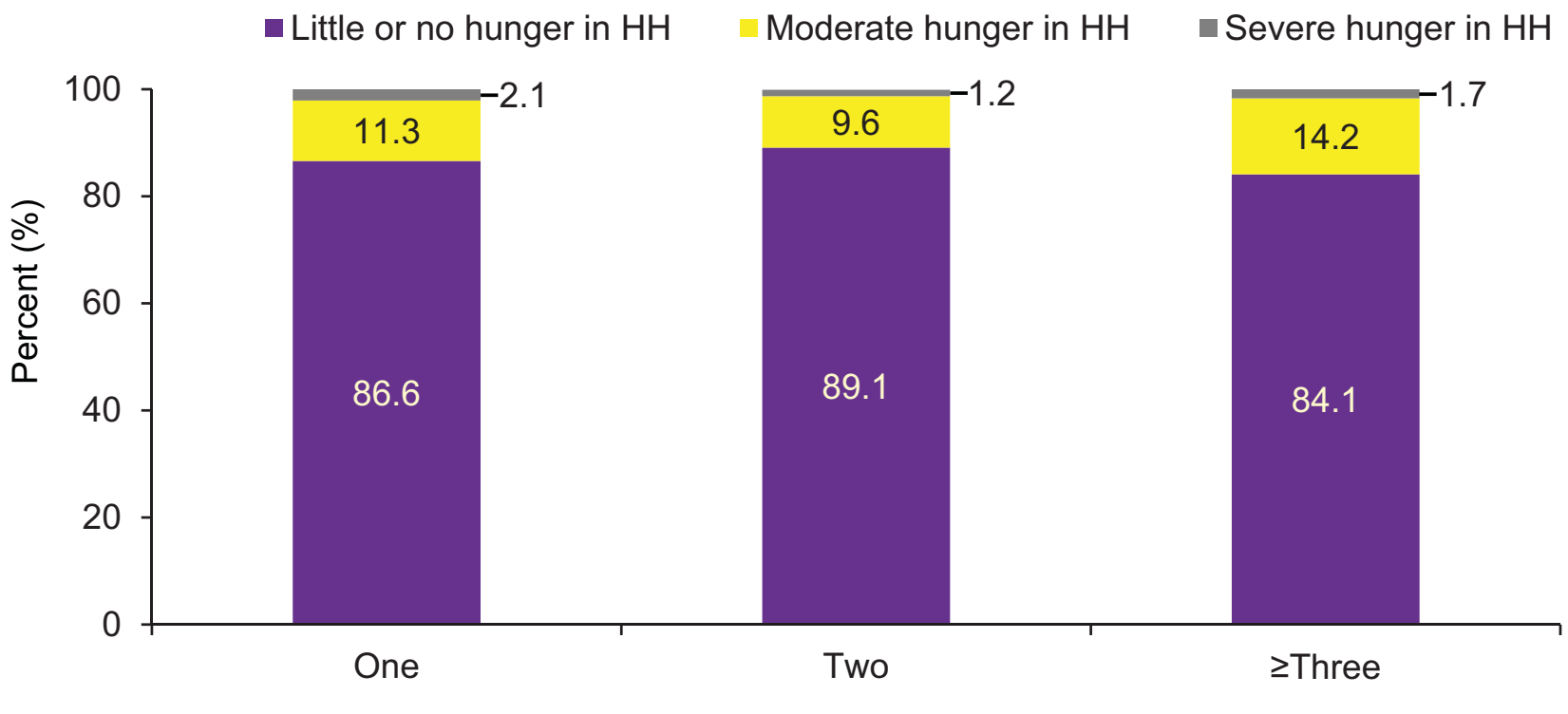
Figure 2.6a: Household hunger scale by wealth index, KAIS 2012



The severity of hunger in households decreased with increase in wealth index. Moderate hunger was more pronounced in the lowest wealth index.

Though the proportions were low, poorer households were more likely to experience hunger compared to wealthy households. Severe hunger was experienced by 3.4% of households in the lowest wealth quintile compared to 0.2% of households in the highest wealth quintile. Moderate hunger was experienced by 22.8% of households in the lowest quintile compared to 4% of households in highest wealth quintile. In contrast, little to no hunger was experienced by 73.8% of households in the lowest wealth quintile compared to 95.8% of households in highest wealth quintile.

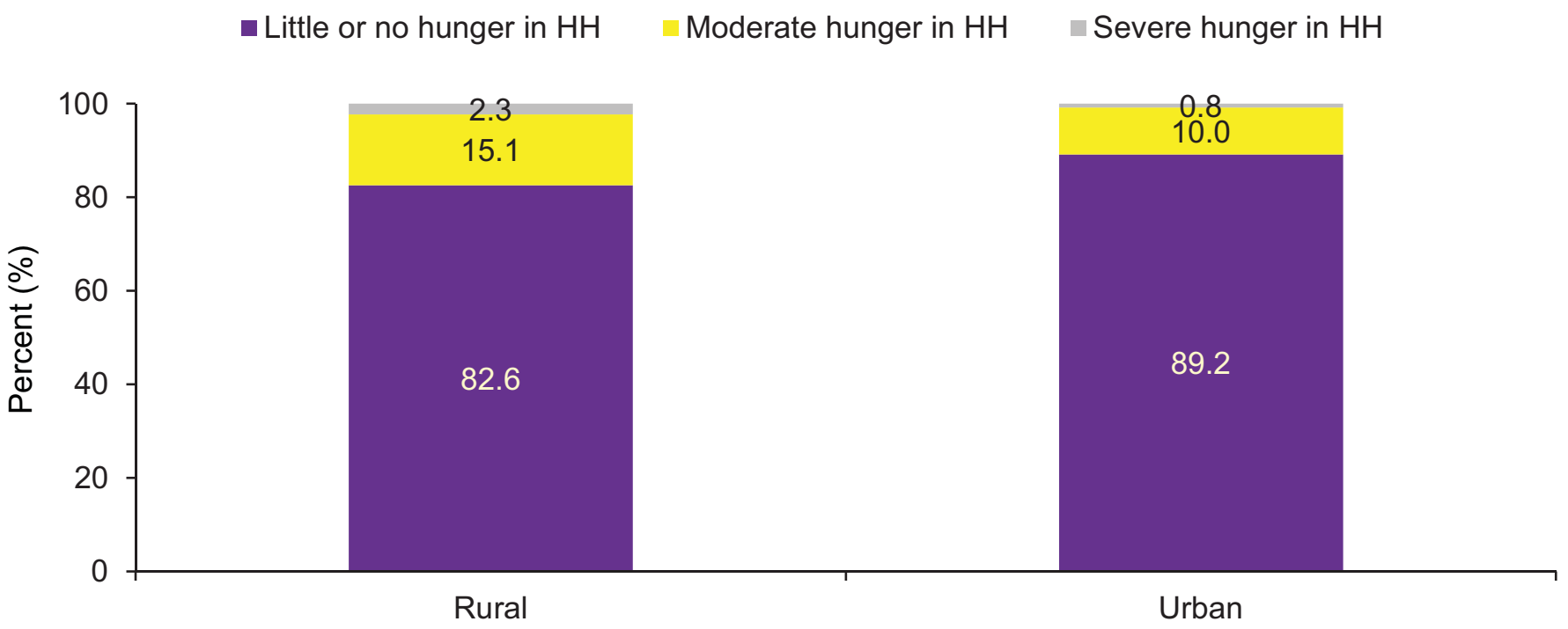
Figure 2.6b: Household hunger scale by number of household members, KAIS 2012



Moderate or severe hunger is slightly more likely to be found in households with at least three members.

In households with three or more members, 1.7% had severe hunger, 14.2% had moderate hunger, and 84.1% had little to no hunger. While severe hunger rates were higher in households with fewer members, moderate hunger was higher in households with two members (9.6%) than in households with one member (11.3%).

Figure 2.6c: Household hunger scale by residence, KAIS 2012

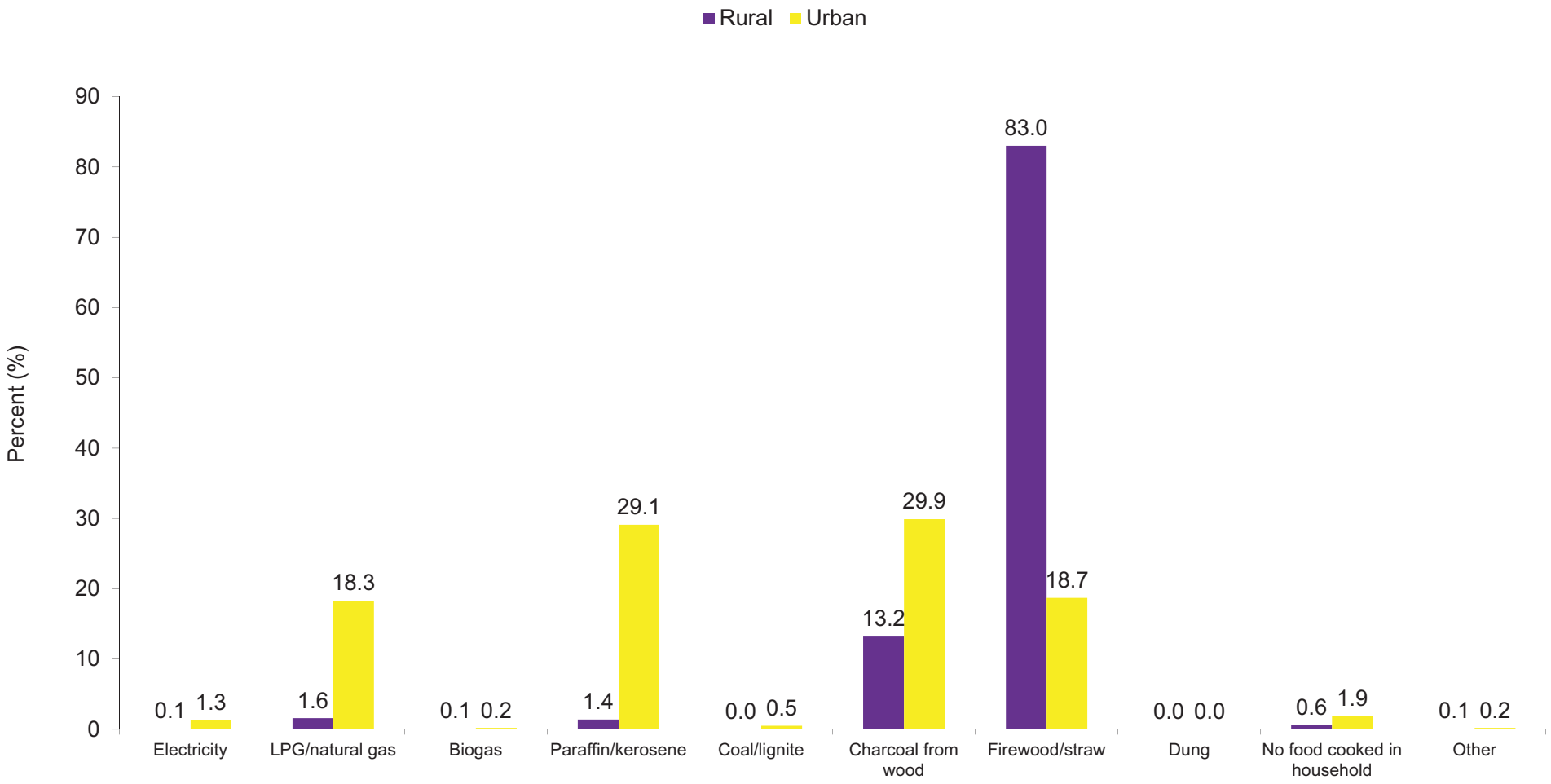


Moderate hunger was slightly more likely to be experienced in rural households.

Only 2.3% of rural households and 0.8% of urban households experienced severe hunger However, a considerable number of households in both rural and urban residences (15.1% and 10.0%) experienced moderate hunger.

2.7 Source of Fuel and Household Construction

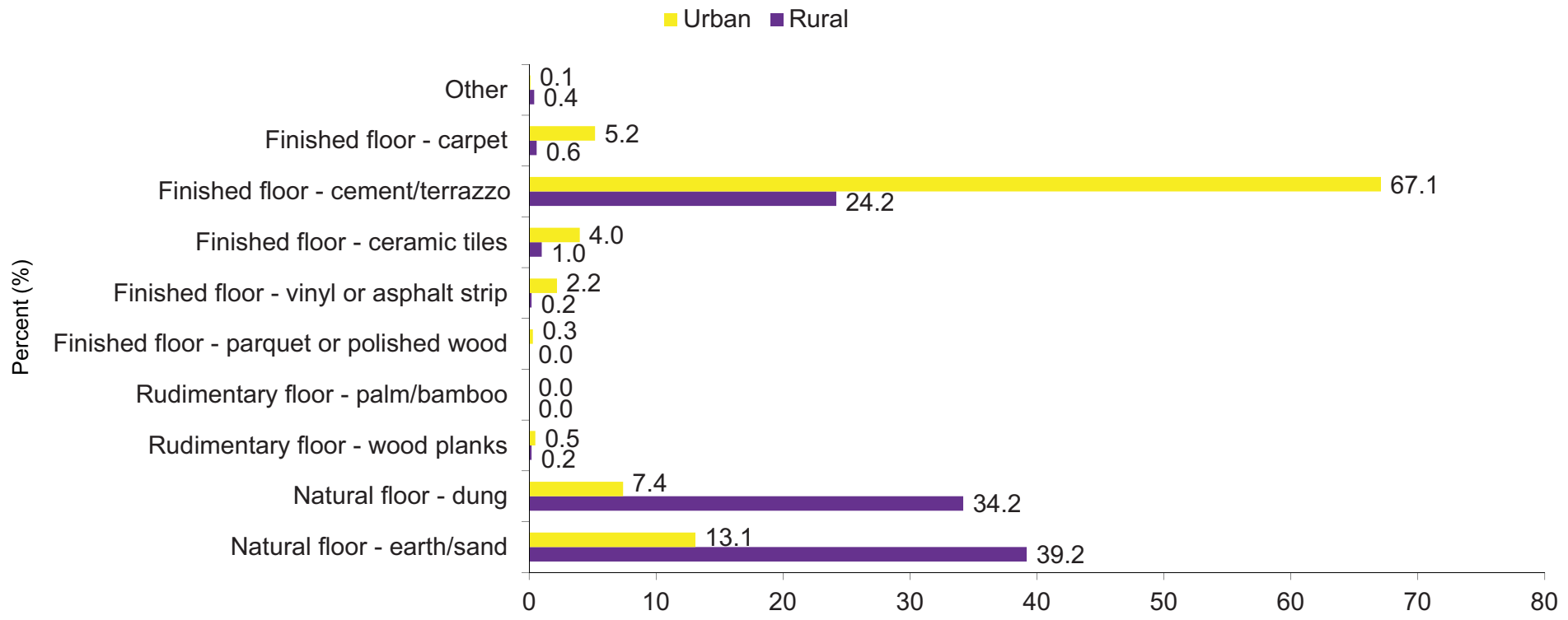
Figure 2.7a: Main source of fuel used for cooking by residence, KAIS 2012



The primary source of fuel for cooking was firewood in rural households and charcoal or kerosene in urban households.

More than 80% of rural households used solid fuel or firewood for cooking compared to 18.7% of urban households. The main sources of fuel for urban households were charcoal (29.9%), kerosene (26.9%), and liquid petroleum gas or natural gas (18.3%).

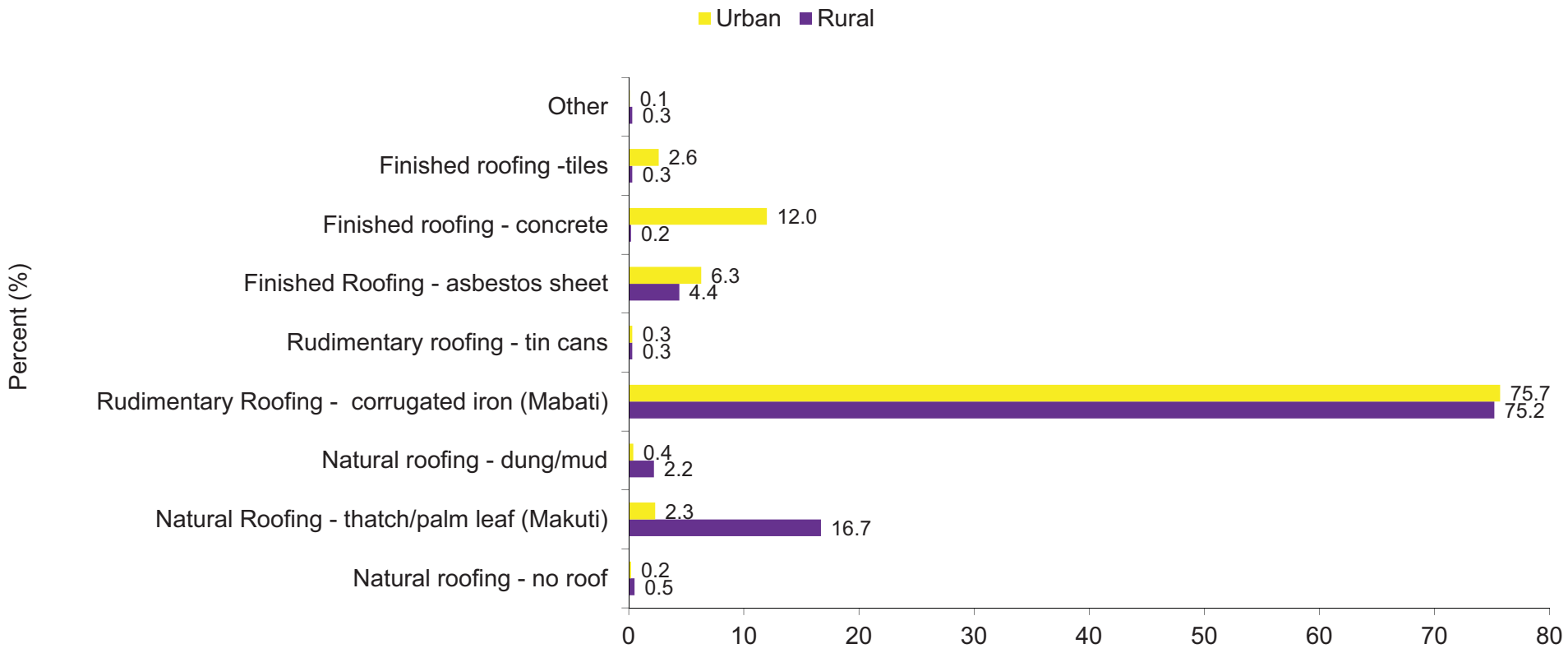
Figure 2.7b: Main type of floor materials by residence, KAIS 2012



The primary type of floor material is cement or terrazzo in urban dwellings and earth, sand, or dung in rural dwellings.

In urban households, over two-thirds reported that their floor was made of cement or terrazzo. In contrast, the most common materials used for floors in rural households were earth or sand (39.2%), dung (34.2%), and cement or terrazzo (24.2%).

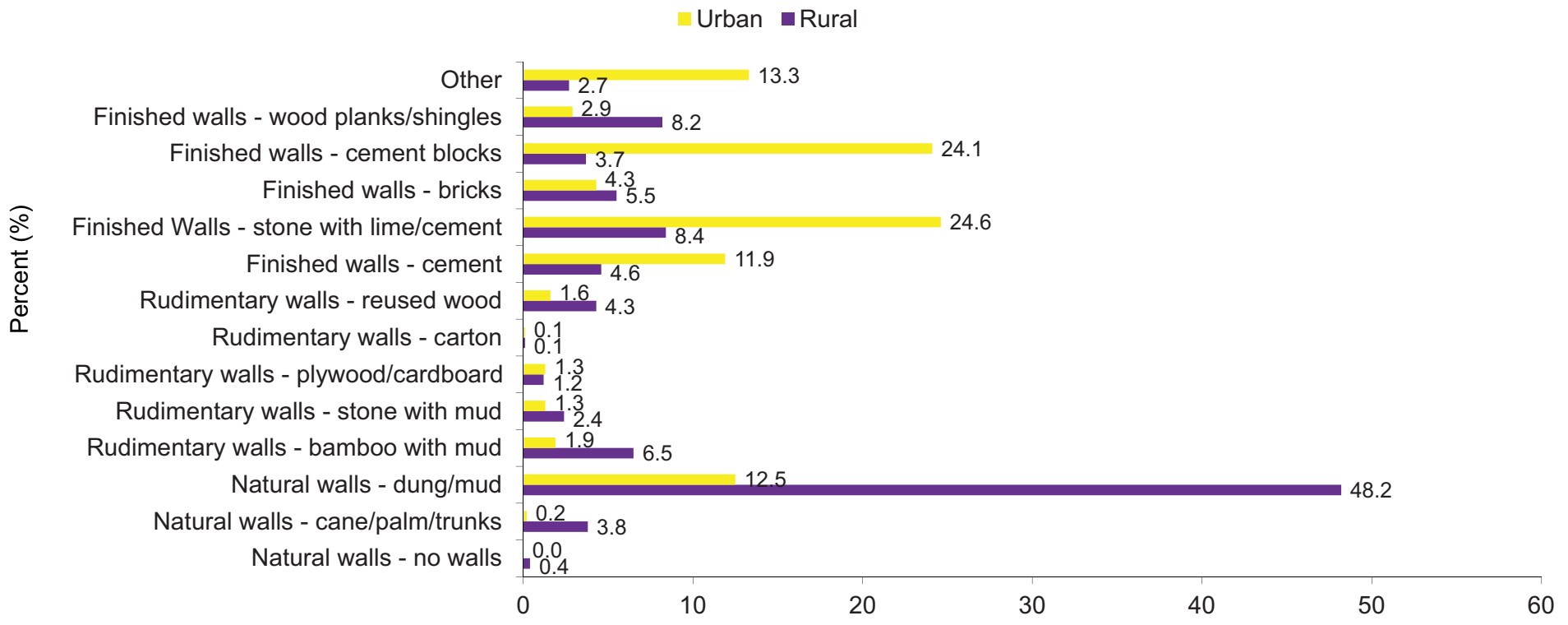
Figure 2.7c: Main roofing materials by residence, KAIS 2012



The primary type of roofing material was corrugated iron in both urban and rural residences.

Corrugated iron sheets were the main roofing materials used by all households (75.4%). The second most common type of roofing material used was thatch/palm leaf, which was used by 16.7% of households in rural residences and 2.3% of households in urban residences.

Figure 2.7d: Main wall materials by residence, KAIS 2012

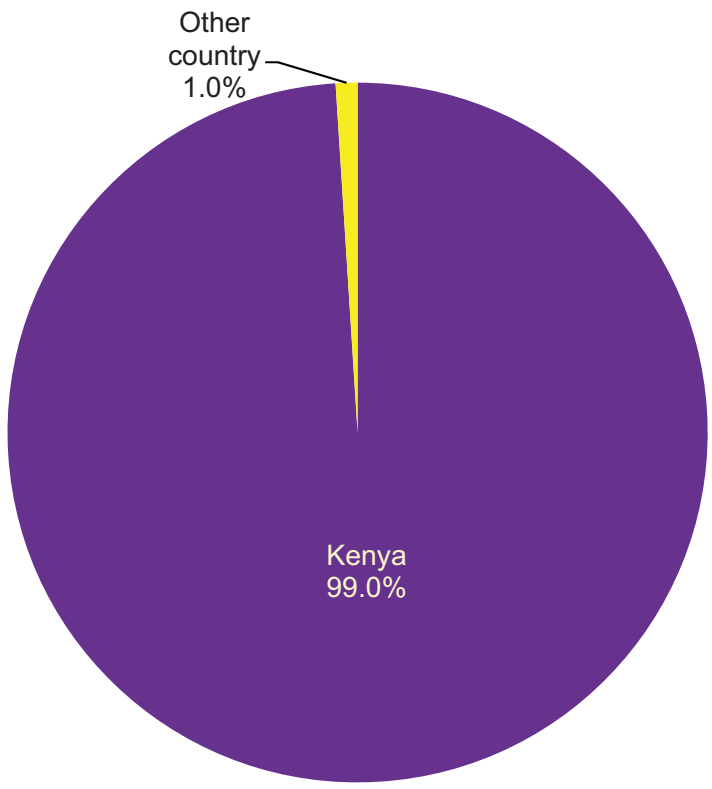


The most common type of wall materials were stone or cement block in urban households and natural dung or mud in rural households.

There was a noticeable residential variation in the type of wall materials. Almost half (48.2%) of rural households had natural walls made from mud or dung. In contrast, the most common material for walls in urban households were cement blocks (24.1%) and stone with cement (24.6%).

2.8 MIGRATION

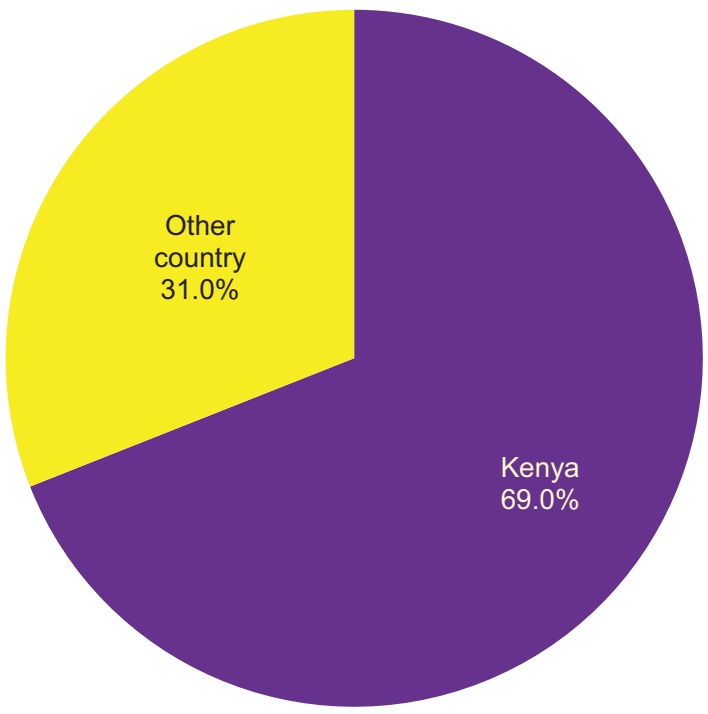
Figure 2.8a: Country of birth, KAIS 2012



Only one percent of survey participants were born outside of Kenya.

Overall, 1.0% of the total survey population was born outside of Kenya and considered migrants.

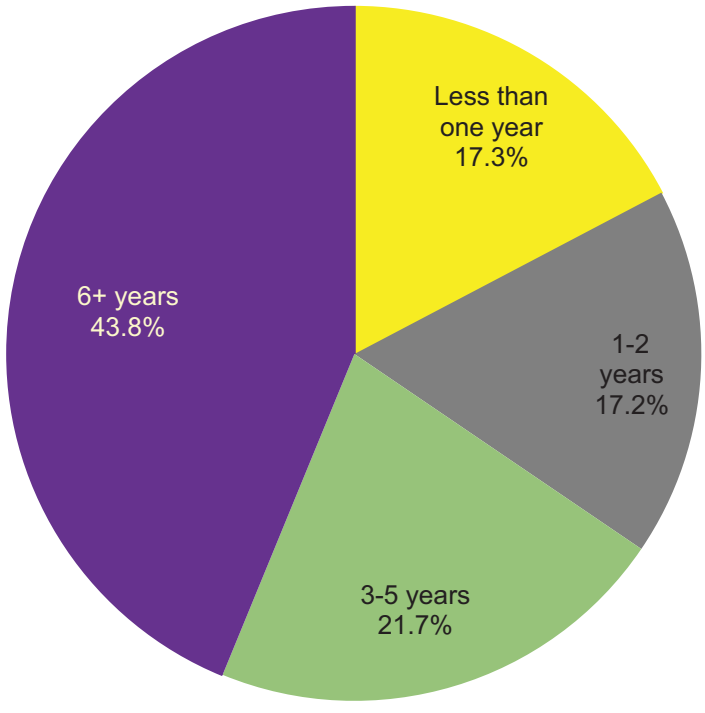
Figure 2.8b: Country of nationality, among participants born outside of Kenya, KAIS 2012



Among those born outside of Kenya, 69% reported they were Kenyan at time of the survey.

Among migrants, 31% reported that their nationality was non-Kenyan and 69% reported that they were Kenyan.

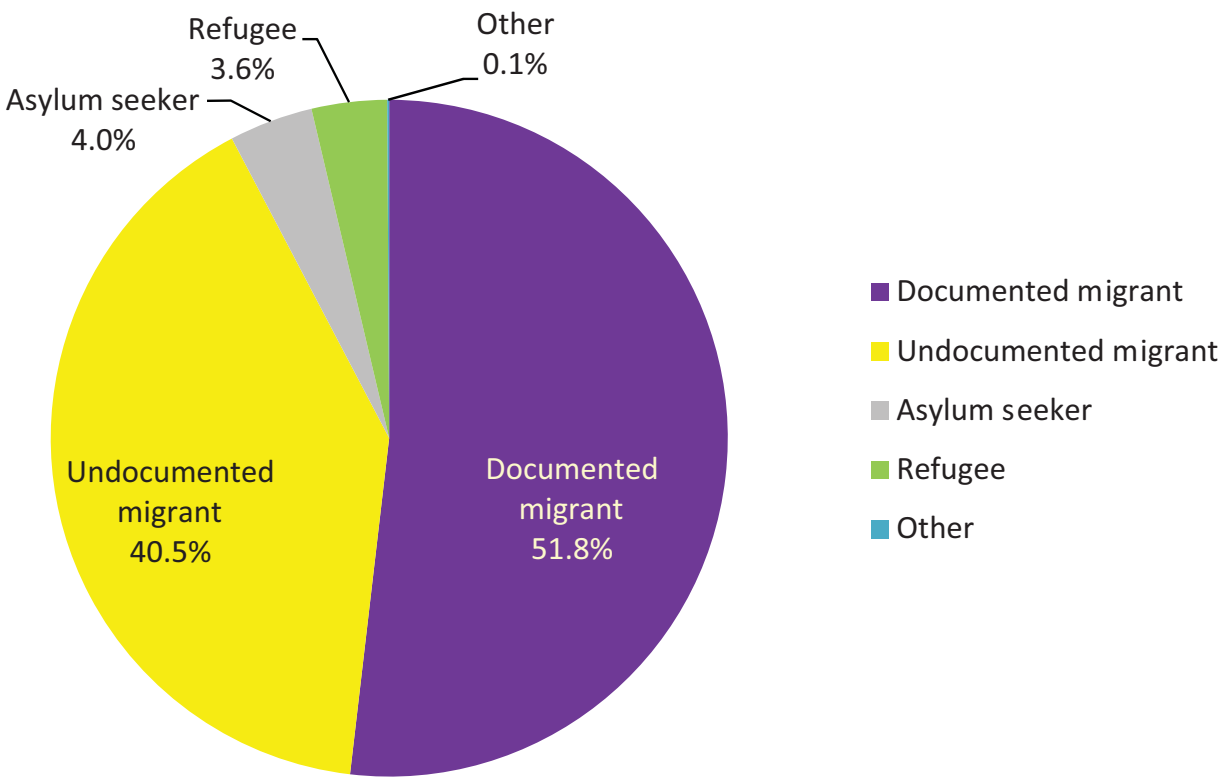
Figure 2.8c: Time lived in Kenya among migrants, KAIS 2012



The majority of migrants had lived in Kenya for three or more years.

Nearly half (43.8%) of migrants had resided in Kenya for six or more years, 21.7% for between three and five years, 17.2% had resided in Kenya for between one and two years, and 17.3% had resided in Kenya for less than one year.

Table 2.8d: Immigration status of international migrants, KAIS 2012



Forty percent of migrants indicated that they reside in Kenya without any immigration documentation.

We found that 41% of migrants reported that they resided in Kenya without immigration documentation, while 52% held a valid pass or permit to stay in Kenya.

2.9 Gaps and Unmet Needs

- Of the 7.7% households affected by HIV nationally, the majority had one HIV-infected person. Continued identification of HIV-affected households is important in providing support and health services to HIV-infected individuals.
- In addition to identifying HIV-affected households, it is important to study changes within these households that can be attributed to HIV. This can be achieved by sub-studies that evaluate the financial, logistical and physical burdens that have resulted from HIV infection.

PREVALENCE OF HIV

3

3.1 Key Findings

- Overall, 5.6% of adults and adolescents aged 15-64 years were infected with HIV, representing an estimated 1,192,000 people.
- Women were more likely to be infected (6.9%) than men (4.4%).
- There was wide geographical variation in adult HIV prevalence ranging from 2.1% in Eastern North region to 15.1% in Nyanza region.
- An estimated 677,000 adults and adolescents (5.1%) in rural areas were infected with HIV compared with an estimated 515,000 adults and adolescents (6.5%) in urban areas.
- Approximately one in five widowed men and women were infected with HIV.

3.2 Introduction

This chapter presents patterns of HIV infection in Kenya among adults and adolescents aged 15-64 years at the time of the survey by select demographic characteristics and estimates population sizes of HIV-infected persons. HIV infection among children aged 18 months to 14 years are described in chapter 12. Comparisons of estimates among respondents aged 15-49 years between KAIS 2012 and previous surveys are provided in Chapter 4 of this report. Appendix B provides sample sizes, standard errors and 95% confidence intervals for estimates presented in this chapter.

Population estimates reported in this chapter were calculated using non-normalized survey weights which were reflective of the 2012 projected population data in the 2009 Kenya Population and Housing Census. Detailed methods used for calculating population estimates are described in Appendix A.

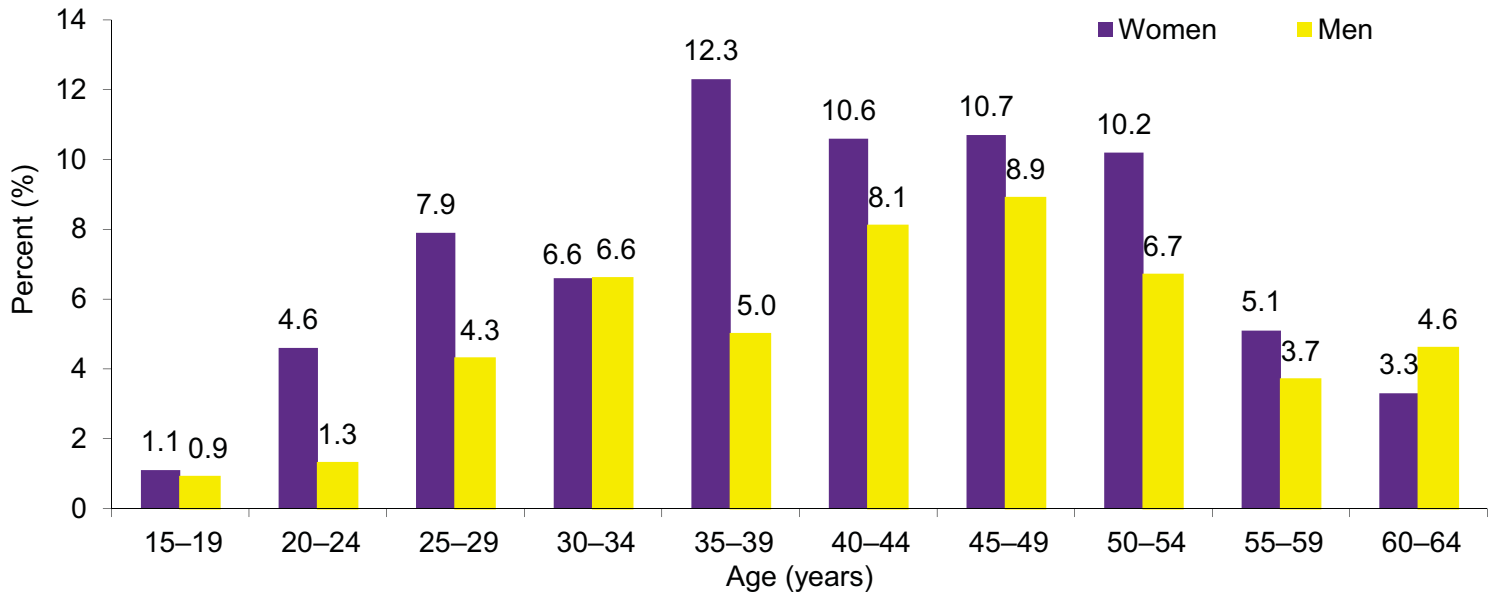
Data in Context: What is the difference between HIV prevalence estimated by a survey and by a mathematical model?

Similar to other countries, Kenya generates annual estimates and trends in HIV infection in the general population using the methods recommended by the Joint United Nations Programme for HIV/AIDS (UNAIDS) and implemented in the Spectrum model. These estimates are calculated using standardized mathematical methods that synthesize all historical HIV surveillance data conducted in a country, including ANC sentinel surveillance data and national population-based surveys, to produce a curve that outputs indicators such as the number of persons living with HIV/AIDS, the number of new HIV infections, and number of HIV-related deaths, from the beginning of a country's HIV epidemic to the current year. These indirect estimates are reported annually to the UNAIDS and published in a global report each year. Based on the Spectrum model, the 2012 mathematically modelled estimate of HIV prevalence among Kenyans aged 15-64 years was 5.9% (95% CI 5.5% - 6.3%), representing an estimated 1,343,000 persons (range 1,250,000 - 1,450,000) living with HIV in Kenya in 2012.

Kenya joins a number of countries in sub-Saharan Africa that can also estimate HIV prevalence directly through national population-based surveys designed to provide nationally-representative estimates of HIV indicators in the general population. Kenya that has conducted four national population-based surveys since 2003: the Kenya Demographic and Health Survey (KDHS) 2003 and 2008-09 and the Kenya AIDS Indicator Survey (KAIS) 2007 and 2012. Based on the KAIS 2012, the 2012 survey estimate of HIV prevalence among persons aged 15-64 years was 5.6% (95% CI 4.9%-6.3%), representing an estimated 1,192,000 persons (95% CI 1,037,000 - 1,347,000) living with HIV in Kenya in 2012.

Both surveys and mathematical models generate “estimates” of national HIV prevalence, meaning that they approximate the true value of HIV prevalence in a country. Because they are estimates, a lower and upper bound for the estimate is provided, which represents a range of values around the estimate within which the true value of HIV prevalence is expected to fall within a specified level of certainty. Because the methodologies for estimating HIV prevalence from a mathematical model and survey are not the same, the estimates of HIV prevalence from a mathematical model and a survey are expected to differ slightly. In 2012, the estimate of HIV prevalence from the model was 5.9% (approximately 1.3 million persons living with HIV), but was 5.6% (approximately 1.2 million persons living with HIV) based on the survey. However, we note that the upper and lower bounds for the two estimates overlap with each other, indicating that the difference between the two estimates is not “statistically significant”. In other words, this means that the difference observed between the two estimates is most likely explained by chance alone.

Figure 3.3a: HIV prevalence among women and men aged 15–64 years by age group, KAIS 2012

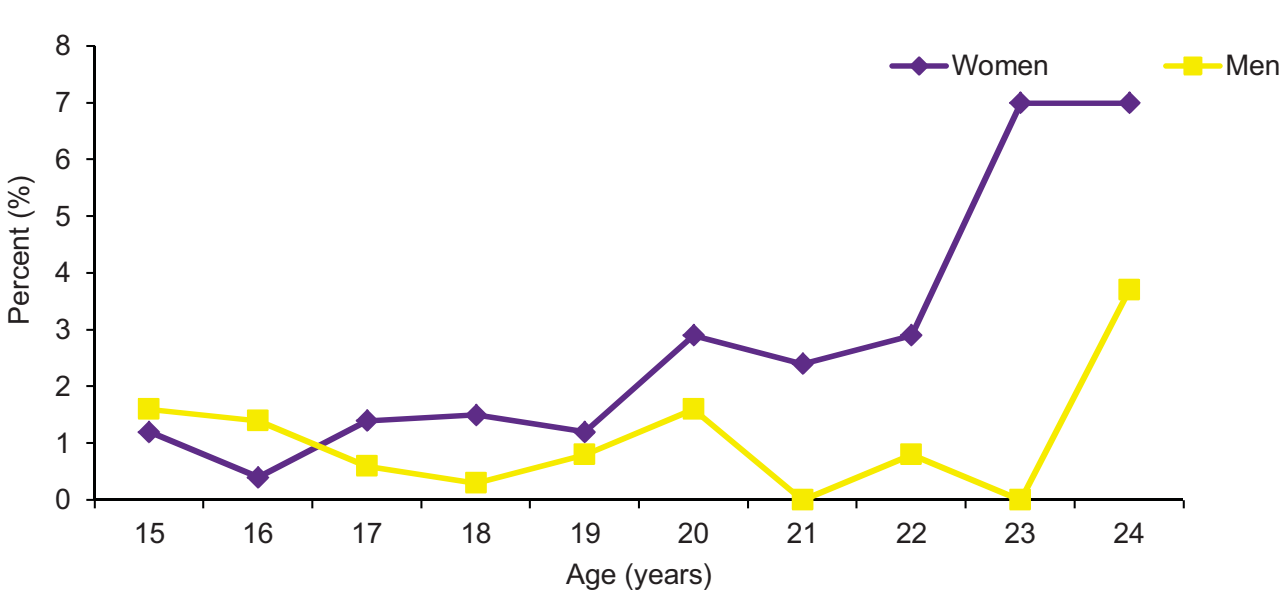


HIV prevalence increased with advancing age peaking at 35–39 years and 45–49 years among women and men respectively.

3.3 HIV Prevalence by Age Group and Sex

HIV prevalence was significantly higher among women than men aged 20–29 years and 35–39 years. The highest prevalence among women was among those aged 35–39 years and 45–49 years among men. HIV prevalence peaked at age group 45–49 years among both women and men and thereafter declined with increasing age.

Figure 3.3b: HIV prevalence among women and men aged 15-24 years, KAIS 2012

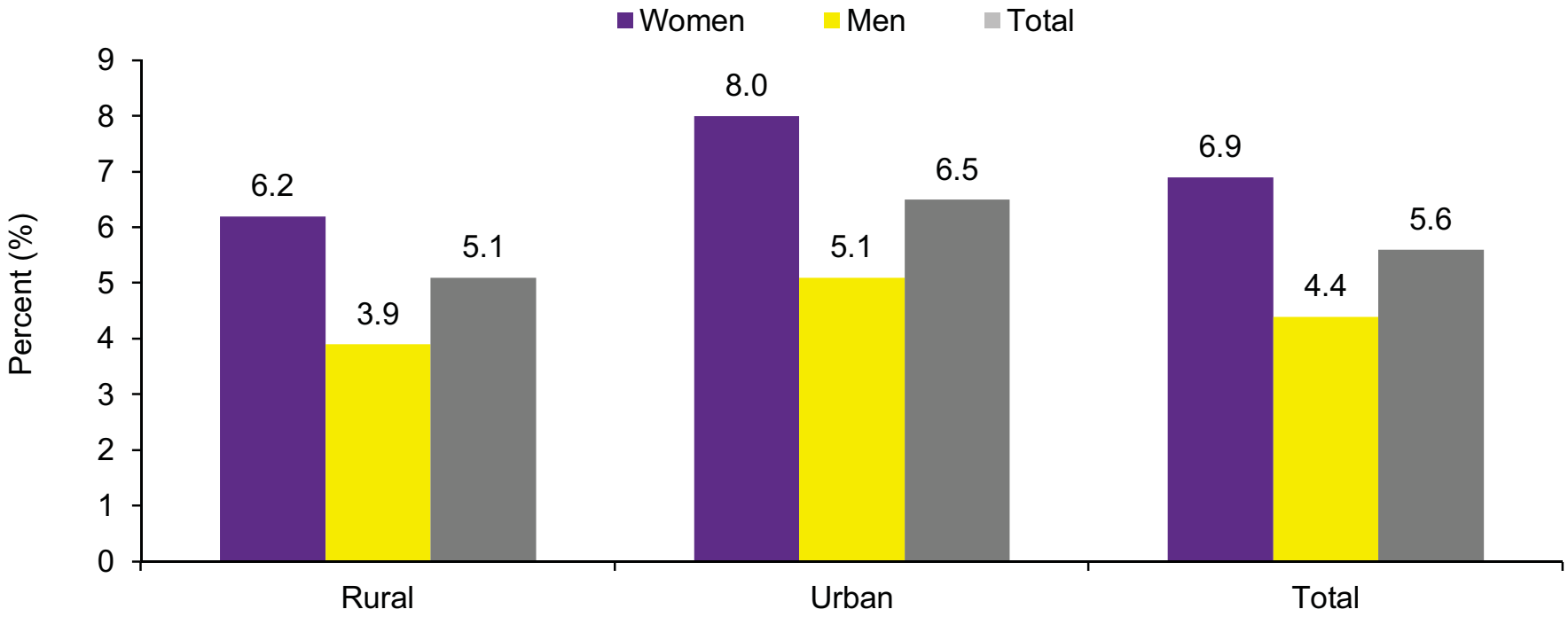


Among female youth, HIV prevalence increased linearly with increasing age. Among male youth, HIV prevalence was stable and low until age 24 years.

Among youth aged 15–24 years, HIV prevalence was higher among women than men from the age of 17 years. Among women, HIV increased linearly with increasing age, with the highest increase between the ages of 22 and 23 years. Among men, HIV remained low and stable until aged 24 years.

3.4 HIV Prevalence by Residence

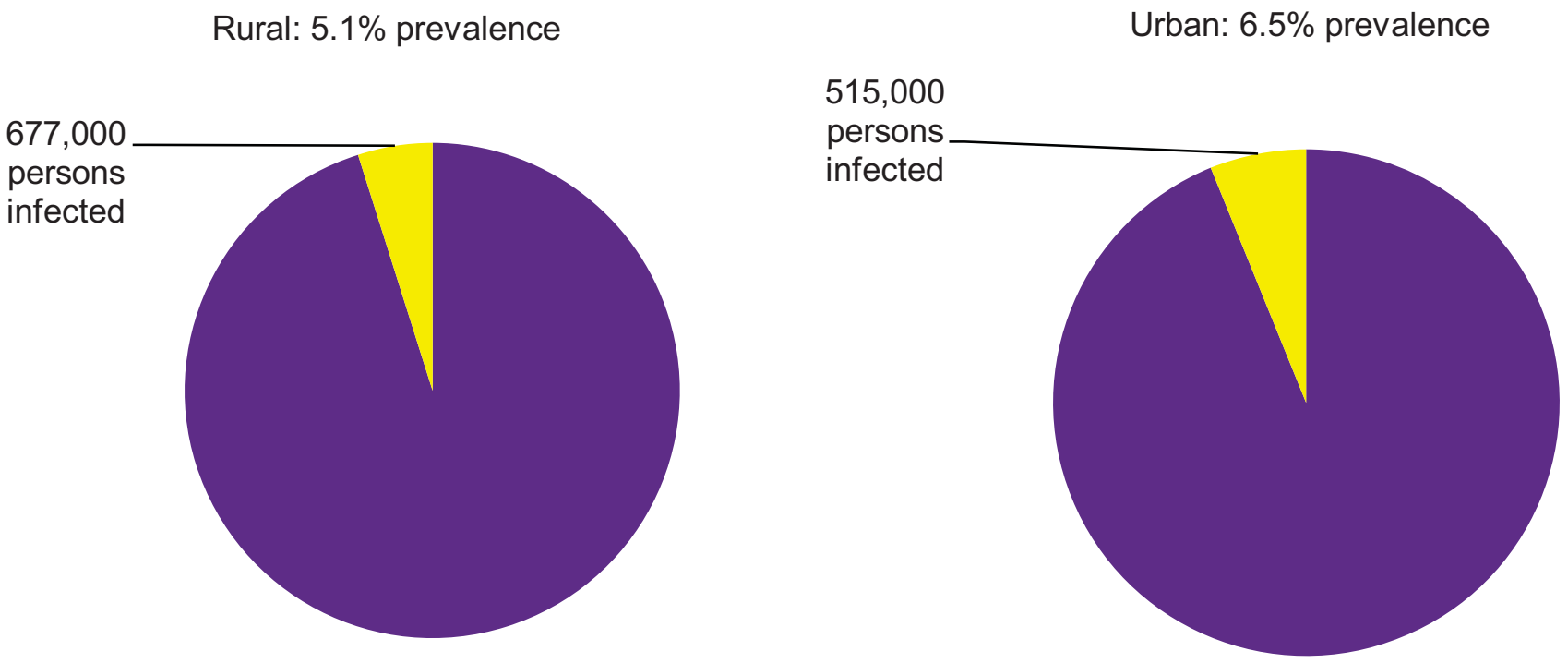
Figure 3.4a: HIV prevalence among women and men aged 15–64 years by residence, KAIS 2012



HIV prevalence was higher in urban than rural areas. Women had a higher prevalence than men in both rural and urban areas.

Overall, 6.5% of urban residents were infected with HIV compared with 5.1% of rural residents. Women had higher HIV prevalence than men in both rural and urban residences. HIV prevalence among women in urban areas was 8.0% compared with 6.2% in rural areas. Among men, the prevalence was 5.1% in urban areas compared with 3.9% in rural areas.

Figure 3.4b: Estimated[1,2] number of HIV-infected adults and adolescents aged 15–64 years by residence, KAIS 2012



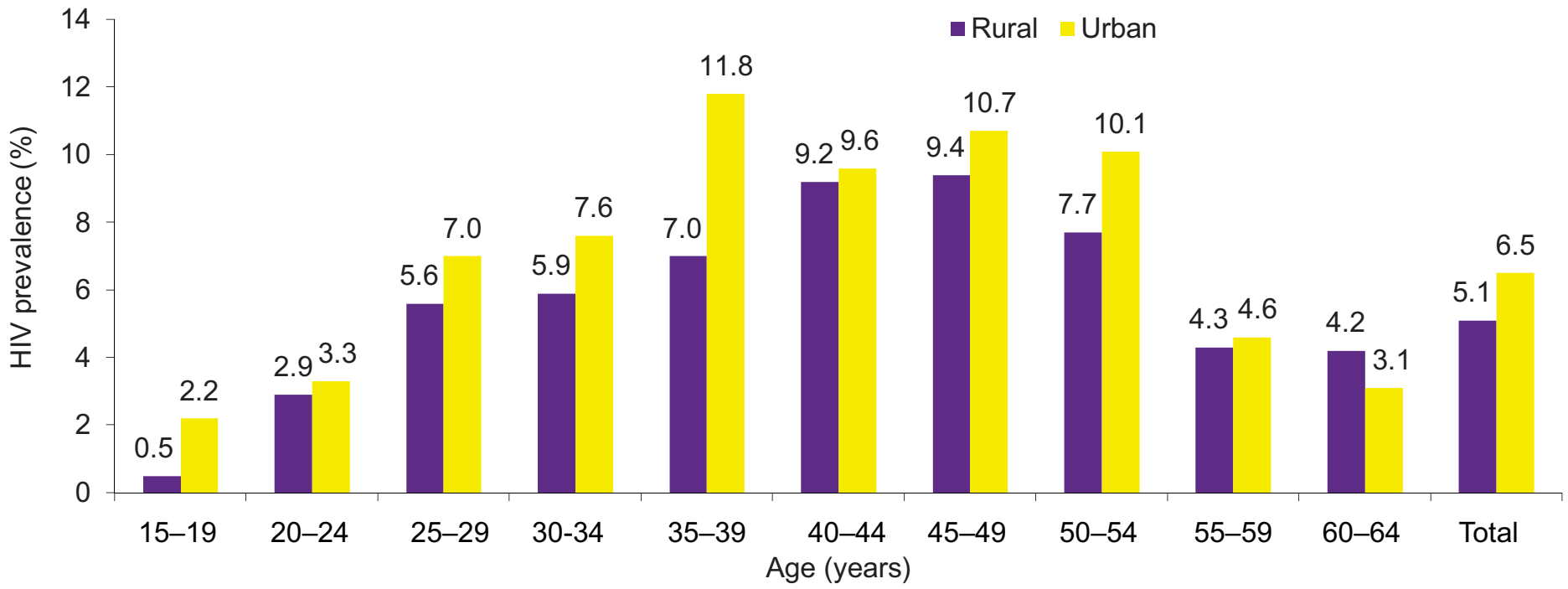
The absolute number of HIV infections was higher in rural areas compared to urban areas.

Though the prevalence of HIV infection was lower in rural areas compared to urban areas, the absolute number of infections was greater in rural than urban areas, given that the majority of Kenyans reside in rural areas (approximately six out of ten persons in the country). An estimated 677,000 adults and adolescents in rural areas were infected with HIV, compared to 515,000 adults and adolescents in urban areas.

[1] The 2012 national estimated population for adults and adolescents aged 15-64 years was calculated using un-normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)

[2] Estimates rounded to the nearest 1000

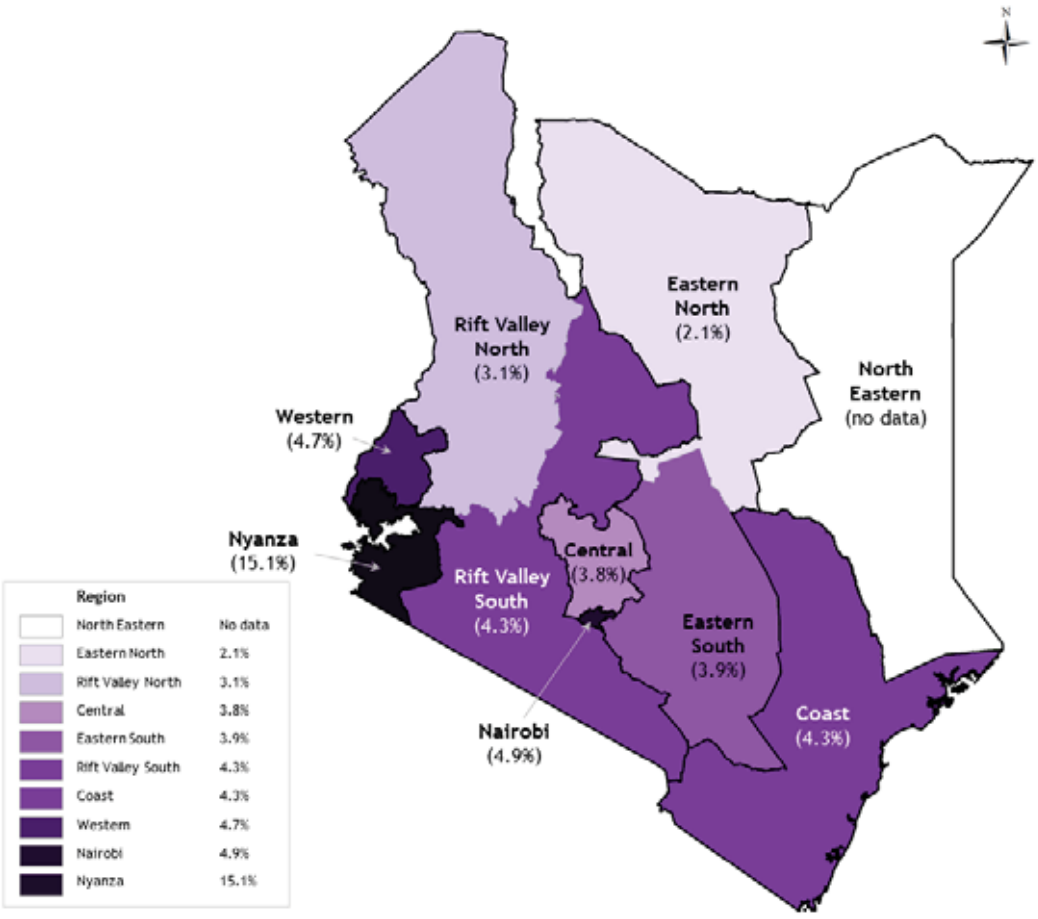
Figure 3.4c: HIV prevalence among rural and urban residents by age group, KAIS 2012



HIV prevalence peaked among adults aged 45–49 years in rural areas and 35–39 years in urban areas.

HIV prevalence differed significantly across age groups in both rural and urban areas. For rural areas, peak prevalence occurred among adults aged 45–49 years at 9.4% while in urban areas, HIV prevalence peaked among adults aged 35–39 years at 11.8%. For both rural and urban areas, the lowest prevalence occurred among youth aged 15–19 years (0.5% rural and 2.2% urban).

Figure 3.5a: HIV prevalence among adults and adolescents aged 15–64 years by region, KAIS 2012

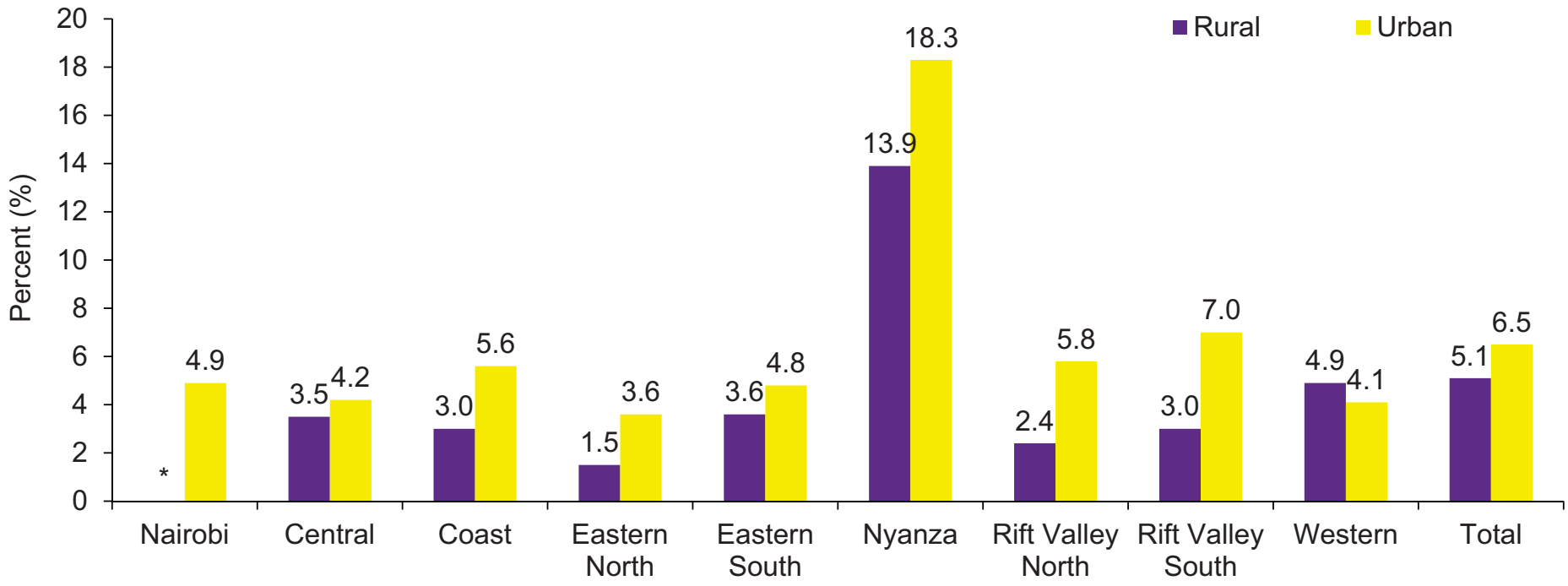


There were wide geographical variations in HIV prevalence in Kenya with Nyanza region being disproportionately affected.

3.5 HIV Prevalence by Region

HIV prevalence varied greatly by region with a low of 2.1% in Eastern North region to 15.1% in Nyanza region. The following graphs and tables present regional HIV prevalence estimates by rural/urban residence and sex. Population estimates for the numbers of women and men infected per region are also provided.

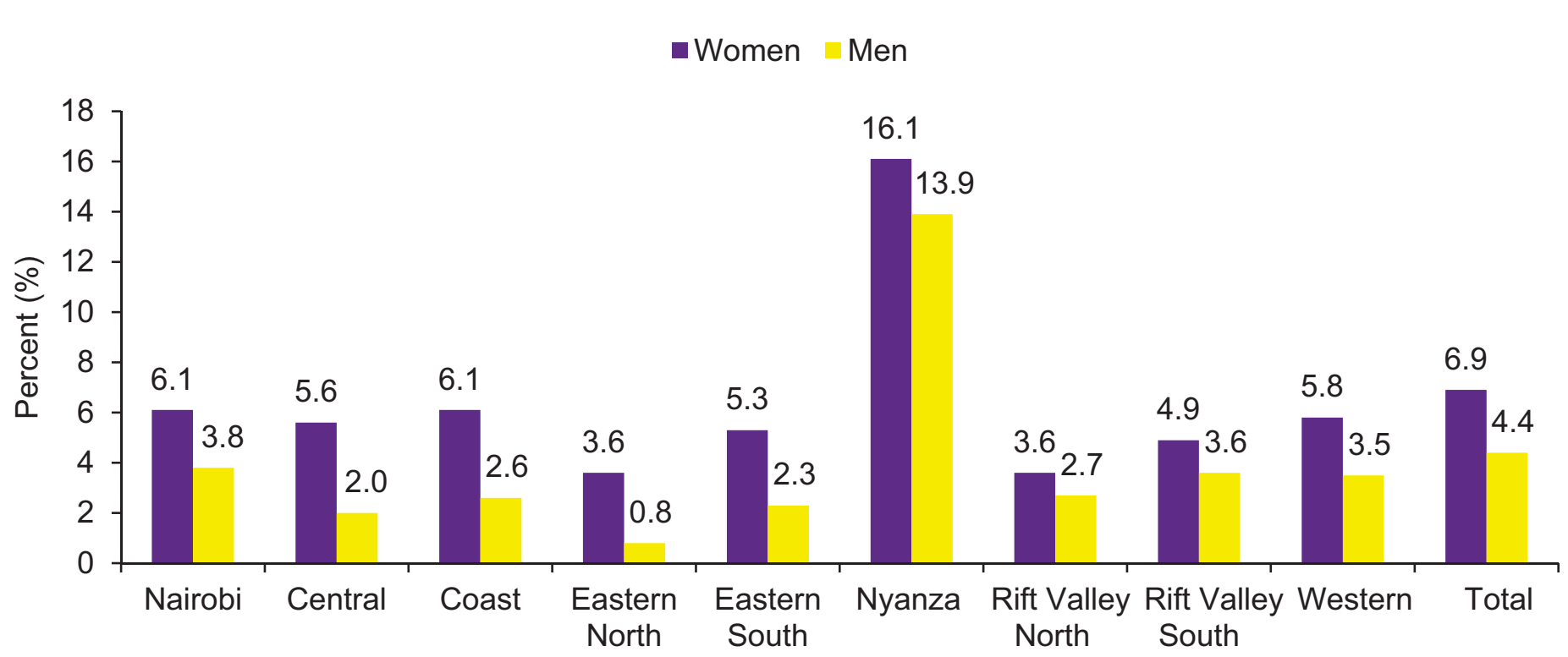
Figure 3.5b: HIV prevalence among adults and adolescents aged 15–64 years by residence and region, KAIS 2012



HIV prevalence was higher in urban compared with rural areas in most regions.

The prevalence of HIV differed across rural and urban areas within regions. HIV prevalence was highest in Nyanza for both rural and urban areas at 13.9% and 18.3% respectively. Eastern North had the lowest prevalence for both rural and urban areas at 1.5% and 3.6% respectively.

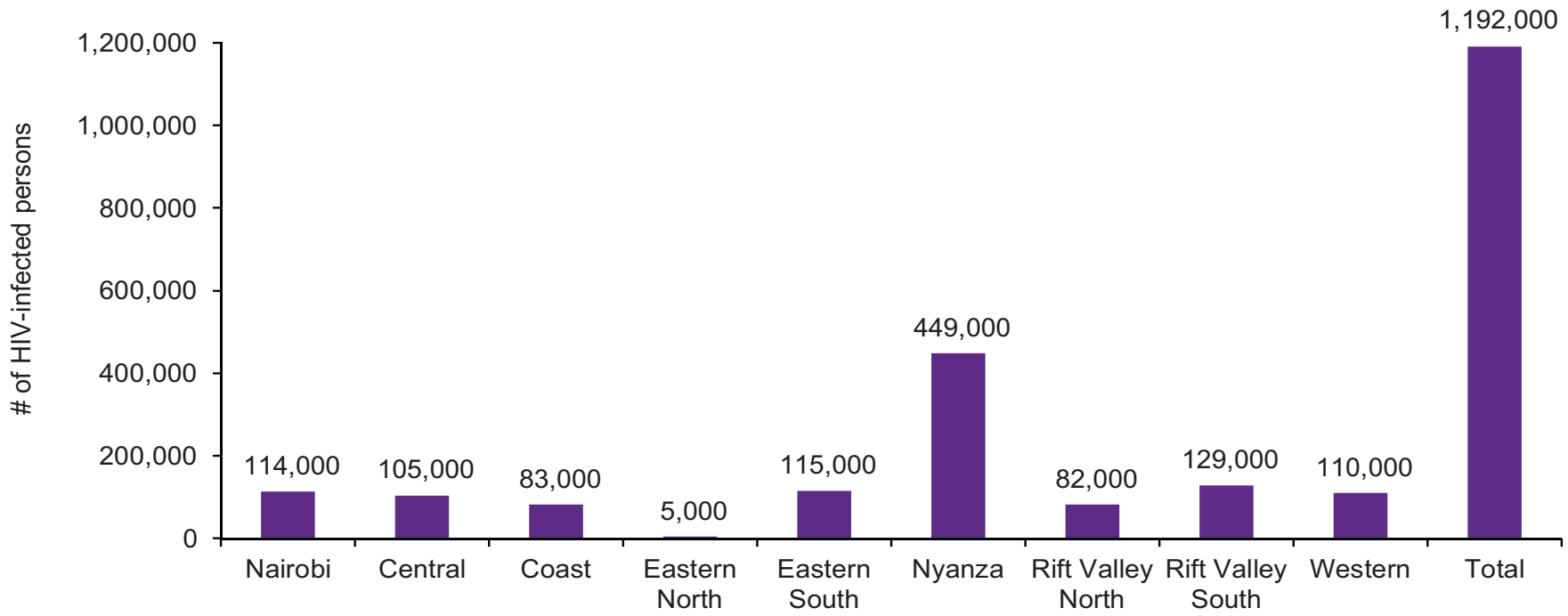
Figure 3.5c: HIV prevalence among women and men aged 15–64 years by region, KAIS 2012



HIV prevalence was higher among women than men in all the regions.

HIV prevalence was consistently higher among women than men in all regions. For women, Nyanza had the highest HIV prevalence at 16.1 percent, and Nairobi and Coast regions had the second-highest at 6.1 percent. Eastern North and North Rift regions recorded the lowest HIV prevalence among women at 3.6 percent each. For men, Nyanza had the highest HIV prevalence at 13.9 percent, Nairobi had the second highest at 3.8 percent, while Eastern North had the lowest at 0.8 percent.

Figure 3.5d: Estimated[3,4] number of HIV-infected adults and adolescents aged 15–64 years by region, KAIS 2012

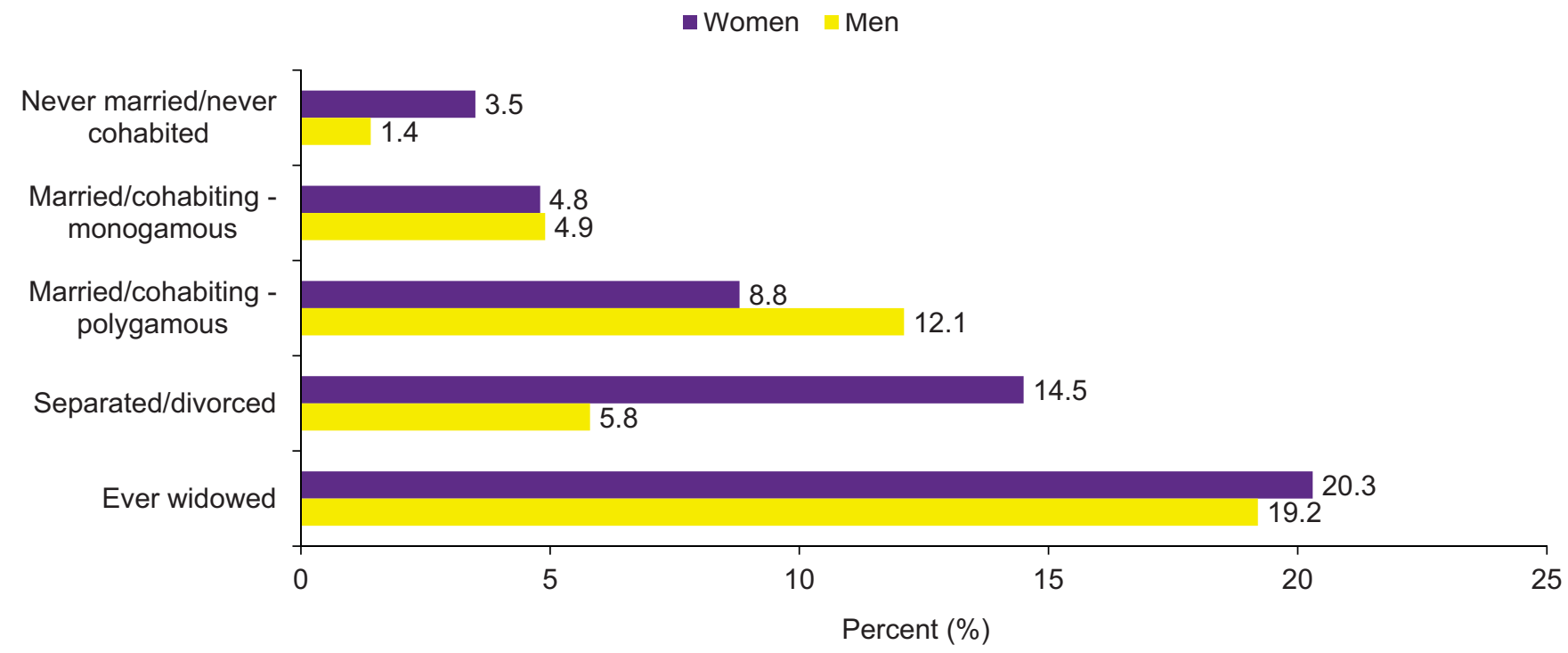


The estimated numbers of HIV-infected persons in Nyanza region represent approximately 40% of all HIV-infected persons.

There were large differences across regions in the estimated number of HIV-infected adults and adolescents. Nyanza region had the largest estimated number of HIV-infected adults (449,000), representing approximately 40% of all persons living with HIV in Kenya. Eastern North region had the lowest estimated number of HIV-infected adults and adolescents (5,000). In urban residences, the highest estimated number of HIV-infected adults and adolescents reside in Nyanza region, followed by Nairobi and South Rift regions. In rural residences the highest estimated number of HIV-infected adults and adolescents residence in Nyanza region, followed by Western and Eastern South regions.

3.6 HIV Prevalence by Marital Status

Figure 3.6: HIV prevalence among women and men aged 15–64 years by marital status, KAIS 2012



HIV prevalence was significantly higher among widowed women and men compared to other categories of marital status.

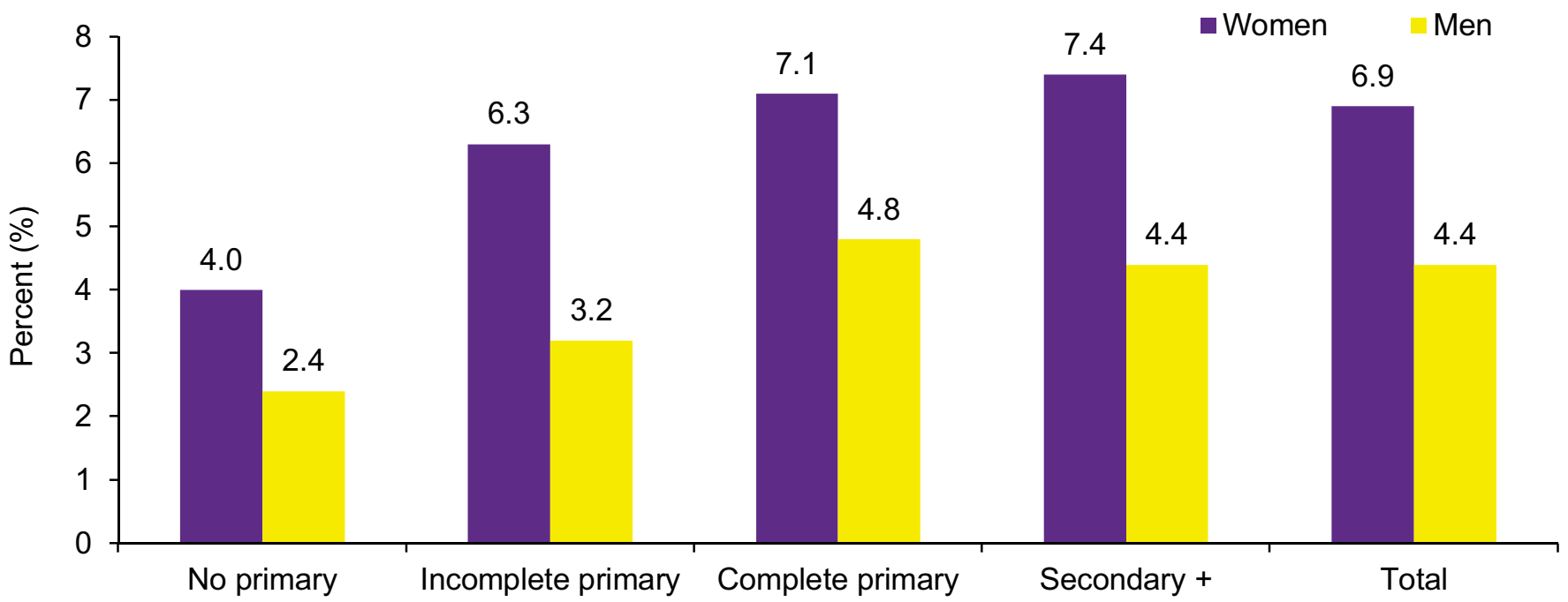
HIV prevalence varied significantly by marital status. HIV prevalence was highest among women (20.3%) and men (19.2%) who had ever been widowed. Women who had been separated or divorced (14.5%) and men in polygamous marital relationships (12.1%) also had high HIV prevalence. Women and men who had never married or cohabited had the lowest prevalence rates, at 3.5% and 1.4% respectively.

[3] The 2012 national estimated population for adults and adolescents aged 15-64 years was calculated using un-normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)

[4] Estimates rounded to the nearest 1000

3.7 HIV Prevalence by Level of Educaiton

Figure 3.7: HIV prevalence among women and men aged 15-64 years by level of education[5], KAIS 2012

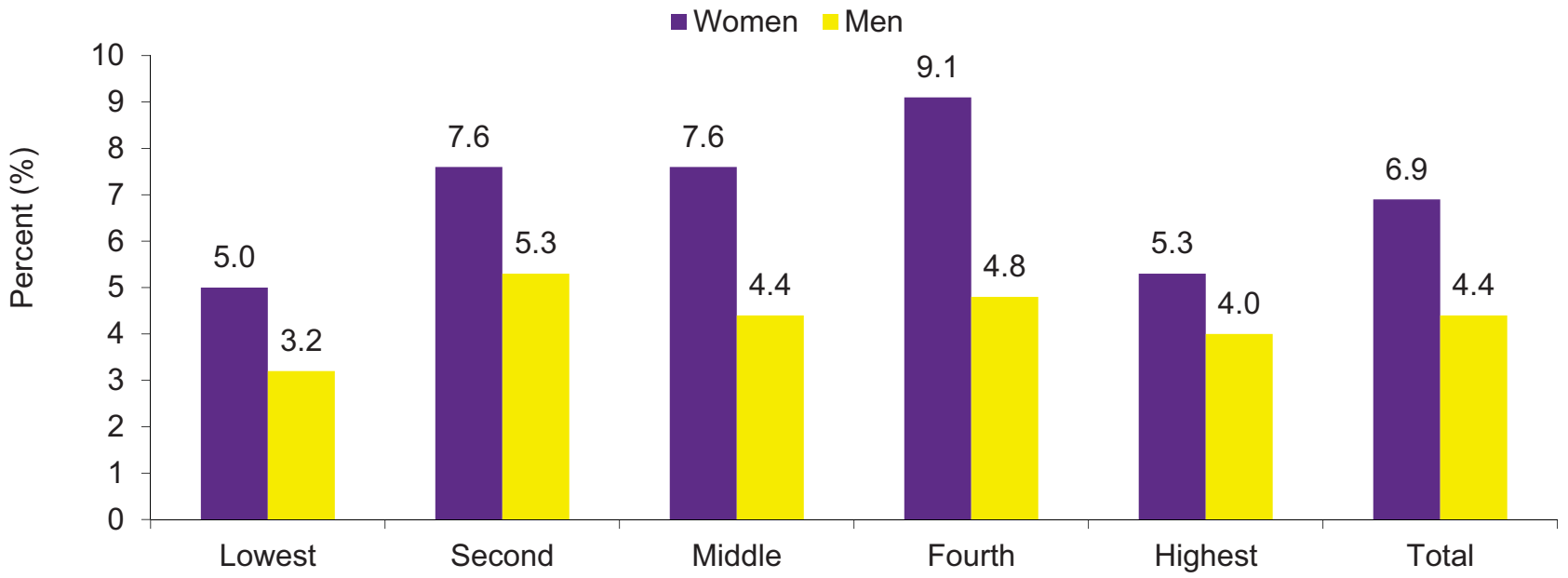


Among women, HIV prevalence differed significantly by level of education.

HIV prevalence varied by level of education. HIV prevalence was lowest among women (4.0%) and men (2.4%) reporting no primary education. Among women, HIV prevalence was highest among those reporting secondary or higher education at 7.4%. Among men, HIV prevalence was highest among those reporting complete primary education (4.8%).

3.8 HIV Prevalence by Wealth Index[6]

Figure 3.8a: HIV prevalence among women and men aged 15–64 years by household wealth index KAIS 2012



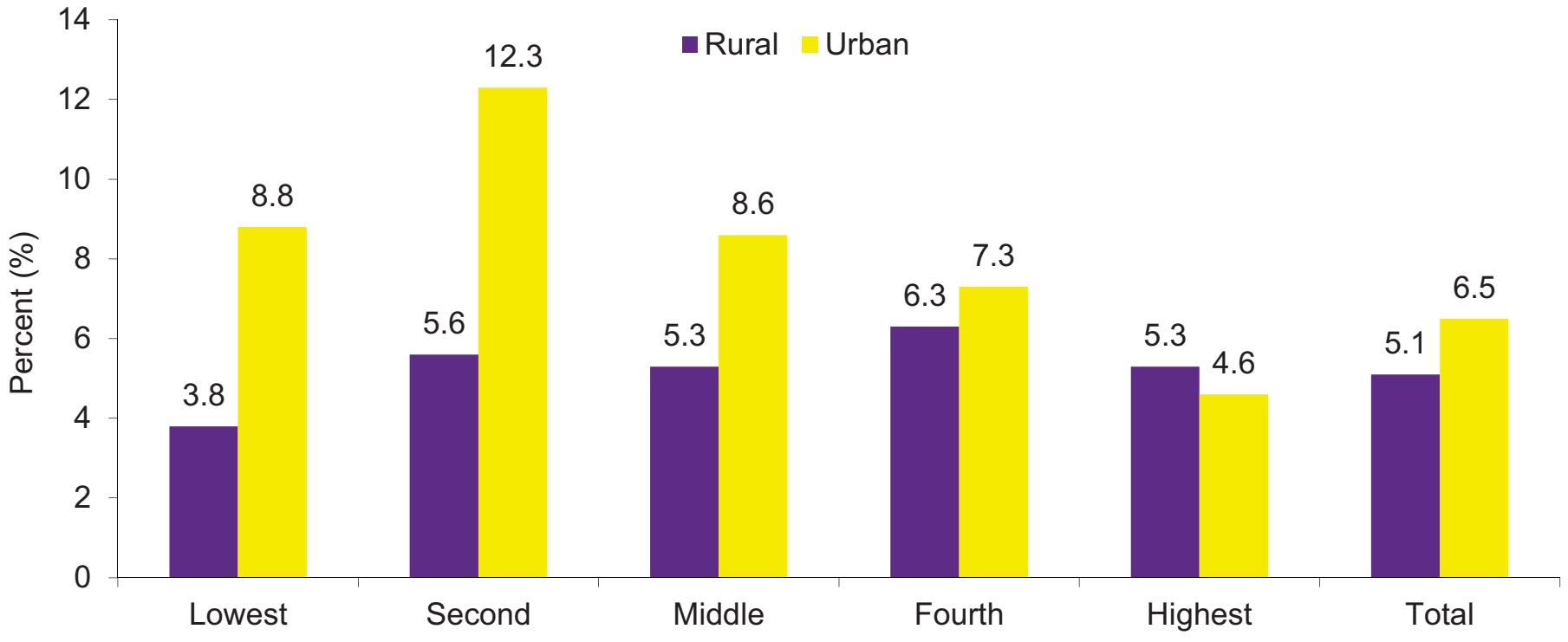
HIV prevalence varied by wealth index for women but not for men.

HIV prevalence varied across categories of wealth index for women but not for men. Within each wealth quintile HIV prevalence appeared to be higher among women than men. For both women and men, HIV prevalence was lowest among those in the lowest wealth quintile.

[5] Secondary + includes any years of secondary schooling whether completed or not.

[6] The household wealth index was a composite of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principal components analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with an equal number of individuals (quintiles), ranging from the lowest to the highest level of wealth.

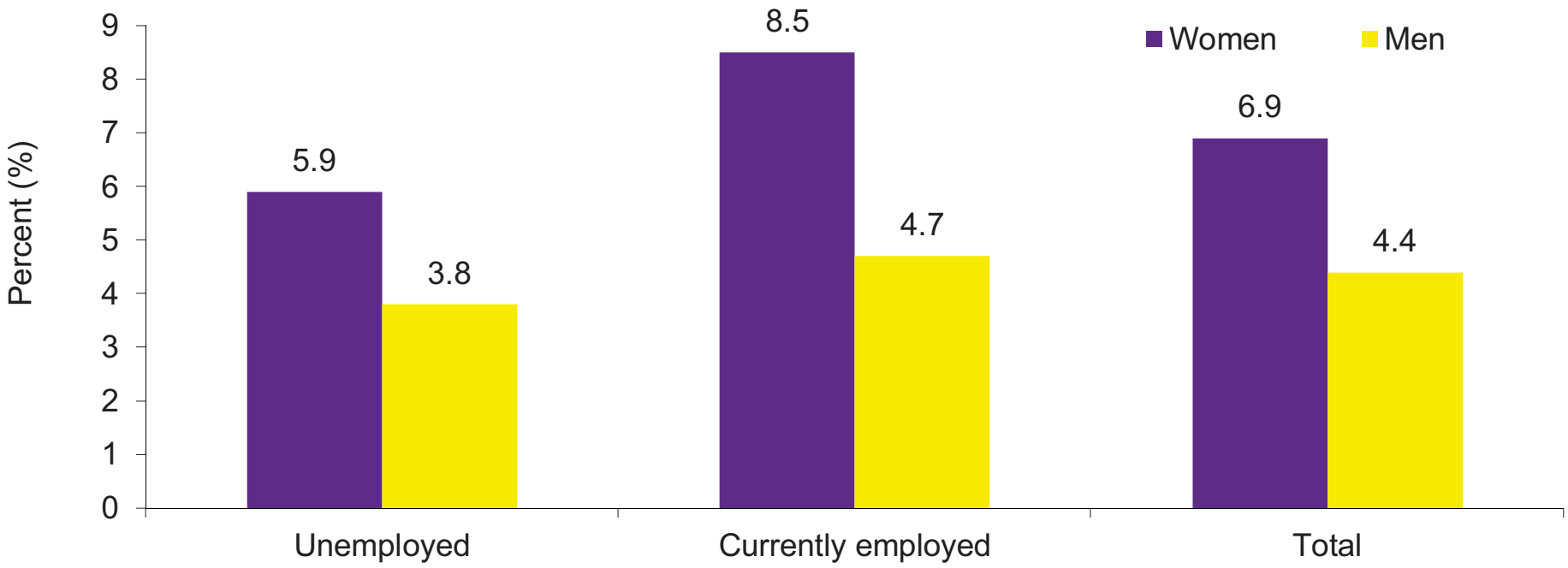
Figure 3.8b: HIV prevalence among rural and urban residents aged 15–64 years by wealth index, KAIS 2012



HIV prevalence varied significantly across wealth quintiles among persons residing in urban areas but not among those residing in rural areas.

HIV prevalence varied significantly by wealth index among persons residing in urban areas. However, this was not the case for persons residing in rural areas. In rural areas, HIV prevalence was highest among those in the fourth wealth quintile, while in urban areas, HIV prevalence was highest among those in the second wealth quintile.

Figure 3.8c: HIV prevalence among women and men aged 15–64 years by current employment status, KAIS 2012

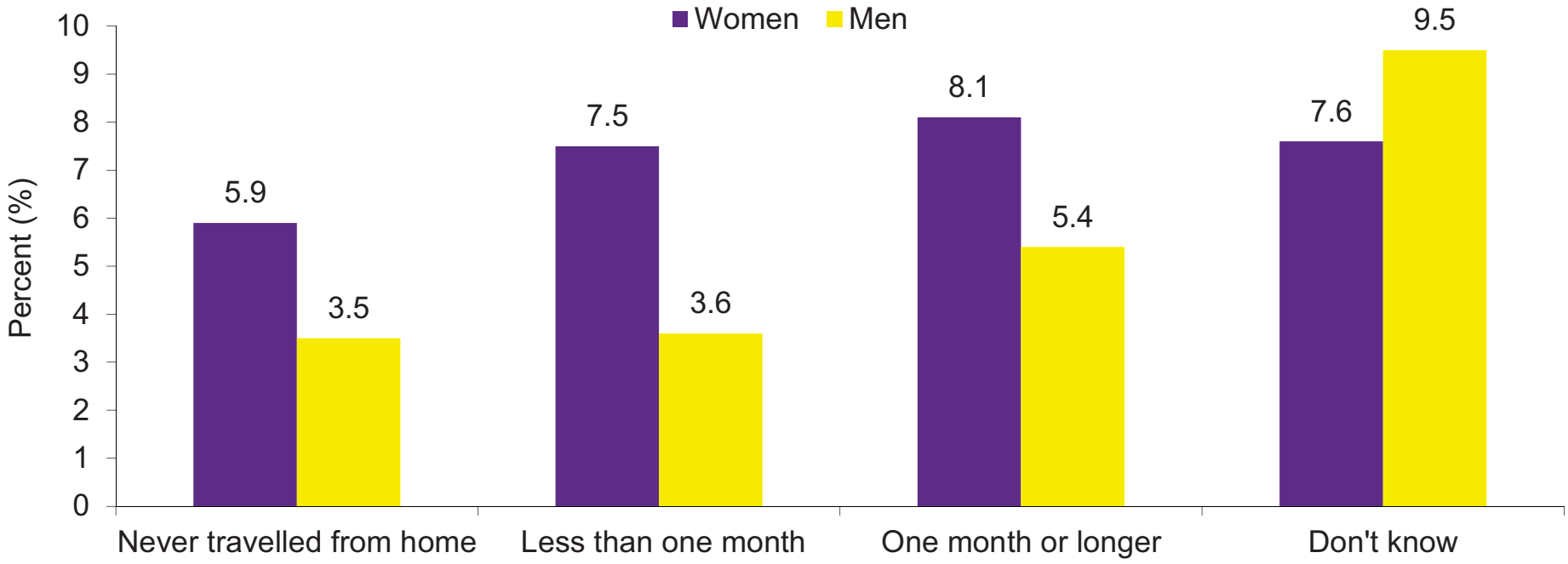


HIV prevalence among adults and adolescents who were currently employed was significantly higher than among adults and adolescents who were currently unemployed.

Current employment was defined as having worked in the week prior to the survey. HIV prevalence appeared to be higher among women and men who were currently employed (8.5% women; 4.7% men) than unemployed (5.9% women; 3.8% men). HIV prevalence was significantly higher among women compared with men for both currently employed and unemployed persons.

3.9 HIV Prevalence by Time Away from Home[7]

Figure 3.9: HIV prevalence among women and men aged 15–64 years who travelled away from home in the 12 months preceding the survey by length of time away from home, KAIS 2012



HIV prevalence did not vary significantly by travel among men or women.

HIV prevalence among adults and adolescents who had travelled away from home for more than a month twelve months prior to the survey was 8.1% among women and 5.4% among men. Although HIV prevalence seemed to increase marginally with the duration of time away from home, the differences were not significant for either women or men.

3.10 Gaps and Unmet Needs

- North Eastern region was not included in KAIS 2012, making it difficult to measure the status of the HIV epidemic in this region and assess progress around HIV prevention, care, and treatment.
- Adults aged 50 years and older continue to be vulnerable to HIV and should be included in prevention programs.
- Key populations at high risk of exposure to HIV are difficult to sample in household surveys. Targeted surveys focusing on key populations are needed to understand their contribution to the HIV epidemic.
- As management of governmental services transitions to the county level, generalization for KAIS 2012 data can be made only for county clusters at the regional level. Future AIDS Indicator Surveys should consider county-specific surveys to provide the level of detail needed for appropriate planning at the county level.

[7] 3,323 participants reported that they did not know whether they had travelled away from home in the 12 months preceding the survey and are not included in this analysis

4 TRENDS IN HIV PREVALENCE

4.1 Key Findings

- HIV prevalence has declined significantly since 2003 among Kenyans aged 15 to 49 years.
- Peak HIV prevalence among women has been progressively increasing to older age groups from 2003 to 2012.
- HIV prevalence has declined significantly among female youth aged 15 to 24 years.
- HIV prevalence is highest among women and men residing in Nyanza, where rates have remained stable since 2003.
- Since 2003, widowed Kenyans have had the highest HIV prevalence compared to Kenyans who have never married or cohabited, those who have married or cohabited, and those who were previously married but had separated or divorced.

4.2 Introduction

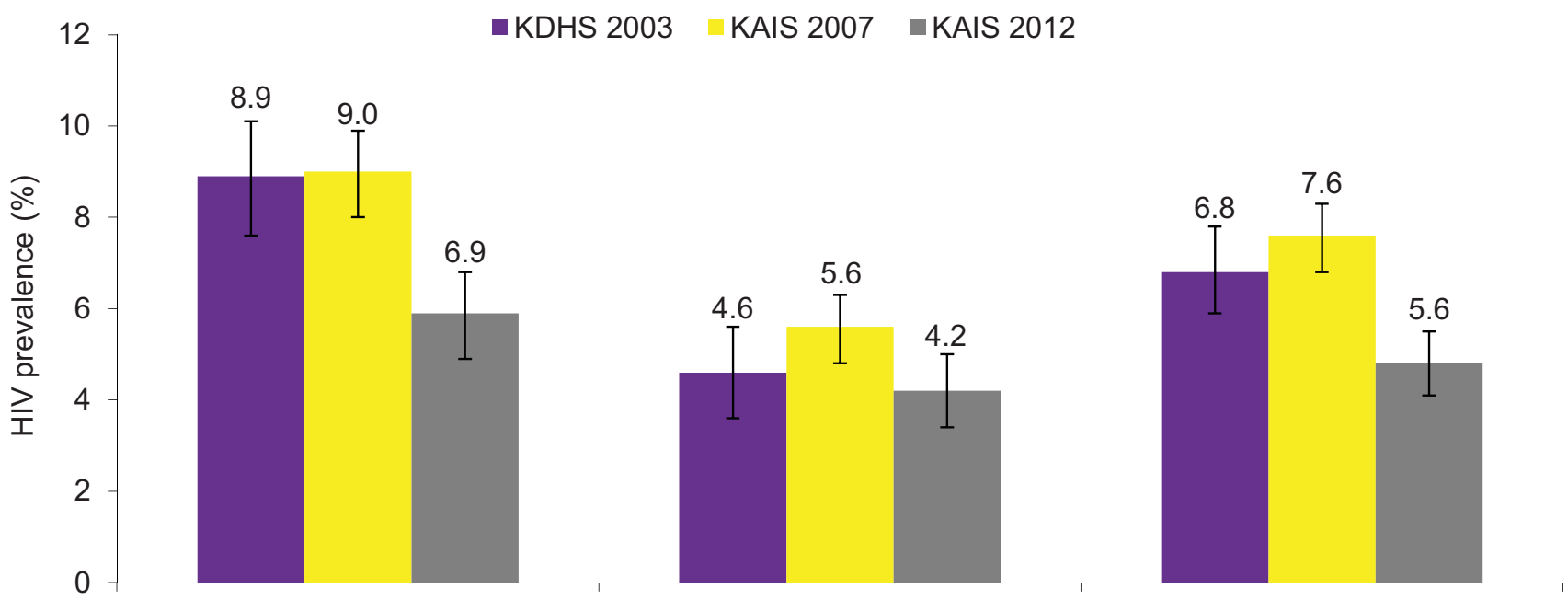
The 2003 Demographic Health Survey was the first national survey in Kenya to include HIV testing, providing the country with HIV prevalence estimates for women aged 15 to 49 years and men aged 15 to 54 years. To date, there have been two Kenya AIDS Indicator Surveys (KAIS), which have also provided HIV prevalence estimates for Kenyans on a national and subnational level. The first KAIS was conducted in 2007 (KAIS 2007) and the second in 2012 (KAIS 2012). To understand changes in HIV prevalence over the past 5 and 10 years, in this chapter we compare HIV prevalence among women and men aged 15 to 49 years between three national surveys: KDHS 2003; KAIS 2007; and KAIS 2012.

Since KAIS 2012 did not include North Eastern region, HIV prevalence estimates in KDHS 2003 and KAIS 2007 have been recalculated excluding North Eastern region for comparability across the three surveys. Note that KDHS 2008-09 was not included in this analysis given that this survey was conducted one year after KAIS 2007.

A z-test statistic was used to compare weighted estimates between surveys to determine if differences were statistically significant. Throughout the report, the term significant indicates a p-value less than 0.05. Marginally significant indicates a p-value between 0.05 and 0.10, inclusive; and not significant indicates a p-value greater than 0.10. Methods used for calculating the z-test statistic are described in Appendix A. Appendix B provides sample sizes and 95 percent confidence intervals for estimates presented in this chapter.

4.3 Trends in HIV Prevalence by Sex

Figure 4.3: Trends in HIV prevalence among women and men aged 15–49 years: KDHS 2003, KAIS 2007, and KAIS 2012

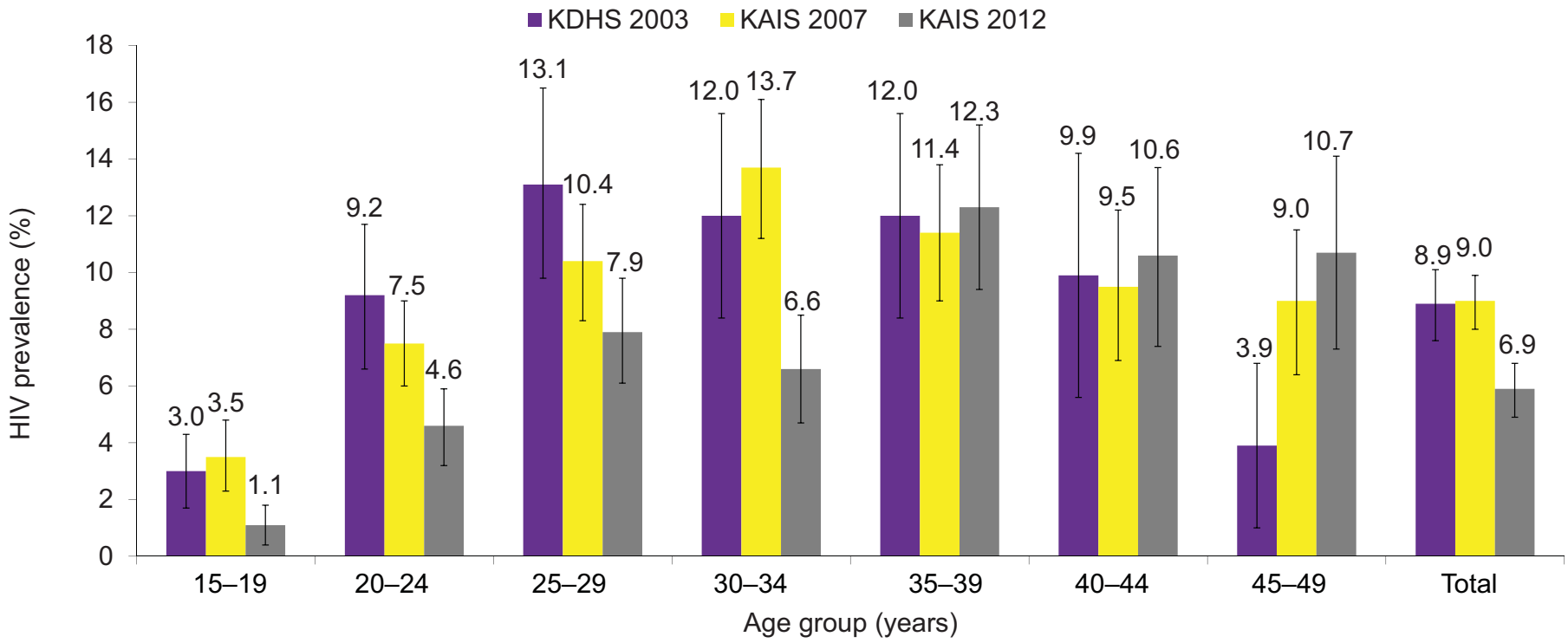


Between 2003 and 2012, HIV prevalence has declined significantly among Kenyans aged 15-49 years.

Between 2007 and 2012, HIV prevalence declined significantly among women (9.0% in 2007; 6.9% in 2012) but not among men (5.6% in 2007; 4.2% in 2012). In 2012 HIV prevalence among adults and adolescents aged 15–49 years was 5.6% (95% CI: 4.8%-6.3%), lower than KAIS 2007, where HIV prevalence was 7.6% (95% CI: 6.8%–8.3%) and KDHS 2003 , where HIV prevalence was 6.8% (95% CI: 5.9%–7.8%).

4.4 Trends in HIV Prevalence by Age

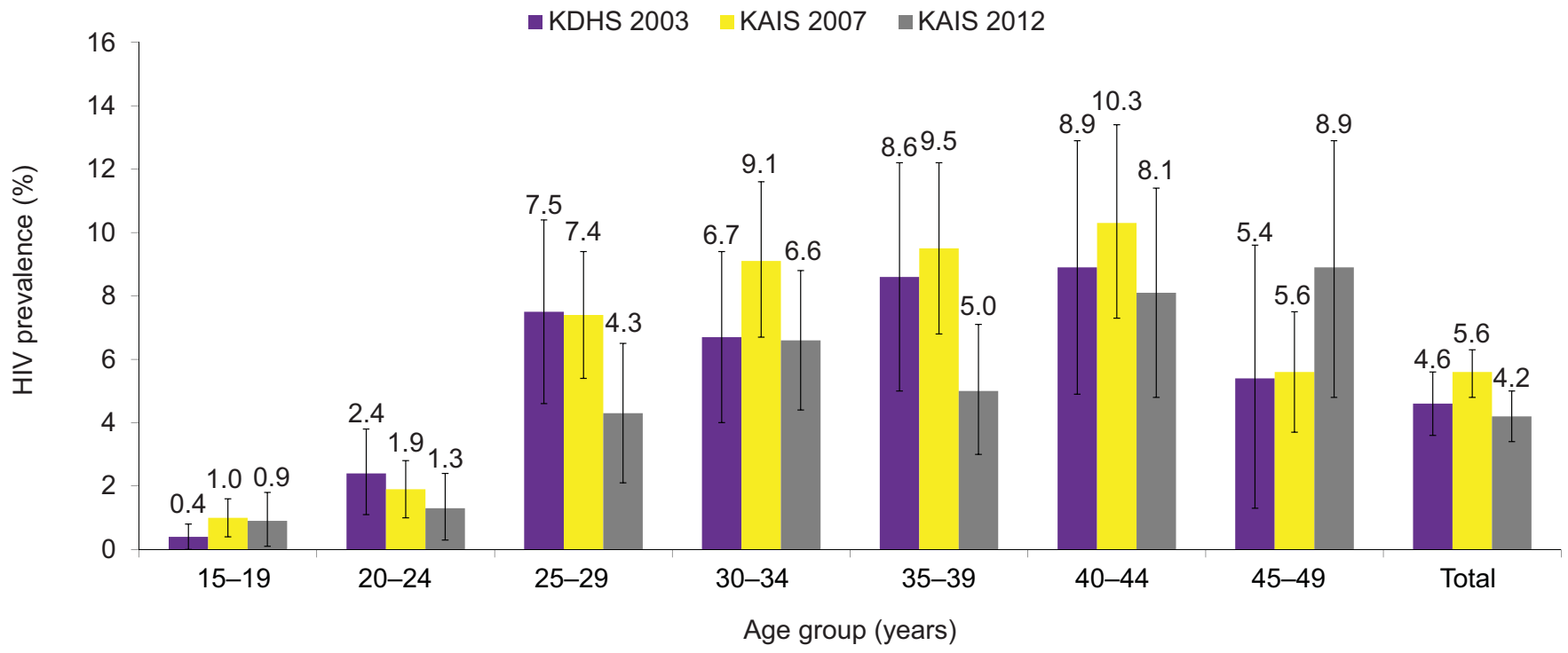
Figure 4.4a: HIV prevalence among women aged 15–49 years: KDHS 2003, KAIS 2007, and KAIS 2012



Among women, there has been a decline in HIV prevalence in younger women aged 15-34 years since 2007.

Peaks in age-specific prevalence have changed over time for women, likely due to survival of HIV-infected persons over time. HIV prevalence peaked among women aged 25–29 years (13.1%) in 2003, women aged 30–34 years (13.7%) in 2007, and women aged 35–39 years (12.3%) in 2012. Significant increase in HIV prevalence were observed for the birth cohort of women who were aged 15–19 years in 2003 at 3.0% and aged 20–24 years in 2007 at 7.5%. As this young cohort represents recent initiators of sexual intercourse, this increase is likely attributed to acquisition of new HIV infection.

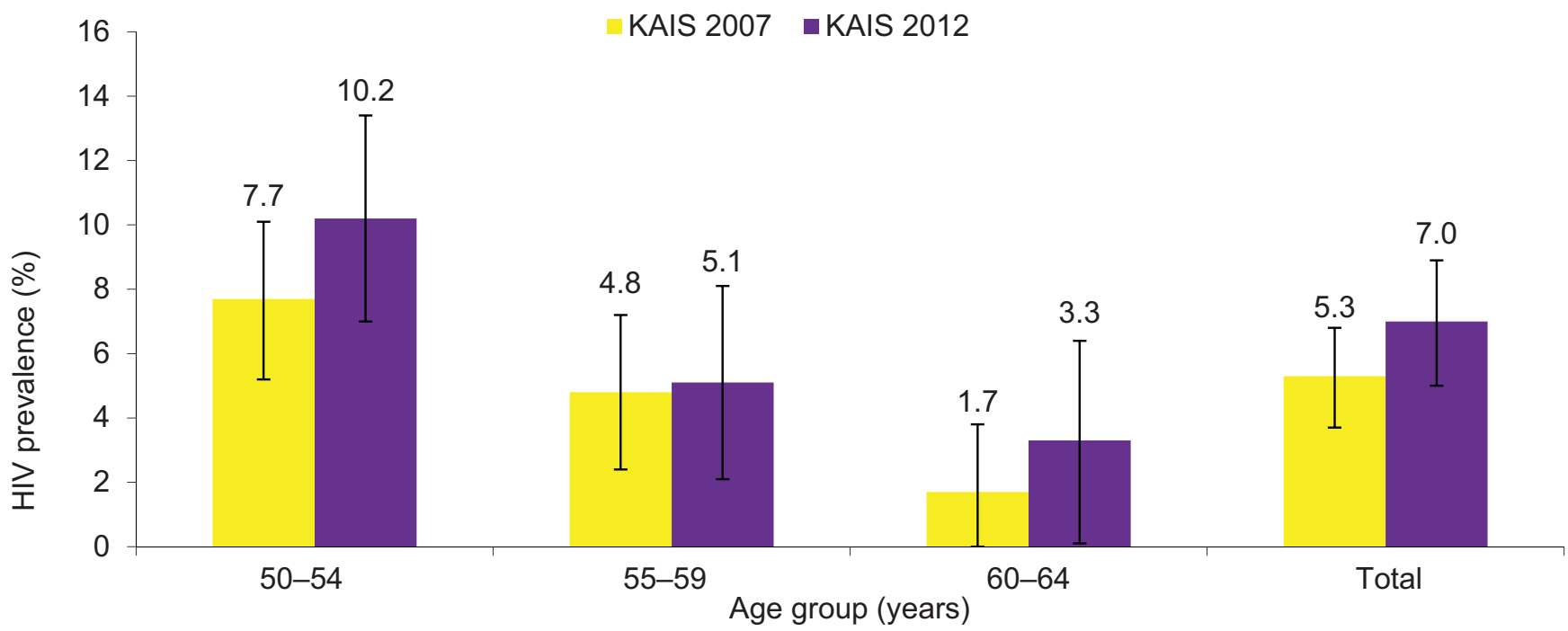
Figure 4.4b: HIV prevalence among men aged 15–49 years: KDHS 2003, KAIS 2007, and KAIS 2012



HIV prevalence among men has remained stable across all age groups since 2003.

In 2003, 2007, and 2012, HIV prevalence remained consistently low among men aged 15–19 years. In 2003 and 2007, HIV prevalence was highest among men aged 40–44 years. In contrast, in 2012, HIV prevalence was highest among men aged 45–49 years. The shift in peak HIV prevalence to older age groups is suggestive of improved survival among HIV-infected men and new infections. HIV prevalence increased two- to threefold among birth cohorts of men who were aged 20–24 years in 2003 and 2007 and aged 25–29 years in 2007 and 2012. This increase may be due to increases in new HIV infections in this younger cohort of men.

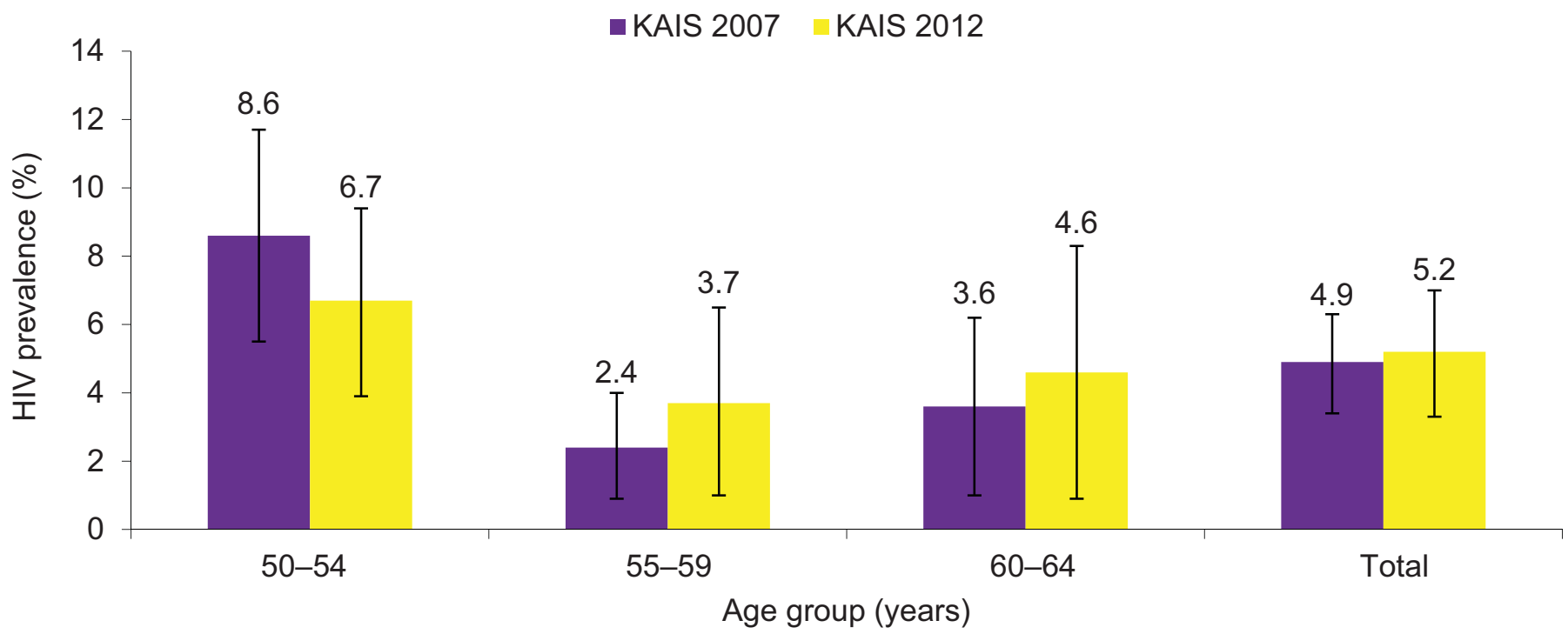
Figure 4.4c: HIV prevalence among women aged 50–64 years: KAIS 2007 and KAIS 2012



HIV prevalence among women aged 50-64 years has remained stable since 2007.

Among women aged 50–64 years, HIV prevalence was 5.3% in 2007 and 7.0% in 2012. No significant differences were noted in HIV prevalence among women aged 50–54 years, 55–59 years, and 60–64 years between 2007 and 2012.

Figure 4.4d: HIV prevalence among men aged 50–64 years: KAIS 2007 and KAIS 2012

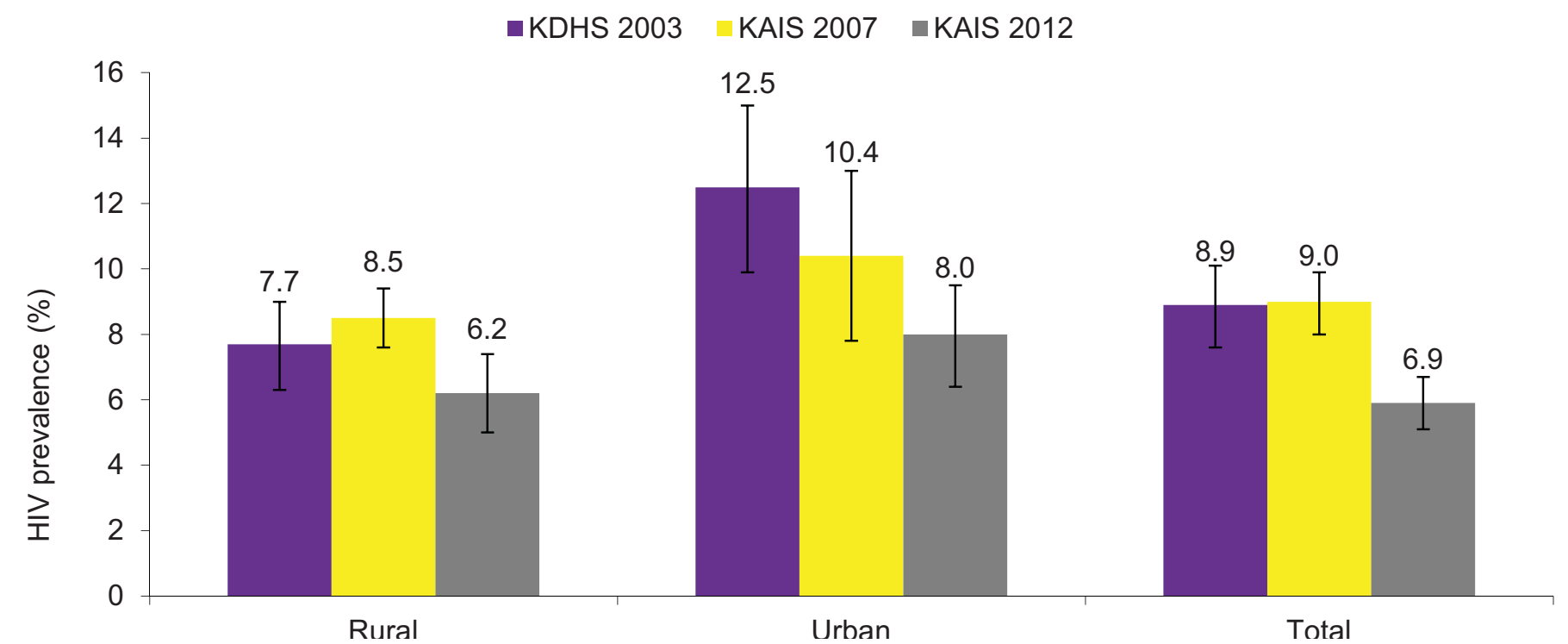


HIV prevalence among older men aged 50-64 years has remained stable since 2007.

Among men aged 50–64 years, HIV prevalence was 4.9% in 2007 and 5.2% in 2012. No differences were noted for men aged 50–54 years, 55–59 years, and 60–64 years between 2007 and 2012. However HIV prevalence decreased significantly among a birth cohort of men who were 50–54 years in 2007 and 55–59 years in 2012 decreased from 8.6% to 3.7%, respectively, and may point to increased mortality in this cohort.

4.5 Trends in HIV Prevalence by Residence

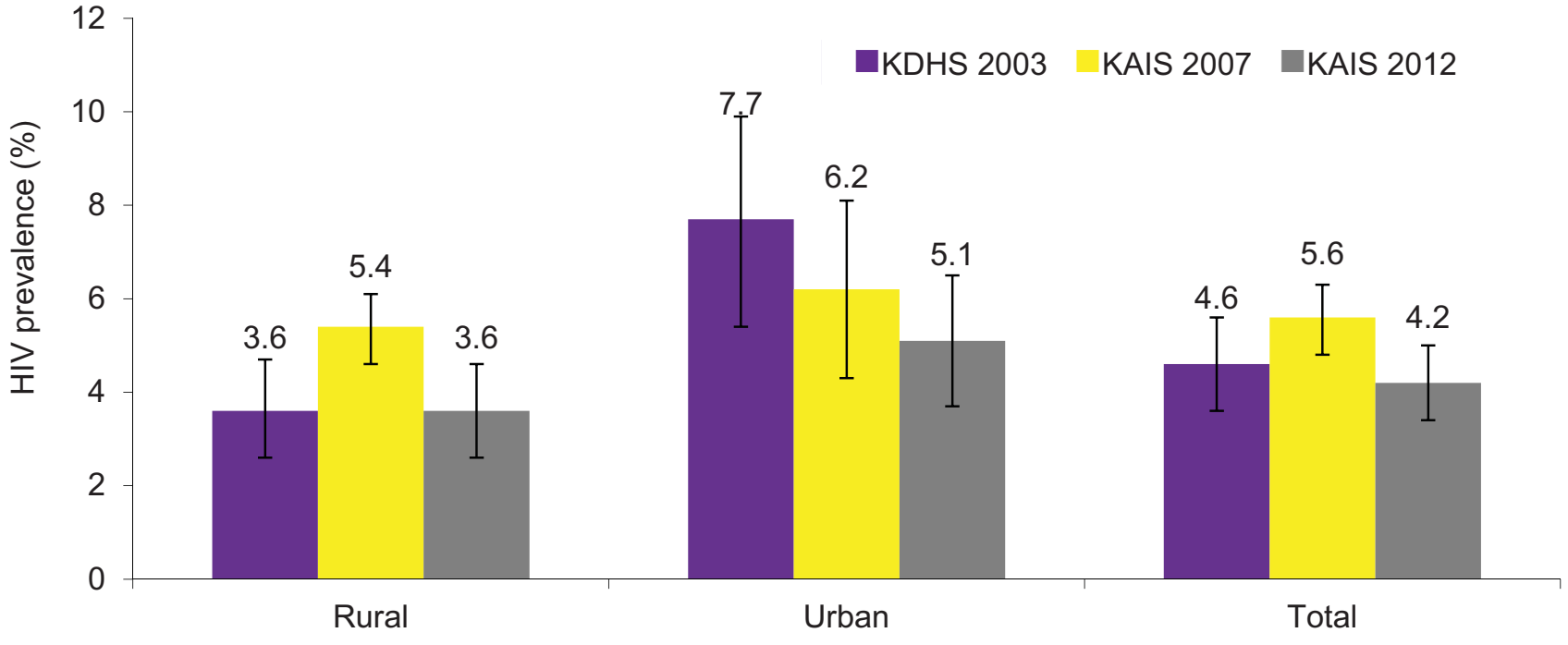
Figure 4.5a: HIV prevalence among women aged 15–49 years by residence: KDHS 2003, KAIS 2007, and KAIS 2012



HIV prevalence among women living in urban areas has declined since 2003, and HIV prevalence among women living in rural areas has declined since 2007.

Since 2003, HIV prevalence among women has remained highest among those living in urban areas compared to rural areas. Among women living in rural areas, HIV prevalence declined significantly from 8.5% in 2007 to 6.2% in 2012. Among women living in urban areas, HIV prevalence declined significantly from 12.5% in 2003 to 8.0% in 2012.

Figure 4.5b: HIV prevalence among men aged 15–49 years by residence: KDHS 2003, KAIS 2007, and KAIS 2012



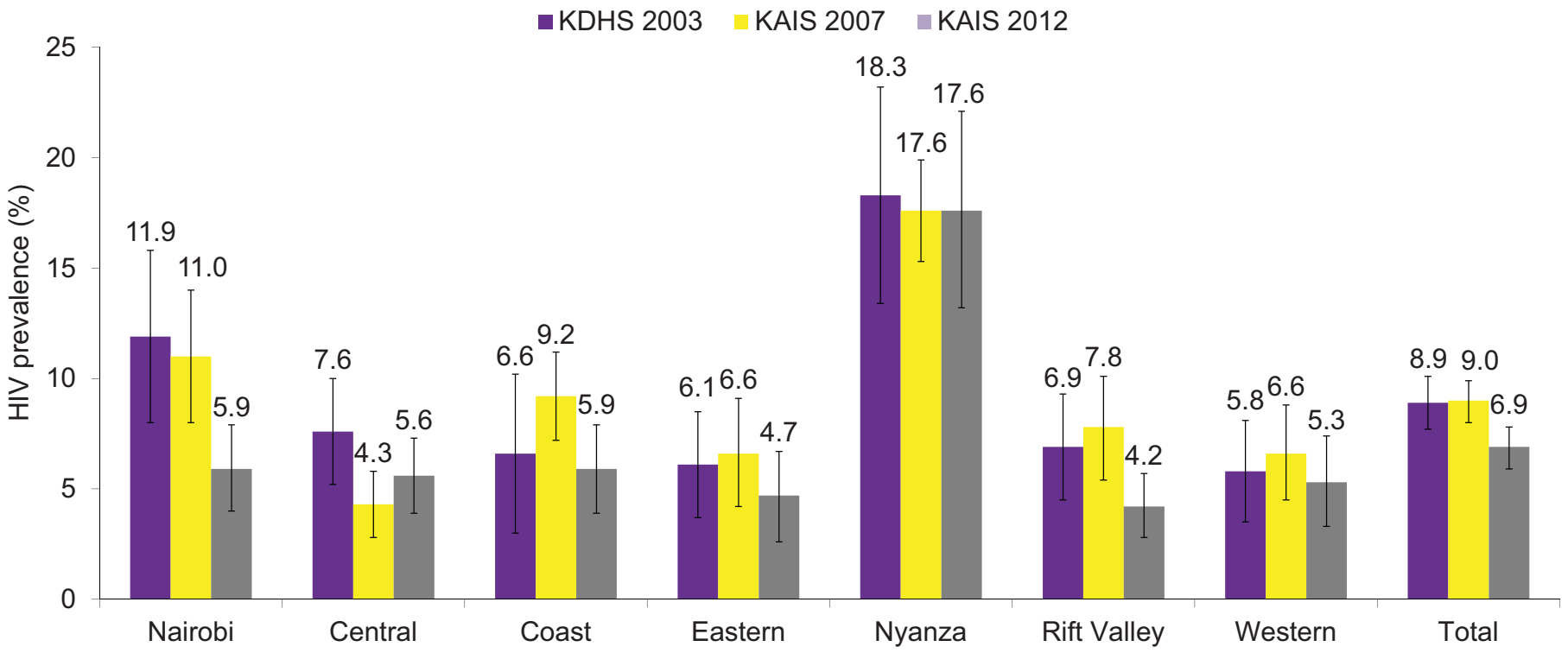
Among men, HIV prevalence has remained stable in rural and urban areas since 2003.

Similar to women, HIV prevalence among men has been highest among those living in urban areas compared to rural areas. Overall the data suggest that prevalence has been stable since 2003 among men, particularly among men living in rural residences. However, over the past five years, HIV prevalence among men in rural areas declined significantly from 5.4% in 2007 to 3.6% in 2012. HIV prevalence among men residing in urban areas also declined from 7.7% in 2003 to 5.1% in 2012, but this decline was only marginally significant.

4.6 Trends in HIV Prevalence by Province

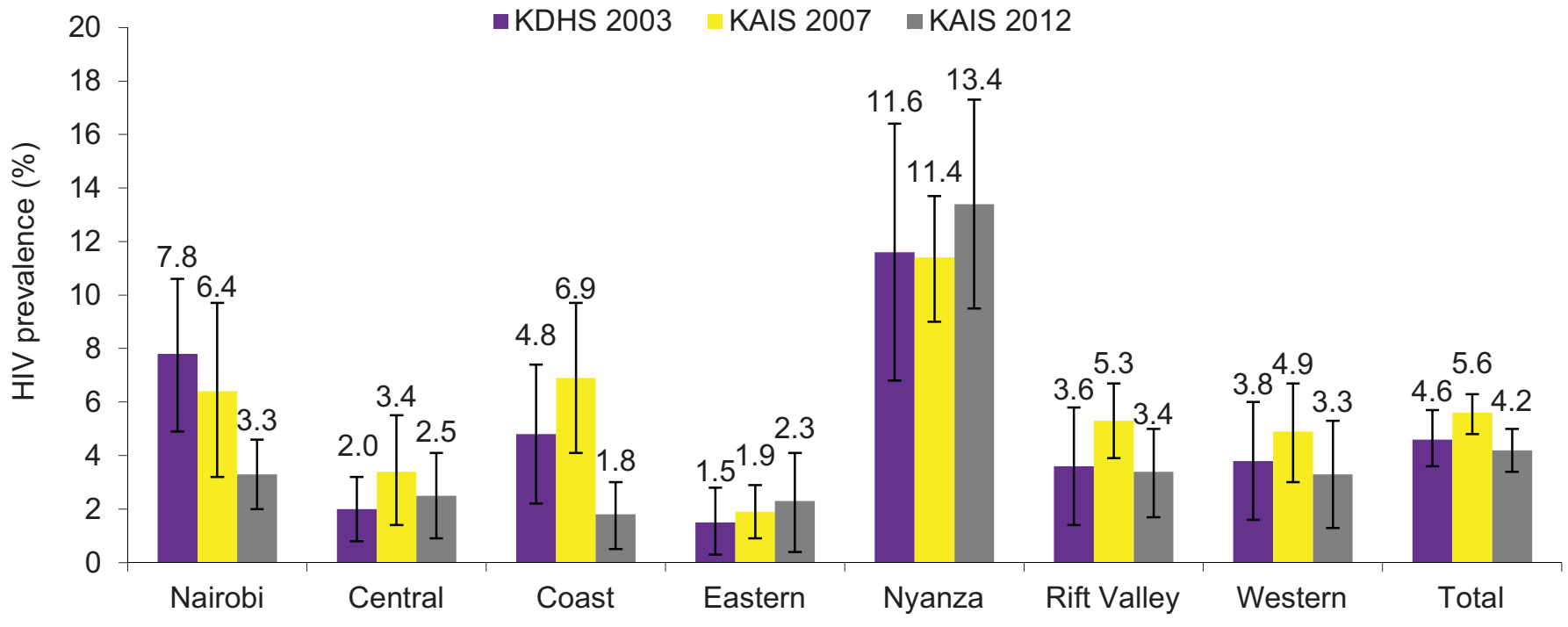
In 2003, 2007, and 2012, HIV prevalence among women was highest in Nyanza province and did not change over time. Significant changes in HIV prevalence were observed among women in Nairobi, declining from 11.9% in 2003 to 5.9% in 2012. From 2007 and 2012, significant declines were observed among women in Coast province, from 9.2% in 2007 to 5.9% in 2012, as well as in Rift Valley, from 7.8% in 2007 to 4.2% in 2012. All other provinces experienced no significant changes in HIV prevalence.

Figure 4.6a: HIV prevalence among women aged 15–49 years by province: KDHS 2003, KAIS 2007, and KAIS 2012



From 2003 and 2012, women in Nairobi province experienced significant declines in HIV prevalence.

Figure 4.6b: HIV prevalence among men aged 15–49 years by province: KDHS 2003, KAIS 2007, and KAIS 2012

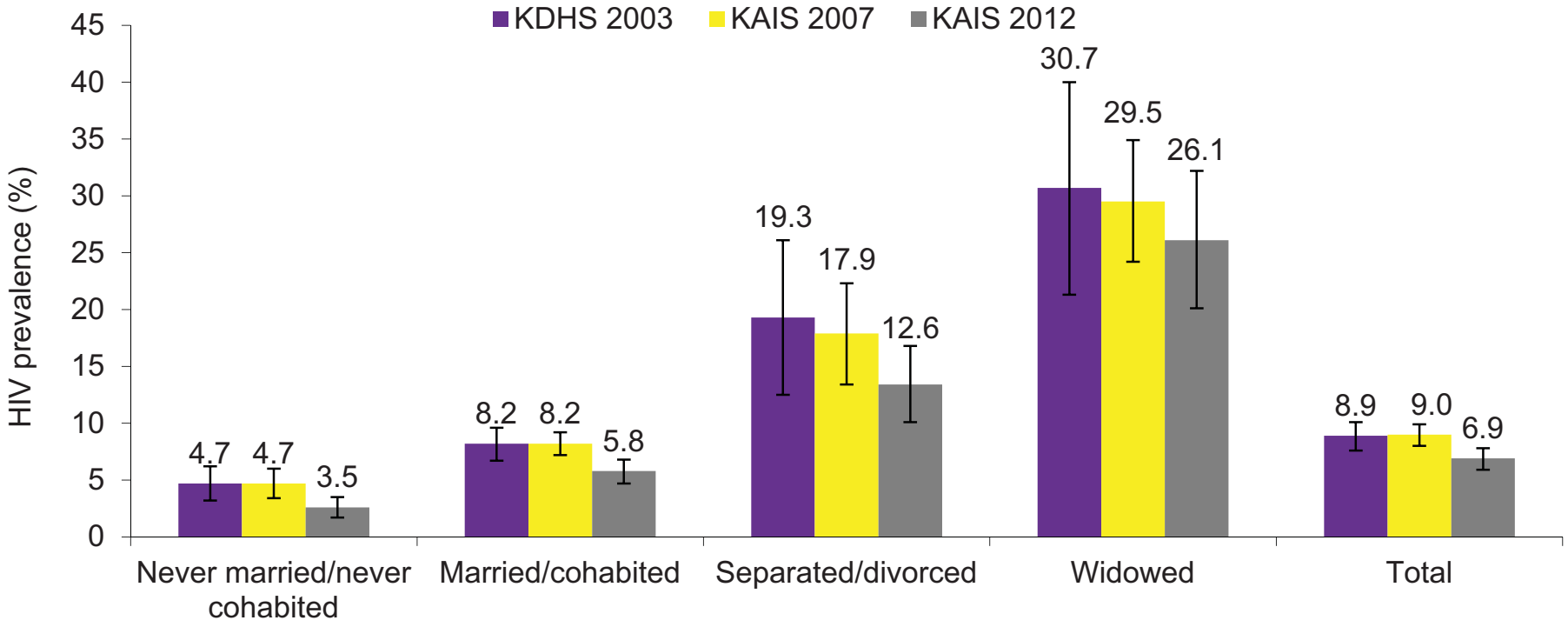


HIV prevalence among men has declined significantly in Coast province since 2007.

Similar to women, in 2003, 2007, and 2012, HIV prevalence among men was highest in Nyanza province and did not change over time. Since 2003, HIV prevalence among men in Nairobi province declined significantly, from 7.8% in 2003 to 3.3% in 2012. Since 2007, HIV prevalence among men has remained stable across all regions, except for Coast province where HIV prevalence declined significantly, from 6.9% in 2007 to 1.8% in 2012, and Rift Valley, where marginally significant changes in HIV prevalence were observed, from 5.3% in 2007 to 3.4% in 2012.

4.7 Trends in HIV Prevalence by Marital Status

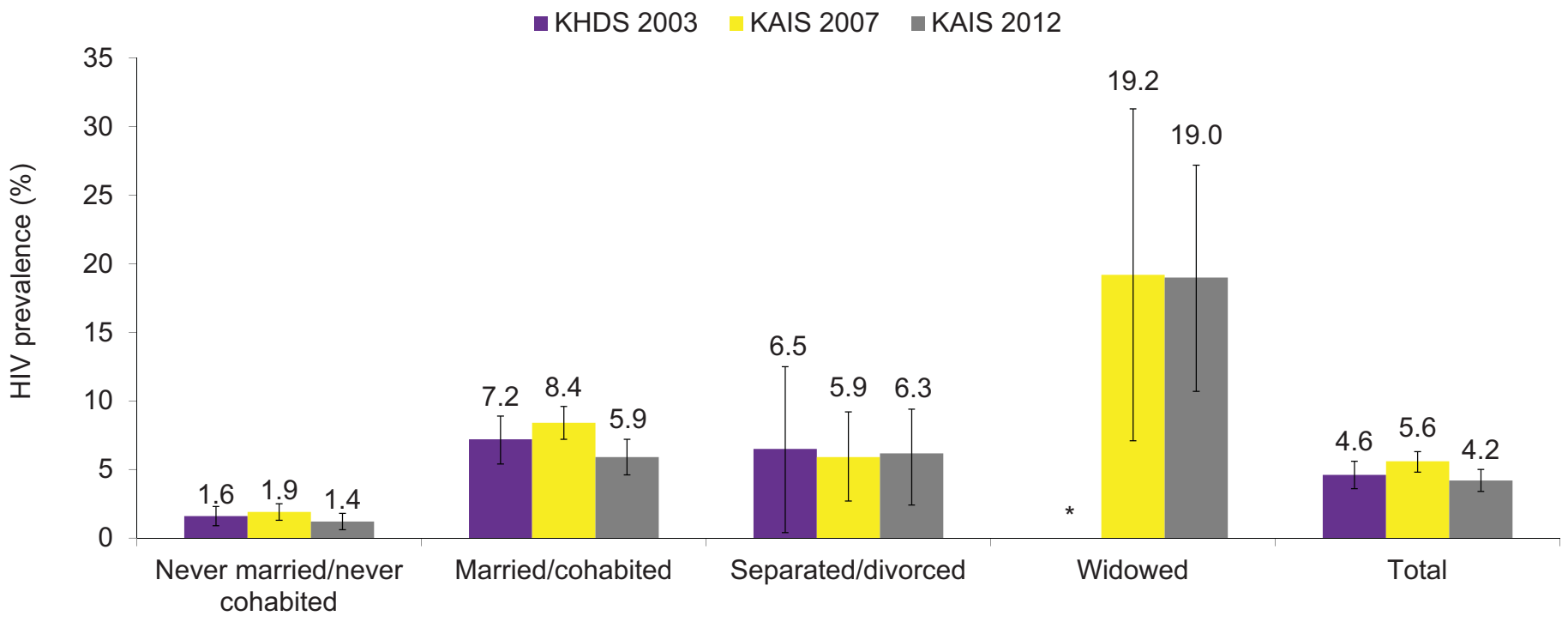
Figure 4.7a: HIV prevalence among women aged 15–49 years by marital status: KDHS 2003, KAIS 2007, and KAIS 2012



HIV prevalence among women has varied significantly by marital status from 2003 to 2012.

In 2003, 2007, and 2012, HIV prevalence among women varied significantly by marital status. The highest HIV prevalence was observed among women who had ever been widowed, and the lowest was among women who had never married or cohabited. Between 2007 and 2012, HIV prevalence declined significantly among women who were married or cohabiting, from 8.2% in 2007 to 5.8% in 2012.

Figure 4.7b: HIV prevalence among men aged 15–49 years by marital status: KDHS 2003, KAIS 2007, and KAIS 2012

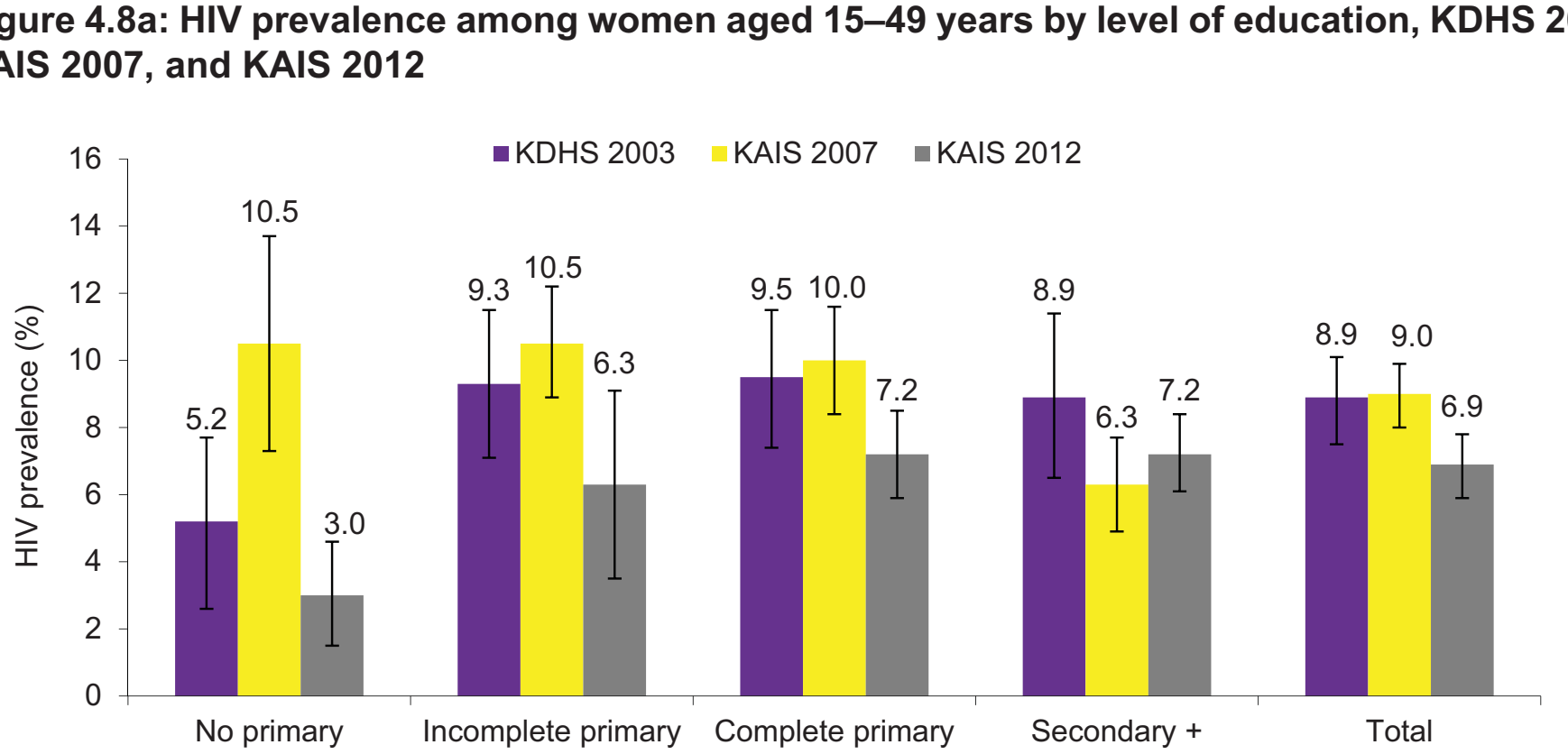


Since 2003, HIV prevalence among men has remained highest among those who were widowed.

Between 2003 and 2012, HIV prevalence among men has remained stable across all categories of marital status. However between 2007 and 2012, among married and cohabited men, there was a significant decline in HIV prevalence, from 8.4% in 2007 to 5.9% in 2012. Widowed men had the highest HIV prevalence in 2007 (19.2%) and 2012 (19.0%), with levels that were over ten times higher than men who had never married or cohabited, and approximately three times higher than men who were married or cohabiting and men who were separated or divorced.

4.8 Trends in HIV Prevalence by Level of Education[1]

Figure 4.8a: HIV prevalence among women aged 15–49 years by level of education, KDHS 2003, KAIS 2007, and KAIS 2012

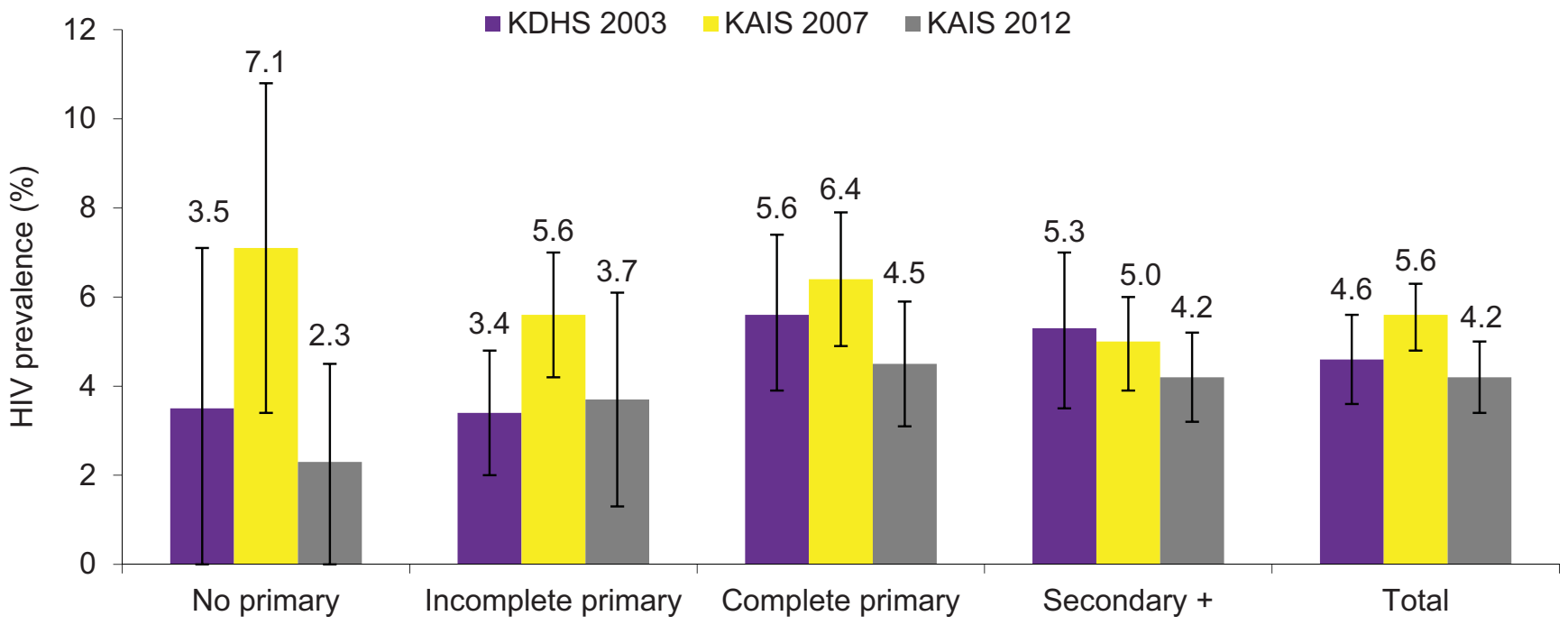


HIV prevalence among women reporting no education has declined significantly since 2007.

In 2003, 2007, and 2012, HIV prevalence varied significantly by education status. From 2007 to 2012, HIV prevalence declined significantly among those reporting no primary education, from 10.5% in 2007 to 3.0% in 2012. Significant declines in HIV prevalence were also observed among women who had reported incomplete primary education, from 10.5% in 2007 to 6.3% in 2012, and for women who completed primary education, from 10.0% in 2007 to 7.2% in 2012. No changes in HIV prevalence were observed for persons who reported secondary or higher education.

[1] Secondary+ includes any years of secondary schooling whether completed or not.

Figure 4.8b: HIV prevalence among men aged 15–49 years by level of education, KDHS 2003, KAIS 2007, and KAIS 2012



In 2003, 2007, and 2012, HIV prevalence among men varied significantly by reported level of education.

Similar to women, HIV prevalence among men varied significantly across education levels in 2003, 2007, and 2012. HIV prevalence declined significantly for men reporting no primary education, from 7.1% in 2007 to 2.3% in 2012, and for men reporting incomplete primary education, from 5.6% in 2007 to 3.7% in 2012.

4.9 Gaps and Unmet Needs

- Trends in HIV prevalence are difficult to interpret in the context of improved survival among HIV-infected persons receiving treatment. To understand trends better, mortality and HIV incidence surveillance will need to be integrated into the national HIV surveillance system.
- Widowed Kenyans continue to have high levels of HIV infection. Enhanced strategies targeting HIV prevention and treatment for this group and their sexual partners are needed.
- Older Kenyans have HIV prevalence rates that are close to the national average, suggesting that sexual transmission is ongoing in this group. HIV prevention interventions should ensure that messages and services for older Kenyans are provided.
- Redesigned combination biomedical and behavioural prevention strategies, designed for wide-scale and sustainable impact, will need to be implemented in Nyanza to reduce new infections in this high HIV prevalence region.

5 HIV INCIDENCE

5.1 Key Findings

- In 2012, an estimated 106,000 persons aged 15-64 years had acquired HIV infection in the past year.
- The highest number of new infections occurred among persons aged 25-34 years.
- HIV incidence remained stable between 2007 and 2012.

5.2 Introduction

HIV prevalence is a measure of the relative burden of disease in population but is not optimal for measuring acute changes in an HIV epidemic, including changes in HIV transmission. HIV incidence is the measure of new HIV infections in a population over time. It can provide important information on the status of the HIV epidemic and can be used for effective targeted HIV prevention planning in groups that are most vulnerable to recent infection and to measure impact of HIV prevention programs.

HIV incidence can be estimated through a laboratory-based incidence testing algorithm that can detect if an HIV infection was recently acquired. If a HIV-positive specimen classifies as "recent" on an HIV incidence assay testing algorithm it is assumed that HIV infection occurred within the mean duration of recent infection (MDRI) of the laboratory assay (typically ranging from 3-12 months).

However, if an HIV infection is classified as a long-term infection on the incidence testing algorithm, it is assumed that the HIV infection occurred beyond the MDRI for the assay. Using data on the number of recent infections in a survey sample, MDRI for the assay, and a false-recent rate for the assay, an annualised HIV incidence rate can be calculated, reflecting the rate of recently acquired HIV infections in a 12-month period.

HIV incidence testing algorithms have evolved over time in efforts to improve the accuracy of population-based HIV incidence estimates. As such, the incidence testing algorithm applied in KAIS 2007 was different than the algorithm applied in KAIS 2012 due to the changes in the globally recommended methods for estimating HIV incidence using laboratory methods. In KAIS 2007, the incidence testing algorithm was based on laboratory results from an HIV incidence assay, supplemented with behavioural information on antiretroviral therapy (ART) use as a proxy measure for long-term infection. In KAIS 2012, the incidence testing algorithm was based on laboratory results from the same incidence assay, supplemented with behavioural information on ART use and clinical information on viral suppression as a proxy measure for long-term infection.

For the purposes of estimating HIV incidence in KAIS 2012, we used the following definition for recent and long-term HIV infection.

- Recent infection: HIV antibody positive specimen that classified as a recent infection on the Limiting Antigen (LAg) Avidity Enzyme Immunoassay, no reported history of ART use, and not virally suppressed (defined as HIV RNA concentration <1,000 copies/mL).

- Long-term infection: HIV antibody positive specimen that classified as a long-term infection on the LAg-Avidity EIA or reported history of ART use or virally suppressed.

For the purposes of comparing HIV incidence patterns between KAIS 2007 and KAIS 2012, we applied the KAIS 2007 algorithm to the two survey years to ensure comparability across the two time points. . It is important to note that the estimates presented for incidence patterns between KAIS 2007 and KAIS 2012 will be higher than the estimate reported for 2012 using the KAIS 2012 algorithm (described above) given the different case definitions for recent and long-term infection. For estimating incidence patterns for KAIS 2007 and KAIS 2012, we used the following definition for recent and long-term HIV infection:

- Recent infection: HIV antibody positive specimen that classified as a recent infection on the Limiting Antigen (LAg) Avidity Enzyme Immunoassay and no reported history of ART use.

- Long-term infection: HIV antibody positive specimen that classified as a long-term on the LAg-Avidity EIA or reported history of ART.

ThThis chapter presents estimates and patterns of HIV incidence among adults and adolescents aged 15-64 years. In our incidence calculations we applied a mean duration of recent infection of 130 days (95% CI 118 to 142) at a normalized optical density cut-off of 1.5 per recommendations from the LAg Avidity Enzyme Immunoassay developers. We also applied an assay false-recent rate (FRR) of 1.8% (95% CI 0.3 – 3.3) using the 2007 incidence algorithm and 1.2% (95% CI 0.01 – 2.5) using the 2012 incidence algorithm. These FRRs were derived directly from a sub-sample of known long-term infections in the KAIS 2007 and 2012 sample, respectively. All estimates were weighted to account for sampling probability and non-response.

When interpreting these data, it is important to emphasise that the survey's sample size was not large enough to generate precise estimates of incidence at the national and sub-national level, as reflected in the wide confidence intervals around the estimates presented. Further, though estimates were adjusted for sampling probability, the confidence intervals may not have entirely accounted for the complex survey design, limiting the accuracy of the values of the confidence intervals. Z-test statistics were conducted to compare weighted estimates from KAIS 2007 and KAIS 2012 to determine if differences were statistically significant. However, it is important to note that the study was not specifically powered to detect changes in HIV incidence over time and across sub-groups. Despite this, the relative changes observed in HIV incidence over time and across sub-groups are still important to help understand the current epidemiologic trends in Kenya's epidemic.

Appendix B provides sample sizes and 95% confidence intervals for estimates presented in this chapter. Population estimates reported in this chapter were calculated by multiplying the number of persons in the referent population based on 2012 projected population from the 2009 Kenya Population and Housing Census and the estimated HIV incidence. HIV incidence was calculated based on the World Health Organization's recommended formula described by Welte and colleagues in their paper: "A Simplified Formula for Inferring HIV Incidence from Cross- Sectional Surveys Using a Test for Recent Infection" (AIDS Res Hum Retroviruses 2009. 25: 125-126). For the purposes of this analysis, HIV incidence is expressed as the cumulative incidence or risk of incidence infections in a 12-month period, which is a close approximation to the instantaneous incidence rate.

Table 5.1: HIV incidence and estimated number of recent infections by sex and age among adults and adolescents aged 15-64 years, KAIS 2012

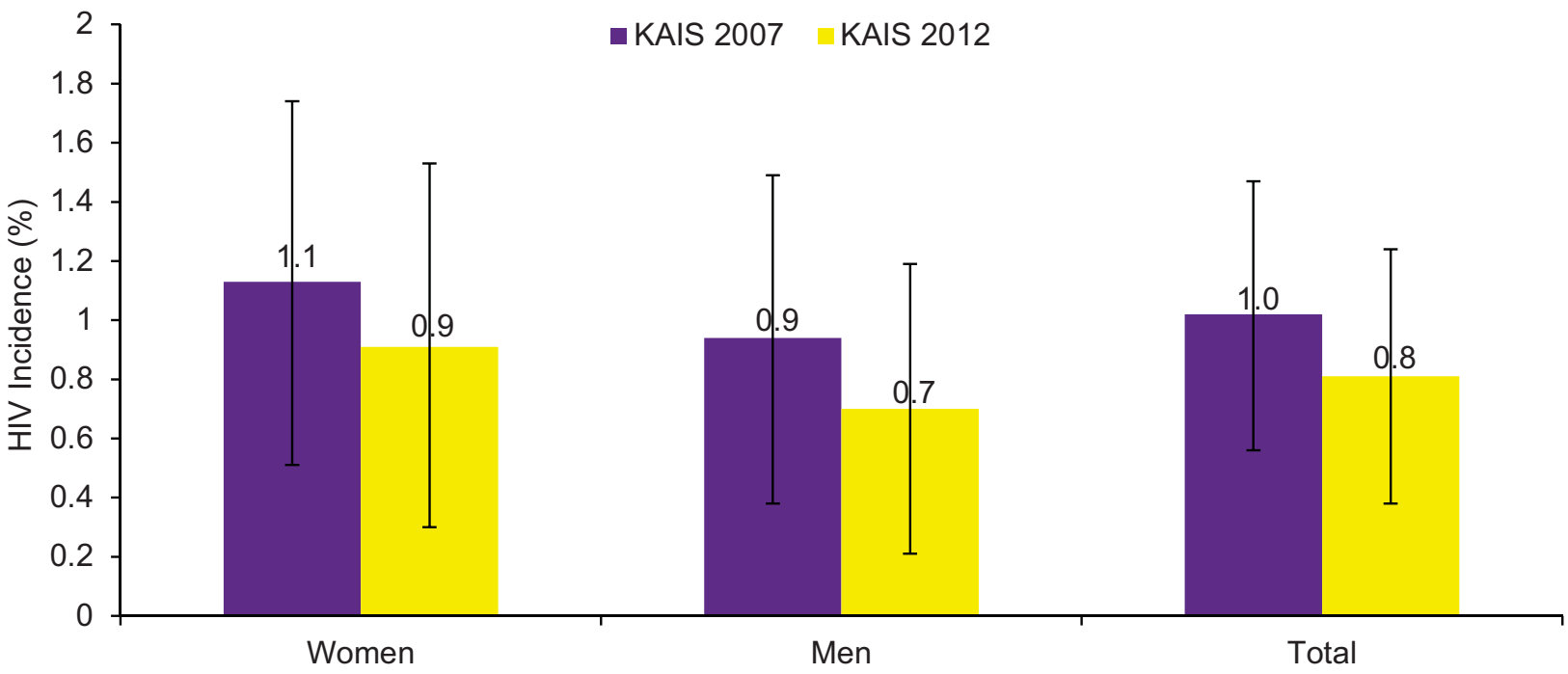
	HIV incidence Weighted N (95% CI)	2012 Estimated population of recent infection (women and men aged 15-64 years) Weighted % (95% CI)*
Total	0.5 (0.2 – 0.9)	106,000 (30,000 – 180,000)
Sex		
Women	0.5 (0.01 – 1.0)	53,000 (1000 – 106,000)
Men	0.5 (0.1 – 0.9)	53,000 (9000 – 96,000)
Age group (years)*		
15-24	0.6 (0.1 - 1.1)	40,000 (4,000 – 75,000)
25-34	1.2 (0.4 – 2.0)	70,000 (22,000 – 118,000)
35+	0.02 (0 – 0.5)	2,000 (0 – 38,000)

In 2012, an estimated 106,000 persons were recently infected with HIV.

*The stratum-specific sum of the estimated number of recent infection does not equal to the total estimated number of recent infection due to survey weights.

In KAIS 2012, HIV incidence was estimated to be 0.5% (95% CI 0.2 – 0.9), representing approximately 106,000 persons (95% CI 30,000 – 180,000) who were recently infected with HIV in 2012. No differences in HIV incidence were observed by sex. However, persons aged 25-34 years had the highest HIV incidence, over twice the national level, at 1.2% (95% CI 0.4-2.0) in 2012.

Figure 5.1: Patterns in HIV incidence among adults and adolescents aged 15-64 years by sex, KAIS 2007 and KAIS 2012**

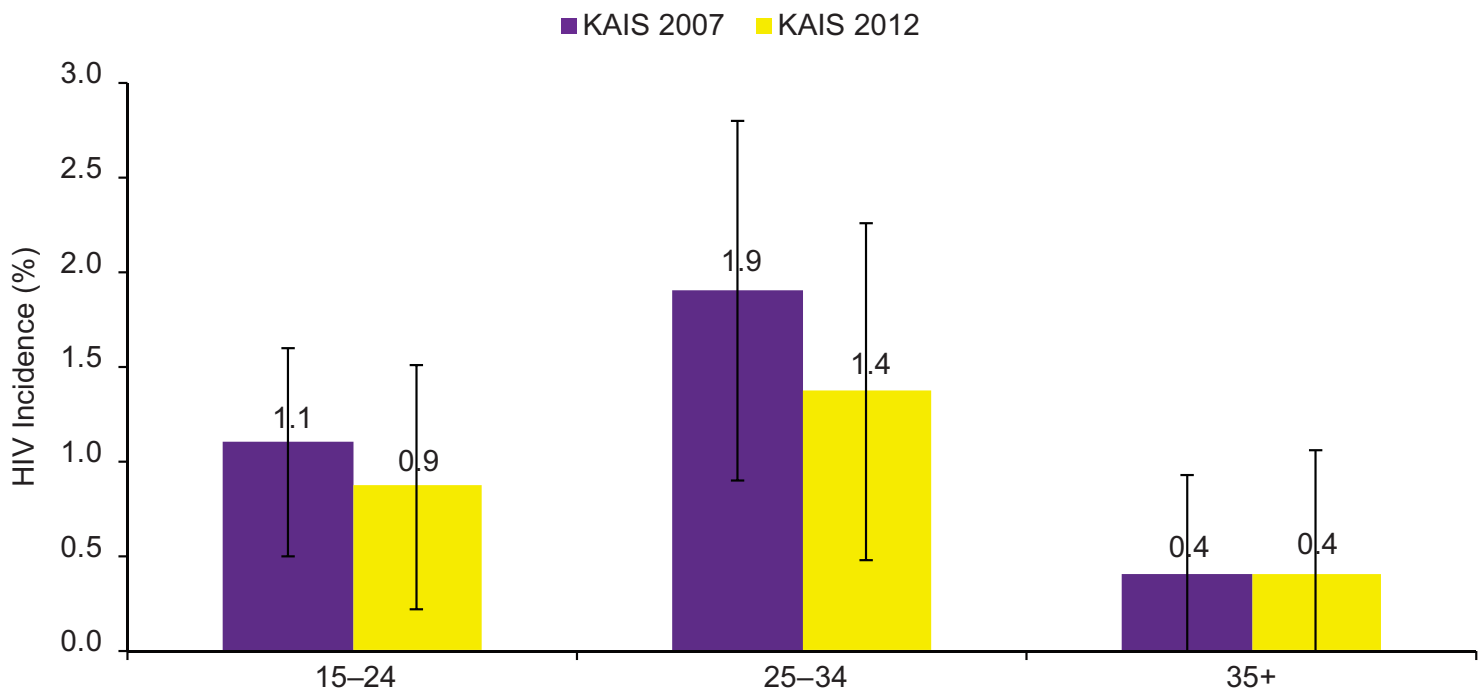


HIV incidence was stable between 2007 and 2012.

**Due to the evolving area of incidence estimation, the incidence testing algorithm applied in 2007 overestimated population incidence. However, for the purposes of trend analysis, HIV incidence was compared using the same incidence testing algorithm in KAIS 2007 and KAIS 2012. Therefore caution should be used to interpret this figure for trends only.

While the point estimates for persons aged 25-34 years suggest a decline from 2007 and 2012, this change was not statistically significant. Among persons aged 15-24 years and persons aged 35 years and older, HIV incidence does not appear to have changed over the past 5 years.

Figure 5.2: Patterns in HIV incidence among adults and adolescents by age group, KAIS 2007 and KAIS 2012**



HIV incidence appears to be the highest among persons aged 25-34 years.

**Due to the evolving area of incidence estimation, the incidence testing algorithm applied in 2007 overestimated population incidence. However, for the purposes of trend analysis, HIV incidence was compared using the same incidence testing algorithm in KAIS 2007 and KAIS 2012. Therefore caution should be used to interpret this figure for trends only.

While the point estimates for persons aged 25-34 years suggest a decline from 2007 and 2012, this change was not statistically significant. Among persons aged 15-24 years and persons aged 35 years and older, HIV incidence does not appear to have changed over the past 5 years. Of note is that HIV incidence in 2012 among those aged 35 years and older was much lower using the 2012 algorithm (0.02) compared to the 2007 algorithm (0.4). This discrepancy can be explained by addition of viral load in the 2012 incidence algorithm, where persons who tested recent on the assay but were virally suppressed were re-classified as long-term infection in the final results; hence lowering the incidence estimate for 2012.

5.3 Gaps and Unmet Needs

- The incidence testing algorithm applied in KAIS 2007 and KAIS 2012 relied on self-reported data on ART use, which may not have been accurately reported by participants. Biologic testing of HIV-positive samples for the presence of antiretroviral drugs will help to determine the level of reporting bias and resulting impact on the accuracy of the HIV incidence estimates.
- Data on viral load and ART in an incidence testing algorithm is important for improving the accuracy of HIV incidence estimates. It is recommended that HIV-positive specimens from 2007 be tested for viral load for more accurate estimate of HIV incidence in 2007 and comparison to 2012.
- Because the number of recent infections detected in KAIS 2012 was small, we were unable to determine risk factors for recent infection. Application of incidence testing algorithms in high HIV prevalence settings may yield higher number of recent infections for which risk factor analysis can be conducted to inform targeted prevention planning.

6 KNOWLEDGE, ATTITUDES AND BELIEFS ABOUT HIV/AIDS

6.1 KEY FINDINGS

- Approximately half (57.2% of women and 49.7% of men) were aware that HIV can be transmitted from mother-to-child during pregnancy.
- While 90.3% of men knew where to obtain a condom, 73.9% of women knew where to obtain a condom.
- Overall, 66.2% of adults aged 15 to 64 agreed that children aged 12 to 14 should be taught about using a condom to avoid HIV.
- Risk perception continued to be low, with 80.9% of men and 68.8% of women perceiving themselves to be at "no" or "small" risk of getting HIV infection.
- The HIV prevalence among persons who perceived themselves to be at no or at small risk of acquiring HIV infection ranged from 2.1% to 3.5%. There was a clear relationship between risk perception and HIV infection, with rates of infection rising with an increasing perceived level of risk.
- Only 44.5% of respondents overall were willing to use female microbicides, and 48.3% overall were willing to use pre-exposure prophylaxis. In total, 70.7% of respondents were willing to use a HIV home self-test kit.

6.2 INTRODUCTION

Correct knowledge of HIV and perceptions of personal risk for HIV infection are essential for making behavioural choices that reduce risk of acquiring and transmitting HIV. For more than 15 years, educational campaigns in Kenya have aimed to disseminate information about the disease, how it is acquired, and how to prevent new infections.

Innovations are also currently being explored to expand HIV prevention efforts in Kenya. It is important to understand community acceptability of these new interventions in order to tailor communication efforts and enhance the reach of these interventions.

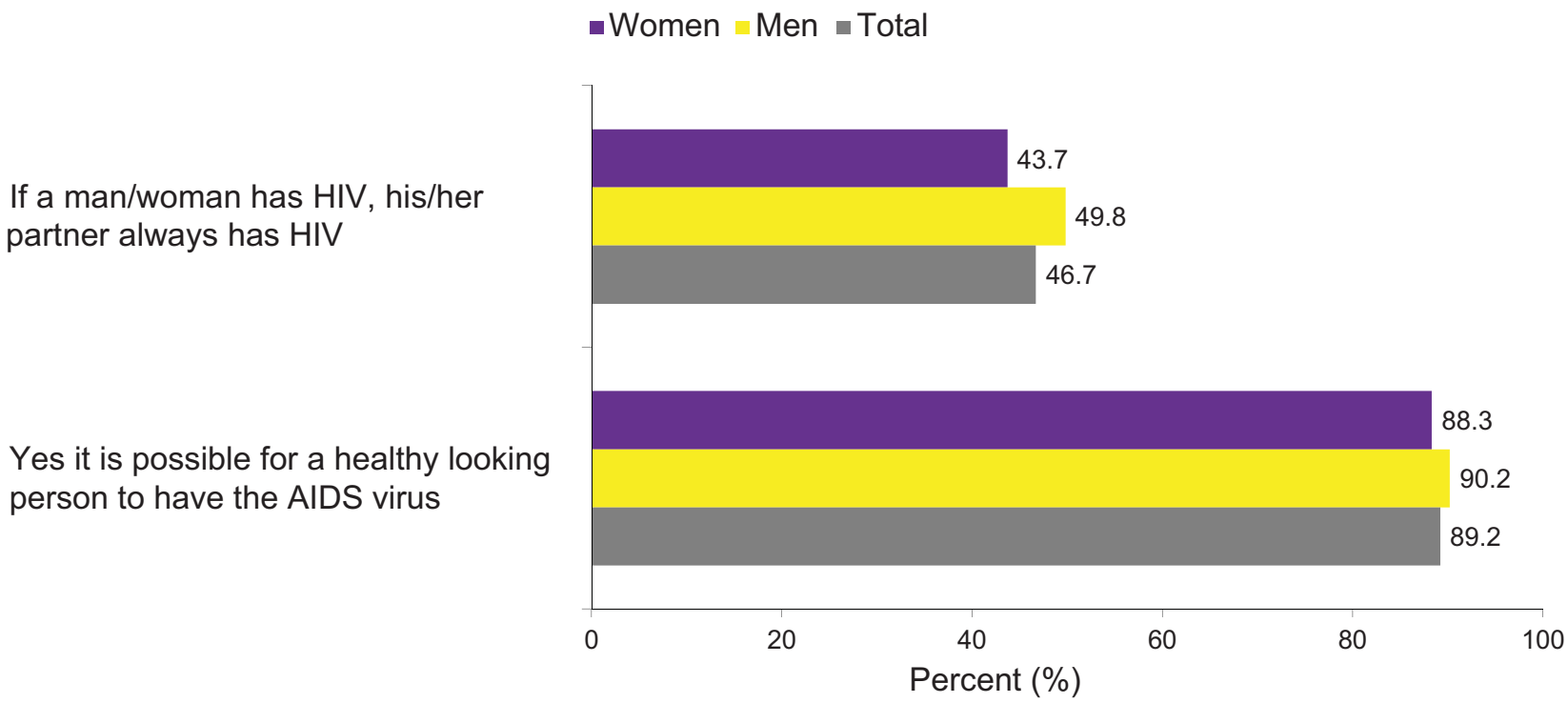
This chapter summarises data on knowledge, attitudes and beliefs about HIV/AIDS and examines factors associated with knowledge of HIV transmission, perceptions of risk of HIV, and acceptability of new HIV prevention interventions.

Appendix B provides sample sizes and 95% confidence intervals for estimates presented in this chapter.

6.3 KNOWLEDGE OF HIV/AIDS

Nearly all (99.0%) respondents aged 15 to 64 years reported having heard of an infection called HIV, the virus that causes AIDS.

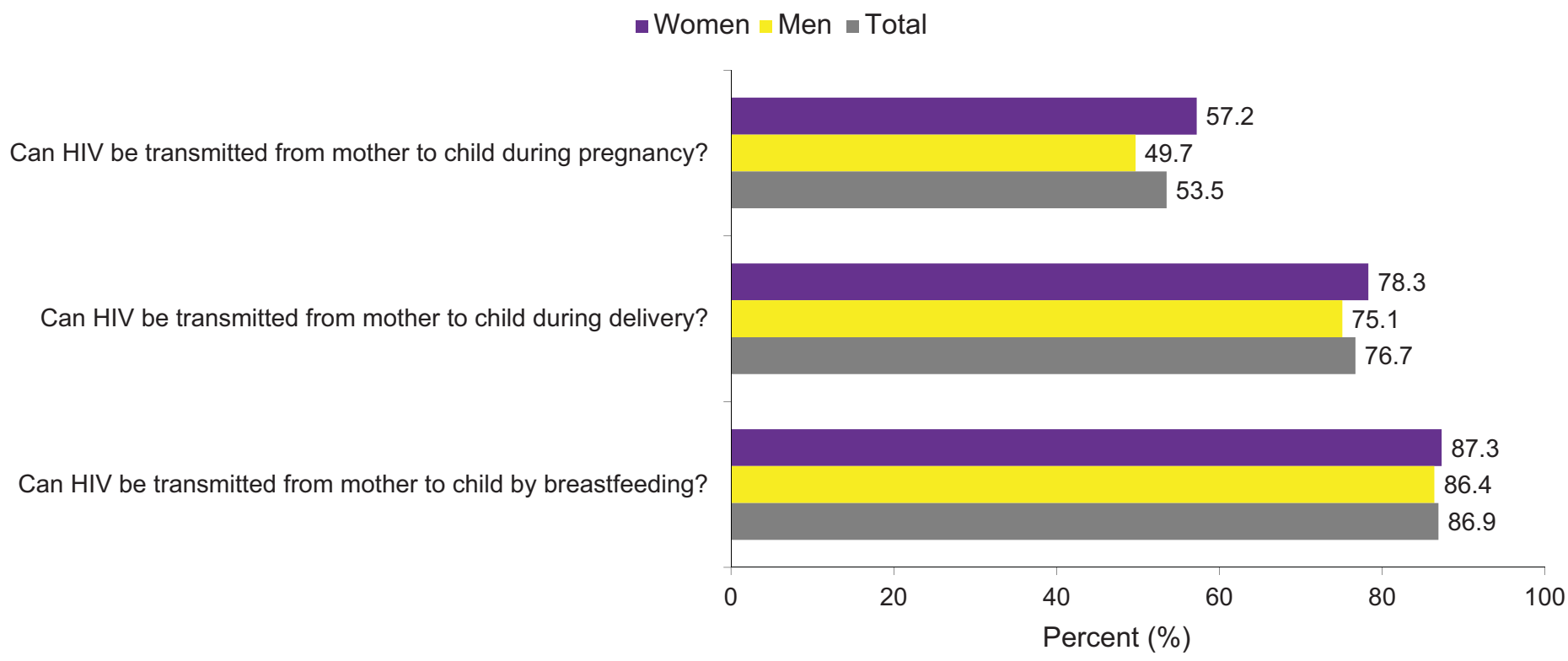
Figure 6.3a: Correct knowledge of HIV transmission among women and men aged 15–64 years who had heard of HIV/AIDS, KAIS 2012



Nearly half of respondents believed that a partner of a HIV-infected person is always HIV-infected.

Among those who had heard of HIV, 43.7% of women and 49.8% of men incorrectly believed that if a man or a woman has HIV, his/her partner always has HIV. The majority of men and women, 90.2% and 88.3% respectively, had correct knowledge that it is possible for a healthy-looking person to have the AIDS virus.

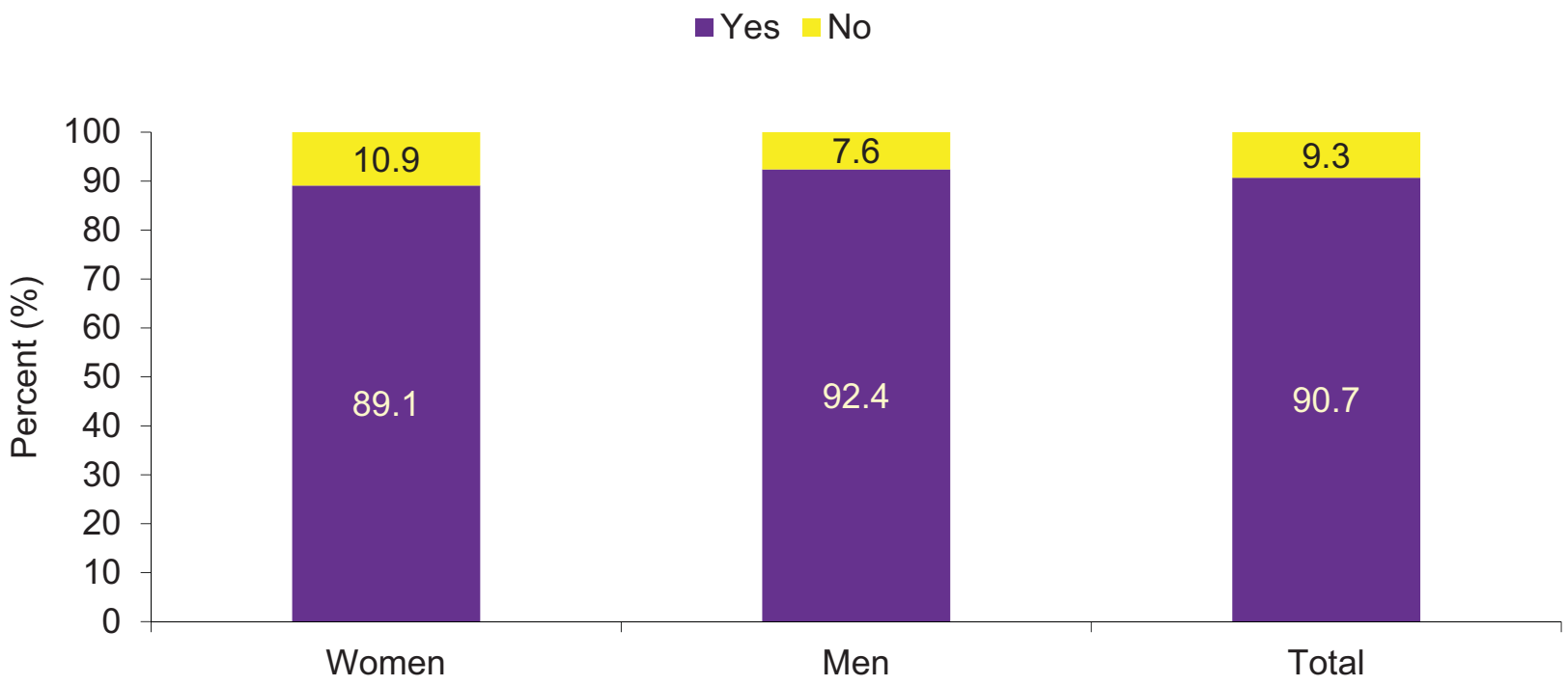
Figure 6.3b: Correct knowledge of mother-to-child transmission of HIV among women and men aged 15–64 years who had heard of HIV/AIDS, KAIS 2012



Nearly half of respondents were unaware that HIV can be transmitted from mother-to-child during pregnancy, though knowledge of mother-to-child transmission during delivery and breastfeeding was substantially higher.

Only 57.2% of women and 49.7% of men correctly answered that HIV can be transmitted from mother to child during pregnancy, but a higher proportion of both women and men (78.3% and 75.1%, respectively) were aware that HIV can be transmitted from mother-to-child during delivery. Breastfeeding was recognized as a mode of transmission from mother-to-child by 87.3% of women and 86.4% of men. Knowledge on transmission through breastfeeding remained similar between 2007 and 2012 KAIS.

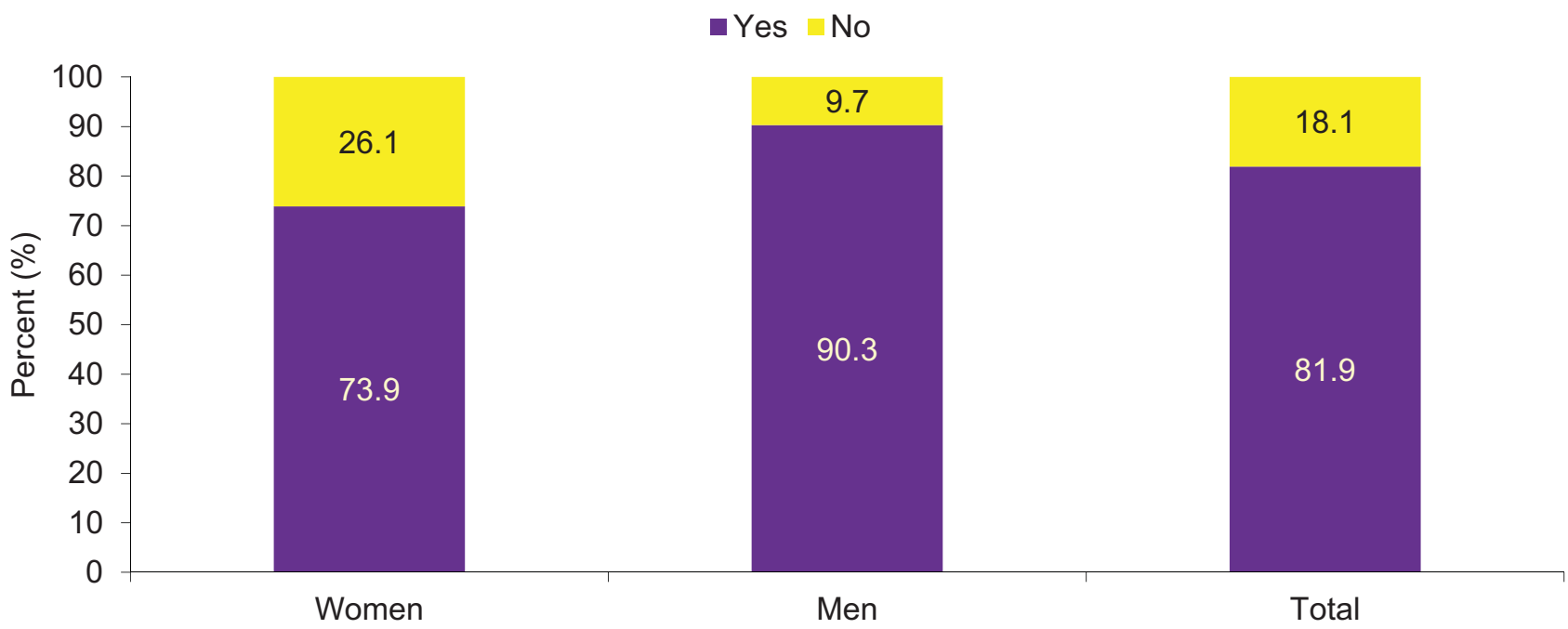
Figure 6.3c: Knowledge on antiretroviral drugs among women and men aged 15-64 years, KAIS 2012



Nine out of ten respondents had heard of antiretroviral drugs.

Overall, 89.1% of women and 92.4% of men had heard of antiretroviral drugs that HIV infected persons can take to help them live longer.

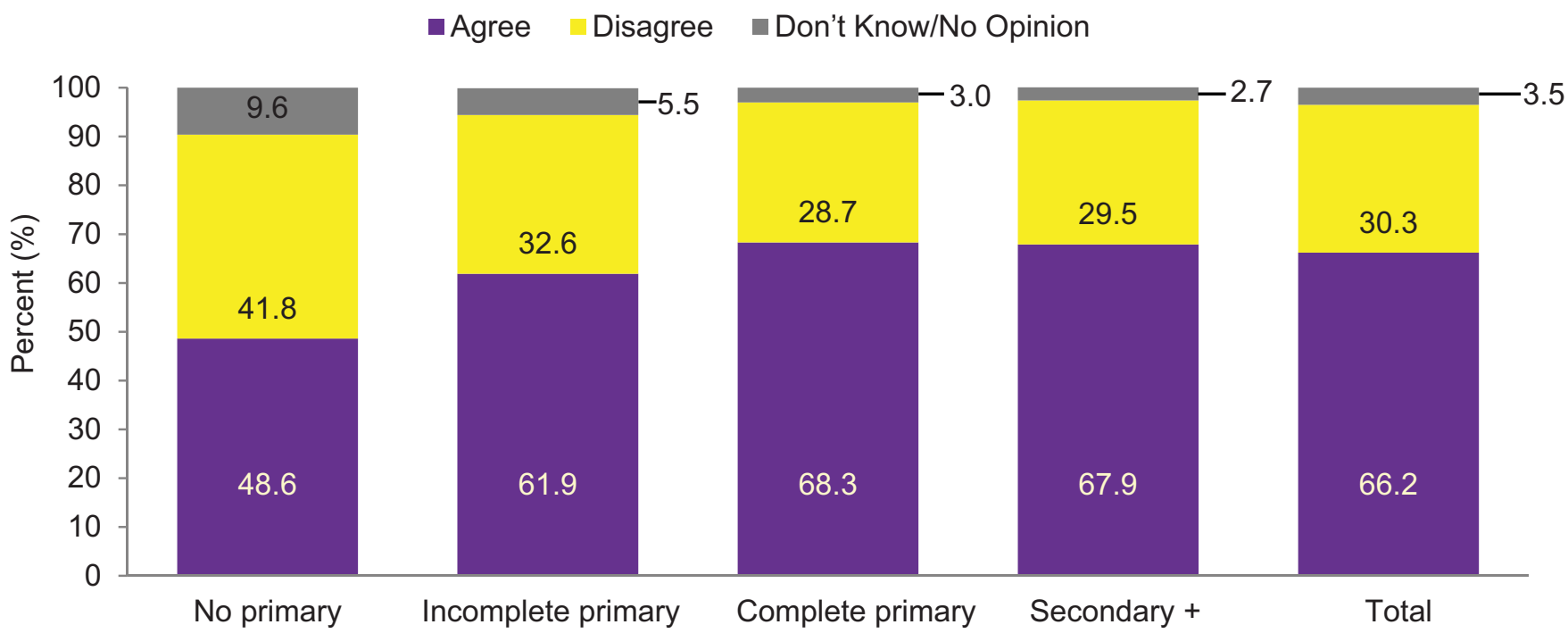
Figure 6.3d: Knowledge of condom availability among women and men aged 15–64 years, KAIS 2012



While the majority of KAIS respondents knew of a place to get condoms, fewer women were aware of a place to get condoms than men.

When asked whether they know a place where a person can get a condom, only 73.9% of women knew where to get a condom compared to 90.3% of men. Of note, this includes any type of condom, including both male and female condoms.

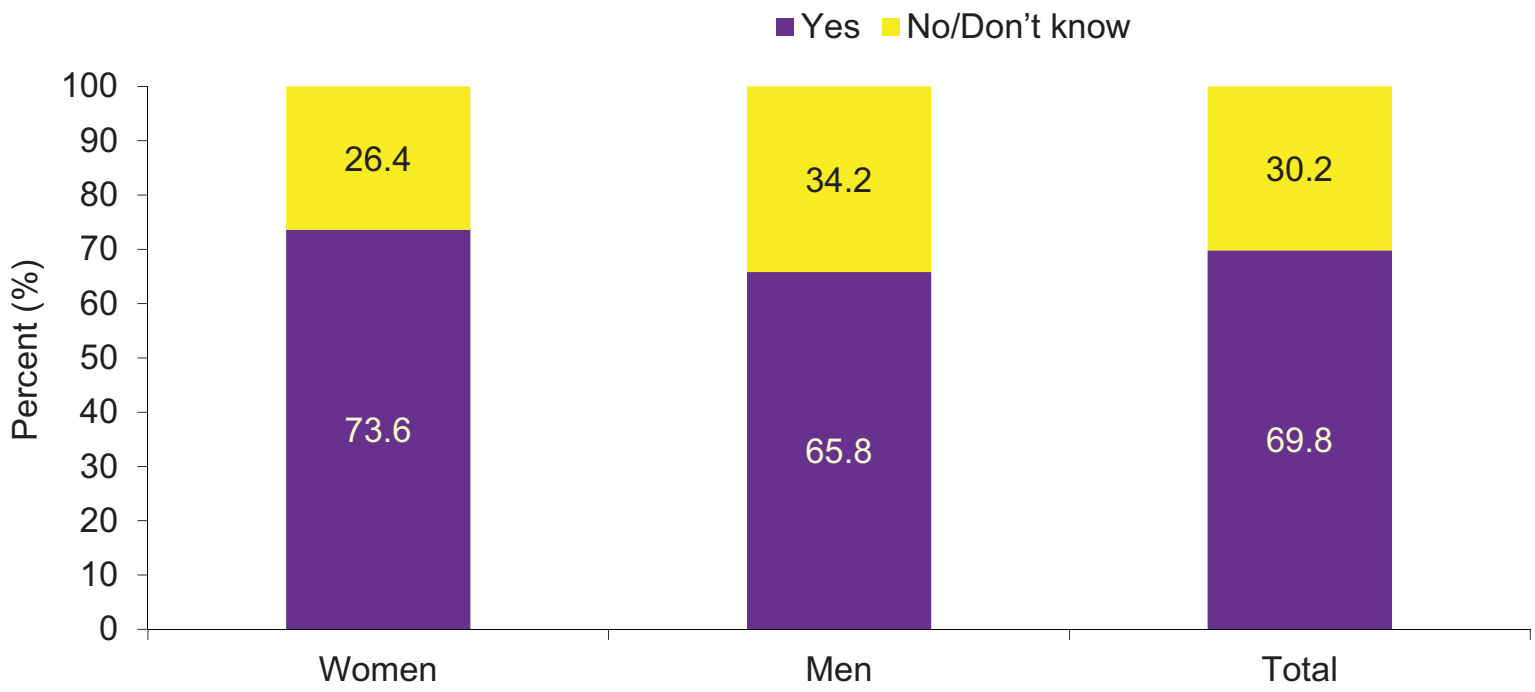
Figure 6.3e: Opinion on teaching children about condom use among adults and adolescents aged 15–64 years by level of education, KAIS 2012



About one-third of adolescent and adult respondents agreed that children aged 12-14 years should be taught about using condoms to avoid HIV.

When asked if children aged 12 to 14 year should be taught about using a condom to avoid HIV, respondents who had no primary education had lower rates of agreement with educating children about condoms (48.6%) while those with other educational levels were fairly consistent in their support (61.9% – 68.3%). The level of agreement did not differ by sex or residence (data not shown).

Figure 6.3f: Knowledge of special drugs available that reduce the transmission of HIV from mother-to-child among women and men aged 15–64 years, KAIS 2012



Only two in every three men, compared to three in every four women, were aware that special drugs can be given to an HIV-infected woman to reduce the risk of HIV transmission to a baby.

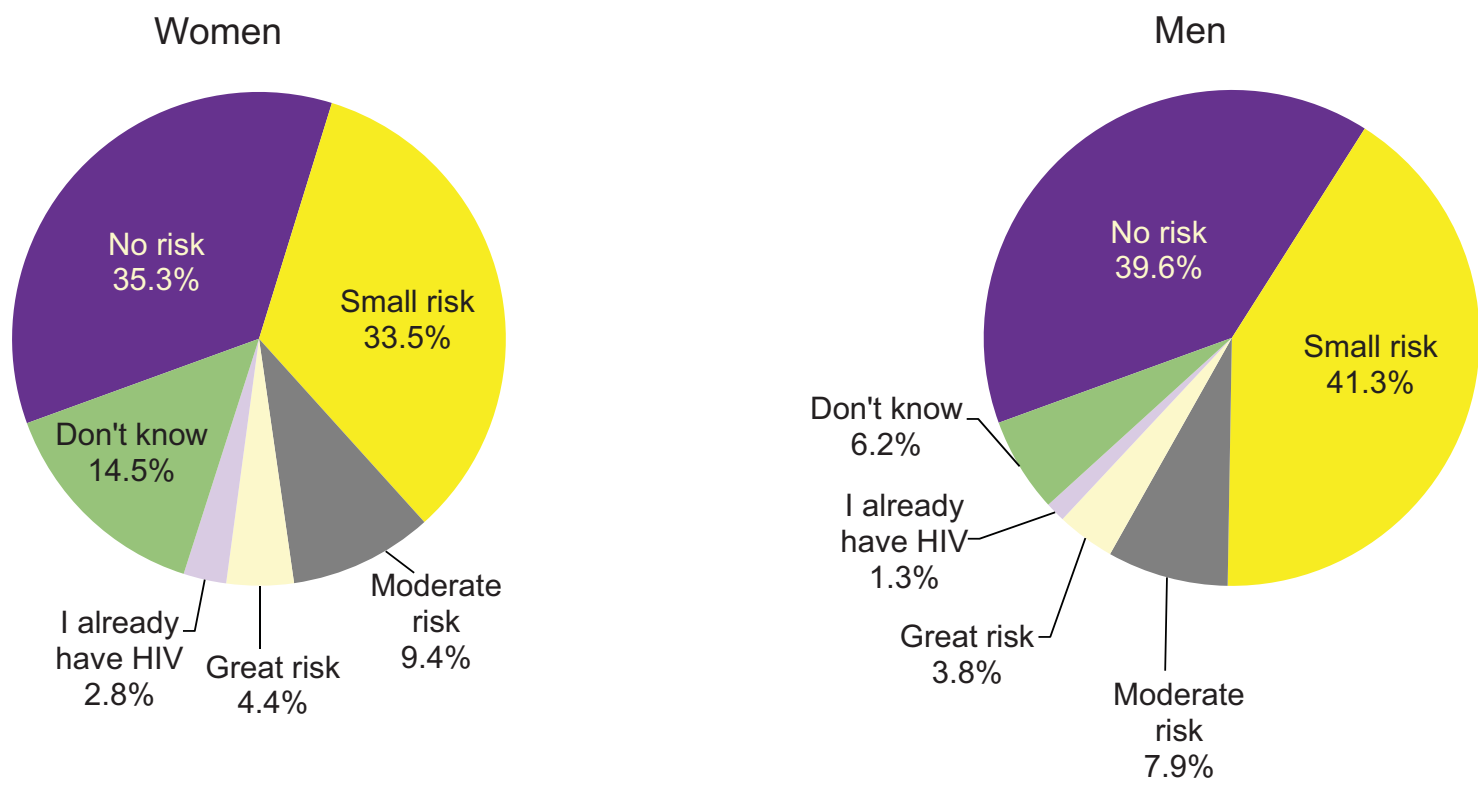
Knowledge of special drugs that can be given to a woman infected with HIV to reduce the risk of transmission to her baby was relatively low, with only 73.6% of women and 65.8% of men aware that such drugs are available.

[1] Secondary+ includes any years of secondary schooling whether completed or not.

6.4 Perceived Risk of HIV Infection

This section examines individuals' self-perception of risk for HIV infection, allowing them to categorize their risk as no risk, small, moderate, or great. Respondents were also able to indicate that they did not know their risk. Those who replied that they were already HIV-infected were excluded from subsequent questions regarding reasons for level of self-perceived risk.

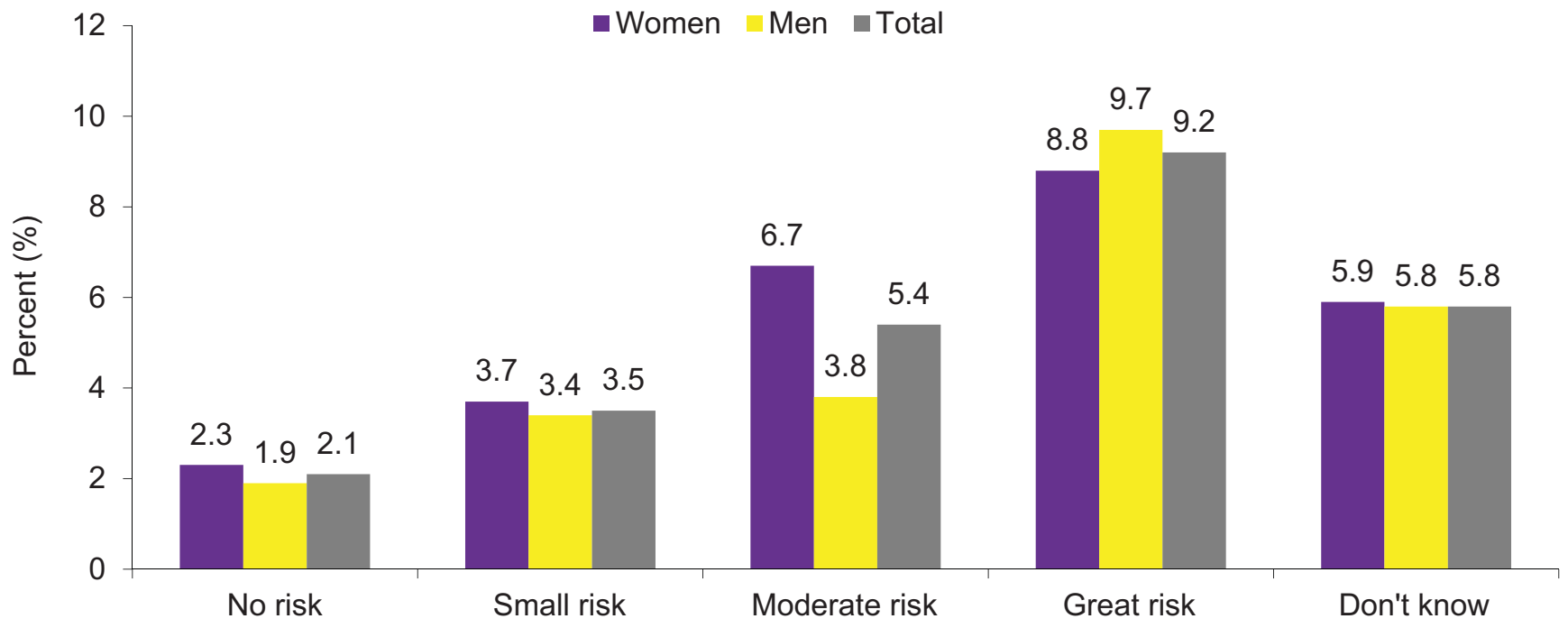
Figure 6.4a: Perceived risk of HIV infection among women and men aged 15–64 years, KAIS 2012



The majority of respondents viewed themselves to be at small or no risk of HIV infection.

Overall, the majority of women and men perceived themselves to be at no (35.3% women; 39.6% men) or small (33.5% women; 41.3% men) risk for HIV infection. A smaller proportion (9.4% of women and 7.9% of men), perceived themselves to be at moderate risk, while 4.4% of women and 3.8% of men believed themselves to be at great risk. Overall, 14.5% of women and 6.2% of men were unable to classify their risk (responding "don't know"), while 2.8% of women and 1.3% of men responded that they already had HIV.

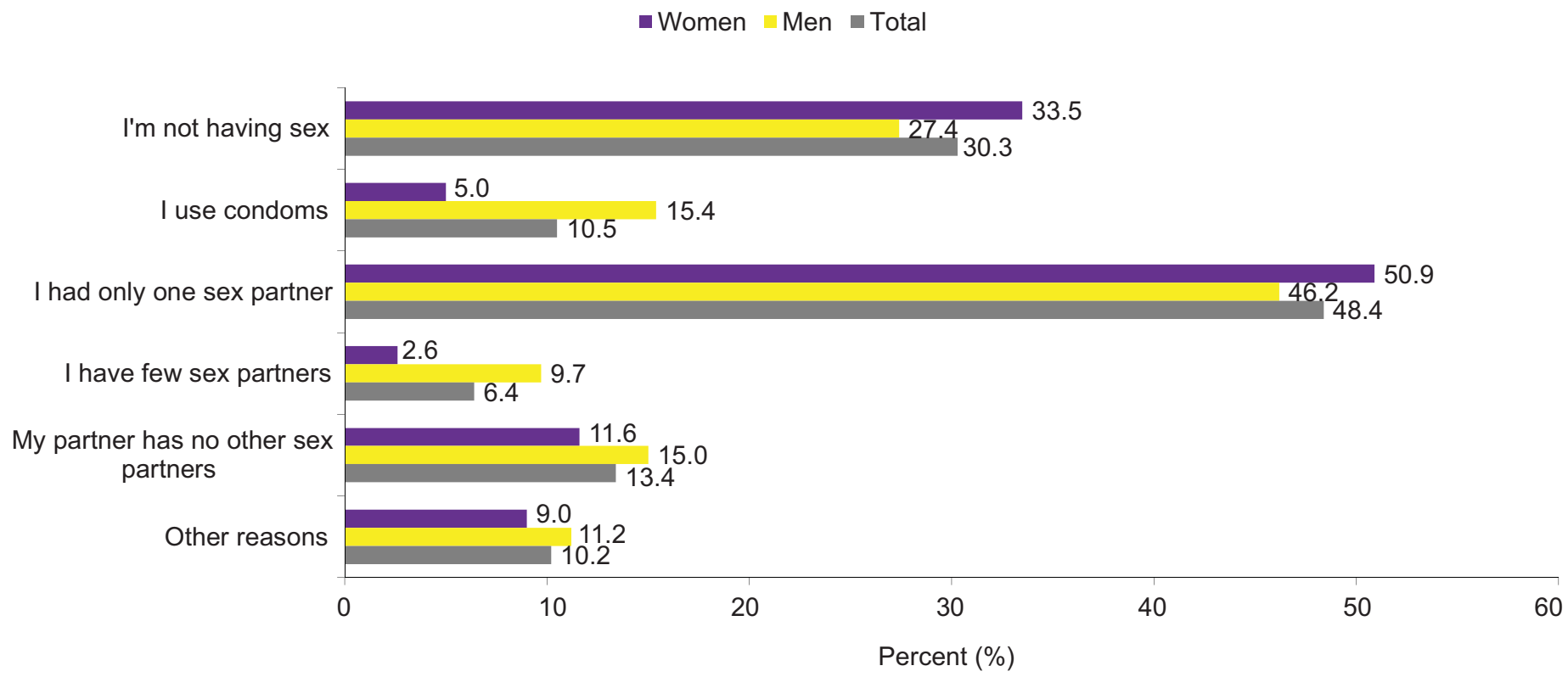
Figure 6.4b: HIV prevalence among women and men aged 15–64 years by perceived risk of infection, KAIS 2012



The highest HIV prevalence was seen among women and men who perceived themselves at great risk of HIV infection.

In general, there was a clear relationship between infection with HIV and perceived level of risk. Those who perceived themselves to be at no risk had the lowest prevalence, at 2.1%. Respondents who classified themselves at small risk had an overall prevalence of 3.5%. Among those perceiving themselves at moderate risk there was notable difference between the sexes, with women having a prevalence of 6.7% and men at 3.8%. Those seeing themselves at great risk had the highest prevalence rates, with 8.8% among women and 9.7% among men. People who were unable to classify their risk ("don't know") had an overall prevalence of 5.8%. Nationally, HIV prevalence in 2012 was 6.9% and 4.4% among women and men aged 15-64 years respectively.

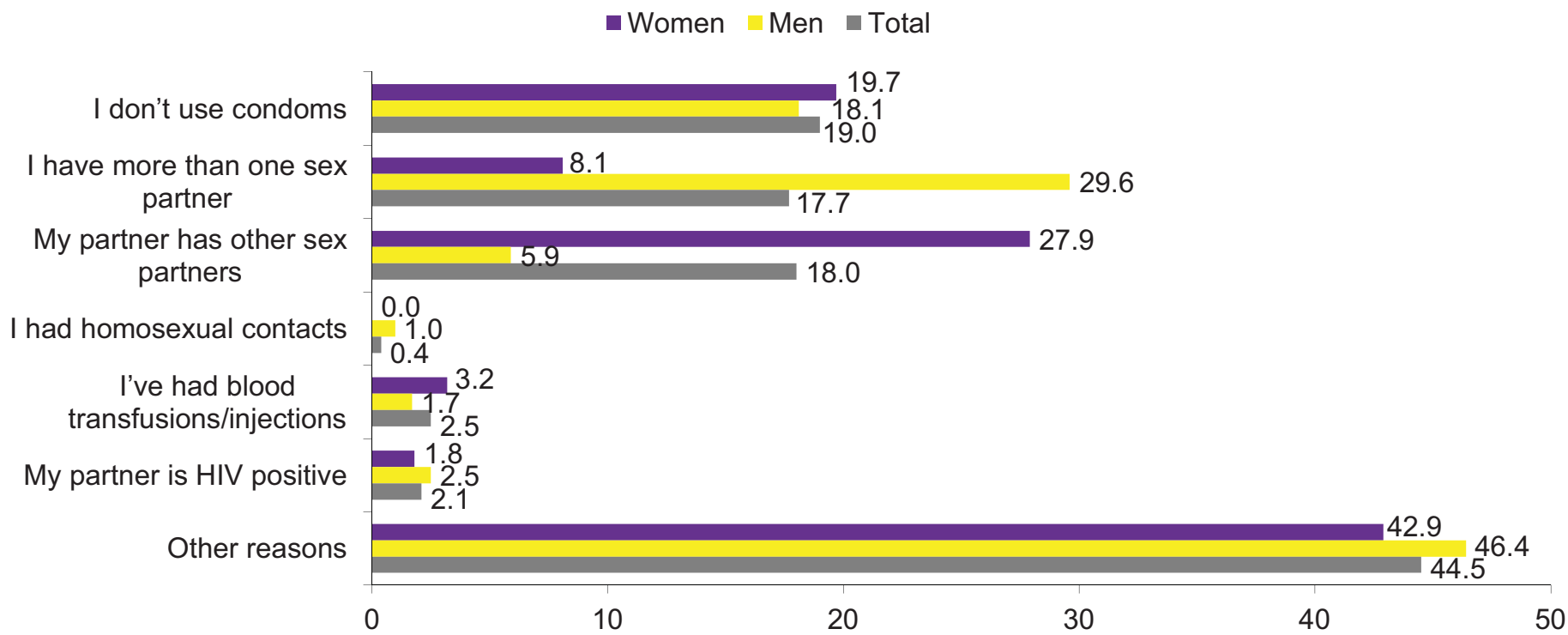
Figure 6.4c: Reasons given for perceiving no or small risk of HIV infection among women and men aged 15–64 years, KAIS 2012



The most commonly cited reason for perceiving no or small perceived risk of HIV infection was having only one sex partner, followed by not having sex.

Having only one partner was the most commonly reported reason for perceiving oneself to be at no or small risk of HIV infection among both women and men, 50.9% and 46.2% respectively. Reporting not having sex was the next most common reason, at 33.5% among women and 27.4% among men. The third most common reason for self-perceived low risk among women was the belief that their partner had no other sex partners, at 11.6%. The next most common reason for self-perceived low risk among men was the use of condoms, at 15.4%.

Figure 6.4d: Reasons given for having moderate or great risk of HIV infection among women and men aged 15–64 years, KAIS 2012



The most common reasons for perceiving oneself to be at moderate or great risk of HIV infection were having more than one partner (men) and one's partner having additional sex partners (women).

Among respondents who reported having a moderate or great perception of HIV risk, the reason most commonly cited by women was that their partner has other sex partners (27.9%), while the reason described most frequently by men was having more than one sex partner (29.6%). Only 8.1% of women described having more than one sex partner as a reason for perceiving moderate-to-great risk. Furthermore, only 5.9% of men cited the belief that their partner has other sex partners as a reason for being at moderate-to-great risk. Both women and men (19% overall) cited not using condoms as a reason for their self-perceived elevated risk. "Other reasons" represented nearly 50% of responses—many of these could be characterized as lack of trust in one's partner, concern that a partner might be unfaithful, and a number of concerns about non-sexual modes of transmission such as accidents or exposure to sharp objects (data not shown).

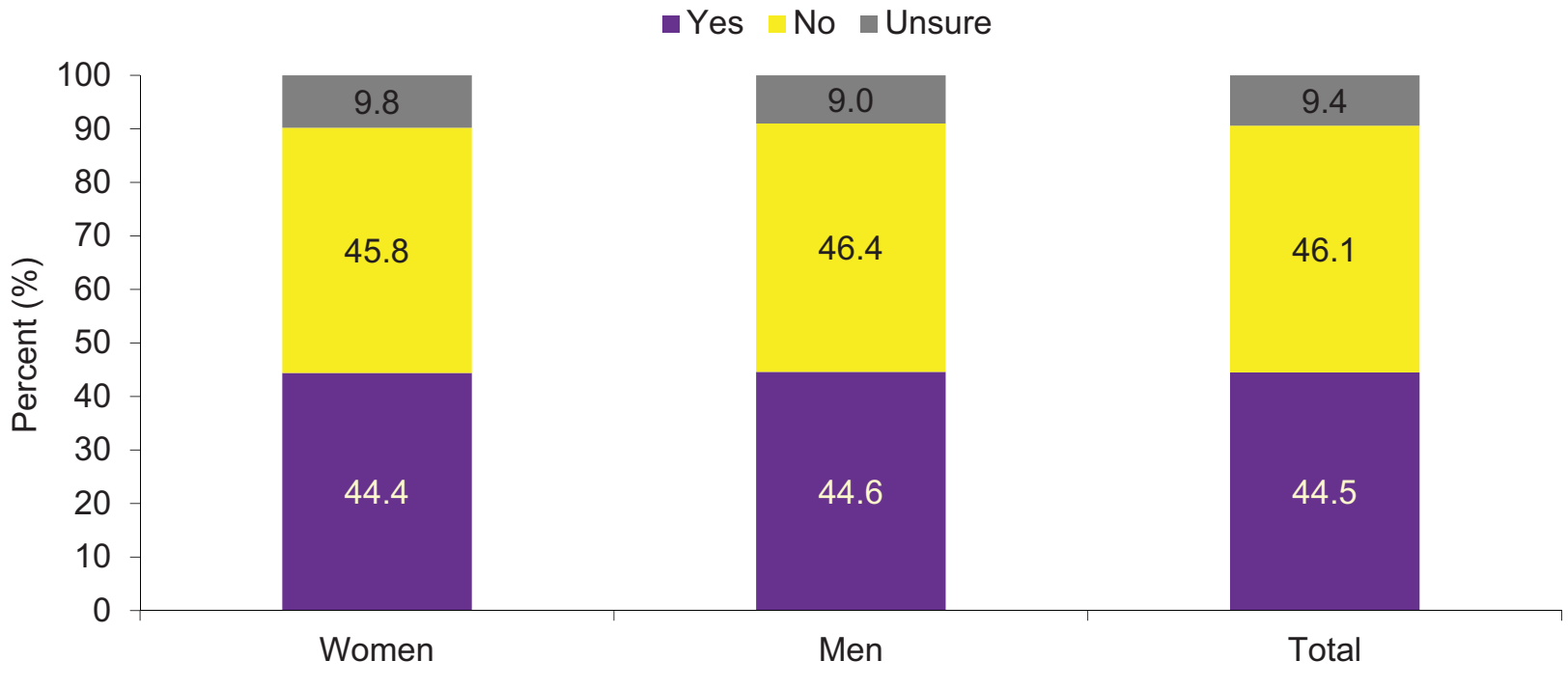
Data in Context: Understanding acceptability is key to the introduction of new HIV interventions

The field of HIV prevention and treatment is dynamic, with new tools continually becoming available. Scientific validation of these tools through laboratory and clinical trials is critical. However, understanding acceptability is also important as it will ultimately determine the uptake and ability of these new methods to affect the HIV epidemic. Three questions were included in KAIS 2012 to begin to explore the acceptability of several novel tools—female microbicide, use of pre-exposure prophylaxis and HIV home self-testing kits. One question in a long survey provides only a small window into the complex issues of acceptability, but further analysis of respondents' interest in these new tools will be critical in guiding their introduction if they are to become available.

6.5 Willingness to Use Female Microbicide

There are continual efforts to introduce innovations in HIV prevention. One new biomedical prevention method that could become available in the future is the use of female microbicides. Female microbicides can be creams, gels or films placed inside the vagina in order to reduce the chance of infection with organisms such as HIV or other sexually transmitted infections. Effective microbicides to protect against HIV infection are not currently on the market; however in the future, an effective woman-controlled prevention method could offer important advantages.

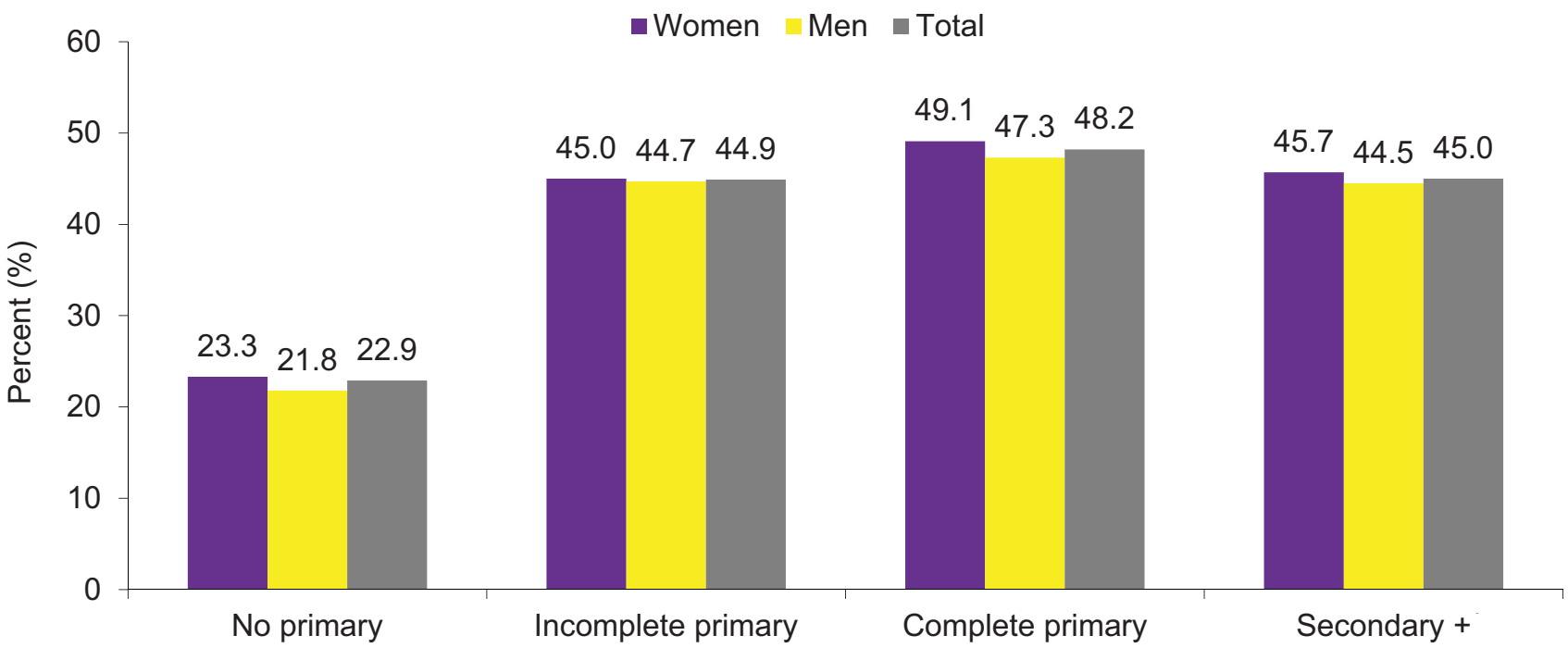
Figure 6.5a: Willingness to use female microbicides among women and men aged 15–64 years who did not report themselves as HIV-infected, KAIS 2012



Less than half of respondents would be willing to use a female microbicide before sex to reduce the chance of getting HIV infection.

Respondents were asked about their willingness to use a medication that could be put into a woman's vagina before she has sex to reduce her chances of getting HIV infection. Only 44.4% of women and 44.6% of men indicated that they would be willing to use a female microbicide were it to be available. Almost 10% of both women and men reported that they were unsure.

Figure 6.5b: Willingness to use female microbicides among women and men aged 15–64 years who did not report themselves as HIV-infected by level of education[1], KAIS 2012

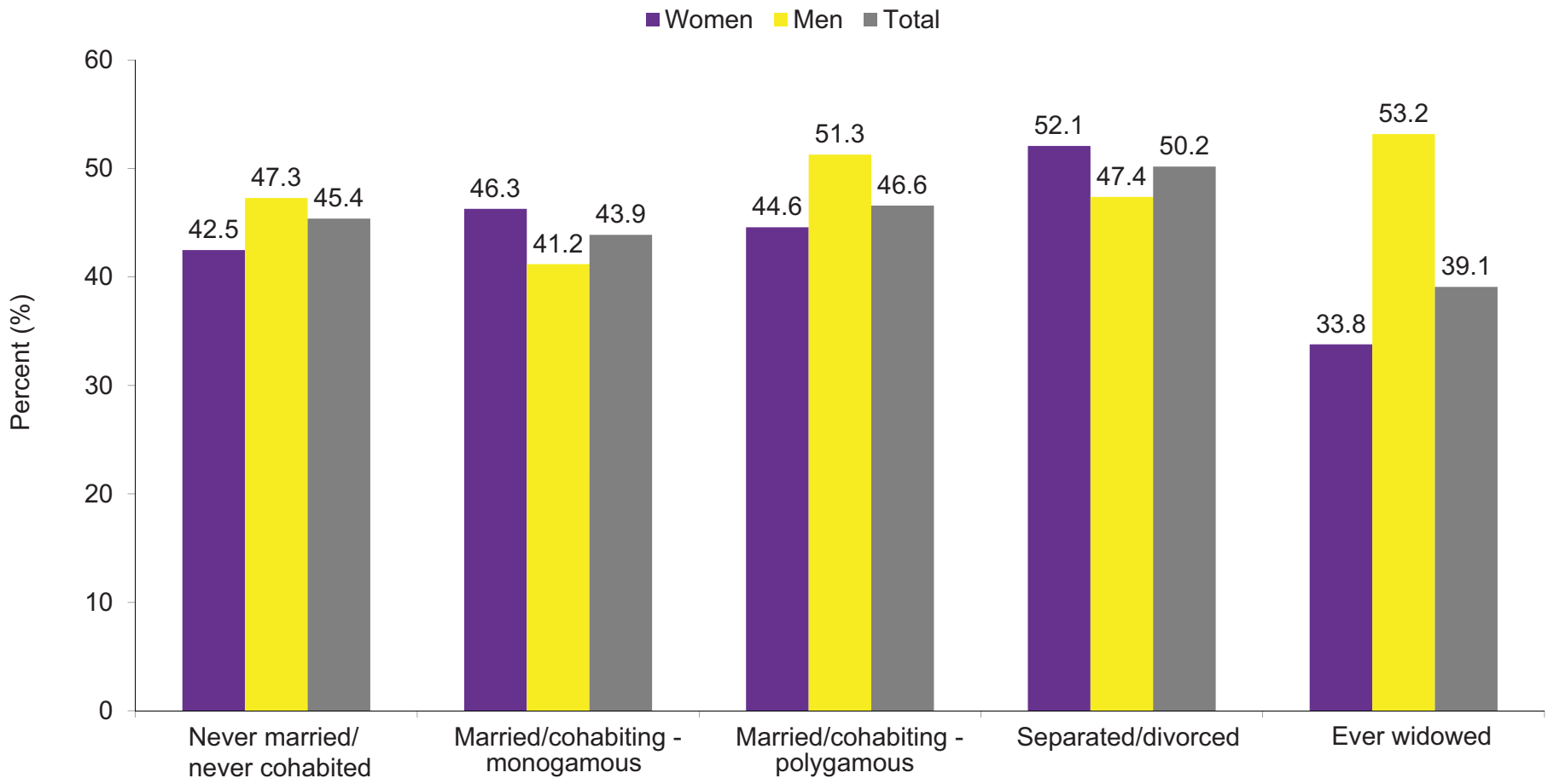


Both women and men with no primary education were less willing than more educated women and men to use female microbicides if made available.

Willingness to use a medication that could be put into a woman's vagina before she has sex to reduce her chances of getting HIV infection was lower among respondents who had no primary education, at 23.3% among women and 21.8% among men compared to women and men in higher education levels. No differences in willingness to use this method were observed among women and men who reported incomplete primary, complete primary, and secondary or higher education.

[1] Secondary + includes any years of secondary schooling whether completed or not.

Figure 6.5c: Willingness to use female microbicides among women and men aged 15–64 years who did not report themselves as HIV-infected by marital status, KAIS 2012



Separated or divorced women, along with married or cohabiting polygamous men and single men were the most willing to use female microbicides.

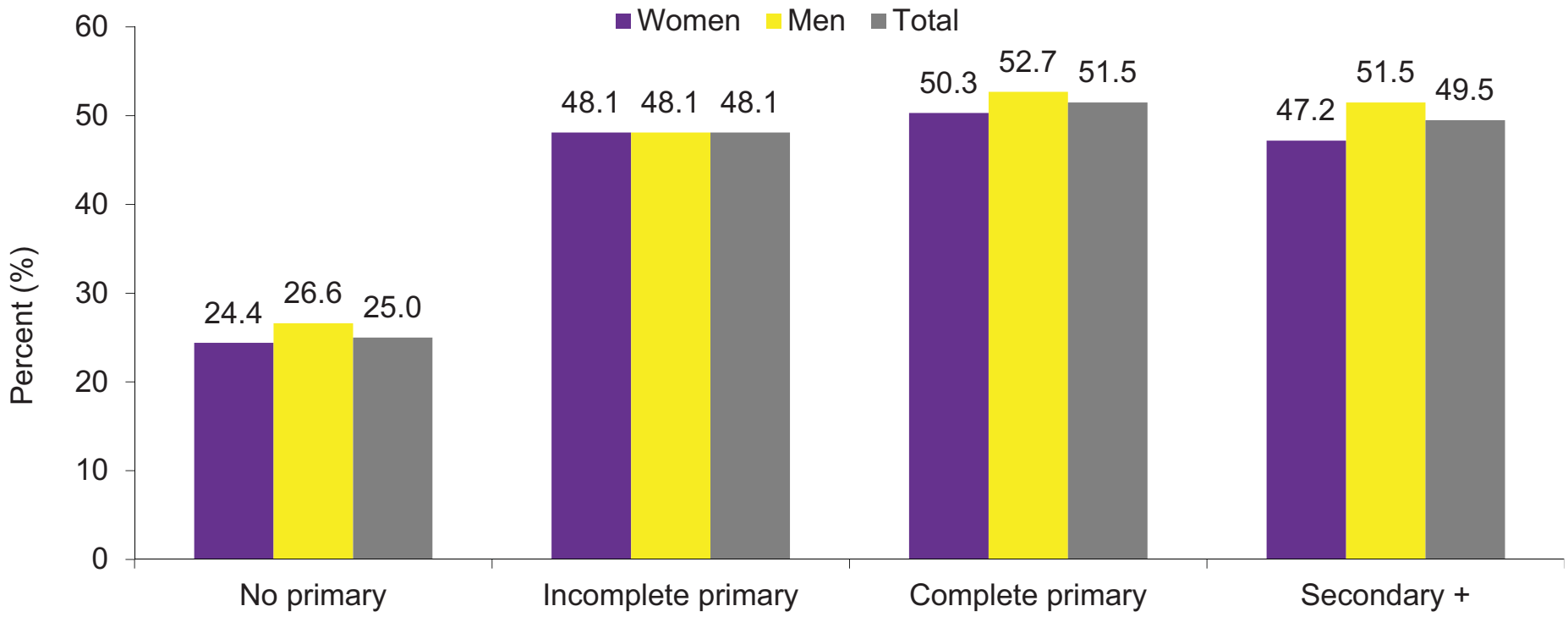
Among women, those who were separated/divorced showed the highest willingness to use female microbicide (52.1%). Men in polygamous union (married/cohabiting) displayed the highest willingness to use female microbicide (51.3%), though interest among women in polygamous unions was lower, at 44.6%. Men who had never married were also interested in microbicide use (47.3%). Widowed women were the least willing to use female microbicide (33.8%) if it were to be made available, while 53.2% of widowed men indicated willingness to use this method.

6.6 Willingness to Use Pre-Exposure Prophylaxis

Pre-exposure prophylaxis (PrEP) is the administration of antiretroviral therapy to HIV-uninfected persons to reduce their chance of acquiring HIV. While the possible uses of PrEP demand further study, such a prevention tool could provide an important option particularly for high-risk populations.

Respondents were asked about their willingness to use PrEP, a medication which, if taken orally every day, can reduce a person's chances of getting HIV infection, were it to be available. Among women, 45.9% responded affirmatively while 50.8% of men were willing to take such a medication. Overall, 8.2% of respondents were unsure whether such an option would be acceptable to them.

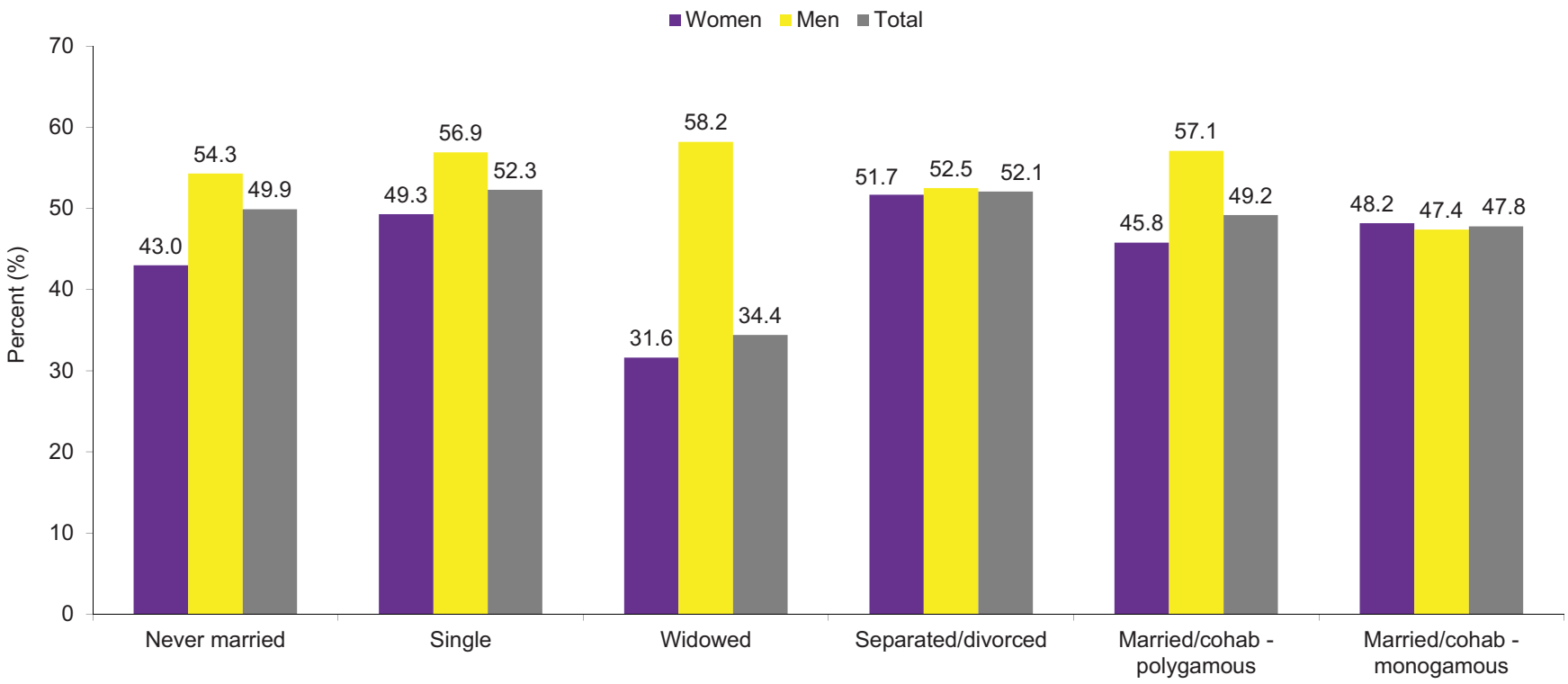
Figure 6.6a: Willingness to use pre-exposure prophylaxis among women and men aged 15–64 years who did not report themselves as HIV-infected by level of education[1], KAIS 2012



Respondents with no primary education were less willing to use pre-exposure prophylaxis to prevent HIV infection.

Willingness to use PrEP was lowest among respondents with no primary education, at 25.0% overall. Those who had completed primary education displayed the greatest willingness to use this medication were it to be available, at 50.3% among women and 52.7% among men.

Figure 6.6b: Willingness to use pre-exposure prophylaxis among women and men aged 15–64 years who did not report themselves as HIV-infected by marital status, KAIS 2012



Widowed men and married or cohabiting polygamous men were most likely to be willing to use pre-exposure prophylaxis.

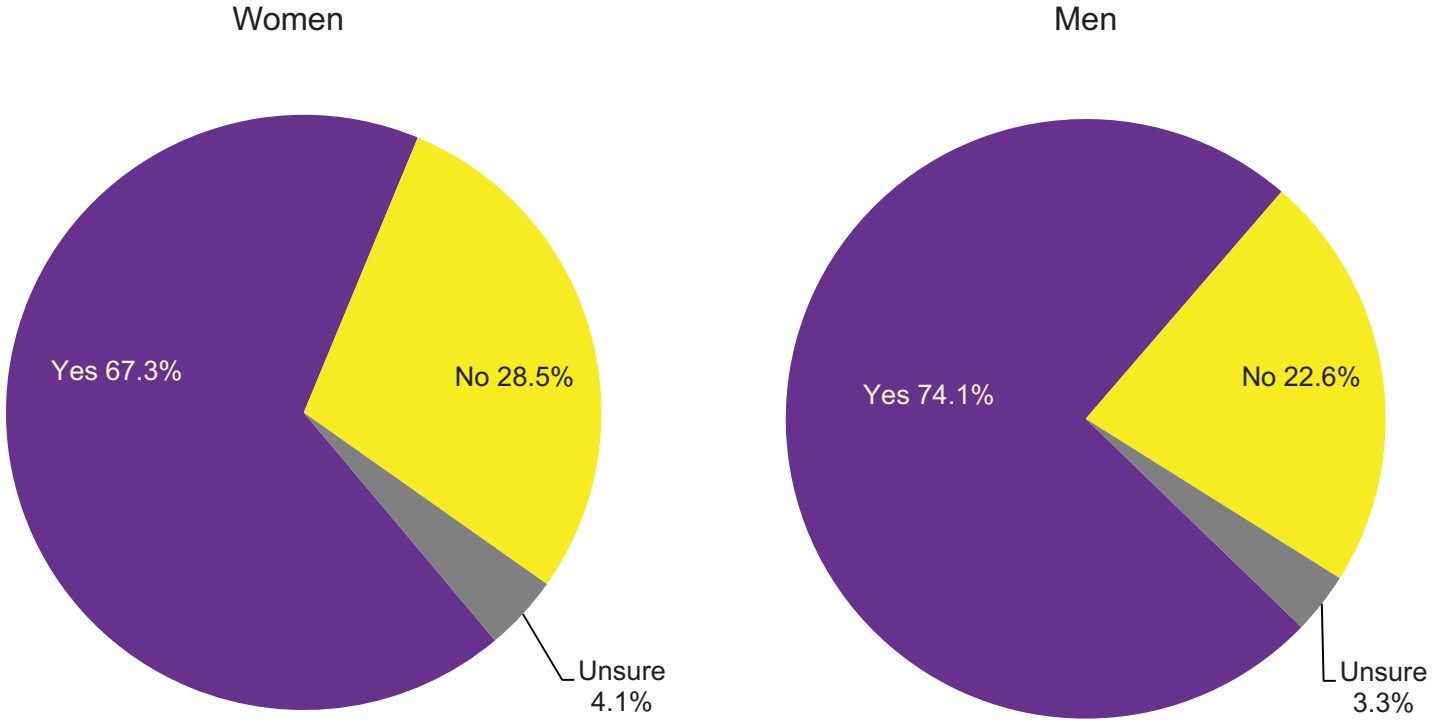
Widowed women were the least willing to consider using of PrEP (31.6%) if it were to made available, while 58.2% of widowed men indicated willingness to use this medication. Polygamous married/ cohabiting men also displayed high willingness to use PrEP (57.1%) though interest among women in polygamous unions was lower, at 45.9%. Willingness to use PrEP was slightly higher among men in all categories of marital status, except among married or cohabiting monogamous persons where it was approximately equal (48.2% among women compared to 47.4% of men). Interest in PrEP among women was highest among those who were separated or divorced (51.7%).

[1] Secondary + includes any years of secondary schooling whether completed or not

6.7 Willingness to Use an HIV Home Self-Testing Kit

HIV home self-test kits would present an option to increase the availability of HIV testing in Kenya, particularly for people who have avoided existing testing venues due to fear or stigma. HIV home self-test kits would use a rapid test kit format, in which results would be available to the tester in a matter of minutes and testers would be encouraged to seek confirmation of any positive result at a health facility. HIV negative persons would be encouraged to re-test at an appropriate interval. HIV home self-test kits have limited availability in Kenya (e.g., private clinics or select pharmacies), and a number of logistic and distribution issues would need to be considered before they become mainstream. It is important to understand community acceptability of this testing option before pursuing its implementation.

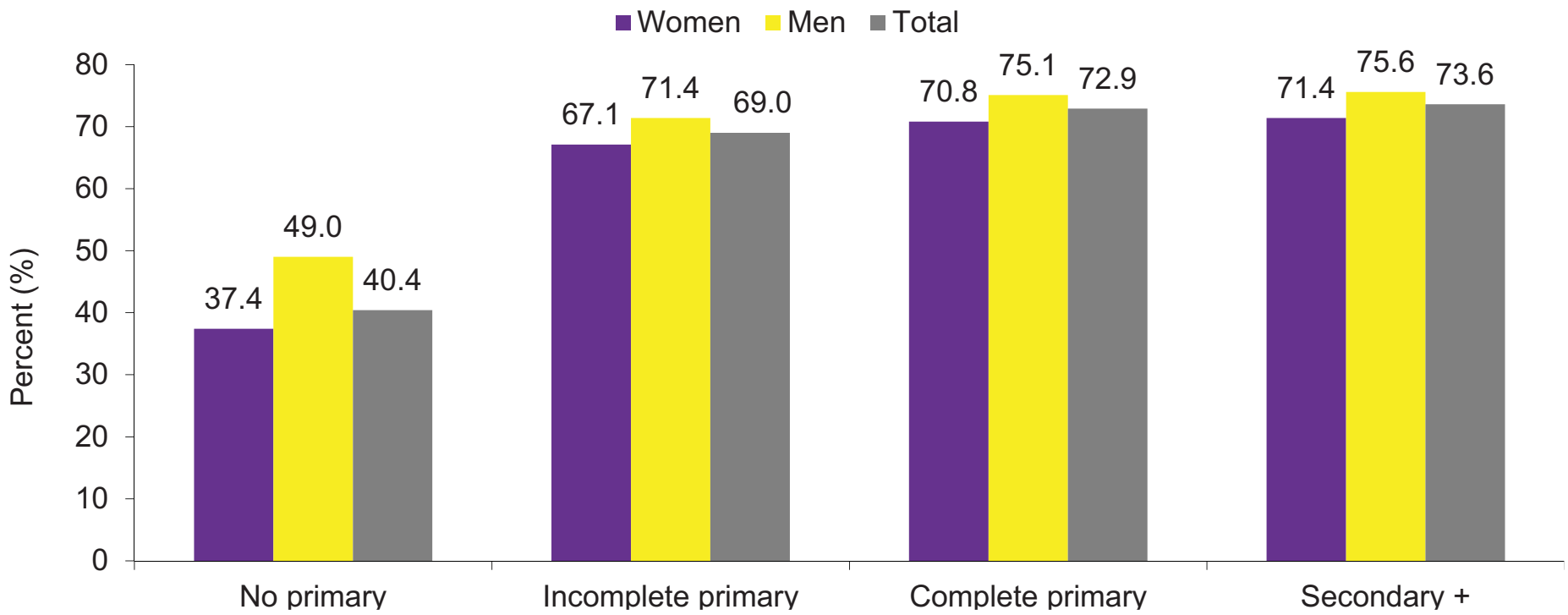
Figure 6.7a: Willingness to use an HIV home self-test kit among women and men aged 15–64 years who did not report themselves as HIV-infected, KAIS 2012



Fewer women (67.3%) than men (74.1%) were willing to use an HIV self-test kit in private or at home if such a kit were available.

It was explained to respondents that an HIV self-test kit is a method where people can test for HIV in private or at home. Overall, 70.7% of respondents would be willing to use such a kit if it were to be available to them (data not shown). More men (74.1%) than women (67.3%) indicated willingness to use an HIV self-test kit.

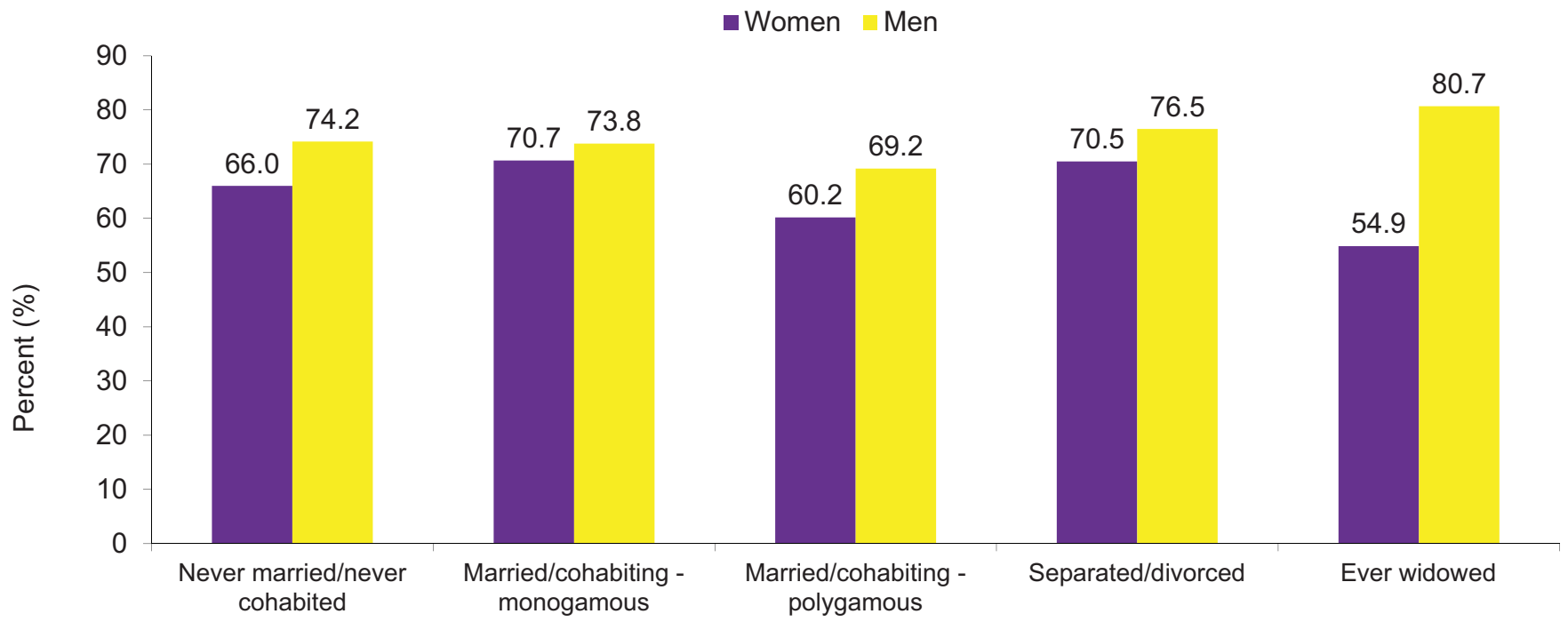
Figure 6.7b: Willingness to use an HIV home self-test kit among women and men aged 15–64 years who did not report themselves as HIV-infected by level of education[1], KAIS 2012



Women and men with no primary education showed the least willingness to use an HIV home self-test kit.

Women and men with no primary education were the least willing to use an HIV home self-test kit; 37.4% of women and 49.0% of men indicated a willingness to use a self-test kit. Men at every educational level showed slightly higher rates of willingness to use a HIV home test kit than women.

Figure 6.7c: Willingness to use an HIV home self-test kit among women and men aged 15–64 years who did not report themselves as HIV-infected by marital status, KAIS 2012



Widowed women (54.9%) were the least willing to use an HIV home self-test kit, while widowed men (80.7%) were the most willing.

Widowed women were the least willing to use an HIV home self-test kit (54.9%) if it were to be made available, while interest in the test kit was highest among widowed men (80.7%) followed closely by separated or divorced men (76.5%). Among women, willingness to use the HIV home self-test kit was highest among married or cohabiting monogamous women (70.7%), followed by separated or divorced women (70.5%). Willingness to use HIV home self-test kits was slightly higher among men in all categories of marital status.

[1] Secondary + includes any years of secondary schooling whether completed or not.

6.8 Gaps and Unmet Needs

- Nearly half of respondents did not know that HIV can be transmitted during pregnancy and nearly one-quarter of respondents were unaware of transmission during delivery. Additionally, more than one-quarter of women and over one-third of men were unaware that drugs are available to reduce mother-to-child transmission. Improved outreach and education on these topics is critical to eliminate mother-to-child transmission.
- The majority of respondents, male and female, continue to see themselves at no or low risk for HIV infection. The most commonly cited reason for low risk perception was only having one sex partner, though this may provide little protection if monogamy is not mutual. The detection of HIV infection among persons with low perceived risk illustrates the need for prevention interventions that improve the understanding of risk factors for HIV.
- Two-thirds of respondents agreed that adolescents should be taught about condom use, highlighting an opportunity to further pursue this educational strategy aimed at youth.
- Willingness to use novel interventions, including both microbicides and pre-exposure prophylaxis, was mixed; with willingness rarely rising above 50% in any respondent category. Respondents were more open to using an HIV home self-testing kit, with more than two-thirds of adults reporting that they would be willing to use one if it were to become available. It is clear that well-researched communication efforts will be needed to educate people and promote acceptance if these tools are to be introduced.

7 HIV TESTING

7.1 Key Findings

- Overall, 71.3% of adults and adolescents aged 15–64 years reported that they had been tested for HIV at least once in their lifetime; 55.7% of these reported being tested within the past 12 months.
- The proportion who had ever been tested for HIV was higher among women than men (79.8% versus 62.5% respectively) and among women, reached the national testing goal of 80.0%. Among respondents who had never been tested for HIV, 37.0% of women and 47.0% of men indicated that they did not seek testing because of low self-perceived risk for HIV infection.
- Sixty-six percent of respondents who visited a health care facility in the past 12 months were not offered HIV testing. Among those offered testing, acceptance rates were high.
- Among survey participants aged 15–64 years who had never been tested for HIV, 81.9% accepted home-based HIV testing and counselling services in the survey.

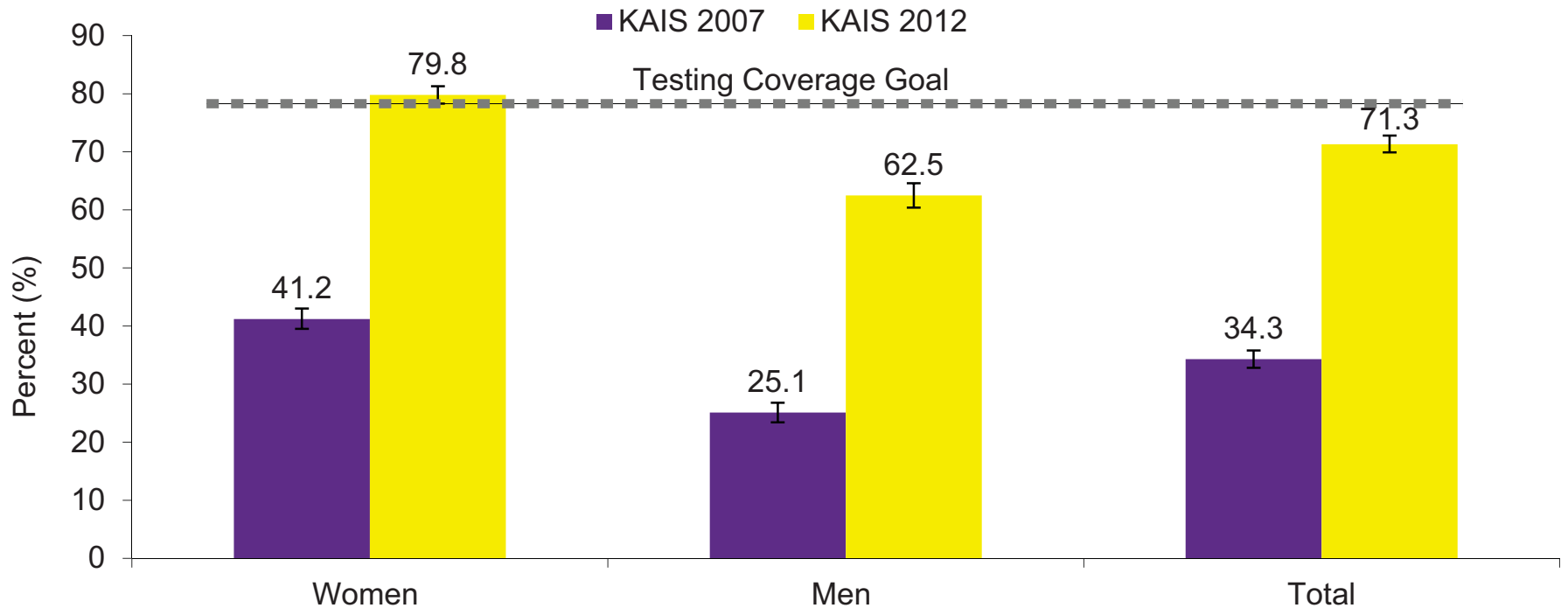
7.2 Introduction

HIV testing and counselling is a critical component of the control of the HIV epidemic and essential to reduce HIV-related morbidity and mortality. Knowledge of HIV status allows HIV-infected persons to access life-saving HIV care and treatment and provides an opportunity for HIV prevention counselling to reduce HIV transmission risk among both HIV-infected and HIV-uninfected persons.
The government of Kenya has established the goal of having at least 80.0% of adolescents and adults tested for HIV at least once by 2013. In this chapter, we present information on HIV testing among women and men aged 15 to 64 years and identify socio-demographic disparities and barriers to testing. Of note, the results presented for HIV testing do not imply that 100% of persons tested received their test result back. HIV testing data for children aged 18 months to 14 years are found in Chapter 12 in this report.

Appendix B provides sample sizes and 95% confidence intervals for estimates presented in this chapter.

7.3 HIV Testing Behaviour

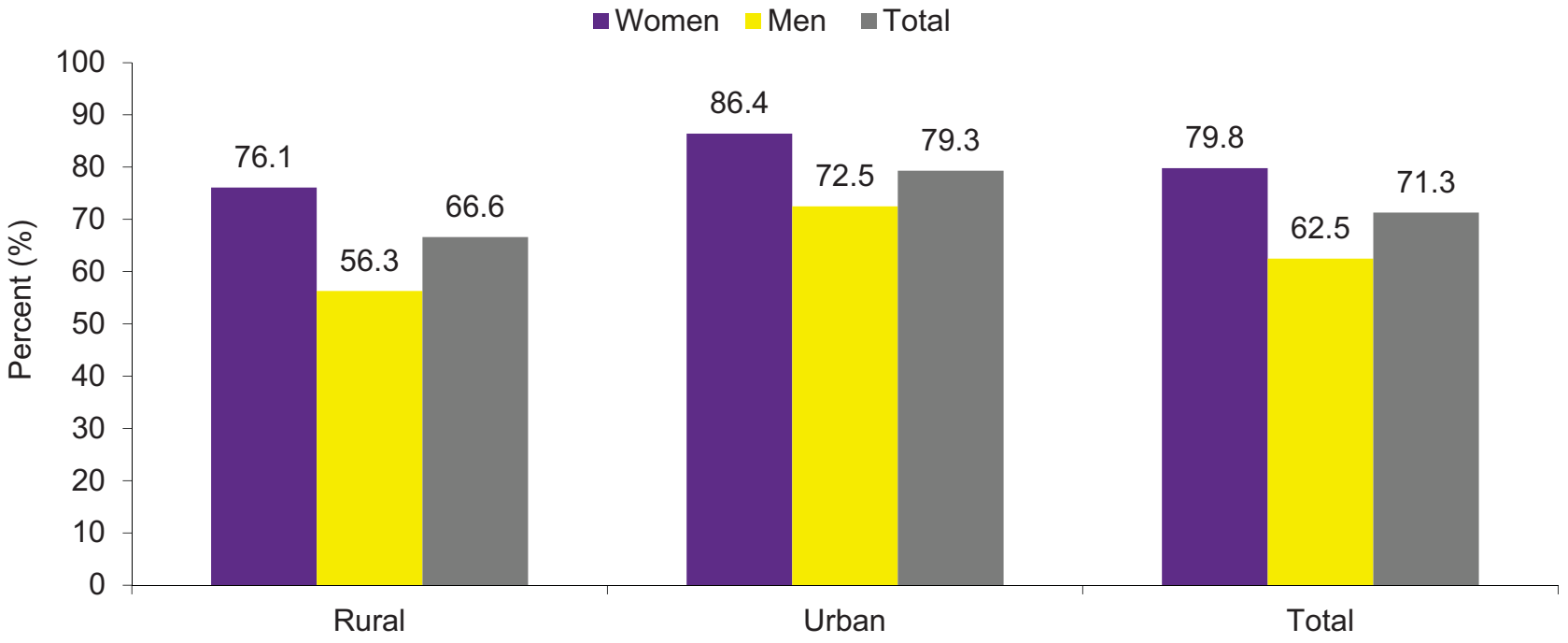
Figure 7.3a: Ever been tested for HIV among women and men aged 15–64 years, KAIS 2007 and KAIS 2012



Overall, the proportion of women who had ever been tested for HIV almost doubled from 2007 to 2012, nearly reaching the national HIV testing goal of 80%. Testing among men has more than doubled, but remained lower than women in 2007 and 2012.

The proportion of women and men who had ever been tested for HIV increased significantly from 34.3% in 2007 to 71.3% in 2012. Although there was a marked increase in testing coverage from 2007 to 2012 for both women and men, the increase was much more pronounced in men (25.1% to 62.5%) than in women (41.2% to 79.8%). The higher proportion of female testers compared to male testers is likely a result of expanded testing through the prevention of mother-to-child transmission of HIV programs, which provide free, opt-out testing to all pregnant women. To reach the national HIV testing goal of 80.0%, an additional 18% of men will need to be tested.

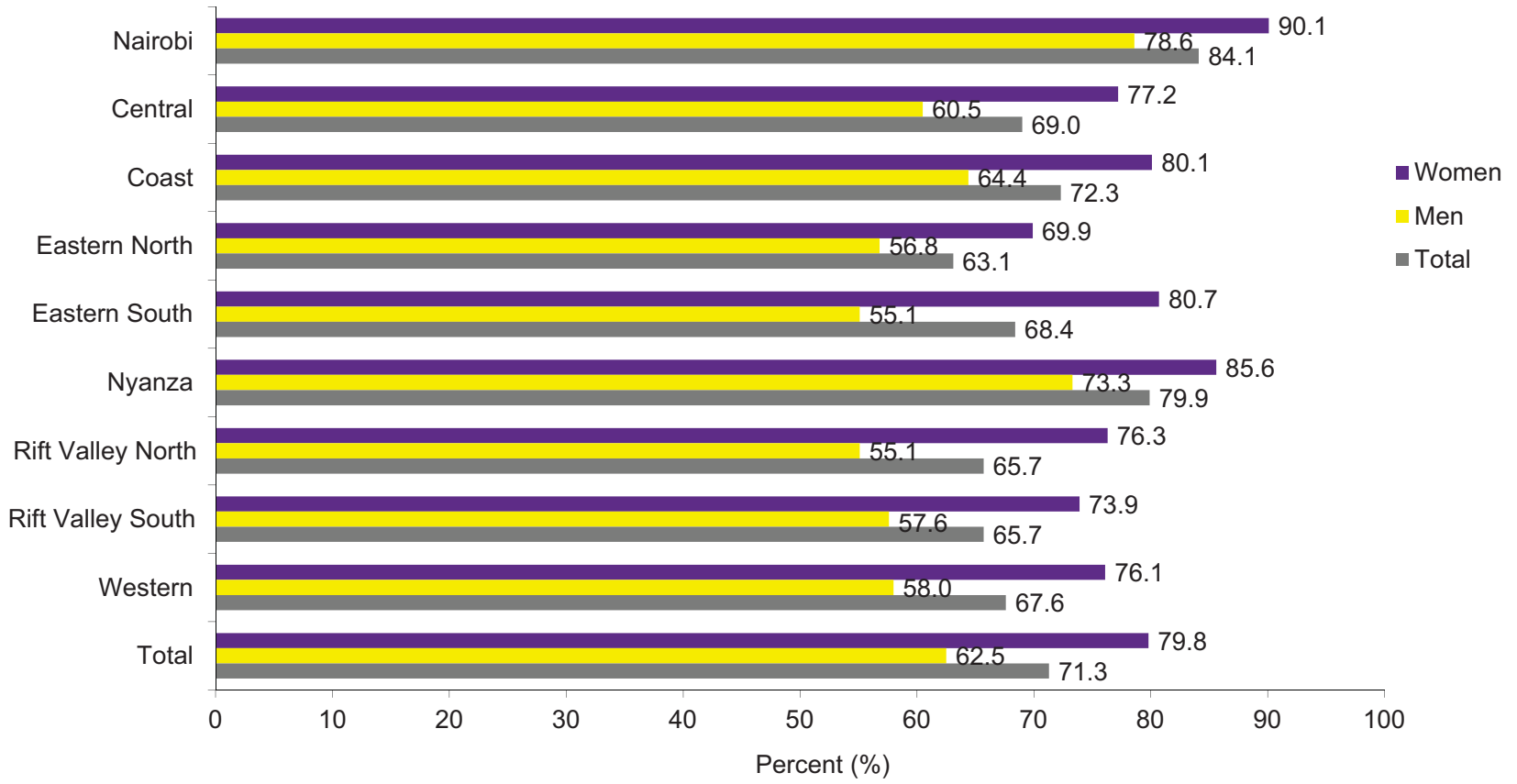
Figure 7.3b: Ever tested for HIV among women and men aged 15–64 years by residence, KAIS 2012



Higher proportions of women and men living in urban areas had tested than those in rural areas.

Higher HIV testing proportions were observed among urban residents (79.3%) than among rural residents (66.6%). Testing proportions were higher among women compared with men in both urban (86.4% women; 72.5% men) and rural (76.1% women; 56.3% men) areas. HIV testing coverage among women in urban areas had surpassed the national HIV testing goal of 80%.

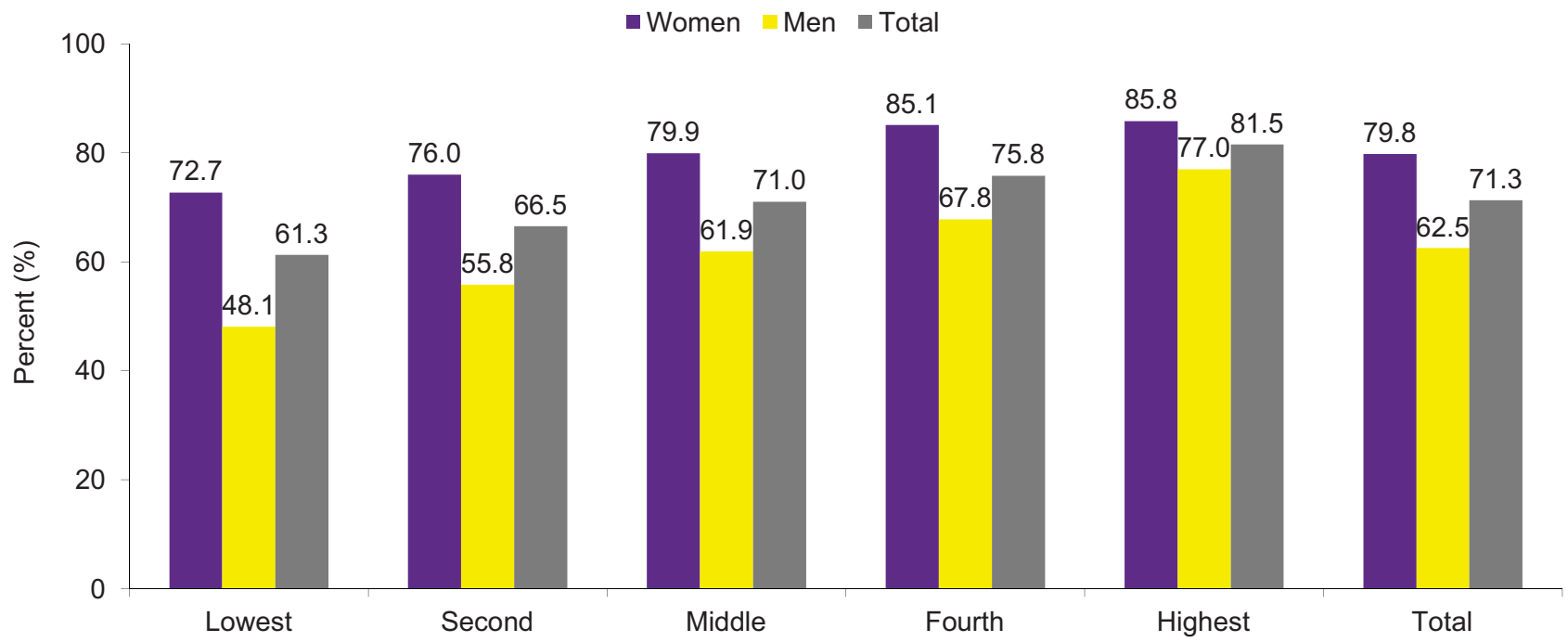
Figure 7.3c: Ever tested for HIV among women and men aged 15–64 years by region, KAIS 2012



The proportion of testers was highest in Nairobi and lowest in the Eastern North region. Nairobi and Nyanza have achieved the 80% national HIV testing goal. HIV testing was higher among women than men in all the regions

The proportion of adults who have ever been tested for HIV varied across regions, with the highest rate in Nairobi (84.1%) and the lowest in Eastern North (63.1%). In Nyanza, the region with the highest HIV prevalence in the country, 79.9% of persons had ever been tested for HIV. More women than men had ever been tested for HIV across all regions, surpassing the national testing goal of 80% in Nairobi, Nyanza, Coast, and Eastern South regions.

Figure 7.3d: Ever tested for HIV among women and men aged 15–64 years by wealth index[1], KAIS 2012

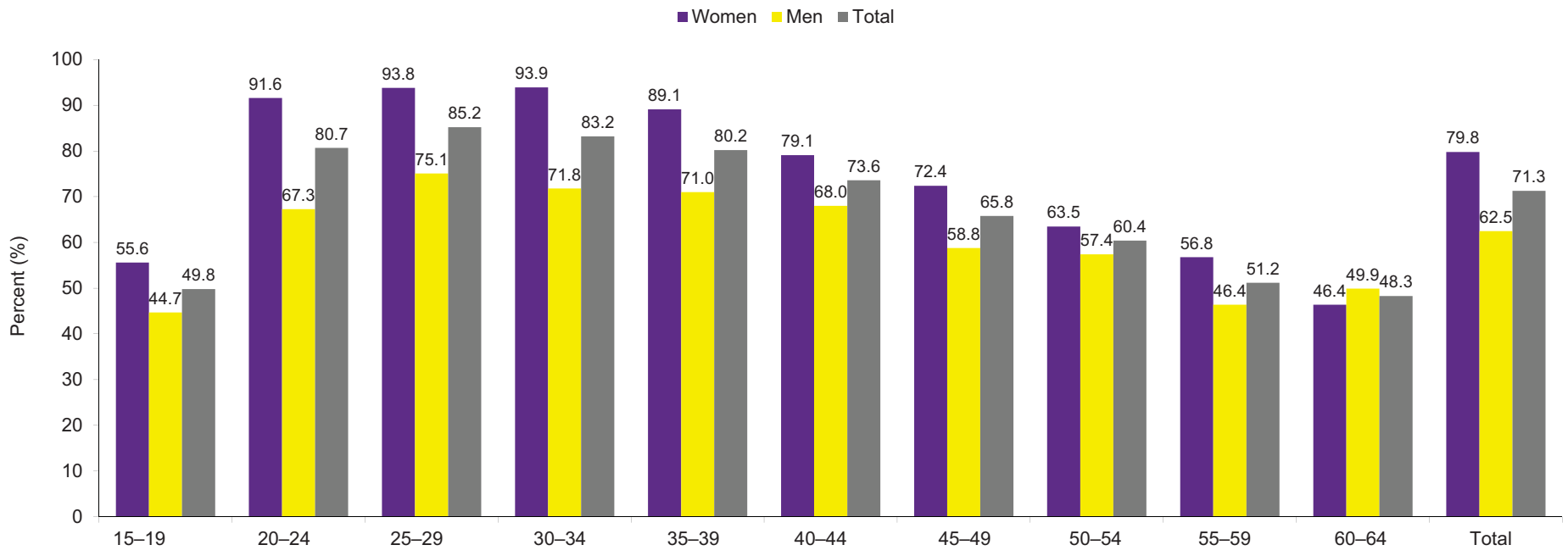


Poorer women and men reported lower rates of HIV testing compared with wealthier women and men.

Persons in the lowest wealth quintile had the lowest proportion of testers, at 61.3%, and persons the highest wealth quintile had the highest proportion of testers, at 81.5%. Across all wealth quintiles, testing was significantly higher among women compared with men.

[1] The wealth index was a composite measure of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access, and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principal component analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with equal number of individuals (quintiles), ranging from lowest to highest level of wealth.

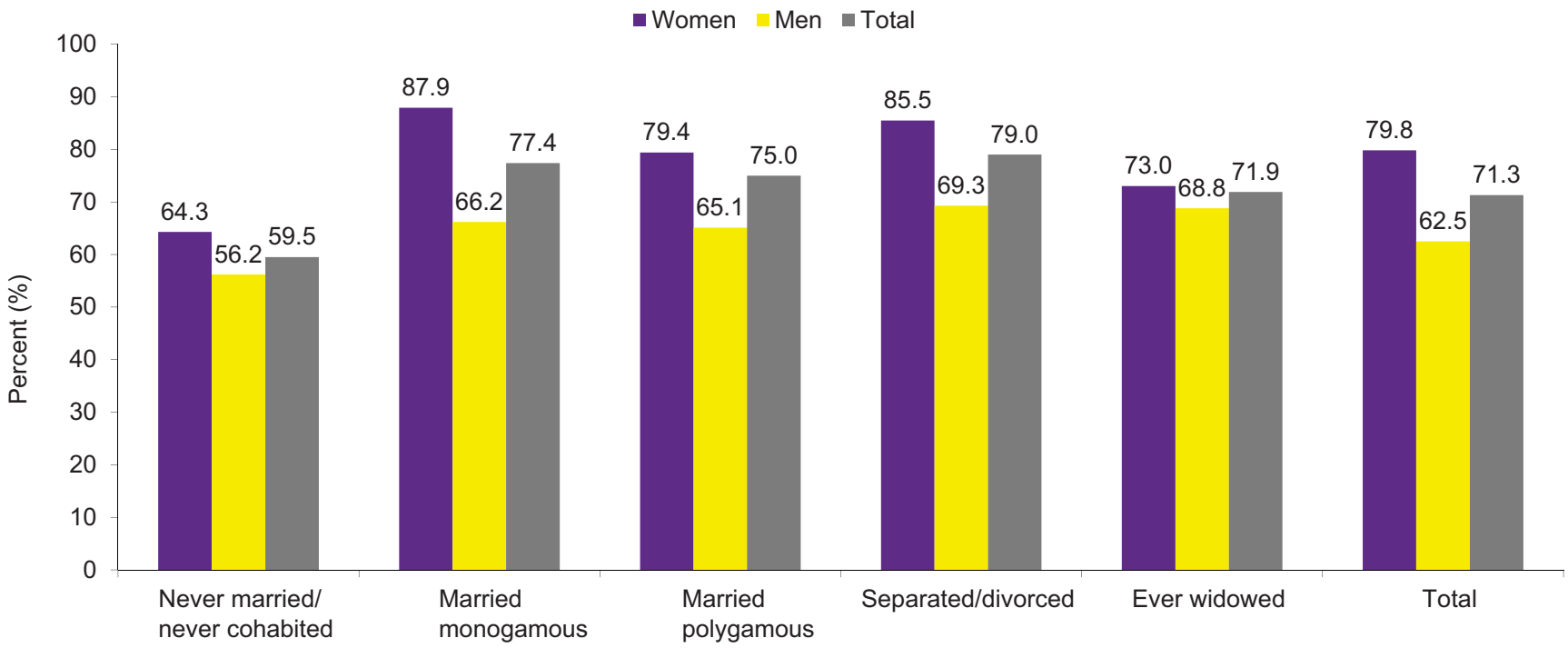
Figure 7.3e: Ever tested for HIV among women and men aged 15–64 years by age group, KAIS 2012



The highest testing rates were among women and men between the ages of 25 and 34 years.

Peak HIV testing proportions were observed among persons aged 25 to 29 years, at 85.2%, and 30 to 34 years, at 83.2%. The lowest testing proportions occurred among youth aged 15 to 19 years at 49.8% and older adults aged 60 to 64 years, at 48.3%. Women had higher testing proportions than men across all age groups except for older adults aged 60 to 64 years, among whom 46.4% of women and 49.9% of men reported ever having tested for HIV.

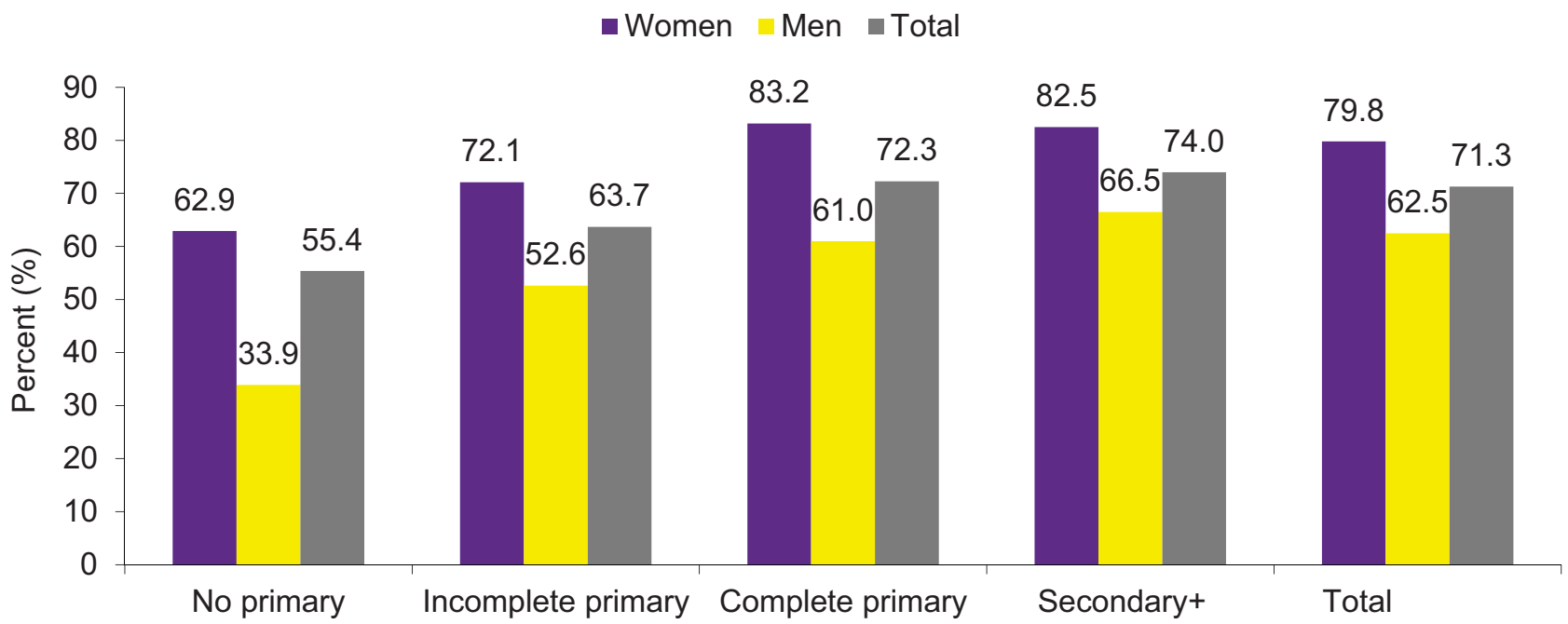
Figure 7.3f: Ever tested for HIV among women and men aged 15–64 years who ever had sex by marital status, KAIS 2012



Men and women who had never married or cohabited had the lowest testing rates compared with persons in other categories of marital status.

Overall, 86.9% of adults and adolescents aged 15-64 years had ever had sex (88.0% among women and 85.7% among men). Among persons who had ever had sex, HIV testing was lowest among those who had never been married or cohabited, at 59.5%. For men, testing was fairly consistent for those who were married in monogamous relationships (66.2%), married in polygamous relationships (65.1%), separated or divorced (67.2%), or widowed (68.8%). Among women, testing was highest among those who were married in monogamous relationships (87.9%) and those who were separated or divorced (58.5%). Women had significantly higher testing proportions than men in all categories of marital status except for the widowed category where testing was similar at 73.0% among women and 68.8% among men.

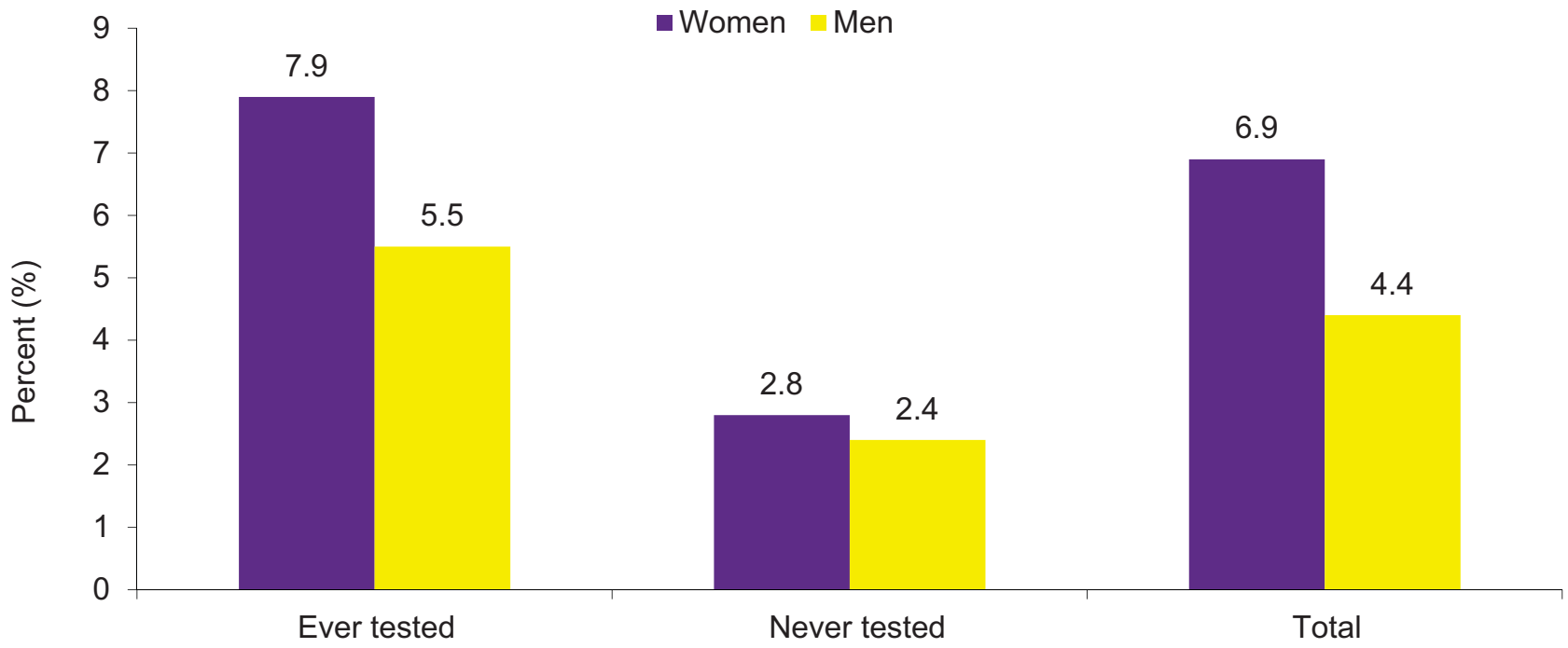
Figure 7.3g: Ever been tested for HIV among women and men aged 15–64 years by level of education,[2] KAIS 2012



The highest testing rate was among women and men who had completed primary and secondary education.

In general, HIV testing increased with increasing level of education. HIV testing was lowest for persons reporting no primary education at 55.4% and incomplete primary at 63.7%, with testing higher among women than men. In contrast, testing was higher for women and men who reported completing primary school (72.3%) or having secondary or higher education (74.0%). Testing for women was higher than for men across all levels of education.

Figure 7.3h: HIV prevalence among women and men aged 15–64 years by testing status, KAIS 2012



HIV prevalence was significantly higher among those who had ever been tested compared with those who had never been tested for HIV.

Among persons who had ever been tested for HIV, HIV prevalence was higher among women (7.9%) compared with the national adult female prevalence (6.9%); prevalence was also higher among men at 5.5% compared with the national male prevalence of 4.4%. The HIV prevalence among persons who had never been tested was low at 2.5%.

[2] Secondary+ includes any years of secondary schooling whether completed or not.

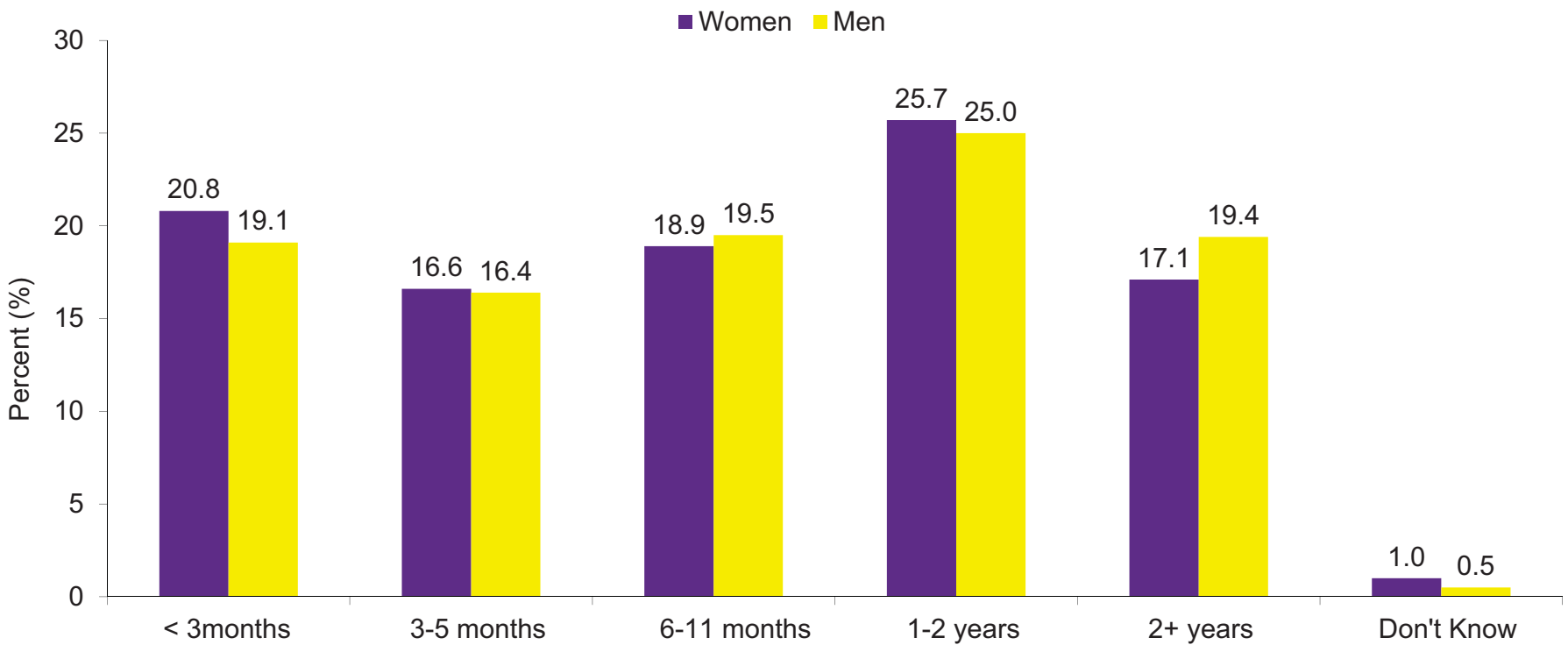
Progress: HIV testing coverage

Significant progress has been made over the past five years by the National HIV Programme to improve HIV testing coverage in the country overall. Key to this success was the implementation of the revised national guidelines on HIV testing and counselling in 2008, which focused on bringing testing services to the client rather than relying on the client to initiate services. New strategies have helped to greatly increase access to and acceptance of testing, including provider-initiated testing and counselling (PITC) in health facilities, routine testing in prevention of mother-to-child transmission (PMTCT) of HIV programs, home-based testing and counselling in the community, mobile testing, and annual testing campaigns aimed at testing large numbers of persons in a short period of time, also referred to as rapid results initiatives. Among the 6.8 million HIV tests conducted in 2012, PITC in outpatient settings and inpatient wards was the most common testing strategy, representing 42.7% of all tests conducted, with a further 19.1% carried out in antenatal clinics for PMTCT; traditional voluntary counselling and testing accounted for 38.2% of tests conducted that year.

7.4 Testing Experiences

In this section we assess the timing of respondents' most recent HIV test, access to different testing modalities, the location where the last HIV test was conducted, and reasons cited for never having been tested for HIV.

Figure 7.4a: Time between most recent HIV test and KAIS interview among women and men aged 15–64 years who had ever tested for HIV, KAIS 2012

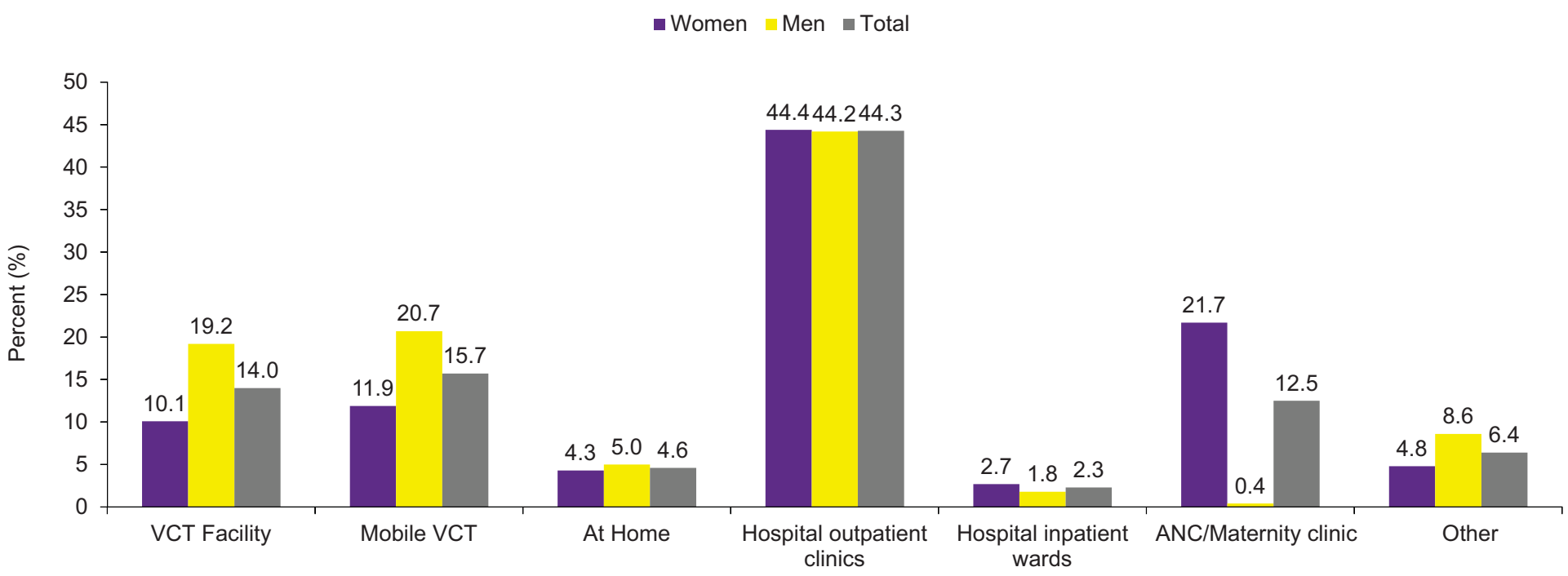


More than half of women and men reported having their last HIV test within the past 12 months.

Among those who had ever tested for HIV, 20.8% of women and 19.1% of men were tested in the three months prior to interview. In addition, 16.6% of women and 16.4% of men who had ever tested had tested three to five months prior to interview, and 18.9% of women and 19.5% of men who had ever tested had tested six to eleven months before the interview. This means that over half of testers (56.2% of women and 55.0% of men) had tested within the 12 months prior to participating in KAIS.

One-quarter of testers (25.7% of women and 25.0% of men) had been tested in the past 12 to 24 months. Female testers were slightly more likely to have been tested two or more years ago (19.4%) than were male testers (17.1%). The majority of testers (85.4% of women and 82.0% of men) reported that their HIV test was conducted in a public facility compared with other testing locations (data not shown).

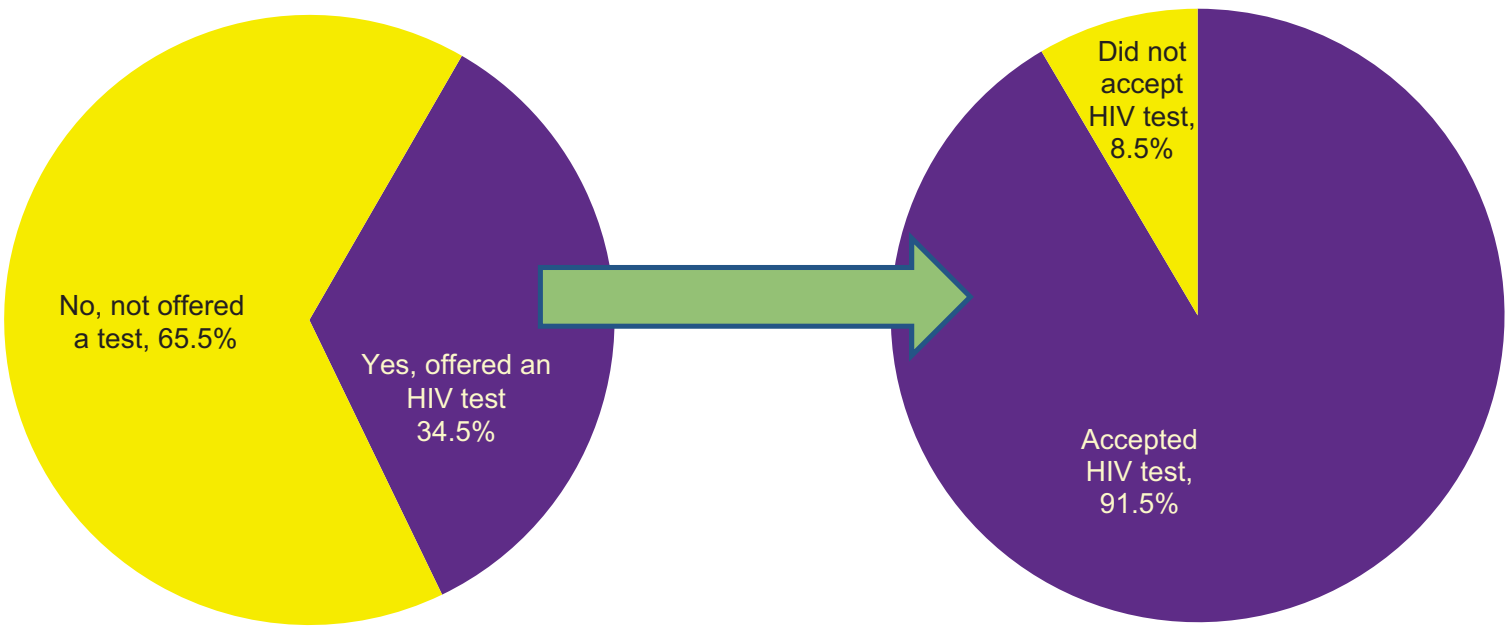
Figure 7.4b: Location of last HIV test among women and men aged 15–64 years, KAIS 2012



The most common testing location for the last HIV test for both women and men was hospital outpatient clinics.

Overall, 44.3% of adults who had ever tested for HIV reported that their last HIV test had been conducted in a hospital outpatient clinic. It is assumed that these tests were provided in the context of provider initiated testing and counselling. The second most frequently reported location for the last HIV test was mobile VCT, with 11.9% of women and 20.7% of men reporting that they had tested there. Antenatal or maternal clinics represented 12.5% of the last HIV test location. Testing in inpatient hospital wards and at home testing accounted for 2.3% and 4.6% of testing locations respectively. Other locations included TB clinics, sexually transmitted infection clinics, blood donation centers, family planning clinics, and voluntary male medical circumcision clinics; together representing 6.4% of the testing locations where the last HIV test occurred.

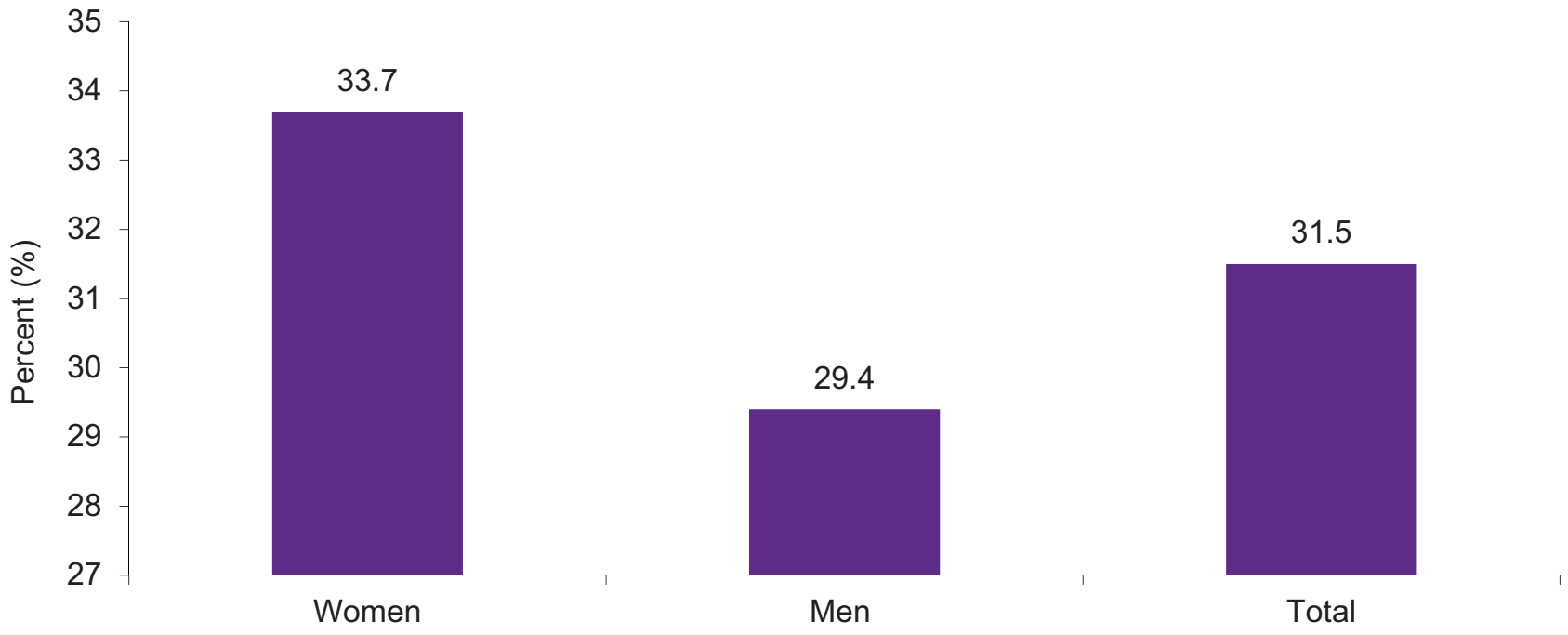
Figure 7.4c: Patients visiting a health facility in the past 12-months who were offered HIV testing by a health provider among women and men aged 15–64 years, KAIS 2012



Among those individuals who visited a health facility within the past 12 months, a third was offered an HIV test. Acceptance rate among those offered an HIV test was very high.

According to the national HIV testing guidelines for Kenya, HIV testing should be routinely offered to persons visiting health facilities in Kenya. In 2012, 40.8% of persons had visited a health facility within the past 12 months. Among persons who visited a health facility within the past 12 months, 34.5% were offered an HIV test. Overall, acceptance of HIV testing among those who were offered a test was high (91.5%). Although a greater proportion of women were offered an HIV test than were men (41.0% and 25.8% respectively), there was little difference in acceptance rates between men and women (92.7% versus 89.0%) (data not shown).

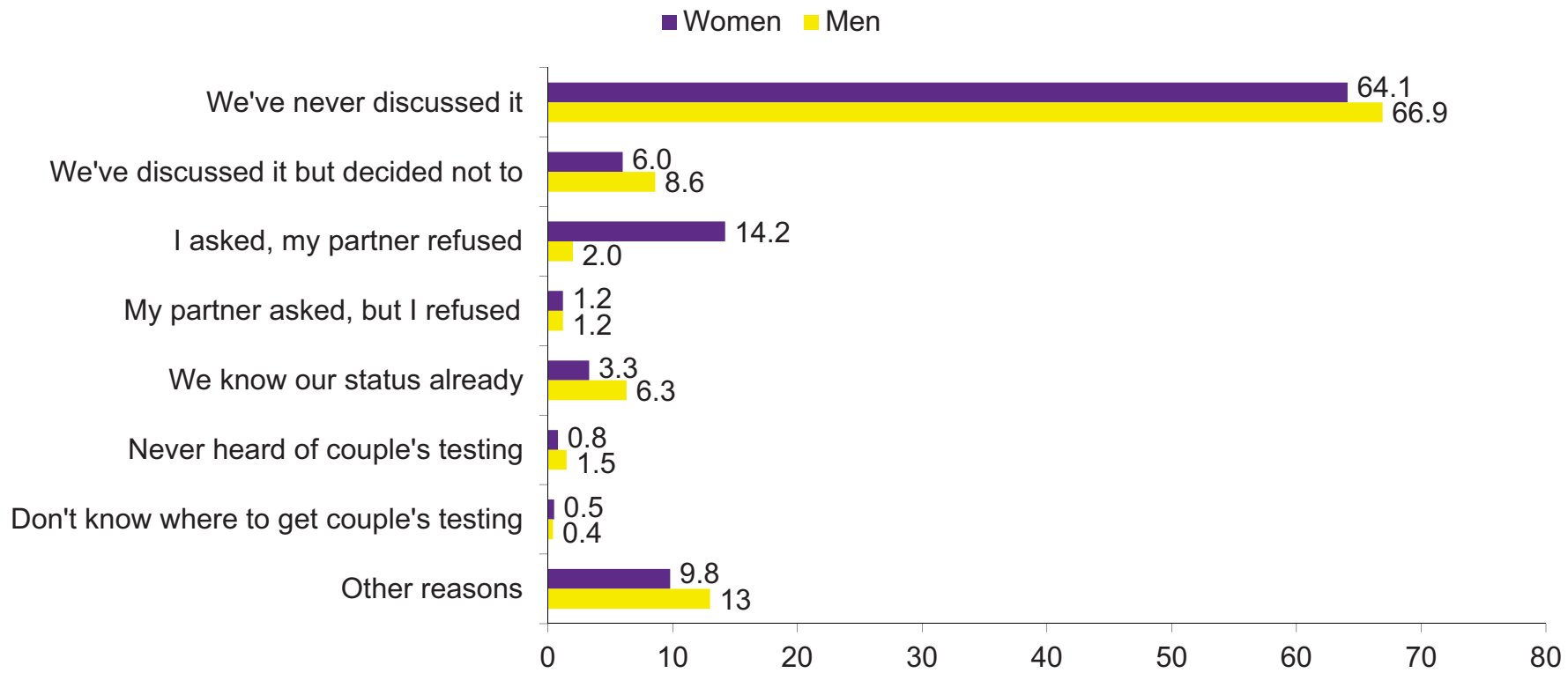
Figure 7.4d: Ever been tested for HIV with last sexual partner among sexually active women and men aged 15–64, KAIS 2012



About a third of women and men had ever been tested for HIV with their last sexual partner.

Couples' testing has been shown to decrease HIV transmission and acquisition within a couple's relationship. Overall, 31.5% of sexually active women and men had ever been tested for HIV with their last sexual partner, with more women (33.7%) than men (29.4%) reporting couples testing.

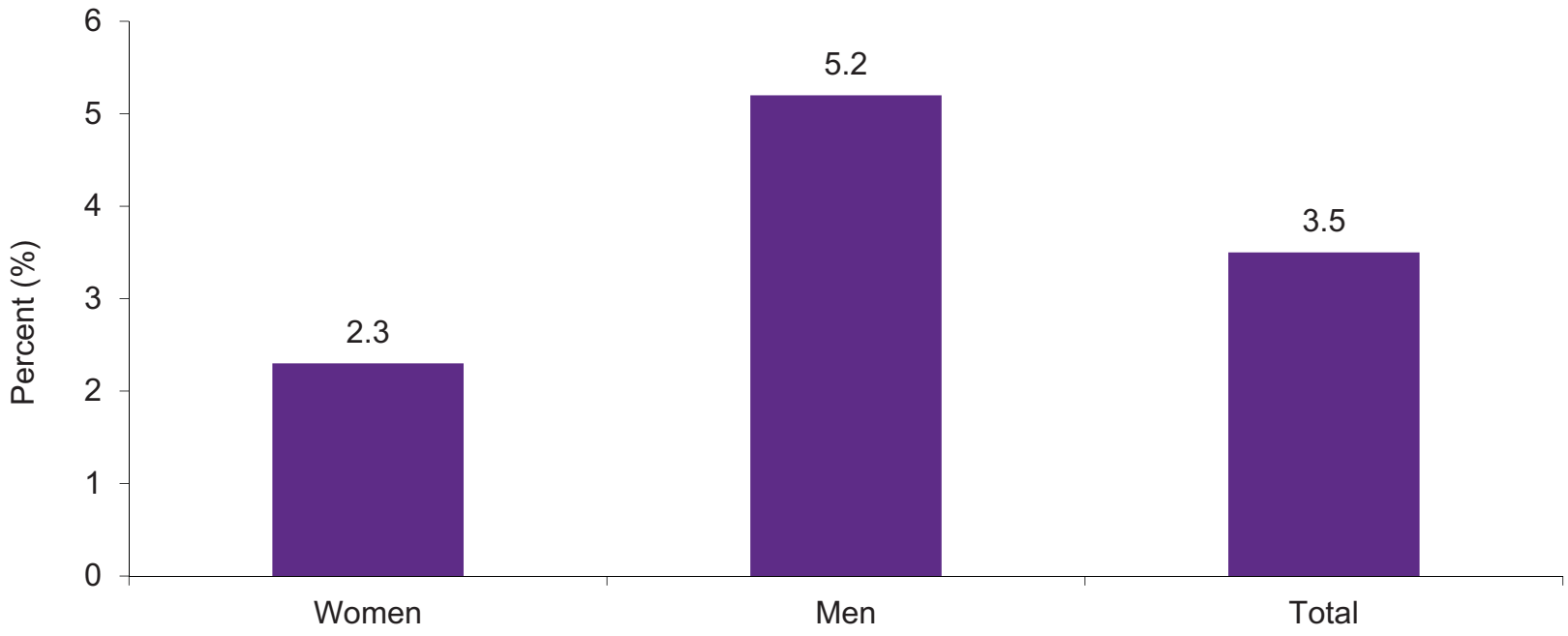
Figure 7.4e: Reasons for not testing for HIV with last sex partner in the past 12 months among sexually active women and men aged 15–64 years, KAIS 2012



The most common reason cited for not testing for HIV with the last sexual partner was "We've never discussed it".

Among sexually-active individuals who reported not testing for HIV with their last sexual partner in the past 12 months, the most common reason reported by men (64.1%) and women (66.9%) was that they had not discussed HIV testing with their partner. A total of 14% of women reported that they had asked their partner but he refused, compared with 2% of men. Six percent of women and 8.6% of men reported that they had discussed testing but decided not to. In addition, 3.3.% of men and 6.3% of women reported that they already knew their status. Less than 1% reported that they did not know where to get couples testing.

Figure 7.4f: Ever been tested for HIV using an HIV self-testing kit among women and men aged 15–64 years, KAIS 2012



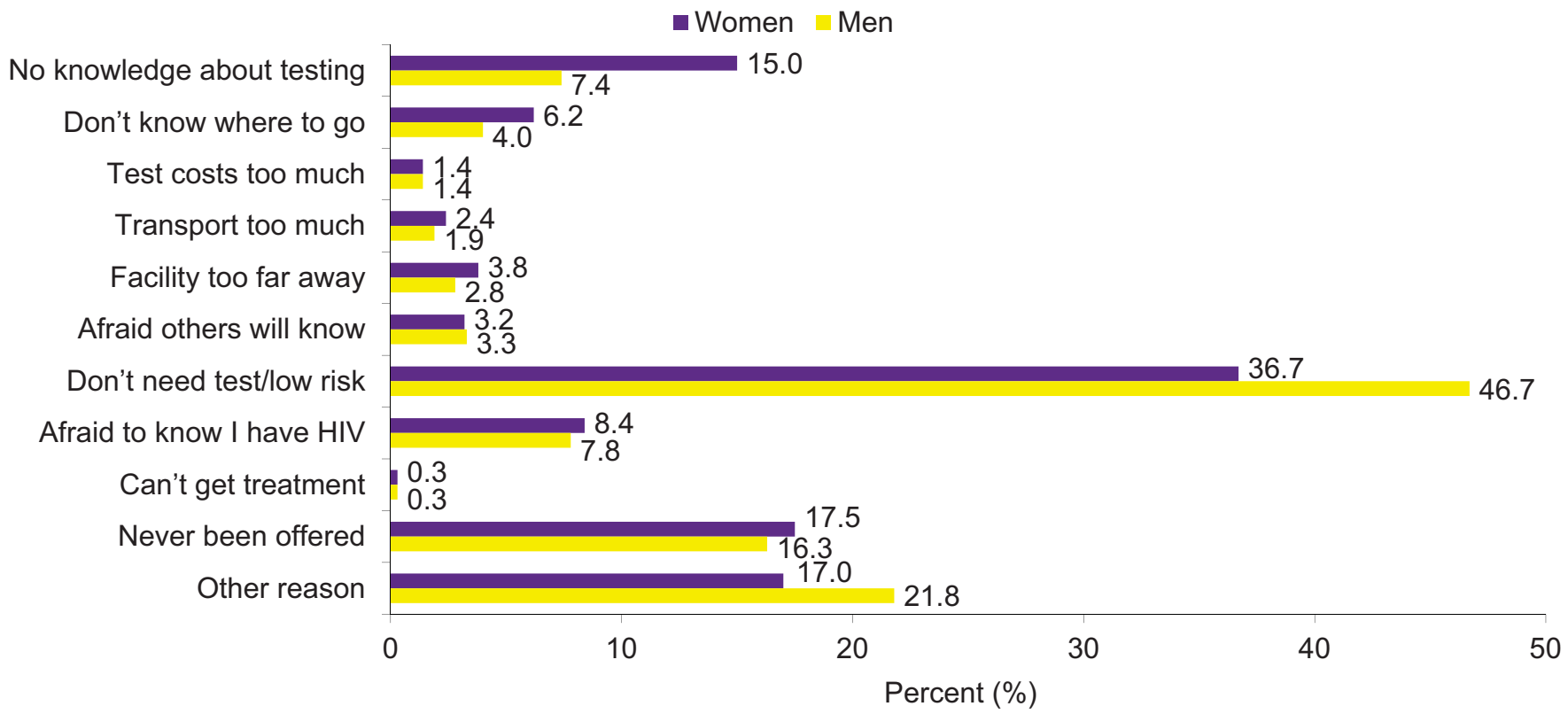
A small proportion of women and men aged 15–64 years had ever tested for HIV using an HIV home testing kit.

In Chapter 6 we reported on willingness of Kenyans to use an HIV home testing kit. Here we report on actual usage of HIV home testing kits. Only 3.5% of Kenyan adults have ever been tested for HIV using an HIV home testing kit, likely due to limited availability of this device, currently available in some private health facilities and pharmacies. However, significantly more men (5.2%) reported use than women (2.3%).

7.5 Reasons for not Testing

Understanding barriers to HIV testing is helpful for increasing the uptake of testing. In this section, we restricted analysis to the 28.4% of adults who had never been tested for HIV.

Figure: 7.5a Reasons[3] for not testing for HIV among women and men aged 15–64 years who had never been tested, KAIS 2012



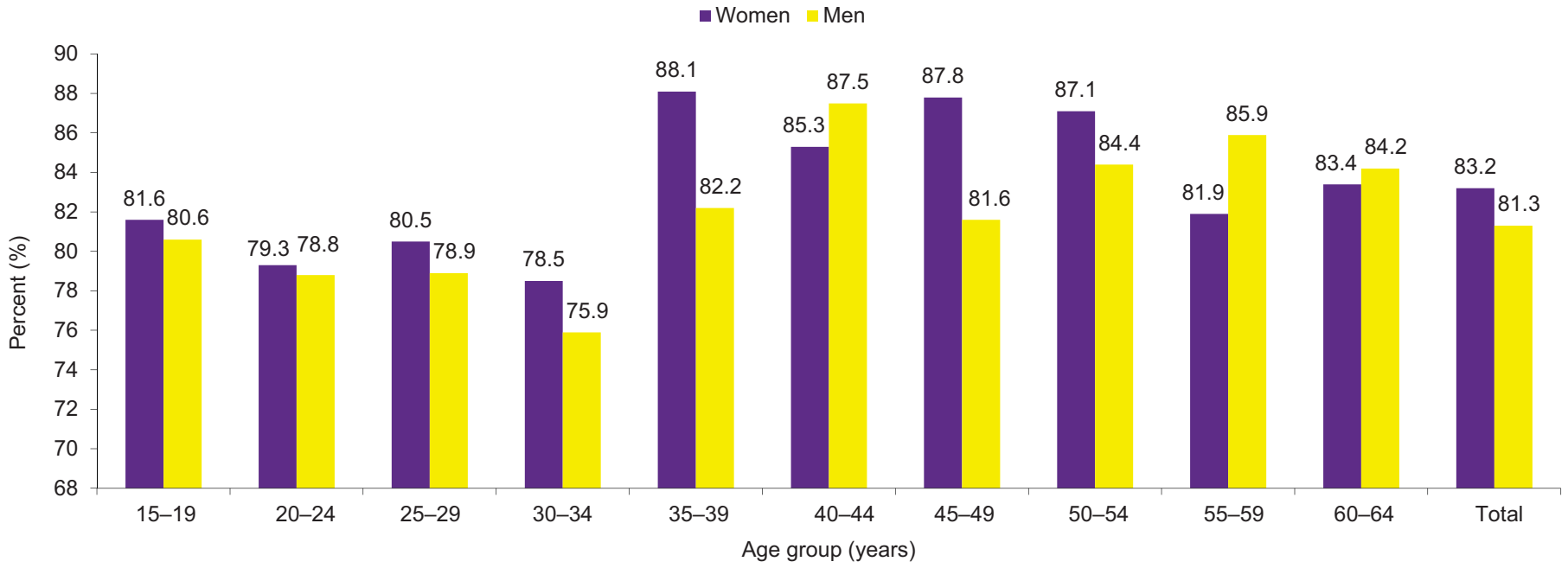
The greatest barrier to HIV testing among women and men aged 15–64 years was low risk perception.

Among women and men aged 15 to 64 years who had never been tested for HIV, the most commonly reported reason cited for never having been tested for HIV was "don't need test or low risk for HIV infection", reported by 36.7% of women and 46.7% of men. The second most common reason reported for never having been tested for HIV was "never been offered" an HIV test, reported by 17.5% of women and 16.3% of men. Further, 15.0% of women and 7.4% of men said that they had no knowledge about HIV testing.

[3] Responses are not mutually exclusive.

7.6 Uptake of Home-Based Testing and Counselling

Figure 7.6: Percentage of study participants aged 15–64 years who had never been tested for HIV who accepted home-based counselling and testing services in the survey, KAIS 2012



Over 80% of survey participants who had never been tested for HIV accepted home-based testing and counselling services in KAIS 2012.

Among participants who had never been tested for HIV, 83.2% of women and 81.3% of men accepted home-based testing and counselling (HBTC) services in the survey. Acceptance rates for HBTC were above 80.0% for all age groups except those aged 20 to 34 years, for whom acceptance rates ranged from 75.9% to 79.3%. There were no significant differences in HBTC acceptance rates for women and men across age groups.

7.7 Gaps and Unmet Needs

- One-third of men aged 15 to 64 years had never been tested for HIV. New strategies to increase HIV testing need to be explored, particularly in rural areas, where testing proportions reached only 56.0% among men.
- The large proportion of adults who had never been offered HIV testing at a health facility highlights the need to increase assess to provider-initiated HIV testing and counselling and to ensure the availability of test kits at low or no cost.
- HIV testing and counselling services provided to couples holds significant potential for reducing new HIV infections in the country. However, only one-third of sexually active adults had ever tested for HIV with a sexual partner. New strategies are needed to create awareness and education around the importance and benefits of knowing the status of sexual partners through couples testing.

8 KNOWLEDGE AND DISCLOSURE OF HIV STATUS

8.1 Key Findings

- Overall, slightly more than half (53.1%) of persons found to be HIV-infected in KAIS 2012 did not know that they were infected. A greater proportion of men than women were unaware of their infection (61.9% and 47.8% respectively).
- About two-thirds of HIV-infected persons who were aware of their infection had disclosed their HIV status to their last sex partner.
- Slightly over half (53.5%) of persons reported that they were aware of their partners' HIV status, but only about half (57.7%) of these had correct knowledge of their partner's actual HIV infection based on laboratory results from the survey.
- Persons reporting partners from casual relationships were more likely to report partners of unknown HIV status (85.7%) than were persons with partners in married or cohabiting relationships (66.9%) or non-cohabiting girlfriend/boyfriend relationships (74.8%).
- Persons who reported never having been tested for HIV were more likely to have a sexual partner of unknown HIV status than persons who said that they had been tested for HIV.

8.2 Introduction

HIV-infected persons who know their HIV status can benefit from lifesaving care and treatment services, including daily co-trimoxazole (an antibiotic that prevents many common opportunistic infections that affect people with advanced HIV), antiretroviral therapy (ART), and other HIV-related primary care services. In addition, HIV-infected persons who know they are infected are less likely to engage risk behaviours. Couples in HIV discordant relationships (where one person is HIV-infected and the other person is HIV-uninfected) have a reduced chance of transmission if both members of the couple know their HIV status and are counselled and treated appropriately. This chapter presents findings on knowledge of HIV status and disclosure of HIV status to sexual partners.

Appendix B provides sample sizes and 95% confidence intervals for the weighted estimates presented in this chapter. Population estimates reported in this chapter were calculated using un-normalized survey weights that were reflective of the 2012 projected population data in the 2009 Kenya Population and Housing Census. Detailed methods used for calculating population estimates are described in Appendix A.

8.3 Knowledge of HIV Infection

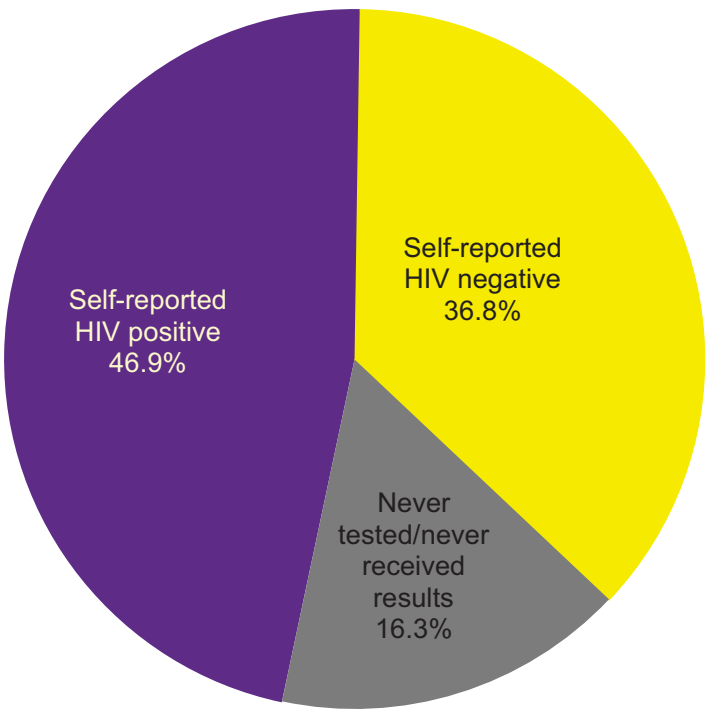
Since 2007, there has been significant expansion of HIV testing strategies to increase the number of persons tested for HIV that has resulted in an increase in the number of persons who know their HIV status. Knowledge of HIV infection has important implications for HIV prevention, particularly in reducing high risk sexual behaviour with sexual partners. In this section we assess knowledge of HIV infection among respondents who were found to be HIV-infected in KAIS 2012.

Data in Context: Self-Reported HIV Status Based on Most Recent HIV Test and KAIS 2012 HIV Test Results

In KAIS 2012, 98.4% of participants were willing to share the results of their last HIV test. Self-reported HIV status allows us to compare individuals' reported HIV status to their actual HIV status based on laboratory testing results in the KAIS 2012. The following categories are used in this report:

- Self-reported HIV positive: respondent reported that he/she had ever been tested for HIV and that the most recent HIV test result was positive.
- Self-reported HIV negative: respondent reported that he/she had ever been tested for HIV and that the most recent HIV test result was negative.
- HIV-infected: respondent consented to testing in KAIS 2012 and the laboratory-based result was positive.
- HIV-uninfected: respondent consented to testing in KAIS 2012 and the laboratory-based result was negative.

Figure 8.3a: Self-reported HIV status among HIV-infected persons aged 15–64 years, KAIS 2012

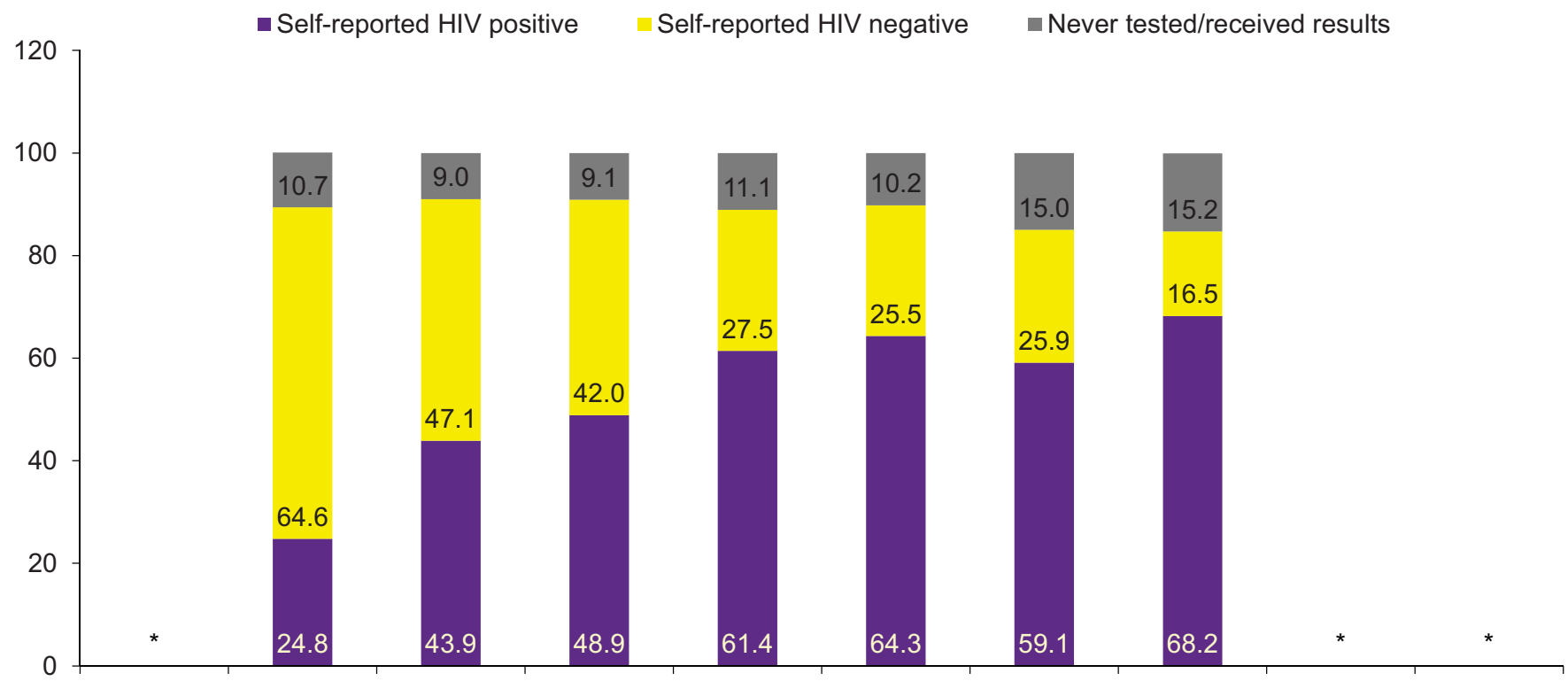


Over half of HIV-infected persons did not know they were infected.

Among all HIV-infected persons in the KAIS 2012, 46.9% self-reported positive based on their last HIV test. This was an improvement from KAIS 2007, when only 16.0% of HIV-infected persons had correct knowledge of their HIV-positive status. Overall, 36.8% of HIV-infected persons self- reported negative. The high proportion of HIV-infected persons who self-reported negative may reflect denial or reluctance in reporting HIV positive status, lack of understanding of laboratory test results, or HIV infection after the last reported HIV test. The remaining 16.3% reported that they had never been tested for HIV or had been tested but never received their test results. Women were just as likely as men to self-report negative (36.6% vs. 36.7% respectively). However, more women than men self-reported positive (52.2% vs. 38.0% respectively). Overall, 53.2% of HIV-infected persons aged 15 to 64 years did not know they were HIV-infected because they had never been tested, had been tested but had not received results, or believed themselves to be HIV-uninfected based on their last HIV test result.

Based on KAIS 2012 findings, an estimated 1,192,000 persons are living with HIV in Kenya. Of these, 633,000 were unaware of their HIV status, including an estimated 353,000 women and 280,000 men.

Figure 8.3b: Self-reported HIV status among HIV-infected women aged 15–64 years by age group, KAIS 2012

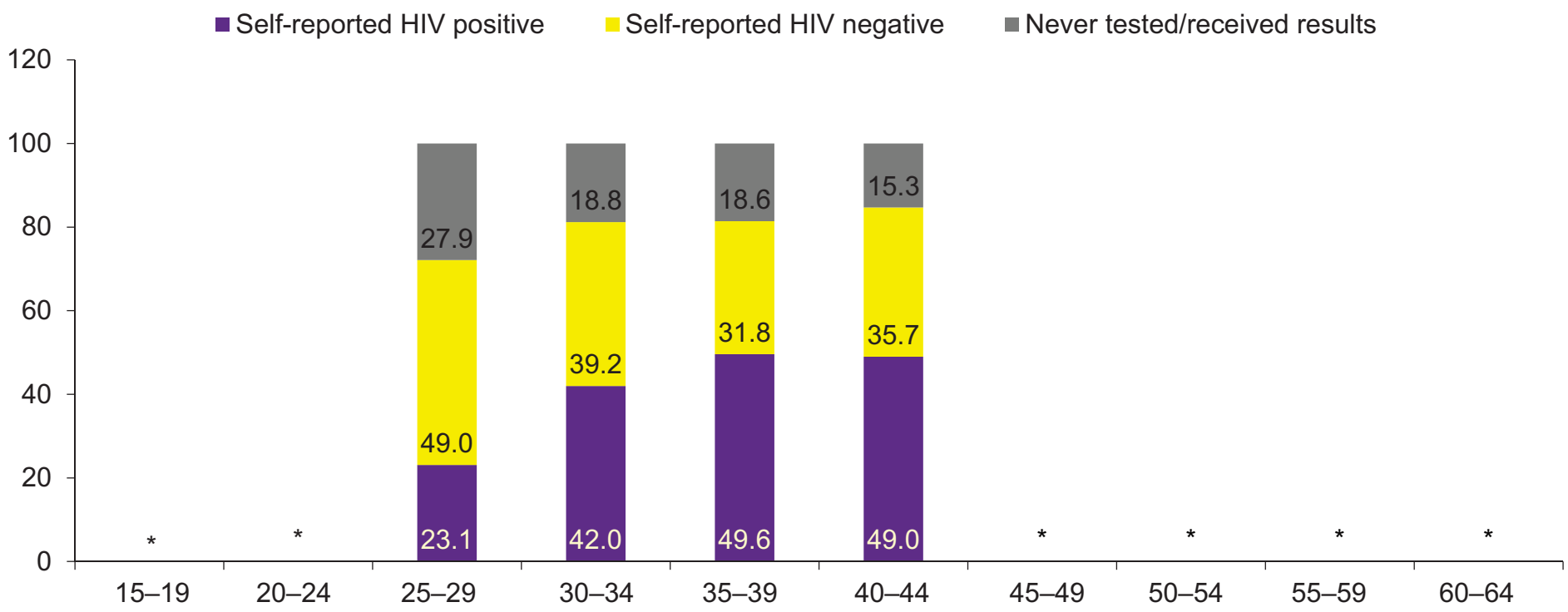


Among HIV-infected women, the proportion with correct knowledge of HIV status was associated with increasing age.

* Weighted estimates are not shown due to small denominators (<25 observations).

Overall, there was association between correct knowledge of HIV infection and increasing age among HIV-infected women. Among respondents aged between 15 and 19 years, only 23.5% were aware they were infected, compared with 61.4% and 64.3% among ages 35 to 39 and 40 to 44 respectively.

Figure 8.3c: Self-reported HIV status among HIV-infected men aged 15–64 years by age group, KAIS 2012

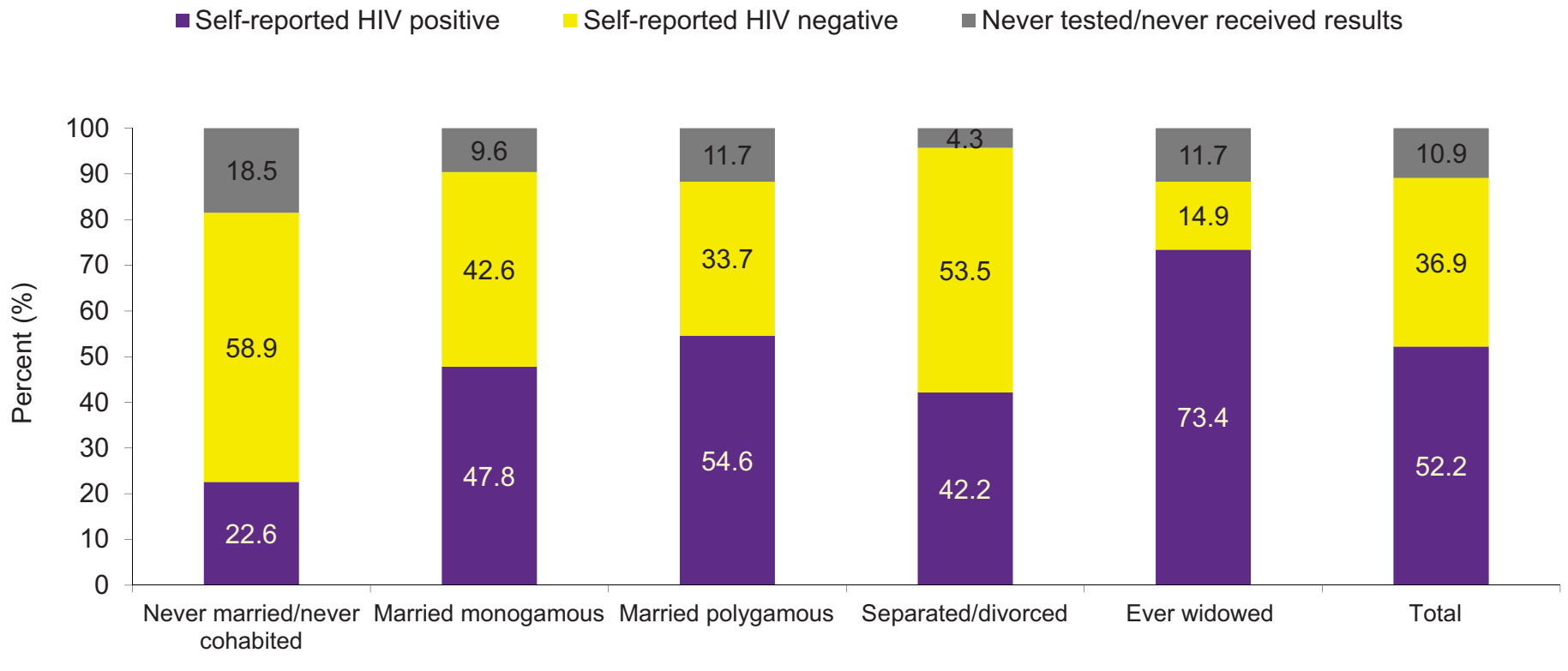


Among HIV-infected men, increasing age was associated with correct knowledge of HIV status.

* Weighted estimates are not shown due to small denominators (<25 observations).

The proportion of HIV-infected men who correctly knew their HIV status increased with age, from 23.1% among men aged 25-29 years to 49.0% among men aged 40 to 44 years.

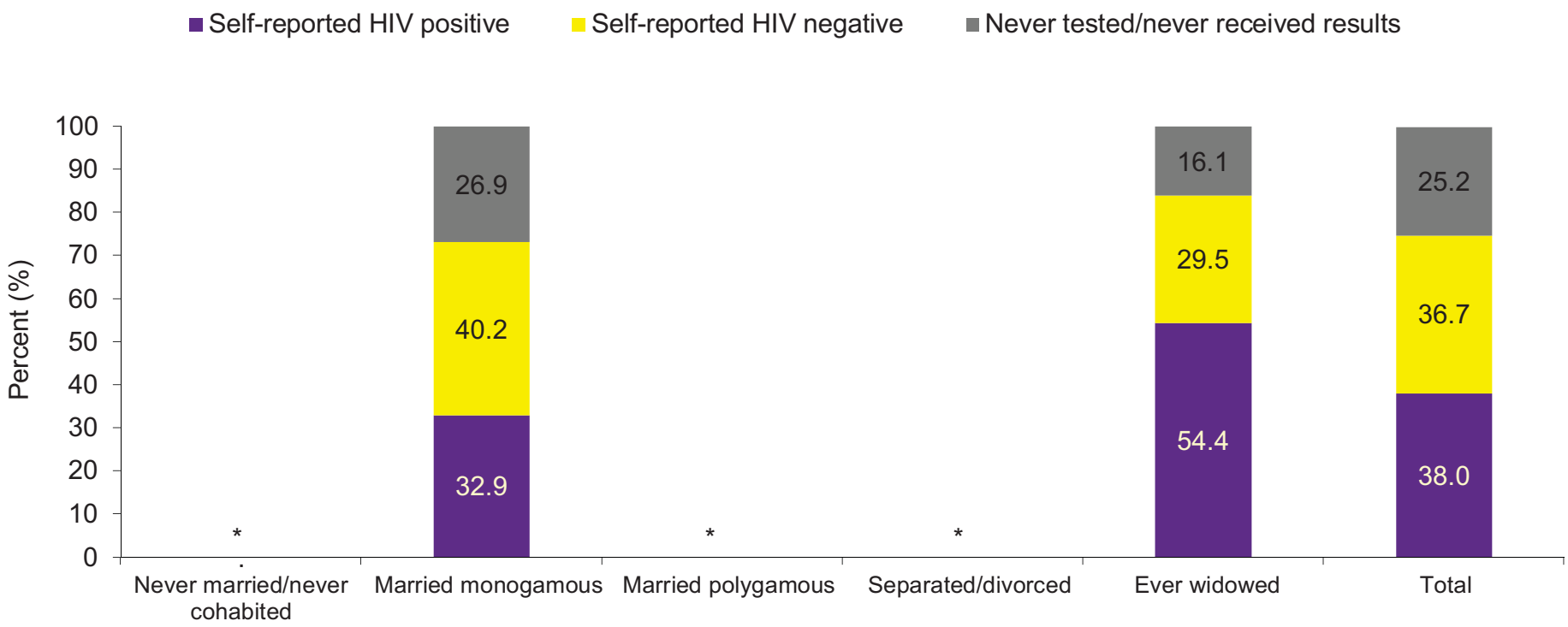
Figure 8.3d: Self-reported HIV status among HIV-infected women aged 15–64 years by marital status, KAIS 2012



HIV-infected women who were ever widowed or married in polygamous unions had the highest levels of awareness of their infection compared with women in other categories of marital status.

Among HIV-infected women, those who had ever been widowed had the highest level of awareness of their infection, at 73.4%, followed by those in polygamous marriages at 54.6%, and those in monogamous marriages (47.8%). HIV-infected women who were never married or never cohabited had the lowest level of awareness of HIV-positive status, at 22.6%. Among women who were separated or divorced 42.2% were aware of their infection.

Figure 8.3e: Self-reported HIV status among HIV-infected men aged 15–64 years by marital status, KAIS 2012

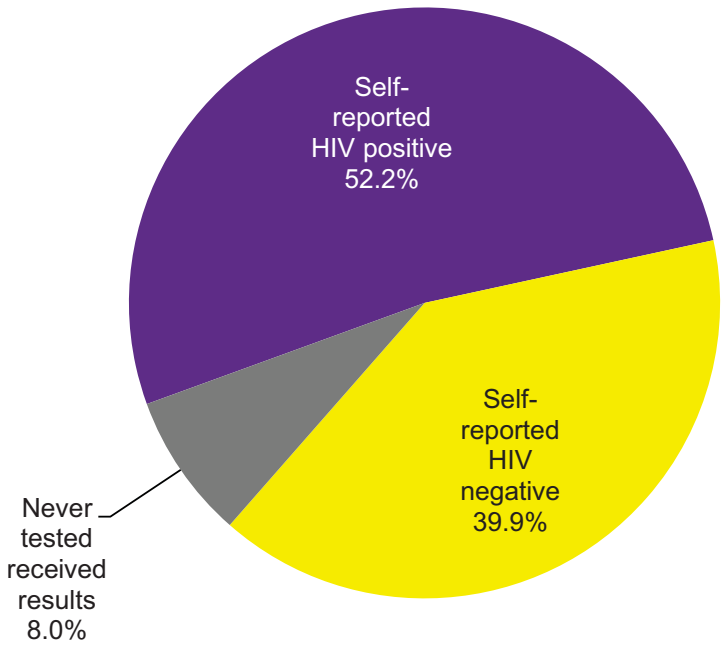


HIV-infected men who were widowed were more likely to be aware of their HIV infection compared to men who were married in monogamous relationships.

* Weighted estimates are not shown due to small denominators (<25 observations).

HIV-infected men who were ever widowed had the highest level of awareness of HIV infection (54.4%). In contrast, only 32.9% of men who were in monogamous marriages were aware of their HIV infection.

Figure 8.3f: Self-reported HIV status among HIV-infected women aged 15-64 years who reported a live birth in the past 5 years, KAIS 2012



About half of HIV-infected women who gave birth in the past 5 years self-reported HIV-positive status.

More than half of HIV-infected women aged 15-64 years (52.2%) who had given birth in the past 5 years self-reported HIV positive status. In contrast, 39.9% of HIV-infected women who had given birth in the prior 5 years self-reported HIV negative status. Reasons for the discrepancy between actual HIV infection and self-reported HIV negative status could be due to HIV infection since the last HIV test, incorrect interpretation of HIV results, laboratory error, or denial of HIV positive status.

8.4 Disclosure of HIV Status to Sexual Partners

This section examines participants who disclosed their HIV status to the last sexual partner they had in the 12 months prior to the survey. Analyses in this section are limited to a subset of HIV-infected persons who self-reported HIV positive status, and had at least one sexual partner in the 12 months prior to the interview.

DATA IN CONTEXT: Sexual partnership data in KAIS 2012

- Persons were asked to provide behavioural information for up to three sexual partners during the 12 months prior to their KAIS 2012 interview. This subset of data was used to create a separate sexual partnership database with each partnership contributing one unit of observation.
- The majority of persons (67.9% of all women and 57.8% of all men) reported only one partner in the 12 months before the survey. Overall, 29.7% of women and 27.0% of men reported no partners, and 2.2% of women and 14.2% of men reported two or more partners in the 12 months before the survey.

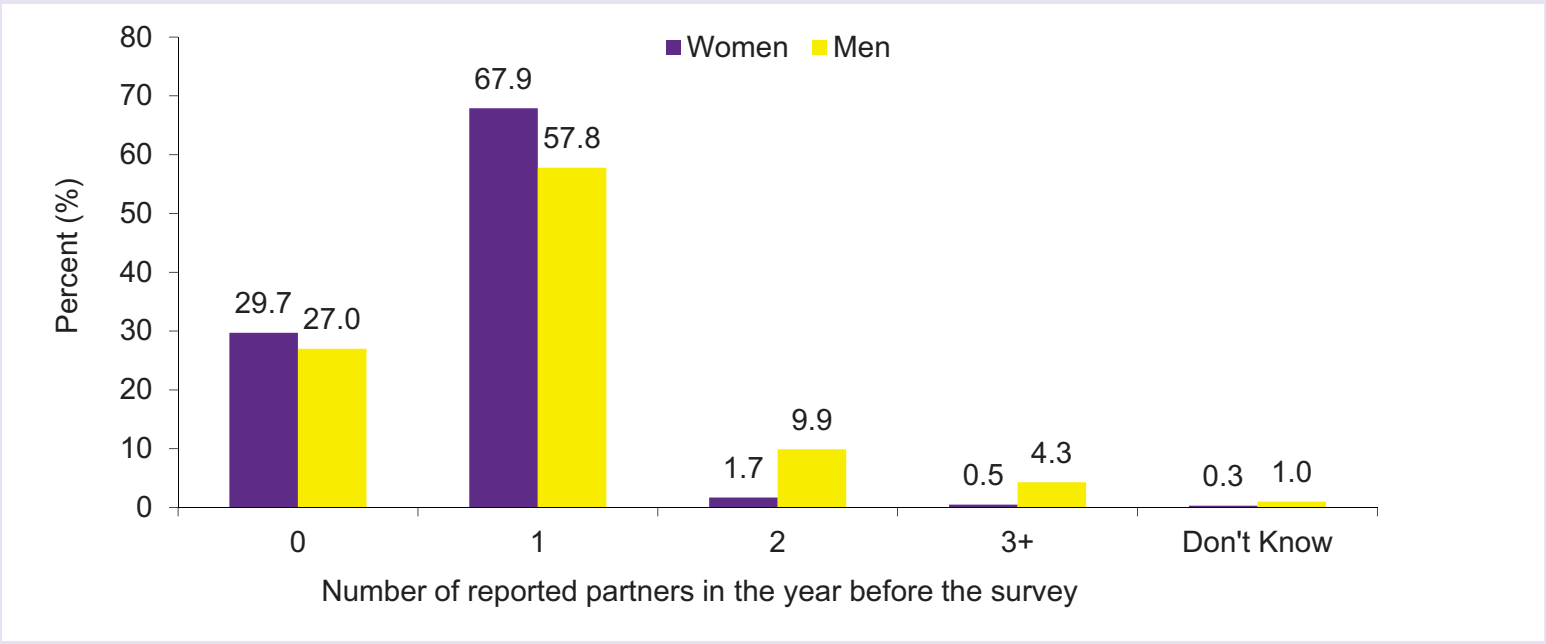
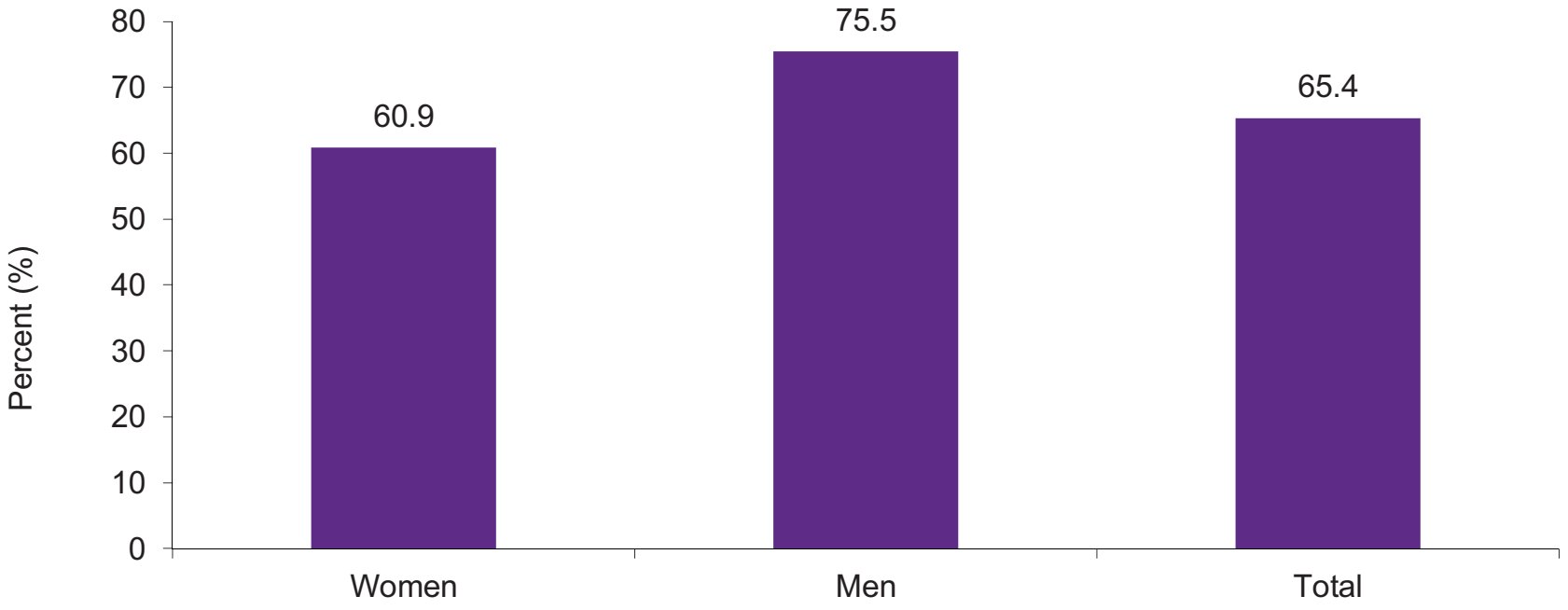


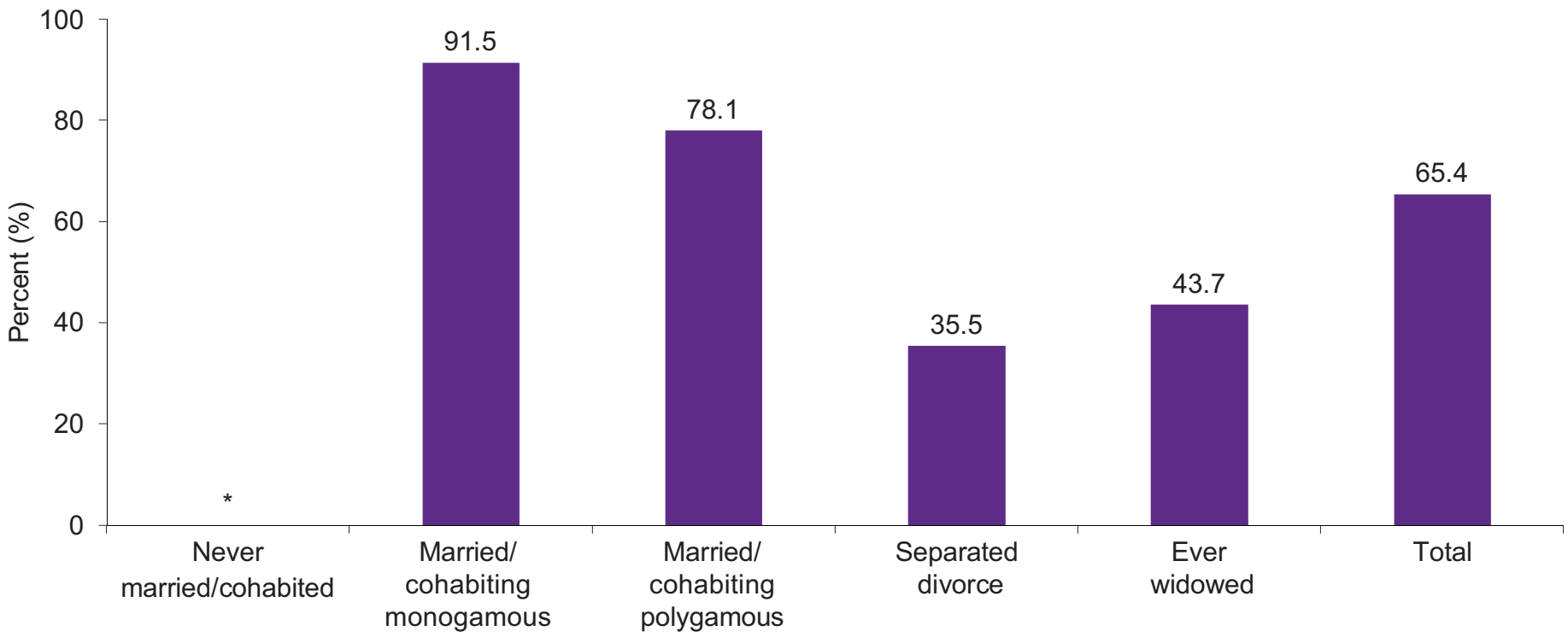
Figure 8.4a: Disclosure of HIV infection to the last sex partner in the past 12 months among HIV-infected women and men aged 15–64 years who were aware of their infection, KAIS 2012



Among HIV-infected persons who had sex in the 12 months prior to interview, approximately two-thirds reported disclosing their HIV positive status to the most recent sexual partner in the past 12 months

Among HIV-infected persons 65.4% reported disclosing their HIV infection to their last sexual partners in the past year. Significantly more men (75.5%) than women (60.9%) disclosed their HIV positive status to their last sex partner.

Figure 8.4b: Disclosure of HIV infection to the last sex partner in the past 12 months among HIV-infected women and men aged 15–64 years who were aware of their infection by marital status, KAIS 2012

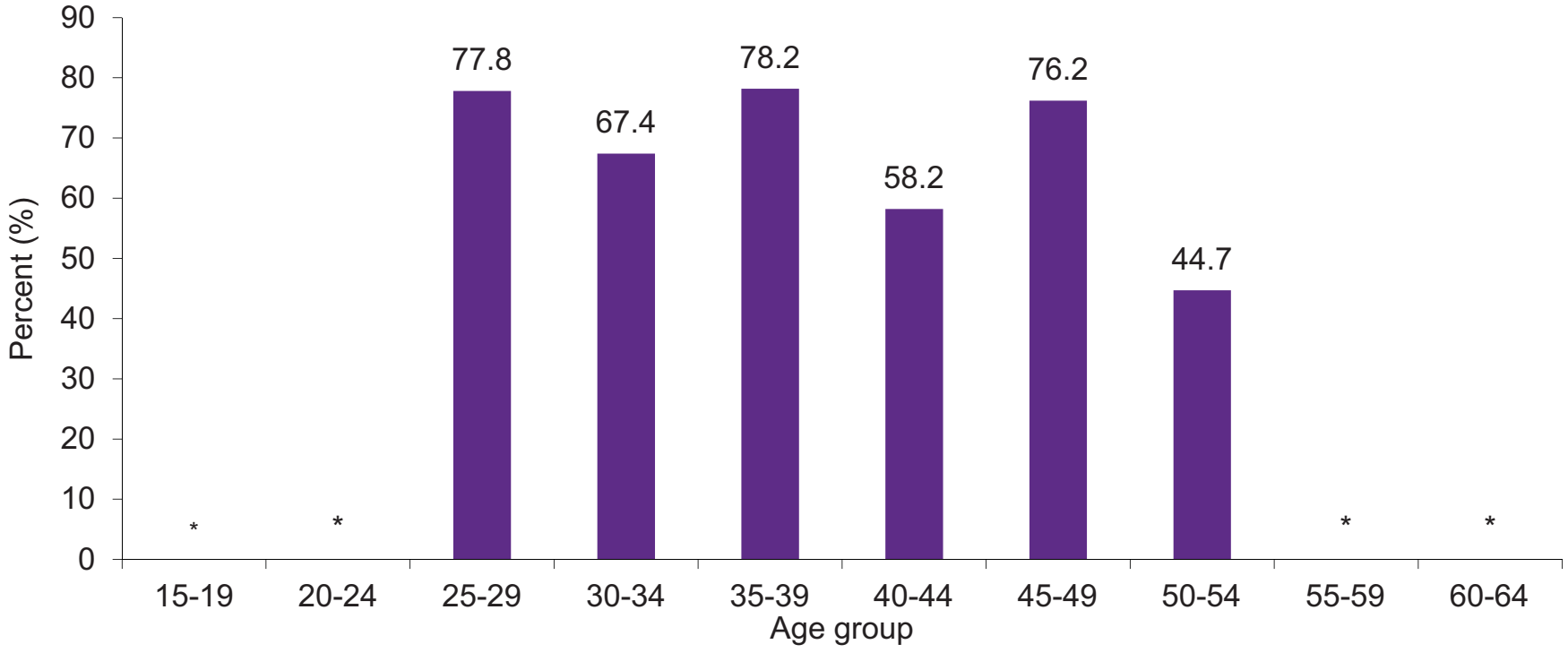


HIV-infected adults in marital or cohabiting relationships had higher disclosure rates than persons who were separated, divorced, or widowed.

* Weighted estimates are not shown due to small denominators (<25 observations).

Disclosure of HIV infection to the last sex partner in the past 12 months differed by marital status. HIV-infected persons in monogamous and polygamous marriages had significantly higher disclosure rates, at 91.5% and 78.1% respectively, compared with those who were separated or divorced (35.5%) or ever widowed (43.7%).

Figure 8.4c: Disclosure of HIV infection to the last sex partner in the past 12 months among HIV-infected women and men aged 15–64 years by age group, KAIS 2012



Disclosure of HIV infection to last sex partner varied across the different age groups.

* Weighted estimates are not shown due to small denominators (<25 observations).

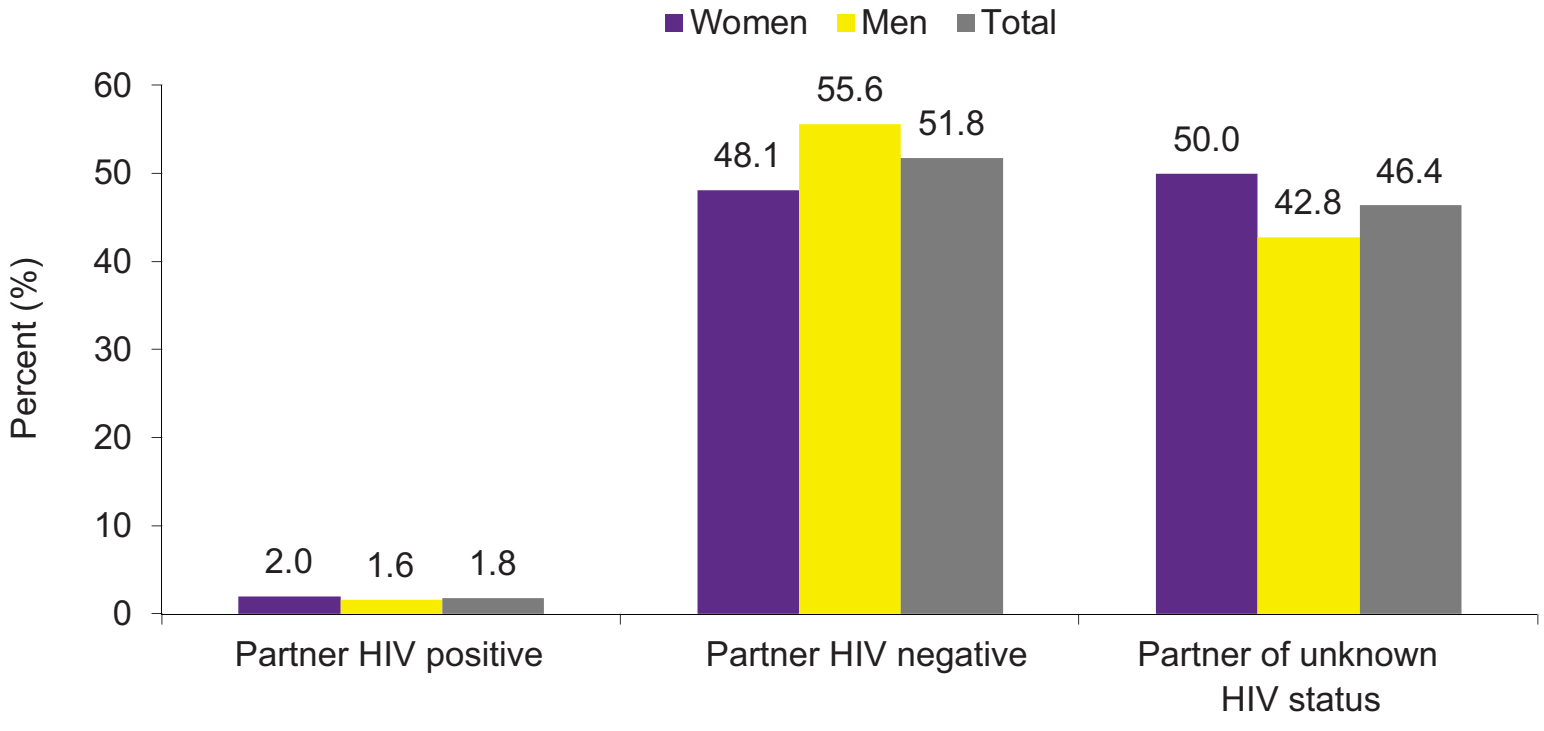
Disclosure of HIV infection to the last sex partner in the past 12 months varied among the different age groups, with a greater proportion of persons aged 35 to 39 years having disclosed their HIV infection status. However, the sample size was too small to draw conclusions regarding differences in disclosure between women and men.

8.5 Knowledge of HIV Infection in Partnerships

In this section, analyses focus on persons' knowledge of the HIV status of their partners in the 12 months before the survey. High risk sexual behaviour includes sex with a partner of sero-discordant or unknown HIV status. Therefore knowledge of one's partner's HIV status is critical to prevent HIV transmission and acquisition within partnerships. Analyses in this section are limited to persons who reported at least one partner in the year prior to the survey. In this section a "partner of unknown status" refers to a partner who had never been tested for HIV based on the respondent's knowledge of his or her partner's testing history, whose testing history was unknown to the respondent, or whose HIV test result was unknown to the respondent.

Estimates in Figures 8.5a and 8.5b report individual level analysis i.e. percentage of all individuals, while those in Figures 8.5c, 8.5d, and 8.5e of this report should be interpreted as percentages of all partnerships.

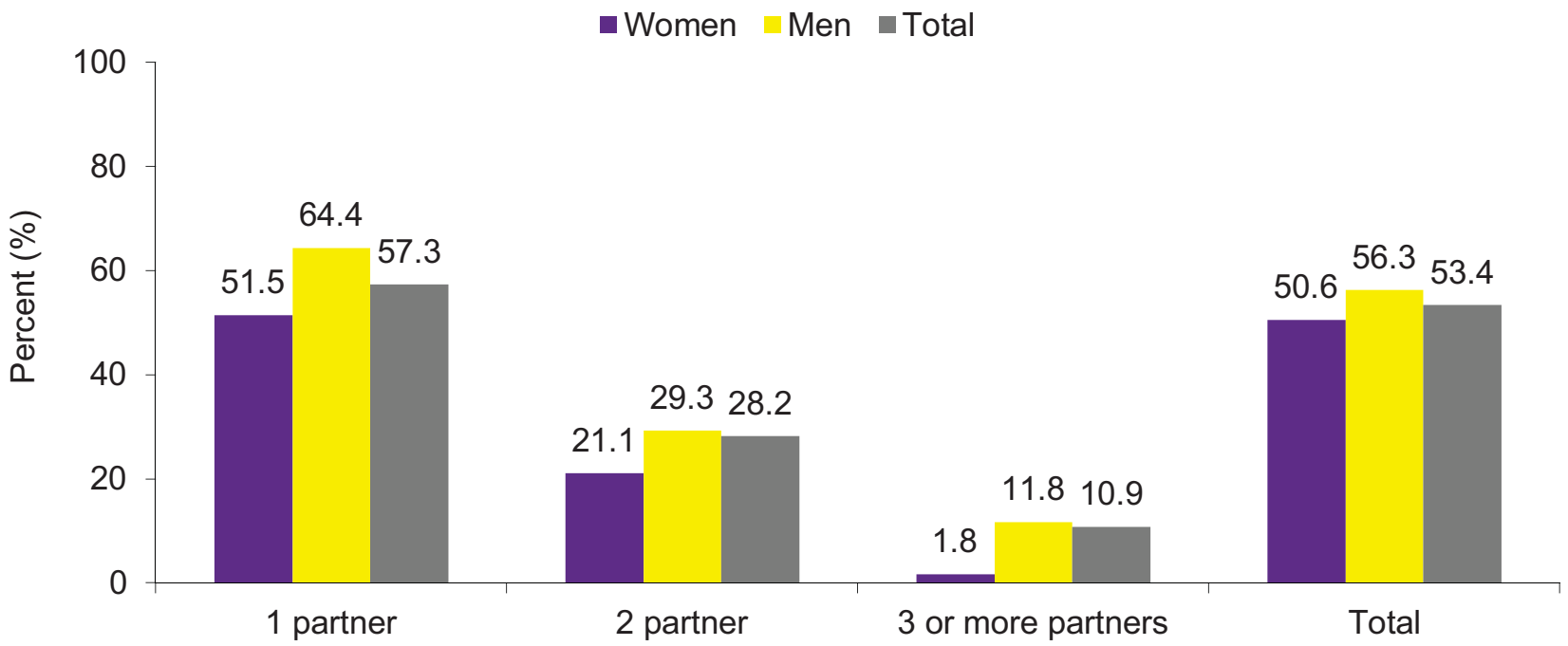
Figure 8.5a: Knowledge of last partner's HIV status among women and men aged 15–64 years, KAIS 2012



Overall, almost half (46.4%) of women and men reported that they did not know the HIV status of their last sex partner in the past 12 months.

Only 2.0% of women and 1.6% of men reported that their last partner in the past year was HIV positive. In contrast, nearly half (51.8%) of adults and adolescents reported that their last partner in the past year was HIV negative, with a higher proportion of men (55.6%) than women (48.1%) reporting this. A slightly lower proportion of persons (46.4%) reported that their last sex partner's HIV status was unknown to them, with a higher proportion of women (50.0%) than men (42.8%) reporting a partner of unknown HIV status.

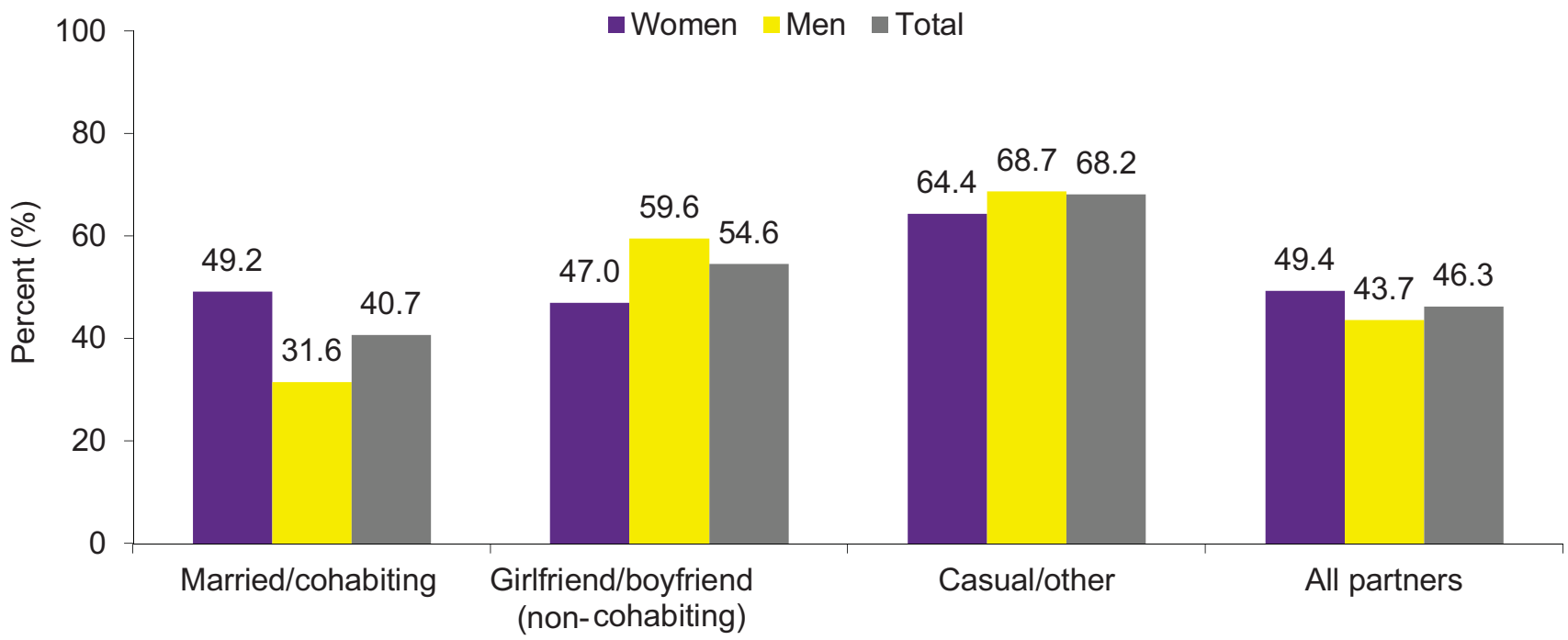
Figure 8.5b: Knowledge of HIV status of all sexual partner(s) in the past 12 months among women and men aged 15–64 years, KAIS 2012



The proportion of adults and adolescents who reported knowing their partners' HIV status decreased with increasing number of partners in the past 12 months.

For individuals reporting only one partner in the past year, 57.3% reported knowing the HIV status of their sex partner, with men having significantly higher (64.6%) knowledge of partner status than women (51.5%). For individuals with two sexual partners in the 12 months prior to the interview, knowledge of HIV status for both partners was lower (28.2%); among these persons, men had higher knowledge of partners' status (29.3%) than women (21.1%). Only 10.9% of persons who reported three or more sex partners in the past year knew the HIV status of their partners, with a significantly lower proportion of women (1.8%) than men (11.8%) who reported knowing the HIV status of all of their sex partners.

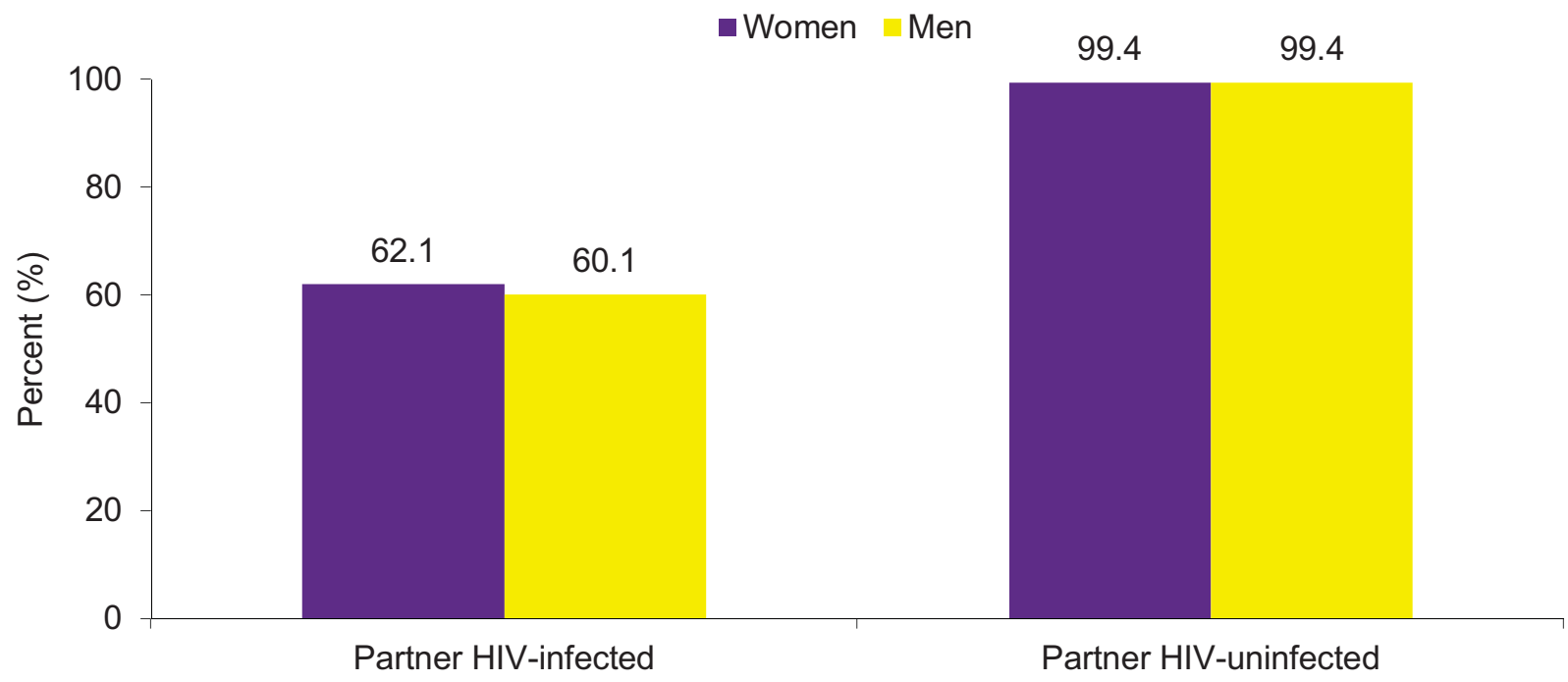
Figure 8.5c: Sexual partnerships with a partner(s) of unknown HIV status in the past 12 months among women and men aged 15–64 years by partner type, KAIS 2012



Women and men in casual partnerships were more likely to report a partner of unknown HIV status compared with women and men who reported other types of partnerships.

There were significant differences between women and men in reporting of having partners of unknown HIV status both in married/cohabiting partnerships and in non-cohabiting girlfriend/boyfriend partnerships. Among the married/cohabiting partnerships, more women than men (49.2% vs. 31.6% respectively) reported having partners of unknown HIV status while in the non-cohabiting partnership it was the men who reported this more often than women (59.6% for men vs. 47.0% respectively). Women and men in casual partnerships reported the highest proportion of partners with unknown HIV status, with slightly more men reporting a partner of unknown HIV status than women (68.7% vs. 64.4% respectively).

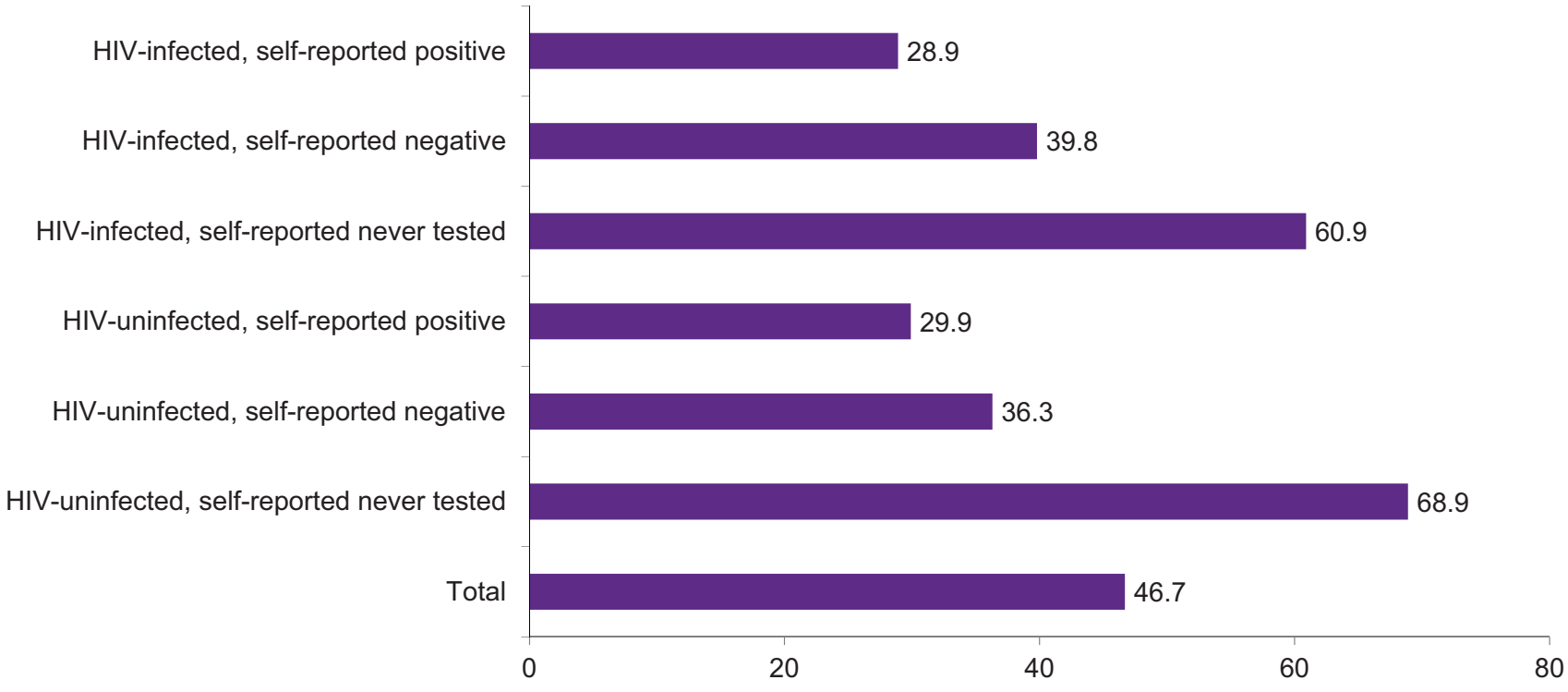
Figure 8.5d: Correct knowledge of current sex partner's HIV status, KAIS 2012



More than half of women and men who had an HIV-infected partner, as determined by laboratory testing, reported knowing their partner was HIV-infected.

Within partnerships in which a partner was HIV-infected based on laboratory test results from the survey, 62.1% of women and 60.1% of men reported the correct knowledge of their partner's HIV infection. Among persons with partners who were HIV-uninfected based on laboratory test results, correct knowledge of their partner's HIV negative status was reported in over 99.0% of partnerships.

Figure 8.5e: Partnerships in which the respondent had partners of unknown HIV status by respondent's actual HIV status and knowledge of HIV infection, KAIS 2012



HIV-uninfected and HIV-infected persons who had never been tested for HIV had the highest rates of partners of unknown HIV status.

The percent of partnerships in which the respondent reported a partner of unknown HIV status varied significantly by the respondent's actual HIV status and knowledge of their HIV infection. Persons who had never been tested for HIV had the highest proportions of partners of unknown status, regardless of their own HIV infection status (60.9% among HIV-infected and 68.9% among HIV-uninfected persons). The lowest proportion of respondents reporting partners of unknown HIV status was found among persons who reported being HIV-infected, including those with confirmed HIV infection (28.9%) and those who were found to be uninfected by laboratory testing (29.9%).

8.6 Gaps and Unmet Needs

- Lack of knowledge of one's own and one's partner's HIV status remains an important obstacle to HIV prevention efforts in Kenya
- More work is needed to increase the number of HIV-infected persons who know their status through expansion of all testing modalities.
- Support for disclosure of HIV status and partner testing is needed, particularly for HIV-infected persons.
- Future surveys should assess disclosure for all partnerships to determine whether differences exist according to type of partnership.

9 SEXUAL RISK BEHAVIOUR AND CONDOM USE

9.1 Key Findings

- Condom use at first sexual encounter was higher among women and men whose age of sexual debut was 15 years or older compared to those whose sexual debut was less than 15 years of age.
- HIV prevalence increased with increasing number of lifetime partners among both men and women.
- More than one in every ten married men (monogamous and polygamous) reported at least one non-marital sexual partnership in the year prior to the survey.
- Among all adults and adolescents who were sexually active in the past 12 months, the percent of concurrent sexual partnerships was 8.5%. Men had a higher percentage, at 15.5%, compared with women at 1.5% reporting concurrent partnerships.
- HIV prevalence among respondents who had anal sex in the last 12 months among men (18.4%) and women (13.2%) was higher than the national HIV prevalence among men (4.4%) and women (6.9%).
- One in every five youths aged 15 to 24 years reported sexual debut before the age of 15 years.

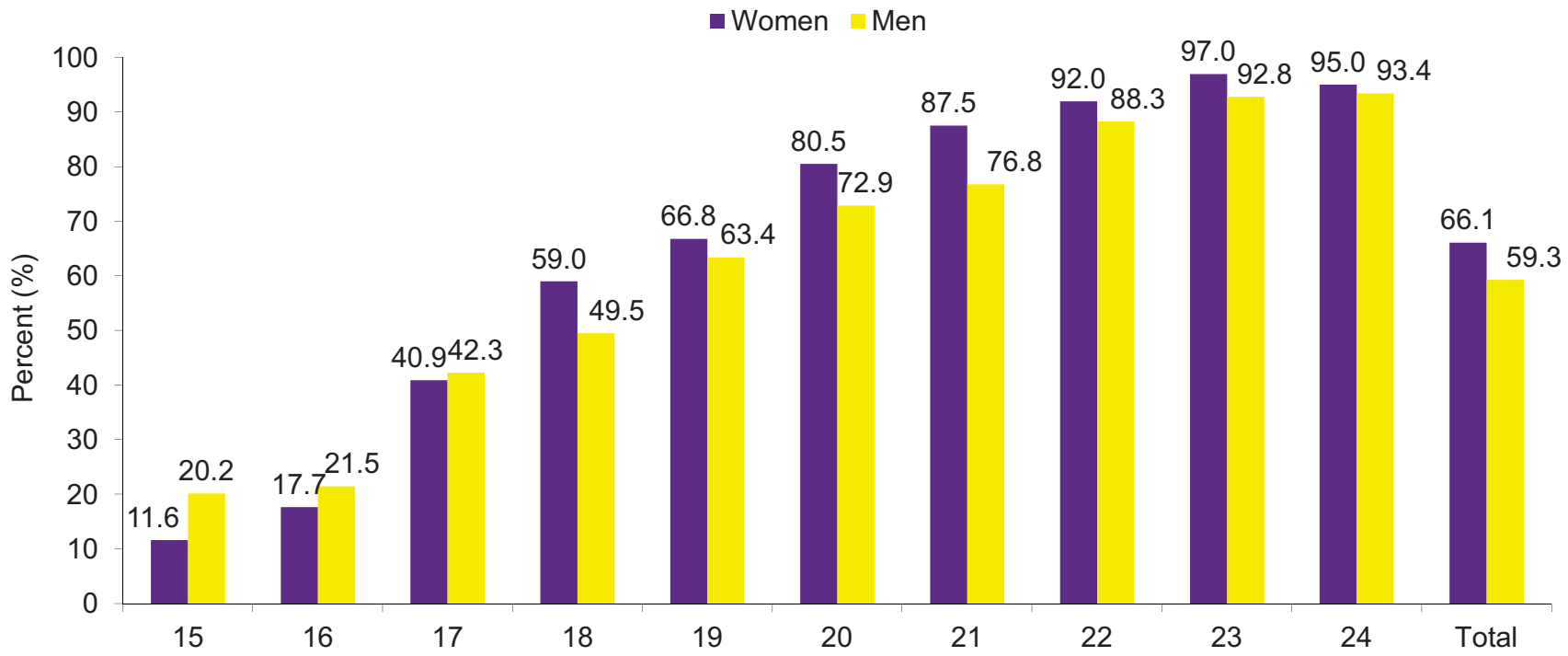
9.2 Introduction

This chapter describes the prevalence of sexual behaviours that can be associated with sexual transmission and acquisition of HIV. These factors include age of sexual debut, number of sexual partners, condom use, types of partners, and types of sex. We also look at drug use, which can be associated with high-risk sexual behaviour.

Appendix B provides sample sizes and 95% confidence intervals for the weighted estimates presented in this chapter.

9.3 Age at First Sex Among Youth Aged 15–24 Years

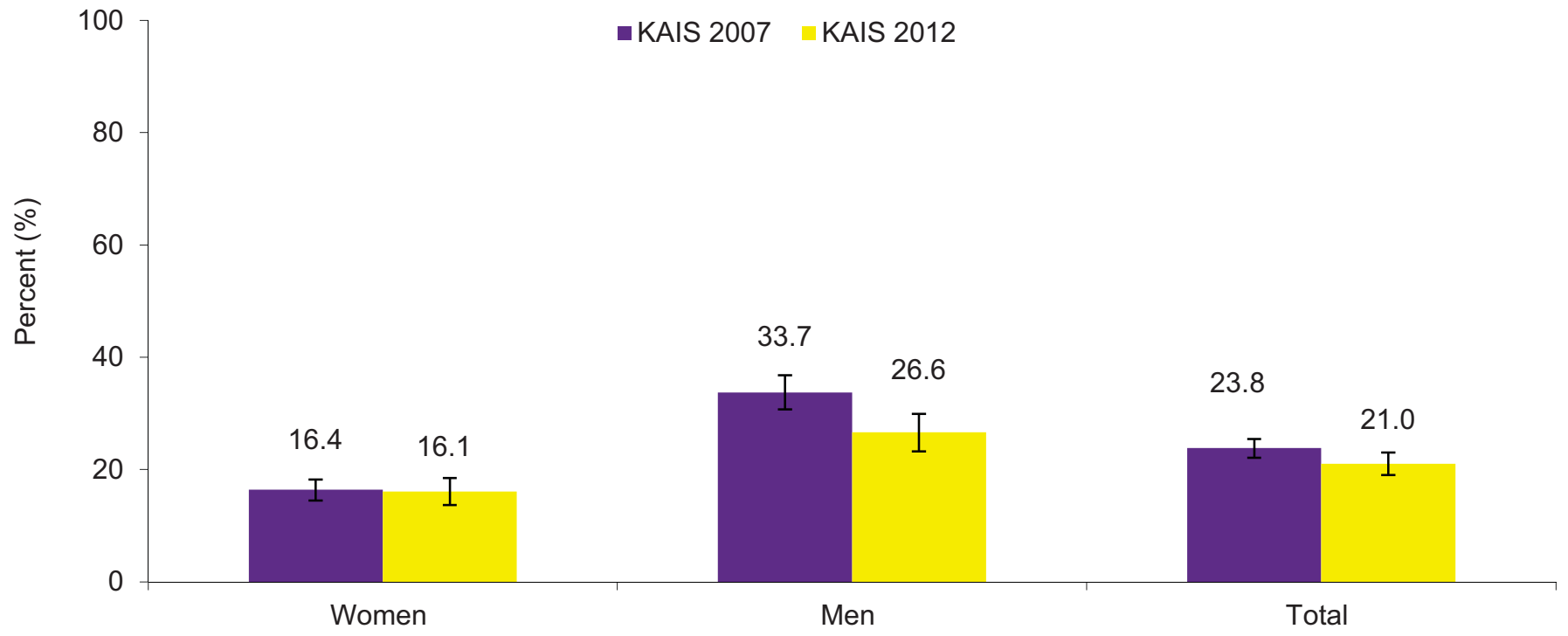
Figure 9.3a: Young women and men aged 15–24 years who reported having sex at least once in their lifetime by age, KAIS 2012



By age 15 years, 11.6% of young women and 20.2% of young men reported that they had already had sex at least once in their lifetime.

At the time of the survey, 11.6% of women and 20.2% of men aged 15 years had had sex at least once; this proportion increased to 59.0% among women and 49.5% among men aged 18 years at the time of the survey. By 24 years of age, nearly all women (95.0%) and men (93.4%) surveyed experienced at least one sexual encounter.

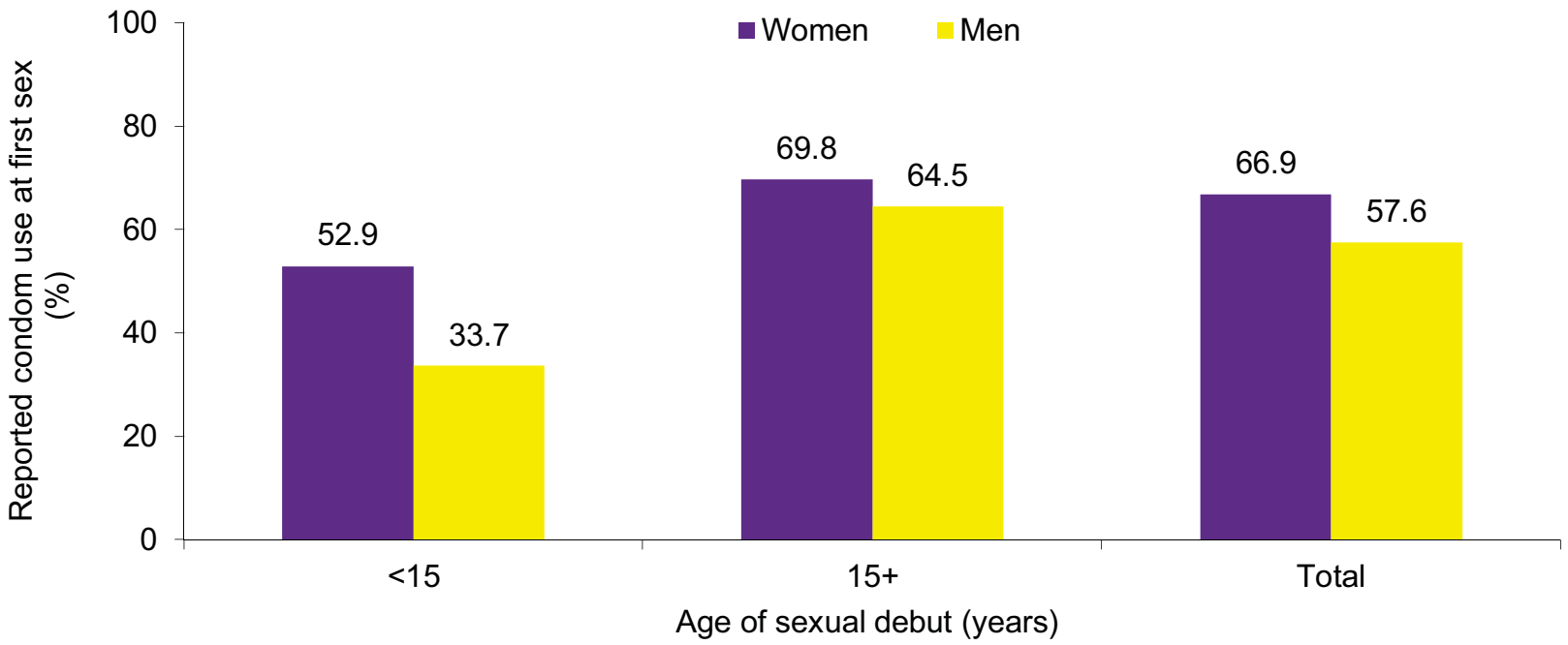
Figure 9.3b: Young women and men aged 15–24 years who reported sexual debut before 15 years of age, KAIS 2007 and 2012



A significantly lower percent of women aged 15–24 years surveyed in 2012 reported having had their sexual debut before 15 years of age than did men surveyed in 2007.

There was no difference observed among youth (women and men combined) aged 15 to 24 years reporting sexual debut before the age of 15 years in KAIS 2007 (23.8%) and KAIS 2012 (21.0%). However, when observed separately, there was a significant decrease among men who reported having their sexual debut before the age of 15 years (26.6% in KAIS 2012 compared with 33.7% in KAIS 2007).

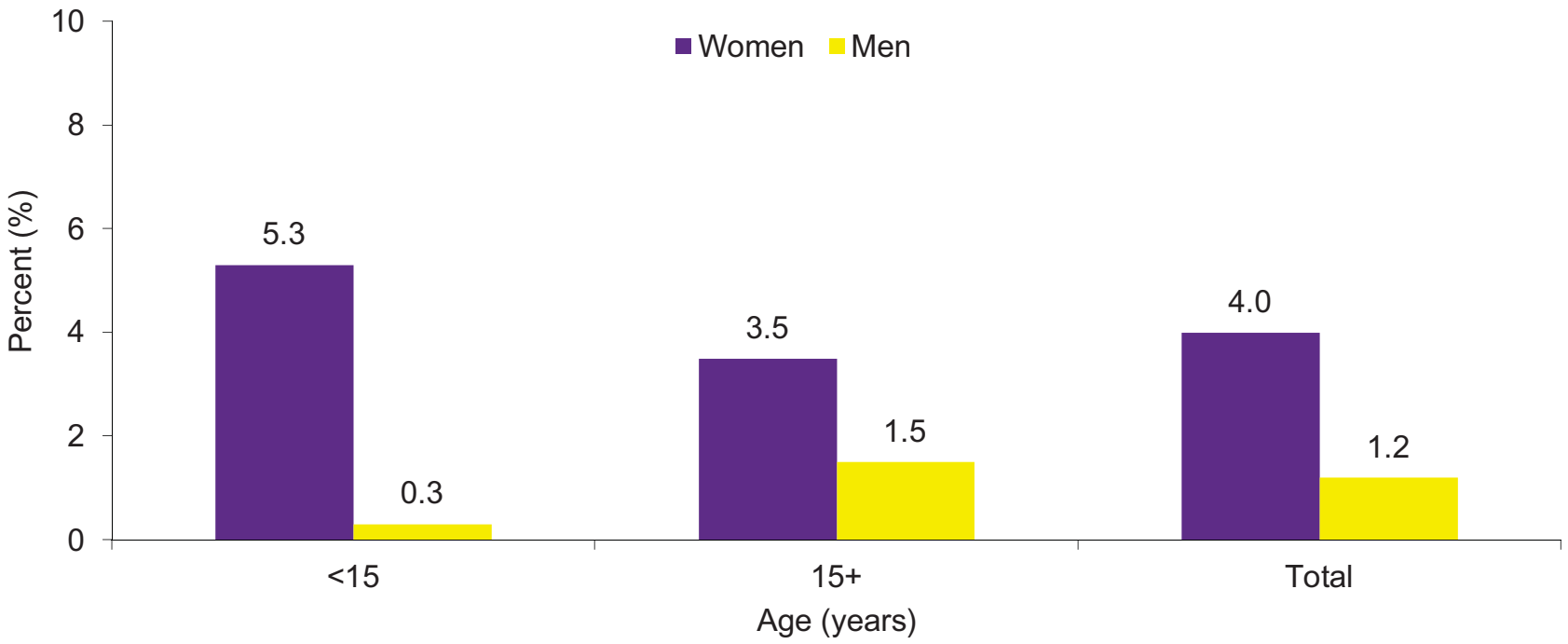
Figure 9.3c: Condom use at first sex among young women and men aged 15–24 years by age of sexual debut, KAIS 2012



Youth who reported having sex before the age of 15 years were significantly less likely to use condoms at first sex than youth who were older at sexual debut.

Condom use among youth aged 15 to 24 years was significantly lower for women and men who had their sexual debut before age15 years (52.9% and 33.7% respectively) than for those who had their sexual debut at 15 years or older(69.8% and 64.5% respectively). Overall, condom use at first sex among women and men aged 15–24 years was 66.9% and 57.6%, respectively. This was a marked improvement from KAIS 2007, where condom use at first sex was 26.3% among women and 28.5% among men aged 15 to 24 years.

Figure 9.3d: HIV prevalence among young women and men aged 15–24 years by age of sexual debut, KAIS 2012



Young women had a higher HIV prevalence compared to men of the same age group, regardless of the age of sexual debut.

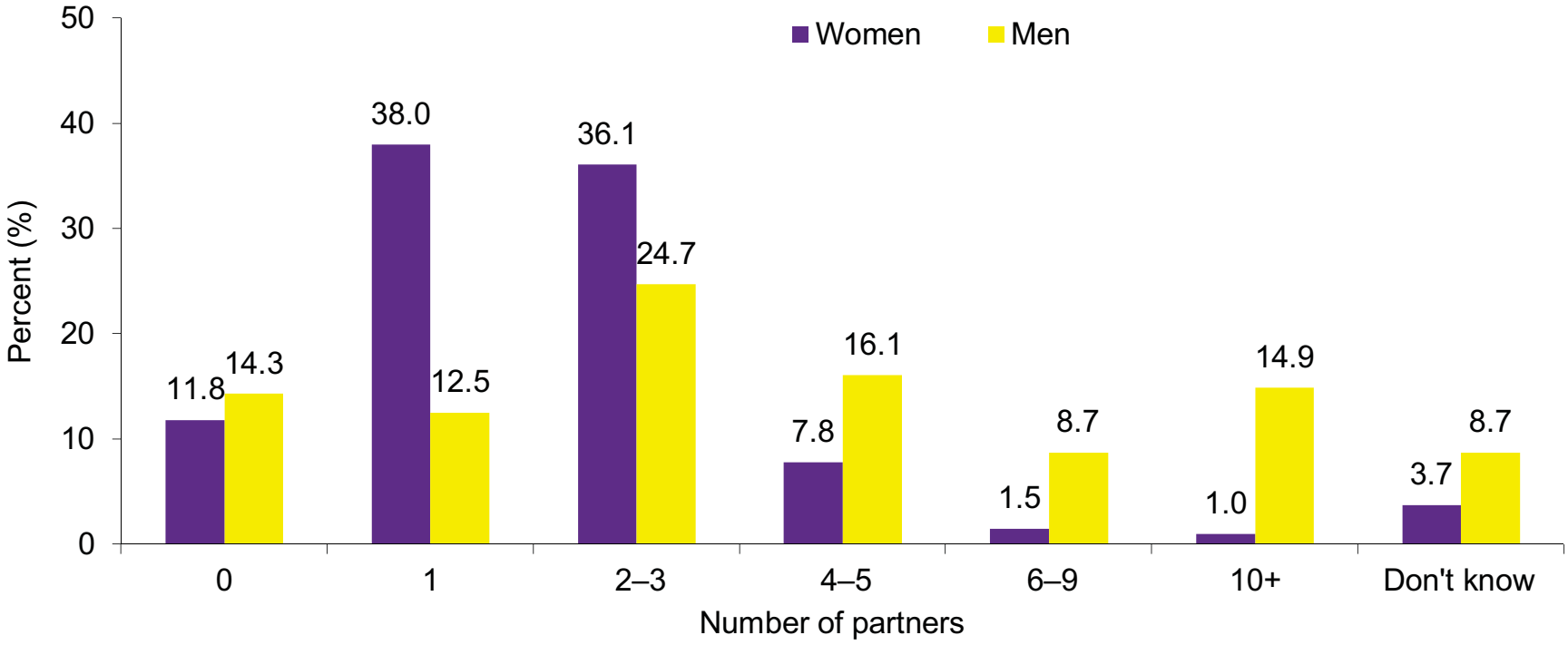
Among youth aged 15 to 24 years who had ever had sex, HIV prevalence differed by age of sexual debut and by sex. Among those who reported first sex before 15 years of age, HIV prevalence was 5.3% among young women and 0.3% among young men. Among those who reported a sexual debut at 15 years or older, HIV prevalence was 3.5% among women and 1.5% among men.

9.4 Sexual Partners Among Women and Men Aged 15–64 Years

This section summarizes the number of sexual partners reported by respondents. Sexual partners are examined in three different ways: lifetime partners, partners in the 12 months before the survey, and concurrent sexual partners. Concurrent partnerships are defined as having multiple sexual partnerships that overlap in a given time period, in contrast with engaging in sequential partnerships which do not overlap in time. Unprotected sex within concurrent partnerships allows HIV to spread rapidly through sexual networks, especially during the short time following new infection (a few weeks to one month) when viral load is high and people are likely to transmit HIV.

Overall, 86.9% of adults and adolescents aged 15 to 64 years reported ever having sex. Among women aged 15 to 64 years, 88.0% had had sex, while this proportion was 85.7% among men aged 15 to 64 years.

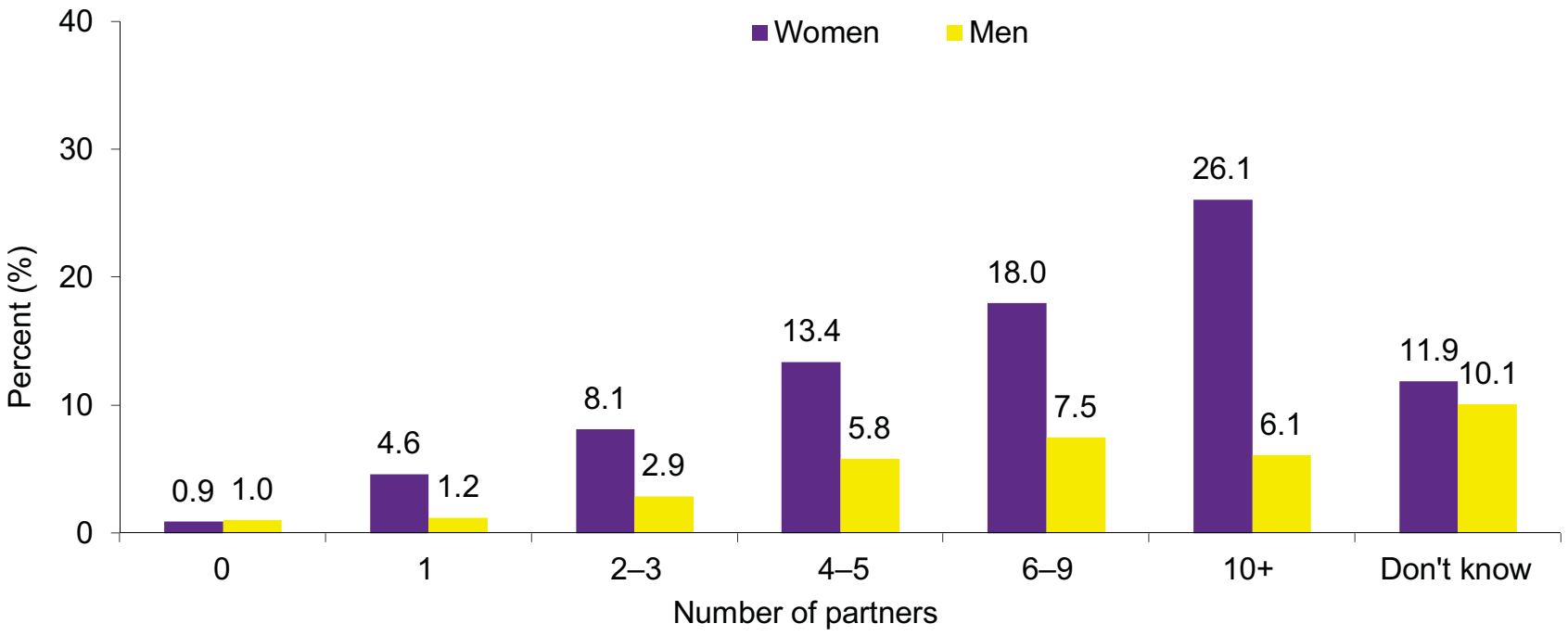
Figure 9.4a: Number of lifetime sexual partners among women and men aged 15–64 years, KAIS 2012



Most women reported having one to three lifetime sexual partners, while approximately 40% of men had two to five lifetime sexual partners.

The number of lifetime sexual partners varied significantly by sex. More men (39.7%) reported four or more lifetime sexual partner, than did women (10.3%). Conversely, more women (38.0%) than men (12.5%) reported having only one lifetime sexual partner.

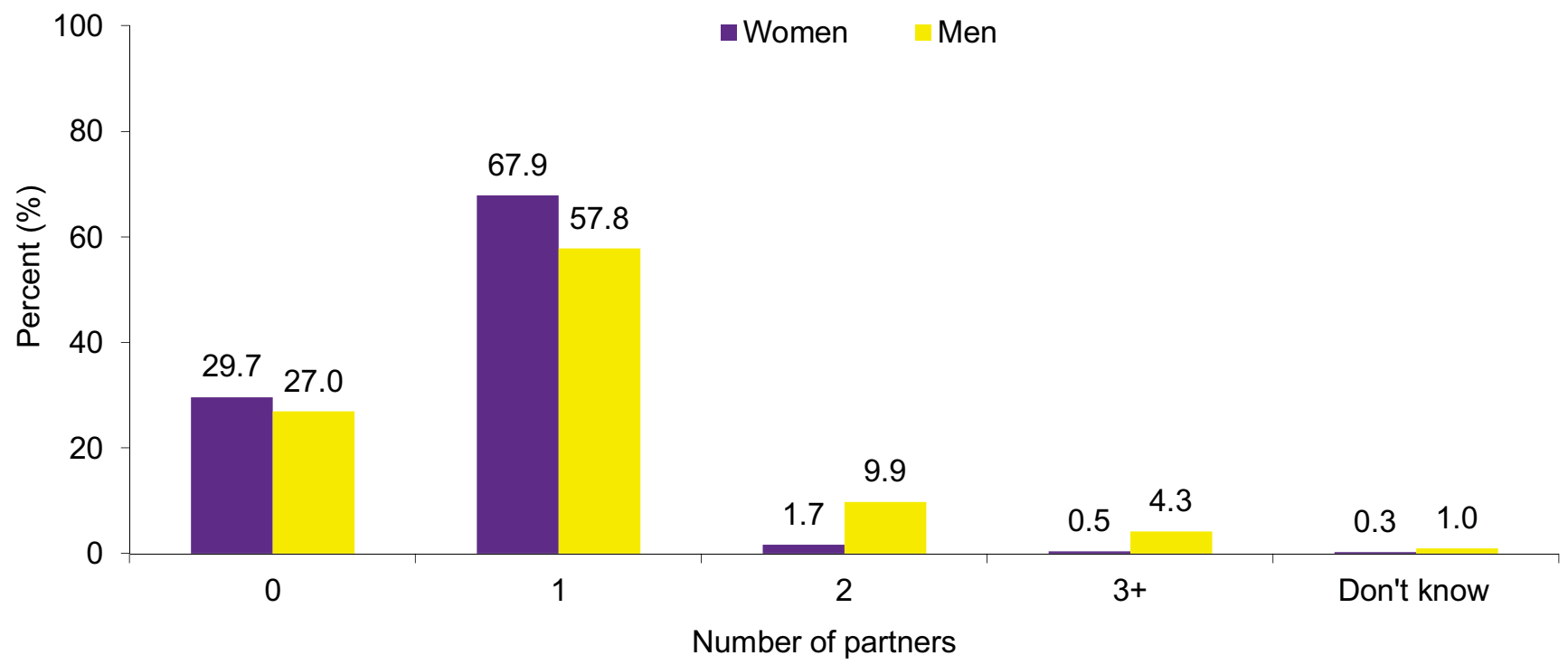
Figure 9.4b: HIV prevalence among women and men aged 15–64 years by number of lifetime sexual partners, KAIS 2012



HIV prevalence was highest among women reporting 10 or more lifetime sexual partners and men reporting six to nine lifetime sexual partners.

The prevalence of HIV among women and men aged 15 to 64 years who ever had sex was usually greater among those with a greater number of lifetime sexual partners. HIV prevalence among women increased steadily and peaked at 26.1% among women reporting 10 or more lifetime sexual partners. HIV prevalence among men peaked at 7.5% among those who reported having six to nine lifetime sexual partners. Among adults and adolescents who reported that they did not know their number of lifetime partners, HIV prevalence was 11.9% among women and 10.1% among men.

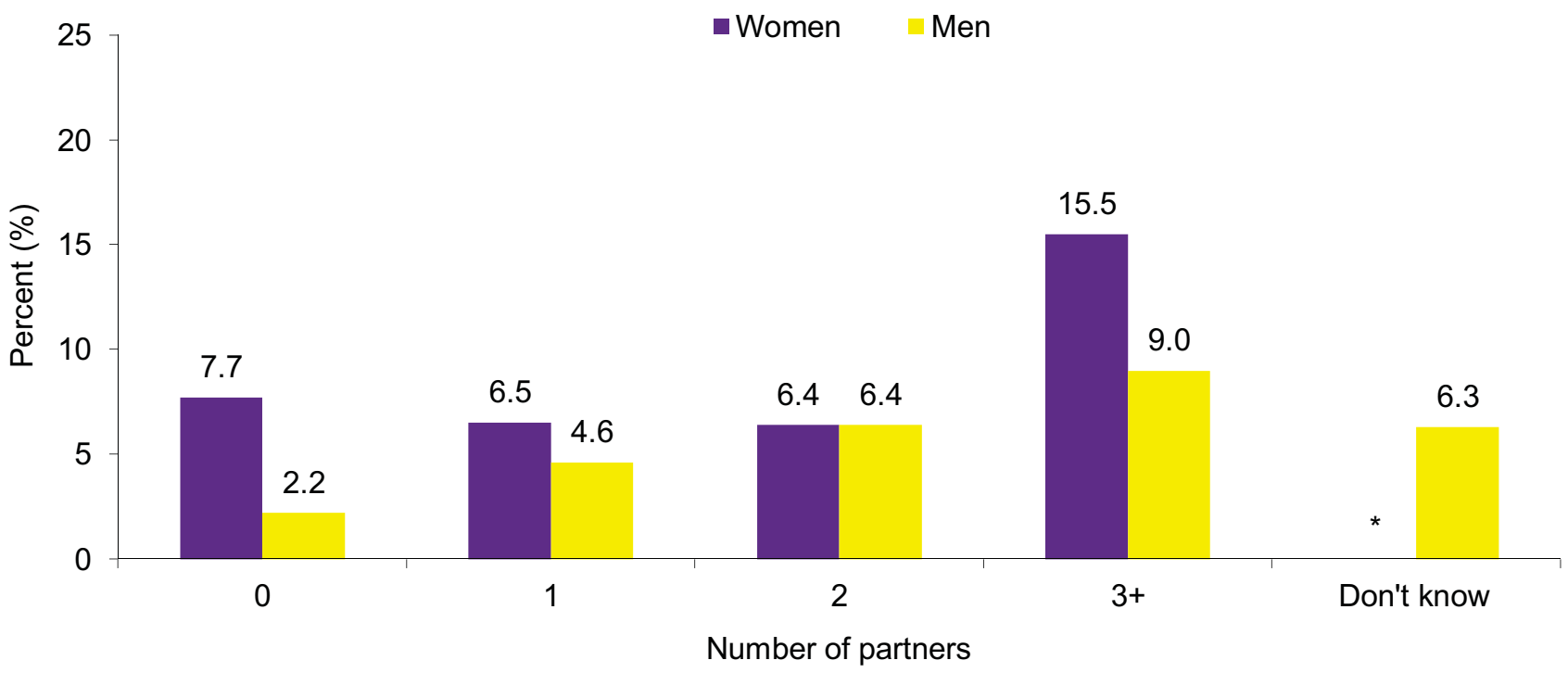
Figure 9.4c: Number of sexual partners in past 12 months among women and men aged 15–64 years, KAIS 2012



Most women and men reported having one sexual partner in the year leading up to the survey.

The number of reported sexual partners in the 12 months prior to the survey varied significantly by sex. While most respondents reported having one sexual partner in this time frame, more women (67.9%) than men (57.8%) reported this behaviour. A lower proportion of women (2.2%) than men (14.2%) reported two or more sexual partners in the year prior to the survey.

Figure 9.4d: HIV prevalence among women and men aged 15–64 years by number of sexual partners in the past 12 months, KAIS 2012

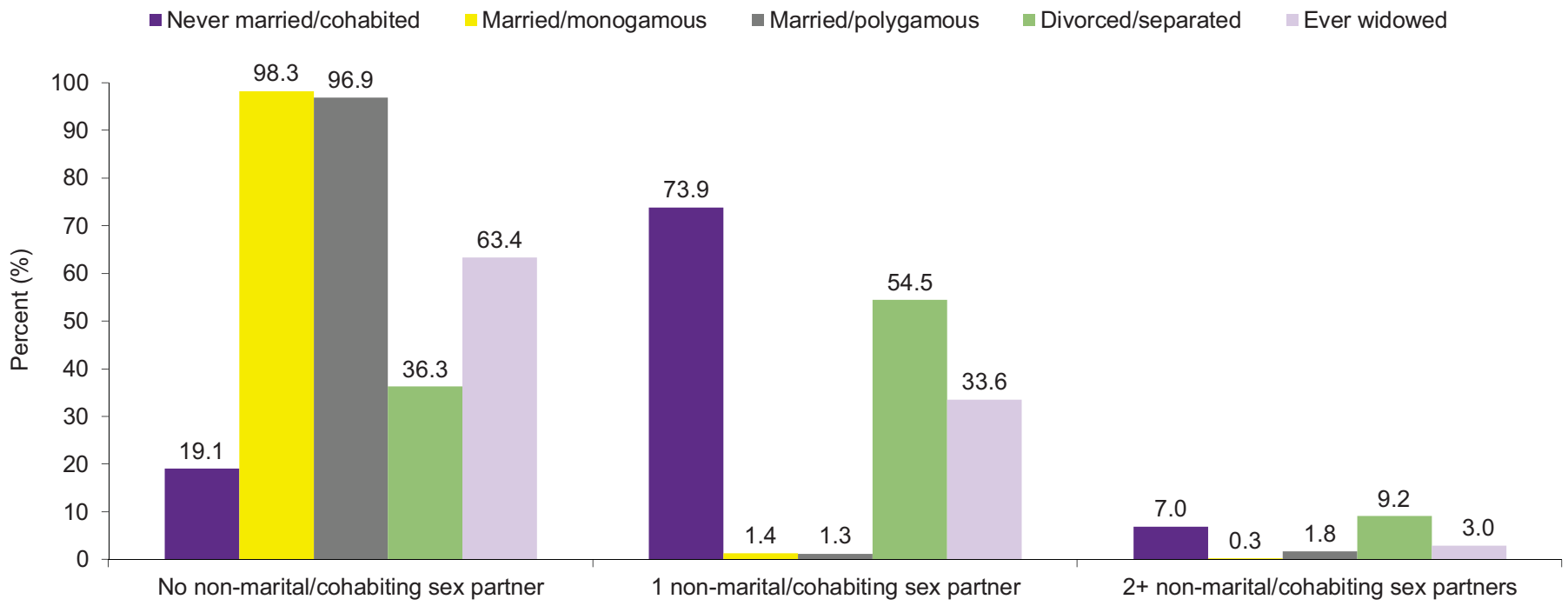


HIV prevalence was highest among women and men reporting three or more sexual partners in the past 12 months.

* Weighted estimates are not shown due to small denominators (<25 observations).

HIV prevalence varied significantly by the number of partners in the 12 months prior to the survey for both women and men. Among men, HIV prevalence increased steadily from 2.2% for those reporting no partners to 9.0% among those reporting three or more sexual partners in the year prior to the survey. Among women, HIV prevalence was highest among those reporting three or more sexual partners, at 15.5%.

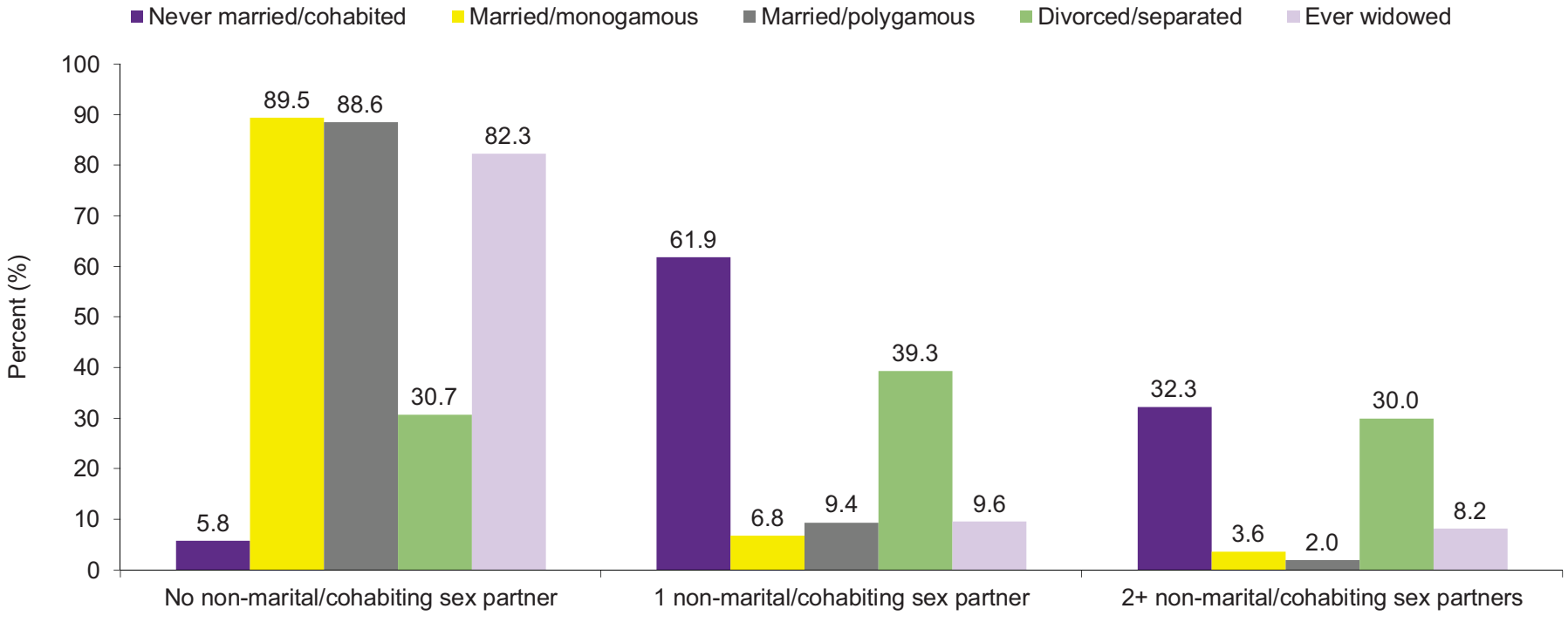
Figure 9.4e: Women aged 15–64 years reporting non-marital or non-cohabiting sexual partnership(s) in the past 12 months by marital status, KAIS 2012



Women who were currently married (either monogamous or polygamous) reported very low levels of sexual partnerships outside of the marriage.

The percentage of women reporting non-marital or non-cohabiting partners in the 12 months before the survey varied significantly by marital status. Among women who had never married or cohabited, 80.9% reported having at least one non-marital or non-cohabiting sex partner, while 63.7% of women who were separated or divorced and 36.6% of women who were widowed reported at least one non-marital or non- cohabiting partner during this time frame. Extramarital relationships were not common among women, with only 1.7% of married monogamous women and 3.1% of married polygamous women reporting at least one non- marital or non-cohabiting partner.

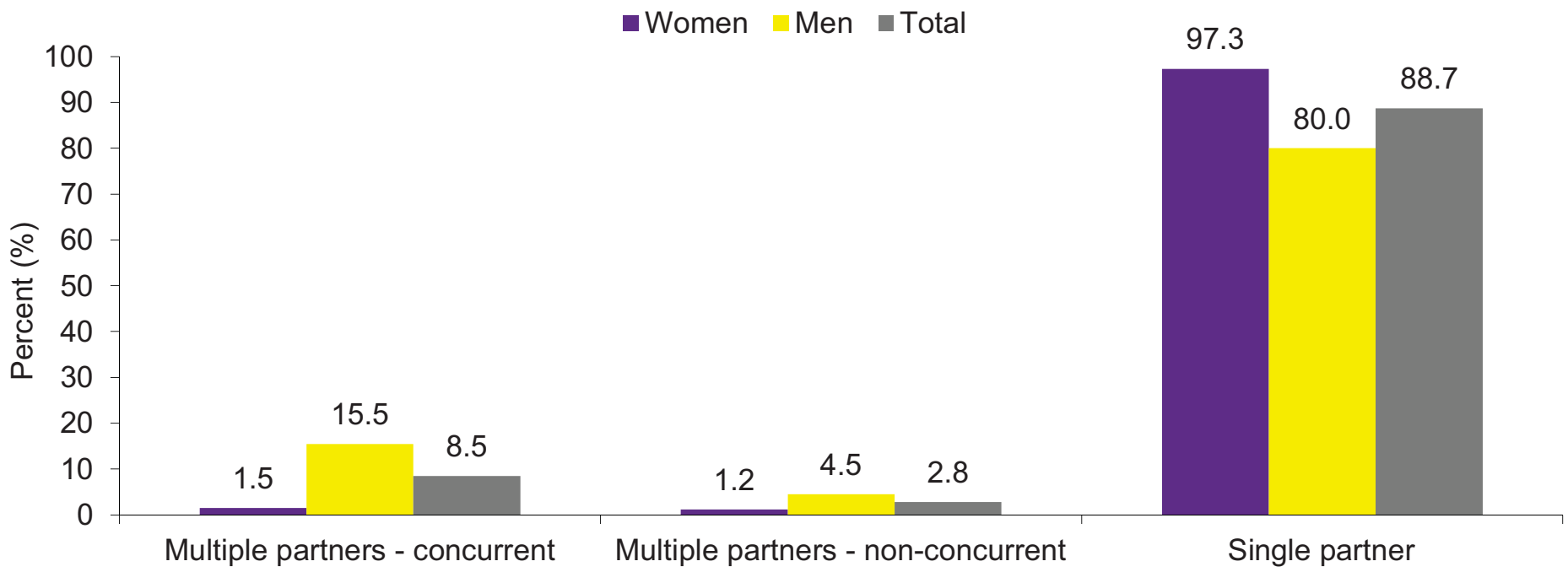
Figure 9.4f: Men aged 15–64 years reporting non-marital or non-cohabiting sexual partnership(s) in the past 12 months by marital status, KAIS 2012



Men who were currently married (either monogamous or polygamous) reported lower levels of sexual partnerships outside of the marriage, with 89.5% and 88.6% respectively reporting no non-marital partners.

The percentage of men reporting non-marital or non-cohabiting partners in the year before the survey varied significantly by marital status. Among married monogamous and polygamous men, 10.4% and 11.4% respectively reported one or more partnerships outside their marriage. Among men who had never married or cohabited, 94.2% reported at least one non-married or non-cohabiting partner compared with 69.3% among men who were separated or divorced at the time of the survey.

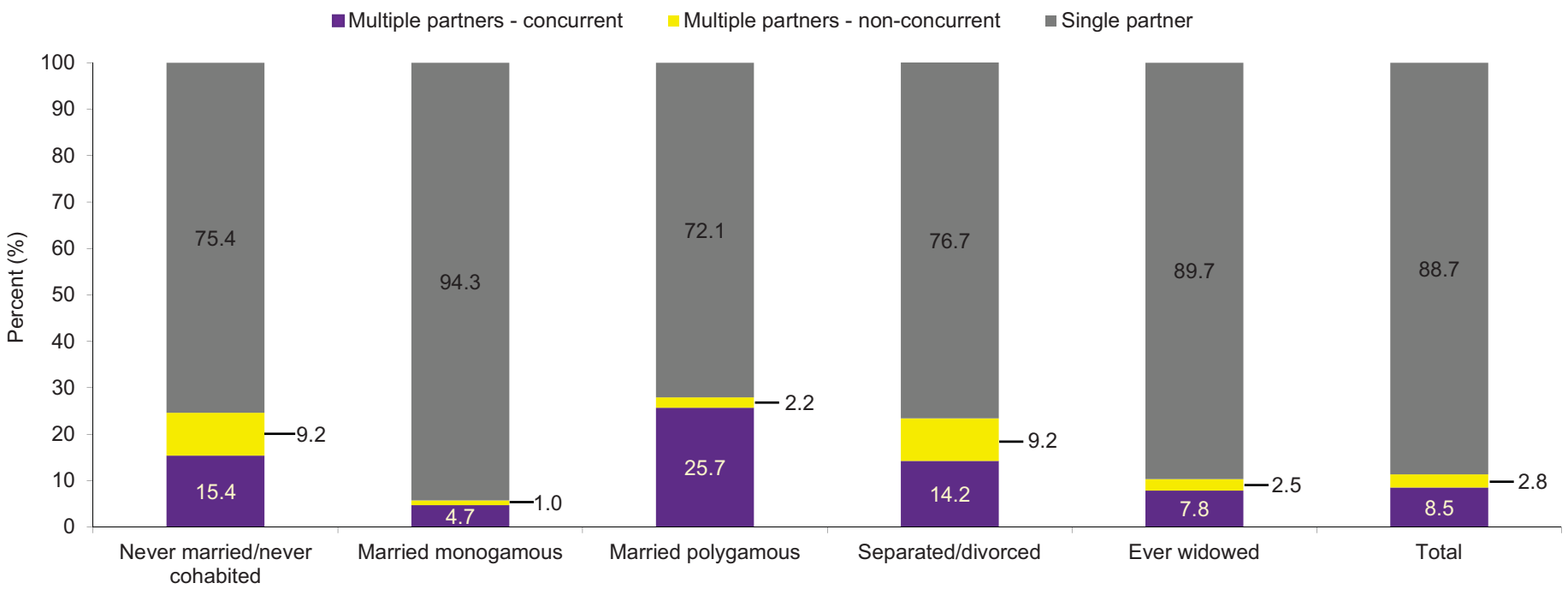
Figure 9.4g: Concurrent partners in the past 12 months among sexually-active women and men aged 15–64 years, KAIS 2012



Among sexually-active men, 15.5% reported concurrent partners in the past 12 months.

Among persons who were sexually active in the past 12 months, the majority (88.7%) reported a single partner. However, 8.5% reported concurrent partnerships, with a higher proportion of men (15.5%) than women (1.5%) reporting concurrent partnerships.

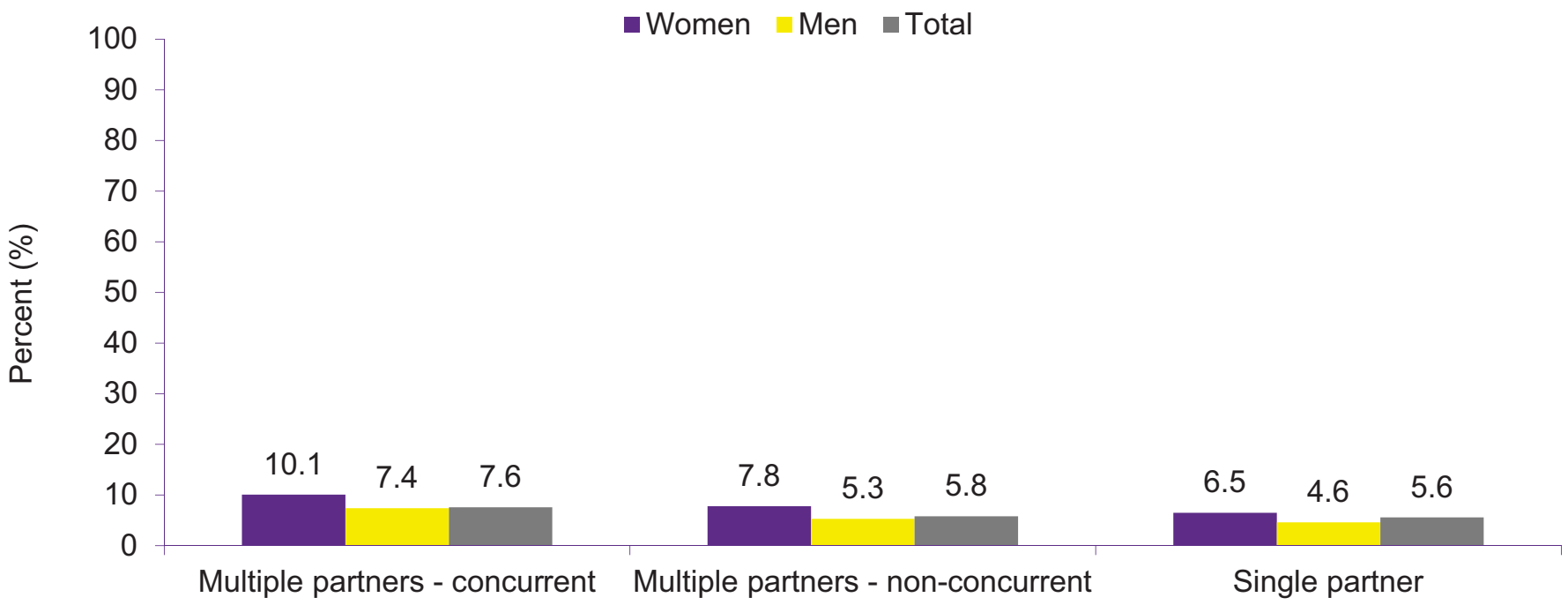
Figure 9.4h: Concurrent partners in the past 12 months among sexually active women and men aged 15–64 years by marital status, KAIS 2012



Individuals who were married in polygamous relationships, never married or cohabited, or separated or divorced were more likely to report concurrent relationships than those who were married in monogamous relationships or widowed.

Prevalence of concurrent partnerships was highest (25.7%) among those who were married in a polygamous relationship. Among persons who had never been married or never cohabited, 15.4% had concurrent partnerships , and 14.2% of those who were separated or divorced had concurrent partnerships, while those in monogamous marital relationships reported the lowest prevalence of sexual concurrency, at 4.7%.

Figure 9.4i: HIV prevalence among women and men aged 15–64 years by concurrency status, KAIS 2012



HIV prevalence was highest among individuals who reported concurrent relationships.

Although HIV prevalence rates were not significantly different by concurrency status, HIV prevalence was highest among those who reported concurrent relationships (10.1% among women and 7.4% among men), followed by those who reported multiple partners that were non-concurrent (7.8% among women and 5.3% among men). HIV prevalence rates among those that reported a single partner in the past 12 months (6.5% among women and 4.6% among men) were similar to the national estimates of HIV prevalence for women (6.9%) and men (4.4%).

9.5 Condom Use Among Women and Men Aged 15–64 Years

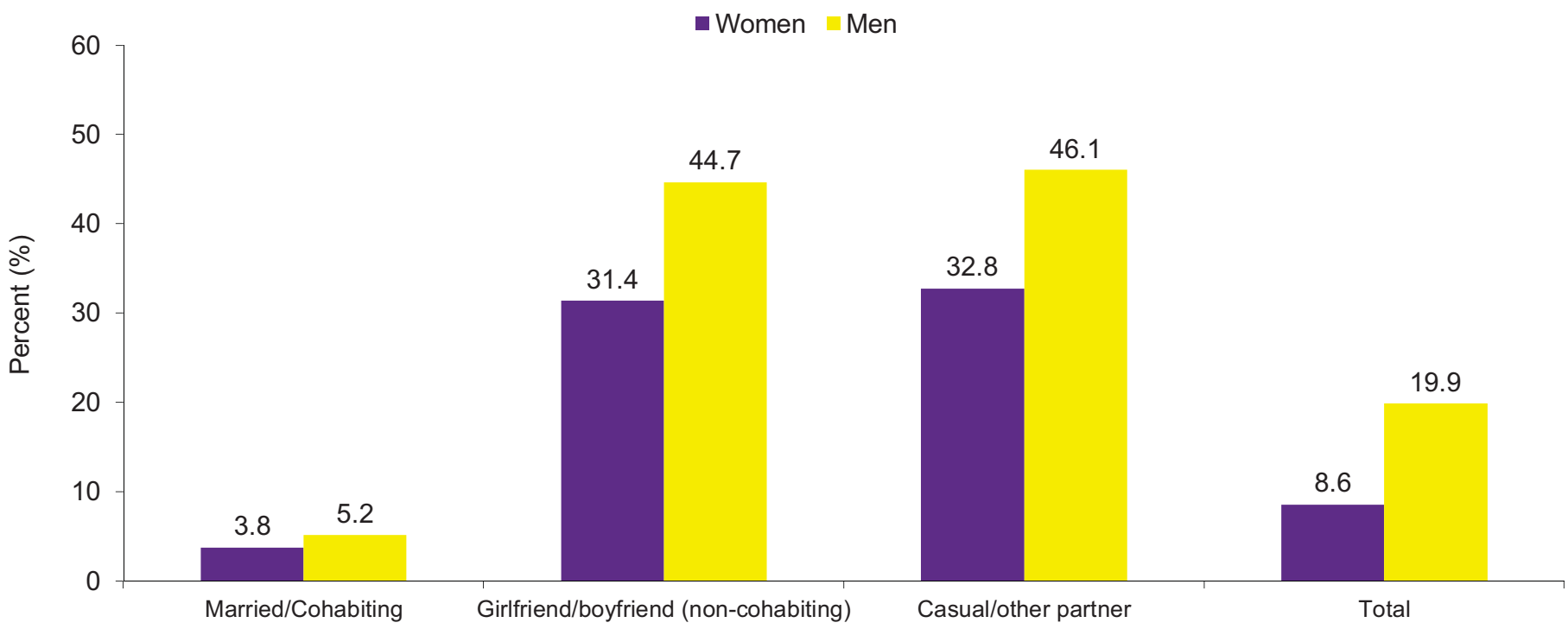
This section reports on condom use with sexual partners among the women and men who reported having sex in the year before the survey.

In this section, "consistent condom use" is defined as condom use every time the respondent had sexual intercourse with any partner. Since respondents could report more than one partner in the 12 months before the survey, consistent condom use should be interpreted as percentages of all partnerships rather than percentages of all individuals. That is, if a respondent had three partners, each partnership was counted separately in the analysis.

"Incorrect condom use" is defined as not using a condom during the entire sexual act; reporting condom breakage/ leakage during sex or while pulling out; or reporting that the condom slipped off during sex. Since respondents were not asked about incorrect condom use with each partner, incorrect condom use should be interpreted as percentages of all individuals.

In this section, a "partner of unknown status" refers to a partner who had never been tested for HIV, whose testing history was unknown to the respondent, or whose HIV test result was unknown to the respondent.

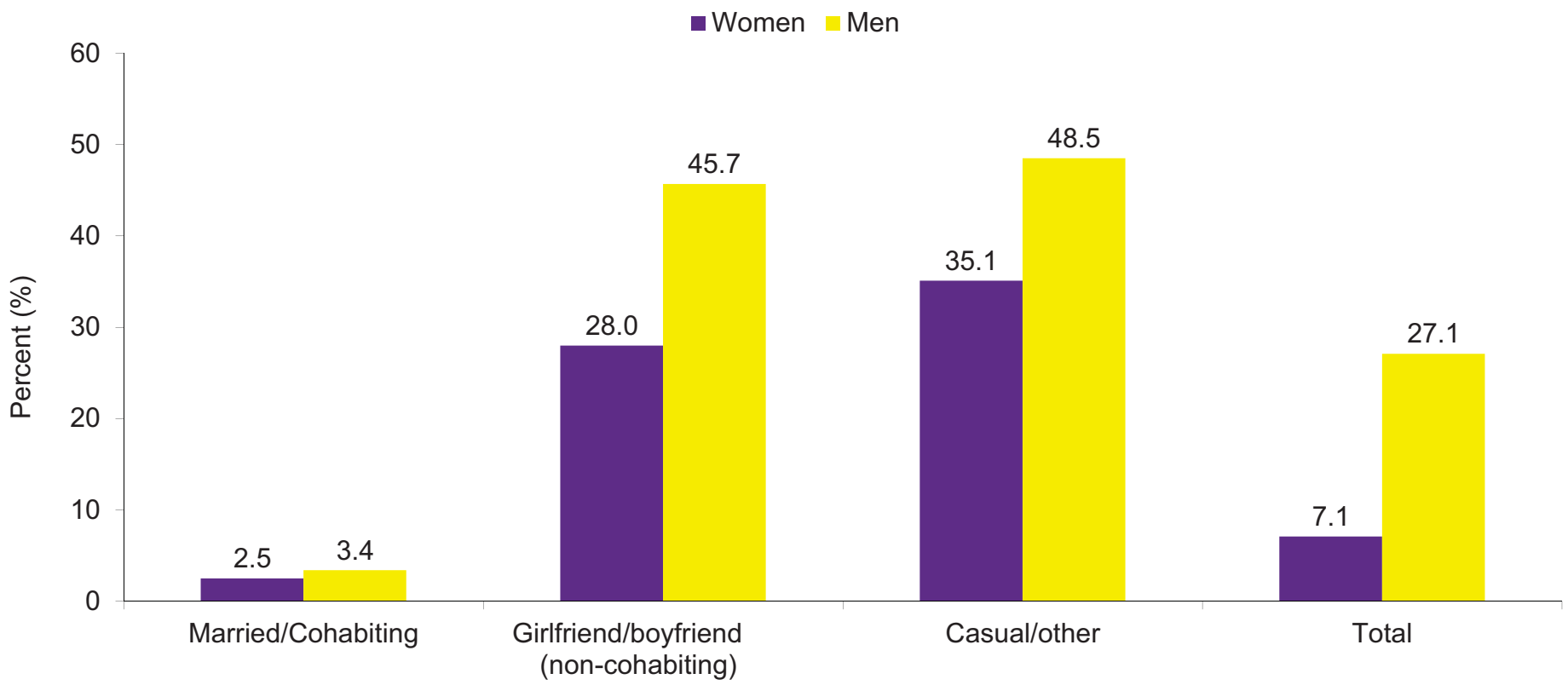
Figure 9.5a: Consistent condom use with sexual partner(s) in the past 12 months among women and men aged 15–64 years by partnership type, KAIS 2012



Consistent condom use was highest among non-cohabiting and casual partnerships.

Overall, consistent condom use was significantly higher among partnerships reported by men (19.9%) from those reported by women (8.6%). Within partnerships, consistent condom use was lowest in married or cohabiting partnerships, with only 3.8% of women and 5.2% of men reporting this safer sexual behaviour in the year before the survey. Consistent condom use was higher, but still relatively low, with boyfriends (31.4%), girlfriends (44.7%), and casual partnerships reported by women (32.8%) and men (46.1%).

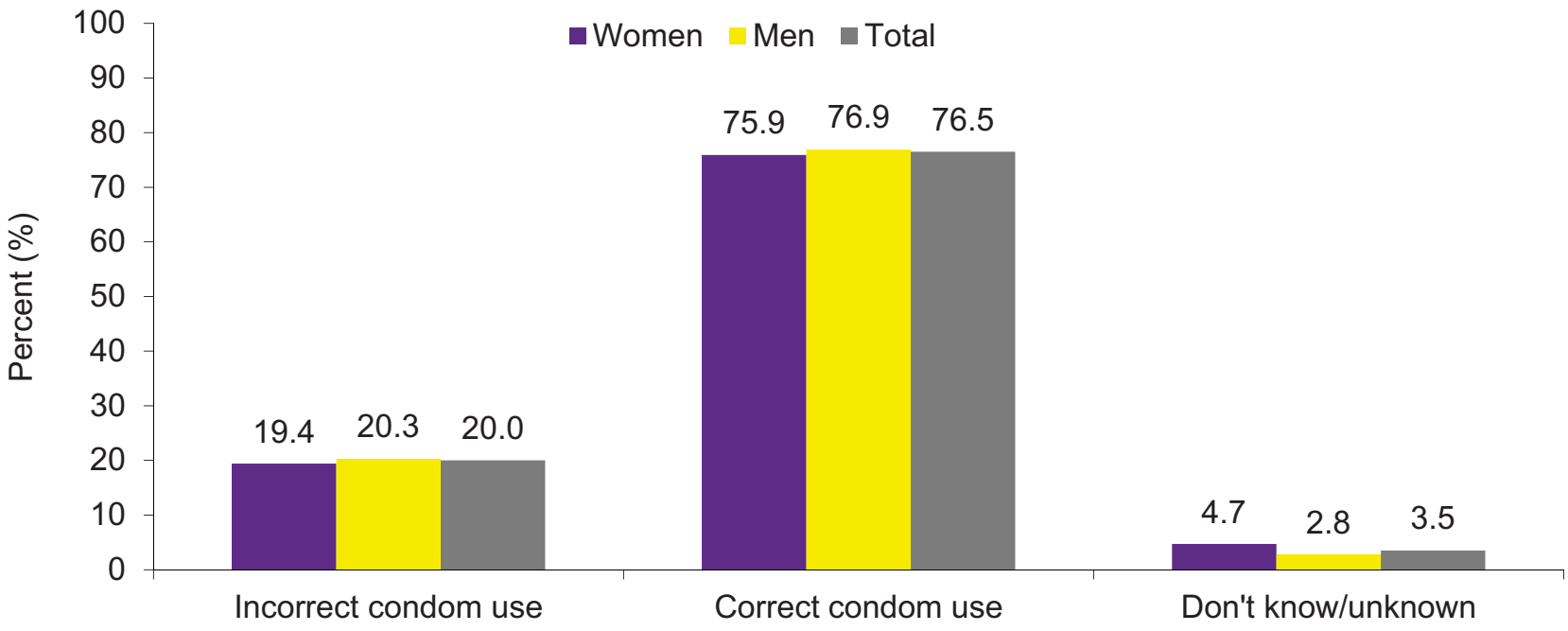
Figure 9.5b: Consistent condom use with sexual partner(s) of unknown HIV status in the past 12 months among women and men aged 15-64 years by partnership type, KAIS 2012



Consistent condom use with a sexual partner of unknown HIV status was highest among casual/other sexual partnerships.

Among all women and men aged 15 to 64 years who had sex with partners of unknown HIV status in the past 12 months, consistent condom use was almost four times higher among men (27.1%) than women (7.1%). Within relationships with non-cohabiting girlfriends/boyfriends, 28.0% of women and 45.7% of men reported consistent condom use during sex with partners of unknown HIV status in the past 12 months. Within casual relationships only 35.1% of women and 48.5% of men used condoms consistently with partners of unknown HIV status in the past 12 months. Consistent condom use with sexual partner(s) of unknown HIV status in the past 12 months was lowest among married and cohabiting partnerships, at 2.5% for women and 3.4% for men.

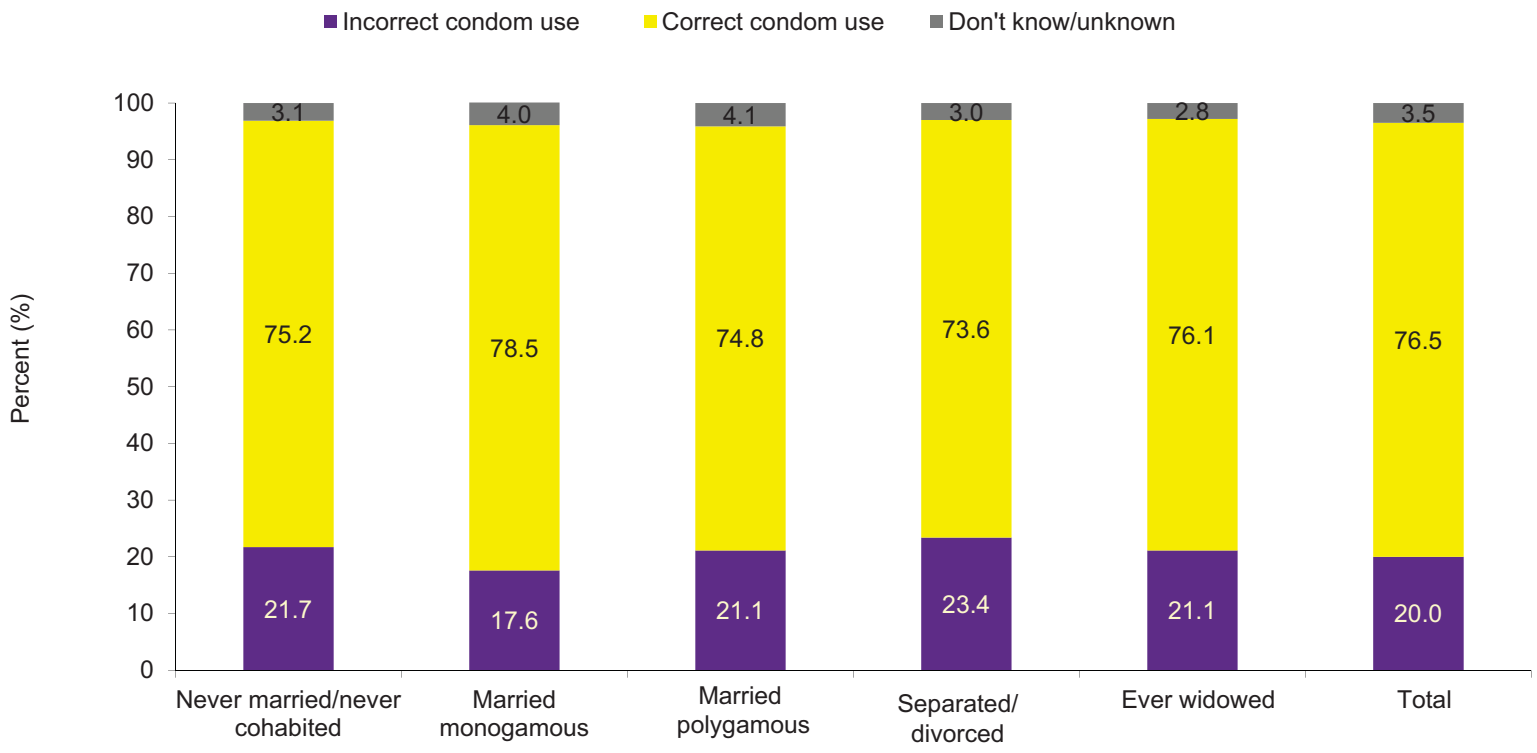
Figure 9.5c: Incorrect condom use among sexually-active women and men aged 15–64 years in the past 3 months, KAIS 2012



Most adults who were sexually-active and used a condom in the last 3 months reported correct condom use.

Among sexually active adults and adolescents who used a condom in the 3 months before the survey, the majority (76.5%) reported correct condom use; however, 20.0% reported incorrect condom use, which represents 20.3% of men and 19.4% of women.

Figure 9.5d: Incorrect condom use among sexually-active women and men aged 15–64 years in the past 3 months by marital status, KAIS 2012



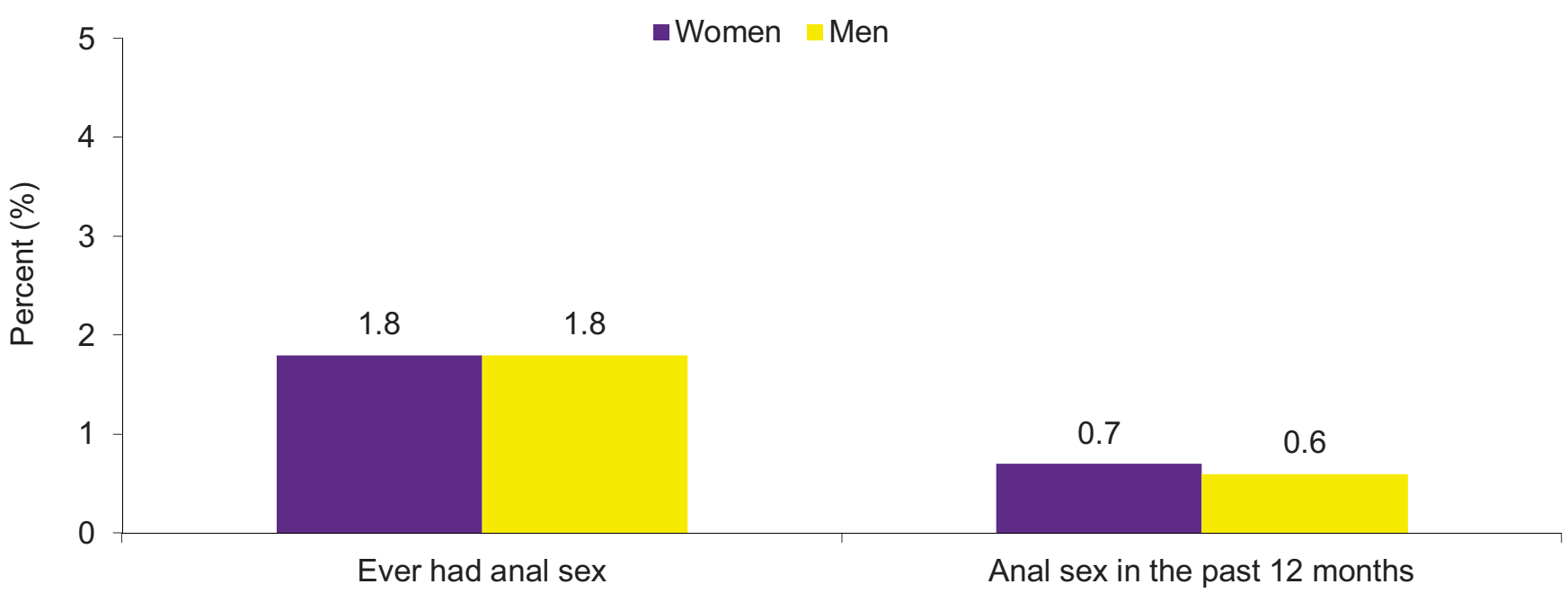
Among sexually active adults who had used a condom in the past three months, incorrect condom use did not differ by marital status.

Overall the rate of incorrect condom use among those who used a condom in the past three months did not vary significantly across marital status. The highest percent of incorrect condom use was observed among individuals who were separated or divorced (23.4%) followed by those who had never been married or never cohabited (21.7%). Persons who were married monogamous had the lowest percent of incorrect condom use, at 17.6%.

9.6 Anal Sex Among Women and Men Aged 15–64 Years

All respondents were asked questions about awareness and practice of anal sex. Due to the sensitivity of the questions, a gateway question was used to first determine if respondents had ever heard of anal sex. If a participant responded no, they were not asked any additional questions about anal sex. If the participant responded yes, they were asked if they had ever had anal sex. Approximately half (49.4%) of women and men aged 15-64 years had ever heard of anal sex. For men, questions on anal sex did not indicate the sex of the partner nor did questions differentiate between insertive or receptive anal sex. Unprotected anal sex is a significant risk factor for HIV transmission. To date, no information exists on the prevalence of anal sex in the general population.

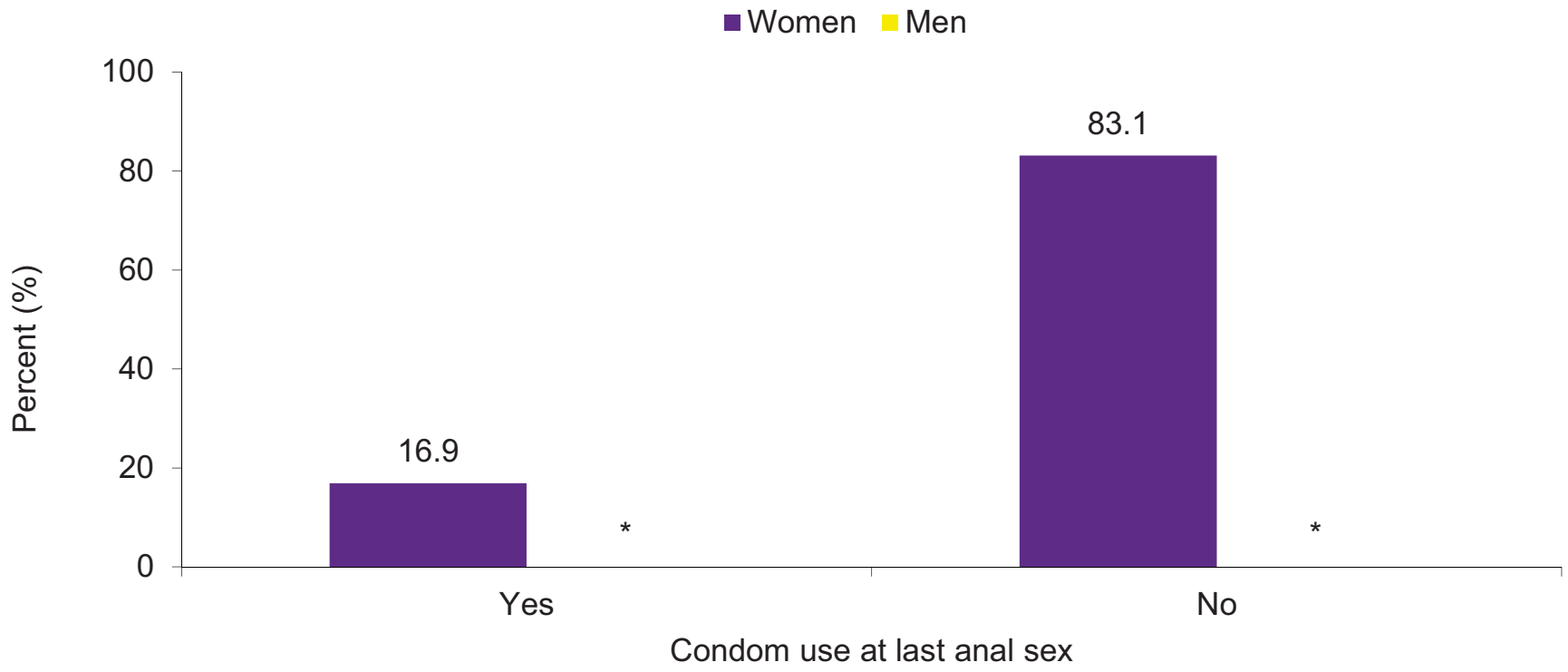
Figure 9.6a: Anal sex among women and men aged 15–64 years, KAIS 2012



Few adults (1.8%) reported ever having anal sex.

Only 1.8% of both women and men reported ever having engaged in anal sex. This figure dropped to less than 1.0% of both women and men who engaged in anal sex in the year prior to the survey.

Figure 9.6b: Condom use at last anal sex among women and men aged 15–64 years who had heard of anal sex and reported ever having had anal sex, KAIS 2012

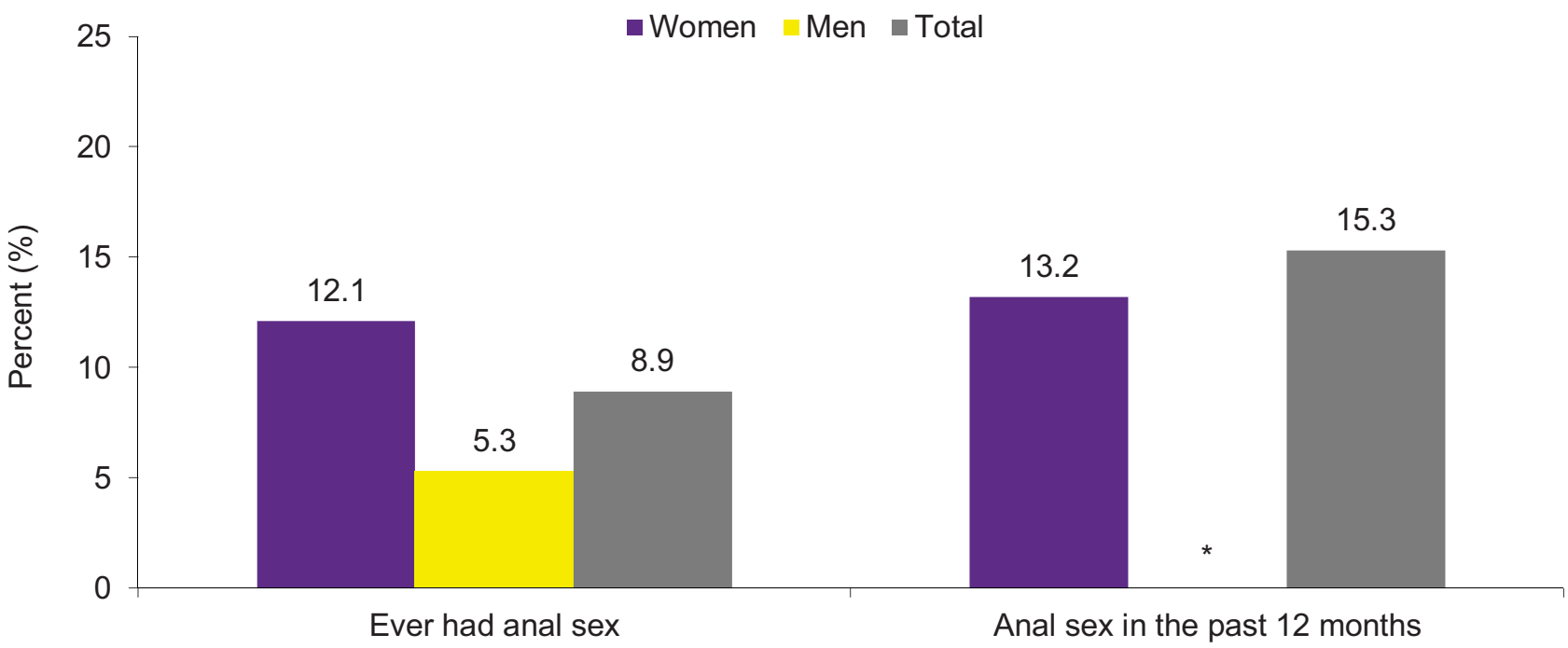


Less than a fifth of women who have had anal sex used a condom the last time they had anal sex.

*Weighted estimates are not shown due to small denominators (<25 observations).

Only 16.9% of women who ever had anal sex reported that they used a condom the last time they had anal sex.

Figure 9.6c: HIV prevalence among women and men aged 15–64 years who reported having heard of anal sex and reported engaging in anal sex ever, and in the past 12 months, KAIS 2012



Among those reporting ever having anal sex, HIV prevalence was 8.9%, and 15.3% among those who had anal sex in the past 12 months.

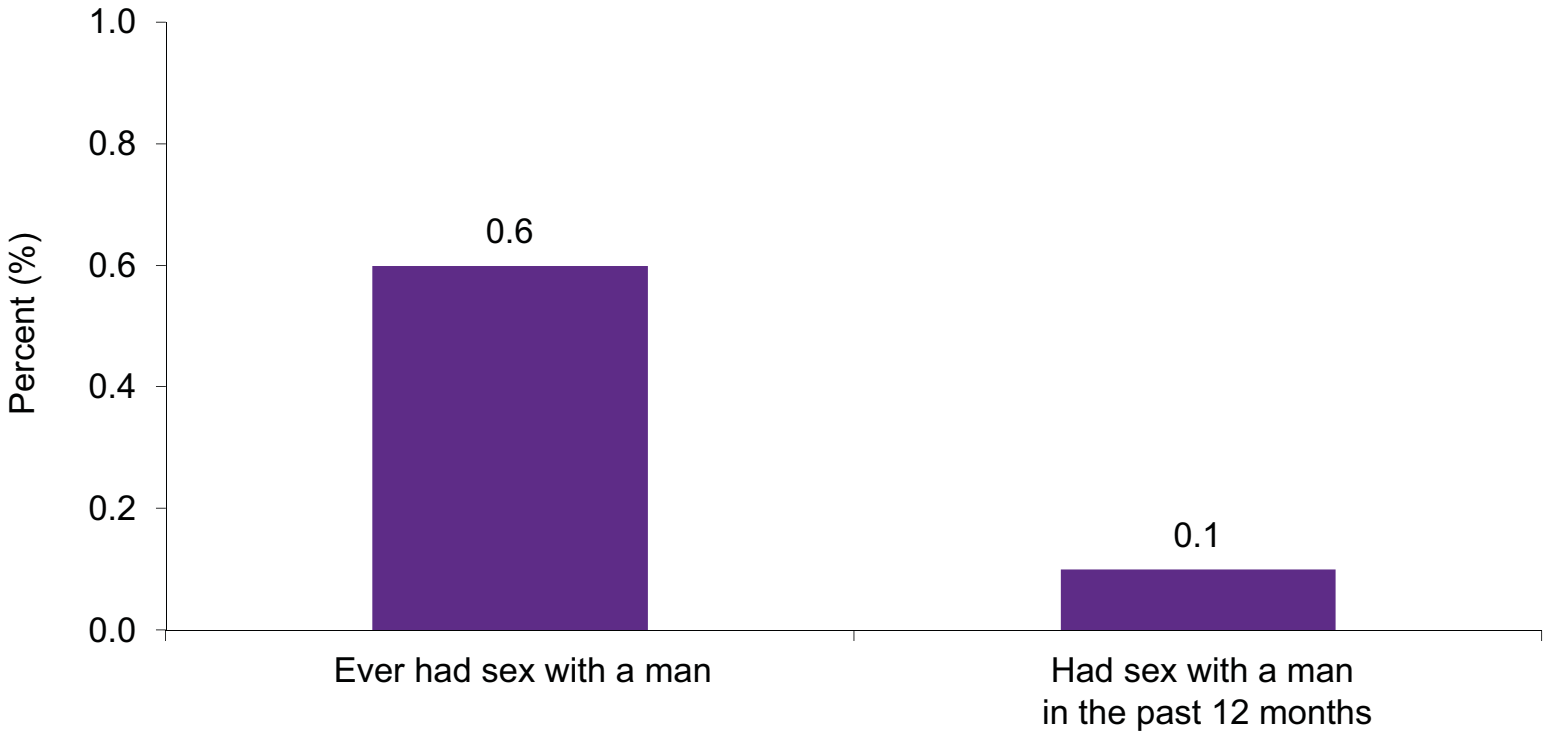
*Weighted estimates are not shown due to small denominators (<25 observations).

Overall, HIV prevalence among those who ever reported anal sex was 8.9%. The prevalence of HIV among those reporting anal sex in the past 12 months (15.3%) was higher than the prevalence of HIV among those who had ever had anal sex (8.9%).

9.7 Men Who Have Sex wth Men

Male respondents were asked if they had ever heard of men having sex with men. If a participant responded no, he was not asked any additional questions about men having sex with men. If the participant responded yes, he was asked if he had ever had sex with a man. Most men (82.5%) reported that they had heard of men who have sex with men. This section summarises our findings on men who report having sex with men.

Figure 9.7: Men aged 15–64 years who ever had sex and who reported having sex with a man ever, and in the past 12 months, KAIS 2012



Less than 1.0% of men reported ever having had sex with other men.

Very few men (0.6%) reported that they had ever had sex with another man. The figure decreased further for men who reported having had sex with another man in the year before the survey (0.1%).

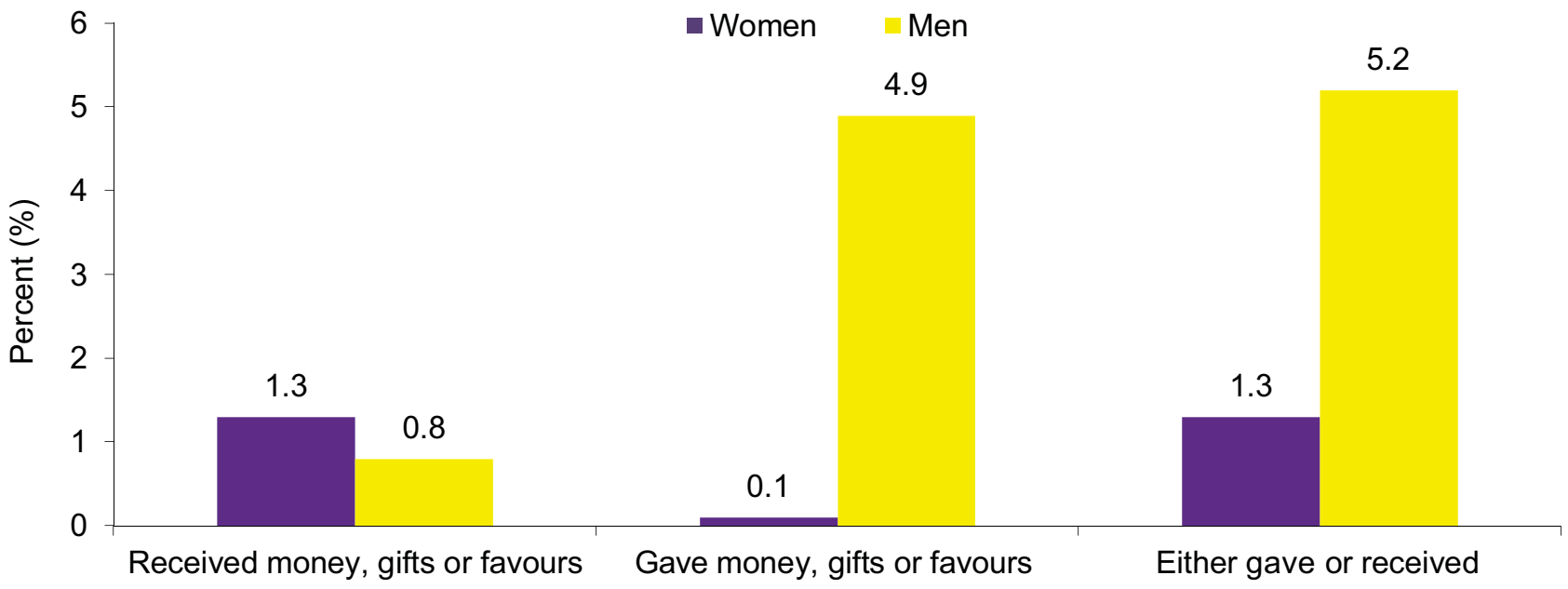
9.8 Transactional Sex

Figure 9.8a: Women and men aged 15–64 years who ever had sex and who reported ever giving or ever receiving money, gifts, or favours in exchange for sex, KAIS 2012

Approximately one in five sexually active men reported ever giving or receiving money, gifts, or favours in exchange for sex, compared with only five in one hundred women.

Among men, 17.4% reported ever giving money, gifts or favours in exchange for sex, while 3.1% reported ever receiving money, gifts or favours in exchange for sex. For women, 0.3% and 4.4%, respectively, reported this behaviour.

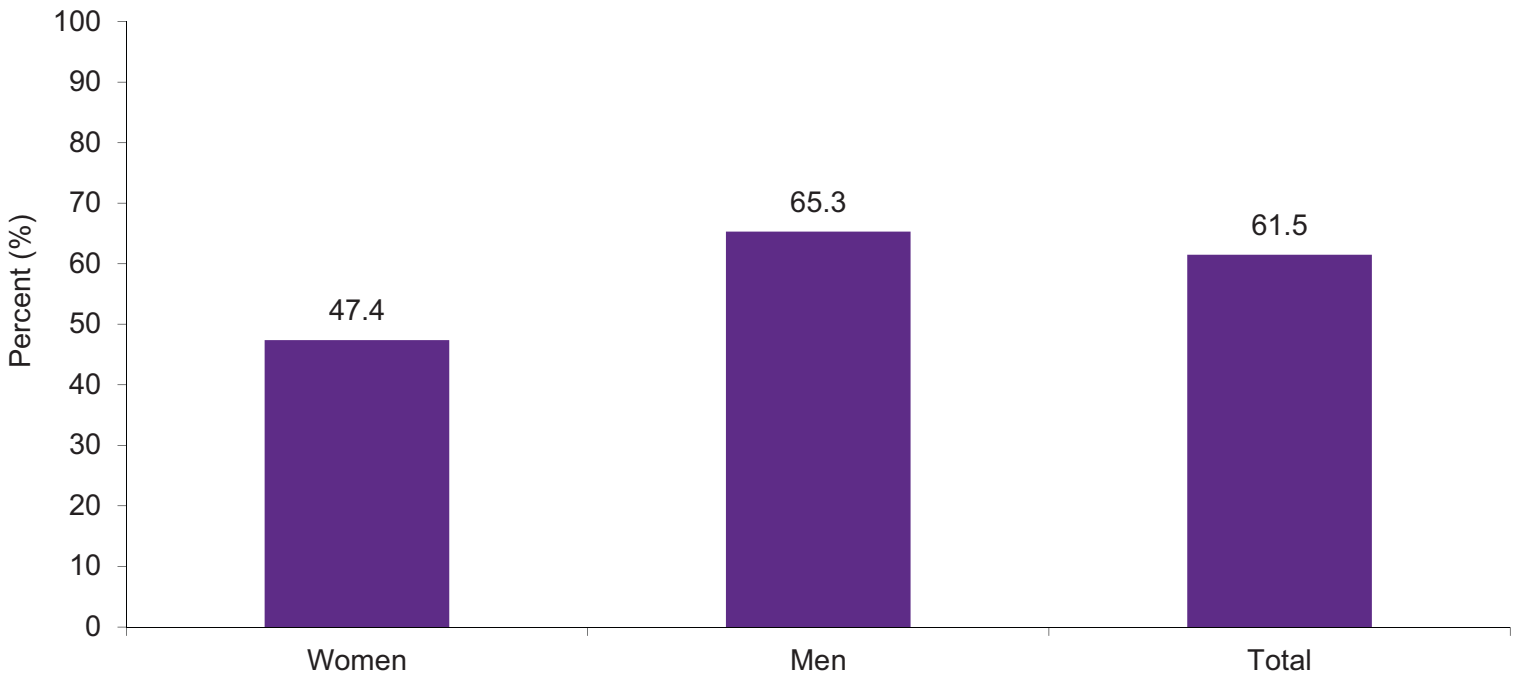
Figure 9.8b: Women and men aged 15–64 years who ever had sex and who reported giving or receiving money, gifts, or favours in exchange for sex in past 12 months, KAIS 2012



Approximately 5% of men reported either giving or receiving money, gifts or favours in exchange for sex in the past 12 months.

In the past 12 months, 4.9% of men reported giving money, gifts, or favours in exchange for sex compared with 0.1% of women. A total of 1.3% of women and 0.8% of men reported receiving money, gifts, or favours in exchange for sex in the past 12 months.

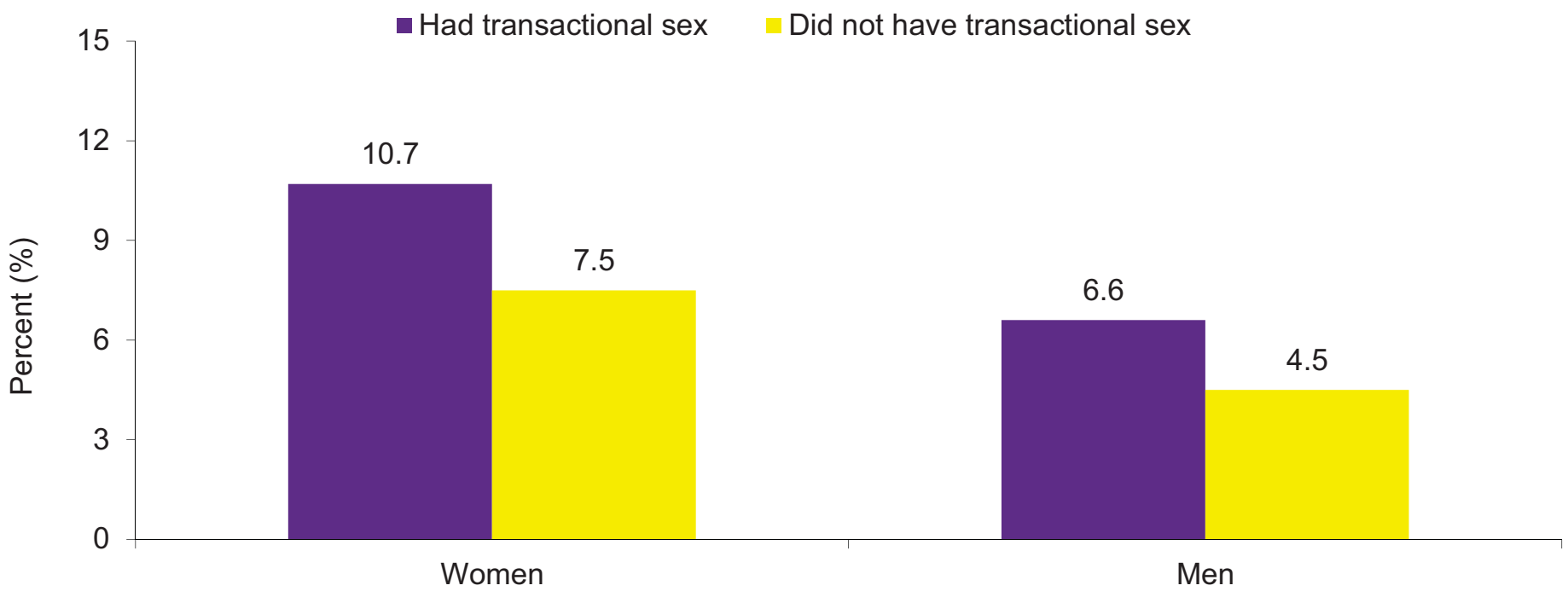
Figure 9.8c: Condom use at last transactional sex, among women and men aged 15-64 years who gave or received money, gifts or favours in exchange for sex in past 12 months, KAIS 2012



Among persons who had ever received or given money in exchange for sex, only 61.5% used a condom at the last such sexual encounter.

Among persons who had ever received or given money in exchange for sex, 61.5% reported that they used a condom the last time they engaged in this behaviour. The percentage of men (65.3%) who used a condom at the last such sexual encounter was higher than the percentage of women who reported condom use the last time they exchanged money or goods for sex (47.4%).

Figure 9.8d: HIV prevalence among women and men aged 15–64 years who ever had sex, by lifetime history of transactional sex, KAIS 2012

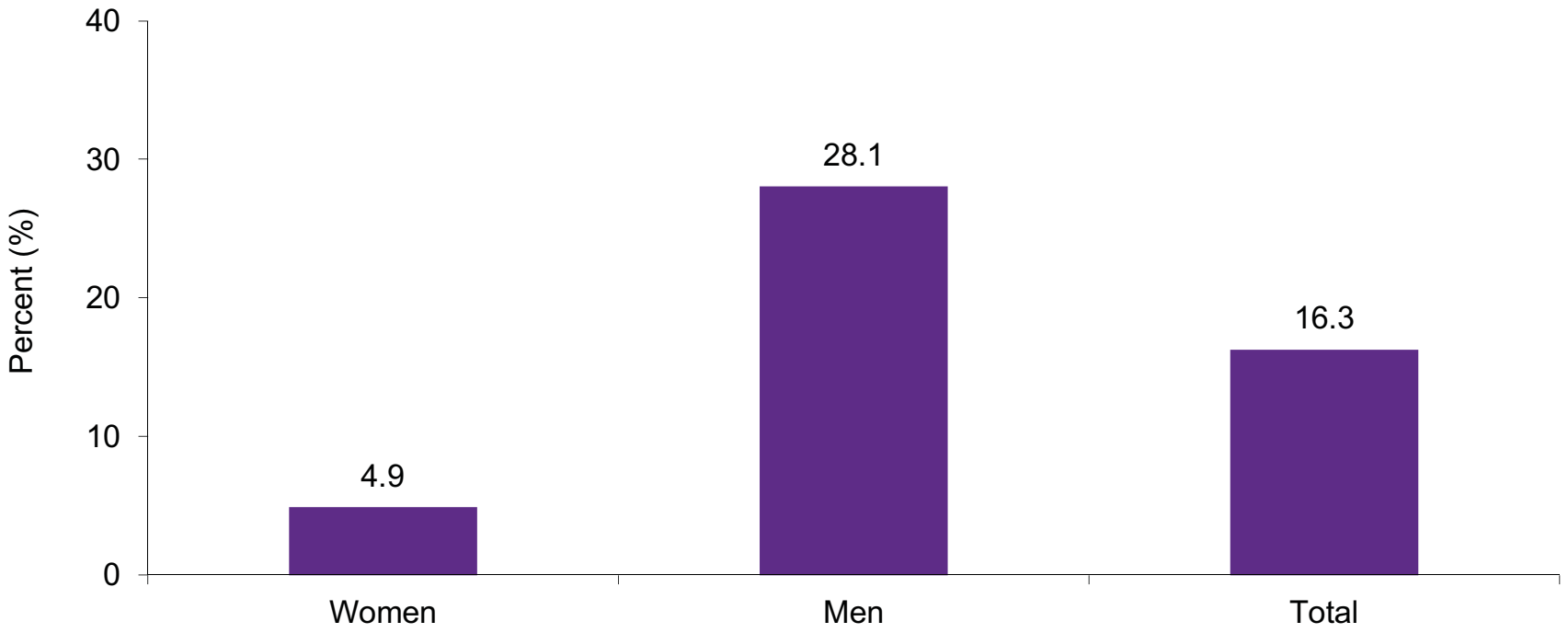


HIV prevalence was higher among women who had ever engaged in transactional sex, compared to men who had ever engaged in this behaviour.

Women aged 15–64 years who received or gave money, gifts, or favours in exchange for sex had a higher HIV prevalence (10.7%) than men (6.6%) reporting the same behaviour. Both percentages were higher than the HIV prevalence among women (6.9%) and men (4.4%) aged 15 to 64 years in the general population.

9.9 Non-Prescription Drug Use

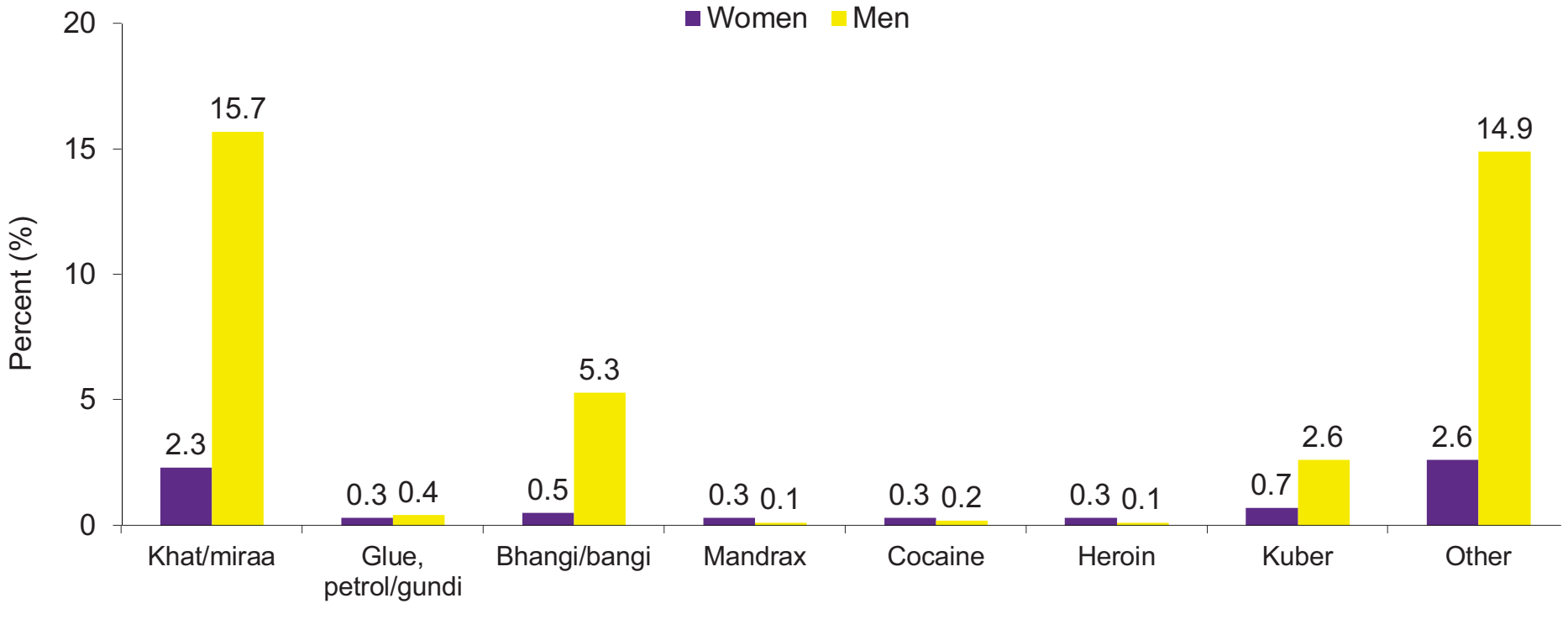
Figure 9.9a: Non-prescription mood-altering drug use in the past 12 months among women and men aged 15–64 years, KAIS 2012



Non-prescription drug use in the 12 months prior to the survey was five times higher among men than women.

The percentage of women and men aged 15–64 years who reported using non-prescription drugs in the past 12 months was 16.3% overall, 4.9% among women, and 28.1% among men.

Figure 9.9b: Types of non-prescription drugs used in the past 12 months among women and men aged 15–64 years, KAIS 2012



There were more men than women who used non-prescription drugs.

The most common types of drugs used in the past 12 months were khat/miraa (2.3% among women and 15.7% among men); bhangi or marijuana, (0.5% among women and 5.3% among men), and kuber (0.7% among women and 2.6% among men). Nearly 3.0% of women and 15.0% of men reported using other drugs, the majority of which were reported to be alcohol and tobacco.

9.10 Gaps and Unmet Needs

- Questions on stigmatized behaviours in general and particularly those related to homosexuality and use of illicit drugs were not explored in detail.
- Condom use is low among all groups engaging in high-risk sexual behaviour including anal sex and sex with partners of unknown HIV status. Further, almost a fifth (19.7%) of all adults who were sexually active and used a condom in the past three months reported incorrect condom use. Prevention interventions encouraging correct and consistent condom use for high-risk and casual sex should continue to be emphasized in programming.

10 COUPLES AND CO-HABITING PARTNERS

10.1 Key Findings

- Among married and cohabiting couples, 4.8% were HIV discordant; that is, one partner was HIV-infected and the other was not. Among these, the distribution of the HIV-infected partner was equal among male and female partners.
- Nyanza region had a high burden of HIV-affected couples, and specifically the highest burden of HIV-discordant couples.
- Of all concordant HIV positive couples, 69.5% had accurate knowledge of their partner's HIV status. Among all male-infected discordant couples, 72.6% of women accurately knew their male partner was HIV positive; and among discordant couples where the female was infected only 58.4% of the men knew that their female partner was positive.
- Among HIV discordant couples, less than a quarter of susceptible partners reported using condoms consistently. Condom use among concordant positive couples was 38.3%.
- Among HIV-infected partners within a HIV-discordant relationship who were aware of their status, only 24.2% were on ART.
- Overall, 56.3% of HIV-infected partners within a HIV-discordant relationship were virally suppressed (defined as HIV RNA concentration <1,000 copies/mL).

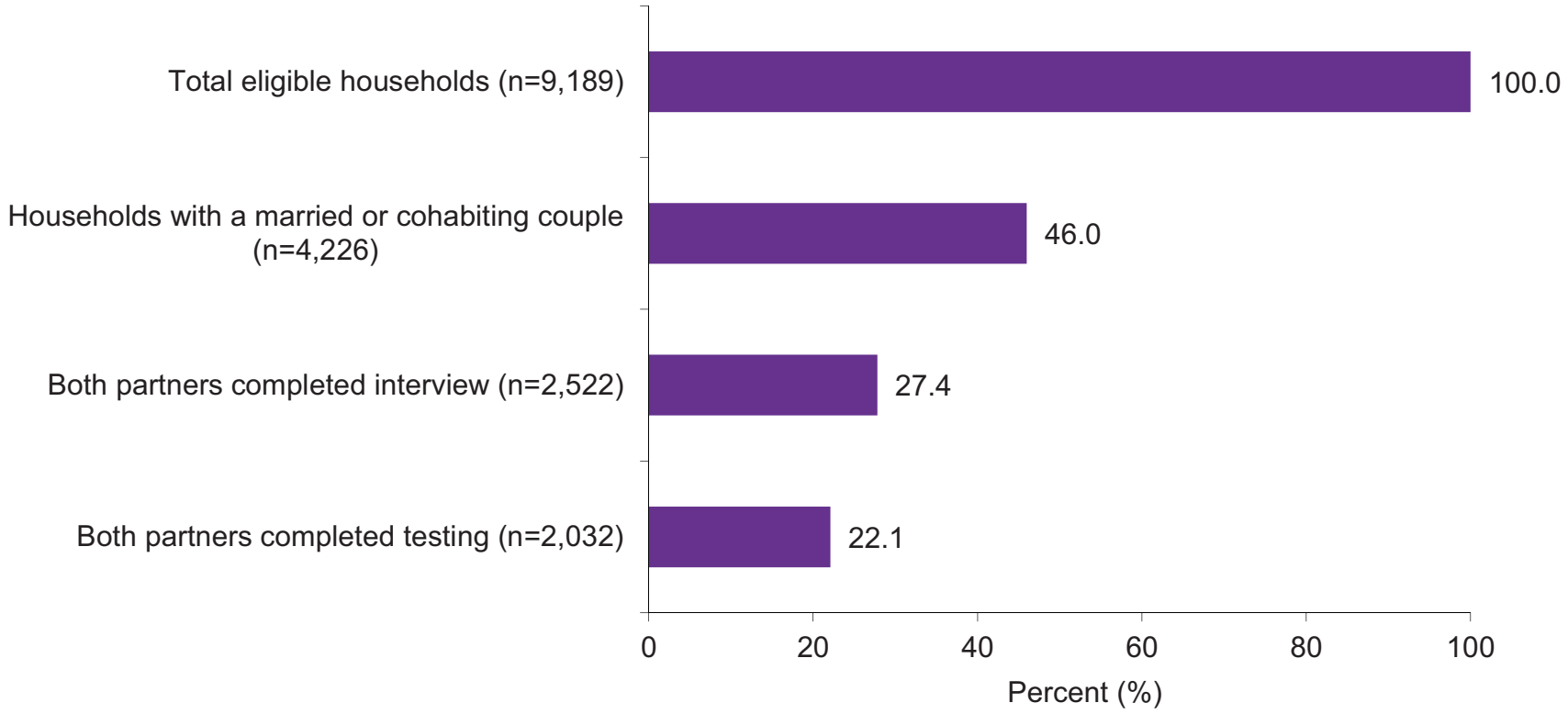
10.2 Introduction

Many new HIV infections occur by heterosexual transmission within HIV discordant married or cohabiting couples, where one partner is infected and the other is not. In Kenya, it is thought that about 44% of all new infections nationwide occur as a result of unprotected sex between regular partners or adults who are in a union.[1] The government of Kenya has initiated several programs directed at couples, including couples testing, disclosure counselling, and prevention with positives which encourages re-testing for the negative partner in a discordant couple. In this chapter we examine married or cohabiting couples living in the same household at the time of the survey, where both partners consented to be interviewed and tested for HIV (the term "couple" used throughout this chapter refers to this definition).

Each couple, the unit of analysis for this chapter, was classified by the KAIS HIV test result of both partners, and was classified by the HIV status of the couple. A couple was considered to be concordant HIV-uninfected if both partners tested HIV negative. A couple was considered HIV-discordant if one partner was HIV-infected and the other partner was HIV-uninfected, further disaggregated by whether the male or female partner was infected. Finally, couples were classified as concordant HIV-infected if both partners tested HIV-positive. HIV-discordant couples in married or cohabiting partnerships are a priority group for HIV prevention because they may have more frequent sexual contact and report lower condom use compared with discordant partners in other types of relationships. Understanding key characteristics of HIV-discordant couples has important policy and programmatic implications for HIV prevention.

[1] Gelmon L, et al. Kenya HIV prevention response and modes of transmission analysis. National AIDS Control Council, Nairobi, 2009.

Figure 10.3a: Households included in couples dataset, KAIS 2012

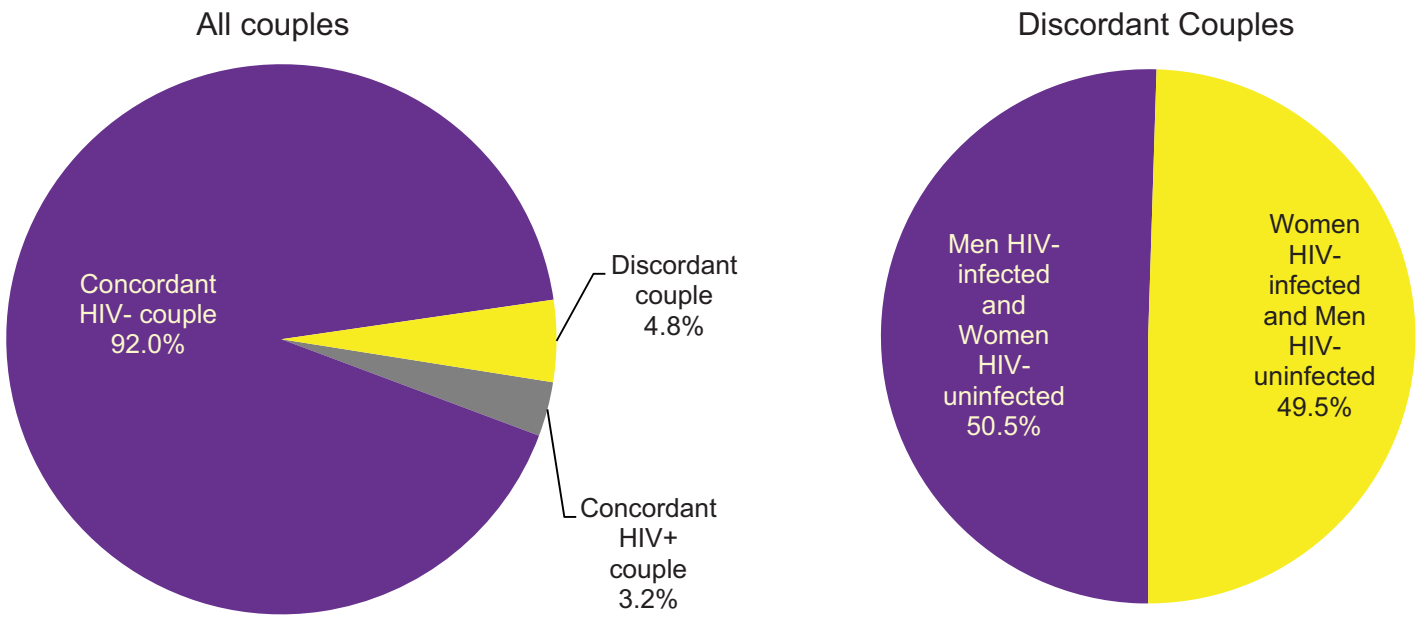


Households with couples in which both partners were tested for HIV in KAIS 2012 accounted for 22% of all households surveyed.

In KAIS 2012 the couple's dataset was constructed by matching persons with their primary sexual partners who resided in the same household. Because only 0.1% of male heads of household reported a second wife, only primary couples were included in the couple's dataset. Additionally, since HIV status of couples was the main focus of these analyses, only households for which there were complete HIV test results available for both partners were included in the couple's dataset. Of the 9,189 eligible households, 2,032 (22.0% of all households, or 48.0% of households with a married or cohabiting couple) met these criteria and were included in the final analyses.

10.4 HIV–Concordance and Discordance Among Couples

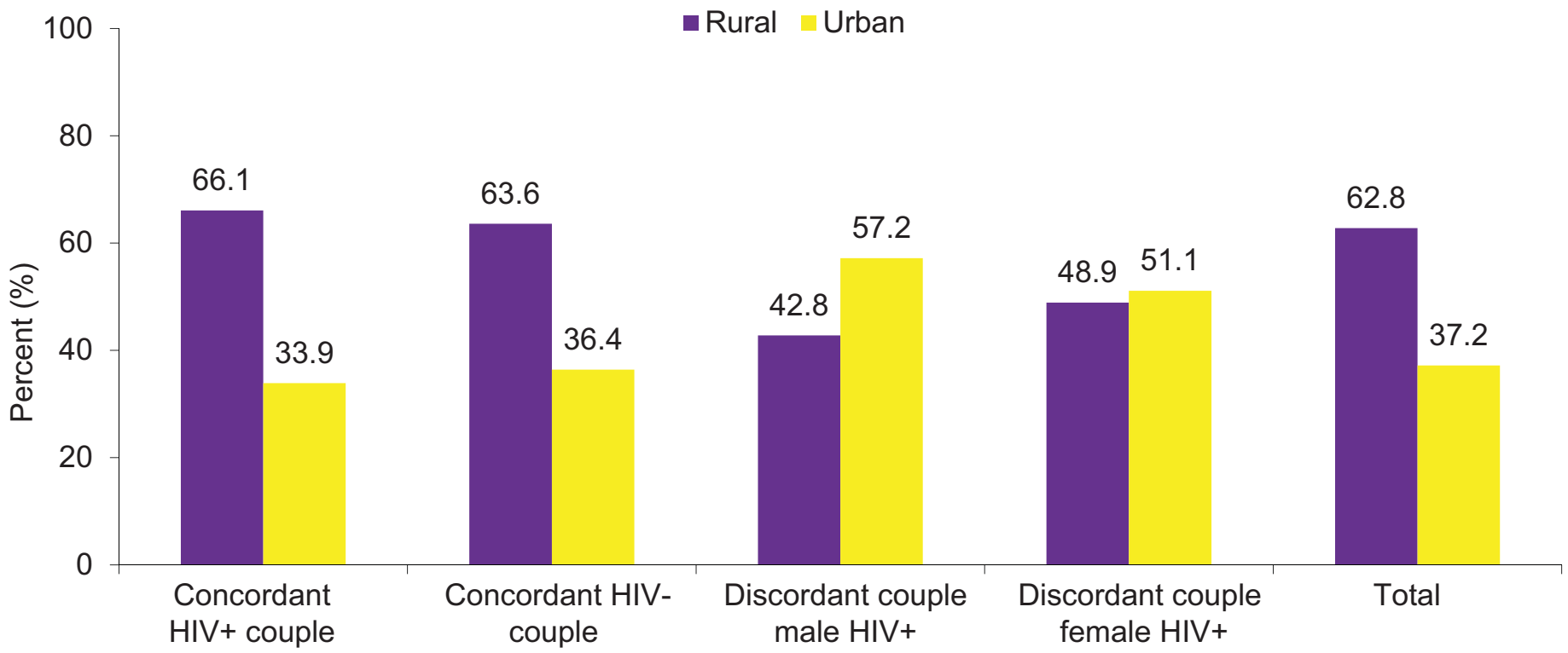
Figure 10.4a: HIV-concordance and discordance among couples aged 15–64 years, KAIS 2012



Among couples, 8% had at least one HIV-infected partner, and 4.8% were HIV-discordant; with equal distribution of HIV infection between male and female partners.

The vast majority (92.0%) of couples aged 15 to 64 years who tested in KAIS 2012 were concordant HIV-uninfected, where both partners were negative for HIV. However, about 8.0% of all couples had at least one partner with HIV infection. Among all couples for whom test results were available, 4.8% were HIV-discordant, meaning that only one partner was HIV-infected. This corresponds to an estimated 260,000 couples that were HIV discordant in 2012. There were 3.2% HIV-infected concordant couples, meaning that both partners were HIV-infected. This represents a slight decrease compared with KAIS 2007, where 9.7% of couples had at least one partner that was HIV-infected, among which 5.9% of couples were HIV-discordant. The sex distribution of HIV discordant couples in KAIS 2012 was similar to KAIS 2007. In 2012, in 50.5% of discordant couples, the male partner was HIV-infected compared with 50.9% of couples in KAIS 2007.

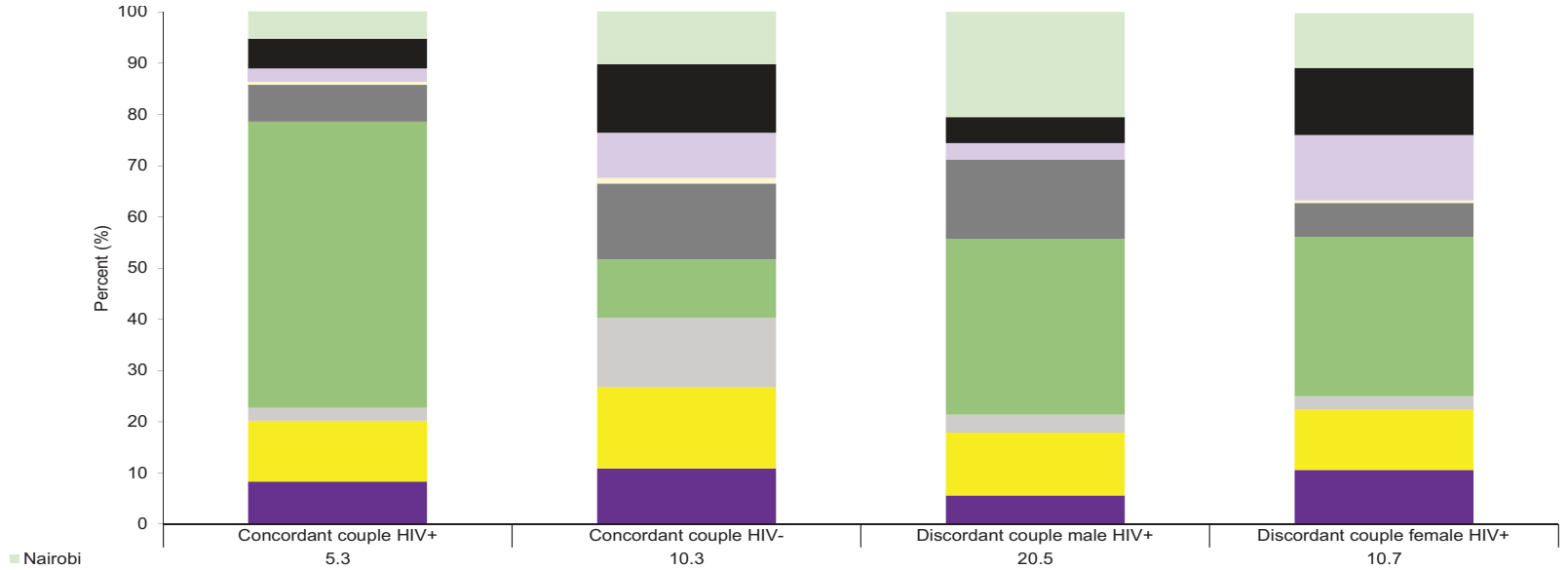
Figure 10.4b: HIV concordance and discordance by sex and residence, KAIS 2012



Most concordant HIV-infected and HIV-uninfected couples resided in rural areas. Slightly more HIV-discordant couples lived in urban areas.

About two-thirds of concordant HIV-infected and concordant HIV-uninfected couples resided in rural settings. However, among HIV-discordant couples, slightly more lived in urban areas. In HIV-discordant couples in which the male partner was infected, 57.2% lived in urban areas, and for HIV-discordant couples in which the female was infected, 51.1% lived in urban areas.

Figure 10.4c: HIV status of couples by region, KAIS 2012

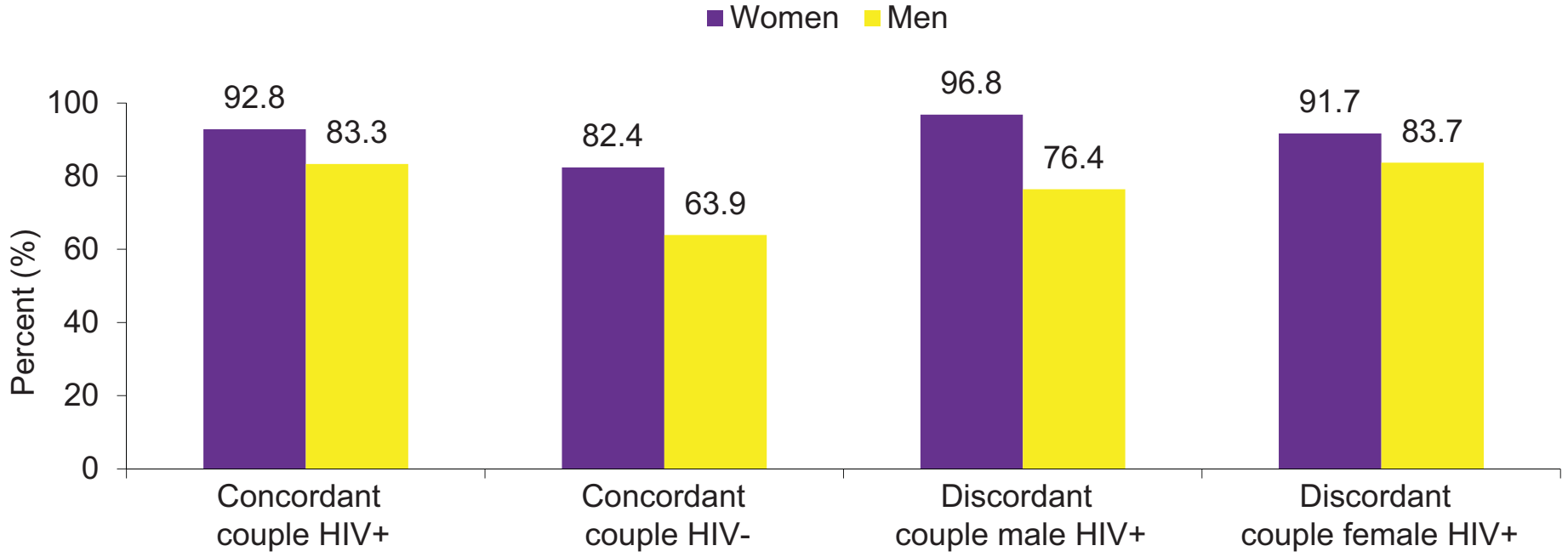


	Concordant couple HIV+	Concordant couple HIV-	Discordant couple male HIV+	Discordant couple female HIV+
Nairobi	5.3	10.3	20.5	10.7
Central	5.8	13.4	5.1	13.1
Coast	2.6	8.8	3.2	12.8
Eastern North	0.6	1.1	0.0	0.5
Eastern South	7.2	14.8	15.5	6.6
Nyanza	55.9	11.4	34.3	31.1
Rift Valley North	2.5	13.6	3.5	2.6
Rift Valley South	11.9	15.8	12.3	11.8
Western	8.3	10.9	5.6	10.6

Nyanza region has a high burden of HIV-affected couples.

The majority of HIV both concordant HIV positive and HIV-discordant couples resided in the Nyanza region of Kenya, a high prevalence area. Over half (55.9%) of all concordant HIV- infected couples and 34.3% of all male-infected and 31.1% of all female-infected discordant couples lived in the Nyanza region. Rift Valley South also had a high percentage of couples affected by HIV, with 11.9% of all concordant HIV-infected couples, 12.3% of all male-infected discordant couples, and 11.8% of all female-infected discordant couples. Nairobi and Eastern South region also had large percentages of male- infected discordant couples, with 20.5% and 15.5% of all male-infected discordant couples living in these regions respectively. Central, Coast, and Nairobi had large percentages of female-infected discordant couples, with 13.1%, 12.8%, and 10.7% respectively.

Figure 10.4d: Women and men aged 15–64 years who reported ever testing for HIV by concordance or discordance status of couple, KAIS 2012

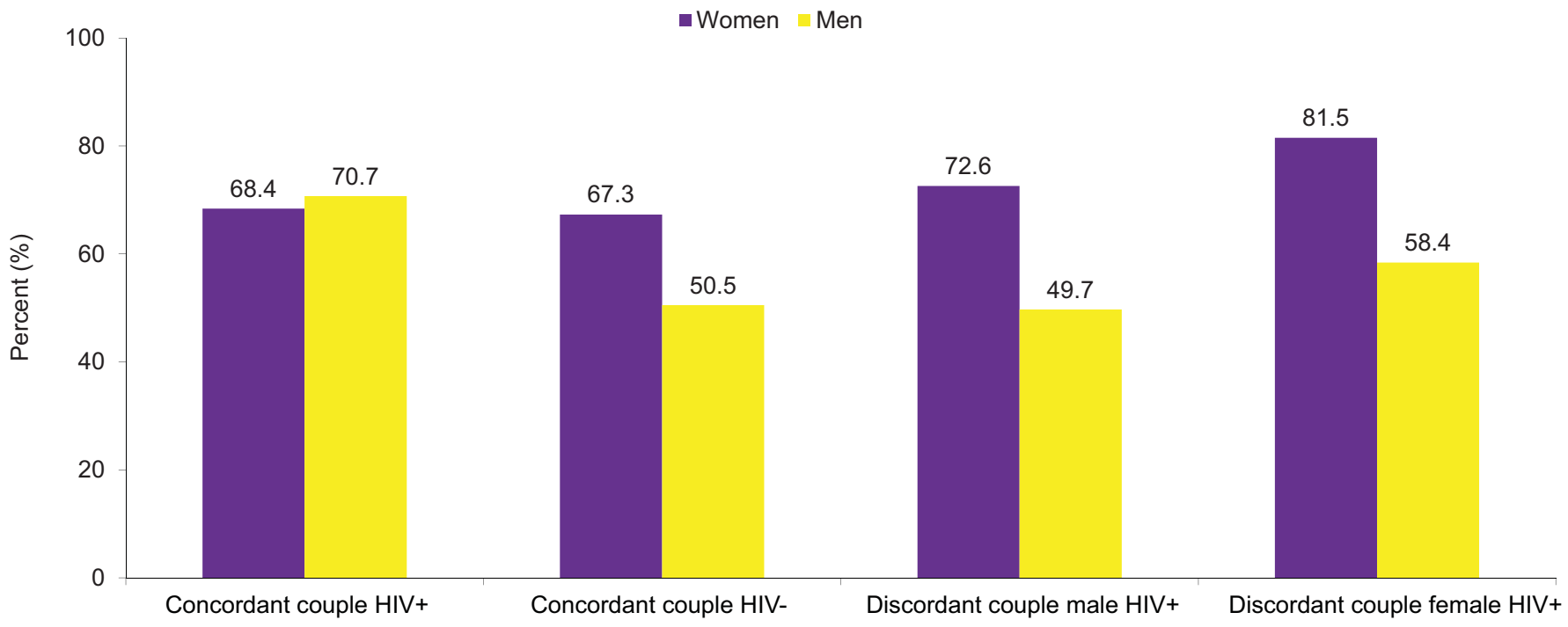


Among all couples, testing is higher among women compared with men.

HIV testing was higher for women than for men across all categories of couple HIV status. Among concordant HIV-positive couples, 92.8% of female partners had ever tested compared with 83.3% of male partners. The lowest testing rates were found among concordant HIV-negative couples with 82.4% of women and 63.9% of men reporting a prior HIV test. Among male-infected discordant couples, 96.8%

of negative female partners had tested for HIV compared with 76.4% for the infected male partner. Among discordant couples where the female partner is infected, 91.7% of the women had tested previously compared with 83.7% for the male partner. Overall, among all couples, prior HIV testing was 83.3% for the female partner and 65.3% for the male partner. Prior HIV testing was higher in 2012 compared with 2007, where 43.9% of female partners and 26.1% of male partners had ever tested for HIV.

Figure 10.4e: Accurate knowledge of partner's HIV status among adults and adolescents aged 15–64 years in a couple's relationship, KAIS 2012

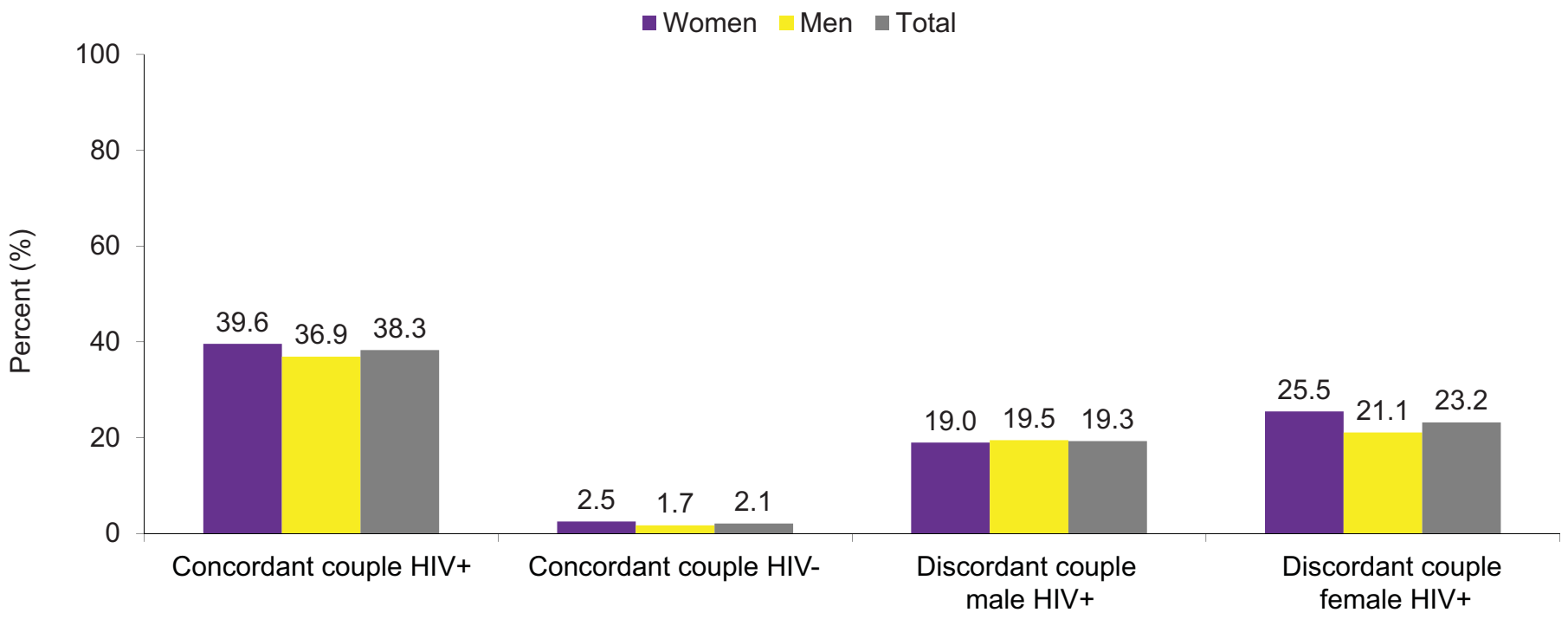


Among discordant couples, the female partner had higher percentages of accurate knowledge of her partner's HIV status than did the male partner.

In this analysis, we compared the reported HIV status of the partner with the partner's actual KAIS test result. If the reported status was the same as the test result, the person was classified as having accurate knowledge of the HIV status of his/her partner. If the person did not know his/her partner's HIV status, or if the reported status differed from the actual test result, then the person was classified as not having accurate knowledge of his/her partner's HIV status.

Of all concordant HIV positive couples, 69.5% of persons had accurate knowledge of their partner's HIV status, with similar percentages among women (68.4%) and men (70.7%). Among all male- infected discordant couples, 72.6% of women accurately knew their male partner was HIV positive, whereas only 49.7% of the men respondents knew that their female partner was negative. Among discordant couples where the woman was infected, 81.5% of these women accurately knew their male partner was HIV negative, whereas only 58.4% of the men knew that their female partner was positive.

Figure 10.4f: Women and men aged 15–64 years in a couple's relationship who report consistent condom use by HIV status, KAIS 2012

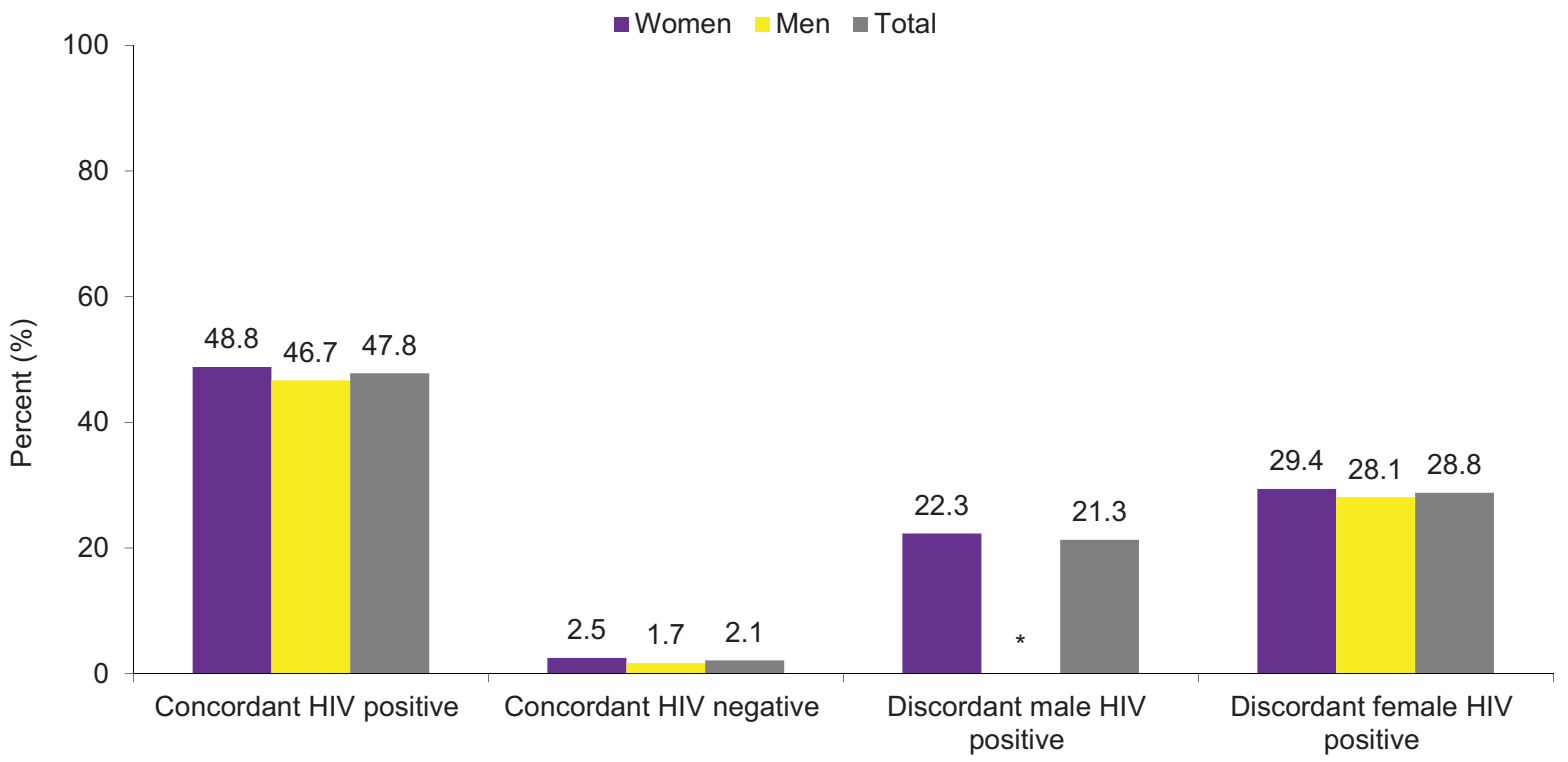


Condom use is highest among concordant positive and lowest among concordant negative couples. Less than a quarter of HIV-discordant couples use condoms consistently with their partners.

In this analysis, consistent condom use is defined as using condoms with their partner every time they have sex. Using condoms every time reduces the risk of transmission of HIV.

Among concordant HIV positive couples, 39.6% of women and 36.9% of men reported using condoms consistently with their partners. Among concordant HIV-negative couples, only 2.5% of women and 1.7% of men reported using condoms consistently with their partner. Among discordant couples, less than a quarter of susceptible partners reported using condoms consistently with their HIV-infected partner, with 19.0% of uninfected women and 21.1% of uninfected men reported that condoms were used every time they had sex with their infected partner.

Figure 10.4g: Consistent condom use among women and men aged 15-64 years in a couple's relationship who were aware of partner status, by HIV status, KAIS 2012



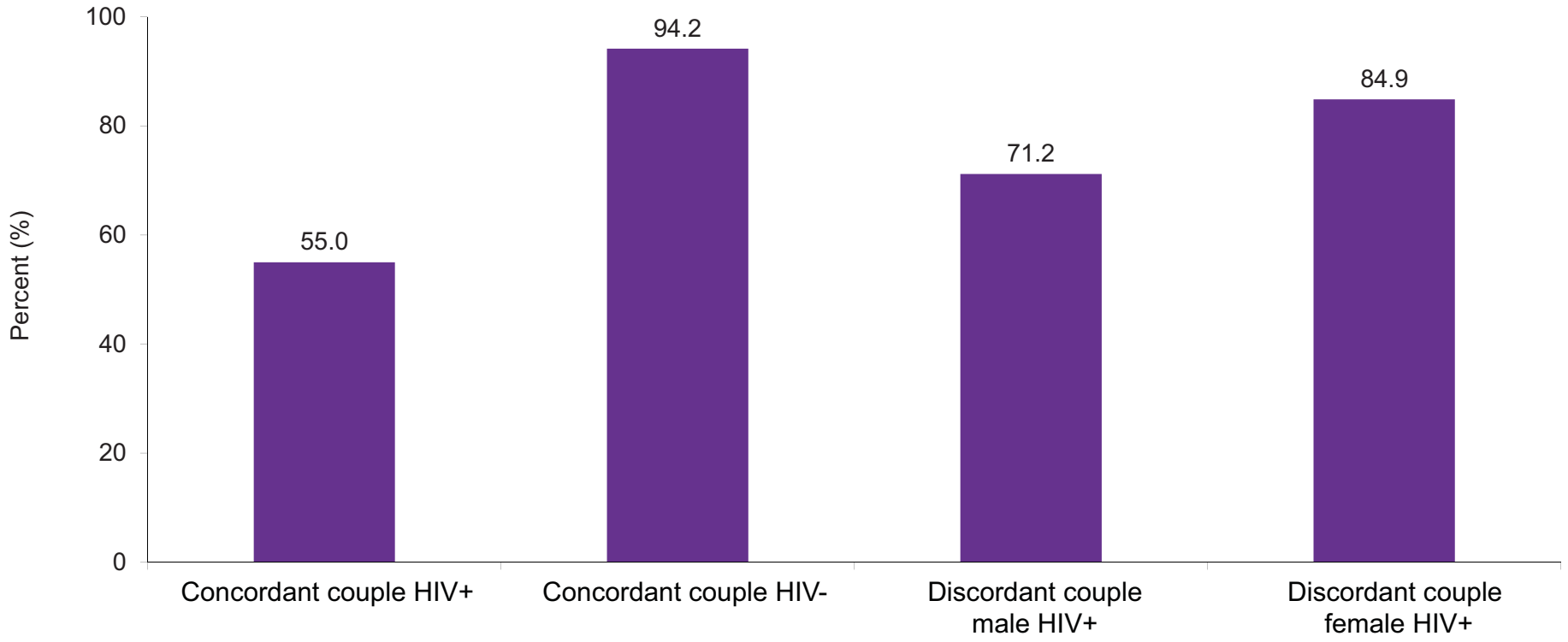
Consistent condom use among couples in which the person was aware of the HIV status of their partner was highest among concordant HIV-positive couples. Less than a quarter of women and 28% of men susceptible to HIV were using condoms consistently with their infected partners.

* Weighted estimates are not shown due to small denominators (<25 observations).

Correct knowledge of a partner's HIV status may be associated with consistent condom use, especially among discordant couples. Among concordant HIV infected couples, about half (47.8%) of persons who were aware of their partner's HIV status reported using condoms consistently. Among concordant

HIV-uninfected couples that were aware of their partner's negative status, consistent condom use was low, with only 2.1% reporting consistent condom use. Among discordant couples, less than a third of susceptible partners reported using condoms consistently with their HIV-infected partner, with 22.3% of uninfected women and 28.1% of uninfected men reporting that condoms were used every time they had sex with their infected partner.

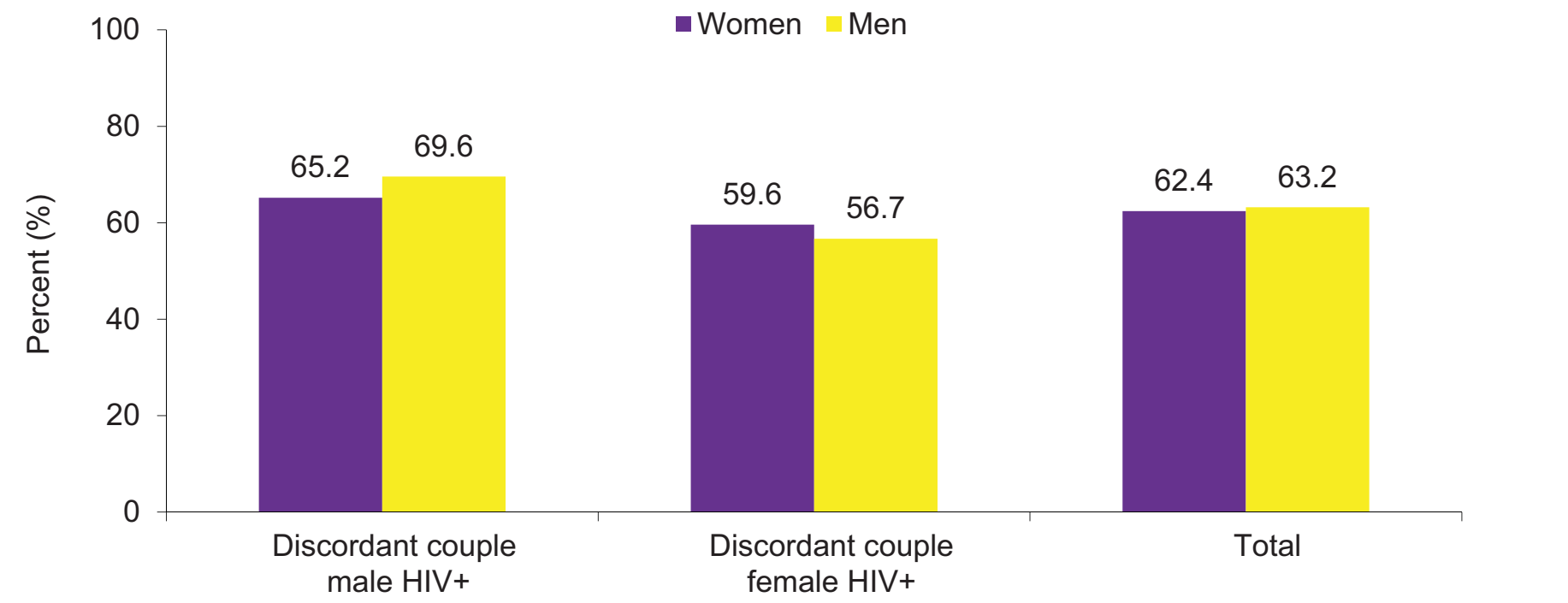
Figure 10.4h: Circumcision status of the male partner within couples by HIV status, KAIS 2012



Male circumcision was highest among men in concordant negative partnerships and lowest in concordant positive partnerships. Male circumcision was high (84.9%) among uninfected men in HIV-discordant relationships.

Male circumcision was lowest among concordant HIV positive couples at 55.0%, and highest among concordant HIV negative couples at 94.2%. Among HIV-discordant couples where the man was uninfected, male circumcision was high, at 84.9%. Circumcision reduces the risk of the male partner of an infected women acquiring HIV.

Figure 10.4i: Acceptance of vaginal microbicide among women and men aged 15-64 years in HIV discordant relationships, by HIV status, KAIS 2012

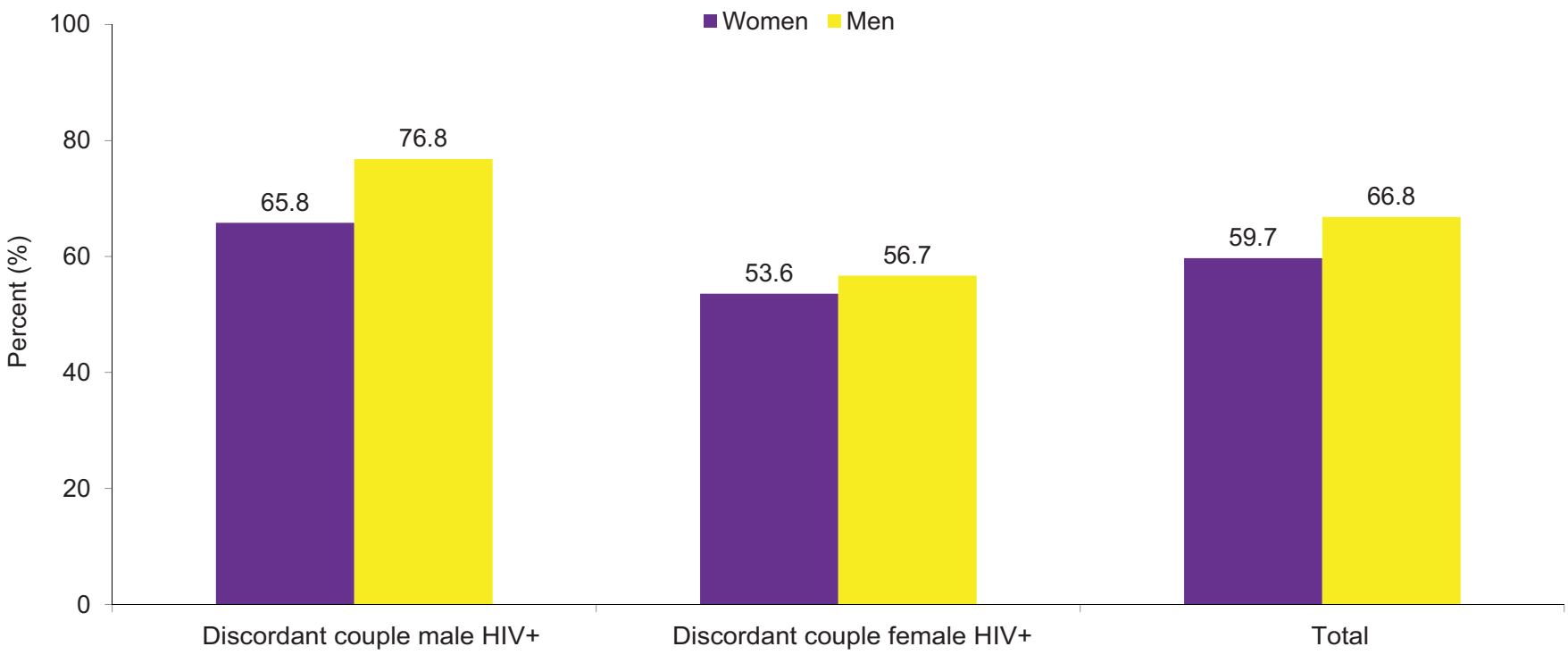


About two-thirds of all discordant couples reported willingness to use or willingness to have their partner use vaginal microbicides to prevent HIV infection if these were available.

Although not yet available, the use of vaginal microbicides may be an important method in preventing sexual transmission of HIV for women who are susceptible to HIV infection. Among discordant couples where the woman was HIV negative, 65.2% of women said they would use vaginal microbicides if they were available, and 69.6% of men said they would want their female partner to use them.

Among couples where the woman was infected, the proportion who were willing to use vaginal microbicides was slightly lower for both the women and men, with 59.6% of women saying they would use microbicides and 56.7% of men saying they would want their female partner to use them.

Figure 10.4j: Acceptance of oral PrEP among women and men aged 15-64 years in HIV discordant relationships, by HIV status, KAIS 2012

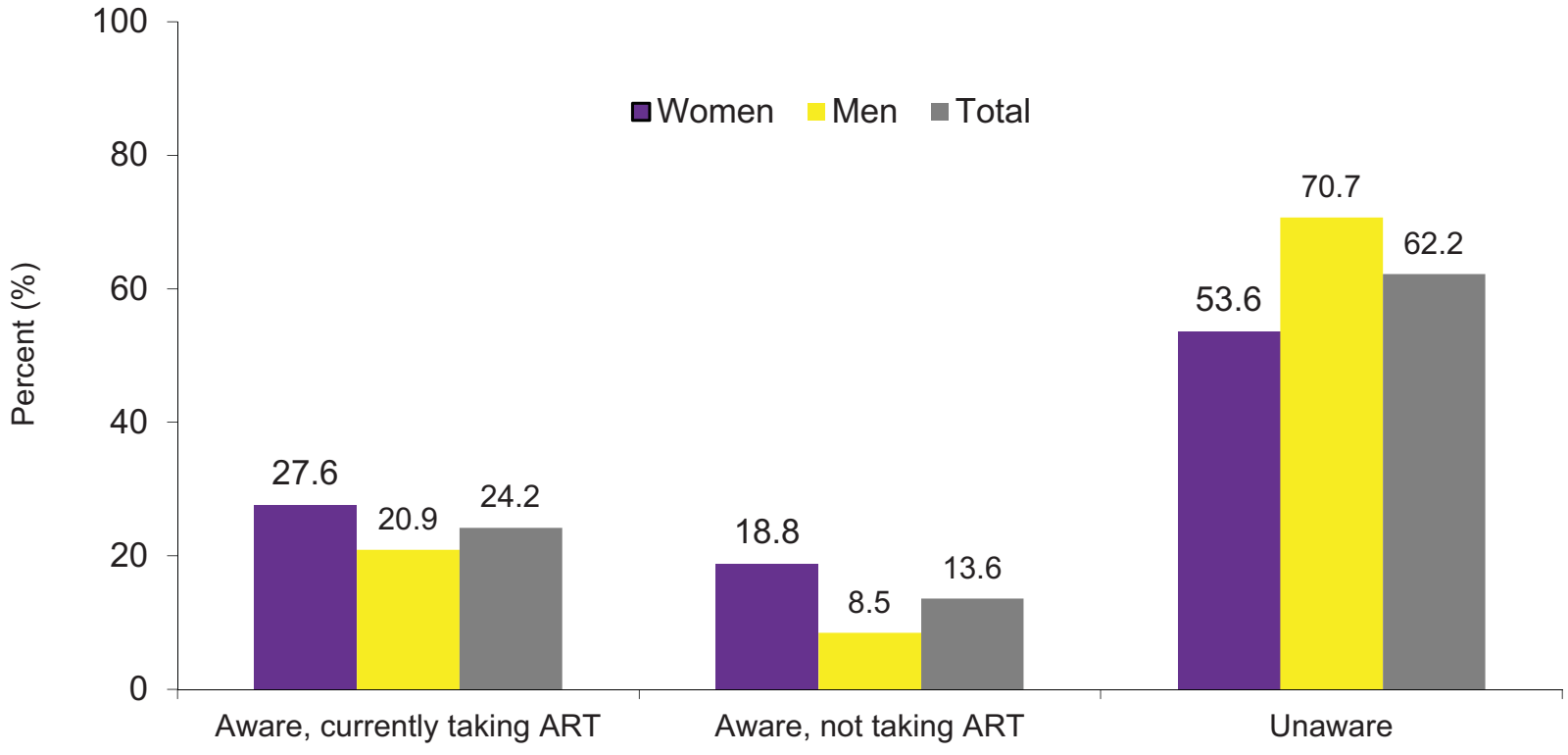


Among discordant couples, more men (66.8%) than women reported acceptance of oral pre-exposure prophylaxis as a way of reducing HIV infection.

Pre-exposure prophylaxis, or PrEP, refers to the use of oral antiretroviral drugs taken by the uninfected person. This may be an important method in preventing HIV infection among people susceptible to HIV infection, especially among the uninfected partner in HIV-discordant couples. If used with other recognizable forms of prevention, like consistent use of condoms, PrEP can greatly reduce the chances of HIV transmission.

Willingness to use PrEP was reported more frequently among partners in discordant couples where the male partner was infected than in couples where the woman was infected. In these couples, 65.8% of women said they would want to use PrEP if available, and 76.8% of men said they would want to use PrEP. In couples where the female was the infected partner, PrEP acceptance was lower, with 53.6% of women and 56.7% of men indicating they would want to use PrEP if available.

Figure 10.4k: ART usage* by the HIV-infected partner within a discordant couple, KAIS 2012

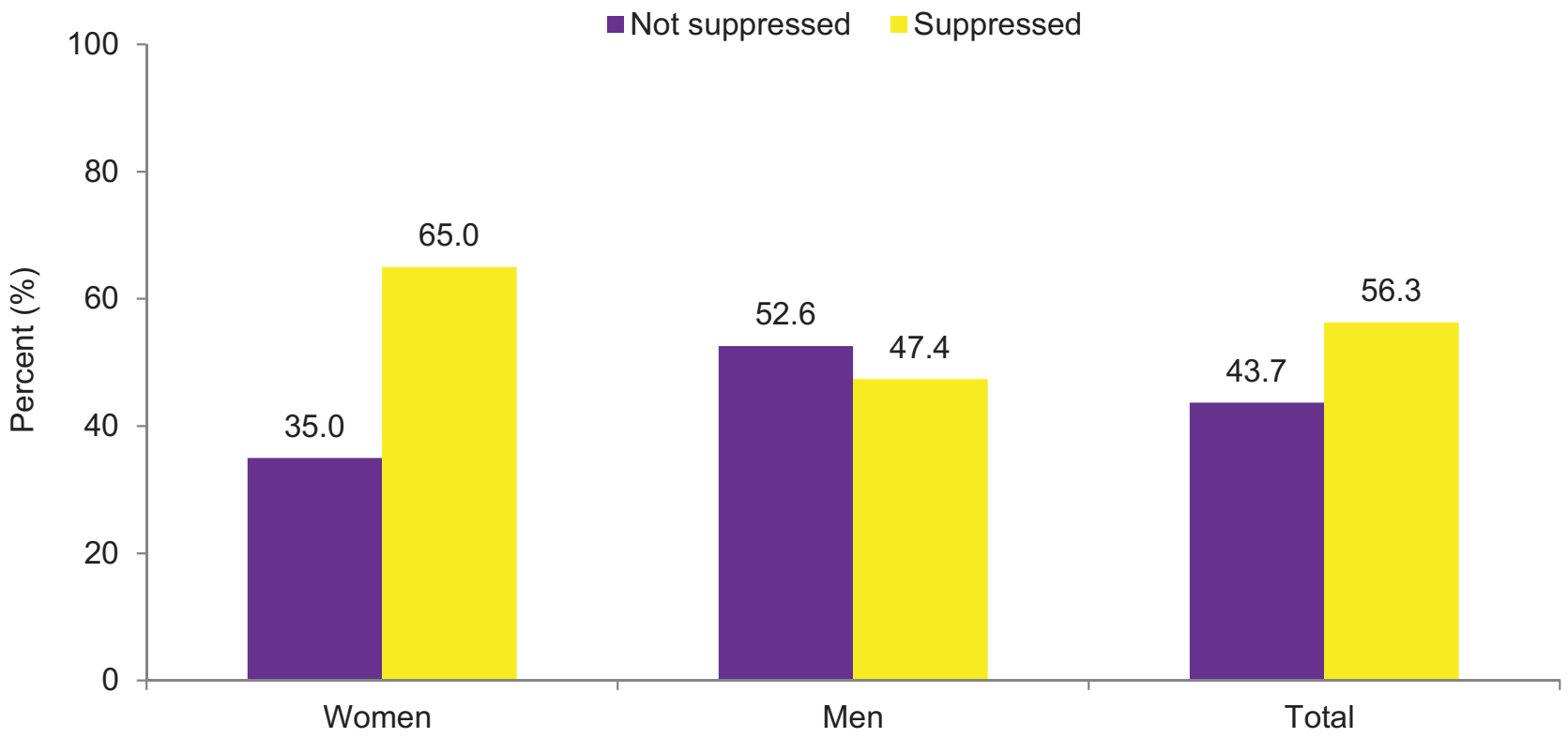


More women HIV-infected women (27.6%) than men (20.9%) within a discordant couple relationship were aware and taking ART. Most HIV-infected partners (62.2%) were unaware of their status.

*All HIV-infected individuals in discordant relationships are eligible for ART, regardless of CD4 count.

Antiretroviral therapy has been shown to reduce transmission by 96% between HIV-discordant couples. This analysis explores the use of ART among HIV-infected partners in within HIV-discordant couple relationships. The majority of the HIV-infected partners (62.2%) in HIV-discordant couple relationships were unaware of their HIV status; with more men (70.7%) than women (53.6%) unaware of their HIV status. Of those who were aware of their HIV status, only 24.2% were taking ART. More HIV-infected women (27.6%) than men (20.9%) in HIV-discordant couple relationships were aware and taking ART.

Figure 10.4l: Viral load suppression among HIV-infected women and men aged 15-64 years in HIV discordant relationships, KAIS 2012



More HIV-infected women (27.6%) than men (20.9%) within a discordant couple relationship were aware and taking ART. Most HIV-infected partners (62.2%) were unaware of their status.

In this analysis we estimated the level of viral suppression among HIV-infected partners within HIV-discordant couples. For this analysis, viral suppression was defined as HIV RNA concentration <1,000 copies/mL. Overall, 56.3% of HIV-infected partners within a discordant relationship were virally suppressed. More women (65.0%) than men (47.4%) were virally suppressed.

10.5 Gaps and Unmet Needs

- Lack of knowledge of one's partner's HIV status continues to be an obstacle to prevention. Additional efforts should be focused on facilitating couples testing and disclosure.
- Low consistent condom use among HIV-discordant couples highlights the need for further prevention programs targeting discordant couples. More efforts to understand the dynamics of HIV testing and disclosure among discordant couples should be made.
- Male circumcision is highly prevalent with 85% of uninfected men in a discordant relationship reporting that they were circumcised. This is encouraging, since male circumcision reduces the chances of HIV transmission to uninfected men.
- Low rates of viral suppression among HIV-infected partners indicate an increased probability of infection of uninfected partners. Antiretroviral therapy is recommended for persons in discordant partnerships and efforts to increase the proportion of HIV-infected persons in discordant relationships on treatment should be increased.
- Only 97 HIV-discordant couples were identified in KAIS 2012, limiting the ability to perform discordant couple–specific analyses.

11 REPRODUCTIVE HEALTH AND PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

11.1 Key Findings

- Among women who self-reported positive, 79.1% did not desire a child ever in the future and 8.3% did not desire a child within the next two years, yet only 62% of these women were using modern contraceptives to prevent pregnancy.
- Between 2008 and 2012, 95.5% of women aged between 15 and 54 years who had a live birth reported having attended an antenatal clinic (ANC) at least once during their last pregnancy. Among those who did not attend an antenatal clinic, distance from the clinic was cited as the most common reason for lack of attendance (32.5%)
- Among women who attended an ANC for their last pregnancy, 92.5% received an HIV test at the ANC.
- Among all women aged between 15 and 54 years who were HIV-infected, at the most recent birth,71.2% reported they received maternal PMTCT during their pregnancy, 67.1% at delivery and 82.6% while breastfeeding. .
- Overall, 42.2% of HIV-uninfected women who were currently pregnant and 48.1% of HIV-uninfected women who were breastfeeding did not know the HIV status of their partners

11.2 Introduction

In the absence of intervention, an estimated 20%–45% of babies born to HIV-infected mothers will acquire HIV infection from their mothers. Mother-to-child transmission (MTCT) of HIV may occur at any stage during pregnancy (5–10%), labour and delivery (10–15%), or breastfeeding (5–20%).[1] Intervention, including use of antiretroviral drug therapy (ART), appropriate infant feeding practices, and safer obstetrical practices can reduce the risk of MTCT to less than 5%.

Kenya is implementing the UNAIDS four-pronged strategy for the elimination of MTCT of HIV and to help keep mothers alive, which includes:

1. Primary prevention of HIV infection among women of reproductive age
2. Prevention of unwanted pregnancies among HIV-infected women
3. Prevention of HIV transmission from mother to infant
4. Care and treatment for HIV-infected women and their families

The Prevention of Mother-to-Child Transmission (PMTCT) program has in place an Elimination of MTCT (eMTCT) strategic plan 2012–2015. The goal of the National eMTCT strategic plan is to eliminate new HIV infections among children and to keep mothers alive through universal access to comprehensive PMTCT services. Within this goal are two main targets: to reduce the HIV mother-to-child transmission rate to less than 5% by 2015; and to reduce the number of HIV-related maternal deaths by 50%.

Several milestones have been achieved in increasing access to PMTCT services for pregnant women living with HIV. Since 2002, over 18,000 PMTCT providers have been trained, and PMTCT interventions rolled out to about 4,761 of the 9,355 health facilities countrywide.[2,3]

[1] WHO and CDC. Prevention of mother-to-child transmission of HIV Generic Training Package. January 2008. Available at http://www.womenchildrenhiv.org
[2] Kenya AIDS Epidemic Update 2012. Nairobi, Kenya. Available at http://www.nascop.or.ke
[3] Kenya Health Facilities Lists. Available at http://api.ehealth.or.ke/facilities/downloads.aspx

This chapter describes the findings from KAIS 2012 related to access to antenatal clinics for prenatal care, PMTCT and family planning services. The questions in the KAIS 2012 focused on current pregnancy, previous deliveries, ANC attendance, HIV testing in ANCs and family planning services. The chapter describes two types of HIV results: self-reported HIV status and actual HIV status based on laboratory testing results in KAIS 2012. The term "HIV positive" or "HIV negative" refers to the respondent's self-reported HIV status, while the term "HIV-infected" or "HIV-uninfected" refers to the actual HIV status of the respondent based on laboratory results from the survey.

- Only women aged 15 to 54 years who had given birth to their lastborn child between 2008 and 2012 were asked about ANC services and breastfeeding practices with respect to their lastborn child. This group comprised 41.2% of all women participating in KAIS 2012.

- All women aged 15 to 49 years were asked about current pregnancy (that is, pregnancy at the time of the interview), ANC attendance during the current pregnancy and use of contraception. Women aged 15 to 49 years and currently pregnant at the time of the survey comprised 5.5% of all women participating in KAIS.

- Only women who were married or cohabiting with a man and had not been sterilized (tubal ligation or hysterectomy) were asked about their desires for a child in the future. Overall, women included in the fertility desires analysis comprised 54.4% of all women participating in KAIS 2012. For analysis purposes, the following applied:

    - Women who could not have a child for reasons other than female sterilization were excluded from analysis.

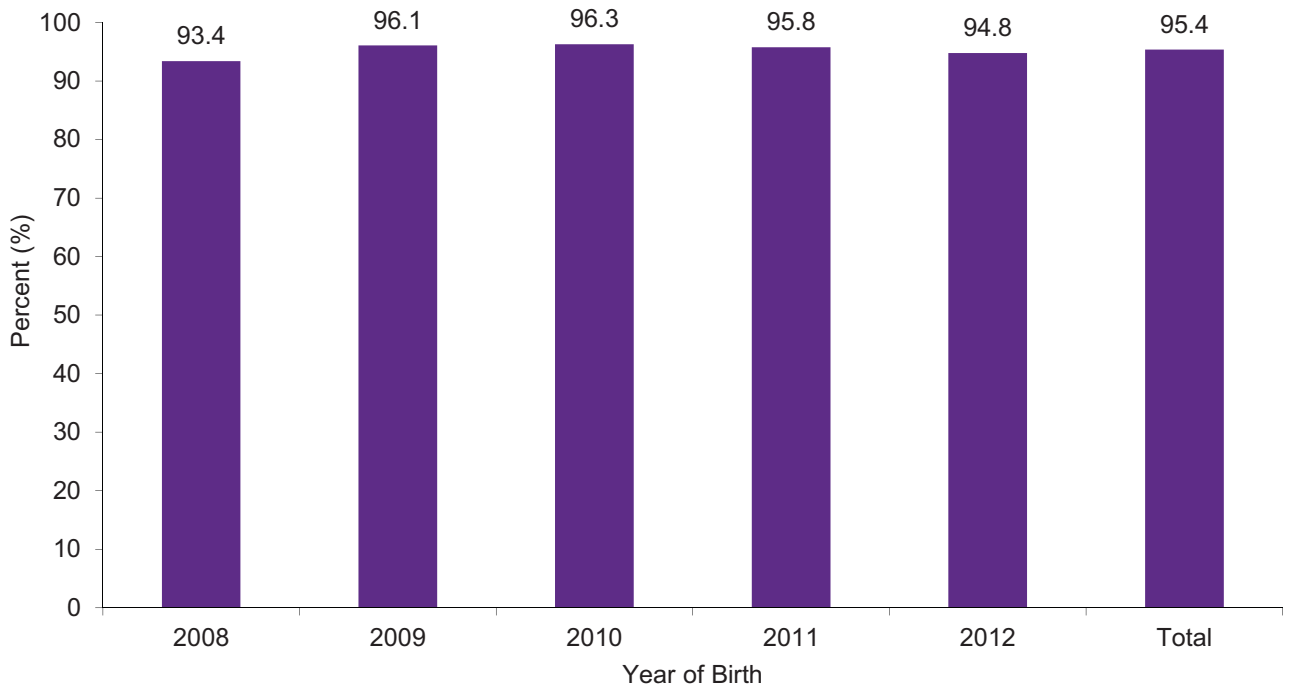
    - To quantify unmet need for contraception, current contraceptive use was calculated for women who met all of the following criteria: not pregnant at the time of the interview, did not want a child in the next two years or ever in the future, and married or cohabiting with a man. In all, 39.8% of women who participated in KAIS 2012 met these criteria.

Appendix B provides sample sizes and 95% confidence intervals for the weighted estimates presented in this chapter. Detailed methods used for calculating population estimates are described in Appendix A.

11.3 Antenatal Clinic Attendance

This section examines ANC attendance and utilization of PMTCT services among women aged 15 to 54 years whose last live birth was between 2008 and 2012.

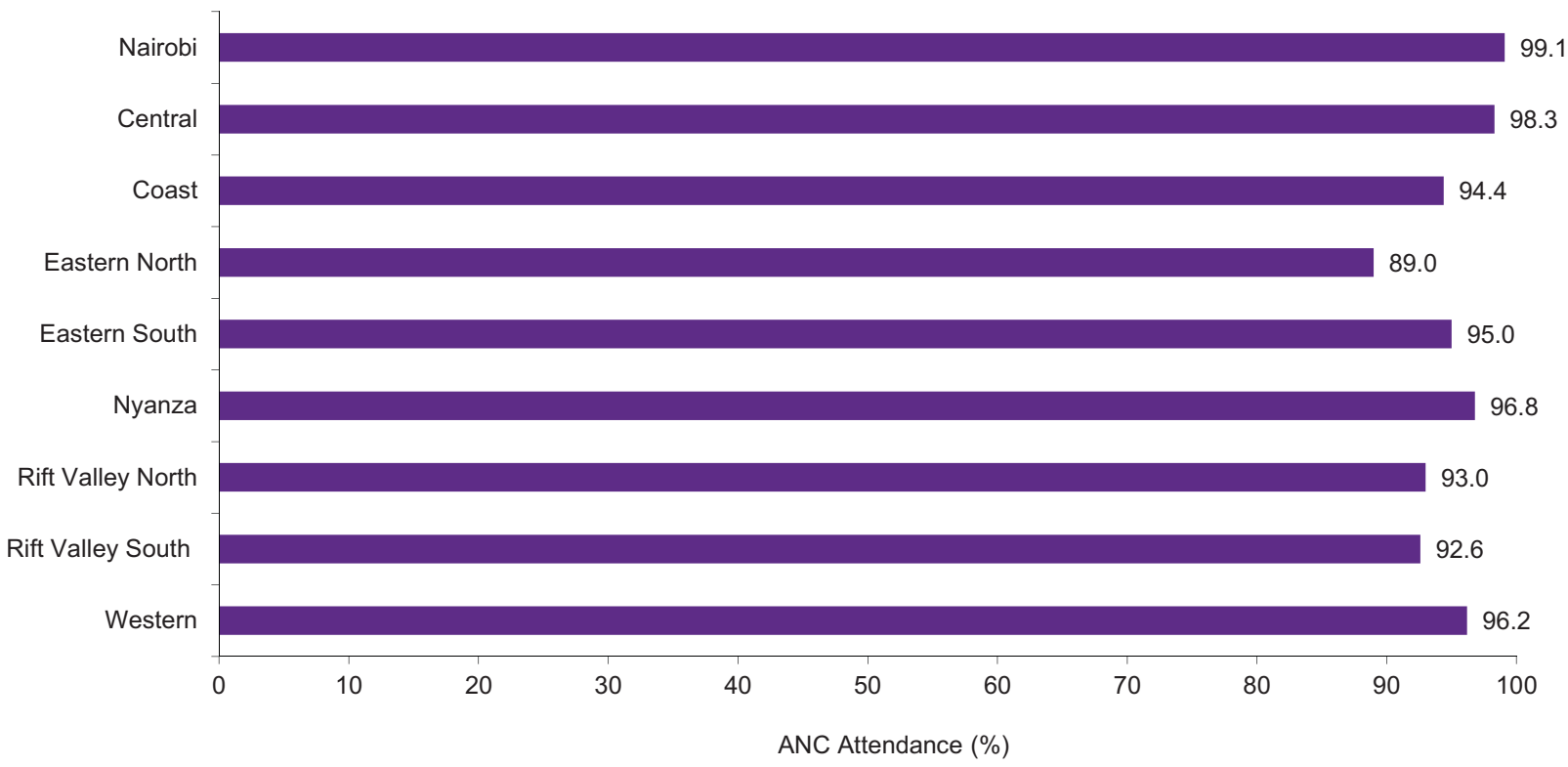
Figure 11.3a: Antenatal clinic attendance among women aged 15–54 years who reported the last live birth in the past five years by birth year, KAIS 2012



Since 2008 through 2012, antenatal clinic attendance remained above 90%.

Among women aged 15 to 54 years who reported the last live birth in the five years before the survey, 95.4% reported attending ANC at least once during pregnancy. Trends in ANC attendance have remained steady from 93.4% in 2008 to 94.8% in 2012.

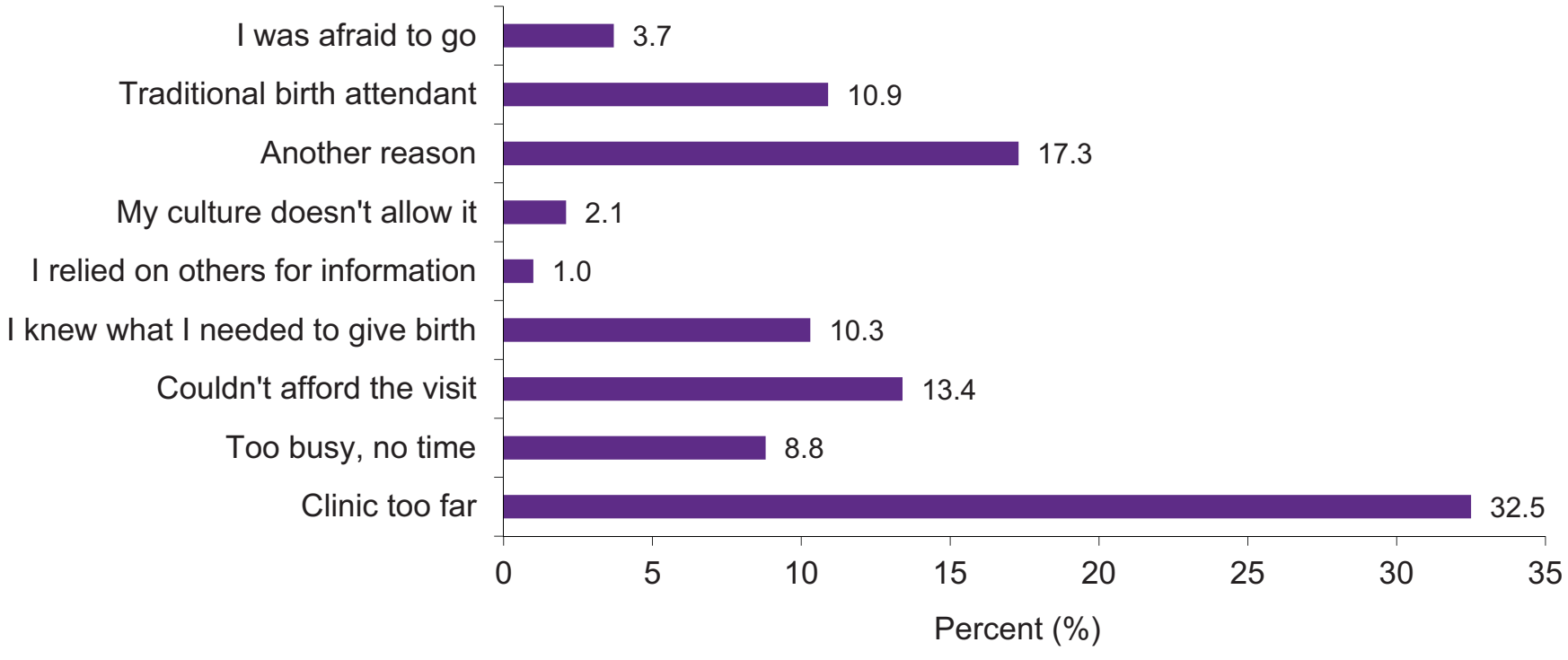
Figure 11.3b: Antenatal clinic attendance among women with a live birth in the past five years by region, KAIS 2012



All regions reported high ANC attendance rates (between 89.0% and 99.1%).

ANC attendance (at least one visit) was greater than 92.0% in all seven regions surveyed, with notably higher attendance in Central and Nairobi regions at 98.3% and 99.1%, respectively. When compared with KAIS 2007 most regions showed marginal improvement in ANC attendance.

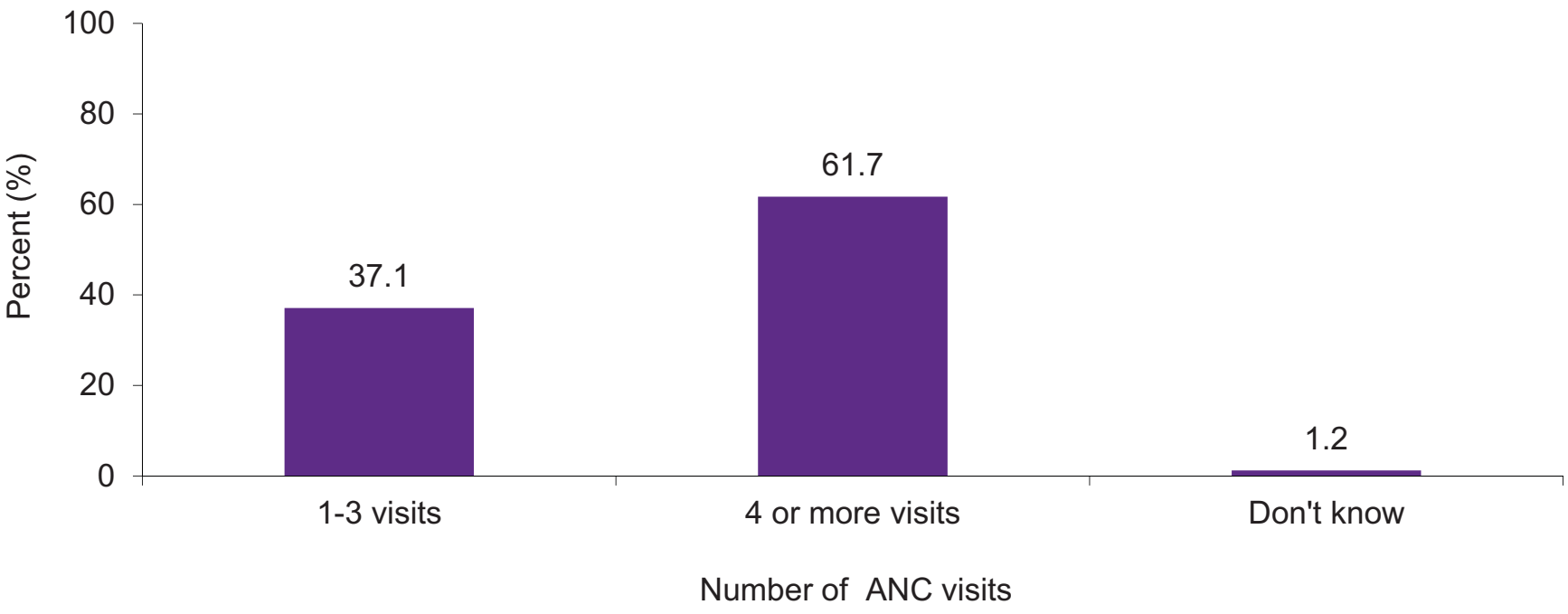
Figure 11.3c: Main reason for not attending an antenatal clinic at last pregnancy among women aged 15–54 years who reported a live birth in the past five years, KAIS 2012



Among those who did not attend an antenatal clinic, distance from the clinic was cited as the most common (32.5%) reason for not attending an antenatal clinic .

The women who did not attend an ANC gave varied reasons for non-attendance, the most common being that the clinic was too far away (32.5%). Although the current national reproductive health strategy and WHO guidelines do not recognize traditional birth attendants (TBAs) as skilled birth attendants, approximately 10.9% of women reported not attending ANC because they had received care from a TBA.

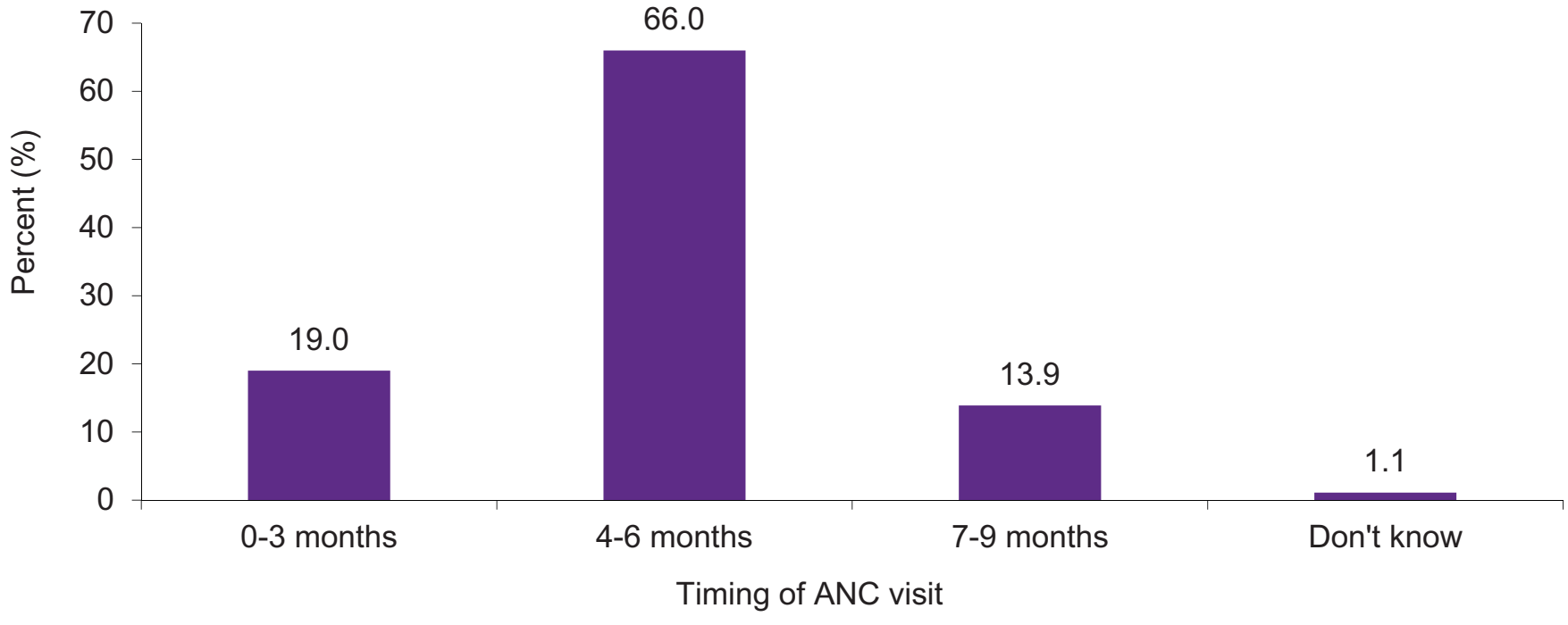
Figure 11.3d: Number of visits to an antenatal clinic during last pregnancy among women aged 15–54 years who reported a live birth in the past five years, KAIS 2012



The majority (61.7%) of women made four or more antenatal visits during their last pregnancy.

Nearly two-thirds (61.7%) of pregnant women made four or more antenatal visits during their last pregnancy. This was an improvement from 47.1% reported in the KDHS 2008–09. National guidelines recommend four scheduled ANC visits for all pregnant women, with the first ANC visit being within the first four months of pregnancy. Early initiation of ANC is important for timely detection and treatment of problems, prevention of complications, health promotion, and birth preparedness. For HIV-infected women, the earlier PMTCT interventions are given, the better the outcome for mother and child.

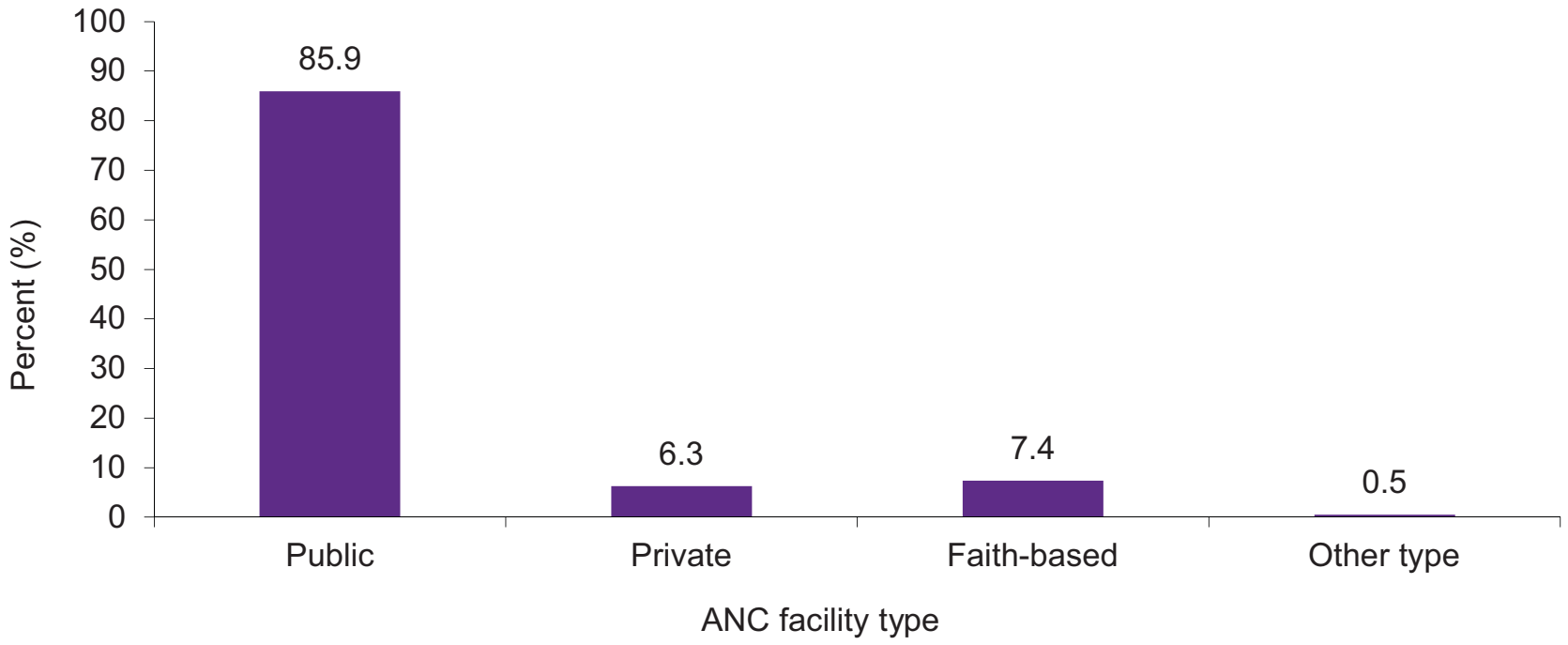
Figure11.3e: Timing of first antenatal clinic visit during last pregnancy among women aged 15-54 years who reported a live birth in the past five years, KAIS 2012



The majority of women attended their first ANC after the first three months of their pregnancy.

Only 19.0% of women attended antenatal care in the first three months of pregnancy, compared with 66.0% in months 4 through 6 of their pregnancy and 13.9% during months 7 through 9 of their pregnancy.

Figure11.3f: Type of ANC facility[1] visited during last pregnancy among women aged 15–54 years who reported a live birth in the past five years with at least one antenatal clinic visit, KAIS 2012

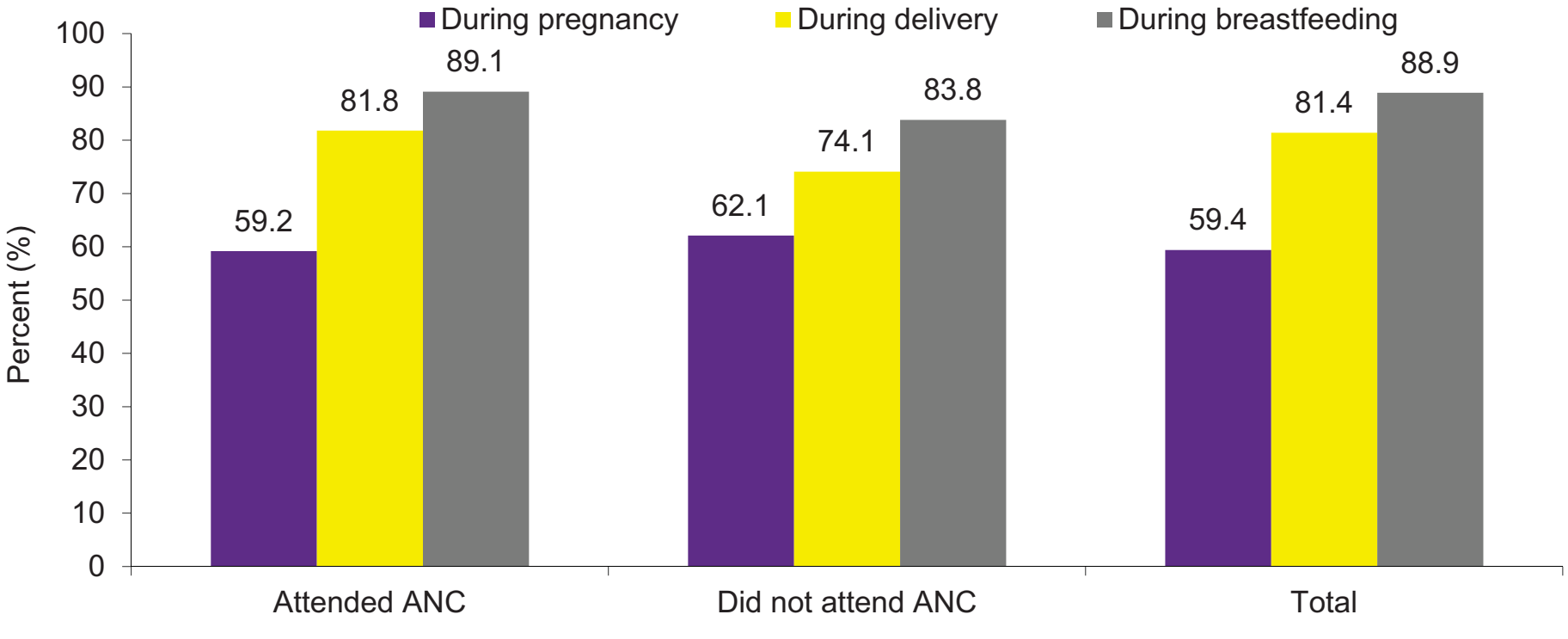


Most pregnant women received antenatal care in public facilities.

The majority (85.9%) of women who reported their most recent live birth from 2008 through 2012 attended public facilities for antenatal care. A much small proportion had attended faith-based (7.4%) and private (6.3%) facilities. The proportion of women receiving antenatal care in public facilities has increased since 2007, when 80.0% of women received antenatal care in public facilities.

[1] Categories are not mutually exclusive. Some women attended more than one type of ANC facility during their last pregnancy and are included more than once in the analysis.

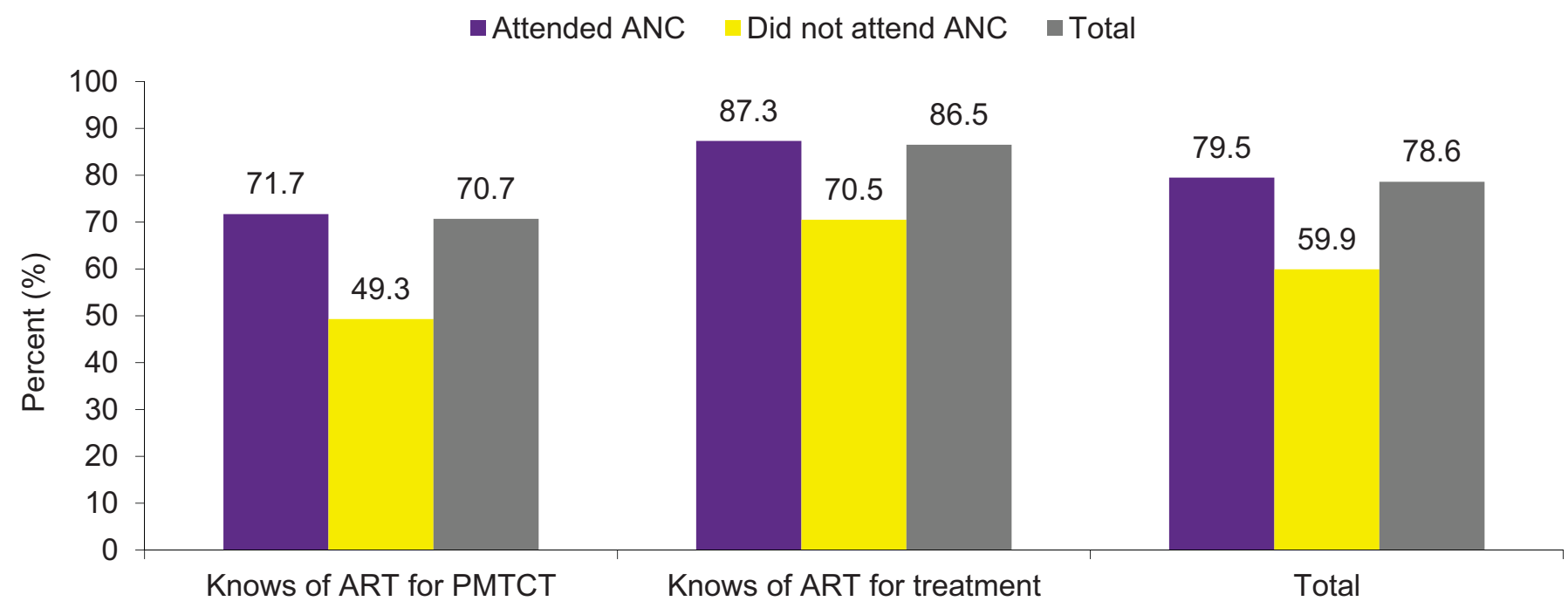
Figure 11.3g: Knowledge of modes of mother-to-child transmission of HIV among women aged 15–54 years who reported a live birth in the past five years, KAIS 2012



Less than two-thirds of women knew that HIV transmission can occur during pregnancy.

Among women whose last live birth was from 2008 through 2012, knowledge of modes of MTCT of HIV was similar among women who attended ANC compared with those who had not. Though the majority of women knew that HIV could be transmitted to the child during breastfeeding (88.9%), a significantly lower percentage of women reported knowing that HIV could be transmitted to the child during pregnancy (59.4%) and during delivery (81.4%).

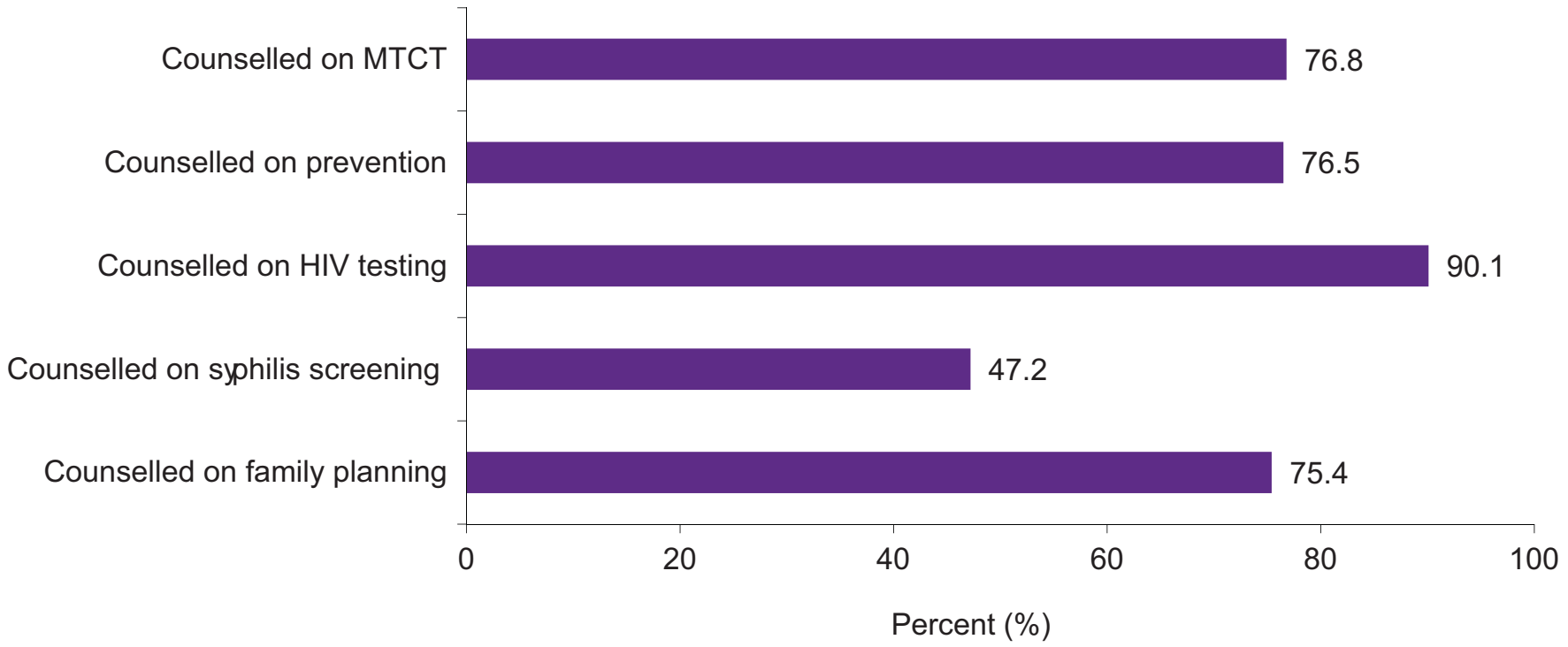
Figure 11.3h: Knowledge of antiretroviral therapy for prevention of mother-to-child transmission of HIV and treatment among women aged 15–54 years with last live birth in the past five years by antenatal clinic attendance, KAIS 2012



Knowledge of use of ART for PMTCT and treatment was greater among women who attended an ANC than among women who did not.

Among women whose last live birth was from 2008 through 2012, knowledge of use of antiretroviral therapy for PMTCT and for treatment was significantly greater among women who attended ANC (71.7% and 87.3%, respectively) compared with women who had not (49.3% and 70.5%, respectively).

Figure 11.3i: Counselling experience among women aged 15-54 years who attended an antenatal clinic, KAIS 2012



Nine out of ten ANC attendees were counselled on HIV testing services but less than half were counselled on syphilis testing.

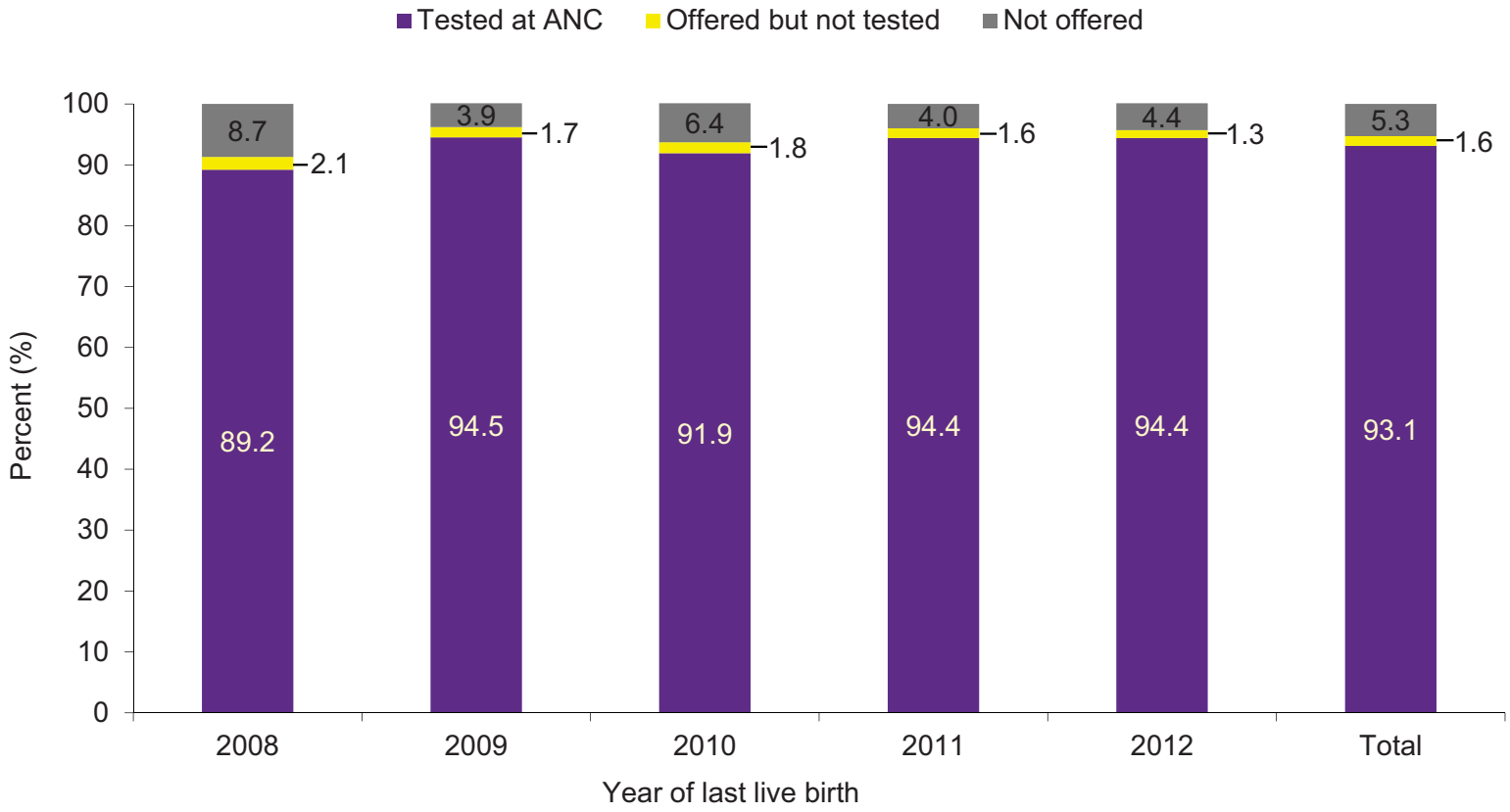
Approximately three-quarters of women whose most recent live birth was between 2008 and 2012 and who attended ANC for that pregnancy received counselling for family planning (75.4%), mother-to-child transmission (76.8%), and HIV prevention (76.5%). Nearly 90.0% were counselled on HIV testing. Less than half of the respondents received syphilis testing counselling. It is recommended that all pregnant women be screened for sexually transmitted infections (STIs), particularly syphilis, which can affect the baby's growth and cause congenital anomalies and adverse pregnancy outcomes.

11.4 HIV Counselling and Testing at Antenatal Care Clinics

Since 2004, HIV testing has been routinely offered as part of the standard package of care for all pregnant women attending ANC. HIV testing is the first line of intervention for PMTCT, providing a gateway to services to improve the health and well-being of mother and child.

In this section we describe testing behaviour among women of reproductive age who attended ANC for their last live birth from 2008 through 2012.

Figure 11.4a: Uptake of HIV testing during the last pregnancy by year of most recent live birth among women aged 15–54 years, KAIS 2012



In the past five years approximately 93% of ANC attendees were tested for HIV during their last pregnancy. Testing rates at ANC clinics were high and remained above 89.0% from 2008 through 2012

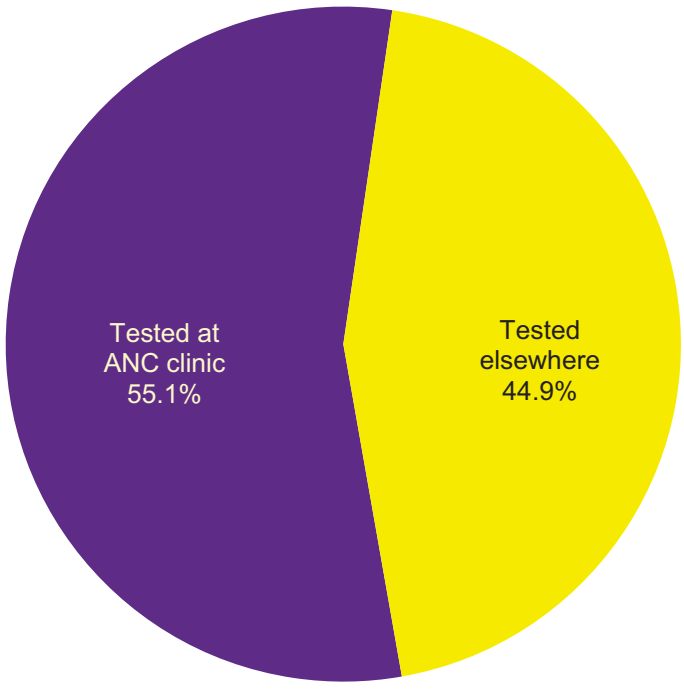
Among women attending ANC from 2008 through 2012 for their last live birth, 93.1% were tested for HIV at the ANC; this is an improvement since 2007, when only 64.9% of women who had attended ANC in the last five years had tested for HIV at ANC.

Data in Context: National PMTCT services and PMTCT program data

In 2012 of the Kenya Ministry of Health reported that coverage of PMTCT services among all HIV-infected pregnant women was 60.0%. PMTCT coverage was calculated as the number of HIV-infected women who received antiretroviral prophylaxis to prevent HIV transmission to their new born children in 2012 based on PMTCT programmatic data divided by the estimated number of HIV-infected pregnant women in the country in 2012 based on mathematical modelling. PMTCT coverage may be improved by increasing PMTCT service availability among all facilities. Kenya Service Provision Assessment (KSPA) survey 2010 revealed that though 58% of all facilities reported offering any PMTCT services, only 33% offered the minimum package of PMTCT services, which includes;

- Available HIV testing system
- Providing ARV prophylaxis to the mother and infant to prevent mother-to-child transmission of the virus
- Providing counselling on maternal nutrition and infant feeding
- Providing family planning counselling and services

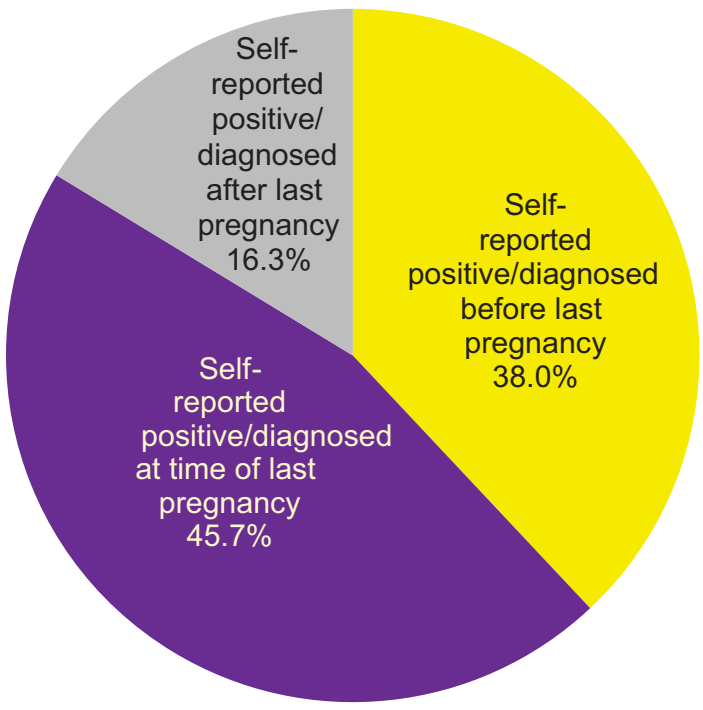
Figure 11.4b: Women aged 15–49 years whose most recent live birth occurred in the years 2008 through 2012 who ever received an HIV test by whether they received a test at an ANC, KAIS 2012



Most women (55.1%) who ever received an HIV test were last tested at an ANC facility.

Of all women aged 15 to 49 years whose last birth occurred during the years 2008 through 2012 and who ever received an HIV test, 55.1% had received their last HIV test at an ANC. This result reflects the contribution that ANCs have made toward HIV testing among women of reproductive age.

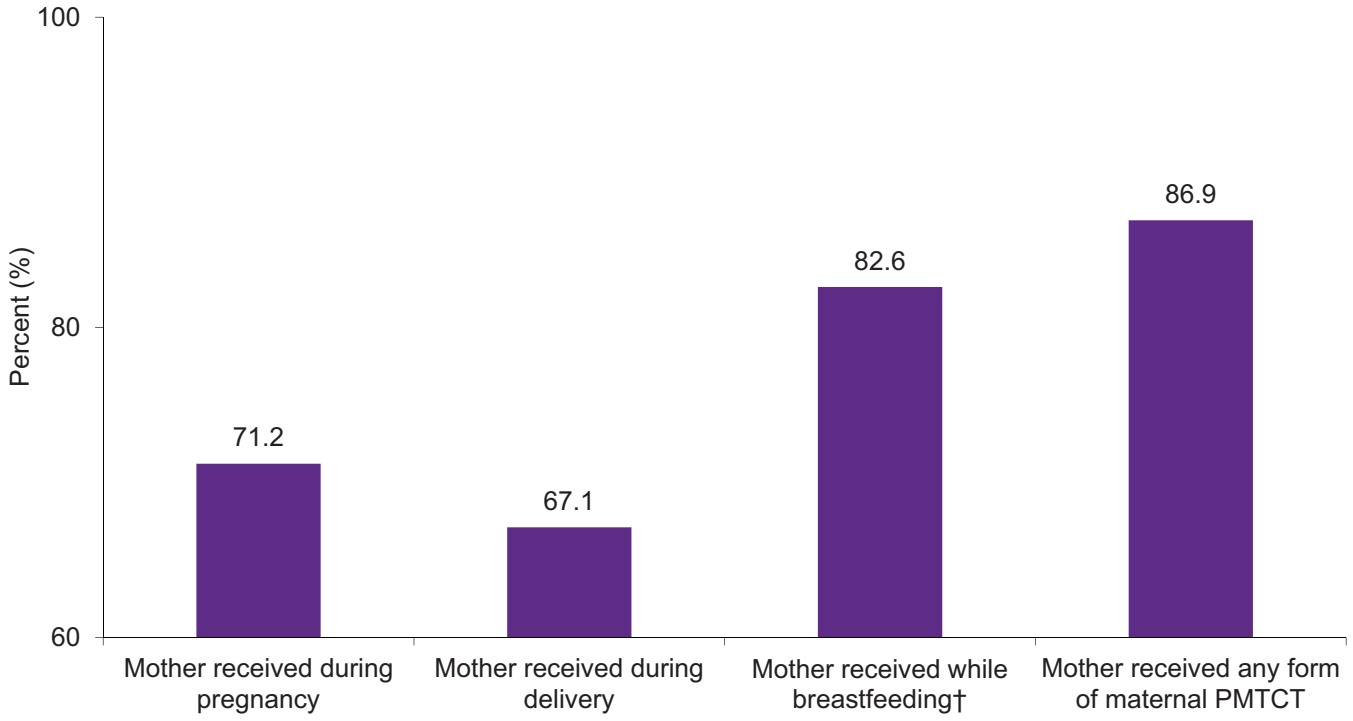
Figure 11.4c: Time of HIV diagnosis relative to last pregnancy among self-reported HIV-infected women aged 15–54 years who had a live birth in the past five years, KAIS 2012



The majority of pregnant women were diagnosed with HIV during their ANC visits.

Among women who self-reported HIV infection, most of them (45.7%) had been diagnosed at an ANC during their most recent pregnancy. Thirty-eight percent reported being diagnosed before the last pregnancy and 16.3% after the last pregnancy.

Figure 11.4d: Uptake of maternal PMTCT prophylaxis among self-reported HIV positive women aged 15-54 years whose last birth was between 2008 and 2012, KAIS 2012

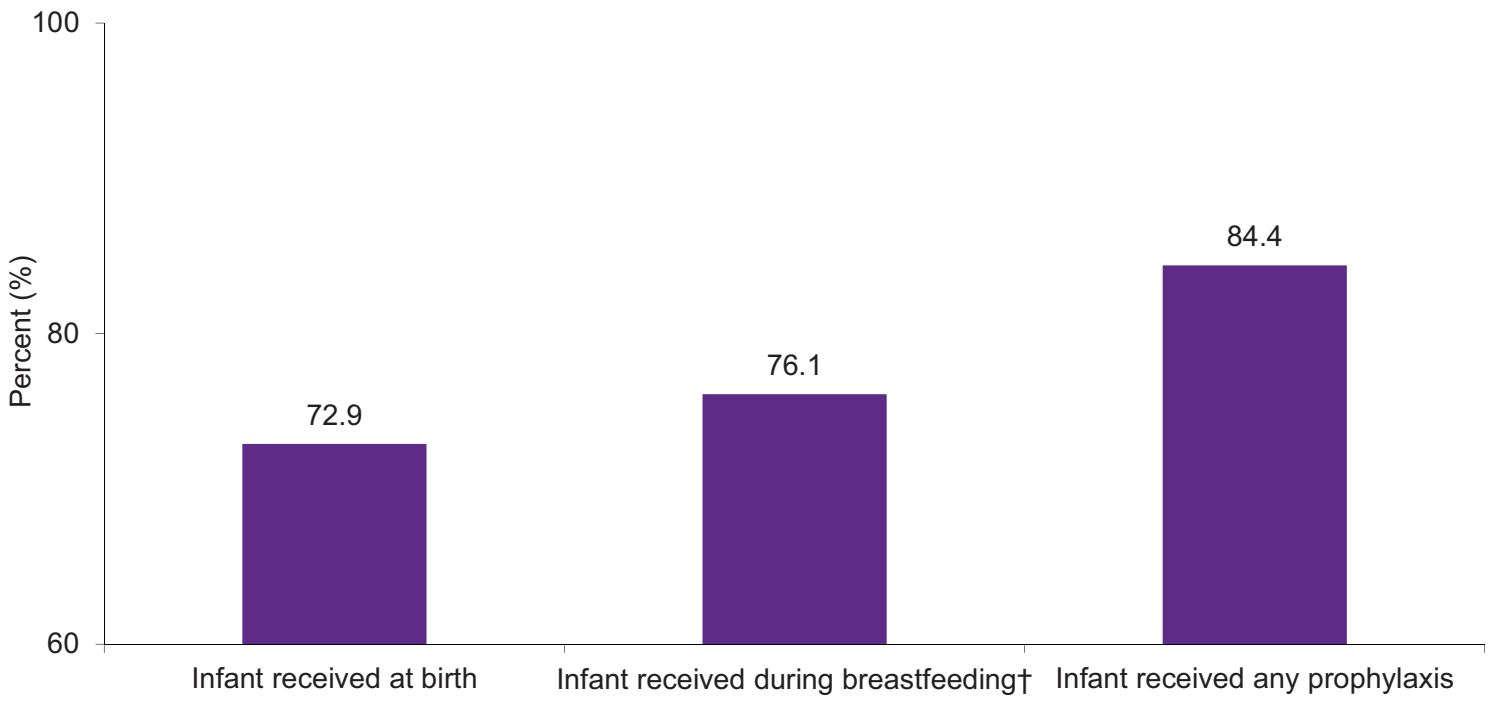


Most HIV- infected women (86.9%) who knew their status reported they received at least one maternal PMTCT intervention.

†Among those who reported breastfeeding.

Of the HIV-infected women who had their most recent live birth between 2008 and 2012 and knew their status, 71.2% reported they received maternal PMTCT during their pregnancy, 67.1% at delivery and 82.6% while breastfeeding.

Figure 11.4e: Uptake of PMTCT prophylaxis among infants of self-reported HIV positive women aged 15-54 years whose most last birth was between 2008 and 2012, KAIS 2012



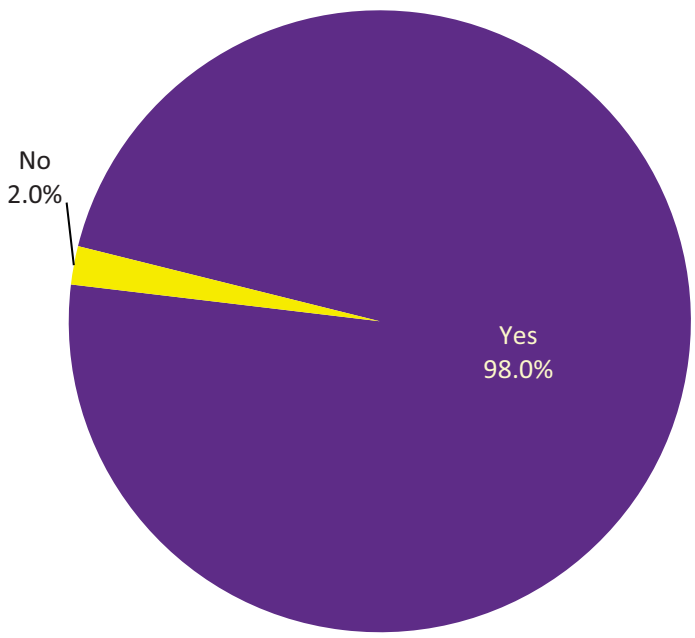
Uptake of at least one form of infant prophylaxis was 84.4% for infants born between 2008 and 2012 to an HIV-infected mother.

†Among those who reported breastfeeding.

About 73% the infants born between 2008 and 2012 to an HIV-infected who women knew their status received prophylaxis at birth, while 72.1% received prophylaxis during breastfeeding.

11.5 Breastfeeding Practices

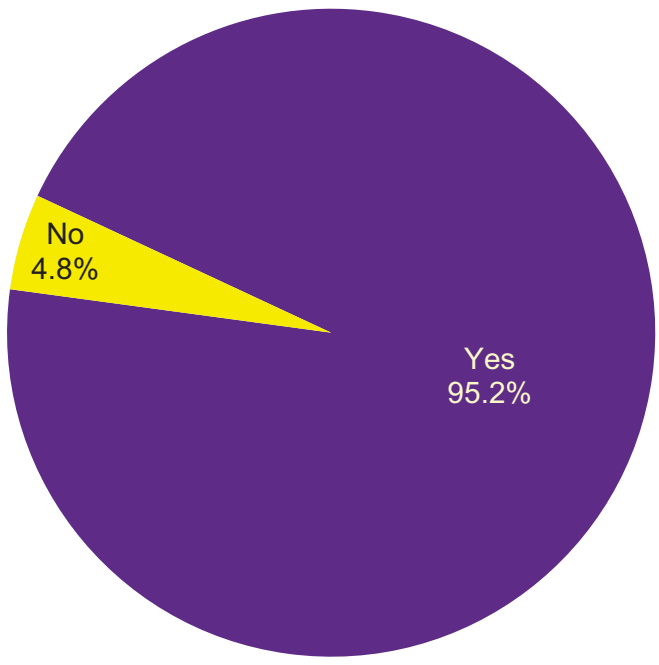
Figure 11.5a: Breastfeeding practices at the most recent live birth among women aged 15–54 years who reported a live birth in the past five years, KAIS 2012



Nearly all women (98.0%) reported that they breast fed their child.

Among women aged 15 to 54 years who gave birth in the past five years, only 2.0% reported that they did not breastfeed the child who was born most recently.

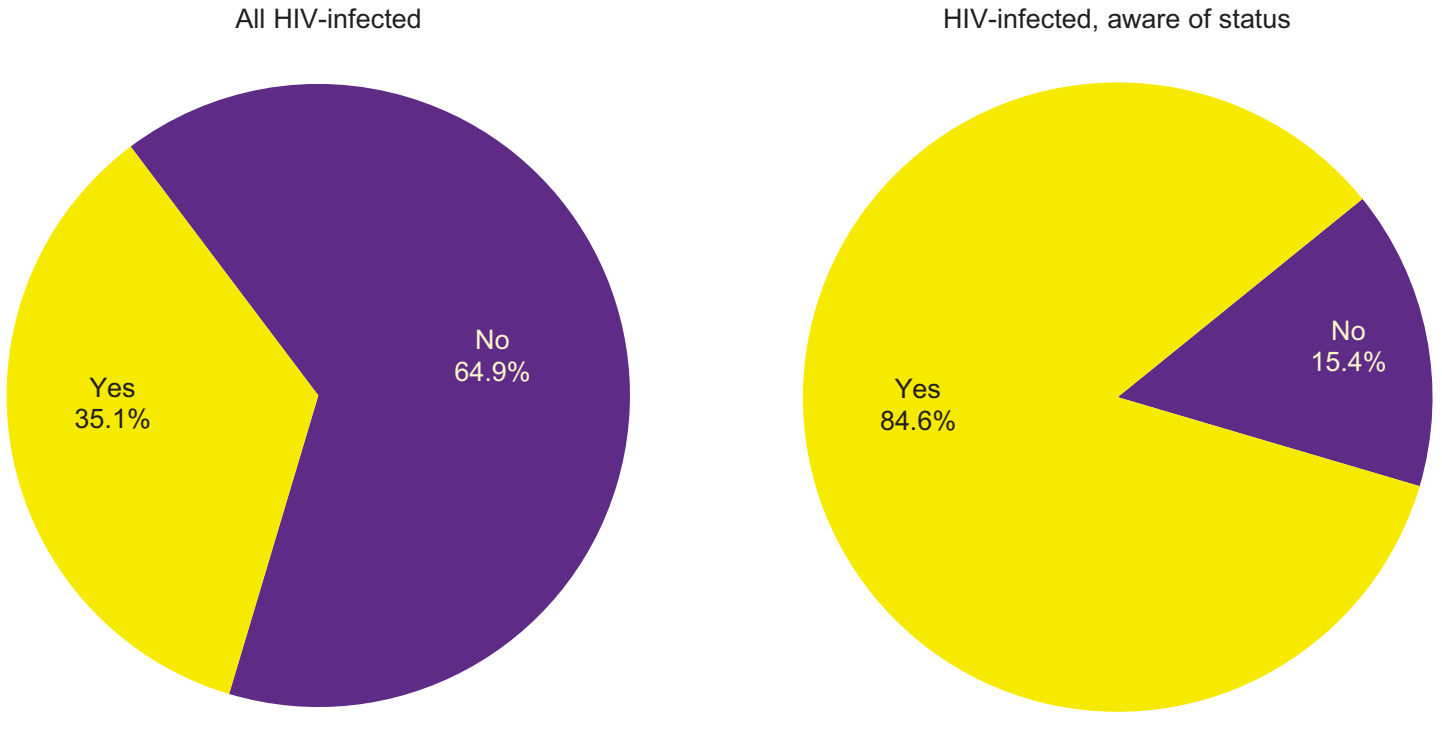
Figure 11.5b: Breastfeeding practices at the most recent live birth among HIV-infected women aged 15-54 years who reported a live birth in the past five years, KAIS 2012



Among HIV-infected women, about 4.8% reported that they did not breastfeed their child.

Among HIV-infected women whose most recent live birth was between 2008 and 2012, 95.2% reported having breastfed their babies.

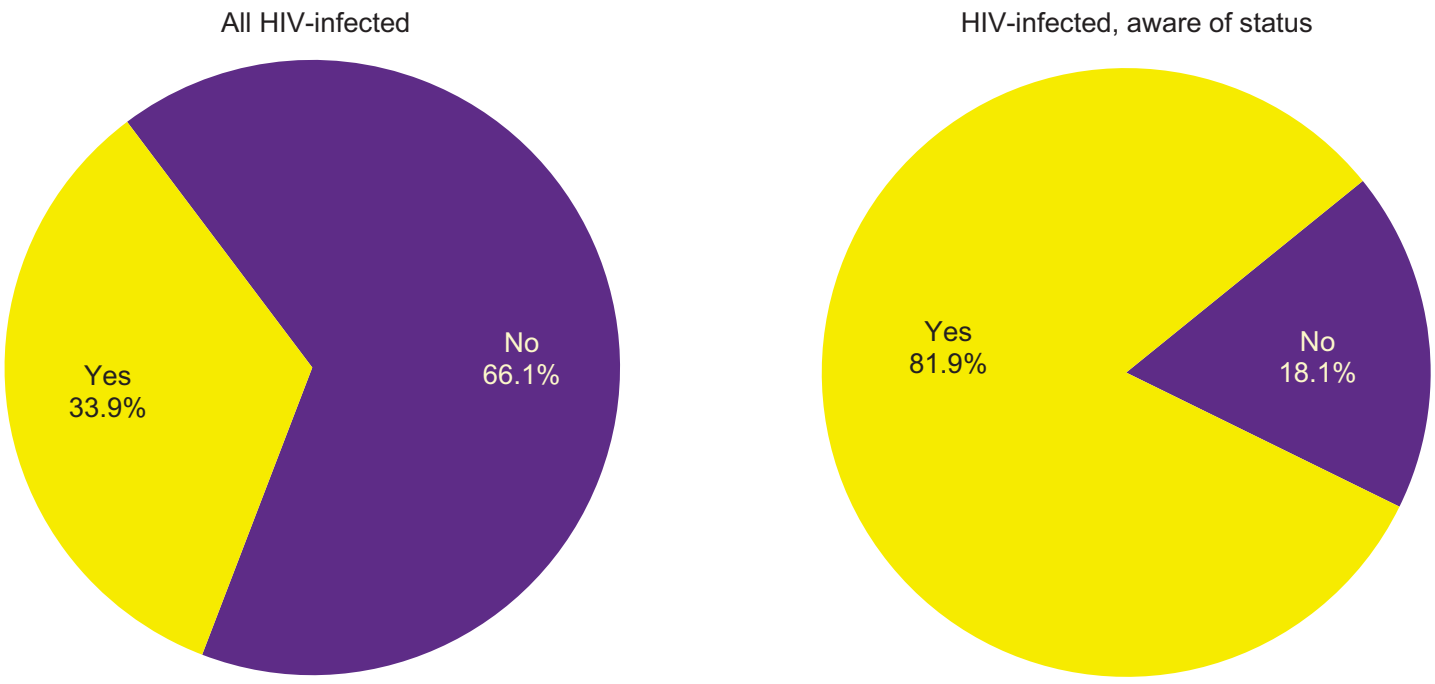
Figure 11.5c: Maternal Prophylaxis during breastfeeding at the most recent live birth of women aged 15-54 years among all HIV-infected women and among those who were aware of their HIV infection, KAIS 2012



Among women who had a recent live birth those who were aware of their HIV status were more likely to be on prophylaxis during breastfeeding compared to those who did not know their status.

At the most recent live birth, among all women aged 15-54 who were HIV-infected, 35.1% took maternal prophylaxis during the breastfeeding period. Among those were aware of their HIV status, 84.6% took maternal prophylaxis during the breastfeeding period.

Figure 11.5d: Children who received prophylaxis during breastfeeding at the most recent live birth of women aged 15-54 years among all HIV-infected women and among those who were aware of their HIV infection, KAIS 2012



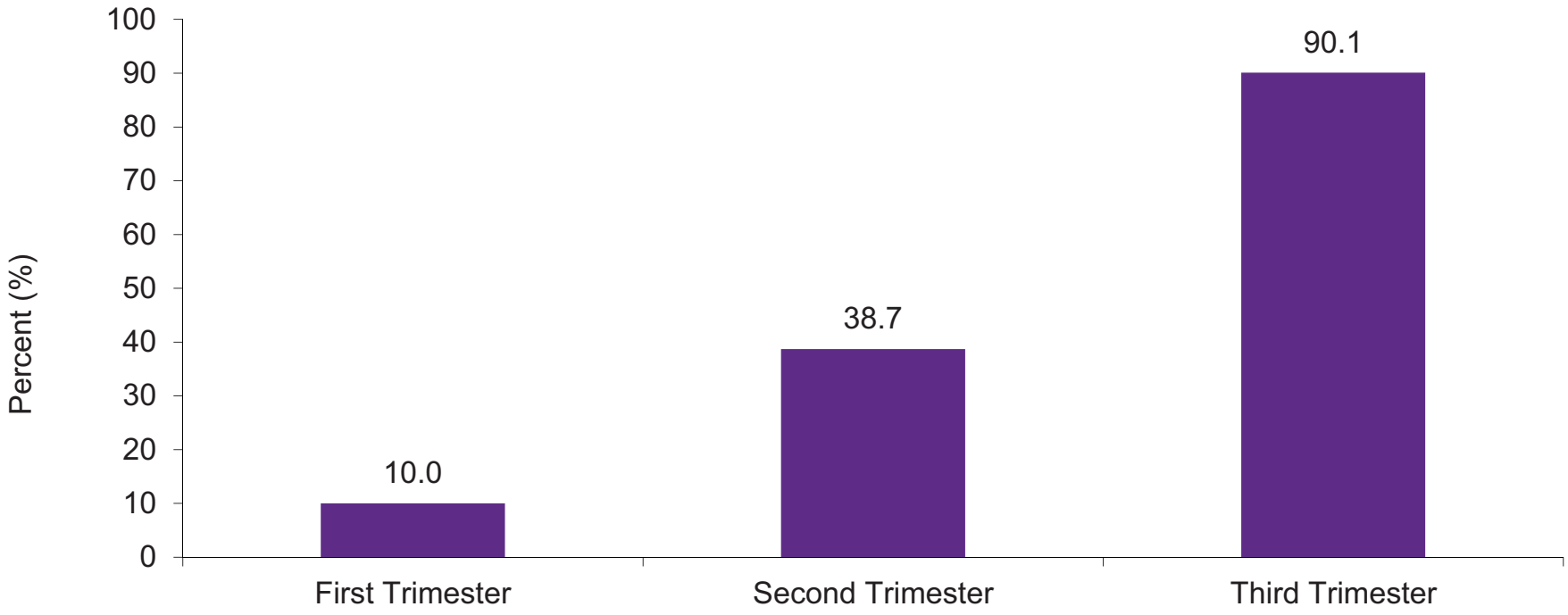
Mothers who were aware of their HIV positive status had a larger proportion of children on prophylaxis compared to mothers who did not know their status.

Among all HIV-infected women aged 15-54 years during their most recent live birth, 33.9% of their children received prophylaxis during the breastfeeding period. Among the women who knew their HIV status, the proportion of children who were on prophylaxis during breastfeeding increased to 81.9%.

11.6 Currently Pregnant Women: ANC Attendance

The next two sections describe women aged 15 to 49 years who were pregnant at the time of the survey. These findings provide data on ANC attendance (at least one visit), testing behaviours and HIV prevalence among currently pregnant women.

Figure 11.6: Antenatal clinic attendance among currently pregnant women aged 15–49 years, by gestational age, KAIS 2012



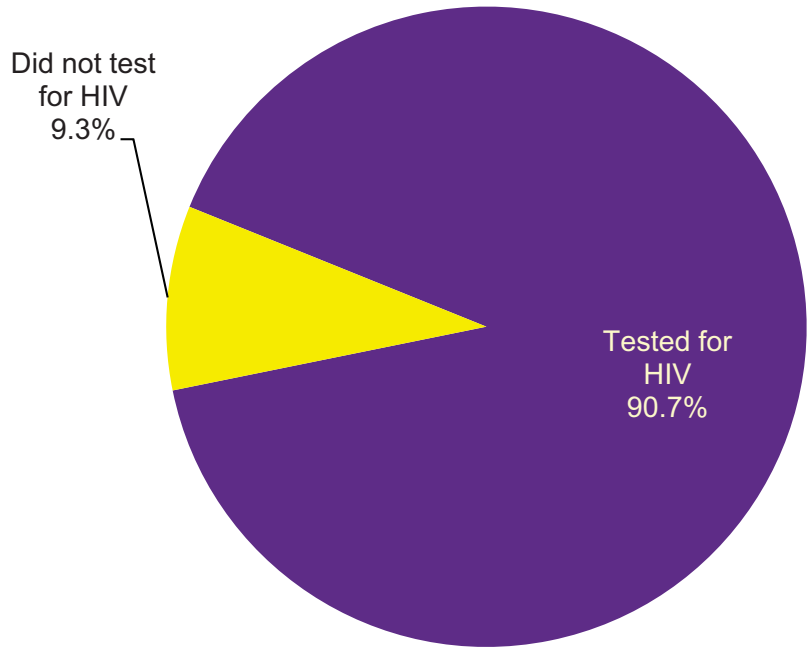
Among women in their third trimester (7 to 9 months) of pregnancy, 90.1% had attended an ANC at least once.

ANC attendance rates among currently pregnant women increased with increasing gestational age, with 10.0% of women attending in the first three months of their pregnancy, 38.7% attending in the fourth to sixth month, and 90.1% attending in the seventh to ninth month of their pregnancy.

11.7 Currently Pregnant Women: HIV Testing and HIV Prevalence

Among currently pregnant women aged 15 to 49 years, 6.5% were HIV-infected based on laboratory testing in the survey. This corresponds to an estimated 38, 000 HIV-infected women who were currently pregnant nationally.

Figure 11.7a: Acceptance of HIV testing at ANC among currently pregnant women aged 15–49 years, KAIS 2012

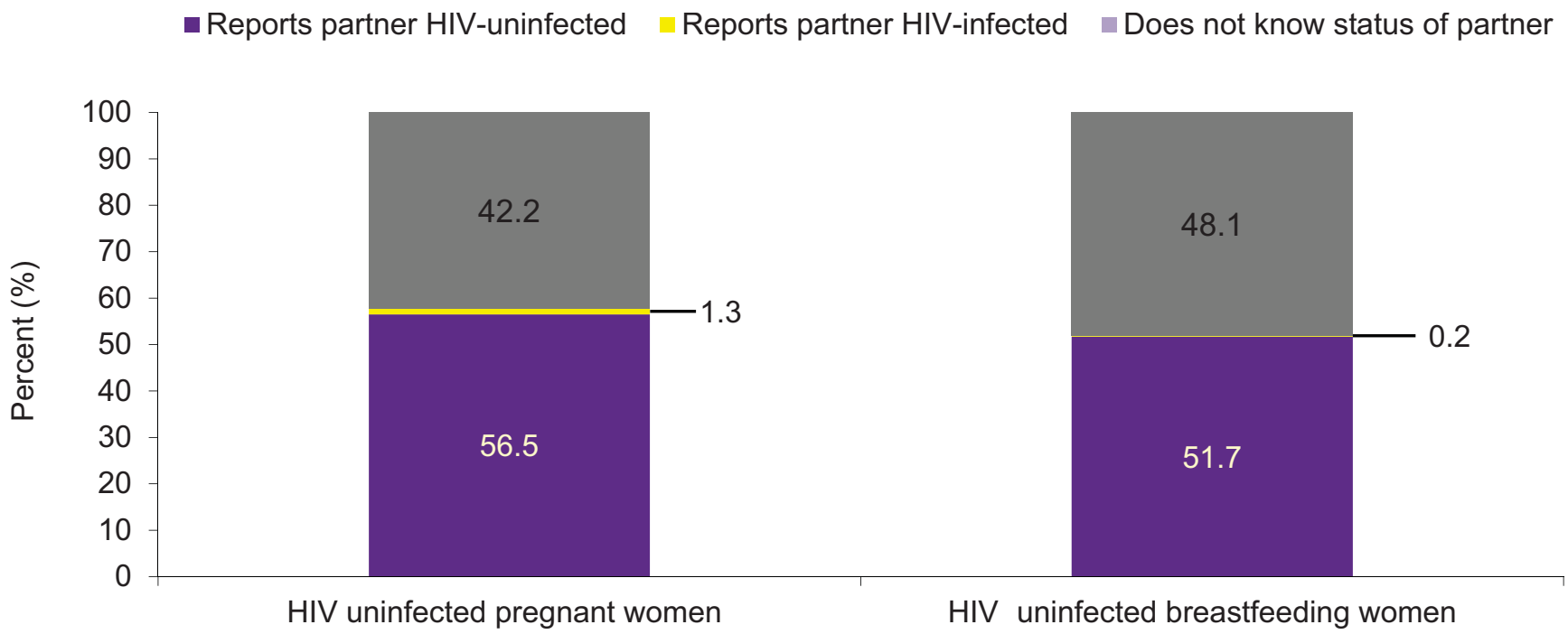


Among currently pregnant women, 90.7% report to have been tested for HIV while attending ANC.

Among currently pregnant women attending ANC, the vast majority (90.7%) accepted HIV testing at ANC, while 9.3% did not test for HIV at ANC.

11.8 Sexual Partnerships Among Currently Pregnant or Breastfeeding HIV-Uninfected Women

Figure 11.8: Knowledge of partner's HIV status among HIV-uninfected women aged 15–49 years who were currently pregnant or breastfeeding, KAIS 2012



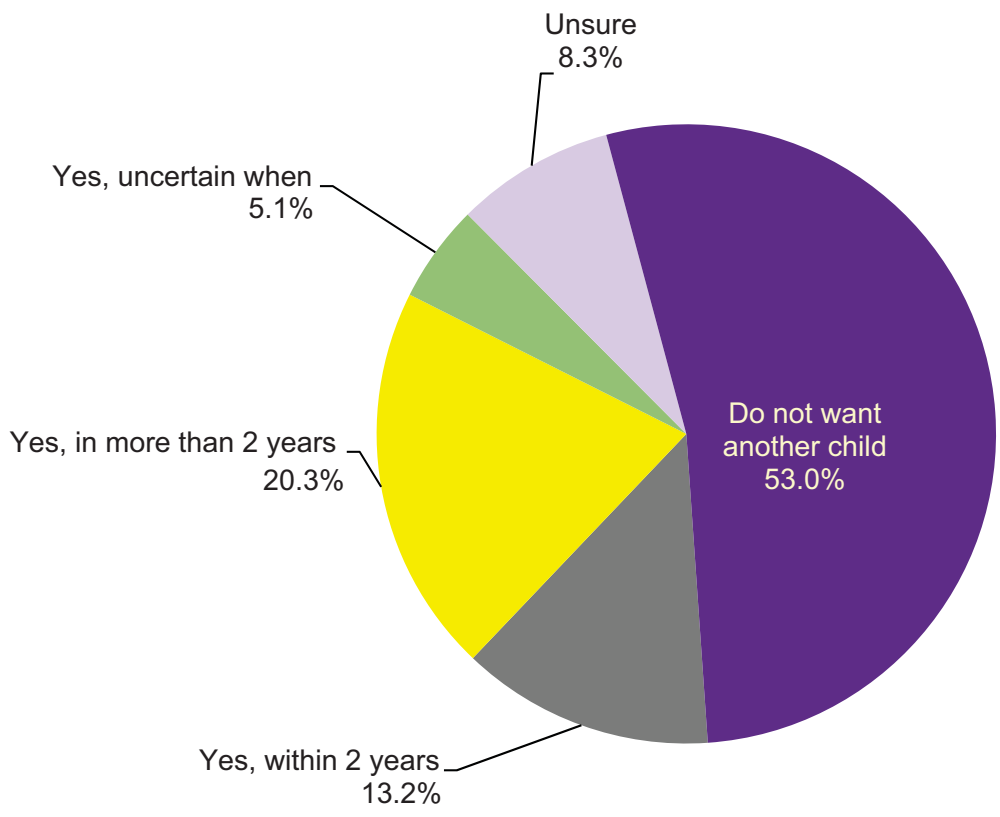
Overall, 42.2% of HIV-uninfected women who were currently pregnant and 48.1% of HIV-uninfected women who were breastfeeding did not know the HIV status of their partners.

A "partner of unknown HIV status" refers to a partner who had never been tested for HIV, whose testing history was unknown to the respondent, or whose HIV test result was unknown to the respondent. Among pregnant, HIV-uninfected women, 42.2% reported that they did not know the HIV status of their partner, and 1.3% reported that their partners were HIV-infected. Knowledge of partner's HIV status among HIV-uninfected women who were breastfeeding was similarly low; 48.1% of their sexual partnerships were with partners of unknown HIV status and 0.2% were with men whom they reported to be HIV-infected.

11.9 Fertility Desires

Prevention of unintended pregnancies is an essential element in reducing MTCT and overall reduction in maternal mortality. Yet contraceptive use remains a sub-optimal intervention of PMTCT. In this section we describe fertility desires and contraception practices among married or cohabiting women of child-bearing age in 2012.

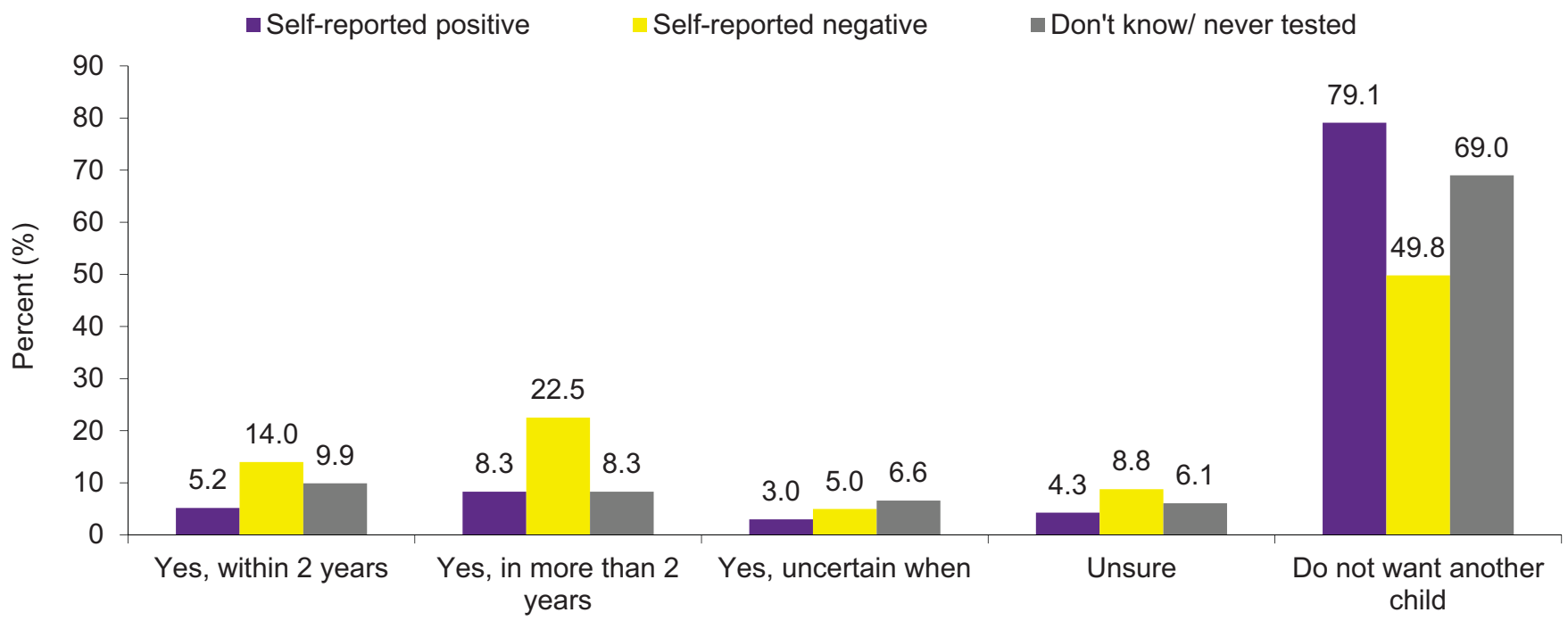
Figure 11.9a: Desire for a child in the future among married or cohabiting women aged 15-49 years, KAIS 2012



More than half (53.0%) of married or cohabiting women aged 15–49 did years not want another child, while another 20.3% wanted a child but after two years from the time of the interview.

Among women aged 15 to 49 years who were married or cohabiting with a man, 53.0% did not want a future child and 20.3% wanted a child but not within the next two years.

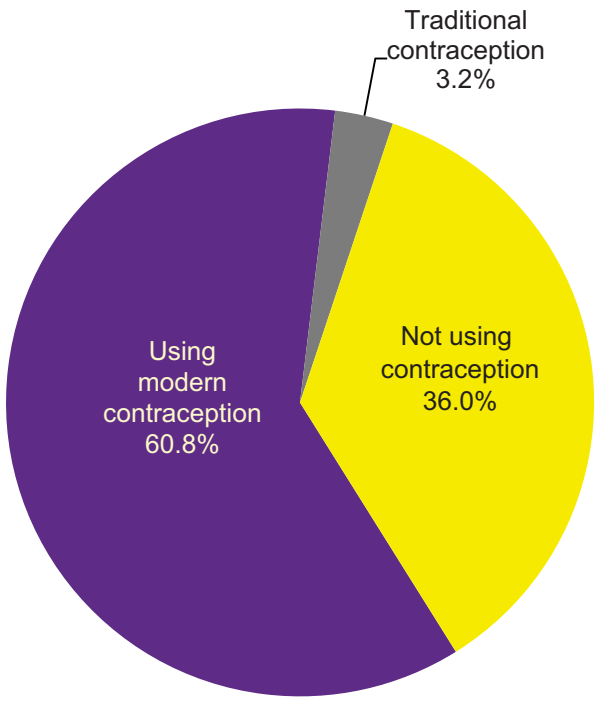
Figure 11.9b: Desire for a child in the future among married or cohabiting women aged 15–49 years by self-reported HIV status, KAIS 2012



Significantly more women who self-reported HIV positive did not want a child ever in the future compared with women who self-reported negative.

Fertility desires were significantly associated with self-reported HIV status. Among women who self-reported positive, the vast majority (79.1%) did not want a child ever in the future, 5.2% wanted a child within the next two years; and 8.3% wanted a child, but not within the next two years. Among women who self-reported negative, that is, believed themselves to be HIV-uninfected based on the results of their last HIV test, 14.0% wanted a child within the next two years; 22.5% wanted a child, but not within the next two years; and 49.8% did not want a child ever in the future.

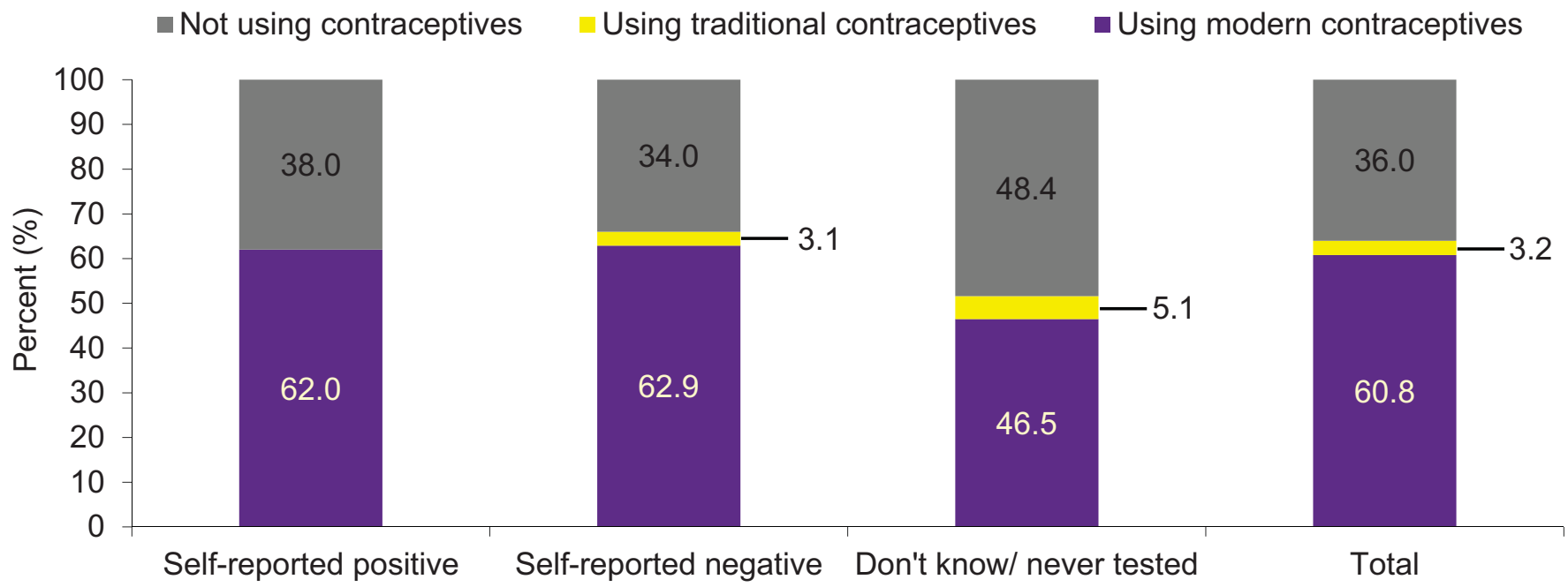
Figure 11.9c: Contraceptive use among women in married or cohabiting relationships aged 15–49 years not wanting a child ever in the future or wanting a child but not in the next two years, KAIS 2012



Among women who did not want a child in the next two years or ever in the future, 60.8%were using modern contraceptives.

Of women aged 15 to 49 years who either did not want a future child or who wanted a child but not in the next two years, 60.8% were using modern contraceptive methods, while 36.0% were not using any contraception at all. This is an improvement compared with KAIS 2007, when coverage of modern contraception for women who did not desire a child was only 45.0%, but still indicates a large unmet need for family planning among women, or that some women were unwilling or unable to act on their desires to access contraception. Modern contraceptives were defined as a subset of family planning methods that included male or female sterilization, hormones (oral, injectable, or implant), intrauterine device, male and female condom. Rhythm methods, withdrawal, abstinence, and other methods were not considered as modern contraceptives, but considered traditional contraceptive methods.

Figure 11.9d: Contraceptive use among women aged 15-49 years in married or cohabiting relationships who did not want a child in the future or in the next two years by self-reported HIV status, KAIS 2012



Contraceptive use was similar between HIV positive and HIV negative women.

Contraceptive use did not vary much by self-reported HIV status. Similar proportions of women who self-reported positive and women who self-reported negative were using either modern contraception, traditional methods, or no contraception at all. However, contraceptive use was significantly lower among women who did not know their status or never tested (46.5%) compared with women who self-reported positive (62.0%) and those who self-reported negative (62.8).

Progress

- Overall, ANC attendance was high and nearly two-thirds of the women had four or more visits. When looking at pregnancies at the time of the survey, there was a modest increase in the proportion of women attending an ANC in the first trimester between KAIS 2007 and KAIS 2012.
- There was an improvement in the proportion of ANC attendees receiving HIV testing between 2007 and 2012.
- Among women who attended ANC and were HIV-infected, more than eight in 10 received maternal and infant PMTCT interventions.
- There was progress in reducing the unmet need for family planning for married/cohabiting women; nearly two in three women were using modern contraception in 2012 compared with less than half in 2007.

11.10 Gaps and Unmet Needs

- Although overall ANC attendance was high, four in five women initiated an ANC visit after the fourth month of pregnancy and more than one third had fewer than four visits. This leads to late identification of HIV-infected pregnant women, and late interventions may not prevent transmission optimally.
- Among those who did not attend an antenatal clinic, distance from the clinic was cited as the most common (32.5%) reason for not attending ANC. There is need to explore ways to improve ANC service access including improving networking of services, community outreach programs and facility infrastructure.
- Most of the women received counselling on HIV services and family planning but less than half were counselled on syphilis testing. There needs to be continuous emphasis on syphilis screening as part of the ANC profile of pregnant women.
- While ANC HIV testing has increased over the years, nearly one in ten pregnant women attending an ANC were not tested. Efforts should be directed at ensuring commodity security and expansion of PMTCT services to all ANC facilities.
- The risk of MTCT among pregnant women who acquire HIV during pregnancy and breastfeeding is particularly high. Among HIV-uninfected pregnant or breastfeeding women, almost half reported that a majority of their sexual relationships were with men whose HIV status was unknown to them.
- Although there was an improvement in the use of modern contraception, three out of 10 married/ cohabiting women who needed family planning were not receiving it. Efforts should be directed at further reducing the unmet need for family planning, with a focus on HIV-infected women.
- KAIS 2012 was unable to collect data on HIV transmission to the infant or details on exclusive breastfeeding practices and duration of breastfeeding.

12 CHILDREN 18 MONTHS TO 14 YEARS AND ORPHANS AND VULNERABLE CHILDREN 0 TO 17 YEARS

12.1 Key Findings

- The HIV prevalence among children aged 18 months to 14 years was 0.9%. This corresponds to an estimated 101,000 children infected with HIV nationwide.
- Overall, only 16.4% of children aged 18 months to 14 years had ever been tested for HIV, as reported by their parents or guardians. Among children who had an HIV-infected parent, less than half (45.4%) had ever been tested for HIV.
- Only 40.5% of parents or guardians of HIV-infected children aged 18 months to 14 years were aware that their child was infected with HIV.
- Coverage of HIV care was low among HIV-infected children aged 18 months to 14 years, with only 40.5% currently taking co-trimoxazole prophylaxis.
- The large majority of children aged 10 to 14 years (89.0%) had heard of HIV, but only 17.4% of children had comprehensive knowledge about the virus.
- Overall, 28.6% of children aged 10 to 14 years had ever discussed HIV/AIDS with their parents.
- Approximately 30.0% of children aged 10 to 14 years had participated in at least one HIV prevention program.
- Overall, 6.7% of children aged 12 to14 years had reported ever having sex. Among these children, the median age at first sex was 10.7 years, and 70.8% reported having only one sex partner.
- Among children aged 12 to 14 years who had ever had sex, only 22.8% used condoms the first time they had sex. Less than a third of these children (30.8%) had ever been tested for HIV.
- An estimated 2.6 million children less than 18 years of age were orphans or vulnerable children (OVC).

12.2 Introduction

KAIS 2012 is the first national population-based survey in Kenya to collect HIV information for children aged 18 months to 14 years. The primary purpose of including children in the survey sample was to estimate the number of children who are HIV-infected and the number in need of HIV treatment. KAIS 2012 also interviewed children aged 10 to 14 years to gather information about HIV knowledge, attitudes, and risk behaviours among this adolescent population. These findings will be critical for informing HIV prevention, care, and treatment interventions for children.

The findings in this chapter are presented according to the following four age groups: 1) children aged 18 months to 14 years; 2) children aged 10 to 14 years; 3) children aged 12 to 14 years; and 4) orphans and vulnerable children aged less than 18 years. The information presented for children aged 18 months to 14 years is based on the parent's or guardian's responses from the adult interview where adults with children aged 18 months to 14 years were asked about their children's HIV testing history, circumcision status (for males), HIV status, and HIV care and treatment (for those with HIV-infected children). For the children's interview, all eligible children aged 10 to 14 years were interviewed, but only children aged 12 to 14 years were asked about their sexual behaviours and HIV risk, given the sensitivity of asking these questions of the younger children. Information on children who had been orphaned or were vulnerable and receipt of OVC services was collected through the household questionnaire. The table below outlines the topics covered under each group of children.

Table 12.2: Topics covered for children, KAIS 2012

	Source of Data)	Topics Covered
Children aged 18 months–14 years	Adult questionnaire–paediatric module (parent/guardian report	• HIV testing • Male circumcision • HIV care and treatment
Children aged 10 to 14 years	Children's questionnaire (child report)	• HIV knowledge, attitudes, and beliefs • HIV prevention programs • Alcohol and drug use
Children aged 12 to 14 years	Children's questionnaire (child report)	• Sexual behaviours • Sexual norms • HIV risk perception
OVC aged, 0 to 17 years	Household questionnaire (head of household report)	• OVC characteristics • OVC household characteristics • OVC services

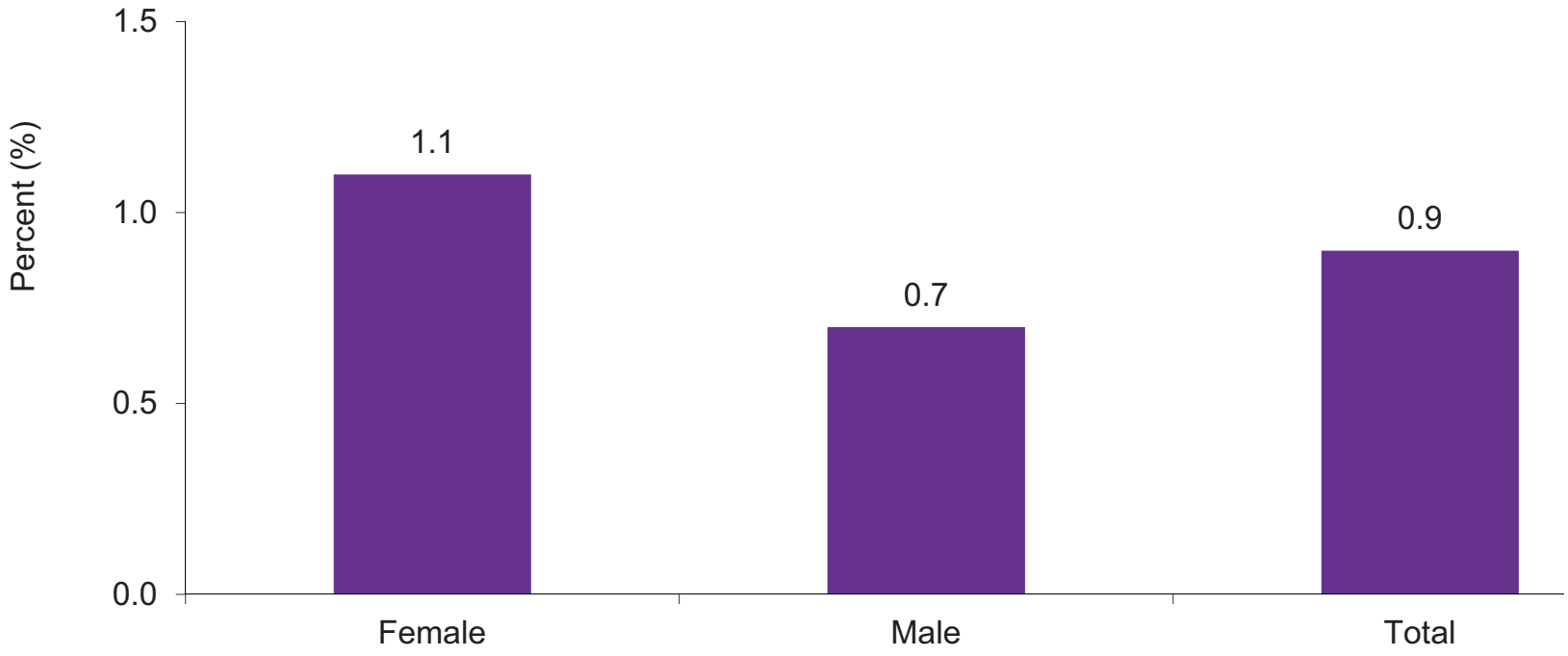
As KAIS 2012 was designed to capture information for children at the national level only, the findings for HIV prevalence and from the children's questionnaire have been presented on a national level only and not disaggregated by region.

Appendix B provides sample sizes, standard errors, and 95% confidence intervals for estimates presented in this chapter. Population estimates reported in this chapter were calculated using un-normalized survey weights which were reflective of the 2012 projected population data in the 2009 Kenya Population and Housing Census. Detailed methods used for calculating population estimates are described in Appendix A.

12.3 HIV Prevalence Among Children Aged 18 Months to 14 Years

Overall, 0.9% of children aged 18 months to 14 years were infected with HIV. This corresponds to an estimated 101,000 children infected with HIV nationwide. It is important to note that this estimate does not include any children younger than 18 months or children aged 18 months to 14 years who reside in the North Eastern region.

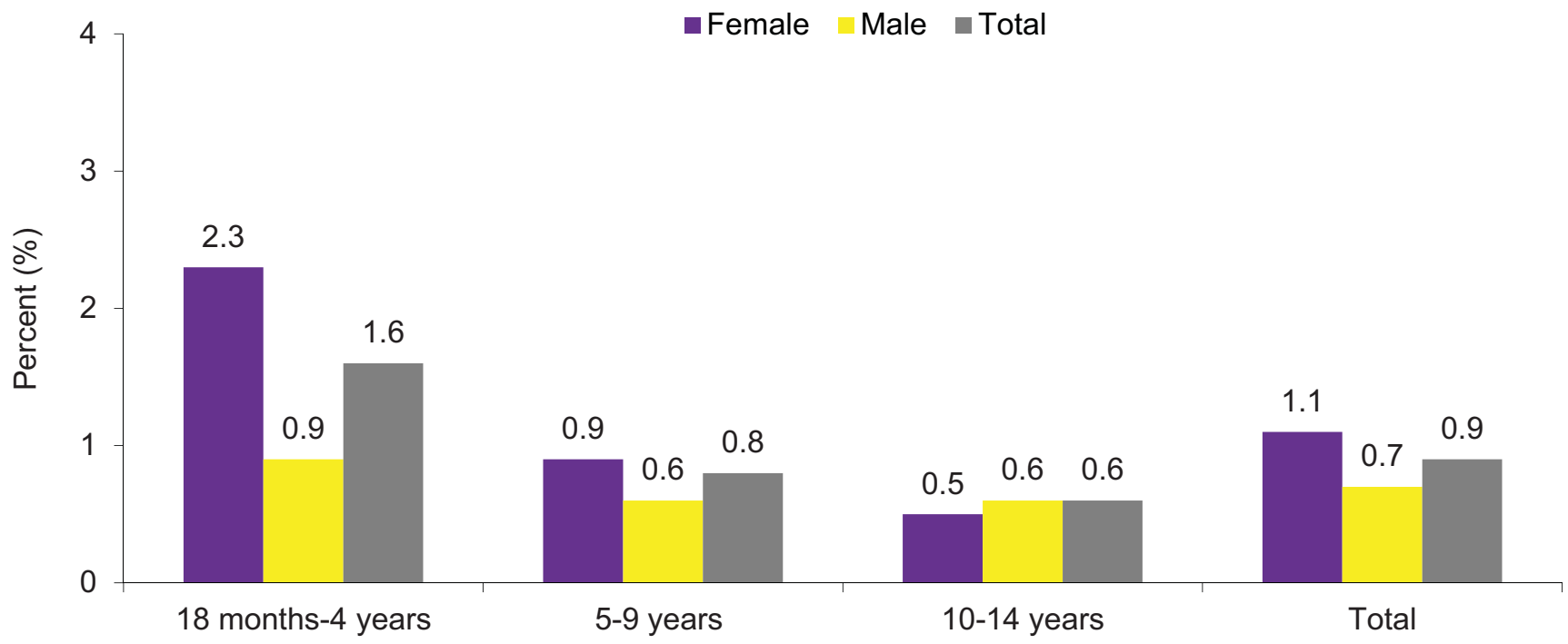
Figure 12.3a: HIV prevalence among children aged 18 months–14 years by sex, KAIS 2012



HIV prevalence among children aged 18 months to 14 years did not vary significantly among females and males.

The prevalence of HIV among female children aged 18 months to 14 years was 1.1% compared with 0.7% among male children. There was no significant difference in prevalence between female and male children.

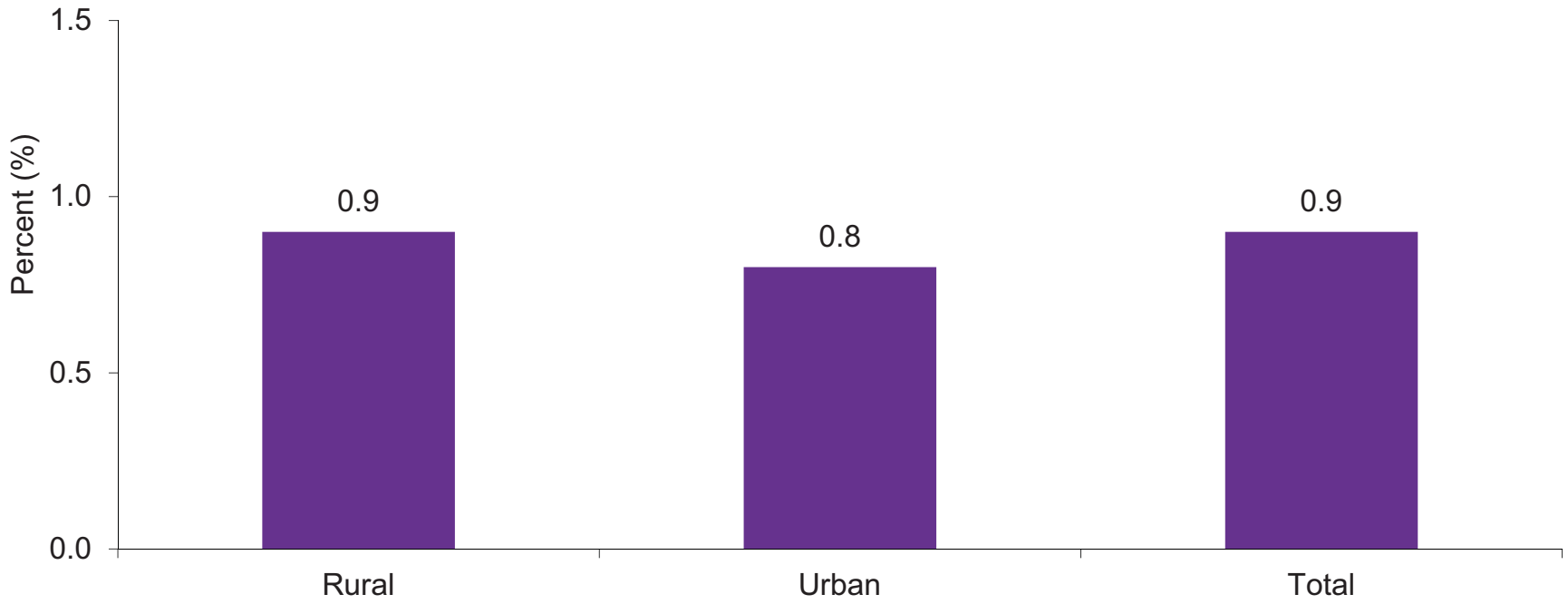
Figure 12.3b: HIV prevalence among children aged 18 months–14 years by age, KAIS 2012



HIV prevalence among children aged 18 months to 14 years did not vary significantly among the three age groups.

Among all children aged 18 months to 4 years, the prevalence of HIV was 1.6%. HIV prevalence was 0.8% among children aged 5 to 9 years and 0.6% for children aged 10 to 14 years. There were no significant differences in HIV prevalence across the age groups or by sex within each age group.

Figure 12.3c: HIV prevalence among children aged 18 months–14 years by residence, KAIS 2012



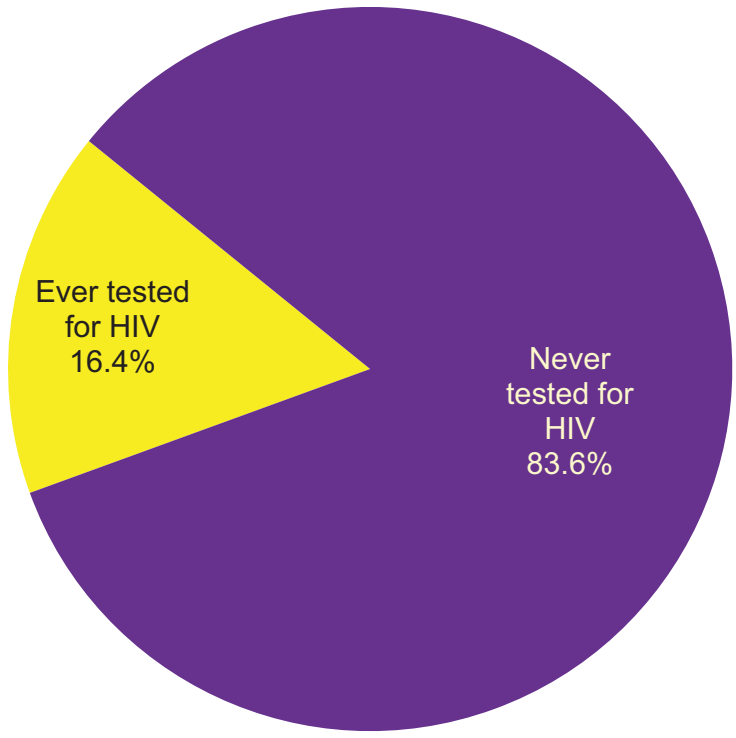
The HIV prevalence for children aged 18 months to 14 years was similar for rural and urban areas.

The HIV prevalence among children aged 18 months to 14 years residing in rural areas was 0.9% and for urban areas, 0.8%. There was no statistically significant difference in HIV prevalence between the rural and urban areas.

12.4 HIV Testing Among Children Aged 18 Months to 14 Years

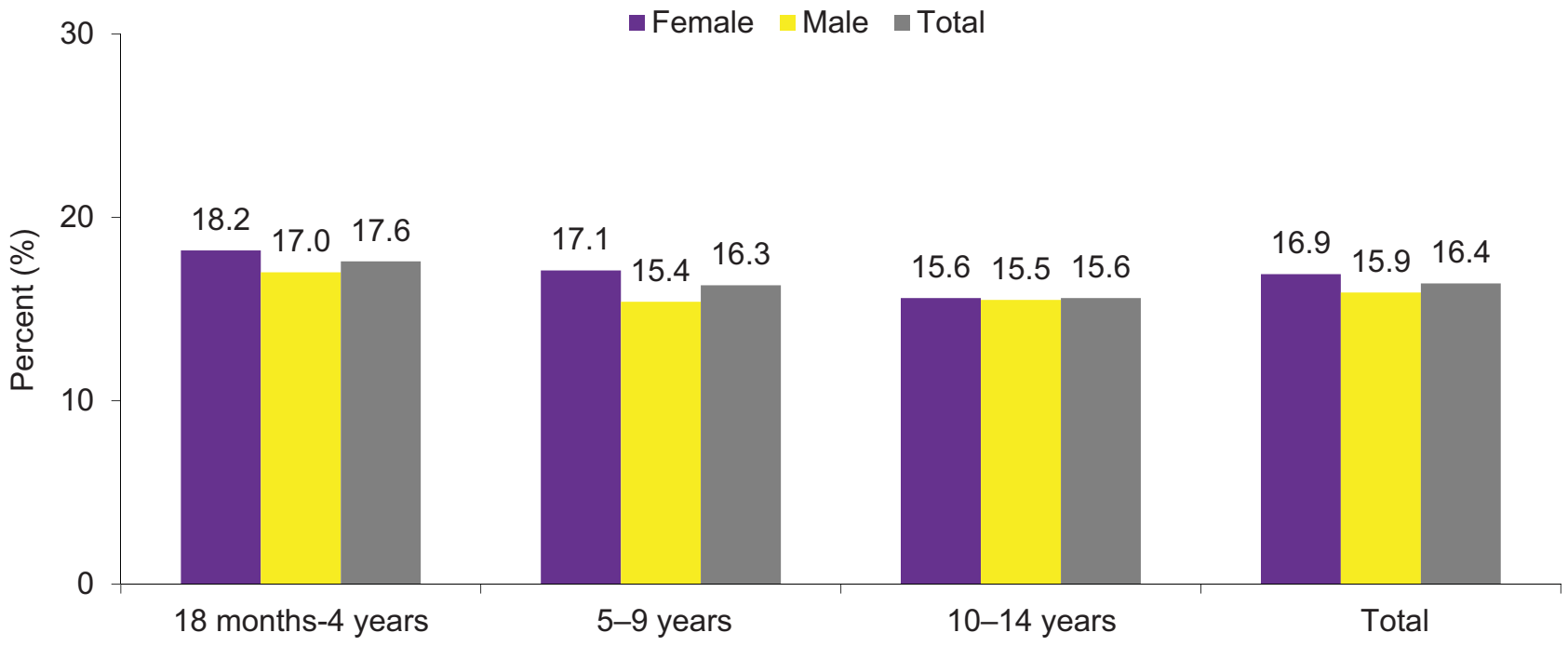
Parents and guardians were asked whether their children aged 18 months to 14 years had ever been tested for HIV prior to the survey. The following section examines the characteristics of those children who had been tested for HIV, as well as those who were never tested.

Figure 12.4a: Ever been tested for HIV among children aged 18 months–14 years, KAIS 2012



Among children aged 18 months to 14 years, 16.4% had ever been tested for HIV, as reported by their parent or guardian.

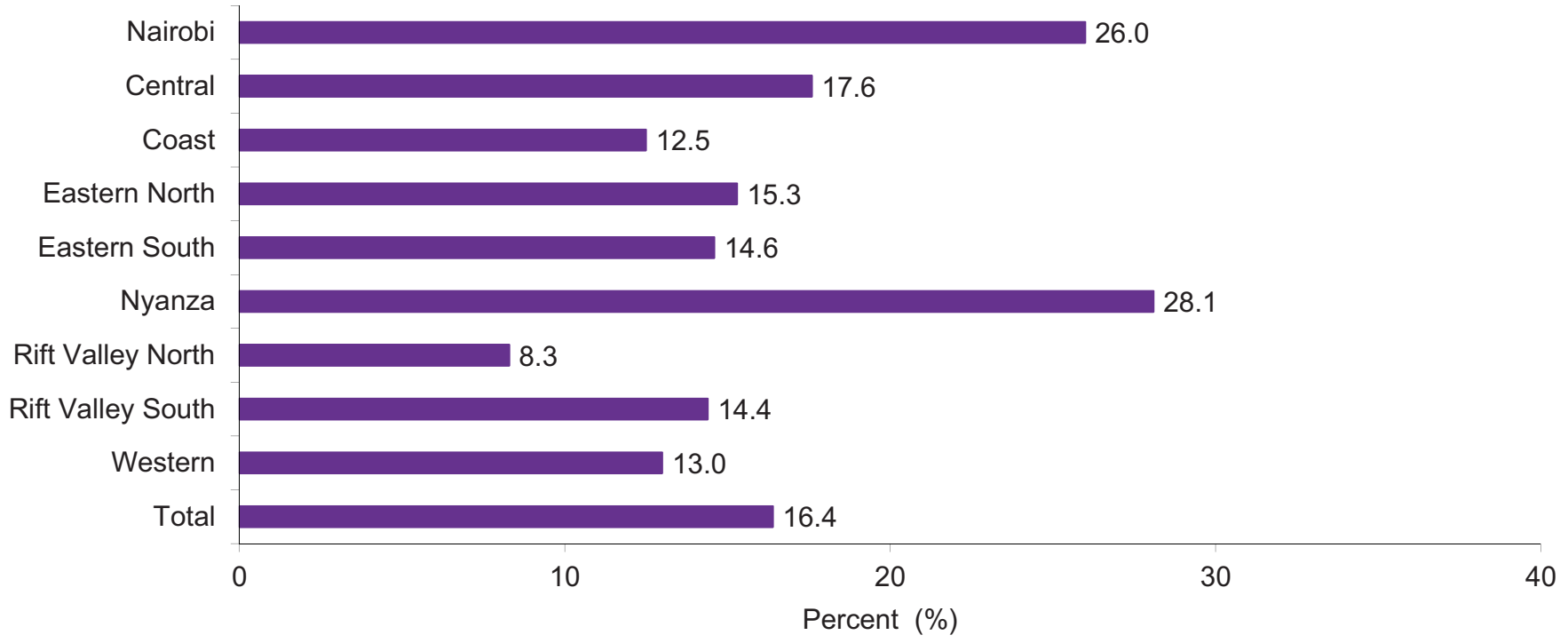
Figure 12.4b: Ever been tested for HIV among children aged 18 months–14 years by age and sex, KAIS 2012



The proportion of children who had ever been tested for HIV was similar across the various age groups.

Approximately 18.0% of children aged 18 months to 4 years had been tested for HIV. This proportion was similar for children aged 5 to 9 years and children aged 10 to 14 years (16.3% and 15.6% respectively).

Figure 12.4c: Ever been tested for HIV among children aged 18 months–14 years by region, KAIS 2012

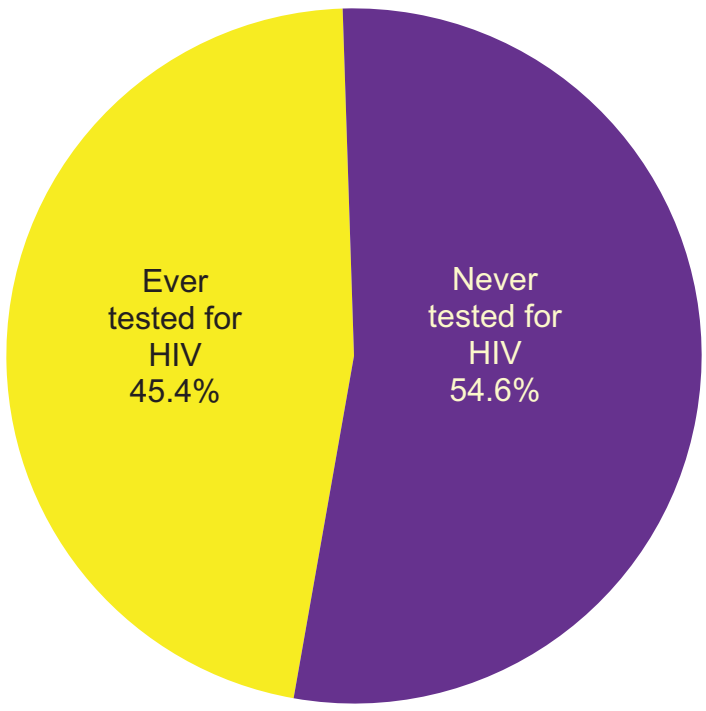


The Nyanza and Nairobi regions had the highest proportions of children aged 18 months to 14 years who had ever been tested for HIV.

More than a quarter of children aged 18 months to 14 years residing in the Nyanza (28.1%) and Nairobi (26.0%) regions had been tested for HIV. The Rift Valley North region had the lowest proportion of children who had ever been tested for HIV, at 8.3%.

The proportion of children who had ever been tested for HIV in the Nyanza region was significantly greater than the national proportion (16.4%). The number of children who had ever been tested for HIV did not vary significantly between female and male children in any of the regions.

Figure 12.4d: Ever been tested for HIV among children aged 18 months–14 years who have an HIV-infected parent, KAIS 2012



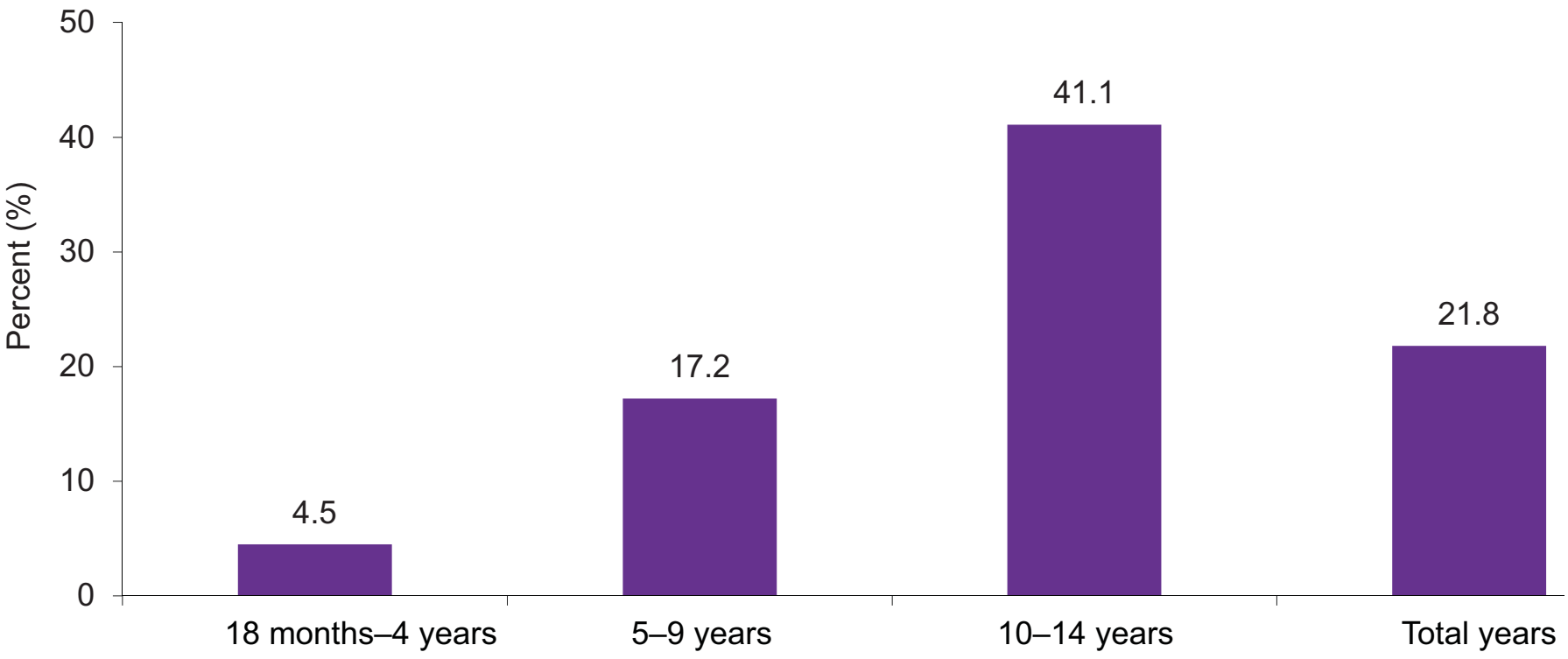
More than half of all children aged 18 months to 14 years who had a parent infected with HIV had never been tested for HIV.

Overall, 45.4% of children aged 18 months to 14 years who have an HIV-infected parent had ever been tested for HIV. There were no significant differences by sex or by age group for children with an HIV-infected parent who had ever been tested.

12.5 Male Circumcision and Circumcision Intentions Among Children Aged 18 Months to 14 Years

In Kenya, male children may be circumcised for cultural, religious, or medical reasons, and circumcision traditionally occurs during the adolescent years. This section describes the population of male children aged 18 months to 14 years who had been circumcised as reported by their parent or guardian, as well as the parent or guardian's intentions to circumcise their son if he was uncircumcised at the time of the interview.

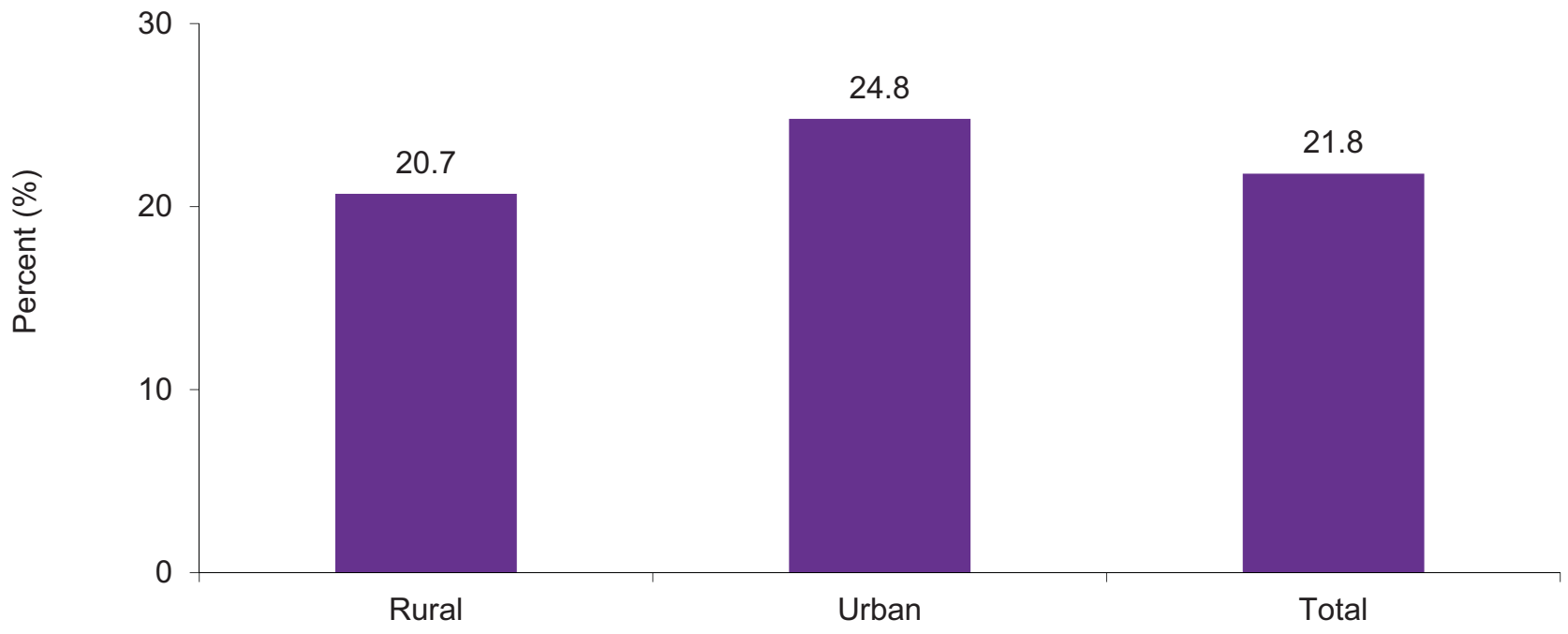
Figure 12.5a: Circumcision among males aged 18 months–14 years by age group, KAIS 2012



Approximately 4 out of 10 male children aged 10 to 14 years had been circumcised.

Overall, 21.8% of male children aged 18 months to 14 years had been circumcised, as reported by their parent or guardian. Circumcision among male children aged 10 to 14 years (41.1%) was significantly higher than among the other two age groups. Male children aged 18 months to 4 years had the lowest rate of circumcision, at 4.5%, while 17.2% of those aged 5 to 9 years had been circumcised.

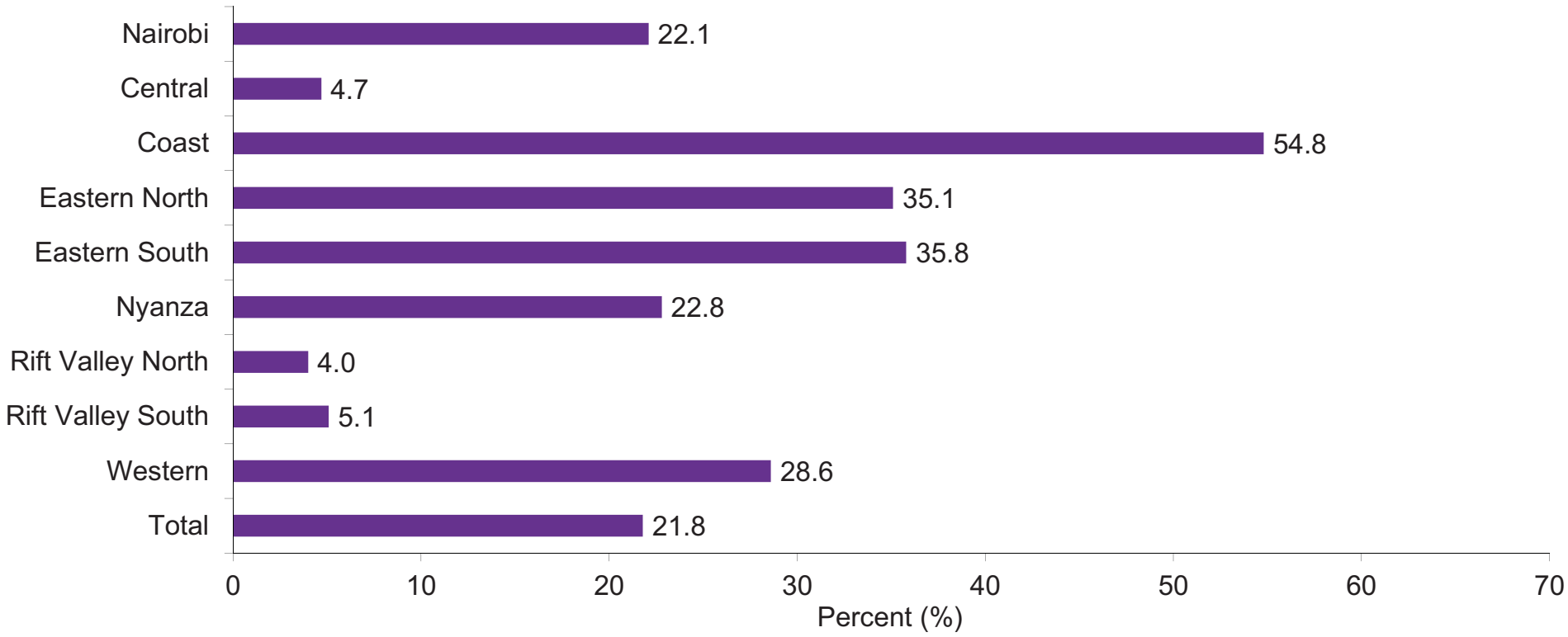
Figure 12.5b: Male circumcision among males aged 18 months to 14 years by residence, KAIS 2012



Circumcision among male children aged 18 months to 14 years did not vary significantly between rural and urban areas.

Approximately 21.0% of male children aged 18 months to 14 years residing in rural areas had been circumcised, while for urban areas, the proportion of circumcised males in this age group was approximately 25.0%.

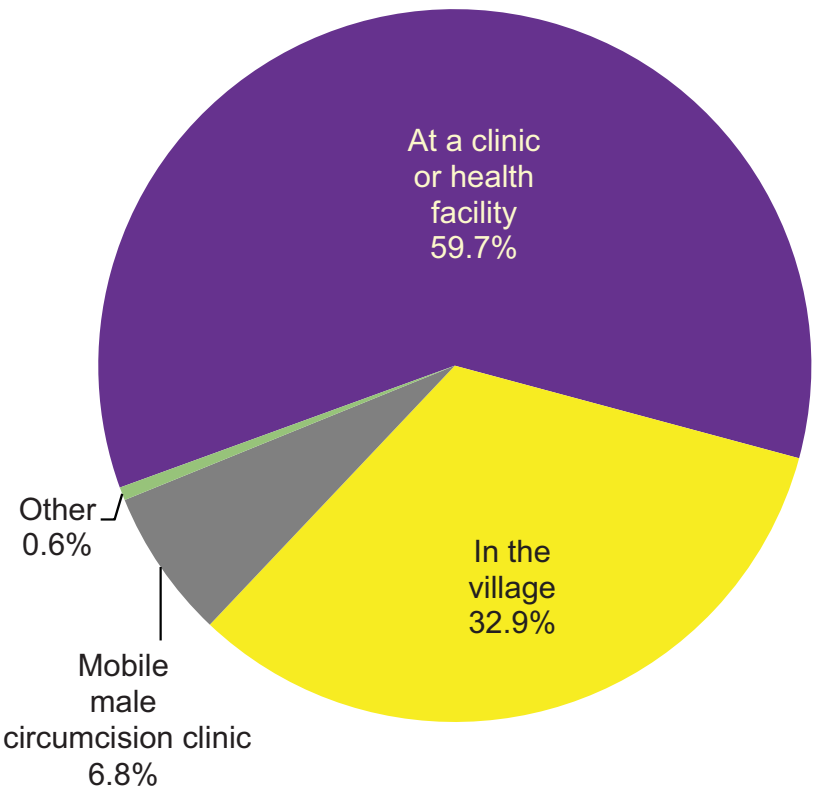
Figure 12.5c: Circumcision among male children aged 18 months–14 years by region, KAIS 2012



Circumcision among male children aged 18 months to 14 years was most common in the Coast region and least common in the Central, Rift Valley North, and Rift Valley South regions.

The proportions of circumcised males aged 18 months to 14 years in the Coast and Eastern South regions, 54.8% and 35.8% respectively, were significantly greater than the national proportion (21.8%). Meanwhile, the Central, Rift Valley North, and Rift Valley South regions had significantly lower levels of circumcision among male children than the national proportion, at 4.7%, 4.0%, and 5.1% respectively.

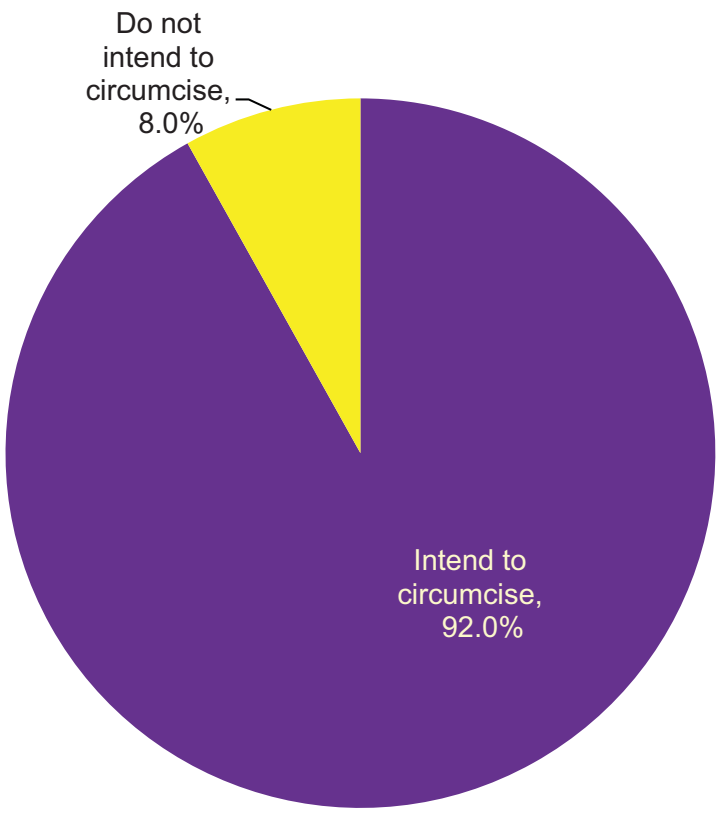
Figure 12.5d: Places where circumcision was performed among circumcised males aged 18 months–14 years, KAIS 2012



Six out of 10 male children aged 18 months to 14 years had been circumcised at a clinic or health facility.

Among male children aged 18 months to 14 years who had been circumcised, their parent or guardian was asked where the circumcision had been performed. Clinic or health facility was the most common response, at 59.7%, while 32.9% were circumcised in the village and 6.8% at mobile male circumcision clinics. The proportion of male children who were circumcised in a clinic, health facility, or mobile clinic indicates that approximately two-thirds of all circumcised males aged 18 months to 14 years were circumcised by a trained health provider.

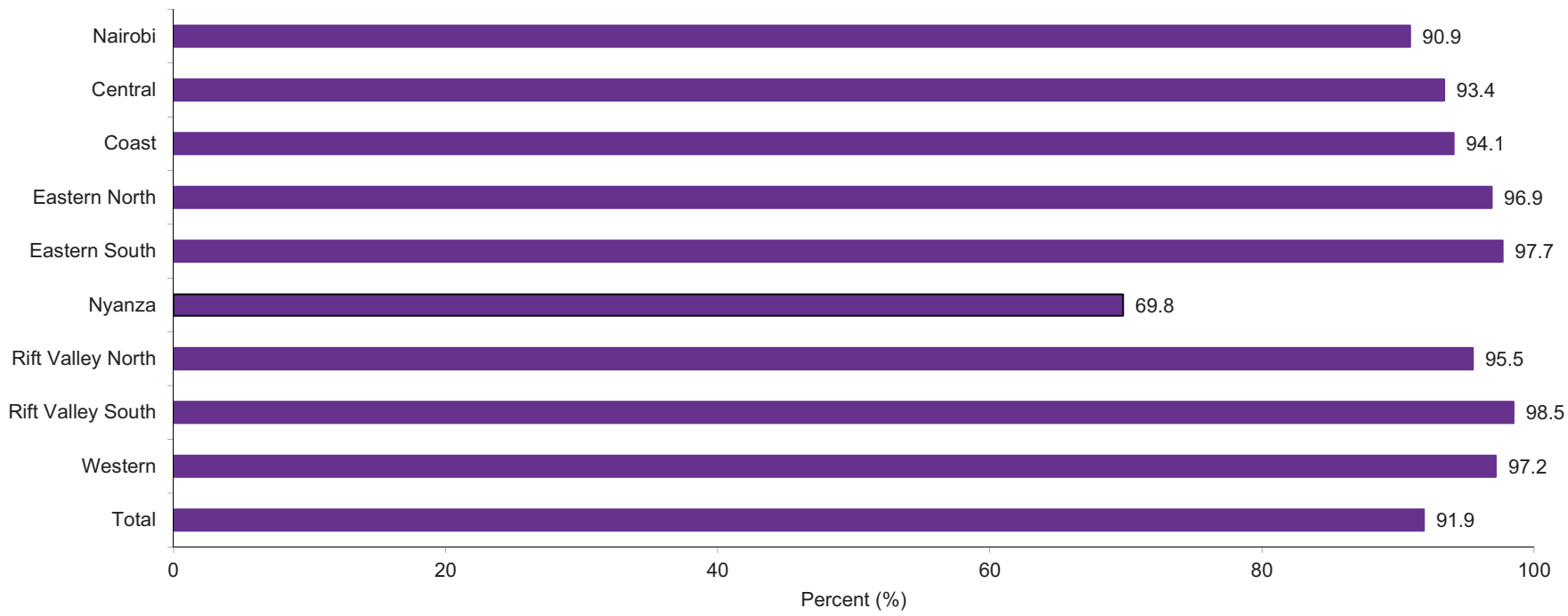
Figure 12.5e: Intention to circumcise sons among uncircumcised male children aged 18 months to 14 years, KAIS 2012



The majority of parents reported they intend to circumcise their sons aged 18 months to 14 years who had not yet been circumcised.

Among male children aged 18 months to 14 years who had not been circumcised, their parents or guardians were asked if they intended to have them circumcised in the future. Ninety-two percent of parents and guardians reported that they intended to have their sons circumcised, while 8% did not intend to have their sons circumcised.

Figure 12.5f: Intention to circumcise among uncircumcised male children aged 18 months–14 years by region, KAIS 2012



Intention to circumcise sons was lowest in the Nyanza region.

In almost all regions, over 90.0% of parents and guardians reported that they intended to circumcise their sons aged 18 months to 14 years in the future. In the Nyanza region, which includes non-circumcising communities, 69.8% of parents and guardians intended to circumcise their sons, and this was significantly lower than the national proportion of 91.9%.

12.6 HIV Care and Treatment Among HIV-infected Children Aged 18 Months to 14 Years

Coverage of Care and Treatment:
Among all HIV-infected children aged 18 months to 14 years, 40.5% had ever attended an HIV care clinic, and all of these children were currently taking co-trimoxazole. Coverage of ART among HIV-infected children has not been presented as ART eligibility could not be determined for this population.

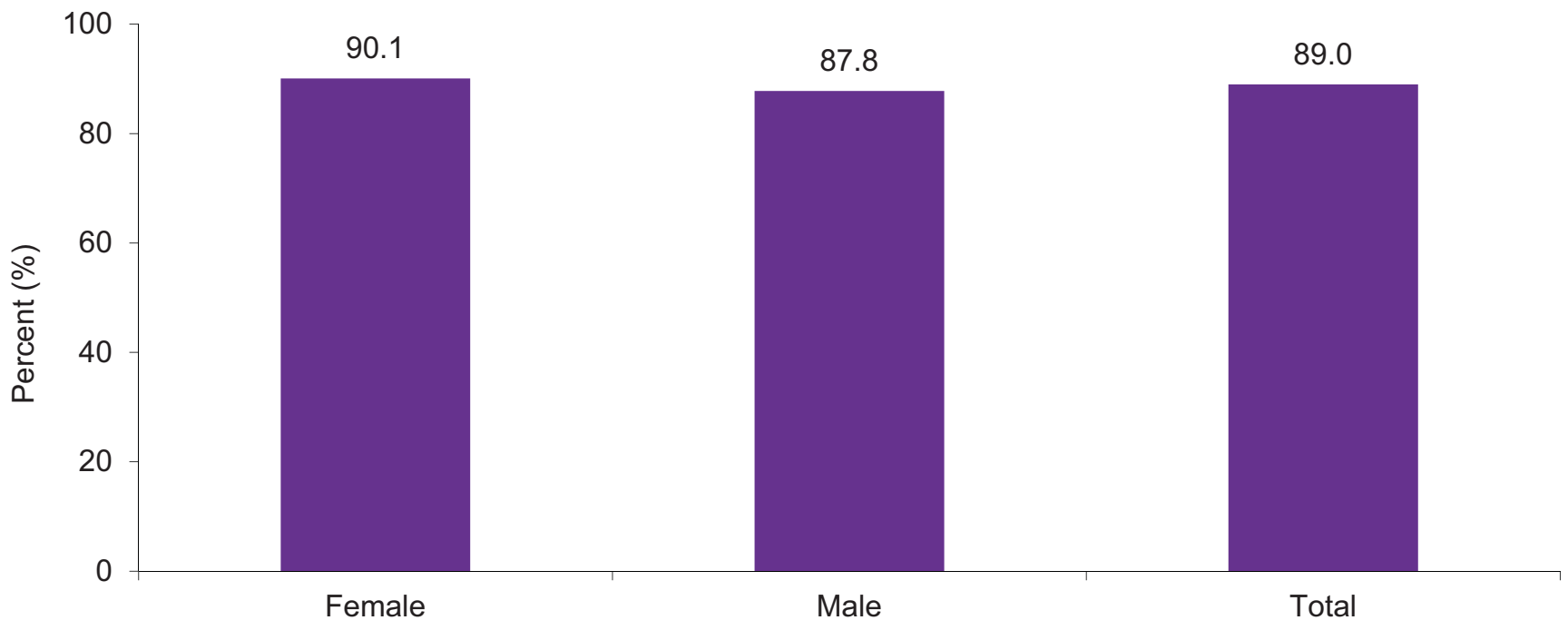
Cascade of Care and Treatment:
Among HIV-infected children aged 18 months to 14 years (n=28), 11 were reported by their parent to have been diagnosed with HIV infection prior to KAIS 2012. All of these children were currently receiving HIV-related care services. Of those children receiving HIV-related care services, all 11 were on co-trimoxazole, and 8 were on ART. Four of the eight children on ART had achieved viral suppression, or had a HIV RNA concentration of less than 1,000 copies/mL.

It is important to note that these figures should be interpreted with caution, given the small number of children aged 18 months to 14 years who were HIV-infected, and cannot be generalized beyond this sample to the general population of children aged 18 months to 14 years infected with HIV. Detailed information about the care and treatment of HIV-infected children has not been presented for this reason.

12.7 HIV Knowledge, Attitudes, and Beliefs among Children aged 10 to 14 years

Knowledge of HIV and perception of risk for HIV infection among children are essential for making behavioural choices that reduce risk of acquiring and transmitting HIV. The primary school HIV/AIDS curriculum teaches basic medical facts about HIV/AIDS, HIV transmission, and prevention and care for people living with HIV/AIDS. This section summarizes data on knowledge on HIV, source of information, stigma, and knowledge of prevention and treatment strategies.

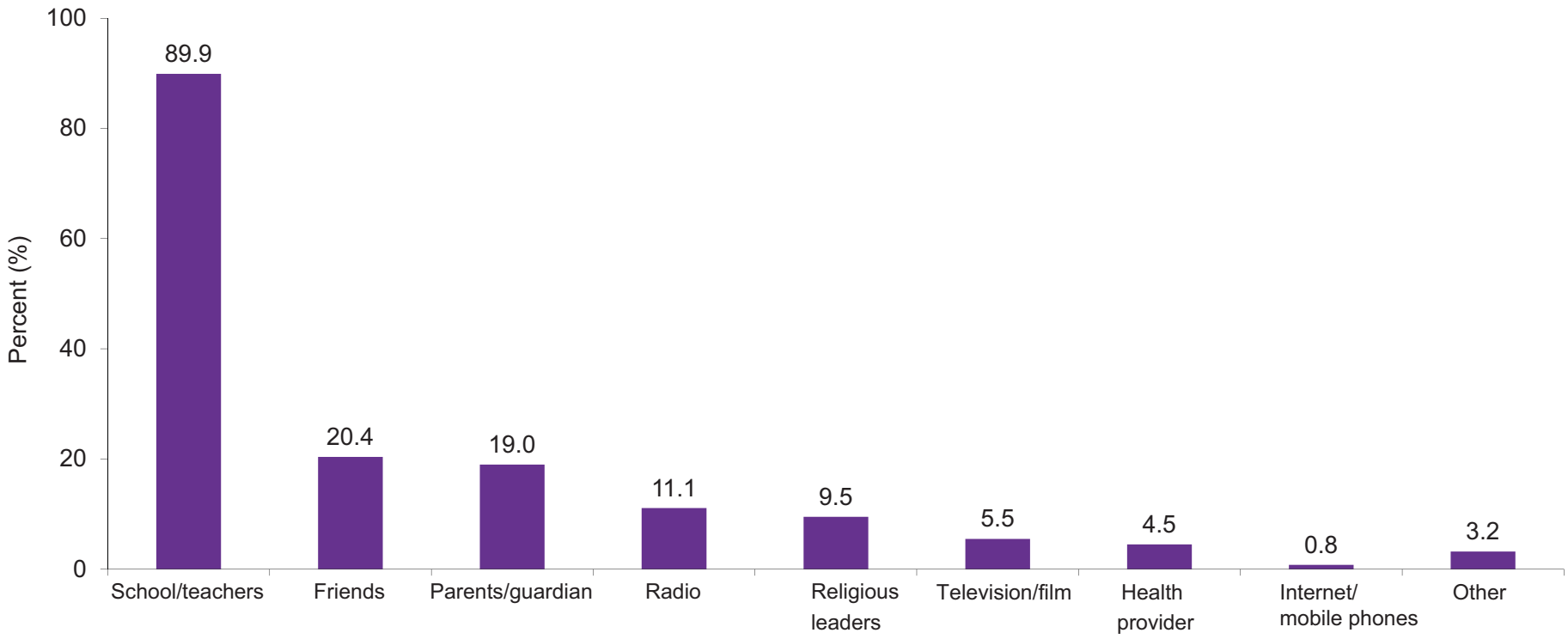
Figure 12.7a: Heard of HIV among children aged 10–14 years, KAIS 2012



The large majority of children aged 10 to 14 years had heard of HIV/AIDS.

Children aged 10 to 14 years were asked if they had heard of an infection called HIV, the virus that causes AIDS. Overall, 89.0% of all children reported they had heard of HIV. Children aged 14 years were significantly more likely to have heard of HIV compared with children aged 10 years (96.6% vs. 76.8% respectively).

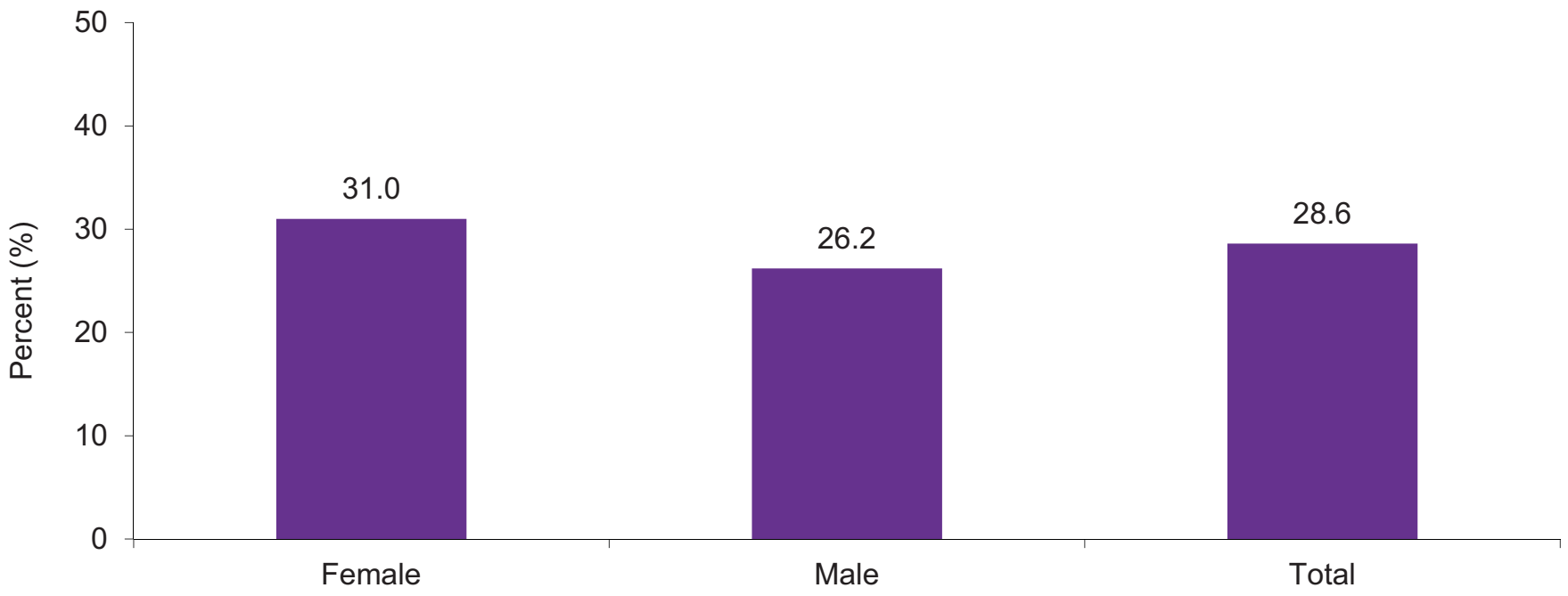
Figure 12.7b: Source of information about HIV or AIDS among children aged 10–14 years who have heard of HIV, KAIS 2012



The source of information about HIV or AIDS among children aged 10 to 14 years was school and their teachers.

When asked where they had learned about HIV or AIDS, 89.9% of children reported that they had learned from school or their teachers. One-fifth reported learning from their friends, while 19.0% of children learned from their parents or guardians. Among mass media outlets, radio was the most common source of information about HIV or AIDS, at 11.5%. Approximately 5.0% of children who had heard of HIV received information about HIV or AIDS from health providers.

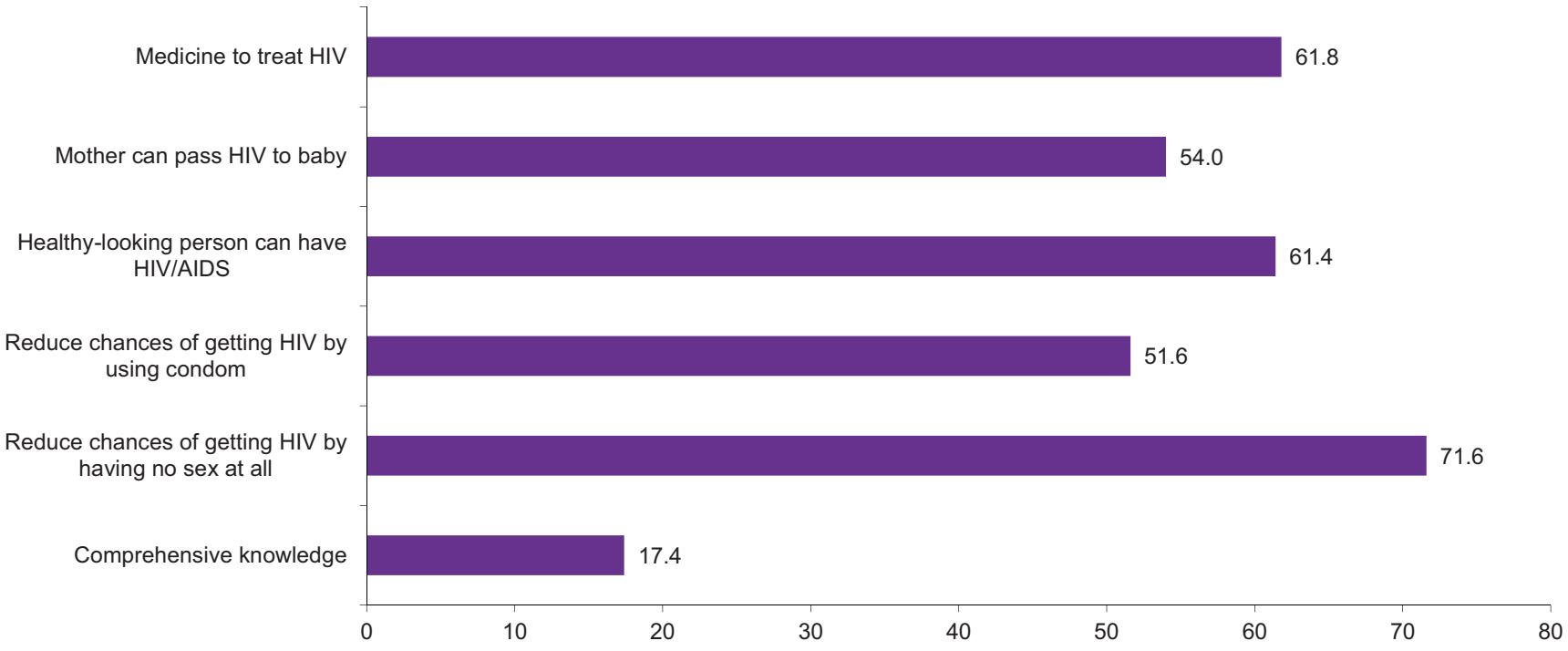
Figure 12.7c: Ever discussed HIV or AIDS with parents among children aged 10–14 years who have heard of HIV, KAIS 2012



Approximately 3 out of 10 children aged 10 to 14 years who have heard of HIV had discussed HIV or AIDS with their parents or guardian.

Among those who ever heard of HIV, 28.6% of children aged 10 to 14 years had ever discussed HIV or AIDS with their parents. There was no significant difference between the proportions of female and male children who had ever discussed HIV or AIDS with their parents.

Figure 12.7d: Correct knowledge about HIV among children aged 10 to 14 years who have heard of HIV, KAIS 2012

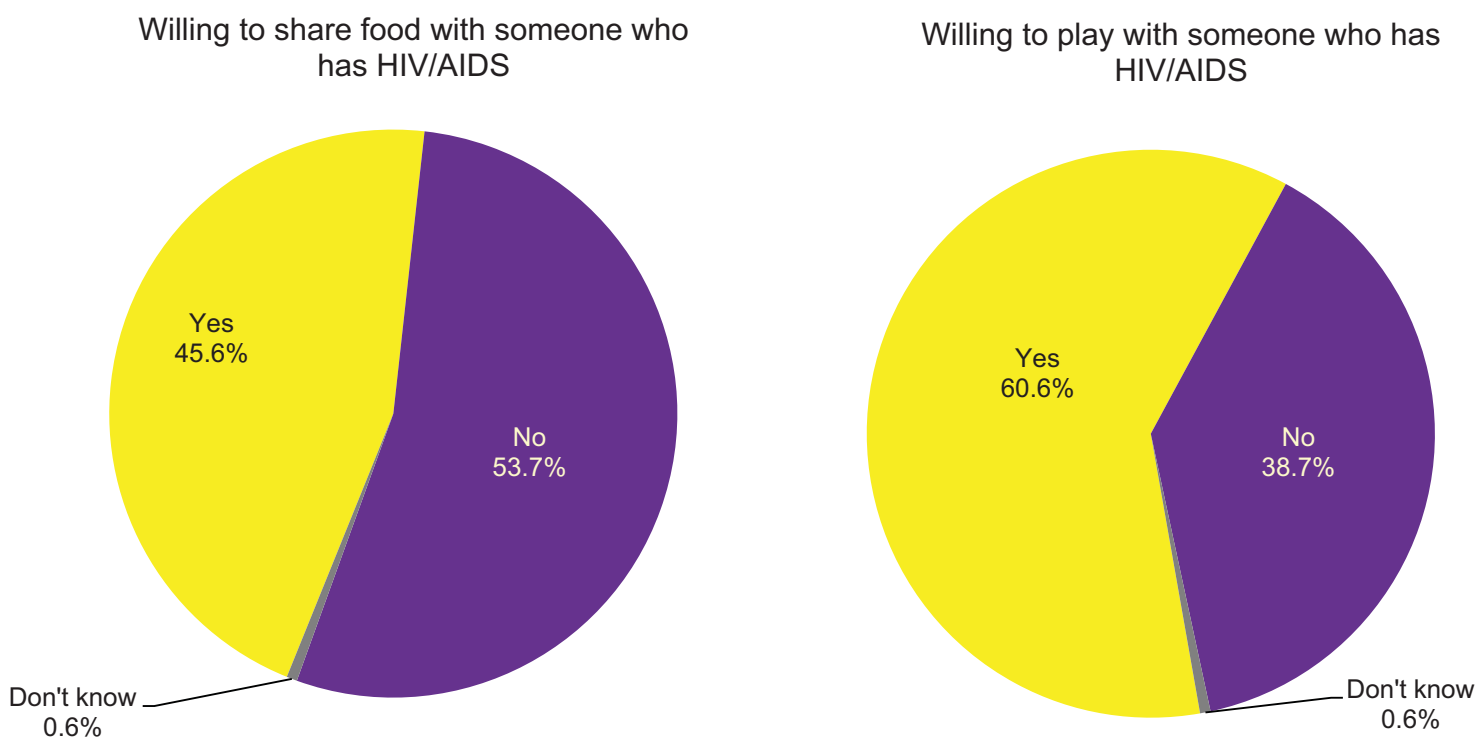


Though more than half of all children aged 10 to 14 years had correct knowledge about some aspects of HIV/AIDS, few had comprehensive knowledge.

Children aged 10 to 14 years were asked a series of five questions to assess their knowledge about HIV prevention and treatment. Seven out of 10 children knew that one could reduce the chance of getting HIV by having no sex at all, while a smaller proportion (51.6%) knew that condoms could reduce the chances of getting HIV. Approximately 61.0% of children reported that a healthy-looking person can have HIV or AIDS.

Children were determined to have comprehensive knowledge about HIV if they were able to answer all five questions correctly. Less than a fifth of all children aged 10 to 14 years had comprehensive knowledge (17.4%).

Figure 12.7e: Accepting attitudes toward persons with HIV among children aged 10–14 years who have heard of HIV, KAIS 2012



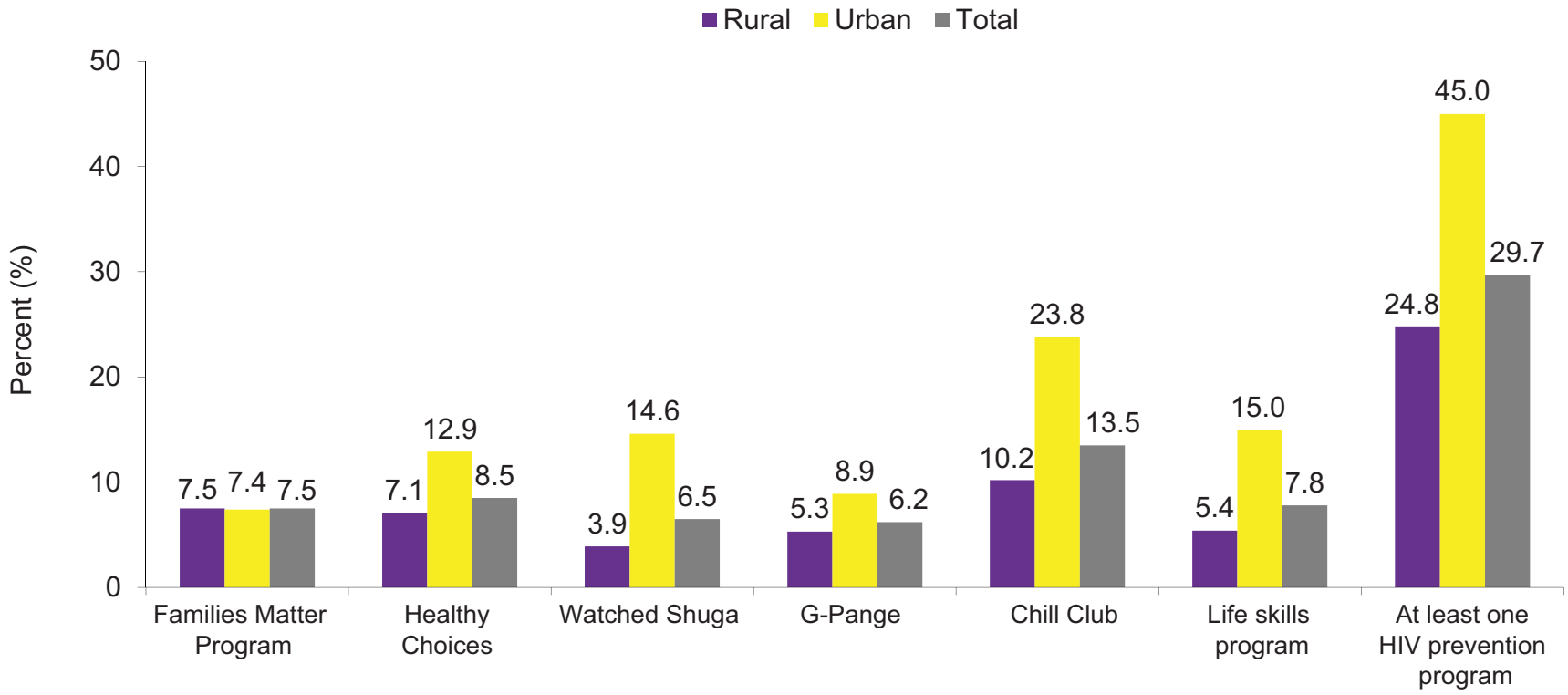
Significantly more children aged 10 to 14 years were willing to play with someone who had HIV/AIDS rather than share their food with someone who has HIV.

To understand children's attitudes toward persons with HIV/AIDS, children aged 10 to 14 years were asked if they were willing to share food with someone who had HIV/AIDS and if they would play with someone who has HIV/AIDS. More than half of children, 53.7%, were not willing to share food with someone who has HIV/AIDS, compared with 38.7% who reported they would not play with someone who has HIV/AIDS.

12.8 Participation in HIV Prevention Programs among Children aged 10 to 14 years

HIV prevention education for children is offered through school-based and supplemental programs. Children learn about HIV prevention in school through life skills programs, while outside of school, programs are available to provide supplemental education on and skills development for adopting behaviours that reduce HIV risk. Children were asked if they had participated in specific HIV prevention programs and in any general life skills programs, either through or outside of school.

Figure 12.8a: Participation in HIV prevention programs among children aged 10–14 years who have heard of HIV by sex, KAIS 2012



Overall, participation in HIV prevention programs among children aged 10 to 14 years tended to be higher in urban areas than rural areas.

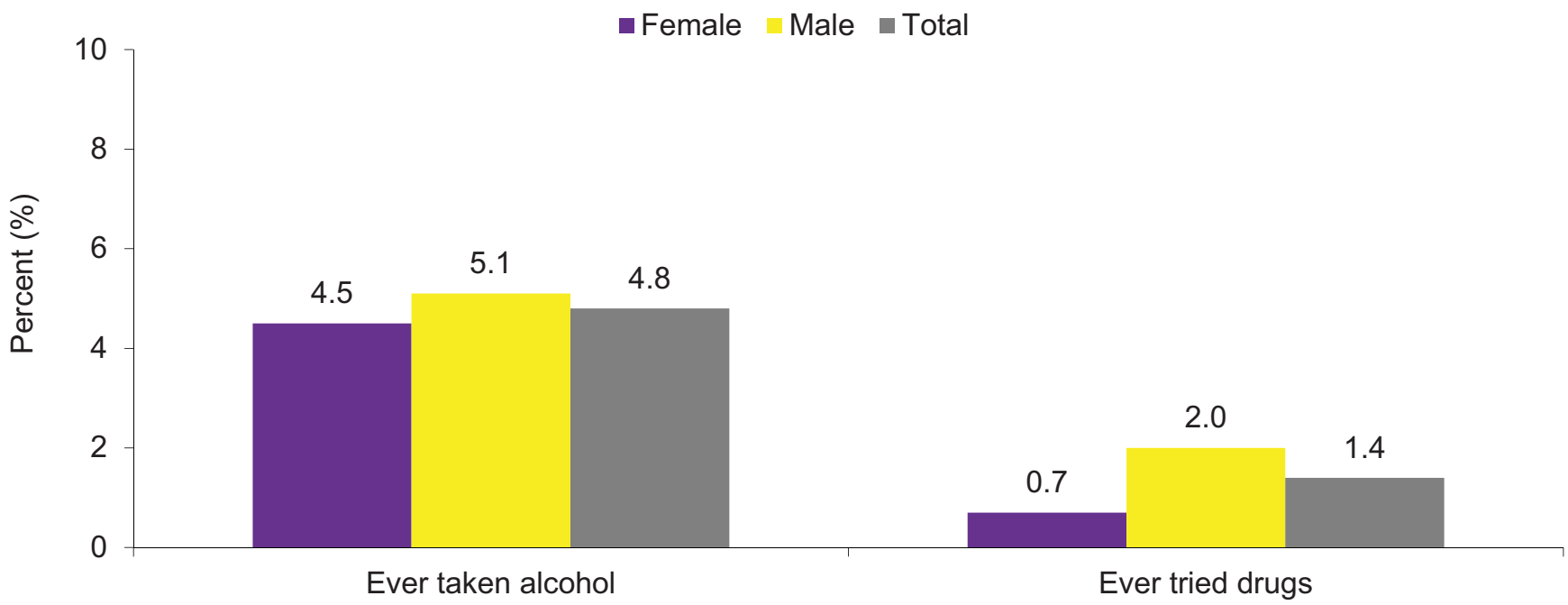
Approximately 30.0% of children aged 10 to 14 years had participated in at least one HIV prevention program, whether inside or outside of school. Chill Club had the highest level of participation, at 13.5%, and this was significantly higher than the participation levels of the other specified HIV prevention programs, which ranged from 6 to 8%. Participation in at least one HIV prevention program was significantly higher among children residing in urban areas than children in rural areas.

Data in Context: HIV prevention programs for adolescents

- **Families Matter Program** is a parent-focused, evidence-informed behavioural intervention for parents, guardians, and other primary caregivers of pre-adolescents aged 9 to 12 years. This program promotes parental monitoring and effective parent-child communication on sexual topics and sexual risk reduction with the goal to reduce sexual risk behaviour among adolescents, including delaying onset of sexual debut.
- **Healthy Choices I** targets in-school youth aged 10 to 14 years. This program aims to delay sexual debut by providing knowledge and skills to negotiate abstinence, avoid negative peer pressure, avoid or handle risky situations, and to improve communication with a trusted adult.
- **Healthy Choices II** targets youth aged 13 to 17 years in out-of-school settings. This program focuses on safer sex, condom use, negotiation, and communication skills.
- **Shuga** is a multi-media behaviour change communication intervention that targets youth aged 15 to 24 years. It addresses such issues as sexual concurrency, correct and consistent condom use, personal risk perception, reduction of stigma, transactional sex, gender-based violence, and parent and child communication.
- **G-PANGE** was developed for and by youth to help them make healthy lifestyle choices and avoid risky behaviours. The program uses a variety of outlets, such as music, entertainment, technology, and sports to engage youth.
- **Chill Club** aims to promote healthy sexual behaviours, such as abstinence and delaying sexual debut, among children aged 10 to 14 years through interpersonal communication and mass media. Chill Club facilitators are persons aged 18 to 25 years with a college or university degree who are trained to deliver the standardized life skills curriculum and to facilitate discussion among the adolescents.

12.9 Alcohol and Drug Use Among Children Aged 10 to 14 Years

Figure 12.9a: Ever taken alcohol or ever used drugs among children aged 10–14 years by sex, KAIS 2012

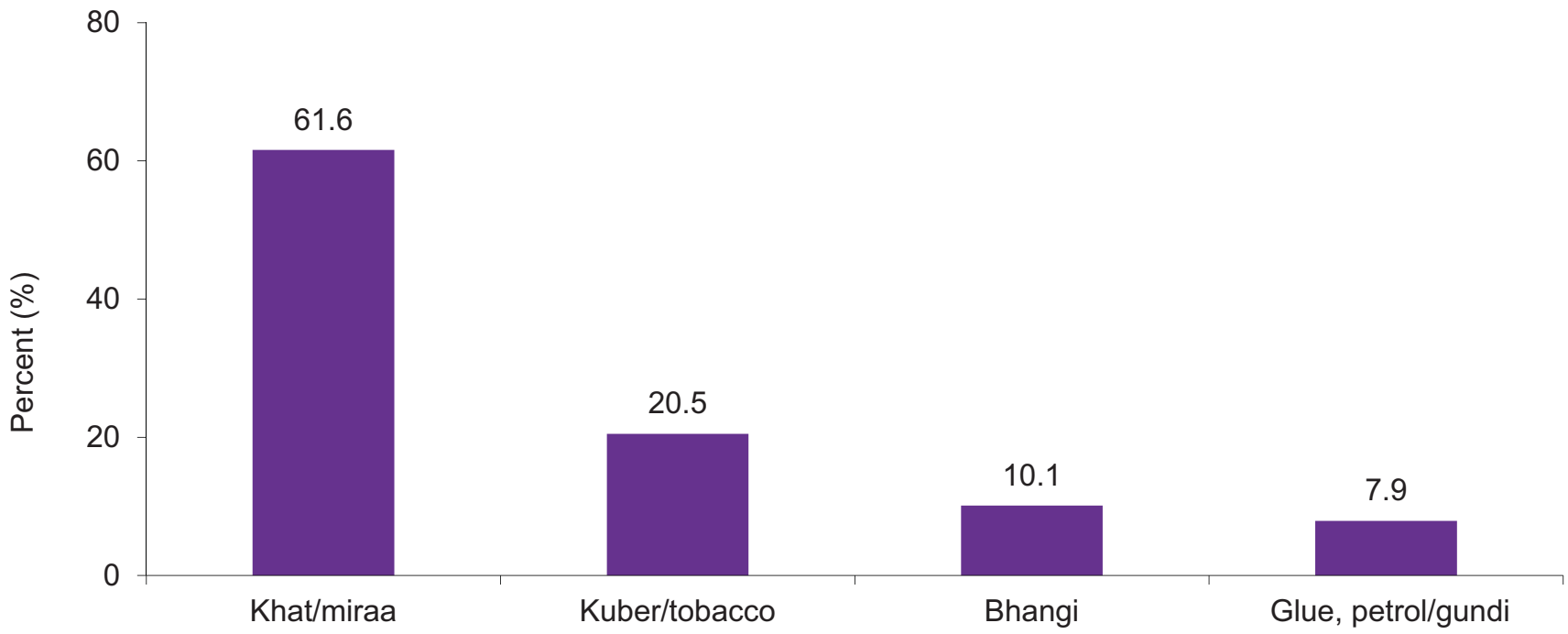


Few children aged 10 to 14 years have ever taken alcohol or ever tried drugs.

Among children aged 10 to 14 years, 4.8% said they had ever taken alcohol, while 1.4% reported having ever tried drugs. There was no significant difference between the proportion of females compared with males who had ever taken alcohol or tried drugs.

Of the children who reported having tried drugs, the majority, 85.8%, had only tried one type of drug, while 14.2% had tried two or more drugs.

Figure 12.9b: Types of drugs* used among children aged 10–14 years who have ever used drugs, KAIS 2012



*Categories with no observations have not been shown.

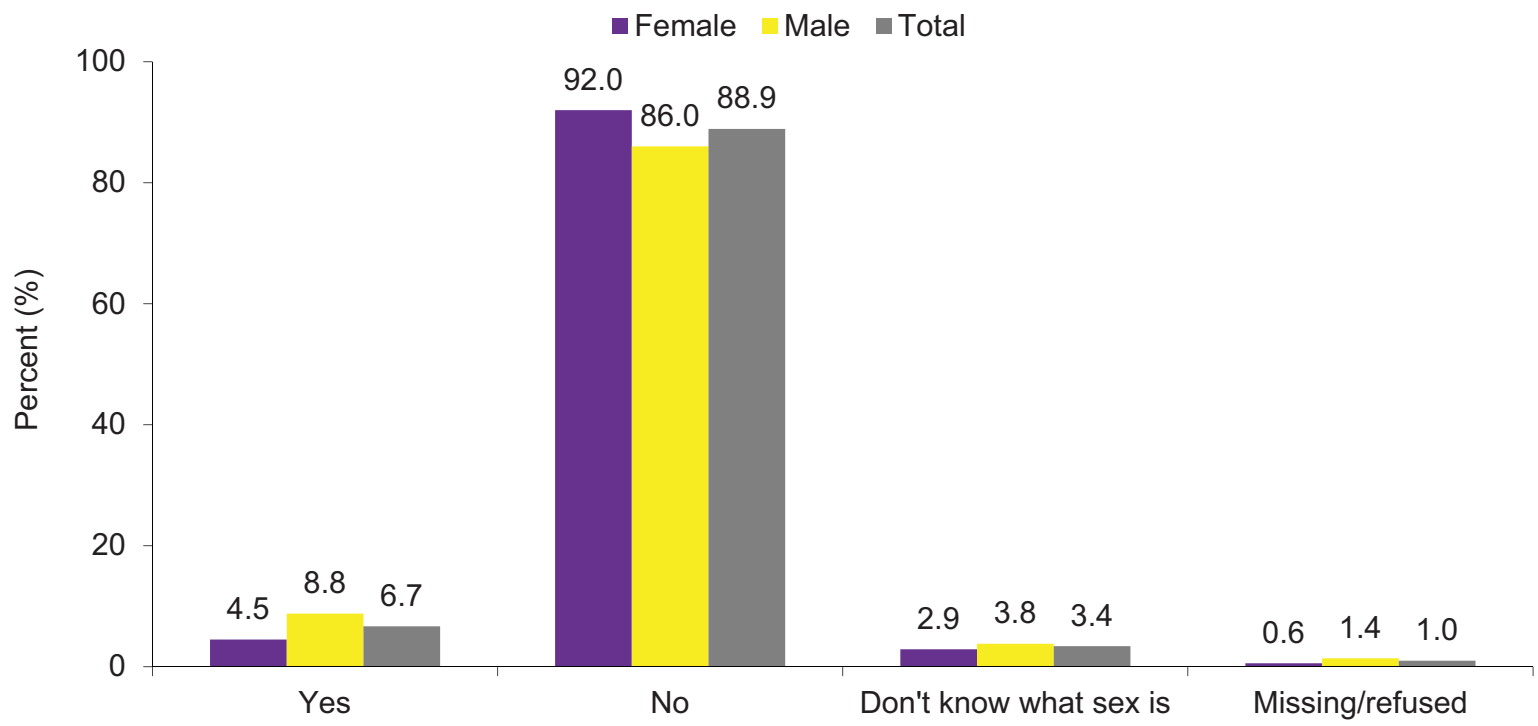
The most common type of drug that children aged 10 to 14 years have tried is khat, or miraa.

The children aged 10 to 14 years who had tried drugs were asked what types of drugs that they had tried. The types of drugs asked about included khat, glue, heroin, cocaine, bhangi (marijuana), and tobacco. Approximately 62.0% of these children had tried khat, or miraa, while the second most common drug tried was kuber, or tobacco, at 20.5%.

12.10 Sexual Behaviours Among Children Aged 12 to 14 Years

KAIS 2012 asked children aged 12 to 14 years about their sexual history and sexual behaviours, such as age of sexual debut, condom use, number of sexual partners, and abstinence intentions.

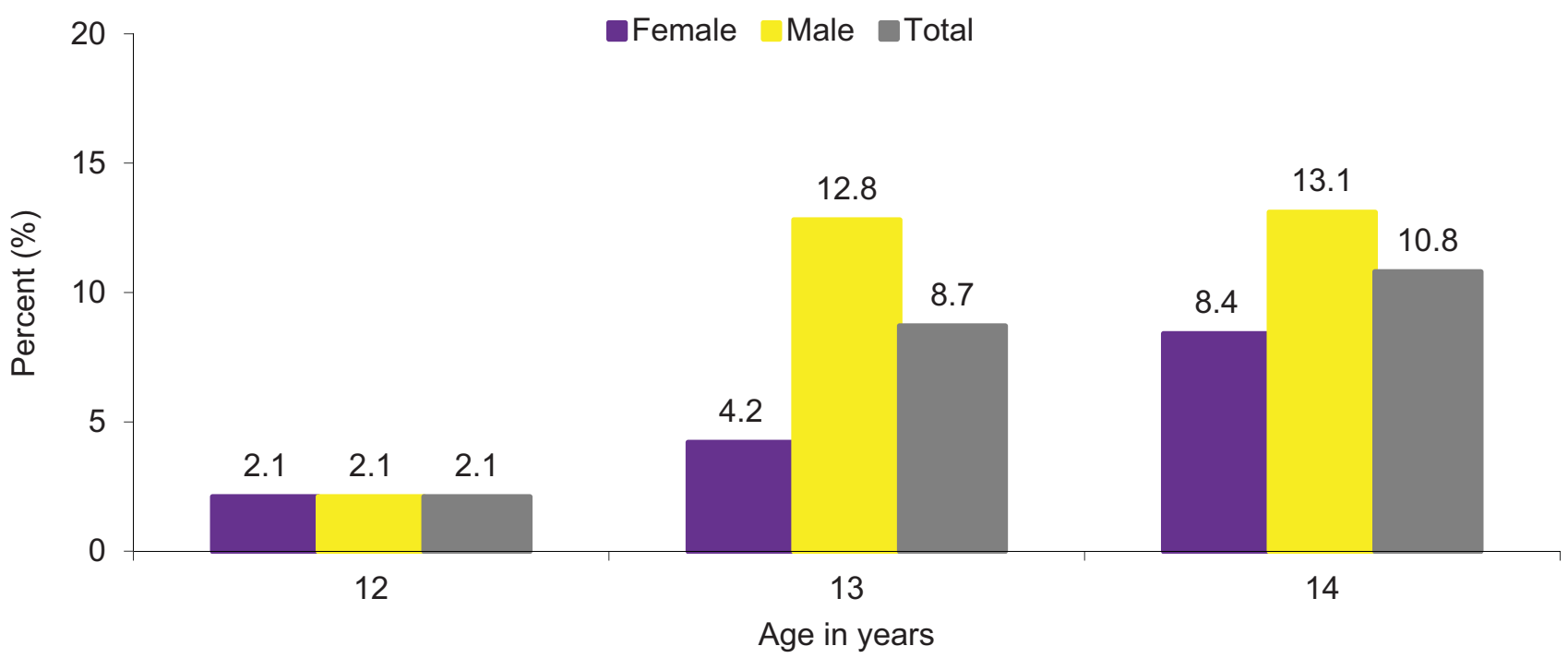
Figure 12.10a: Ever had sex among children aged 12–14 years by sex, KAIS 2012



Approximately nine out of ten children aged 12 to 14 years reported they have never had sex.

Among children aged 12 to 14 years, 6.7% reported that they have ever had sex, while 88.9% said they have never had sex. Approximately 3.0% reported not knowing what sex is. There was no significant difference in the proportion of females and males who reported ever having sex.

Figure 12.10b: Ever had sex among children aged 12–14 years by age, KAIS 2012

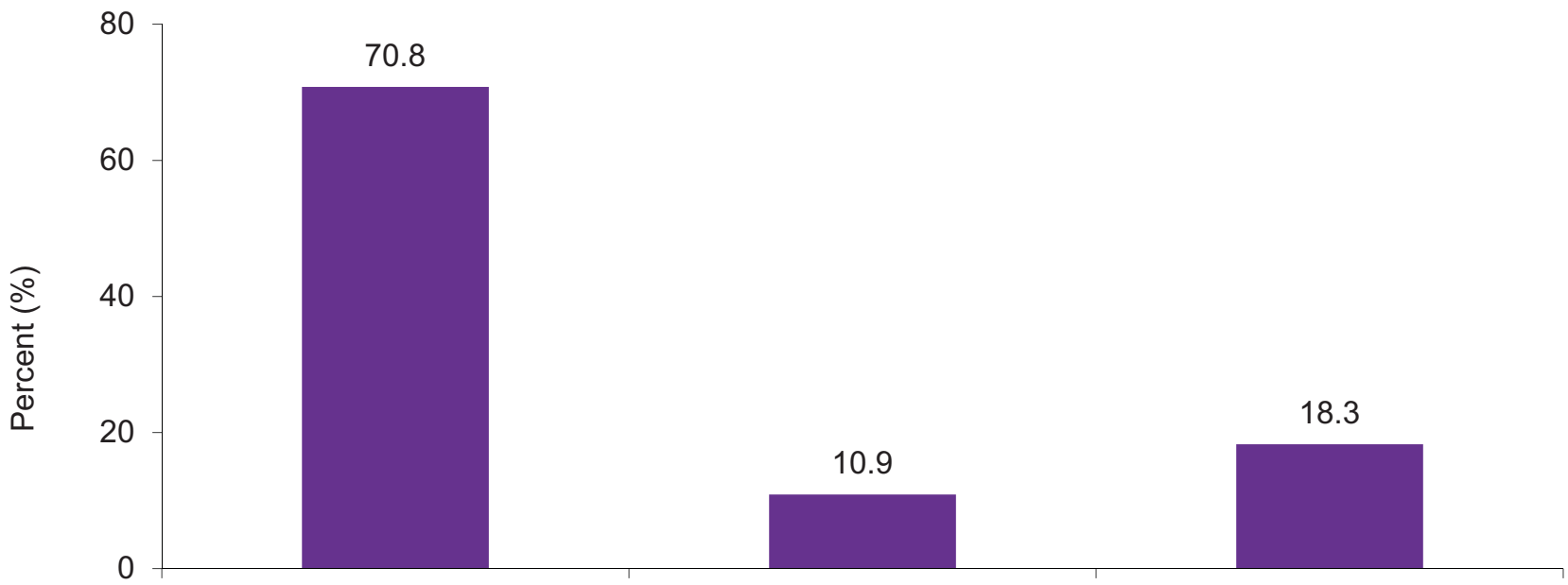


Children who were aged 14 years were five times more likely to have had sex compared with children who were aged 12 years.

Of children aged 14 years, 10.8% had ever had sex, and this was significantly higher than the 2.1% of children aged 12 years who had ever had sex. The proportion of children aged 13 years who ever had sex (8.7%) was also significantly higher than that of children aged 12 years, but was not significantly different from that of children aged 14 years. There was no significant difference between the proportion of females and males who have ever had sex for each age.

If children reported that they had ever had sex, they were asked how old they were when they had sexual intercourse for the very first time. Among children aged 12 to 14 years who had ever had sex, the median age at first sex was 10.7 years (IQR 9.1-12.2).

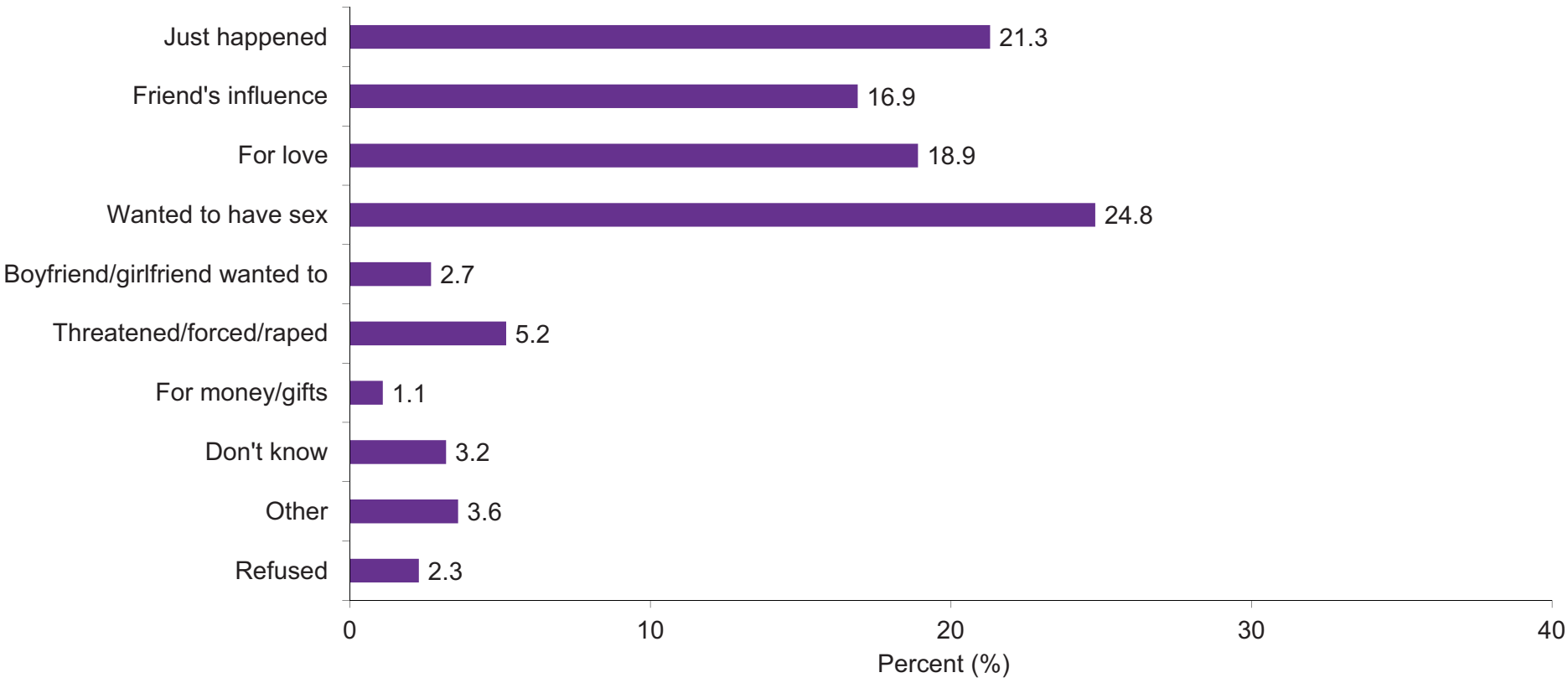
Figure 12.10c: Number of lifetime sex partners among children aged 12–14 years who have had sex, KAIS 2012



The majority of children aged 12 to 14 years who have ever had sex have only had one sex partner.

Among the children aged 12 to 14 years who reported ever having sex, 70.8% reported having had only one sex partner, 10.9% had two sex partners, and 18.3% had three or more sex partners.

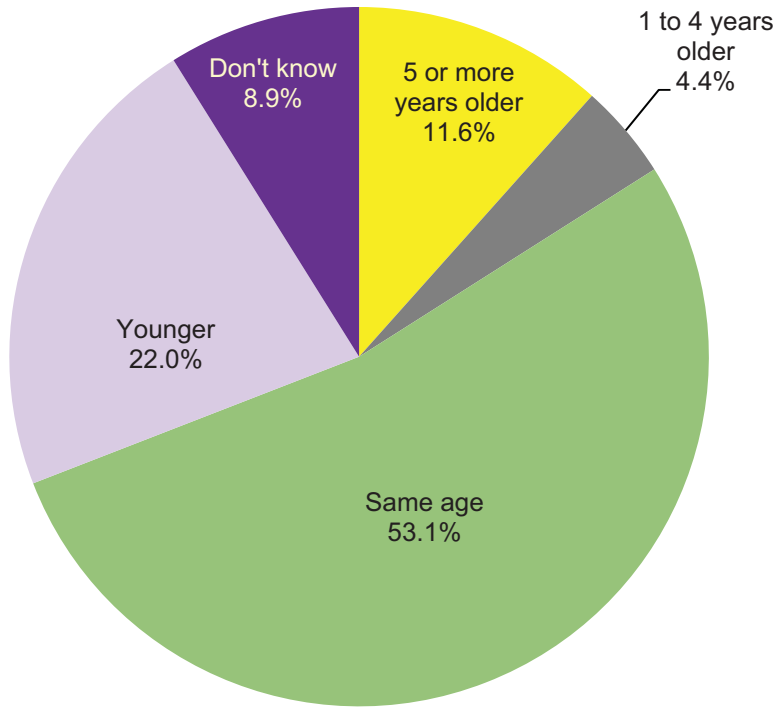
Figure 12.10d: Main reason for having sex the first time among children aged 12–14 years who have had sex, KAIS 2012



The most common reason provided for having sex for the first time among children aged 12 to 14 years who had sex was because they wanted to have sex.

Children aged 12 to 14 years who had had sex were asked to provide the main reason why they had sex for the first time. The most common responses provided were that they wanted to have sex (24.8%); it just happened (21.3%); they had sex for love (18.9%); and they had sex because of a friend's influence (16.9%). Approximately 5.0% reported they had sex for the first time because they were threatened, forced, or raped.

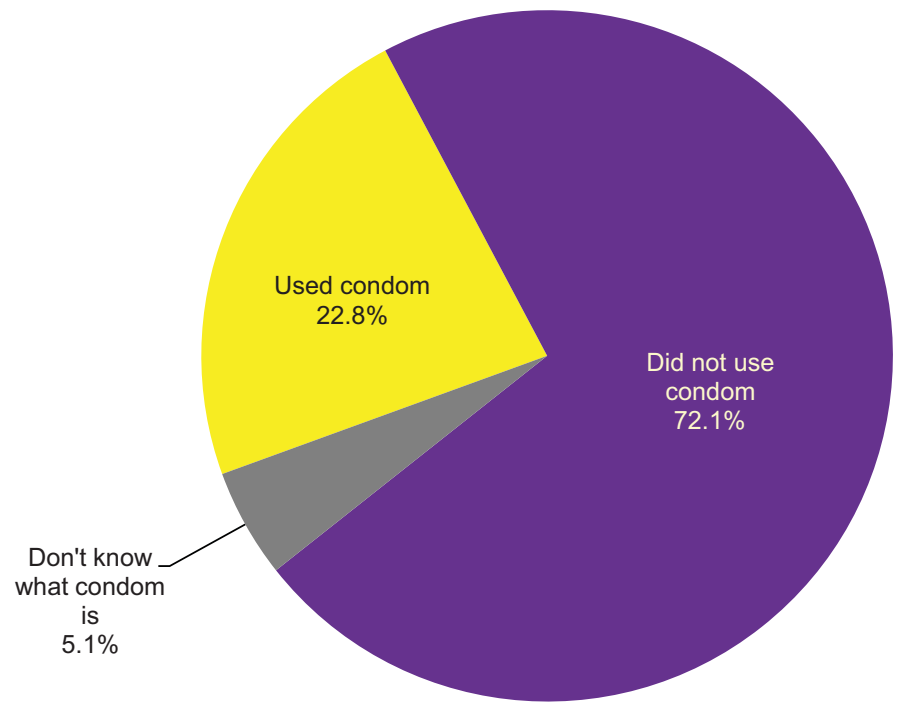
Figure 12.10e: Relative age of partner at first sex among children aged 12–14 years who have had sex, KAIS 2012



Of the children aged 12 to 14 years who ever had sex, more than half had sex the first time with a partner who was of the same age.

Children aged 12 to 14 years who reported ever having sex were asked about the relative age of their sex partner the first time they had sex. Of these children, 16.0% had a partner who was older, while 22.0% had a younger sex partner the first time they had sex. Approximately 9.0% did not know the age of their first sex partner. There was no significant difference between females and males with regard to the relative age of their partner at first sex; however, this is likely due to the small number of children aged 12 to 14 years who reported ever having sex.

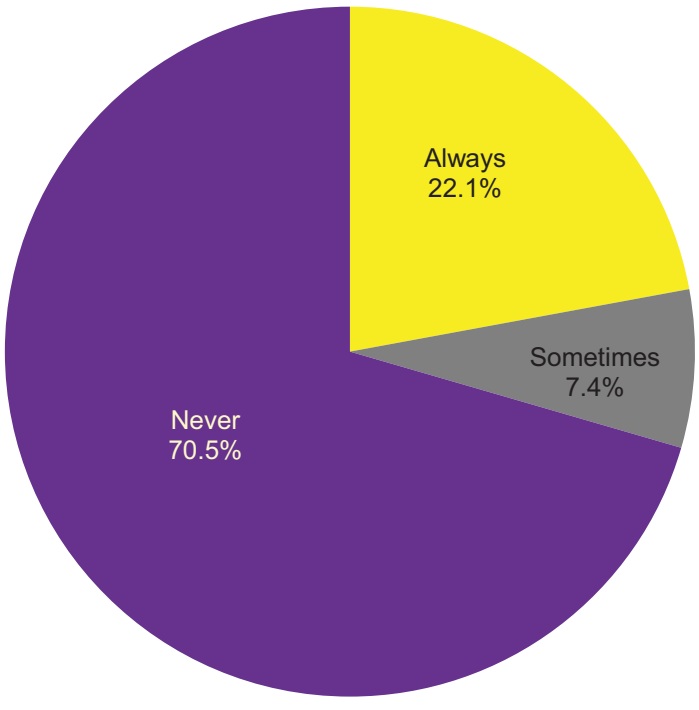
Figure 12.10f: Condom use at first sex among children aged 12–14 years who ever had sex, KAIS 2012



The majority of children aged 12 to 14 years who have ever had sex did not use a condom the first time they had sex.

Children aged 12 to 14 years who reported ever having sex were asked if they used a condom the first time they had sex. Among these children, 22.8% reported using a condom the first time they had sex, while 5.1% did not know what a condom was. There was no significant difference in the proportion of females and males who used a condom at first sex.

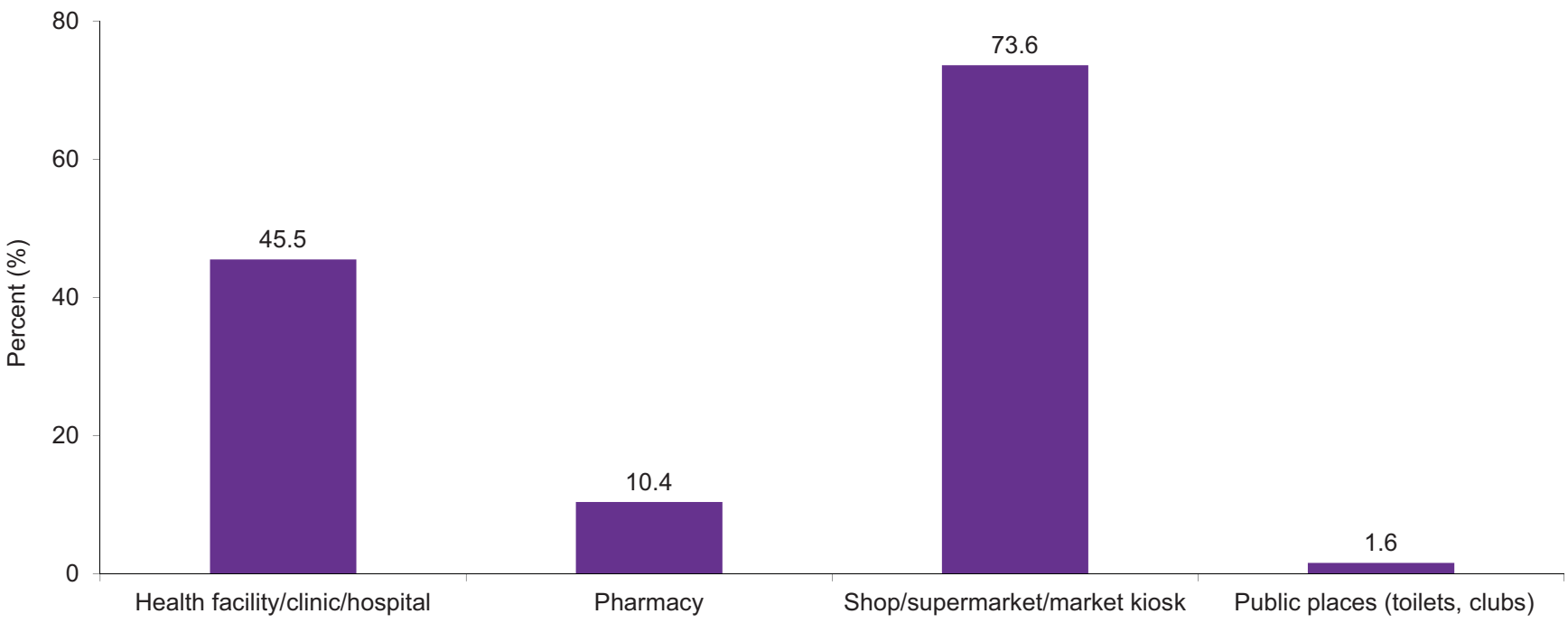
Figure 12.10g: Frequency of condom use among children aged 12–14 years who have had sex, KAIS 2012



Seven out of 10 children aged 12 to 14 years who ever had sex had never used condoms.

Children aged 12 to 14 years who ever had sex were asked how often they used a condom when they had sex. Slightly more than a fifth, or 22.1%, reported they used condoms every time they had sex, while 7.4% said they used condoms sometimes.

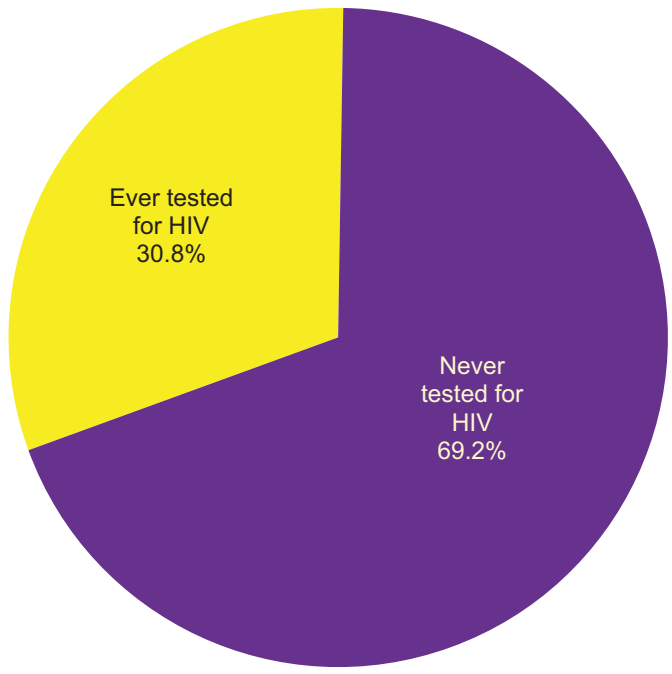
Figure 12.10h: Knowledge of where to get condoms among children aged 12–14 years who have had sex, KAIS 2012



Almost three-fourths of children aged 12 to 14 years who ever had sex knew they could get condoms from a shop, supermarket, or market kiosk.

Children aged 12 to 14 years who reported ever having sex were asked if they knew where to get condoms and to specify all the places they knew. Overall, 72.2% of children aged 12 to 14 years who ever had sex reported knowing where they could get condoms. Of these children, 73.6% knew they could get condoms from shops, supermarkets, or market kiosks. Health facilities, clinics, and hospitals were the second most common response provided, at 45.5%.

Figure 12.10i: Ever tested for HIV among children aged 12–14 years who have had sex, KAIS 2012



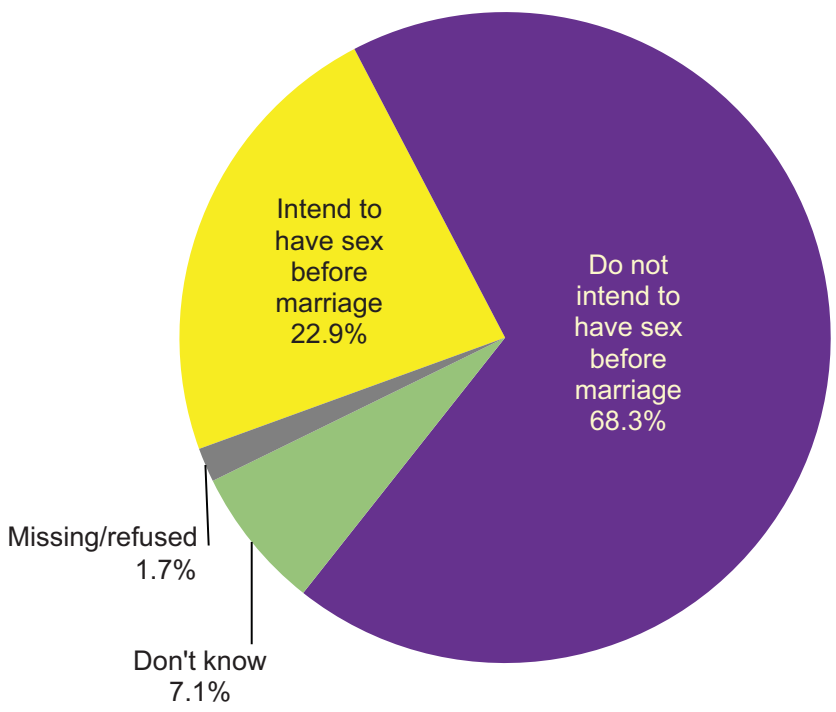
The majority of children aged 12 to 14 years who had ever had sex had never tested for HIV.

Among children aged 12 to 14 years who reported ever having sex, 30.8% said they had been tested for HIV, while 69.2% had never been tested. There was no significant difference between females and males for ever having been tested.

12.11 Sexual Norms

In Kenya, there have been several campaigns to delay teen sexual debut by changing social norms and reducing peer pressure; creating stigma regarding irresponsible, early sex among youth; and introducing behavioural intentions to remain abstinent and viewing abstinence as a smart and responsible choice. The following section aims to describe perceptions that influence abstinence in children aged 12 to 14 years

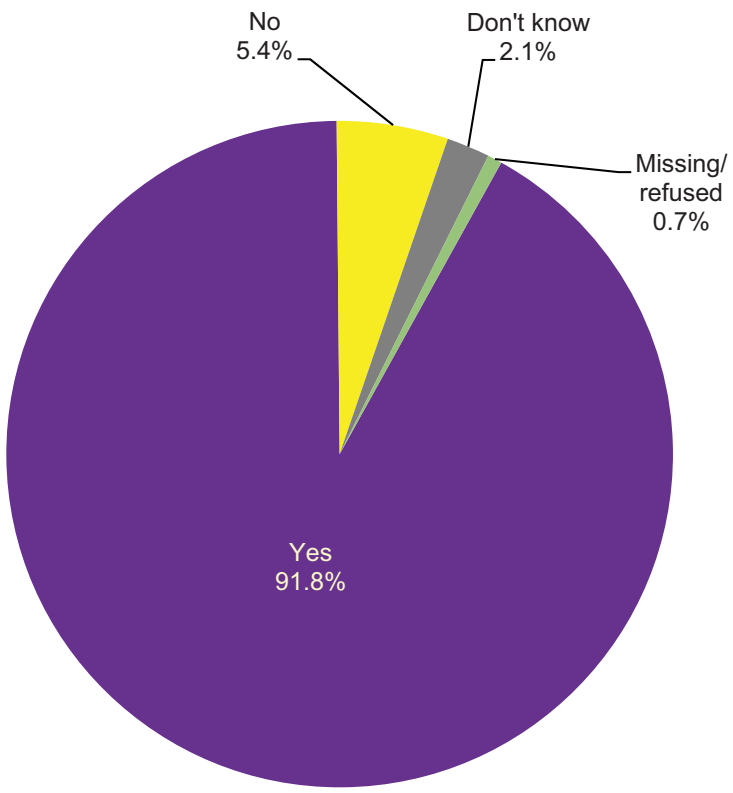
Figure 12.11a: Intention to have sex before marriage among children aged 12–14 years who have never had sex, KAIS 2012



More than two-thirds of children aged 12 to 14 years who never have sex intend to wait until marriage to have sex for the first time.

Children aged 12 to 14 years who reported never having had sex were asked if they will have sex before they get married. Among these children, 22.9% reported they will have sex before marriage, while 68.3% said they will not have sex before marriage. Approximately 7.0% did not know whether or not they will have sex before marriage.

Figure 12.11b: Ability to refuse sex if not wanted among children aged 12–14 years who have never had sex, KAIS 2012



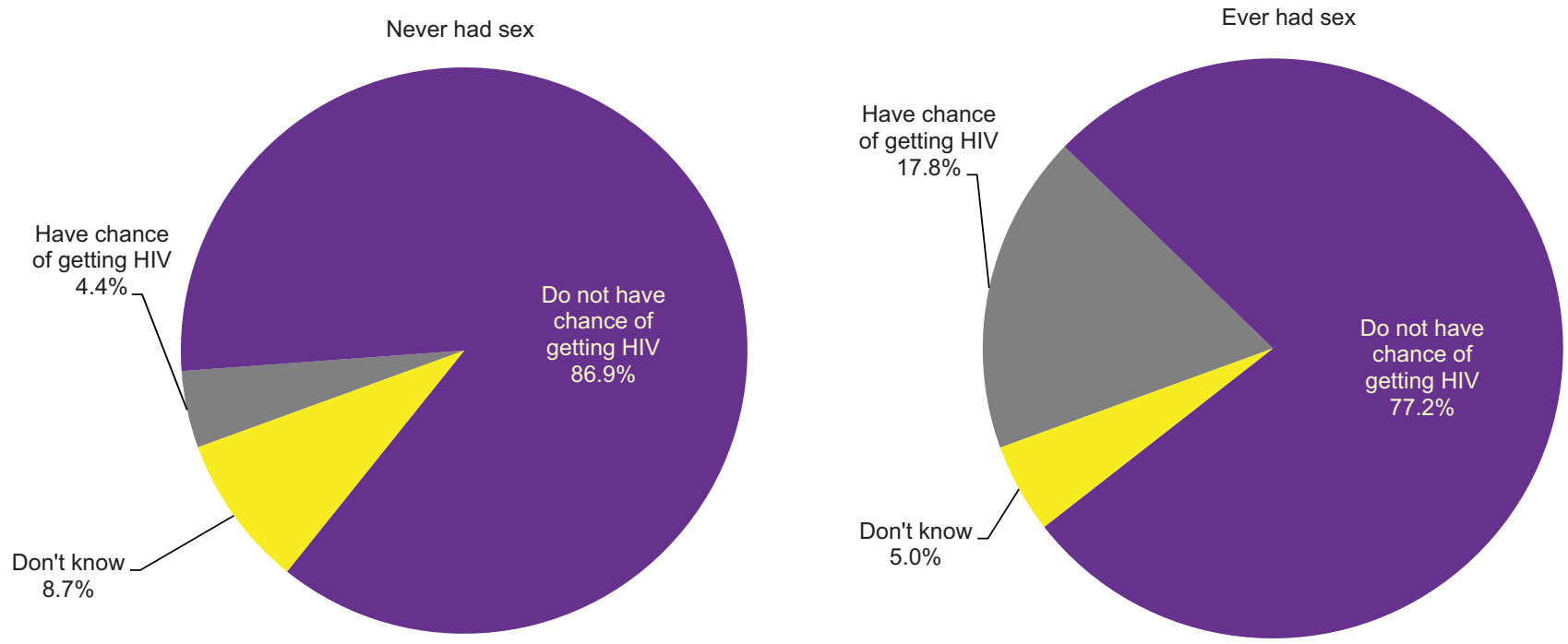
Nine out of ten children aged 12 to 14 years who had never had sex thought they would be able to tell someone they did not want to have sex.

Children aged 12 to 14 years who never had sex were asked if they thought they could tell someone they did not want to have sex with them. The vast majority of children, 91.8%, stated they would be able to say no to unwanted sex. Approximately 5.0% reported that they would not be able to say no to unwanted sex, and 2.1% said they did not know. There was no significant difference between the proportions of females and males for each of these categories.

12.12 HIV Risk Perception Among Children Aged 12 to 14 Years

Individuals' risk perception of HIV and accurate assessment of risk are important factors in adoption of safer sexual practices. In order to ascertain their perception of their HIV risk, children aged 12 to 14 years were asked if, at the time of the survey, they thought they had a chance of getting HIV.

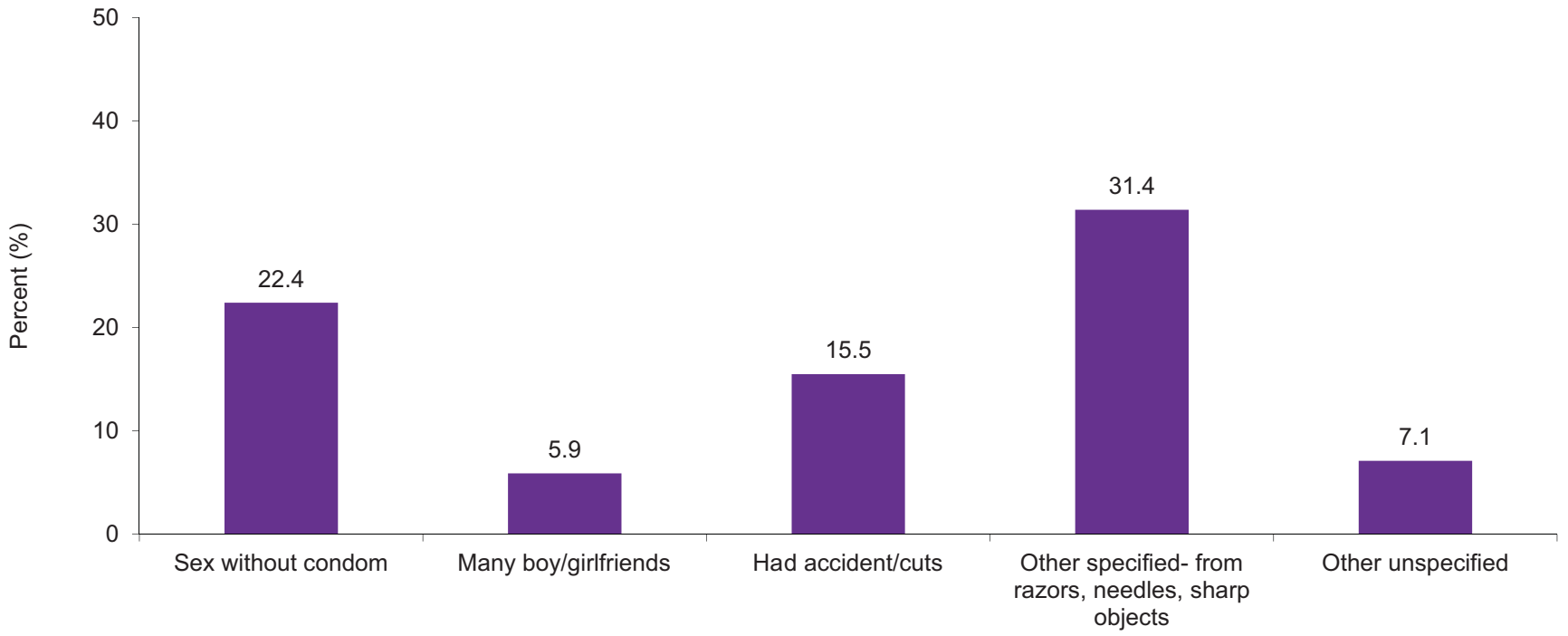
Figure 12.12a: Perception of getting HIV among children aged 12–14 years, KAIS 2012



The majority of children aged 12 to 14 years, regardless of whether they have ever had sex, did not believe they have a chance of getting HIV.

Of children aged 12 to 14 years who had ever had sex, 17.8% thought they had a chance of getting HIV. This was significantly different from children aged 12 to 14 years who had never had sex, where 4.4% thought they had a chance of getting HIV. Approximately 87% of children aged 12 to 14 years who had never had sex and 77.2% of children aged 12 to 14 years who had ever had sex believed they did not have a chance of getting HIV.

Figure 12.12b: Reasons for having a chance of getting HIV among children aged 12–14 years, KAIS 2012



Among children aged 12 to 14 years, contact with razors, needles, and other sharp objects was reported as the most common reason for thinking they have a chance of getting HIV.

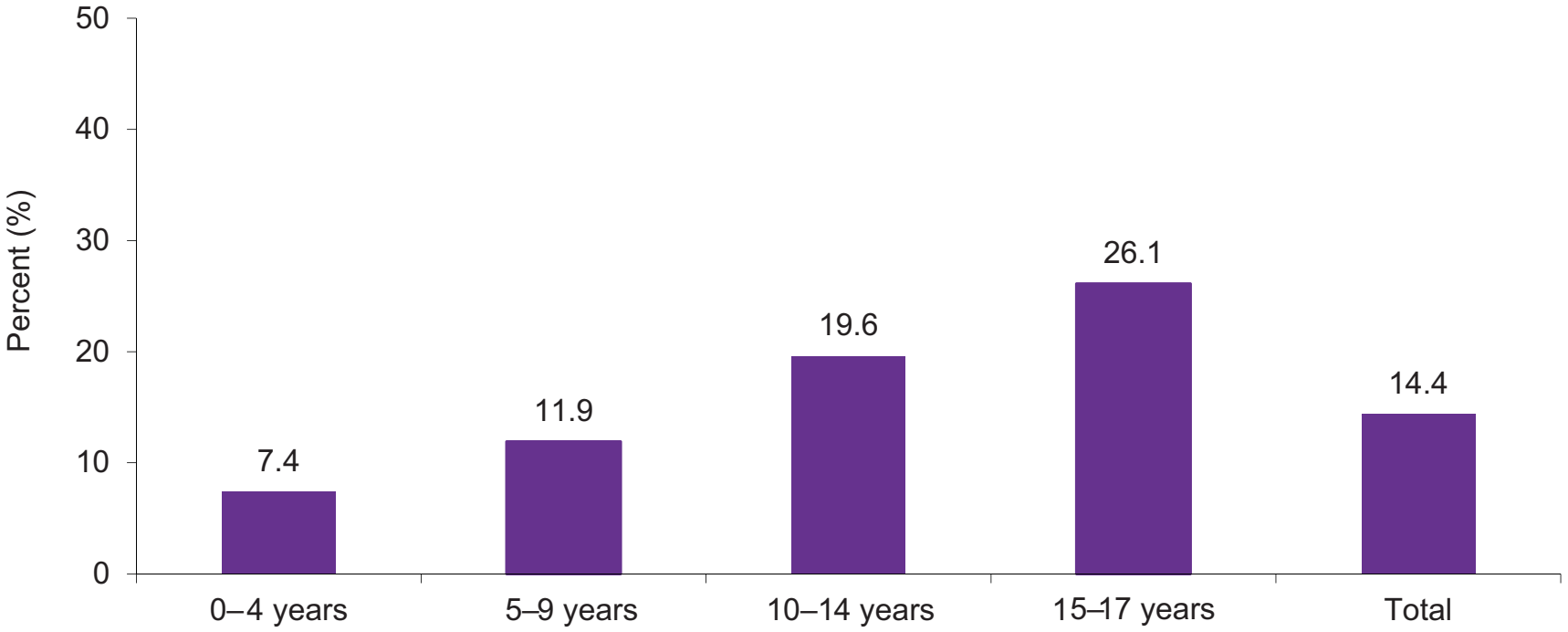
Those children who thought they had a chance of getting HIV were asked to provide all the reasons why they thought they were at risk for getting HIV. Almost a third of these children reported it was

because they had been in contact with or had shared razors, needles, or other sharp objects (31.4%), and 15.5% stated it was due to having accidents or cuts. Having sex without a condom was reported by 22.4% of children who thought they were at risk for HIV, while 5.9% said it was because they had many boyfriends or girlfriends.

12.13 Orphans and Vulnerable Children

In KAIS 2012, an orphan was defined as a child less than 18 years of age whose mother, father, or both had died. Children who had lost one parent were classified as single orphans, while double orphans were those who had lost both parents. A vulnerable child was defined as a child less than 18 years of age whose mother, father, and/or a household member residing in the same household had been very sick for at least three of the past 12 months preceding the survey.

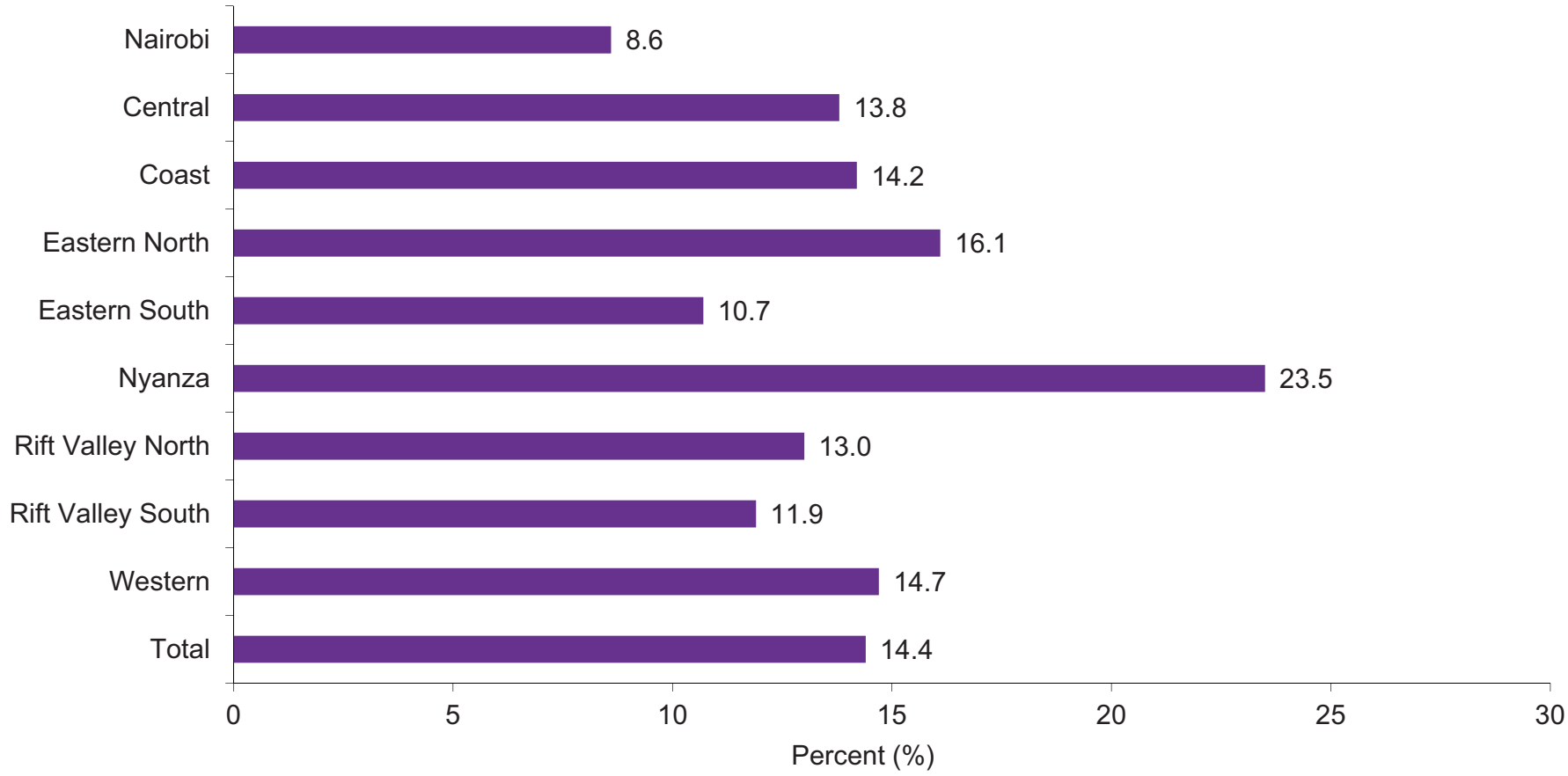
Figure 12.13a: Proportion of OVC among all children aged 0–17 years by age group, KAIS 2012



Among all children aged 0 to 17 years, 14.4% were orphans or vulnerable children.

The proportion of OVC was highest among the 15 to 17 years age group, at 26.1%. The age group with the lowest proportion of OVC was 0 to 4 years. There were no differences in the proportion of OVC among the age groups by sex.

Figure 12.13b: Proportion of OVC among all children aged 0–17 years by region, KAIS 2012

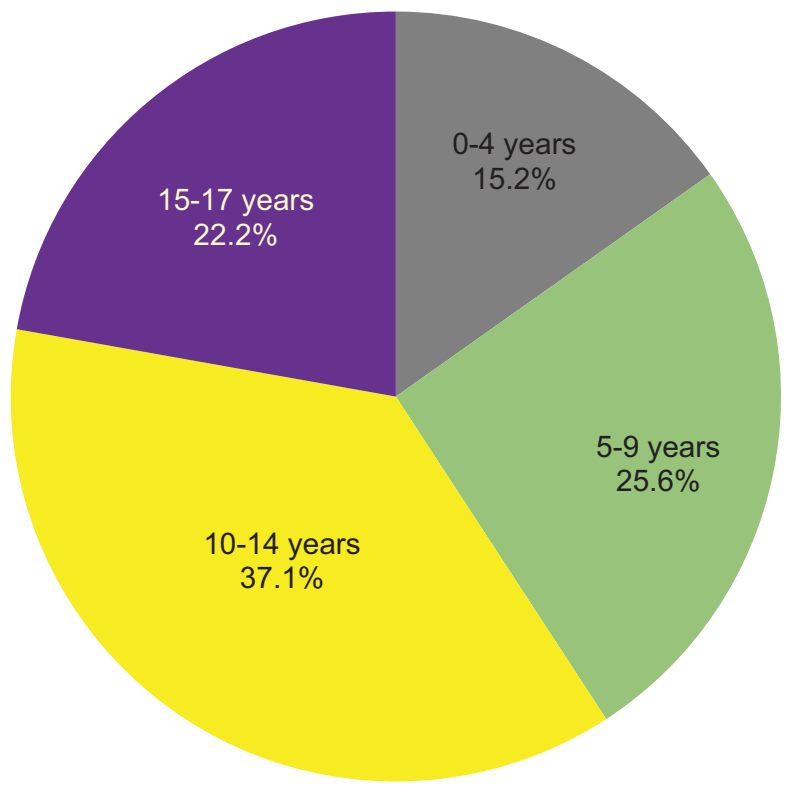


*North Eastern region not surveyed in KAIS 2012

About a quarter of all children less than 18 years in the Nyanza region were orphaned or vulnerable.

The regions with the highest proportion of OVC relative to the region's total population of children less than 18 years were Nyanza (23.5%), Eastern North (16.1%), and Western (14.7%).

Figure 12.13c: Distribution of OVC aged 0–17 years by age group, KAIS 2012



The majority of OVC were between 10 and 14 years of age.

Among all OVC less than 18 years, OVC of adolescent age (10 to 17 years) comprised 59.2%.

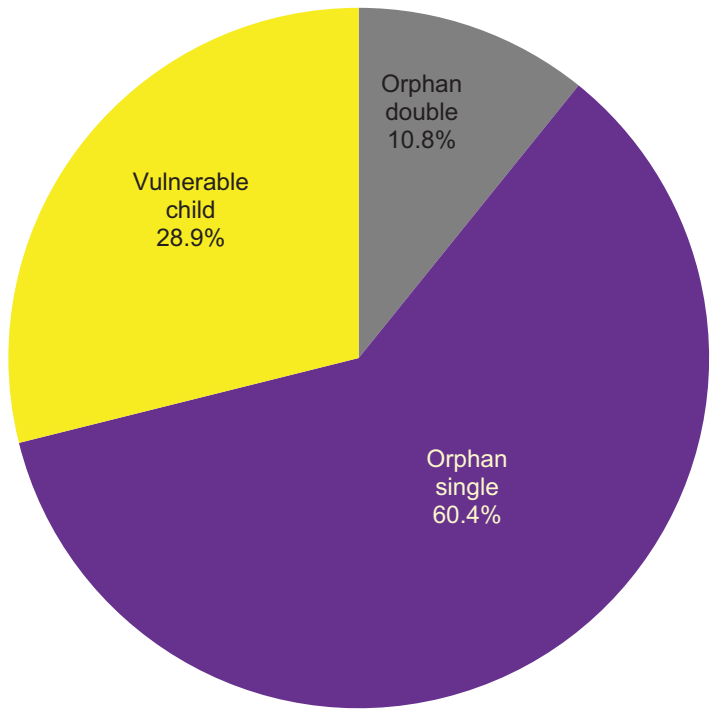
The table below presents the estimated population sizes of OVC overall, orphans, and vulnerable children for those less than 18 years of age by age group and region. The lower and upper bounds represent the plausible range of the size of the total population.

Table 12.13d: Population size estimates of OVC groups aged 0–17 years by age group and region, KAIS 2012 [1,2]

	OVC			Orphan (any)			Vulnerable Child		
	Weighted %	2012 estimated population (children aged 0 to 17 years)	95 % CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95 % CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95 % CI
Total	100	2,597,000	(2,310,000 2,883,000)	100	1,847,000	(1,620,000, 2,075,000)	100	749,000	(616,000, 883,000)
0-4	15.2	394,000	(327,000, 462,000)	10.2	189,000	(143,000, 234,000)	27.4	205,000	(155,000, 256,000)
5-9	25.6	664,000	(564,000, 763,000)	24.3	449,000	(364,000, 533,000)	28.7	215,000	(169,000, 261,000)
10-14	37.1	962,000	(850,000, 1,075,000)	40.6	750,000	(659,000, 841,000)	28.4	212,000	(166,000, 259,000)
15-17	22.2	577,000	(505,000, 649,000)	24.9	460,000	(395,000, 525,000)	15.6	117,000	(87,000, 146,000)
Nairobi	3.8	99,000	(66,000, 132,000)	4.4	82,000	(51,000, 112,000)	2.3	17,000	(7,000, 27,000)
Central	8.8	229,000	(162,000, 297,000)	7.4	137,000	(89,000, 185,000)	12.3	92,000	(49,000, 135,000)
Coast	8.4	219,000	(147,000, 292,000)	7.1	132,000	(86,000, 177,000)	11.7	88,000	(43,000, 133,000)
Eastern North	1.5	40,000	(25,000, 54,000)	1.9	34,000	(20,000, 48,000)	0.7	5,000	(3,000, 8,000)
Eastern South	10.3	268,000	(193,000, 344,000)	10.3	190,000	(147,000, 233,000)	10.5	78,000	(28,000, 128,000)
Nyanza	27.4	713,000	(548,000, 878,000)	30.2	558,000	(414,000, 702,000)	20.6	155,000	(103,000, 207,000)
Rift Valley North	12.5	324,000	(218,000, 431,000)	11.2	208,000	(135,000, 280,000)	15.5	116,000	(55,000, 178,000)
Rift Valley South	13.5	350,000	(231,000, 468,000)	14.4	266,000	(149,000, 383,000)	11.2	84,000	(49,000, 119,000)
Western	13.6	354,000	(242,000, 467,000)	13.0	241,000	(173,000, 308,000)	15.1	113,000	(54,000, 173,000)

[1] The 2012 national estimated population for adults and adolescents aged 15-64 years was calculated using un-normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

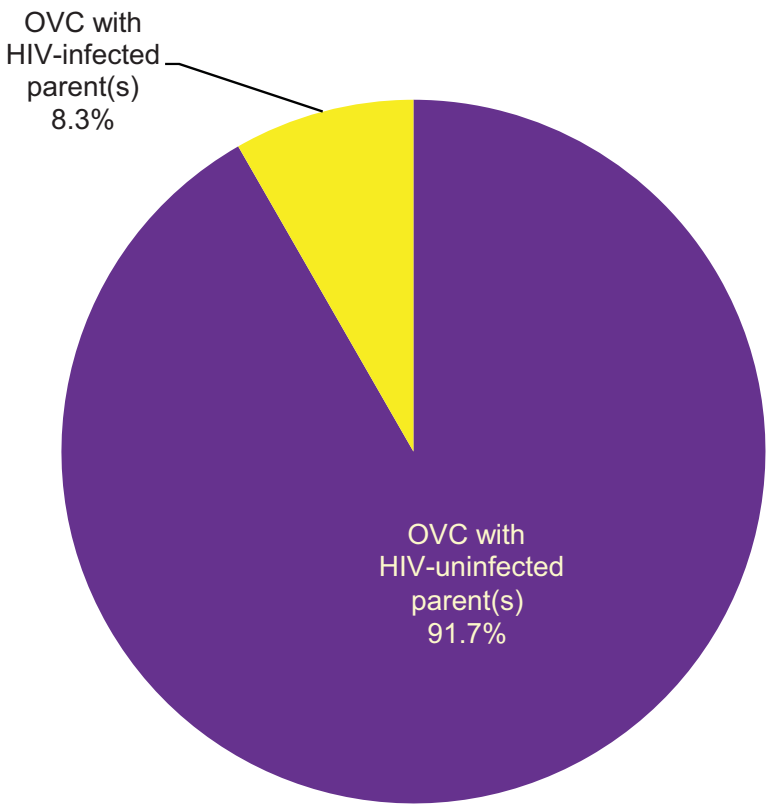
Figure 12.13e: Type of OVC among OVC aged 0–17 years, KAIS 2012



The majority of OVC were single orphans—children whose mother or father had died.

Among all OVC, 71.1% were orphans (single or double), while 28.9% were vulnerable. There was no difference in the proportion of females and males within the three OVC groups.

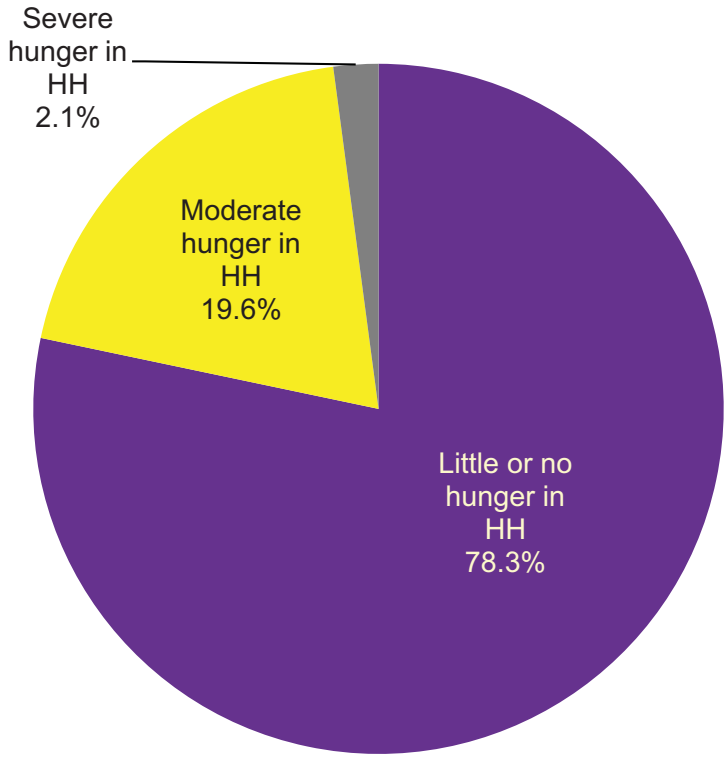
Figure 12.13f: Proportion of OVC aged 0–17 years whose parent(s) had or have HIV by household report, KAIS 2012



Among all OVC, 8.3% had at least one parent who has HIV or, if dead, had HIV.

Based on the household report, 8.3% of OVC have or had at least one HIV-infected parent. When looking at the groups separately (i.e. those who are orphaned vs. those who are vulnerable), approximately one in ten orphans had a parent who was infected with HIV. Among vulnerable children, 3.7% had at least one parent who had HIV.

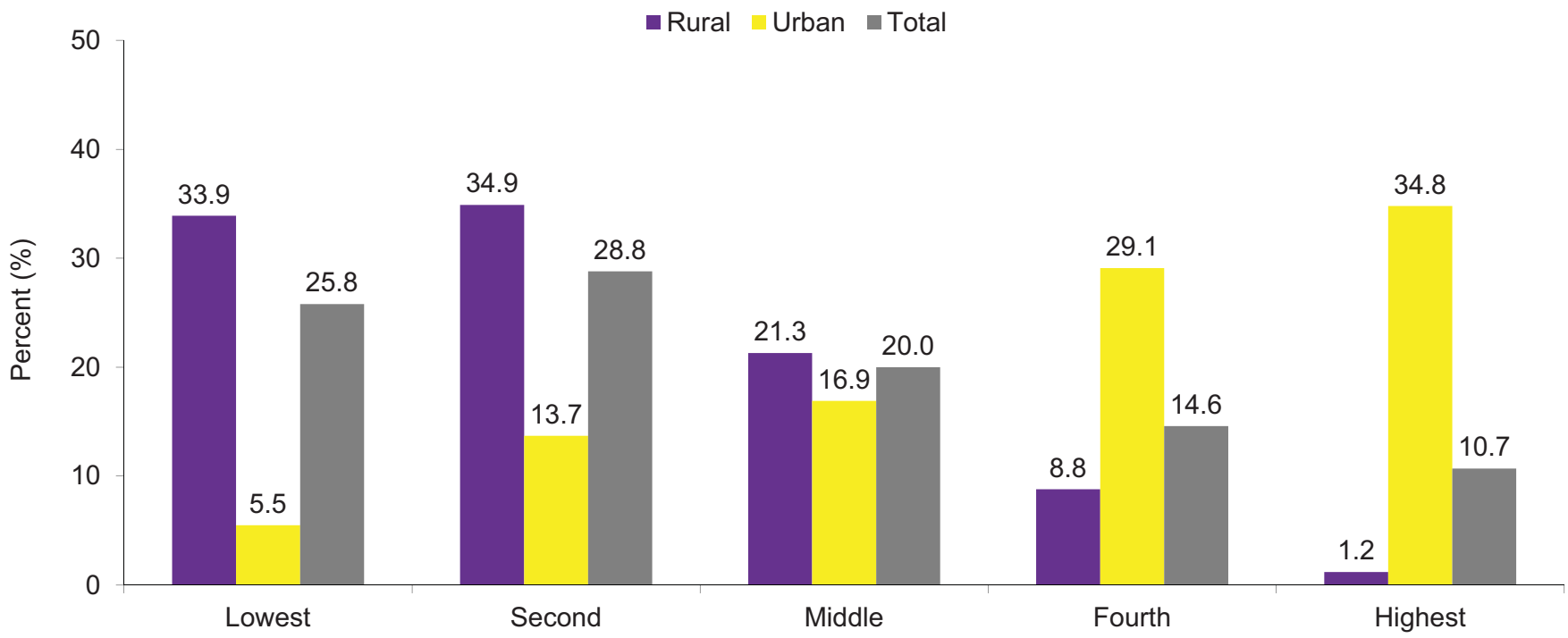
Figure 12.13g: Household hunger[3] status among households with at least one OVC, KAIS 2012



Approximately one in five OVC households had experienced moderate or severe hunger in the household.

Among households that had at least one OVC, the majority of these households experienced little or no hunger. Approximately 2.1% of OVC households had experienced severe hunger, while 19.6% experienced moderate hunger.

Figure 12.13h: Household wealth index[4] among households with at least one OVC by residence, KAIS 2012



More than half of all OVC households ranked in the lowest and second-lowest household wealth quartiles.

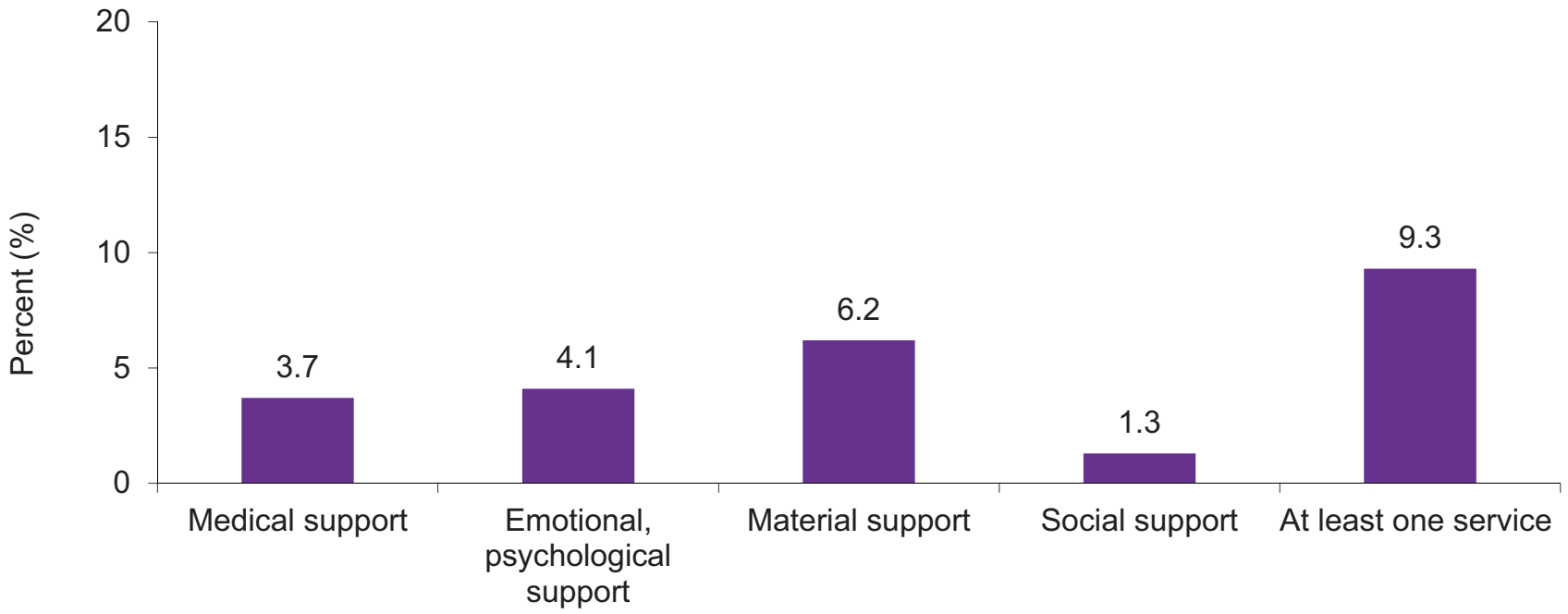
Regarding household wealth, the majority of households with at least one OVC fell in the lowest and second-lowest quintiles, at 25.8% and 28.8% respectively. Approximately 11.0% of all OVC households were found in the highest household wealth level. There were significant differences in household

[3] Household Hunger Scale (HHS) was used to measure household hunger. This scale, assesses the occurrence of having no food in the household, a household member going to sleep hungry due to lack of food, and a household member not eating for an entire day due to lack of food in the past 4 weeks and the frequency of each occurrence.

[4] The household wealth index was a composite of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principal components analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with an equal number of individuals (quintiles), ranging from the lowest to the highest level of wealth.

wealth between rural and urban OVC households. For OVC households in urban areas, approximately two-thirds of these households were in the fourth and highest wealth quintiles. The opposite was true for OVC households in rural areas, where 68.8% of these households were found in the lowest and second-lowest wealth quintiles.

Figure 12.13i: Receipt of OVC services among OVC aged 0–17 years, KAIS 2012

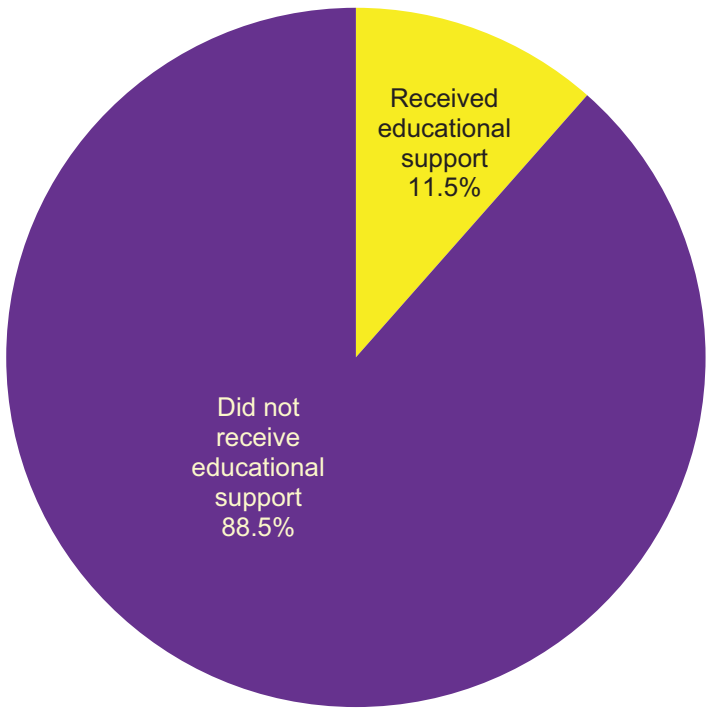


Approximately one in ten OVC had received at least one type of OVC support service.

Heads of households were asked whether or not their households had received free external support for the OVC residing in their household. The specific types of OVC support asked about in the household interview were: 1) medical support, which included medical care, supplies, or medicine; 2) emotional or psychological support, which included companionship, professional counselling, or spiritual support; 3) material support, which included clothing, food, or financial support; and 4) social support, which included help with household work, caregiver training, or legal services. Specific questions on receipt of cash transfers were not included.

Among all OVC, 9.3% had received at least one type of OVC support service. Material support was the most common form of support received, at 6.2%, while social support accounted for only 1.3%. There was no difference among female and male OVC in the level of support received for each of the support services.

Figure 12.13j: Educational support among school-aged OVC aged 5–17 years, KAIS 2012



Among school-aged OVC slightly more than one-tenth had received support for their education.

Heads of households were also asked whether the school-aged OVC (OVC aged 5 to 17 years) residing in their households had received some form of free, external educational support. Educational support included free admission to school, tuition support, or support for school materials, like books or supplies. Among all OVC aged five to 17 years, 11.5% had received some type of educational support. There was no difference among male and female OVC in the level of support received for their schooling.

12.14 Gaps and Unmet Needs

- KAIS 2012 did not capture the burden of HIV infection among children aged less than 18 months. This presents a challenge for estimating the total population of children who are infected with HIV, as well as the coverage of and need for HIV care and treatment.
- HIV testing was low among children aged 18 months to 14 years who had an HIV-infected parent (45%) and among children aged 12 to 14 years who ever had sex (31%). Family testing should be expanded to reach children as a whole and in particular, children of HIV-infected parents.
- The number of children and adolescents in care and on ART was very small in KAIS 2012. Further research about the care and treatment of HIV-infected children and adolescents is needed to better understand their needs and to improve program planning.
- Less than a fifth of children aged 10 to 14 years had comprehensive knowledge of HIV, while the majority of children aged 12 to 14 years who have had sex reported not using a condom at first sex or never testing for HIV. HIV prevention interventions that target this young adolescent population must be strengthened and scaled up to improve HIV knowledge and uptake of HIV prevention services among this population.
- Receipt of services among OVC was low, although OVC constitute 14.4% of children less than 18 years of age, or approximately 2.6 million children.

13 MALE CIRCUMCISION

13.1 Key Findings

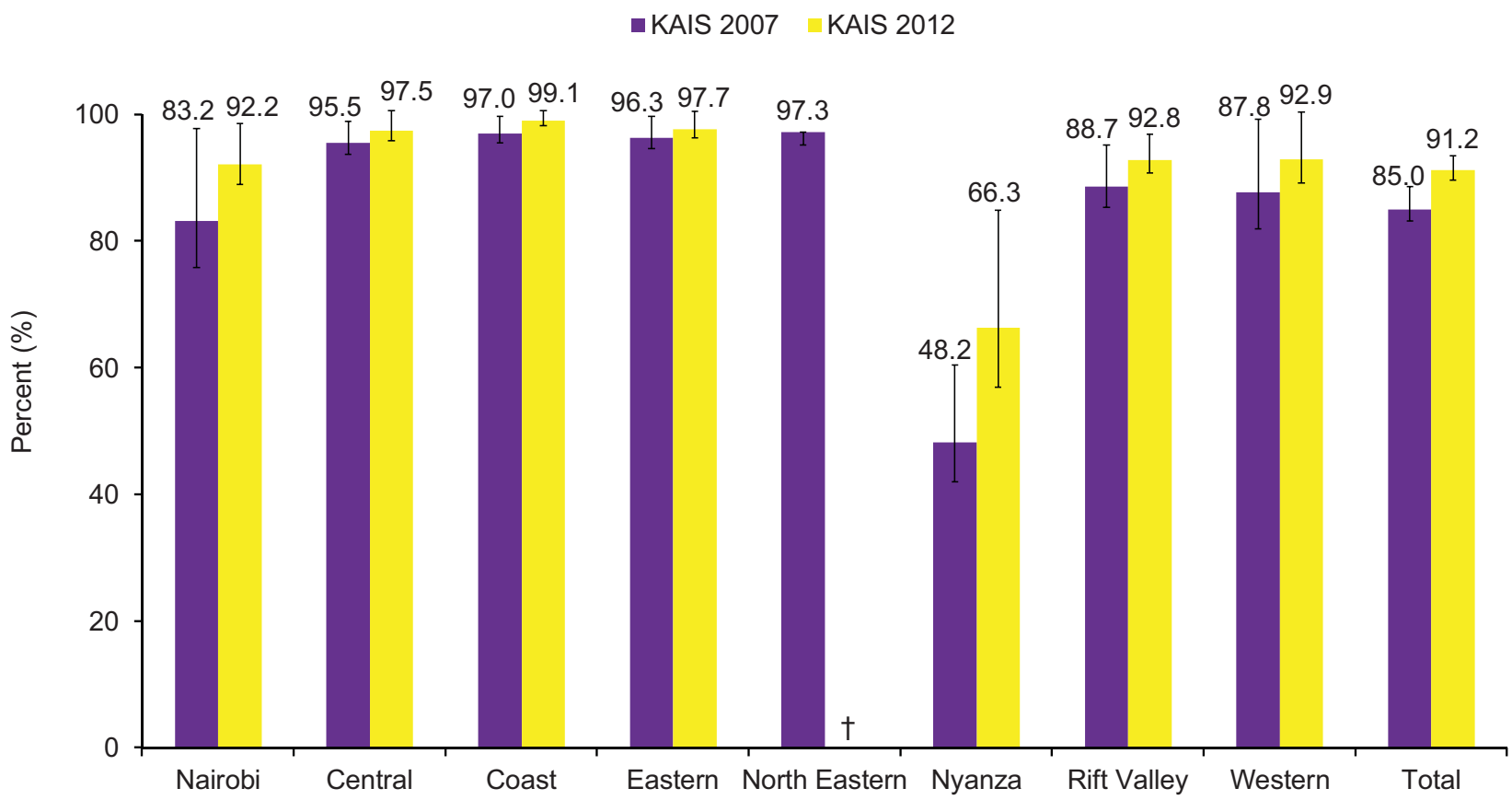
- Overall, male circumcision coverage among adults and adolescents was over 91.2% in all regions except Nyanza, which had coverage of 66.3%.
- There was a general increase in male circumcision coverage between KAIS 2007 (85.0%) and KAIS 2012 (91.2%) in all the provinces. Nyanza province recorded the highest percentage point increase (18.1%) between the two surveys.
- Almost two-thirds of male circumcisions were conducted in public health facilities.
- HIV prevalence among uncircumcised men aged 15 to 64 years (16.9%) was five times higher than for circumcised men (3.1%).
- HIV prevalence among women with circumcised male sex partners was significantly lower (5.2%) compared with those with uncircumcised male sex partners (18.0%).
- Uncircumcised men who were married or cohabiting with an HIV-infected female partner had higher HIV prevalence compared with circumcised men married or cohabiting with an HIV-infected female partner (80.0% versus 48.6% respectively).

13.2 Introduction

This chapter describes male circumcision coverage, the locations where circumcision was conducted, persons who conducted the circumcision, knowledge and attitudes toward male circumcision and HIV prevalence among circumcised and uncircumcised men and their sex partners. The chapter further evaluates trends in male circumcision coverage between KAIS 2007 and 2012. Data reported in this chapter do not include circumcised males who were below 15 years of age at the time of the survey; these data are included in Chapter 12.

13.3 Male Circumcision Status

Figure 13.3a: Male circumcision among men aged 15–64 years by province, KAIS 2007 and 2012



All regions had male circumcision coverage rates of over 90.0% except Nyanza province, which had coverage of 66.3%.

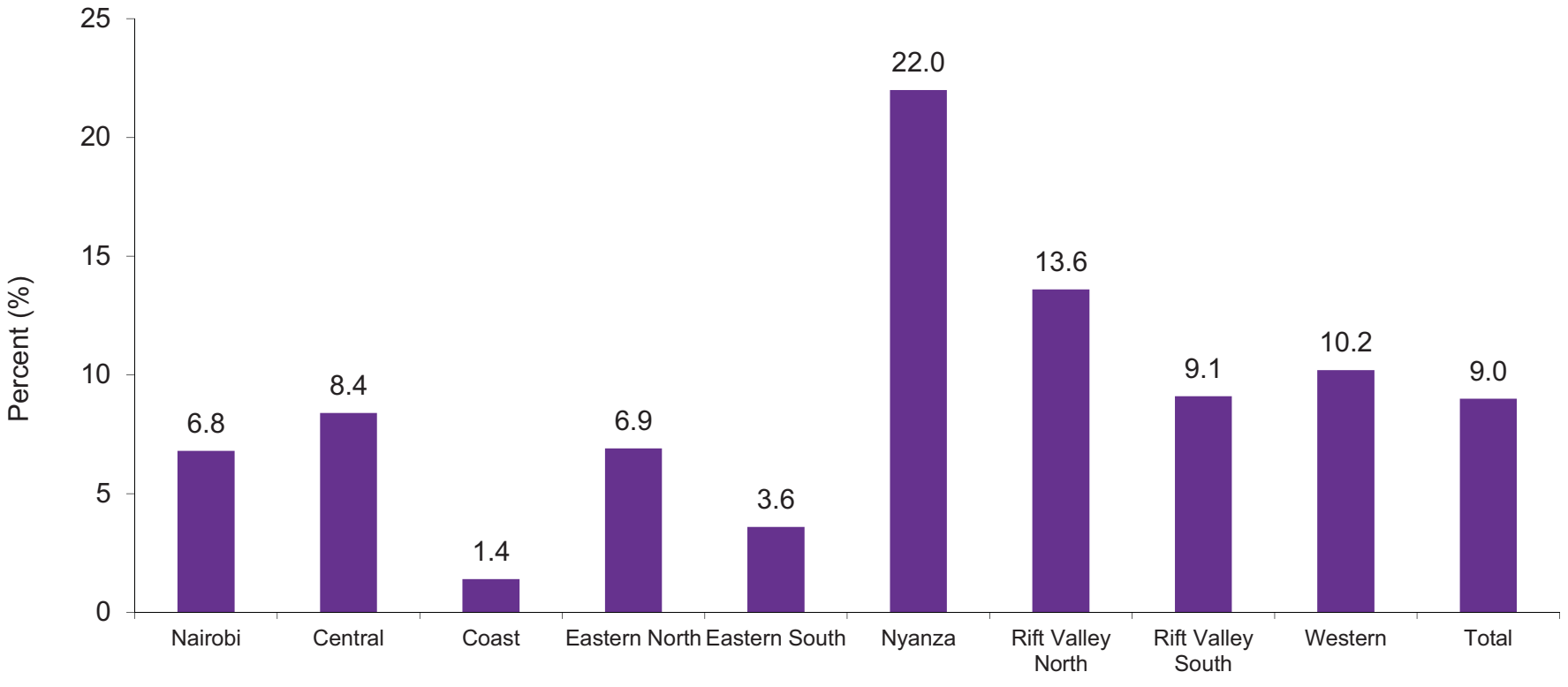
† North Eastern province was not included in the KAIS 2012 sample.

Overall, 91.2% of men in KAIS 2012 aged 15 to 64 years had been circumcised. Except for Nyanza region (66.3%), all the regions had circumcision coverage of over 90%, with the highest coverage being observed in the Coast, Eastern, and Central regions, at 99.1%, 97.7% and 97.5% respectively. Nyanza region had the highest increase in circumcision coverage between KAIS 2007 and 2012 from 48.2% to 66.3%.

Data in Context: Male circumcision and HIV prevention

Three randomized controlled trials conducted in South Africa, Kenya, and Uganda showed that medical male circumcision can reduce HIV infection among men by approximately 60% within two years. In 2007, the World Health Organization and the Joint United Nations Program on HIV/AIDS issued recommendations encouraging the use of male circumcision as an effective HIV prevention intervention. The KAIS 2007 found that the national HIV prevalence among uncircumcised men was 13.2% compared with 3.9% among circumcised men. In 2008, Kenya's Ministry of Health started implementing the male circumcision program with the aim of circumcising a targeted 860,000 males aged 15 to 49 years by the end of 2013.

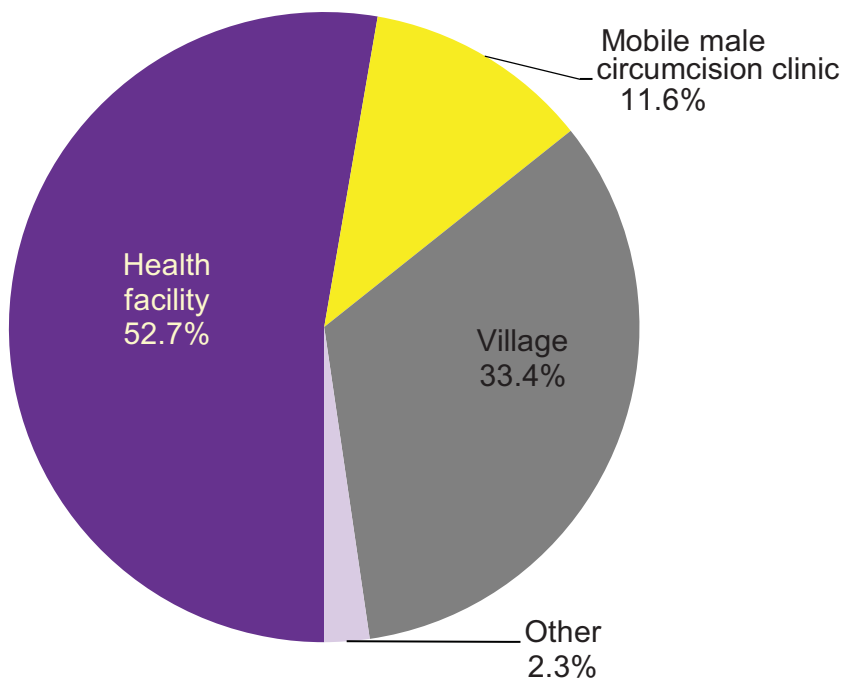
Figure 13.3b: Proportion of men circumcised within the past three years among all circumcised men aged 15–64 years by region, KAIS 2012



Nyanza region had the highest percentage of men who were circumcised in the past three years.

Among all circumcised men, Nyanza had the highest proportion of men who were circumcised in the 3 years prior to the survey; at 22.0%. Coast had the lowest proportion of males recently circumcised; at 1.4%, followed by Eastern South, at 3.6%.

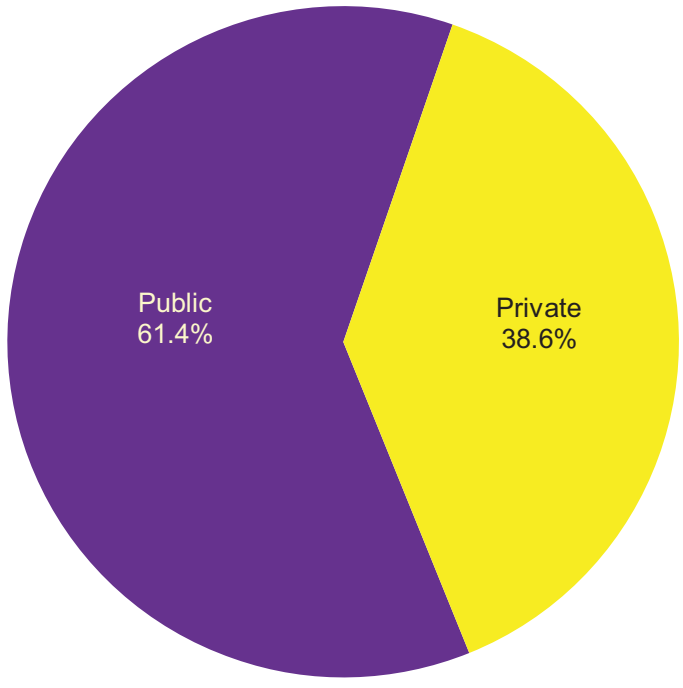
Figure 13.3c: Location of circumcision among men aged 15–64 years who were circumcised in the past three years, KAIS 2012



Almost two thirds of all male circumcisions that occurred in the past three years prior to KAIS 2012 were conducted in health facilities.

Almost two thirds (64.3%) of all men circumcised in the past three years were circumcised in clinics/health facilities, including mobile male circumcision clinics. A third of men (33.4%) were circumcised in the villages (i.e. situations not considered to be health facilities).

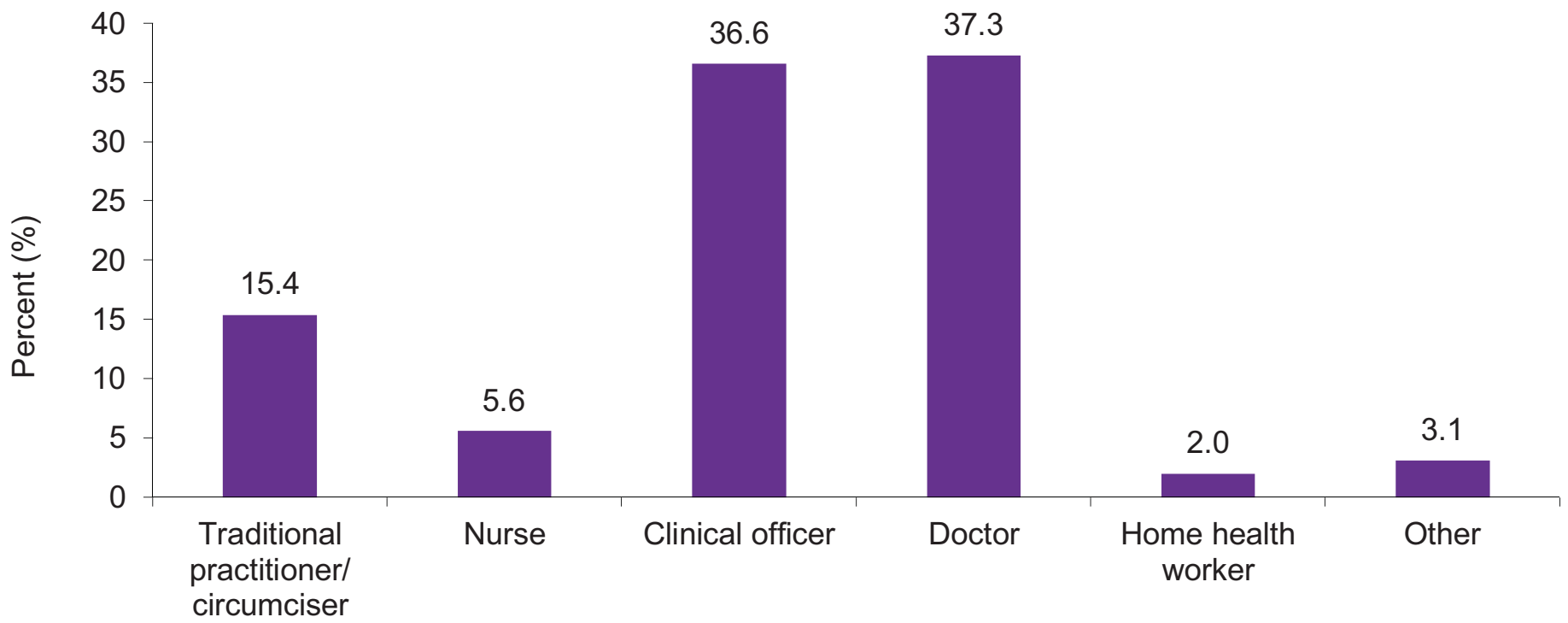
Figure 13.3d: Type of clinic or health facility where circumcision was performed among men aged 15–64 years who were circumcised in the past three years, KAIS 2012



Of the male circumcisions that occurred in the past three years, 61.4% were conducted in public health facilities.

Sixty-one percent (61.4%) of male circumcisions that were conducted in health facilities in the past three years were conducted in public health facilities, while 38.6% of male circumcisions were conducted in private health facilities.

Figure 13.3e: Who performed circumcision among men aged 15–64 years who were circumcised in the past three years, KAIS 2012

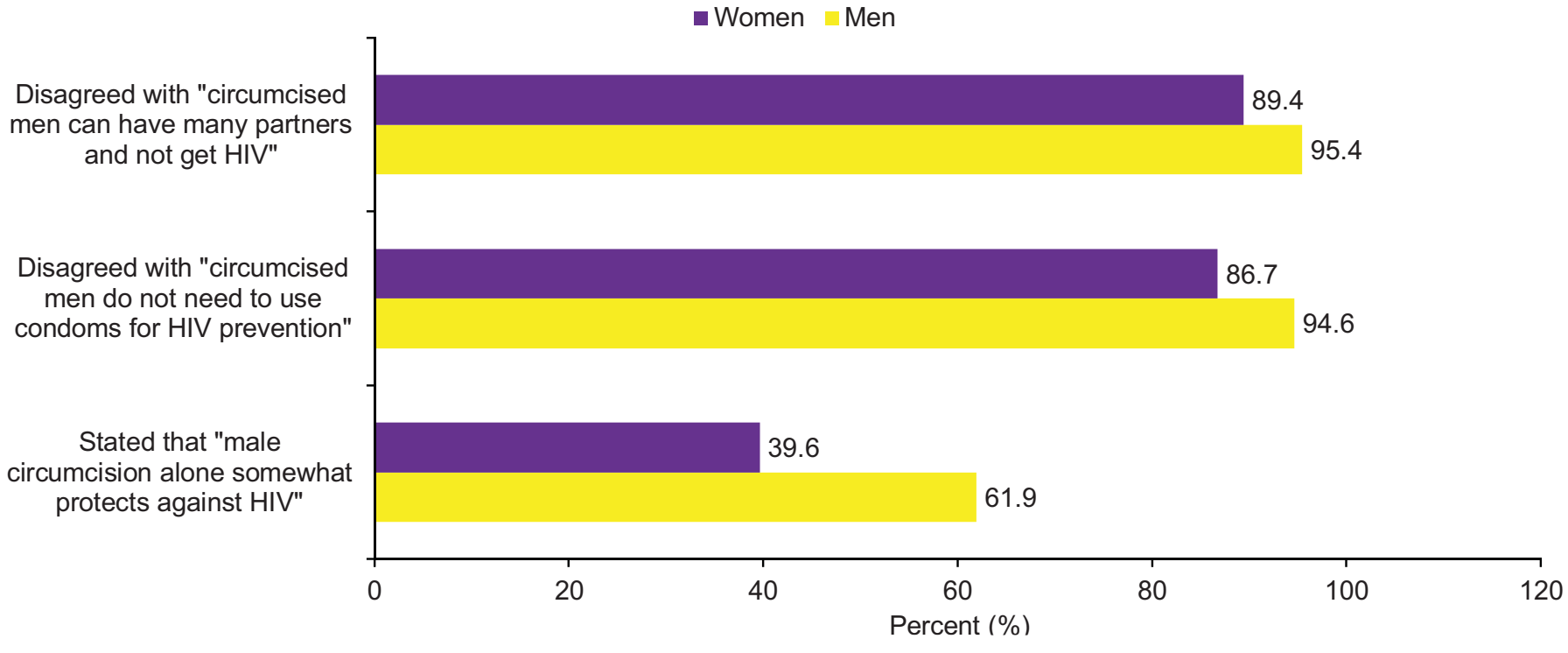


In the last three years, 79.5% of all the circumcisions were conducted by qualified medical staff,* while 20.5% were conducted by traditional and other non-medical circumcisers.

* Qualified medical staff include nurses, clinical officers and doctors.

Overall, 79.5% of male circumcisions conducted in the last three years prior to KAIS 2012 were performed by qualified medical staff while 15.4% of men were circumcised by traditional circumcisers, 2.0% by home health workers, and 3.1% reported "other." Doctors and clinical officers performed the highest proportion of circumcisions at 37.3% and 36.6% respectively.

Figure 13.3f: Correct knowledge on male circumcision and HIV prevention among women and men aged 15–64 years, KAIS 2012

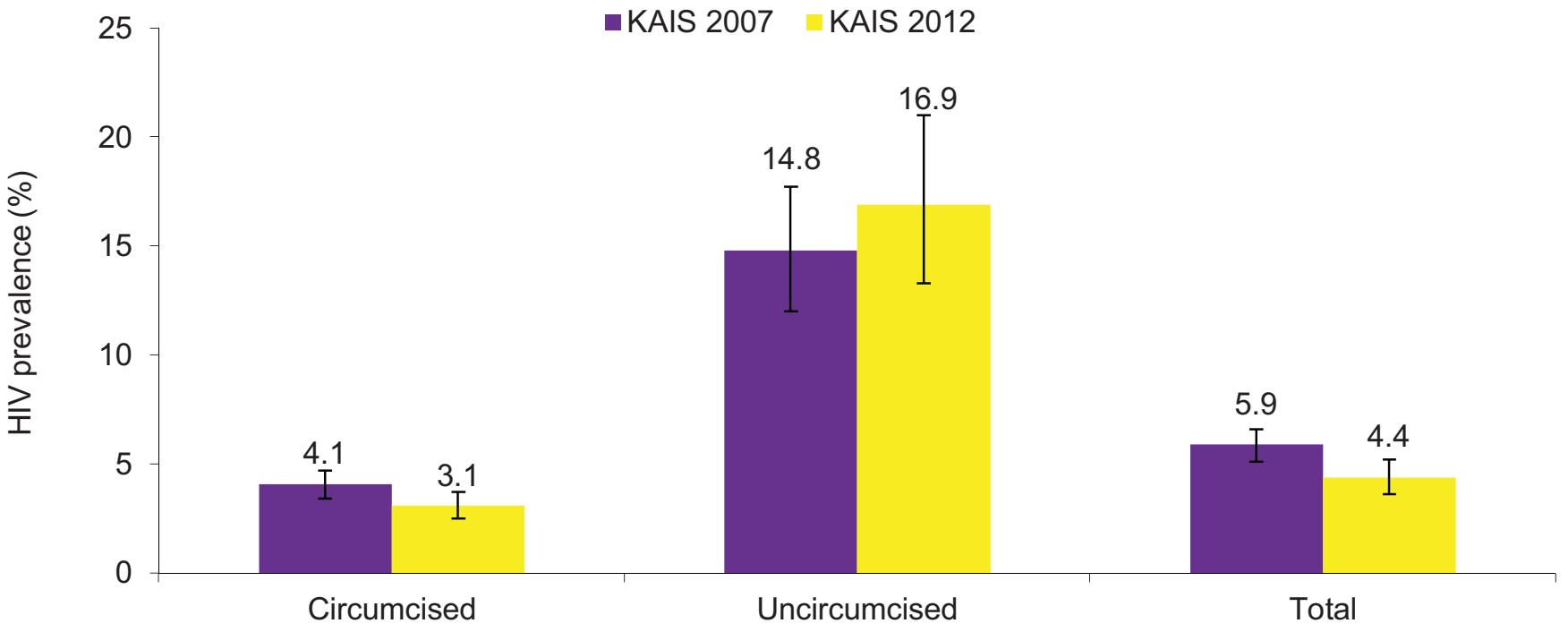


More men than women had correct knowledge on male circumcision for HIV prevention.

Overall, more men than women had correct knowledge about male circumcision and HIV prevention. Over 85.0% of both women and men had the correct knowledge of the risk of HIV infection for circumcised men who have multiple sexual partners and the need for condom use among circumcised men for HIV prevention. However, only 39.6% and 61.9% of women and men respectively correctly knew that male circumcision alone was not adequate for HIV prevention. This could also mean the people are not aware of protective benefit of male circumcision at all.

13.4 HIV Prevalence

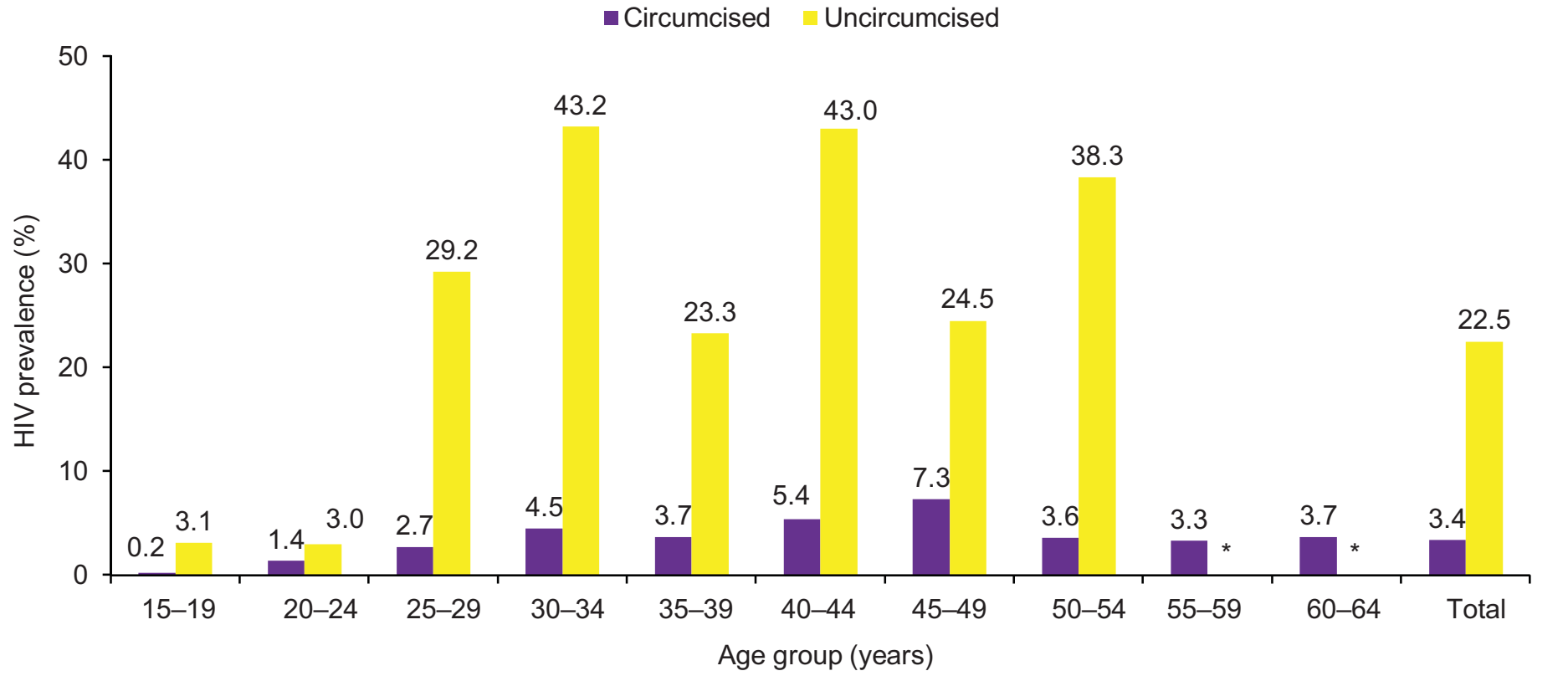
Figure 13.4a: HIV prevalence among men aged 15–64 years by circumcision status, KAIS 2007 and 2012



In KAIS 2012, HIV prevalence was five times higher among uncircumcised men than circumcised men.

HIV prevalence in uncircumcised men (16.9%) was five times higher than that of circumcised men (3.1%) in KAIS 2012. This was consistent in all regions, with Nyanza region having the highest HIV prevalence in both uncircumcised and circumcised men at 25.9% and 8.1% respectively. There was no significant difference in HIV prevalence between KAIS 2007 and 2012 among both circumcised and uncircumcised men.

Figure 13.4b: HIV prevalence among men aged 15–64 years who had ever had sex by circumcision status and age group, KAIS 2012

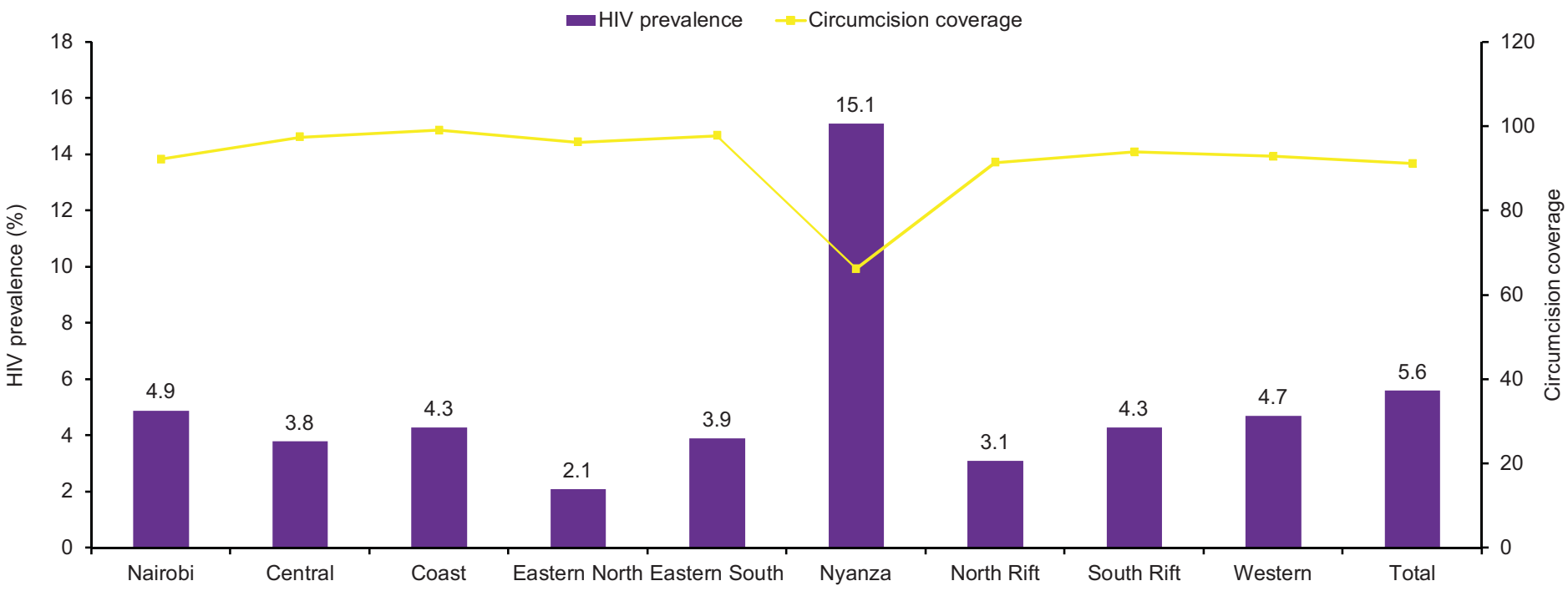


Among men who ever had sex and across all age groups, HIV prevalence was higher among uncircumcised men than circumcised men.

* Weighted estimates are not shown due to small denominators (<25 observations).

Among men who had ever had sex across all age groups, HIV prevalence was approximately seven times higher among uncircumcised men (22.5%) compared with those who were circumcised (3.4%). HIV prevalence among uncircumcised men aged 25 to 54 years ranged from 23.3% to 43.2% compared with 2.7% to 7.3% among circumcised men.

Figure 13.4c: HIV prevalence among adults and adolescents 15-64 years and coverage of male circumcision among men 15-64 years by region, KAIS 2012

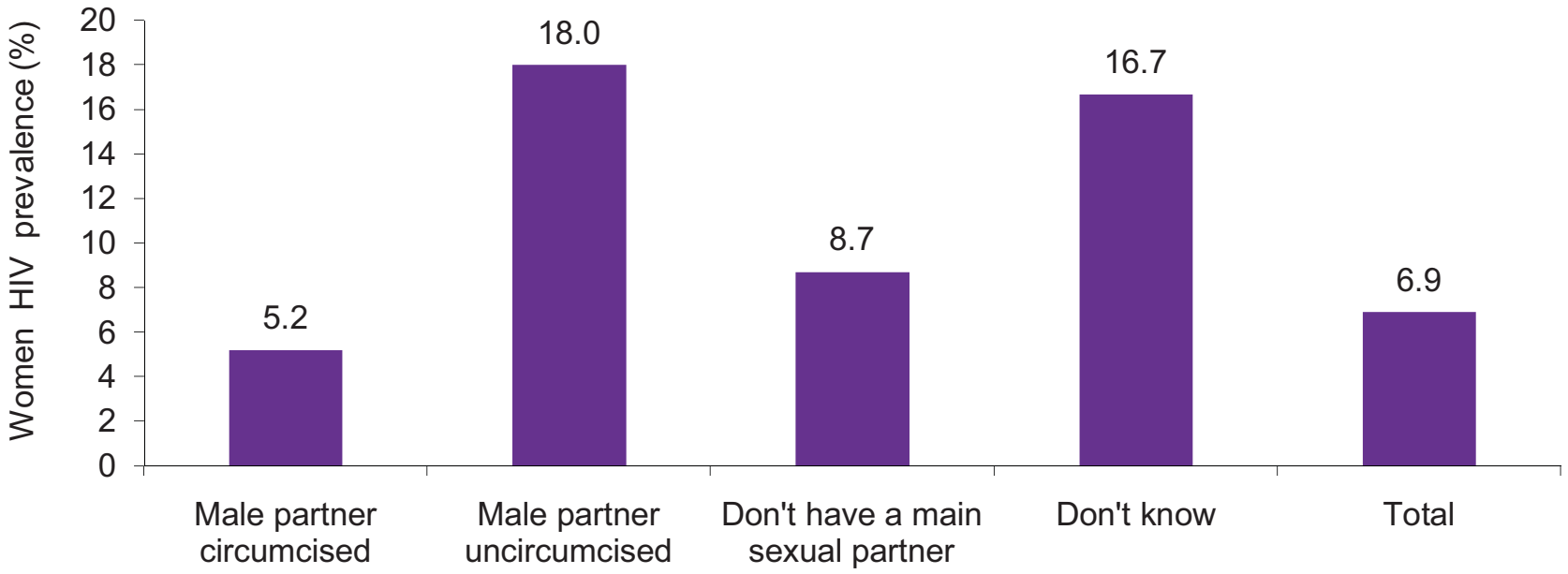


HIV prevalence was highest in Nyanza region (15.7%) where circumcision coverage was lowest (66.3%).

HIV prevalence was relatively low in the Coast, Eastern and Central regions where circumcision coverage was high. The prevalence was highest in Nyanza region (15.1%) where circumcision coverage was lowest (66.3%).

13.5 Male Circumcision Status and HIV Prevalence in Sexual Partners

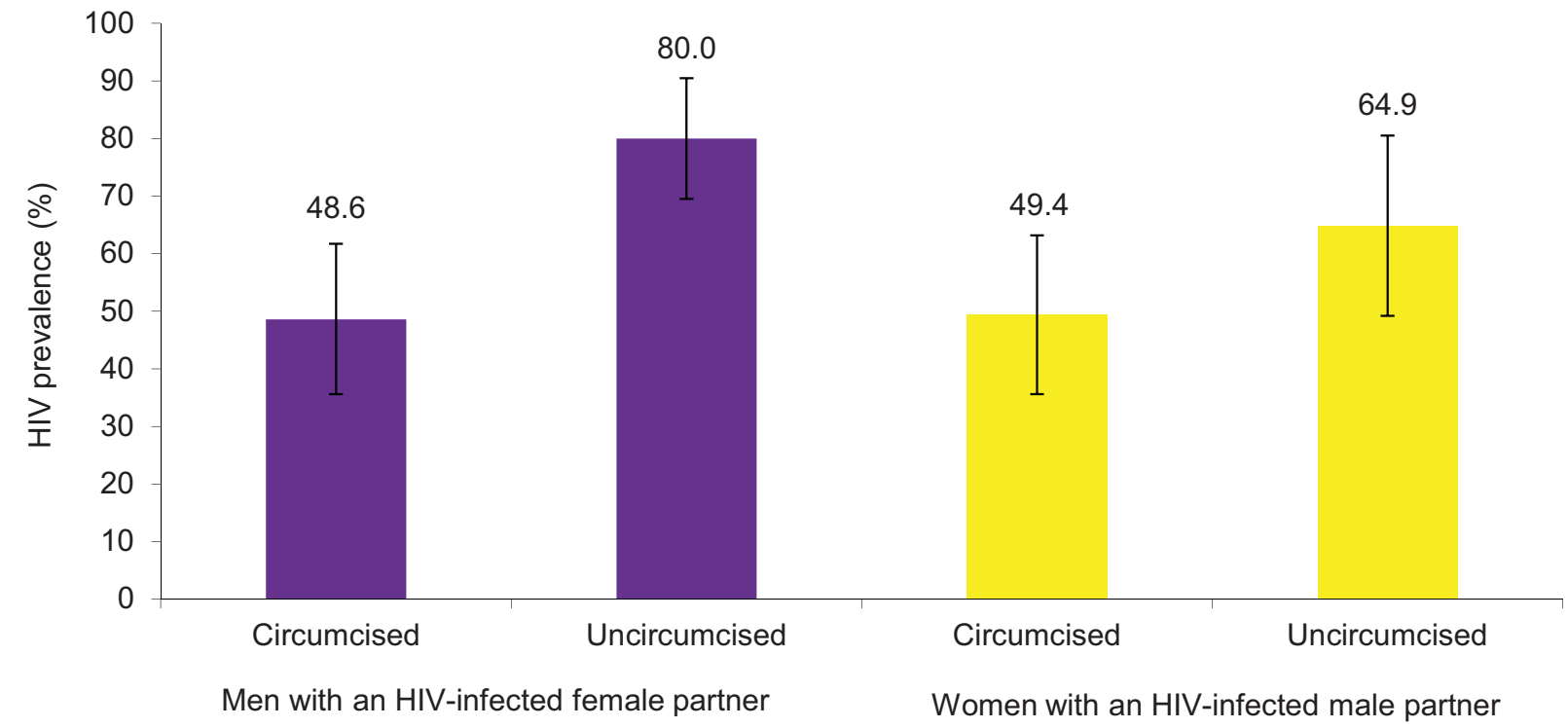
Figure 13.5a: HIV prevalence among women aged 15–64 years by circumcision status of their male sexual partner, KAIS 2012



HIV prevalence among women whose partners were not circumcised was at least three times higher than women whose partners were circumcised.

Overall, women aged 15 – 64 years with male sexual partners had a HIV prevalence of 6.9%. HIV prevalence among women who had circumcised male partners was lower (5.2%) compared to those with uncircumcised sexual partners (18.0%). Among women who didn't know the circumcision status of their male sex partner, HIV prevalence was 16.7%, while HIV prevalence was 8.7% for women who reported not having a main sexual partner.

Figure 13.5b: HIV prevalence among married or cohabiting partners of HIV-infected men and women by male circumcision status, KAIS 2012



Uncircumcised married or cohabiting men with an HIV-infected female sex partner had a higher HIV prevalence

Uncircumcised men who were married to or cohabiting with HIV-infected women had higher HIV prevalence (80.0%) compared with their circumcised counterparts (48.6%). Similarly, women who were married to or cohabiting with uncircumcised HIV-infected men had higher HIV prevalence (64.9%) compared with women who were married or cohabiting with circumcised HIV-infected men (49.4%).

13.6 Gaps and Unmet Needs

- Circumcision coverage is still below the national target of 94.0% in Western, Rift Valley, Nairobi and Nyanza regions. Scale up of the voluntary medical male circumcision program should continue, particularly in Nyanza, Western, Nairobi and Rift Valley regions in order to reach the national target.
- One in five circumcisions was performed by non-medical staff. Sensitization should be carried out in order to increase the use of health facilities and qualified staff to perform circumcision.
- About 60.0% of women and 40.0% of men correctly believed that male circumcision alone was not adequate for HIV prevention. This could also mean that people are not aware of protective benefit of male circumcision at all. As voluntary medical male circumcision (VMMC) is scaled up, comprehensive messaging around the benefit of male circumcision for HIV prevention should be emphasized to reduce misinformation.

14 BLOOD AND INJECTION SAFETY

14.1 Key Findings

- Among all adults and adolescents aged 15 to 64 years, 2.6% reported donating blood in the 12 months prior to the survey; 55.2% reported donating in response to a request from the Kenya National Blood Transfusion Service (KNBTS). This figure was higher than the findings from KAIS 2007 (48.3%).
- Prevalence of HIV among all blood donors was 3.3%. HIV prevalence among donors outside if the KNBTS network was more than three times higher than among KNBTS donors (5.9% and 1.6% respectively).
- Among adults and adolescents who reported ever receiving a blood transfusion, prevalence was 7.0%. Among those who received a transfusion HIV prevalence was 8.1% among women and 5.1% among men.
- Though HIV prevalence was higher among adults and adolescents who received injections in the past 12 months, an estimated 32.4% of adults and adolescents reported that they received at least one medical injection in the 12 months before the survey.

14.2 Introduction

Assuring a safe and adequate blood supply is the priority of the Kenya National Blood Transfusion Service (KNBTS), which has evolved from individual hospital-based blood programs to a national network of regional blood collection, processing, distribution, and utilization. KNBTS collects blood from voluntary donors in a manner that meets international standards with external quality assurance. However, KNBTS blood supply does not cover 100% of all blood donated, nor does it include only voluntary, non-remunerated donors. There are replacement donors—that is, persons who donate at the request of family or friends. Such donors mostly donate at health facilities outside the KNBTS network, but also donate to the KNBTS. Donations from replacement donors are often not subjected to the same testing standards as those from KNBTS donors, and therefore the quality of hospital blood supply testing varies widely, from basic to international standards.

In November 2011, Kenya introduced national blood transfusion policy guidelines, and in January 2007 established national standards for blood banks and transfusion services. KNBTS is structured to collect, screen, and distribute blood from regular, voluntary, non-remunerated donors (VNRD) based on international standards of quality management, testing algorithms, and standardized procedures. All donated blood units are screened for HIV, hepatitis B and C, and syphilis. Blood units found to be positive for any of these infectious agents are discarded and the donor is notified of their results and referred for further management.

In this chapter, we report the proportion of adults and adolescents aged 15 to 64 years in KAIS 2012, who donated blood in the past 12 months and the source of their blood donation requests. We also report on the frequency of injections and the use of safe injection equipment in clinical settings. Additionally, we present information on HIV prevalence among blood donors, recipients of blood transfusions, and recipients of medical injections.

Data In Context: The Kenya National Blood Transfusion Service

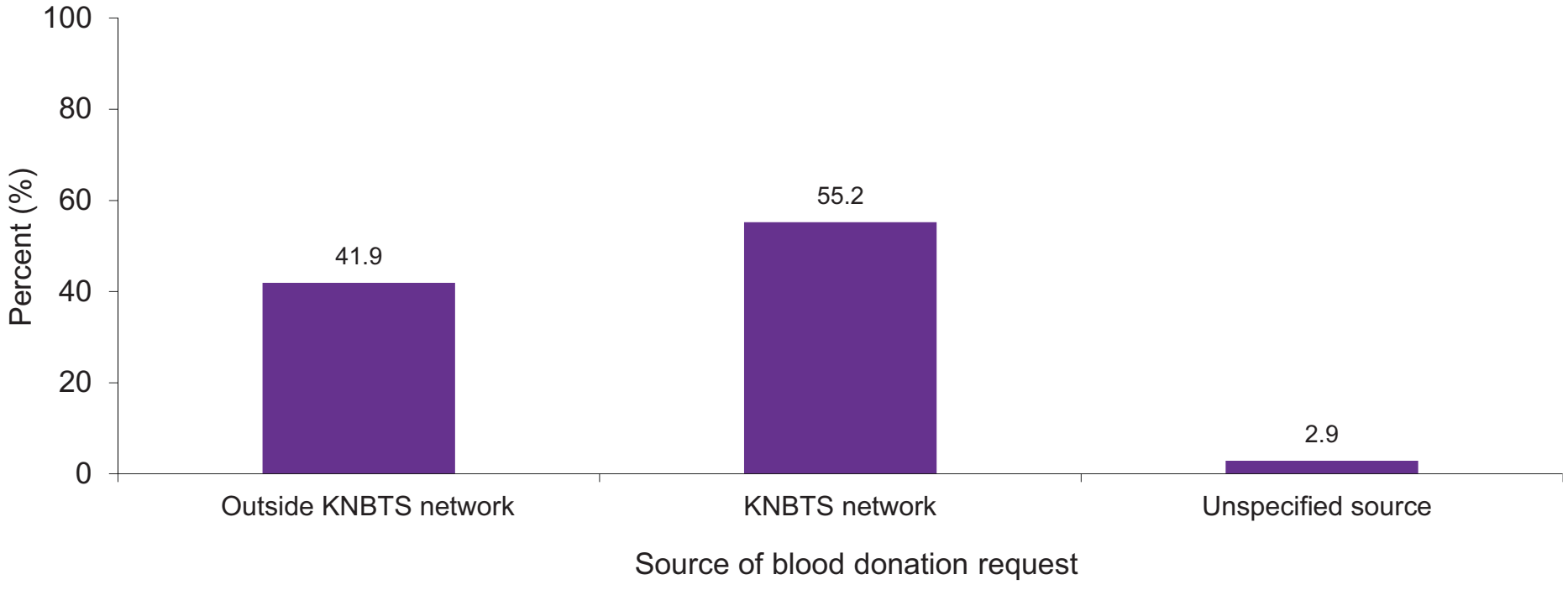
- The KNBTS, established in 2001, is mandated to ensure safe and adequate blood supplies for the country. It collects, tests, processes, and distributes blood and promotes its appropriate use. The 2001 policy guidelines on blood transfusion recommended a centralized blood screening system. The KNBTS system ensures standardization of procedures and improved quality of blood supplies and thus, reduced transmission of HIV and other infections.
- The KNBTS works with various blood donor recruitment partners who target voluntary, non-paid donors across all eligible populations. These partners include Kenya Red Cross Society, Bloodlink Foundation, Blood Life Initiative–Kenya, and HOPE Worldwide. In the past, recruitment efforts have mainly focused on high school and college students.
- WHO suggests that the number of blood donations collected per year should be equivalent to approximately 1% of the national population. With a population of approximately 43 million, the KNBTS blood collection in 2012 was approximately 160,000 blood units, indicating a potential shortfall in blood supplies.

14.3 Blood Donations

In KAIS 2012, participants who said they had donated blood in the past 12 months reported whether they were asked to donate or if they donated voluntarily. Those who reported that they were asked to donate were prompted to specify who asked them to donate. Of note, family/replacement donors are generally considered to be higher risk donors than VNRD and typically donate outside of the KNBTS network. Though KNBTS is currently moving toward 100% VNRD, a substantial proportion of KNBTS are also family/replacement donors. In addition, it is possible that a portion of VNRD reported by KNBTS may, in fact, be misclassified family/replacement donors. Donations made within the KNBTS network are considered safer than those made outside of the network given that the KNBTS has a policy of promoting voluntary donors and has implemented a program to conduct pre- donation risk screening and counselling for all family/replacement donors.

Overall, 2.6% of participants reported donating blood in the 12 months before the survey from all sources. A significantly higher percent of men (4.3%) compared with women (1.1%) surveyed in the KAIS 2012 reported that they donated blood in the 12 months before the survey.

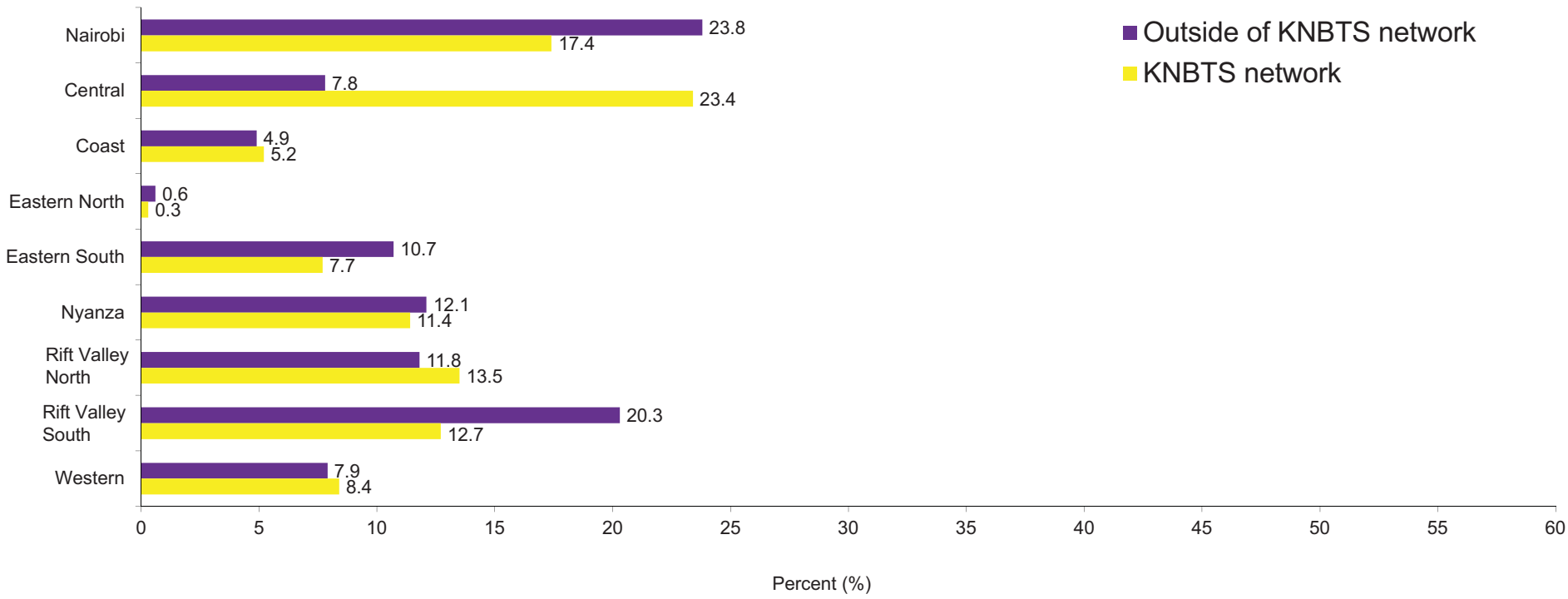
Figure 14.3a: Source of blood donation requests among adults and adolescents aged 15–64 years who reported donating blood in the 12 months before the survey, KAIS 2012



More than half (55.2%) of adults and adolescents who donated blood within the 12 months before the survey donated through the KNBTS network.

Of all participants who reported donating blood in the past 12 months, 55.2% reported that they donated based on a request from KNBTS, and 41.9% reported that they donated outside of the KNBTS network. The remaining 2.9% did not report the specific source of their blood donation requests. Nationally, this represents 233,000 from presumed family/replacement donors outside of the KNBTS network, 307,000 from presumed volunteer donors within the KNBTS network, and 16,000 from an unspecified source.

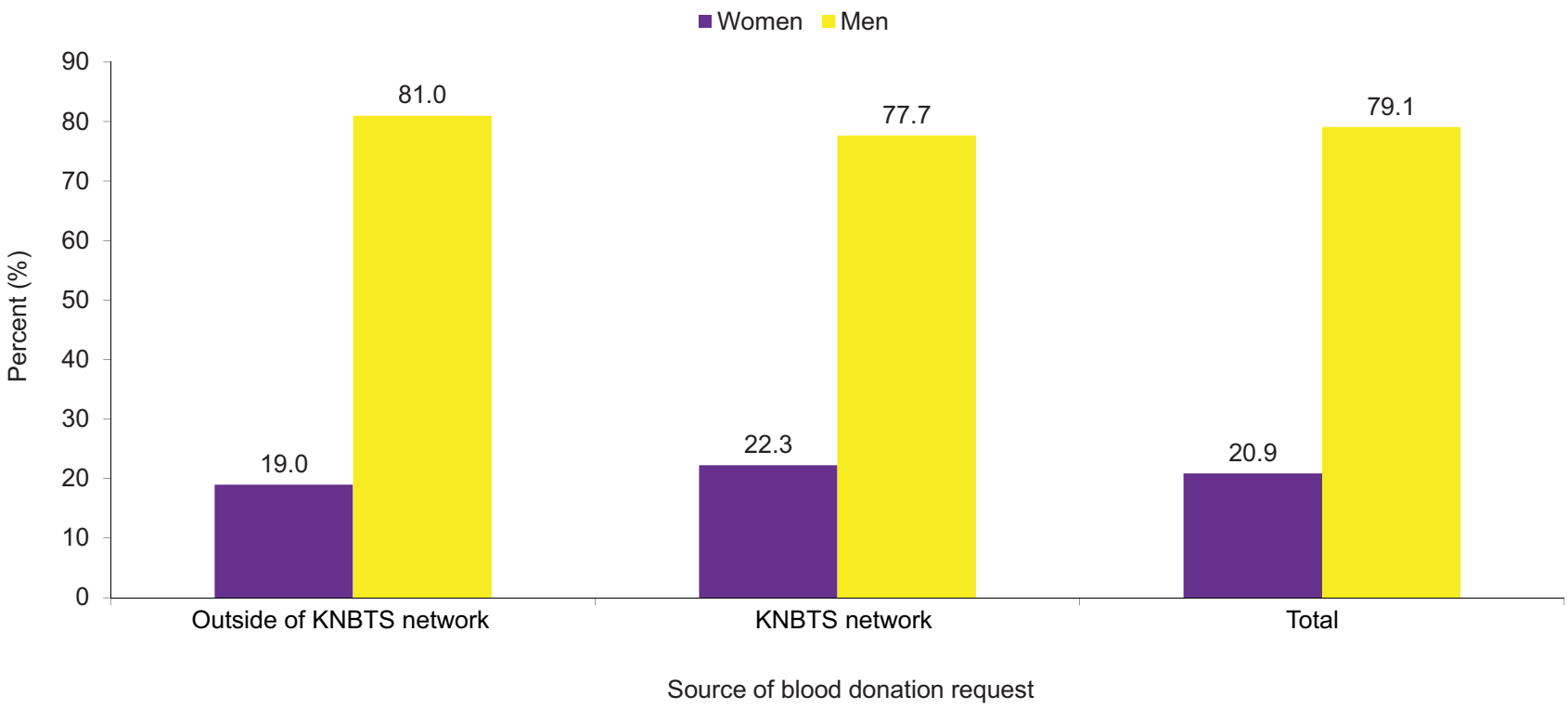
Figure: 14.3b: Source of blood donations request among adults and adolescents aged 15-64 years who reported donating blood in the past 12 months by region, KAIS 2012



Among the adults and adolescents who reported donating blood in the 12 months before the survey, Central region had the highest proportion of blood donation requests from KNBTS (23.4%) while Nairobi had the highest proportion from donations outside of the KNBTS network (23.8%).

Among participants who reported donating blood in the 12 months before the survey, the source of donation requests varied significantly by region. Donation requests from KNBTS were highest in Central region (23.4%) followed by Nairobi region (17.4%). Donations from outside the KNBTS network were highest in Nairobi region (23.8%) followed by South Rift (20.3%).

Figure 14.3c: Source of blood donation requests* among adults and adolescents aged 15-64 years who reported donating blood in the past 12 months by sex, KAIS 2012

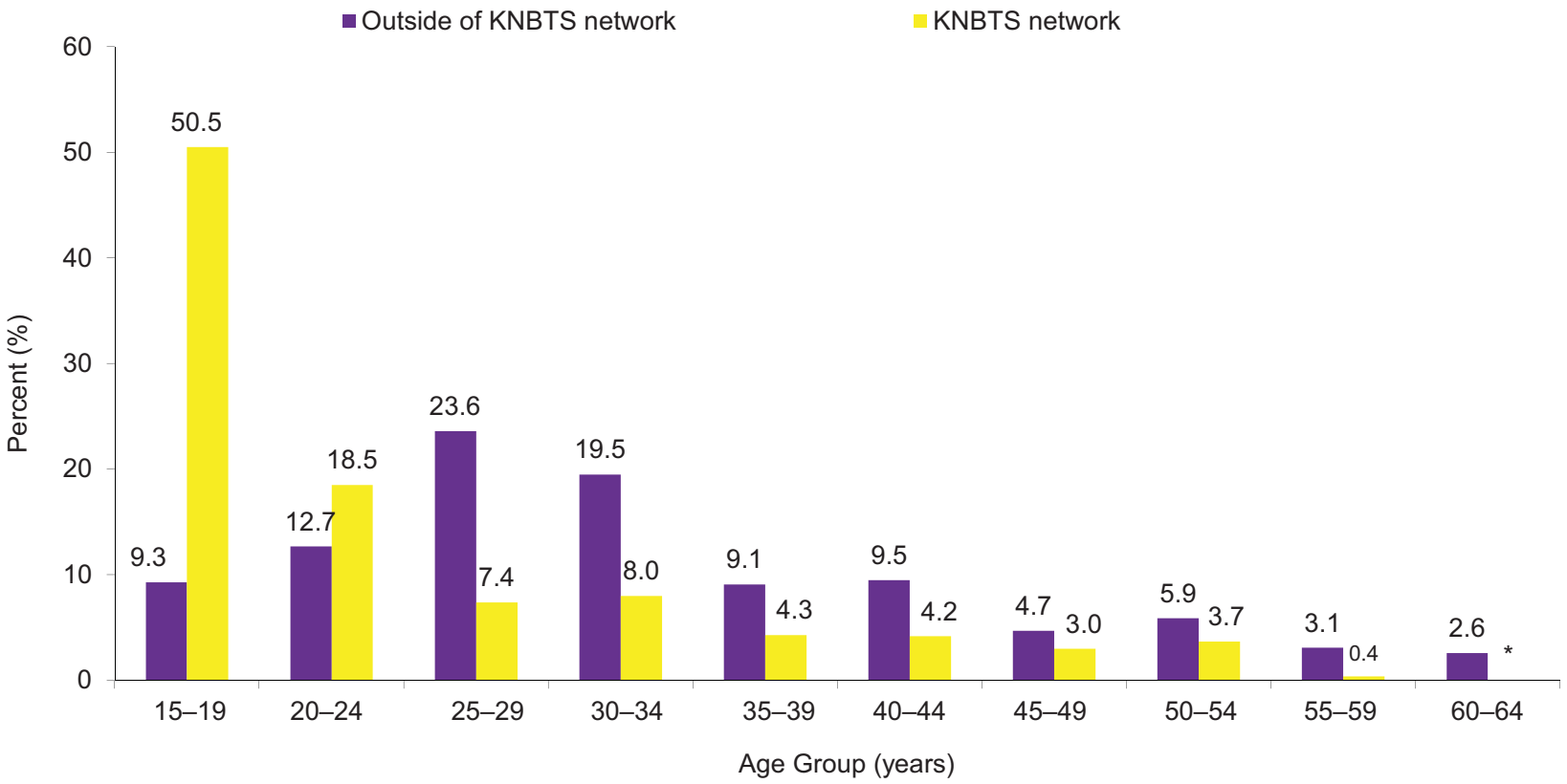


Men were the majority blood donors across all the categories of blood donation requests.

* Data on donors reporting unspecified blood donation requests are not presented due to small denominators.

More men than women donated blood in response to requests from the KNBTS (77.7% vs. 22.3% respectively), outside the KNBTS network (81.0% vs. 19.0%, respectively), or unspecified sources (78.2% vs. 21.8%, respectively).

Figure 14.3d: Source of blood donation requests among adults and adolescents aged 15-64 years who reported donating blood in the past 12 months by age group of donor, KAIS 2012

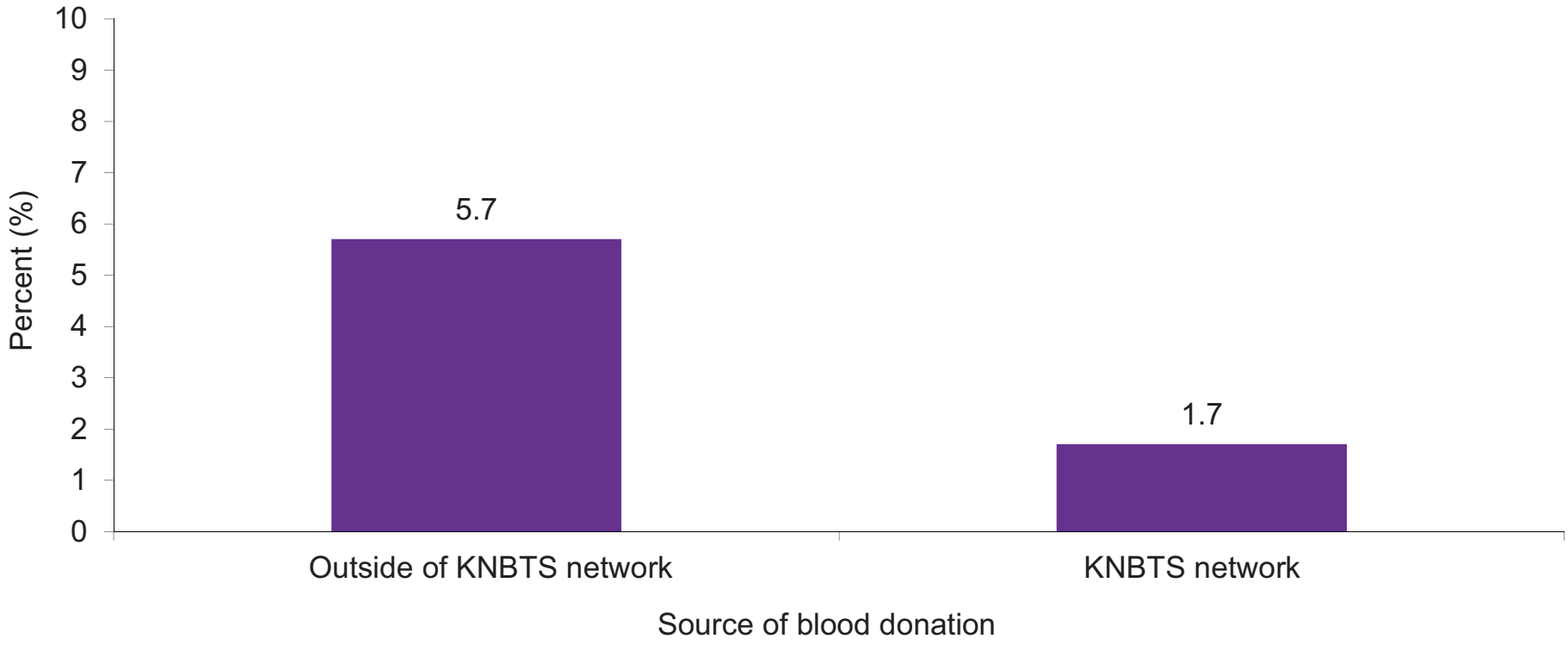


The majority of adults and adolescents who donated blood to KNBTS were aged 15 to 19 years (50.5%). The majority of those who donated outside of the KNBTS network were aged 25 years or older.

* Weighted estimates are not shown due to small denominators (<25 observations).

The majority of persons who reported donating blood on behalf of a request from KNBTS in the 12 months before the survey were young: 50.5% of these donors were aged 15-19 years. In comparison the majority of those who reported donating outside of the KNBTS network were aged 25-29 years. These findings are consistent with the current KNBTS blood donors' recruitment strategies targeting young people in schools, colleges, and universities.

Figure 14.3e: HIV prevalence among adults and adolescents aged 15–64 years who reported donating blood in the past 12 months by source of blood donation request*, KAIS 2012



HIV prevalence among those who donated blood within the 12 months prior to the survey was more than three times higher among donors outside of the KNBTS network (5.7%) than it was among KNBTS donors (1.7%).

*Data on donors reporting unspecified blood donation requests is not presented due to small denominators.

HIV prevalence was 5.7% among donors outside KNBTS network in the 12 months prior to the survey. This was higher than HIV prevalence among adults and adolescents who reported that they had donated within the KNBTS network (1.7%). The overall HIV prevalence among all reported blood donors was 3.3%.

The difference in HIV prevalence by source of donation request between persons who donated as volunteers within the KNBTS network and those who donated outside the KNBTS network may suggest that a volunteer-based blood supply is safer. It is important to note that these data were not adjusted for possible confounding factors such as age, which may have biased this finding. For example, adults and adolescents who reported donating within the KNBTS network were younger (median age of 18.9 years) than those who reported donating outside the KNBTS network (median age of 30.5 years). Further, as described in Chapter 2 of this report, younger persons aged 15 to 19 years had lower HIV prevalence rates than older persons in the 30 to 34 year age group (1.0% vs. 6.6% respectively).

According to 2012 KNBTS statistics, 0.53% of all units donated to the KNTBS network tested positive for HIV, while the KAIS 2012 estimate of HIV prevalence among persons donating to blood transfusion services was 1.7% [95% CI: (0.0-4.0)].

Differences in the 2012 KNBTS and KAIS 2012 national estimates for blood donations

- Approximately 160,000 blood units were collected by the KNBTS centres in 2012; this is roughly 52.1% of the KAIS 2012 national estimate of 307,000 [95% CI: (250,000, 364,000)] adults and adolescents who reported donating to KNBTS or its affiliates.
- The reason for the discrepancy in the two numbers needs further evaluation, however they may include the following possible explanations:
  - The question in KAIS 2012 that specifies source of blood donation request among donors in the 12 months before the survey had several possible sources: blood transfusion service, family/friend, hospital transfusion service, four KNBTS affiliate organizations, and unspecified.
  - Though most adults who donate blood do so through the KNBTS network, it is still possible to voluntarily donate blood to private, public, and mission hospital blood banks outside of this network. Therefore, the denominators for the KNBTS and KAIS numbers are not necessarily the same.
  - KAIS 2012 data are based on participant self-report and are therefore subject to participant recall bias and social desirability bias. In KAIS 2012, participants were asked if they had donated in the past 12 months, but it is possible that some participants reported donations beyond the one-year time frame. In addition, since people know that it is beneficial to the public to donate blood, in an interview setting, they may report that they have donated blood when they actually did not.
  - In contrast to the KNBTS estimate, the KAIS 2012 estimate is based on the 2009 census and computed using un-normalized survey weights. Because there are strict eligibility criteria for age, weight, and clinical ranges to donate blood in Kenya, not all persons aged 15 to 64 years are equally eligible to donate blood. Population projections used to calculate the national estimate for blood donation were based on age, sex, and regional distributions in the total general population of persons aged 15 to 64 years and not the eligible donor population.
  - In addition, there is a possibility that KNBTS data were incomplete due to reporting lapses or inconsistencies across the country.
- These reasons in combination likely contributed to an overestimation of the KAIS 2012 national estimate of reported blood donations in the 12 months before the survey. Though the discrepancy between the KNBTS and KAIS estimates is considerable, the KAIS 2012 estimate nonetheless indicates that there is a pool of potential blood donors whom the KNBTS network may have not reached.

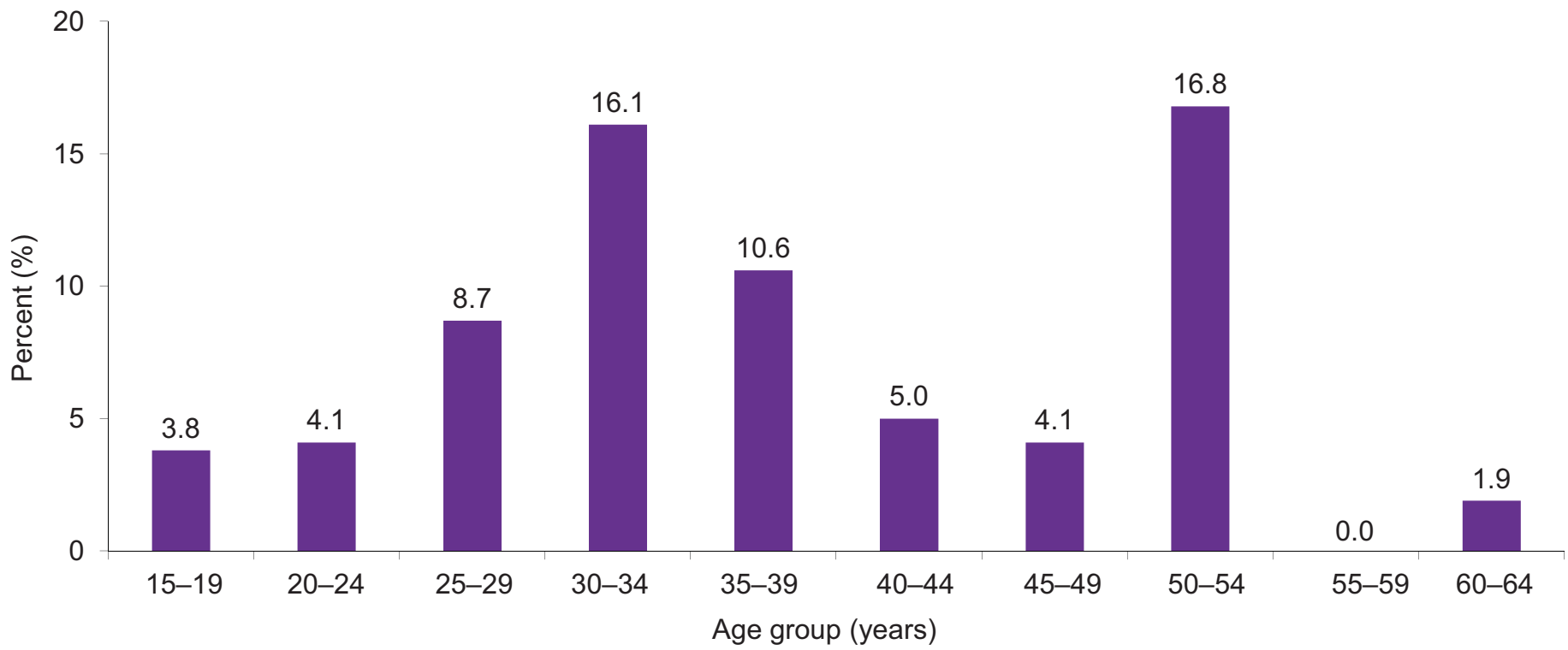
14.4 Blood Transfusions

The section related to blood transfusions in the KAIS 2012 interview asked adults and adolescents whether they had ever had a blood transfusion and when the last transfusion was.

Although the risk is very small, blood transfusions have the potential of transmitting infections such as HIV, to the recipient. In addition, HIV disease, as well as enrolment into care, has been shown to be a driver of transfusion demand among patients whose doctors prescribes blood for an infectious disease diagnosis. With improved testing, the rate of transfusion-transmitted HIV infection has reduced substantially. This section focuses on transfusion history among KAIS adults and adolescents and HIV prevalence among those who had ever received a blood transfusion. When reading this chapter it is important to note that temporality of HIV infection (that is, whether HIV infection occurred before or after the blood transfusion), could not be determined in KAIS 2012.

Overall, a total of 4.8% adults and adolescents aged 15 to 64 years reported ever having received a blood transfusion. Among these adults and adolescents, 5.9% were women and 3.7% were men.

Figure 14.4a: HIV prevalence among adults and adolescents aged 15-64 years who reported ever receiving a blood transfusion by age group, KAIS 2012



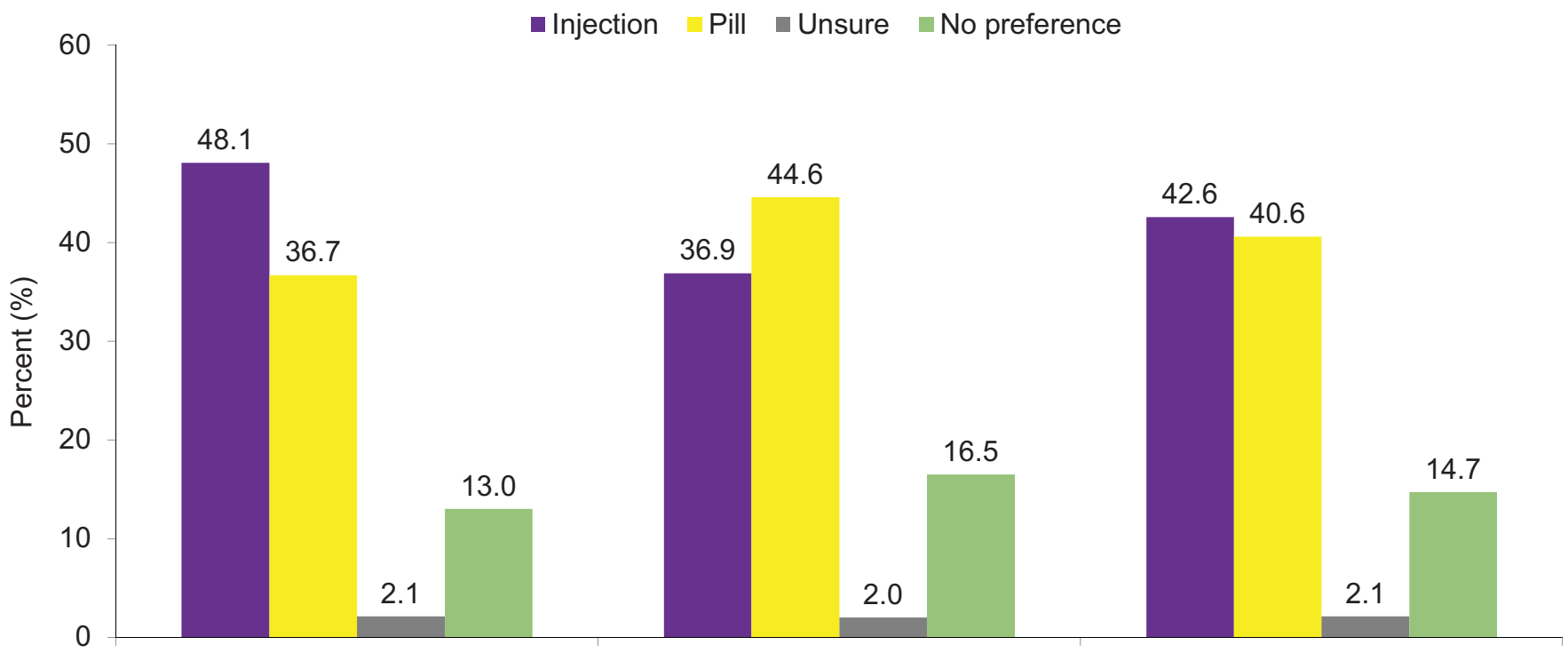
HIV prevalence among blood transfusion recipients was highest among those aged 50 to 54 years and 30 to 34 years (16.8% and 16.1% respectively).

The overall HIV prevalence among adults and adolescents who reported ever being transfused was 7.0%; 8.1% in women and 5.1% in men. There was wide variation in HIV prevalence by age group. Prevalence was low in the 15 to 19 year age group (3.8%) and increased in age group 30 to 34 years (16.1%) before dropping in subsequent age groups. The highest HIV prevalence rate was observed among adults aged 50 to 54 years (16.8%).

14.5 Medical Injections

Injections given by health care workers and traditional practitioners have the potential of transmitting HIV and other diseases. This can occur in the event of unsafe administration of the injection, including reuse of injectable devices as well as unsafe disposal of needles and syringes. The Ministry of Health developed safe injection and medical waste disposal policy guidelines in 2006 to address these concerns. Among the recommendations were to: 1) raise public awareness to decrease injection demand from patients, which drives up unnecessary injections; 2) to support use of sterile, single-use injection devices and; 3) to ensure safe disposal of medical waste. In KAIS 2012, 31.2% of all adults reported receiving at least one medical injection in the 12 months prior to the survey.

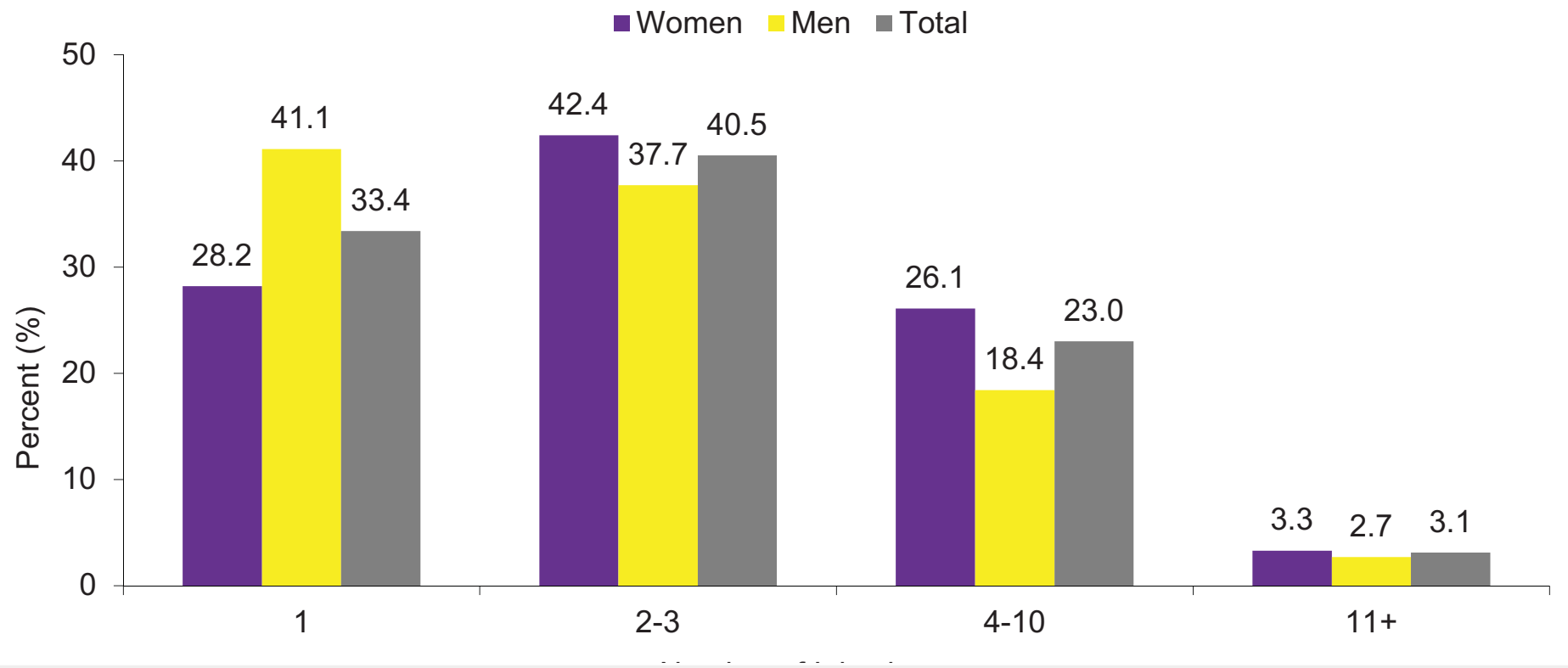
Figure 14.5a: Preferred form of medication among women and men aged 15-64 years, KAIS 2012



Overall, preference for injections or pills as the form of medication was roughly equal (42.6% vs. 40.6%).

Overall, 42.6% of adults and adolescents reported that they preferred injections as a mode of medication, 40.6% preferred pills, and 16.8% had no preference or were unsure. Differences by sex were observed: women were more likely to prefer injections than men (48.1% vs. 36.9% respectively) while men were more likely to prefer pills (44.6% vs. 36.7% respectively).

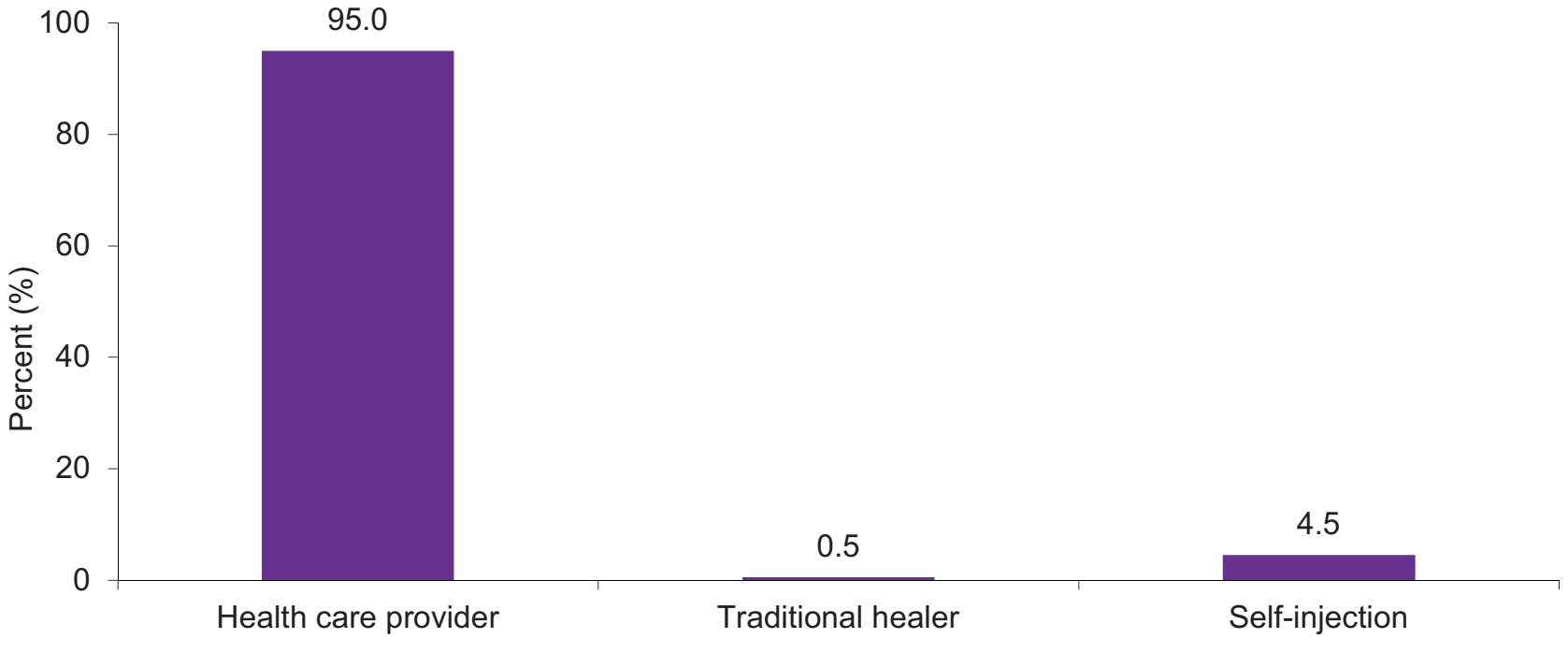
Figure 14.5b: Number of reported medical injections in the past 12 months among adults and adolescents aged 15–64 years by sex, KAIS 2012



A majority of those who received injections from health care workers received two to three injections in the 12 months before the survey.

Of adults and adolescents who reported having medical injections in the 12 months before the survey, 33.4% reported receiving only a single injection, 40.5% reported receiving two to three injections, 23.0% reported receiving four to 10 injections, and 3.1% reported receiving 11 or more injections. The number reporting injections in the 12 months prior to the survey varied by sex: 41.1% of men received one injection while 42.4% of women received two to three injections in the 12 months prior to the survey.

Figure 14.5c: Source of injections among adults and adolescents aged 15–64 years who received an injection in the past 12 months, KAIS 2012



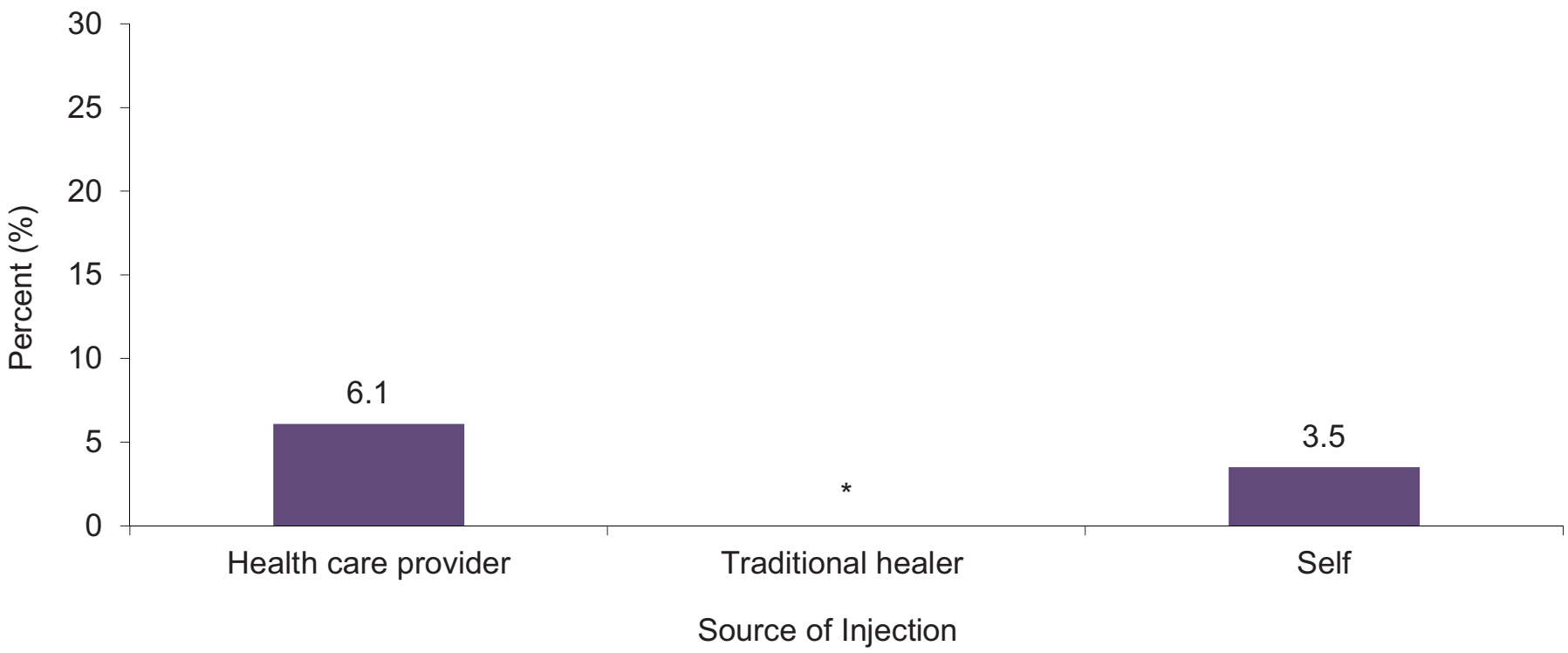
A majority of those who received injections in the last 12 months before the survey received them from health care workers.

Ninety-five percent of people who received injections in the 12 months before the survey had an injection administered by a health care provider, 0.5% from a traditional practitioner or healer, and 4.5% reported that they had self-administered an injection prescribed by a health care worker in the past 12 months.

Among persons who reported medical injections from health workers in the 12 months before the survey, 95.9% reported that they observed the health worker take the needle and syringe used from an unopened packet.

* Weighted estimates are not shown due to small denominators (<25 observations).

Figure 14.5d: HIV prevalence among adults and adolescents aged 15-64 years who received an injection in the past 12 months by source of injection administration, KAIS 2012



HIV prevalence was higher among adults and adolescents who reported receiving an injection under a traditional healer than it was among those who reported health care provider administered and self-administered injections.

There was variation in HIV prevalence based on the source of injections. HIV prevalence was 3.5% among those who self-administered and 6.1% in those who received injections from health workers. The overall prevalence of HIV among those who reported having received any medical injection in the past 12 months (from a health care provider, traditional healer, or self-injection) was 6.0% HIV prevalence increased with an increasing number of reported injections in the past 12 months. HIV prevalence among individuals receiving 4 to 10 injections was one and a half times that of individuals receiving 1 or 2 injections. Whereas the prevalence among individuals receiving 11 or more injections was at least twice as much that of individuals receiving 1 or 2 injections. HIV prevalence among those receiving a single injection (5.2%) and 11 or more injection (11.8%) was lower than the findings from KAIS 2007 (8.4% and 13.9% respectively).

These findings should be carefully interpreted, as temporality and causality cannot be determined from these cross-sectional data. In addition, possible confounders that could have substantially biased the observed association were not adjusted for in the analysis. Knowledge of HIV infection is a possible confounder as HIV-infected persons are more likely to experience illness and may be more likely to receive injections than HIV-uninfected persons. An additional confounder for this association may be sex, as women in the KAIS 2012 had significantly higher prevalence of HIV compared with men. Additionally, more women reported receiving at least one medical injection in the 12 months before the survey compared with men.

Improvements in the blood transfusion and injection safety programs

- Based on KAIS data, blood donation has increased by about 100,000 units from 2007 to 2012. Voluntary non-remunerated donors to the KNBTS network have also increased from 48.0% in 2007 to 55.0% in 2012.
- HIV prevalence among those who donated blood to the KNBTS network has declined from 2.5% in 2007 to 1.6% in 2012. This HIV prevalence estimate is below the general population prevalence and a good reflection of routine blood donor HIV prevalence data captured by KNBTS.
- Preference of injections as a mode of medication has dropped by 8.0% from 51.0% in 2007 to 43.0% in 2012. Furthermore, while we cannot imply causality, HIV prevalence among those who reported receiving a medical injection in the 12 months before the survey decreased from 9.2% in 2007 to 6.0% in 2012.

14.6 Gaps and Unmet Needs

- Four in ten blood donors within the past 12 months donated outside the Kenya National Blood Service network. HIV prevalence among these donors was more than three times higher than donors who reported donating in response to requests from the KNBTS. The pool of regular, voluntary blood donors to the KNBTS network should be increased to minimize the need for replacement donations requested by family and friends.
- Four in every ten participants (including half of women) preferred an injection over a pill as a mode of treatment. Additionally, one-third of adults had received at least one injection in the previous 12 months. The National Injection Safety Communication Strategy 2010 needs continued implementation, including targeting both the community and health workers to reduce injection preference and unnecessary injection use.

15 CARE AND TREATMENT OF ADULTS AND ADOLESCENTS INFECTED WITH HIV

15.1 Key Findings

- About half (46.9%) of the HIV-infected adults and adolescents surveyed were aware of their HIV status. Among HIV-infected adults and adolescents who were aware of their HIV status, enrolment in HIV care was high (89.3%). Of those enrolled in HIV care, 79.4% enrolled within three months of HIV diagnosis.
- Nationwide, the coverage of co-trimoxazole prophylaxis among all HIV-infected adults and adolescents was 41.5%. However, among those who knew their HIV status, access was 88.6%.
- Overall, 60.5% of all HIV-infected adults and adolescents eligible for ART were taking ART. Among those who knew their HIV status and were ART-eligible, 84.5% were taking ART.
- Among HIV-infected adults and adolescents on ART, 83.7% reported they did not miss taking their ARVs in the 30 days prior to the survey.
- Among HIV-infected adults and adolescents on ART, 75.4% were virally suppressed (defined as ≤1,000 copies/ml). Viral load suppression was higher among those adhering to ART (78.5%) compared with those who reported that they missed taking their ARVs in the 30 days prior to the survey (57.9%).

15.2 Introduction

The Ministry of Health recommends a set of care and treatment interventions for HIV-infected adults and adolescents enrolled in HIV care. These interventions include: daily use of co-trimoxazole; prevention with positive interventions; screening, prophylaxis, and treatment for tuberculosis (TB); provision of reproductive health services; use of mosquito nets to prevent malaria; and proper hygiene, among others.

The Guidelines for Antiretroviral therapy (ART) in Kenya recommend daily co-trimoxazole for everyone with HIV infection, regardless of CD4 count or disease stage. This recommendation is in line with WHO guidelines and is supported by available evidence. Additionally, as part of care, CD4 count measurement is recommended every six months for ART eligibility determination and for treatment monitoring. The use of ART is associated with significant reduction in morbidity and mortality.

The Ministry of Health recommends initiation of ART for all adults and adolescents with CD4 count of <350 cells/mm3, WHO clinical disease stage III or IV irrespective of CD4 count, for all persons who have HIV with active TB and Hepatitis B Virus (HBV)/HIV co-infected patients. The goal of ART is to achieve maximal and durable viral suppression. Adherence to ART is one of the major determinants of viral suppression and treatment success. It is expected that patients with good adherence who have been on treatment for more than six months should have full viral suppression to undetectable levels.

This chapter examines the use of care and treatment interventions that include enrolment into HIV care and retention, co-trimoxazole use, nutritional supplementation, and ART. In addition, the chapter examines adherence to ART among those on treatment and viral load suppression in the same population.

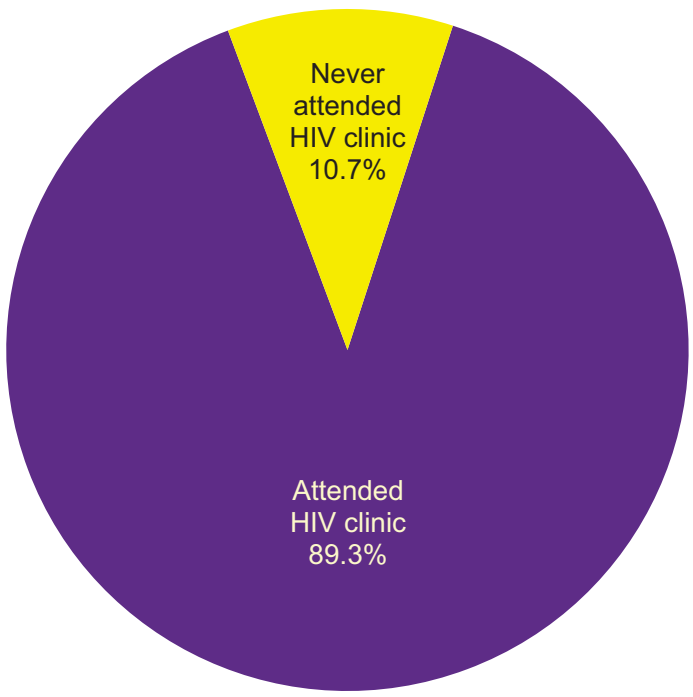
Throughout this chapter the term “self-reported HIV positive” or “self-reported HIV negative” refers to the respondent’s self-reported HIV status, while the term “HIV-infected” or “HIV-uninfected” refers to the actual HIV status of the respondent based on laboratory results from the survey.

Coverage is defined by the proportion of those using HIV services among all HIV-infected adults and adolescents irrespective of knowledge of HIV status, while access is defined as the proportion of those using HIV services among all HIV-infected eligible adults and adolescents who were aware of their HIV status. Of note is that knowledge of HIV status determines whether the person will seek care and hence has an impact on coverage, while linkage to health facilities determines access to services among those who know their status.

15.3 Enrolment into Care and Retention for HIV-Infected Adults and Adolescents

The diagnosis of HIV infection is the first step in the care and treatment cascade. Linkage to care from diagnosis has received a lot of emphasis since KAIS 2007. Linkage to care helps ensure people living with HIV receive a set of interventions including life-saving medical care and treatment and helps reduce their risk of transmitting HIV to others. In KAIS 2012, we collected information on enrolment into HIV care, including time from diagnosis to entry into care.

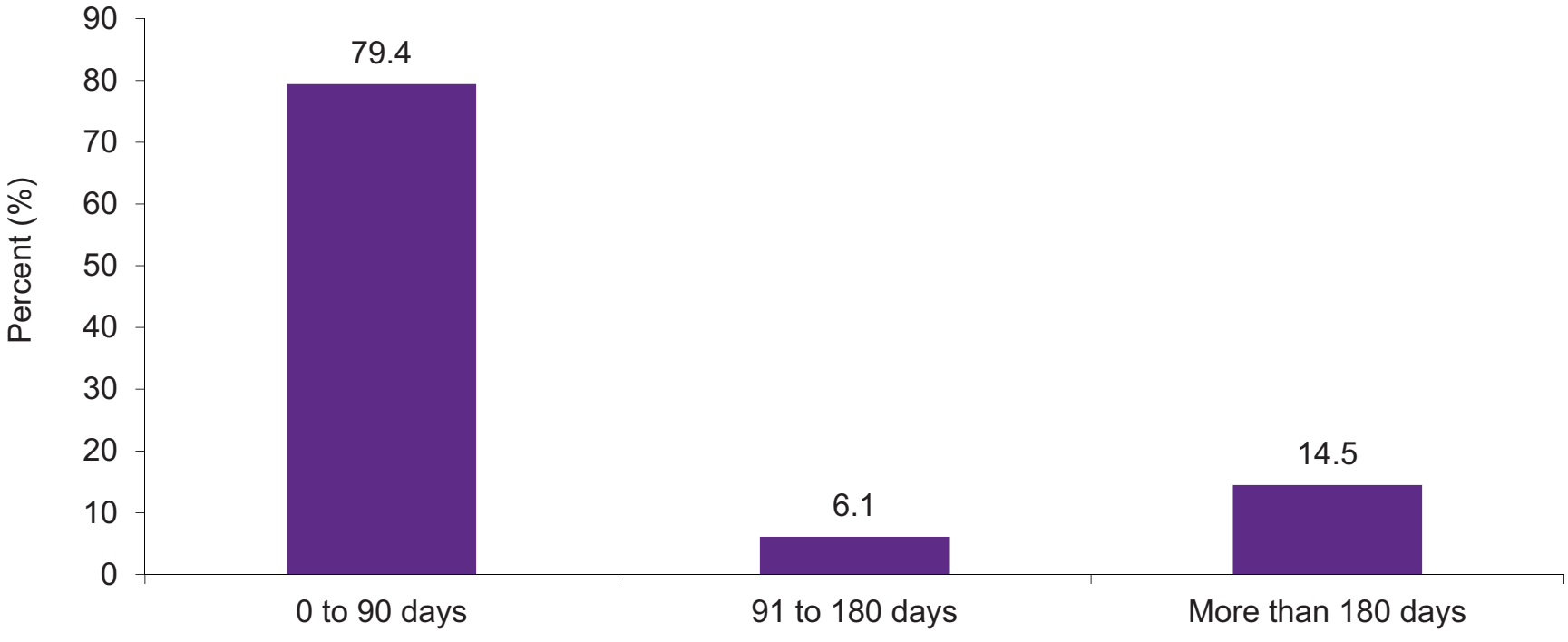
Figure 15.3a: Enrolment in HIV care among adults and adolescents who self-reported HIV positive status, KAIS 2012



The majority of HIV-infected adults and adolescents who were aware of their HIV status were enrolled in HIV care.

Enrolment in HIV care among HIV-infected adults and adolescents who knew their HIV-positive status was high (89.3%). Some of the reasons for not enrolling in care included feeling healthy, fear of discrimination, and being too busy to attend a clinic.

Figure 15.3b: Time from diagnosis to enrolment in HIV care among adults and adolescents who self-reported HIV positive status and were currently in HIV care, KAIS 2012

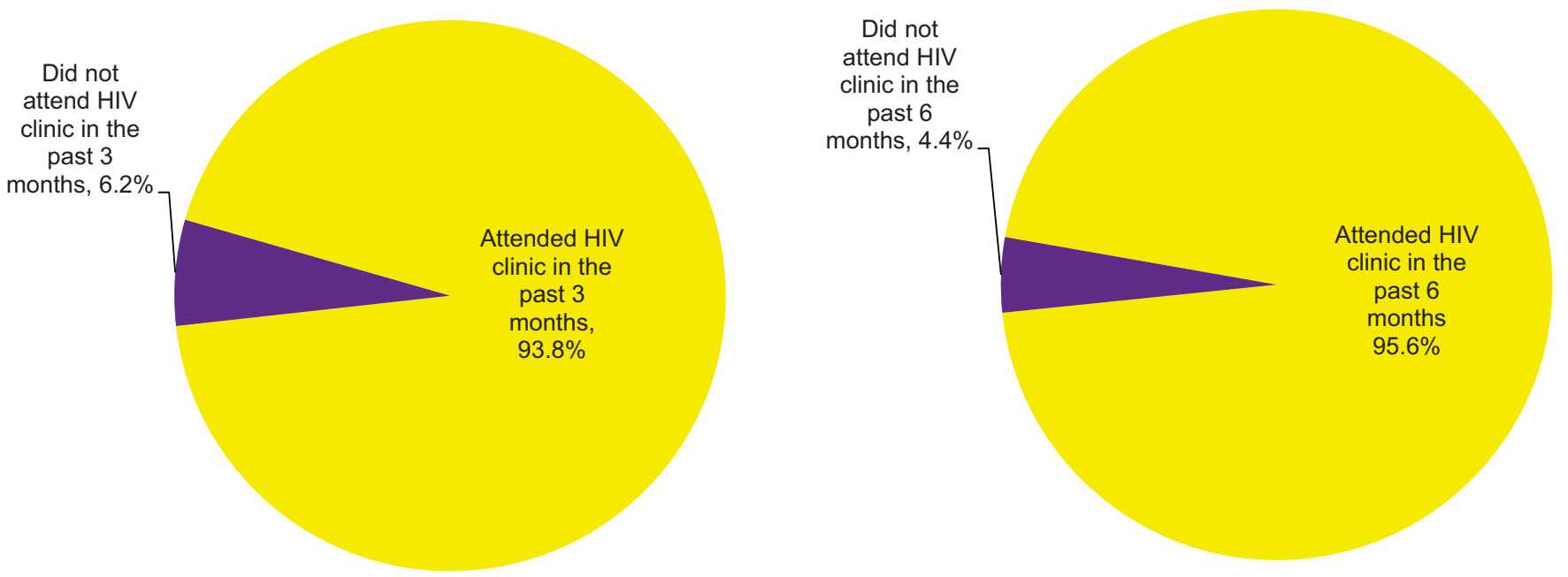


The majority (89.3%) of HIV-infected adults and adolescents who were aware of their HIV status were enrolled in HIV care (Fig. 15.3a). Among those who had enrolled in HIV care, more than three-quarters (79.4%) attended a clinic within three months of HIV diagnosis (Fig. 15.3b).

The MoH recommends that all adults and adolescents testing HIV-positive should be enrolled in HIV care as soon as possible, preferably within three months of testing positive.

Among adults and adolescents whose data on time to enrolment was available, the majority (79.4%) enrolled in the first three months following HIV diagnosis indicating. Of note is that among those who enrolled in care, approximately one-quarter did not provide data on time from HIV diagnosis to enrolment in HIV care.

Figure 15.3c: Proportion of adults and adolescents aged 15–64 years who self-reported HIV positive status by HIV clinic attendance in the past 3 and 6 months, KAIS 2012



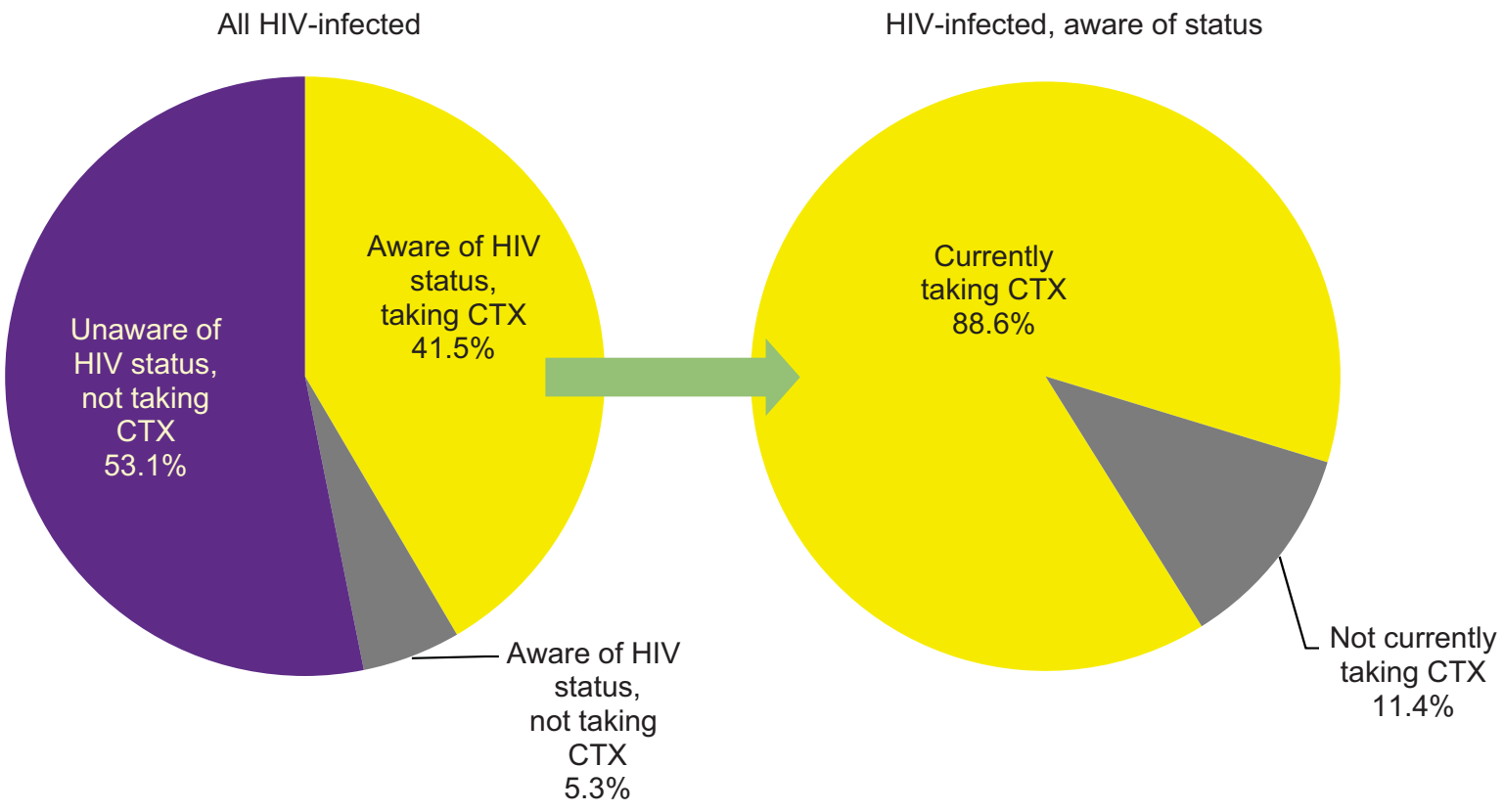
More than nine out of ten patients enrolled in HIV care attended a clinic in the past three months prior to the survey.

The majority of adults and adolescents enrolled in HIV care remained in care, with 93.8% reporting having attended a clinic in the past three months. Clinic attendance is a proxy for retention in care. The MoH recommends that stable patients should be seen at least every three months.

15.4: Co-Trimoxazole Prophylaxis For HIV-Infected Adults and Adolescents

Daily use of co-trimoxazole prevents certain bacterial and parasitic infections that cause pneumonia, diarrhoea, and malaria and prolongs the lives of adults, adolescents and children who have HIV. The MoH recommends that all adults and adolescents infected with HIV, regardless of CD4 count, take co-trimoxazole daily to reduce the risk of illnesses associated with HIV/AIDS.

Figure 15.4a: Co-trimoxazole coverage and access among HIV-infected adults and adolescents aged 15–64 years, KAIS 2012

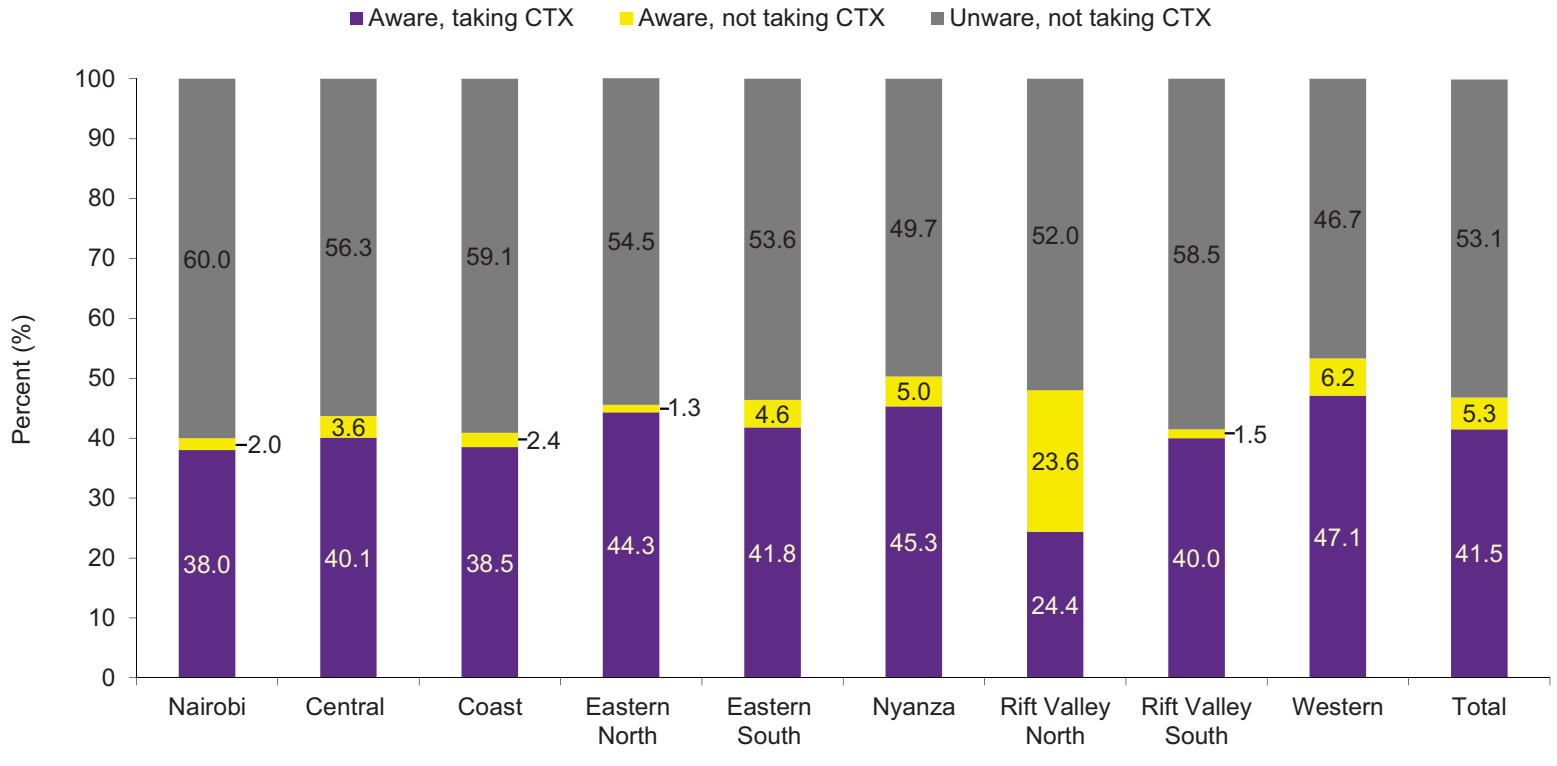


Among all HIV-infected adults and adolescents, approximately four in ten were taking co-trimoxazole. More than half of the adults and adolescents not taking co-trimoxazole were unaware that they were infected. Of those who knew their HIV status, the majority were taking co-trimoxazole.

*Coverage is defined by the proportion of those taking co-trimoxazole among all HIV-infected adults and adolescents irrespective of knowledge of HIV status.
**Access is defined as the proportion of those taking co-trimoxazole among all HIV-infected eligible adults and adolescents who were aware of their HIV status.

In KAIS 2012, co-trimoxazole usage was 41.5% among all HIV-infected adults and adolescents. The majority of those not taking co-trimoxazole were unaware of their HIV-positive status. The low coverage for co- trimoxazole can be explained by the fact only about half (46.9%) of all HIV-infected adults and adolescents were aware of their HIV status. However, 88.6% of all patients who knew they were infected were taking co-trimoxazole, indicating that once diagnosis is made, care and treatment services are available and accessible.

Figure 15.4b: Co-trimoxazole coverage* among HIV-infected adults and adolescents aged 15–64 years by region, KAIS 2012

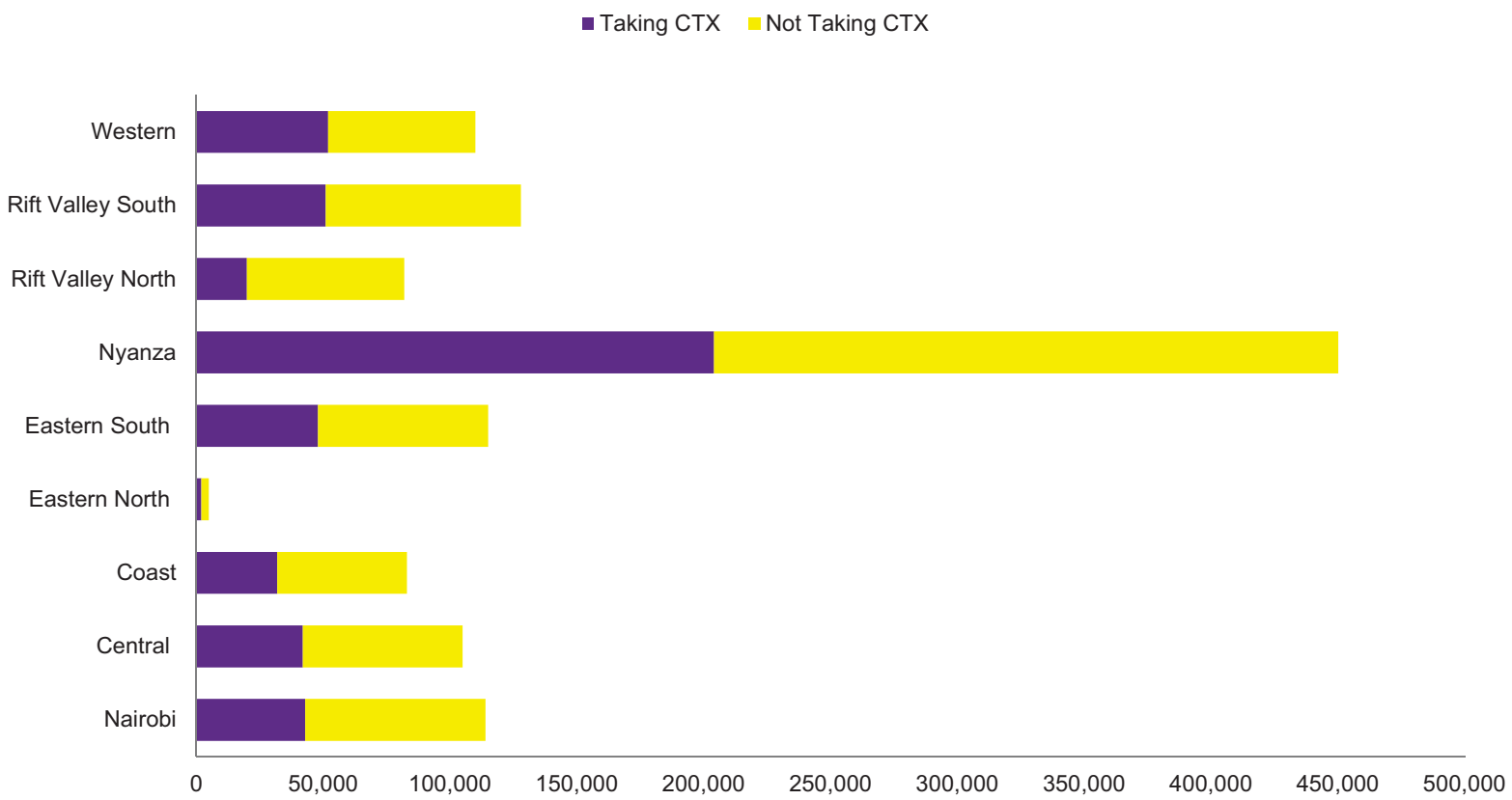


Co-trimoxazole coverage among HIV-infected adults and adolescents varied by region with the highest being in Western region and the lowest in Rift Valley North region.

*Coverage is defined by the proportion of those taking co-trimoxazole among all HIV-infected adults and adolescents irrespective of knowledge of HIV status.

Coverage of co-trimoxazole varied by region from a high of 47.1% in Western region to a low of 24.4% in Rift Valley North region.

Figure 15.4c: Estimated number of HIV-infected adults and adolescents 15-64 years taking and not taking co-trimoxazole by region, KAIS 2012



Nyanza region had the greatest number of adults and adolescents taking and not taking co-trimoxazole while Eastern North region had the lowest number of adults and adolescents taking and not taking co-trimoxazole.

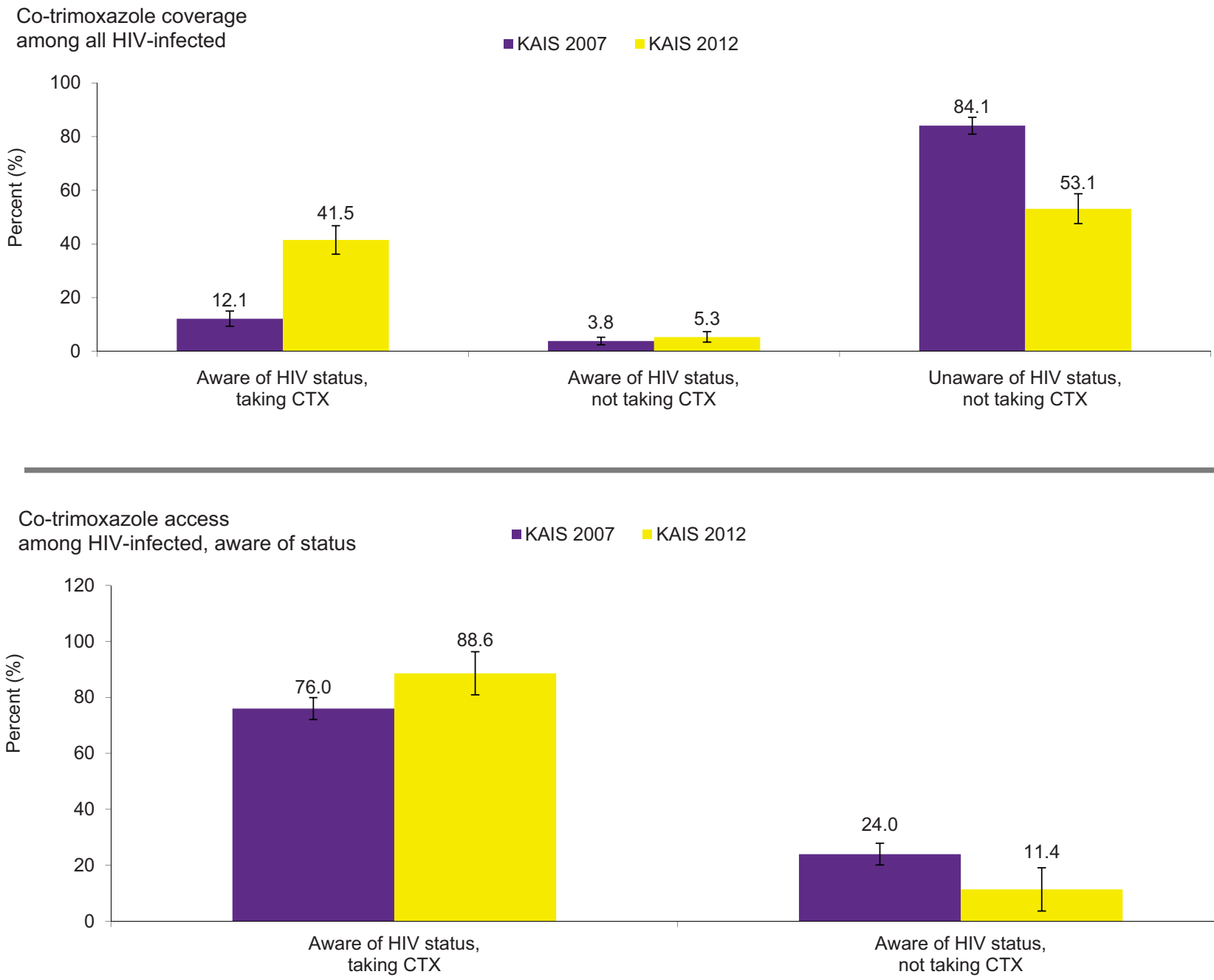
**Access is defined as the proportion of those taking co-trimoxazole among all HIV-infected eligible adults and adolescents who were aware of their HIV status.

Nationally, there were an estimated 495,000 HIV-infected adults and adolescents taking co-trimoxazole and 697,000 not taking co-trimoxazole. Nyanza region had the greatest number of HIV-infected persons taking co-trimoxazole atan estimated 204,000 persons, followed by Western region at an estimated 52,000 persons and Rift Valley North region at an estimated 51,000 persons.

Nyanza region also had the greatest number of adults and adolescents not taking co-trimoxizole, followed by Rift Valley South and Eastern South regions. Eastern North region had the lowest number of persons taking and not taking co-trimoxazole at an estimated 2,000 and 3,000persons, respectively.

Access to co-trimoxazole among HIV-infected adults and adolescents who were aware of their status was higher, ranging from 77.1% in Rift Valley region to 95.0% in Nairobi region. Of note, is that these data exclude North Eastern region.

Figure 15.4d: Comparison of co-trimoxazole coverage* and access among HIV-infected adults and adolescents aged 15–64 years, KAIS 2007 and KAIS 2012**



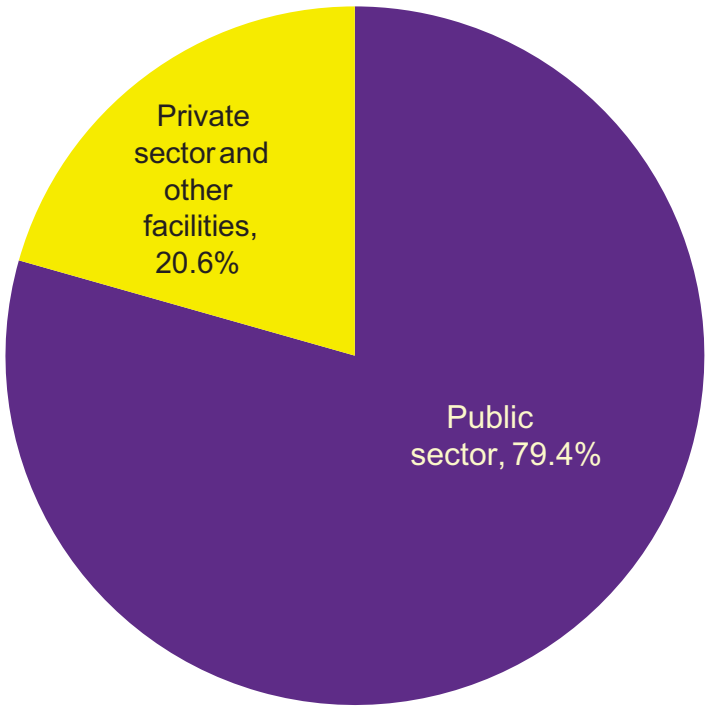
Coverage of co-trimoxazole among all HIV-infected adults and adolescents more than tripled between 2007 and 2012. Among adults and adolescents who were aware of their HIV-positive status, use of co-trimoxazole access increased by 12 percentage points between 2007 and 2012.

* Coverage is defined by the proportion of those using co-trimoxazole among all HIV-infected adults and adolescents irrespective of knowledge of HIV status.

** Access is defined as the proportion of those using co-trimoxazole among all HIV-infected eligible adults and adolescents who were aware of their HIV status.

The coverage of co-trimoxazole among all HIV-infected adults and adolescents improved from 12.1% in KAIS 2007 to 41.5% in KAIS 2012. Among adults and adolescents who were aware of their HIV-positive status, 88.6% of them were taking co-trimoxazole in KAIS 2012 compared with 76.0% who had been taking co-trimoxazole in KAIS 2007. This represents an improvement in access to co-trimoxazole.

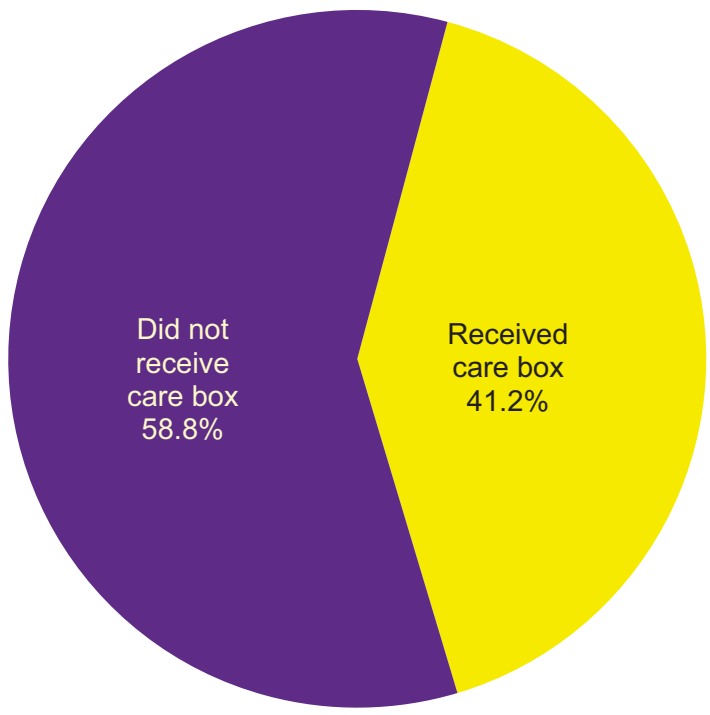
Figure 15.4e: Source of co-trimoxazole among adults and adolescents aged 15–64 years who self-reported HIV positive status, KAIS 2012



More than three-quarters of HIV-infected adults and adolescents who reported taking co-trimoxazole obtained it from public health facilities.

Co-trimoxazole is widely available in Kenya and can be accessed at private and public facilities. Of all HIV-infected adults and adolescents taking co-trimoxazole, 79.4% obtained it at public facilities such as government hospitals, health centres and public dispensaries. The remaining 20.6% obtained it from private hospitals and clinics, mission or church facilities or other facilities.

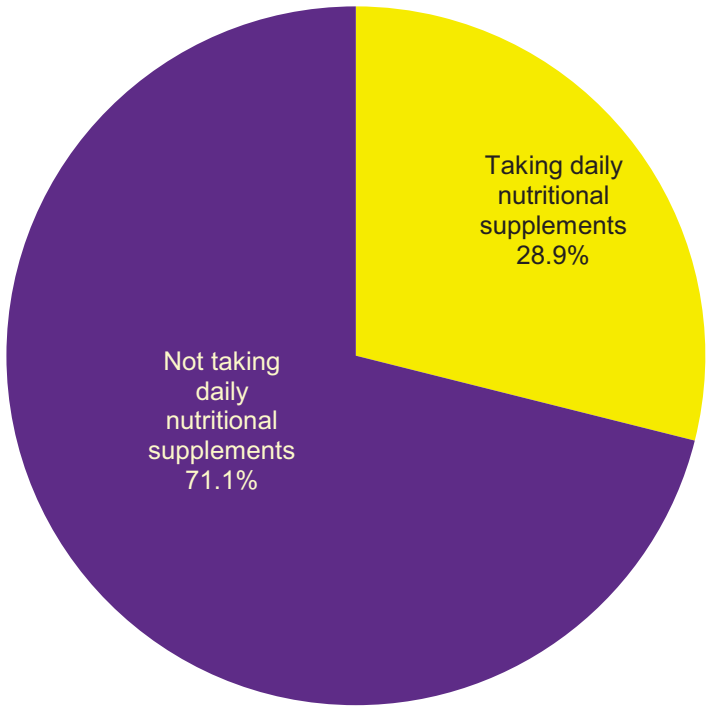
Figure 15.4f: Proportion receiving HIV care box among self-reported HIV positive adults and adolescents aged 15–64 years who had ever enrolled in HIV care, KAIS 2012



Among patients who had ever enrolled in care, 41.2% ever received an HIV care box. Items in the care box included mosquito nets, water treatment, a plastic clean water vessel, a filter cloth, condoms, and educational materials.

The MoH recommends that all adults and adolescents in HIV care access a set of prevention interventions to prevent illness. These are low-cost interventions that are practical and aimed at preventing opportunistic infections such as malaria and diarrheal diseases. In 2009, the MoH started a pilot program to provide a basic care package (HIV care box).The items in the HIV care box included mosquito nets, water treatment, a plastic clean water vessel, a filter cloth, condoms, and educational materials. Of those ever enrolled in HIV care, 41.2% had received an HIV care box.

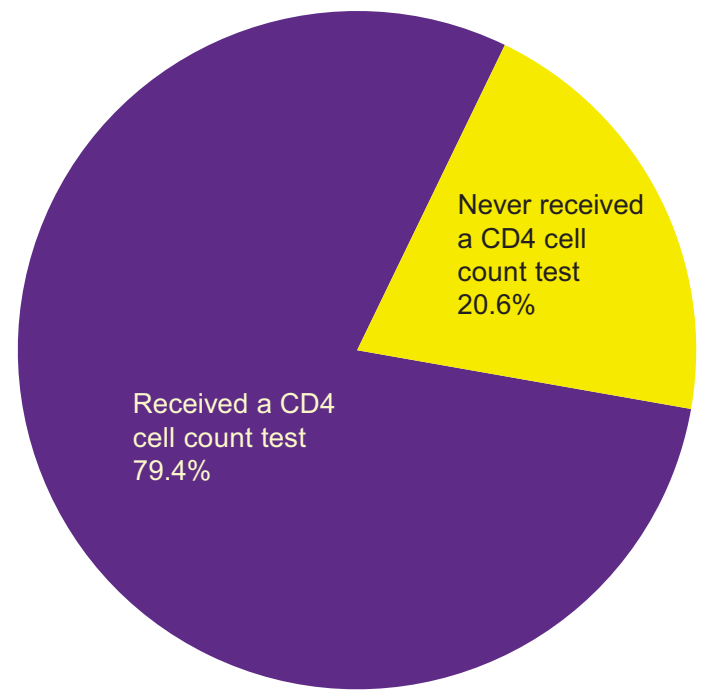
Figure 15.4g: Proportion taking nutritional supplements among adults and adolescents aged 15–64 years who self-reported HIV positive status, KAIS 2012



Less than one-third of adults and adolescents in HIV care were taking some form of nutritional supplement.

Studies suggest that people with HIV infection benefit from receiving nutritional and multivitamin supplements, as these may reduce morbidity and delay progression to advanced stages of disease. Among adults and adolescents ever enrolled in HIV care, 28.9% were taking daily nutritional supplements.

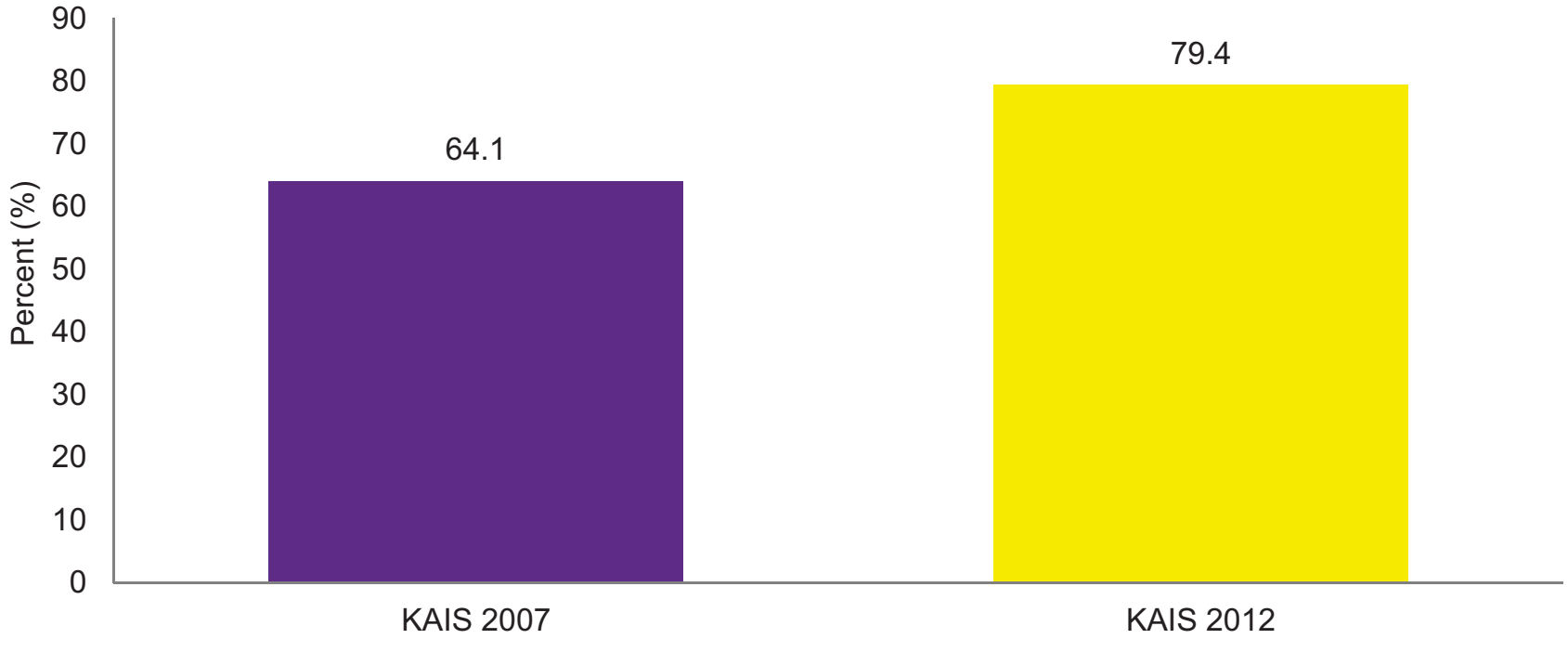
Figure 15.4h: Proportion receiving a CD4 cell count test among adults and adolescents aged 15–64 years who self-reported HIV positive status, KAIS 2012



Among HIV-infected adults and adolescents who were aware of their infection, 79.4% reported they had ever received a CD4 cell count test.

Immunological monitoring using CD4 cell count is used for patient monitoring. The Guidelines for ART in Kenya recommends that HIV-infected adults and adolescents should have their CD4 cell counts measured at enrolment into HIV care (baseline) and every six months to assess their disease status and determine eligibility for ART. Among HIV-infected adults and adolescents who were aware of their HIV-positive status, 79.4% reported having ever received a CD4 cell count test.

Figure15.4i: Proportion of adults and adolescents aged 15–64 years who self-reported HIV positive status and ever received a CD4 cell count test, KAIS 2007 and KAIS 2012



Access to CD4 cell count testing among adults and adolescents aware of their HIV-positive status has improved since KAIS 2007.

The proportion of patients enrolled in HIV care who reported ever receiving a CD4 cell count test increased from 64.1% in KAIS 2007 to 79.4% in KAIS 2012. The improvement in access to CD4 testing may be attributed to improved infrastructure, establishment of laboratory networks, and decentralization of testing services that have taken place over the past five years since KAIS 2007.

15.5 Antiretroviral Treatment Eligibility, Coverage, and Access

Once HIV infection is diagnosed, providing ART effectively requires the establishment of patient eligibility for treatment and provision of a reliable supply of drugs.

Currently in Kenya, ART is recommended for persons with CD4≤350 cells/μL and persons with active tuberculosis or persons with WHO clinical stage III or IV conditions irrespective of CD4 cell count. In 2013, the WHO released new global recommendations for ART initiation. This guidance raised the immunologic threshold for ART initiation from CD4≤350 cells/μL to CD4≤500 cells/μL and, in addition to the current Kenyan guidance for treatment, recommends ART for HIV-infected women who are pregnant or breastfeeding and HIV-infected persons in sero-discordant relationships, regardless of CD4 cell count. Of note, persons who are already taking ART will continue to require ART for their lifetime and therefore contribute to the population eligible for ART for both the current Kenyan and the 2013 WHO guidelines for ART initiation. Kenya plans to revise its guidelines for treatment to align with the new WHO guidance for ART initiation in 2014.

The table below summarizes CD4 cell count distribution among HIV-infected adults and adolescents aged 15 to 64 years who were not on ART.

Table 15.5: CD4 cell count distribution among HIV-infected adults and adolescents aged 15–64 years not on ART, KAIS 2012

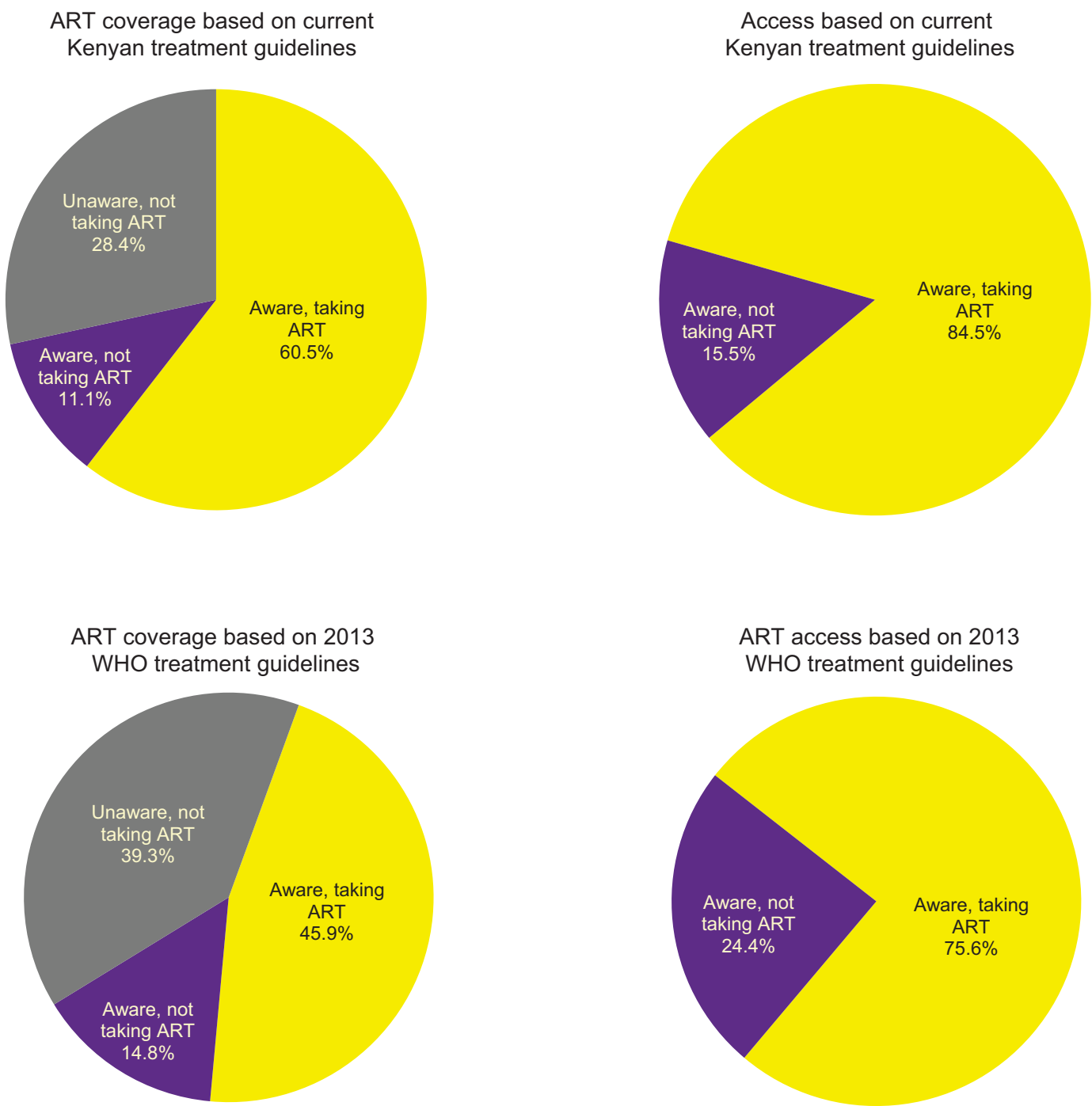
CD4 (cells/μL)	Unweighted n/N	Weighted %	95% CI
≤ 350	57/201	30.6	(22.6, 38.5)
351 - 500	29/201	14.5	(9.3, 19.7)
> 500	115/201	54.9	(47.0, 62.8)
Total	201/201	100	–

Three-quarters of HIV-infected adults and adolescents not on ART had CD4 cell counts greater than 350 cells/μL and were not eligible for ART based on immunologic criterion alone.

Note: HIV-infected individuals who were not taking ART and for whom CD4 cell count data were not available were excluded from this analysis. For this reason, the total in Table 15.5a does not match the total estimated number not taking ART.

The results indicated that 54.9% had CD4 counts of more than 500 cells/μL; 14.5% had CD4 counts of 351–500 cells/μL , while 30.6% had CD4 counts of ≤350 cells/μL.

Figure 15.5a: ART coverage* and access among HIV-infected adults and adolescents aged 15–64 years by eligibility*** criteria, KAIS 2012**



ART coverage among all HIV-infected adults and adolescents who needed treatment, using the current Kenyan treatment guidelines was 60.5%. Using the 2013 WHO treatment guidelines the ART coverage was 45.9%.

*Coverage is defined by the proportion of those on ART among all HIV-infected eligible adults and adolescents, irrespective of knowledge of HIV status.
**Access is defined as the proportion of those on ART among all HIV-infected eligible adults and adolescents who were aware of their HIV status.
***Under current Kenya treatment guidelines, ART eligibility includes persons ever on ART regardless of CD4 count, persons not on ART who have a CD4≤ 350 cells/μL, and persons currently on TB medication regardless of CD4 count. Under current WHO guidelines, ART eligibility includes all persons eligible according to current Kenya guidelines plus persons not on ART and who have a CD4≤ 500 cells/μL, women who are pregnant or breastfeeding regardless of CD4 count, and infected partners in a discordant relationship regardless of CD4 count.

Using the ART eligibility criteria in the current Kenyan and 2013 WHO guidelines for ART initiation, we estimated the proportion of HIV-infected persons who were eligible for ART. Because physical examinations and medical histories were not conducted in KAIS 2012, it was not possible to determine WHO clinical stage. Therefore, some infected but untreated adults and adolescents with WHO stage III or IV disease may have been eligible to begin ART therapy but are not counted in the eligible population. ART coverage was estimated by taking numbers of adults and adolescents on ART divided by the number of persons eligible for ART.

Using the current Kenyan treatment guidelines, coverage of ART among all HIV-infected adults and adolescents was 60.5%. Among HIV-infected adults and adolescents who were aware of their status and eligible for ART, 84.5% of them were taking ART. This high level of utilisation indicates that once infected adults and adolescents are aware of their status, HIV treatment services are available and accessible. When we used the 2013 WHO treatment guidelines to derive coverage and access, coverage of ART among all eligible HIV-infected adults and adolescents decreased to 45.9%, while ART access decreased to 75.6%.

Our estimates of ART use were based on self-reported data which is subject to reporting bias. If bias was high, then our estimates of ART coverage are likely to be an underestimate of the true estimate of ART coverage.

Progress: Antiretroviral therapy eligibility, coverage, and access from KAIS 2007 to KAIS 2012

In 2012, ART coverage based on the current Kenyan ART guidelines which recommend ART at a immunologic threshold of CD4 cell counts of 350 cells/μL or lower was 60.5%, compared with 28.6% in 2007. This improvement in coverage has been supported by an increase in HIV testing and knowledge of HIV status among Kenyans, as well an increase in CD4 testing for those enrolled in care.

Table 15.5b: Estimates of ART need and coverage among HIV-infected adults and adolescents aged 15-64 years by eligibility criteria*, KAIS 2012**

	Current Kenya treatment guidelines		2013 WHO treatment guidelines	
	Weighted % (95% CI)	Population Size (95% CI)	Weighted % (95% CI)	Population Size (95% CI)
ART eligibility among HIV-infected	58.8 (52.7-64.9)	674,000 (553,000 – 794,000)	77.4 (72.4-82.4)	888,000 (766,000 – 1,009,000)
Coverage of ART among HIV-infected eligible for ART	60.5 (50.8-70.2)	407,000 (312,000 – 503,000)	45.9 (37.7-54.2)	407,000 (308,000 – 507,000)

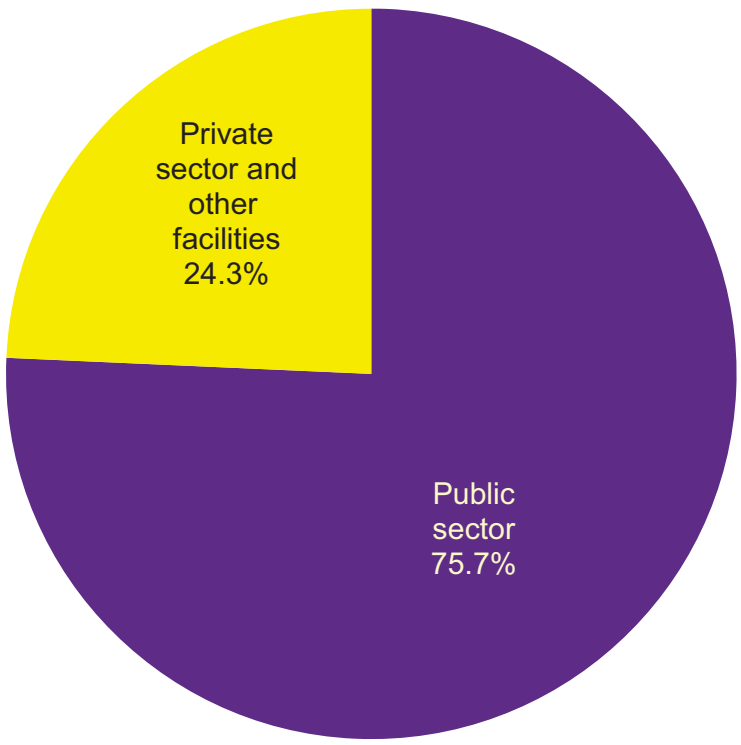
***Under current Kenya treatment guidelines, ART eligibility includes persons ever on ART regardless of CD4 count, persons not on ART who have a CD4≤ 350 cells/μL, and persons currently on TB medication regardless of CD4 count. Under current WHO guidelines, ART eligibility includes all persons eligible according to current Kenya guidelines plus persons not on ART and who have a CD4≤ 500 cells/μL, women who are pregnant or breastfeeding regardless of CD4 count, and infected partners in a discordant relationship regardless of CD4 count.

In absolute numbers, the number of treatment-eligible adults and adolescents using the current guidelines for initiating treatment in Kenya was 674,000 (553,000 to 794,000) in 2012 and increased to 888,000 (766,000 to 1,009,000) using the 2013 WHO treatment guidelines. This corresponds to approximately 214,000 additional persons who are currently not eligible under the current Kenya treatment guidelines but would be eligible under the 2013 WHO guidelines and would need to be enrolled on ART.

Data in Context: What is antiretroviral therapy?

Antiretroviral therapy is the treatment of HIV-infected individuals who qualify with antiviral medications that have activity against the human immunodeficiency virus. A combination of drugs acting at different stages of the virus multiplication cycle is used to inhibit viral replication, retarding immune system destruction. Immune system destruction can be estimated by measuring the CD4 cell count. The Ministry of Health currently recommends that all HIV-infected adults and adolescents with a CD4 count of ≤350 cells/μL or persons with active tuberculosis or with WHO stage III or IV conditions regardless of CD4 cell count should be treated with ART. Once on ART, measurement of CD4 cell counts and viral load is recommended to monitor the amount of improvement in the immune system and the response to treatment.

Figure 15.5c: Source of ART for adults and adolescents aged 15–64 years who self-reported HIV positive status and taking ART, KAIS 2012



Three-quarters of all HIV-infected adults and adolescents taking ART obtained it from public and mission health facilities.

ART is widely available in Kenya and can be accessed at private and public facilities. Public sector facilities include government hospitals, health centres, dispensaries, other public facilities, and mission/ church hospitals and clinics. Private sector and other facilities include private hospitals and clinics, other non-public sector facilities.

15.6 Antiretroviral Therapy Adherence and Viral Load Suppression

Table 15.6: HIV-infected adults and adolescents aged 15-64 years who ever enrolled in HIV care by ART use, KAIS 2012

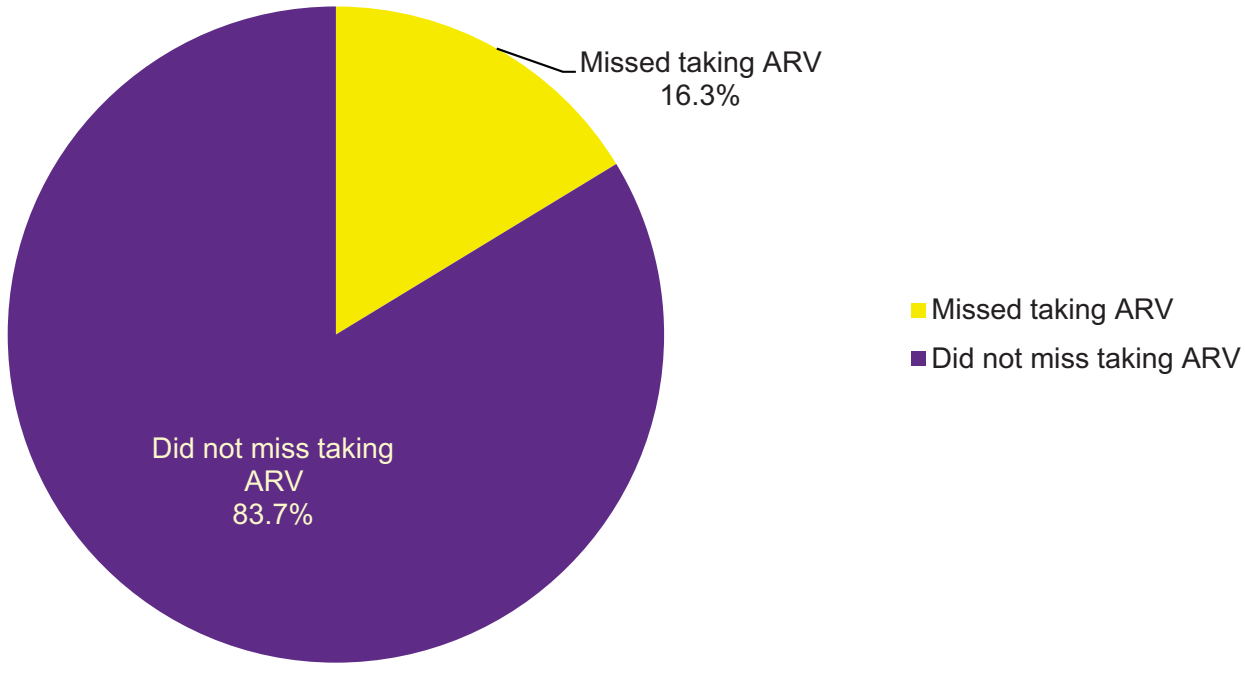
Ever enrolled in care	Unweighted n/N	Weighted %	95% CI
Ever taken ART	245/325	76.5	(70.8, 82.1)
Never taken ART	80/325	23.5	(17.9, 29.2)

Ever enrolled in care/Ever taken ART	Unweighted n/N	Weighted %	95% CI
Currently on ART	233/245	94.8	(91.5, 98.1)
Not currently on ART	12/245	5.2	(1.9, 8.5)

Three quarters of HIV-infected adults and adolescents who were enrolled in care had ever taken ART, of which almost all reported to be currently on ART.

Among HIV-infected adults and adolescents, 89.3% reported ever having enrolled in HIV care. Of those who ever enrolled into care, 76.5% reported ever having taking ART. Of those who had ever taken ART, 94.8% reported currently taking ART.

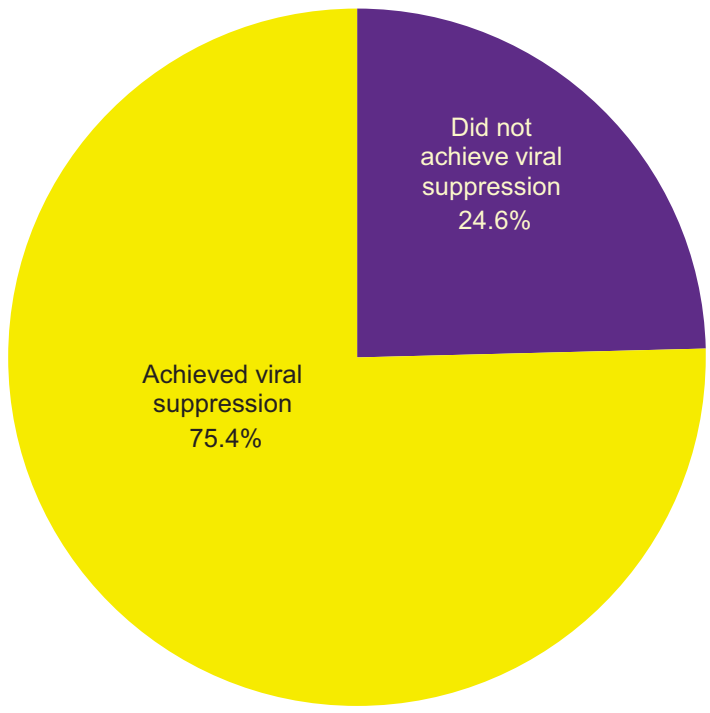
Figure 15.6a: Adults and adolescents aged 15–64 years who self-reported HIV-infected currently taking ART who have missed taking a ARVs in the past 30 days, KAIS 2012



One in six HIV -infected adults and adolescents currently taking ART reported having missed a pill in the past 30 days.

Near-perfect adherence to HIV treatment is necessary to maximize drug effectiveness. Among HIV-infected patients on ART, 16.3% reported that they missed taking their ARVs in the past 30 days.

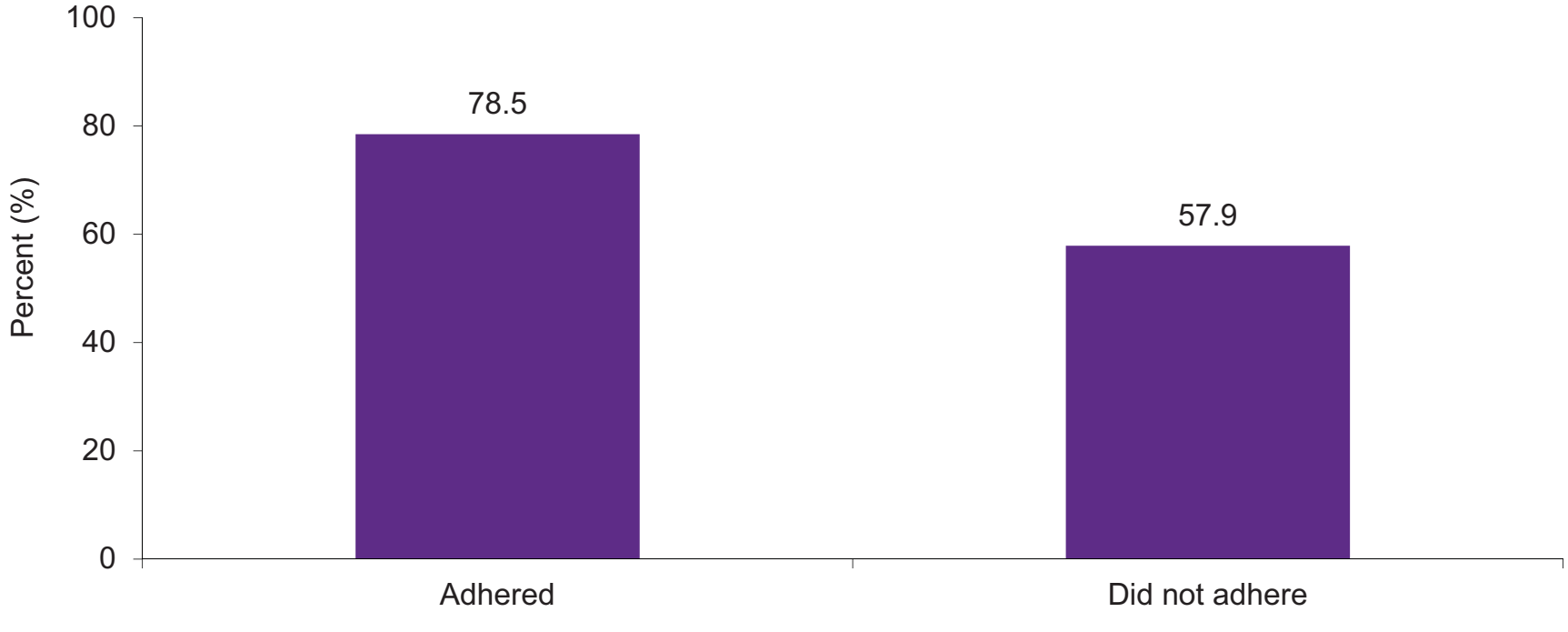
Figure 15.6b: Viral load suppression among those currently taking ART, KAIS 2012



Three-quarters of HIV-infected persons on ART achieved viral suppression.

Viral load determination was carried out among all HIV-infected persons. Of those who reported they were on ART, 75.4% had HIV RNA concentration less than 1,000 copies/ml and were considered virally suppressed.

Figure 15.6c: Viral load suppression in HIV-infected adults and adolescents aged 15–64 years by ART adherence status, KAIS 2012



Viral suppression was higher among those who reported they not missed taking a pill in the past 30 days (adhered) compared with those who reported they missed taking a pill in the past 30 days (non-adherent).

Persons were considered adherent if they reported not missing an ART dose in the past 30 days. Overall, those who reported to be adherent to ART had higher rates of viral load suppression (78.5%) than those who reported to be non-adherence to ART (57.9%).

15.7 Positive Health, Dignity, and Prevention

People with HIV (PwHIV) play a critical role in reducing the impact of the HIV epidemic if they are meaningfully involved through Positive Health, Dignity, and Prevention (PHDP) programs. The PHDP program is a set of interventions that aim to improve the health of PwHIV, reduce onward HIV transmission, meet the contraception needs of women with HIV, and ensure early detection of HIV among PwHIV's sexual partners and children.

Data in Context: Positive Health, Dignity, and Prevention (PHDP)

The Ministry of Health has selected eight indicators to monitor the progress of PHDP implementation. The indicators include ART adherence, disclosure of HIV status, partner testing, consistent condom use, early detection through routine screening and prompt treatment of sexually transmitted infections, use of modern contraceptives, alcohol abuse counseling and treatment, and family HIV testing including home visits. The table below presents data from KAIS 2012 that demonstrate the current need and coverage of select PHDP services among women and men aged 15 to 64 years who self-reported HIV positive status during the survey.

	Women		Men		Total		Ref
Core Element	**Weighted %**	**95% CI**	**Weighted %**	**95% CI**	**Weighted %**	**95% CI**	
ART Adherence Did not miss taking ART in the past 30 days among adults and adolescents aged 15-64 years who self-reported HIV-positive status and were currently on ART	86.3	(80.3, 92.4)	78.2	(67.6, 88.9)	83.7	(78.4, 89.1)	
Disclosure of HIV Status to Sexual Partner Disclosed HIV infection to last sexual partner among HIV-infected women and men aged 15-64 years	60.9	(53.6,68.2)	75.5	(65.8, 5.2)	65.4	(58.9, 71.9)	Figure 8.4a
Knowledge of Sexual Partner's HIV Status: Accurate knowledge of partner's HIV status among adults and adolescents aged 15-64 years in a couple relationship							Figure 10.4e
Concordant HIV+ couple	68.4	(56.3, 80.5)	70.7	(57.4, 83.9)	69.5	(59.9, 79.1)	
Discordant couple male HIV+	72.6	(55.2, 90.0)	49.7	(32.0, 67.3)	60.3	(46.4, 74.2)	
Discordant couple female HIV+	81.5	(69.2, 93.7)	58.4	(42.7, 74.1)	69.3	(58.8, 79.7)	
Condom Use: Consistently used condoms among adults and adolescents aged 15-64 years in a couple relationship who were aware of partner status by HIV status							Figure 10.4g
Concordant HIV+ couple	48.8	(32.4, 65.3)	46.7	(30.7, 62.6)	47.8	(37.3, 58.2)	
Discordant couple male HIV+	22.3	(5.0, 39.6)	*		21.3	(7.4, 35.2)	
Discordant couple female HIV+	29.4	(14.2, 44.5)	28.1	(11.4, 44.8)	28.8	(15.6, 41.9)	
Family Testing Ever been tested for HIV among children aged 18 months to 14 years who have an HIV-infected parent	48.5	(37.0, 60.0)	41.7	(31.6, 51.9)	45.4	(36.0, 54.9)	Figure 12.4d
Family Planning Use of modern contraceptives among women aged 15-49 years who self-reported HIV positive status, were in marital or cohabiting relationships , and reported not wanting another child or wanting a child but not in the next two years	62.0	(52.1, 71.9)	--	--	--	--	Figure 11.9d
Unmet need for family planning among HIV-infected women age 15-49 years in marital or cohabiting relationships who reported not wanting another child or wanting a child but not in the next two years**	38.0	(28.1, 47.9)	--	--	--	--	
Sexually Transmitted Infections (STI) **STI:** Experienced abnormal genital discharge in the past 12 months among adults and adolescents aged 15-64 years who self-reported HIV positive status	9.8	(6.7. 13.0)	4.6	(1.2, 7.9)	7.9	(5.6, 10.1)	
STI: Experienced genital ulcer or sore in the past 12 months among adults and adolescents aged 15-64 years of age who self-reported HIV positive status	7.7	(4.3, 11.1)	8.5	(4.1, 13.0)	8.0	(5.4, 10.7)	

*Data not shown due to small sample size (denominator less than 25 observations).
**This indicator has been analyzed for all HIV-infected women, regardless of whether they knew their status, who desired to delay childbirth for the next two years or to not have another child in the future.
-Treatment of STI symptoms has not been shown due to small sample size (denominator less than 25 observations).
-Alcohol consumption and uptake of alcohol abuse counseling and treatment services have not been presented as these indicators were not included in KAIS 2012.

15.8 Gaps and Unmet Needs

- Because only 46.9% of HIV-infected adults and adolescents were aware of their HIV positive status, coverage of co-trimoxazole prophylaxis among all HIV-infected adults and adolescents was low. More than half of HIV-infected adults and adolescents in need of co-trimoxazole prophylaxis were not taking it.
- Approximately 40%,of HIV-infected adults and adolescents, or an estimated 270,000 persons, who are eligible for ART are not taking ART. The large majority of HIV-infected individuals who were eligible but not on ART were unaware of their status, suggesting a need for increased and targeted testing to identify all HIV-infected individuals.
- The adoption of the 2013 WHO guidelines for ART initiation will increase treatment need by approximately 214,000 additional persons. Treatment and care programs should anticipate this unmet need to accommodate the addition number of persons who need to be reached.
- One in six adults and adolescents on ART reported non-adherence to ART, indicating the need to strengthen adherence interventions.

16 TUBERCULOSIS, SEXUALLY TRANSMITTED INFECTIONS, CERVICAL CANCER, AND PREVENTIVE SERVICES AMONG PEOPLE LIVING WITH HIV

16.1 Key Findings

Tuberculosis

- Overall 2.0% of Kenyan adults and adolescents reported having ever been diagnosed with TB, but, the likelihood of having been diagnosed was nearly eight times higher among the HIV-infected than uninfected adults and adolescents (11.9% vs 1.5%, respectively).
- HIV infected adults and adolescents with a TB diagnosis were more likely to know their HIV status than persons without a TB diagnosis (77.1% vs 42.7%).
- The majority of adults and adolescents ever diagnosed with TB and aware of their HIV infection were on antiretroviral therapy (95.8%).
- Although the majority of Kenyan adults and adolescents reported hearing about TB, less than half of the adult and adolescents population in Kenya knows that TB is curable in persons with co-morbidity with TB and HIV (46.7%).

Sexually transmitted infections (STIs)

- Overall, 0.9% of adults and adolescents reported having an STI in the past 12 months. Prevalence of abnormal genital discharge was higher among women (6.2%) than men (1.5%) across all age groups. A similar observation was noted in the prevalence of genital ulcers (3.8% and 1.6% in women and men respectively).
- HIV prevalence among those who reported an abnormal genital discharge in the 12 months prior to the survey was twice the prevalence in the general population of persons aged 15-64 years, and the HIV prevalence of those who reported a genital ulcer was three times higher.
- The prevalence of HIV was higher among men (14.3%) who reported an abnormal genital discharge than women (11.2%) who reported one. Similarly, men with genital ulcers were almost two times (25.8%) more likely to be HIV-infected than women with genital ulcers (14.3%).

Bed net usage

- Overall bed-net usage among all adults and adolescents aged 15- 64 years the night before the survey was 60.4%. Among HIV-infected persons, 70.3% reported using bed-nets. Use of mosquito bed nets has increased since 2007 for all adults and adolescents.

Cervical Cancer

- Overall 7.8% of women reported having been screened for cervical cancer (12.3% among HIV-infected vs 7.4% among HIV-uninfected)
- Access to cervical cancer screening was higher in urban areas (11.2%) compared to rural areas (5.8%).

16.2 Introduction

HIV places infected persons at increased risk of acquiring a number of infections, malignancies, and chronic illnesses. In this chapter, we report on co-morbidity with TB and sexually transmitted infections.

Population estimates reported in this chapter were calculated using un-normalized survey weights which were reflective of the 2012 projected population data in the 2009 Kenya Population and Housing Census. Detailed methods used for calculating population estimates are described in Appendix A.

Data in Context

The National TB and HIV guidelines recommend the implementation of TB/HIV collaborative activities whose key objectives are:

- To strengthen mechanisms of coordination at all levels
- To decrease the burden of HIV among persons living with HIV through
  - Intensified TB case finding
  - Isoniazid preventive therapy
  - TB infection control
- To decrease the burden of tuberculosis among persons living with HIV and initiate early antiretroviral therapy
  - HIV counselling and testing
  - HIV preventive methods
  - Co-trimoxazole preventive therapy for HIV-infected persons
  - HIV/AIDS care and support
  - Antiretroviral therapy for patients with HIV and TB co-morbidity

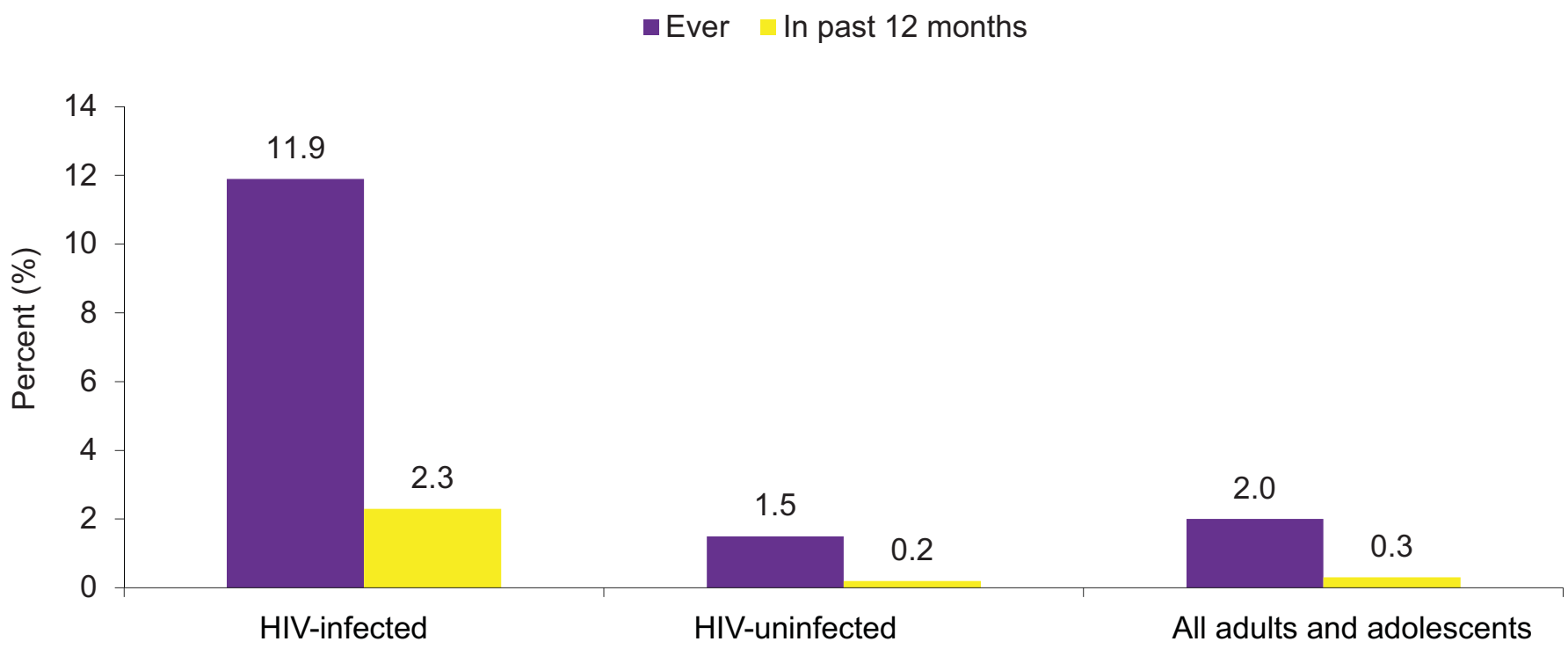
In KAIS 2012, a history of TB was obtained by self-report. HIV infection was confirmed through laboratory testing. Despite the known association between TB and HIV, it is difficult to establish with certainty the temporal relationship between TB disease and HIV infection based on available data, and thus determine co-morbidity with TB and HIV accurately in some patients.

16.3 Co-Morbidity with Tuberculosis and HIV

Knowledge About Tuberculosis

Among adults and adolescents aged 15 to 64 years, the vast majority (96.5%) reported having heard of TB. Of those, 85.6% correctly answered that TB is curable. However, less than half (46.7%) reported that TB can be cured in people who have co-morbidity with HIV. Knowledge that TB can be cured among people with HIV was higher among men, at 49.1%, compared with women at 44.3%.

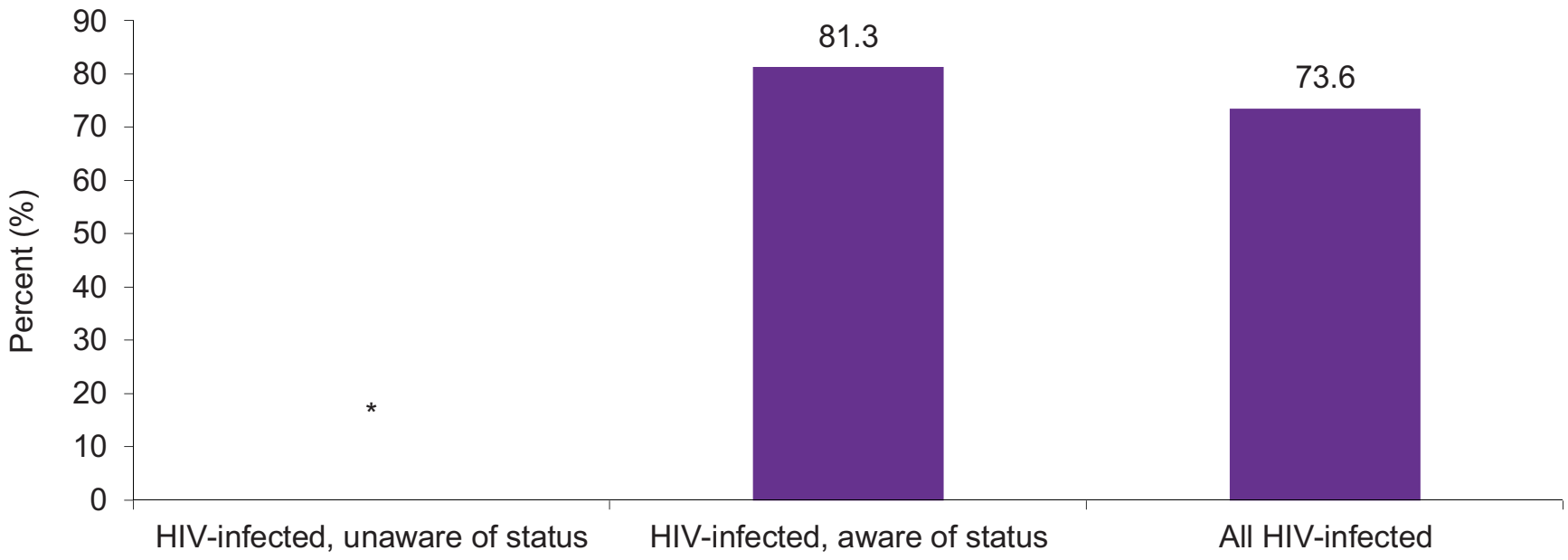
Figure 16.3a: Adults and adolescents aged 15–64 years who received a diagnosis of tuberculosis from a health care professional at any time, or in the past 12 months, by HIV status, KAIS 2012



A greater proportion of HIV-infected adults and adolescents had received a TB diagnosis ever and in the past 12 months than HIV-uninfected adults and adolescents.

In KAIS 2012, a history of TB was captured exclusively by self-report. Participants were asked if they had "ever been told by a doctor or other health professional that you had tuberculosis." Three in one thousand adults and adolescents reported receiving a diagnosis of TB in the past 12 months. Among those infected with HIV, 11.9% reported ever receiving a TB diagnosis from a health care professional and 2.3% had a diagnosis in the past 12 months. Among those who are HIV-uninfected, 1.5% reported ever receiving a TB diagnosis and 0.2% had a diagnosis in the past 12 months. Those who were HIV-infected were nearly eight times more likely to be diagnosed with TB compared with HIV- uninfected adults and adolescents. Overall, among all adults and adolescents, 2.0% reported ever receiving a TB diagnosis, corresponding to an estimated 410,000 adults and adolescents aged 15 to 64 years nationwide, with 0.3% diagnosed in the past 12 months.

Figure 16.3b: Completion of TB treatment among adults and adolescents aged 15-64 years with co-morbidity of HIV and TB by knowledge of HIV status, KAIS 2012

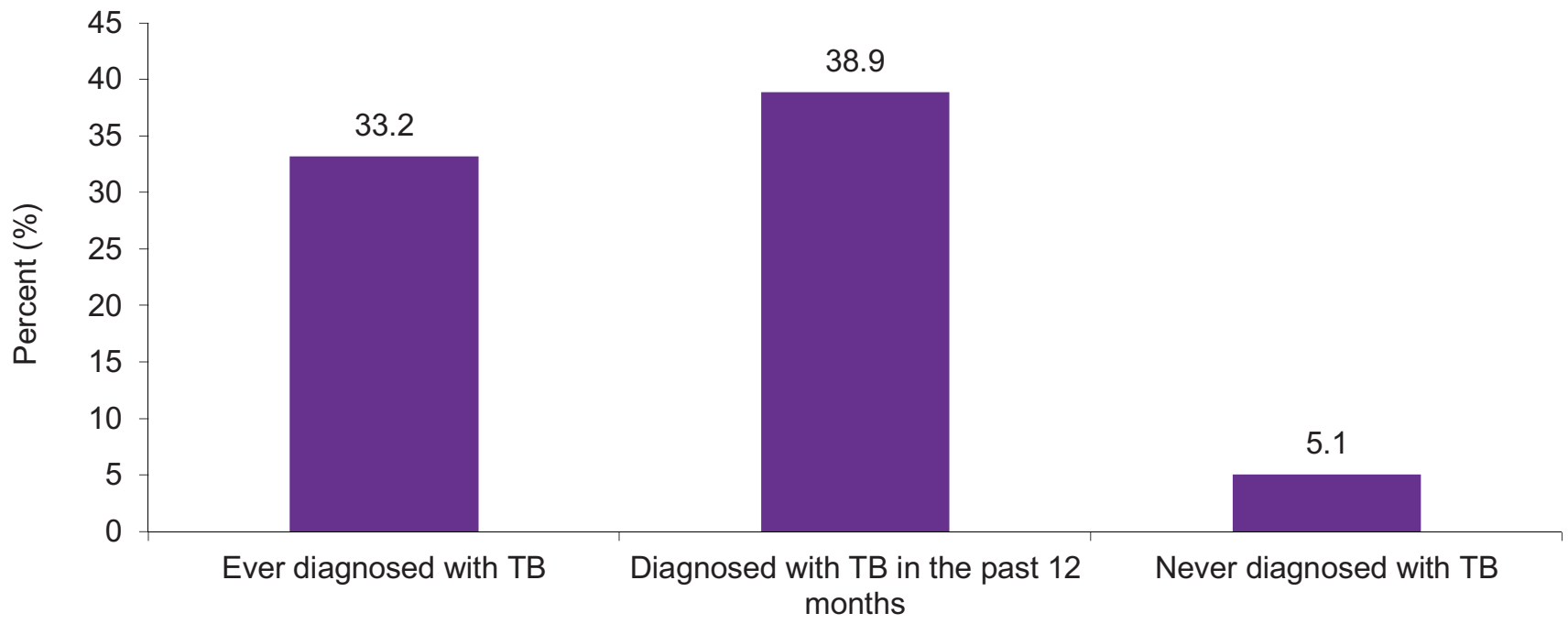


The majority of HIV-infected adults and adolescents diagnosed with TB received and completed treatment for TB.

* Weighted estimates are not shown due to small denominators (<25 observations).

Among HIV-infected adults and adolescents aware of their status who had ever received a TB diagnosis from a health care professional, 81.3% reported that they had received and completed TB treatment. Overall, among all HIV infected persons, 73.6% received and completed TB treatment. The sample size was too small to report the TB treatment completion estimate for adults and adolescents who were HIV-infected but unaware of their status. Although these estimates are high, they represent a decrease in treatment completion compared with KAIS 2007, in which 91.3% of those who were aware of their HIV status completed TB treatment, and 85.3% of all HIV-infected adults and adolescents completed treatment.

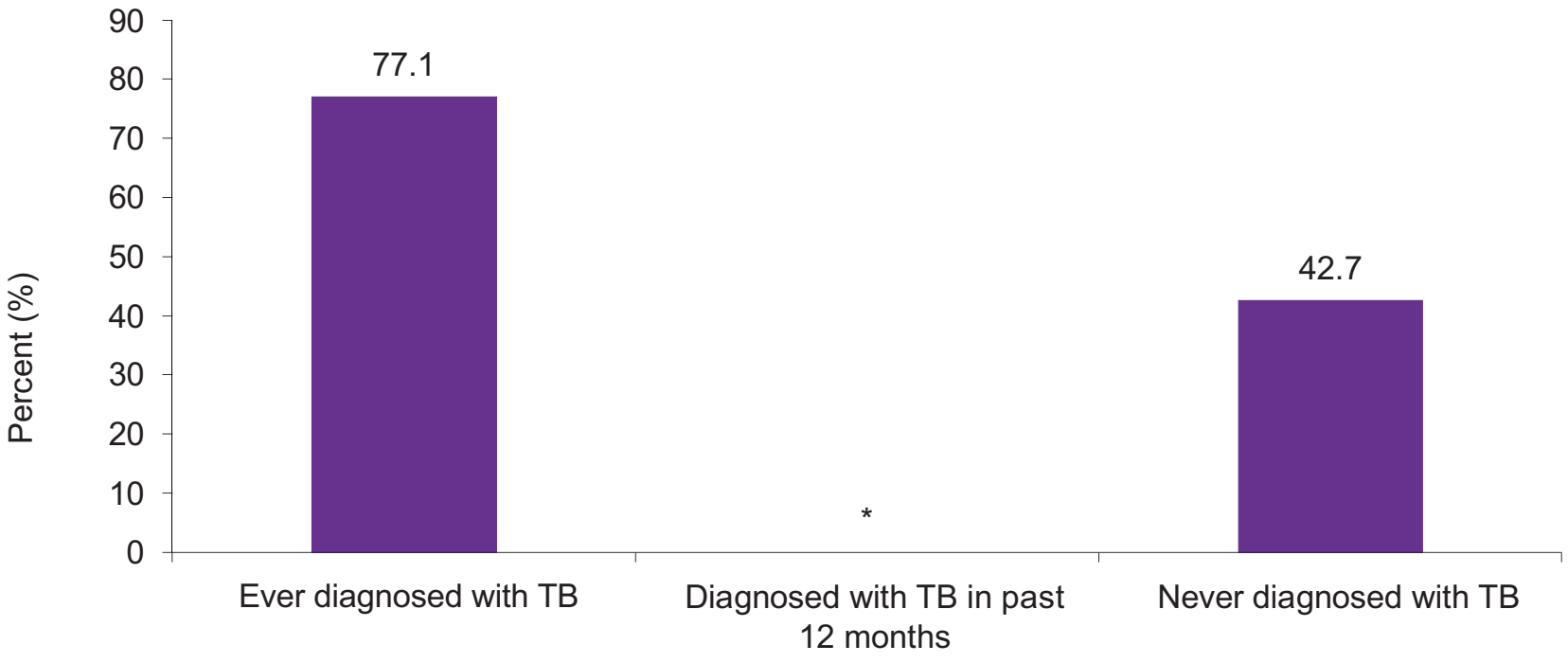
Figure 16.3c: HIV prevalence among adults and adolescents aged 15–64 years by history of tuberculosis diagnosis, KAIS 2012



The prevalence of HIV was higher among adults and adolescents who had received a diagnosis of TB ever or in the past 12 months compared with those who had never been diagnosed.

HIV prevalence was high among adults and adolescents with a history of TB diagnosis. Among those who reported a TB diagnosis at any time, 33.2% were HIV-infected. Among adults and adolescents whose TB diagnosis occurred in the past 12 months, 38.9% were HIV-infected. HIV prevalence among those never diagnosed with TB was 5.1%, which is lower than the national HIV prevalence estimate of 5.6%, and much lower than HIV prevalence among those with any TB diagnosis.

Figure 16.3d: HIV-infected adults and adolescents aged 15–64 years who were aware of their HIV status by history of TB diagnosis, KAIS 2012

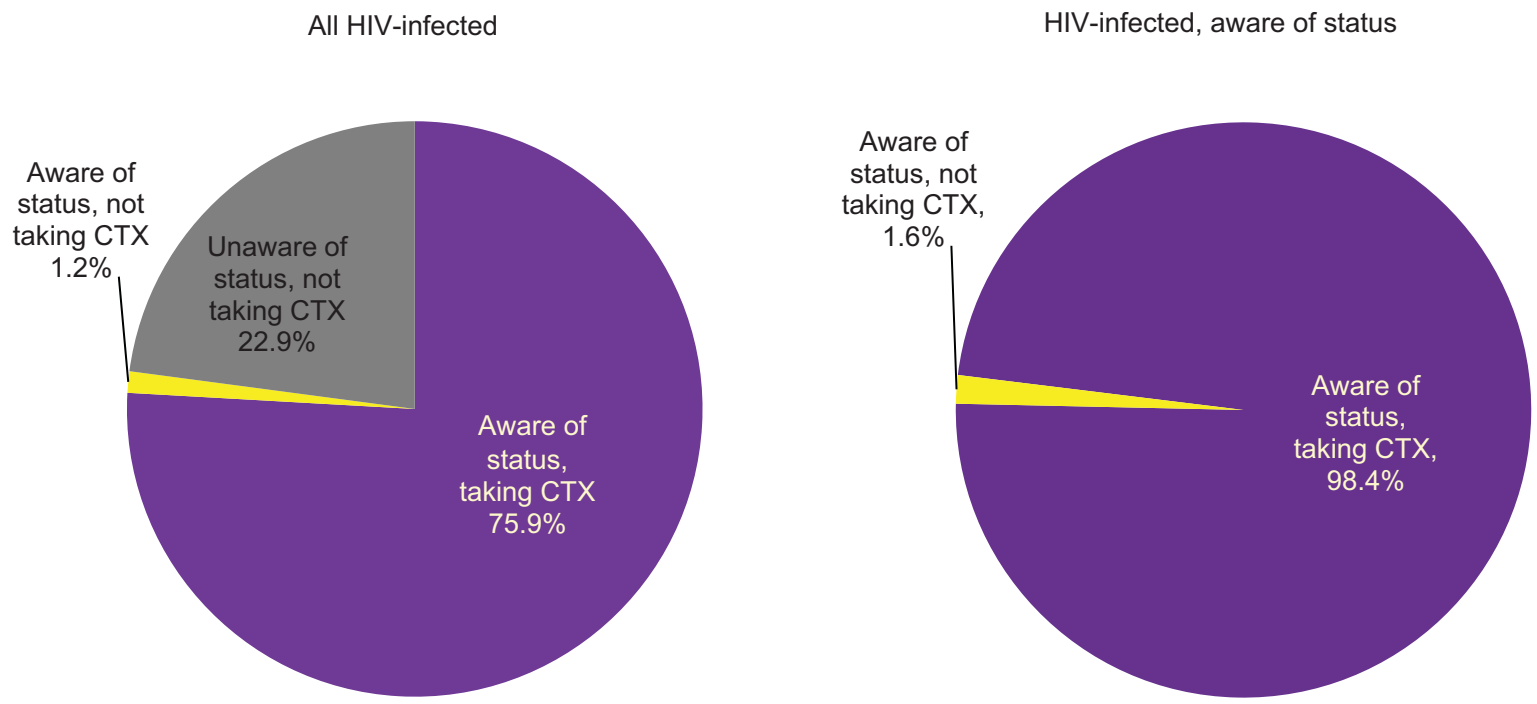


A majority of HIV-infected adults and adolescents who had ever been diagnosed with TB were aware of their HIV status, compared with those who had never had any TB diagnosis (77.1% and 42.7% respectively).

* Weighted estimates are not shown due to small denominators (<25 observations).

Persons who had been diagnosed with TB, the majority (77.1% with a TB diagnosis at any time) were aware of their HIV status compared with 42.7% of HIV-infected adults and adolescents who had never had a diagnosis of TB.

Figure 16.3e: Co-trimoxazole coverage* and access among adults and adolescents with co-morbidity with TB and HIV, aged 15–64 years who were aware of their HIV status, KAIS 2012**

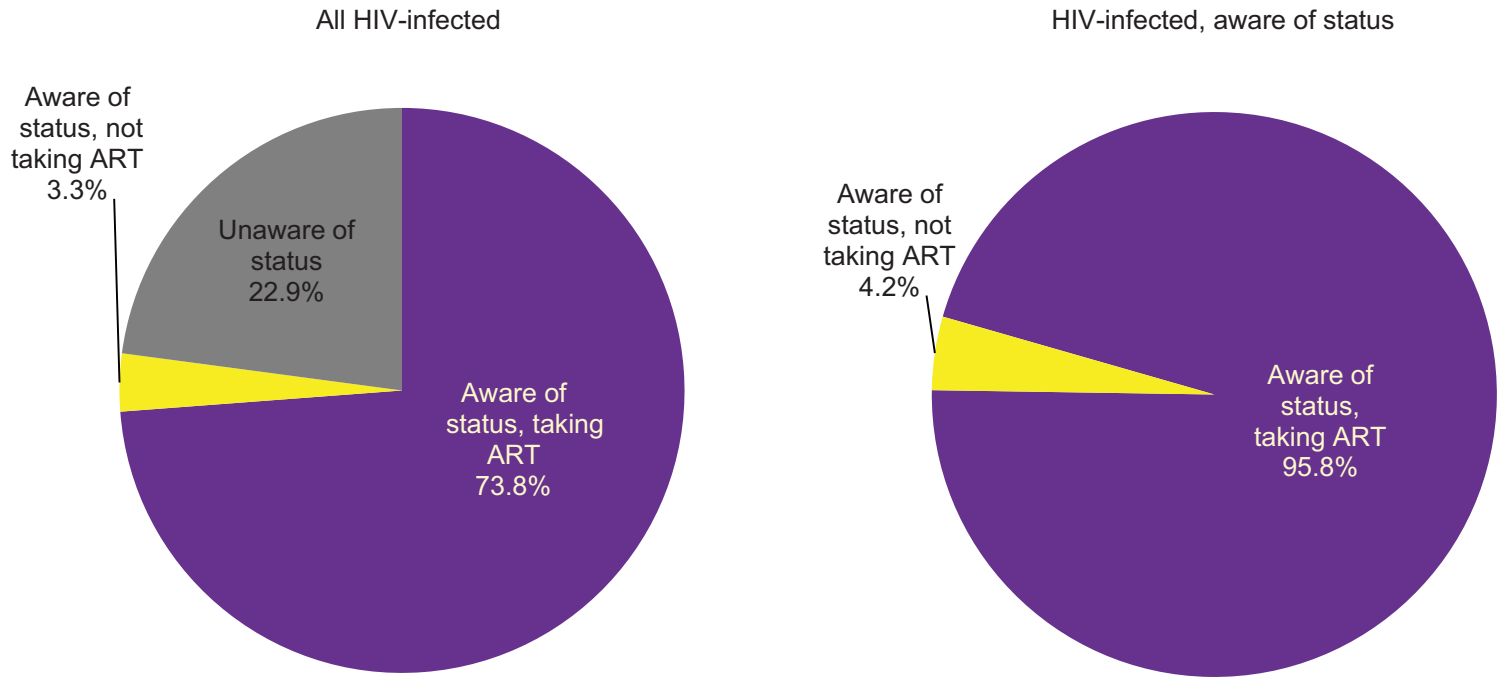


Co-trimoxazole use among HIV-infected persons who were aware of their HIV infection was 98.4%.

*Coverage is defined by the proportion of those using HIV services among all HIV-infected adults and adolescents irrespective of knowledge of HIV status
**Access is defined as the proportion of those using HIV services among all HIV-infected eligible adults and adolescents who were aware of their HIV status

Daily co-trimoxazole is recommended for all HIV-infected persons, including those with HIV/TB co-morbidity. Co-trimoxazole coverage among HIV-infected people reporting a TB diagnosis was 75.9%. Access to co-trimoxazole among persons with HIV/TB co-morbidity who were aware of their HIV status was 98.4%. Both estimates represent an improvement since KAIS 2007, in which co-trimoxazole coverage among persons with HIV/TB co-morbidity was 51.2% and co-trimoxazole access was 83.7%.

Figure 16.3f: ART coverage and access among adults and adolescents aged 15–64 years with co-morbidity with HIV and TB, who are aware of their HIV status, KAIS 2012



About a quarter of those who were co-infected with HIV and TB were unaware of their HIV status. However, among those who were aware of their HIV status, 95.8% were on ART.

The national ART guidelines recommend initiation of ART for HIV-infected persons with TB co-morbidity regardless of the CD4 count. ART coverage among persons who had received any diagnosis of TB is 73.8%. Almost a quarter of persons with HIV/TB co-morbidity were unaware of the status and therefore not receiving ART. However, access to ART was high, at 95.8% among those aware of their HIV infection.

16.4 Sexually Transmitted Infections

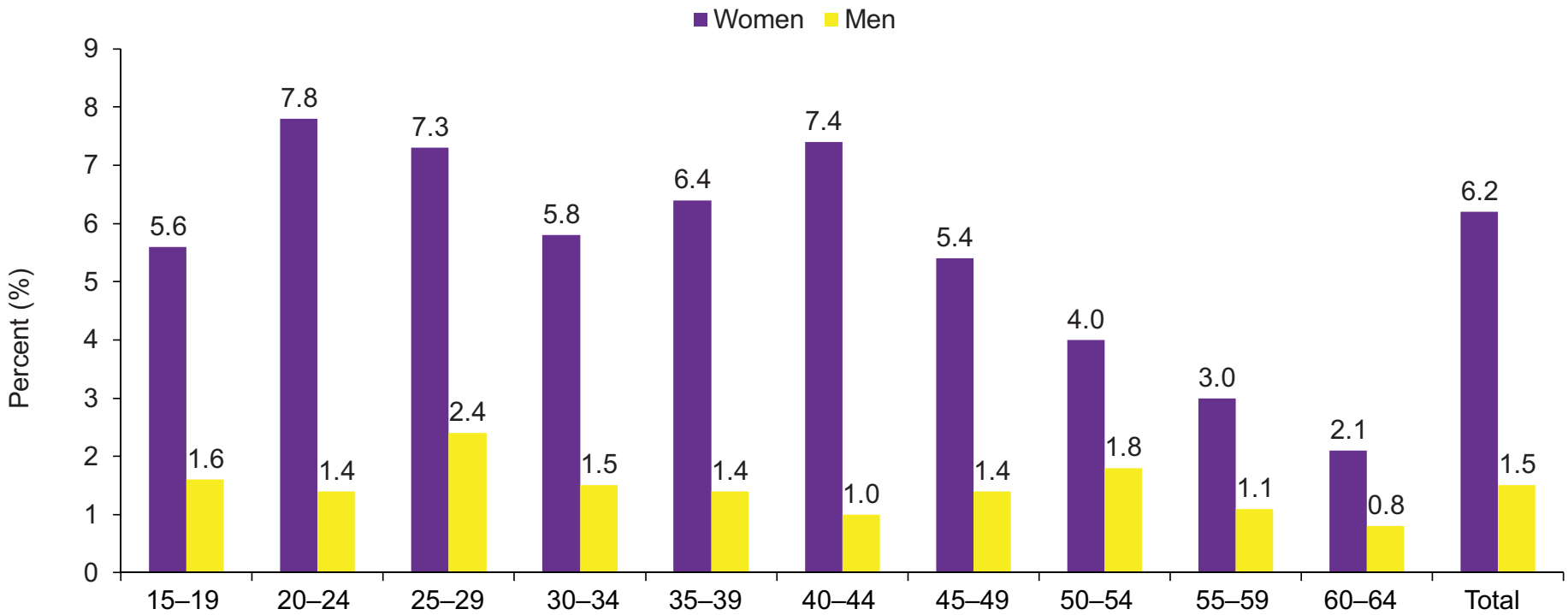
Some sexually transmitted infections have been shown to increase the risk of acquiring and transmitting HIV. Despite the important role that STIs play in the HIV epidemic, the focus on HIV has overshadowed the attention due to STIs.

Data in Context

- The presence of an untreated STI, increases the risk of transmission of HIV during unprotected sex between an HIV-infected and an HIV-uninfected partner. STIs that cause genital ulcers, such as syphilis, HSV2 and chancroid, are most associated with increased risk of transmission. In Kenya, due to the increased risk of transmission and acquisition of HIV in the presence of STIs, the continued monitoring of genital ulcers and abnormal genital discharge, is recommended to be part of the normal surveillance of HIV trends in the country (KMOT, 2009).[1]
- There are three approaches to the diagnosis and management of STIs: etiological, clinical and syndromic. STI syndromes refer to a group of consistent symptoms and/or easily recognizable signs caused by two or more STI agents. Diagnosis is based on identification of the group of consistent symptoms and easily recognized signs (syndromes).
- Appropriate STI case management comprises a package that includes proper clinical assessment, correct diagnosis, prescription of appropriate medication, education regarding risk reduction, treatment compliance, condom use and partner management
- KAIS 2012 collected information from adult and adolescents respondents on the history of genital ulcers and genital discharges in the past 12 months, whether they sought treatment and their awareness of their STI infection.[1]

[1] Kenya National AIDS Control Council, Joint United Nations Programme on HIV/AIDS, The World Bank HIV/AIDS Program. Kenya HIV Prevention Response and Modes of Transmission Analysis. Nairobi, Kenya; March 2009.

Figure 16.4a: Proportion of women and men aged 15-64 years reporting abnormal discharge from penis or vagina in the past 12 months by age group, KAIS 2012

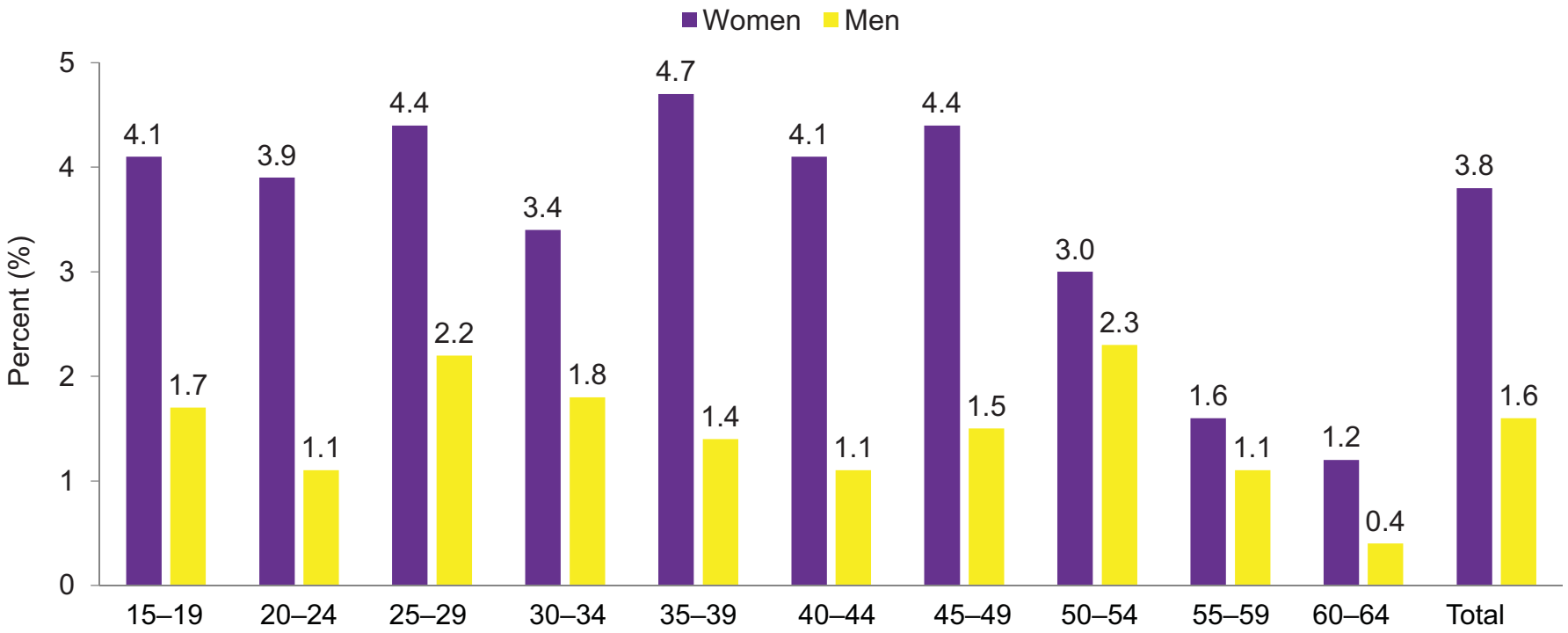


Reports of abnormal genital discharge among persons aged 15 to 64 years varied by sex, with 6.2% of women reporting vaginal discharge and 1.5% of men reporting urethral discharge.

Estimates of abnormal genital discharge were based entirely on self-report. Participants were asked the question, "In the past 12 months, have you experienced an abnormal discharge from your vagina that may include an unusual smell, colour, or texture?" Male participants were asked, "In the past 12 months, did you experience an abnormal discharge from your penis?" The presence of a genital discharge may not have necessarily reflected a diagnosis of a STI. Overall, 0.9% of adults and adolescents aged 15-64 years reported having an STI in the past 12 months.

The proportion of persons who reported abnormal genital discharge in the past 12 months varied by sex, with 6.2% of women reporting an abnormal vaginal discharge and 1.5% of men reporting an abnormal penile discharge. Among women, the proportion of abnormal vaginal discharge was highest in the 20 to 24 year age group, at 7.8%. Among men, the proportion of abnormal penile discharge was highest in the 25 to 29 year age group, at 2.4%.

Figure 16.4b: Proportion of women and men aged 15-64 years who reported an ulcer near or on penis or vagina in past 12 months by age group, KAIS 2012

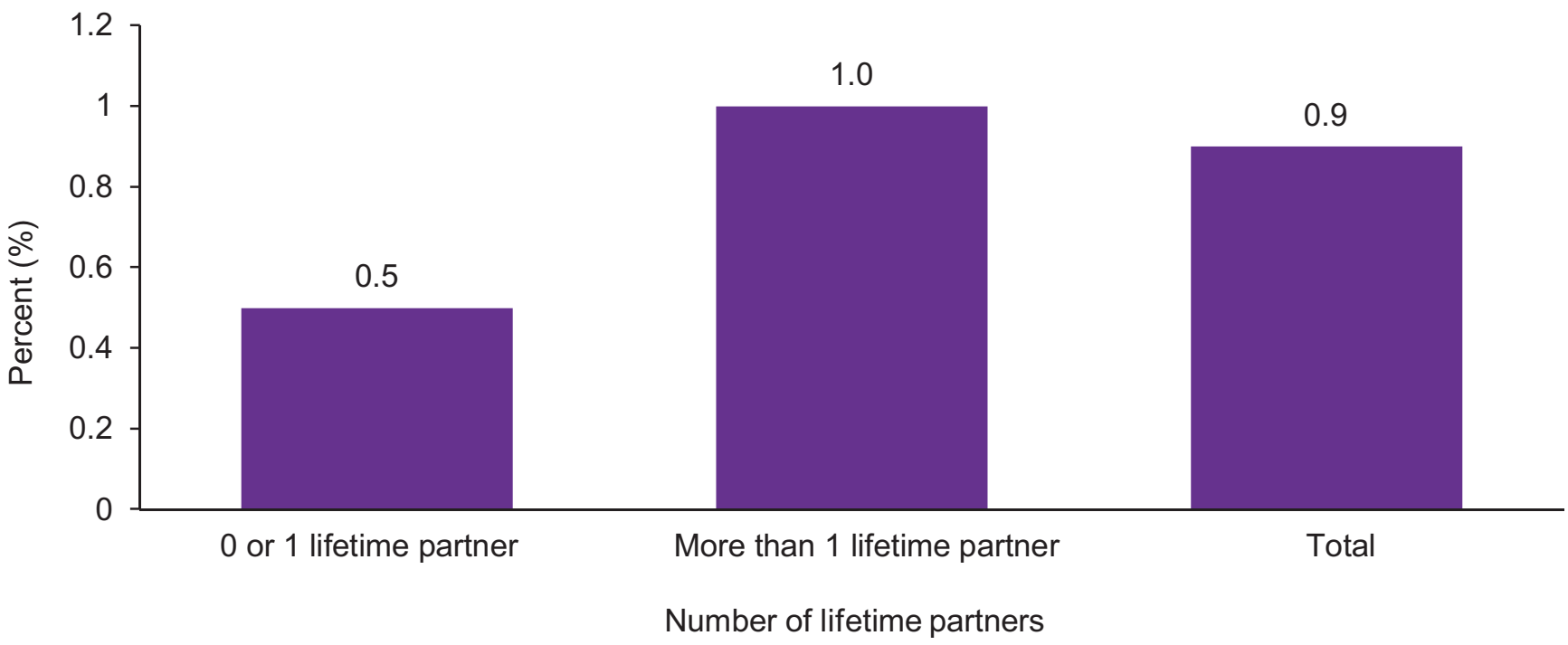


Women had higher proportion of reported genital ulcers, at 3.8% compared with men at 1.6%.

Estimates of genital ulcers were based entirely on self-report. The questions were sex-specific. Female participants were asked if in the past 12 months they had experienced an ulcer or sore on or near their vagina. Male participants were asked if in the past 12 months they experienced an ulcer or sore on or near their penis. The presence of a genital ulcer may not necessarily reflect a diagnosis of a STI.

Women had a higher proportion of reported genital ulcers, at 3.8% compared with men at 1.6%. Among women, the proportion who reported a genital ulcer was highest in the 35 to 39 age group at 4.7%. Among men, the proportion who reported a genital ulcer was highest in the 50 to 54 age group at 2.3%.

Figure 16.4c: Proportion of adults and adolescents aged 15-64 years who reported any history of STI symptoms among women and men aged 15–64 years who were diagnosed with a STI in the past 12 months by number of lifetime sexual partners, KAIS 2012

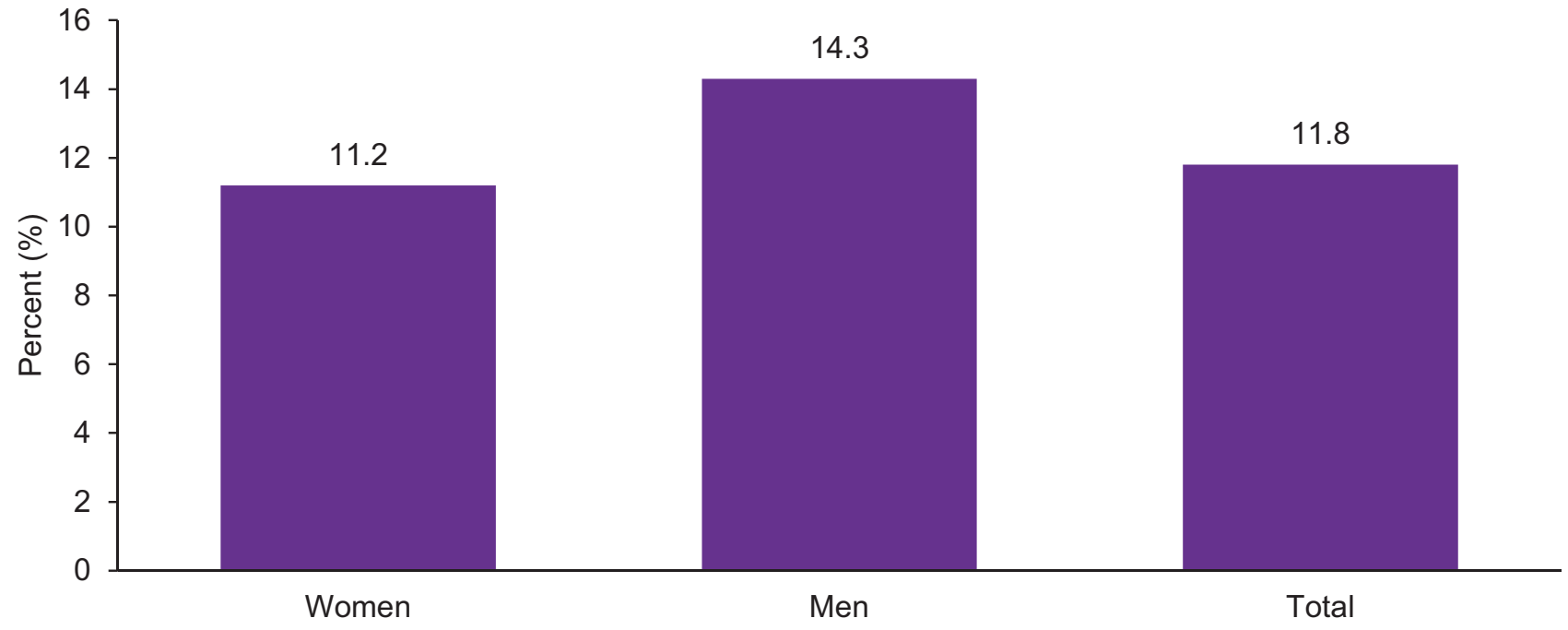


The prevalence of a STI in the past 12 months was higher among adults and adolescents who had multiple sexual partners.

If a participant reported they had an abnormal discharge or a genital ulcer in the past 12 months, they were asked if a health provider told them they had a sexually transmitted infection. For this analysis, we defined a STI if the respondent said 'Yes' to this question.

The prevalence of a STI was 0.5% among persons with zero or only one lifetime sexual partner compared with 1.0% among persons who had more than one lifetime sexual partner. Overall, the prevalence of STIs among adults and adolescents was 0.9%. Among all those diagnosed with an STI in the past 12 months during the survey, a total of 70.5% received treatment for the STI (91.0% among women and 53.6% among the men) [data not shown].

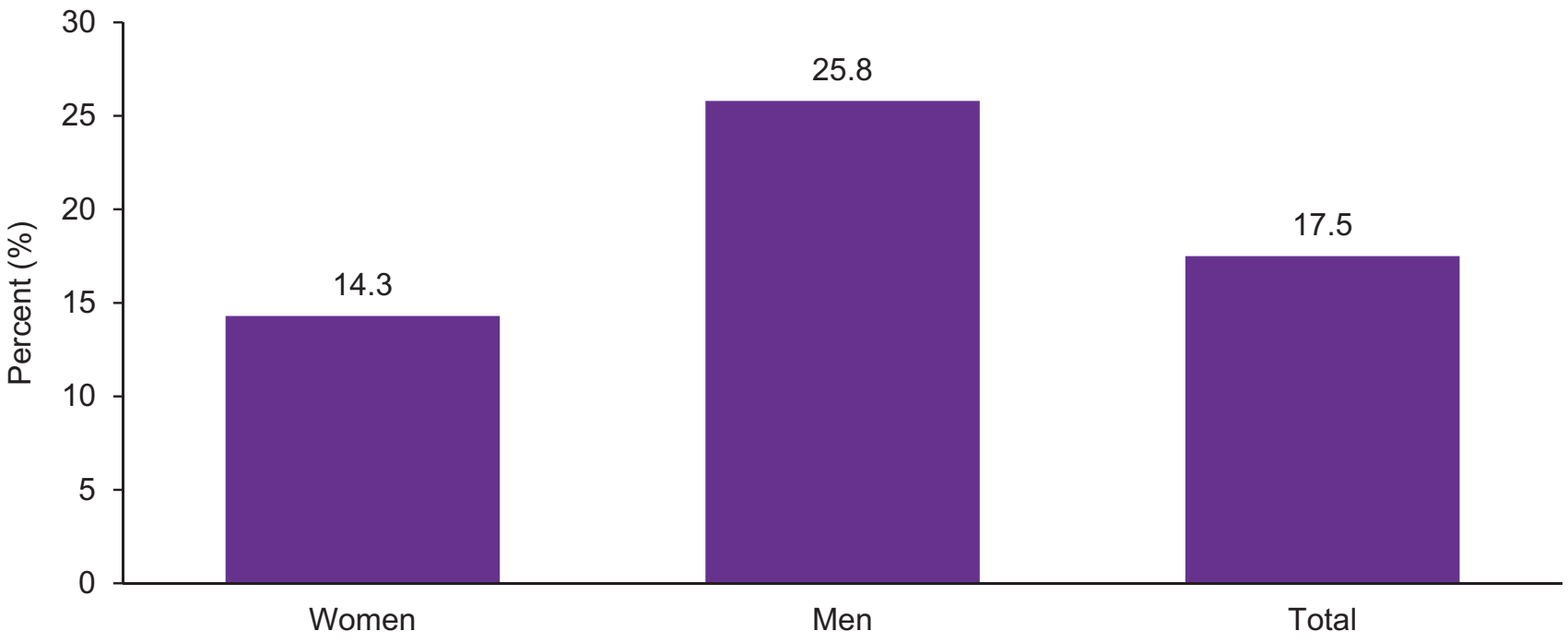
Figure 16.4d: HIV prevalence among women and men aged 15–64 years who reported having an abnormal discharge from vagina or penis in past 12 months, KAIS 2012



Overall, the HIV prevalence among those who reported an abnormal genital discharge was 11.8%; twice the national estimate of 5.6%.

The HIV prevalence was 11.2% among women who reported an abnormal vaginal discharge in the past 12 months, and 14.3% for men who reported an abnormal penile discharge in the past 12 months. Overall, the HIV prevalence among those who reported a genital discharge in the past 12 months was 11.8%, which is significantly higher than the national HIV prevalence estimate of 5.6%.

Figure 16.4e: HIV prevalence among women and men aged 15–64 years who reported having an ulcer/sore near or on vagina/penis in past 12 months, KAIS 2012



The HIV prevalence of men and women who reported a genital ulcer or sore in the past 12 months was 17.5%; three times higher than the national estimate of 5.6%.

The HIV prevalence was 14.3% among women who reported having a genital ulcer or sore in the past 12 months, and 25.8% for men who reported a genital ulcer or sore in the past 12 months. Penile and vaginal ulcers are known to increase the risk of acquisition and transmission of HIV. Overall, the HIV

prevalence among those who reported a genital ulcer or sore in the past 12 months was 17.5%, which is significantly higher than the national HIV prevalence estimate of 5.6%.

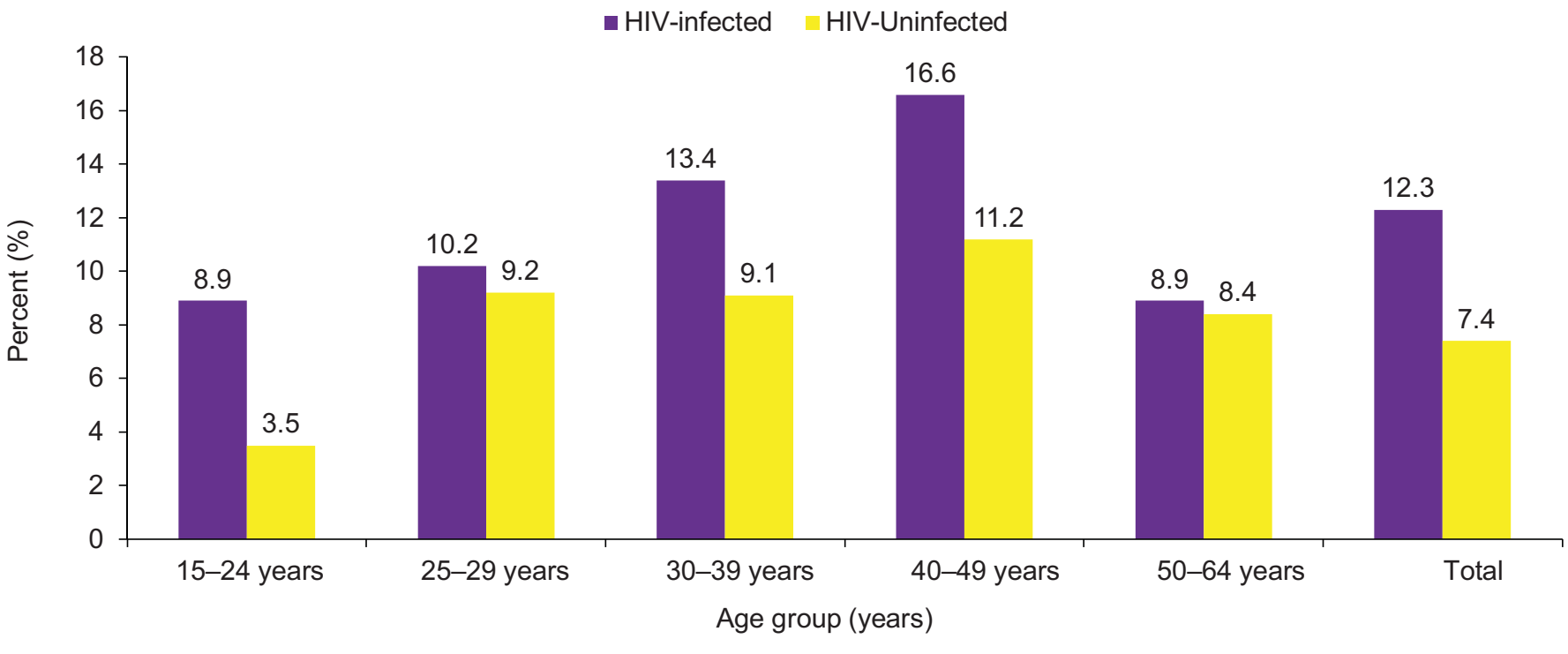
16.5 Cervical Cancer Screening

Cervical cancer is the second-most frequent cancer among women in Kenya and the leading cause of cancer deaths in women of reproductive age.[2] Furthermore, cervical cancer is an AIDS-defining illness classified under WHO stage IV.

Data in Context: Cervical cancer and HIV in the literature

The main cause of cervical cancer is infection with certain types of genital human papillomavirus (HPV). Both HPV and HIV are sexually transmitted, and infection with either is known to facilitate infection with the other. Antiretroviral therapy has been shown to have little effect on the natural history of cervical intraepithelial neoplasia (CIN), a precursor to cervical cancer, in HIV-infected women. The Ministry of Health (MOH) recommends routine cervical cancer screening for HIV-infected women in the reproductive age group as part of continuum of care. Primary prevention of cervical cancer is possible through HPV vaccination. Recently the MoH introduced vaccination for HPV for females on a pilot basis. In the National Cancer Control Strategy, the government advocates for vaccinations against viral infections associated with cancer, including HPV vaccination according to WHO guidelines.

Figure 16.5a: Women aged 15–64 years who were ever screened for cervical cancer by a health professional by age group and HIV status, KAIS 2012

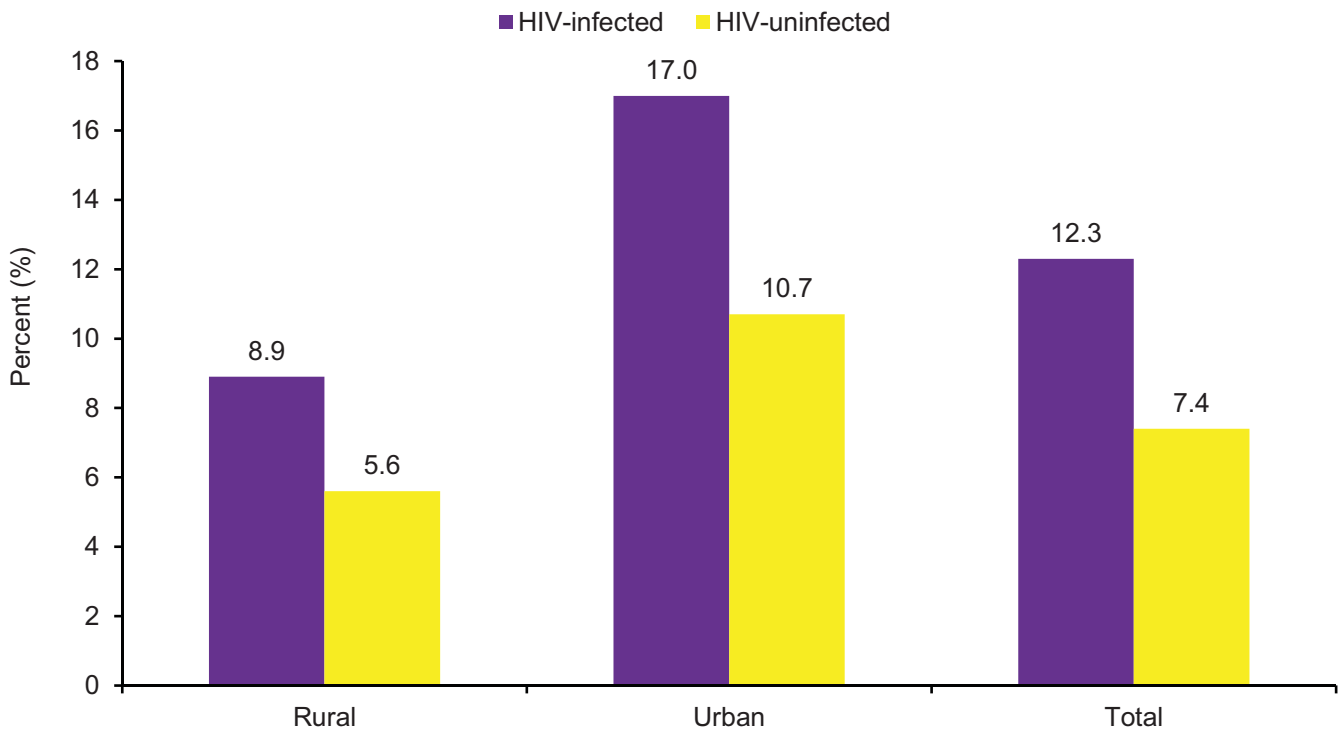


The percent of cervical cancer screening was higher among HIV-infected women (12.3%) compared with HIV-uninfected women (7.4%).

Screening for cervical cancer for women varied by age and HIV infection. Overall, 7.8% of women aged 15-64 years had ever been screened for cervical cancer by a health professional. Among both HIV-infected and uninfected women 15 to 64 years, screening for cervical cancer increased with age, peaking in the 40 to 49 year age group at 16.6% for HIV-infected women and 11.2% for HIV-uninfected women. Overall, HIV-infected women reported cervical cancer screening at 12.3% compared with 7.4% among HIV-uninfected women.

[2] National Cervical Cancer Prevention Programme. Strategic Plan 2011-2015. Ministry of Health and Public Sanitation, Kenya. Retrieved from http://www.iedea-ea.org

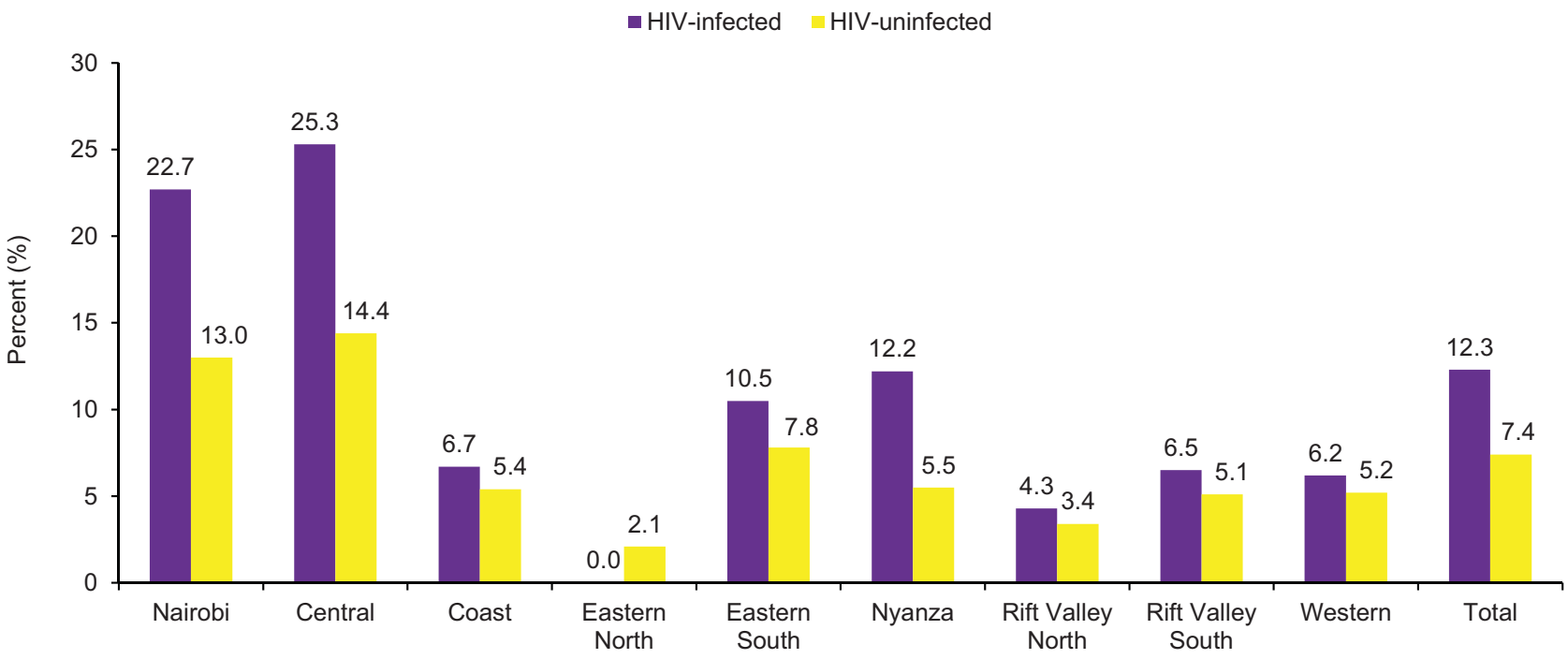
Figure 16.5b: Women aged 15-64 years that ever received screening for cervical cancer by a health professional by HIV status and residence, KAIS 2012



Access to cervical cancer screening was higher in urban areas, (17.0% among HIV-infected and 10.7% among the HIV uninfected) compared with rural areas (8.9% among HIV-infected and 5.6% among the HIV uninfected).

Among women aged 15-64 years, a total of 7.8% adults and adolescents reported ever receiving screening for cervical cancer by a health professional (data not shown). Cervical cancer screening was higher among the HIV-infected women living in urban areas (17.0%) compared to those residing in the rural areas (8.9%). This disparity is also noted among HIV-uninfected women who ever received cervical cancer screening (10.7% in urban areas compared with 5.6% in the rural areas).

Figure 16.5c: Women aged 15-64 years that received screening for cervical cancer by a health professional by HIV status and region, KAIS 2012



Cervical cancer screening was highest in Central region followed by Nairobi region and lowest in Eastern North region.

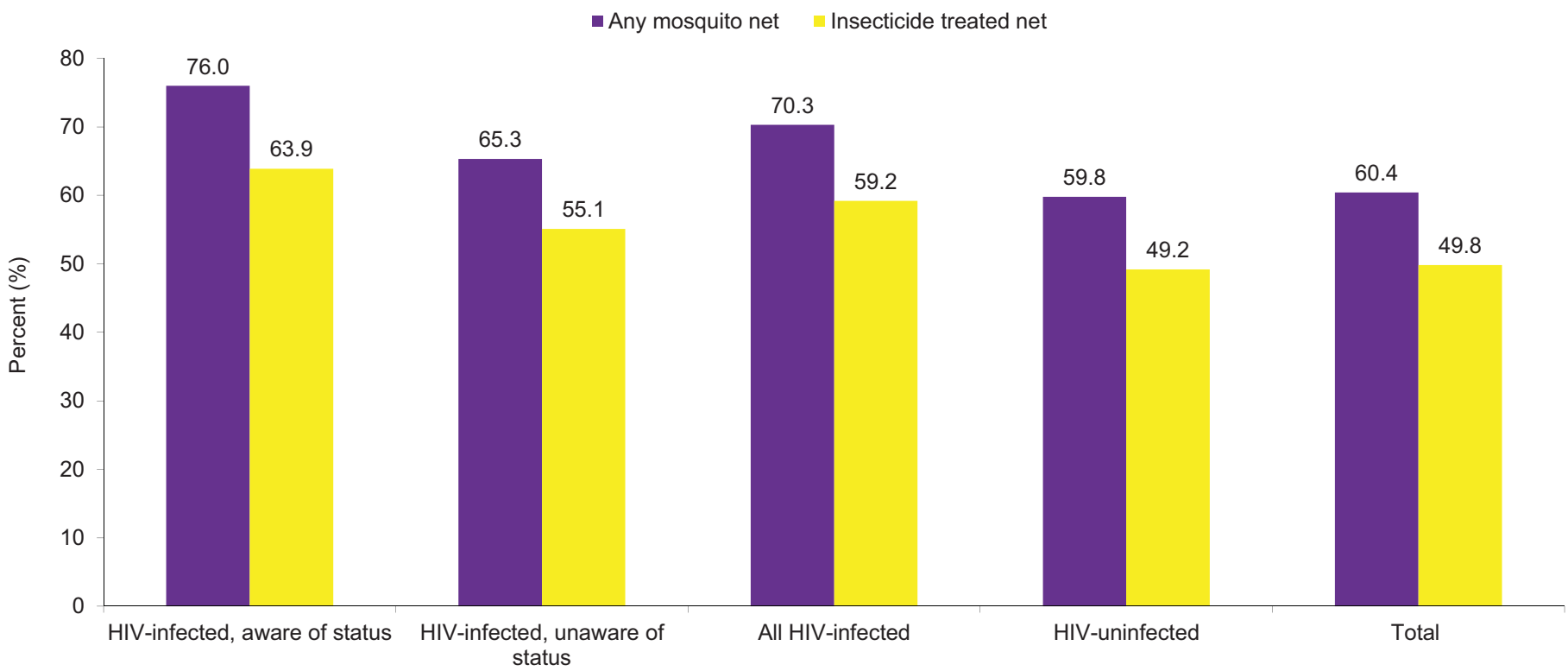
Among women aged 15-64 years who reported ever receiving cervical cancer screening by a health professional, this screening was highest in Central region (15.0%) followed by Nairobi (13.6%) and Eastern South (7.9%) regions. Eastern North region reported the lowest proportion of cervical cancer screening at 2.0%. Among women who were HIV-infected, cervical cancer screening was highest in Central region (25.3%), followed by Nairobi region (22.7%) and then Nyanza region (12.2%).

Among women aged 15-64 years who reported ever having cervical cancer screening, 5.3% reported receiving an abnormal cervical cancer screening result. Of these, 3.1% were HIV-infected and 5.6% were HIV-uninfected. Of all the women who reported receiving an abnormal cervical cancer screening result, only 55.3% were referred for cervical cancer treatment (data not shown).

16.6 Preventive Services for People Living with HIV: Bed Nets

The GOK recommends protection against malaria by sleeping under an insecticide-treated net (ITN), especially for women, children, and HIV-infected persons in malaria-prone areas. This practice is especially important for HIV-infected pregnant women because malaria parasitaemia can increase the risk of maternal anaemia, low-birth weight babies, and infant mortality. The KAIS 2012 captured both household and individual bed net ownership. The individual respondents reported whether they had slept under a bed net the night before the survey. General mosquito net use was defined as sleeping under any mosquito net, treated or untreated. The KAIS 2012 findings on household-level ownership of bed nets are presented in Chapter 2.

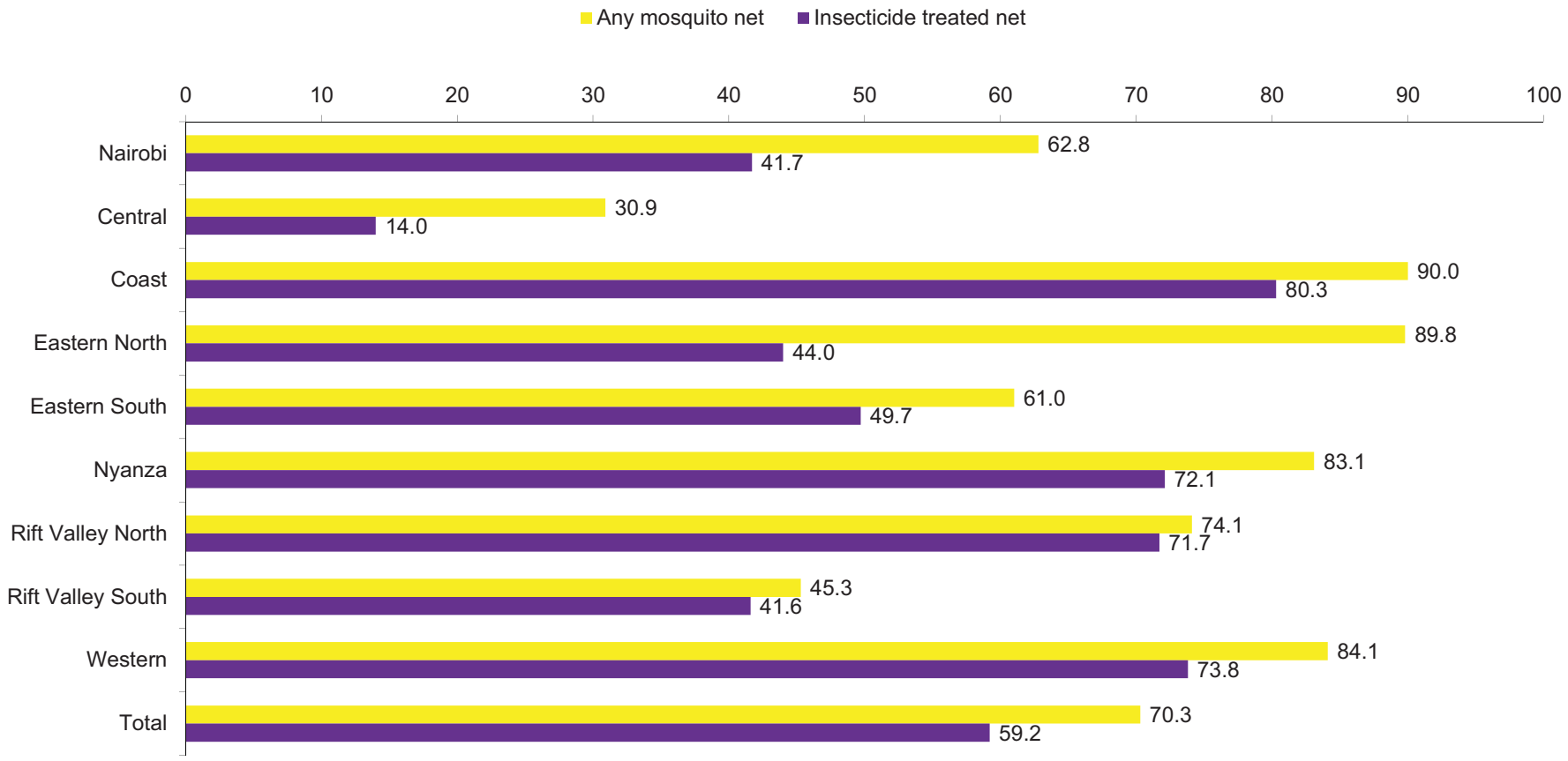
Figure 16.6a: Mosquito net usage among adults and adolescents aged 15-64 years by HIV status and awareness of HIV status, KAIS 2012



ITN use was higher among HIV-infected adults and adolescents aged 15 to 64 years (59.2%) compared with HIV-uninfected adults and adolescents (49.2%).

Overall, usage of any mosquito bed-net was 60.4%. Among all HIV-infected persons, usage of any mosquito bed-net was 70.3%, higher than HIV-uninfected adults, at 59.8%. ITN usage was 49.8% overall, 63.9% among HIV-infected persons aware of their HIV status, at 55.1% among HIV-infected persons unaware of their HIV status. Bed net usage has improved over the past five years. In KAIS 2007, only 20.2% of HIV-infected and 16.9% of HIV-uninfected adults and adolescents slept under an ITN the night before the survey. Among HIV-infected adults and adolescents in 2007, usage of any mosquito bed-net was 19.2% for those aware of and 20.4% for those unaware of their HIV status.

Figure 16.6b: HIV-infected adults and adolescents aged 15-64 years who slept under a bed net by region and type of bednet, KAIS 2012



Bed net use by HIV-infected adults and adolescents varied by region, ranging from 30.9% in Central to 90.0% in the Coast region, with overall bed net use at 70.4%.

Bed net use by HIV-infected adults and adolescents varied significantly by region, with overall bed net use highest in Coast (90.0%), Western (84.1%), Eastern North (89.8%), and Nyanza regions (83.1%). Except for Eastern North, these regions with high bed net usage are located in the zones with high malaria density with endemic malaria throughout the year. Bed net use for HIV-infected adults and adolescents in Eastern South, Rift Valley North, Rift Valley South, and Nairobi regions was moderate, at 61.0%, 74.1 %, 45.3%, and 62.8% respectively. The Central region had the lowest bed net use, at 30.9%. Central and Eastern regions are located in seasonal malaria zones, and the highlands of the Rift Valley (Rift Valley North) are prone to periodic malaria epidemics. Compared with KAIS 2007, KAIS 2012 demonstrated a substantial increase in bed net use across all regions.

16.7 Gaps and Unmet Needs

- Testing and counselling for HIV should be emphasized as routine standard of care for everyone visiting a health care facility. For patients diagnosed with TB and initially testing HIV-negative, repeat HIV testing at a later date should be emphasized.
- HIV-infected patients are prone to develop TB, thus the need to implement TB prevention strategies, including isoniazid preventive therapy.
- There is need to scale up cervical cancer screening in women of reproductive age— among both HIV-infected and HIV-uninfected women—as well as increase awareness and coverage of HPV vaccinations.
- Due to the association of STI syndromes with higher risk of HIV infection, there is need to strengthen surveillance, prevention, and clinical management of STI in coordination with national HIV prevention, treatment, and control efforts.
- Bed net use among children, both HIV-infected and uninfected, was not recorded in the survey, although this is a key population for malaria-specific interventions.

Glossary of Terms

"**Access" to care:** Access refers to the proportion of people that has been diagnosed with a disease that is receiving care or a specific treatment.

"Coverage" of care and treatment: Coverage refers to the proportion of people who have a disease that are receiving medical care. In the case of HIV, coverage refers to the number of persons with HIV receiving care divided by the total number of persons with HIV, both diagnosed and undiagnosed.

95% confidence interval (95% CI): A confidence interval gives a range of possible values (using an upper and lower bound) within which the true population value of a variable (e.g. the mean, proportion, or rate) will fall 95 times out of 100. It is a measure of certainty and precision around the sample estimate when estimating the true population value.

Acquired immunodeficiency syndrome (AIDS): AIDS is a clinical syndrome characterized by life threatening opportunistic infections or malignancies and/or severe depletion of CD4 cells that occurs in the final stage of HIV infection. It is caused by the cumulative damage that HIV has done to the immune system.

AIDS Indicator Survey (AIS): a standardised surveillance tool used by many countries to monitor nationally representative HIV/AIDS indicators in the general population in order to evaluate the response to the HIV epidemic, inform HIV policy, and to ensure comparability across countries and time. The AIS for Kenya is referred to as KAIS.

Anaemia: Anaemia is a deficiency in the blood's capacity for carrying oxygen. Laboratory tests of haematocrit, haemoglobin, red blood cell volume, and red blood cell number can determine whether anaemia is present. Symptoms of anaemia may include fatigue, chest pain, or shortness of breath.

Antenatal care: Care given to a pregnant woman in the months before she gives birth, with the goal of ensuring that she and her baby are as healthy as possible.

Antiretroviral therapy (ART): Administration of medications that stop or slow down HIV from multiplying in the body and therefore extend the length of a person's life. ART is given to patients with HIV who have low counts of CD4 cells or severe opportunistic infections or malignancies to help them fight HIV disease.

ART eligibility: World Health Organization (WHO) guidelines for the use of ART in low-income countries state that HIV-infected individuals are eligible for ART if they have WHO stage IV disease; stage III disease and a CD4 cell count of ≤350 cells/μL; or stage I or II disease with CD4 ≤200 cells/μL. Recently, WHO has recommended increasing the threshold for stage I and II disease to <350 cells/μL.

Birth Cohort: In this context, "cohort" refers to a given generation of people born in a location within a certain time-frame, e.g. "children born in Kenya in the late 1990s." The cohort effect is the variation in health status between members of one birth cohort and the members of another, due to the differences in economic, environmental, social, and other conditions to which each cohort has been exposed.

CD4 cells: A CD4 T-lymphocyte cell is a key cell of the immune system that carries the CD4 surface protein. CD4 cells are very important to a normal health immune system. CD4 cells are attacked by HIV. HIV Infects and kills CD4 cells, leading to a weakened immune system.

CD4 Count: the number of CD4 cells in a fixed volume of blood, typically the unit is a cubic millimetre (mm3) or microliter (μL). CD4 count in a healthy individual ranges from: 500 to 1000 cells per μL or mm3.

Concordant couples: Also called "sero-concordant couples." When both members of a couple (sexual partners) have the same HIV status (positive or negative). The opposite of concordant is discordant;

discordant couples have mixed HIV status (meaning one person is HIV negative and the other partner is HIV positive).

Concurrent partnerships: Having more than one regular sexual partner in the same time period, e.g., if a man is married, but he also has a regular girlfriend or mistress on the side, one could describe this as a concurrent partnership.

Co-trimoxazole (CTX): Also known as Septrin. A combination of two antibiotics used in the treatment of a variety of bacterial infections. Kenya policy recommends that co-trimoxazole be given as prevention to all people HIV to help avoid some opportunistic infections and therefore extend the length of a person's life.

Discordant couples: Also called "sero-discordant couples." When one member of a couple (sexual partners) has HIV, and the other does not, they are a discordant couple. The opposite of discordant would be concordant, corresponding to both members of a couple being HIV seronegative or both members of a couple being seropositive.

Dried blood spot: Dried blood spot testing (DBS) is a method of screening for HIV infection and other conditions using DNA amplification. Unlike ELISA testing for HIV-antibodies in the blood, which may be transmitted to infants in pregnancy independently of the virus itself, dried blood spot testing can be used to detect genetic material of the actual virus, thereby avoiding the likelihood of a false positive result.

Electronic Data Collection: Collection of data via netbooks, with software designed to define possible response ranges. The captured data can be transmitted to a central collection site for consolidation and analysis.

Family planning: Family planning includes a range of educational, comprehensive medical or social activities to enable people to plan the number and spacing of their children, and to select the means by which this may be achieved. A key component of family planning is informed, voluntary contraception.

Generalised epidemic: When more than one percent of a country or region's adult population has HIV infection, it is described as a generalised epidemic. This is the situation in most of sub-Saharan Africa.

Genital ulcer: A genital ulcer is an ulcer located on the genital area, caused by a sexually transmitted disease such as genital herpes, syphilis, chancroid, or thrush. Some other signs of having genital ulcers include enlarged lymph nodes in the groin area, or vesicular lesions, which are small, elevated sores or blisters. The presence of a genital ulcer disease increases the chances of HIV transmission between sexual partners.

Herpes simplex virus-2 (HSV-2): Also known as genital herpes, HSV-2 is a sexually transmitted viral infection characterized by lesions and ulcers in genital areas, the anus, buttocks, or thighs. HSV-2 is mainly transmitted through skin-to-skin contact and can be treated but cannot be cured.

HIV testing and counselling: Most people with HIV are unaware that they have the infection. Studies have shown that people who are tested for HIV and then counselled about ways to prevent transmission (or further transmission), are more likely to use better preventive practices. In many low and middle income countries, the primary model for HIV testing has been the provision of client-initiated voluntary counselling and testing services. Increasingly, provider-initiated approaches in clinical settings are being promoted, i.e. health care providers routinely initiating an offer of HIV testing in a context in which the provision of, or referral to, effective prevention and treatment services is assured.

Home-based (voluntary) counselling and testing: This is the provision of voluntary counselling and testing in individuals' homes.

Household: defined as a person or group of persons related or unrelated to each other who live together in the same compound (fenced or unfenced), share the same cooking arrangements, and have one person whom they identified as head of that household. An HIV-affected household is one in which there is at least one living HIV-infected member.

Human immunodeficiency virus (HIV): HIV is the virus that causes AIDS (acquired immunodeficiency syndrome. The virus is passed from person to person through blood, semen, vaginal fluids, and breast milk. HIV replicates slowly; most of the time, several years pass between initial infection and the onset of symptoms. HIV attacks the human immune system and leaves infected persons very vulnerable to illnesses that are normally easily controlled by healthy immune systems

Hunger Scale: This scale, asks questions about the occurrence of having no food in the household, a household member going to sleep hungry due to lack of food, and a household member not eating for an entire day due to lack of food in the past 4 weeks and the frequency of each occurrence.

Incidence: The number of new cases of a disease in a defined population, within a specified period of time, expressed as a percentage among all person who are susceptible to the disease divided by time. Incident cases make up a portion of all prevalent cases.

Informed consent: Informed consent is a legal condition whereby a person can give consent based upon a clear understanding of the facts, implications and future consequences of an action. In order to give informed consent, the individual concerned must have adequate reasoning faculties and be in possession of all relevant facts at the time consent is given. Impairments to reasoning and judgment would include severe mental retardation, severe mental illness, intoxication, severe sleep deprivation, or being in a coma. Decision-making bodies such as legislatures or ethical research boards will define what is considered informed consent. In most cases, parents or guardians of children under the age of 12 years give informed consent on behalf of the child. Guidelines for informed consent by teenagers vary.

Insecticide-treated (bed) nets: Studies show that the use of insecticide-treated bed nets can reduce malaria transmission by as much as 90%. Bed nets prevent malaria transmission by creating a protective barrier against mosquitoes at night, when the vast majority of transmissions occur. A bed net is usually hung above the centre of a bed or sleeping space so that it completely covers the sleeping person. A net treated with pyrethroid insecticide offers about twice the protection of an untreated net and can reduce the number of mosquitoes that enter the house as well as the overall number of mosquitoes in the area.

Kenya National HIV/AIDS Strategic Plan III: A comprehensive national response to the epidemic in partnership with civil society, the private sector and development partners. The core of the KNASP III is to provide universal access to essential services which will lead to a reduction in high-risk behaviour among the general, HIV-infected, key and vulnerable populations; an increase in the proportion of HIV-infected individuals in care and treatment; development of health systems that provide comprehensive HIV services; a community-level response to HIV and coordination of stakeholders in achieving goals within a nationally owned strategy.

Male circumcision: Male circumcision is the removal of some or the entire foreskin (prepuce) from the penis. Medically supervised adult male circumcision is a scientifically proven method for reducing a man's risk of acquiring HIV infection through heterosexual intercourse. Circumcision can also provide some protection against genital herpes and human papillomavirus infections.

Microbicide: Microbicides are compounds that can be applied inside the vagina or rectum to protect against sexually transmitted infections (STIs) including HIV. They can be formulated as gels, creams, films, or suppositories. Microbicides may or may not have spermicidal activity (contraceptive effect).

Monogamous: Monogamy is the practice of having only one sexual partner and being faithful to that partner.

National Sample Survey and Evaluation Programme (NASSEP V): a household-based sampling frame developed and maintained by the Kenya National Bureau of Statistics. It is the basis of the KAIS 2012 sampling frame and design.

Opt-out testing: Provider-initiated, routine HIV counselling and testing, in which the client must "opt out" (i.e. must actively refuse), if he or she does not wish to be tested.

Polygamous: Polygamy is a practice in some cultures in which a man may have more than one wife. A few cultures in Oceania traditionally practiced polyandry, in which a woman may have more than one husband.

Population-based survey: An investigation in which information is systematically collected. Such a survey may be conducted by face-to-race inquiry, questionnaires, by telephone, or in other ways.

Pre-exposure prophylaxis: (PrEP) is the administration of antiretroviral therapy to HIV-uninfected persons to reduce their chance of acquiring HIV.

Prevalence: The number of cases of a given disease (or other health conditions), in a given population, at a single point in time, expressed as a percentage of all persons in the population. Prevalence can increase or decrease over time depending on the number of new infections, the rate of mortality, in or out-migration, the availability of treatment, and surveillance methods.

Prevention of mother-to-child-transmission (PMTCT): Mother-to-child transmission (MTCT) is when an HIV-infected woman passes the virus to her baby. This can occur during pregnancy, labour and delivery, or during breastfeeding. Effective PMTCT includes a three-fold approach: preventing HIV infection among prospective mothers; avoiding unwanted pregnancies among HIV-infected women; and preventing the transmission of HIV from HIV-infected mothers to their infants during pregnancy, labour, delivery and breastfeeding. This last may be accomplished through antiretroviral therapy, elective Caesarean section, feeding interventions, or a combination of these.

Replacement donors: A replacement blood donor is a friend or family member of a person who received a blood transfusion, who donates blood to replace the stored blood used by the transfusion. This ensures a consistent supply in the hospital or clinic.

Sexually transmitted infections (STI): Sexually transmitted infections are infections that are transmitted through person-to-person sexual contact. They are sometimes called sexually transmitted diseases (STDs).

Statistical significance: The probability that the results observed during the study was not likely to be due to chance alone. The threshold for statistical significance is an arbitrary value called a p value which is usually set at 0.05 or 5%. If the probability that the observed result was due to chance is that less than the set p value, the result is considered statistically significant.

Surveillance: Surveillance is a public health method based on the continuous monitoring of the occurrence and spread of a disease and is used to drive effective control. Surveillance may include the systematic collection and evaluation of morbidity and mortality reports, special reports of field investigations, and other relevant epidemiologic data.

Syndromic management: Syndromic management refers to the approach of treating symptoms and signs based on the organisms most commonly responsible for the syndrome. Laboratory tests require resources often not available in resource-limited countries; add to the cost of treatment; may require

clients to make extra visits to the clinic; and almost always result in delays in treatment. For these reasons, in the context of STIs, syndromic management guidelines are widely used for syndromes such as lower abdominal pain, urethral discharge and genital ulcer, even in countries with advanced laboratory facilities. Alternative methods of diagnosis and management are etiological and clinical.

Syphilis: Syphilis is a curable STI caused by a bacterium, Treponema pallidum. Three weeks after exposure to syphilis, a lesion appears in the genital area; this is referred to as primarily syphilis. Secondary syphilis occurs a few weeks after primary syphilis and is characterized by a rash on the body, arms and legs. If left untreated, infected people can develop tertiary syphilis over many years, which is characterized by bone, cardiovascular and neurological disease. Pregnant women can also transmit syphilis to their foetuses.

Tuberculosis: Tuberculosis (TB) is a contagious bacterial disease. Like the common cold, it spreads through the air. Only people who are sick with TB in their lungs or upper airways are infectious. When infectious people cough, sneeze, talk or spit, they propel TB germs, known as bacilli, into the air. A person needs only to inhale a small number of these to be infected. Left untreated, each person with active TB will infect on average between 10 and 15 people every year. But most people infected with TB bacilli will not necessarily become sick with the disease. When someone's immune system is weakened, the chances of becoming sick are greater. TB is a leading cause of death among people who are HIV-infected in Africa.

Universal precautions: Universal precautions are a means of reducing the risk of HIV transmission in medical settings and are based on the principle that all blood, body fluids, secretions, excretions except sweat, non-intact skin, and mucous membranes may contain transmissible infectious agents. Universal precautions include a group of infection prevention practices that apply to all patients, regardless of suspected or confirmed infection status, in any setting in which healthcare is delivered. These include: hand hygiene; use of gloves, gown, mask, eye protection, or face shield, depending on the anticipated exposure; and safe injection practices.

Venous blood sample: This is a sample of blood, taken by syringe from a person's vein.

Volunteer donors: In the developed world, most blood donors are unpaid volunteers who give blood for a community supply. In poorer countries, established supplies are limited and donors usually volunteer to give blood when family or friends need a transfusion. Many donors donate as an act of charity, but some are paid and in some cases there are incentives other than money such as paid time off from work.

Wealth Index: a composite of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access and sanitation facilities. The wealth index places households on a continuous scale of relative wealth using principal components analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with an equal number of individuals (quintiles), ranging from the lowest to the highest level of wealth.

WHO Clinical Staging: The WHO Clinical Staging system classifies HIV disease based on the clinical manifestations that can be recognized and treated by clinicians in diverse settings, including resource constrained settings, and by clinicians with varying levels of HIV expertise and training. HIV disease can be classified as stage I, II, III, or IV, with stage IV being the most advanced disease stage.

Appendix A

WEIGHTING AND STATISTICAL ANALYSIS

A.1 Sampling Weights

KAIS 2012 used National Sample Survey and Evaluation Programme (NASSEP) V sampling frame developed from the 96,000 census enumeration areas (EA) with county boundaries. An EA is constituted of a village, part of a village or a combination of villages. The primary sampling unit for NASSEP V is a cluster, which is constituted by one of more EAs and has, on average, 100 households.

The NASSEP V frame was implemented using a multi-tiered structure, in which a set of 4 independent samples (C1, C2, C3, C4) were developed. Each of these four independent samples is representative at the residential (i.e., urban/rural) and county level and contains 1,340 clusters, totalling 5,360 clusters in the full NASSEP V sampling frame. The Kenya National Bureau of Statistics (KNBS) used C1 as master sampling frame for KAIS 2012. The 372 clusters sampled in KAIS 2012 were selected from the 1,340 clusters in C1 using equal probability selection method.

A.1.1 Design Weights

The KAIS 2012 was not self-weighted and hence weighting was required to correct for unequal probability of selection and to adjust for non-response so that the estimates were representative of the Kenyan population. To allow for comparability of results between surveys, we used standard weighting procedures similar to the methods used in previous surveys conducted in Kenya (KDHS 2003, KAIS 2007, and KDHS 2008-09).

The design weights incorporated the probabilities of selection of the 5,360 clusters into the NASSEP V sample frame, probability selection of 1,340 clusters of C1, and the probabilities of selection of the 372 clusters into the KAIS sample from the NASSEP V clusters. Additional design weights were calculated for child sample which was half the size of adult sample. The probabilities of selection of clusters into NASSEP V were taken from the documentation of the NASSEP V master sample, which was available through KNBS.

A.1.2 Post-stratification and Non-response Adjustment

Adult weights

For adults, design weights were adjusted for non-response at cluster, household, and individual level (both for the interview and the blood draw). Because the distribution of sex in the sample differed substantially from the distribution of sex in the referent population, non-response was adjusted separately for males and females. An adjustment factor was computed for each cluster for male and female weights based on the sample distribution and expected population within the NASCOP region. Ultimately, each cluster had three cluster-specific weights: household, individual interview and blood draw. All household members captured in the household questionnaire were assigned the same household weight. All individuals within a cluster who participated in the individual interview or blood draw were assigned the same cluster-specific weights for individual interview or blood draw.

Other weights

Separate weights were computed for the children's interview and blood draw. However, the calculation of children weights was not stratified by sex because the distribution of sex in the child sample was similar to the distribution in the referent population. For the analysis of the couples dataset, couple weight were computed by factoring the number of eligible couples identified in the sample and number of couples who participated or tested for HIV in the survey.

A.1.3 Normalization of Weights

Normalized weights were used to avoid generating incorrect standard errors and confidence intervals and were valid for estimation of proportions and means at any aggregation level. Weights were normalized to the KAIS 2012 sample size and had a mean of 1.0.

A.2 Population Estimates

Estimation of population sizes provided a useful measure of the number of persons affected by a particular outcome or accessing particular services. The KAIS 2012 survey weights were calculated such that the total sum of non-normalized weights was equal to the expected population size in the referent population. Therefore, the estimates of population sizes reported in this report were the weighted frequency of persons with the characteristic of interest. Population estimates were rounded to the nearest 1,000 persons. Due to rounding error, the sum of stratum-level population estimates may not equal the national population estimate.

A.3 Statistical Analysis

This report presents the results of univariate and bivariate analyses using the KAIS 2012 data. Analyses were not adjusted for any confounding factors; multivariate analyses have been reserved for other dissemination materials, such as scientific manuscripts. By convention, we present weighted proportions (except where noted) and unweighted frequencies. Due to rounding error, the sum of stratum-level weighted estimates may not equal to 100%. In addition to weights, appropriate survey design variables were included in the analyses to obtain standard errors. Weighted proportions based on a denominator of less than 25 participants were suppressed in the chapters and appendices given the instability of the estimate, although the corresponding unweighted number of cases and unweighted total (unweighted n/N) are presented in Appendix B. Most analyses were stratified by sex given the importance of this variable in understanding the distribution of HIV. Statistical significance was assessed based on chi-square p-values, except in cases where estimates from two time points were compared in Chapter 4 (Trends in HIV prevalence) and Chapter 5 (HIV incidence). For Chapter 4 and Chapter 5, a z-test was used to calculate a p-value for the differences in the weighted estimates for two survey point estimates. The z-statistic was constructed as the difference in the point estimates between the surveys divided by the standard error of the difference:

$$Z = \frac{P_{surveys1} - P_{surveys2}}{\sqrt{P_{surveys1} + P_{surveys2}}}$$

Where $Var_{SURVEY1}$ and$Var_{SURVEY2}$ are the variances for the two estimates. Throughout the report, the term significant indicates a p-value less than 0.05. Marginally significant indicates a p-value between 0.05 and 0.10; and not significant indicates a p-value greater than 0.10. Terms such as “apparent” or “appears to be” refer to the general shape of the graph or a possible pattern of data that has not been formally evaluated with a statistical test; such testing was beyond the scope of this report. All analyses were conducted using STATA version 12.0 (STATA Corporation, College Station, Texas, USA) and SAS version 9.3 (SAS Institute Inc., Cary, North Carolina, USA). These statistical programs accounts for the clustered, stratified design of the KAIS survey sample and can produce reliable standard errors and confidence intervals.

Appendix B

Table 1.1a: Percent aged-group distribution of women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	1220/7954	15.3	(14.2, 16.5)	1073/5766	18.2	(16.8, 19.7)	2293/13720	16.8	(15.8, 17.7)
20-24	1403/7954	17.6	(16.5, 18.7)	846/5766	14.9	(13.7, 16.0)	2249/13720	16.3	(15.4, 17.1)
25-29	1313/7954	16.6	(15.6, 17.6)	828/5766	14.6	(13.5, 15.8)	2141/13720	15.6	(14.8, 16.4)
30-34	981/7954	12.4	(11.5, 13.4)	716/5766	12.2	(11.3, 13.2)	1697/13720	12.3	(11.7, 13.0)
35-39	833/7954	10.4	(9.6, 11.2)	583/5766	10.4	(9.6, 11.3)	1416/13720	10.4	(9.8, 11.0)
40-44	669/7954	8.4	(7.7, 9.0)	493/5766	8.6	(7.8, 9.4)	1162/13720	8.5	(8.0, 9.0)
45-49	492/7954	6.3	(5.7, 7.0)	357/5766	6.1	(5.5, 6.8)	849/13720	6.2	(5.8, 6.7)
50-54	473/7954	5.9	(5.3, 6.5)	372/5766	6.4	(5.7, 7.0)	845/13720	6.1	(5.7, 6.6)
55-59	320/7954	4.0	(3.5, 4.5)	277/5766	4.7	(4.0, 5.3)	597/13720	4.3	(3.9, 4.8)
60-64	250/7954	3.1	(2.6, 3.5)	221/5766	3.8	(3.2, 4.4)	471/13720	3.4	(3.0, 3.8)

Table 1.1b: Percent distribution of women and men aged 15-64 years by residence

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	5107/7954	64.5	(62.1, 66.8)	3531/5766	61.4	(58.5, 64.2)	8638/13720	62.9	(60.5, 65.4)
Urban	2847/7954	35.5	(33.2, 37.9)	2235/5766	38.6	(35.8, 41.5)	5082/13720	37.1	(34.6, 39.5)

Table 1.1c: Percent distribution of women and men age 15-64 years by NASCOP region, KAIS 2012

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Nairobi	949/7954	10.3	(9.2, 11.4)	796/5766	11.6	(10.3, 13.0)	1745/13720	11.0	(9.9, 12.0)
Central	926/7954	13.2	(11.7, 14.7)	654/5766	13.2	(11.1, 15.3)	1580/13720	13.2	(11.5, 14.9)
Coast	998/7954	9.1	(7.6, 10.7)	714/5766	9.4	(8.0, 10.9)	1712/13720	9.3	(7.9, 10.7)
Eastern North	722/7954	1.0	(0.8, 1.3)	498/5766	1.2	(0.9, 1.5)	1220/13720	1.1	(0.9, 1.4)
Eastern South	873/7954	14.6	(12.9, 16.2)	591/5766	14.1	(12.0, 16.1)	1464/13720	14.3	(12.6, 16.0)
Nyanza	1060/7954	14.7	(13.0, 16.3)	774/5766	13.4	(11.5, 15.2)	1834/13720	14.0	(12.4, 15.7)
North Rift Valley	744/7954	12.1	(10.4, 13.8)	516/5766	12.6	(10.5, 14.7)	1260/13720	12.3	(10.5, 14.1)
South Rift Valley	682/7954	13.7	(11.3, 16.1)	542/5766	14.2	(11.3, 17.0)	1224/13720	13.9	(11.4, 16.4)
Western	1000/7954	11.3	(9.9, 12.7)	681/5766	10.4	(8.9, 11.9)	1681/13720	10.9	(9.5, 12.2)

Table 1.1d: Percent distribution of women and men aged 15-64 years by marital status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Never married/ never cohabited	1822/7954	23.2	(21.8, 24.6)	2168/5766	37.2	(35.5, 39.0)	3990/13720	30.1	(28.8, 31.3)
Married/cohabiting - monogamous	4112/7954	52.3	(50.8, 53.9)	2862/5766	50.6	(48.9, 52.2)	6974/13720	51.5	(50.2, 52.7)
Married/cohabiting - polygamous	648/7954	7.7	(6.7, 8.7)	218/5766	3.5	(2.8, 4.2)	866/13720	5.6	(4.9, 6.4)
Separated/divorced	567/7954	7.0	(6.3, 7.7)	282/5766	5.0	(4.3, 5.7)	849/13720	6.0	(5.5, 6.6)
Ever widowed	799/7954	9.7	(8.8, 10.6)	232/5766	3.6	(3.1, 4.2)	1031/13720	6.7	(6.2, 7.3)
Unknown	6/7954	0.1	(0.0, 0.2)	4/5766	0.1	(0.0, 0.1)	10/13720	0.1	(0.0, 0.1)

Table 1.1e: Percent distribution of women and men aged 15-64 years by education

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No primary	1197/7954	10.6	(8.8, 12.4)	381/5766	3.8	(2.9, 4.8)	1578/13720	7.3	(6.0, 8.6)
Incomplete primary	710/7954	8.4	(7.3, 9.5)	450/5766	6.7	(5.4, 7.9)	1160/13720	7.6	(6.7, 8.4)
Complete primary	2423/7954	32.1	(30.3, 33.9)	1893/5766	32.5	(30.6, 34.4)	4316/13720	32.3	(30.9, 33.7)
Secondary+*	3624/7954	48.9	(46.8, 50.9)	3042/5766	57.0	(54.6, 59.3)	6666/13720	52.8	(51.1, 54.6)

Table 1.1f: Percent distribution of women and men aged 15-64 years by wealth index[1]

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Lowest	1719/7954	20.2	(17.5, 23.0)	1131/5766	18.1	(15.4, 20.9)	2850/13720	19.2	(16.6, 21.8)
Second	1695/7954	21.4	(19.5, 23.4)	1162/5766	20.2	(18.1, 22.2)	2857/13720	20.8	(18.9, 22.7)
Middle	1540/7954	19.7	(17.8, 21.6)	1135/5766	20.0	(17.9, 22.0)	2675/13720	19.8	(17.9, 21.7)
Fourth	1385/7954	17.6	(15.6, 19.6)	1195/5766	21.1	(18.7, 23.5)	2580/13720	19.3	(17.2, 21.4)
Highest	1615/7954	21.0	(18.3, 23.8)	1143/5766	20.6	(17.8, 23.5)	2758/13720	20.8	(18.1, 23.6)

* Secondary + includes years of secondary schooling whether completed or not.

[1] The wealth index was a composite measure of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access, and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principal component analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with equal number of individuals (quintiles), ranging from lowest to highest level of wealth.

Table 1.1g: Percent distribution of women and men aged 15-64 years by current employment

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Currently employed	2836/7949	37.9	(35.9, 39.9)	3331/5765	59.0	(56.6, 61.4)	6167/13714	48.2	(46.4, 50.0)
Unemployed	5108/7949	62.1	(60.0, 64.1)	2430/5765	40.9	(38.6, 43.3)	7538/13714	51.7	(49.9, 53.5)
Other	5/7949	0.1	(0.0, 0.1)	4/5765	0.1	(0.0, 0.1)	9/13714	0.1	(0.0, 0.1)

Table 1.1h: Percent distribution of women and men aged 15-64 years by religion

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Roman Catholic	1733/7951	23.0	(20.8, 25.3)	1318/5765	24.2	(21.9, 26.4)	3051/13716	23.6	(21.6, 25.6)
Protestant/Other Christian	5088/7951	68.4	(65.8, 71.0)	3487/5765	64.4	(61.9, 67.0)	8575/13716	66.5	(64.1, 68.8)
Muslim	835/7951	5.5	(3.8, 7.3)	610/5765	5.8	(4.2, 7.4)	1445/13716	5.6	(4.0, 7.3)
No Religion	182/7951	2.0	(1.2, 2.8)	240/5765	4.5	(3.3, 5.6)	422/13716	3.2	(2.5, 4.0)
Other	113/7951	1.0	(0.6, 1.4)	110/5765	1.2	(0.4, 1.9)	223/13716	1.1	(0.6, 1.6)

Table 1.1i: Percent distribution of women and men aged 15-64 years by ethnic group

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Embu	94/7950	1.2	(0.3, 2.0)	73/5765	1.5	(0.3, 2.7)	167/13715	1.3	(0.3, 2.3)
Kalenjin	734/7950	13.2	(9.8, 16.7)	582/5765	15.3	(11.3, 19.3)	1316/13715	14.3	(10.6, 17.9)
Kamba	737/7950	11.3	(8.7, 13.9)	527/5765	11.1	(8.5, 13.6)	1264/13715	11.2	(8.7, 13.7)
Kikuyu	1560/7950	21.1	(18.6, 23.6)	1107/5765	20.3	(17.5, 23.1)	2667/13715	20.7	(18.2, 23.2)
Kisii	517/7950	7.5	(4.7, 10.3)	399/5765	7.2	(4.5, 9.8)	916/13715	7.3	(4.7, 10.0)
Luhya	1220/7950	14.9	(12.8, 16.9)	891/5765	14.8	(12.4, 17.2)	2111/13715	14.8	(12.7, 17.0)
Luo	811/7950	10.9	(8.7, 13.2)	631/5765	11.0	(8.7, 13.3)	1442/13715	11.0	(8.8, 13.2)
Masai	116/7950	1.7	(0.5, 2.9)	81/5765	1.4	(0.5, 2.4)	197/13715	1.6	(0.5, 2.6)
Meru	355/7950	5.0	(2.9, 7.2)	241/5765	5.1	(2.8, 7.4)	596/13715	5.1	(2.9, 7.3)
Mijikenda	466/7950	4.6	(3.0, 6.3)	320/5765	4.6	(3.2, 6.0)	786/13715	4.6	(3.1, 6.1)
Somali	67/7950	0.5	(0.1, 0.9)	39/5765	0.4	(0.1, 0.7)	106/13715	0.4	(0.1, 0.8)
Taita/Taveta	154/7950	1.3	(0.6, 1.9)	118/5765	1.3	(0.6, 2.0)	272/13715	1.3	(0.6, 1.9)
Swahili	55/7950	0.4	(0.0, 0.9)	9/5765	0.2	(0.0, 0.3)	64/13715	0.3	(0.0, 0.6)
Other	1064/7950	6.4	(4.5, 8.3)	747/5765	5.9	(4.3, 7.4)	1811/13715	6.1	(4.5, 7.8)

Table 1.1j: Percent distribution of women 15-49 years who were pregnant at time of survey

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	439/6900	6.3	(5.6, 7.0)	–	–	–	439/6900	6.3	(5.6, 7.0)
No	6400/6900	92.8	(92.0, 93.5)	–	–	–	6400/6900	92.8	(92.0, 93.5)
Don't know	61/6900	0.9	(0.7, 1.2)	–	–	–	61/6900	0.9	(0.7, 1.2)

Table 1.1k: Percent distribution of men 15-64 years who are circumcised

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	–	–	–	5229/5746	91.1	(89.6, 92.6)	5229/5746	91.1	(89.6, 92.6)
No	–	–	–	509/5746	8.8	(7.3, 10.3)	509/5746	8.8	(7.3, 10.3)
Don't know	–	–	–	8/5746	0.1	(0.0, 0.2)	8/5746	0.1	(0.0, 0.2)

Table 1.2a: Percent distribution of girls and boys aged 10-14 years

	All		
	Unweighted n/N	Weighted %	95% CI
Boy	822/1661	50.3	(47.5, 53.1)
Girl	839/1661	49.7	(46.9, 52.5)

Table 1.2b: Percent distribution of girls and boys aged 10-14 years by residence

	All		
	Unweighted n/N	Weighted %	95% CI
Rural	1236/1661	75.6	(71.8, 79.5)
Urban	425/1661	24.4	(20.5, 28.2)

Table 1.2c: Percent distribution of girls and boys age 10-14 years by NASCOP region

	All		
	Unweighted n/N	Weighted %	95 % CI
Nairobi	111/1661	6.1	(4.8, 7.3)
Central	181/1661	10.5	(8.7, 12.3)
Coast	227/1661	9.4	(7.0, 11.7)
Eastern North	182/1661	1.4	(0.9, 1.9)
Eastern South	167/1661	14.7	(11.1, 18.3)
Nyanza	231/1661	14.9	(12.3, 17.5)
North Rift Valley	159/1661	12.9	(9.9, 15.9)
South Rift Valley	147/1661	17.0	(11.8, 22.2)
Western	256/1661	13.1	(10.9, 15.4)

Table 1.2d: Percent distribution of girls and boys aged 10-14 years by wealth index[1]

	All		
	Unweighted n/N	Weighted %	95% CI
Lowest	453/1661	28.2	(22.3, 34.1)
Second	419/1661	25.5	(22.0, 29.0)
Middle	366/1661	22.2	(18.8, 25.6)
Fourth	237/1661	13.3	(10.6, 16.1)
Highest	186/1661	10.8	(8.5, 13.1)

Table 1.2e: Percent distribution of girls and boys aged 10-14 years currently in school

	All		
	Unweighted n/N	Weighted %	95% CI
Yes	1630/1661	98.8	(98.1, 99.5)
No	31/1661	1.2	(0.5, 1.9)

[1] The wealth index was a composite measure of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access, and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principal component analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with equal number of individuals (quintiles), ranging from lowest to highest level of wealth

Table 2.3a: Sex of head of household by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Female	1956/4914	38.5	(36.2, 40.7)	1050/3118	31.7	(29.3, 34.1)	3006/8032	35.9	(34.2, 37.5)
Male	2958/4914	61.5	(59.3, 63.8)	2068/3118	68.3	(65.9, 70.7)	5026/8032	64.1	(62.5, 65.8)

Table 2.3b: Distribution of households by residence

	All		
	Unweighted n/N	Weighted %	95% CI
Rural	4915/8035	61.2	(59.0, 63.3)
Urban	3120/8035	38.8	(36.7, 41.0)

Table 2.3c: Mean household size by residence

	Rural			Urban			Total		
Mean Household Size	Number (N)	Mean	95 % CI	Number (N)	Mean	95 % CI	Number (N)	Mean	95 % CI
Number of persons in the households	4915	4.5	(4.4, 4.9)	3120	3.3	(3.2, 4.5)	8035	4.1	(4.0, 4.2)

Table 2.3d1: Household population by aged group, sex, and rural residence

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
0-4 years	1675/11667	14.2	(13.6, 14.8)	1653/10416	15.3	(14.4, 16.3)	3328/22083	14.7	(14.1, 15.4)
5-14 years	3505/11667	29.8	(28.7, 30.8)	3453/10416	33.0	(31.9, 34.1)	6958/22083	31.3	(30.5, 32.1)
15-49 years	4961/11667	42.9	(41.7, 44.1)	4080/10416	40.1	(38.8, 41.4)	9041/22083	41.6	(40.6, 42.7)
50+ years	1526/11667	13.1	(12.3, 13.9)	1230/10416	11.5	(10.8, 12.3)	2756/22083	12.3	(11.7, 13.0)

Table 2.3d2: Household population, by aged group, sex, and urban residence

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
0-4 years	744/5459	13.3	(12.2, 14.4)	699/5013	14.2	(12.9, 15.5)	1443/10472	13.8	(12.8, 14.7)
5-14 years	1281/5459	22.9	(21.3, 24.5)	1165/5013	22.4	(20.8, 23.9)	2446/10472	22.6	(21.3, 23.9)
15-49 years	3005/5459	56.3	(54.2, 58.3)	2712/5013	54.7	(52.5, 57.0)	5717/10472	55.5	(53.7, 57.4)
50+ years	429/5459	7.5	(6.3, 8.7)	437/5013	8.6	(7.4, 9.8)	866/10472	8.1	(7.0, 9.1)

Table 2.3e: Household wealth index by residence[1]

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI		Weighted %	95% CI
Lowest	1517/4915	28.9	(25.0, 32.7)	90/3120	2.7	(1.4, 4.1)	1607/8035	18.7	(16.2, 21.2)
Second	1413/4915	28.7	(26.5, 30.8)	194/3120	6.6	(4.3, 8.9)	1607/8035	20.1	(18.4, 21.8)
Middle	1208/4915	25.3	(22.8, 27.8)	399/3120	12.2	(9.7, 14.7)	1607/8035	20.2	(18.4, 22.1)
Fourth	635/4915	13.6	(11.5, 15.8)	972/3120	30.5	(26.6, 34.4)	1607/8035	20.2	(18.2, 22.2)
Highest	142/4915	3.5	(2.2, 4.9)	1465/3120	48.0	(42.5, 53.5)	1607/8035	20.8	(18.2, 23.4)

Table 2.4a: Households with at least one HIV-infected person by residence

	All		
	Unweighted n/N	Weighted %	95% CI
Rural	333/4915	7.4	(6.3, 8.5)
Urban	253/3120	8.3	(7.1, 9.6)
Total	586/8035	7.7	(6.9, 8.6)

Table 2.4b(1): HIV-affected households by number of HIV-infected members and residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
One	270/333	79.6	(74.8, 84.3)	218/253	85.6	(79.5, 91.6)	488/586	82.1	(78.3, 85.9)
Two	59/333	18.6	(14.0, 23.2)	34/253	13.9	(7.8, 20.1)	93/586	16.7	(13.0, 20.4)
Three	4/333	1.8	(0.1, 3.5)	1/253	0.5	(0.0, 1.4)	5/586	1.2	(0.2, 2.3)

Table 2.4b(2): HIV-affected households by wealth index, KAIS 2012

	At least one household member infected with HIV			No household members infected with HIV			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Lowest	85/586	14.3	(10.7, 17.9)	(10.7, 17.9)	1522/7449	19.1	1607/8035	18.7	(16.2, 21.2)
Second	138/586	23.9	(19.2, 28.5)	(19.2, 28.5)	1469/7449	19.8	1607/8035	20.1	(18.4, 21.8)
Middle	115/586	20.0	(16.3, 23.7)	(16.3, 23.7)	1492/7449	20.2	1607/8035	20.2	(18.4, 22.1)
Fourth	148/586	24.3	(19.7, 29.0)	(19.7, 29.0)	1459/7449	19.8	1607/8035	20.2	(18.2, 22.2)
Highest	100/586	17.5	(13.5, 21.5)	(13.5, 21.5)	1507/7449	21.1	1607/8035	20.8	(18.2, 23.4)

Table 2.4b(3): HIV-affected households by household hunger scale category, KAIS 2012

	At least one household member infected with HIV			No household members infected with HIV			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Little or no hunger in HH	456/586	79.5	(75.7, 83.3)	6161/7449	84.3	(82.5, 86.1)	6617/8035	83.9	(82.2, 85.7)
Moderate hunger in HH	105/586	16.3	(13.1, 19.4)	1056/7449	12.7	(11.2, 14.1)	1161/8035	12.9	(11.5, 14.4)
Severe hunger in HH	12/586	1.8	(0.7, 2.9)	141/7449	1.7	(0.9, 2.4)	153/8035	1.7	(1.0, 2.4)
Unknown	13/586	2.4	(0.9, 4.0)	91/7449	1.4	(0.8, 1.9)	104/8035	1.4	(0.9, 2.0)

[1] Wealth index was a composite measure of the living standard of a household calculated using data on household's ownership of selected assets, materials used for housing construction, water access and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principle component analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with equal number of individuals (quintiles), ranging from lowest to highest level of wealth.

Table 2.4c: Households with HIV-infected head of household by sex

	Female			Male			Total		
		Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	236/3006	8.5	(7.2, 9.9)	165/5026	3.6	(2.9, 4.4)	401/8032	5.4	(4.7, 6.1)
No	2770/3006	91.5	(90.1, 92.8)	4861/5026	96.4	(95.6, 97.1)	7631/8032	94.6	(93.9, 95.3)

Table 2.5a: Main source of drinking water by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Piped into dwelling/ compound	751/4915	16.1	(12.8, 19.3)	1571/3120	51.1	(45.2, 57.0)	2322/8035	29.7	(26.5, 32.9)
Public tap	359/4915	6.2	(4.3, 8.2)	634/3120	18.8	(15.4, 22.3)	993/8035	11.1	(9.3, 12.9)
Tube well, dug well, borehold	1160/4915	21.6	(18.0, 25.2)	307/3120	9.6	(6.5, 12.8)	1467/8035	17.0	(14.4, 19.5)
spring water	746/4915	17.5	(13.5, 21.5)	111/3120	3.6	(1.9, 5.4)	857/8035	12.1	(9.5, 14.7)
Rainwater	215/4915	4.4	(3.2, 5.6)	77/3120	2.4	(1.3, 3.5)	292/8035	3.6	(2.8, 4.5)
Surface water	1559/4915	31.7	(27.0, 36.4)	187/3120	6.7	(3.6, 9.8)	1746/8035	22.0	(18.9, 25.1)
Other source	85/4915	1.6	(0.9, 2.3)	207/3120	6.6	(4.4, 8.8)	292/8035	3.5	(2.5, 4.5)
No response	40/4915	0.9	(0.5, 1.2)	26/3120	1.1	(0.0, 2.3)	66/8035	1.0	(0.5, 1.5)

Table 2.5b: Method of treating drinking water by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Boiling	962/4915	21.4	(18.8, 23.9)	896/3120	27.8	(24.8, 30.7)	1858/8035	23.9	(21.9, 25.8)
Disinfection	892/4915	17.2	(14.7, 19.8)	679/3120	21.6	(18.9, 24.4)	1571/8035	19.0	(17.1, 20.8)
Bottled water	12/4915	0.2	(0.1, 0.4)	101/3120	3.2	(2.1, 4.2)	113/8035	1.4	(0.9, 1.8)
Other method	451/4915	8.6	(7.1, 10.0)	94/3120	2.5	(1.7, 3.2)	545/8035	6.2	(5.2, 7.1)
Does not treat	2558/4915	51.7	(48.4, 55.1)	1323/3120	43.8	(40.3, 47.3)	3881/8035	48.7	(46.2, 51.1)
No response	40/4915	0.9	(0.5, 1.2)	27/3120	1.1	(0.0, 2.3)	67/8035	1.0	(0.5, 1.5)

Table 2.5c: Type of household toilet facility by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Flush or pour flush toilet	86/4915	2.0	(1.2, 2.8)	1173/3120	36.6	(31.4, 41.9)	1259/8035	15.4	(13.3, 17.6)
Traditional pit latrine	3376/4915	73.4	(69.6, 77.1)	1407/3120	45.9	(40.6, 51.2)	4783/8035	62.7	(59.5, 65.9)
Ventilated improved pit latrine (Vip)	507/4915	10.8	(8.8, 12.8)	431/3120	14.2	(11.3, 17.1)	938/8035	12.1	(10.4, 13.8)
No Facility / bush / field	895/4915	12.7	(9.3, 16.1)	67/3120	1.7	(0.3, 3.2)	962/8035	8.5	(6.3, 10.6)
Other/unknown	51/4915	1.1	(0.7, 1.6)	42/3120	1.6	(0.3, 2.8)	93/8035	1.3	(0.7, 1.8)

Table 2.6a: Household hunger scale by wealth index

	Lowest			Second			Middle		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Little or no hunger in HH	1134/1599	73.8	(68.6, 79.0)	1250/1599	80.4	(77.8, 83.0)	1350/1598	85.7	(83.0, 88.5)
Moderate hunger in HH	405/1599	22.8	(18.7, 26.8)	306/1599	17.4	(15.0, 19.7)	213/1598	12.2	(9.9, 14.5)
Severe hunger in HH	60/1599	3.4	(0.3, 6.6)	43/1599	2.2	(1.3, 3.1)	35/1598	2.1	(1.1, 3.0)

	Fourth			Highest			Total		
		Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Little or no hunger in HH	1364/1546	89.2	(87.1, 91.4)	1519/1589	95.8	(94.6, 97.1)	6617/7931	85.2	(83.4, 86.9)
Moderate hunger in HH	171/1546	10.0	(7.9, 12.2)	66/1589	4.0	(2.8, 5.2)	1161/7931	13.1	(11.7, 14.6)
Severe hunger in HH	11/1546	0.7	(0.3, 1.2)	4/1589	0.2	(0.0, 0.5)	153/7931	1.7	(1.0, 2.4)

Table 2.6b: Household hunger scale by number of household members

	One			Two			Three plus			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Little or no hunger in HH	1124/1318	86.6	(84.1, 89.1)	953/1075	89.1	(86.7, 91.6)	4540/5538	84.1	(82.1, 86.0)	6617/7931	85.2	(83.4, 86.9)
Moderate hunger in HH	166/1318	11.3	(9.2, 13.4)	109/1075	9.6	(7.4, 11.8)	886/5538	14.2	(12.5, 16.0)	1161/7931	13.1	(11.7, 14.6)
Severe hunger in HH	28/1318	2.1	(0.9, 3.2)	13/1075	1.2	(0.5, 2.0)	112/5538	1.7	(1.0, 2.4)	153/7931	1.7	(1.0, 2.4)

Table 2.6c: Household hunger scale by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Little or no hunger in HH	3900/4852	82.6	(80.1, 85.1)	2717/3079	89.2	(87.2, 91.3)	6617/7931	85.2	(83.4, 86.9)
Moderate hunger in HH	830/4852	15.1	(13.1, 17.1)	331/3079	10.0	(8.1, 11.9)	1161/7931	13.1	(11.7, 14.6)
Severe hunger in HH	122/4852	2.3	(1.1, 3.4)	31/3079	0.8	(0.5, 1.1)	153/7931	1.7	(1.0, 2.4)

Table 2.7a: Main source of fuel used for cooking by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Electricity	3/4869	0.1	(0.0, 0.1)	34/3092	1.3	(0.0, 2.6)	37/7961	0.5	(0.0, 1.0)
LPG/natural gas	63/4869	1.6	(0.9, 2.4)	555/3092	18.3	(14.9, 21.8)	618/7961	8.1	(6.7, 9.5)
Biogas	3/4869	0.1	(0.0, 0.2)	4/3092	0.2	(0.0, 0.3)	7/7961	0.1	(0.0, 0.2)
Paraffin/kerosene	61/4869	1.4	(0.8, 2.1)	845/3092	29.1	(24.3, 33.8)	906/7961	12.2	(10.1, 14.3)
Coal/lignite	1/4869	0.0	(0.0, 0.0)	18/3092	0.5	(0.2, 0.9)	19/7961	0.2	(0.1, 0.3)
Charcoal from wood	594/4869	13.2	(10.6, 15.7)	960/3092	29.9	(25.7, 34.0)	1554/7961	19.6	(17.4, 21.9)
Firewood/straw	4116/4869	83.0	(79.6, 86.3)	604/3092	18.7	(13.3, 24.0)	4720/7961	58.0	(54.7, 61.4)
Dung	1/4869	0.0	(0.0, 0.1)	0/3092	–	–	1/7961	0.0	(0.0, 0.0)
No food cooked in household	24/4869	0.6	(0.3, 0.9)	67/3092	1.9	(1.3, 2.5)	91/7961	1.1	(0.8, 1.4)
Other source	3/4869	0.1	(0.0, 0.2)	5/3092	0.2	(0.0, 0.4)	8/7961	0.1	(0.0, 0.2)

Table 2.7b: Main type of floor materials by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Natural Floor Earth / Sand	2166/4869	39.2	(35.0, 43.3)	447/3092	13.1	(10.0, 16.2)	2613/7961	29.1	(26.2, 31.9)
Natural Floor Dung	1489/4869	34.2	(30.2, 38.3)	219/3092	7.4	(4.6, 10.3)	1708/7961	23.8	(21.0, 26.7)
Rudimentary Floor Wood Planks	6/4869	0.2	(0.0, 0.3)	21/3092	0.5	(0.0, 1.0)	27/7961	0.3	(0.1, 0.5)
Rudimentary Floor Palm / Bamboo	1/4869	0.0	(0.0, 0.0)	2/3092	0.0	(0.0, 0.1)	3/7961	0.0	(0.0, 0.0)
Finished Floor Parquet Or Polished Wood	2/4869	0.0	(0.0, 0.1)	11/3092	0.3	(0.0, 0.5)	13/7961	0.1	(0.0, 0.2)
Finished Floor Vinyl Or Asphalt Strip	9/4869	0.2	(0.0, 0.3)	51/3092	2.2	(0.7, 3.7)	60/7961	1.0	(0.4, 1.6)
Finished Floor Ceramic Tiles	46/4869	1.0	(0.7, 1.4)	123/3092	4.0	(2.8, 5.2)	169/7961	2.2	(1.6, 2.7)
Finished Floor Cement/Terrazzo	1112/4869	24.2	(21.1, 27.3)	2058/3092	67.1	(62.8, 71.4)	3170/7961	40.9	(38.1, 43.6)
Finished Floor Carpet	21/4869	0.6	(0.3, 0.9)	156/3092	5.2	(3.8, 6.6)	177/7961	2.4	(1.8, 3.0)
Other	17/4869	0.4	(0.0, 0.8)	4/3092	0.1	(0.0, 0.2)	21/7961	0.3	(0.0, 0.6)

Table 2.7c: Main roofing materials by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Natural Roofing No Roof	22/4869	0.5	(0.0, 1.0)	8/3092	0.2	(0.0, 0.6)	30/7961	0.4	(0.1, 0.7)
Natural Roofing Thatch / Palm Leaf (Makuti)	1050/4869	16.7	(13.6, 19.7)	92/3092	2.3	(0.7, 4.0)	1142/7961	11.1	(9.1, 13.1)
Natural Roofing Dung / Mud	97/4869	2.2	(0.6, 3.7)	10/3092	0.4	(0.1, 0.7)	107/7961	1.5	(0.5, 2.4)
Rudimentary Roofing Corrugated Iron (Mabati)	3464/4869	75.2	(71.7, 78.7)	2348/3092	75.7	(71.2, 80.2)	5812/7961	75.4	(72.7, 78.2)
Rudimentary Roofing Tin Cans	12/4869	0.3	(0.1, 0.5)	11/3092	0.3	(0.0, 0.6)	23/7961	0.3	(0.1, 0.4)
Finished Roofing Asbestos Sheet	182/4869	4.4	(2.6, 6.1)	142/3092	6.3	(3.6, 9.1)	324/7961	5.1	(3.6, 6.7)
Finished Roofing Concrete	10/4869	0.2	(0.0, 0.4)	387/3092	12.0	(8.8, 15.3)	397/7961	4.8	(3.5, 6.1)
Finished Roofing Tiles	10/4869	0.3	(0.0, 0.5)	90/3092	2.6	(1.2, 4.0)	100/7961	1.2	(0.6, 1.8)
Other	22/4869	0.3	(0.0, 0.7)	4/3092	0.1	(0.0, 0.2)	26/7961	0.2	(0.0, 0.5)

Table 2.7d: Main wall materials by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Natural Walls No Walls	18/4868	0.4	(0.1, 0.8)	1/3091	0.0	(0.0, 0.1)	19/7959	0.3	(0.0, 0.5)
Natural Walls Cane/Palm/Trunks	293/4868	3.8	(1.9, 5.8)	10/3091	0.2	(0.0, 0.3)	303/7959	2.4	(1.2, 3.6)
Natural Walls Dung / Mud	2251/4868	48.2	(44.2, 52.2)	387/3091	12.5	(8.7, 16.4)	2638/7959	34.3	(31.3, 37.4)
Rudimentary Walls Bamboo With Mud	386/4868	6.5	(4.7, 8.2)	77/3091	1.9	(0.9, 3.0)	463/7959	4.7	(3.5, 5.9)
Rudimentary Walls Stone With Mud	143/4868	2.4	(1.6, 3.3)	43/3091	1.3	(0.6, 2.0)	186/7959	2.0	(1.4, 2.6)
Rudimentary Walls Plywood/ Cardboard	57/4868	1.2	(0.6, 1.8)	55/3091	1.3	(0.4, 2.3)	112/7959	1.3	(0.7, 1.8)
Rudimentary Walls Carton	4/4868	0.1	(0.0, 0.1)	3/3091	0.1	(0.0, 0.2)	7/7959	0.1	(0.0, 0.1)
Rudimentary Walls Reused Wood	193/4868	4.3	(2.8, 5.8)	62/3091	1.6	(0.5, 2.7)	255/7959	3.2	(2.2, 4.2)
Finished Walls Cement	246/4868	4.6	(3.5, 5.6)	383/3091	11.9	(9.6, 14.2)	629/7959	7.4	(6.3, 8.5)
Finished Walls Stone With Lime/ Cement	376/4868	8.4	(6.6, 10.3)	648/3091	24.6	(20.5, 28.6)	1024/7959	14.7	(12.7, 16.7)
Finished Walls Bricks	242/4868	5.5	(4.0, 6.9)	121/3091	4.3	(2.9, 5.8)	363/7959	5.0	(4.0, 6.1)
Finished Walls Cement Blocks	199/4868	3.7	(2.8, 4.5)	805/3091	24.1	(20.5, 27.8)	1004/7959	11.6	(10.1, 13.2)
Finished Walls Wood Planks/ Shingles	324/4868	8.2	(5.8, 10.6)	94/3091	2.9	(1.5, 4.3)	418/7959	6.2	(4.6, 7.8)
Other	136/4868	2.7	(1.7, 3.8)	402/3091	13.3	(9.0, 17.6)	538/7959	6.8	(5.0, 8.6)

Table 2.8a: Country of Birth

	All		
	Unweighted n/N	Weighted %	95% CI
Kenya	13486/13680	99.0	(98.8, 99.3)
non-Kenya	194/13680	1.0	(0.7, 1.2)

Table 2.8b: Country of nationality among participants born outside of Kenya

	All		
	Unweighted n/N	Weighted %	95% CI
Kenyan nationality	141/194	69.0	(59.9, 78.0)
Other nationality	53/194	31.0	(22.0, 40.1)

Table 2.8c: Time lived in Kenya among migrants

	All		
	Unweighted n/N	Weighted %	95% CI
Less than one year	10/53	17.3	(6.0, 28.6)
1-2 years	9/53	17.2	(5.0, 29.4)
3-5 years	13/53	21.7	(10.5, 32.9)
6+ years	21/53	43.8	(26.7, 60.9)

Table 2.8d: Immigration status of international migrants

	All		
	Unweighted n/N	Weighted %	95% CI
Documented migrants	30/53	51.8	(31.3, 72.5)
undocumented migrant	18/53	40.5	(19.7, 61.3)
Asylum seeker	2/53	4.0	(0.0, 12.2)
Refugee	2/53	3.6	(0.0, 10.2)
Refused	1/53	0.1	(0.0, 0.1)

Table 3.3a: HIV prevalence among women and men aged 15-64 years by age group

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	11/1017	1.1	(0.4, 1.8)	6/894	0.9	(0.1, 1.8)	17/1911	1.0	(0.5, 1.6)
20-24	52/1198	4.6	(3.2, 5.9)	6/709	1.3	(0.3, 2.4)	58/1907	3.1	(2.2, 4.0)
25-29	85/1109	7.9	(6.1, 9.8)	27/677	4.3	(2.1, 6.5)	112/1786	6.3	(4.8, 7.7)
30-34	62/838	6.6	(4.7, 8.5)	35/586	6.6	(4.4, 8.8)	97/1424	6.6	(5.2, 8.0)
35-39	82/730	12.3	(9.4, 15.2)	26/493	5.0	(3.0, 7.1)	108/1223	8.7	(6.7, 10.7)
40-44	58/561	10.6	(7.4, 13.7)	32/424	8.1	(4.8, 11.4)	90/985	9.3	(7.1, 11.6)
45-49	45/417	10.7	(7.3, 14.1)	21/298	8.9	(4.8, 12.9)	66/715	9.8	(7.1, 12.5)
50-54	37/410	10.2	(7.0, 13.4)	23/325	6.7	(3.9, 9.4)	60/735	8.4	(6.3, 10.5)
55-59	16/289	5.1	(2.1, 8.1)	8/234	3.7	(1.0, 6.5)	24/523	4.4	(2.4, 6.4)
60-64	7/221	3.3	(0.4, 6.1)	9/196	4.6	(1.5, 7.7)	16/417	4.0	(2.0, 6.1)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 3.3b: HIV prevalence among women and men aged 15-24 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15	2/206	1.2	(0.0, 2.8)	1/181	1.6	(0.0, 4.7)	3/387	1.4	(0.0, 3.1)
16	1/221	0.4	(0.0, 1.1)	2/191	1.4	(0.0, 3.5)	3/412	0.9	(0.0, 2.1)
17	2/186	1.4	(0.0, 3.7)	1/191	0.6	(0.0, 1.8)	3/377	0.9	(0.0, 2.1)
18	3/222	1.5	(0.0, 3.1)	1/189	0.3	(0.0, 1.0)	4/411	0.8	(0.0, 1.7)
19	3/182	1.2	(0.0, 2.7)	1/142	0.8	(0.0, 2.4)	4/324	1.0	(0.0, 2.5)
20	7/265	2.9	(0.6, 5.1)	2/160	1.6	(0.0, 4.0)	9/425	2.3	(0.7, 3.9)
21	6/191	2.4	(0.4, 4.4)	0/123	.	(., .)	6/314	1.3	(0.2, 2.4)
22	7/241	2.9	(0.7, 5.1)	1/148	0.8	(0.0, 2.3)	8/389	2.0	(0.6, 3.4)
23	14/254	7.0	(3.3, 10.8)	0/134	.	(., .)	14/388	3.9	(1.7, 6.1)
24	18/247	7.0	(3.6, 10.3)	3/144	3.7	(0.0, 7.6)	21/391	5.5	(3.1, 7.9)
Total	63/2215	3.0	(2.2, 3.8)	12/1603	1.1	(0.5, 1.8)	75/3818	2.1	(1.6, 2.5)

Table 3.4a: HIV prevalence among women and men aged 15-64 years by residence

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	265/4456	6.2	(5.2, 7.3)	108/3045	3.9	(2.9, 4.8)	373/7501	5.1	(4.3, 5.9)
Urban	190/2334	8.0	(6.6, 9.5)	85/1791	5.1	(3.7, 6.5)	275/4125	6.5	(5.4, 7.7)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 3.4b: Estimated number of HIV-infected adults and adolescents aged 15-64 years by residence[1,2]

	All		
	Weighted %	2012 estimated population (women and men aged 15-64 years)	95% CI
Rural	5.1	676875	(558516, 795234)
Urban	6.5	515025	(414430, 615620)
Total	5.6	1191900	(1036567, 1347233)

Table 3.4c: HIV prevalence among rural and urban residence by age group

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	7/1344	0.5	(0.1, 0.9)	10/567	2.2	(0.7, 3.7)	17/1911	1.0	(0.5, 1.6)
20-24	34/1067	2.9	(1.7, 4.1)	24/840	3.3	(2.0, 4.5)	58/1907	3.1	(2.2, 4.0)
25-29	54/980	5.6	(3.6, 7.6)	58/806	7.0	(4.9, 9.1)	112/1786	6.3	(4.8, 7.7)
30-34	51/863	5.9	(4.2, 7.6)	46/561	7.6	(5.3, 9.9)	97/1424	6.6	(5.2, 8.0)
35-39	55/798	7.0	(4.6, 9.4)	53/425	11.8	(8.2, 15.3)	108/1223	8.7	(6.7, 10.7)
40-44	56/665	9.2	(6.5, 11.9)	34/320	9.6	(5.6, 13.5)	90/985	9.3	(7.1, 11.6)
45-49	46/517	9.4	(6.4, 12.5)	20/198	10.7	(5.3, 16.2)	66/715	9.8	(7.1, 12.5)
50-54	40/536	7.7	(5.4, 10.1)	20/199	10.1	(5.7, 14.5)	60/735	8.4	(6.3, 10.5)
55-59	17/403	4.3	(2.0, 6.7)	7/120	4.6	(0.6, 8.5)	24/523	4.4	(2.4, 6.4)
60-64	13/328	4.2	(1.9, 6.6)	3/89	3.1	(0.0, 6.9)	16/417	4.0	(2.0, 6.1)
Total	373/7501	5.1	(4.3, 5.9)	275/4125	6.5	(5.4, 7.7)	648/11626	5.6	(4.9, 6.3)

[1] The 2012 national estimated population for adults and adolescents aged 15-64 years was calculated using un-normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)

[2] Estimates rounded to the nearest 1000

Table 3.5a: HIV prevalence among adults and adolescents aged 15-64 years by region

	All		
	Unweighted n/N	Weighted %	95% CI
Nairobi	67/1314	4.9	(3.7, 6.1)
Central	60/1423	3.8	(2.7, 4.9)
Coast	66/1462	4.3	(3.0, 5.6)
Eastern North	29/1061	2.1	(1.0, 3.2)
Eastern South	46/1260	3.9	(2.4, 5.3)
Nyanza	242/1631	15.1	(11.4, 18.8)
Rift Valley North	37/1036	3.1	(2.0, 4.2)
Rift Valley South	42/1031	4.3	(2.7, 5.8)
Western	59/1408	4.7	(3.0, 6.5)
Total	648/11626	5.6	(4.9, 6.3)

Table 3.5b: HIV prevalence among adults and adolescents aged 15-64 years by residence and region

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	0/0	–	–	67/1314	4.9	(3.7, 6.1)	67/1314	4.9	(3.7, 6.1)
Central	38/972	3.5	(2.0, 5.0)	22/451	4.2	(2.8, 5.7)	60/1423	3.8	(2.7, 4.9)
Coast	21/818	3.0	(1.8, 4.2)	45/644	5.6	(3.2, 7.9)	66/1462	4.3	(3.0, 5.6)
Eastern North	15/759	1.5	(0.5, 2.4)	14/302	3.6	(0.6, 6.7)	29/1061	2.1	(1.0, 3.2)
Eastern South	35/1023	3.6	(2.0, 5.2)	11/237	4.8	(1.7, 7.9)	46/1260	3.9	(2.4, 5.3)
Nyanza	173/1225	13.9	(9.6, 18.2)	69/406	18.3	(11.5, 25.1)	242/1631	15.1	(11.4, 18.8)
Rift Valley North	22/810	2.4	(1.2, 3.6)	15/226	5.8	(2.8, 8.9)	37/1036	3.1	(2.0, 4.2)
Rift Valley South	19/704	3.0	(1.4, 4.5)	23/327	7.0	(3.1, 10.8)	42/1031	4.3	(2.7, 5.8)
Western	50/1190	4.9	(2.8, 7.0)	9/218	4.1	(2.2, 5.9)	59/1408	4.7	(3.0, 6.5)
Total	373/7501	5.1	(4.3, 5.9)	275/4125	6.5	(5.4, 7.7)	648/11626	5.6	(4.9, 6.3)

Table 3.5c: HIV prevalence among women and men aged 15-64 years by region

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	45/729	6.1	(4.2, 8.0)	22/585	3.8	(2.4, 5.2)	67/1314	4.9	(3.7, 6.1)
Central	49/830	5.6	(3.9, 7.2)	11/593	2.0	(0.7, 3.2)	60/1423	3.8	(2.7, 4.9)
Coast	50/847	6.1	(4.1, 8.1)	16/615	2.6	(1.1, 4.0)	66/1462	4.3	(3.0, 5.6)
Eastern North	25/637	3.6	(1.9, 5.4)	4/424	0.8	(0.0, 1.7)	29/1061	2.1	(1.0, 3.2)
Eastern South	37/755	5.3	(3.4, 7.3)	9/505	2.3	(0.6, 4.0)	46/1260	3.9	(2.4, 5.3)
Nyanza	152/956	16.1	(12.1, 20.1)	90/675	13.9	(9.7, 18.1)	242/1631	15.1	(11.4, 18.8)
Rift Valley North	26/611	3.6	(2.1, 5.0)	11/425	2.7	(0.8, 4.6)	37/1036	3.1	(2.0, 4.2)
Rift Valley South	28/572	4.9	(2.7, 7.1)	14/459	3.6	(1.6, 5.7)	42/1031	4.3	(2.7, 5.8)
Western	43/853	5.8	(3.8, 7.8)	16/555	3.5	(1.7, 5.4)	59/1408	4.7	(3.0, 6.5)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 3.5d: Estimated number of HIV-infected adults and adolescents aged 15-64 years by region[1,2]

	All		
	Weighted %	2012 estimated population (women and men aged 15-64 years)	95% CI
Nairobi	4.9	114306	(84082, 144530)
Central	3.8	105278	(74756, 135799)
Coast	4.3	82673	(57279, 108067)
Eastern North	2.1	5003	(2542, 7465)
Eastern South	3.9	115174	(69866, 160482)
Nyanza	15.1	449160	(333952, 564368)
Rift Valley North	3.1	81573	(49384, 113763)
Rift Valley South	4.3	128588	(75194, 181982)
Western	4.7	110144	(60956, 159333)
Total	5.6	1191900	(1036567, 1347233)

Table 3.5e Estimated number of HIV-infected adults aged 15-64 years by region and residence[1,2]

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	–	–	–	4.9	114,000	(84,000, 145,000)	4.9	114,000	(84,000, 146,000)
Central	3.5	61,000	(35,000, 87,000)	4.2	44,000	(28,000, 61,000)	3.8	105,000	(75,000, 136,000)
Coast	3.0	27,000	(13,000, 41,000)	5.6	56,000	(35,000, 77,000)	4.3	83,000	(57,000, 108,000)
Eastern North	1.5	2,000	(1,000, 4,000)	3.6	3,000	(1,000, 5,000)	2.1	5,000	(3,000, 7,000)
Eastern South	3.6	82,000	(45,000, 120,000)	4.8	33,000	(7,000, 59,000)	3.9	115,000	(70,000, 160,000)
Nyanza	13.9	300,000	(215,000, 384,000)	18.3	150,000	(72,000, 228,000)	15.1	449,000	(334,000, 564,000)
Rift Valley North	2.4	51,000	(23,000, 78,000)	5.8	31,000	(15,000, 47,000)	3.1	82,000	(49,000, 114,000)
Rift Valley South	3.0	60,000	(22,000, 98,000)	7.0	69,000	(32,000, 106,000)	4.3	129,000	(75,000, 182,000)
Western	4.9	94,000	(46,000, 142,000)	4.1	16,000	(6,000, 26,000)	4.7	110,000	(61,000, 159,000)
Total	5.1	677,000	(559,000, 795,000)	6.5	515,000	(414,000, 616,000)	5.6	1,192,000	(1,037,000, 1,347,000)

[1] The 2012 national estimated population for adults and adolescents aged 15-64 years was calculated using un-normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

Table 3.6: HIV prevalence among women and men aged 15-64 years by marital status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Never married/ never cohabited	56/1609	3.5	(2.5, 4.5)	22/1862	1.4	(0.8, 2.0)	78/3471	2.2	(1.7, 2.8)
Married/ cohabiting - monogamous	168/3528	4.8	(3.8, 5.7)	106/2418	4.9	(3.8, 5.9)	274/5946	4.8	(4.0, 5.7)
Married/ cohabiting - polygamous	48/575	8.8	(5.5, 12.1)	20/178	12.1	(6.8, 17.4)	68/753	9.7	(6.4, 13.1)
Separated/ divorced	53/382	14.5	(10.6, 18.3)	10/176	5.8	(1.9, 9.7)	63/558	11.1	(8.3, 13.9)
Ever widowed	130/695	20.3	(16.1, 24.4)	35/199	19.2	(12.3, 26.0)	165/894	20.0	(16.2, 23.7)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 3.7: HIV prevalence among women and men aged 15-64 years by level of education

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No primary	38/1014	4.0	(2.5, 5.5)	6/324	2.4	(0.4, 4.4)	44/1338	3.6	(2.4, 4.8)
Incomplete primary	35/608	6.3	(3.7, 8.9)	11/380	3.2	(1.1, 5.3)	46/988	5.0	(3.2, 6.7)
Complete primary	152/2091	7.1	(5.9, 8.3)	71/1603	4.8	(3.3, 6.2)	223/3694	6.0	(4.9, 7.0)
Secondary+[1]	230/3077	7.4	(6.3, 8.5)	105/2529	4.4	(3.4, 5.4)	335/5606	5.8	(4.9, 6.7)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 3.8a: HIV prevalence among women and men aged 15-64 years by wealth index[2]

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Lowest	69/1490	5.0	(3.5, 6.6)	28/944	3.2	(1.8, 4.5)	97/2434	4.2	(2.9, 5.4)
Second	106/1482	7.6	(5.7, 9.4)	47/1015	5.3	(3.5, 7.0)	153/2497	6.5	(4.9, 8.1)
Middle	98/1346	7.6	(6.1, 9.2)	39/972	4.4	(2.8, 6.0)	137/2318	6.0	(4.6, 7.4)
Fourth	111/1172	9.1	(6.9, 11.4)	48/1005	4.8	(3.2, 6.5)	159/2177	6.8	(5.3, 8.3)
Highest	71/1300	5.3	(4.0, 6.6)	31/900	4.0	(2.4, 5.6)	102/2200	4.6	(3.7, 5.6)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

[1] Secondary + includes any years of secondary schooling whether completed or not.

[2] The household wealth index was a composite of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principal components analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with an equal number of individuals (quintiles), ranging from the lowest to the highest level of wealth.

Table 3.8b: HIV prevalence among rural and urban residents aged 15-64 years by wealth index

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Lowest	87/2287	3.8	(2.7, 4.9)	10/147	8.8	(0.0, 19.0)	97/2434	4.2	(2.9, 5.4)
Second	116/2196	5.6	(4.2, 6.9)	37/301	12.3	(5.3, 19.2)	153/2497	6.5	(4.9, 8.1)
Middle	92/1814	5.3	(3.8, 6.9)	45/504	8.6	(5.2, 12.1)	137/2318	6.0	(4.6, 7.4)
Fourth	66/984	6.3	(3.7, 8.8)	93/1193	7.3	(5.5, 9.0)	159/2177	6.8	(5.3, 8.3)
Highest	12/220	5.3	(2.1, 8.4)	90/1980	4.6	(3.6, 5.5)	102/2200	4.6	(3.7, 5.6)
Total	373/7501	5.1	(4.3, 5.9)	275/4125	6.5	(5.4, 7.7)	648/11626	5.6	(4.9, 6.3)

Table 3.8c: HIV prevalence among women and men aged 15-64 years by current employment status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Currently employed	205/2418	8.5	(7.1, 9.9)	127/2774	4.7	(3.7, 5.7)	332/5192	6.2	(5.4, 7.1)
Unemployed	250/4364	5.9	(5.0, 6.8)	66/2060	3.8	(2.7, 4.9)	316/6424	5.1	(4.3, 5.9)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 3.9: HIV prevalence among women and men aged 15-64 years who travelled away from home in the 12 months preceding the survey by length of time away from home

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Never traveled away from home	208/3648	5.9	(5.0, 6.8)	70/2292	3.5	(2.5, 4.4)	278/5940	4.8	(4.1, 5.5)
Less than one month	54/733	7.5	(5.2, 9.8)	28/787	3.6	(2.2, 5.1)	82/1520	5.2	(4.0, 6.5)
One month or longer	183/2276	8.1	(6.6, 9.6)	80/1567	5.4	(4.0, 6.8)	263/3843	6.8	(5.6, 8.0)
Don't know	10/133	7.6	(3.4, 11.8)	15/190	9.5	(3.5, 15.4)	25/323	8.8	(4.8, 12.8)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 4.3: HIV prevalence among women and men aged 15-49 years, KDHS 2003, KAIS 2007 and KAIS 2012

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
KDHS 2003	275/3121	8.9	(7.6, 10.1)	124/2597	4.6	(3.6, 5.6)	399/5718	6.8	(5.9, 7.8)
KAIS 2007	673/7489	9.0	(8.0, 9.9)	313/5412	5.6	(4.8, 6.3)	986/12901	7.6	(6.8, 8.3)
KAIS 2012	395/5870	6.9	(5.9, 7.8)	153/4081	4.2	(3.4, 5.0)	548/9951	5.6	(4.9,6.3)

Table 4.4a: HIV prevalence among women aged 15-49 years, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	25/707	3.0	(1.7, 4.3)	42/1277	3.5	(2.3, 4.8)	11/1018	1.1	(0.4, 1.8)
20-24	58/658	9.2	(6.6, 11.7)	134/1539	7.5	(6.0, 9.0)	52/1198	4.6	(3.2, 5.9)
25-29	63/509	13.1	(9.8, 16.5)	120/1263	10.4	(8.3, 12.4)	85/1109	7.9	(6.1, 9.8)
30-34	54/443	12.0	(8.4, 15.6)	152/1093	13.7	(11.2, 16.1)	62/838	6.6	(4.7, 8.5)
35-39	40/337	12.0	(8.4, 15.6)	102/909	11.4	(9.0, 13.8)	82/729	12.3	(9.4, 15.2)
40-44	26/269	9.9	(5.6, 14.2)	62/708	9.5	(6.9, 12.2)	58/561	10.6	(7.4, 13.7)
45-49	9/198	3.9	(1.0, 6.8)	61/700	9.0	(6.4, 11.5)	45/417	10.7	(7.3, 14.1)
Total	275/3121	8.9	(7.6, 10.1)	673/7489	9.0	(8.0, 9.9)	395/5870	6.9	(5.9,7.8)

Table 4.4b: HIV prevalence among men aged 15-49 years, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	4/676	0.4	(0.0, 0.8)	13/1125	1.0	(0.4, 1.6)	6/894	0.9	(0.1, 1.8)
20-24	14/516	2.4	(1.1, 3.8)	24/1010	1.9	(1.0, 2.8)	6/709	1.3	(0.3, 2.4)
25-29	31/386	7.5	(4.6, 10.4)	59/837	7.4	(5.4, 9.4)	27/677	4.3	(2.1, 6.5)
30-34	22/342	6.7	(4.0, 9.4)	62/730	9.1	(6.7, 11.6)	35/586	6.6	(4.4, 8.8)
35-39	24/289	8.6	(5.0, 12.2)	61/644	9.5	(6.8, 12.2)	26/493	5.0	(3.0, 7.1)
40-44	22/241	8.9	(4.9, 12.9)	55/543	10.3	(7.3, 13.4)	32/424	8.1	(4.8, 11.4)
45-49	7/147	5.4	(1.3, 9.6)	39/523	5.6	(3.7, 7.5)	21/298	8.9	(4.8, 12.9)
Total	124/2597	4.6	(3.6, 5.6)	313/5412	5.6	(4.8, 6.3)	153/4081	4.2	(3.4, 5.0)

Table 4.4c: HIV prevalence among women aged 50-64 years, KAIS 2007 and KAIS 2012

	KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
50-54	37/486	7.7	(5.2, 10.2)	37/410	10.2	(7.0, 13.4)
55-59	18/411	4.8	(2.3, 7.2)	16/289	5.1	(2.1, 8.1)
60-64	4/229	1.7	(0.0, 3.6)	7/221	3.3	(0.4, 6.1)
Total	59/1126	5.3	(3.8, 6.9)	60/920	7.0	(5.1, 8.9)

Table 4.4d: HIV prevalence among men aged 50-64 years, KAIS 2007 and KAIS 2012

	KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
50-54	30/390	8.6	(5.4, 11.9)	23/325	6.7	(3.9, 9.4)
55-59	11/371	2.4	(0.8, 3.9)	8/234	3.7	(1.0, 6.5)
60-64	11/312	3.6	(1.4, 5.8)	9/196	4.6	(1.5, 7.7)
Total	52/1073	4.9	(3.4, 6.3)	40/755	5.2	(3.5, 7.0)

Table 4.5a: HIV prevalence among women aged 15-49 years by residence, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	159/2186	7.7	(6.3, 9.0)	466/5457	8.5	(7.6, 9.4)	222/3737	6.2	(5.0, 7.4)
Urban	116/935	12.5	(9.9, 15.0)	207/2032	10.4	(7.8, 13.0)	173/2133	8.0	(6.4, 9.5)
Total	275/3121	8.9	(7.6, 10.1)	673/7489	9.0	(8.0, 9.9)	395/5870	6.9	(5.9,7.8)

Table 4.5b: HIV prevalence among men aged 15-49 years by residence, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	65/1833	3.6	(2.6, 4.7)	214/3934	5.4	(4.6, 6.1)	81/2497	3.6	(2.6, 4.6)
Urban	59/764	7.7	(5.4, 9.9)	99/1478	6.2	(4.3, 8.1)	72/1584	5.1	(3.7, 6.5)
Total	124/2597	4.6	(3.6, 5.6)	313/5412	5.6	(4.8, 6.3)	153/4081	4.2	(3.4, 5.0)

Table 4.6a: HIV prevalence among women aged 15-49 years by region, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	39/355	11.9	(8.1, 15.8)	89/939	11.0	(8.0, 14.0)	42/692	5.9	(4.0, 7.9)
Central	39/522	7.6	(5.3, 10.0)	47/1066	4.3	(2.8, 5.8)	40/682	5.6	(3.9, 7.3)
Coast	26/384	6.6	(3.0, 10.2)	70/873	9.2	(7.2, 11.2)	44/755	5.9	(3.9, 7.9)
Eastern	24/382	6.1	(3.8, 8.5)	76/1239	6.6	(4.2, 9.1)	50/1180	4.7	(2.6, 6.7)
Nyanza	80/465	18.3	(13.3, 23.2)	217/1214	17.6	(15.3, 19.9)	139/804	17.6	(13.2, 22.1)
Rift Valley	36/568	6.9	(4.5, 9.3)	97/1143	7.8	(5.4, 10.1)	46/1046	4.2	(2.8, 5.7)
Western	31/445	5.8	(3.4, 8.1)	77/1015	6.6	(4.5, 8.8)	34/711	5.3	(3.3, 7.4)
Total	275/3121	8.9	(7.6, 10.1)	673/7489	9.0	(8.0, 9.9)	395/5870	6.9	(5.9, 7.8)

Table 4.6b: HIV prevalence among men aged 15-49 years by region, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	21/306	7.8	(4.9, 10.6)	42/703	6.4	(3.2, 9.7)	18/539	3.3	(2.0, 4.6)
Central	9/430	2.0	(0.8, 3.2)	24/807	3.4	(1.4, 5.5)	11/460	2.5	(0.9, 4.1)
Coast	12/270	4.8	(2.2, 7.4)	40/575	6.9	(4.1, 9.7)	9/537	1.8	(0.5, 3.0)
Eastern	6/349	1.5	(0.3, 2.8)	18/894	1.9	(0.9, 2.9)	11/776	2.3	(0.4, 4.1)
Nyanza	45/387	11.6	(6.8, 16.4)	101/848	11.4	(9.0, 13.7)	69/535	13.4	(9.5, 17.3)
Rift Valley	17/488	3.6	(1.4, 5.8)	55/873	5.3	(3.9, 6.7)	22/772	3.4	(1.7, 5.0)
Western	14/367	3.8	(1.6, 6.0)	33/712	4.9	(3.0, 6.7)	13/462	3.3	(1.3, 5.3)
Total	124/2597	4.6	(3.6, 5.7)	313/5412	5.6	(4.8, 6.3)	153/4081	4.2	(3.4, 5.0)

Table 4.7a: HIV prevalence among women aged 15-49 years by marital status, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Never married/ never cohabited	42/926	4.7	(3.2, 6.2)	92/1991	4.7	(3.4,6.0)	54/1566	3.5	(2.5, 4.5)
Married/ cohabited	154/1857	8.2	(6.7, 9.6)	387/4641	8.2	(7.2, 9.2)	204/3580	5.8	(4.7, 6.8)
Separated/ divorced	38/208	19.3	(12.5, 26.1)	93/514	17.9	(13.4, 22.3)	41/324	12.6	(9.0, 16.2)
Widowed	41/130	30.7	(21.3, 40.0)	101/343	29.5	(24.2, 34.9)	96/399	26.1	(20.1, 32.2)
Total	275/3121	8.9	(7.6, 10.1)	673/7489	9.0	(8.0, 9.9)	395/5870	6.9	(5.9, 7.8)

Table 4.7b: HIV prevalence among men aged 15-49 years by marital status, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Never married/ never cohabited	24/1254	1.6	(0.9, 2.3)	53/2364	1.9	(1.3, 2.5)	21/1846	1.4	(0.7, 2.0)
Married/ cohabited	89/1242	7.2	(5.4, 8.9)	232/2774	8.4	(7.2, 9.6)	104/1977	5.9	(4.6, 7.2)
Separated/ divorced	4/85	6.5	(0.4, 12.5)	16/225	5.9	(2.7, 9.2)	9/145	6.3	(1.8, 10.7)
Widowed	7/16	*	–	12/49	19.2	(7.1, 31.3)	19/110	19.0	(10.7, 27.2)
Total	124/2597	4.6	(3.6, 5.6)	313/5412	5.6	(4.8, 6.3)	153/4081	4.2	(3.4, 5.0)

Table 4.8a: HIV prevalence among women aged 15-49 years by level of education, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No primary	20/367	5.2	(2.6, 7.7)	67/765	10.5	(7.3, 13.7)	22/679	3.0	(1.5, 4.6)
Incomplete primary	95/1021	9.3	(7.1, 11.5)	243/2276	10.5	(8.9, 12.2)	32/533	6.3	(3.5, 9.1)
Complete primary	108/1132	9.5	(7.4, 11.5)	202/1955	10.0	(8.4, 11.6)	141/1930	7.2	(5.9, 8.5)
Secondary +[1]	52/601	8.9	(6.5, 11.4)	161/2493	6.3	(4.9, 7.7)	200/2728	7.2	(6.1, 8.4)
Total	275/3121	8.9	(7.6, 10.1)	673/7489	9.0	(8.0, 9.9)	395/5870	6.9	(5.9, 7.8)

Table 4.8b: HIV prevalence among men aged 15-49 years by level of education, KDHS 2003, KAIS 2007 and KAIS 2012

	KDHS 2003			KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No primary	4/113	3.5	(0.0, 7.1)	13/199	7.1	(3.4, 10.8)	4/216	2.3	(0.0, 4.5)
Incomplete primary	32/877	3.4	(2.0, 4.8)	90/1580	5.6	(4.2, 7.0)	10/332	3.7	(1.3, 6.1)
Complete primary	48/914	5.6	(3.9, 7.4)	89/1323	6.4	(4.9, 7.9)	55/1388	4.5	(3.1, 5.9)
Secondary +[1]	40/693	5.3	(3.5, 7.0)	121/2310	5.0	(3.9, 6.0)	84/2145	4.2	(3.2, 5.2)
Total	124/2597	4.6	(3.6, 5.6)	313/5412	5.6	(4.8, 6.3)	153/4081	4.2	(3.4, 5.0)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).
1 Secondary+ includes any years of secondary schooling whether completed or not.

Table 5.1(1): HIV incidence and estimated number of recent infections by sex and age among adults and adolescents aged 15-64 years, KAIS 2007 and KAIS 2012

	HIV incidence					Population estimate of recently infected persons		
	Weighted number of HIV positive	Weighted number of HIV negative	Weighted number of recent infections	Weighted incidence %	95 % CI	2012 Projected population (women and men aged 15-64 years)	2012 Estimated population of recent infections (women and men aged 15-64 years)	95% CI
Women	407	5456	12	0.5	(0.01, 1.0)	10,794,000	53000	(1,000, 106,000)
Men	248	5514	13	0.5	(0.1, 0.9)	10,354,000	53000	(9,000, 96,000)
15-24	79	3747	7	0.6	(0.1, 1.1)	6,983,000	40000	(4,000, 75,000)
25-34	205	2991	13	1.2	(0.4, 2.0)	5,911,000	70000	(22,000, 118,000)
35+	372	4233	4	0.02	(0, 0.5)	8,253,000	2000	(0, 38,000)
Total	655	10971	25	0.5	(0.1, 0.9)	21,148,000	106000	(30,000, 180,000)

Figure 5.1(2): Patterns in HIV incidence among adults and adolescents aged 15-64 years by sex, KAIS 2007 and KAIS 2012

	KAIS 2007					KAIS 2012				
	Weighted number of HIV positive	Weighted number of HIV negative	Weighted number of recent infections	Weighted incidence %	95% CI	Weighted number of HIV positive	Weighted number of HIV negative	Weighted number of recent infections	Weighted incidence %	95% CI
Women	753	8356	44	1.1	(0.5, 1.6)	407	5456	12	0.9	(0.3, 1.5)
Men	346	6398	26	0.9	(0.4, 1.4)	248	5514	13	0.7	(0.2, 1.2)

Figure 5.2. Patterns in HIV incidence among adults and adolescents by age group, KAIS 2007 and KAIS 2012

	KAIS 2007					KAIS 2012				
	Weighted number of HIV positive	Weighted number of HIV negative	Weighted number of recent infections	Weighted incidence %	95% CI	Weighted number of HIV positive	Weighted number of HIV negative	Weighted number of recent infections	Weighted %	95% CI
15-24	187	5128	22	1.1	(0.5. 1.6)	79	3747	7	0.9	(0.2, 1.5)
25-34	407	3617	30	1.9	(0.9, 2.8)	205	2991	13	1.4	(0.5, 2.3)
35+	505	6009	18	0.4	(0, 0.9)	372	4233	4	0.4	(0, 1.1)

Table 6.3: Percent women and men aged 15-64 years who had heard of HIV/AIDS

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
All	7815/7938	98.7	(98.3, 99.0)	5702/5756	99.3	(99.0, 99.5)	13517/13694	99.0	(98.7, 99.2)

Table 6.3a: Correct knowledge of HIV transmission among women and men aged 15-64 years who had heard of HIV/AIDS

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
If a man/woman has HIV, does his/her partner always have HIV?	3252/7816	43.7	(41.7, 45.7)	2762/5702	49.8	(47.5, 52.0)	6014/13518	46.7	(44.8, 48.5)
Is it possible for a healthy-looking person to have the AIDS virus?	6846/7816	88.3	(87.0, 89.6)	5129/5702	90.2	(88.6, 91.8)	11975/13518	89.2	(88.1, 90.4)
Total	10098/15632	66.0	(64.7, 67.3)	7891/11404	70.0	(68.5, 71.5)	17989/27036	67.9	(66.7, 69.2)

Table 6.3b: Correct knowledge of mother-to-child transmission of HIV among women and men aged 15-64 years who had heard of HIV/AIDS

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
During pregnancy	4418/7816	57.2	(55.5, 59.0)	2880/5702	49.7	(47.7, 51.7)	7298/13518	53.5	(52.0, 55.0)
During delivery	6039/7816	78.3	(76.6, 79.9)	4257/5702	75.1	(73.4, 76.7)	10296/13518	76.7	(75.4, 78.0)
By breastfeeding	6822/7816	87.3	(86.0, 88.6)	4891/5701	86.4	(85.2, 87.6)	11713/13517	86.9	(85.9, 87.9)
Total	17279/23448	74.3	(72.9, 75.6)	12028/17105	70.4	(69.2, 71.5)	29307/40553	72.4	(71.4, 73.4)

Table 6.3c: Knowledge on antiretroviral drugs among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	6939/7815	89.1	(87.9, 90.3)	5197/5701	92.4	(91.1, 93.6)	12136/13516	90.7	(89.7, 91.7)
No	876/7815	10.9	(9.7, 12.1)	504/5701	7.6	(6.4, 8.9)	1380/13516	9.3	(8.3, 10.3)

Table 6.3d: Knowledge on condom availability among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	5669/7791	73.9	(72.1, 75.6)	5070/5693	90.3	(89.0, 91.5)	10739/13484	81.9	(80.6, 83.2)
No	2122/7791	26.1	(24.4, 27.9)	623/5693	9.7	(8.5, 11.0)	2745/13484	18.1	(16.8, 19.4)

Table 6.3e: Opinion on teaching children about condom use among adults and adolescents aged 15-64 years by level of education

	No primary			Incomplete primary			Complete primary		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Agree	702/1486	48.6	(43.0, 54.2)	690/1147	61.9	(57.9, 65.9)	2849/4280	68.3	(66.2, 70.4)
Disagree	657/1486	41.8	(36.3, 47.3)	381/1147	32.6	(28.8, 36.4)	1300/4280	28.7	(26.7, 30.7)
Don't Know/No Opinion	127/1486	9.6	(7.0, 12.2)	76/1147	5.5	(3.9, 7.2)	131/4280	3.0	(2.3, 3.8)

	Secondary +			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Agree	4468/6602	67.9	(66.1, 69.6)	8709/13515	66.2	(64.7, 67.7)
Disagree	1957/6602	29.5	(27.8, 31.2)	4295/13515	30.3	(28.9, 31.7)
Don't Know/No Opinion	177/6602	2.7	(2.1, 3.2)	511/13515	3.5	(3.0, 4.0)

Table 6.3f: Knowledge of special drugs available that reduce the transmission of HIV from mother-to-child among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	5212/7208	73.6	(71.8, 75.4)	3463/5295	65.8	(63.5, 68.2)	8675/12503	69.8	(68.0, 71.5)
No/Unknown	1996/7208	26.4	(24.6, 28.2)	1832/5295	34.2	(31.8, 36.5)	3828/12503	30.2	(28.5, 32.0)

Table 6.4a: Perceived risk of HIV infection among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No risk	2852/7816	35.3	(33.4, 37.2)	2227/5702	39.6	(37.2, 42.0)	5079/13518	37.4	(35.8, 39.0)
Small risk	2544/7816	33.5	(31.2, 35.8)	2407/5702	41.3	(38.8, 43.8)	4951/13518	37.3	(35.4, 39.2)
Moderate risk	764/7816	9.4	(8.4, 10.5)	428/5702	7.9	(7.1, 8.8)	1192/13518	8.7	(8.0, 9.4)
Great risk	313/7816	4.4	(3.8, 5.1)	201/5702	3.8	(3.1, 4.4)	514/13518	4.1	(3.7, 4.6)
I already have HIV	204/7816	2.8	(2.3, 3.4)	66/5702	1.3	(0.9, 1.7)	270/13518	2.1	(1.6, 2.5)
Don't know	1139/7816	14.5	(12.9, 16.2)	373/5702	6.2	(5.2, 7.1)	1512/13518	10.4	(9.4, 11.4)

Table 6.4b: HIV prevalence among women and men aged 15-64 years by perceived risk of HIV infection

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No risk	57/2375	2.3	(1.6, 3.0)	32/1837	1.9	(1.2, 2.7)	89/4212	2.1	(1.6, 2.7)
Small risk	86/2178	3.7	(2.8, 4.6)	65/2063	3.4	(2.4, 4.4)	151/4241	3.5	(2.8, 4.2)
Moderate risk	45/673	6.7	(4.4, 8.9)	14/350	3.8	(1.6, 5.9)	59/1023	5.4	(3.9, 6.9)
Great risk	26/279	8.8	(5.4, 12.2)	15/178	9.7	(4.7, 14.8)	41/457	9.2	(6.2, 12.2)
Don't know	55/986	5.9	(4.1, 7.6)	15/303	5.8	(2.9, 8.7)	70/1289	5.8	(4.3, 7.4)
Total	269/6491	4.1	(3.5, 4.7)	141/4731	3.2	(2.6, 3.9)	410/11222	3.7	(3.2, 4.2)

Table 6.4c: Reasons given for having no or small risk of HIV infection among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
I'm not having sex	1842/5396	33.5	(31.9, 35.1)	1307/4634	27.4	(25.6, 29.2)	3149/10030	30.3	(28.9, 31.6)
I use condoms	265/5396	5.0	(4.3, 5.8)	705/4634	15.4	(14.0, 16.8)	970/10030	10.5	(9.7, 11.4)
I had only one sex partner	2738/5396	50.9	(48.5, 53.4)	2137/4634	46.2	(43.6, 48.8)	4875/10030	48.4	(46.3, 50.5)
I have few sex partners	166/5396	2.6	(2.0, 3.3)	486/4634	9.7	(8.5, 11.0)	652/10030	6.4	(5.6, 7.2)
My partner has no other sex partners	713/5396	11.6	(10.0, 13.2)	692/4634	15.0	(13.0, 17.1)	1405/10030	13.4	(12.0, 14.9)
Other reasons	466/5396	9.0	(7.6, 10.4)	481/4634	11.2	(9.1, 13.3)	947/10030	10.2	(8.7, 11.6)
Total	6190/32376	18.8	(18.5, 19.1)	5808/27804	20.8	(20.4, 21.2)	11998/60180	19.9	(19.6, 20.1)

Table 6.4d: Reasons given for having moderate or great risk of HIV infection among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
I don't use condoms	230/1077	19.7	(16.2, 23.2)	107/629	18.1	(14.6, 21.7)	337/1706	19.0	(16.3, 21.7)
I have more than one sex partner	84/1077	8.1	(6.0, 10.2)	183/629	29.6	(25.1, 34.0)	267/1706	17.7	(15.0, 20.4)
My partner has other sex partners	306/1077	27.9	(24.4, 31.3)	45/629	5.9	(4.0, 7.9)	351/1706	18.0	(15.9, 20.2)
I had homosexual contacts	0/1077	–	–	4/629	1.0	(0.0, 2.1)	4/1706	0.4	(0.0, 0.9)
I've had blood transfusions/ injections	33/1077	3.2	(1.8, 4.5)	13/629	1.7	(0.5, 2.9)	46/1706	2.5	(1.5, 3.5)
My partner is HIV positive	20/1077	1.8	(1.0, 2.7)	16/629	2.5	(1.1, 3.9)	36/1706	2.1	(1.3, 3.0)
Other reasons	442/1077	42.9	(38.6, 47.2)	295/629	46.4	(41.1, 51.8)	737/1706	44.5	(40.8, 48.1)
Total	1115/7539	14.8	(14.6, 15.0)	663/4403	15.0	(14.7, 15.3)	1778/11942	14.9	(14.7, 15.1)

Table 6.5a: Willingness to use female microbicides among women and men aged 15-64 years who did not report themselves as HIV-infected

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	3331/7545	44.4	(42.2, 46.6)	2444/5608	44.6	(41.8, 47.4)	5775/13153	44.5	(42.5, 46.5)
No	3510/7545	45.8	(43.6, 48.0)	2592/5608	46.4	(43.6, 49.2)	6102/13153	46.1	(44.3, 47.9)
Unsure	704/7545	9.8	(8.5, 11.0)	572/5608	9.0	(7.5, 10.5)	1276/13153	9.4	(8.4, 10.4)

Table 6.5b: Willingness to use female microbicides among women and men aged 15-64 years who did not report themselves as HIV-infected by level of education

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No primary	303/1109	23.3	(18.5, 28.1)	69/358	21.8	(14.7, 28.8)	372/1467	22.9	(18.5, 27.3)
Incomplete primary	308/677	45.0	(39.8, 50.2)	187/441	44.7	(38.4, 51.0)	495/1118	44.9	(40.6, 49.1)
Complete primary	1134/2319	49.1	(46.2, 52.0)	851/1846	47.3	(43.8, 50.7)	1985/4165	48.2	(45.7, 50.7)
Secondary+	1586/3440	45.7	(43.0, 48.3)	1337/2963	44.5	(41.3, 47.7)	2923/6403	45.0	(42.9, 47.2)
Total	3331/7545	44.4	(42.2, 46.6)	2444/5608	44.6	(41.8, 47.4)	5775/13153	44.5	(42.5, 46.5)

Table 6.5c: Willingness to use female microbicides among women and men aged 15-64 years who did not report themselves as HIV-infected by marital status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Never married/ never cohabited	800/1914	42.5	(39.3, 45.7)	1018/2210	47.3	(44.1, 50.6)	1818/4124	45.4	(42.9, 47.9)
Married/ cohabiting - monogamous	1838/3957	46.3	(43.7, 49.0)	1136/2784	41.2	(38.0, 44.4)	2974/6741	43.9	(41.6, 46.1)
Married/ cohabiting - polygamous	270/597	44.6	(38.5, 50.8)	92/202	51.3	(42.3, 60.3)	362/799	46.6	(40.9, 52.4)
Separated/ divorced	194/395	52.1	(45.9, 58.3)	97/200	47.4	(38.7, 56.1)	291/595	50.2	(44.4, 55.9)
Ever widowed	229/680	33.8	(29.1, 38.4)	99/209	53.2	(45.8, 60.6)	328/889	39.1	(34.9, 43.3)
Unknown	0/2	-	-	2/3	79.0	(38.7, 100)	2/5	49.5	(2.2, 96.8)
Total	3331/7545	44.4	(42.2, 46.6)	2444/5608	44.6	(41.8, 47.4)	5775/13153	44.5	(42.5, 46.5)

* Secondary + includes years of secondary schooling whether completed or not.

Table 6.6: Willingness to use pre-exposure prophylaxis among women and men aged 15-64 years who did not report themselves as HIV-infected

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	3469/7545	45.9	(43.7, 48.2)	2780/5608	50.8	(48.0, 53.5)	6249/13153	48.3	(46.3, 50.4)
No	3416/7545	45.0	(42.7, 47.2)	2340/5608	41.9	(39.4, 44.5)	5756/13153	43.4	(41.6, 45.3)
Unsure	660/7545	9.1	(7.9, 10.3)	488/5608	7.3	(5.9, 8.7)	1148/13153	8.2	(7.2, 9.3)

Table 6.6a: Willingness to use pre-exposure prophylaxis among women and men aged 15-64 years who did not report themselves as HIV-infected by level of education

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No primary	335/1109	24.4	(19.5, 29.3)	88/358	26.6	(18.8, 34.4)	423/1467	25.0	(20.5, 29.5)
Incomplete primary	320/677	48.1	(43.0, 53.2)	199/441	48.1	(41.5, 54.7)	519/1118	48.1	(44.1, 52.1)
Complete primary	1164/2319	50.3	(47.4, 53.2)	958/1846	52.7	(49.4, 56.0)	2122/4165	51.5	(49.0, 54.0)
Secondary+†	1650/3440	47.2	(44.4, 50.0)	1535/2963	51.5	(48.3, 54.8)	3185/6403	49.5	(47.3, 51.8)
Total	3469/7545	45.9	(43.7, 48.2)	2780/5608	50.8	(48.0, 53.5)	6249/13153	48.3	(46.3, 50.4)

Table 6.6b: Willingness to use pre-exposure prophylaxis among women and men aged 15-64 years who did not report themselves as HIV-infected by marital status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Never married/ cohabiting	766/1788	43.0	(39.5, 46.5)	1118/2136	54.3	(51.0, 57.6)	1884/3924	49.9	(47.2, 52.6)
Single	84/175	49.3	(40.8, 57.8)	51/85	56.9	(44.7, 69.1)	135/260	52.3	(45.2, 59.3)
Widowed	148/470	31.6	(26.0, 37.2)	21/42	58.2	(42.6, 73.8)	169/512	34.4	(28.8, 40.0)
Separated/ divorced	198/402	51.7	(45.8, 57.6)	112/211	52.5	(43.8, 61.2)	310/613	52.1	(46.6, 57.5)
Married/ cohabiting - polygamous	297/634	45.8	(39.6, 51.9)	111/219	57.1	(48.1, 66.1)	408/853	49.2	(43.6, 54.8)
Married/ cohabiting - monogamous	1976/4074	48.2	(45.6, 50.8)	1365/2912	47.4	(44.2, 50.5)	3341/6986	47.8	(45.5, 50.1)
Unknown	0/2	–	–	2/3	*	–	2/5	*	–
Total	3469/7545	45.9	(43.7, 48.2)	2780/5608	50.8	(48.0, 53.5)	6249/13153	48.3	(46.3, 50.4)

Table 6.7a: Willingness to use an HIV home self-test kit among women and men aged 15-64 years who did not report themselves as HIV-infected

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	5022/7545	67.3	(64.9, 69.8)	4092/5606	74.1	(72.1, 76.1)	9114/13151	70.7	(68.9, 72.5)
No	2206/7545	28.5	(26.2, 30.9)	1309/5606	22.6	(20.7, 24.4)	3515/13151	25.6	(23.9, 27.3)
Unsure	317/7545	4.1	(3.5, 4.8)	205/5606	3.3	(2.6, 4.0)	522/13151	3.7	(3.2, 4.2)

† Secondary + includes years of secondary schooling whether completed or not.
* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 6.7b: Willingness to use an HIV home self-test kit among women and men aged 15-64 years who did not report themselves as HIV-infected by level of education

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No primary	480/1109	37.4	(31.6, 43.3)	191/358	49.0	(40.0, 57.9)	671/1467	40.4	(35.6, 45.3)
Incomplete primary	445/677	67.1	(62.0, 72.3)	311/441	71.4	(64.8, 77.9)	756/1118	69.0	(64.6, 73.4)
Complete primary	1637/2319	70.8	(68.1, 73.5)	1359/1845	75.1	(72.3, 77.8)	2996/4164	72.9	(70.8, 75.0)
Secondary+[†]	2460/3440	71.4	(68.6, 74.2)	2231/2962	75.6	(73.3, 77.9)	4691/6402	73.6	(71.6, 75.6)
Total	5022/7545	67.3	(64.9, 69.8)	4092/5606	74.1	(72.1, 76.1)	9114/13151	70.7	(68.9, 72.5)

Table 6.7c: Willingness to use an HIV home self-test kit among women and men aged 15-64 years who did not report themselves as HIV-infected by marital status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Never married/ never cohabited	1263/1914	66.0	(62.9, 69.1)	1615/2210	74.2	(71.7, 76.7)	2878/4124	70.9	(68.9, 72.9)
Married/ cohabiting - monogamous	2753/3957	70.7	(68.0, 73.4)	2033/2784	73.8	(71.5, 76.2)	4786/6741	72.2	(70.2, 74.2)
Married/ cohabiting - polygamous	369/597	60.2	(53.6, 66.9)	135/202	69.2	(59.8, 78.6)	504/799	62.9	(57.0, 68.9)
Separated/ divorced	274/395	70.5	(65.5, 75.6)	148/198	76.5	(69.4, 83.5)	422/593	73.0	(68.4, 77.6)
Ever widowed	362/680	54.9	(49.6, 60.2)	158/209	80.7	(73.2, 88.1)	520/889	61.9	(57.4, 66.5)
Unknown	1/2	*	–	3/3	*	–	4/5	*	–
Total	5022/7545	67.3	(64.9, 69.8)	4092/5606	74.1	(72.1, 76.1)	9114/13151	70.7	(68.9, 72.5)

[†] Secondary + includes years of secondary schooling whether completed or not.
* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 7.3a: Ever been tested for HIV among women and men aged 15-64 years

	KAIS 2007			KAIS 2012			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Women	4018/9629	41.2	(39.6, 42.7)	6298/7930	79.8	(78.2, 81.3)	10316/17559	57.1	(55.9, 58.3)
Men	1916/7319	25.1	(23.5, 26.7)	3618/5748	62.5	(60.4, 64.6)	5534/13067	42.8	(41.4, 44.2)
Total	5934/16948	34.3	(32.9, 35.6)	9916/13678	71.3	(69.8, 72.8)	15850/30626	50.6	(49.5, 51.6)

Table 7.3b: Ever tested for HIV among women and men aged 15-64 years by residence

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	3854/5096	76.1	(74.1, 78.2)	2001/3521	56.3	(53.6, 58.9)	5855/8617	66.6	(64.6, 68.7)
Urban	2444/2834	86.4	(84.2, 88.7)	1617/2227	72.5	(69.6, 75.4)	4061/5061	79.3	(77.5, 81.2)
Total	6298/7930	79.8	(78.2, 81.3)	3618/5748	62.5	(60.4, 64.6)	9916/13678	71.3	(69.8, 72.8)

Table 7.3c: Ever tested for HIV among women and men aged 15-64 years by region

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	843/943	90.1	(87.6, 92.7)	618/789	78.6	(75.4, 81.7)	1461/1732	84.1	(81.9, 86.4)
Central	710/925	77.2	(74.3, 80.0)	397/653	60.5	(55.1, 65.9)	1107/1578	69.0	(66.4, 71.7)
Coast	800/993	80.1	(77.4, 82.7)	445/714	64.4	(59.3, 69.6)	1245/1707	72.3	(68.9, 75.7)
Eastern North	500/722	69.9	(61.6, 78.2)	272/495	56.8	(48.1, 65.5)	772/1217	63.1	(55.9, 70.3)
Eastern South	698/872	80.7	(76.8, 84.6)	318/588	55.1	(49.7, 60.5)	1016/1460	68.4	(64.6, 72.2)
Nyanza	905/1059	85.6	(82.3, 88.9)	575/774	73.3	(66.6, 80.0)	1480/1833	79.9	(75.3, 84.4)
Rift Valley North	568/740	76.3	(71.4, 81.3)	282/516	55.1	(48.6, 61.6)	850/1256	65.7	(60.7, 70.6)
Rift Valley South	521/679	73.9	(67.2, 80.5)	322/542	57.6	(50.6, 64.7)	843/1221	65.7	(60.0, 71.5)
Western	753/997	76.1	(71.9, 80.4)	389/677	58.0	(51.7, 64.3)	1142/1674	67.6	(63.6, 71.7)
Total	6298/7930	79.8	(78.2, 81.3)	3618/5748	62.5	(60.4, 64.6)	9916/13678	71.3	(69.8, 72.8)

Table 7.3d: Ever been tested for HIV among women and men aged 15-64 years by wealth index[1]

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Lowest	1214/1710	72.7	(68.4, 77.0)	548/1129	48.1	(43.6, 52.6)	1762/2839	61.3	(57.5, 65.1)
Second	1296/1692	76.0	(73.5, 78.6)	658/1159	55.8	(51.9, 59.7)	1954/2851	66.5	(63.8, 69.1)
Middle	1237/1538	79.9	(77.7, 82.1)	721/1130	61.9	(58.4, 65.3)	1958/2668	71.0	(68.9, 73.2)
Fourth	1167/1379	85.1	(82.8, 87.4)	825/1189	67.8	(64.5, 71.2)	1992/2568	75.8	(73.5, 78.2)
Highest	1384/1611	85.8	(82.6, 89.0)	866/1141	77.0	(73.6, 80.3)	2250/2752	81.5	(79.3, 83.7)
Total	6298/7930	79.8	(78.2, 81.3)	3618/5748	62.5	(60.4, 64.6)	9916/13678	71.3	(69.8, 72.8)

[1] The wealth index was a composite measure of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access, and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principal component analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with equal number of individuals (quintiles), ranging from lowest to highest level of wealth.

Table 7.3e: Ever been tested for HIV among women and men aged 15-64 years by age group

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	683/1217	55.6	(51.6, 59.5)	477/1069	44.7	(40.5, 48.9)	1160/2286	49.8	(46.8, 52.8)
20-24	1275/1401	91.6	(89.7, 93.5)	572/844	67.3	(63.6, 71.0)	1847/2245	80.7	(78.5, 83.0)
25-29	1228/1311	93.8	(91.5, 96.1)	617/828	75.1	(71.7, 78.4)	1845/2139	85.2	(83.1, 87.3)
30-34	911/977	93.9	(92.2, 95.6)	517/713	71.8	(67.7, 76.0)	1428/1690	83.2	(81.0, 85.4)
35-39	732/830	89.1	(86.5, 91.6)	414/581	71.0	(66.9, 75.2)	1146/1411	80.2	(77.8, 82.6)
40-44	532/665	79.1	(75.3, 82.8)	339/491	68.0	(63.0, 73.0)	871/1156	73.6	(70.6, 76.5)
45-49	352/491	72.4	(68.1, 76.7)	215/356	58.8	(52.5, 65.1)	567/847	65.8	(62.2, 69.4)
50-54	289/472	63.5	(58.3, 68.7)	217/371	57.4	(51.5, 63.2)	506/843	60.4	(56.4, 64.3)
55-59	180/317	56.8	(49.6, 64.0)	136/275	46.4	(39.4, 53.3)	316/592	51.2	(45.3, 57.2)
60-64	116/249	46.4	(39.4, 53.5)	114/220	49.9	(42.4, 57.3)	230/469	48.3	(42.7, 53.9)
Total	6298/7930	79.8	(78.2, 81.3)	3618/5748	62.5	(60.4, 64.6)	9916/13678	71.3	(69.8, 72.8)

Table 7.3f: Ever tested for HIV among women and men aged 15-64 years by marital status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Never married/ never cohabited	1267/1956	64.3	(61.0, 67.6)	1257/2236	56.2	(53.3, 59.0)	2524/4192	59.5	(57.1, 61.8)
Married/ cohabiting - monogamous	3583/4103	87.9	(86.4, 89.3)	1915/2854	66.2	(63.7, 68.7)	5498/6957	77.4	(75.8, 79.1)
Married/ cohabiting - polygamous	510/644	79.4	(74.3, 84.5)	139/216	65.1	(56.0, 74.2)	649/860	75.0	(70.1, 80.0)
Separated/ divorced	364/429	85.5	(81.3, 89.7)	146/207	69.3	(61.5, 77.0)	510/636	79.0	(74.7, 83.3)
Ever widowed	572/795	73.0	(67.9, 78.0)	158/232	68.8	(61.9, 75.8)	730/1027	71.9	(67.8, 76.0)
Total	6298/7930	79.8	(78.2, 81.3)	3618/5748	62.5	(60.4, 64.6)	9916/13678	71.3	(69.8, 72.8)

Table 7.3g: Ever tested for HIV among women and men aged 15-64 years by level of education

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No primary	762/1189	62.9	(57.2, 68.5)	142/378	33.9	(24.4, 43.3)	904/1567	55.4	(49.8, 61.0)
Incomplete primary	518/708	72.1	(67.2, 77.1)	242/448	52.6	(44.7, 60.5)	760/1156	63.7	(59.0, 68.4)
Complete primary	2000/2417	83.2	(81.2, 85.2)	1166/1886	61.0	(58.2, 63.9)	3166/4303	72.3	(70.4, 74.1)
Secondary+*	3018/3616	82.5	(80.5, 84.4)	2068/3036	66.5	(64.0, 68.9)	5086/6652	74.0	(72.3, 75.8)
Total	6298/7930	79.8	(78.2, 81.3)	3618/5748	62.5	(60.4, 64.6)	9916/13678	71.3	(69.8, 72.8)

* Secondary + includes any years of secondary schooling whether completed or not

Table 7.3h: HIV prevalence among women and men aged 15-64 years by testing status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	417/5402	7.9	(6.9, 8.8)	155/3034	5.5	(4.4, 6.7)	572/8436	6.9	(6.0, 7.7)
No	36/1374	2.8	(1.8, 3.8)	38/1792	2.4	(1.5, 3.3)	74/3166	2.5	(1.9, 3.2)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 7.4: Type of facility where provider initiated HIV testing was offered

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Public sector	1248/1461	85.4	(82.9, 87.9)	421/517	82.0	(78.4, 85.7)	1669/1978	84.3	(82.2, 86.4)
Non-public sector	207/1461	14.3	(11.8, 16.7)	95/517	17.8	(14.2, 21.4)	302/1978	15.4	(13.3, 17.5)
Other sector	6/1461	0.3	(0.0, 0.6)	1/517	0.2	(0.0, 0.5)	7/1978	0.3	(0.0, 0.5)

Table 7.4a: Time since last HIV test among women and men aged 15-64 years who had ever been tested for HIV

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
<3 months	1313/6295	20.8	(19.3, 22.2)	722/3618	19.1	(17.4, 20.8)	2035/9913	20.0	(18.8, 21.2)
3-5 months	1018/6295	16.6	(15.3, 17.8)	580/3618	16.4	(14.9, 17.9)	1598/9913	16.5	(15.5, 17.5)
6-11 months	1190/6295	18.9	(17.6, 20.2)	703/3618	19.5	(17.9, 21.1)	1893/9913	19.1	(18.1, 20.2)
1-2 years	1666/6295	25.7	(24.2, 27.2)	899/3618	25.0	(23.3, 26.8)	2565/9913	25.4	(24.2, 26.6)
2+ years	1053/6295	17.1	(16.0, 18.3)	697/3618	19.4	(17.6, 21.2)	1750/9913	18.1	(17.0, 19.2)
Don't know	55/6295	1.0	(0.7, 1.2)	17/3618	0.5	(0.3, 0.8)	72/9913	0.8	(0.6, 1.0)

Table 7.4b: Location of last HIV test among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
VCT Facility	637/6295	10.1	(8.8, 11.4)	701/3617	19.2	(17.1, 21.3)	1338/9912	14.0	(12.8, 15.2)
Mobile VCT	784/6295	11.9	(10.7, 13.2)	751/3617	20.7	(18.8, 22.7)	1535/9912	15.7	(14.5, 16.9)
At Home	289/6295	4.3	(3.4, 5.3)	199/3617	5.0	(3.7, 6.4)	488/9912	4.6	(3.6, 5.6)
Hospital outpatient clinics	2669/6295	44.4	(42.3, 46.6)	1613/3617	44.2	(41.3, 47.0)	4282/9912	44.3	(42.6, 46.0)
Hospital inpatient wards	170/6295	2.7	(2.2, 3.3)	56/3617	1.8	(0.9, 2.7)	226/9912	2.3	(1.8, 2.8)
ANC/Materity clinic	1418/6295	21.7	(19.9, 23.4)	22/3617	0.4	(0.2, 0.7)	1440/9912	12.5	(11.5, 13.6)
Other	328/6295	4.8	(4.1, 5.6)	275/3617	8.6	(6.6, 10.6)	603/9912	6.4	(5.5, 7.4)

Table 7.4c (1) Attended a health facility in the past 12 months among men and women aged 15-64 years, KAIS 2012

Visted Doctor Last 12 Months	All		
	Unweighted n/N	Weighted %	95% CI
Yes	5446/13502	40.8	(39.4, 42.3)
No	8056/13502	59.2	(57.7, 60.6)
Total	13502/13502	100	-
Total			

Table 7.4c (2): Offered an HIV test by a health provider in the past 12 months among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes, offered HIV test	1461/3512	41.0	(38.8, 43.3)	517/1933	25.8	(23.6, 28.1)	1978/5445	34.5	(32.8, 36.2)
No, not offered an HIV test	2051/3512	59.0	(56.7, 61.2)	1416/1933	74.2	(71.9, 76.4)	3467/5445	65.5	(63.8, 67.2)

Table 7.4c (3): Accepted an HIV test by a health provider in the past 12 months among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes, accepted HIV test	1358/1461	92.7	(90.1, 95.3)	467/517	89.0	(85.4, 92.6)	1825/1978	91.5	(89.1, 93.9)
No, did not accept HIV testing	103/1461	7.3	(4.7, 9.9)	50/517	11.0	(7.4, 14.6)	153/1978	8.5	(6.1, 10.9)

Table 7.4d: Tested for HIV with last sexual partner among sexually active women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	1814/5407	33.7	(31.8, 35.5)	1229/4101	29.4	(27.5, 31.2)	3043/9508	31.5	(30.0, 33.0)
No	3593/5407	66.3	(64.5, 68.2)	2872/4101	70.6	(68.8, 72.5)	6465/9508	68.5	(67.0, 70.0)

Table 7.4e: Reasons for not testing for HIV with last sexual partner among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
We've never discussed it	2265/3593	64.1	(61.9, 66.4)	1827/2872	66.9	(64.1, 69.8)	4092/6465	65.6	(63.5, 67.6)
We've discussed but decided not to	232/3593	6.0	(5.1, 7.0)	251/2872	8.6	(7.0, 10.2)	483/6465	7.3	(6.4, 8.3)
I asked but my partner refused	503/3593	14.2	(12.8, 15.6)	63/2872	2.0	(1.4, 2.6)	566/6465	8.0	(7.2, 8.7)
My partner asked but i refused	39/3593	1.2	(0.7, 1.7)	34/2872	1.2	(0.7, 1.6)	73/6465	1.2	(0.9, 1.5)
We know our status already	118/3593	3.3	(2.5, 4.1)	195/2872	6.3	(5.1, 7.6)	313/6465	4.9	(4.0, 5.7)
Never heard of couple's testing	46/3593	0.8	(0.4, 1.2)	62/2872	1.5	(0.8, 2.2)	108/6465	1.2	(0.7, 1.6)
I don't know where to get couple's counselling	27/3593	0.5	(0.2, 0.7)	13/2872	0.4	(0.2, 0.6)	40/6465	0.4	(0.2, 0.6)
Other	363/3593	9.8	(8.2, 11.4)	427/2872	13.0	(11.1, 14.9)	790/6465	11.5	(10.1, 12.8)

Table 7.4f: Ever been tested for HIV using an HIV home testing kit among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	144/6296	2.3	(1.8, 2.7)	185/3618	5.2	(3.2, 7.3)	329/9914	3.5	(2.6, 4.5)
No	6152/1632	97.7	(97.3, 98.2)	3433/2130	94.8	(92.7, 96.8)	9585/3762	96.5	(95.5, 97.4)

Table 7.5: Reasons for not testing for HIV among women and men aged 15-64 years who had never been tested for HIV

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No knowledge about testing	293/1590	15.0	(11.7, 18.4)	201/2130	7.4	(5.7, 9.1)	494/3720	10.1	(8.3, 11.9)
Don't know where to go	111/1590	6.2	(4.0, 8.3)	97/2130	4.0	(2.4, 5.6)	208/3720	4.8	(3.3, 6.2)
Test costs too much	27/1590	1.4	(0.5, 2.2)	33/2130	1.4	(0.7, 2.2)	60/3720	1.4	(0.8, 2.0)
Transport too much	44/1590	2.4	(1.1, 3.6)	37/2130	1.9	(1.1, 2.7)	81/3720	2.0	(1.3, 2.8)
Facility too far away	64/1590	3.8	(2.2, 5.3)	61/2130	2.8	(1.9, 3.7)	125/3720	3.1	(2.4, 3.9)
Afraid other will know	52/1590	3.2	(2.1, 4.2)	72/2130	3.3	(2.3, 4.3)	124/3720	3.3	(2.5, 4.0)
Don't need test/ low risk	555/1590	36.7	(33.2, 40.3)	978/2130	46.7	(42.9, 50.4)	1533/3720	43.2	(40.3, 46.0)
Afraid to know I have HIV	137/1590	8.4	(6.6, 10.2)	163/2130	7.8	(6.3, 9.3)	300/3720	8.1	(6.9, 9.2)
Can't get treatment	8/1590	0.3	(0.1, 0.5)	9/2130	0.3	(0.1, 0.6)	17/3720	0.3	(0.1, 0.5)
Never been offered	284/1590	17.5	(14.1, 21.0)	335/2130	16.3	(13.1, 19.4)	619/3720	16.7	(14.1, 19.3)
Other reason	257/1590	17.0	(14.2, 19.8)	458/2130	21.8	(18.6, 24.9)	715/3720	20.1	(17.7, 22.5)
Total	1832/17490	10.2	(9.9, 10.4)	2444/23430	10.3	(10.1, 10.6)	4276/40920	10.3	(10.1, 10.5)

Table 7.6: Uptake of home-based testing and counselling among adults aged 15-64 years who did not know their HIV status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	443/534	81.6	(76.6, 86.5)	474/592	80.6	(76.7, 84.6)	917/1126	81.0	(77.6, 84.4)
20-24	100/126	79.3	(71.6, 87.0)	212/272	78.8	(72.5, 85.0)	312/398	78.9	(74.0, 83.8)
25-29	66/83	80.5	(70.1, 90.8)	163/211	78.9	(72.6, 85.2)	229/294	79.3	(73.6, 85.0)
30-34	54/66	78.5	(66.0, 90.9)	152/196	75.9	(68.5, 83.2)	206/262	76.4	(69.9, 82.8)
35-39	87/98	88.1	(80.0, 96.3)	139/167	82.2	(75.3, 89.1)	226/265	83.9	(78.6, 89.2)
40-44	114/133	85.3	(78.3, 92.4)	133/152	87.5	(81.8, 93.1)	247/285	86.6	(82.1, 91.1)
45-49	120/139	87.8	(82.1, 93.5)	116/141	81.6	(74.3, 88.8)	236/280	84.2	(79.5, 88.9)
50-54	157/183	87.1	(81.3, 92.9)	130/154	84.4	(78.2, 90.5)	287/337	85.6	(81.2, 90.0)
55-59	114/137	81.9	(73.6, 90.2)	118/139	85.9	(79.3, 92.5)	232/276	84.3	(78.7, 89.8)
60-64	109/133	83.4	(76.6, 90.2)	91/106	84.2	(76.9, 91.5)	200/239	83.8	(78.7, 89.0)
Total	1364/1632	83.2	(80.5, 86.0)	1728/2130	81.3	(78.8, 83.8)	3092/3762	82.0	(79.8, 84.2)

Table 8.3: Population estimate of HIV–infected who are unaware of HIV status[1,2]

	Women			Men			Total		
	Weighted %	2012 Estimated population (women and men aged 15–64 years)	95% CI	Weighted %	2012 Estimated population (women and men aged 15–64 years)	95% CI	Weighted %	2012 Estimated population (women and men aged 15–64 years)	95% CI
Aware	52.2	387000	(315000, 458000)	38.0	171881	(121000, 223000)	46.9	558000	(452000, 665000)
Unaware	47.8	353000	(298000, 409000)	62.0	279987	(213000, 347000)	53.1	633000	(537900, 729000)

Table 8.3a: Self–reported HIV status among HIV–infected women and men aged 15–64 years

	All		
	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	305/648	46.9	(41.3, 52.4)
Self–reported HIV negative	244/648	36.8	(32.2, 41.5)
Never tested/ received results	99/648	16.3	(13.0, 19.6)

Table 8.3b: Self–reported HIV status among HIV–infected women aged 15–64 years by age group

	Age 15–19			Age 20–24			Age 25–29		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	2/11	*	–	14/52	24.8	(11.5, 38.0)	36/85	43.9	(32.6, 55.1)
Self–reported HIV negative	9/11	*	–	32/52	64.6	(50.3, 78.8)	42/85	47.1	(35.8, 58.5)
Never tested/received results	0/11	–	–	6/52	10.7	(1.4, 19.9)	7/85	9.0	(2.1, 15.9)

	Age 30–34			Age 35–39			Age 40–44			Age 45–49		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	**32/62**	48.9	(34.3, 63.4)	49/82	61.4	(50.7, 72.2)	33/58	64.3	(50.2, 78.4)	28/45	59.1	(43.2, 74.9)
Self–reported HIV negative	**25/62**	42.0	(26.5, 57.6)	24/82	27.5	(16.8, 38.2)	18/58	25.5	(13.3, 37.8)	11/45	25.9	(11.2, 40.6)
Never tested/received results	**5/62**	9.1	(1.3, 16.9)	9/82	11.1	(3.7, 18.4)	7/58	10.2	(2.7, 17.7)	6/45	15.0	(2.0, 28.1)

	Age 50–54			Age 55–59			Age 60–64			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	**26/37**	68.2	(51.8, 84.7)	8/16	*	–	4/7	*	–	232/455	52.2	(46.6, 57.9)
Self–reported HIV negative	**5/37**	16.5	(3.4, 29.6)	5/16	*	–	1/7	*	–	172/455	36.9	(31.5, 42.2)
Never tested/received results	**6/37**	15.2	(2.4, 28.1)	3/16	*	–	2/7	*	–	51/455	10.9	(7.8, 14.0)

[1] The 2012 national estimated population for adults and adolescents aged 15–64 years was calculated using un–normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010).
[2] Estimates rounded to the nearest 1000.
* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 8.3c: Self–reported HIV status among HIV–infected men aged 15–64 years by age group

	Age 15–19			Age 20–24			Age 25–29			Age 30–34		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	0/6	*	–	0/6	*	–	5/27	23.1	(3.8, 42.4)	15/35	42.0	(23.4, 60.5)
Self–reported HIV negative	2/6	*	–	4/6	*	–	16/27	49.0	(29.0, 69.0)	12/35	39.2	(20.6, 57.8)
Never tested/received results	4/6	*	–	2/6	*	–	6/27	27.9	(10.8, 44.9)	8/35	18.8	(6.3, 31.3)

	Age 35–39			Age 40–44			Age 45–49			Age 50–54		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	12/26	49.6	(28.6, 70.6)	15/32	49.0	(27.3, 70.7)	7/21	*	–	12/23	*	–
Self–reported HIV negative	8/26	31.8	(12.8, 50.8)	12/32	35.7	(15.8, 55.5)	4/21	*	–	8/23	*	–
Never tested/received results	6/26	18.6	(0.0, 37.4)	5/32	15.3	(2.0, 28.7)	10/21	*	–	3/23	*	–

	Age 55 59			Age 60 64			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	2/8	*	–	5/9	*	–	73/193	38.0	(29.5, 46.6)
Self–reported HIV negative	4/8	*	–	2/9	*	–	72/193	36.7	(29.6, 43.9)
Never tested/received results	2/8	*	–	2/9	*	–	48/193	25.2	(18.1, 32.3)

Table 8.3d: Self–reported HIV status among HIV–infected women aged 15–64 years by marital status

	Never married/cohabited			Married monogamous			Married polygamous		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	14/56	22.6	(11.4, 33.9)	76/168	47.8	(38.8, 56.8)	26/48	54.6	(37.5, 71.8)
Self–reported HIV negative	32/56	58.9	(45.4, 72.4)	77/168	42.6	(34.2, 51.1)	17/48	33.7	(15.9, 51.5)
Never tested/ received results	10/56	18.5	(7.7, 29.3)	15/168	9.6	(4.8, 14.4)	5/48	11.7	(2.8, 20.5)

Separated/divorced			Ever widowed			Total		
Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
22/53	42.2	(26.0, 58.5)	94/130	73.4	(65.3, 81.5)	232/455	52.2	(46.6, 57.9)
27/53	53.5	(37.2, 69.7)	19/130	14.9	(8.4, 21.5)	172/455	36.9	(31.5, 42.2)
4/53	4.3	(0.0, 9.7)	17/130	11.7	(5.7, 17.7)	51/455	10.9	(7.8, 14.0)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 8.3e: Self–reported HIV status among HIV–infected men aged 15–64 years by marital status

	Never married/cohabited			Married monogamous			Married polygamous		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	4/22	*	–	33/106	32.9	(21.6, 44.1)	13/20	*	–
Self–reported HIV negative	9/22	*	–	46/106	40.2	(30.0, 50.4)	4/20	*	–
Never tested/received results	9/22	*	–	27/106	26.9	(16.6, 37.2)	3/20	*	–

	Separated/divorced			Ever widowed			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Self–reported HIV positive	4/10	*	–	19/35	54.4	(36.6, 72.2)	73/193	38.0	(29.5, 46.6)
Self–reported HIV negative	3/10	*	–	10/35	29.5	(13.2, 45.9)	72/193	36.7	(29.6, 43.9)
Never tested/received results	3/10	*	–	6/35	16.1	(1.9, 30.3)	48/193	25.2	(18.1, 32.3)

Table 8.3f: Self-reported HIV status among HIV-infected women aged 15-64 years who reported a live birth in the past 5-years

	All		
	Unweighted n/N	Weighted %	95% CI
Self-reported HIV positive	83/171	52.2	(43.4, 60.9)
Self-reported HIV negative	75/171	39.9	(31.0, 48.8)
Never tested/ received results	13/171	8.0	(3.7, 12.2)

Table 8.4: Number of reported sex partners in the year before the survey

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No partner	2526/7954	29.7	(28.3, 31.0)	1581/5766	27.0	(25.2, 28.8)	4107/13720	28.3	(27.1, 29.6)
1 partner	5250/7954	67.9	(66.5, 69.2)	3281/5766	57.8	(56.0, 59.6)	8531/13720	62.9	(61.7, 64.2)
2 partners	116/7954	1.7	(1.4, 2.0)	561/5766	9.9	(9.0, 10.8)	677/13720	5.7	(5.2, 6.2)
3+ partners	41/7954	0.5	(0.4, 0.7)	250/5766	4.3	(3.7, 5.0)	291/13720	2.4	(2.1, 2.8)
Don't know	21/7954	0.3	(0.1, 0.4)	93/5766	1.0	(0.7, 1.3)	114/13720	0.6	(0.4, 0.8)

Table 8.4a: Disclosure of HIV infection to last sex partner among HIV-infected women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	140/232	60.9	(53.6, 68.2)	54/73	75.5	(65.8, 85.2)	194/305	65.4	(58.9, 71.9)
No	92/232	39.1	(31.8, 46.4)	19/73	24.5	(14.8, 34.2)	111/305	34.6	(28.1, 41.1)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 8.4b: Disclosure of HIV infection to the last sex partner in the past 12 months among HIV–infected women and men aged 15–64 years who were aware of their infection by marital status

	Disclosure		
	Unweighted n/N	Weighted %	95% CI
Never married/cohabited	8/18	40.2	(16.1, 64.3)
Married/cohabiting – monogamous	99/109	91.5	(85.8, 97.2)
Married/cohabiting– polygamous	31/39	78.1	(66.8, 89.4)
Separated divorced	10/26	35.5	(14.5, 56.5)
Ever widowed	46/113	43.7	(33.0, 54.4)
Overall	194/305	65.4	(58.9, 71.9)

Table 8.4c: Disclosure of HIV infection to the last sex partner in the past 12 months among HIV–infected women and men aged 15–64 years by age–group

	All		
	Unweighted n/N	Weighted %	95% CI
15–19	0/2	*	–
20–24	9/14	*	–
25–29	30/41	77.8	(64.2, 91.5)
30–34	33/47	67.4	(50.6, 84.2)
35–39	47/61	78.2	(67.7, 88.8)
40–44	27/48	58.2	(43.5, 73.0)
45–49	23/35	76.2	(60.9, 91.5)
50–54	17/38	44.7	(28.5, 61.0)
55–59	4/10	*	–
60–64	4/9	*	–
Total	194/305	65.4	(58.9, 71.9)

Table 8.5a: Knowledge of last partner's HIV status among women and men aged 15–64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Partner HIV–infected	96/5413	2.0	(1.4, 2.5)	65/4110	1.6	(1.1, 2.1)	161/9523	1.8	(1.3, 2.3)
Partner HIV–uninfected	2582/5413	48.1	(46.2, 50.0)	2327/4110	55.6	(53.3, 57.9)	4909/9523	51.8	(50.1, 53.5)
Partner of unknown HIV status	2735/5413	50.0	(48.1, 51.9)	1718/4110	42.8	(40.5, 45.1)	4453/9523	46.4	(44.7, 48.1)

Table 8.5b: Knowledge of HIV status of all sexual partner(s) in the past 12 months among women and men aged 15–64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
1 partner	2685/5276	51.5	(49.6, 53.5)	2144/3288	64.4	(62.0, 66.7)	4829/8564	57.3	(55.6, 59.0)
2 partners	27/107	21.1	(13.0, 29.2)	167/559	29.3	(24.7, 34.0)	194/666	28.2	(23.9, 32.5)
3+ partners	1/34	1.8	(0.0, 5.4)	30/264	11.8	(7.6, 15.9)	31/298	10.9	(7.1, 14.7)
Total	2713/5417	50.6	(48.7, 52.5)	2341/4111	56.3	(54.0, 58.5)	5054/9528	53.4	(51.8, 55.1)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 8.5c: Sexual partnerships with a partner of unknown HIV status in the past 12 months among women and men aged 15–64 years by partner type

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Married/ Cohabiting	2312/4645	49.2	(47.2, 51.3)	1025/3318	31.6	(29.1, 34.1)	3337/7963	40.7	(38.9, 42.6)
Girlfriend/ boyfriend (non–cohabiting)	330/695	47.0	(42.4, 51.6)	503/847	59.6	(54.8, 64.5)	833/1542	54.6	(51.2, 58.1)
Casual/other	112/183	64.4	(56.5, 72.3)	711/1038	68.7	(64.9, 72.5)	823/1221	68.2	(64.7, 71.8)
All partners	2754/5523	49.4	(47.5, 51.4)	2239/5203	43.7	(41.4, 45.9)	4993/10726	46.3	(44.6, 47.9)

Table 8.5d: Correct knowledge of current sex partner's HIV status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Partner HIV–infected	41/67	62.1	(49.8, 74.5)	42/80	60.1	(47.8, 72.5)	83/147	60.9	(51.1, 70.8)
Partner HIV–uninfected	927/933	99.4	(98.9, 99.9)	1193/1200	99.4	(99.0, 99.9)	2120/2133	99.4	(99.1, 99.7)
Total	968/1000	96.7	(95.6, 97.9)	1235/1280	96.9	(95.9, 97.9)	2203/2280	96.8	(96.1, 97.6)

Table 8.5e: Partnerships in which the respondent had partners of unknown HIV status by respondents HIV status and knowledge of HIV infection

	All		
	Unweighted n/N	Weighted %	95% CI
HIV–infected, self–reported positive	61/205	28.9	(21.8, 36.0)
HIV–infected, self–reported negative	79/194	39.8	(32.4, 47.2)
HIV–infected, self–reported never tested	43/68	60.9	(48.9, 72.8)
HIV–uninfected, self–reported positive	8/25	29.9	(11.1, 48.6)
HIV–uninfected, self–reported negative	2192/5852	36.3	(34.6, 38.1)
HIV–uninfected, self–reported never tested	1257/1782	68.9	(65.8, 71.9)
Total	4337/9210	46.7	(44.9, 48.5)

Table 8.5f: Correct knowledge of current sex partner's HIV status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Partner HIV–infected	41/70	59.6	(47.4, 71.7)	42/85	56.4	(44.0, 68.8)	83/155	57.7	(47.8, 67.6)
Partner HIV–uninfected	979/985	99.4	(99.0, 99.9)	1233/1241	99.4	(98.9, 99.8)	2212/2226	99.4	(99.1, 99.7)
Total	1020/1055	96.6	(95.5, 97.7)	1275/1326	96.5	(95.5, 97.6)	2295/2381	96.6	(95.8, 97.4)

Table 9.3a: Young women and men aged 15-24 aged 15-24 years who reported having sex at least once in their lifetime by age

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15	29/255	11.6	(6.6, 16.6)	39/219	20.2	(13.5, 26.8)	68/474	16.0	(11.8, 20.2)
16	45/267	17.7	(12.2, 23.3)	46/220	21.5	(15.3, 27.7)	91/487	19.7	(15.5, 23.8)
17	80/218	40.9	(33.0, 48.8)	96/239	42.3	(34.2, 50.3)	176/457	41.7	(35.9, 47.5)
18	144/262	59.0	(51.5, 66.4)	100/218	49.5	(41.9, 57.2)	244/480	54.0	(48.4, 59.5)
19	143/217	66.8	(59.4, 74.2)	107/177	63.4	(55.5, 71.3)	250/394	65.1	(59.6, 70.6)
20	248/308	80.5	(75.4, 85.7)	140/195	72.9	(65.4, 80.4)	388/503	77.0	(72.7, 81.3)
21	196/222	87.5	(82.4, 92.6)	106/145	76.8	(69.3, 84.3)	302/367	82.5	(78.1, 86.9)
22	265/287	92.0	(88.4, 95.7)	152/174	88.3	(82.0, 94.6)	417/461	90.4	(87.0, 93.8)
23	287/299	97.0	(95.0, 98.9)	142/159	92.8	(88.7, 96.9)	429/458	95.2	(93.1, 97.3)
24	274/287	95.0	(91.9, 98.0)	162/173	93.4	(89.1, 97.8)	436/460	94.3	(91.8, 96.8)
Total	1711/2622	66.1	(63.5, 68.8)	1090/1919	59.3	(56.3, 62.4)	2801/4541	62.8	(60.6, 65.0)

Table 9.3b: Young women and men aged 15-24 aged 15-24 years who reported sexual debut before 15 years of age, KAIS 2007 and KAIS 2012

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
KAIS 2007	333/2070	16.4	(14.5, 18.2)	499/1543	33.7	(30.7, 36.8)	832/3613	23.8	(22.1, 25.4)
KAIS 2012	258/1623	16.1	(13.7, 18.5)	276/1067	26.6	(23.2, 29.9)	534/2690	21.0	(19.0, 23.0)

Table 9.3c: Condom use at first sex among young women and men aged 15-24 years by age of sexual debut

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
First sex <15 years	63/125	52.9	(44.1, 61.8)	57/164	33.7	(25.7, 41.7)	120/289	40.6	(34.5, 46.7)
First sex 15+ years	505/724	69.8	(65.5, 74.1)	420/630	64.5	(60.2, 68.7)	925/1354	67.0	(63.9, 70.1)
Total	593/893	66.9	(63.0, 70.8)	485/809	57.6	(53.6, 61.6)	1078/1702	61.9	(58.8, 64.9)

Table 9.3d: HIV prevalence among young women and men aged 15-24 years by age of sexual debut

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
First sex <15 years	11/234	5.3	(2.1, 8.6)	1/230	0.3	(0.0, 0.8)	12/464	2.4	(1.0, 3.7)
First sex 15+ years	41/1172	3.5	(2.3, 4.6)	7/661	1.5	(0.4, 2.7)	48/1833	2.6	(1.8, 3.4)
Total	58/1474	4.0	(2.8, 5.2)	8/910	1.2	(0.3, 2.0)	66/2384	2.7	(2.0, 3.4)

Table 9.4 (text): Ever had sex among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	6979/7954	88.0	(87.0, 89.0)	4884/5766	85.7	(84.4, 87.0)	11863/13720	86.9	(85.9, 87.8)
No	954/7954	11.7	(10.7, 12.7)	873/5766	14.2	(12.9, 15.5)	1827/13720	12.9	(12.0, 13.9)
Refused/ Unknown	21/7954	0.3	(0.1, 0.4)	9/5766	0.1	(0.0, 0.2)	30/13720	0.2	(0.1, 0.3)

Table 9.4a: Number of lifetime sexual partners among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
0	954/7865	11.8	(10.8, 12.9)	873/5726	14.3	(13.0, 15.6)	1827/13591	13.0	(12.1, 14.0)
1	3130/7865	38.0	(36.4, 39.7)	744/5726	12.5	(11.2, 13.8)	3874/13591	25.5	(24.3, 26.7)
2-3	2740/7865	36.1	(34.6, 37.6)	1432/5726	24.7	(23.4, 26.0)	4172/13591	30.5	(29.5, 31.5)
4-5	574/7865	7.8	(7.1, 8.6)	895/5726	16.1	(14.9, 17.4)	1469/13591	11.9	(11.2, 12.7)
6-9	112/7865	1.5	(1.2, 1.9)	484/5726	8.7	(7.7, 9.8)	596/13591	5.1	(4.5, 5.6)
10+	78/7865	1.0	(0.8, 1.3)	796/5726	14.9	(13.4, 16.5)	874/13591	7.8	(7.0, 8.6)
Don't know	277/7865	3.7	(2.9, 4.5)	502/5726	8.7	(7.4, 10.0)	779/13591	6.2	(5.3, 7.0)

Table 9.4b: HIV prevalence among women and men aged 15-64 years by number of lifetime sexual partners

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
0	6/776	0.9	(0.1, 1.8)	4/730	1.0	(0.0, 2.0)	10/1506	0.9	(0.3, 1.6)
1	120/2646	4.6	(3.7, 5.5)	8/617	1.2	(0.3, 2.1)	128/3263	3.8	(3.0, 4.6)
2-3	203/2393	8.1	(6.6, 9.6)	33/1183	2.9	(1.8, 3.9)	236/3576	6.1	(5.1, 7.1)
4-5	67/511	13.4	(10.0, 16.8)	38/744	5.8	(3.7, 7.8)	105/1255	8.4	(6.5, 10.3)
6-9	15/97	18.0	(10.1, 25.8)	30/437	7.5	(5.0, 10.0)	45/534	8.9	(6.4, 11.5)
10+	17/69	26.1	(14.1, 38.0)	41/692	6.1	(4.1, 8.1)	58/761	7.4	(5.3, 9.4)
Don't know	23/221	11.9	(6.8, 17.0)	39/399	10.1	(6.4, 13.7)	62/620	10.6	(7.6, 13.7)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 9.4c: Number of sexual partners in past 12 months among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
0	2526/7954	29.7	(28.3, 31.0)	1581/5766	27.0	(25.2, 28.8)	4107/13720	28.3	(27.1, 29.6)
1	5250/7954	67.9	(66.5, 69.2)	3281/5766	57.8	(56.0, 59.6)	8531/13720	62.9	(61.7, 64.2)
2	116/7954	1.7	(1.4, 2.0)	561/5766	9.9	(9.0, 10.8)	677/13720	5.7	(5.2, 6.2)
3+	41/7954	0.5	(0.4, 0.7)	250/5766	4.3	(3.7, 5.0)	291/13720	2.4	(2.1, 2.8)
Don't know	21/7954	0.3	(0.1, 0.4)	93/5766	1.0	(0.7, 1.3)	114/13720	0.6	(0.4, 0.8)

Table 9.4d: HIV prevalence among women and men aged 15-64 years by number of sexual partners in the past 12 months

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
0	149/2115	7.7	(6.3, 9.1)	26/1304	2.2	(1.3, 3.2)	175/3419	5.2	(4.3, 6.0)
1	291/4521	6.5	(5.4, 7.5)	112/2770	4.6	(3.5, 5.6)	403/7291	5.6	(4.7, 6.5)
2	8/104	6.4	(1.5, 11.3)	33/479	6.4	(4.0, 8.7)	41/583	6.4	(4.2, 8.5)
3+	6/35	15.5	(4.4, 26.7)	18/212	9.0	(4.8, 13.3)	24/247	9.8	(5.8, 13.7)
Don't know	1/15	–	–	4/71	6.3	(0.0, 13.3)	5/86	5.8	(0.1, 11.5)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 9.4e: Women aged 15-64 years reporting non-marital or non-cohabiting sexual partnership(s) in the past 12 months by marital status

	Never married/cohabited			Married monogamous			Married polygamous			Divorced separated		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No non-marital sex partner	122/607	19.1	(15.6, 22.7)	3737/3802	98.3	(97.9, 98.8)	518/532	96.9	(95.1, 98.7)	72/191	36.3	(28.3, 44.3)
1 non-marital sex partner	441/607	73.9	(70.2, 77.6)	53/3802	1.4	(0.9, 1.8)	7/532	1.3	(0.2, 2.3)	106/191	54.5	(46.1, 62.9)
2+ non-marital sex partners	44/607	7.0	(4.8, 9.2)	12/3802	0.3	(0.1, 0.5)	7/532	1.8	(0.5, 3.1)	13/191	9.2	(3.8, 14.6)

	Ever widowed			DK			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No non-marital sex partner	187/283	63.4	(57.3, 69.5)	–	–	–	4636/5415	85.1	(83.7, 86.6)
1 non-marital sex partner	89/283	33.6	(27.7, 39.5)	–	–	–	696/5415	13.2	(11.9, 14.6)
2+ non-marital sex partners	7/283	3.0	(0.7, 5.4)	–	–	–	83/5415	1.7	(1.3, 2.1)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 9.4f: Men aged 15-64 years reporting non-marital or non-cohabiting sexual partnership(s) in the past 12 months by marital status

	Never married/cohabited			Married-monogamous			Married-polygamous		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No non-marital/ cohabiting sex partner	54/923	5.8	(3.9, 7.7)	2400/2678	89.5	(88.0, 91.1)	178/202	88.6	(83.8, 93.4)
1 non-marital/ cohabiting sex partner	575/923	61.9	(58.2, 65.6)	181/2678	6.8	(5.7, 8.0)	20/202	9.4	(5.0, 13.8)
2+ non-marital/ cohabiting sex partners	294/923	32.3	(29.0, 35.6)	97/2678	3.6	(2.6, 4.6)	4/202	2.0	(0.0, 3.9)

	Divorced/separated			Ever widowed			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
No non-marital/ cohabiting sex partner	**39/131**	30.7	(20.9, 40.4)	148/175	82.3	(75.5, 89.0)	2819/4110	68.4	(66.4, 70.4)
1 non-marital/ cohabiting sex partner	**53/131**	39.3	(29.9, 48.8)	15/175	9.6	(4.5, 14.6)	845/4110	20.6	(18.9, 22.2)
2+ non-marital/ cohabiting sex partners	**39/131**	30.0	(20.9, 39.1)	12/175	8.2	(3.2, 13.1)	446/4110	11.1	(9.9, 12.3)

Table 9.4g: Concurrent partners in the past 12 months among sexually active women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Multiple partners - concurrent	79/5415	1.5	(1.2, 1.9)	647/4110	15.5	(13.9, 17.1)	726/9525	8.5	(7.6, 9.3)
Multiple partners - non-concurrent	62/5415	1.2	(0.8, 1.6)	176/4110	4.5	(3.8, 5.2)	238/9525	2.8	(2.4, 3.2)
Single partner	5274/5415	97.3	(96.7, 97.8)	3287/4110	80.0	(78.4, 81.7)	8561/9525	88.7	(87.8, 89.6)

Table 9.4h: Concurrent partners in the past 12 months among sexually active women and men aged 15-64 years

	Never married/cohabited			Married-monogamous			Married-polygamous		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Multiple partners - concurrent	224/1530	15.4	(13.4, 17.5)	265/6480	4.7	(4.0, 5.5)	161/734	25.7	(21.3, 30.1)
Multiple partners - non-concurrent	129/1530	9.2	(7.5, 10.8)	60/6480	1.0	(0.7, 1.3)	16/734	2.2	(1.0, 3.4)
Single partner	1177/1530	75.4	(73.0, 77.7)	6155/6480	94.3	(93.4, 95.1)	557/734	72.1	(67.5, 76.6)

	Divorced/separated			Ever widowed			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Multiple partners - concurrent	42/322	14.2	(9.4, 18.9)	34/458	7.8	(5.0, 10.6)	726/9525	8.5	(7.6, 9.3)
Multiple partners - non-concurrent	22/322	9.2	(5.2, 13.2)	11/458	2.5	(0.6, 4.4)	238/9525	2.8	(2.4, 3.2)
Single partner	258/322	76.7	(70.9, 82.4)	413/458	89.7	(86.3, 93.0)	8561/9525	88.7	(87.8, 89.6)

Table 9.4i: HIV prevalence among women and men aged 15-64 years by concurrency status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Multiple partners - concurrent	8/68	10.1	(2.5, 17.7)	41/546	7.4	(5.0, 9.8)	49/614	7.6	(5.3, 10.0)
Multiple partners - non-concurrent	6/55	7.8	(1.1, 14.4)	9/150	5.3	(1.5, 9.0)	15/205	5.8	(2.5, 9.1)
Single partner	292/4544	6.5	(5.4, 7.5)	114/2778	4.6	(3.6, 5.7)	406/7322	5.6	(4.8, 6.5)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 9.5a: Consistent condom use with sexual partner(s) in the past 12 months among women and men aged 15-64 years by partnership type

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Married/ cohabiting	178/4658	3.8	(3.1, 4.5)	159/3324	5.2	(4.1, 6.2)	337/7982	4.5	(3.8, 5.2)
Girlfriend/ boyfriend (non-cohabiting)	208/698	31.4	(27.0, 35.8)	380/847	44.7	(40.7, 48.7)	588/1545	39.4	(36.4, 42.4)
Casual/other	63/185	32.8	(24.4, 41.2)	475/1040	46.1	(41.8, 50.4)	538/1225	44.6	(40.5, 48.6)
Total	466/5600	8.6	(7.6, 9.6)	1014/5211	19.9	(18.4, 21.4)	1480/10811	14.8	(13.7, 15.8)

Table 9.5b: Consistent condom use with sexual partner(s) of unknown HIV status in the past 12 months among women and men aged 15-64 years by partnership type

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Married/ Cohabiting	59/2312	2.5	59/2312	34/1025	3.4	(2.0, 4.8)	93/3337	2.8	(2.1, 3.6)
Girlfriend/ boyfriend (non-cohabiting)	89/330	28.0	(22.4, 33.6)	235/503	45.7	(40.5, 51.0)	324/833	39.7	(35.4, 43.9)
Casual/other	40/112	35.1	(24.0, 46.2)	337/711	48.5	(43.5, 53.4)	377/823	47.0	(42.3, 51.6)
Total	193/2780	7.1	(5.9, 8.3)	606/2239	27.1	(24.6, 29.6)	799/5019	17.5	(15.9, 19.1)

Table 9.5c: Incorrect condom use among sexually-active women and men aged 15-64 years in the past 3 months

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Incorrect condom use	112/594	19.4	(15.6, 23.2)	173/836	20.3	(17.1, 23.4)	285/1430	20.0	(17.4, 22.6)
Correct condom use	453/594	75.9	(72.0, 79.9)	638/836	76.9	(73.6, 80.2)	1091/1430	76.5	(73.8, 79.3)
Don't Know	29/594	4.7	(2.9, 6.5)	25/836	2.8	(1.5, 4.2)	54/1430	3.5	(2.3, 4.6)

Table 9.5d: Incorrect condom use among sexually-active women and men aged 15-64 years in the past 3 months, by marital status

	Never married/cohabited			Married-monogamous			Married-polygamous			Divorced/separated		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Incorrect condom use	126/590	21.7	(17.7, 25.7)	106/600	17.6	(13.9, 21.2)	19/88	21.1	(13.6, 28.7)	21/82	23.4	(14.0, 32.8)
Correct condom use	444/590	75.2	(71.1, 79.3)	470/600	78.5	(74.5, 82.5)	65/88	74.8	(66.3, 83.3)	57/82	73.6	(63.7, 83.5)
Unknown	20/590	3.1	(1.7, 4.5)	24/600	4.0	(2.3, 5.6)	4/88	4.1	(0.1, 8.1)	4/82	3.0	(0.0, 6.3)

	Ever widowed			Total		
	Unweighted n/N	Weighted %	95% CI		Weighted %	95% CI
Incorrect condom use	**13/69**	21.1	(10.7, 31.5)	285/1430	20.0	(17.4, 22.6)
Correct condom use	**54/69**	76.1	(65.1, 87.0)	1091/1430	76.5	(73.8, 79.3)
DK/Unk	**2/69**	2.8	(0.0, 6.8)	54/1430	3.5	(2.3, 4.6)

Table 9.6: Ever heard of anal sex among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	2610/6977	37.3	(34.6, 40.0)	3138/4880	62.3	(58.9, 65.8)	5748/11857	49.4	(47.2, 51.5)
No	4367/6977	62.7	(60.0, 65.4)	1742/4880	37.7	(34.2, 41.1)	6109/11857	50.6	(48.5, 52.8)

Table 9.6a (1): Anal sex (ever) among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	119/6974	1.8	(1.2, 2.4)	92/4870	1.8	(1.4, 2.2)	211/11844	1.8	(1.5, 2.2)
No	6855/6974	98.2	(97.6, 98.8)	4778/4870	98.2	(97.8, 98.6)	11633/11844	98.2	(97.8, 98.5)

Table 9.6a (2): Anal sex (year) among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	38/5428	0.7	(0.4, 1.1)	24/4185	0.6	(0.3, 0.8)	62/9613	0.6	(0.4, 0.9)
No	5390/5428	99.3	(98.9, 99.6)	4161/4185	99.4	(99.2, 99.7)	9551/9613	99.4	(99.1, 99.6)

Table 9.6b: Condom at last anal sex among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	8/38	16.9	(0.0, 34.0)	6/24	*	–	14/62	18.5	(6.5, 30.6)
No	30/38	83.1	(66.0, 100)	18/24	*	–	48/62	81.5	(69.4, 93.5)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 9.6c (1): HIV prevalence among women and men aged 15–64 years who reported having heard of anal sex and reported engaging in anal sex ever

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	11/110	12.1	(5.0, 19.2)	4/79	5.3	(0.2, 10.5)	15/189	8.9	(4.6, 13.1)
No	436/5886	7.5	(6.6, 8.4)	185/4012	4.9	(4.0, 5.8)	621/9898	6.3	(5.5, 7.0)
Total	447/5999	7.6	(6.7, 8.5)	189/4099	4.9	(4.0, 5.8)	636/10098	6.3	(5.5, 7.1)

Table 9.6c (2): HIV prevalence among women and men aged 15–64 years who reported having heard of anal sex and reported engaging in anal sex in the past 12 months

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	3/33	13.2	(0.0, 28.3)	3/19	*	–	6/52	15.3	(3.1, 27.6)
No	452/6757	6.8	(6.0, 7.7)	190/4817	4.3	(3.5, 5.1)	642/11574	5.6	(4.9, 6.3)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Table 9.7 (text): Ever heard of men who have sex with men among men aged 15-64 years

	Frequencies		
	Unweighted n/N	Weighted %	95 % CI
Yes	3979/4878	82.5	(80.5, 84.5)
No	899/4878	17.5	(15.5, 19.5)

Table 9.7a (1): Men aged 15-64 years who reported ever having sex with a man

	Total		
	Unweighted n/N	Weighted %	95% CI
Yes	27/4870	0.6	(0.3, 0.9)
No	4843/4870	99.4	(99.1, 99.7)

Table 9.7a (2): Men aged 15-64 years who reported having sex with a man in the past 12 months

	Total		
	Unweighted n/N	Weighted %	95% CI
Yes	5/4870	0.1	(0.0, 0.2)
No	4865/4870	99.9	(99.8, 100)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 9.8a: Women and men aged 15-64 years who reported ever giving or ever receiving money, gifts, or favours in exchange for sex

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Received money, gifts, favours	302/6979	4.4	(3.8, 5.1)	146/4884	3.1	(2.4, 3.7)	448/11863	3.8	(3.3, 4.2)
Given money, gifts, favours	17/6979	0.3	(0.1, 0.4)	805/4884	17.4	(15.5, 19.4)	822/11863	8.6	(7.6, 9.5)
Received or given money, gifts, favours	306/6979	4.5	(3.8, 5.2)	857/4884	18.5	(16.6, 20.4)	1163/11863	11.3	(10.3, 12.2)
Total	625/20937	3.1	(2.6, 3.5)	1808/14652	13.0	(11.7, 14.4)	2433/35589	7.9	(7.2, 8.6)

Table 9.8b: Women and men aged 15-64 years who reported giving or receiving money, gifts, or favours in exchange for sex in past 12 months

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Received money, gifts, favours	83/6979	1.3	(0.9, 1.6)	39/4884	0.8	(0.5, 1.0)	122/11863	1.0	(0.8, 1.3)
Given money, gifts, favours	6/6979	0.1	(0.0, 0.2)	230/4884	4.9	(4.1, 5.8)	236/11863	2.4	(2.0, 2.9)
Received or given money, gifts, favours	84/6979	1.3	(0.9, 1.6)	244/4884	5.2	(4.3, 6.1)	328/11863	3.2	(2.7, 3.7)

Table 9.8c: Condom use at last transactional sex, among women and men aged 15-64 years who gave or received money, gifts or favours in exchange for sex in past 12 months

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	40/84	47.4	(36.6, 58.1)	160/244	65.3	(58.6, 72.0)	200/328	61.5	(55.5, 67.6)
No	44/84	52.6	(41.9, 63.4)	84/244	34.7	(28.0, 41.4)	128/328	38.5	(32.4, 44.5)

Table 9.8d: HIV prevalence among women and men aged 15–64 years who ever had sex, by lifetime history of transactional sex

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	28/264	10.7	(6.3, 15.1)	49/727	6.6	(4.5, 8.7)	77/991	7.4	(5.5, 9.3)
No	419/5735	7.5	(6.5, 8.4)	140/3372	4.5	(3.6, 5.5)	559/9107	6.2	(5.4, 7.0)
Total	447/5999	7.6	(6.7, 8.5)	189/4099	4.9	(4.0, 5.8)	636/10098	6.3	(5.5, 7.1)

Table 9.9a: Non-prescription drug use in the past 12 months among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Non-prescription drug use	497/7932	4.9	(4.1, 5.8)	1685/5747	28.1	(25.6, 30.5)	2182/13679	16.3	(14.8, 17.8)
No non-prescription drug use	7435/7932	95.1	(94.2, 95.9)	4062/5747	71.9	(69.5, 74.4)	11497/13679	83.7	(82.2, 85.2)

Table 9.9b: Types of non-prescription drugs used in the past 12 months among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Khat/miraa	225/7932	2.3	(1.7, 2.9)	989/5747	15.7	(13.7, 17.6)	1214/13679	8.8	(7.7, 10.0)
Glue, petrol/ gundi	29/7932	0.3	(0.1, 0.5)	20/5747	0.4	(0.2, 0.5)	49/13679	0.3	(0.2, 0.5)
Bhangi/bangi	41/7932	0.5	(0.3, 0.7)	301/5747	5.3	(4.5, 6.1)	342/13679	2.8	(2.4, 3.3)
Mandrax	22/7932	0.3	(0.1, 0.4)	8/5747	0.1	(0.0, 0.3)	30/13679	0.2	(0.1, 0.3)
Cocaine	24/7932	0.3	(0.1, 0.5)	9/5747	0.2	(0.1, 0.3)	33/13679	0.2	(0.1, 0.3)
Heroin	23/7932	0.3	(0.1, 0.5)	5/5747	0.1	(0.0, 0.3)	28/13679	0.2	(0.1, 0.3)
Kuber	86/7932	0.7	(0.4, 0.9)	212/5747	2.6	(2.1, 3.2)	298/13679	1.6	(1.3, 1.9)
Other	244/7932	2.6	(1.9, 3.2)	783/5747	14.9	(12.5, 17.2)	1027/13679	8.6	(7.3, 9.9)
Total	694/63456	0.9	(0.7, 1.1)	2327/45976	4.9	(4.4, 5.4)	3021/109E3	2.9	(2.6, 3.2)

Table 10.3: Married and cohabiting couples tested in KAIS

	All	
	Unweighted n/N	Weighted %
Both tested	2032/4226	48.0
Only one tested	1473/4226	34.9
Not tested	721/4226	17.1

Table 10.3a: Households included in couples dataset

	Unweighted N	Uweighted %
Total eligible households	9189	100.0
Households with a married or cohabiting couple	4226/9189	46.0
Both head of household and partner completed interview	2522/9189	27.4
Both Head of household and partner completed testing	2032/9189	22.1

Table 10.4a (1): HIV-concordance and discordance among couples aged 15-64 years

	Couples		
	Unweighted n/N	Weighted %	95% CI
Concordant couple HIV+	65/2032	3.2	(2.2, 4.1)
Concordant couple HIV-	1870/2032	92.0	(90.3, 93.7)
Discordant couple	97/2032	4.8	(3.6, 6.1)

Table 10.4a (2): Discordance among couples aged 15-64 years

	Discordant Couples		
	Unweighted n/N	Weighted %	95% CI
Discordant couple, male HIV+	44/97	50.5	(39.2, 61.8)
Discordant couple, female HIV+	53/97	49.5	(38.2, 60.8)

Table 10.4b: HIV status of couples by residence

	Concordant HIV+ couple			Concordant HIV- couple			Discordant couple, male HIV+		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	43/65	66.1	(50.6, 81.6)	1278/1870	63.6	(59.8, 67.3)	21/44	42.8	(26.3, 59.3)
Urban	22/65	33.9	(18.4, 49.4)	592/1870	36.4	(32.7, 40.2)	23/44	57.2	(40.7, 73.7)

	Discordant couple, female HIV+			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	30/53	48.9	(32.0, 65.9)	1372/2032	62.8	(59.0, 66.5)
Urban	23/53	51.1	(34.1, 68.0)	660/2032	37.2	(33.5, 41.0)

Table 10.4c: HIV status of couples by region

	Concordant HIV+ couple			Concordant HIV- couple			Discordant couple male HIV+		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	3/65	5.3	(0.0, 11.2)	173/1870	10.3	(8.4, 12.1)	10/44	20.5	(9.1, 32.0)
Central	4/65	5.8	(0.0, 11.7)	245/1870	13.4	(10.4, 16.4)	2/44	5.1	(0.0, 12.2)
Coast	3/65	2.6	(0.0, 5.9)	235/1870	8.8	(7.0, 10.5)	3/44	3.2	(0.0, 7.3)
Eastern North	3/65	0.6	(0.0, 1.2)	166/1870	1.1	(0.8, 1.4)	0/44	.	(., .)
Eastern South	3/65	7.2	(0.0, 14.8)	194/1870	14.8	(11.9, 17.6)	4/44	15.5	(1.3, 29.6)
Nyanza	39/65	55.9	(40.2, 71.6)	254/1870	11.4	(9.2, 13.6)	19/44	34.3	(18.9, 49.7)
Rift Valley North	1/65	2.5	(0.0, 7.2)	193/1870	13.6	(11.2, 15.9)	1/44	3.5	(0.0, 10.2)
Rift Valley South	4/65	11.9	(0.0, 24.9)	179/1870	15.8	(12.5, 19.1)	2/44	12.3	(0.0, 27.1)
Western	5/65	8.3	(1.0, 15.6)	231/1870	10.9	(9.2, 12.6)	3/44	5.6	(0.0, 12.6)

	Discordant couple female HIV+			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	5/53	10.7	(1.8, 19.6)	191/2032	10.4	(8.5, 12.3)
Central	8/53	13.1	(3.7, 22.5)	259/2032	13.0	(10.1, 15.8)
Coast	9/53	12.8	(4.3, 21.4)	250/2032	8.5	(6.8, 10.3)
Eastern North	3/53	0.5	(0.0, 1.2)	172/2032	1.1	(0.8, 1.3)
Eastern South	2/53	6.6	(0.0, 15.5)	203/2032	14.4	(11.4, 17.3)
Nyanza	16/53	31.1	(13.6, 48.7)	328/2032	13.8	(11.5, 16.1)
Rift Valley North	1/53	2.6	(0.0, 7.7)	196/2032	12.7	(10.5, 15.0)
Rift Valley South	3/53	11.8	(0.0, 24.5)	188/2032	15.5	(12.1, 18.9)
Western	6/53	10.6	(2.8, 18.5)	245/2032	10.6	(8.9, 12.3)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 10.4d: Women and men aged 15-64 years that have ever been tested for HIV by status of couple

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Concordant HIV+ couple	59/65	92.8	(86.2, 99.5)	54/65	83.3	(73.2, 93.4)	113/130	88.1	(81.4, 94.7)
Concordant HIV- couple	1536/1870	82.4	(79.6, 85.2)	1189/1870	63.9	(60.9, 66.8)	2725/3740	73.2	(70.8, 75.5)
Discordant couple male HIV+	41/44	96.8	(92.8, 100)	35/44	76.4	(61.3, 91.5)	76/88	86.6	(78.7, 94.5)
Discordant couple female HIV+	49/53	91.7	(82.4, 100)	45/53	83.7	(72.2, 95.2)	94/106	87.7	(81.3, 94.1)
Total	1685/2032	83.3	(80.7, 86.0)	1323/2032	65.3	(62.4, 68.1)	3008/4064	74.3	(72.0, 76.6)

Table 10.4e: Accurate knowledge of partner's HIV status among adults and adolescents aged 15-64 years in a couple's relationship

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Concordant HIV+ couple	41/61	68.4	(56.3, 80.5)	41/59	70.7	(57.4, 83.9)	82/120	69.5	(59.9, 79.1)
Concordant HIV- couple	1121/1642	67.3	(63.9, 70.7)	847/1692	50.5	(47.6, 53.4)	1968/3334	58.7	(56.1, 61.2)
Discordant couple male HIV+	29/38	72.6	(55.2, 90.0)	23/39	49.7	(32.0, 67.3)	52/77	60.3	(46.4, 74.2)
Discordant couple female HIV+	38/46	81.5	(69.2, 93.7)	29/48	58.4	(42.7, 74.1)	67/94	69.3	(58.8, 79.7)
Total	1229/1787	67.8	(64.6, 71.0)	940/1838	51.3	(48.4, 54.2)	2169/3625	59.3	(56.9, 61.7)

Table 10.4f: Women and men aged 15-64 years in a couple's relationship that report consistent condom use by HIV status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Concordant HIV+ couple	22/61	39.6	(25.0, 54.3)	24/59	36.9	(23.4, 50.4)	46/120	38.3	(27.6, 49.0)
Concordant HIV- couple	35/1639	2.5	(1.5, 3.4)	31/1680	1.7	(1.0, 2.4)	66/3319	2.1	(1.4, 2.7)
Discordant couple male HIV+	6/37	19.0	(5.0, 33.0)	7/39	19.5	(4.3, 34.8)	13/76	19.3	(7.3, 31.3)
Discordant couple female HIV+	10/45	25.5	(13.0, 38.1)	9/48	21.1	(9.3, 32.9)	19/93	23.2	(13.0, 33.4)
Total	73/1782	4.6	(3.4, 5.9)	71/1826	3.7	(2.7, 4.7)	144/3608	4.1	(3.2, 5.1)

Table 10.4g: Consistent condom use among women and men aged 15-64 years in a couple's relationship who were aware of partner status, by HIV status*

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Concordant HIV+ couple	18/41	48.8	(32.4, 65.3)	21/41	46.7	(30.7, 62.6)	39/82	47.8	(37.3, 58.2)
Concordant HIV- couple	23/1118	2.5	(1.4, 3.6)	16/842	1.7	(0.8, 2.6)	39/1960	2.1	(1.3, 2.9)
Discordant couple male HIV+	5/28	22.3	(5.0, 39.6)	5/23	*	–	10/51	21.3	(7.4, 35.2)
Discordant couple female HIV+	9/37	29.4	(14.2, 44.5)	7/29	28.1	(11.4, 44.8)	16/66	28.8	(15.6, 41.9)
Total	55/1224	5.3	(3.6, 6.9)	49/935	4.8	(3.3, 6.3)	104/2159	5.1	(3.7, 6.4)

Table 10.4h: Circumcision status of the male partner within couples by HIV status

	Couples		
	Unweighted n/N	Weighted %	95% CI
Concordant HIV+ couple	34/65	55.0	(41.6, 68.4)
Concordant HIV- couple	1749/1866	94.2	(92.6, 95.8)
Discordant couple male HIV+	31/44	71.2	(54.7, 87.7)
Discordant couple female HIV+	46/53	84.9	(74.1, 95.8)
Total	1981/2163	92.1	(90.0, 94.1)

Table 10.4i: Acceptance of vaginal microbicide among women and men aged 15-64 years in HIV discordant relationships, by HIV status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Discordant couple male HIV+	30/43	65.2	(47.2, 83.1)	28/44	69.6	(53.3, 85.9)	58/87	67.4	(56.7, 78.2)
Discordant couple female HIV+	30/53	59.6	(44.7, 74.4)	32/53	56.7	(40.9, 72.4)	62/106	58.1	(47.7, 68.6)
Total	60/96	62.4	(51.7, 73.0)	60/97	63.2	(53.1, 73.3)	120/193	62.8	(55.9, 69.7)

* Weighted estimates are not shown due to small denominators (<25 observations).

Table 10.4j: Acceptance of oral PrEP among women and men aged 15-64 years in HIV discordant relationships, by HIV status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Discordant couple male HIV+	30/43	65.8	(47.9, 83.6)	32/44	76.8	(62.0, 91.6)	62/87	71.4	(61.8, 80.9)
Discordant couple female HIV+	30/53	53.6	(38.2, 68.9)	31/53	56.7	(41.2, 72.1)	61/106	55.1	(43.0, 67.3)
Total	60/96	59.7	(47.8, 71.5)	63/97	66.8	(57.0, 76.7)	123/193	63.3	(55.5, 71.0)

Table 10.4k: ART usage by the HIV-infected partner within a discordant couple**

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Aware, Currently taking ART	13/53	27.6	(14.5, 40.8)	9/44	20.9	(4.7, 37.0)	22/97	24.2	(13.4, 35.0)
Aware, Not taking ART	10/53	18.8	(7.2, 30.4)	4/44	8.5	(0.4, 16.5)	14/97	13.6	(6.9, 20.2)
Unaware	30/53	53.6	(38.7, 68.5)	31/44	70.7	(54.2, 87.1)	61/97	62.2	(50.1, 74.4)

**All HIV-infected individuals in discordant relationships are eligible for ART, regardless of CD4 count.

Table 10.4l: Viral load suppression among HIV-infected women and men aged 15-64 years in HIV discordant relationships

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Not suppressed	22/51	35.0	(22.3, 47.8)	22/41	52.6	(35.0, 70.3)	44/92	43.7	(31.9, 55.5)
Suppressed	29/51	65.0	(52.2, 77.7)	19/41	47.4	(29.7, 65.0)	48/92	56.3	(44.5, 68.1)

Table 11.3a: Antenatal clinic attendance at last pregnancy among women aged 15-54 years with a live birth in the past five years by birth year

	All		
	Unweighted n/N	Weighted %	95% CI
2008	371/397	93.4	(90.3, 96.6)
2009	464/490	96.1	(94.4, 97.9)
2010	645/679	96.3	(94.7, 98.0)
2011	779/818	95.8	(93.9, 97.6)
2012/13	856/907	94.8	(92.7, 96.9)
Unknown	17/19	*	–
Total	3132/3310	95.4	(94.3, 96.4)

Table 11.3b: Antenatal clinic attendance among women with a live birth in the past five years by NASCOP region

	All		
	Unweighted n/N	Weighted %	95 % CI
Nairobi	342/346	99.1	(98.2, 100)
Central	292/300	98.3	(97.0, 99.6)
Nyanza	440/455	96.8	(95.2, 98.3)
Rift Valley North	316/341	93.0	(88.0, 97.9)
Rift Valley South	302/330	92.6	(89.2, 96.0)
Eastern North	317/365	89.0	(83.0, 95.1)
Eastern South	313/331	95.0	(91.5, 98.6)
Western	412/426	96.2	(94.2, 98.1)
Coast	398/416	94.4	(92.7, 96.2)
Total	3132/3310	95.4	(94.3, 96.4)

Table 11.3c: Main reason for not attending an antenatal clinic at last pregnancy among women aged 15-54 years with a live birth in the past five years

	All		
	Unweighted n/N	Weighted %	95% CI
Clinic too far	71/178	32.5	(21.2, 43.9)
Too busy	16/178	8.8	(2.7, 14.8)
I couldn't afford	18/178	13.4	(7.5, 19.2)
I knew what I need	16/178	10.3	(3.8, 16.8)
I relied on others	3/178	1.0	(0.0, 2.5)
My culture didn't allow	4/178	2.1	(0.0, 4.5)
Another reason	31/178	17.3	(10.7, 23.9)
Traditional birth attendant	15/178	10.9	(4.8, 17.0)
I was afraid to go	4/178	3.7	(0.0, 7.5)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 11.3d: Number of times visiting an antenatal clinic during last pregnancy among women aged 15-54 years with a live birth in the past five years

	All		
	Unweighted n/N	Weighted %	95% CI
1-3 visits	1123/3132	37.1	(34.4, 39.8)
4 or more visits	1969/3132	61.7	(59.0, 64.5)
Don't know	40/3132	1.2	(0.7, 1.7)

Table 11.3e: Timing of first antenatal clinic visit during last pregnancy among women aged 15-54 years with a live birth in the past five years

	All		
	Unweighted n/N	Weighted %	95% CI
0-3 months	623/3132	19.0	(17.2, 20.8)
4-6 months	2061/3132	66.0	(63.9, 68.1)
7-9 months	415/3132	13.9	(12.3, 15.5)
Don't know	33/3132	1.1	(0.7, 1.6)

Table 11.3f: Type of ANC facility visited during last pregnancy among women aged 15-54 years with a live birth in the past five years and at least one antenatal clinic visit

	All		
	Unweighted n/N	Weighted %	95% CI
Public	2717/3190	85.9	(83.7, 88.1)
Private	199/3190	6.3	(5.1, 7.5)
Faith-based	247/3190	7.4	(5.7, 9.0)
Other type	27/3190	0.5	(0.2, 0.8)

Table 11.3g: Knowledge of modes of mother-to-child transmission on HIV among women aged 15-54 years with a live birth in the past five years

	Attended ANC			Did not attend ANC			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Pregnancy	1849/3132	59.2	(56.9, 61.6)	107/178	62.1	(51.9, 72.2)	1956/3310	59.4	(57.0, 61.7)
Delivery	2524/3132	81.8	(79.9, 83.6)	121/178	74.1	(64.9, 83.3)	2645/3310	81.4	(79.6, 83.2)
Breastfeeding	2795/3132	89.1	(87.7, 90.6)	140/178	83.8	(77.3, 90.2)	2935/3310	88.9	(87.4, 90.3)
Total	7168/9396	76.7	(75.3, 78.1)	368/534	73.3	(66.2, 80.4)	7536/9930	76.5	(75.1, 78.0)

Table 11.3h: Knowledge of antiretroviral therapy for PMTCT among women who gave birth by ANC attendance

	Attended ANC			Did not attend ANC			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Knows PMTCT	2230/3132	71.7	(69.2, 74.3)	82/178	49.3	(38.6, 60.1)	2312/3310	70.7	(68.1, 73.3)
Knows ART	2735/3132	87.3	(85.6, 89.1)	121/178	70.5	(61.3, 79.6)	2856/3310	86.5	(84.7, 88.4)
Total	4965/6264	79.5	(77.7, 81.4)	203/356	59.9	(51.5, 68.3)	5168/6620	78.6	(76.6, 80.6)

Table 11.3i: Counselling experience among women aged 15–54 years who attended an antenatal clinic

	Total		
	Unweighted n/N	Weighted %	95% CI
Counselled on MTCT	2393/3132	76.8	(74.3, 79.4)
Counselled on prevention	2381/3132	76.5	(74.0, 79.0)
Counselled on HIV testing	2836/3132	90.1	(87.9, 92.4)
Counselled on syphilis screening	1526/3132	47.2	(44.5, 49.9)
Counselled on family planning	2341/3132	75.4	(72.8, 78.0)
Total	11477/15660	73.2	(71.2, 75.2)

Table 11.4a: Uptake of HIV testing at antenatal clinic during last pregnancy among women aged 15-54 years with a live birth in the past five years by year of last live birth, KAIS 2012

	2008			2009			2010			2011		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Tested at ANC	331/371	89.2	(85.9, 92.5)	441/464	94.5	(91.3, 97.6)	599/645	91.9	(88.0, 95.8)	731/779	94.4	(92.3, 96.5)
Offered, not tested	7/371	2.1	(0.5, 3.8)	6/464	1.7	(0.2, 3.1)	10/645	1.8	(0.6, 2.9)	12/779	1.6	(0.6, 2.6)
Not offered	33/371	8.7	(5.7, 11.7)	17/464	3.9	(1.0, 6.8)	36/645	6.4	(2.6, 10.1)	36/779	4.0	(2.0, 5.9)

	2012			Unknown			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Tested at ANC	811/856	94.4	(92.4, 96.4)	11/17	69.6	(45.4, 93.7)	2924/3132	93.1	(91.5, 94.7)
Offered, not tested	10/856	1.3	(0.3, 2.2)	0/17	*	–	45/3132	1.6	(1.1, 2.1)
Not offered	35/856	4.4	(2.6, 6.1)	6/17	*	–	163/3132	5.3	(3.8, 6.9)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 11.4b: Contribution of HIV testing at antenatal clinics among women aged 15-49 years who ever received an HIV test

	Yes		
	Unweighted n/N	Weighted %	95% CI
Tested at ANC	3107/5553	55.1	(53.3, 56.9)
Tested elsewhere	2446/5553	44.9	(43.1, 46.7)

Table 11.4c: Time of diagnosis relative to last pregnancy among self-reported HIV-infected women aged 15-54 years who had a live birth in the past 5 years

	Yes		
	Unweighted n/N	Weighted %	95% CI
Self-reported positive/ dxed before last pregnancy	40/102	38.0	(28.2, 47.8)
Self-reported positive/ dxed at time of last pregnancy	46/102	45.7	(36.7, 54.7)
Self-reported positive/ dxed after last pregnancy	16/102	16.3	(8.5, 24.1)
Total	102/102	100	–

Table 11.4d: Uptake of maternal PMTCT prophylaxis among self-reported HIV positive women aged 15-54 years whose last birth was between 2008 and 2012

	All		
	Unweighted n/N	Weighted %	95% CI
Mother received during pregnancy	58/84	71.2	(60.2, 82.2)
Mother received during delivery	54/84	67.1	(55.1, 79.2)
Mother received while breastfeeding†	58/74	82.6	(73.3, 91.9)
Mother received any form of maternal PMTCT	72/84	86.9	(79.0, 94.8)
Total	242/326	76.8	(68.1, 85.6)

†Among those who reported breastfeeding.

Table 11.4e: Uptake of PMTCT prophylaxis among infants of self-reported HIV positive women aged 15-54 years whose most last birth was between 2008 and 2012

	All		
	Unweighted n/N	Weighted %	95% CI
Infant received at birth	59/84	72.9	(62.6, 83.1)
Infant received during breastfeeding†	53/74	76.1	(65.1, 87.1)
Infant received any propylaxis	69/84	84.4	(76.3, 92.5)
Total	181/242	77.8	(69.5, 86.1)

†Among those who reported breastfeeding.

Table 11.5a: Breastfeeding practices at the most recent live birth among All women aged 15-64 years who reported a live birth in the past five years

	All		
	Unweighted n/N	Weighted %	95% CI
Yes	3234/3310	98.0	(97.5, 98.6)
No	76/3310	2.0	(1.4, 2.5)

Table 11.5b: Breastfeeding practices at the most recent live birth among HIV-infected women aged 15-54 years who reported a live birth in the past five years

	All		
	Unweighted n/N	Weighted %	95% CI
Yes	160/171	95.2	(91.8, 98.6)
No	11/171	4.8	(1.4, 8.2)

Table 11.5c (1): Maternal prophylaxis during breastfeeding among HIV infected women 15-54 years

	All		
	Unweighted n/N	Weighted %	95% CI
Yes	49/160	35.1	(24.8, 45.3)
No	111/160	64.9	(54.7, 75.2)

Table 11.5c (2): Mother received maternal prophylaxis during breastfeeding among HIV infected women 15-54 years who were aware of their infection

	All		
	Unweighted n/N	Weighted %	95% CI
Yes	49/61	84.6	(75.0, 94.3)
No	12/61	15.4	(5.7, 25.0)

Table 11.5d (1): Child received prophylaxis during breastfeeding among HIV infected women 15-54 years

	All		
	Unweighted n/N	Weighted %	95 % CI
Yes	47/160	33.9	(25.2, 42.7)
No	113/160	66.1	(57.3, 74.8)

Table 11.5d (2): Child received prophylaxis during breastfeeding among HIV infected women 15-54 years who were aware of their infection

	All		
	Unweighted n/N	Weighted %	95% CI
Yes	47/61	81.9	(70.2, 93.7)
No	14/61	18.1	(6.3, 29.8)

Table 11.6a: ANC attendance among currently pregnant women aged 15-49 years by gestation age

	All		
	Unweighted n/N	Weighted %	95% CI
Attended 0-3 months	9/107	10.0	(3.6, 16.3)
Attended 4-6 months	76/178	38.7	(30.5, 46.8)
Attended 7-9 months	135/152	90.1	(83.7, 96.4)
Total	220/437	49.1	(43.3, 55.0)

Table 11.7: HIV prevalence among currently pregnant women, 15-49 years

	Weighted %	2012 Estimated population[1,2] (women and men aged 15-64 years)	95 % CI
Positive	6.5	38000	(19000, 57000)
Negative	93.5	544000	(466000, 623000)

Table 11.7a: Acceptance of HIV testing at antenatal clinic among currently pregnant women aged 15-49 years

	Yes		
	Unweighted n/N	Weighted %	95% CI
Tested for HIV	197/220	90.7	(85.3, 96.0)
Did not test for HIV	23/220	9.3	(4.0, 14.7)

Table 11.8(1): Knowledge of partner's HIV status among HIV-uninfected women aged 15–49 years who were currently pregnant

	Yes		
	Unweighted n/N	Weighted %	95% CI
Does not know status of partner	144/324	42.2	(35.7, 48.8)
Reports partner HIV-infected	4/324	1.3	(0.0, 2.6)
Reports partner HIV-uninfected	176/324	56.5	(49.8, 63.1)

Table 11.8(2): Knowledge of partner's HIV status among HIV-uninfected women aged 15–49 years who were breastfeeding

	Yes		
	Unweighted n/N	Weighted %	95% CI
Does not know status of partner	567/1190	48.1	(44.0, 52.2)
Reports partner HIV-infected	3/1190	0.2	(0.0, 0.5)
Reports partner HIV-uninfected	620/1190	51.7	(47.6, 55.7)

[1] The 2012 national estimated population for adults and adolescents aged 15-64 years was calculated using un-normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010).
[2] Estimates rounded to the nearest 1000.

Table 11.9a: Desire for a child in the future among married or cohabiting women aged 15-49 years

	All		
	Unweighted n/N	Weighted %	95% CI
Want another child within 2 years	628/4314	13.2	(11.9, 14.5)
Want another child, not within 2 years	925/4314	20.3	(18.6, 22.0)
Want another child, uncertain when	236/4314	5.1	(4.3, 5.9)
Unsure if want another child	346/4314	8.3	(7.2, 9.4)
Do not want another child	2179/4314	53.0	(50.8, 55.2)

Table 11.9b: Desire for a child in the future among married or cohabiting women aged 15-49 years by self-reported HIV status

	Reported positive			Reported negative			Never tested			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Want another child within 2 years	9/132	5.2	(1.1, 9.4)	555/3659	14.0	(12.5, 15.5)	64/523	9.9	(7.0, 12.8)	628/4314	13.2	(11.9, 14.5)
Want another child, not within 2 years	13/132	8.3	(3.7, 13.0)	853/3659	22.5	(20.6, 24.3)	59/523	8.3	(4.9, 11.7)	925/4314	20.3	(18.6, 22.0)
Want another child, uncertain when	5/132	3.0	(0.1, 6.0)	191/3659	5.0	(4.2, 5.8)	40/523	6.6	(4.1, 9.2)	236/4314	5.1	(4.3, 5.9)
Unsure if want another child	6/132	4.3	(0.8, 7.9)	306/3659	8.8	(7.5, 10.0)	34/523	6.1	(3.9, 8.3)	346/4314	8.3	(7.2, 9.4)
Do not want another child	99/132	79.1	(72.6, 85.6)	1754/3659	49.8	(47.5, 52.0)	326/523	69.0	(63.3, 74.8)	2179/4314	53.0	(50.8, 55.2)

Table 11.9c: Contraceptive use among women in marital or cohabiting relationships aged 15-49 years not wanting a child ever in the future or wanting a child but not in the next two years

	All		
	Unweighted n/N	Weighted %	95% CI
Using a modern contraception	1798/3104	60.8	(58.5, 63.2)
Traditional contraception	102/3104	3.2	(2.4, 4.0)
Not using a contraception	1204/3104	36.0	(33.6, 38.3)

Table 11.9d: Contraceptive use among women in marital or cohabiting relationships aged 15-49 years not wanting a child ever in the future or wanting a child but not in the next two years, by self-reported HIV status

	Reported positive			Reported negative			Never tested			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Using a modern contraception	67/112	62.0	(52.1, 71.9)	1572/2607	62.9	(60.6, 65.2)	159/385	46.5	(38.4, 54.6)	1798/3104	60.8	(58.5, 63.2)
Traditional contraception	0/112	–	–	88/2607	3.1	(2.3, 3.9)	14/385	5.1	(1.9, 8.2)	102/3104	3.2	(2.4, 4.0)
Not using a contraception	45/112	38.0	(28.1, 47.9)	947/2607	34.0	(31.8, 36.2)	212/385	48.4	(39.7, 57.2)	1204/3104	36.0	(33.6, 38.3)

Table 12.3: Population size estimate of children aged 18 months to 14 years infected with HIV[1,2]

	Estimated pop size	Weighted %	95% CI
Female	62,000	61.5	(25,000, 98,000)
Male	39,000	38.5	(15,000, 62,000)
Total	101,000	100	(53,000, 147,000)

Table 12.3a: HIV prevalence among children aged 18 months to 14 years by sex

	Unweighted n/N	Weighted %	95% CI
Female	14/1863	1.1	(0.4, 1.7)
Male	14/1818	0.7	(0.3, 1.1)
Total	28/3681	0.9	(0.5, 1.3)

Table 12.3b: HIV prevalence among children aged 18 months to 14 years by age group

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
18 months to <5 years	5/410	2.3	(0.3, 4.4)	4/441	0.9	(0.0, 1.8)	9/851	1.6	(0.5, 2.7)
5 to 9 years	5/709	0.9	(0.0, 1.9)	5/641	0.6	(0.0, 1.2)	10/1350	0.8	(0.1, 1.4)
10 to 14 years	4/744	0.5	(0.0, 1.0)	5/736	0.6	(0.0, 1.2)	9/1480	0.6	(0.2, 0.9)
Total	14/1863	1.1	(0.4, 1.7)	14/1818	0.7	(0.3, 1.1)	28/3681	0.9	(0.5, 1.3)

Table 12.3c: HIV prevalence among children aged 18 months to 14 years by residence

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	10/1399	1.1	(0.4, 1.8)	11/1374	0.7	(0.2, 1.2)	21/2773	0.9	(0.4, 1.4)
Urban	4/464	1.0	(0.0, 2.3)	3/444	0.5	(0.0, 1.2)	7/908	0.8	(0.1, 1.5)
Total	14/1863	1.1	(0.4, 1.7)	14/1818	0.7	(0.3, 1.1)	28/3681	0.9	(0.5, 1.3)

Table 12.4a: Ever been tested for HIV among children aged 18 months to 14 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Ever tested for HIV	387/2318	16.9	(14.2, 19.7)	355/2307	15.9	(13.0, 18.7)	742/4625	16.4	(13.9, 18.9)
Never tested for HIV	1931/2318	83.1	(80.3, 85.8)	1952/2307	84.1	(81.3, 87.0)	3883/4625	83.6	(81.1, 86.1)

[1] The 2012 national estimated population for adults and adolescents aged 15–64 years was calculated using un–normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

Table 12.4b: Ever been tested for HIV among children aged 18 months to 14 years by age group

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
18 months to <5 years	110/646	18.2	(13.9, 22.4)	108/658	17.0	(12.8, 21.2)	218/1304	17.6	(14.2, 21.0)
5 to 9 years	168/966	17.1	(13.8, 20.5)	132/889	15.4	(12.2, 18.5)	300/1855	16.3	(13.7, 18.8)
10 to 14 years	109/706	15.6	(11.6, 19.6)	115/760	15.5	(11.3, 19.7)	224/1466	15.6	(11.8, 19.3)
Total	387/2318	16.9	(14.2, 19.7)	355/2307	15.9	(13.0, 18.7)	742/4625	16.4	(13.9, 18.9)

Table 12.4c: Ever been tested for HIV among children aged 18 months to 14 years by region

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	40/178	24.4	(16.2, 32.5)	40/150	27.9	(19.7, 36.1)	80/328	26.0	(18.9, 33.1)
Central	29/189	14.5	(8.4, 20.7)	35/188	20.7	(13.2, 28.2)	64/377	17.6	(11.9, 23.3)
Coast	41/325	12.0	(6.8, 17.2)	35/288	13.1	(6.3, 19.8)	76/613	12.5	(7.2, 17.8)
Eastern North	50/307	17.3	(8.6, 26.0)	44/318	13.4	(5.5, 21.3)	94/625	15.3	(7.4, 23.2)
Eastern South	43/251	16.9	(10.7, 23.1)	33/268	12.4	(7.1, 17.7)	76/519	14.6	(9.6, 19.6)
Nyanza	92/294	32.4	(24.7, 40.1)	80/327	24.1	(16.9, 31.3)	172/621	28.1	(21.4, 34.7)
Rift Valley North	18/203	9.2	(4.0, 14.5)	14/208	7.3	(2.5, 12.1)	32/411	8.3	(3.8, 12.7)
Rift Valley South	25/196	14.1	(3.9, 24.3)	27/212	14.6	(3.3, 25.9)	52/408	14.4	(4.2, 24.5)
Western	49/375	12.3	(6.7, 17.9)	47/348	13.8	(7.5, 20.2)	96/723	13.0	(7.7, 18.4)
Total	387/2318	16.9	(14.2, 19.7)	355/2307	15.9	(13.0, 18.7)	742/4625	16.4	(13.9, 18.9)

Table 12.4d: Ever been tested for HIV among children aged 18 months to 14 years who have an HIV–infected parent

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Ever tested for HIV	71/157	48.5	(37.0, 60.0)	56/151	41.7	(31.6, 51.9)	127/308	45.4	(36.0, 54.9)
Never tested for HIV	86/157	51.5	(40.0, 63.0)	95/151	58.3	(48.1, 68.4)	181/308	54.6	(45.1, 64.0)

Table 12.4d (1): Ever been tested for HIV among children aged 18 months to 14 years who have an HIV–infected parent by age group

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
18 months to <5 years	20/38	60.6	(43.9, 77.2)	18/43	47.5	(33.8, 61.1)	38/81	54.1	(41.8, 66.4)
5 to 9 years	32/71	46.7	(31.0, 62.4)	24/55	51.5	(37.7, 65.4)	56/126	48.6	(37.1, 60.0)
10 to 14 years	19/48	40.8	(23.8, 57.7)	14/53	28.2	(12.4, 44.0)	33/101	34.4	(20.4, 48.5)
Total	71/157	48.5	(37.0, 60.0)	56/151	41.7	(31.6, 51.9)	127/308	45.4	(36.0, 54.9)

Table 12.5a: Male circumcision among males aged 18 months to 14 years by age group

	Unweighted n/N	Weighted %	95% CI
18 months to <5 years	36/668	4.5	(2.7, 6.3)
5 to 9 years	194/903	17.2	(13.8, 20.7)
10 to 14 years	367/773	41.1	(35.5, 46.6)
Total	597/2344	21.8	(18.8, 24.7)

Table 12.5b: Male circumcision among males aged 18 months to 14 years by residence

	Rural		
	Unweighted n/N	Weighted %	95% CI
Rural	412/1726	20.7	(17.4, 24.1)
Urban	185/618	24.8	(19.0, 30.6)
Total	597/2344	21.8	(18.8, 24.7)

Table 12.5c: Male circumcision among male children aged 18 months to 14 years by region

	Unweighted n/N	Weighted %	95% CI
Nairobi	34/152	22.1	(13.4, 30.8)
Central	10/194	4.7	(1.1, 8.3)
Coast	154/288	54.8	(44.2, 65.4)
Eastern North	106/329	35.1	(23.4, 46.8)
Eastern South	95/273	35.8	(25.2, 46.4)
Nyanza	76/331	22.8	(16.8, 28.9)
Rift Valley North	9/210	4.0	(0.0, 8.1)
Rift Valley South	8/214	5.1	(1.0, 9.2)
Western	105/353	28.6	(21.7, 35.6)
Total	597/2344	21.8	(18.8, 24.7)

Table 12.5d: Places where circumcision was performed among circumcised males aged 18 months to 14 years

	Unweighted n/N	Weighted %	95% CI
At A Clinic Or Health Facility	369/597	59.7	(53.3, 66.2)
In The Village	189/597	32.9	(26.6, 39.1)
Mobile Male Circumcision Clinic	35/597	6.8	(3.8, 9.7)
Other	4/597	0.6	(0.0, 1.3)

Table 12.5e: Intention to circumcise sons among uncircumcised male children aged 18 months to 14 years

	Unweighted n/N	Weighted %	95% CI
18 months to <5 years	587/632	92.0	(89.0, 95.0)
5 to 9 years	651/708	91.9	(89.3, 94.5)
10 to 14 years	373/406	92.1	(89.0, 95.1)
Total	1611/1746	92.0	(89.8, 94.1)

Table 12.5f: Intention to circumcise among uncircumcised male children aged 18 months to 14 years by region

	Unweighted n/N	Weighted %	95% CI
Nairobi	107/118	90.9	(84.8, 97.1)
Central	174/184	93.4	(88.2, 98.7)
Coast	130/134	94.1	(87.2, 100)
Eastern North	215/223	96.9	(94.8, 99.1)
Eastern South	172/178	97.7	(94.5, 100)
Nyanza	178/255	69.8	(60.2, 79.4)
Rift Valley North	191/201	95.5	(91.6, 99.4)
Rift Valley South	203/206	98.5	(96.8, 100)
Western	241/248	97.2	(95.1, 99.4)
Total	1611/1747	91.9	(89.8, 94.1)

Table 12.6a: Parent awareness of child HIV status among HIV–infected children aged 18 months to 14 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
HIV–infected, parent aware of status	7/14	*	–	4/14	*	–	11/28	40.5	(24.9, 56.0)
HIV–infected, parent unaware of status	7/14	*	––	10/14	*	–	17/28	59.5	(44.0, 75.1)

Table 12.6a (1): Ever attended HIV clinic among HIV–infected children aged 18 months to 14 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Ever attended	7/14	*	–	4/14	*	–	11/28	40.5	(24.9, 56.0)
Never attended	7/14	*	–	10/14	*	–	17/28	59.5	(44.0, 75.1)

Table 12.6a (2): Current use of cotrimoxazole among HIV–infected children aged 18 months to 14 years who have ever attended HIV clinic

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Taking co–trimoxazole	7/14	*	-	4/14	*	-	11/28	40.5	(24.9, 56.0)
Not taking co–trimoxazole	7/14	*	-	10/14	*	-	17/28	59.5	(44.0, 75.1)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 12.6b (1): Ever attended HIV clinic among HIV–infected children aged 18 months to 14 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Ever attended	7/7	*	-	4/4	*	-	11/11	*	-

Table 12.6b(2): Current use of co-trimoxazole among HIV–infected children aged 18 months to 14 years who have ever attended HIV clinic

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Taking co–trimoxazole	7/7	*	–	4/4	*	–	11/11	*	–
Not taking co–trimoxazole	0/7	–	–	0/4	–	–	0/11	–	–

Table 12.6b (3): Current use of ART among HIV–infected children aged 18 months to 14 years who have ever attended HIV clinic

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
On ART	5/5	*	–	3/3	*	–	8/8	*	–

Table 12.6b (4): Viral suppression among HIV–infected children aged 18 months to 14 years who were currently on ART

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Suppressed VL (<1000 copies/ml)	3/5	*	–	1/3	*	–	4/8	*	–
Not suppressed (>=1000 copies/ml)	2/5	*	–	2/3	*	–	4/8	*	–

Table 12.7a: Heard of HIV among children aged 10 to 14 years by sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Heard of HIV	742/839	90.1	(87.9, 92.4)	724/822	87.8	(84.4, 91.2)	1466/1661	89.0	(86.7, 91.2)
Not heard of HIV	97/839	9.9	(7.6, 12.1)	98/822	12.2	(8.8, 15.6)	195/1661	11.0	(8.8, 13.3)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 12.7a (1): Heard of HIV among children aged 10 to 14 years by age and sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
10 years	134/173	80.3	(74.1, 86.6)	129/175	73.6	(66.0, 81.2)	263/348	76.8	(71.8, 81.8)
11 years	133/155	89.0	(83.8, 94.3)	137/152	90.7	(85.1, 96.3)	270/307	89.8	(86.2, 93.4)
12 years	181/202	91.0	(86.4, 95.5)	162/186	84.8	(77.9, 91.6)	343/388	87.9	(83.4, 92.4)
13 years	163/173	93.8	(89.3, 98.3)	163/171	95.2	(91.9, 98.5)	326/344	94.5	(91.8, 97.3)
14 years	131/136	96.7	(92.9, 100)	133/138	96.5	(92.5, 100)	264/274	96.6	(93.8, 99.4)
Total	742/839	90.1	(87.9, 92.4)	724/822	87.8	(84.4, 91.2)	1466/1661	89.0	(86.7, 91.2)

Table 12.7b: Source of information about HIV/AIDS among children aged 10 to 14 years who have heard of HIV

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
School/teachers	657/741	89.3	(86.5, 92.2)	644/724	90.5	(87.9, 93.1)	1301/1465	89.9	(88.0, 91.8)
Friends	151/741	18.1	(15.0, 21.2)	174/724	22.8	(18.0, 27.7)	325/1465	20.4	(17.5, 23.4)
Parents/guardian	145/741	19.4	(15.7, 23.2)	128/724	18.6	(14.7, 22.5)	273/1465	19.0	(16.0, 22.0)
Radio	69/741	8.9	(6.4, 11.4)	83/724	13.2	(9.5, 17.0)	152/1465	11.1	(8.6, 13.5)
Religious leaders	61/741	8.5	(6.0, 10.9)	63/724	10.6	(6.7, 14.4)	124/1465	9.5	(7.2, 11.9)
Television/film	32/741	4.1	(2.6, 5.7)	42/724	6.9	(4.1, 9.6)	74/1465	5.5	(3.9, 7.1)
Health provider	28/741	3.7	(2.1, 5.3)	36/724	5.3	(3.3, 7.3)	64/1465	4.5	(3.2, 5.8)
Internet/mobile phones	8/741	1.0	(0.2, 1.7)	4/724	0.6	(0.0, 1.3)	12/1465	0.8	(0.3, 1.3)
Other	22/741	3.4	(1.7, 5.1)	19/724	2.9	(1.5, 4.3)	41/1465	3.2	(2.1, 4.2)

Table 12.7c: Ever discussed HIV/AIDS with parents among children aged 10 to 14 years who have heard of HIV

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
10 years	33/134	27.7	(18.4, 36.9)	32/129	24.6	(15.0, 34.2)	65/263	26.1	(19.3, 33.0)
11 years	33/132	26.0	(14.6, 37.3)	31/137	25.3	(16.8, 33.9)	64/269	25.7	(18.7, 32.7)
12 years	46/181	29.5	(20.3, 38.7)	39/162	24.8	(16.9, 32.6)	85/343	27.3	(20.7, 33.9)
13 years	56/163	34.4	(26.0, 42.8)	36/163	20.1	(12.9, 27.3)	92/326	26.9	(21.0, 32.9)
14 years	46/131	37.6	(27.9, 47.2)	44/133	37.6	(27.4, 47.7)	90/264	37.6	(31.1, 44.1)
Total	214/741	31.0	(26.3, 35.7)	182/724	26.2	(22.4, 30.0)	396/1465	28.6	(25.1, 32.1)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 12.7d: Correct knowledge about HIV among children aged 10 to 14 years who have heard of HIV

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Medicine to treat HIV	445/743	60.7	(56.2, 65.2)	435/723	62.9	(58.0, 67.9)	880/1466	61.8	(58.1, 65.5)
Mother can pass HIV to baby	428/743	58.0	(53.0, 63.0)	383/723	49.8	(45.5, 54.2)	811/1466	54.0	(50.4, 57.6)
Healthy person can have HIV/ AIDS	448/743	59.7	(55.2, 64.2)	452/723	63.2	(58.1, 68.2)	900/1466	61.4	(57.9, 64.9)
Reduce chances of getting HIV by using condom	347/742	48.8	(44.3, 53.3)	389/723	54.5	(49.2, 59.8)	736/1465	51.6	(47.6, 55.6)
Reduce chances of getting HIV by having no sex at all	510/743	70.1	(66.4, 73.9)	517/723	73.1	(69.0, 77.2)	1027/1466	71.6	(68.8, 74.4)
Comprehensive knowledge	132/742	18.3	(14.8, 21.8)	122/723	16.6	(13.1, 20.0)	254/1465	17.4	(15.1, 19.8)

Table 12.7e (1): Accepting attitudes toward persons with HIV among children aged 10 to 14 years who have heard of HIV; Willing to share food with someone who has HIV/AIDS

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	332/742	47.0	(42.4, 51.6)	313/723	44.3	(39.5, 49.1)	645/1465	45.6	(42.1, 49.2)
No	403/742	52.3	(47.7, 56.9)	405/723	55.2	(50.4, 60.0)	808/1465	53.7	(50.1, 57.3)
Don't know	6/742	0.6	(0.1, 1.2)	5/723	0.5	(0.0, 1.0)	11/1465	0.6	(0.2, 0.9)
Refused	1/742	0.1	(0.0, 0.3)	0/723	–	–	1/1465	0.0	(0.0, 0.1)

Table 12.7e (2): Accepting attitudes toward persons with HIV among children aged 10 to 14 years who have heard of HIV – Willing to play with someone who has HIV/AIDS

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	450/742	61.5	(56.9, 66.2)	420/723	59.7	(54.6, 64.7)	870/1465	60.6	(56.7, 64.6)
No	285/742	37.6	(32.9, 42.3)	296/723	39.9	(34.8, 44.9)	581/1465	38.7	(34.8, 42.7)
Don't know	6/742	0.7	(0.1, 1.4)	7/723	0.4	(0.1, 0.8)	13/1465	0.6	(0.2, 1.0)
Refused	1/742	0.1	(0.0, 0.3)	0/723	–	–	1/1465	0.0	(0.0, 0.1)

Table 12.8a: Participation in HIV prevention programs among children aged 10 to 14 years who have heard of HIV by sex

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Families Matter Program	91/1235	7.5	(5.1, 10.0)	28/424	7.4	(4.3, 10.5)	119/1659	7.5	(5.5, 9.5)
Healthy Choices	86/1235	7.1	(4.9, 9.3)	51/424	12.9	(8.4, 17.5)	137/1659	8.5	(6.5, 10.5)
Watched Shuga	59/1235	3.9	(2.7, 5.2)	56/424	14.6	(10.1, 19.1)	115/1659	6.5	(5.1, 8.0)
G–Pange	63/1235	5.3	(3.6, 7.0)	35/425	8.9	(6.0, 11.8)	98/1660	6.2	(4.7, 7.6)
Chill Club	128/1235	10.2	(7.8, 12.6)	83/425	23.8	(18.2, 29.3)	211/1660	13.5	(11.1, 15.9)
Life skills program	70/1235	5.4	(3.5, 7.4)	56/425	15.0	(10.3, 19.7)	126/1660	7.8	(5.8, 9.7)
At least one HIV prevention	311/1235	24.8	(20.7, 28.9)	170/424	45.0	(39.5, 50.4)	481/1659	29.7	(26.3, 33.2)

Table 12.9a(1): Ever taken alcohol among children aged 10 to 14 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Ever taken alcohol	42/839	4.5	(2.8, 6.2)	43/822	5.1	(3.2, 7.0)	85/1661	4.8	(3.3, 6.3)
Never taken alcohol	797/839	95.5	(93.8, 97.2)	779/822	94.9	(93.0, 96.8)	1576/1661	95.2	(93.7, 96.7)

Table 12.9a(2): Ever tried drugs among children aged 10 to 14 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Ever tried drugs	10/836	0.7	(0.2, 1.2)	21/820	2.0	(1.1, 3.0)	31/1656	1.4	(0.8, 1.9)
Never tried drugs	826/836	99.3	(98.8, 99.8)	799/820	98.0	(97.0, 98.9)	1625/1656	98.6	(98.1, 99.2)

Table 12.9a(3): Have tried 1 or 2 or more types of drugs among children aged 10 to 14 years who have tried drugs

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
1	8/10	*	–	18/21	*	–	26/31	85.8	(72.8, 98.9)
2+	2/10	*	–	3/21	*	–	5/31	14.2	(1.1, 27.2)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 12.9b: Type of drugs tried among children aged 10 to 14 years who have tried drugs

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Khat/miraa	6/12	*	–	15/26	64.2	(45.0, 83.3)	21/38	61.6	(45.3, 77.9)
Kuber/tobacco	4/12	*	–	6/26	19.3	(6.2, 32.4)	10/38	20.5	(8.9, 32.0)
Bhangi	1/12	*	–	2/26	8.7	(0.0, 19.0)	3/38	10.1	(0.6, 19.5)
Glue,petrol/gundi	1/12	*	–	3/26	7.9	(0.0, 16.9)	4/38	7.9	(0.7, 15.0)
Cocaine	0/12	*	–	0/26	–	–	0/38	–	–
Heroin	0/12	*	–	0/26	–	–	0/38	–	–
Mandrax	0/12	*	–	0/26	–	–	0/38	–	–

Table 12.10a: Ever had sex among children aged 12 to 14 years by sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	18/511	4.5	(2.0, 7.0)	42/495	8.8	(5.8, 11.8)	60/1006	6.7	(4.6, 8.8)
No	471/511	92.0	(88.7, 95.3)	425/495	86.0	(81.8, 90.1)	896/1006	88.9	(85.9, 92.0)
Don't know what sex is	19/511	2.9	(1.1, 4.8)	23/495	3.8	(1.4, 6.2)	42/1006	3.4	(1.6, 5.1)
Missing/refused	3/511	0.6	(0.0, 1.3)	5/495	1.4	(0.1, 2.7)	8/1006	1.0	(0.2, 1.7)

Table 12.10b: Ever had sex among children aged 12 to 14 years by age

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
12 years	5/202	2.1	(0.2, 4.0)	5/186	2.1	(0.0, 4.3)	10/388	2.1	(0.7, 3.5)
13 years	6/173	4.2	(0.8, 7.6)	18/171	12.8	(6.5, 19.0)	24/344	8.7	(4.9, 12.4)
14 years	7/136	8.4	(0.6, 16.1)	19/138	13.1	(6.1, 20.2)	26/274	10.8	(6.2, 15.3)
Total	18/511	4.5	(2.0, 7.0)	42/495	8.8	(5.8, 11.8)	60/1006	6.7	(4.6, 8.8)

Table 12.10c: Number of lifetime sex partners among children aged 12 to 14 years who have had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
1 partner	13/18	*	–	31/42	72.4	(54.0, 90.7)	44/60	70.8	(54.7, 87.0)
2 partners	1/18	*	–	5/42	11.5	(1.4, 21.5)	6/60	10.9	(1.2, 20.6)
3–6 partners	4/18	*	–	6/42	16.2	(2.4, 29.9)	10/60	18.3	(6.4, 30.2)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 12.10d: Main reason for having sex the first time among children aged 12 to 14 years who have had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Just happened	4/18	*	–	9/42	19.3	(5.3, 33.2)	13/60	21.3	(8.5, 34.0)
Friend's influence	2/18	*	–	8/42	21.6	(6.3, 37.0)	10/60	16.9	(5.3, 28.5)
For love	3/18	*	–	4/42	16.6	(0.0, 35.7)	7/60	18.9	(0.0, 42.0)
Wanted to have sex	2/18	*	–	17/42	32.5	(15.6, 49.5)	19/60	24.8	(11.6, 38.0)
Boyfriend/ girlfriend wanted to	1/18	*	–	1/42	2.3	(0.0, 6.9)	2/60	2.7	(0.0, 6.8)
Threatened/ forced/raped	2/18	*	–	0/42	–	–	2/60	5.2	(0.0, 13.4)
For money/gifts	1/18	*	–	0/42	–	–	1/60	1.1	(0.0, 3.5)
Don't know	1/18	*	–	1/42	3.2	(0.0, 9.3)	2/60	3.2	(0.0, 8.0)
Other	1/18	*	–	1/42	2.7	(0.0, 8.1)	2/60	3.6	(0.0, 8.8)
Refused	1/18	*	–	1/42	1.8	(0.0, 5.6)	2/60	2.3	(0.0, 5.7)

Table 12.10e: Relative age of partner at first sex among children aged 12 to 14 years who have had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
5 or more years older	4/17	*	–	1/42	2.0	(0.0, 6.1)	5/59	11.6	(0.4, 22.7)
1 to 4 years older	1/17	*	–	3/42	5.1	(0.0, 12.5)	4/59	4.4	(0.0, 9.5)
Same age	11/17	*	–	22/42	50.5	(32.7, 68.3)	33/59	53.1	(34.4, 71.9)
Younger	1/17	*	–	13/42	29.2	(15.0, 43.4)	14/59	22.0	(10.2, 33.9)
Don't know	0/17	*	–	3/42	13.2	(0.0, 32.2)	3/59	8.9	(0.0, 20.9)

Table 12.10f: Condom use at first sex among children aged 12 to 14 years who ever had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Used condom	6/18	*	–	8/41	16.4	(4.8, 28.0)	14/59	22.8	(11.1, 34.5)
Did not use condom	12/18	*	–	31/41	75.9	(61.9, 90.0)	43/59	72.1	(59.9, 84.3)
Don't know what condom is	0/18	*	–	2/41	7.7	(0.0, 17.9)	2/59	5.1	(0.0, 12.3)

Table 12.10g: Frequency of condom use among children aged 12 to 14 years who have had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Always	5/18	*	–	7/40	17.3	(4.3, 30.4)	12/58	22.1	(10.6, 33.5)
Sometimes	1/18	*	–	4/40	9.2	(0.0, 20.0)	5/58	7.4	(0.0, 16.2)
Never	12/18	*	–	29/40	73.5	(57.1, 89.8)	41/58	70.5	(58.4, 82.7)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 12.10h: Knowledge of where to get condoms among children aged 12 to 14 years who have had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Health facility/ clinic/hospital	1/9	*	–	19/31	58.9	(33.3, 84.5)	20/40	45.5	(19.7, 71.4)
Pharmacy	3/9	*	–	2/31	5.5	(0.1, 10.8)	5/40	10.4	(3.2, 17.6)
Shop/ supermarket/ market kiosk	7/9	*	–	21/31	69.9	(52.1, 87.6)	28/40	73.6	(56.8, 90.4)
Public places (toilets,clubs)	0/9	*	–	1/31	2.1	(0.0, 6.6)	1/40	1.6	(0.0, 4.9)
Friends	0/9	*	–	0/31	–	–	0/40	–	–
Parents/ guardians/ family	0/9	*	–	0/31	–	–	0/40	–	–
Girlfriend/ boyfriend	0/9	*	–	0/31	–	–	0/40	–	–

Table 12.10h (1): Knowledge of where to get condoms among children aged 12 to 14 years who have had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Know where to get condom	9/18	*	–	31/40	82.9	(70.8, 94.9)	40/58	73.8	(58.9, 88.7)
Do not know where to get condom	9/18	*	–	9/40	17.1	(5.1, 29.2)	18/58	26.2	(11.3, 41.1)

Table 12.10i: Ever tested for HIV among children aged 12 to 14 years who have had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Ever tested for HIV	6/18	*	–	10/42	27.7	(9.1, 46.3)	16/60	30.8	(16.9, 44.7)
Never tested for HIV	12/18	*	–	32/42	72.3	(53.7, 90.9)	44/60	69.2	(55.3, 83.1)

Table 12.11a: Intention to have sex before marriage among children aged 12 to 14 years who have never had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Intend to have sex before marriage	111/471	24.3	(18.8, 29.8)	91/425	21.4	(17.1, 25.7)	202/896	22.9	(19.4, 26.4)
Do not intend to have sex before marriage	320/471	68.5	(62.8, 74.2)	283/425	68.0	(62.0, 74.0)	603/896	68.3	(64.0, 72.5)
Don't know	29/471	5.3	(3.2, 7.5)	45/425	9.0	(5.4, 12.6)	74/896	7.1	(5.1, 9.1)
Missing/refused	11/471	1.9	(0.4, 3.4)	6/425	1.5	(0.2, 2.9)	17/896	1.7	(0.7, 2.8)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 12.11b: Ability to refuse sex if unwanted among children aged 12 to 14 years who have never had sex

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	438/471	93.8	(91.5, 96.1)	372/425	89.6	(86.1, 93.2)	810/896	91.8	(89.7, 93.9)
No	14/471	3.4	(1.8, 5.1)	37/425	7.5	(4.3, 10.7)	51/896	5.4	(3.6, 7.2)
Don't know	13/471	2.2	(0.9, 3.6)	12/425	2.1	(0.8, 3.4)	25/896	2.1	(1.2, 3.1)
Missing/refused	6/471	0.5	(0.0, 1.2)	4/425	0.8	(0.0, 1.9)	10/896	0.7	(0.1, 1.3)

Table 12.12a: Perception of getting HIV among children aged 12 to 14 years

	Never had sex			Ever had sex			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Have chance of getting HIV	45/896	4.4	(2.9, 5.8)	9/60	17.8	(6.3, 29.3)	54/956	5.3	(3.7, 6.9)
Do not have chance of getting HIV	768/896	86.9	(84.2, 89.6)	46/60	77.2	(65.4, 89.1)	814/956	86.3	(83.7, 88.8)
Don't know	83/896	8.7	(6.4, 10.9)	5/60	5.0	(0.0, 10.1)	88/956	8.4	(6.2, 10.6)

Table 12.12b: Reasons for having a chance of getting HIV among children aged 12 to 14 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Sex without condom	3/23	*	–	6/31	30.0	(6.2, 53.8)	9/54	22.4	(6.0, 38.7)
Many boy/ girlfriends	0/23	*	–	2/31	9.8	(0.0, 23.0)	2/54	5.9	(0.0, 14.1)
Had accident/cuts	6/23	*	–	4/31	11.6	(0.0, 24.3)	10/54	15.5	(5.5, 25.4)
Other specified– from razors, needles, sharp objects	8/23	*	–	10/31	27.8	(10.7, 44.9)	18/54	31.4	(17.0, 45.8)
Other unspecified	1/23	*	–	3/31	7.9	(0.0, 16.9)	4/54	7.1	(0.4, 13.9)

Table 12.13a: Proportion of OVC among all children aged 0 to 17 years by age group

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
0–4 years	165/2419	6.4	(5.1, 7.7)	195/2352	8.5	(7.0, 10.0)	360/4771	7.4	(6.3, 8.6)
5–9 years	293/2566	11.6	(9.8, 13.4)	313/2472	12.2	(10.4, 14.1)	606/5038	11.9	(10.4, 13.4)
10–14 years	427/2220	19.4	(17.0, 21.7)	446/2146	19.9	(17.3, 22.4)	873/4366	19.6	(17.6, 21.6)
15–17 years	257/991	25.8	(22.6, 28.9)	266/960	26.4	(22.7, 30.1)	523/1951	26.1	(23.6, 28.6)
Total	1142/8196	13.9	(12.5, 15.3)	1220/7930	15.0	(13.5, 16.5)	2362/16126	14.4	(13.1, 15.8)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 12.13b: Proportion of OVC among all children aged 0 to 17 years by region

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	49/640	8.1	(5.6, 10.7)	49/536	9.2	(6.0, 12.5)	98/1176	8.6	(6.3, 11.0)
Central	84/674	11.8	(8.4, 15.2)	113/690	15.8	(11.2, 20.4)	197/1364	13.8	(10.1, 17.6)
Coast	126/956	13.2	(18.7, 28.2)	148/971	15.2	(11.4, 19.0)	274/1927	14.2	(10.8, 17.6)
Eastern North	140/955	15.5	(7.8, 15.9)	145/910	16.7	(11.7, 21.7)	285/1865	16.1	(11.5, 20.7)
Eastern South	101/901	11.1	(9.2, 14.6)	101/862	10.3	(7.2, 13.3)	202/1763	10.7	(7.8, 13.6)
Nyanza	268/1172	23.5	(10.6, 20.3)	290/1231	23.6	(19.1, 28.0)	558/2403	23.5	(19.2, 27.8)
Rift Valley North	107/870	11.9	(7.4, 14.9)	117/796	14.2	(10.1, 18.3)	224/1666	13.0	(9.2, 16.8)
Rift Valley South	97/831	11.9	(10.9, 18.2)	97/836	11.9	(8.7, 15.1)	194/1667	11.9	(9.5, 14.3)
Western	170/1197	14.6	(9.6, 16.8)	160/1098	14.9	(9.9, 19.9)	330/2295	14.7	(10.7, 18.8)
Total	1142/8196	13.9	(12.5, 15.3)	1220/7930	15.0	(13.5, 16.5)	2362/16126	14.4	(13.1, 15.8)

Table 12.13c: Distribution of OVC aged 0 to 17 years by age group, KAIS 2012

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
0–4 years	165/1142	13.5	(11.3, 15.7)	195/1220	16.8	(14.3, 19.4)	360/2362	15.2	(13.4, 16.9)
5–9 years	293/1142	25.9	(23.0, 28.8)	313/1220	25.2	(22.1, 28.4)	606/2362	25.6	(23.5, 27.6)
10–14 years	427/1142	37.7	(34.7, 40.7)	446/1220	36.4	(33.4, 39.5)	873/2362	37.1	(35.0, 39.1)
15–17 years	257/1142	22.9	(20.0, 25.8)	266/1220	21.5	(18.8, 24.2)	523/2362	22.2	(20.2, 24.2)

Table 12.13d (1): Population size estimates of OVC aged 0–17 years by age group[1,2]

	Female			Male			Total		
	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI
0–4 years	13.5	171000	(136000, 206000)	16.8	223000	(177000, 269000)	15.2	394000	(327000, 462000)
5–9 years	25.9	329000	(270000, 387000)	25.2	335000	(277000, 393000)	25.6	664000	(564000, 763000)
10–14 years	37.7	479000	(411000, 547000)	36.4	484000	(417000, 551000)	37.1	962000	(850000, 1075000)
15–17 years	22.9	291000	(246000, 336000)	21.5	286000	(237000, 335000)	22.2	577000	(505000, 649000)

[1] The 2012 national estimated population for adults and adolescents aged 15–64 years was calculated using un–normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

Table 12.13d (2): Population size estimates of orphans aged 0 to 17 years by age group[1,2]

	Female			Male			Total		
	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI
0–4 years	9.0	81000	(59000, 103000)	11.4	108000	(75000, 142000)	10.2	189000	(143000, 234000)
5–9 years	24.9	224000	(175000, 274000)	23.7	224000	(176000, 273000)	24.3	449000	(364000, 533000)
10–14 years	41.3	372000	(317000, 427000)	39.9	378000	(323000, 433000)	40.6	750000	(659000, 841000)
15–17 years	24.8	223000	(183000, 262000)	25.0	237000	(192000, 283000)	24.9	460000	(395000, 525000)

Table 12.13d: Population size estimates for vulnerable children aged 0 to 17 years by age group[1,2]

	Female			Male			Total		
	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI
0–4 years	24.5	90000	(65000, 116000)	30.3	115000	(83000, 147000)	27.4	205000	(155000, 256000)
5–9 years	28.2	104000	(78000, 131000)	29.2	111000	(82000, 140000)	28.7	215000	(169000, 261000)
10–14 years	28.9	107000	(79000, 135000)	27.8	106000	(76000, 135000)	28.4	212000	(166000, 259000)
15–17 years	18.5	68000	(46000, 90000)	12.7	48000	(32000, 65000)	15.6	117000	(87000, 146000)
Total	100	370000	(299000, 441000)	100	379000	(306000, 453000)	100	749000	(616000, 883000)

Table 12.13d (4): Population size estimates of OVC aged 0 to 17 years by region[1,2]

	Female			Male			Total		
	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI
Nairobi	3.9	50000	(33000, 67000)	3.7	49000	(27000, 71000)	3.8	99000	(66000, 132000)
Central	7.7	98000	(67000, 128000)	9.9	132000	(87000, 177000)	8.8	229000	(162000, 297000)
Coast	8.0	102000	(64000, 140000)	8.8	117000	(79000, 155000)	8.4	219000	(147000, 292000)
Eastern North	1.5	19000	(11000, 28000)	1.5	20000	(13000, 27000)	1.5	40000	(25000, 54000)
Eastern South	11.1	141000	(88000, 195000)	9.6	127000	(92000, 162000)	10.3	268000	(193000, 344000)
Nyanza	27.4	348000	(259000, 437000)	27.5	364000	(278000, 451000)	27.4	713000	(548000, 878000)
Rift Valley North	12.2	155000	(98000, 213000)	12.7	169000	(113000, 225000)	12.5	324000	(218000, 431000)
Rift Valley South	13.6	172000	(117000, 228000)	13.4	177000	(104000, 251000)	13.5	350000	(231000, 468000)
Western	14.4	183000	(130000, 236000)	12.9	171000	(106000, 237000)	13.6	354000	(242000, 467000)

[1] The 2012 national estimated population for adults and adolescents aged 15–64 years was calculated using un–normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

Table 12.13d (5): Population size estimates of orphans aged 0 to 17 years by region[1,2]

	Female			Male			Total		
	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	Estimated pop size	95% CI	Weighted %	Estimated pop size	95% CI
Nairobi	4.5	40000	(25000, 56000)	4.4	41000	(21000, 61000)	4.4	82000	(51000, 112000)
Central	6.3	57000	(37000, 77000)	8.5	81000	(46000, 115000)	7.4	137000	(89000, 185000)
Coast	6.4	58000	(35000, 80000)	7.8	74000	(49000, 99000)	7.1	132000	(86000, 177000)
Eastern North	1.8	16000	(8000, 24000)	1.9	18000	(11000, 25000)	1.9	34000	(20000, 48000)
Eastern South	11.6	104000	(70000, 139000)	9.0	85000	(64000, 107000)	10.3	190000	(147000, 233000)
Nyanza	30.8	277000	(203000, 352000)	29.6	281000	(203000, 359000)	30.2	558000	(414000, 702000)
Rift Valley North	10.4	94000	(54000, 133000)	12.1	114000	(72000, 156000)	11.2	208000	(135000, 280000)
Rift Valley South	14.1	127000	(75000, 179000)	14.7	139000	(66000, 212000)	14.4	266000	(149000, 383000)
Western	14.1	127000	(93000, 161000)	12.0	114000	(74000, 154000)	13.0	241000	(173000, 308000)

Table 12.13d (6): Population size estimates of vulnerable children aged 0 to 17 years by region[1,2]

	Female			Male			Total		
	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI	Weighted %	2012 estimated population (children aged 0 to 17 years)	95% CI
Nairobi	2.6	10000	(2000, 17000)	2.0	8000	(2400, 13000)	2.3	17000	(7000, 27000)
Central	11.1	41000	(21000, 61000)	13.5	51000	(25000, 77000)	12.3	92000	(49000, 135000)
Coast	12.0	44000	(20000, 69000)	11.4	43000	(20000, 67000)	11.7	88000	(43000, 133000)
Eastern North	0.9	3000	(1000, 5000)	0.5	2000	(1000, 3000)	0.7	5000	(3000, 8000)
Eastern South	10.0	37000	(9000, 65000)	10.9	41000	(14000, 68000)	10.5	78000	(28000, 128000)
Nyanza	19.2	71000	(43000, 99000)	22.0	84000	(54000, 114000)	20.6	155000	(103000, 207000)
Rift Valley North	16.7	62000	(28000, 96000)	14.4	55000	(20000, 89000)	15.5	116000	(55000, 178000)
Rift Valley South	12.3	46000	(25000, 66000)	10.1	38000	(22000, 55000)	11.2	84000	(49000, 119000)
Western	15.2	56000	(28000, 85000)	15.1	57000	(24000, 90000)	15.1	113000	(54000, 173000)

Table 12.13e: Type of OVC among OVC aged 0 to 17 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Orphan double	104/1142	10.9	(7.9, 13.8)	122/1220	10.7	(8.1, 13.3)	226/2362	10.8	(8.5, 13.0)
Orphan single	701/1142	60.0	(55.3, 64.7)	758/1220	60.7	(55.7, 65.7)	1459/2362	60.4	(56.0, 64.7)
Vulnerable child	337/1142	29.1	(25.0, 33.3)	340/1220	28.6	(24.0, 33.1)	677/2362	28.9	(24.9, 32.8)

[1] The 2012 national estimated population for adults and adolescents aged 15–64 years was calculated using un–normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

Table 12.13f: Proportion of OVC aged 0 to 17 years whose parent(s) had or have HIV by household report

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
OVC with HIV–uninfected parent(s)	1066/1142	92.6	(89.8, 95.3)	1122/1220	90.8	(87.1, 94.4)	2188/2362	91.7	(88.9, 94.4)
OVC with HIV–infected parent(s)	76/1142	7.4	(4.7, 10.2)	98/1220	9.2	(5.6, 12.9)	174/2362	8.3	(5.6, 11.1)

Table 12.13f (1): Proportion of orphans aged 0 to 17 years whose parent(s) had HIV by household report

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Orphan with HIV–uninfected parent(s)	741/805	90.8	(87.2, 94.5)	798/880	88.7	(83.8, 93.7)	1539/1685	89.8	(86.1, 93.5)
Orphan with HIV–infected parent(s)	64/805	9.2	(5.5, 12.8)	82/880	11.3	(6.3, 16.2)	146/1685	10.2	(6.5, 13.9)

Table 12.13f (2): Proportion of vulnerable children aged 0 to 17 years whose parent(s) have HIV by household report

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Vulnerable child with HIV–uninfected parent(s)	325/337	96.8	(94.5, 99.2)	324/340	95.8	(93.1, 98.5)	649/677	96.3	(94.0, 98.6)
Vulnerable child with HIV–infected parent(s)	12/337	3.2	(0.8, 5.5)	16/340	4.2	(1.5, 6.9)	28/677	3.7	(1.4, 6.0)

Table 12.13g: Household hunger[3] status among households with at least one OVC

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Little or no hunger in HH	559/768	75.9	(72.0, 79.7)	262/315	84.4	(79.4, 89.4)	821/1083	78.3	(75.2, 81.4)
Moderate hunger in HH	186/768	21.6	(18.0, 25.2)	47/315	14.7	(9.9, 19.4)	233/1083	19.6	(16.7, 22.6)
Severe hunger in HH	23/768	2.5	(1.1, 4.0)	6/315	1.0	(0.0, 2.0)	29/1083	2.1	(1.0, 3.1)

[3] Household Hunger Scale (HHS) was used to measure household hunger. This scale, assesses the occurrence of having no food in the household, a household member going to sleep hungry due to lack of food, and a household member not eating for an entire day due to lack of food in the past 4 weeks and the frequency of each occurrence.

Table 12.13h: Household wealth index[4] among households with at least one OVC by residence

	Rural			Urban			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Lowest	286/784	33.9	(28.9, 38.9)	18/320	5.5	(2.5, 8.6)	304/1104	25.8	(21.9, 29.8)
Second	257/784	34.9	(30.8, 38.9)	38/320	13.7	(7.9, 19.5)	295/1104	28.8	(25.5, 32.2)
Middle	162/784	21.3	(17.7, 24.8)	59/320	16.9	(11.5, 22.4)	221/1104	20.0	(17.1, 23.0)
Fourth	70/784	8.8	(6.7, 11.0)	103/320	29.1	(22.0, 36.2)	173/1104	14.6	(12.0, 17.2)
Highest	9/784	1.2	(0.3, 2.0)	102/320	34.8	(26.5, 43.1)	111/1104	10.7	(8.0, 13.4)

Table 12.13i: Receipt of OVC Services among OVC aged 0 to 17 years

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Medical support	24/725	3.2	(1.8, 4.6)	35/795	4.2	(1.9, 6.4)	59/1520	3.7	(2.2, 5.3)
Emotional, psychological support	28/726	4.1	(2.3, 5.9)	31/795	4.0	(2.0, 6.1)	59/1521	4.1	(2.6, 5.5)
Material support	48/726	7.2	(4.8, 9.6)	50/795	5.4	(3.1, 7.6)	98/1521	6.2	(4.4, 8.0)
Social support	9/726	1.5	(0.4, 2.7)	9/795	1.0	(0.1, 1.9)	18/1521	1.3	(0.5, 2.0)
Any support	67/726	9.8	(6.9, 12.6)	77/795	9.0	(6.0, 11.9)	144/1521	9.3	(7.1, 11.6)

Table 12.13j: Educational support among school–aged OVC (5 to 17 years)

	Female			Male			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Received educational support	77/635	13.2	(8.5, 17.8)	66/684	9.9	(5.6, 14.1)	143/1319	11.5	(7.4, 15.5)
Did not receive educational support	558/635	86.8	(82.2, 91.5)	618/684	90.1	(85.9, 94.4)	1176/1319	88.5	(84.5, 92.6)

[4] The household wealth index was a composite of the living standard of a household, calculated using data on a household's ownership of selected assets, materials used for housing construction, water access and sanitation facilities. The wealth index placed households on a continuous scale of relative wealth using principal components analysis. Individuals were ranked according to the score of the household in which they resided and the sample was divided into five groups, each with an equal number of individuals (quintiles), ranging from the lowest to the highest level of wealth.

Table 13.3a: Male circumcision status among men aged 15-64 years by province

	KAIS 2007			KAIS 2012			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	792/925	83.2	(76.0, 90.5)	719/784	92.2	(89.0, 95.4)	1511/1709	88.0	(84.1, 91.8)
Central	1072/1121	95.5	(93.8, 97.2)	632/652	97.5	(95.9, 99.0)	1704/1773	96.4	(95.2, 97.6)
Coast	794/822	97.0	(95.6, 98.4)	704/713	99.1	(98.3, 99.8)	1498/1535	98.1	(97.3, 98.9)
Eastern	1243/1295	96.3	(94.7, 98.0)	1050/1085	97.7	(96.3, 99.1)	2293/2380	96.9	(95.8, 98.1)
North Eastern	325/334	97.3	(95.2, 99.5)	0/0	–	–	325/334	97.3	(95.2, 99.5)
Nyanza	533/1099	48.2	(42.1, 54.2)	518/772	66.3	(57.0, 75.6)	1051/1871	56.0	(50.5, 61.6)
Rift Valley	970/1090	88.7	(85.4, 91.9)	977/1056	92.8	(90.8, 94.9)	1947/2146	90.8	(88.9, 92.7)
Western	857/992	87.8	(82.0, 93.5)	629/676	92.9	(89.2, 96.7)	1486/1668	90.0	(86.4, 93.6)
Total	6586/7678	85.0	(83.2, 86.8)	5229/5738	91.2	(89.7, 92.7)	11815/13416	87.9	(86.7, 89.1)

Table 13.3b: Male circumcisions performed in past three years among men aged 15-64 years by NASCOP region

	Total		
	Unweighted n/N	Weighted %	95% CI
Nairobi	49/719	6.8	(4.4, 9.2)
Central	53/632	8.4	(5.7, 11.0)
Coast	10/704	1.4	(0.3, 2.4)
Eastern North	37/473	6.9	(4.2, 9.7)
Eastern South	22/577	3.6	(2.1, 5.0)
Nyanza	112/518	22.0	(12.4, 31.6)
Rift Valley North	60/470	13.6	(10.2, 17.0)
Rift Valley South	41/507	9.1	(5.2, 13.1)
Western	62/629	10.2	(4.2, 16.3)
Total	446/5229	9.0	(7.6, 10.4)

Table 13.3c: Facility type where circumcision was performed among men aged 15-64 years who were circumcised in past three years

	All		
	Unweighted n/N	Weighted %	95% CI
Clinic/Health facility	254/446	52.7	(44.8, 60.7)
Village	127/446	33.4	(25.2, 41.5)
Mobile male circumcision clinic	54/446	11.6	(6.0, 17.2)
Other	11/446	2.3	(0.8, 3.9)
Total	446/446	100	–

Table 13.3d: Type of clinic or health facility where circumcision was performed among men aged 15-64 years who were circumcised in the past three years

	All		
	Unweighted n/N	Weighted %	95% CI
Public	168/254	61.4	(54.7, 68.2)
Private	86/254	38.6	(31.8, 45.3)

Table 13.3e: Who performed the circumcision among men aged 15-64 years who were circumcised in past three years

	All		
	Unweighted n/N	Weighted %	95% CI
Traditional practitioner/circumciser	64/445	15.4	(10.2, 20.6)
Nurse	38/445	5.6	(2.4, 8.9)
Clinical officer	168/445	36.6	(30.3, 43.0)
Doctor	157/445	37.3	(30.9, 43.6)
Home health worker	8/445	2.0	(0.0, 4.1)
Other	10/445	3.1	(0.0, 7.2)

Table 13.3f: Correct knowledge and attitudes on male circumcision among women and men aged 15-64

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Stated that "male circumcision alone somewhat protects against HIV"	3079/7932	39.6	(37.5, 41.7)	3425/5747	61.9	(59.5, 64.4)	6504/13679	50.5	(48.7, 52.3)
Disagreed with "circumcised men do not need to use condoms for HIV prevention"	6865/7932	86.7	(85.1, 88.4)	5391/5747	94.6	(93.7, 95.5)	12256/13679	90.6	(89.6, 91.6)
Disagreed with "circumcised men can have many partners and not get HIV"	7122/7931	89.3	(87.8, 90.9)	5460/5746	95.4	(94.5, 96.3)	12582/13677	92.3	(91.4, 93.2)

Table 13.4: HIV prevalence among circumcised and uncircumcised men aged 15-64 years by region

	Circumcised			Uncircumcised			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	17/530	3.3	(1.9, 4.7)	5/48	9.5	(2.3, 16.7)	22/578	3.8	(2.4, 5.2)
Central	10/572	1.8	(0.5, 3.0)	1/20	*	–	11/592	2.0	(0.7, 3.2)
Coast	15/606	2.4	(0.9, 3.8)	1/9	*	–	16/615	2.6	(1.1, 4.0)
Eastern North	4/404	0.8	(0.0, 1.8)	0/19	*	–	4/423	0.8	(0.0, 1.7)
Eastern South	9/493	2.3	(0.6, 4.1)	0/11	*	–	9/504	2.3	(0.6, 4.0)
Nyanza	34/461	8.1	(5.2, 10.9)	56/214	25.9	(20.5, 31.3)	90/675	13.9	(9.7, 18.1)
Rift Valley North	8/390	2.2	(0.7, 3.7)	3/35	8.4	(0.0, 18.5)	11/425	2.7	(0.8, 4.6)
Rift Valley South	11/428	3.0	(1.1, 5.0)	3/31	12.0	(1.3, 22.8)	14/459	3.6	(1.6, 5.7)
Western	15/511	3.5	(1.6, 5.4)	1/41	4.2	(0.0, 10.7)	16/552	3.6	(1.7, 5.4)
Total	123/4395	3.1	(2.5, 3.8)	70/428	16.9	(13.1, 20.7)	193/4823	4.4	(3.6, 5.2)

Table 13.4a: HIV prevalence among men aged 15-64 years by circumcision status, KAIS 2012

	KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Circumcised	249/6146	4.1	(3.4, 4.7)	123/4395	3.1	(2.5, 3.8)
Uncircumcised	186/1156	14.8	(12.0, 17.7)	70/428	16.9	(13.1, 20.7)
Total	438/7322	5.9	(5.1, 6.6)	193/4823	4.4	(3.6, 5.2)

Table 13.4b: HIV prevalence among men aged 15-64 years who had ever had sex by circumcision status and age group

	Circumcised			Uncircumcised			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	1/285	0.2	(0.0, 0.6)	1/35	3.1	(0.0, 8.9)	2/320	0.5	(0.0, 1.3)
20-24	5/537	1.4	(0.1, 2.6)	1/50	3.0	(0.0, 8.4)	6/587	1.5	(0.3, 2.7)
25-29	15/601	2.7	(1.2, 4.1)	12/44	29.2	(13.2, 45.2)	27/645	4.5	(2.2, 6.8)
30-34	22/545	4.5	(2.7, 6.4)	13/33	43.2	(25.1, 61.3)	35/578	6.7	(4.5, 8.9)
35-39	19/458	3.7	(1.9, 5.6)	7/33	23.3	(6.4, 40.3)	26/491	5.1	(3.0, 7.1)
40-44	18/389	5.4	(2.5, 8.4)	14/32	43.0	(25.1, 61.0)	32/421	8.2	(4.9, 11.4)
45-49	15/267	7.3	(3.3, 11.4)	6/28	24.5	(6.1, 42.8)	21/295	8.9	(4.9, 13.0)
50-54	12/297	3.6	(1.4, 5.9)	11/27	38.3	(25.2, 51.5)	23/324	6.7	(3.9, 9.4)
55-59	6/212	3.3	(0.5, 6.1)	2/20	*	–	8/232	3.8	(1.0, 6.5)
60-64	6/178	3.7	(0.6, 6.8)	3/17	*	–	9/195	4.6	(1.5, 7.8)
Total	119/3769	3.4	(2.8, 4.1)	70/319	22.5	(18.0, 27.0)	189/4088	4.9	(4.0, 5.8)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 13.4c: HIV prevalence among adults and adolescents 15-64 years and coverage of male circumcision among men 15-64 years

	Male circumcision coverage by NASCOP region			HIV prevalence by NASCOP region		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	719/784	92.2	(89.0, 95.4)	67/1314	4.9	(3.7, 6.1)
Central	632/652	97.5	(95.9, 99.0)	60/1423	3.8	(2.7, 4.9)
Coast	704/713	99.1	(98.3, 99.8)	66/1462	4.3	(3.0, 5.6)
Eastern North	473/496	96.3	(93.7, 98.9)	29/1061	2.1	(1.0, 3.2)
Eastern South	577/589	97.8	(96.3, 99.4)	46/1260	3.9	(2.4, 5.3)
Nyanza	518/772	66.3	(57.0, 75.6)	242/1631	15.1	(11.4, 18.8)
North Rift	470/516	91.5	(88.5, 94.5)	37/1036	3.1	(2.0, 4.2)
South Rift	507/540	94.0	(91.2, 96.8)	42/1031	4.3	(2.7, 5.8)
Western	629/676	92.9	(89.2, 96.7)	59/1408	4.7	(3.0, 6.5)
Total	5229/5738	91.2	(89.7, 92.7)	648/11626	5.6	(4.9, 6.3)

Table 13.5a: HIV prevalence among women aged 15-64 years by circumcision status of their male sexual partner

	Total		
	Unweighted n/N	Weighted %	95% CI
Male partner circumcised	245/4783	5.2	(4.4, 6.0)
Male partner uncircumcised	73/399	18.0	(12.4, 23.6)
Don't have a main sexual partner	127/1524	8.7	(6.9, 10.4)
Don't know	10/72	16.7	(7.5, 25.9)
Total	455/6790	6.9	(6.0, 7.7)

Table 13.5b(1): HIV prevalence among men aged 15-64 years with HIV-infected married or cohabiting female partners by circumcision status

	Total		
	Unweighted n/N	Weighted %	95% CI
Circumcised	32/73	48.6	(35.3, 61.9)
Uncircumcised	31/38	80.0	(69.5, 90.6)
Total	63/111	59.6	(49.7, 69.5)

Table 13.5b(2): HIV prevalence among women aged 15-64 years with HIV-infected married or cohabiting male partners by their circumcision status

	Total		
	Unweighted n/N	Weighted %	95% CI
Male partner circumcised	29/58	49.4	(34.1, 64.7)
Male partner uncircumcised	31/45	64.9	(49.5, 80.2)
Total	60/103	56.1	(45.3, 66.9)

Table 14.3(1): Blood donation in the past 12 months by sex

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	86/7932	1.1	(0.8, 1.3)	230/5747	4.3	(3.6, 4.9)	316/13679	2.6	(2.3, 3.0)
No	7846/7932	98.9	(98.7, 99.2)	5517/5747	95.7	(95.1, 96.4)	13363/13679	97.4	(97.0, 97.7)

Table 14.3(2): Estimated number[1,2] of blood donors by donation source

	Total		
	Estimated pop size	Weighted %	95% CI
Outside KNBTS	233000	41.9	(193000, 273000)
KNBTS network	307000	55.2	(250000, 364000)
Unspecified source	16000	2.9	(2800, 30000)

Figure 14.3a: Source of blood donation requests among adults and adolescents aged 15–64 years who reported donating blood in the 12 months before the survey

	All		
	Unweighted n/N	Weighted %	95% CI
Outside KNBTS network	141/316	41.9	(35.1, 48.7)
KNBTS network	168/316	55.2	(48.4, 62.0)
Unspecified source	7/316	2.9	(0.5, 5.3)

Table 14.3b: Source of blood donation requests among adults and adolescents aged 15-64 years who reported donating blood in the past 12 months by region

	Outside of KNBTS network			KNBTS network			Unspecified			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	39/141	23.8	(17.0, 30.7)	37/168	17.4	(11.9, 23.0)	3/7	*	–	1745/13720	11.0	(9.9, 12.0)
Central	12/141	7.8	(4.1, 11.5)	34/168	23.4	(13.8, 33.0)	0/7	*	–	1580/13720	13.2	(11.5, 14.9)
Coast	8/141	4.9	(2.1, 7.7)	13/168	5.2	(2.7, 7.8)	1/7	*	–	1712/13720	9.3	(7.9, 10.7)
Eastern North	8/141	0.6	(0.2, 0.9)	4/168	0.3	(0.0, 0.6)	0/7	*	–	1220/13720	1.1	(0.9, 1.4)
Eastern South	11/141	10.7	(5.2, 16.3)	12/168	7.7	(3.4, 12.0)	0/7	*	–	1464/13720	14.3	(12.6, 16.0)
Nyanza	18/141	12.1	(5.8, 18.4)	24/168	11.4	(6.9, 15.9)	1/7	*	–	1834/13720	14.0	(12.4, 15.7)
North Rift	12/141	11.8	(6.2, 17.5)	14/168	13.5	(5.3, 21.7)	1/7	*	–	1260/13720	12.3	(10.5, 14.1)
South Rift	20/141	20.3	(12.6, 27.9)	13/168	12.7	(7.1, 18.3)	1/7	*	–	1224/13720	13.9	(11.4, 16.4)
Western	13/141	7.9	(3.9, 11.9)	17/168	8.4	(4.5, 12.2)	0/7	*	–	1681/13720	10.9	(9.5, 12.2)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).
[1] The 2012 national estimated population for adults and adolescents aged 15–64 years was calculated using un–normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

Table 14.3c: Source of blood donation requests among adults and adolescents aged 15-64 years who reported donating blood in the past 12 months by sex

	Outside of KNBTS network			KNBTS network			Unspecified			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Women	31/141	19.0	(12.2, 25.8)	52/168	22.3	(15.8, 28.8)	3/7	*	–	86/316	20.9	(16.4, 25.4)
Men	110/141	81.0	(74.2, 87.8)	116/168	77.7	(71.2, 84.2)	4/7	*	–	230/316	79.1	(74.6, 83.6)

Table 14.3d: Figure 14.3d: Source of blood donation requests among adults and adolescents aged 15-64 years who reported donating blood in the past 12 months by age group of donor

	Outside of KNBTS network			KNBTS network			Unspecified			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	11/141	9.3	(1.9, 16.6)	86/168	50.5	(41.5, 59.6)	0/7	*	–	97/316	31.8	(25.6, 38.0)
20-24	17/141	12.7	(6.2, 19.2)	32/168	18.5	(11.8, 25.2)	3/7	*	–	52/316	16.6	(11.5, 21.6)
25-29	33/141	23.6	(14.8, 32.4)	14/168	7.4	(3.0, 11.7)	2/7	*	–	49/316	14.8	(10.0, 19.6)
30-34	28/141	19.5	(12.1, 26.9)	13/168	8.0	(3.3, 12.6)	1/7	*	–	42/316	12.9	(8.6, 17.2)
35-39	15/141	9.1	(4.3, 13.8)	7/168	4.3	(1.1, 7.4)	1/7	*	–	23/316	6.8	(3.8, 9.9)
40-44	13/141	9.5	(4.2, 14.8)	5/168	4.2	(0.5, 7.9)	0/7	*	–	18/316	6.3	(3.4, 9.2)
45-49	9/141	4.7	(1.4, 7.9)	3/168	3.0	(0.0, 6.4)	0/7	*	–	12/316	3.6	(1.4, 5.9)
50-54	7/141	5.9	(1.1, 10.8)	7/168	3.7	(1.0, 6.5)	0/7	*	–	14/316	4.5	(2.1, 7.0)
55-59	3/141	3.1	(0.0, 7.1)	1/168	0.4	(0.0, 1.3)	0/7	*	–	4/316	1.5	(0.0, 3.2)
60-64	5/141	2.6	(0.0, 5.3)	0/168	0.0	–	0/7	*	–	5/316	1.1	(0.0, 2.2)

Table 14.3e: HIV prevalence among adults and adolescents aged 15-64 years among those who reported donating blood in the past year by source of blood donation request

	All		
	Unweighted n/N	Weighted %	95% CI
Outside of KNBTS network	6/110	5.7	(0.9, 10.5)
KNBTS network	2/132	1.7	(0.0, 4.0)
Unspecified source	0/7	*	–
Total	8/249	3.3	(1.0, 5.7)

Table 14.4(1): Percent of adults and adolescents aged 15-64 years who reported ever receiving a blood

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	461/7931	5.9	(5.2, 6.6)	203/5747	3.7	(3.0, 4.5)	664/13678	4.8	(4.3, 5.4)
No	7469/7931	94.1	(93.4, 94.8)	5540/5747	96.2	(95.5, 96.9)	13009/13678	95.1	(94.6, 95.6)
Don't know	1/7931	0.0	(0.0, 0.0)	4/5747	0.1	(0.0, 0.1)	5/13678	0.0	(0.0, 0.1)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 14.4(2): HIV prevalence among adults and adolescents aged 15-64 years among those who reported ever receiving a blood transfusion by sex

	Total		
	Unweighted n/N	Weighted %	95% CI
Women	29/390	8.1	(5.2, 11.1)
Men	8/174	5.1	(1.2, 9.0)
Total	37/564	7.0	(4.5, 9.4)

Table 14.4a: HIV prevalence among adults and adolescents aged 15-64 years among those who ever receiving a blood transfusion by age group

	Total		
	Unweighted n/N	Weighted %	95% CI
15-19	2/63	3.8	(0.0, 8.8)
20-24	4/88	4.1	(0.1, 8.1)
25-29	4/62	8.7	(0.0, 19.1)
30-34	7/47	16.1	(4.7, 27.6)
35-39	6/70	10.6	(0.6, 20.7)
40-44	3/58	5.0	(0.0, 10.6)
45-49	2/45	4.1	(0.0, 10.2)
50-54	8/49	16.8	(5.8, 27.9)
55-59	0/39	0.0	–
60-64	1/43	1.9	(0.0, 5.7)
Total	37/564	7.0	(4.5, 9.4)

Table 14.5(1): Percent of adults and adolescents aged 15-64 years who reported they had received an injection in the last 12 months

	All		
	Unweighted n/N	Weighted %	95% CI
Yes	4201/13678	31.2	(29.9, 32.6)
No	9477/13678	68.8	(67.4, 70.1)

Table 14.5(2): HIV prevalence among adults and adolescents aged 15-64 years by reported number of medical injections in the year before the survey

	All		
	Unweighted n/N	Weighted %	95% CI
1	58/1108	5.2	(3.7, 6.7)
2-3	79/1460	5.3	(3.8, 6.8)
4-10	63/854	7.8	(5.2, 10.5)
11+	12/105	11.8	(5.0, 18.5)
Don’t know	5/68	7.4	(1.1, 13.8)
Total	217/3595	6.1	(4.9, 7.3)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 14.5a: Preferred form of medication among women and men aged 15-64 years

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Injection	3689/7932	48.1	(46.2, 50.1)	2036/5747	36.9	(35.0, 38.8)	5725/13679	42.6	(41.1, 44.2)
Pill	2988/7932	36.7	(35.0, 38.4)	2614/5747	44.6	(42.7, 46.5)	5602/13679	40.6	(39.2, 41.9)
Unsure	164/7932	2.1	(1.5, 2.6)	133/5747	2.0	(1.6, 2.5)	297/13679	2.1	(1.7, 2.4)
No preference	1091/7932	13.0	(11.4, 14.7)	964/5747	16.5	(14.8, 18.2)	2055/13679	14.7	(13.4, 16.1)

Table 14.5b: Number of reported medical injections in the past 12 months among adults and adolescents aged 15–64 years by sex

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
1	777/2748	28.2	(26.0, 30.4)	548/1375	41.1	(38.0, 44.3)	1325/4123	33.4	(31.4, 35.4)
2-3	1164/2748	42.4	(40.1, 44.7)	529/1375	37.7	(34.9, 40.5)	1693/4123	40.5	(38.8, 42.3)
4-10	723/2748	26.1	(23.9, 28.3)	260/1375	18.4	(16.0, 20.8)	983/4123	23.0	(21.2, 24.8)
11+	84/2748	3.3	(2.6, 4.1)	38/1375	2.7	(1.7, 3.8)	122/4123	3.1	(2.4, 3.8)

Table 14.5c: Source of injections among adults and adolescents aged 15–64 years who received an injection in the past 12 months

	All		
	Unweighted n/N	Weighted %	95% CI
Health care provider	4201/4418	95.0	(93.8, 96.2)
Traditional healer	21/4418	0.5	(0.2, 0.8)
Self-injection	196/4418	4.5	(3.3, 5.7)

Table 14.5d: HIV prevalence among adults and adolescents aged 15-64 years who received an injection in the past 12 months by source of injection

	All		
	Unweighted n/N	Weighted %	95% CI
Health care provider	217/3594	6.1	(4.9, 7.3)
Traditional healer	4/21	*	–
Self-injection	5/170	3.5	(0.3, 6.7)
Total	226/3785	6.0	(4.8, 7.3)

* Weighted estimates and 95% CI are not shown due to small denominators (<25 observations).

Table 15.3a: Enrolment into HIV care among adults and adolescents who self-reported HIV infected

	All		
	Unweighted n/N	Weighted %	95% CI
Attended HIV clinic	324/363	89.3	(85.5, 93.0)
Never attended HIV clinic	39/363	10.7	(7.0, 14.5)

Table 15.3b: Time from diagnosis to enrolment in HIV care among adults and adolescents who self-reported HIV positive status and were currently in care

	All		
	Unweighted n/N	Weighted %	95% CI
0 to 90 days	189/240	79.4	(73.6, 85.2)
91 to 180 days	17/240	6.1	(3.0, 9.2)
More than 180 days	34/240	14.5	(10.0, 19.1)

Table 15.3c (1): Proportion of adults and adolescents aged 15-64 years who self-reported HIV-infected by HIV clinic attendance in the past 3 months

	All		
	Unweighted n/N	Weighted %	95% CI
Attended HIV clinic in the past 3 months	303/323	93.8	(91.0, 96.5)
Did not attend HIV clinic in the past 3 months	20/323	6.2	(3.5, 9.0)

Table 15.3c (2): Proportion of adults and adolescents aged 15-64 years who self-reported HIV-infected by HIV clinic attendance in the past 6 months

	All		
	Unweighted n/N	Weighted %	95% CI
Attended HIV clinic in the past 6 months	311/323	95.6	(93.1, 98.1)
Did not attend HIV clinic in the past 6 months	12/323	4.4	(1.9, 6.9)

Table 15.4a (1): Co-trimoxazole coverage* among HIV-infected adults and adolescents aged 15-64 years

	All		
	Unweighted n/N	Weighted %	95% CI
Aware of status, taking CTX	273/648	41.5	(36.2, 46.8)
Aware of status, not taking CTX	32/648	5.3	(3.4, 7.3)
Unaware of status, not taking CTX	343/648	53.1	(47.6, 58.7)

* Coverage is defined by the proportion of those taking co-trimoxazole among all HIV-infected adults and adolescents irrespective of knowledge of HIV status.

Table 15.4a (2): Co-trimoxazole access among HIV-infected adults and adolescents aged 15-64 years**

	All		
	Unweighted n/N	Weighted %	95% CI
Currently taking CTX	273/305	88.6	(84.7, 92.5)
Not currently taking CTX	32/305	11.4	(7.5, 15.3)

Table 15.4b: Co-trimoxazole coverage* among HIV-infected adults and adolescents aged 15-64 years by region

	Aware of HIV status, taking CTX			Aware of HIV status, not taking CTX			Unaware of HIV status, not taking CTX		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Nairobi	26/67	38.0	(25.4, 50.7)	1/67	2.0	(0.0, 5.9)	40/67	60.0	(47.5, 72.4)
Central	26/60	40.1	(24.2, 56.0)	2/60	3.6	(0.0, 9.0)	32/60	56.3	(41.2, 71.4)
Coast	24/66	38.5	(24.6, 52.4)	2/66	2.4	(0.0, 5.4)	40/66	59.1	(44.2, 74.0)
Eastern North	11/29	44.3	(19.9, 68.6)	1/29	1.3	(0.0, 3.9)	17/29	54.5	(30.2, 78.7)
Eastern South	20/46	41.8	(27.3, 56.3)	2/46	4.6	(0.0, 11.0)	24/46	53.6	(36.9, 70.3)
Nyanza	114/242	45.3	(36.8, 53.9)	12/242	5.0	(2.2, 7.8)	116/242	49.7	(40.1, 59.3)
Rift Valley North	9/37	24.4	(7.9, 40.9)	7/37	23.6	(10.8, 36.3)	21/37	52.0	(35.6, 68.4)
Rift Valley South	15/42	40.0	(16.6, 63.3)	1/42	1.5	(0.0, 4.4)	26/42	58.5	(34.4, 82.7)
Western	28/59	47.1	(31.4, 62.9)	4/59	6.2	(0.0, 12.6)	27/59	46.7	(31.2, 62.2)
Total	273/648	41.5	(36.2, 46.8)	32/648	5.3	(3.4, 7.3)	343/648	53.1	(47.6, 58.7)

Table 15.4c: Estimated number[1,2] of HIV-infected adults and adolescents aged 15-64 years taking and not taking co-trimoxazole by region

	Aware of HIV status, taking CTX			Aware of HIV status, not taking CTX			Unaware of HIV status, not taking CTX		
	Estimated pop size	Weighted %	95 % CI	Estimated pop size	Weighted %	95 % CI	Estimated pop size	Weighted %	95 % CI
Nairobi	43000	8.8	(27000, 60000)	71000	10.2	(51000, 91000)	114000	9.6	(84000, 145000)
Central	42000	8.5	(22000, 63000)	63000	9.0	(45000, 82000)	105000	8.8	(75000, 136000)
Coast	32000	6.4	(18000, 46000)	51000	7.3	(35000, 67000)	83000	6.9	(57000, 108000)
Eastern North	2000	0.4	(1000, 3000)	3000	0.4	(1000, 5000)	5000	0.4	(3000, 7000)
Eastern South	48000	9.7	(27000, 70000)	67000	9.6	(40000, 94000)	115000	9.7	(70000, 160000)
Nyanza	204000	41.2	(134000, 273000)	246000	35.2	(180000, 310000)	449000	37.7	(334000, 564000)
Rift Valley North	20000	4.0	(7000, 33000)	62000	8.8	(35000, 88000)	82000	6.8	(49000, 114000)
Rift Valley South	51000	10.4	(12000, 90000)	77000	11.1	(48000, 106000)	129000	10.8	(75000, 182000)
Western	52000	10.5	(20000, 84000)	58000	8.4	(36000, 80000)	110000	9.2	(61000, 159000)
Total	495000	100	(401000, 589000)	697000	100	(608000, 786000)	1192000	100	(1037000, 1347000)

* Coverage is defined by the proportion of those taking co-trimoxazole among all HIV-infected adults and adolescents irrespective of knowledge of HIV status.
** Access is defined as the proportion of those taking co-trimoxazole among all HIV-infected eligible adults and adolescents who were aware of their HIV status.
[1] The 2012 national estimated population for adults and adolescents aged 15–64 years was calculated using un–normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

Table 15.4 (Text) Co-trimoxazole access among HIV-infected adults and adolescents aged 15-64 years by NASCOP region**

	all		
	Unweighted n/N	Weighted %	95% CI
Nairobi	26/27	95.0	(85.2, 100)
Central	26/28	91.7	(79.1, 100)
Coast	24/26	94.2	(87.4, 100)
Eastern North	11/12	97.2	(91.0, 100)
Eastern South	20/22	90.1	(77.3, 100)
Nyanza	114/126	90.1	(85.1, 95.1)
Rift Valley North	9/16	50.9	(21.2, 80.5)
Rift Valley South	15/16	96.4	(89.8, 100)
Western	28/32	88.4	(76.1, 100)
Total	273/305	88.6	(84.7, 92.5)

Table 15.4d (1): Comparison of co-trimoxazole coverage* among HIV-infected adults and adolescents aged 15-64 years, 2007 and 2012

	KAIS 2007			KAIS 2012			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Aware of status, taking CTX	124/1097	12.1	(9.3, 15.0)	273/648	41.5	(36.3, 46.7)	397/1745	22.9	(20.1, 25.8)
Aware of status, not taking CTX	39/1097	3.8	(2.5, 5.2)	32/648	5.3	(3.4, 7.3)	71/1745	4.4	(3.3, 5.5)
Unaware of status, not taking CTX	934/1097	84.1	(80.9, 87.2)	343/648	53.1	(47.6, 58.7)	1277/1745	72.7	(69.6, 75.7)

Table 15.4d (2): Comparison of co-trimoxazole access among HIV-infected adults and adolescents aged 15-64 years, 2007 and 2012**

	KAIS 2007			KAIS 2012			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Aware of status, taking CTX	124/163	76.0	(68.5, 83.6)	273/305	88.6	(84.7, 92.5)	397/468	84.0	(80.3, 87.7)
Aware of status, not taking CTX	39/163	24.0	(16.4, 31.5)	32/305	11.4	(7.5, 15.3)	71/468	16.0	(12.3, 19.7)

** Access is defined as the proportion of those taking co-trimoxazole among all HIV-infected eligible adults and adolescents who were aware of their HIV status.

Table 15.4e: Source of co-trimoxazole among adults and adolescents aged 15-64 years who self-reported HIV positive

	All		
	Unweighted n/N	Weighted %	95% CI
Public sector	249/311	79.4	(72.7, 86.0)
Private sector and other facilities	62/311	20.6	(14.0, 27.3)

Table 15.4f: Proportion receiving HIV care box† among self-reported HIV positive adults and adolescents aged 15-64 years who had ever enrolled in care

	All		
	Unweighted n/N	Weighted %	95% CI
Received care box	130/325	41.2	(34.1, 48.2)
Did not receive care box	195/325	58.8	(51.8, 65.9)

Table 15.4g: Proportion taking nutritional supplements among adults and adolescents aged 15-64 years who self-reported HIV positive status

	All		
	Unweighted n/N	Weighted %	95% CI
Taking daily nutritional supplements	92/322	28.9	(22.3, 35.4)
Not taking daily nutritional supplements	230/322	71.1	(64.6, 77.7)

Table 15.4h: Proportion of adults and adolescents aged 15-64 years who self-reported HIV positive status and have ever received a CD4 test

	All		
	Unweighted n/N	Weighted %	95% CI
Received a CD4 test	252/305	79.4	(72.6, 86.2)
Never received a CD4 test	53/305	20.6	(13.8, 27.4)

*Coverage is defined by the proportion of those on ART among all HIV-infected eligible adults and adolescents, irrespective of knowledge of HIV status.
**Access is defined as the proportion of those on ART among all HIV-infected eligible adults and adolescents who were aware of their HIV status.
***Under current Kenya treatment guidelines, ART eligibility includes persons ever on ART regardless of CD4 count, persons not on ART who have a CD4≤ 350 cells/μL, and persons currently on TB medication regardless of CD4 count. Under current WHO guidelines, ART eligibility includes all persons eligible according to current Kenya guidelines plus persons not on ART and who have a CD4≤ 500 cells/μL, women who are pregnant or breastfeeding regardless of CD4 count, and infected partners in a discordant relationship regardless of CD4 count.
† A care box is a basic HIV care package that includes mosquito nets, water treatment, a plastic clean water vessel, a filter cloth, condoms, and educational materials.

Table 15.4i: Proportion of adults and adolescents aged 15-64 years who self-reported HIV positive status and have ever received a CD4 count test, 2007 and 2012

	KAIS 2007			KAIS 2012		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Received a CD4 test	102/163	64.1	(55.4, 72.9)	252/305	79.4	(72.6, 86.2)
Never received a CD4 test	61/163	35.9	(27.1, 44.6)	53/305	20.6	(13.8, 27.4)

Table 15.5: Distribution of CD4 cell count among HIV-infected adults and adolescents aged 15-64 years not on ART

	All		
	Unweighted n/N	Weighted %	95% CI
≤350 cells	57/201	30.6	(22.6, 38.5)
351-500 cells	29/201	14.5	(9.3, 19.7)
>500 cells	115/201	54.9	(47.0, 62.8)

Table 15.5a (1): ART coverage* among HIV-infected adults and adolescents aged 15-64 years eligible to take ART based on Kenya guidelines* (CD4≤350)**

	All		
	Unweighted n/N	Weighted %	95% CI
Aware/Taking ART	109/174	60.5	(50.8, 70.2)
Aware/Not taking ART	15/174	11.1	(4.5, 17.8)
Unaware/Not taking ART	50/174	28.4	(19.9, 36.9)

Table 15.5a (2): ART access among HIV-infected adults and adolescents aged 15-64 years eligible to take ART based on Kenya guidelines***(CD4≤350)**

	All		
	Unweighted n/N	Weighted %	95% CI
Aware/Taking ART	109/124	84.5	(75.2, 93.7)
Aware/Not taking ART	15/124	15.5	(6.3, 24.8)

Table 15.5a (3): ART coverage* among HIV-infected adults and adolescents aged 15-64 years eligible to take ART based on WHO guidelines*(CD4≤500)**

	All		
	Unweighted n/N	Weighted %	95% CI
Aware/Taking ART	109/234	45.9	(37.7, 54.2)
Aware/Not taking ART	29/234	14.8	(9.0, 20.7)
Unaware/Not taking ART	96/234	39.3	(31.7, 46.9)

**Access is defined as the proportion of those on ART among all HIV-infected eligible adults and adolescents who were aware of their HIV status.
***Under current Kenya treatment guidelines, ART eligibility includes persons ever on ART regardless of CD4 count, persons not on ART who have a CD4≤ 350 cells/μL, and persons currently on TB medication regardless of CD4 count. Under current WHO guidelines, ART eligibility includes all persons eligible according to current Kenya guidelines plus persons not on ART and who have a CD4≤ 500 cells/μL, women who are pregnant or breastfeeding regardless of CD4 count, and infected partners in a discordant relationship regardless of CD4 count.

Table 15.5a (4) ART access among HIV-infected adults and adolescents aged 15-64 years eligible to take ART based on WHO guidelines***(CD4≤500)**

	All/		
	Unweighted n/N	Weighted %	95% CI
Aware/Taking ART	109/138	75.6	(66.0, 85.1)
Aware/Not taking ART	29/138	24.4	(14.9, 34.0)

Table 15.5b: Estimates of ART need and coverage among HIV-infected adults and adolescents aged 15-64 years by eligibility criteria*[1,2]**

	Kenya Treatment Guidelines			2013 WHO Treatment Guidelines		
	Estimated pop size	Weighted %	95 % CI	Estimated pop size	Weighted %	95 % CI
ART eligible among all infected	674000	58.8	(553000, 794000)	888000	77.4	(766000, 1009000)
ART Coverage among ART eligible	407000	60.5	(312000, 503000)	407000	45.9	(308000, 507000)

Table 15.5c: Source of ART for adults and adolescents aged 15-64 years who self-reported HIV positive and taking ART

	All		
	Unweighted n/N	Weighted %	95 % CI
Private sector and other facilities	184/240	75.7	(68.5, 82.9)
Public sector	56/240	24.3	(17.1, 31.5)

Table 15.6 (1): Ever taken ART among adults and adolescents aged 15-64 years who self-reported HIV positive

	All		
	Unweighted n/N	Weighted %	95% CI
Ever taken ART	245/325	76.5	(70.8, 82.2)
Never taken ART	80/325	23.5	(17.8, 29.2)

[1] The 2012 national estimated population for adults and adolescents aged 15–64 years was calculated using un–normalized survey weights based on data available in Kenya National Bureau of Statistics (KNBS). 2009 Population and Housing Census (2010)
[2] Estimates rounded to the nearest 1000

Table 15.6 (2): Currently taking ART among adults and adolescents aged 15-64 years who self-reported HIV positive

	All		
	Unweighted n/N	Weighted %	95% CI
Currently on ART	233/245	94.8	(91.5, 98.1)
Not currently on ART	12/245	5.2	(1.9, 8.5)

Table 15.6a: Adults and adolescents aged 15-64 years who self-reported HIV-infected currently taking ART who have missed taking ARVs in the past 30 days

	All		
	Unweighted n/N	Weighted %	95% CI
Missed taking ART	38/240	16.3	(10.9, 21.6)
Did not miss taking ART	202/240	83.7	(78.4, 89.1)

Table 15.6b: Viral load suppression (<1000 copies/ml) among HIV-infected currently taking ART

	All		
	Unweighted n/N	Weighted %	95% CI
Not suppressed (≥1000 copies/ml)	50/200	24.6	(18.2, 31.1)
Suppressed VL (<1000 copies/ml)	150/200	75.4	(68.9, 81.8)

Table 15.6c: Viral load suppression in HIV-infected adults and adolescents aged 15-64 years who were on ART by adherence status

	All		
	Unweighted n/N	Weighted %	95% CI
Missed doses in past 30 days	18/29	57.9	(37.4, 78.4)
Did not miss a dose in past 30 days	132/170	78.5	(71.7, 85.4)
Total	150/199	75.5	(69.1, 82.0)

Table 15.7 (1): ART adherence among women and men aged 15-64 years who self-reported HIV positive status and were currently taking ART

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Missed taking ART	24/179	13.7	(7.6, 19.7)	14/61	21.8	(11.1, 32.4)	38/240	16.3	(10.9, 21.6)
Did not miss taking ART	155/179	86.3	(80.3, 92.4)	47/61	78.2	(67.6, 88.9)	202/240	83.7	(78.4, 89.1)

Table 15.7 (2): Unmet need for family planning among HIV-infected women age 15 to 49 years in marital or cohabiting relationships who reported not wanting another child or wanting a child but not in the next two years

	Total		
	Unweighted n/N	Weighted %	95% CI
Unmet need for family planning	45/112	38.0	(28.1, 47.9)
Met need for family planning	67/112	62.0	(52.1, 71.9)

Table 15.7 (3): Experienced abnormal genital discharge in the past 12 months among women and men aged 15 to 64 years who self-reported HIV positive status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Yes	43/445	9.8	(6.7, 13.0)	8/188	4.6	(1.2, 7.9)	51/633	7.9	(5.6, 10.1)
No	402/445	90.2	(87.0, 93.3)	180/188	95.4	(92.1, 98.8)	582/633	92.1	(89.9, 94.4)

Table 15.7 (4): Experienced abnormal genital ulcer or sore in the past 12 months among women and men aged 15 to 64 years who self-reported HIV positive status

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Yes	34/433	7.7	(4.3, 11.1)	16/187	8.5	(4.1, 13.0)	50/620	8.0	(5.4, 10.7)
No	399/433	92.3	(88.9, 95.7)	171/187	91.5	(87.0, 95.9)	570/620	92.0	(89.3, 94.6)

Table 16.3 (1): Women and men aged 15-64 years who had ever heard of TB

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	7605/7954	95.6	(95.0, 96.3)	5613/5766	97.5	(96.9, 98.0)	13218/13720	96.5	(96.1, 97.0)
No	349/7954	4.4	(3.7, 5.0)	153/5766	2.5	(2.0, 3.1)	502/13720	3.5	(3.0, 3.9)

Table 16.3 (2): Knowledge on cure for TB among women and men aged 15-64 years by sex

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	6459/7605	84.3	(83.0, 85.6)	4914/5613	87.0	(85.6, 88.3)	11373/13218	85.6	(84.5, 86.7)
No	619/7605	8.7	(7.7, 9.8)	427/5613	8.4	(7.2, 9.6)	1046/13218	8.6	(7.7, 9.5)
Don't know	527/7605	6.9	(6.2, 7.7)	272/5613	4.7	(4.0, 5.4)	799/13218	5.8	(5.3, 6.4)

Table 16.3 (3): Knowledge on cure for TB among people with HIV infection among women and men aged 15-64 years by sex

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	2816/6459	44.3	(42.4, 46.1)	2378/4914	49.1	(47.0, 51.3)	5194/11373	46.7	(45.1, 48.3)
No	2045/6459	31.2	(29.4, 33.0)	1535/4914	31.6	(29.5, 33.7)	3580/11373	31.4	(29.9, 32.9)
Don't know	1598/6459	24.5	(22.9, 26.1)	1001/4914	19.3	(17.6, 20.9)	2599/11373	21.9	(20.7, 23.0)

Table 16.3a (text): Estimated number of HIV-infected adults and adolescents aged 15-64 years who ever been diagnosed with TB

	All		
	Estimated pop size	Weighted %	95% CI
Yes	410000	2.0	(351000, 470000)
No	19966000	98.0	(18914000, 21019000)

Figure 16.3a: Adults and adolescents aged 15-64 years that received a tuberculosis diagnosis from a health care professional, by HIV status

	Ever			Past 12 months		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
HIV-infected	75/633	11.9	(9.1, 14.8)	11/633	2.3	(0.9, 3.7)
HIV-uninfected	159/10570	1.5	(1.2, 1.7)	22/10570	0.2	(0.1, 0.3)
Total	234/11203	2.0	(1.7, 2.4)	33/11203	0.3	(0.2, 0.5)

* Weighted estimates are not shown due to small denominators (n<25 observations).

Figure 16.3b: Completion of TB treatment among adults and adolescents aged 15-64 years with co-morbidity of HIV and TB by knowledge of HIV status

	All		
	Unweighted n/N	Weighted %	95% CI
HIV-infected, aware of status	49/59	81.3	(69.1, 93.4)
HIV-infected, unaware of status	8/15	*	–
All HIV-infected	57/74	73.6	(61.3, 85.9)

Figure 16.3c: HIV prevalence among adults and adolescents aged 15-64 years by history of tuberculosis diagnosis

	All		
	Unweighted n/N	Weighted %	95% CI
Ever diagnosed with TB	75/234	33.2	(26.2, 40.2)
Diagnosed with TB in past 12 months	11/33	38.9	(19.4, 58.5)
Never diagnosed with TB	558/10969	5.1	(4.5, 5.8)

Figure 16.3d: HIV-infected adults and adolescents aged 15-64 years who were aware of their HIV status by history of TB diagnosis

	All		
	Unweighted n/N	Weighted %	95% CI
Ever diagnosed with TB	59/75	77.1	(66.2, 87.9)
Diagnosed with TB in past 12 months	4/11	*	–
Never diagnosed with TB	238/558	42.7	(36.5, 48.8)

Figure 16.3e (1): Co-trimoxazole coverage among adults and adolescents aged 15-64 years with co-morbidity with TB and HIV who were aware of their HIV status

	All		
	Unweighted n/N	Weighted %	95% CI
Aware of status, taking CTX	58/75	75.9	(64.9, 86.9)
Aware of status, not taking CTX	1/75	1.2	(0.0, 3.6)
Unaware of status, not taking CTX	16/75	22.9	(12.1, 33.8)

* Weighted estimates are not shown due to small denominators (n<25 observations).

Figure 16.3e (2): Co-trimoxazole access among adults and adolescents aged 15-64 years with co-morbidity with TB and HIV who were aware of their HIV status

	All		
	Unweighted n/N	Weighted %	95% CI
Aware of status, taking CTX	58/59	98.4	(95.4, 100)
Aware of status, not taking CTX	1/59	1.6	(0.0, 4.6)

Figure 16.3f (1): ART coverage among adults and adolescents aged 15-64 years with co-morbidity with HIV and TB, who were aware of their HIV status

	All		
	Unweighted n/N	Weighted %	95% CI
Aware of status/ taking ART	56/75	73.8	(62.9, 84.6)
Aware of status/ not taking ART	3/75	3.3	(0.0, 7.2)
Unaware of status	16/75	22.9	(12.5, 33.4)

Figure 16.3f (2): ART access amongaccess among HIV/TB co-infected adults and adolescents aged 15-64 years, with co-morbidity with HIV and TB, who were aware of their HIV status

	All		
	Unweighted n/N	Weighted %	95% CI
Taking ART	56/59	95.8	(90.6, 100)
Not taking ART	3/59	4.2	(0.0, 9.4)

Figure 16.4a: Proportion of women and men aged 15-64 years reporting abnormal discharge from penis or vagina in the past 12 months by age group

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	22/434	5.6	(3.2, 8.1)	8/383	1.6	(0.5, 2.7)	30/817	3.5	(2.1, 4.8)
20-24	90/1260	7.8	(5.8, 9.8)	12/693	1.4	(0.5, 2.2)	102/1953	5.1	(3.9, 6.2)
25-29	87/1271	7.3	(5.5, 9.1)	16/789	2.4	(1.1, 3.8)	103/2060	5.1	(4.0, 6.2)
30-34	56/964	5.8	(4.1, 7.5)	12/698	1.5	(0.5, 2.5)	68/1662	3.7	(2.7, 4.7)
35-39	52/810	6.4	(4.6, 8.1)	8/576	1.4	(0.4, 2.4)	60/1386	3.9	(2.9, 4.9)
40-44	47/650	7.4	(5.2, 9.5)	7/488	1.0	(0.2, 1.9)	54/1138	4.2	(3.0, 5.3)
45-49	26/487	5.4	(3.3, 7.6)	5/353	1.4	(0.1, 2.7)	31/840	3.5	(2.2, 4.8)
50-54	19/464	4.0	(2.1, 5.9)	8/368	1.8	(0.5, 3.1)	27/832	2.9	(1.7, 4.0)
55-59	8/311	3.0	(0.9, 5.2)	4/275	1.1	(0.0, 2.2)	12/586	2.0	(0.8, 3.2)
60-64	4/245	2.1	(0.0, 4.4)	2/214	0.8	(0.0, 1.8)	6/459	1.4	(0.2, 2.5)
Total	411/6896	6.2	(5.4, 7.1)	82/4837	1.5	(1.2, 1.9)	493/11733	4.0	(3.5, 4.4)

Figure 16.4b: Proportion of women and men aged 15-64 years who reported an ulcer on or near the vagina or penis in the past 12 months by age group

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-19	18/431	4.1	(2.1, 6.0)	8/384	1.7	(0.5, 2.8)	26/815	2.8	(1.7, 3.9)
20-24	47/1239	3.9	(2.6, 5.1)	9/693	1.1	(0.3, 1.8)	56/1932	2.6	(1.8, 3.5)
25-29	55/1255	4.4	(3.0, 5.8)	19/788	2.2	(1.1, 3.3)	74/2043	3.4	(2.5, 4.3)
30-34	34/952	3.4	(2.2, 4.6)	12/698	1.8	(0.8, 2.9)	46/1650	2.7	(1.8, 3.5)
35-39	34/802	4.7	(2.9, 6.5)	7/576	1.4	(0.2, 2.7)	41/1378	3.1	(1.9, 4.2)
40-44	24/641	4.1	(2.3, 5.9)	5/489	1.1	(0.1, 2.1)	29/1130	2.6	(1.5, 3.6)
45-49	19/478	4.4	(2.2, 6.6)	6/354	1.5	(0.2, 2.8)	25/832	3.0	(1.7, 4.3)
50-54	12/460	3.0	(1.2, 4.8)	9/367	2.3	(0.7, 3.8)	21/827	2.6	(1.5, 3.8)
55-59	4/303	1.6	(0.0, 3.2)	2/275	1.1	(0.0, 2.8)	6/578	1.3	(0.1, 2.5)
60-64	3/238	1.2	(0.0, 2.7)	1/214	0.4	(0.0, 1.1)	4/452	0.8	(0.0, 1.5)
Total	250/6799	3.8	(3.2, 4.5)	78/4838	1.6	(1.1, 2.0)	328/11637	2.7	(2.3, 3.1)

Figure 16.4c (1): Proportion of adults and adolescents aged 15-64 years who reported any history of STI symptoms among women and men aged 15–64 years who were diagnosed with a STI in the past 12 months by number of lifetime sexual partners

	All		
	Unweighted n/N	Weighted %	95% CI
0 or 1 lifetime partners	16/3814	0.5	(0.2, 0.8)
More than 1 lifetime partner	76/7050	1.0	(0.7, 1.3)
Total	100/11626	0.9	(0.7, 1.1)

Figure 16.4c (2): Proportion of women and men aged 15-64 years who received treatment for an ulcer near or on penis or vagina in the past 12 months

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Received treatment	51/54	91.0	(80.9, 100)	25/46	53.6	(38.0, 69.3)	76/100	70.5	(60.1, 80.9)
Did not receive treatment	3/54	9.0	(0.0, 19.1)	21/46	46.4	(30.7, 62.0)	24/100	29.5	(19.1, 39.9)

Figure 16.4d: HIV prevalence among women and men aged 15-64 years who reported having an abnormal discharge from vagina or penis in past 12 months

	Women			Men			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	43/380	11.2	(7.5, 15.0)	8/70	14.3	(5.2, 23.4)	51/450	11.8	(8.4, 15.2)
No	402/5548	7.4	(6.5, 8.3)	180/3995	4.8	(3.9, 5.7)	582/9543	6.1	(5.3, 6.8)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Figure 16.4e: HIV prevalence among women and men aged 15-64 years who reported having an ulcer/sore near or on penis/vagina in past 12 months

	Women			Men			Total		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Yes	34/232	14.3	(8.2, 20.4)	16/67	25.8	(14.1, 37.5)	50/299	17.5	(12.0, 22.9)
No	399/5610	7.3	(6.4, 8.2)	171/3999	4.6	(3.7, 5.4)	570/9609	5.9	(5.2, 6.7)
Total	455/6790	6.9	(6.0, 7.7)	193/4836	4.4	(3.6, 5.2)	648/11626	5.6	(4.9, 6.3)

Figure 16.5a: Women aged 15-64 years who were ever screened for cervical cancer by a health professional by age group and HIV status

	HIV-Infected			HIV-Uninfected			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
15-24 years	5/62	8.9	(1.2, 16.6)	73/2133	3.5	(2.6, 4.4)	78/2195	3.7	(2.7, 4.6)
25-29 years	8/84	10.2	(4.0, 16.3)	84/1018	9.2	(6.9, 11.6)	92/1102	9.3	(7.1, 11.5)
30-39 years	18/144	13.4	(7.4, 19.5)	127/1416	9.1	(7.4, 10.8)	145/1560	9.5	(7.9, 11.1)
40-49 years	16/101	16.6	(8.4, 24.8)	90/870	11.2	(8.0, 14.3)	106/971	11.7	(8.8, 14.7)
50-64 years	6/59	8.9	(1.8, 15.9)	68/847	8.4	(6.0, 10.7)	74/906	8.4	(6.2, 10.6)
Total	53/450	12.3	(9.0, 15.6)	442/6284	7.4	(6.5, 8.3)	495/6734	7.8	(6.8, 8.7)

Figure 16.5b: Women aged 15-64 years that ever received screening for cervical cancer by a health professional by HIV status and residence

	HIV-Infected			HIV-Uninfected			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Rural	24/261	8.9	(5.1, 12.7)	219/4156	5.6	(4.5, 6.7)	243/4417	5.8	(4.7, 6.9)
Urban	29/189	17.0	(11.4, 22.6)	223/2128	10.7	(9.1, 12.3)	252/2317	11.2	(9.7, 12.7)
Total	53/450	12.3	(9.0, 15.6)	442/6284	7.4	(6.5, 8.3)	495/6734	7.8	(6.8, 8.7)

Figure 16.5c: Women aged 15-64 years that received screening for cervical cancer by a health professional by HIV status and region

	HIV-Infected			HIV-Uninfected			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Nairobi	10/45	22.7	(9.8, 35.5)	92/682	13.0	(9.6, 16.3)	102/727	13.6	(10.6, 16.6)
Central	13/49	25.3	(12.1, 38.6)	105/780	14.4	(11.6, 17.2)	118/829	15.0	(12.0, 18.0)
Coast	3/49	6.7	(0.0, 14.0)	44/784	5.4	(3.8, 7.1)	47/833	5.5	(3.8, 7.2)
Eastern North	0/25	*	–	12/609	2.1	(0.4, 3.8)	12/634	2.0	(0.3, 3.6)
Eastern South	4/37	10.5	(0.9, 20.1)	57/714	7.8	(5.1, 10.5)	61/751	7.9	(5.4, 10.5)
Nyanza	17/149	12.2	(6.7, 17.8)	44/786	5.5	(3.1, 7.8)	61/935	6.6	(4.2, 8.9)
Rift Valley North	1/25	4.3	(0.0, 12.6)	19/581	3.4	(1.8, 5.1)	20/606	3.5	(1.8, 5.1)
Rift Valley South	2/28	6.5	(0.0, 15.4)	30/542	5.1	(2.4, 7.9)	32/570	5.2	(2.6, 7.8)
Western	3/43	6.2	(0.0, 13.6)	39/806	5.2	(3.0, 7.3)	42/849	5.2	(3.3, 7.2)
Total	53/450	12.3	(9.0, 15.6)	442/6284	7.4	(6.5, 8.3)	495/6734	7.8	(6.8, 8.7)

Figure 16.5d: Women aged 15-64 years who ever reported that they received an abnormal cervical cancer screening result by HIV status

	HIV-Infected			HIV-Uninfected			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	2/53	3.1	(0.0, 7.7)	27/442	5.6	(3.5, 7.6)	29/495	5.3	(3.3, 7.3)
No	51/53	96.9	(92.3, 100)	415/442	94.4	(92.4, 96.5)	466/495	94.7	(92.7, 96.7)

Figure 16.5e: Women aged 15-64 years with an abnormal cervical cancer screening result who reported they were referred for treatment by HIV status

	HIV-Infected			HIV-Uninfected			Total		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
Yes	0/2	*	–	16/27	59.1	(40.5, 77.6)	16/29	55.3	(36.7, 73.9)
No	2/2	*	–	11/27	40.9	(22.4, 59.5)	13/29	44.7	(26.1, 63.3)

Figure 16.6a: Mosquito net usage among adults and adolescents aged 15-64 years by HIV status and awareness of HIV status

	Any Mosquito Net			Insecticide-treated Net		
	Unweighted n/N	Weighted %	95% CI	Unweighted n/N	Weighted %	95% CI
HIV-infected, aware of status	236/305	76.0	(69.2, 82.9)	198/305	63.9	(56.1, 71.7)
HIV-infected, unaware of status	235/343	65.3	(59.5, 71.0)	197/343	55.1	(49.3, 60.8)
All HIV-infected	471/648	70.3	(65.8, 74.9)	395/648	59.2	(54.5, 63.9)
HIV-uninfected	6635/10955	59.8	(57.1, 62.4)	5413/10955	49.2	(46.8, 51.7)
All adults	7106/11603	60.4	(57.7, 63.0)	5808/11603	49.8	(47.4, 52.2)

Figure 16.6b: HIV-infected adults and adolescents aged 15-64 years who slept under a bed net by region and type of bednet

	Any Mosquito Net			Insecticide-treated Net		
	Unweighted n/N	Weighted %	95 % CI	Unweighted n/N	Weighted %	95 % CI
Nairobi	41/67	62.8	(48.5, 77.2)	30/67	41.7	(26.9, 56.5)
Central	17/60	30.9	(17.1, 44.7)	8/60	14.0	(2.1, 26.0)
Coast	61/66	90.0	(82.4, 97.6)	56/66	80.3	(69.9, 90.7)
Eastern North	25/29	89.8	(79.0, 100)	13/29	44.0	(25.9, 62.0)
Eastern South	27/46	61.0	(45.4, 76.5)	22/46	49.7	(36.5, 62.9)
Nyanza	204/242	83.1	(77.6, 88.5)	178/242	72.1	(66.2, 78.1)
Rift Valley North	25/37	74.1	(61.0, 87.3)	24/37	71.7	(58.0, 85.4)
Rift Valley South	20/42	45.3	(25.6, 65.0)	18/42	41.6	(21.5, 61.8)
Western	51/59	84.1	(74.3, 93.9)	46/59	73.8	(62.1, 85.6)
Total	471/648	70.3	(65.8, 74.9)	395/648	59.2	(54.5, 63.9)

Appendix C

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David Bukusi
Peter Maingi

NAIROBI REGION

Team I

Asha Adan Farah
Cynthia Mwithi
Cynthia Owuor
Dina Kerubo
Fesal Najoli
George Wainaina
Jane Wanjiru Irungu
Mohamed Osman
Moses Okelo

Team 2

Anthony Magesha
Doreen Mwitsa
Faith Nyaura
Jack rodgers Mwaniki
Judith Masese Gisemba
Mercy Lisangali
Nereah Were
Patrick Owiti

Team 3

Eiljah Ongeri
Emma Matoke
Mary Atemo
Pacific Akinyi
Pamela Akinyi
Rosemary Karoki
Susan Mutua
Washingtone Otiato

Team 4

Benson Mbugua
Edwin Nyachiro
Everline Bosibori Moranga
Felister Njeri Kiberenge
Jane Obada Omano
Margaret Makokha
Mumina Adhan
Safari Kithi

Team 5

Joseph Njoroge Gitu
Jack Wasuna
James Kinja
Janeth Mamboreo
Linda Gondi
Monica Chebet Bor
Sororo Huka Guyo

Violet Bochere

Wanjiru Gituku

Team 6

Bernard Langat

Caroline Wayeta Mumali

Collins Kikame

Juliet Andiko

Linda Anyango

Rael Odeke

Sammy Mwangi

Somane Hassan

Wanza Muthembwa

WESTERN/ TRANS-NZOIA REGION

Team 7

Harun Anunda Aura

Hilary Vigatsi

Janepher Akanga

Jericah Chahenza Ambasi

Josphine Afandi

Martin Shikuku

Martin Simiyu Masinde

Titus Sila

Team 8

Agripina Imbuka

Elizabeth Mukhaya

Emelda Muhonja

Harun Phillip Were

Jennifer N. Nyongesa

Lawrence Wandera

Paulus Sanya

Philip Kamau

Team 9

Eliza Nahayo

Festus Injera Ashisoma

Grace W. Wanjala

Joan Nekesa Wasike

Maureen Olindi

Michael Omusebe Akhonya

Onesmus Mwongela

Sore Inyama Paul

Zachary Ochola

Team 10

Bessie Catherine Waswa

Emily Imbuka

Ethel Elaini Kalani

Fred Migosi Odiaga

Gilbert Ilagoswa Onzere

Irene Kanana Mwebia

Joel Mibei

Josephat Mugeni

Merab M. L. Mulindi

Team 11

Amira John Moses

Annet Ayuma

Dorcas Mang'oli

Everlyn Shikamai Nasimyu

Gaxton B. W. Makheti

Isimael Kutwa Bennie

Jesse Irungu

Mary Magdalene Barasa

Wanzalla Richard Gideon

Wycliffe Otieno Ogenga

CENTRAL REGION

Team 12

Benson Gichuhi

Carolyne Wangari Gikera

Elizabeth Njoki Njang'iru

Eunice Karanja

Grace Muthui

Jadiel Chege

Joseph Muriuki

Macharia Mugo Gitau

Martina Mwangi

Team 13

Evanson Muthondi

Faith Gatonye

Joseph Njuguna

Joyce Wanjiku Njuguna

Patrick Munene Njuguna

Mary Wanjiku

Rose Njeri Muraya

Simon Gathogo

Team 14

Ann W. Gichuchi

Edwin Muriithi

Elias RutereNyaga

Elizabeth Kimotho

Judy K. Mathai

Margaret Wanjiru Njoroge

Peter Irungu

Samuel Mithamo Kimiti

Sebastian Karwendo Muroki

Zipporah Nyambura

Team 15

Abel Murimi Muchira

Ann Muthoni Wacuka

Arthur Maigwa Macharia

Charity W. Mungai

Daniel Mbui

George Kagia Kariuki

Rosalind W. Muraguri

Rose Akose Malova

Wilson Kibugi

Team 16

Caroline Wanjugu Muthoni

Christine Wairimu Mirichu

Esther Waithiegani Ndung'u

James Mwangi

Joseph Ngatia

Lucy WairimuTamoo

Pity Wamuhu Davin

Rasto Levi Akubasu

Stanley Gitau Githu

COAST REGION

Team 17

Annet Adhiambo

Christopher K Tallam

Daniel Mkamba Kalume

Evans Muzi Ndoro

Fatuma Mahamud

Hinzano Katana Karisa

Rufus Njuguna

Shem Kaosa

Team 18

Caroline Muya

Daniel Musembi

Douglas Kalu Kazungu

Esha Ahmed

Grace Muyazi Matola Mutua

Jamar Mendez

Jane Dzidza Kutandaza

Ronald Neil Mbunya

Teddy Chipa Safari

Team 19

Baqata Alia

Beatrice Onyango

Chege Kamanga

Eric K. Maitha

Hadija Wachia

Maimuna K. Riungu

Mbaruk Mashua

Willie Konde Ndungu

Team 20

Ali Salim Ali

Francis Ruwa Kilumo

Hellen Masila

Irene Bahati Maoni

Irene Ombega

James Wainaina

Seth Opiyo

Suleman M. Toyya

Thomas K. Makange

Tima Bwana Bwanadi

Team 21

Aisha Razik Said

Anderson Masha Kirimo

Charles Lemaiyian

Christine Mureith

Gretel Andaye

Harriet Mwagandi

Jane B. Mwakuwanda

Simon Amani Tunje

EASTERN REGION

Team 22

Ali Bashir

Galgallu Guyo Danso

Hannah Komu

Idris Dima Abduba

Jamila Konso

Maryam Osman Ibrahim

Patrick Kamau

Peter Muturi

Team 23

David Nthenya

Halake Tadicha

Jane Jillo Galgalo

Jillo Abdullahi

Justus Ngunia

Rose Qarale Boru

Rose Wairimu Wanjohi

William K .Sipai

Zahara Hassan

Team 24

Ali Aden Ali

Amina Hapi Falana

Brenda Auma Ojijo

Charles Maina

Halake Adam Guyo

Hassan Noorow Abdiraman

Jirma Regina Midina

Lucy Wangari Njogu

Mohamed Galma

Saeed Adan Galawe

Team 25

Asha Bonaya

Abdi Adow Aden

Adano Godana Elema

Fugicha A. GuyowSarru

Gumato Isacko

Hokile Abudo Guyo

Nahashon Kimani

Osman Wako

Rahma Abdikadir

Team 26

Anastasia Matu

Bernice Wanjiru Mbogo

Elizabeth Mukami Maina

Hellen Njeri Nyaga

Lewis M. Kinyua

Machuka Lizpah

Stephen Warutumo

Steve Maina

Zipporah Kainyu Mwongera

Team 27

Bernard Wachira

Charles Mwakazi

Christine Muruku

Diana Mutheu Mathew

Francis Kamau

Jedial G. Muranga

Mercy Tiira Kaburu

Moses Mugambi Mwenda

William Kiunga Mwaja

Team 28

Alice Mutunga

Catherine Syombua

David Muinde

Joyce Kasila

Lydia Mutinda

Margaret Mwikali Kulu

Stanley Mutwii Wambua

Steve Mwasia

Team 29

Benard Mboni

Dickson M. Mwenda

George Karichu

Ida Mutinda

Jackson Musembi

Jane Peter

Lydia MutindaNdaisi

Meshack Muteti Wambua

Noeline Kavali

Pascaline Nthenya Munyao

NYANZA REGION

Team 30

Anne Owino

Caren A. Ogutu

Geoffrey Sheridan Ouma

Maurice Wesa

Pamela Ondiek

Phillip Noon Odede

Teresia Wahowe Ochieng

Titus Onyango

Victor Abonyo

Team 31

Everlyne Oludhe

Gorrety Adhiambo

Kennedy O. Orure

Kimuma Kosida

Lawrence Ngunda

Onyith Titus Ochieng

Sophie Anyango Opiyo

Yvonne Ajwang Obillo

Team 32

Annet Akinyi Opondo

Florence Odhiambo

George Okuku

Josphine Omuom

Millicent Agola Magero

Nicholas Mulei

Ogira Awuor Lydia

Phelix Omondi

Rebecca Awuor Ohonde

Wycliffe Okinyi Ochieng

Team 33

Anne Ongera

Brian Oyugi

Gilchrist Lekoleil

Grace Moraa Orina

Isaiah Cheluget

Jane Kwamboka Nyandoro

Solomon Chui

Veronicah Mwaragua

Team 34

Charles Tongi Maranga

Grace Kwamboka Mogire

Irene Kwamboka Omwenga

Janet Bochaberi

Joseph Moindi Omagwa

Kennedy J Wambura

Lorna Okatch

Nahasho Kimani

Nelson Nyaachi

Singa Moraa

RIFT VALLEY REGION

Team 35

Alice Nataba

Caroline Koima

David Ekurudi Lokaala

Edete Lokwae Lucas

Emily Chepchumba

Francis Ebbey Lowana

Fredrick Ejore

Mary Kanyaman Ekai

Robert Odiwor

Team 36

Edward Sekento

Esther Lasoi Sankale

Florence Nasha Ranka

Hellen Larabi

Jackson Miana

Josephat Kaloi

Naisho William Saitoti

Reuben Kindi Kilusu

Zipporal Naisianoi Saitoti

Team 37

Ayabei Alvin

Beatrice Chepkirui

Deborah JepKurui Cheruityot

Emma Chepkurui

Joseph Kiprotich Kimugung

Josephine Chepngeno Langat

Kennedy Paul

Raphael Cheruiyot Maritim

Team 38

Caroline Koima

Chebet Seluget

Eunice Jematia Chepyegon

Gerald Odari

Janet Jematia Miningwo

Nelly Jelagat Kosgey

Pamela Cherotich Busieney

Paul Cheruiyot Ronnoh

Phillip Kimutai Chesire

Samuel Masai

Team 39

Evaline Chepkemoi

Immaculate C. Ngulat

Jackqueline Chepkwony

Jacob Ndegwa

Josphat Kimutai Kemei

Kiprotich Solomon Kimeto

Leonard K. Nyolei

Mary Cherop

Setruget Janet

Wycliffe K. Matini

Team 40

Annastacia W. Kungu

Boniface Kimondo

Joseph Kingori Ndegwa

Mary Chepkemoi Kitelo

Rhoda Jamaech Kimata

Robert I. Wahome

Serah Nyambura

Titus Mburu

David Kamau Njoroge

ENGLISH

CONFIDENTIAL

MINISTRY OF HEALTH
KENYA AIDS INDICATOR SURVEY 2012
HOUSEHOLD QUESTIONNAIRE

TICK IF HOUSEHOLD SELECTED FOR CHILDREN'S SURVEY ☐

IDENTIFICATION

PROVINCE NAME: _____ PROVINCE CODE : ☐

NASCOP REGION NAME: _____ NASCOP REGION CODE : ☐☐

COUNTY NAME : _____ COUNTY CODE : ☐☐

DISTRICT NAME: _____ DISTRICT CODE : ☐☐

NASSEP V CLUSTER NUMBER: ☐☐☐☐

NAME OF HOUSEHOLD HEAD: _____ HOUSEHOLD NUMBER: ☐☐☐

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
VISIT DATE:	_____	_____	_____	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐☐☐
INTERVIEWER NAME:	_____	_____	_____	INT. CODE: ☐☐☐☐
RESULT*	_____	_____	_____	RESULT: ☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS: ☐
NEXT VISIT: TIME	_____	_____		

TOTAL PERSONS IN HOUSEHOLD	TOTAL ELIGIBLE WOMEN:	TOTAL ELIGIBLE MEN:	TOTAL ELIGIBLE CHILDREN:	LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE
☐☐	☐☐	☐☐	☐☐	☐☐

TIME STARTED: HOUR: ☐☐ MINUTES: ☐☐

TIME ENDED: HOUR: ☐☐ MINUTES: ☐☐

SUPERVISOR: _____ SUPERVISOR CODE: ☐☐☐☐

DATE: _____

OFFICE EDITOR: ☐☐

KEYED BY: ☐☐

* **RESULTS CODES**:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

Consent 1: Household Questionnaire Consent

Hello, my name is _____ and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey on HIV/AIDS, with National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health, the Kenya National Bureau of Statistics, the University of California San Francisco and the United States Centers for Disease Control and Prevention. This study will help us develop better health services for Kenyans. We would very much appreciate if you could take part in this survey. Approximately 10,475 households with about 24,000 adults and 8,000 children will be taking part in this survey.

As part of this survey, we would like to ask some questions about your family. You will be asked questions about your family; such as how many people live here, their relationship to you and others in the family, their sex and age. All the survey information will be confidentially recorded and stored in a small computer as we collect the data. The interview will take up to 30 minutes. All of the answers you give will be private and will not be shown to anyone outside of the study team.
Being in the study is your choice.

Please take your time to make your decision about taking part. Before you make your decision, is important that you know the following:

- The study will only include people who choose to take part.
- Your participation in this study is up to you. No one can make you participate if you do not want to.
- You may decide not to answer the questions, or to stop the study at any time. If you do not take part or decide to stop you will not lose any health care services.
- All of the information collected in this survey will be kept private and answers to these questions will not be shared with anyone.
- If there are any questions you don't want to answer, just let me know and I will go on to the next question; or you can stop at any time.

Risks and Benefits
If you take part of this survey, the risk to you is small. We may ask you questions that may be uncomfortable to answer. You are free to not answer any questions that you feel are uncomfortable. The information you give us is private but there is a very small chance that someone might share information about you with someone outside the study. However, the benefits of taking part is that the information that you provide to us will be used to improve the health of Kenyans by helping the us develop programs to fight HIV/AIDS and other disease in Kenya.

Confidentiality
What we talk about will be kept private, even among your family. We will keep the records using numbers, not names. We will keep the records at Kenya National Bureau of Statistics (KNBS) and at the National AIDS and STD Control Program (NASCOP). Your name will not appear when we discuss this project. When the results of this study are discussed, we will focus on all answers from the big group so no one will know your answers.

Consent 1: Household Questionnaire Consent (cont.)

This study is funded by the Government of Kenya, the United States Government, the United Nations, and other partners. There are no costs to you for taking part in this study.

At this time, do you want to ask me anything about the survey? If you have any questions at any time, we want you to ask us.

[Interviewer: provide the following information to the participant:]

If you feel that you have been harmed by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey.

Kenya National Bureau of Statistics (KNBS): Macdonald Obuhdo
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

May I begin the interview now? **YES** ☐ **NO** ☐

Interviewer Name: _____

Interviewer Signature: _____ Date: _____

[Interviewer: Indicate whether participant says "Yes" or "NO" to the above statement, write your names and sign/initial on the above line and record the date. Record decision on household questionnaire.]

Household Schedule

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	
	Please give me the names of the persons who usually lives in your household or guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAME AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON ASK QUESTIONS 2A-2C BELOW TO BE SURE THAT THE SCHEDULE IS COMPLETE.	What is the relationship of (**NAME**) to the head of the household? SEE CODES BELOW	Is (**NAME**) Male or Female?	Does (**NAME**) usually live here?	Did (**NAME**) sleep here last night?	How old is (**NAME**)?	Is age of (**NAME**) recorded in MONTHS/ YEARS?
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
2		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
3		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
4		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
5		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
6		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
7		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
8		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
9		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐
10		☐☐	M F	Y N	Y N	☐☐	MONTHS ☐ YEARS ☐

☐ TICK HERE IF CONTINUATION SHEET USED

2A) Just to make sure I have a complete listing, are there any other persons such as small children or infants that we have not listed?

YES ☐ NO ☐

2B) Are there any other people who may not be members of your household such as domestic servants, lodgers, of friends who usually live here?

YES ☐ NO ☐

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night who we have not seen?

YES ☐ NO ☐

ADD TO SCHEDULE

CODES FOR COLUMN 3: RELATIONSHIP TO HOUSEHOLD HEAD

01 = HEAD
02 = WIFE/HUSBAND/PARTNER
03 = SON OR DAUGHTER
04 = SON-IN-LAW/ DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER/SISTER
09 = NIECE/NEPHEW BY BLOOD
10 = NIECE/ NEPHEW BY MARRIAGE
11 = CO-WIFE
12 = OTHER RELATIVE
13 = ADOPTED/ FOSTER/STEPCHILD
14 = NOT RELATED
98 = DON'T KNOW

HOUSEHOLD SCHEDULE

LINE NO.	IF **(NAME)** IS 0-17 YEARS						DISABILITY		ELIGIBILITY
	EMANCIPATION STATUS	PARENT OR GUARDIAN	ORPHAN STATUS						
	Is (**NAME**) emancipated?	Record the LINE NUMBER of the parent or guardian of (**NAME**). Record '00' if parent or guardian not present in HH.	Is (**NAME**)'s natural father alive?	IF FATHER NOT ALIVE: Did (**NAME**)'s natural father have HIV/AIDS?	Is (**NAME**)'s natural mother alive?	IF MOTHER NOT ALIVE: Did (**NAME**)'s mother have HIV/AIDS?	Does **(NAME)** have a cognitive disability that hinders participation?	Does **(NAME)** have a hearing disability that hinders participation?	Is (**NAME**) eligible for survey?
(1)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
2	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
3	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
4	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
5	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
6	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
7	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
8	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
9	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N
10	Y → 11 N		Y N → 13	Y N	Y N → 15	Y N	Y N	Y N	Y N

TOTAL ELIGIBLE MEN (ADULTS AND EMANCIPATED MINORS)	
TOTAL ELIGIBLE WOMEN (ADULTS AND EMANCIPATED MINORS)	
TOTAL ELIGIBLE CHILDREN (10 TO 14 YEARS)	
TOTAL CHILDREN (18 MONTHS TO 9 YEARS)	

HOUSEHOLD SCHEDULE									
LINE NO.	IF (**NAME**) is 18-64 years	IF (**NAME**) is 0-17 years							
	SICK PERSON	SICKNESS AND RESIDENCE OF BIOLOGICAL PARENTS						**MOTHER DEAD OR SICK**	**FATHER DEAD OR SICK**
	CHECK COLUMNS 7 AND 8, IF UNDER 18 ➔ 19 IF 18 YEARS OR MORE: Has (**NAME**) been very sick for at least 3 months during the past 12 months, that is (**NAME**) was too sick to work or do normal activities?	CHECK COLUMN 13, IF COLUMN 13 'N' ➔ 22 IF COLUMN 13 'Y': Has (**NAME**)'s natural mother been very sick for at least 3 months during the past 12 months, that is she was too sick to work or do normal activities?	IF MOTHER SICK: Does (**NAME**)'s natural mother have HIV/AIDS?	Did (**NAME**)'s natural mother sleep here last night?	CHECK COLUMN 11, IF COLUMN 11 'N' ➔ 25 IF COLUMN 11 'Y': Has (**NAME**)'s natural father been very sick for at least 3 months during the past 12 months, that is he was too sick to work or do normal activities?	IF FATHER SICK: Does (**NAME**)'s natural father have HIV/AIDS?	Did (**NAME**)'s natural father sleep here last night?	IF CHILD'S NATURAL MOTHER HAS DIED (COLUMN 13 'N') OR BEEN SICK (COLUMN 19 'Y'), SELECT Y.	IF CHILD'S NATURAL FATHER HAS DIED (COLUMN 11'N') OR BEEN SICK (COLUMN 22 'Y'), SELECT Y.
(1)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
2	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
3	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
4	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
5	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
6	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
7	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
8	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
9	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
10	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

HOUSEHOLD SCHEDULE			
LINE NO.	WIVES AND CO-HABITATING PARTNERS		
	Record the LINE NUMBER (**NAME**)'s of wife or partner. If no wife or partner leave blank.	Record the LINE NUMBER (**NAME**)'s of wife or partner. If no wife or partner leave blank.	Record the LINE NUMBER (**NAME**)'s of wife or partner. If no wife or partner leave blank.
(1)	(27a)	(27b)	(27c)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

KAIS 2012 HOUSEHOLD QUESTIONNAIRE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	HOUSEHOLD CHARACTERISTICS		
101	What is the <u>main</u> source of drinking water for members of your household?	**PIPED WATER** PIPED INTO DWELLING……11 PIPED TO YARD/PLOT……...12 PUBLIC TAP/STANDPIPE……..13 TUBE WELL OR BOREHOLE……21 **DUG WELL** PROTECTED WELL……31 UNPROTECTED WELL……...32 **WATER FROM SPRING** PROTECTED SPRING……41 UNPROTECTED SPRING……...42 RAINWATER……..51 TANKER TRUCK……...61 CART WITH SMALL TANK……71 SURFACE WATER (RIVER/DAM/LAKE/ POND/STREAM/CANAL)……....81 BOTTLED WATER……...91 OTHER……..96 _____ (SPECIFY)	
102	What do you do to make your water safe for drinking?	BOILING……1 FILTRATION (CHARCOAL FILTER)……...2 SEDIMENTATION……...3 DISINFECTION (WATERGUARD, CHLORINE)……4 USE BOTTLED WATER……....5 DO NOT TREAT WATER……..6 OTHER……...96 _____ (SPECIFY)	
103	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET……11 TRADITIONAL PIT LATRINE……...21 VENTILATED IMPROVED PIT LATRINE (VIP)……..22 NO FACILITY/BUSH/FIELD……....61 OTHER……96 _____ (SPECIFY)	→ 105

KAIS 2012 HOUSEHOLD QUESTIONNAIRE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
104	Do you share this toilet facility with other households?	YES……..…1 NO……..…2	
PREFACE BEFORE QUESTIONS 105-109: Does your household have:			
105	Electricity?	YES……..…1 NO……..…2	
106	A radio	YES……..…1 NO……..…2	
107	A television?	YES……..…1 NO……..…2	
108	A telephone/mobile telephone	YES……..…1 NO……..…2	
109	A refrigerator	YES……..…1 NO……..…2	
110	What type of fuel does your household mainly use for cooking?	ELECTRICITY……1 LPG / NATURAL GAS……..2 BIOGAS……..3 PARAFFIN / KEROSENE……4 COAL, LIGNITE……5 CHARCOAL FROM WOOD……6 FIREWOOD / STRAW……..7 DUNG……..8 NO FOOD COOKED IN HOUSEHOLD…...95 OTHER……..96 _____ (SPECIFY)	

KAIS 2012 HOUSEHOLD QUESTIONNAIRE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
111	MAIN MATERIAL OF FLOOR RECORD OBSERVATION.	**NATURAL FLOOR** EARTH / SAND……11 DUNG……12 **RUDIMENTARY FLOOR** WOOD PLANKS……21 PALM / BAMBOO……22 **FINISHED FLOOR** PARQUET OR POLISHED WOOD……31 VINYL OR ASPHALT STRIP……32 CERAMIC TILES……33 CEMENT TERAZO……34 CARPET……35 OTHER……96 _____ (SPECIFY)	
112	MAIN MATERIAL OF THE ROOF RECORD OBSERVATION.	**NATURAL ROOFING** NO ROOF……11 THATCH/PALM LEAF (MAKUTI)……12 DUNG / MUD……13 **RUDIMENTARY ROOFING** CORRUGATED IRON (MABATI)……21 TIN CANS……22 **FINISHED ROOFING** ASBESTOS SHEET……31 CONCRETE……32 TILES……33 OTHER……96 _____ (SPECIFY)	
113	MAIN MATERIAL OF THE EXTERIOR WALLS RECORD OBSERVATION.	**NATURAL WALLS** NO WALLS……11 CANE/PALM/TRUNKS……12 DUNG / MUD……13 **RUDIMENTARY WALLS** BAMBOO WITH MUD……21 STONE WITH MUD……22 PLYWOOD/CARDBOARD……23 CARTON……24 REUSED WOOD……25 **FINISHED WALLS** CEMENT……31 STONE WITH LIME/CEMENT……32 BRICKS……33 CEMENT BLOCKS……34 WOOD PLANKS/SHINGLES……35 OTHER……96 _____ (SPECIFY)	

KAIS 2012 HOUSEHOLD QUESTIONNAIRE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
114	How many rooms are used for sleeping?	NUMBER OF ROOMS: ☐☐	
PREFACE BEFORE QUESTIONS 115-118: Does any member of your household own:			
115	A bicycle?	YES……1 NO……2	
116	A motorcycle or motor scooter?	YES……1 NO……2	
117	A car or truck?	YES……1 NO……2	
118	A boat with a motor?	YES……1 NO……2	
PREFACE BEFORE QUESTIONS 119-123: Does any member of your household own:			
119	Cows?	YES……1 NO……2	
120	Goats/Sheep?	YES……1 NO……2	
121	Poultry (e.g., ducks, chickens)?	YES……1 NO……2	
122	Dogs?	YES……1 NO……2	
123	Other animals (camels, horses, donkeys)?	YES……1 NO……2	
124	Does your household have any mosquito nets that can be used while sleeping?	YES……1 NO……2	

KAIS 2012 HOUSEHOLD QUESTIONNAIRE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
125	In the past 4 weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?	YES……1 NO……..2 DON'T KNOW……..8	→ 127
126	How often did this happen in the past 4 weeks?	RARELY (1-2 TIMES)……1 SOMETIMES (3-10 TIMES)……..2 OFTEN (MORE THAN 10 TIMES)……...3	
127	In the past 4 weeks, did you or any household member go to sleep at night hungry because there was not enough food?	YES……1 NO……..2 DON'T KNOW……..8	→ 129
128	How often did this happen in the past 4 weeks?	RARELY (1-2 TIMES)……1 SOMETIMES (3-10 TIMES)……..2 OFTEN (MORE THAN 10 TIMES)……...3	
129	In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?	YES……1 NO……..2 DON'T KNOW……..8	→ 201
130	How often did this happen in the past 4 weeks?	RARELY (1-2 TIMES)……1 SOMETIMES (3-10 TIMES)……..2 OFTEN (MORE THAN 10 TIMES)……...3	

KAIS 2012 HOUSEHOLD QUESTIONNAIRE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	SUPPORT FOR ORPHANS AND VULNERABLE CHILDREN		
201	DO NOT READ: CHECK COLUMN 7 IN THE HOUSEHOLD SCHEDULE. **ANY CHILD AGE 0-17 YEARS**?	NUMBER OF CHILDREN 0-17 YRS: ☐☐ IF '00' NONE → END HH INTERVIEW IF AT LEAST ONE CHILD CONTINUE TO 202	
202	DO NOT READ: CHECK COLUMN 18 IN THE HOUSEHOLD SCHEDULE. **ANY SICK ADULT AGE 18-64 YEARS?**	YES……1 → 205 NO……2	
203	DO NOT READ: CHECK COLUMN 25 IN THE HOUSEHOLD SCHEDULE. **ANY CHILD WHOSE MOTHER HAS DIED OR IS VERY SICK?**	YES……1 → 205 NO……2	
204	DO NOT READ: CHECK COLUMN 26 IN THE HOUSEHOLD SCHEDULE. **ANY CHILD WHOSE FATHER HAS DIED OR IS VERY SICK?**	YES……1 → 205 NO……2 → END HH INTERVIEW	

205	**Record names, line numbers, and ages of all children 0-17 who are identified in columns 18, 25, and 26 as having a sick adult in their household or having a mother and/or father who has died or has been very sick.**			
		CHILD (1)	CHILD (2)	CHILD (3)
	NAME	_____	_____	_____
	LINE NUMER (FROM COLUMN 1)	☐☐	☐☐	☐☐
	AGE (FROM COLUMN 7)	☐☐	☐☐	☐☐
	➢ **INTERVIEWER SAY: "I would like to ask you about any formal, organized help or support for children that your household may have received for which you did not have to pay. By formal, organized support, I mean help provided by someone working for a program. This program could be government, private, religious, charity, or community-based."**			
206	Now I would like to ask you about the support your household received for (**NAME**). In the last 12 months, has your household received any medical support for (**NAME**), such as medical care, supplies, or medicine, for which you did not have to pay?	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8
207	In the last 12 months, has your household received any emotional or psychological support for (**NAME**), such as companionship, counseling from a trained counselor, or spiritual support, which you received at home and for which you did not have to pay?	YES……1 NO……..2 209 ← DON'T KNOW……..8	YES……1 NO……..2 209 ← DON'T KNOW……..8	YES……1 NO……..2 209 ← DON'T KNOW……..8
208	Did your household receive any of this emotional or psychological support for (**NAME**) in the past 3 months?	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8

209	In the last 12 months, has your household received any material support for (**NAME**), such as clothing, food, or financial support, for which you did not have to pay?	YES……1 NO……..2 211 ← DON'T KNOW……..8	YES……1 NO……..2 211 ← DON'T KNOW……..8	YES……1 NO……..2 211 ← DON'T KNOW……..8
210	Did your household receive any of this material support for (**NAME**) in the past 3 months?	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8
211	In the last 12 months, has your household received any social support for (**NAME**) such as help in household work, training for a caregiver, or legal services, for which you did not have to pay?	YES……1 NO……..2 213 ← DON'T KNOW……..8	YES……1 NO……..2 213 ← DON'T KNOW……..8	YES……1 NO……..2 213 ← DON'T KNOW……..8
212	Did your household receive any of this social support for (**NAME**) in the past 3 months?	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8
<u>CHECK 204 (AGE OF CHILD)</u>: **IF CHILD IS 0-4 YEARS, GO TO END AND CONTINUE TO NEXT CHILD IF OTHER CHILDREN WHOSE MOTHER AND/OR FATHER HAS DIED OR IS VERY SICK.** **IF CHILD IS 5-17 YEARS, GO TO 213.**				
213	Has (**NAME**) ever attended school?	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8

214	What is the highest level of school (NAME) completed? PROBE TO GET SPECIFIC EDUCATION LEVEL.	NURSERY/KINDERGARTEN.....1 PRIMARY……….....................2 POST-PRIMARY/VOCATION......3 SECONDARY/ 'O' LEVEL (FORM 1-4)……………………..................4 SECONDARY/ 'A' LEVEL (FORM 5-6)……………………..................5 COLLEGE (MIDDLE LEVEL, CERTIFICATE OR DIPLOMA)....6 UNIVERSITY…….......................7 POST GRADUATE…….............8 DON'T KNOW………..................88	NURSERY/KINDERGARTEN.....1 PRIMARY……….....................2 POST-PRIMARY/VOCATION......3 SECONDARY/ 'O' LEVEL (FORM 1-4)……………………..................4 SECONDARY/ 'A' LEVEL (FORM 5-6)……………………..................5 COLLEGE (MIDDLE LEVEL, CERTIFICATE OR DIPLOMA)....6 UNIVERSITY…….......................7 POST GRADUATE…….............8 DON'T KNOW………..................88	NURSERY/KINDERGARTEN.....1 PRIMARY……….....................2 POST-PRIMARY/VOCATION......3 SECONDARY/ 'O' LEVEL (FORM 1-4)……………………..................4 SECONDARY/ 'A' LEVEL (FORM 5-6)……………………..................5 COLLEGE (MIDDLE LEVEL, CERTIFICATE OR DIPLOMA)....6 UNIVERSITY…….......................7 POST GRADUATE…….............8 DON'T KNOW………..................88
215	In the last 12 months, has your household received any support for (NAME)'s schooling, such as allowance, free admission, books, or supplies, for which you did not have to pay?	YES……………………....................1 NO……………………......................2 DON'T KNOW….......................8	YES……………………....................1 NO……………………......................2 DON'T KNOW….......................8	YES……………………....................1 NO……………………......................2 DON'T KNOW….......................8

INTERVIEWER SAYS: "Thank you for the information regarding (NAME)."

IF THERE IS ANOTHER CHILD 0-17 YEARS IN THE HOUSEHOLD WHO HAS BEEN IDENTIFIED IN COLUMN 17 AS HAVING A MOTHER/FATHER WHO HAS DIED OR IS VERY SICK BESIDES (NAME) → CONTINUE TO 206 AND ASK ABOUT THE NEXT CHILD.

INTERVIEWER SAYS: "Next, I would like to ask you about (NAME)".

☐ TICK IF CONTINUATION SHEET REQUIRED.

IF NO OTHER CHILDREN, END THE HOUSEHOLD INTERVIEW.

END

◊ INTERVIEWER SAY: "This is the end of the household survey. Thank you very much for your time and for your responses."

ENGLISH

MINISTRY OF HEALTH
KENYA AIDS INDICATOR SURVEY 2012
INDIVIDUAL ADULT MALE QUESTIONNAIRE

CONFIDENTIAL

IDENTIFICATION

PROVINCE NAME: _____ PROVINCE CODE: ☐

NASCOP REGION NAME: _____ NASCOP REGION CODE: ☐

COUNTY NAME : _____ COUNTY CODE: ☐☐

DISTRICT NAME: _____ DISTRICT CODE: ☐☐

NASSEP V CLUSTER NUMBER: ☐☐☐☐

NAME OF HOUSEHOLD HEAD: _____ HOUSEHOLD NUMBER: ☐☐☐

NAME OF RESPONDENT: _____ LINE NUMBER: ☐☐

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
VISIT DATE:	_____	_____	_____	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐☐☐
INTERVIEWER NAME:	_____	_____	_____	INT. CODE: ☐☐☐☐
VISIT RESULT*	_____	_____	_____	RESULT: ☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS: ☐
NEXT VISIT: TIME	_____	_____		

Glossary

LAB TECHNICIAN VISITS

LAB RESULT**	_____	_____	AFFIX BAR CODE LABEL HERE	LAB RESULT: ☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS: ☐
NEXT VISIT: TIME	_____	_____		

LANGUAGE OF INTERVIEW: ☐☐

HOME LANGUAGE OF RESPONDENT: ☐☐

LANGUAGE CODES:

(01) EMBU	(05) KISII	(10) MIJIKENDA
(02) KALENJIN	(06) LUHYA	(11) SOMALI
(03) KAMBA	(07) LUO	(12) KISWAHILI
(04) KIKUYU	(08) MAASAI	(13) ENGLISH
	(09) MERU	(14) OTHER

SUPERVISOR NAME: _____	DATE: _____	EDITOR: ☐☐☐	KEYED: ☐☐☐
SUPERVISOR CODE: ☐☐☐☐			

* VISIT RESULT CODES:	(1) COMPLETED	(3) POSTPONED	(5) PARTLY COMPLETED	(7) OTHER (SPECIFY)
	(2) NOT AT HOME	(4) REFUSED	(6) INCAPACITATED	
** LAB RESULT CODES:	(1) AGREE	(2) REFUSE	(3) ABSENT	

Consent/Assent 2: Individual Questionnaire Consent/Assent (1 of 3)

For ages 18-64 or emancipated minors read:
Hello. My name is_____ and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health and Pubic Sanitation, the Kenya National Bureau of Statistics, the University of California San Francisco and the US Centers for Disease Control and Prevention. This research asks women and men about HIV/AIDS. Approximately 10,475 households with about 24,000 adults and 8,000 children will be participating in this national survey.

We would very much appreciate if you take part in this survey as your views are important. The information you give to us will help us to plan for health services. Some of these questions will be about your behaviour. The survey usually takes about 45 minutes. All the survey information will be confidentially recorded and stored in a small computer as we collect the data. Whatever information you give will be kept private and will not be shown to anyone outside of the study team.

For youth ages 15-17 read:
Hello. My name is_____ and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health and Public Sanitation, the Kenya National Bureau of Statistics, and the US Centers for Disease Control and Prevention. This research asks women and men questions about HIV/AIDS. Approximately 24,000 adults and 8,000 children will be participating in this national survey.

We have talked to your parents/guardians and they said it was okay to ask you if you want to do this. We would very much appreciate if you take part in this survey as your views are important. The information will help us plan for health services. Some of these questions will be about your personal sexual behaviour. The survey usually takes about 45 minutes. All the answers you give will be kept private and will not be shown to anyone outside of the study team.

For ages youth ages 10-14 read:
Hello. My name is _____and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health and Public Sanitation, the Kenya National Bureau of Statistics, and the US Centers for Disease Control and Prevention. This survey asks children ages 10-14 some questions about awareness of HIV/AIDS, knowledge of prevention of HIV, knowledge of HIV messages and some questions on your behaviour. Approximately 8,000children will be participating in this national survey.

We have talked to your parents/guardians and they said it was okay to ask you if you want to do this. We would very much appreciate your participation in this survey as your views are important. The information we are collecting will help the government to plan for health services. The survey usually takes about 20 minutes to complete. All the answers you give will be kept private and will not be shown to anyone outside of the study team. We will not share your answers with your family.

Consent/Assent 2: Individual Questionnaire Consent/Assent (2 of 3)

Read to All:
After completing the questionnaire we will ask you for some blood to be taken either from a vein in your arm or from a finger-prick or heel-prick, to test for HIV. **You may agree to the interview without agreeing to give your blood.**

Being in the study is your choice. Please take your time to make your decision about taking part. Before you make your decision, is important that you know the following:

- The study will only include people who choose to take part.
- Your participation in this study is up to you. No one can make you take part if you do not want to.
- You may decide not to answer the questions, or to stop the study at any time. If you do not take part or decide to stop, you will not lose your health care services.
- All of the information collected in this survey will be private and answers to these questions will not be shared with anyone.
- If there are any questions you don't want to answer, just let me know and I will go on to the next question; or you can stop at any time.

Risks and Benefits
If you take part of this survey, the risk to you is small. We ask you questions that may be uncomfortable to answer. You are free to not answer any questions that you feel are too uncomfortable. The information you give us private but there is a very small chance that someone might tell information about you with someone outside the study. However, the benefits of taking part is that the information that you provide to us will be used to improve the health of Kenyans by helping us develop programs to fight HIV/AIDS and other disease in Kenya.

Confidentiality
What we talk about will be kept private, even among your family. We will keep the records using numbers, not names. We will keep the records at Kenya National Bureau of Statistics (KNBS) and at the National AIDS and STD Control Program (NASCOP). Your name will not appear when we discuss this project. When the results of this study are discussed, we will focus on all answers from the big group so no one will know your answers.

This study is funded by the Government of Kenya, the United States Government, the United Nations, and other partners. There are no costs to you for taking part in this study.

Consent/Assent 2: Individual Questionnaire Consent/Assent (3 of 3)

[Interviewer Read:]

If you feel that you have been harmed by your participation you should contact the deputy director of the survey

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey

Kenya National Bureau of Statistics (KNBS): Macdonald Obudho
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

May I begin the interview now? **YES** ☐ **NO** ☐

Interviewer Name: _____

Interviewer Signature: _____ Date: _____

Consent 3: Individual Questionnaire Parental/Guardian Consent (10-17 Years) 1 of 3

Hello. My name is _____and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health, the Kenya National Bureau of Statistics, the University of California San Francisco and the US Centers for Disease Control and Prevention. This study asks women and men ages 15-64 and children ages 10-14 about HIV/AIDS. Approximately 10,475 households with about 24,000 adults and 118,000 children will be taking part in this survey.

We would very much appreciate your permission to have your child take part in this survey. The information we are collecting will help us plan for health services. Some of the questions will be about personal sexual behaviour. The survey usually takes about 20 minutes for children 10-14 years and 45 minutes for youth 15-17 years. All the survey information will be confidentially recorded and stored in a small computer as we collect the data. Whatever information your child provides will be kept private and will not be shown to anyone outside of the study team.

For youth ages 15-17 years, this research asks some questions about HIV-related issues and some of the questions will be about their personal sexual behaviour. These questions will be the same questions in the adult questionnaire.

For children ages 10-14 years, this study asks some questions about HIV/AIDS, knowledge of how to fight HIV/AIDS, seeing and hearing HIV messages and some questions on personal sexual behaviour. Questions in the children survey will be different from the adult questionnaire.

[Interviewer: Provide a copy of the children questionnaire to the parent/guardian of all eligible children ages 10-14. Pause to allow the parent/guardian time to look at the children questionnaire and ask questions.]

Taking part in the survey is up to you. If you do not want (name of minor) to take part he/she does not have to. If we should come to any questions that (name of minor) does not want to answer he/she will let me know and I will go on to the next question; or she/he can stop at any time.

After completing the questionnaire we will ask you for some of your child's blood, taken either from a vein in your child's arm or from a finger-prick or heel-prick, to test for HIV. **You may agree to the interview without agreeing to give your child's blood.**

Consent 3: Individual Questionnaire Parental/Guardian Consent (10-17 Years) 2 of 3

Allowing your child to be in the study is up to you. Please take your time to decide about taking part. Before you decide, is important that you know the following:

- The study will only include people who choose to take part.
- Taking part in the study is up to you. No one can make you take part if you do not want to.
- Your child may decide not to take part, or stop the study at any time. If your child does not take part or decides to stop, they will not lose their health care services.
- All of the information collected in this survey will be private and answers to these questions will not be shared with anyone.
- If there are any questions your child doesn't want to answer, they just let me know and I will go on to the next question; or they can stop at any time.

Risks and Benefits

If your child takes part in this survey, the risk to your child is small. We may ask your child questions that may be uncomfortable to answer. They are free to not answer any questions that they feel are too uncomfortable to answer. The information your child gives us very private but there is a very small chance that someone might tell information about your child with someone outside the study. However, the benefits of taking part is that the information that you provide to us will be used to improve the health of Kenyans by helping us develop programs to fight HIV/AIDS and other disease in Kenya.

Confidentiality

What we talk about with your child will be kept private. We will not be able to tell you the answers your child gives us. We will keep the records at Kenya National Bureau of Statistics (KNBS) and at the National AIDS and STD Control Program (NASCOP). Your child's name will not appear when we discuss this project. When the results of this study are discussed, we will focus on all answers from the big group so no one will know your child's answers**.**

This study is funded by the Government of Kenya, the United States Government, the United Nations, and other partners. There are no costs for you to participate in this study.

At this time, do you want to ask me anything about the survey? If you have any questions at any time, we want you to tell us.

At this time, do you want to ask me anything about the survey? If you have any questions at any time, we want you to ask us.

[Interviewer: provide the following information to the participant:]

Consent 3: Individual Questionnaire Parental/Guardian Consent (10-17 Years) 3 of 3

If you feel that you have been harmed by your participation you should contact the deputy director of the survey

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey

Kenya National Bureau of Statistics (KNBS): Macdonald Obudho
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

Does (name of minor) have any hearing/mental disabilities that would hinder him/her from answering questions about themselves?

YES ☐ **NO** ☐

May I interview (name of minor)? **YES** ☐ **NO** ☐

Interviewer Name: _____

Interviewer Signature: _____ Date: _____

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
START TIME			
START	Record the start time. USE 24 HOUR TIME. IF START TIME IS 3:12 PM, RECORD 15 HOURS, 12 MINUTES, NOT 03 HOURS, 12 MINUTES.	HOUR: ☐☐ MINUTES: ☐☐	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 1: RESPONDENT BACKGROUND		
	➢ **INTERVIEWER SAY: "The first set of questions is about your life in general. Afterwards, we will move on to other topics."**		
101	When is your date of birth? DON'T KNOW DAY RECORD '88' DON'T KNOW MONTH RECORD '88' DON'T KNOW YEAR RECORD '8888'	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐☐☐	
102	How old were you at your last birthday? DON'T KNOW AGE RECORD '88' **COMPARE AND CORRECT 101 AND/OR 102 IF INCONSISTENT**	AGE IN COMPLETED YEARS: ☐☐	
103	Have you ever attended school?	YES……..1 NO……2 → 105	
104	What is the highest level of school you completed? PROBE TO GET SPECIFIC EDUCATION LEVEL	NURSERY/KINDERGARTEN……1 PRIMARY……..2 POST-PRIMARY/VOCATIONAL……...3 SECONDARY/ 'O' LEVEL (FORM 1-4)…..4 SECONDARY/ 'A' LEVEL (FORM 5-6)…...5 COLLEGE (MIDDLE LEVEL, CERTIFICATE OR DIPLOMA)……...6 UNIVERSITY ...……..……...7 POST GRADUATE…..……..……..……8 DON'T KNOW……...88	
105	Aside from your own housework, have you done any work in the last seven days for which you received a paycheck, cash or goods as payment?	YES……..1 → 107 NO……2	
106	Aside from your own housework, have you done any work in the last 12 months for which you received a paycheck, cash or goods as payment?	YES……..1 NO……2	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
107	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' IF 'ALWAYS LIVED' RECORD '95' IF 'VISITOR' RECORD '96'	NUMBER OF YEARS: ☐☐	
108	In the last 12 months, on how many separate occasions have you traveled away from your current place of residence and slept away? IF NONE RECORD '00' IF "DON'T KNOW" RECORD '88' IF GREATER THAN 87 RECORD '87'	NUMBER OF TRIPS: ☐☐ IF '00' NONE OR DON'T KNOW '88' → 110	
109	In the last 12 months, have you been away from your current place of residence for more than one month at a time?	YES……1 NO……2	
110	What is your religion? PROBE: IF CHRISTIAN, PROBE TO IDENTIFY CATHOLIC OR PROTESTANT/OTHER CHRISITIAN.	ROMAN CATHOLIC……1 PROTESTANT/OTHER CHRISTIAN……2 MUSLIM……3 NO RELIGION……4 OTHER……96 (SPECIFY)	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
111	What is your ethnic group/tribe? PROBE FOR MAIN ETHNIC GROUP/TRIBE	EMBU……1 KALENJIN……2 KAMBA……3 KIKUYU……4 KISII……5 LUHYA……6 LUO……7 MASAI……8 MERU……9 MIJIKENDA……10 SOMALI……11 TAITA/TAVETA……12 SWAHILI……13 OTHER……96 (SPECIFY)	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 2: MARRIAGE AND COHABITATION		
	➢ **INTERVIEWER SAY: "Now I would like to ask you about your current and previous relationships and/or marriages."**		
201	Have you ever been married or lived with a partner as if married?	YES.....1 NO.....2 → 300	
202	Have you ever been widowed? That is, did a spouse ever pass away while you were still married or living with them?	YES.....1 NO.....2	
203	Are you currently single, widowed, divorced, separated, or in a union? IF RESPONDENT SAYS 'MARRIED' RECORD 'IN A UNION'	SINGLE(NOT IN A UNION) .....1 WIDOWED.....2 DIVORCED.....3 SEPARATED.....4 IN A UNION.....5 → 300	
204	Are you currently married or together with a partner (s) as if married?	I'M CURRENTLY MARRIED.....1 I'M WITH A PARTNER (S).....2	
	➢ **INTERVIEWER SAY: "The next several questions are about your current wife or partner."**		
205	Is your wife/partner(s) living with you now or is she staying elsewhere?	LIVING TOGETHER.....1 STAYING ELSEWHERE.....2	
206	Do you have more than one wife or woman you live with as if married?	YES.....1 NO.....2 DON'T KNOW.....8 → 208	
207	Altogether, how many wives or partners do you live with now? IF DON'T KNOW RECORD '88'	NUMBER OF WIVES OR PARTNERS: [ ][ ]	

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST WIFE OR PARTNER**	**SECOND WIFE OR PARTNER**	**THIRD WIFE OR PARTNER**
	WIFE OR PARTNER MATRIX INTRO: CHECK 206: CHECK FOR MULTIPLE WIVES OR PARTNERS: **IF '2' NO, ONLY ONE WIFE/PARTNER:** **ASK**: Please tell me the initials of your wife or partner you are living with as if married? **IF '1' YES, MORE THAN ONE WIFE/PARTNER:** **ASK**: Please tell me the initials of your current wives and/or or partners you are living with as if married?	INITIALS (1) _____	INITIALS (2) _____	INITIALS (3) _____
208	DO NOT READ TO RESPONDENT: RECORD THE LINE NUMBER FROM THE HOUSEHOLD SCHEDULE OF THE RESPONDENT'S WIFE OR LIVE-IN PARTNER. IF THE PERSON IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	LINE NUMBER: ☐☐	LINE NUMBER: ☐☐	LINE NUMBER: ☐☐
209	How old was your wife/partner on her last birthday? IF MORE THAN 99 RECORD '99'	AGE OF WIFE OR PARTNER: ☐☐	AGE OF WIFE OR PARTNER: ☐☐	AGE OF WIFE OR PARTNER: ☐☐
210	In what month and year did you start living with your wife/partner? DON'T KNOW MONTH RECORD '88' DON'T KNOW YEAR RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	MONTH: ☐☐ YEAR: ☐☐☐☐	MONTH: ☐☐ YEAR: ☐☐☐☐

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 3: REPRODUCTION			
➢ **INTERVIEWER SAY: "Now I would like to move on to some questions about children. These are children who are biologically yours, even if they are not legally yours or do not have your last name"**			
300	Have you fathered any children with any women?	YES……1 NO……2	
301-344	NOT ASKED TO MALES		
CHECK 203: IF '5' IN A UNION → 345 IF ANY OTHER RESPONSE → MODULE 3A			
345	Is your wife or partner currently pregnant?	YES……1 NO……2 DON'T KNOW……8	
346 - 359	NOT ASKED TO MALES		
➢ **INTERVIEWER SAY: "Now I have some questions about your future plans."**			
360	**CHECK 345: READ QUESTION ACCORDING TO RESPONSE** **IF '2' WIFE/PARTNER NOT PREGNANT, '8' NOT SURE SAY:** Would you like to have (a/another) child, or would you prefer not to have any (more) children? **IF '1' WIFE/PARTNER CURRENTLY PREGNANT SAY:** After the child you are expecting now, would you like to have another child, or would prefer not to have any more children?	HAVE (A/ANOTHER) CHILD……1 → 362 NO MORE/NONE……2 → 363 UNABLE TO CONCEIVE……3 UNDECIDED/DON'T KNOW……8 → 363	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
361	You mentioned that you cannot have a child, can you tell me why? DO NOT READ ANSWERS PROBE FOR MAIN REASON ONLY	I'M STERILIZED……..1 PARTNER STERILIZED……2 I'M INFECUND……3 PARTNER INFECUND ……..4 WIFE/PARTNER MENOPAUSAL…….....5 WIFE/PARTNER HAD HYSTERECTOMY…..6 OTHER……96 _____ (SPECIFY)	MODULE 3A
362	**CHECK 345: READ QUESTION ACCORDING TO 347 RESPONSE** **IF '2' WIFE/PARTNER NOT PREGNANT, '8' NOT SURE SAY:** How long would you like to wait from now before the birth of (a/another) child? **IF '1' WIFE/PARTNER CURRENTLY PREGNANT SAY:** After the birth of the child you are expecting now, how long would you like to wait before the birth of another child? IF "DON'T KNOW" THEN RECORD '88' IN MONTHS AND YEARS FIELDS	TIME TO NEXT CHILD: MONTHS : ☐☐ OR YEARS: ☐☐	
CHECK 345: IF '1' WIFE/PARTNER CURRENTLY PREGNANT → MODULE 3A			
363	Are you (or your partner) **currently** doing something or using any method to delay or avoid getting pregnant?	YES……..……1 NO……2 → 365	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
364	Which method are you (or your partner) using? PROBE: Are you/your partner using anything else? RECORD ALL MENTIONED DO NOT READ RESPONSES	A. FEMALE STERILIZATION..... ☐ B. MALE STERILIZATION..... ☐ C. PILL..... ☐ D. IUD/"COIL"..... ☐ E. INJECTIONS..... ☐ F. IMPLANT..... ☐ G. CONDOM..... ☐ H. FEMALE CONDOM..... ☐ I. RHYTHM/NATURAL METHODS..... ☐ J. WITHDRAWAL..... ☐ K. NOT HAVING SEX..... ☐ L. OTHER..... ☐ (SPECIFY)	MODULE 3A
365	Can you tell me why you (or your partner) are not currently using any method to delay or avoid getting pregnant? PROBE: Anything else? RECORD ALL MENTIONED DO NOT READ RESPONSES	A. I/MY PARTNER/ WE WANT TO HAVE A BABY..... ☐ B. I'M NOT HAVING SEX..... ☐ C. I AM NOT/MY PARTNER IS NOT ABLE TO HAVE CHILDREN..... ☐ D. MY WIFE/PARTNER'S PERIOD HASN'T RETURNED FROM HER LAST PREGNANCY..... ☐ E. MY WIFE/PARTNER IS STILL BREASTFEEDING..... ☐ F. I LEAVE IT TO FATE/GOD/ GOD'S WILL..... ☐ G. I'M OPPOSED..... ☐ H. MY PARTNER IS OPPOSED..... ☐ I. I'M NOT AWARE OF ANY METHOD TO USE..... ☐ J. I HAVE CONCERNS ABOUT SIDE EFFECTS..... ☐ K. INCONVENIENT TO USE..... ☐ L. INTERFERES WITH BODY'S NORMAL PROCESSES..... ☐ M. OTHER..... ☐ (SPECIFY)	MODULE 3A

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 3A: PAEDIATRIC			
THIS IS ADMINISTERED TO AN ELIGIBLE PARENT/GUARDIAN OF CHILDREN AGED 18 MONTHS-14 YEARS LISTED ON THE HOUSEHOLD SCHEDULE. CHECK HOUSEHOLD SCHEDULE TO GET NUMBER OF CHILDREN FOR THIS PARENT OR GUARDIAN.			
➢ **INTERVIEWER SAY: "Thank you for that information. Now I am going to ask you a number of questions about your child/children's health and where they get their health services."**			
P0	DO NOT READ: CHECK HOUSEHOLD SCHEDULE TO GET NUMBER OF CHILDREN IF NONE RECORD '00'	NUMBER OF CHILDREN: ☐☐ IF '00' NONE → 401 AT LEAST ONE CHILD ↓ CONTINUE TO PAEDIATRIC MATRIX	

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
	PAEDIATRIC MATRIX INTRO: P1 **INTERVIEWER SAY" "Before we start, can I get the names of your children? You don't have to provide the exact name. Let's begin with your youngest child."**	NAME (1) _____	NAME (2) _____	NAME (3) _____
P2	**DO NOT READ:** INTERVIEWER: ENTER THE LINE NUMBER OF THE CHILD FROM THE HOUSEHOLD LISTING.	☐☐	☐☐	☐☐
P3	When is (**NAME**)'s date of birth? COMPUTE CURRENT AGE. CONFIRM (NAME) IS BETWEEN 18 MONTHS – 14 YEARS. IF 'DON'T KNOW' THEN RECORD '88' FOR ALL FIELDS	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐
P4	Is (**NAME**) a boy or girl?	BOY……1 GIRL…….. 2	BOY……1 GIRL…….. 2	BOY……1 GIRL…….. 2
P5	Has **(NAME)** ever received a blood transfusion?	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8
CHECK P4: IF '2' GIRL → P9				
P6	Is (**NAME)** circumcised?	YES……1 → P8 NO……..2 DON'T KNOW……..8 → P9	YES……1 → P8 NO……..2 DON'T KNOW……..8 → P9	YES……1 → P8 NO……..2 DON'T KNOW……..8 → P9
P7	Are you planning to circumcise (**NAME**) in the future?	YES……1 NO……..2 DON'T KNOW……..8 → P9	YES……1 NO……..2 DON'T KNOW……..8 → P9	YES……1 NO……..2 DON'T KNOW……..8 → P9

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P8	Where was (**NAME**) circumcised?	IN A CLINIC OR HEALTH FACILITY…….1 IN THE VILLAGE………2 MOBILE MC CLINIC…..3 PRIVATE CLINIC……...4 DON'T KNOW ………...8 OTHER…………………96 __________ (SPECIFY)	IN A CLINIC OR HEALTH FACILITY…….1 IN THE VILLAGE………2 MOBILE MC CLINIC…..3 PRIVATE CLINIC……...4 DON'T KNOW ………...8 OTHER…………………96 __________ (SPECIFY)	IN A CLINIC OR HEALTH FACILITY…….1 IN THE VILLAGE………2 MOBILE MC CLINIC…..3 PRIVATE CLINIC……...4 DON'T KNOW ………...8 OTHER…………………96 __________ (SPECIFY)
➢ **INTERVIEWER SAY: "I have some more questions about your child. Some of these are about HIV. Your answers will not be told to anyone outside the study. They will not be told to your child or anyone else in your family."**				
P9	Has (**NAME**) ever been tested for HIV?	YES…………………1 NO…………………..2 DON'T KNOW……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)	YES…………………1 NO…………………..2 DON'T KNOW……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)	YES…………………1 NO…………………..2 DON'T KNOW……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)
P10	When was **(NAME)'s** last HIV test? IF "DON'T KNOW" MONTH RECORD '88' IF "DON'T KNOW" YEAR RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	MONTH: ☐☐ YEAR: ☐☐☐☐	MONTH: ☐☐ YEAR: ☐☐☐☐
P11	Are you willing to disclose (**NAME**)'s HIV test results?	YES…………………1 NO…………………..2 DID NOT RECEIVE THE RESULT……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)	YES…………………1 NO…………………..2 DID NOT RECEIVE THE RESULT……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)	YES…………………1 NO…………………..2 DID NOT RECEIVE THE RESULT……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P12	What was (**NAME**)'s last HIV test result?	POSITIVE……..1 NEGATIVE……....2 INDETERMINATE……8 NEXT CHILD OR 401 IF NO OTHER CHILD	POSITIVE……..1 NEGATIVE……....2 INDETERMINATE……8 NEXT CHILD OR 401 IF NO OTHER CHILD	POSITIVE……..1 NEGATIVE……....2 INDETERMINATE……8 NEXT CHILD OR 401 IF NO OTHER CHILD
P13	Has (**NAME**) ever attended an HIV clinic?	YES……1 NO……..2 DON'T KNOW……..8 P15	YES……1 NO……..2 DON'T KNOW……..8 P15	YES……1 NO……..2 DON'T KNOW……..8 P15
P14	When did (**NAME**) first attend an HIV clinic? IF "DON'T KNOW" MONTH RECORD '88' IF "DON'T KNOW" YEAR RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐ P16	MONTH: ☐☐ YEAR: ☐☐☐☐ P16	MONTH: ☐☐ YEAR: ☐☐☐☐ P16
P15	Can you tell me the main reason why (**NAME**) has not attended an HIV clinic? PROBE FOR MAIN REASON ONLY	THE FACILITY TOO FAR AWAY……..1 I DON'T KNOW WHERE TO GET SERVICES FOR (**NAME**)……...2 I CAN NOT AFFORD IT……..…….3 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK……...4 I FEAR PEOPLE WILL KNOW THAT (**NAME**) HAS HIV IF I TAKE HIM/HER TO A CLINIC……...5 OTHER……..96 _____ (SPECIFY)	THE FACILITY TOO FAR AWAY……...1 I DON'T KNOW WHERE TO GET SERVICES FOR (**NAME**)……..…2 I CAN NOT AFFORD IT……..…….3 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK…….4 I FEAR PEOPLE WILL KNOW THAT (**NAME**) HAS HIV IF I TAKE HIM/HER TO A CLINIC……...5 OTHER……96 _____ (SPECIFY)	THE FACILITY TOO FAR AWAY……...1 I DON'T KNOW WHERE TO GET SERVICES FOR (**NAME**)……2 I CAN NOT AFFORD IT……..…….3 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK…….4 I FEAR PEOPLE WILL KNOW THAT (**NAME**) HAS HIV IF I TAKE HIM/HER TO A CLINIC……...5 OTHER……96 _____ (SPECIFY)

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P16	Is (**NAME**) currently taking Septrin or cotrimoxazole?	YES…………………1 → P18 NO…………………..2 DON'T KNOW……..8 → P19	YES…………………1 → P18 NO…………………..2 DON'T KNOW……..8 → P19	YES…………………1 → P18 NO…………………..2 DON'T KNOW……..8 → P19
P17	Can you tell me the <u>main</u> reason why (**NAME**) is not currently taking Septrin or Cotrimoxazole daily? PROBE TO GET MAIN REASON ONLY	I HAVE TROUBLE GIVING (**NAME**) A TABLET EVERYDAY……………1 (**NAME**) HAD SIDE EFFECTS/RASH……...2 FACILITY/PHARMACY TOO FAR AWAY TO GET MEDICNE REGULARLY…………..3 I CAN'T AFFORD……..4 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK…………..5 PHARMACY/FACILITY WAS OUT OF STOCK OF THE MEDICINE…..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF MEDICINE IS GIVEN………………7 TOO BUSY/NO TIME TO GIVE……………….8 DOCTOR HAS NOT RECOMMENDED……9 OTHER………………96 ______________ (SPECIFY) DON'T KNOW……….88 → P19	I HAVE TROUBLE GIVING (**NAME**) A TABLET EVERYDAY……………1 (**NAME**) HAD SIDE EFFECTS/RASH……...2 FACILITY/PHARMACY TOO FAR AWAY TO GET MEDICNE REGULARLY…………..3 I CAN'T AFFORD……..4 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK…………..5 PHARMACY/FACILITY WAS OUT OF STOCK OF THE MEDICINE…..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF MEDICINE IS GIVEN………………7 TOO BUSY/NO TIME TO GIVE……………….8 DOCTOR HAS NOT RECOMMENDED……9 OTHER………………96 ______________ (SPECIFY) DON'T KNOW……….88 → P19	I HAVE TROUBLE GIVING (**NAME**) A TABLET EVERYDAY……………1 (**NAME**) HAD SIDE EFFECTS/RASH……...2 FACILITY/PHARMACY TOO FAR AWAY TO GET MEDICNE REGULARLY…………..3 I CAN'T AFFORD……..4 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK…………..5 PHARMACY/FACILITY WAS OUT OF STOCK OF THE MEDICINE…..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF MEDICINE IS GIVEN………………7 TOO BUSY/NO TIME TO GIVE……………….8 DOCTOR HAS NOT RECOMMENDED……9 OTHER………………96 ______________ (SPECIFY) DON'T KNOW……….88 → P19

KAIS 2012 INDIVIDUAL MALE				
NO.	QUESTIONS AND INSTRUCTIONS	FIRST CHILD	SECOND CHILD	THIRD CHILD
P18	What type of clinic(s) did you get the Septrin or Cotrimoxazole **(NAME)** is currently taking? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD FACILITY NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL ….. ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR …………… ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC…… ☐ F. PRIVATE HOSP … ☐ G.PRIVATE CLINIC… ☐ H. OTHER NON-PUBLIC SECTOR ………… ☐ **I. OTHER SECTOR**… ☐ ______________ (SPECIFY) J. DON'T KNOW……… ☐	**PUBLIC SECTOR** A. GOV HOSPITAL ….. ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR …………… ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC…… ☐ F. PRIVATE HOSP … ☐ G.PRIVATE CLINIC… ☐ H. OTHER NON-PUBLIC SECTOR ………… ☐ **I. OTHER SECTOR**… ☐ ______________ (SPECIFY) J. DON'T KNOW……… ☐	**PUBLIC SECTOR** A. GOV HOSPITAL ….. ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR …………… ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC…… ☐ F. PRIVATE HOSP … ☐ G.PRIVATE CLINIC… ☐ H. OTHER NON-PUBLIC SECTOR ………… ☐ **I. OTHER SECTOR**… ☐ ______________ (SPECIFY) J. DON'T KNOW……… ☐
P19	Has (**NAME**) ever taken ARVs, that is, antiretroviral medication, to treat his/her HIV infection?	YES…………………1 NO…………………..2 P21 ← DON'T KNOW……..8 P23 ←	YES…………………1 NO…………………..2 P21 ← DON'T KNOW……..8 P23 ←	YES…………………1 NO…………………..2 P21 ← DON'T KNOW……..8 P23 ←
P20	Is (**NAME**) currently taking ARVs, that is, antiretroviral medications daily?	YES…………………1 P22 ← NO…………………..2 DON'T KNOW……..8 P23 ←	YES…………………1 P22 ← NO…………………..2 DON'T KNOW……..8 P23 ←	YES…………………1 P22 ← NO…………………..2 DON'T KNOW……..8 P23 ←

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P21	Can you tell me the main reason why (**NAME**) is not taking ARVs daily? PROBE FOR MAIN REASON ONLY	I HAVE TROUBLE GIVING (**NAME**) ARVS EVERYDAY…………....1 (**NAME**) HAD SIDE EFFECTS/ARVS MADE (**NAME**) SICK………....2 FACILITY/PHARMACY TOO FAR AWAY TO GET ARVS REGULARLY…………3 I CAN'T AFFORD/ ARVS TOO EXPENSIVE…....……4 I DON'T THINK (**NAME**) NEEDS ARVS, (**NAME**) IS NOT SICK…………5 PHARMACY/FACILITY WAS OUT OF STOCK OF ARVS……………..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF ARVS ARE GIVEN…………..7 TOO BUSY/NO TIME TO GIVE………………8 DOCTOR HAS NOT RECOMMENDED ARVS…………….…....9 OTHER………………96 _______________ (SPECIFY) DON'T KNOW……….88 → P23	I HAVE TROUBLE GIVING (**NAME**) ARVS EVERYDAY…………....1 (**NAME**) HAD SIDE EFFECTS/ARVS MADE (**NAME**) SICK………....2 FACILITY/PHARMACY TOO FAR AWAY TO GET ARVS REGULARLY…………3 I CAN'T AFFORD/ ARVS TOO EXPENSIVE…....……4 I DON'T THINK (**NAME**) NEEDS ARVS, (**NAME**) IS NOT SICK…………5 PHARMACY/FACILITY WAS OUT OF STOCK OF ARVS……………..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF ARVS ARE GIVEN…………..7 TOO BUSY/NO TIME TO GIVE………………8 DOCTOR HAS NOT RECOMMENDED ARVS…………….…....9 OTHER………………96 _______________ (SPECIFY) DON'T KNOW……….88 → P23	I HAVE TROUBLE GIVING (**NAME**) ARVS EVERYDAY…………....1 (**NAME**) HAD SIDE EFFECTS/ARVS MADE (**NAME**) SICK………....2 FACILITY/PHARMACY TOO FAR AWAY TO GET ARVS REGULARLY…………3 I CAN'T AFFORD/ ARVS TOO EXPENSIVE…....……4 I DON'T THINK (**NAME**) NEEDS ARVS, (**NAME**) IS NOT SICK…………5 PHARMACY/FACILITY WAS OUT OF STOCK OF ARVS……………..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF ARVS ARE GIVEN…………..7 TOO BUSY/NO TIME TO GIVE………………8 DOCTOR HAS NOT RECOMMENDED ARVS…………….…....9 OTHER………………96 _______________ (SPECIFY) DON'T KNOW……….88 → P23

KAIS 2012 INDIVIDUAL MALE				
NO.	QUESTIONS AND INSTRUCTIONS	FIRST CHILD	SECOND CHILD	THIRD CHILD
P22	From what type of clinic did you get the ARVs (**NAME**) is currently taking? PROBE: Any other clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD FACILITY NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC... ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**... ☐ ______________ (SPECIFY) J. DON'T KNOW......... ☐	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC... ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**... ☐ ______________ (SPECIFY) J. DON'T KNOW......... ☐	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC... ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**... ☐ ______________ (SPECIFY) J. DON'T KNOW......... ☐
P23	Has (**NAME**) been told that he/she is infected with HIV?	YES.....................1 NO.......................2 DON'T KNOW........8	YES.....................1 NO.......................2 DON'T KNOW........8	YES.....................1 NO.......................2 DON'T KNOW........8

PAEDIATRIC MATRIX END

- **INTERVIEWER SAYS**: "Thank you for the information regarding (**NAME**)."

IF PARENT/GUARDIAN HAS ANOTHER CHILD BETWEEN 18 MONTHS – 14 YEARS BESIDES (NAME) →P1 FOR NEXT CHILD.

- **INTERVIEWER SAYS**: "Now I would like to ask you about (**NAME** of next child)".

☐ **TICK IF PAEDIATRIC CONTINUATION SHEET REQUIRED**

IF NO OTHER CHILDREN CONTINUE TO 401.

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 4: SEXUAL ACTIVITY		
	➢ **INTERVIEWER SAY: "Now there will be some questions about your sexual activity in order to gain a better understanding of some important life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. Please answer as well as you can. If you are uncomfortable with any questions, please let me know. Can we begin?"**		
401	Have you ever had sexual intercourse?	YES……1 → 403 NO, I'VE NEVER HAD SEXUAL INTERCOURSE…….. 2 REFUSED……98 → 501	
402	Do you intend to wait until you get married to have sex for the first time?	YES…… 1 NO…….. 2 → 501 DON'T KNOW/UNSURE……8	
403	How old were you when you had sexual intercourse for the very <u>first</u> time?	AGE IN YEARS: ☐☐	
404	Have you ever used a condom?	YES…… 1 NO…….. 2 → 406	
405	The <u>first</u> time you had sexual intercourse, was a condom used?	YES…… 1 NO…….. 2 DON'T KNOW……..8	
406	Have you heard of anal sex?	YES……1 NO……2 REFUSED…….. 98 → 410	
407	Have you ever had anal sex?	YES……1 NO……2 REFUSED…….. 98 → 410	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
408	Have you had anal sex in the last 12 months?	YES.....1 NO.....2 REFUSED..... 98	→ 410
409	Did you or your partner use a condom the last time you had anal sex?	YES.....1 NO.....2 REFUSED..... 98	
410	Have you heard of men having sex with men?	YES.....1 NO.....2 REFUSED..... 98	→ 412
411	Have you ever had sex with a man?	YES.....1 NO.....2 REFUSED..... 98	
412	In total, how many different people have you had sexual intercourse with in your lifetime? IF A NON-NUMERIC ANSWER IS GIVEN ("I'VE HAD MANY"), PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 100 WRITE ' 100'. IF RESPONDENT CAN NOT ESTIMATE RECORD '888'.	NUMBER OF SEXUAL PARTNERS IN LIFETIME: ☐☐☐	
413	In total, with how many different people have you had sexual intercourse in the last 12 months? IF A NON-NUMERIC ANSWER IS GIVEN ("I'VE HAD MANY"), PROBE TO GET AN ESTIMATE. IF NO PARTNERS RECORD '000'. IF NUMBER OF PARTNERS IS GREATER THAN 100 WRITE ' 100'. IF RESPONDENT CAN'T ESTIMATE RECORD '888'.	NUMBER OF PARTNERS IN LAST 12 MONTHS: ☐☐☐ IF '000' NONE OR '888' →	434

KAIS 2012 INDIVIDUAL MALE				
NO.	QUESTIONS AND INSTRUCTIONS	LAST SEXUAL PARTNER	SECOND-TO-LAST PARTNER	THIRD TO LAST SEXUAL PARTNER

CHECK 413 (NUMBER OF PARTNERS LAST 12-MONTHS):

IF LESS THAN 3:

- **INTERVIEWER SAY: "Now I would like to ask you some questions about the ____ partners you have had sexual intercourse with in the last 12 months."**

IF 3 OR GREATER:

- **INTERVIEWER SAY: "Now I would like to ask you some questions about the LAST 3 partners you have had sex with in the past 12 months."**

INTERVIEWER SAY TO ALL:

- **"Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question."**

SEXUAL PARTNER MATRIX INTRO: **INTERVIEWER SAY: "Before we start, can I get the initials of your last partner(s) so I can keep track? You don't have to give me exact initials."** GET INITIALS OF ALL PARTNERS BEFORE BEGINNING OF SEXUAL PARTNER MATRIX.	INITIALS (1) _____	INITIALS (2) _____	INITIALS (3) _____

- **INTERVIEWER SAY: "Thank you. Let's start with questions only about (INITIALS)."**
-
- **IF MORE THAN ONE PARTNER ALSO SAY: "I will ask you about the others afterwards".**

CHECK 411 (HAD SEX WITH A MAN):

IF '1' YES THEN → 414

IF '2' NO OR '98' REFUSED THEN → 415

414	Is (**INITIALS**) a man or a woman?	MAN……1 WOMAN…….2 REFUSED……98	MAN……1 WOMAN…….2 REFUSED……98	MAN……1 WOMAN…….2 REFUSED……98
415	When was the last time you had sexual intercourse with (**INITIALS**)? IF LESS THAN ONE WEEK RECORD IN DAYS, IF LESS THEN ONE MONTH RECORD IN WEEKS, OTHERWISE RECORD IN MONTHS. IF "DON'T KNOW" RECORD '88'	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST SEXUAL PARTNER**	**SECOND-TO-LAST PARTNER**	**THIRD TO LAST SEXUAL PARTNER**
416	When was the <u>first</u> time you had sexual intercourse with (**INITIALS**)? IF LESS THAN ONE WEEK RECORD IN DAYS, IF LESS THEN ONE MONTH RECORD IN WEEKS, IF LESS THEN ONE YEAR RECORD IN MONTHS, IF 12 MONTHS OR MORE RECORD IN YEARS. IF "DON'T KNOW" RECORD '88'	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐
417	Is (**INITIALS**) older than you, younger than you, or about the same age?	OLDER……1 YOUNGER……..2 → 419 SAME AGE……...3 DON'T KNOW……..8 → 420	OLDER……1 YOUNGER……..2 → 419 SAME AGE……...3 DON'T KNOW……..8 → 420	OLDER……1 YOUNGER……..2 → 419 SAME AGE……...3 DON'T KNOW……..8 → 420
418	Would you say (**INITIALS**) is ten or more years older than you, or less than ten years older than you?	TEN OR MORE YEARS OLDER…...1 LESS THAN TEN YEARS OLDER……2 OLDER, UNSURE HOW MUCH……3 → 420	TEN OR MORE YEARS OLDER…...1 LESS THAN TEN YEARS OLDER……2 OLDER, UNSURE HOW MUCH……3 → 420	TEN OR MORE YEARS OLDER…...1 LESS THAN TEN YEARS OLDER……2 OLDER, UNSURE HOW MUCH……3 → 420
419	Would you say (**INITIALS**) is ten or more years younger than you, or less than ten years younger than you?	TEN OR MORE YEARS YOUNGER....1 LESS THAN TEN YEARS YOUNGER....2 YOUNGER, UNSURE HOW MUCH……3	TEN OR MORE YEARS YOUNGER....1 LESS THAN TEN YEARS YOUNGER....2 YOUNGER, UNSURE HOW MUCH……3	TEN OR MORE YEARS YOUNGER....1 LESS THAN TEN YEARS YOUNGER....2 YOUNGER, UNSURE HOW MUCH……3

<u>CHECK 408 (HAVE YOU HAD ANAL SEX IN LAST 12-MONTHS):</u>

IF '1' YES → 420

IF '2' NO, '98' REFUSED, OR 'SKIPPED' (NOT ASKED) → 424

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST SEXUAL PARTNER**	**SECOND-TO-LAST PARTNER**	**THIRD TO LAST SEXUAL PARTNER**
420	In the last 12-months, have you had anal sex with (**INITIALS**)?	YES……1 NO……..2 DON'T KNOW…..8 → 424	YES……1 NO……..2 DON'T KNOW…..8 → 424	YES……1 NO……..2 DON'T KNOW…..8 → 424
421	During anal sex with (**INITIALS**) did you have insertive or receptive anal sex or both?	INSERTIVE……1 RECEPTIVE……..2 BOTH……3 REFUSED……98	INSERTIVE……1 RECEPTIVE……..2 BOTH……3 REFUSED……98	INSERTIVE……1 RECEPTIVE……..2 BOTH……3 REFUSED……98
422	The last time you had anal sex with (**INITIALS**) was a condom used?	YES……1 NO……..2 DON'T KNOW…..8 → 424	YES……1 NO……..2 DON'T KNOW…..8 → 424	YES……1 NO……..2 DON'T KNOW…..8 → 424
423	In the last 12 months, was a condom used every time you had anal sex with (**INITIALS**)?	YES……1 NO……...2 DON'T KNOW……8	YES……1 NO……...2 DON'T KNOW……8	YES……1 NO……...2 DON'T KNOW……8
424	The last time you had any sexual intercourse with (**INITIALS**) was a condom used?	YES……1 NO……..2 DON'T KNOW…..8 → 426	YES……1 NO……..2 DON'T KNOW…..8 → 426	YES……1 NO……..2 DON'T KNOW…..8 → 426
425	In the last 12-months, was a condom used every time you had any sexual intercourse with (**INITIALS**)?	YES……1 NO……...2 DON'T KNOW……8	YES……1 NO……...2 DON'T KNOW……8	YES……1 NO……...2 DON'T KNOW……8

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST SEXUAL PARTNER**	**SECOND-TO-LAST PARTNER**	**THIRD TO LAST SEXUAL PARTNER**
426	What is your relationship with (**INITIALS**)? IF GIRLFRIEND ASK: "Were you living together as if married?" IF YES, CIRCLE '2' IF NO, CIRCLE '3'	WIFE……..……1 LIVE-IN PARTNER….2 → 426A PARTNER, NOT LIVING WITH RESPONDENT……..3 CASUAL ACQUAINTANCE…..4 SEX WORKER…...5 SEX WORKER CLIENT……...6 OTHER…….96 → 427	WIFE……..……1 LIVE-IN PARTNER….2 → 426A PARTNER, NOT LIVING WITH RESPONDENT……..3 CASUAL ACQUAINTANCE…..4 SEX WORKER…...5 SEX WORKER CLIENT……...6 OTHER…….96 → 427	WIFE.....……1 LIVE-IN PARTNER….2 → 426A PARTNER, NOT LIVING WITH RESPONDENT……..3 CASUAL ACQUAINTANCE…..4 SEX WORKER…...5 SEX WORKER CLIENT……...6 OTHER…….96 → 427
426A	DO NOT READ: RECORD THE LINE NUMBER OF (**INITIALS**) FROM THE HOUSEHOLD SCHEDULE. IF (**INITIALS**) IS NOT ON HOUSEHOLD SCHEDULE RECORD '00'.	LINE NUMBER OF (**INITIALS**): ☐☐	LINE NUMBER OF (**INITIALS**): ☐☐	LINE NUMBER OF (**INITIALS**): ☐☐
427	Is your relationship with (**INITIALS**) an ongoing sexual relationship?	YES, ONGOING…….1 NO, IT IS OVER…….2 DON'T KNOW…….8	YES, ONGOING…….1 NO, IT IS OVER…….2 DON'T KNOW…….8	YES, ONGOING…….1 NO, IT IS OVER…….2 DON'T KNOW…….8
428	Have you ever taken an HIV test with (**INITIALS**) where you both received the test results together?	YES……..1 → 431 NO……....2 DON'T KNOW……...8 → 430	YES……..1 → 431 NO……....2 DON'T KNOW……...8 → 430	YES……..1 → 431 NO……....2 DON'T KNOW……...8 → 430

KAIS 2012 INDIVIDUAL MALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST SEXUAL PARTNER**	**SECOND-TO-LAST PARTNER**	**THIRD TO LAST SEXUAL PARTNER**
429	Why haven't you tested for HIV with (**INITIALS**) as a couple? SELECT MAIN REASON PROBE TO IDENTIFY BEST RESPONSE	WE'VE NEVER DISCUSSED IT...........1 WE'VE DISCUSSED BUT DECIDED NOT TO...........................2 I ASKED, MY PARTNER REFUSED................. 3 MY PARTNER ASKED, BUT I REFUSED.........4 WE KNOW OUR STATUS ALREADY.....5 NEVER HEARD OF COUPLE'S TESTING...6 DON'T KNOW WHERE TO GET COUPLE'S TESTING...................7 OTHER.....................96 __________ (SPECIFY)	WE'VE NEVER DISCUSSED IT...........1 WE'VE DISCUSSED BUT DECIDED NOT TO...........................2 I ASKED, MY PARTNER REFUSED................. 3 MY PARTNER ASKED, BUT I REFUSED.........4 WE KNOW OUR STATUS ALREADY.....5 NEVER HEARD OF COUPLE'S TESTING...6 DON'T KNOW WHERE TO GET COUPLE'S TESTING...................7 OTHER.....................96 __________ (SPECIFY)	WE'VE NEVER DISCUSSED IT...........1 WE'VE DISCUSSED BUT DECIDED NOT TO...........................2 I ASKED, MY PARTNER REFUSED................. 3 MY PARTNER ASKED, BUT I REFUSED.........4 WE KNOW OUR STATUS ALREADY.....5 NEVER HEARD OF COUPLE'S TESTING...6 DON'T KNOW WHERE TO GET COUPLE'S TESTING...................7 OTHER.....................96 __________ (SPECIFY)
430	Do you know if (**INITIALS**) has tested for HIV?	YES.......................1 NO.........................2 → 434	YES.......................1 NO.........................2 → 434	YES.......................1 NO.........................2 → 434
431	Do you know the HIV status of (**INITIALS**)?	YES.......................1 NO.........................2 → 434	YES.......................1 NO.........................2 → 434	YES.......................1 NO.........................2 → 434
432	Are you willing to share the HIV status of (**INITIALS**)?	YES.......................1 NO.........................2 → 434	YES.......................1 NO.........................2 → 434	YES.......................1 NO.........................2 → 434
433	What is the HIV status of (**INITIALS**)?	POSITIVE..................1 NEGATIVE.................2 INDETERMINATE....... 3	POSITIVE..................1 NEGATIVE.................2 INDETERMINATE....... 3	POSITIVE..................1 NEGATIVE.................2 INDETERMINATE....... 3

KAIS 2012 INDIVIDUAL MALE				
NO.	QUESTIONS AND INSTRUCTIONS	LAST SEXUAL PARTNER	SECOND-TO-LAST PARTNER	THIRD TO LAST SEXUAL PARTNER

SEX PARTNER MATRIX END:

- **INTERVIEWER SAYS: "Thank you for the information about (INITIALS)."**

  CHECK SEXUAL PARTNER MATRIX INTRO: IF RESPONDENT HAS ANOTHER PARTNER THEN:

  INTERVIEWER SAYS: "Now I would like to ask you about next partner."

CHECK 411:

IF '1' YES THEN → 414

IF '2' NO THEN → 415

IF NO MORE PARTNERS → 434

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
➢ **INTERVIEWER SAY: "Now I would like to talk with you about your sexual activity in general."**			
434	Have you ever received money, gifts, or favors in exchange for sex?	YES……1 NO……2 REFUSED……98	→ 437
CHECK 413: IF NO PARTNERS IN LAST 12 MONTHS → 437			
435	In the last 12 months, have you received money, gifts, or favors in exchange for sex?	YES……1 NO……2	→ 437
436	The last time you received money, gifts, or favors in exchange for sex, was a condom used?	YES……1 NO……2 DON'T KNOW……8	
437	Have you ever given money, gifts, or favors in exchange for sex?	YES……1 NO……2 REFUSED……98	→ 440
CHECK 413: IF NO PARTNERS IN LAST 12 MONTHS → 446			
438	In the last 12-months, have you given money, gifts, or favors in exchange for sex?	YES……1 NO……2	→ 440
439	The last time you gave money, gifts, or favors in exchange for sex, was a condom used?	YES……1 NO……2 DON'T KNOW……8	
➢ **INTERVIEWER SAYS: "Now I would like to ask you some questions about sexual health."**			
440	Have you had sexual intercourse in the last 3-months?	YES……1 NO……2	→ 446
441	Have you used a condom with any of your partners in the last 3-months?	YES……1 NO……2 DON'T KNOW……8	→ 446

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
442	In the last 3-months when you had sexual intercourse, did you or your partner ever put the condom on after you had already started having sex?	YES……1 NO……2 DON'T KNOW……8	
443	In the last 3-months when you had sexual intercourse, did you or your partner ever take the condom off before you were finished having sex?	YES……1 NO……2 DON'T KNOW……8	
444	In the last 3-months when you had sexual intercourse, did the condom ever break/leak during sex or while pulling out?	YES……1 NO……2 DON'T KNOW……8	
445	In the last 3-months when you had sexual intercourse, did the condom ever slip off during sex or while pulling out?	YES……1 NO……2 DON'T KNOW……8	
446	During the last 12 months have you had an abnormal discharge from your penis?	YES……1 NO……2 DON'T KNOW……8	
447	During the last 12 months, have you had an ulcer or sore on or near your penis?	YES……1 NO……2 DON'T KNOW……8	
IF EITHER 446 OR 447 '1' YES →448. OTHERWISE →501			
448	Did you visit a health facility or see a healthcare provider because of these problems?	YES……1 NO……2 → 501	
449	Did the healthcare provider tell you that you had a sexually transmitted infection?	YES……1 NO……2 → 501	
450	Did you get treatment for this sexually transmitted infection?	YES……1 NO……2 → 501	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
451	Where did you get treatment? PROBE: Was there another place? RECORD ALL MENTIONED PROBE TO IDENTIFY CLINIC TYPE(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD FACILITY NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL……☐ B. GOV HEALTH CENTER……☐ C. GOV DISPENSARY……☐ D. OTHER PUBLIC SECTOR……☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……☐ F. PRIVATE HOSP……☐ G.PRIVATE CLINIC……☐ H. OTHER NON-PUBLIC SECTOR……☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW……☐	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 5: HIV KNOWLEDGE AND ATTITUDES		
	➢ **INTERVIEWER SAY: "Now I would like to ask you some questions about what you know about HIV."**		
501	Have you ever heard of an infection called HIV, the virus that causes AIDS?	YES……1 NO……..2 → 601	
502	If a man/woman has HIV, does his/her partner always have HIV?	YES……1 NO……..2 DON'T KNOW……..8	
503	Is it possible for a healthy-looking person to have HIV?	YES……1 NO……..2 DON'T KNOW……..8	
504	Do you think that your chances of getting HIV are no risk, small, moderate or great?	NO RISK AT ALL……1 SMALL……..2 MODERATE……3 → 506 GREAT……..4 I ALREADY HAVE HIV……...5 → 507 DON'T KNOW……8	
505	Why do you think you have no risk/small chance of getting HIV? PROBE: Any other reason? RECORD ALL MENTIONED	A. I'M NOT HAVING SEX……. ☐ B. I USE CONDOMS……. ☐ C. I HAD ONLY ONE SEX PARTNER… ☐ D. I HAVE FEW SEX PARTNERS…… ☐ E. MY PARTNER HAS NO OTHER SEX PARTNERS…… ☐ F. OTHER…… ☐ _____ (SPECIFY)	→ 507

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
506	Why do you think you have a moderate or great risk of getting HIV? PROBE: Any other reasons? RECORD ALL MENTIONED	A. I DON'T USE CONDOMS…… ☐ B. I HAVE MORE THAN ONE SEX PARTNER…… ☐ C. MY PARTNER HAS OTHER SEX PARTNERS…… ☐ D. I'VE HAD HOMOSEXUAL CONTACTS…… ☐ E. I'VE HAD BLOOD TRANSFUSIONS/ INJECTIONS…… ☐ F. MY PARTNER IS HIV POSITIVE…. ☐ G. OTHER…… ☐ _____ (SPECIFY)	
PREFACE BEFORE QUESTIONS 507-509: If a mother is HIV-positive can she transmit HIV to her baby:			
507	During pregnancy?	YES……1 NO……..2 DON'T KNOW……..8	
508	During delivery?	YES……1 NO……..2 DON'T KNOW……..8	
509	By breastfeeding?	YES……1 NO……..2 DON'T KNOW……..8	
CHECK 507, 508, 509: **IF ALL ARE '2' NO, '8' DON'T KNOW → 511** **IF '1' YES FOR ONE OR MORE → 510**			
510	Are there any special drugs that a doctor or a nurse can give to a woman infected with HIV to reduce the risk of transmission to the baby?	YES……1 NO……..2 DON'T KNOW……..8	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
511	Have you heard of antiretroviral drugs or ARVs that people with HIV can take to help them live longer?	YES……1 NO……..2 DON'T KNOW……..8	
512	Should children age 12-14 be taught about using a condom to avoid HIV?	AGREE……1 DISAGREE……..2 DON'T KNOW/NO OPINION……8	
513	Do you know of a place where a person can get a condom?	YES……1 NO……..2	
514	Scientists are now studying a medication that, if put into a woman's vagina before they have sex, can reduce her chances of getting HIV infection. If such a medication was available to you, would you want your partner to use it?	YES……1 NO……..2 UNSURE……...3	
515	Scientists are now studying a medication where, if taken orally every day, can reduce a person's chances of getting HIV infection. If such a medication was available, would you want to take it?	YES……1 NO……..2 UNSURE……...3	
516	An HIV self-test kit is a method where people can test for HIV in private or at home. If such a kit was available to you, would you be willing to use it to test yourself?	YES……1 NO……..2 UNSURE……...3	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 6: HIV/AIDS TESTING		
	CHECK FOR PRESCENCE OF OTHERS BEFORE CONTINUING. MAKE EVERY EFFORT TO ENSURE PRIVACY. ➢ **INTERVIEWER SAY: "I would like to ask some questions about HIV testing."**		
601	Do you know of a place(s) where people can get tested for HIV?	YES……1 NO……..2 →	603
602	Where is that place? PROBE: Any other place? RECORD ALL MENTIONED	A. VCT FACILITY……☐ B. MOBILE VCT……☐ C. AT HOME……☐ D. HOSPITAL OUTPATIENT CLINICS……☐ E. TB CLINIC……☐ F. STI CLINIC ……☐ G. HOSPITAL INPATIENT WARDS……☐ H. BLOOD DONATION CENTER……☐ I. FAMILY PLANNING CLINIC……☐ J. ANTENATAL CARE CLINIC……☐ K. MATERNITY CLINIC……☐ L. VMMC CLINIC……☐ M. OTHER……☐ _____ (SPECIFY)	
603	Have you <u>ever</u> been tested for HIV?	YES……1 → NO……..2	605

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
604	Why have you never been tested for HIV? PROBE: Any other reason? RECORD ALL MENTIONED.	A. NO KNOWLEDGE ABOUT HIV TEST..... ☐ B. DON'T KNOW WHERE TO GET ONE..... ☐ C. TEST COSTS TOO MUCH..... ☐ D. TRANSPORT TO SITE TOO MUCH..... ☐ E. TESTING FACILITY TOO FAR AWAY..... ☐ F. AFRAID OTHERS WILL KNOW ABOUT TEST/TEST RESULTS..... ☐ G. DON'T NEED TO TEST/ LOW RISK..... ☐ H. AFRAID TO KNOW IF I HAVE HIV... ☐ I. CAN'T GET TREATMENT IF HAVE HIV..... ☐ J. NEVER BEEN OFFERED A TEST.... ☐ K. OTHER..... ☐ _____ (SPECIFY)	609
605	When was your <u>last</u> HIV test? IF EXACT DATE PROVIDED THEN CALCULATE TIME IN MONTHS OR YEARS AND SELECT APPROPRIATE RESPONSE.	LESS THAN 3 MONTHS AGO.....1 3-5 MONTHS AGO.....2 6-11 MONTHS AGO.....3 1-2 YEARS AGO.....4 MORE THAN 2 YEARS AGO.....5 DON'T KNOW.....8	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
606	Where was the <u>last</u> test done?	VCT FACILITY……1 MOBILE VCT……..2 AT HOME……3 HOSPITAL OUTPATIENT CLINICS……...4 TB CLINIC……...5 STI CLINIC ……6 HOSPITAL INPATIENT WARDS……7 BLOOD DONATION CENTER……8 FAMILY PLANNING CLINIC……9 ANTENATAL CARE CLINIC……...10 MATERNITY CLINIC……....11 VMMC CLINIC……...12 OTHER……...13 _____ (SPECIFY)	
607	Have you <u>ever</u> tested yourself for HIV in private using a self-test kit?	YES……1 NO……..2	
608	Have you <u>ever</u> taken an HIV test with any of your sex partners where you both received the test results together?	YES……1 NO……...2 I'VE HAD NO SEX PARTNERS……....3	
609	Have you seen a doctor or health provider in a health facility in the last 12 months?	YES……1 NO……..2 DON'T KNOW……..8	→ 701
610	During any of your visits at a health facility in the past 12 months, did a health provider offer you an HIV test?	YES……1 NO……..2 DON'T KNOW……..8	→ 701

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
611	In what <u>type</u> of health facility were you offered HIV testing? PROBE: Was there another type of facility? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) FACILITIES AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, CHOOSE OTHER SECTOR AND RECORD NAME OF FACILITY IN SPECIFY FIELD.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER…….... ☐ C. GOV DISPENSARY……... ☐ D. OTHER PUBLIC SECTOR……... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G. PRIVATE CLINIC……... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	
CHECK 603: IF '2' NO (NEVER TESTED FOR HIV) →801			
612	Did you accept HIV testing during any of your visits to the health facility?	YES……1 NO……..2	
613	Have you been tested more than one time?	YES……1 NO……..2 → 701	
614	How many times have you been tested for HIV? IF DON'T KNOW RECORD '88' IF GREATER THAN 87 RECORD '87'	NUMBER OF TIMES: ☐☐	
MODULE 7: HIV STATUS, CARE AND TREATMENT			

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	CHECK 603 (EVER BEEN TESTED FOR HIV): **IF 603 IS '1' (YES, HAD AN HIV TEST) → 701** **IF 603 IS '2' (NO, NEVER TESTED) → 801** ➢ **INTERVIEWER SAY: "Now I'm going to ask you more about your experience with HIV testing."**		
701	You indicated earlier that you were previously tested for HIV. Are you willing to tell me the last HIV test result you received?	YES……1 NO……..2 → 801	
702	What was the result of that HIV test?	POSITIVE……1 NEGATIVE……..2 INDETERMINATE……..3 I DID NOT RECEIVE RESULT……4 → 801	
703	What was the month and year of your first HIV positive test? YEAR TO BE 1984 OR LATER IF "DON'T KNOW" MONTH THEN RECORD '88' IF "DON'T KNOW" YEAR THEN RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	
704	Have you ever attended any clinic or health care facility for your HIV care?	YES……1 NO……..2 → 706	
705	After learning your HIV diagnosis, what month and year did you first attend a HIV clinic to receive care? IF "DON'T KNOW" MONTH THEN RECORD '88' IF "DON'T KNOW" YEAR THEN RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	IF ASKED → 707

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
706	What is the <u>main</u> reason that you have not visited an HIV clinic for care?	THE FACILITY IS TOO FAR AWAY……1 I DON'T KNOW WHERE THE CLINIC IS…2 I CAN'T AFFORD IT……3 I FEEL HEALTHY/NOT SICK……4 I FEAR PEOPLE WILL KNOW THAT I HAVE HIV IF I GO TO A CLINIC……5 I FEEL I WILL BE DISCRIMINATED BY THE FACILITY……..6 I'M TAKING ALTERNATIVE MEDICINE NOT AVAILABLE AT A CLINIC……7 I'M TOO BUSY TO GO……..8 OTHER……96 _____ (SPECIFY) DON'T KNOW……88	→ 709
707	When was the <u>last</u> time you attended an HIV clinic?	WITHIN THE LAST MONTH……..1 WITHIN THE LAST 2 MONTHS ……...2 WITHIN THE LAST 3 MONTHS ……...3 WITHIN THE LAST 6 MONTHS ……...4 MORE THAN 6 MONTHS BUT LESS THAN A YEAR AGO……5 A YEAR OR MORE AGO……..6 DON'T KNOW……..8	→ 709 → 709

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
708	What is the <u>main</u> reason for not going to the HIV clinic in the past 3-months?	THE FACILITY IS TOO FAR AWAY……1 I DON'T KNOW WHERE THE CLINIC IS…2 I CAN'T AFFORD IT……3 I FEEL HEALTHY/NOT SICK……4 I FEAR PEOPLE WILL KNOW THAT I HAVE HIV IF I GO TO A CLINIC……5 I FEEL I WILL BE DISCRIMINATED BY THE FACILITY……...6 I'M TAKING ALTERNATIVE MEDICINE NOT AVAILABLE AT A CLINIC……7 I'M TOO BUSY TO GO……...8 OTHER……96 _____ (SPECIFY) DON'T KNOW……88	
709	Are you <u>currently</u> taking Septrin or Cotrimoxazole daily?	YES……...1 → 711 NO……2 DON'T KNOW……8 → 712	
710	Can you tell me the <u>main</u> reason why you are not <u>currently</u> taking Septrin or Cotrimoxazole daily?	I HAVE TROUBLE TAKING A TABLET EVERYDAY/CAN'T REMEMBER……1 I HAD SIDE EFFECTS/RASH……..2 THE FACILITY/PHARMACY TOO FAR AWAY FOR ME TO GET MEDICINE REGULARLY……...3 I CAN NOT AFFORD IT……....4 I DON'T THINK I NEED IT, I DON'T FEEL SICK……..5 I TRIED BUT THE PHARMACY/ FACILITY WAS OUT OF STOCK……....6 I FEAR PEOPLE WILL KNOWN THAT I HAVE HIV IF I TAKE IT……....7 TOO BUSY/NO TIME TO PICK UP MEDICINE……...8 OTHER ……96 _____ (SPECIFY) DON'T KNOW……88 → 712	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
711	From what type of clinic did you get the Septrin or Cotrimoxazole you are currently taking? PROBE: Was there another type of clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD FACILITY NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER…….. ☐ C. GOV DISPENSARY…….. ☐ D. OTHER PUBLIC SECTOR…….. ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G.PRIVATE CLINIC…….... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	
712	Have you <u>ever</u> taken ARVs, that is, antiretroviral medication, to treat your HIV infection?	YES……..1 NO……2 → 714 DON'T KNOW……8 → 717	
713	Are you <u>currently</u> taking ARVs, that is, antiretroviral medications daily?	YES……..1 → 715 NO……2 DON'T KNOW……8 → 717	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
714	Can you tell me the <u>main</u> reason why you are <u>not</u> taking ARVs daily?	I HAVE TROUBLE TAKING A TABLET EVERYDAY/CAN'T REMEMBER……1 I HAD SIDE EFFECTS/RASH……..2 THE FACILITY/PHARMACY TOO FAR AWAY FOR ME TO GET MEDICINE REGULARLY……...3 I CAN NOT AFFORD IT……....4 I DON'T THINK I NEED IT, I DON'T FEEL SICK……..5 I TRIED BUT THE PHARMACY/ FACILITY WAS OUT OF STOCK……....6 I FEAR PEOPLE WILL KNOWN THAT I HAVE HIV IF I TAKE IT……....7 TOO BUSY/NO TIME TO PICK UP MEDICINE……...8 OTHER ……96 _____ (SPECIFY) DON'T KNOW……..88	→ 717
715	From what type of clinic did you get the ARVs you are currently taking? PROBE: Was there another type of clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF CLINIC(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD CLINIC NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER……... ☐ C. GOV DISPENSARY……... ☐ D. OTHER PUBLIC SECTOR……... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G.PRIVATE CLINIC……... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
716	How long have you been taking daily ARVs? RECORD THE ANSWER IN MONTHS IF LESS THAN ONE YEAR. RECORD '00' IF LESS THAN ONE MONTH. IF "DON'T KNOW" MONTHS OR YEARS THEN RECORD '88'	NUMBER OF MONTHS: ☐☐ NUMBER OF YEARS: ☐☐	
716A	In the past 30 days, have you missed taking any of your ARV pills?	YES.....1 NO.....2 DON'T KNOW.....8 REFUSED.....98	
717	Have you ever had a CD4 count test to see if your immune system is working properly?	YES.....1 NO.....2 DON'T KNOW.....8	
718	During any of your visits to the HIV clinic, did you receive a carton box that contained items for your HIV care? These items may have included mosquito nets, bottles of water guard, a plastic clean water vessel, a filter cloth, condoms and educational materials.	YES.....1 NO.....2 DON'T KNOW.....8	→ 720

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
719	From what type of clinic did you receive this carton box? PROBE: Was there another type of clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD FACILITY NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER…….. ☐ C. GOV DISPENSARY…….. ☐ D. OTHER PUBLIC SECTOR…….. ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G.PRIVATE CLINIC…….... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	
720	Are you taking any daily nutritional supplements?	YES……..1 → 721 NO……2 DON'T KNOW……8 → CHECK BEFORE 722	
721	What nutritional supplements are you taking? PROBE: Anything else? RECORD ALL RESPONSES	A. PLUMPY NUT…… ☐ B. NUTRIMIX…… ☐ C. FIRST FOOD…… ☐ D. FOUNDATION PLUS…… ☐ E. FOUNDATION ADVANTAGE…… ☐ F. IMMUNE BOOSTERS…… ☐ G. MULTIVITAMINS…… ☐ H. OTHER…… ☐ _____ (SPECIFY)	

CHECK 413: (NUMBER OF SEX PARTNERS IN LAST 12 MONTHS)
IF 413 = '000' NONE OR '888' DON'T KNOW → 801
IF 413 = '001' OR MORE → 722

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
722	Now that we have discussed your HIV status, I want you to remember your last sexual partner in the last 12 months that we had discussed earlier. Did you tell this person the results of your last HIV test?	YES……..1 NO……2 DON'T KNOW……8 REFUSED……98	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 8: TUBERCULOSIS AND OTHER HEALTH ISSUES			
➢ **INTERVIEWER SAY: "Now we will move on to new topics."**			
801	Have you ever heard of an illness called tuberculosis or TB?	YES……1 NO……..2	→ 812
802	Can tuberculosis be cured?	YES……1 NO……..2 DON'T KNOW……..8	→ 804
803	Can tuberculosis be cured in people with HIV?	YES……1 NO……..2 DON'T KNOW……..8	
804	Have you <u>ever</u> been told by a doctor or other health professional that you had tuberculosis?	YES……1 NO……..2	→ 812
805	What month and year did a doctor or other health professional <u>last</u> tell you that you have (had) tuberculosis? IF "DON'T KNOW" MONTH THEN RECORD '88' IF "DON'T KNOW" YEAR THEN RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	
806	Have you <u>ever</u> been to a TB clinic to seek care for your tuberculosis?	YES……1 NO……..2	
807	Have you ever been treated for your tuberculosis?	YES……1 NO……..2	→ 810
808	Are you <u>currently</u> taking treatment for your tuberculosis?	YES……1 NO……..2 DON'T KNOW……..8	
809	How many months did you take treatment for tuberculosis? IF "DON'T KNOW" THEN RECORD '88' IF LESS THAN ONE MONTH, RECORD '00'	NUMBER OF MONTHS: ☐☐	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
CHECK 806: IF 'NO' NEVER BEEN TO A TB CLINIC' → 812			
810	Were you ever offered an HIV test at the TB clinic?	YES……1 NO……2 DON'T KNOW……8	→ 812
811	Were you tested for HIV at the TB clinic?	YES……1 NO……2 DON'T KNOW……8	
812	Did you sleep under a mosquito net last night?	YES……1 NO……2	→ 901
813	Was this mosquito net ever treated with an insecticide to kill or repel mosquitoes?	YES……1 NO……2 DON'T KNOW……8	
814 - 816	NOT ASKED TO MALES		

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 9: BLOOD SAFETY AND INJECTIONS		
	➢ **INTERVIEWER SAY: "Thank you for that information. Now, there are some questions about blood transfusions or injections. Please answer them as well as you can."**		
901	Have you <u>ever</u> had a blood transfusion?	YES……1 NO……..2 DON'T KNOW……..8	→ 903
902	When was the <u>last</u> time you had a blood transfusion? IF "DON'T KNOW" THEN RECORD '88'	DAYS AGO: ☐☐ WEEKS AGO: ☐☐ MONTHS AGO: ☐☐ YEARS AGO: ☐☐	
903	Have you <u>ever</u> donated blood?	YES……1 NO……..2	→ 910
904	Have you donated blood in the <u>last 12 months</u>?	YES……1 NO……..2	→ 910
905	How many times did you donate blood in the last 12 months? IF "DON'T KNOW" THEN RECORD '88'	NUMBER OF TIMES: ☐☐	
906	The <u>last time</u> you donated blood, were you asked to donate or did you donate voluntarily?	WAS ASKED TO DONATE……1 DONATED VOLUNTARILY……2 DON'T KNOW……8	→ 908

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
907	Who <u>asked</u> you to donate blood the last time?	FAMILY/FRIENDS……1 NATIONAL BLOOD TRANSFUSION SERVICE (NBTS)……...2 A HOSPITAL BLOOD SERVICE……...3 KENYA RED CROSS……..4 HOPE WORLD WIDE KENYA……...5 BLOODLINK FOUNDATION ……6 BLOODLIFE INITIATIVE KENYA……..7 OTHER…… 96 (SPECIFY) DON'T KNOW……88	
908	Where was your <u>last</u> blood donation made?	MOBILE DRIVE (SCHOOL, COLLEGE, CHURCH, WORKPLACE, PUBLIC GATHERING)……1 KENYA NATIONAL BLOOD SERVICE CENTER……2 PUBLIC HOSPITAL……..3 MISSION HOSPITAL……4 PRIVATE HOSPITAL……5 OTHER……...96 (SPECIFY) DON'T KNOW……..88	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
909	What was the <u>main</u> reason you donated blood <u>this</u> last time? PROBE FOR MAIN REASON	IN RESPONSE TO PUBLIC REQUESTS FOR BLOOD DONORS (CIVIC/ ALTRUISTIC REASONS).....1 AS PART OF A BLOOD COLLECTION DRIVE (THERE WAS A BLOOD DRIVE WHERE I WORK, GO TO SCHOOL, SHOP).....2 SPECIFICALLY FOR A FAMILY MEMBER OR FRIEND.....3 AS PART OF A BLOOD DONOR CLUB.....4 IN EXCHANGE FOR COMPENSATION (FROM A FRIEND OR FAMILY).....5 I AM A REGULAR DONOR.....6 TO KNOW MY HIV STATUS.....7 OTHER.....96 _____ (SPECIFY)	
➢ **INTERVIEWER SAY: "Now I would like to ask you some questions about any injections you have had in the <u>last</u> 12 months."**			
910	Have you had an injection for any reason in the last 12-months?	YES.....1 NO.....2 DON'T KNOW.....8	→ 917
911	Have you had an injection in the last 12-months that was administered by a doctor, a clinical officer, a nurse, a pharmacist, a dentist or any other health worker?	YES.....1 NO.....2 DON'T KNOW.....8	→ 914
912	In the last 12-months, how many injections from a doctor or health care provider did you have? IF A NON-NUMERIC ANSWER ("I'VE HAD MANY") IS OFFERED, PROBE TO GET AN ESTIMATE. IF "DON'T KNOW" THEN RECORD '888' IF GREATER THAN 100, THEN RECORD '100'	NUMBER OF INJECTIONS: ☐☐☐	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
913	The last time you received an injection from a health worker; did the health worker take the syringe and needle from a new, unopened package?	YES……..1 NO……2 DON'T KNOW……8	
914	Have you had an injection in the last 12-months that was administered by a traditional practitioner or healer?	YES……..1 NO……2 DON'T KNOW……8	→ 916
915	In the last 12-months, how many injections from a traditional practitioner or healer did you have? IF A NON-NUMERIC ANSWER ("I'VE HAD MANY") IS OFFERED, PROBE TO GET AN ESTIMATE. IF "DON'T KNOW" THEN RECORD '888' IF GREATER THAN 100 THEN RECORD '100'	NUMBER OF INJECTIONS: [ ][ ][ ]	
916	In the last 12-months, have you <u>given yourself</u> an injection that was prescribed by a doctor, a clinical officer, a nurse, a pharmacist, a dentist or any other health worker?	YES……..1 NO……2 DON'T KNOW……8	
917	If you had a choice, would you like to receive medication as an injection or pill?	INJECTION……1 PILL……2 UNSURE……3 NO PREFERENCE……..4	
918	In the last 12-months have you seen any used needles/syringes near your home or community?	YES……..1 NO……2 DON'T KNOW……8	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 10: MALE CIRCUMCISION		
	➢ **INTERVIEWER SAY: "We will move on to a new topic. The next few questions are about male circumcision and your family. First I would like to define male circumcision as the surgical removal of the foreskin from the penis."**		
1001	Does male circumcision alone protect men from HIV completely, somewhat or not at all?	PROTECTS COMPLETELY……..1 PROTECTS SOMEWHAT……..2 DOES NOT PROTECT AT ALL……3 DON'T KNOW……8	
	➢ **INTERVIEWER SAY: "Do you agree or disagree with the following statements?"**		
1002	Men who are circumcised do not need to use condoms to protect themselves from HIV.	AGREE……1 DISAGREE……2 UNSURE……3 DON'T KNOW……8	
1003	Men who are circumcised can have many sexual partners and not get HIV.	AGREE……1 DISAGREE……2 UNSURE……3 DON'T KNOW……8	
1004	Some men are circumcised. Are you circumcised?	YES……..1 NO……2	→ 1006
1005	Are you planning to be circumcised?	YES……..1 NO……2 DON'T KNOW……8	→ 1101
1006	Did you get circumcised during the last <u>three</u> years?	YES……..1 NO……2 DON'T KNOW……8	→ 1101

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
1007	Where were you circumcised?	AT A CLINIC OR HEALTH FACILITY……..1 IN THE VILLAGE……..2 MOBILE MALE CIRCUMCISION CLINIC…3 DON'T KNOW……...8 OTHER……96 (SPECIFY)	→ 1009
1008	If you were circumcised at a clinic or health facility, was it a public or private facility?	PUBLIC……1 PRIVATE……..2 DON'T KNOW……8	
1009	Who performed the circumcision on you?	TRADITIONAL PRACTITIONER/ CIRCUMCISER……1 NURSE……..2 CLINICAL OFFICER……...3 DOCTOR……..4 HOME HEALTH WORKER……5 OTHER……..6 (SPECIFY)	
1010-1011	NOT ASKED TO MEN		

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 11: NON-PRESCRIPTION DRUG USE			
➢ **INTERVIEWER SAY: "I would like to ask you some questions about drugs or substances that you may have taken that were not prescribed by your doctor. Please be assured that your answers will be strictly confidential."**			
PREFACE FOR 1101-1107: In the past 12-months, have you used any of the following:			
1101	Khat/Miraa?	YES……1 NO……..2 DON'T KNOW...……...8	
1102	Glue, Petrol/Gundi?	YES……1 NO……..2 DON'T KNOW...……...8	
1103	Bhangi/Bangi?	YES……1 NO……..2 DON'T KNOW...……...8	
1104	Mandrax?	YES……1 NO……..2 DON'T KNOW...……...8	
1105	Cocaine?	YES……1 NO……..2 DON'T KNOW...……...8	
1106	Heroin?	YES……1 NO……..2 DON'T KNOW...……...8	
1107	Kuber?	YES……1 NO……..2 DON'T KNOW...……...8	
1108	Have you used other drugs not listed above?	YES……1 NO……..2 DON'T KNOW...……...8 IF YES: _____	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
1109	Some people inject drugs with a needle and syringe for pleasure. Have you <u>ever</u> injected drugs for pleasure?	YES……1 NO……2 REFUSED……98	→ 1201
1110	Have you injected drugs with a needle and syringe in the past 30 days?	YES……1 NO……2 REFUSED……98	→ 1201
1111	When you have injected drugs during the last 30 days, have you <u>shared</u> the syringe or needle with other people?	YES……1 NO……2 REFUSED……98	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 12: MIGRATION		
	➢ **INTERVIEWER SAY: "I am now going to ask you some questions about your country of birth, and your reasons for living in Kenya. I will not ask for any documentation, and your responses will be private and not shared with anyone outside the study."**		
1201	What is your country of birth?	KENYA……1 → END UGANDA……2 TANZANIA……3 ETHIOPIA……4 SOMALIA……5 SUDAN……6 RWANDA……7 DEMOCRATIC REPUBLIC OF CONGO…8 OTHER……96 _____ (SPECIFY)	
1202	What is your current country of nationality?	KENYAN……1 → END UGANDAN……2 TANZANIAN……3 ETHIOPIAN……4 SOMALI……5 SUDANESE……6 RWANDANESE……7 CONGOLESE……8 OTHER……96 _____ (SPECIFY)	

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
1203	How long have you lived in Kenya?	LESS THAN ONE MONTH……1 1-2 MONTHS……2 3-6 MONTHS……3 7-12 MONTHS……...4 1-2 YEARS……5 3-5 YEARS……6 6-10 YEARS……...7 11-20 YEARS……8 >20 YEARS……9 DON'T KNOW……..88	
1204	What was the main reason for moving to Kenya?	TO JOIN FAMILY LIVING IN KENYA……..1 FOR MARRIAGE……2 TO FIND WORK……3 TO GO TO SCHOOL……4 TO ESCAPE INSECURITY/WAR……5 TO ESCAPE ENVIRONMENTAL DISASTER (DROUGHT, FLOOD, ETC.)……..……6 OTHER……..96 _____ (SPECIFY)	
1205	What <u>kind</u> of international migrant do you consider yourself to be? READ CHOICES	DOCUMENTED MIGRANT……1 UNDOCUMENTED MIGRANT……2 ASYLUM SEEKER……3 REFUGEE……4 OTHER……96 _____ (SPECIFY)	

➢ **INTERVIEWER SAY: "This is the end of the survey. Thank you very much for your time and for your responses."**

KAIS 2012 INDIVIDUAL MALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
END TIME			
END	Record the end time. USE 24 HOUR TIME. IF START TIME IS 3:12 PM, RECORD 15 HOURS, 12 MINUTES, NOT 03 HOURS, 12 MINUTE.	HOUR: ☐☐ MINUTES: ☐☐	

INTERVIEWER OBSERVATIONS:
TO BE COMPLETED AFTER THE INTERVIEW:

COMMENTS ABOUT RESPONDENT:

_____

_____

_____

_____

COMMENTS ABOUT SPECIFIC QUESTIONS:

_____

_____

_____

GENERALS QUESTIONS:

_____

_____

_____

_____

Consent/Assent 4: Blood Draw, Central Testing and Storage (1 of 3)

[Interviewer introduces Laboratory Technician]
My colleague is _____ and he/she is a member of the survey team and will be providing you information about testing options in this survey.

[Laboratory Technician]
Read to all: As you know, we are conducting a national survey about HIV/AIDS and other HIV-related health issues. As part of this study, we are asking people to give a few drops of blood to test later in the laboratory in order to know how many people have HIV and need services. This information is very important to help the Ministry of Health plan for programs to fight HIV.

For ages 10-17 years read:
We have talked to your parents and they said it was ok to ask you if you wanted to do this.

Read to all:
If you agree to take part, I will ask you to let us draw a small amount of blood, equal to two teaspoons of blood, from a vein in your arm. I will put a study number, but not your name, on the container with the blood, so that all of your information is private and nobody else will be able to know your results. The blood will then be sent to the National Reference Laboratory in Nairobi where it will be used for the following tests to help us better understand HIV in Kenya:

- Detection of HIV
- CD4 Counts

Here is some information on HIV infection and CD4 Counts.
[Interviewer: Provide the respondent with the brochure including information on HIV and CD4 Counts. Pause to allow the respondent time to look at the brochure and ask questions].

We will not be keeping your name on the blood sample that is sent to Nairobi for testing, so we will not be able to return these results to you. I you agree to this testing the risk to you is small. The materials used in taking the blood have never been used before, are clean, and safe. They will be thrown away after they have been used to take your blood. You may get some bruising where the blood is taken from your arm. If you have any discomfort, bleeding, or swelling at the site, please contact our study staff or your health worker.

Blood Storage: We ask you to allow the Ministry of Health to store some of your blood at the laboratory in Nairobi for future testing. We are not certain exactly what tests will be done but they may involve testing for infections or chemicals that affect health or illness. Your blood will be stored for at least five years.

No one will be able to trace these future tests back to you. Since we will not be keeping your name on the blood sample, we will not be able to contact you with results from future testing. However, if you allow your blood to be used, we may be able to find out things that will help improve health in Kenya.

You may agree to let us test your blood for HIV and CD4 counts and not agree to have your blood sample stored for future studies.

Consent/Assent 4: Blood Draw, Central Testing and Storage (2 of 3)

At this time, do you want to ask me anything about:

- The blood draw?
- Testing in the laboratory?
- Storage of blood for later testing?

If you have any questions at any time, we want you to ask us.
If you feel that you have been harmed by your participation you should contact the deputy director of the survey

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey

Kenya National Bureau of Statistics (KNBS): Macdonald Obudho
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

[Laboratory Technician]:
You can say yes or no to giving blood.

- Would you allow me to take some of your blood from your arm for HIV testing in the laboratory?

YES ☐ **NO** ☐

- Will you allow us to keep the blood sample stored for later testing?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Consent/Assent 4: Blood Draw, Central Testing and Storage (3 of 3)

[Laboratory Technician: If the respondent does not want to provide a venous blood sample or it is not feasible to take a venous blood sample, read the following statement:]

We can do the test for HIV with a few drops of blood from your finger or heel. The materials used in pricking your finger to take the blood are clean and safe. They have never been used before and will be thrown away after we have taken your blood. No names would be attached so that no one will be able to know your test results.

Do you have any questions about the finger/heel prick? If you have any questions at any time, we want you to ask us.

[Interviewer: provide the following information to the participant:]

If you feel that you have been harmed in any way by your participation you should contact the deputy director of the survey

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

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Email: erc@kemri.org

You can say yes or no to giving blood. It is up to you to decide**.**

- Would you allow me to take some blood from your finger/heel for HIV testing in the laboratory?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Lab Tech Name: _____

Lab Tech Signature: _____ Date: _____

Consent 5: Parental/Guardian Consent For Blood Draw, Central Testing and Storage (1 of 3)

As you know, we are conducting a national survey about HIV/AIDS and other HIV-related health issues. As part of this research, we are asking parents/guardians to provide us with consent for their children age 18 months to 17 years, to give a few drops of blood to test later in the laboratory in order to know how many people have HIV and need services. This information is very important to help the Ministry of Health plan for programs to treat HIV. If you agree to take part, I will ask you to let us draw a small amount of blood, equal to two teaspoons of blood, from a vein in child's your arm. I will put a study number, but not their name, on the container with the blood, so that all of your child's information is private and nobody else will be able to know your child's results. The blood will then be sent to the National Reference Laboratory in Nairobi where it will be tested for the following tests to better understand HIV in Kenya:

- Detection of HIV
- CD4 Counts

Here is some information on HIV infection and CD4 Counts.
[Interviewer: Provide the respondent with the brochure including information on HIV and CD4 Count. Pause to allow the respondent time to look at the brochure and ask questions].

We will not be keeping your child's name on the blood sample that is sent to Nairobi for testing, so we will not be able to return these results to you.

If you agree to this testing, the risk to your child is small. The materials used in taking the blood are clean and safe. They have never been used before and will be thrown away after each use.

Your child may get some bruising where the blood is taken from your arm. If your child has any discomfort, bleeding, or swelling at the site, please contact our study staff or your health worker.

Blood Storage: We ask you to allow the Ministry of Health to store part of your child's blood sample at the laboratory in Nairobi to be used for testing in the future. We are not certain exactly what tests will be done but they will involve testing for infections or chemicals that affect health or illness. Your blood will be stored for at least five years.

No one will be able to trace these future tests back to your child. Since we will not be keeping your child's name on the blood sample, we will not be able to contact you with results from future testing. However, if you allow your blood to be used, we may be able to find out things that will help improve health in Kenya.

Your child may join in this study without having his/her blood sample stored for future studies.

At this time, do you want to ask me anything about:

- The blood draw?
- Testing in the laboratory?

Consent 5: Parental/Guardian Consent For Blood Draw, Central Testing and Storage (2 of 3)

If you have any questions at any time, we want you to ask us.

If you feel that you or your child have been harmed by your participation you should contact the deputy director of the survey

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey (Dr. Collins Opiyo).

Kenya National Bureau of Statistics (KNBS): Macdonald Obuhdo
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

Secretary of Ethical Review Committee:
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P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

[Laboratory Technician]:
You can say yes or no to giving blood.

- Would you allow me to take some blood from child's your arm for HIV testing in the laboratory?

YES ☐ **NO** ☐

- Will you allow us to keep your child's blood sample stored for later testing?

YES ☐ **NO** ☐

[Laboratory Technician]
Provide a copy of the script to the participant.
Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Consent 5: Parental/Guardian Consent For Blood Draw, Central Testing and Storage (3 of 3)

[Laboratory Technician: If the respondent does not want to provide a venous blood sample or it is not feasible to take a venous blood sample, read the following statement:]

We can do the test for HIV with a few drops of blood from your child's finger or heel. The materials used in pricking your finger to take the blood sample are clean and safe. They have never been used before and will be thrown away after each use. No names would be attached so that no one will be able to know your child's test results.

Do you have any questions about the finger/heel prick? If you have any questions at any time, we want you to ask us.
[Interviewer: provide the following information to the participant:]

If you feel that you or your child have been harmed by your participation you should contact the deputy director of the survey

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey

Kenya National Bureau of Statistics (KNBS): Macdonald Obuhdo
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

You can say yes or no to giving blood. It is up to you to decide**.**

- Would you allow me to take some of your child's blood from their finger/heel for HIV testing in the laboratory?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of the parent/guardian.

Lab Tech Name: _____

Lab Tech Signature: _____ Date: _____

ENGLISH

CONFIDENTIAL

MINISTRY OF HEALTH
KENYA AIDS INDICATOR SURVEY 2012
INDIVIDUAL ADULT FEMALE QUESTIONNAIRE

IDENTIFICATION

PROVINCE NAME: _____ PROVINCE CODE: ☐

NASCOP REGION NAME: _____ NASCOP REGION CODE: ☐

COUNTY NAME : _____ COUNTY CODE: ☐☐

DISTRICT NAME: _____ DISTRICT CODE: ☐☐

NASSEP V CLUSTER NUMBER: ☐☐☐☐

NAME OF HOUSEHOLD HEAD: _____ HOUSEHOLD NUMBER: ☐☐☐

NAME OF RESPONDENT: _____ LINE NUMBER: ☐☐

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
VISIT DATE:	_____	_____	_____	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐☐☐
INTERVIEWER NAME:	_____	_____	_____	INT. CODE: ☐☐☐☐
VISIT RESULT*	_____	_____	_____	RESULT: ☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS: ☐
NEXT VISIT: TIME	_____	_____		

LAB TECHNICIAN VISITS

LAB RESULT**	_____	_____	AFFIX BAR CODE LABEL HERE	LAB RESULT: ☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS: ☐
NEXT VISIT: TIME	_____	_____		

LANGUAGE OF INTERVIEW: ☐☐

HOME LANGUAGE OF RESPONDENT: ☐☐

LANGUAGE CODES:

(01) EMBU	(05) KISII	(10) MIJIKENDA
(02) KALENJIN	(06) LUHYA	(11) SOMALI
(03) KAMBA	(07) LUO	(12) KISWAHILI
(04) KIKUYU	(08) MAASAI	(13) ENGLISH
	(09) MERU	(14) OTHER

SUPERVISOR NAME: _____	DATE:	EDITOR:	KEYED:
SUPERVISOR CODE: ☐☐☐☐	_____	☐☐☐	☐☐☐

* VISIT RESULT CODES:	(1) COMPLETED	(3) POSTPONED	(5) PARTLY COMPLETED	(7) OTHER (SPECIFY)
	(2) NOT AT HOME	(4) REFUSED	(6) INCAPACITATED	
** LAB RESULT CODES:	(1) AGREE	(2) REFUSE	(3) ABSENT	

Consent/Assent 2: Individual Questionnaire Consent/Assent (1 of 3)

For ages 18-64 or emancipated minors read:
Hello. My name is_____ and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health and Pubic Sanitation, the Kenya National Bureau of Statistics, the University of California San Francisco and the US Centers for Disease Control and Prevention. This research asks women and men about HIV/AIDS. Approximately 10,475 households with about 24,000 adults and 8,000 children will be participating in this national survey.

We would very much appreciate if you take part in this survey as your views are important. The information you give to us will help us to plan for health services. Some of these questions will be about your behaviour. The survey usually takes about 45 minutes. All the survey information will be confidentially recorded and stored in a small computer as we collect the data. Whatever information you give will be kept private and will not be shown to anyone outside of the study team.

For youth ages 15-17 read:
Hello. My name is_____ and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health and Public Sanitation, the Kenya National Bureau of Statistics, and the US Centers for Disease Control and Prevention. This research asks women and men questions about HIV/AIDS. Approximately 24,000 adults and 8,000 children will be participating in this national survey.

We have talked to your parents/guardians and they said it was okay to ask you if you want to do this. We would very much appreciate if you take part in this survey as your views are important. The information will help us plan for health services. Some of these questions will be about your personal sexual behaviour. The survey usually takes about 45 minutes. All the answers you give will be kept private and will not be shown to anyone outside of the study team.

For ages youth ages 10-14 read:
Hello. My name is _____and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health and Public Sanitation, the Kenya National Bureau of Statistics, and the US Centers for Disease Control and Prevention. This survey asks children ages 10-14 some questions about awareness of HIV/AIDS, knowledge of prevention of HIV, knowledge of HIV messages and some questions on your behaviour. Approximately 8,000children will be participating in this national survey.

We have talked to your parents/guardians and they said it was okay to ask you if you want to do this. We would very much appreciate your participation in this survey as your views are important. The information we are collecting will help the government to plan for health services. The survey usually takes about 20 minutes to complete. All the answers you give will be kept private and will not be shown to anyone outside of the study team. We will not share your answers with your family.

Consent/Assent 2: Individual Questionnaire Consent/Assent (2 of 3)

Read to All:
After completing the questionnaire we will ask you for some blood to be taken either from a vein in your arm or from a finger-prick or heel-prick, to test for HIV. **You may agree to the interview without agreeing to give your blood.**

Being in the study is your choice. Please take your time to make your decision about taking part. Before you make your decision, is important that you know the following:

- The study will only include people who choose to take part.
- Your participation in this study is up to you. No one can make you take part if you do not want to.
- You may decide not to answer the questions, or to stop the study at any time. If you do not take part or decide to stop, you will not lose your health care services.
- All of the information collected in this survey will be private and answers to these questions will not be shared with anyone.
- If there are any questions you don't want to answer, just let me know and I will go on to the next question; or you can stop at any time.

Risks and Benefits
If you take part of this survey, the risk to you is small. We ask you questions that may be uncomfortable to answer. You are free to not answer any questions that you feel are too uncomfortable. The information you give us private but there is a very small chance that someone might tell information about you with someone outside the study. However, the benefits of taking part is that the information that you provide to us will be used to improve the health of Kenyans by helping us develop programs to fight HIV/AIDS and other disease in Kenya.

Confidentiality
What we talk about will be kept private, even among your family. We will keep the records using numbers, not names. We will keep the records at Kenya National Bureau of Statistics (KNBS) and at the National AIDS and STD Control Program (NASCOP). Your name will not appear when we discuss this project. When the results of this study are discussed, we will focus on all answers from the big group so no one will know your answers.

This study is funded by the Government of Kenya, the United States Government, the United Nations, and other partners. There are no costs to you for taking part in this study.

Consent/Assent 2: Individual Questionnaire Consent/Assent (3 of 3)

[Interviewer Read:]

If you feel that you have been harmed by your participation you should contact the deputy director of the survey

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey .

Kenya National Bureau of Statistics (KNBS): Macdonald Obuhdo
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

May I begin the interview now? **YES** ☐ **NO** ☐

Interviewer Name: _____

Interviewer Signature: _____ Date: _____

Consent 3: Individual Questionnaire Parental/Guardian Consent (10-17 Years) 1 of 3

Hello. My name is _____and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health, the Kenya National Bureau of Statistics, the University of California San Francisco and the US Centers for Disease Control and Prevention. This study asks women and men ages 15-64 and children ages 10-14 about HIV/AIDS. Approximately 10,475 households with about 24,000 adults and 118,000 children will be taking part in this survey.

We would very much appreciate your permission to have your child take part in this survey. The information we are collecting will help us plan for health services. Some of the questions will be about personal sexual behaviour. The survey usually takes about 20 minutes for children 10-14 years and 45 minutes for youth 15-17 years. All the survey information will be confidentially recorded and stored in a small computer as we collect the data. Whatever information your child provides will be kept private and will not be shown to anyone outside of the study team.

For youth ages 15-17 years, this research asks some questions about HIV-related issues and some of the questions will be about their personal sexual behaviour. These questions will be the same questions in the adult questionnaire.

For children ages 10-14 years, this study asks some questions about HIV/AIDS, knowledge of how to fight HIV/AIDS, seeing and hearing HIV messages and some questions on personal sexual behaviour. Questions in the children survey will be different from the adult questionnaire.

[Interviewer: Provide a copy of the children questionnaire to the parent/guardian of all eligible children ages 10-14. Pause to allow the parent/guardian time to look at the children questionnaire and ask questions.]

Taking part in the survey is up to you. If you do not want (name of minor) to take part he/she does not have to. If we should come to any questions that (name of minor) does not want to answer he/she will let me know and I will go on to the next question; or she/he can stop at any time.

After completing the questionnaire we will ask you for some of your child's blood, taken either from a vein in your child's arm or from a finger-prick or heel-prick, to test for HIV. **You may agree to the interview without agreeing to give your child's blood.**

Consent 3: Individual Questionnaire Parental/Guardian Consent (10-17 Years) 2 of 3

Allowing your child to be in the study is up to you. Please take your time to decide about taking part. Before you decide, is important that you know the following:

- The study will only include people who choose to take part.
- Taking part in the study is up to you. No one can make you take part if you do not want to.
- Your child may decide not to take part, or stop the study at any time. If your child does not take part or decides to stop, they will not lose their health care services.
- All of the information collected in this survey will be private and answers to these questions will not be shared with anyone.
- If there are any questions your child doesn't want to answer, they just let me know and I will go on to the next question; or they can stop at any time.

Risks and Benefits

If your child takes part in this survey, the risk to your child is small. We may ask your child questions that may be uncomfortable to answer. They are free to not answer any questions that they feel are too uncomfortable to answer. The information your child gives us very private but there is a very small chance that someone might tell information about your child with someone outside the study. However, the benefits of taking part is that the information that you provide to us will be used to improve the health of Kenyans by helping us develop programs to fight HIV/AIDS and other disease in Kenya.

Confidentiality

What we talk about with your child will be kept private. We will not be able to tell you the answers your child gives us. We will keep the records at Kenya National Bureau of Statistics (KNBS) and at the National AIDS and STD Control Program (NASCOP). Your child's name will not appear when we discuss this project. When the results of this study are discussed, we will focus on all answers from the big group so no one will know your child's answers**.**

This study is funded by the Government of Kenya, the United States Government, the United Nations, and other partners. There are no costs for you to participate in this study.

At this time, do you want to ask me anything about the survey? If you have any questions at any time, we want you to tell us.

At this time, do you want to ask me anything about the survey? If you have any questions at any time, we want you to ask us.

[Interviewer: provide the following information to the participant:]

Consent 3: Individual Questionnaire Parental/Guardian Consent (10-17 Years) 3 of 3

If you feel that you have been harmed by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey.

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P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

Does (name of minor) have any hearing/mental disabilities that would hinder him/her from answering questions about themselves?

YES ☐ **NO** ☐

May I interview (name of minor)? **YES** ☐ **NO** ☐

Interviewer Name: _____

Interviewer Signature: _____ Date: _____

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	START TIME		
START	Record the start time. USE 24 HOUR TIME. IF START TIME IS 3:12 PM, RECORD 15 HOURS, 12 MINUTES, NOT 03 HOURS, 12 MINUTES.	HOUR: ☐☐ MINUTES: ☐☐	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 1: RESPONDENT BACKGROUND		
	➢ **INTERVIEWER SAY: "The first set of questions is about your life in general. Afterwards, we will move on to other topics."**		
101	When is your date of birth? DON'T KNOW DAY RECORD '88' DON'T KNOW MONTH RECORD '88' DON'T KNOW YEAR RECORD '8888'	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐☐☐	
102	How old were you at your last birthday? DON'T KNOW AGE RECORD '88' **COMPARE AND CORRECT 101 AND/OR 102 IF INCONSISTENT**	AGE IN COMPLETED YEARS: ☐☐	
103	Have you ever attended school?	YES……..1 NO……2 → 105	
104	What is the highest level of school you completed? PROBE TO GET SPECIFIC EDUCATION LEVEL	NURSERY/KINDERGARTEN……1 PRIMARY……..2 POST-PRIMARY/VOCATIONAL……...3 SECONDARY/ 'O' LEVEL (FORM 1-4)…..4 SECONDARY/ 'A' LEVEL (FORM 5-6)…..5 COLLEGE (MIDDLE LEVEL, CERTIFICATE OR DIPLOMA)……....6 UNIVERSITY ...…….....……...7 POST GRADUATE…..……..…...……8 DON'T KNOW……...88	
105	Aside from your own housework, have you done any work in the last seven days for which you received a paycheck, cash or goods as payment?	YES……..1 → 107 NO……2	
106	Aside from your own housework, have you done any work in the last 12 months for which you received a paycheck, cash or goods as payment?	YES……..1 NO……2	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
107	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' IF 'ALWAYS LIVED' RECORD '95' IF 'VISITOR' RECORD '96'	NUMBER OF YEARS: ☐☐	
108	In the last 12 months, on how many separate occasions have you traveled away from your current place of residence and slept away? IF NONE RECORD '00' IF "DON'T KNOW" RECORD '88' IF GREATER THAN 87, RECORD '87'	NUMBER OF TRIPS: ☐☐ IF '00' NONE OR DON'T KNOW '88' → 110	
109	In the last 12 months, have you been away from your current place of residence for more than one month at a time?	YES……1 NO……2	
110	What is your religion? PROBE: IF CHRISTIAN, PROBE TO IDENTIFY CATHOLIC OR PROTESTANT/OTHER CHRISITIAN.	ROMAN CATHOLIC……1 PROTESTANT/OTHER CHRISTIAN……2 MUSLIM……3 NO RELIGION……4 OTHER……96 (SPECIFY)	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
111	What is your ethnic group/tribe? PROBE FOR MAIN ETHNIC GROUP/TRIBE	EMBU……1 KALENJIN……2 KAMBA……3 KIKUYU……4 KISII……5 LUHYA……6 LUO……7 MASAI……8 MERU……9 MIJIKENDA……10 SOMALI……11 TAITA/TAVETA……12 SWAHILI……13 OTHER……96 (SPECIFY)	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 2: MARRIAGE AND COHABITATION		
	➢ **INTERVIEWER SAY: "Now I would like to ask you about your current and previous relationships and/or marriages."**		
201	Have you <u>ever</u> been married or lived with a partner as if married?	YES.....1 NO.....2 → 300	
202	Have you <u>ever</u> been widowed? That is, did a spouse ever pass away while you were still married or living with them?	YES.....1 NO.....2	
203	Are you currently single, widowed, divorced, separated, or in a union? IF RESPONDENT SAYS 'MARRIED' RECORD 'IN A UNION'	SINGLE (NOT IN A UNION) .....1 WIDOWED.....2 DIVORCED.....3 SEPARATED.....4 → 300 IN A UNION 5	
204	Are you currently married or together with a partner as if married?	I'M CURRENTLY MARRIED.....1 I'M WITH A PARTNER.....2	
	➢ **INTERVIEWER SAY: "The next several questions are about your current husband or partner."**		
205	Is your husband/partner living with you now or is he staying elsewhere?	LIVING TOGETHER.....1 STAYING ELSEWHERE.....2	
206	Does your husband/partner have other wives or partners besides you?	YES.....1 NO.....2 DON'T KNOW.....8 → 208	
207	Including yourself, in total, how many wives or partners does your husband/partner live with now? IF RESPONDENT IS ONLY WIFE OR PARTNER THEN RECORD '01' IF DON'T KNOW RECORD '88'	NUMBER OF WIVES OR LIVE-IN PARTNERS: ☐☐	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
208	DO NOT READ TO RESPONDENT: RECORD THE LINE NUMBER FROM THE HOUSEHOLD SCHEDULE OF THE RESPONDENT'S HUSBAND OR PARTNER. IF NOT LISTED IN THE HOUSEHOLD SCHEDULE, RECORD '00'.	LINE NUMBER OF HUSBAND OR LIVE-IN PARTNER: ☐☐	
209	How old was your husband/partner on his last birthday? IF MORE THAN 99, RECORD '99'	AGE OF HUSBAND/ PARTNER: ☐☐	
210	In what month and year did you start living with your husband/partner? DON'T KNOW MONTH RECORD '88' DON'T KNOW YEAR RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 3: REPRODUCTION		
	CHECK 102 (AGE): **IF AGE IS 15-54 YEARS OR EMANCIPATED MINOR → 300** **IF AGE IS 55 YEARS OR OLDER →401**		
	➢ **INTERVIEWER SAY: "Now I would like to move on to some questions about children."**		
300	I would like to ask about all the births you have had during your lifetime. Have you ever given birth?	YES……1 NO……..2 →	345
	➢ **INTERVIEWER SAY: "The next questions will ask about live births that you have had since January 2008 to the present. Children who survived only for a few minutes, but showed signs of life by crying, breathing, or moving, should be included. Can we begin?"**		
301	How many live births have you had since January 2008 to the present? PROBE TO GET EXACT NUMBER OF LIVE BIRTHS SINCE JANUARY 2008 IF NONE RECORD '00'	NUMBER OF LIVE BIRTHS: ☐☐ IF '00' NONE → AT LEAST ONE LIVE BIRTH ↓ CONTINUE TO BIRTH MATRIX	345

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
➢ INTERVIEWER SAY: "Now I would like to ask you questions about these children (this child)."				
	BIRTH MATRIX INTRO: INTERVIEWER SAY" "Before we start, can I get the initials of your youngest (second-to-last, third-to-last) children? This includes babies that have died since being born." IF THE CHILD WAS NOT NAMED BEFORE DEATH, INPUT "BIRTH1", "BIRTH2", AND "BIRTH3" IN THE INITIALS FIELD. MAKE SURE THE INITIALS ARE UNIQUE.	INITIALS (1) _____	INITIALS (2) _____	INITIALS (3) _____
➢ **INTERVIEWER SAY: "Thank you. Let's start with questions only about (INITIALS). I will ask you about the others afterwards".**				
302	Is **(INITIALS)** a boy or a girl?	BOY……1 GIRL……2	BOY……1 GIRL……2	BOY……1 GIRL……2
303	When did you give birth to **(INITIALS)?** IF "DON'T KNOW" DAY, MONTH, OR YEAR RECORD '88'	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐
304	Where did you give birth to **(INITIALS)?**	AT HOME……1 AT A HOSPITAL/ HEALTH FACILITY……2 OTHER……96 _____ (SPECIFY)	AT HOME……1 AT A HOSPITAL/ HEALTH FACILITY……2 OTHER……96 _____ (SPECIFY)	AT HOME……1 AT A HOSPITAL/ HEALTH FACILITY……2 OTHER……96 _____ (SPECIFY)
305	Is **(INITIALS)** still alive?	YES……1 → 307 NO……2 REFUSED……98 → 306A	YES……1 → 307 NO……2 REFUSED……98 → 306A	YES……1 → 307 NO……2 REFUSED……98 → 306A

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
306	When did **(INITIALS)** die? IF "DON'T KNOW" DAY, MONTH, YEAR RECORD '88' IF REFUSED THEN RECORD '98' IN ALL FIELDS	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐
306A	Is it okay if I ask you some more questions about (**INITIALS**)? PAUSE IF NECESSARY	YES……..1 NO……2 → NEXT BIRTH OR 345 IF NO MORE BIRTHS	YES……..1 NO……2 → NEXT BIRTH OR 345 IF NO MORE BIRTHS	YES……..1 NO……2 → 345
307	DO NOT READ: INTERVIEWER: ENTER THE LINE NUMBER OF (**INITIALS**) FROM THE HOUSEHOLD SCHEDULE. IF (**INITIALS**) IS NOT ON HOUSEHOLD SCHEDULE OR HAS DIED THEN RECORD '00'.	LINE NUMBER OF (**INITIALS**): ☐☐	LINE NUMBER OF (**INITIALS**): ☐☐	LINE NUMBER OF (**INITIALS**): ☐☐
308	When you were pregnant with **(INITIALS),** did you go to a clinic for antenatal care?	YES……1 NO……..2 → 309 DON'T KNOW……8 → 310	YES……1 NO……..2 → 309 DON'T KNOW……8 → 310	YES……1 NO……..2 → 309 DON'T KNOW……8 → 310
308A	How many times did you visit the antenatal care clinic during your pregnancy with **(INITIALS)**? IF "DON'T KNOW" RECORD '88'	NUMBER OF VISITS: ☐☐ ↓ 311	NUMBER OF VISITS: ☐☐ ↓ 311	NUMBER OF VISITS: ☐☐ ↓ 311

KAIS 2012 INDIVIDUAL FEMALE				
NO.	QUESTIONS AND INSTRUCTIONS	LAST BIRTH	SECOND-TO-LAST BIRTH	THIRD TO LAST BIRTH
309	Can you tell me the main reason you did not go to a clinic for antenatal care when you were pregnant with **(INITIALS)**? PROBE TO IDENTIFY THE MAIN REASON FOR NOT ATTENDING ANC CLINIC AND CIRCLE THE APPROPRIATE CODE.	THE CLINIC WAS TOO FAR AWAY……………1 I COULDN'T TAKE TIME OFF WORK/ TOO BUSY…………………..2 I COULDN'T AFFORD TO PAY FOR THE VISIT…………………..3 I KNEW ALL I NEEDED TO GIVE BIRTH……..4 I RELIED ON MY FRIENDS/ FAMILY WHO TOLD ME ABOUT GIVING BIRTH…………………5 MY CULTURE/RELIGION DOESN'T ALLOW…..6 I DIDN'T TRUST THE CLINIC STAFF………7 I DID NOT WANT AN HIV TEST DONE…………8 DON'T KNOW………...88 OTHER………………..96 ______________ (SPECIFY)	THE CLINIC WAS TOO FAR AWAY……………1 I COULDN'T TAKE TIME OFF WORK/ TOO BUSY…………………..2 I COULDN'T AFFORD TO PAY FOR THE VISIT…………………..3 I KNEW ALL I NEEDED TO GIVE BIRTH……..4 I RELIED ON MY FRIENDS/ FAMILY WHO TOLD ME ABOUT GIVING BIRTH…………………5 MY CULTURE/RELIGION DOESN'T ALLOW…..6 I DIDN'T TRUST THE CLINIC STAFF………7 I DID NOT WANT AN HIV TEST DONE…………8 DON'T KNOW………...88 OTHER………………..96 ______________ (SPECIFY)	THE CLINIC WAS TOO FAR AWAY……………1 I COULDN'T TAKE TIME OFF WORK/ TOO BUSY…………………..2 I COULDN'T AFFORD TO PAY FOR THE VISIT…………………..3 I KNEW ALL I NEEDED TO GIVE BIRTH……..4 I RELIED ON MY FRIENDS/ FAMILY WHO TOLD ME ABOUT GIVING BIRTH…………………5 MY CULTURE/RELIGION DOESN'T ALLOW…..6 I DIDN'T TRUST THE CLINIC STAFF………7 I DID NOT WANT AN HIV TEST DONE…………8 DON'T KNOW………...88 OTHER………………..96 ______________ (SPECIFY)
310	Did you receive antenatal care at home?	YES…………………1 NO…………………..2 DON'T KNOW……..8 → 332	YES…………………1 NO…………………..2 DON'T KNOW……..8 → 332	YES…………………1 NO…………………..2 DON'T KNOW……..8 → 332

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
311	What type of clinic(s) did you go when you received antenatal care when you were pregnant with **(INITIALS)?** PROBE: Was there another clinic type? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF CLINIC(s) AND TICK THE APPROPRIATE RESPONSE. IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD CLINIC NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL .....☐ B. GOV HEALTH CTR..☐ C. GOV DISPENSARY.☐ D. OTHER PUBLIC SECTOR ....☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC..........☐ F. PRIVATE HOSP ......☐ G.PRIVATE CLINIC......☐ H. OTHER NON-PUBLIC SECTOR ....☐ **I. OTHER SECTOR**......☐ ____________ (SPECIFY) J. DON'T KNOW..........☐	**PUBLIC SECTOR** A. GOV HOSPITAL .....☐ B. GOV HEALTH CTR..☐ C. GOV DISPENSARY.☐ D. OTHER PUBLIC SECTOR ....☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC..........☐ F. PRIVATE HOSP ......☐ G.PRIVATE CLINIC......☐ H. OTHER NON-PUBLIC SECTOR ....☐ **I. OTHER SECTOR**......☐ ____________ (SPECIFY) J. DON'T KNOW..........☐	**PUBLIC SECTOR** A. GOV HOSPITAL .....☐ B. GOV HEALTH CTR..☐ C. GOV DISPENSARY.☐ D. OTHER PUBLIC SECTOR ....☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC..........☐ F. PRIVATE HOSP ......☐ G.PRIVATE CLINIC......☐ H. OTHER NON-PUBLIC SECTOR ....☐ **I. OTHER SECTOR**......☐ ____________ (SPECIFY) J. DON'T KNOW..........☐
PREFACE BEFORE QUESTIONS 312-316: During any of your antenatal care clinic visits during your pregnancy with **(INITIALS),** did anyone <u>talk</u> to you about:				
312	How it is possible for babies to get HIV from their mothers during pregnancy?	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8
313	Things that you can do to prevent getting HIV?	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8
314	Getting tested for HIV?	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8
315	Getting tested for syphilis?	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8
316	Family planning?	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8	YES.........................1 NO..........................2 DON'T KNOW............8

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
317	When during your pregnancy did you first attend the antenatal care clinic with **(INITIALS)?**	0-3 MONTHS……1 4-6 MONTHS……2 7-9 MONTHS……3 DON'T KNOW……..8	0-3 MONTHS……1 4-6 MONTHS……2 7-9 MONTHS……3 DON'T KNOW……..8	0-3 MONTHS……1 4-6 MONTHS……2 7-9 MONTHS……3 DON'T KNOW……..8
➢ INTERVIEWER SAY: "The next questions are also about your child and pregnancy. Some of these questions are about HIV. Please keep in mind that your answers will be kept secret."				
318	During any of your visits to the antenatal care clinic when you were pregnant with **(INITIALS),** were you offered an HIV test?	YES……..1 NO……2 DON'T KNOW……8	YES……..1 NO……2 DON'T KNOW……8	YES……..1 NO……2 DON'T KNOW……8
319	Were you tested for HIV during any of your clinic visits when you were pregnant with **(INITIALS)**?	YES……1 NO……..2 323 ← DON'T KNOW……..8 332 ←	YES……1 NO……..2 323 ← DON'T KNOW……..8 332 ←	YES……1 NO……..2 323 ← DON'T KNOW……..8 332 ←
320	At what clinic were you tested for HIV during your pregnancy with (**INITIALS**)?	ANC CLINIC……1 MATERNITY……..2 BOTH……...3 DON'T KNOW……8 OTHER……..96 _____ (SPECIFY)	ANC CLINIC……1 MATERNITY……..2 BOTH……...3 DON'T KNOW……8 OTHER……..96 _____ (SPECIFY)	ANC CLINIC……1 MATERNITY……..2 BOTH……...3 DON'T KNOW……8 OTHER……..96 _____ (SPECIFY)
321	Did you receive the result of your HIV test during your pregnancy with **(INITIALS)**?	YES……..1 NO……....2 332 ←	YES……..1 NO……....2 332 ←	YES……..1 NO……....2 332 ←

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
322	What was the result of that HIV test?	POSITIVE…………...1 → 325 NEGATIVE…………2 INDETERMINATE…..3 NOT WILLING TO SHARE…………...4 → 332	POSITIVE…………...1 → 325 NEGATIVE…………2 INDETERMINATE…..3 NOT WILLING TO SHARE…………...4 → 332	POSITIVE…………...1 → 325 NEGATIVE…………2 INDETERMINATE…..3 NOT WILLING TO SHARE…………...4 → 332
323	Can you tell me the <u>main</u> reason you were <u>not</u> tested for HIV during antenatal care/maternity services with **(INITIALS)**? PROBE TO IDENTIFY THE MAIN REASON FOR NOT TESTING FOR HIV DURING ANC SERVICES AND CIRCLE THE APPROPRIATE CODE.	I TESTED HIV POSITIVE PREVIOUSLY AND ALREADY KNEW MY STATUS……………....1 → 324 I DID NOT WANT AN HIV TEST DONE/ DON'T WANT TO KNOW MY STATUS……………..2 HIV TEST KIT WAS NOT AVAILABLE………….3 HIV TEST WAS NOT OFFERED TO ME…...4 I DON'T NEED TO TEST/LOW RISK…….5 AFRAID OTHERS WILL KNOW ABOUT TEST RESULTS……………6 HIV TEST COSTS TOO MUCH………………...7 CAN'T GET TREATMENT IF HAVE HIV……….....8 OTHER………………9 ___________ (SPECIFY) → 332	I TESTED HIV POSITIVE PREVIOUSLY AND ALREADY KNEW MY STATUS……………....1 → 324 I DID NOT WANT AN HIV TEST DONE/ DON'T WANT TO KNOW MY STATUS……………..2 HIV TEST KIT WAS NOT AVAILABLE………….3 HIV TEST WAS NOT OFFERED TO ME…...4 I DON'T NEED TO TEST/LOW RISK…….5 AFRAID OTHERS WILL KNOW ABOUT TEST RESULTS……………6 HIV TEST COSTS TOO MUCH………………...7 CAN'T GET TREATMENT IF HAVE HIV……….....8 OTHER………………9 ___________ (SPECIFY) → 332	I TESTED HIV POSITIVE PREVIOUSLY AND ALREADY KNEW MY STATUS……………....1 → 324 I DID NOT WANT AN HIV TEST DONE/ DON'T WANT TO KNOW MY STATUS……………..2 HIV TEST KIT WAS NOT AVAILABLE………….3 HIV TEST WAS NOT OFFERED TO ME…...4 I DON'T NEED TO TEST/LOW RISK…….5 AFRAID OTHERS WILL KNOW ABOUT TEST RESULTS……………6 HIV TEST COSTS TOO MUCH………………...7 CAN'T GET TREATMENT IF HAVE HIV……….....8 OTHER………………9 ___________ (SPECIFY) → 332

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
324	Since you knew you were HIV positive, were you already taking HIV medications <u>for your own health</u> while you were pregnant with **(INITIALS)**?	YES……..1 → 328 NO……2 DON'T KNOW…….8	YES……..1 → 328 NO……2 DON'T KNOW…….8	YES……..1 → 328 NO……2 DON'T KNOW…….8
325	During any of your antenatal care visit were you told of a place where you could receive care and treatment services to prevent **(INITIALS)** from getting HIV infection?	YES……1 NO……..2 DON'T KNOW……..8 → 332	YES……1 NO……..2 DON'T KNOW……..8 → 332	YES……1 NO……..2 DON'T KNOW……..8 → 332
326	Did you go to this place where you could receive care and treatment services to prevent **(INITIALS)** from getting HIV infection?	YES……1 NO……2 DON'T KNOW…….8	YES……1 NO……2 DON'T KNOW…….8	YES……1 NO……2 DON'T KNOW…….8
327	Did <u>you</u> take any medications to prevent **(INITIALS)** from getting HIV?	YES……1 NO……..2 DON'T KNOW……..8 → 332	YES……1 NO……..2 DON'T KNOW……..8 → 332	YES……1 NO……..2 DON'T KNOW……..8 → 332
328	Did <u>you</u> take this HIV medication during your pregnancy (before birth) with (**INITIALS**)? IF A WOMAN WAS TAKING HIV MEDICINE FOR HER OWN HEALTH WHILE PREGNANT THEN RECORD AS 'YES'	YES……1 NO……..2 DON'T KNOW……..8 → 330	YES……1 NO……..2 DON'T KNOW……..8 → 330	YES……1 NO……..2 DON'T KNOW……..8 → 330
329	How many months pregnant were you with (**INITIALS**) when <u>you</u> started taking this HIV medication? IF LESS THAN 1 MONTH RECORD MONTHS AS '01' IF A WOMAN WAS ALREADY TAKING HIV MEDICINE FOR HER OWN HEALTH THEN RECORD MONTHS AS '01'. IF "DON'T KNOW" THEN RECORD '88'	MONTHS PREGNANT: ☐☐	MONTHS PREGNANT: ☐☐	MONTHS PREGNANT: ☐☐

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
330	Did <u>you</u> take HIV medication during labour and/or delivery with (**INITIALS**)?	YES……..1 NO……2 DON'T KNOW……8	YES……..1 NO……2 DON'T KNOW……8	YES……..1 NO……2 DON'T KNOW……8
331	Did **(INITIALS)** take any medications to prevent him/her from getting HIV infection?	YES…… 1 NO……2 DON'T KNOW……8	YES…… 1 NO……2 DON'T KNOW……8	YES…… 1 NO……2 DON'T KNOW……8
332	Did you ever breastfeed **(INITIALS)**?	YES……..1 NO……2 Q343 ←	YES……..1 NO……2 Q343 ←	YES……..1 NO……2 Q343 ←
<u>CHECK 305: IS (INITIALS) ALIVE?</u>: **IF '1' YES (STILL ALIVE) → 333** **IF '2' NO (CHILD HAD DIED) → 334**				
333	Are you still breastfeeding **(INITIALS)**?	YES……..1 335 ← NO……..2	YES……..1 335 ← NO……..2	YES……..1 335 ← NO……..2
334	How old was (**INITIALS**) when you <u>stopped</u> breastfeeding? IF LESS THAN ONE MONTH RECORD IN WEEKS, IF LESS THEN ONE YEAR RECORD IN MONTHS, IF 12 MONTHS OR MORE THEN RECORD IN YEARS. IF "DON'T KNOW" THEN RECORD '88' IN ALL FIELDS.	(**INITIALS**) AGE IN: WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	(**INITIALS**) AGE IN: WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	(**INITIALS**) AGE IN: WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
335	When you were breastfeeding, did you ever give **(INITIALS)** cow's milk, powdered milk, water, or any other foods or liquid?	YES……..1 NO……2 HIV STATUS CHECK BEFORE Q337	YES……..1 NO……2 HIV STATUS CHECK BEFORE Q337	YES……..1 NO……2 HIV STATUS CHECK BEFORE Q337
336	How old was **(INITIALS)** when you started giving **(INITIALS)** cow's milk, powdered milk, water, or any other foods or liquid? IF LESS THAN ONE WEEK RECORD IN DAYS, IF LESS THEN ONE MONTH RECORD IN WEEKS, IF LESS THEN ONE YEAR RECORD IN MONTHS, IF 12 MONTHS OR MORE RECORD IN YEARS. IF SUPPLEMENTAL FEEDING STARTED AT BIRTH RECORD '01' DAYS. IF "DON'T KNOW" THEN RECORD '88' IN ALL FIELDS.	(**INITIALS**) AGE IN: DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	(**INITIALS**) AGE IN: DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	(**INITIALS**) AGE IN: DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐
HIV STATUS CHECK: **THE REMAINING QUESTIONS ARE FOR RESPONDENTS WHO ARE HIV POSITIVE:** **CHECK HIV STATUS 322 AND 323:**	IF 322 '1' (POSITIVE) OR IF 323 '1' (ALREADY TESTED POSITIVE) → 337 OTHERWISE → Q343	IF 322 '1' (POSITIVE) OR IF 323 '1' (ALREADY TESTED POSITIVE) → 337 OTHERWISE → Q343	IF 322 '1' (POSITIVE) OR IF 323 '1' (ALREADY TESTED POSITIVE) → 337 OTHERWISE → Q343	

➢ **INTERVIEWER SAY: "Now there will be some detailed questions about breastfeeding. If you do not know the answer, please tell me and we will move to the next question."**

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
337	While breastfeeding (**INITIALS**) did <u>you</u> take any HIV medications to prevent (**INITIALS**) from getting HIV? IF A WOMAN WAS TAKING HIV MEDICINE FOR HER OWN HEALTH WHILE BREASTFEEDING THEN RECORD AS 'YES'.	YES……....1 NO……..2 DON'T KNOW……..8 → 340	YES……....1 NO……..2 DON'T KNOW……..8 → 340	YES……....1 NO……..2 DON'T KNOW……..8 → 340
338	Did you take the HIV medications the entire time you were breastfeeding (**INITIALS**)?	YES……....1 NO……2 DON'T KNOW…….8 → 340	YES……....1 NO……2 DON'T KNOW…….8 → 340	YES……....1 NO……2 DON'T KNOW…….8 → 340
339	How old was (**INITIALS**) when you <u>stopped</u> taking the HIV medications while breastfeeding? IF LESS THAN ONE WEEK RECORD 01 FOR WEK. IF LESS THAN ONE MONTH RECORD IN WEEKS, IF LESS THEN ONE YEAR RECORD IN MONTHS, IF 12 MONTHS OR MORE THEN RECORD IN YEARS. IF "DON'T KNOW" THEN RECORD '88' IN ALL FIELDS.	(**INITIALS**) AGE IN: WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	(**INITIALS**) AGE IN: WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	(**INITIALS**) AGE IN: WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐
340	While breastfeeding (**INITIALS**), did (**INITIALS**) receive HIV medicine to prevent (**INITIALS**) from getting HIV infection?	YES……1 NO……..2 DON'T KNOW……..8 → 343	YES……1 NO……..2 DON'T KNOW……..8 → 343	YES……1 NO……..2 DON'T KNOW……..8 → 343
341	While breastfeeding, did (**INITIALS**) receive a daily dose or a single dose of medicine to prevent (**INITIALS**) from getting HIV infection?	DAILY……1 SINGLE DOSE ……..2 DON'T KNOW……..8 → 343	DAILY……1 SINGLE DOSE ……..2 DON'T KNOW……..8 → 343	DAILY……1 SINGLE DOSE ……..2 DON'T KNOW……..8 → 343

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST BIRTH**	**SECOND-TO-LAST BIRTH**	**THIRD TO LAST BIRTH**
342	While you were breastfeeding (**INITIALS**), how long did (**INITIALS**) take this HIV medication? IF LESS THAN ONE WEEK, RECORD 01 FOR WEEK. IF LESS THAN ONE MONTH RECORD IN WEEKS, IF LESS THAN ONE YEAR RECORD IN MONTHS, IF 12 MONTHS OR MORE RECORD IN YEARS. IF "DON'T KNOW" THEN RECORD '88' IN ALL FIELDS	WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐
343	Was **(INITIALS)** tested for HIV at time of first immunization or any time thereafter?	YES……1 NO……..2 DON'T KNOW……..8 MATRIX END	YES……1 NO……..2 DON'T KNOW……..8 MATRIX END	YES……1 NO……..2 DON'T KNOW……..8 MATRIX END
344	What were the results of **(INITIALS)**'s HIV test?	POSITIVE, (**INITIALS**) HAS HIV……..……1 NEGATIVE, (**INITIALS**) DOES NOT HAVE HIV……..2 INDETERMINATE…....3 NOT WILLING TO SHARE……..4	POSITIVE, (**INITIALS**) HAS HIV……..……1 NEGATIVE, (**INITIALS**) DOES NOT HAVE HIV……..2 INDETERMINATE…....3 NOT WILLING TO SHARE……..4	POSITIVE, (**INITIALS**) HAS HIV……..……1 NEGATIVE, (**INITIALS**) DOES NOT HAVE HIV……..2 INDETERMINATE…....3 NOT WILLING TO SHARE……..4

MATRIX END

- **INTERVIEWER SAYS: "Thank you for the information regarding (INITIALS)."**

CHECK BIRTH MATRIX INTRO:

IF MORE BIRTHS → 302

- **INTERVIEWER SAYS: "Now I would like to ask you about your next birth".**

IF NO MORE BIRTHS CHECK 102 (AGE):

IF 15-49 OR EMANCIPATED MINOR → 345

IF 50-54 YEARS → 401

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
➢ **INTERVIEWER SAY: "Now I would like to move on to a new topic."**			
345	Are you pregnant now?	YES……1 NO……..2 DON'T KNOW……..8	→ 360
➢ **INTERVIEWER SAY: "The next questions are about your current pregnancy."**			
346	How many months pregnant are you? IF LESS THAN ONE MONTH RECORD AS '01' MONTHS IF "DON'T KNOW" THEN RECORD '88'	MONTHS PREGNANT: ☐☐	
347	Have you visited an antenatal care clinic during this current pregnancy?	YES……1 NO……..2	→ 349
348	At what month in your pregnancy did you first attend the antenatal care clinic?	0-3 MONTHS……1 4-6 MONTHS……2 7-9 MONTHS……3 DON'T' KNOW……8	
349	Can you tell me the <u>main</u> reason you have not attended an antenatal care clinic during your **current** pregnancy? PROBE TO IDENTIFY MAIN REASON FOR NOT ATTENDING ANC AND CIRCLE THE APPROPRIATE CODE.	THE CLINIC IS TOO FAR AWAY……..…1 I CAN'T TAKE TIME OFF WORK/TOO BUSY……..…2 I CAN'T AFFORD TO PAY FOR THE VISIT……3 I KNOW ALL I NEED TO GIVE BIRTH……...4 I WILL ASK FRIENDS/FAMILY WHO CAN TELL ME ABOUT GIVING BIRTH……..5 MY CULTURE/RELIGION DOESN'T ALLOW……..…...6 I DON'T TRUST THE CLINIC STAFF……..…7 I'M RECEIVING CARE AT HOME…….……..…8 I JUST FOUND OUT I AM PREGNANT……..…9 I DO NOT WANT AN HIV TEST DONE……....10 OTHER……..……....96 _____ (SPECIFY)	→ 360

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
350	What type of antenatal clinic did you go to? PROBE: Was there another type of clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY CLINIC TYPE(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD CLINIC NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER…….. ☐ C. GOV DISPENSARY…….. ☐ D. OTHER PUBLIC SECTOR…….. ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G.PRIVATE CLINIC…….... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	
351	During this current pregnancy, was an HIV test <u>offered</u> to you during any of your antenatal care clinic visits?	YES……..1 NO……....2 DON'T KNOW……....8	
352	During this current pregnancy, have you been <u>tested</u> for HIV during any of your antenatal care clinic visits?	YES……..……1 NO……2 →	356
353	Did you get the result of this last HIV test you received at the antenatal clinic?	YES……..……1 NO……2 →	360
354	Would you be willing to share with me the results of this last test?	YES……1 NO……...2 →	360
355	What were the results of your HIV test?	POSITIVE……..1 → 357 NEGATIVE……2 → 360 INDETERMINATE……...3 → 360	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
356	Can you tell me the <u>main</u> reason you have not tested for HIV during antenatal care with your current pregnancy? PROBE TO IDENTIFY THE MAIN REASON FOR NOT TESTING FOR HIV DURING ANC VISITS AND CIRCLE THE APPROPRIATE CODE.	I TESTED HIV POSITIVE PREVIOUSLY AND ALREADY KNEW MY STATUS……....1 I DID NOT WANT AN HIV TEST DONE…….2 HIV TEST KIT WAS NOT AVAILABLE ……..3 HIV TEST WAS NOT OFFERED TO ME …..4 DON'T NEED TO TEST/LOW RISK ……...5 DON'T WANT TO KNOW MY STATUS……..6 AFRAID OTHERS WILL KNOW ABOUT MY TEST RESULTS ……7 TEST COST TOO MUCH ...……8 CAN'T GET TREATMENT IF HAVE HIV/AIDS.....….9 OTHER……..……96 _____ (SPECIFY)	1 → 357 2, 3, 4, 5, 6, 7, 8, 9, 96 → 360
357	Since you already know you are infected with HIV are you now taking HIV medications for <u>your own health</u>?	YES……..……1 NO…….2	1 → 360
358	Are you going to a place where you could receive care and treatment services to prevent your baby from getting HIV?	YES……...1 NO……....2 DON'T KNOW……....8	2, 8 → 360
359	Are you taking any medications to prevent your baby from getting HIV? IF A WOMAN IS TAKING HIV MEDICINE FOR HER OWN HEALTH WHILE PREGNANT THEN RECORD AS 'YES'	YES……....1 NO……....2 DON'T KNOW……....8	

➢ **INTERVIEWER SAY: "Now I have some questions about your future plans."**

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
360	**CHECK 345: READ QUESTION ACCORDING TO RESPONSE** **IF '2' NOT PREGNANT, '8' DON'T KNOW SAY:** Would you like to have (a/another) child, or would you prefer not to have any (more) children? **IF '1' CURRENTLY PREGNANT SAY:** After the child you are expecting now, would you like to have another child, or would prefer not to have any more children?	HAVE (A/ANOTHER) CHILD……1 NO MORE/NONE……2 UNABLE TO CONCEIVE……..3 UNDECIDED/DON'T KNOW……8	→ 362 → 363 → 363
361	You mentioned that you cannot get pregnant, can you tell me why? DO NOT READ ANSWERS PROBE FOR MAIN REASON ONLY	I'M STERILIZED…..……..1 PARTNER STERILIZED…….2 I'M INFECUND…….3 PARTNER INFECUND ……..4 MENOPAUSAL……....5 HYSTERECTOMY……..….6 OTHER……96 _____ (SPECIFY)	→ MODULE 3A
362	**CHECK 345: READ QUESTION ACCORDING TO RESPONSE** **IF '2' NOT PREGNANT, '8' NOT SURE SAY:** How long would you like to wait from now before the birth of (a/another) child? **IF '1' CURRENTLY PREGNANT SAY:** After the birth of the child you are expecting now, how long would you like to wait before the birth of another child? IF "DON'T KNOW" THEN RECORD '88' IN MONTHS AND YEARS FIELDS	TIME TO NEXT CHILD: MONTHS : ☐☐ OR YEARS: ☐☐	
CHECK 345: IF '1' CURRENTLY PREGNANT → MODULE 3A			
363	Are you (or your partner) currently doing something or using any method to delay or avoid getting pregnant?	YES……..……1 NO……2	→ 365

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
364	Which method are you (or your partner) using? PROBE: Are you/your partner using anything else? RECORD ALL MENTIONED DO NOT READ RESPONSES	A. FEMALE STERILIZATION..... ☐ B. MALE STERILIZATION..... ☐ C. PILL..... ☐ D. IUD/"COIL"..... ☐ E. INJECTIONS..... ☐ F. IMPLANT..... ☐ G. CONDOM..... ☐ H. FEMALE CONDOM..... ☐ I. RHYTHM/NATURAL METHODS..... ☐ J. WITHDRAWAL..... ☐ K. NOT HAVING SEX..... ☐ L. OTHER..... ☐ (SPECIFY)	MODULE 3A
365	Can you tell me why you (or your partner) are not currently using any method to delay or avoid getting pregnant? PROBE: Anything else? RECORD ALL MENTIONED DO NOT READ RESPONSES	A. I/MY PARTNER/ WE WANT TO HAVE A BABY..... ☐ B. I'M NOT HAVING SEX..... ☐ C. I AM NOT/MY PARTNER IS NOT ABLE TO HAVE CHILDREN..... ☐ D. MY PERIOD HASN'T RETURNED FROM MY LAST PREGNANCY..... ☐ E. I AM BREASTFEEDING..... ☐ F. I LEAVE IT TO FATE/GOD/ GOD'S WILL..... ☐ G. I'M OPPOSED..... ☐ H. MY PARTNER IS OPPOSED..... ☐ I. I'M NOT AWARE OF ANY METHOD TO USE..... ☐ J. I HAVE CONCERNS ABOUT SIDE EFFECTS..... ☐ K. INCONVENIENT TO USE..... ☐ L. INTERFERES WITH BODY'S NORMAL PROCESSES..... ☐ M. OTHER..... ☐ (SPECIFY)	MODULE 3A

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 3A: PAEDIATRIC			
THIS IS ADMINISTERED TO AN ELIGIBLE PARENT/GUARDIAN OF CHILDREN AGED 18 MONTHS-14 YEARS LISTED ON THE HOUSEHOLD SCHEDULE. CHECK HOUSEHOLD SCHEDULE TO GET NUMBER OF CHILDREN FOR THIS PARENT OR GUARDIAN.			
➢ **INTERVIEWER SAY: "Thank you for that information. Now I am going to ask you a number of questions about your child/children's health and where they get their health services."**			
P0	DO NOT READ: CHECK HOUSEHOLD SCHEDULE TO GET NUMBER OF CHILDREN IF NONE RECORD '00'	NUMBER OF CHILDREN: ☐☐ IF '00' NONE → 401 AT LEAST ONE CHILD ↓ CONTINUE TO PAEDIATRIC MATRIX	

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
	PAEDIATRIC MATRIX INTRO: P1 **INTERVIEWER SAY" "Before we start, can I get the names of your children? You don't have to provide the exact name. Let's begin with your youngest child."**	NAME (1) _____	NAME (2) _____	NAME (3) _____
P2	**DO NOT READ:** INTERVIEWER: ENTER THE LINE NUMBER OF THE CHILD FROM THE HOUSEHOLD SCHEDULE.	☐☐	☐☐	☐☐
P3	When is (**NAME**)'s date of birth? COMPUTE CURRENT AGE. CONFIRM (NAME) IS BETWEEN 18 MONTHS – 14 YEARS. IF 'DON'T KNOW' THEN RECORD '88' FOR ALL FIELDS	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐
P4	Is (**NAME**) a boy or girl?	BOY……1 GIRL…….. 2	BOY……1 GIRL…….. 2	BOY……1 GIRL…….. 2
P5	Has **(NAME)** ever received a blood transfusion?	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8	YES……1 NO……..2 DON'T KNOW……..8
CHECK P4: IF '2' GIRL → P9				
P6	Is (**NAME)** circumcised?	YES……1 P8 ← NO……..2 DON'T KNOW……..8 P9 ←	YES……1 P8 ← NO……..2 DON'T KNOW……..8 P9 ←	YES……1 P8 ← NO……..2 DON'T KNOW……..8 P9 ←
P7	Are you planning to circumcise (**NAME**) in the future?	YES……1 NO……..2 DON'T KNOW……..8 P9 ←	YES……1 NO……..2 DON'T KNOW……..8 P9 ←	YES……1 NO……..2 DON'T KNOW……..8 P9 ←

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P8	Where was (**NAME**) circumcised?	IN A CLINIC OR HEALTH FACILITY…….1 IN THE VILLAGE………2 MOBILE MC CLINIC…..3 PRIVATE CLINIC……...4 DON'T KNOW ………...8 OTHER…………………96 ___________ (SPECIFY)	IN A CLINIC OR HEALTH FACILITY…….1 IN THE VILLAGE………2 MOBILE MC CLINIC…..3 PRIVATE CLINIC……...4 DON'T KNOW ………...8 OTHER…………………96 ___________ (SPECIFY)	IN A CLINIC OR HEALTH FACILITY…….1 IN THE VILLAGE………2 MOBILE MC CLINIC…..3 PRIVATE CLINIC……...4 DON'T KNOW ………...8 OTHER…………………96 ___________ (SPECIFY)
➢ **INTERVIEWER SAY: "I have some more questions about your child. Some of these are about HIV. Your answers will not be told to anyone outside the study. They will not be told to your child or anyone else in your family."**				
P9	Has (**NAME**) ever been tested for HIV?	YES…………………1 NO…………………..2 DON'T KNOW……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)	YES…………………1 NO…………………..2 DON'T KNOW……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)	YES…………………1 NO…………………..2 DON'T KNOW……..8 (2, 8 → 401)
P10	When was **(NAME)'s** last HIV test? IF "DON'T KNOW" MONTH RECORD '88' IF "DON'T KNOW" YEAR RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	MONTH: ☐☐ YEAR: ☐☐☐☐	MONTH: ☐☐ YEAR: ☐☐☐☐
P11	Are you willing to disclose (**NAME**)'s HIV test results?	YES…………………1 NO…………………..2 DID NOT RECEIVE THE RESULT……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)	YES…………………1 NO…………………..2 DID NOT RECEIVE THE RESULT……..8 (2, 8 → NEXT CHILD OR 401 IF NO OTHER CHILD)	YES…………………1 NO…………………..2 DID NOT RECEIVE THE RESULT……..8 (2, 8 → 401)

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P12	What was (**NAME**)'s last HIV test result?	POSITIVE……..1 NEGATIVE……....2 INDETERMINATE.....8 NEXT CHILD OR 401 IF NO OTHER CHILD	POSITIVE……..1 NEGATIVE……....2 INDETERMINATE.....8 NEXT CHILD OR 401 IF NO OTHER CHILD	POSITIVE……..1 NEGATIVE……....2 INDETERMINATE.....8 401
P13	Has (**NAME**) ever attended an HIV clinic?	YES……1 NO……..2 DON'T KNOW……..8 P15	YES……1 NO……..2 DON'T KNOW……..8 P15	YES……1 NO……..2 DON'T KNOW……..8 P15
P14	When did (**NAME**) first attend an HIV clinic? IF "DON'T KNOW" MONTH RECORD '88' IF "DON'T KNOW" YEAR RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐ P16	MONTH: ☐☐ YEAR: ☐☐☐☐ P16	MONTH: ☐☐ YEAR: ☐☐☐☐ P16
P15	Can you tell me the main reason why (**NAME**) has not attended an HIV clinic? PROBE FOR MAIN REASON ONLY	THE FACILITY TOO FAR AWAY……...1 I DON'T KNOW WHERE TO GET SERVICES FOR (**NAME**)……..2 I CAN NOT AFFORD IT……..……3 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK……...4 I FEAR PEOPLE WILL KNOW THAT (**NAME**) HAS HIV IF I TAKE HIM/HER TO A CLINIC……...5 OTHER……..96 _____ (SPECIFY)	THE FACILITY TOO FAR AWAY……...1 I DON'T KNOW WHERE TO GET SERVICES FOR (**NAME**)……2 I CAN NOT AFFORD IT……..……3 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK……4 I FEAR PEOPLE WILL KNOW THAT (**NAME**) HAS HIV IF I TAKE HIM/HER TO A CLINIC……...5 OTHER……96 _____ (SPECIFY)	THE FACILITY TOO FAR AWAY……...1 I DON'T KNOW WHERE TO GET SERVICES FOR (**NAME**)……2 I CAN NOT AFFORD IT……..……3 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK……4 I FEAR PEOPLE WILL KNOW THAT (**NAME**) HAS HIV IF I TAKE HIM/HER TO A CLINIC……...5 OTHER……96 _____ (SPECIFY)

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P16	Is (**NAME**) currently taking Septrin or cotrimoxazole?	YES…………………1 → P18 NO…………………..2 DON'T KNOW……..8 → P19	YES…………………1 → P18 NO…………………..2 DON'T KNOW……..8 → P19	YES…………………1 → P18 NO…………………..2 DON'T KNOW……..8 → P19
P17	Can you tell me the main reason why (**NAME**) is not currently taking Septrin or Cotrimoxazole daily? PROBE TO GET MAIN REASON ONLY	I HAVE TROUBLE GIVING (**NAME**) A TABLET EVERYDAY……………1 (**NAME**) HAD SIDE EFFECTS/RASH……...2 FACILITY/PHARMACY TOO FAR AWAY TO GET MEDICNE REGULARLY…………3 I CAN'T AFFORD……..4 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK…………..5 PHARMACY/FACILITY WAS OUT OF STOCK OF THE MEDICINE…..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF MEDICINE IS GIVEN………………7 TOO BUSY/NO TIME TO GIVE……………….8 DOCTOR HAS NOT RECOMMENDED……9 OTHER………………96 ________________ (SPECIFY) DON'T KNOW……….88 → P19	I HAVE TROUBLE GIVING (**NAME**) A TABLET EVERYDAY……………1 (**NAME**) HAD SIDE EFFECTS/RASH……...2 FACILITY/PHARMACY TOO FAR AWAY TO GET MEDICNE REGULARLY…………3 I CAN'T AFFORD……..4 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK…………..5 PHARMACY/FACILITY WAS OUT OF STOCK OF THE MEDICINE…..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF MEDICINE IS GIVEN………………7 TOO BUSY/NO TIME TO GIVE……………….8 DOCTOR HAS NOT RECOMMENDED……9 OTHER………………96 ________________ (SPECIFY) DON'T KNOW……….88 → P19	I HAVE TROUBLE GIVING (**NAME**) A TABLET EVERYDAY……………1 (**NAME**) HAD SIDE EFFECTS/RASH……...2 FACILITY/PHARMACY TOO FAR AWAY TO GET MEDICNE REGULARLY…………3 I CAN'T AFFORD……..4 I DON'T THINK (**NAME**) NEEDS IT, HE/SHE IS NOT SICK…………..5 PHARMACY/FACILITY WAS OUT OF STOCK OF THE MEDICINE…..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF MEDICINE IS GIVEN………………7 TOO BUSY/NO TIME TO GIVE……………….8 DOCTOR HAS NOT RECOMMENDED……9 OTHER………………96 ________________ (SPECIFY) DON'T KNOW……….88 → P19

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P18	What type of clinic(s) did you get the Septrin or Cotrimoxazole **(NAME)** is currently taking? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF CLINIC(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD CLINIC NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC… ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**… ☐ ____________ (SPECIFY) J. DON'T KNOW……… ☐	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC… ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**… ☐ ____________ (SPECIFY) J. DON'T KNOW……… ☐	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC… ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**… ☐ ____________ (SPECIFY) J. DON'T KNOW……… ☐
P19	Has (**NAME**) ever taken ARVs, that is, antiretroviral medication, to treat his/her HIV infection?	YES…………………1 NO…………………..2 P21 ← DON'T KNOW……..8 P23 ←	YES…………………1 NO…………………..2 P21 ← DON'T KNOW……..8 P23 ←	YES…………………1 NO…………………..2 P21 ← DON'T KNOW……..8 P23 ←
P20	Is (**NAME**) currently taking ARVs, that is, antiretroviral medications daily?	YES…………………1 P22 ← NO…………………..2 DON'T KNOW……..8 P23 ←	YES…………………1 P22 ← NO…………………..2 DON'T KNOW……..8 P23 ←	YES…………………1 P22 ← NO…………………..2 DON'T KNOW……..8 P23 ←

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**FIRST CHILD**	**SECOND CHILD**	**THIRD CHILD**
P21	Can you tell me the main reason why (**NAME**) is not taking ARVs daily? PROBE FOR MAIN REASON ONLY	I HAVE TROUBLE GIVING (**NAME**) ARVS EVERYDAY…………....1 (**NAME**) HAD SIDE EFFECTS/ARVS MADE (**NAME**) SICK………....2 FACILITY/PHARMACY TOO FAR AWAY TO GET ARVS REGULARLY…………3 I CAN'T AFFORD/ ARVS TOO EXPENSIVE…......……4 I DON'T THINK (**NAME**) NEEDS ARVS, (**NAME**) IS NOT SICK…………5 PHARMACY/FACILITY WAS OUT OF STOCK OF ARVS……………..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF ARVS ARE GIVEN…………..7 TOO BUSY/NO TIME TO GIVE………………8 DOCTOR HAS NOT RECOMMENDED ARVS…………….…...9 OTHER………………96 ______________ (SPECIFY) DON'T KNOW……….88 → P23	I HAVE TROUBLE GIVING (**NAME**) ARVS EVERYDAY…………....1 (**NAME**) HAD SIDE EFFECTS/ARVS MADE (**NAME**) SICK………....2 FACILITY/PHARMACY TOO FAR AWAY TO GET ARVS REGULARLY…………3 I CAN'T AFFORD/ ARVS TOO EXPENSIVE…......……4 I DON'T THINK (**NAME**) NEEDS ARVS, (**NAME**) IS NOT SICK…………5 PHARMACY/FACILITY WAS OUT OF STOCK OF ARVS……………..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF ARVS ARE GIVEN…………..7 TOO BUSY/NO TIME TO GIVE………………8 DOCTOR HAS NOT RECOMMENDED ARVS…………….…...9 OTHER………………96 ______________ (SPECIFY) DON'T KNOW……….88 → P23	I HAVE TROUBLE GIVING (**NAME**) ARVS EVERYDAY…………....1 (**NAME**) HAD SIDE EFFECTS/ARVS MADE (**NAME**) SICK………....2 FACILITY/PHARMACY TOO FAR AWAY TO GET ARVS REGULARLY…………3 I CAN'T AFFORD/ ARVS TOO EXPENSIVE…......……4 I DON'T THINK (**NAME**) NEEDS ARVS, (**NAME**) IS NOT SICK…………5 PHARMACY/FACILITY WAS OUT OF STOCK OF ARVS……………..6 I FEAR PEOPLE WILL KNOWN THAT (**NAME**) HAS HIV IF ARVS ARE GIVEN…………..7 TOO BUSY/NO TIME TO GIVE………………8 DOCTOR HAS NOT RECOMMENDED ARVS…………….…...9 OTHER………………96 ______________ (SPECIFY) DON'T KNOW……….88 → P23

KAIS 2012 INDIVIDUAL FEMALE				
NO.	QUESTIONS AND INSTRUCTIONS	FIRST CHILD	SECOND CHILD	THIRD CHILD
P22	From what type of clinic did you get the ARVs (**NAME**) is currently taking? PROBE: Any other clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD FACILITY NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC... ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**... ☐ __________ (SPECIFY) J. DON'T KNOW......... ☐	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC... ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**... ☐ __________ (SPECIFY) J. DON'T KNOW......... ☐	**PUBLIC SECTOR** A. GOV HOSPITAL ..... ☐ B. GOV HEALTH CTR.. ☐ C. GOV DISPENSARY. ☐ D. OTHER PUBLIC SECTOR .... ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC...... ☐ F. PRIVATE HOSP ... ☐ G.PRIVATE CLINIC... ☐ H. OTHER NON-PUBLIC SECTOR .... ☐ **I. OTHER SECTOR**... ☐ __________ (SPECIFY) J. DON'T KNOW......... ☐
P23	Has (**NAME**) been told that he/she is infected with HIV?	YES....................1 NO......................2 DON'T KNOW........8	YES....................1 NO......................2 DON'T KNOW........8	YES....................1 NO......................2 DON'T KNOW........8

<u>PAEDIATRIC MATRIX END</u>

➢ **INTERVIEWER SAYS**: "Thank you for the information regarding (**NAME**)."

IF PARENT/GUARDIAN HAS ANOTHER CHILD BETWEEN 18 MONTHS – 14 YEARS BESIDES (NAME) →P1 FOR NEXT CHILD.

➢ **INTERVIEWER SAYS**: "Now I would like to ask you about (**NAME** of next child)".

☐ **TICK IF PAEDIATRIC CONTINUATION SHEET REQUIRED**

IF NO OTHER CHILDREN CONTINUE TO 401.

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 4: SEXUAL ACTIVITY			
	➢ **INTERVIEWER SAY: "Now there will be some questions about your sexual activity in order to gain a better understanding of some important life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. Please answer as well as you can. If you are uncomfortable with any questions, please let me know. Can we begin?"**		
401	Have you ever had sexual intercourse?	YES……1 → 403 NO, I'VE NEVER HAD SEXUAL INTERCOURSE…….. 2 REFUSED……98 → 501	
402	Do you intend to wait until you get married to have sex for the first time?	YES…….. 1 NO…….. 2 → 501 DON'T KNOW/UNSURE……8	
403	How old were you when you had sexual intercourse for the very <u>first</u> time? IF "DON'T KNOW" THEN RECORD '88'	AGE IN YEARS: ☐☐	
404	Have you ever used a condom?	YES…….. 1 NO…….. 2 → 406	
405	The <u>first</u> time you had sexual intercourse, was a condom used?	YES…….. 1 NO…….. 2 DON'T KNOW……..8	
406	Have you heard of anal sex?	YES……1 NO……2 → 412 REFUSED…….. 98	
407	Have you ever had anal sex?	YES……1 NO……2 → 412 REFUSED…….. 98	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
408	Have you had anal sex in the last 12 months?	YES.....1 NO.....2 REFUSED..... 98	→ 412
409	Did you or your partner use a condom the last time you had anal sex?	YES.....1 NO.....2 REFUSED..... 98	
410 - 411	NOT ASKED FOR FEMALES		
412	In total, how many different people have you had sexual intercourse with in your lifetime? IF A NON-NUMERIC ANSWER IS GIVEN (“I’VE HAD MANY”), PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 100 WRITE '100'. IF RESPONDENT CAN NOT ESTIMATE, RECORD ‘888’.	NUMBER OF SEXUAL PARTNERS IN LIFETIME: ☐☐☐	
413	In total, how many different people have you had sexual intercourse with in the last 12 months? IF A NON-NUMERIC ANSWER IS GIVEN (“I’VE HAD MANY”), PROBE TO GET AN ESTIMATE. IF NO PARTNERS RECORD ‘000’. IF NUMBER OF PARTNERS IS GREATER THAN 100 WRITE ' 100'. IF RESPONDENT CAN NOT ESTIMATE, RECORD ‘888’.	NUMBER OF PARTNERS IN LAST 12 MONTHS: ☐☐☐ IF ‘000’ NONE OR ‘888’	→ 434

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST SEXUAL PARTNER**	**SECOND-TO-LAST PARTNER**	**THIRD TO LAST SEXUAL PARTNER**
	CHECK 413 (NUMBER OF PARTNERS LAST 12-MONTHS): **IF LESS THAN 3:** ➢ INTERVIEWER SAY: "Now I would like to ask you some questions about the ____ partners you have had sexual intercourse with in the last 12 months." **IF 3 OR GREATER:** ➢ INTERVIEWER SAY: "Now I would like to ask you some questions about the LAST 3 partners you have had sex with in the past 12 months." **INTERVIEWER SAY TO ALL:** ➢ "Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question."			
	SEXUAL PARTNER MATRIX INTRO: INTERVIEWER SAY: "Before we start, can I get the initials of your last partners so I can keep track? You don't have to give me exact initials." GET INITIALS OF ALL PARTNERS BEFORE BEGINNING OF SEXUAL PARTNER MATRIX.	INITIALS (1) _____	INITIALS (2) _____	INITIALS (3) _____
	➢ **INTERVIEWER SAY: "Thank you. Let's start with questions only about (INITIALS). I will ask you about the others afterwards".** ➢ ➢ **IF MORE THAN ONE PARTNER ALSO SAY: "I will ask you about the others afterwards".**			
414	NOT ASKED FOR FEMALES			
415	When was the <u>last</u> time you had sexual intercourse with (**INITIALS**)? IF LESS THAN ONE WEEK RECORD IN DAYS, IF LESS THEN ONE MONTH RECORD IN WEEKS, OTHERWISE RECORD IN MONTHS. IF "DON'T KNOW" RECORD '88'	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST SEXUAL PARTNER**	**SECOND-TO-LAST PARTNER**	**THIRD TO LAST SEXUAL PARTNER**
416	When was the <u>first</u> time you had sexual intercourse with (**INITIALS**)? IF LESS THAN ONE WEEK RECORD IN DAYS, IF LESS THEN ONE MONTH RECORD IN WEEKS, IF LESS THEN ONE YEAR RECORD IN MONTHS, IF 12 MONTHS OR MORE RECORD IN YEARS. IF "DON'T KNOW" RECORD '88'	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐	DAYS: ☐☐ WEEKS: ☐☐ MONTHS: ☐☐ YEARS: ☐☐
417	Is (**INITIALS**) older than you, younger than you, or about the same age?	OLDER……1 YOUNGER……..2 → 419 SAME AGE……...3 DON'T KNOW……..8 → 420	OLDER……1 YOUNGER……..2 → 419 SAME AGE……...3 DON'T KNOW……..8 → 420	OLDER……1 YOUNGER……..2 → 419 SAME AGE……...3 DON'T KNOW……..8 → 420
418	Would you say (**INITIALS**) is ten or more years older than you, or less than ten years older than you?	TEN OR MORE YEARS OLDER……1 LESS THAN TEN YEARS OLDER……2 OLDER, UNSURE HOW MUCH……3 → 420	TEN OR MORE YEARS OLDER……1 LESS THAN TEN YEARS OLDER……2 OLDER, UNSURE HOW MUCH……3 → 420	TEN OR MORE YEARS OLDER……1 LESS THAN TEN YEARS OLDER……2 OLDER, UNSURE HOW MUCH……3 → 420
419	Would you say (**INITIALS**) is ten or more years younger than you, or less than ten years younger than you?	TEN OR MORE YEARS YOUNGER....1 LESS THAN TEN YEARS YOUNGER....2 YOUNGER, UNSURE HOW MUCH……..3	TEN OR MORE YEARS YOUNGER....1 LESS THAN TEN YEARS YOUNGER....2 YOUNGER, UNSURE HOW MUCH……..3	TEN OR MORE YEARS YOUNGER....1 LESS THAN TEN YEARS YOUNGER....2 YOUNGER, UNSURE HOW MUCH……..3

<u>CHECK 408 (HAVE YOU HAD ANAL SEX IN LAST 12-MONTHS):</u>

IF '1' YES → 420

IF '2' NO, '98' REFUSED, OR 'SKIPPED' (NOT ASKED) → 424

KAIS 2012 INDIVIDUAL FEMALE				
NO.	**QUESTIONS AND INSTRUCTIONS**	**LAST SEXUAL PARTNER**	**SECOND-TO-LAST PARTNER**	**THIRD TO LAST SEXUAL PARTNER**
420	In the last 12-months, have you had anal sex with (**INITIALS**)?	YES……1 NO……2 DON'T KNOW…..8 424 ◄	YES……1 NO……2 DON'T KNOW…..8 424 ◄	YES……1 NO……2 DON'T KNOW…..8 424 ◄
421	NOT ASKED FOR FEMALES			
422	The last time you had anal sex with (**INITIALS**) was a condom used?	YES……1 NO……2 DON'T KNOW…..8 424 ◄	YES……1 NO……2 DON'T KNOW…..8 424 ◄	YES……1 NO……2 DON'T KNOW…..8 424 ◄
423	In the last 12-months, was condom used every time you had anal sex with (**INITIALS**)?	YES……1 NO……2 DON'T KNOW……8	YES……1 NO……2 DON'T KNOW……8	YES……1 NO……2 DON'T KNOW……8
424	The last time you had any sexual intercourse with (**INITIALS**) was a condom used?	YES……1 NO……2 DON'T KNOW…..8 426 ◄	YES……1 NO……2 DON'T KNOW…..8 426 ◄	YES……1 NO……2 DON'T KNOW…..8 426 ◄
425	In the last 12-months, was a condom used every time you had any sexual intercourse with (**INITIALS**)?	YES……1 NO……2 DON'T KNOW……8	YES……1 NO……2 DON'T KNOW……8	YES……1 NO……2 DON'T KNOW……8

KAIS 2012 INDIVIDUAL FEMALE				
NO.	QUESTIONS AND INSTRUCTIONS	LAST SEXUAL PARTNER	SECOND-TO-LAST PARTNER	THIRD TO LAST SEXUAL PARTNER
426	What is your relationship with (**INITIALS**)? IF RESPONENT SAY BOYFRIEND ASK: Were you living together as if married? IF YES, CIRCLE '2' IF NO, CIRCLE '3'	HUSBAND…………1 LIVE-IN PARTNER….2 → 426A PARTNER, NOT LIVING WITH RESPONDENT……..3 CASUAL ACQUAINTANCE…..4 SEX WORKER…...5 SEX WORKER CLIENT…………...6 OTHER…………96 → 427	HUSBAND…………1 LIVE-IN PARTNER….2 → 426A PARTNER, NOT LIVING WITH RESPONDENT……..3 CASUAL ACQUAINTANCE…..4 SEX WORKER…...5 SEX WORKER CLIENT…………...6 OTHER…………96 → 427	HUSBAND…………1 LIVE-IN PARTNER….2 → 426A PARTNER, NOT LIVING WITH RESPONDENT……..3 CASUAL ACQUAINTANCE…..4 SEX WORKER…...5 SEX WORKER CLIENT…………...6 OTHER…………96 → 427
426A	DO NOT READ: RECORD THE LINE NUMBER OF (**INITIALS**) FROM THE HOUSEHOLD SCHEDULE. IF (**INITIALS**) IS NOT ON HOUSEHOLD SCHEDULE RECORD '00'.	LINE NUMBER OF (**INITIALS**): [ ][ ]	LINE NUMBER OF (**INITIALS**): [ ][ ]	LINE NUMBER OF (**INITIALS**): [ ][ ]
427	Is your relationship with (**INITIALS**) an ongoing sexual relationship?	YES, ONGOING…….1 NO, IT IS OVER…….2 DON'T KNOW……….8	YES, ONGOING…….1 NO, IT IS OVER…….2 DON'T KNOW……….8	YES, ONGOING…….1 NO, IT IS OVER…….2 DON'T KNOW……….8
428	Have you ever taken an HIV test with (**INITIALS**) where you both received the test results together?	YES…………………..1 → 431 NO…………………...2 DON'T KNOW……...8 → 430	YES…………………..1 → 431 NO…………………...2 DON'T KNOW……...8 → 430	YES…………………..1 → 431 NO…………………...2 DON'T KNOW……...8 → 430

KAIS 2012 INDIVIDUAL FEMALE				
NO.	QUESTIONS AND INSTRUCTIONS	LAST SEXUAL PARTNER	SECOND-TO-LAST PARTNER	THIRD TO LAST SEXUAL PARTNER
429	Why haven't you tested for HIV with (**INITIALS**) as a couple? SELECT MAIN REASON PROBE TO IDENTIFY BEST RESPONSE	WE'VE NEVER DISCUSSED IT………..1 WE'VE DISCUSSED BUT DECIDED NOT TO………………………..2 I ASKED, MY PARTNER REFUSED…………….. 3 MY PARTNER ASKED, BUT I REFUSED………4 WE KNOW OUR STATUS ALREADY…..5 NEVER HEARD OF COUPLE'S TESTING…6 DON'T KNOW WHERE TO GET COUPLE'S TESTING……………….7 OTHER…………………96 ________________ (SPECIFY)	WE'VE NEVER DISCUSSED IT………..1 WE'VE DISCUSSED BUT DECIDED NOT TO………………………..2 I ASKED, MY PARTNER REFUSED…………….. 3 MY PARTNER ASKED, BUT I REFUSED………4 WE KNOW OUR STATUS ALREADY…..5 NEVER HEARD OF COUPLE'S TESTING…6 DON'T KNOW WHERE TO GET COUPLE'S TESTING……………….7 OTHER…………………96 ________________ (SPECIFY)	WE'VE NEVER DISCUSSED IT………..1 WE'VE DISCUSSED BUT DECIDED NOT TO………………………..2 I ASKED, MY PARTNER REFUSED…………….. 3 MY PARTNER ASKED, BUT I REFUSED………4 WE KNOW OUR STATUS ALREADY…..5 NEVER HEARD OF COUPLE'S TESTING…6 DON'T KNOW WHERE TO GET COUPLE'S TESTING……………….7 OTHER…………………96 ________________ (SPECIFY)
430	Do you know if (**INITIALS**) has tested for HIV?	YES…………………..1 NO…………………....2 434 ←	YES…………………..1 NO…………………....2 434 ←	YES…………………..1 NO…………………....2 434 ←
431	Do you know the HIV status of (**INITIALS**)?	YES…………………..1 NO…………………....2 434 ←	YES…………………..1 NO…………………....2 434 ←	YES…………………..1 NO…………………....2 434 ←
432	Are you willing to share the HIV status of (**INITIALS**)?	YES…………………..1 NO…………………....2 434 ←	YES…………………..1 NO…………………....2 434 ←	YES…………………..1 NO…………………....2 434 ←
433	What is the HIV status of (**INITIALS**)?	POSITIVE……………..1 NEGATIVE……………..2 INDETERMINATE……. 3	POSITIVE……………..1 NEGATIVE……………..2 INDETERMINATE……. 3	POSITIVE……………..1 NEGATIVE……………..2 INDETERMINATE……. 3

KAIS 2012 INDIVIDUAL FEMALE				
NO.	QUESTIONS AND INSTRUCTIONS	LAST SEXUAL PARTNER	SECOND-TO-LAST PARTNER	THIRD TO LAST SEXUAL PARTNER

SEX PARTNER MATRIX END:

- **INTERVIEWER SAYS: "Thank you for the information about (INITIALS)."**

CHECK SEXUAL PARTNER MATRIX INTRO: IF RESPONDENT HAS ANOTHER PARTNER THEN →415

- **INTERVIEWER SAYS: "Now I would like to ask you about next partner."**

IF NO MORE PARTNERS → 434

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	➢ **INTERVIEWER SAY: "Now I would like to talk with you about your sexual activity in general."**		
434	Have you <u>ever</u> received money, gifts, or favors in exchange for sex?	YES……1 NO……..2 REFUSED……..98	→ 437
CHECK 413: IF '000' NO PARTNERS IN LAST 12 MONTHS → 437			
435	In the <u>last 12 months</u>, have you received money, gifts, or favors in exchange for sex?	YES……1 NO……..2	→ 437
436	The <u>last time</u> you received money, gifts, or favors in exchange for sex, was a condom used?	YES……1 NO……..2 DON'T KNOW……..8	
437	Have you <u>ever</u> given money, gifts, or favors in exchange for sex?	YES……1 NO……..2 REFUSED……..98	→ 440
CHECK 413: IF '000' NO PARTNERS IN LAST 12 MONTHS → 446			
438	In the last <u>12-months</u>, have you given money, gifts, or favors in exchange for sex?	YES……1 NO……..2	→ 440
439	The last time you gave money, gifts, or favors in exchange for sex, was a condom used?	YES……1 NO……..2 DON'T KNOW……..8	
440	Have you had sexual intercourse in the last 3-months?	YES……1 NO……..2	→ 446
441	Have you used a condom with any of your partners in the last 3-months?	YES……1 NO……..2 DON'T KNOW……..8	→ 446

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
442	In the last 3-months when you had sexual intercourse, did you or your partner ever put the condom on after you had already started having sex?	YES……1 NO……..2 DON'T KNOW……..8	
443	In the last 3-months when you had sexual intercourse, did you or your partner ever take the condom off before you were finished having sex?	YES……1 NO……..2 DON'T KNOW……..8	
444	In the last 3-months when you had sexual intercourse, did the condom ever break/leak during sex or while pulling out?	YES……1 NO……..2 DON'T KNOW……..8	
445	In the last 3-months when you had sexual intercourse, did the condom ever slip off during sex or while pulling out?	YES……1 NO……..2 DON'T KNOW……..8	
➢ **INTERVIEWER SAYS: "Now I would like to ask you some questions about sexual health."**			
446	During the last 12 months have you had an abnormal discharge from your vagina? This may include an unusual smell, colour, or texture.	YES……1 NO……..2 DON'T KNOW……..8	
447	During the last 12 months, have you had an ulcer or sore on or near your vagina?	YES……1 NO……..2 DON'T KNOW……..8	
IF EITHER 446 OR 447 '1' YES →448. OTHERWISE →501			
448	Did you visit a health facility or see a healthcare provider because of these problems?	YES……..…1 NO……2 → 501	
449	Did the healthcare provider tell you that you had a sexually transmitted infection?	YES……...1 NO……2 → 501	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
450	Did you get treatment for this sexually transmitted infection?	YES.....1 NO.....2 → 501	
451	Where did you get treatment? PROBE: Was there another place? RECORD ALL MENTIONED PROBE TO IDENTIFY CLINIC TYPE(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD FACILITY NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL.....☐ B. GOV HEALTH CENTER.....☐ C. GOV DISPENSARY.....☐ D. OTHER PUBLIC SECTOR.....☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC.....☐ F. PRIVATE HOSP.....☐ G.PRIVATE CLINIC.....☐ H. OTHER NON-PUBLIC SECTOR.....☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW.....☐	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 5: HIV KNOWLEDGE AND ATTITUDES			
➢ **INTERVIEWER SAY: "Now I would like to ask you some questions about what you know about HIV."**			
501	Have you ever heard of an infection called HIV, the virus that causes AIDS?	YES……1 NO……..2 → 601	
502	If a man/woman has HIV, does his/her partner always have HIV?	YES……1 NO……..2 DON'T KNOW……..8	
503	Is it possible for a healthy-looking person to have HIV?	YES……1 NO……..2 DON'T KNOW……..8	
504	Do you think that your chances of getting HIV are no risk, small, moderate or great?	NO RISK AT ALL……1 SMALL……..2 MODERATE……3 → 506 GREAT……..4 I ALREADY HAVE HIV……...5 → 507 DON'T KNOW……..8	
505	Why do you think you have no risk/small chance of getting HIV? PROBE: Any other reason? RECORD ALL MENTIONED	A. I'M NOT HAVING SEX……☐ B. I USE CONDOMS……☐ C. I HAD ONLY ONE SEX PARTNER..☐ D. I HAVE FEW SEX PARTNERS……☐ E. MY PARTNER HAS NO OTHER SEX PARTNERS……☐ F. OTHER……☐ _____ (SPECIFY)	→ 507

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
506	Why do you think you have a moderate or great risk of getting HIV? PROBE: Any other reasons? RECORD ALL MENTIONED	A. I DON'T USE CONDOMS…… ☐ B. I HAVE MORE THAN ONE SEX PARTNER…… ☐ C. MY PARTNER HAS OTHER SEX PARTNERS…… ☐ D. I'VE HAD HOMOSEXUAL CONTACTS…… ☐ E. I'VE HAD BLOOD TRANSFUSIONS/ INJECTIONS…… ☐ F. MY PARTNER IS HIV POSITIVE…. ☐ G. OTHER…… ☐ _____ (SPECIFY)	
PREFACE BEFORE QUESTIONS 507-509: If a mother is HIV positive can she transmit HIV to her baby:			
507	During pregnancy?	YES……1 NO……..2 DON'T KNOW……..8	
508	During delivery?	YES……1 NO……..2 DON'T KNOW……..8	
509	By breastfeeding?	YES……1 NO……..2 DON'T KNOW……..8	
CHECK 507, 508, 509: **IF ALL ARE '2' NO, '8' DON'T KNOW → 511** **IF '1' YES FOR ONE OR MORE → 510**			
510	Are there any special drugs that a doctor or a nurse can give to a woman infected with HIV to reduce the risk of transmission to the baby?	YES……1 NO……..2 DON'T KNOW……..8	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
511	Have you heard of antiretroviral drugs or ARVs that people with HIV can take to help them live longer?	YES……1 NO……..2 DON'T KNOW……..8	
512	Should children age 12-14 be taught about using a condom to avoid HIV?	AGREE……1 DISAGREE……..2 DON'T KNOW/NO OPINION……8	
513	Do you know of a place where a person can get a condom?	YES……1 NO……..2	
514	Scientists are now studying a medication that, if put into a woman's vagina before they have sex, can reduce her chances of getting HIV infection. If such a medication was available to you, would you want to use it?	YES……1 NO……..2 UNSURE……...3	
515	Scientists are now studying a medication where, if taken orally every day, can reduce a person's chances of getting HIV infection. If such a medication was available, would you want to take it?	YES……1 NO……..2 UNSURE……...3	
516	An HIV self-test kit is a method where people can test for HIV in private or at home. If such a kit was available to you, would you be willing to use it to test yourself?	YES……1 NO……..2 UNSURE……...3	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 6: HIV/AIDS TESTING			
CHECK FOR PRESCENCE OF OTHERS BEFORE CONTINUING. MAKE EVERY EFFORT TO ENSURE PRIVACY. ➢ **INTERVIEWER SAY: "I would like to ask some questions about HIV testing."**			
601	Do you know of a place(s) where people can get tested for HIV?	YES……1 NO……..2 →	603
602	Where is that place? PROBE: Any other place? RECORD ALL MENTIONED	A. VCT FACILITY……☐ B. MOBILE VCT……☐ C. AT HOME……☐ D. HOSPITAL OUTPATIENT CLINICS……☐ E. TB CLINIC……☐ F. STI CLINIC ……☐ G. HOSPITAL INPATIENT WARDS……☐ H. BLOOD DONATION CENTER……☐ I. FAMILY PLANNING CLINIC……☐ J. ANTENATAL CARE CLINIC……☐ K. MATERNITY CLINIC……☐ L. VMMC CLINIC……☐ M. OTHER……☐ _____ (SPECIFY)	
603	Have you <u>ever</u> been tested for HIV?	YES……1 → NO……..2	605

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
604	Why have you never been tested for HIV? PROBE: Any other reason? RECORD ALL MENTIONED.	A. NO KNOWLEDGE ABOUT HIV TEST..... ☐ B. DON'T KNOW WHERE TO GET ONE..... ☐ C. TEST COSTS TOO MUCH..... ☐ D. TRANSPORT TO SITE TOO MUCH..... ☐ E. TESTING FACILITY TOO FAR AWAY..... ☐ F. AFRAID OTHERS WILL KNOW ABOUT TEST/TEST RESULTS..... ☐ G. DON'T NEED TO TEST/ LOW RISK..... ☐ H. AFRAID TO KNOW IF I HAVE HIV... ☐ I. CAN'T GET TREATMENT IF HAVE HIV..... ☐ J. NEVER BEEN OFFERED A TEST.... ☐ K. OTHER..... ☐ _____ (SPECIFY)	609
605	When was your last HIV test? IF EXACT DATE PROVIDED THEN CALCULATE TIME IN MONTHS OR YEARS AND SELECT APPROPRIATE RESPONSE.	LESS THAN 3 MONTHS AGO.....1 3-5 MONTHS AGO.....2 6-11 MONTHS AGO.....3 1-2 YEARS AGO.....4 MORE THAN 2 YEARS AGO.....5 DON'T KNOW.....8	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
606	Where was the <u>last</u> test done?	VCT FACILITY……1 MOBILE VCT……..2 AT HOME……3 HOSPITAL OUTPATIENT CLINICS……...4 TB CLINIC……...5 STI CLINIC ……6 HOSPITAL INPATIENT WARDS……7 BLOOD DONATION CENTER……8 FAMILY PLANNING CLINIC……9 ANTENATAL CARE CLINIC……...10 MATERNITY CLINIC……...11 VMMC CLINIC……...12 OTHER……...13 _____ (SPECIFY)	
607	Have you <u>ever</u> tested yourself for HIV in private using a self-test kit?	YES……1 NO……..2	
608	Have you <u>ever</u> taken an HIV test with any of your sex partners where you both received the test results together?	YES……1 NO……..2 I'VE HAD NO SEX PARTNERS……....3	
609	Have you seen a doctor or health provider in a health facility in the last 12 months?	YES……1 NO……..2 DON'T KNOW……..8	→ 701
610	During any of your visits at a health facility in the past 12 months, did a health provider offer you an HIV test?	YES……1 NO……..2 DON'T KNOW……..8	→ 701

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
611	In what <u>type</u> of health facility were you offered HIV testing? PROBE: Was there another type of facility? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) FACILITIES AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A FACILITY IS PUBLIC OR NON-PUBLIC SECTOR, CHOOSE OTHER SECTOR AND RECORD NAME OF FACILITY IN SPECIFY FIELD.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER…….. ☐ C. GOV DISPENSARY…….. ☐ D. OTHER PUBLIC SECTOR…….. ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G. PRIVATE CLINIC……... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	
CHECK 603: IF '2' NO (NEVER TESTED FOR HIV) →801			
612	Did you accept HIV testing during any of your visits to the health facility?	YES……1 NO……..2	
613	Have you been tested more than one time?	YES……1 NO……..2 → 701	
614	How many times have you been tested for HIV? IF "DON'T KNOW" RECORD '88' IF GREATER THAN 87 RECORD '87'	NUMBER OF TIMES: ☐☐	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 7: HIV STATUS, CARE AND TREATMENT			
	CHECK 603 (EVER BEEN TESTED FOR HIV): **IF 603 IS '1' (YES, HAD AN HIV TEST) THEN ALSO CHECK 322 AND 323:** **IF 322 '1' (POSITIVE) OR 323 '8' (ALREADY KNEW I WAS POSITIVE) →703** **OTHERWISE →701** **IF 603 IS '2' (NO, NEVER TESTED) → 801** ➢ **INTERVIEWER SAY: "Now I'm going to ask you more about your experience with HIV testing."**		
701	You indicated earlier that you were previously tested for HIV. Are you willing to tell me the last HIV test result you received?	YES……1 NO……..2 → 801	
702	What was the result of that HIV test?	POSITIVE……1 NEGATIVE……...2 INDETERMINATE……..3 I DID NOT RECEIVE RESULT…….4 → 801	
703	What was the month and year of your first HIV positive test? MUST BE 1984 OR AFTER. IF "DON'T KNOW" MONTH THEN RECORD '88' IF "DON'T KNOW" YEAR THEN RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	
704	Have you ever attended any clinic or health care facility for your HIV care?	YES……1 NO……..2 → 706	
705	After learning your HIV diagnosis, what month and year did you first attend an HIV clinic to receive care? IF "DON'T KNOW" MONTH THEN RECORD '88' IF "DON'T KNOW" YEAR THEN RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	IF ASKED → 707

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
706	What is the <u>main</u> reason that you have not visited an HIV clinic for care?	THE FACILITY IS TOO FAR AWAY……1 I DON'T KNOW WHERE THE CLINIC IS…2 I CAN'T AFFORD IT……3 I FEEL HEALTHY/NOT SICK……4 I FEAR PEOPLE WILL KNOW THAT I HAVE HIV IF I GO TO A CLINIC……5 I FEEL I WILL BE DISCRIMINATED BY THE FACILITY……..6 I'M TAKING ALTERNATIVE MEDICINE NOT AVAILABLE AT A CLINIC……7 I'M TOO BUSY TO GO……..8 OTHER……96 _____ (SPECIFY) DON'T KNOW……88	→ 709
707	When was the last time you attended an HIV clinic?	WITHIN THE LAST MONTH……..1 WITHIN THE LAST 2 MONTHS ……...2 WITHIN THE LAST 3 MONTHS ……...3 WITHIN THE LAST 6 MONTHS ……...4 MORE THAN 6 MONTHS BUT LESS THAN A YEAR AGO……5 A YEAR OR MORE AGO ……..6 DON'T KNOW……..8	→ 709 → 709

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
708	What is the <u>main</u> reason for not going to the HIV clinic in the past 3-months?	THE FACILITY IS TOO FAR AWAY……...1 I DON'T KNOW WHERE THE CLINIC IS……..2 I CAN'T AFFORD IT……...3 I FEEL HEALTHY/NOT SICK……4 I FEAR PEOPLE WILL KNOW THAT I HAVE HIV IF I GO TO A CLINIC……5 I FEEL I WILL BE DISCRIMINATED BY THE FACILITY……...6 I'M TAKING ALTERNATIVE MEDICINE NOT AVAILABLE AT A CLINIC……7 I'M TOO BUSY TO GO……...8 OTHER……96 _____ (SPECIFY) DON'T KNOW……88	
709	Are you <u>currently</u> taking Septrin or Cotrimoxazole daily?	YES……...1 → 711 NO……2 DON'T KNOW……8 → 712	
710	Can you tell me the <u>main</u> reason why you are not <u>currently</u> taking Septrin or Cotrimoxazole daily?	I HAVE TROUBLE TAKING A TABLET EVERYDAY/CAN'T REMEMBER……1 I HAD SIDE EFFECTS/RASH……..2 THE FACILITY/PHARMACY TOO FAR AWAY FOR ME TO GET MEDICINE REGULARLY……...3 I CAN NOT AFFORD IT……....4 I DON'T THINK I NEED IT, I DON'T FEEL SICK……..5 I TRIED BUT THE PHARMACY/ FACILITY WAS OUT OF STOCK……....6 I FEAR PEOPLE WILL KNOWN THAT I HAVE HIV IF I TAKE IT……....7 TOO BUSY/NO TIME TO PICK UP MEDICINE……...8 OTHER ……96 _____ (SPECIFY) DON'T KNOW……88 → 712	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
711	From what type of clinic did you get the Septrin or Cotrimoxazole you are currently taking? PROBE: Was there another type of clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF CLINIC(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD CLINIC NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER…….. ☐ C. GOV DISPENSARY…….. ☐ D. OTHER PUBLIC SECTOR…….. ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G.PRIVATE CLINIC…….... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	
712	Have you <u>ever</u> taken ARVs, that is, antiretroviral medication, to treat your HIV infection?	YES……1 NO……2 → 714 DON'T KNOW……8 → 717	
713	Are you <u>currently</u> taking ARVs, that is, antiretroviral medications daily?	YES……1 → 715 NO……2 DON'T KNOW……8 → 717	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
714	Can you tell me the <u>main</u> reason why you are <u>not</u> taking ARVs daily?	I HAVE TROUBLE TAKING A TABLET EVERYDAY/CAN'T REMEMBER……1 I HAD SIDE EFFECTS/RASH……..2 THE FACILITY/PHARMACY TOO FAR AWAY FOR ME TO GET MEDICINE REGULARLY……...3 I CAN NOT AFFORD IT……....4 I DON'T THINK I NEED IT, I DON'T FEEL SICK……..5 I TRIED BUT THE PHARMACY/ FACILITY WAS OUT OF STOCK……...6 I FEAR PEOPLE WILL KNOWN THAT I HAVE HIV IF I TAKE IT……....7 TOO BUSY/NO TIME TO PICK UP MEDICINE……...8 OTHER ……96 _____ (SPECIFY) DON'T KNOW……..88	→ 717
715	From what type of clinic did you get the ARVs you are currently taking? PROBE: Was there another type of clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF CLINIC(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD CLINIC NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER…….. ☐ C. GOV DISPENSARY…….. ☐ D. OTHER PUBLIC SECTOR…….. ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G.PRIVATE CLINIC…….... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
716	How long have you been taking daily ARVs? RECORD THE ANSWER IN MONTHS IF LESS THAN ONE YEAR. RECORD '00' IF LESS THAN ONE MONTH. IF "DON'T KNOW" MONTHS OR YEARS THEN RECORD '88'	NUMBER OF MONTHS: ☐☐ NUMBER OF YEARS: ☐☐	
716A	In the past 30 days, have you missed taking any of your ARV pills?	YES……...1 NO……2 DON'T KNOW……8 REFUSED……98	
717	Have you ever had a CD4 count test to see if your immune system is working properly?	YES……...1 NO……2 DON'T KNOW……8	
718	During any of your visits to the HIV clinic, did you receive a carton box that contained items for your HIV care? These items may have included mosquito nets, bottles of water guard, a plastic clean water vessel, a filter cloth, condoms and educational materials.	YES……...1 NO……2 DON'T KNOW……8	→ 720

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
719	From what type of clinic did you receive this carton box? PROBE: Was there another type of clinic? RECORD ALL MENTIONED PROBE TO IDENTIFY TYPE(S) OF CLINIC(S) AND TICK THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF CLINIC IS PUBLIC OR NON-PUBLIC SECTOR, TICK 'OTHER SECTOR' AND RECORD CLINIC NAME.	**PUBLIC SECTOR** A. GOV HOSPITAL…… ☐ B. GOV HEALTH CENTER…….. ☐ C. GOV DISPENSARY…….. ☐ D. OTHER PUBLIC SECTOR…….. ☐ **NON-PUBLIC SECTOR** E. MISSION/CHURCH HOSP/CLINIC……. ☐ F. PRIVATE HOSP…….. ☐ G.PRIVATE CLINIC…….... ☐ H. OTHER NON-PUBLIC SECTOR…….. ☐ **I. OTHER SECTOR** _____ (SPECIFY) J. DON'T KNOW…….. ☐	
720	Are you taking any daily nutritional supplements?	YES……..1 → 721 NO……2 DON'T KNOW……8 → CHECK BEFORE 722	
721	What nutritional supplements are you taking? PROBE: Anything else? RECORD ALL RESPONSES	A. PLUMPY NUT…… ☐ B. NUTRIMIX…… ☐ C. FIRST FOOD…… ☐ D. FOUNDATION PLUS…… ☐ E. FOUNDATION ADVANTAGE…… ☐ F. IMMUNE BOOSTERS…… ☐ G. MULTIVITAMINS…… ☐ H. OTHER…… ☐ _____ (SPECIFY)	
CHECK 413: (NUMBER OF SEX PARTNERS IN LAST 12 MONTHS) **IF '000' NONE OR '888' DON'T KNOW → 801** **IF 413 = '001' OR MORE → 722**			

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
722	Now that we have discussed your HIV status, I want you to remember your last sexual partner in the last 12 months that we had discussed earlier. Did you tell this person the results of your last HIV test?	YES.....1 NO.....2 DON'T KNOW.....8 REFUSED.....98	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 8: TUBERCULOSIS AND OTHER HEALTH ISSUES			
➢ **INTERVIEWER SAY: "Now we will move on to new topics."**			
801	Have you ever heard of an illness called tuberculosis or TB?	YES……1 NO……..2	→ 812
802	Can tuberculosis be cured?	YES……1 NO……..2 DON'T KNOW……..8	→ 804
803	Can tuberculosis be cured in people with HIV?	YES……1 NO……..2 DON'T KNOW……..8	
804	Have you <u>ever</u> been told by a doctor or other health professional that you had tuberculosis?	YES……1 NO……..2	→ 812
805	What month and year did a doctor or other health professional <u>last</u> tell you that you have (had) tuberculosis? IF "DON'T KNOW" MONTH THEN RECORD '88' IF "DON'T KNOW" YEAR THEN RECORD '8888'	MONTH: ☐☐ YEAR: ☐☐☐☐	
806	Have you <u>ever</u> been to a TB clinic to seek care for your tuberculosis?	YES……1 NO……..2	
807	Have you ever been treated for your tuberculosis?	YES……1 NO……..2	→ 810
808	Are you <u>currently</u> taking treatment for your tuberculosis?	YES……1 NO……..2 DON'T KNOW……..8	
809	How many months did you take treatment for tuberculosis? IF "DON'T KNOW" THEN RECORD '88' IF LESS THAN ONE MONTH RECORD '00'	NUMBER OF MONTHS: ☐☐	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
CHECK 806: IF 'NO' NEVER BEEN TO A TB CLINIC' → 812			
810	Were you ever offered an HIV test at the TB clinic?	YES……1 NO……2 DON'T KNOW……8	→ 812
811	Were you tested for HIV at the TB clinic?	YES……1 NO……2 DON'T KNOW……8	
812	Did you sleep under a mosquito net last night?	YES……1 NO……2	→ 814
813	Was this mosquito net ever treated with an insecticide to kill or repel mosquitoes?	YES……1 NO……2 DON'T KNOW……8	
814	Have you ever been screened by a doctor or other health professional for cervical cancer?	YES……1 NO……2 DON'T KNOW……8	→ 901
815	Did the doctor tell you that you may have problems with your cervix?	YES……1 NO……2 DON'T KNOW……8	→ 901
816	Were you referred for cervical cancer treatment?	YES……1 NO……2 DON'T KNOW……8	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 9: BLOOD SAFETY AND INJECTIONS		
	➢ **INTERVIEWER SAY: "Thank you for that information. Now, there are some questions about blood transfusions and injections. Please answer them as well as you can."**		
901	Have you <u>ever</u> had a blood transfusion?	YES……1 NO……2 DON'T KNOW……8	→ 903
902	When was the <u>last</u> time you had a blood transfusion? IF "DON'T KNOW" THEN RECORD '88'	DAYS AGO: ☐☐ WEEKS AGO: ☐☐ MONTHS AGO: ☐☐ YEARS AGO: ☐☐	
903	Have you <u>ever</u> donated blood?	YES……1 NO……2	→ 910
904	Have you donated blood in the <u>last 12 months</u>?	YES……1 NO……2	→ 910
905	How many times did you donate blood in the last 12 months? IF "DON'T KNOW" THEN RECORD '88'	NUMBER OF TIMES: ☐☐	
906	The <u>last</u> time you donated blood, were you asked to donate or did you donate voluntarily?	WAS ASKED TO DONATE……1 DONATED VOLUNTARILY……2 DON'T KNOW……8	→ 908

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
907	Who <u>asked</u> you to donate blood the last time?	FAMILY/FRIENDS……1 NATIONAL BLOOD TRANSFUSION SERVICE (NBTS)……...2 A HOSPITAL BLOOD SERVICE……...3 KENYA RED CROSS……..4 HOPE WORLD WIDE KENYA……...5 BLOODLINK FOUNDATION ……6 BLOODLIFE INITIATIVE KENYA……..7 OTHER…… 96 (SPECIFY) DON'T KNOW…….88	
908	Where was your <u>last</u> blood donation made?	MOBILE DRIVE (SCHOOL, COLLEGE, CHURCH, WORKPLACE, PUBLIC GATHERING)……1 KENYA NATIONAL BLOOD SERVICE CENTER……2 PUBLIC HOSPITAL……..3 MISSION HOSPITAL……4 PRIVATE HOSPITAL……5 OTHER……..96 (SPECIFY) DON'T KNOW……..88	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
909	What was the <u>main</u> reason you donated blood this last time? PROBE FOR MAIN REASON	IN RESPONSE TO PUBLIC REQUESTS FOR BLOOD DONORS (CIVIC/ ALTRUISTIC REASONS)……1 AS PART OF A BLOOD COLLECTION DRIVE (THERE WAS A BLOOD DRIVE WHERE I WORK, GO TO SCHOOL, SHOP)……2 SPECIFICALLY FOR A FAMILY MEMBER OR FRIEND……..3 AS PART OF A BLOOD DONOR CLUB……4 IN EXCHANGE FOR COMPENSATION (FROM A FRIEND OR FAMILY)……..5 I AM A REGULAR DONOR……..6 TO KNOW MY HIV STATUS……7 OTHER……96 _____ (SPECIFY)	
➢ **INTERVIEWER SAY: "Now I would like to ask you some questions about any injections you have had in the <u>last</u> 12 months."**			
910	Have you had an injection for any reason in the last 12-months?	YES……..1 NO……2 DON'T KNOW……8	→ 917
911	Have you had an injection in the last 12-months that was administered by a doctor, a clinical officer, a nurse, a pharmacist, a dentist or any other health worker?	YES……..1 NO……2 DON'T KNOW……8	→ 914
912	In the last 12-months, how many injections from a doctor or health care provider did you have? IF A NON-NUMERIC ANSWER ("I'VE HAD MANY") IS OFFERED, PROBE TO GET AN ESTIMATE. IF "DON'T KNOW" THEN RECORD '888' IF GREATER THAN 100, THEN RECORD '100'	NUMBER OF INJECTIONS: ☐☐☐	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
913	The last time you received an injection from a health worker; did the health worker take the syringe and needle from a new, unopened package?	YES.....1 NO.....2 DON'T KNOW.....8	
914	Have you had an injection in the last 12-months that was administered by a traditional practitioner or healer?	YES.....1 NO.....2 DON'T KNOW.....8	→ 916
915	In the last 12-months, how many injections from a traditional practitioner or healer did you have? IF A NON-NUMERIC ANSWER ("I'VE HAD MANY") IS OFFERED, PROBE TO GET AN ESTIMATE. IF "DON'T KNOW" THEN RECORD '888' IF GREATER THAN 100, THEN RECORD '100'	NUMBER OF INJECTIONS: [ ][ ][ ]	
916	In the last 12-months, have you given yourself an injection that was prescribed by a doctor, a clinical officer, a nurse, a pharmacist, a dentist or any other health worker?	YES.....1 NO.....2 DON'T KNOW.....8	
917	If you had a choice, would you like to receive medication as an injection or pill?	INJECTION.....1 PILL.....2 UNSURE.....3 NO PREFERENCE.....4	
918	In the last 12-months have you seen any used needles/syringes near your home or community?	YES.....1 NO.....2 DON'T KNOW.....8	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 10: MALE CIRCUMCISION			
➢ INTERVIEWER SAY: "We will move on to a new topic. The next few questions are about male circumcision and your family. First I would like to define male circumcision as the surgical removal of the foreskin from the penis."			
1001	Does male circumcision alone protect men from HIV completely, somewhat or not at all?	PROTECTS COMPLETELY……..1 PROTECTS SOMEWHAT……2 DOES NOT PROTECT AT ALL……3 DON'T KNOW……8	
➢ **INTERVIEWER SAY: "Do you agree or disagree with the following statements?"**			
1002	Men who are circumcised do not need to use condoms to protect themselves from HIV.	AGREE……1 DISAGREE……2 UNSURE……3 DON'T KNOW……8	
1003	Men who are circumcised can have many sexual partners and not get HIV.	AGREE……1 DISAGREE……2 UNSURE……3 DON'T KNOW……8	
1004 - 1009	NOT ASKED TO FEMALES		
1010	Is your current or main sex partner circumcised?	YES……..1 NO……2 DON'T HAVE A MAIN SEX PARTNER……3 DON'T KNOW……8	
1011	Would you be supportive of your current, main, or future sex partner getting circumcised now or in the future?	YES……..1 NO……2 DON'T KNOW……8	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 11: NON-PRESCRIPTION DRUG USE			
➢ INTERVIEWER SAY: "I would like to ask you some questions about drugs or substances that you may have taken that were not prescribed by your doctor. Please be assured that your answers will be strictly confidential."			
PREFACE FOR 1101-1107: In the <u>past 12-months</u>, have you used any of the following:			
1101	Khat/Miraa?	YES……1 NO……..2 DON'T KNOW……..8	
1102	Glue, Petrol/Gundi?	YES……1 NO……..2 DON'T KNOW……..8	
1103	Bhangi/Bangi?	YES……1 NO……..2 DON'T KNOW……..8	
1104	Mandrax?	YES……1 NO……..2 DON'T KNOW……..8	
1105	Cocaine?	YES……1 NO……..2 DON'T KNOW……..8	
1106	Heroin?	YES……1 NO……..2 DON'T KNOW……..8	
1107	Kuber?	YES……1 NO……..2 DON'T KNOW……..8	
1108	Have you used <u>other</u> drugs not listed above?	YES……1 NO……..2 DON'T KNOW……..8 IF YES: _____	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
1109	Some people inject drugs with a needle and syringe for pleasure. Have you ever injected drugs for pleasure?	YES……1 NO……..2 REFUSED……98	→ 1201
1110	Have you injected drugs with a needle and syringe in the past 30 days?	YES……1 NO……..2 REFUSED……98	→ 1201
1111	When you have injected drugs during the last 30 days, have you shared the syringe or needle with other people?	YES……1 NO……..2 REFUSED……98	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 12: MIGRATION			
➢ INTERVIEWER SAY: "I am now going to ask you some questions about your country of birth, and your reasons for living in Kenya. I will not ask for any documentation, and your responses will be private and not shared with anyone outside the study."			
1201	What is your country of birth?	KENYA……1 → END UGANDA……2 TANZANIA……3 ETHIOPIA……4 SOMALIA……5 SUDAN……6 RWANDA……7 DEMOCRATIC REPUBLIC OF CONGO...8 OTHER……96 _____ (SPECIFY)	
1202	What is your current country of nationality?	KENYAN……1 → END UGANDAN……2 TANZANIAN……3 ETHIOPIAN……4 SOMALI……5 SUDANESE……6 RWANDANESE……7 CONGOLESE……8 OTHER……96 _____ (SPECIFY)	

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
1203	How long have you lived in Kenya?	LESS THAN ONE MONTH……1 1-2 MONTHS……2 3-6 MONTHS……3 7-12 MONTHS……...4 1-2 YEARS……5 3-5 YEARS……6 6-10 YEARS……...7 11-20 YEARS……8 >20 YEARS……9 DON'T KNOW……..88	
1204	What was the main reason for moving to Kenya?	TO JOIN FAMILY LIVING IN KENYA……..1 FOR MARRIAGE……2 TO FIND WORK……3 TO GO TO SCHOOL……4 TO ESCAPE INSECURITY/WAR……5 TO ESCAPE ENVIRONMENTAL DISASTER (DROUGHT, FLOOD, ETC.)……..……6 OTHER……..96 _____ (SPECIFY)	
1205	What <u>kind</u> of international migrant do you consider yourself to be? READ CHOICES	DOCUMENTED MIGRANT……..1 UNDOCUMENTED MIGRANT……2 ASYLUM SEEKER……3 REFUGEE……..4 OTHER……96 _____ (SPECIFY)	
➢ INTERVIEWER SAY: "This is the end of the survey. Thank you very much for your time and for your responses."			

KAIS 2012 INDIVIDUAL FEMALE			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
END TIME			
END	Record the end time. USE 24 HOUR TIME. IF START TIME IS 3:12 PM, RECORD 15 HOURS, 12 MINUTES, NOT 03 HOURS, 12 MINUTES.	HOUR: ☐☐ MINUTES: ☐☐	

INTERVIEWER OBSERVATIONS:
TO BE COMPLETED AFTER THE INTERVIEW:

COMMENTS ABOUT RESPONDENT:

_____

_____

_____

_____

COMMENTS ABOUT SPECIFIC QUESTIONS:

_____

_____

_____

_____

GENERALS QUESTIONS:

_____

_____

_____

_____

Consent/Assent 4: Blood Draw, Central Testing and Storage (1 of 3)

[Interviewer introduces Laboratory Technician]
My colleague is _____ and he/she is a member of the survey team and will be providing you information about testing options in this survey.

[Laboratory Technician]
Read to all: As you know, we are conducting a national survey about HIV/AIDS and other HIV-related health issues. As part of this study, we are asking people to give a few drops of blood to test later in the laboratory in order to know how many people have HIV and need services. This information is very important to help the Ministry of Health plan for programs to fight HIV.

For ages 10-17 years read:
We have talked to your parents and they said it was ok to ask you if you wanted to do this.

Read to all:
If you agree to take part, I will ask you to let us draw a small amount of blood, equal to two teaspoons of blood, from a vein in your arm. I will put a study number, but not your name, on the container with the blood, so that all of your information is private and nobody else will be able to know your results. The blood will then be sent to the National Reference Laboratory in Nairobi where it will be used for the following tests to help us better understand HIV in Kenya:

- Detection of HIV
- CD4 Counts

Here is some information on HIV infection and CD4 Counts.
[Interviewer: Provide the respondent with the brochure including information on HIV and CD4 Counts. Pause to allow the respondent time to look at the brochure and ask questions].

We will not be keeping your name on the blood sample that is sent to Nairobi for testing, so we will not be able to return these results to you. I you agree to this testing the risk to you is small. The materials used in taking the blood have never been used before, are clean, and safe. They will be thrown away after they have been used to take your blood. You may get some bruising where the blood is taken from your arm. If you have any discomfort, bleeding, or swelling at the site, please contact our study staff or your health worker.

Blood Storage: We ask you to allow the Ministry of Health to store some of your blood at the laboratory in Nairobi for future testing. We are not certain exactly what tests will be done but they may involve testing for infections or chemicals that affect health or illness. Your blood will be stored for at least five years.

No one will be able to trace these future tests back to you. Since we will not be keeping your name on the blood sample, we will not be able to contact you with results from future testing. However, if you allow your blood to be used, we may be able to find out things that will help improve health in Kenya.

You may agree to let us test your blood for HIV and CD4 counts and not agree to have your blood sample stored for future studies.

Consent/Assent 4: Blood Draw, Central Testing and Storage (2 of 3)

At this time, do you want to ask me anything about:

- The blood draw?
- Testing in the laboratory?
- Storage of blood for later testing?

If you have any questions at any time, we want you to ask us.
If you feel that you have been harmed by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey.

Kenya National Bureau of Statistics (KNBS): Macdonald Obuhdo
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

[Laboratory Technician]:
You can say yes or no to giving blood.

- Would you allow me to take some of your blood from your arm for HIV testing in the laboratory?

YES ☐ **NO** ☐

- Will you allow us to keep the blood sample stored for later testing?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Consent/Assent 4: Blood Draw, Central Testing and Storage (3 of 3)

[Laboratory Technician: If the respondent does not want to provide a venous blood sample or it is not feasible to take a venous blood sample, read the following statement:]

We can do the test for HIV with a few drops of blood from your finger or heel. The materials used in pricking your finger to take the blood are clean and safe. They have never been used before and will be thrown away after we have taken your blood. No names would be attached so that no one will be able to know your test results.

Do you have any questions about the finger/heel prick? If you have any questions at any time, we want you to ask us.

[Interviewer: provide the following information to the participant:]

If you feel that you have been harmed in any way by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey.

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You can say yes or no to giving blood. It is up to you to decide**.**

- Would you allow me to take some blood from your finger/heel for HIV testing in the laboratory?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Lab Tech Name: _____

Lab Tech Signature: _____ Date: _____

Consent 5: Parental/Guardian Consent For Blood Draw, Central Testing and Storage (1 of 3)

As you know, we are conducting a national survey about HIV/AIDS and other HIV-related health issues. As part of this research, we are asking parents/guardians to provide us with consent for their children age 18 months to 17 years, to give a few drops of blood to test later in the laboratory in order to know how many people have HIV and need services. This information is very important to help the Ministry of Health plan for programs to treat HIV. If you agree to take part, I will ask you to let us draw a small amount of blood, equal to two teaspoons of blood, from a vein in child's your arm. I will put a study number, but not their name, on the container with the blood, so that all of your child's information is private and nobody else will be able to know your child's results. The blood will then be sent to the National Reference Laboratory in Nairobi where it will be tested for the following tests to better understand HIV in Kenya:

- Detection of HIV
- CD4 Counts

Here is some information on HIV infection and CD4 Counts.
[Interviewer: Provide the respondent with the brochure including information on HIV and CD4 Count. Pause to allow the respondent time to look at the brochure and ask questions].

We will not be keeping your child's name on the blood sample that is sent to Nairobi for testing, so we will not be able to return these results to you.

If you agree to this testing, the risk to your child is small. The materials used in taking the blood are clean and safe. They have never been used before and will be thrown away after each use.

Your child may get some bruising where the blood is taken from your arm. If your child has any discomfort, bleeding, or swelling at the site, please contact our study staff or your health worker.

Blood Storage: We ask you to allow the Ministry of Health to store part of your child's blood sample at the laboratory in Nairobi to be used for testing in the future. We are not certain exactly what tests will be done but they will involve testing for infections or chemicals that affect health or illness. Your blood will be stored for at least five years.

No one will be able to trace these future tests back to your child. Since we will not be keeping your child's name on the blood sample, we will not be able to contact you with results from future testing. However, if you allow your blood to be used, we may be able to find out things that will help improve health in Kenya.

Your child may join in this study without having his/her blood sample stored for future studies.

At this time, do you want to ask me anything about:

- The blood draw?
- Testing in the laboratory?

Consent 5: Parental/Guardian Consent For Blood Draw, Central Testing and Storage (2 of 3)

If you have any questions at any time, we want you to ask us.

If you feel that you or your child have been harmed by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey.

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Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

[Laboratory Technician]:

You can say yes or no to giving blood.

- Would you allow me to take some blood from child's your arm for HIV testing in the laboratory?

YES ☐ **NO** ☐

- Will you allow us to keep your child's blood sample stored for later testing?

YES ☐ **NO** ☐

[Laboratory Technician]

Provide a copy of the script to the participant.
Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Consent 5: Parental/Guardian Consent For Blood Draw, Central Testing and Storage (3 of 3)

[Laboratory Technician: If the respondent does not want to provide a venous blood sample or it is not feasible to take a venous blood sample, read the following statement:]

We can do the test for HIV with a few drops of blood from your child's finger or heel. The materials used in pricking your finger to take the blood sample are clean and safe. They have never been used before and will be thrown away after each use. No names would be attached so that no one will be able to know your child's test results.

Do you have any questions about the finger/heel prick? If you have any questions at any time, we want you to ask us.
[Interviewer: provide the following information to the participant:]

If you feel that you or your child have been harmed by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

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Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

You can say yes or no to giving blood. It is up to you to decide**.**

- Would you allow me to take some of your child's blood from their finger/heel for HIV testing in the laboratory?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of the parent/guardian.

Lab Tech Name: _____

Lab Tech Signature: _____ Date: _____

ENGLISH

MINISTRY OF HEALTH
KENYA AIDS INDICATOR SURVEY 2012
INDIVIDUAL CHILDREN'S QUESTIONNAIRE

CONFIDENTIAL

IDENTIFICATION

PROVINCE NAME: _____ PROVINCE CODE: ☐

NASCOP REGION NAME: _____ NASCOP REGION CODE: ☐

COUNTY NAME : _____ COUNTY CODE: ☐☐

DISTRICT NAME: _____ DISTRICT CODE: ☐☐

NASSEP V CLUSTER NUMBER: ☐☐☐☐

NAME OF HOUSEHOLD HEAD: _____ HOUSEHOLD NUMBER: ☐☐☐

NAME OF RESPONDENT: _____ LINE NUMBER: ☐☐

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
VISIT DATE:	_____	_____	_____	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐☐☐
INTERVIEWER NAME:	_____	_____	_____	INT. CODE: ☐☐☐☐
VISIT RESULT*	_____	_____	_____	RESULT: ☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS: ☐
NEXT VISIT: TIME	_____	_____		

LAB TECHNICIAN VISITS

LAB RESULT**	_____	_____	AFFIX BAR CODE LABEL HERE	LAB RESULT: ☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS: ☐
NEXT VISIT: TIME	_____	_____		

LANGUAGE OF INTERVIEW: ☐☐

HOME LANGUAGE OF RESPONDENT: ☐☐

LANGUAGE CODES:

(01) EMBU
(02) KALENJIN
(03) KAMBA
(04) KIKUYU
(05) KISII
(06) LUHYA
(07) LUO
(08) MAASAI
(09) MERU
(10) MIJIKENDA
(11) SOMALI
(12) KISWAHILI
(13) ENGLISH
(14) OTHER

SUPERVISOR NAME: _____

SUPERVISOR CODE: ☐☐☐☐

DATE: _____

EDITOR: ☐☐☐

KEYED: ☐☐☐

* VISIT RESULT CODES: (1) COMPLETED (2) NOT AT HOME (3) POSTPONED (4) REFUSED (5) PARTLY COMPLETED (6) INCAPACITATED (7) OTHER (SPECIFY)

** LAB RESULT CODES: (1) AGREE (2) REFUSE (3) ABSENT

Children's Questionnaire Parental/Guardian Consent (10-14 Years)

Hello. My name is _____and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health, the Kenya National Bureau of Statistics, the University of California San Francisco and the US Centers for Disease Control and Prevention. This study asks women and men ages 15-64 and children ages 10-14 about HIV/AIDS. Approximately 10,475 households with about 24,000 adults and 8,000 children will be taking part in this survey.

We would very much appreciate your permission to have your child take part in this survey. The information we are collecting will help us plan for health services. Some of the questions will be about personal sexual behaviour. The survey usually takes about 20 minutes for children 10-14 years. All the survey information will be confidentially recorded and stored in a small computer as we collect the data. Whatever information your child provides will be kept private and will not be shown to anyone outside of the study team.

For children ages 10-14 years, this study asks some questions about HIV/AIDS, knowledge of how to fight HIV/AIDS, seeing and hearing HIV messages and some questions on personal sexual behaviour. Questions in the children survey will be different from the adult questionnaire.

[Provide a copy of the children questionnaire to the parent/guardian of all eligible children ages 10-14. Pause to allow the parent/guardian time to look at the children questionnaire and ask questions.]

Your child taking part in the survey is up to you. If you do not want (name of minor) to take part he/she does not have to. If we should come to any questions that (name of minor) does not want to answer he/she will let me know and I will go on to the next question; or she/he can stop at any time.

After completing the questionnaire, we will ask you if we can take some of your child's blood, taken either from a vein in your child's arm or from a finger-prick or heel-prick, to test for HIV. **You may agree to the interview without agreeing to let us take some of your child's blood.**

Allowing your child to be in the study is up to you. Please take your time to decide. Before you decide, is important that you know the following:

- The study will only include people who choose to take part.
- Your child taking part in the study is up to you. No one can make you give permission for your child to take part if you do not want to.
- Your child may decide not to take part, or stop the study at any time. If your child does not take part or decides to stop, they will not lose their health care services.
- All of the information collected in this survey will be private and answers to these questions will not be shared with anyone outside of the study team.
- If there are any questions your child doesn't want to answer, they can tell me, and I will go on to the next question; or they can stop at any time.

Children's Questionnaire Parental/Guardian Consent (10-14 Years)

Risks and Benefits
If your child takes part in this survey, the risk to your child is small. We may ask your child questions that make your child uncomfortable. They are free to not answer any questions for any reason. The information your child gives will be kept private, but there is a very small chance that someone might share information about your child with someone outside the study. However, the benefit of taking part is that the information that you provide to us will be used to improve the health of Kenyans by helping us develop programs to fight HIV/AIDS and other disease in Kenya.

Confidentiality
What we talk about with your child will be kept private. We will not be able to tell you the answers your child gives us. We will keep the records at the Kenya National Bureau of Statistics (KNBS) and at the National AIDS and STD Control Program (NASCOP). Your child's name will not appear when we discuss this project. When the results of this study are discussed, we will focus on all answers from the big group so no one will know your child's answers.

This study is funded by the Government of Kenya, the United States Government, the United Nations, and other partners. There are no costs for you to participate in this study.

At this time, do you want to ask me anything about the survey? If you have any questions at any time, we want you to ask us.

[Interviewer: provide the following information to the parent/guardian:]

If you feel that you have been harmed by your participation you should contact the deputy director of the survey.
National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey.
Kenya National Bureau of Statistics (KNBS): Macdonald Obuhdo
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.
Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

Children's Questionnaire Parental/Guardian Consent (10-14 Years)

Does (name of minor) have any hearing/mental disabilities that would hinder him/her from answering questions about themselves?

YES ☐ **NO** ☐

May I interview (name of minor)? **YES** ☐ **NO** ☐

Interviewer Name: _____

Interviewer Signature: _____ Date: _____

Children's Questionnaire Assent (10-14 Years)

Hello. My name is _____and I am working with the Ministry of Health and Public Sanitation. We are conducting a survey with the National AIDS and STD Control Program and the National Public Health Laboratory of the Ministry of Health and Public Sanitation, the Kenya National Bureau of Statistics, the University of California San Francisco and the US Centers for Disease Control and Prevention. This survey asks children ages 10-14 some questions about awareness of HIV/AIDS, knowledge of prevention of HIV, knowledge of HIV messages and some questions on your behaviour. Approximately 8,000 children will be participating in this national survey.

We have talked to your parents/guardians and they said it was okay to ask you if you want to do this. We would very much appreciate your participation in this survey as your views are important. The information we are collecting will help the government plan for health services. The survey usually takes about 20 minutes to complete. All the answers you give will be kept private and will not be shown to anyone outside of the study team. We will not share your answers with your family.

After completing the questionnaire we will ask you for some blood to be taken either from a vein in your arm or from a finger-prick or heel-prick, to test for HIV. **You may agree to the interview without agreeing to give your blood.**

Being in the study is your choice. Please take your time to make your decision about taking part. Before you make your decision, is important that you know the following:

- The study will only include people who choose to take part.
- Your participation in this study is up to you. No one can make you take part if you do not want to.
- You may decide not to answer the questions, or to stop the study at any time. If you do not take part or decide to stop, you will not lose your health care services.
- All of the information collected in this survey will be private and answers to these questions will not be shared with anyone outside of the study team.
- If there are any questions you don't want to answer, just let me know and I will go on to the next question; or you can stop at any time.

Risks and Benefits

If you take part of this survey, the risk to you is small. We ask you questions that might make you feel uncomfortable. You are free to not answer any questions for any reason. The information you give us will be kept private, but there is a very small chance that someone might share information about you with someone outside the study. However, the benefit of taking part is that the information that you provide to us will be used to improve the health of Kenyans by helping us develop programs to fight HIV/AIDS and other diseases in Kenya.

Confidentiality

What we talk about will be kept private, even from your family. We will keep the records using numbers, not names. We will keep the records at the Kenya National Bureau of Statistics (KNBS) and at the National AIDS and STD Control Program (NASCOP). Your name will not appear when we discuss this project. When the results of this study are discussed, we will focus on all answers from the big group so no one will know your answers.

Children's Questionnaire Assent (10-14 Years)

This study is funded by the Government of Kenya, the United States Government, the United Nations, and other partners. There are no costs for you to participate in this study.

At this time, do you want to ask me anything about the survey? If you have any questions at any time, we want you to ask us.

[Interviewer: provide the following information to the participant:]

If you feel that you have been harmed by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
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Email: erc@kemri.org

May I begin the interview now? **YES** ☐ **NO**

☐

Interviewer Name: _____

Interviewer Signature: _____ Date: _____

[Interviewer: Record assent of participants ages 10-14 years only after receiving consent from the parent/guardian. Write your name and sign/initial on the above line and record the date. Record the decision on the individual questionnaire for each eligible person age 10-14].

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	START TIME		
START	Record the start time. USE 24 HOUR TIME. IF START TIME IS 3:12 PM, RECORD 15 HOURS, 12 MINUTES, NOT 03 HOURS, 12 MINUTES.	HOUR: ☐☐ MINUTES: ☐☐	
	MODULE 1: RESPONDENT BACKGROUND		
101	When is your date of birth? DON'T KNOW DAY RECORD '88' DON'T KNOW MONTH RECORD '88' DON'T KNOW YEAR RECORD '8888'	DAY: ☐☐ MONTH: ☐☐ YEAR: ☐☐☐☐	
102	How old were you at your last birthday? **COMPARE AND CORRECT 101 AND/OR 102 IF INCONSISTENT** DON'T KNOW AGE RECORD '88'	AGE IN COMPLETED YEARS: ☐☐	
103	Are you a boy or a girl?	BOY……1 GIRL……2	
104	Do you go to school?	YES……1 NO……..2 → 106	
105	What class are you in?	NURSERY/KINDERGARTEN……....1 PRIMARY…….....2 POST-PRIMARY/VOCATIONAL……3 SECONDARY/ (FORM 1-4/GCE)……4 OTHER……96 (SPECIFY)	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
106	What is the highest level of school you ever completed?	NURSERY/KINDERGARTEN……..…1 PRIMARY…….....2 POST-PRIMARY/VOCATIONAL…….3 SECONDARY/ (FORM 1-4/GCE)…….……4 OTHER…….96 _____ (SPECIFY)	
CHECK 104: IF '1' YES → 201			
107	What is the **main** reason you are not attending school?	I HAVE BEEN SICK……...1 I DON'T FEEL SAFE TRAVELING TO SCHOOL……..2 I DON'T FEEL SAFE WHILE IN SCHOOL……3 I DON'T LIKE SCHOOL……4 I HAVE TO LOOK AFTER MY YOUNGER BROTHERS AND SISTERS……..5 I HAVE TO LOOK AFTER A SICK FAMILY MEMBER……6 THERE'S NOT ENOUGH MONEY TO SEND ME TO SCHOOL……7 SCHOOL IS TOO FAR AWAY……..8 I HAVE TO WORK……..9 I HAVE A CHILD (GIRLS ONLY)……...10 I AM PREGNANT (GIRLS ONLY)……..11 I MISSED TOO MUCH SCHOOL BECAUSE OF MY PERIOD (MENSTRUATION) (GIRLS ONLY)……..12 OTHER……...96 _____ (SPECIFY)	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 2: KNOWLEDGE, ATTITIDES, AND SOURCES OF HIV RISK PERCEPTION			
➢ **INTERVIEWER SAY: "Now I would like to ask you some questions about what you know about some things related to health."**			
201	Have you ever heard of an infection called HIV, the virus that causes AIDS?	YES……..1 NO……...2 DON'T KNOW……...8	→ 301
202	From where have you learned about HIV or AIDS? PROBE: Anywhere else? RECORD ALL MENTIONED	A. SCHOOLS/TEACHERS……. ☐ B. PARENTS/GUARDIAN/ FAMILY/FRIENDS……. ☐ C. RELIGIOUS LEADERS……. ☐ D. INTERNET……. ☐ E. MOBILE PHONES……. ☐ F. HEALTH PROVIDERS/DOCTORS/ NURSES/CLINICAL OFFICERS……. ☐ G. TELEVISION/FILM……. ☐ H. RADIO……. ☐ I. OTHER……. ☐ _____ (SPECIFY)	
203	Have you ever discussed HIV or AIDS with your parents or guardian?	YES……1 NO……...2 DON'T KNOW……...8	
204	Can one reduce their chance of getting HIV by not having sex at all?	YES……1 NO……...2 DON'T KNOW……...8	
205	Can one reduce their chance of getting HIV by using condoms when having sex?	YES……1 NO……...2 DON'T KNOW……...8	
206	Can a healthy-looking person have HIV or AIDS?	YES……1 NO……...2 DON'T KNOW……...8	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
207	Can a mother with HIV or AIDS pass HIV to her unborn baby?	YES……1 NO……..2 DON'T KNOW……..8	
208	Are there medicines that people with HIV or AIDS can take to help them live longer?	YES……1 NO……..2 DON'T KNOW……..8	
MODULE 3: HIV PREVENTION INTERVETIONS			
PREFACE TO QUESTIONS 301-306: Have you taken part in any of the following HIV prevention programs? **INTERVIEWER: SHOW CHILD LOGO FOR EACH PROGRAM**			
301	Families Matter Program?	YES……1 NO……..2 DON'T KNOW……..8	
302	Healthy Choices?	YES……1 NO……..2 DON'T KNOW……..8	
303	Watched the TV drama called *Shuga*	YES……1 NO……..2 DON'T KNOW……..8	
304	*G-Pange?*	YES……1 NO……..2 DON'T KNOW……..8	
305	Chill Club	YES……1 NO……..2 DON'T KNOW……..8	
306	Life skills program?	YES……1 NO……..2 DON'T KNOW……..8	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 4: CIRCUMCISION			
CHECK 103 (SEX OF CHILD): **IF '1' BOY→ 401.** **IF '2' GIRL → 501.**			
401	Are you circumcised?	YES……1 → 501 NO……2 DON'T KNOW……8 → 501	
402	Are your parents planning to have you circumcised?	YES……1 NO……2 DON'T KNOW……8	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 5: SEXUAL ACTIVITY			
CHECK 102 (AGE OF CHILD): **IF CHILD IS 10 OR 11 YEARS OLD THEN →801** **IF CHILD IS 12 TO 14 YEARS →501** **ALL QUESTIONS IN MODULE 5, 6, AND 7 ARE ASKED ONLY FOR CHILDREN AGED 12 TO 14 YEARS.**			
	➢ INTERVIEWER SAY: "The next questions ask about sexual behavior. There is no right or wrong answer. Your responses will not be linked to you in any way or shared with anyone, including your parents." **NOTE TO INTERVIEWER: PLEASE LOOK OUT FOR SIGNS OF DISTRESS IN CHILD WHEN ASKING THE FOLLOWING SEXUAL BEHAVIOUR QUESTIONS. IF THE CHILD SEEMS DISTRESSED, ASK CHILD IF THEY WANT TO STOP THE INTERVIEW. IF THE DISTRESS CONTINUES, OFFER APPROPRIATE REFERRALS IF THEY WISH TO SEEK COUNSELING OR OTHER SUPPORT SERVICES.**		
501	Have you ever had sex?	YES……1 NO……2 I DON'T KNOW WHAT SEX IS……3 REFUSED……98	→601
502	What types of sex have you had? PROBE: Anything else? RECORD ALL MENTIONED. DO NOT READ RESPONSES. PROBE FOR MULTIPLE RESPONSES.	A. ORAL…… ☐ B. ANAL…… ☐ C. VAGINAL…… ☐ D. OTHER…… ☐ _____ (SPECIFY) E. REFUSED…… ☐	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
503	What was the **main** reason that you had sex for the first time?	IT JUST HAPPENED……1 MY FRIENDS LED ME TO HAVE SEX……..…2 TO PROVE MY LOVE…….....3 I WANTED TO HAVE SEX……...….4 MY BOYFRIEND/GIRLFRIEND LED ME TO HAVE SEX……..…….5 I WAS DRUNK OR TAKING DRUGS……....6 I WAS TRICKED…….....7 I WAS THREATENED/FORCED/RAPED……..8 FOR MONEY/GIFTS……..….9 I WANTED TO HAVE A BABY…….....10 OTHER…….....96 _____ (SPECIFY) DON'T KNOW……..……..88 REFUSED…….....98	
504	How old were you when you had sexual intercourse for the very first time? IF "DON'T KNOW" THEN RECORD '88' IF RESUSED RECORD '98'	AGE IN YEARS: ☐☐	
505	Was the first person you had sex with older, younger, or the same age as you?	OLDER THAN ME……1 SAME AGE AS ME .....……..2 YOUNGER THAN ME……...3 DON'T KNOW…….....88 REFUSED…….98	→ 506
505A	How much older than yourself was the first person you had sex with?	10 OR MORE YEARS OLDER……....1 5 -9 YEARS OLDER……..2 1-4 YEARS OLDER……..3 DON'T KNOW…….....88 REFUSED……98	
506	The first time you had sex, was a condom used?	YES……1 NO……..2 DO NOT KNOW WHAT CONDOM IS…..3 DON'T KNOW……... 88 REFUSED……...98	→ 511

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
507	The last time you had sex was a condom used?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	
508	How often was a condom used when you had sex?	ALWAYS……1 SOMETIMES……2 NEVER……3 DON'T KNOW……88 REFUSED……98	
509	Do you know where to get a condom?	YES……1 NO……2 → 511 REFUSED……98	
510	Where would you get a condom? PROBE: Anywhere else? DO NOT READ RESPONSES. PROBE FOR MULTIPLE RESPONSES. RECORD ALL MENTIONED.	A. HEALTH FACILITY/CLINIC/ HOSPITAL…… ☐ B. PHARMACY…… ☐ C. SHOP/SUPERMARKET/ MARKET KIOSK…… ☐ D. FRIENDS…… ☐ E. PARENTS/GUARDIANS/ FAMILY…… ☐ F. PUBLIC PLACES (TOILETS, CLUBS)…… ☐ G. GIRLFRIEND/BOYFRIEND…… ☐ H. OTHER…… ☐ _____ (SPECIFY)	
511	How many different people have you ever had sex with? IF A NON-NUMERIC ANSWER IS GIVEN ("I'VE HAD MANY"), PROBE TO GET AN ESTIMATE. IF RESPONDENT CAN'T ESTIMATE RECORD '88'. IF RESPONDENT REFUSES TO RECORD '98'	NUMBER OF PARTNERS: ☐☐	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
512	**CHECK 103 (SEX) TO DETERMINE WHICH QUESTION TO READ:** **IF '1' BOY THEN READ:** Have you ever made someone pregnant? **IF '2' GIRL THEN READ:** Have you ever been pregnant?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	
MODULE 6: HIV RISK PERCEPTION			
CHECK 102 (AGE OF CHILD): **IF CHILD IS 10 OR 11 YEARS OLD THEN →801** **IF CHILD IS 12 TO 14 YEARS →601** **MODULE 6 IS ONLY ASKED FOR RESPONDENTS 12 TO 14 YEARS.**			
601	Do you think you have a chance of getting HIV?	YES……1 NO……2 I HAVE HIV……3 DON'T KNOW……8	→701
602	Why do you think you have a chance of getting HIV? PROBE: Anything else? DO NOT READ RESPONSES. PROBE FOR MULTIPLE RESPONSES. RECORD ALL MENTIONED.	A. I HAVE HAD SEX WITHOUT A CONDOM……☐ B. I HAVE MANY BOY/GIRLFRIENDS……☐ C. I HAVE HAD A BLOOD TRANSFUSION……☐ D. I HAVE INJECTED/INJECT DRUGS……☐ E. MY MOTHER/FATHER HAS HIV/AIDS……☐ F. I AM NOT CIRCUMCISED……☐ G. I DON'T TRUST MY BOYFRIEND/ GIRLFRIEND……☐ H. I AM SICK……☐ I. MY GIRL/BOYFRIEND IS SICK……☐ J. MY BOY/GIRLFRIEND DIED……☐ K. I HAD AN ACCIDENT/CUTS……☐ L. OTHER……☐ _____ (SPECIFY) M. REFUSED……☐	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 7: SOCIAL NORMS, INTENTION TO ABSTAIN, SELF-EFFICACY AND ASSERTIVENESS			
CHECK 102 (AGE OF CHILD): **IF CHILD IS 10 OR 11 YEARS OLD THEN →801** **MODULE 7 IS ONLY ASKED FOR RESPONDENTS 12 TO 14 YEARS.** **ALSO CHECK 501 (EVER HAD SEX)** **IF '2' 'NO NEVER HAD SEX' → 701.** **ALL OTHER RESPONSES →801**			
➢ INTERVIEWER SAY: "Now I would like to ask you some questions about the future."			
701	Will you have sex before you get married?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	
702	Do you think all, many, some, a few or none of your friends are having sex?	ALL……1 MOST……2 SOME……3 A FEW……4 NONE……5 DON'T KNOW……88 REFUSED……98	
703	Do you think you will abstain (not have sex) in the next one year?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	
704	If you did not want to have sex with someone, could you tell them that you do not want to have sex with them?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
	MODULE 8: HIV TESTING		
801	Have you ever been tested for HIV?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	→ 901
802	When was the last time you were tested?	LESS THAN 12 MONTHS AGO……1 12-23 MONTHS AGO……2 2 OR MORE YEARS AGO……3 DON'T KNOW……88 REFUSED……98	
803	Did you receive the results of your last HIV test?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	→ 901
804	Would you be willing to tell me the last HIV test result you received?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	→ 901
805	What were the results of that HIV test?	POSITIVE……1 NEGATIVE……2 INDETERMINATE……3 DON'T KNOW……88	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 9: ALCOHOL AND DRUGS			
➢ INTERVIEWER SAY: "I would like to ask you some questions about alcohol and drugs or substances that you may have taken that were not given to you by doctor. Your answers will not be told to anyone, even your parents."			
901	Have you ever taken alcohol?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	→ 904
902	During the past 3 months, on how many days did you have at least one drink containing alcohol? IF "HAVEN'T HAD A DRINK IN PAST 3 MONTHS" THEN RECORD '00' IF "DON'T KNOW" THEN RECORD '88' IF REFUSED THEN RECORD '98'	NUMBER OF DAYS: ☐☐ IF '00' DAYS →	904
903	During the past 3 months, on the days you drank alcohol, how many drinks did you usually drink per day? IF "DON'T KNOW" THEN RECORD '88' IF REFUSED THEN RECORD '98' IF GREATER THAN 87 THEN RECORD '87'	NUMBER OF ALCOHOLIC DRINKS PER DAY: ☐☐	
904	Have you ever tried drugs?	YES……1 NO……2 DON'T KNOW……88 REFUSED……98	
PREFACE FOR 905-912: Have you ever tried any of the following:			
905	Khat/Miraa?	YES……1 NO……2 DON'T KNOW……8 REFUSED……98	
906	Glue, Petrol/Gundi?	YES……1 NO……2 DON'T KNOW……8 REFUSED……98	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
907	Bhangi/Bangi?	YES……1 NO……..2 DON'T KNOW...……...8 REFUSED……98	
908	Mandrax?	YES……1 NO……..2 DON'T KNOW...……...8 REFUSED……98	
909	Cocaine?	YES……1 NO……..2 DON'T KNOW...……...8 REFUSED……98	
910	Heroin?	YES……1 NO……..2 DON'T KNOW...……...8 REFUSED……98	
911	Kuber/Tobacco?	YES……1 NO……..2 DON'T KNOW...……...8 REFUSED……98	
912	Have you used <u>other</u> drugs not listed above?	YES……1 NO……..2 DON'T KNOW...……...8 REFUSED……98 IF YES: _____	

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
MODULE 10: HIV STIGMA			
CHECK 201: IF '2' NO OR '8' DON'T KNOW, GO TO END OF INTERVIEW.			
1001	Would you be willing to share food with someone who has HIV or AIDS?	YES……1 NO……..2 DON'T KNOW..……...8 REFUSED……98	
1002	Would you play with someone who has HIV or AIDS?	YES……1 NO……..2 DON'T KNOW..……...8 REFUSED……98	
➢ INTERVIEWER SAY: "This is the end of the survey. Thank you very much for your time and for your responses."			

KAIS 2012 CHILDREN'S QUESTIONNAIRE (10-14 YEARS)			
NO.	**QUESTIONS AND INSTRUCTIONS**	**CODING CATEGORIES**	**SKIP**
END TIME			
END	Record the end time. USE 24 HOUR TIME. IF START TIME IS 3:12 PM, RECORD 15 HOURS, 12 MINUTES, NOT 03 HOURS, 12 MINUTES.	HOUR: ☐☐ MINUTES: ☐☐	

INTERVIEWER OBSERVATIONS:
TO BE COMPLETED AFTER THE INTERVIEW:

COMMENTS ABOUT RESPONDENT:

_____

_____

_____

_____

COMMENTS ABOUT SPECIFIC QUESTIONS:

_____

_____

_____

_____

GENERALS QUESTIONS:

_____

_____

_____

_____

Parental/Guardian Consent For Blood Draw, Central Testing and Storage (1 of 3)

As you know, we are conducting a national survey about HIV/AIDS and other HIV-related health issues. As part of this research, we are asking parents/guardians to provide us with consent for their children age 18 months to 17 years, to give a few drops of blood to test later in the laboratory in order to know how many people have HIV and need services. This information is very important to help the Ministry of Health plan for programs to treat HIV.
If you agree to take part, I will ask you to let us draw a small amount of blood, equal to two teaspoons of blood, from a vein in child's your arm. I will put a study number, but not their name, on the container with the blood, so that all of your child's information is private and nobody else will be able to know your child's results. The blood will then be sent to the National Reference Laboratory in Nairobi where it will be tested for the following tests to better understand HIV in Kenya:

- Detection of HIV
- CD4 Counts

Here is some information on HIV infection and CD4 Counts.
[Interviewer: Provide the respondent with the brochure including information on HIV and CD4 Count. Pause to allow the respondent time to look at the brochure and ask questions].

We will not be keeping your child's name on the blood sample that is sent to Nairobi for testing, so we will not be able to return these results to you.

If you agree to this testing, the risk to your child is small. The materials used in taking the blood are clean and safe. They have never been used before and will be thrown away after each use.

Your child may get some bruising where the blood is taken from your arm. If your child has any discomfort, bleeding, or swelling at the site, please contact our study staff or your health worker.

Blood Storage: We ask you to allow the Ministry of Health to store part of your child's blood sample at the laboratory in Nairobi to be used for testing in the future. We are not certain exactly what tests will be done but they will involve testing for infections or chemicals that affect health or illness. Your blood will be stored for at least five years.

No one will be able to trace these future tests back to your child. Since we will not be keeping your child's name on the blood sample, we will not be able to contact you with results from future testing. However, if you allow your blood to be used, we may be able to find out things that will help improve health in Kenya.

Your child may join in this study without having his/her blood sample stored for future studies.

At this time, do you want to ask me anything about:

- The blood draw?
- Testing in the laboratory?

Parental/Guardian Consent For Blood Draw, Central Testing and Storage (2 of 3)

If you have any questions at any time, we want you to ask us.

If you feel that you or your child have been harmed by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

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Email: erc@kemri.org

[Laboratory Technician]:
You can say yes or no to giving blood.

- Would you allow me to take some blood from child's your arm for HIV testing in the laboratory?

YES ☐ **NO** ☐

- Will you allow us to keep your child's blood sample stored for later testing?

YES ☐ **NO** ☐

[Laboratory Technician]
Provide a copy of the script to the participant.
Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Parental/Guardian Consent For Blood Draw, Central Testing and Storage (3 of 3)

[Laboratory Technician: If the respondent does not want to provide a venous blood sample or it is not feasible to take a venous blood sample, read the following statement:]

We can do the test for HIV with a few drops of blood from your child's finger or heel. The materials used in pricking your finger to take the blood sample are clean and safe. They have never been used before and will be thrown away after each use. No names would be attached so that no one will be able to know your child's test results.

Do you have any questions about the finger/heel prick? If you have any questions at any time, we want you to ask us.
[Interviewer: provide the following information to the participant:]

If you feel that you or your child have been harmed by your participation you should contact the deputy director of the survey.

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P O Box 19361-00200 Nairobi
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Secretary of Ethical Review Committee:
Kenya Medical Research Institute (KEMRI)
P O Box 54840 – 00200 Nairobi
Tel: 020-2722541, 072222050901; 0733400003
Email: erc@kemri.org

You can say yes or no to giving blood. It is up to you to decide**.**

- Would you allow me to take some of your child's blood from their finger/heel for HIV testing in the laboratory?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of the parent/guardian.

Lab Tech Name: _____

Lab Tech Signature: _____ Date: _____

Assent for Blood Draw, Central Testing and Storage (1 of 3)

[Interviewer introduces Laboratory Technician]
My colleague is _____ and he/she is a member of the survey team and will be providing you information about testing options in this survey.

[Laboratory Technician]
Read to all: As you know, we are conducting a national survey about HIV/AIDS and other HIV-related health issues. As part of this study, we are asking people to give a few drops of blood to test later in the laboratory in order to know how many people have HIV and need services. This information is very important to help the Ministry of Health plan for programs to fight HIV.

For ages 10-17 years read:
We have talked to your parents and they said it was ok to ask you if you wanted to do this.

Read to all:
If you agree to take part, I will ask you to let us draw a small amount of blood, equal to two teaspoons of blood, from a vein in your arm. I will put a study number, but not your name, on the container with the blood, so that all of your information is private and nobody else will be able to know your results. The blood will then be sent to the National Reference Laboratory in Nairobi where it will be used for the following tests to help us better understand HIV in Kenya:

- Detection of HIV
- CD4 Counts

Here is some information on HIV infection and CD4 Counts.
[Interviewer: Provide the respondent with the brochure including information on HIV and CD4 Counts. Pause to allow the respondent time to look at the brochure and ask questions].

We will not be keeping your name on the blood sample that is sent to Nairobi for testing, so we will not be able to return these results to you. I you agree to this testing the risk to you is small. The materials used in taking the blood have never been used before, are clean, and safe. They will be thrown away after they have been used to take your blood. You may get some bruising where the blood is taken from your arm. If you have any discomfort, bleeding, or swelling at the site, please contact our study staff or your health worker.

Blood Storage: We ask you to allow the Ministry of Health to store some of your blood at the laboratory in Nairobi for future testing. We are not certain exactly what tests will be done but they may involve testing for infections or chemicals that affect health or illness. Your blood will be stored for at least five years.

No one will be able to trace these future tests back to you. Since we will not be keeping your name on the blood sample, we will not be able to contact you with results from future testing. However, if you allow your blood to be used, we may be able to find out things that will help improve health in Kenya.

You may agree to let us test your blood for HIV and CD4 counts and not agree to have your blood sample stored for future studies.

Assent for Blood Draw, Central Testing and Storage (2 of 3)

At this time, do you want to ask me anything about:

- The blood draw?
- Testing in the laboratory?
- Storage of blood for later testing?

If you have any questions at any time, we want you to ask us.
If you feel that you have been harmed by your participation you should contact the deputy director of the survey.

National AIDS and STD Control Program (NASCOP): Davies Kimanga
P O Box 19361-00200 Nairobi
Tel: 2729549

If you have any additional questions about the study you can contact the technical manager of the survey.

Kenya National Bureau of Statistics (KNBS): Macdonald Obuhdo
P O Box 30266-00100 Nairobi
Tel: 020313670

If you have any questions on what your rights are as a participant in this study you can contact the Secretary Ethical Review Committee at KEMRI.

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[Laboratory Technician]:
You can say yes or no to giving blood.

- Would you allow me to take some of your blood from your arm for HIV testing in the laboratory?

YES ☐ **NO** ☐

- Will you allow us to keep the blood sample stored for later testing?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Assent for Blood Draw, Central Testing and Storage (3 of 3)

[Laboratory Technician: If the respondent does not want to provide a venous blood sample or it is not feasible to take a venous blood sample, read the following statement:]

We can do the test for HIV with a few drops of blood from your finger or heel. The materials used in pricking your finger to take the blood are clean and safe. They have never been used before and will be thrown away after we have taken your blood. No names would be attached so that no one will be able to know your test results.

Do you have any questions about the finger/heel prick? If you have any questions at any time, we want you to ask us.

[Interviewer: provide the following information to the participant:]

If you feel that you have been harmed in any way by your participation you should contact the deputy director of the survey.

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You can say yes or no to giving blood. It is up to you to decide**.**

- Would you allow me to take some blood from your finger/heel for HIV testing in the laboratory?

YES ☐ **NO** ☐

[Laboratory Technician]

- Provide a copy of the script to the participant.
- Please use the Laboratory consent/assent form to record the consent of each eligible participant.

Lab Tech Name: _____

Lab Tech Signature: _____ Date: _____

FINAL REPORT

Contact Information

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Ministry of Health
PEPFAR
CDC Centers for Disease Control and Prevention
USAID From the American People
UCSF University of California San Francisco
UNAIDS Joint United Nations Programme on HIV/AIDS
KNBS Kenya National Bureau of Statistics Keeping you informed
amref health africa
World Bank
LVCT
JICA
maisha! National AIDS Control Council
Elizabeth Glaser Pediatric AIDS Foundation
NCPD
The Global Fund