Tanzania

HIV/AIDS and Malaria Indicator Survey

2007-08

Tanzania HIV/AIDS and Malaria Indicator Survey 2007-08

Tanzania Commission for AIDS (TACAIDS)
Dar es Salaam, Tanzania

Zanzibar AIDS Commission (ZAC)
Zanzibar

National Bureau of Statistics (NBS)
Dar es Salaam, Tanzania

Office of Chief Government Statistician (OCGS)
Zanzibar

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The 2007-08 Tanzania HIV/AIDS and Malaria Indicator Survey (2007-08 THMIS) was implemented by the National Bureau of Statistics (NBS) in collaboration with the Office of the Chief Government Statistician, Zanzibar from October 2007 to February 2008. The Tanzania Commission for AIDS (TACAIDS) and the Zanzibar AIDS Commission (ZAC) authorised the survey. Macro International Inc. provided technical assistance through MEASURE DHS, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide.

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FOREWORD

This report presents the major findings of the 2007-08 Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS). The Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), and Ministry of Health and Social Welfare authorized the National Bureau of Statistics (NBS) to conduct the THMIS. The THMIS is the second household survey to be conducted in Tanzania. The survey covers both the Tanzania Mainland and Zanzibar.

The primary objectives of the 2007-08 THMIS were to provide up-to-date information on the prevalence of HIV infection among Tanzanian adults and the prevalence of malaria infection and anaemia among young children. The 2007-08 THMIS is a follow-up to the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS). The THMIS also provides updated estimates of selected basic demographic and health indicators covered in previous surveys, including the 1991-92 Tanzania Demographic and Health Survey (TDHS), the 1996 TDHS, the 1999 Reproductive and Child Health Survey, and the 2004-05 TDHS.

The national HIV prevalence estimates have depended on the data from the 2003-04 THIS and from the surveillance system, depending on the data needed. The inclusion of HIV and malaria testing in the THMIS offers the opportunity to better understand the magnitude and pattern of infections in the general reproductive-age population and among children under five years in Tanzania. The THMIS results are in turn expected to improve the calibration of the annual sentinel surveillance data, so that trends in HIV and malaria infections can be more accurately measured in the intervals between household surveys and other surveys.

This report contains information collected from the interviewed households. The tables and text cover the most important HIV/AIDS and malaria indicators. They should be very useful to policymakers and programme administrators who need up-to-date data for evaluating current activities and for planning future directions. Advantage should be taken of the availability of this information to inform the process of policy formulation, planning, monitoring and evaluation of the HIV/AIDS and malaria programmes in Tanzania. This report will also be useful to all HIV/AIDS and malaria stakeholders, be those at the policy level, programme level, or in academia and research institutions.

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A considerable number of other stakeholders contributed to the questionnaire content. We would like to thank Ms. Sri Poedjastoeti, Mr. Keith Purvis, Ms. Jasbir Sangha, and Mr. Dean Garrett from the DHS programme of Macro International Inc. for their technical assistance in the survey, and Mrs. Aldegunda Komba the survey manager, Stephano G. Cosmas, the desk officer of the survey both from the National Bureau of Statistics, as well as Ms. Mayasa M. Mwinyi and Dr. Arlodia Mulokozi from the Office of Chief Government Statistician (OCGS-Zanzibar) and TACAIDS, respectively. Their many long days of working overtime served to make this survey successful. Similarly, to the laboratory specialists in particular, Professor M. Matee, Professor E. Lyamuya, Mr. E. Mbena, Ms. Betty Mchaki, Ms. Eleonara Haule from the Department of Microbiology and Immunology at Muhimbili University of Health and Allied Sciences (MUHAS), and Ms. Mwanapenda Mzee from Zanzibar.

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SUMMARY OF FINDINGS

The 2007-08 Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) is the second population-based, comprehensive survey on HIV/AIDS carried out in Tanzania. The survey was commissioned by the Tanzania Commission for AIDS and the Zanzibar AIDS Commission. The 2007-08 THMIS was implemented by the National Bureau of Statistics in collaboration with the Office of the Chief Government Statistician, Zanzibar. Macro International Inc. provided technical assistance through MEASURE DHS, a USAID-funded project providing support and technical assistance for the implementation of population and health surveys in countries worldwide. Other agencies and organizations that facilitated the successful implementation of the survey, through technical or financial support, include the National AIDS Control Programme, the National Malaria Control Programme, the Ministry of Health and Social Welfare, the Zanzibar AIDS Control Programme, and Muhimbili University College of Health Sciences.

The 2007-08 THMIS is a nationally representative survey of 9,144 households selected from 475 sample points throughout Tanzania. All women age 15-49 and all men age 15-49 in these households were interviewed individually. The sample was designed to produce separate estimates on key indicators for the national level, for urban and rural areas, and for seven zones. Some estimates can be calculated at the regional level.

The primary objectives of the 2007-08 THMIS survey were to provide up-to-date information on the prevalence of HIV infection among Tanzanian adults, and the prevalence of malaria infection and anaemia among children under age five years.

HIV/AIDS AND OTHER STIS

Awareness of AIDS. Almost all Tanzanians age 15-49 years have heard of AIDS. The proportion is on a par with results from both the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS) and the 2004-05 Tanzania Demographic and Health Survey (TDHS). Awareness of AIDS is very high in both Mainland Tanzania and Zanzibar, amongst men and women in all age groups, and across background characteristics, with at least 90 percent of people having heard of AIDS.

Unfortunately, an in-depth understanding of AIDS is less widespread. Only 40 percent of women and 44 percent of men have comprehensive knowledge about AIDS. In this survey, comprehensive knowledge is defined as knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission and prevention.

Comprehensive knowledge increases with increasing level of education and wealth quintile. It is also considerably higher in urban areas than in rural areas. The lowest comprehensive knowledge about AIDS among men is found in Iringa and Zanzibar, while among women, the lowest levels are found in Rukwa, Iringa, Shinyanga, Singida, and Pemba.

Eight in ten women and seven in ten men age 15-49 years know that HIV can be transmitted from mother to child through breastfeeding. However, only 53 percent of women and 44 percent of men know that HIV transmission risk can be reduced if the mother takes special drugs during pregnancy. Knowledge of both these facts is comparatively higher among women and men with higher education (completed primary and secondary or more education) and those in the fourth and highest wealth quintiles, but it is lower among those age 15-19, those who have never married, and those who never had sex.

HIV Testing and Counselling. In Tanzania, 37 percent of women and 27 percent of men have been tested for HIV at some time and received the results. A small proportion (4 percent of women and 3 percent of men) were tested but did not receive the results.

Overall, the proportion of women and men age 15-49 who have been tested for HIV and received results in the 12 months before the survey has increased from 5 percent of women and 7

percent of men reported in the 2003-04 THIS to 19 percent of women and men reported in the 2007-08 THMIS. These results point to the need to continue encouraging the general population to find out their sero-prevalence status through voluntary counselling and testing (VCT) sites throughout the country.

HIV testing is far more common among the most educated and wealthy respondents. Respondents in urban areas are more likely than those in rural areas to have been tested. Regional variations are substantial, and differ among women and men.

HIV-Related Behaviour. Fourteen percent of women age 20-49 first had sexual intercourse before they were 15 and almost six in ten (59 percent) had first sex before the age of 18. Men initiate sexual activity somewhat later than women. Among men age 20-49, only 8 percent had had sexual intercourse before they were age 15, 41 percent before age 18, and 68 percent by age 20. The median age at first sexual intercourse is 17.3 years for women and 18.5 years for men. Women and men in Mainland Tanzania are much more likely than those in Zanzibar to have had sex by age 15 years. Comparison of these results with data from the 2003-04 THIS indicates that there has been little change in age at sexual debut.

Women are far less likely than men to report having had two or more sexual partners in the past 12 months. Only 3 percent of women reported having had sex with more than one partner in the 12 months preceding the survey, compared with 18 percent of men.

In the context of this survey, higher-risk sex is defined as sex with a nonmarital, noncohabiting partner in the 12 months preceding the survey. Sixteen percent of women and 29 percent of men reported having sex in the 12 months before the survey with someone who was not a husband/wife or cohabiting partner.

Eight percent of men age 15-49 paid for sex in the 12 months before the survey and 60 percent of these men reported that they used a condom at their most recent paid sexual intercourse. Among young male respondents age 15-19, 5 percent paid for sex and more than half (56 percent) used a condom at their last paid sexual intercourse.

Six percent of women and 7 percent of men who had ever had sex reported having an STI or a genital discharge, genital sore, or ulcer in the 12 months preceding the survey. This is a slight increase from the 2003-04 survey, in which 5 percent of women and 6 percent of men reported having an STI or symptoms of an STI.

HIV Prevalence

Coverage of Testing. A total of 17,670 adults age 15-49 (9,735 women and 7,935 men) were eligible for HIV testing in the 2007-08 THMIS. Overall, 85 percent (90 percent of eligible women and 80 percent of eligible men) agreed to provide a blood sample for HIV testing. Coverage of HIV testing in the 2007-08 THMIS is higher than that in the 2003–04 THIS, increasing from 84 to 88 percent for women and from 77 to 79 percent for men in Mainland Tanzania.

In the 2007-08 survey, 6 percent of Tanzanian adults age 15-49 were infected with HIV. The prevalence of HIV is higher among women than men (7 percent and 5 percent, respectively). These figures are slightly lower than those reported in the 2003-04 THIS (7 percent overall, 8 percent of women and 6 percent of men).

For both sexes, urban residents have higher levels of HIV infection than rural residents (9 and 5 percent, respectively). HIV prevalence among urban women (11 percent) is twice that of rural women (5 percent). For men, the difference is not so large (6 percent among urban men and 4 percent among rural men).

There are large variations in HIV prevalence by region. The highest HIV prevalence rate is found in Iringa (16 percent), followed by Dar es Salaam (9 percent) and Mbeya (9 percent). Regions on the Mainland with the lowest HIV prevalence are Manyara (2 percent), Arusha (2 percent), and Kigoma (2 percent). The lowest prevalence, however, is found in Zanzibar, on the islands of Pemba and Unguja (both with less than 1 percent of adults HIV positive). In all regions except Arusha, HIV prevalence is higher among women than men.

Prevalence of HIV increases steadily as the number of lifetime partners increases. For women, HIV prevalence increases from 3 percent among those who have had only one sexual partner to 22 percent among women who have had 10 or more lifetime partners. The proportions for men are 1 percent and 11 percent, respectively.

HIV prevalence among youth (women and men age 15-24) is 2 percent, 3 percent for Mainland and less than 1 percent for Zanzibar.

MALARIA

Mosquito Nets. More than half (56 percent) of households in Mainland Tanzania and 82 percent of households in Zanzibar own at least one mosquito net. In the 2004-05 TDHS, these figures were 46 and 65 percent, respectively. Between 2004-05 and 2007-08, ownership of ITNs increased from 23 to 38 percent in Mainland and from 28 to 72 percent in Zanzibar.

Overall, 36 percent of children under age five slept under a mosquito net the night before the survey (35 percent in Mainland Tanzania and 69 percent in Zanzibar). These figures are higher than those reported in the 2004-05 TDHS (31 percent in Mainland and 55 percent in Zanzibar). One in four children under age five in Mainland Tanzania and three in five children (59 percent) in Zanzibar slept under an ITN the night before the survey.

Overall, 27 percent of pregnant women in Tanzania slept under a mosquito net the night before the survey. Pregnant women in Mainland Tanzania (26 percent) are less likely than those in Zanzibar (51 percent) to sleep under an ITN. These figures are much higher than those reported in the 2004-05 TDHS (15 percent for Mainland and 20 percent for Zanzibar). A programme of subsidized mosquito net distribution targeting pregnant women and children under five in Zanzibar may contribute to the greater use of ITNs there.

Antimalarials. Overall, 60 percent of pregnant women took an antimalaria drug during pregnancy (59 percent in Mainland and 78 percent in Zanzibar). The data suggest that intermittent preventive treatment (IPT) using SP is integrated into routine antenatal care; 57 percent of pregnant women in Mainland Tanzania and 74 percent in Zanzibar reported receiving at least one dose of SP (IPT-1) during an ANC visit. However, only 30 percent of pregnant women in Mainland and 52 percent in Zanzibar received two or more doses of SP (IPT-2). These figures show an increase since the 2004-05 TDHS, when 22 percent of pregnant women in Mainland and 14 percent in Zanzibar received two or more doses of SP.

Prevalence of Malaria. Eighteen percent of children under five in Mainland Tanzania and 1 percent in Zanzibar tested positive for malaria. These observations are similar to results obtained in the 2006 NMCP Monitoring and Evaluation Survey and the Zanzibar 2007 RBM survey.

REPRODUCTIVE HEALTH

Antenatal Care. Most pregnant women in Tanzania received antenatal care from skilled personnel (4 percent by a doctor, 7 percent from a clinical officer or assistant clinical officer, 65 percent from a nurse or midwife, and 21 percent from an MCH aide). There were no significant differences in the prevalence of antenatal care by age of mother, birth order, or urban-rural residence. Women in the Eastern, Southern and Central zones are more likely than women in other zones to receive ANC from a health professional.

Place of Antenatal Care. More than half of women in Tanzania receive antenatal care at dispensaries and 27 percent at health centres. Urban women are more likely to receive antenatal care at a district hospital (17 percent) than rural women (6 percent). More than half of women in rural areas receive antenatal care at dispensaries (55 percent).

FERTILITY

Fertility Levels and Trends. The total fertility rate (TFR) in Tanzania is 5.6 births per woman. This means that at current age-specific fertility rates, a Tanzanian woman will give birth to an average of 5.6 children by the end of her lifetime. This rate is similar to rates estimated from the 1996 TDHS (5.8 births) and the 1999 Tanzania Reproductive and Child Health Survey (TRCHS) (5.6 births). Thus, it appears that fertility has not declined in Tanzania for more than a decade. Nine percent of women age 15-49 were pregnant at the time of the survey, indicating that fertility will continue to be high, at least in the near future.

Fertility Differentials. There is substantial variation in fertility rates in Tanzania. The TFR in Mainland is 5.6, compared with 4.9 in Zanzibar. Rural women have, on average, 3 more births than their urban counterparts (6.4 and 3.5 births per woman, respectively). The TFR ranges from a low of 4.0 in the Eastern zone to a high of 6.9 in the Western zone. Fertility is closely asso-

ciated with the educational attainment and wealth status of the mother. Women with secondary or higher education have less than half the number of children born among women with no education (3.1 and 6.7 children per woman, respectively). Women in households in the lowest wealth quintile have an average of 7.2 births, compared with 3.4 births for women in households in the highest wealth quintile.

Initiation of Childbearing. About one in four women age 15-19 have begun childbearing: 18 percent are mothers and 5 percent are pregnant with their first child. This figure is slightly lower than that reported in the 2004-05 TDHS (26 percent). The percentage of young women who have begun childbearing is higher among rural women (26 percent) than urban women (16 percent). In the Mainland, adolescent childbearing is most common in the Southern Zone (34 percent) and least common in the Northern Zone (16 percent). Eight percent of women in Zanzibar have started childbearing; 10 percent in Pemba and 7 percent in Unguja.

CHILD HEALTH

Prevalence of Anaemia. The 2007-08 THMIS tested the haemoglobin of children age 6-59 months. Eight percent of children in Mainland tested positive for severe anaemia (haemoglobin concentration of less than 7.0 grams per decilitre) compared with 5 percent in Zanzibar. The prevalence of anaemia varies little by urban-rural residence, but there are large variations across regions in Mainland Tanzania. The prevalence of severe anaemia is highest in Ruvuma (18 percent), Morogoro (14 percent), Mara (13 percent, and Shinyanga (11 percent).

Childhood Mortality. The infant mortality rate for the period 2004-2008 is 58 deaths per 1,000 live births. This is a decline from 68 deaths per 1,000 live births reported for the period 2002-2005 in the 2004-05 TDHS. The child mortality rate is 36 deaths per 1,000, lower than the infant mortality rate, implying that the main contributing factors to infant mortality are neonatal and post-neonatal mortality. The under-five mortality rate for the period 2004-2008 is 91 per 1,000 live births. This rate is an improvement from the 2004-05 TDHS, which estimated under-five mortality at 112 deaths per 1,000 live births.

Shorter birth intervals are associated with higher mortality. Infant mortality for children born less than two years after the preceding birth is 159 per 1,000 live births, compared with 77 deaths per 1,000 live births for children born four or more years after the preceding sibling.

KNOWLEDGE OF TUBERCULOSIS

Most women and men age 15-49 in Tanzania have heard of tuberculosis. However, only about half of women and 60 percent of men know how TB is transmitted. Seventy-eight percent of women and 84 percent of men believe that tuberculosis can be cured. Stigma towards TB patients appears not to be widespread in Tanzania, with only 24 percent of women and 16 percent of men saying that they would keep a family member‘s sickness secret.

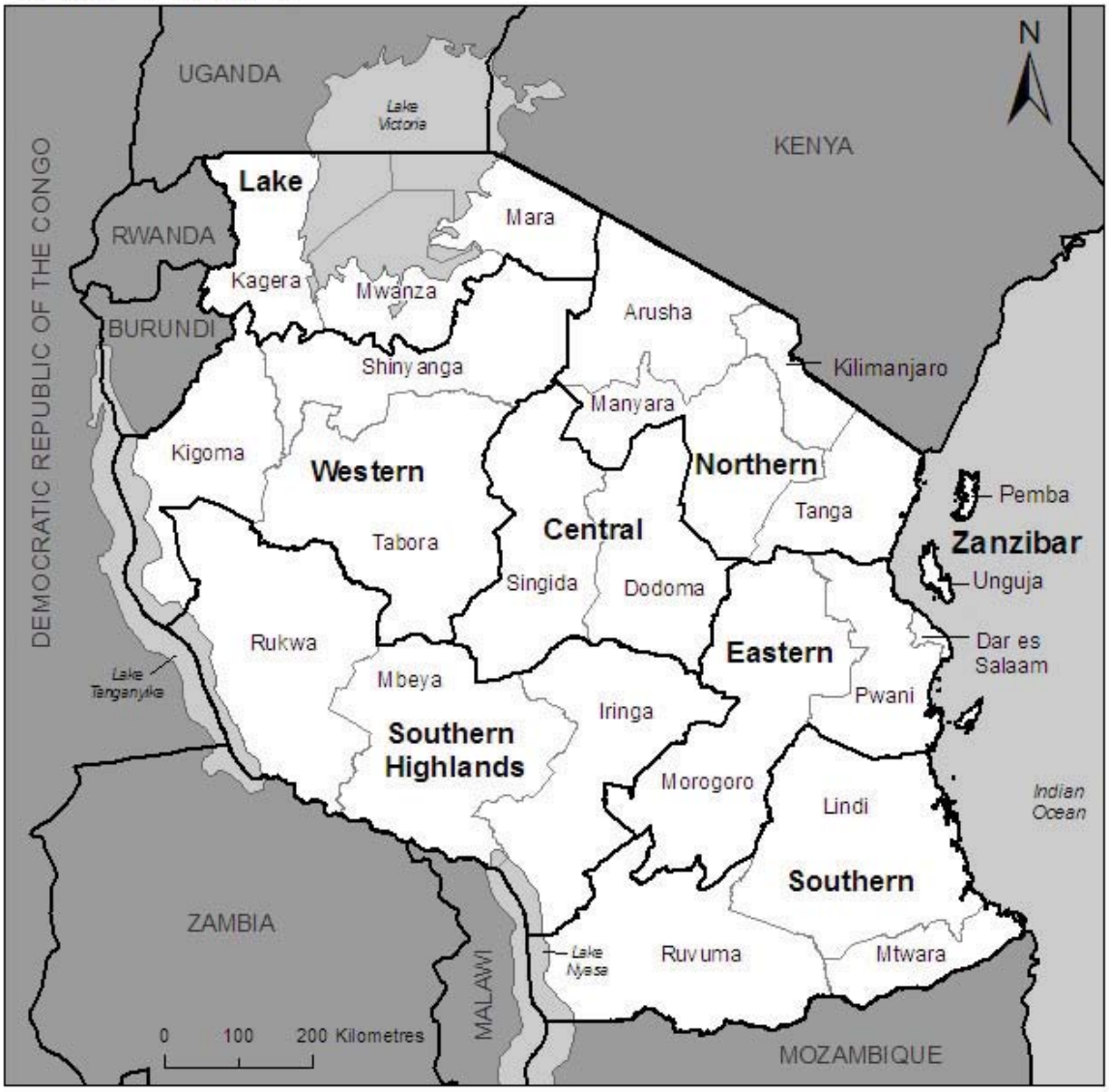
ORPHANHOOD

A majority of children under age 18 live with both parents (61 percent), but 16 percent live with neither parent. Eleven percent of children have lost one or both parents and 1 percent of children have lost both parents. Urban children under age 18 are more likely than rural children to have one or both parents dead (13 percent and 9 percent, respectively).

About 8 percent of children are considered to be vulnerable. A vulnerable child is a child below the age of 18 years whose parent is very sick (3 percent), or who lives in a household where an adult (a parent or other household member) is very sick (7 percent), or who lives in a household in which a very sick adult had died in the 12 months preceding the survey (1 percent). An adult is considered very sick if he/she is too ill to work or undertake normal activities for a period of at least three months during the past 12 months.

Overall, about 18 percent of children under age 18 in Tanzania are classified as orphans and vulnerable children (OVCs). This figure is not comparable with that from the 2003-04 THIS because the THIS did not use the same categories of information on children as the THMIS.

TANZANIA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INTRODUCTION 1

1.1 BACKGROUND INFORMATION

HIV continues to spread around the world. It has become increasingly apparent that the epidemic does not follow the same course in all societies. It affects different sub-groups in different ways at different times. Tanzania has been struggling against HIV infection and AIDS for almost a quarter of a century. The epidemic started in the Kagera Region with the diagnosis and reporting of three cases in 1983. In 1986 all regions reported the epidemic. Since then, HIV has continued to spread and there was a dramatic increase in the number of AIDS cases as more HIV-infected people succumbed to opportunistic infections arising from suppressed immune systems. As in other sub-Saharan countries, HIV infection is spread predominantly by heterosexual contact.

The HIV/AIDS pandemic is an escalating phenomenon. Based on current information from UNAIDS, 33 million people are living with the HIV virus, the vast majority of whom are in their prime years as workers and parents. Forty-five percent of all new infections among adults are young people age 15-24.

Over the 25 years of the epidemic in Tanzania, emphasis has been placed on the development of strategies and approaches to scale up the interventions and deal with the epidemic. Despite all these efforts, the number of people infected continues to grow because of ongoing new infections. People in urban areas have a higher prevalence relative to those in rural areas. It is estimated that about 2.2 million people are living with the virus and about 400,000 are in need of anti-retroviral therapy (MOH, 2004).

The devastating impact of the disease is almost incomprehensible. The consequences of the epidemic affect all spheres of life. The human capital loss has a serious social and economic impact in all sectors, and at community and individual levels. The surging of many opportunistic infections such as tuberculosis and some forms of cancer is a result of HIV infection. The result is that many resources are diverted from other areas to HIV prevention, care, and treatment.

It has been seen that poverty significantly influences the spread of HIV/AIDS, which ultimately leads to a loss of the most productive segment of society, leading to reduction of income and suffering for individuals and communities. At the community level, poverty imposes enormous strains on the extended family structure, leading to a substantial burden of orphans and vulnerable children (OVCs) now estimated at 17 percent in Tanzania according to the results of the 2007-08 Tanzania HIV/AIDS and Malaria Indicators Survey. A social consequence is the growing number of child- and widow-headed households. Morbidity and mortality among parents has severely affected children, especially those in school, who are forced to stay home and take care of sick parents.

The economy has been adversely affected by the premature death of women and men in their prime years of productivity. This also affects the development of institutional capacity, which requires skilled workers and leaders. Professionals in medical care, education, agriculture, and engineering are not easily replaced. The demographic consequences of the epidemic are reflected in the country's quality of life indicators, including the increasing level of infant mortality and the decreasing life expectancy.

The 2007-08 Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) was designed to monitor the trends of HIV infection and behavioural risk factors. It is also designed to provide an estimate of the malaria prevalence among children under five. The THMIS data can be used to guide strategic planning and evaluation of programmes, and to complement and calibrate estimates obtained from other sources.

1.2 NATIONAL POLICY ON HIV/AIDS

In response to the HIV/AIDS pandemic, the Government of Tanzania has made substantial valuable progress in nearly all areas of HIV/AIDS prevention, care, and treatment. Progress has also been made in impact mitigation through communication and advocacy, and community participation through multisectoral response, as a basis for the consolidation and expansion of the national response.

The Tanzanian Government recognizes the social development challenges of the epidemic and has taken concrete measures to address these challenges. The challenges of HIV/AIDS need concerted and multidisciplinary efforts from all sectors, government and non-government, including civil society organizations and the community at large. In line with this, the Tanzania Commission for AIDS (TACAIDS) was created by a statute of the Parliament in 2001. TACAIDS is mandated to provide strategic leadership and coordination of multisectoral response as well as monitoring and evaluation, including research, resource mobilization, and advocacy. The National Policy on HIV/AIDS and the National Multisectoral Strategic Framework (NMSF) are the guiding tools for the implementation of HIV/AIDS activities. The NMSF 2003-2007 has been completed and the second NMSF, which covers the period 2008 to 2012, is in place. The new NMSF builds on the achievements and strengths of the national response to the HIV epidemic in 2003-2007. Through coordination, the NMSF guides the approaches, interventions, and activities that are undertaken by stakeholders in the country.

HIV/AIDS is among the development agenda in the National Strategy for Poverty Eradication (MKUKUTA), and the National Development Vision of 2025. The policy emphasizes the mainstreaming of HIV/AIDS in all sectors. The development of the National Guideline on Prevention and Control of HIV/AIDS in the public sector is an achievement of the Government that shows its commitment to fight the epidemic and to improve the well-being of the people. The 2007-08 THMIS is a potential source of information for monitoring and evaluation of HIV/AIDS programmes in the country.

1.3 NATIONAL POLICY ON MALARIA

Malaria has been and continues to be a major cause of illness and death in both Mainland Tanzania and Zanzibar. The disease remains a major impediment to socio-economic growth and welfare. To reduce the burden of malaria, the Government of Tanzania through the Malaria Control Programmes, the National Malaria Control Programme (NMCP), and the Zanzibar Malaria Control Programme (ZMCP), have undertaken various actions supported by development partners such as the Global Fund to fight against HIV/AIDS, Tuberculosis and Malaria (GFATM), the US President's Malaria Initiative (PMI), The World Bank, and UNICEF.

The long-term goal of malaria control is to significantly reduce morbidity and mortality due to malaria, with special attention to the most vulnerable groups—children under five, pregnant women, and the poor—and in so doing, to promote economic development.

The goal of the National Malaria Medium Term Strategic Plan 2008–2013 is to reduce the burden of malaria by 80 percent. This goal is in line with the Global initiative, that advocates a rapid scaling of interventions to achieve the Roll Back Malaria target of universal coverage of 80 percent by 2010 and the Millennium Development Goals by 2015.

The main objective of the Zanzibar Malaria Medium Term Strategic Plan 2008-2012 is to further reduce the burden of malaria by 70 percent from the 2006 level of 35 percent to 11 percent by 2012. This goal will be achieved by maintaining high coverage of effective interventions and establishing epidemic detection and response mechanisms.

The vision of the malaria medium term strategic plan is for Tanzania to become a society where malaria is no longer a threat to the health of its citizens, regardless of gender, religion or socio-economic status.

The recommended key malaria control strategies include:

- Improve early recognition of malaria and prompt treatment with effective antimalarial drugs;
- Prevent and control malaria in pregnancy, by increasing coverage with at least two doses of Intermittent Preventive Treatment (IPT) among pregnant women attending public health services, and by promoting the regular and correct use of long-lasting insecticide-treated net (LLIN);
- Prevent infection with malaria by maintaining high coverage of LLITNs, with specific emphasis on vulnerable groups, complemented by other vector-control methods such as indoor residual spraying;
- Strengthen the Ministry of Health and Social Welfare (MoHSW) and key stakeholders support for malaria control through improved planning, management, partnership, and coordination; and
- Strengthen monitoring and evaluation surveillance system to support localized control and enable early detection and response to malaria epidemics.

Concerted effort, effective partnership, and coordination of all key players in malaria control at all levels is critical to achievement of control and elimination of malaria in Tanzania.

1.4 OBJECTIVES OF THE SURVEY

The 2007-08 Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) is the second population-based, comprehensive survey on HIV/AIDS carried out in Tanzania. The survey was commissioned by the Tanzania Commission for AIDS (TACAIDS) and the Zanzibar AIDS Commission (ZAC).

The 2007-08 THMIS was implemented by the National Bureau of Statistics (NBS) in collaboration with the Office of the Chief Government Statistician (OCGS), Zanzibar. Macro International provided technical assistance through MEASURE DHS, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide. Other agencies and organizations that facilitated the successful implementation of the survey, through technical or financial support, include the National AIDS Control Programme, the National Malaria Control Programme, the Ministry of Health and Social Welfare, the Zanzibar AIDS Control Programme, and Muhimbili University College of Health Sciences (MUCHS).

The primary objectives of the 2007-08 THMIS survey were to provide up-to-date information on the prevalence of HIV infection among Tanzanian adults, and the prevalence of malaria infection and anaemia among children under age five years. The findings will be used to evaluate ongoing programmes and to develop new health strategies. Where appropriate, the findings from the 2007-08 THMIS are compared with those from the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS). The findings of these two surveys are expected to complement the sentinel surveillance system undertaken by the Ministry of Health and Social Welfare under its National AIDS Control Programme (NACP). The THMIS also provides updated estimates of selected basic demographic and health indicators covered in previous surveys, including the 1991-92 Tanzania Demographic and Health Survey (TDHS), the 1996 TDHS, the 1999 Reproductive and Child Health Survey (RCHS), and the 2004-05 TDHS.

More specifically, the objectives of the 2007-08 THMIS were:

- To measure HIV prevalence among women and men age 15-49;

- To assess levels and trends in knowledge about HIV/AIDS, attitudes towards people infected with the disease, and patterns of sexual behaviour;
- To collect information on the proportion of adults who are chronically sick, the extent of orphanhood, levels of and care and support;
- To gauge the extent to which these indicators vary by characteristics such as age, sex, region, education, marital status, and poverty status; and
- To measure the presence of malaria parasites and anaemia among children age 6-59 months.

The results of the 2007-08 THMIS are intended to provide information to assist policymakers and programme implementers to monitor and evaluate existing programmes and to design new strategies for combating the HIV/AIDS epidemic in Tanzania. The survey data will also be used as inputs in population projections and to calculate indicators developed by the United Nations General Assembly Special Session (UNGASS), the UNAIDS Programme, and the World Health Organization (WHO).

1.5 Sample Size and Design

The sampling frame used for the 2007-08 THMIS is the same as that used for the 2004-05 TDHS, which was developed by NBS after the 2002 Population and Housing Census (PHC). The sample excluded nomadic and institutional populations, such as persons staying in hotels, barracks, and prisons. The THMIS utilised a two-stage sample design. The first stage involved selecting sample points (clusters) consisting of enumeration areas delineated for the 2002 PHC. A total of 475 clusters were selected. The sample was designed to allow estimates of key indicators for each of Tanzania's 26 regions. On the Mainland, 25 sample points were selected in Dar es Salaam and 18 in each of the other 20 regions. In Zanzibar, 18 sample points were selected in each of the five regions, for a total of 90 sample points.

A household listing operation was undertaken in all the selected areas prior to the fieldwork. From these lists, households to be included in the survey were selected. The second stage of selection involved the systematic sampling of households from these lists. Approximately 16 households were selected from each sampling point in Dar es Salaam, and 18 households per sampling point were selected in other regions. In Zanzibar, approximately 18 households were selected from each sampling point in Unguja, and 36 households were selected in Pemba to allow reliable estimates of HIV prevalence for each island group.

Because of the approximately equal sample sizes in each region, the sample is not self-weighting at the national level, and weighting factors have been added to the data file so that the results will be proportional at the national level.

In the selected households, interviews were conducted with all women and men age 15-49. The THMIS also collected blood samples for anaemia and malaria testing among children age 6-59 months, and dried blood spot (DBS) samples for HIV testing among women and men age 15-49.

1.6 Questionnaires

Two questionnaires were used for the 2007-08 THMIS: the Household Questionnaire and the Individual Questionnaire. The questionnaires are based on the standard AIDS Indicator Survey and Malaria Indicator Survey questionnaires, adapted for the population and health issues relevant to Tanzania. Inputs were solicited from various stakeholders representing government ministries and agencies, nongovernmental organizations, and international partners. After the preparation of the definitive questionnaires in English, questionnaires were translated into Kiswahili.

The Household Questionnaire was used to list all the usual members and visitors of selected households. Some basic information was collected on the characteristics of each person listed, including his or her age, sex, education, and relationship to the head of the household. For children under age 18 years, survival status of the parents was determined. If a child in the household had a parent who was sick for more than three consecutive months in the 12 months preceding the survey or a parent who had died, additional questions related to support for orphans and vulnerable children were asked. The Household Questionnaire also included questions on whether household members were seriously ill and whether anyone in the household had died in the past 12 months. In such cases, interviewers asked whether the household had received various kinds of care and support, such as financial assistance, medical support, social or spiritual support.

The Household Questionnaire was also used to identify women and men who were eligible for the individual interview and HIV testing. The Household Questionnaire also collected information on characteristics of the household dwelling, such as source of water, type of toilet facilities, materials used to construct the house, ownership of various durable goods, and ownership and use of mosquito nets.

Furthermore, the Household Questionnaire was used to record haemoglobin and malaria testing results for children age 6-59 months.

The Individual Questionnaire was used to collect information from all women and men age 15-49. These respondents were asked questions on the following topics:

- Background characteristics (education, residential history, media exposure, employment, etc.);
- Marriage and sexual activity;
- Knowledge about HIV/AIDS and exposure to specific HIV-related mass media programmes;
- Attitudes towards people living with HIV/AIDS;
- Knowledge and experience with HIV testing;
- Knowledge and symptoms of other sexually transmitted infections (STIs); and
- Other health issues including knowledge of TB and medical injections.

Female respondents were asked about their birth history and illnesses of children they gave birth to since January 2002. These questions are used to gauge the prevalence of fever, an important symptom of malaria.

1.7 Training of Field Staff

Field staff training was conducted in Morogoro from 24 September to 12 October 2007. The training was conducted according to the AIS/MIS training procedures, including class presentations, mock interviews, field practice and tests. Participants included 14 team supervisors from NBS, OCGS-Zanzibar, former Ministry of Planning and Economic Empowerment, and the Ministry of Health and Social Welfare. In total, 59 female nurses, 23 male nurses, and 2 office data editors were trained to carry out the survey. Trainers were senior staff from NBS, OCGS-Zanzibar, and NMCP, as well as a laboratory technician from Muhimbili University College of Health Sciences (MUCHS).

Field practice in malaria and anaemia testing and HIV dried blood spot collection were carried out towards the end of the training period. During this period, field editors and team supervisors were provided with additional training in methods of field editing, data quality control procedures, and fieldwork coordination.

1.8 FIELDWORK

Data collection was carried out by 14 field teams, each consisting of one team leader, four female interviewers, one male interviewer, and one driver. Five senior staff members from NBS and OCGS-Zanzibar coordinated and supervised the fieldwork activities. Fieldwork on the Mainland started on 20 October 2007. Delay in obtaining ethical clearance for the Zanzibar fieldwork resulted in a delay in starting data collection in Zanzibar until 10 November 2007. Data collection took place over a four-month period, from 20 October 2007 to 22 February 2008.

A quality control team periodically visited teams in the field to check their work and re-interview some households.

1.9 ANAEMIA, MALARIA, AND HIV TESTING

In addition to collecting information with the survey questionnaire, the THMIS also included anaemia and malaria testing for children under five (6-59 months) and HIV testing for adults age 15-49. The protocol for the anaemia and HIV testing was based on the standard protocols employed in the MEASURE DHS project, adapted to achieve the objectives of the THMIS.

1.9.1 Anaemia Testing

In the THMIS, haemoglobin measurement for anaemia testing was performed in the field by a team member. Consent was obtained from the parent or guardian. The statement explained the purpose of the test, how the test would be administered, and advised the parent or guardian that the results would be available as soon as the test was completed. Finally, permission was requested for the test to be carried out. For haemoglobin measurement, capillary blood was usually taken from a finger of the children for whom consent had been obtained. A single-use, sterile lancet was used for this purpose. In cases where a child was very thin, a heel prick was used to obtain the sample.

The concentration of haemoglobin in the blood was measured using the HemoCue system. The results of the anaemia test were immediately provided for all eligible children tested. Levels of anaemia were classified as severe, moderate, or mild according to criteria developed by the World Health Organization (WHO). A brochure was provided on anaemia which included suggestions as to the steps (e.g., changes in diet) that could be taken in the event that a child was found to have some degree of anaemia. Parents/guardians of children who were found to be severely anaemic were advised to take the child to health facilities for further evaluation and management.

1.9.2 Malaria Testing

The rapid diagnostic test used in the 2007-08 THMIS is the Paracheck Pf™ device (Orchid Biomedical, India), which is based on the detection of *P. falciparum*-specific histidine-rich protein 2 (HRP2 Pf) in blood. The test has relatively high sensitivity and specificity and is deemed appropriate for clinical and epidemiologic assessment of malaria, especially placental malaria. Parents or responsible adults were advised about the malaria test result. If the child tested positive, he or she was provided with a full course of Artemether Lumefantrine (ALu or Coartem). Children who tested negative but had a fever in the past two weeks were also provided a full course of ALu. THMIS field staff explained to the parent or responsible adult that ALu is effective and should rid the child of fever and other symptoms in a few days. Parents/guardians were advised to take the child to a health professional for treatment immediately if, after taking ALu, the child still had high fever, fast or difficult breathing, was not able to drink or breastfeed, and became sicker or did not get better in two days.

1.9.3 HIV Testing

In the THMIS, HIV testing involved the collection of at least three blood spots from a finger prick on a special filter paper card. The testing was anonymous, i.e., it was conducted in such fashion that the results could not be linked to individual respondents. A unique random identification number (bar code) was assigned to each eligible respondent consenting to the testing. Labels containing the bar code were affixed to the filter paper card, the questionnaire, and a field tracking form at the time of the collection of the sample. No other identifiers were attached to the dried blood spot (DBS) sample. Because of the anonymous nature of the testing approach in the THMIS, it was not possible to provide information on the results from the HIV testing conducted during the THMIS.

The procedures that THMIS field staff followed to obtain informed consent from eligible individuals to collect DBS samples for the HIV testing were similar to those used for obtaining consent for the anaemia testing. The HIV testing consent statement explained the objective of the testing and how the DBS sample would be collected. Prospective subjects were informed that the testing process was anonymous and, therefore, their result would not be available to them, advised them of the availability of free voluntary counselling and testing services, and requested permission for the test to be carried out. Field staff also asked for consent to store the DBS samples for unspecified future tests.

After the survey team completed a cluster, all questionnaires, dried blood spot samples, and sample transmittal forms for the cluster were sent to the NBS for logging and checking prior to data entry. Blood samples were checked against the transmittal form and then forwarded to MUCHS Laboratory for testing. No identifying information other than the unique barcode label affixed at the time of the collection of the DBS sample accompanied the specimen to the laboratory.

1.10 Data Processing

All questionnaires collected during the THMIS fieldwork were periodically brought from the field to the NBS headquarters in Dar es Salaam for processing, which consisted of office editing, coding of open-ended questions, data entry, and editing of computer-identified errors. The data were processed by a team of 9 data entry clerks, 2 data editors, and 2 data entry supervisors. An administrator was assigned to receive and check the blood samples coming from the field. Data entry and editing were accomplished using the CSPro software. All data were entered twice (100 percent verification). The concurrent processing of the data was a distinct advantage for data quality because THMIS staff were able to advise the field teams of errors detected during data entry. The process of office editing and data processing was initiated on 8 November 2007 and completed on 7 April 2008.

Dried blood spot (DBS) samples received from the field were logged in at NBS, checked, and transported to MUCHS for testing. The processing of DBS samples for HIV testing at MUCHS was handled by six laboratory scientists. The DBS samples were logged into the CSPro HIV Test Tracking System database, each given a laboratory number, and stored at -20°C until tested.

1.11 Response Rates

Table 1.1 shows response rates for the 2007-08 THMIS. A total of 9,144 households were selected for the sample, from both Mainland Tanzania and Zanzibar. Of these, 8,704 were found to be occupied at the time of the survey. A total of 8,497 households were successfully interviewed, yielding a response rate of 98 percent. In the interviewed households, 9,735 women were identified as eligible for the individual interview. Completed interviews were obtained for 9,343 women, yielding a response rate of 96 percent. Of the 7,935 eligible men identified, 6,975 were successfully interviewed (88 percent response rate). Table 1.1 shows that the response rates for men were lower than those for women. The differential is likely due to the more frequent and longer absence of men from the households. The response rates for urban and rural areas do not vary much.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Tanzania HMIS 2007-08

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	2,039	7,105	9,144
Households occupied	1,910	6,794	8,704
Households interviewed	1,835	6,662	8,497
Household response rate[1]	96.1	98.1	97.6
Interviews with women age 15-49			
Number of eligible women	2,268	7,467	9,735
Number of eligible women interviewed	2,172	7,171	9,343
Eligible women response rate[2]	95.8	96.0	96.0
Interviews with men age 15-49			
Number of eligible men	1,785	6,150	7,935
Number of eligible men interviewed	1,499	5,476	6,975
Eligible men response rate[2]	84.0	89.0	87.9

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

CHARACTERISTICS OF HOUSEHOLDS 2

2.1 INTRODUCTION

This chapter provides a brief description of selected demographic and socio-economic characteristics of the sampled households and individual respondents interviewed. For respondents, this includes information on age, sex, residence, household headship, economic status, marital status, religion, and educational level. Information about the housing situation and characteristics of the women and men interviewed is essential for the interpretation of survey findings.

The information presented in this chapter is intended to facilitate interpretation of the key demographic, socio-economic, and health indices presented later in the report, and to assess the representativeness of the survey sample.

In the 2007-08 THMIS, a household is defined as a person or a group of persons who live together and share a common cooking pot of food. This group of people can occupy part of, or all of a building, or may not necessarily live in the same building. To capture all the necessary information about households and individuals, two types of questionnaires, a Household Questionnaire and an Individual Questionnaire, were administered. The household questionnaire was used to collect information on all usual residents and visitors who spent the night preceding the interview in the household. This method allows calculation of either the *de jure* (usual residents) or *de facto* (those who were there at the time of the survey) population. The individual questionnaire was used to capture detailed information about female and male respondents age 15 through 49.

2.2 HOUSEHOLD POPULATION BY AGE, SEX, AND RESIDENCE

Age and sex are important demographic variables and are the primary basis of demographic classification. Needs and services for a given population depend to a large extent on the age and sex structure of the population. Age and sex have a strong effect on a population's fertility, mortality, and nuptiality patterns. Table 2.1 gives the age and sex distribution of the de facto household population by urban and rural residence.

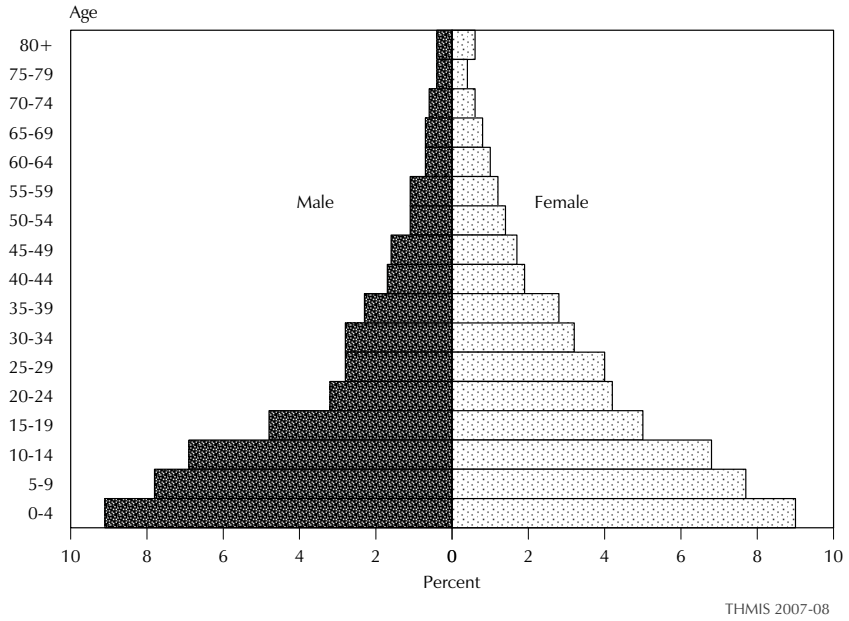
Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Tanzania HMIS 2007-08

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	15.0	14.4	14.7	20.0	18.1	19.0	18.9	17.3	18.1
5-9	13.8	12.2	12.9	17.0	15.4	16.2	16.4	14.7	15.5
10-14	13.9	12.3	13.1	14.5	13.2	13.8	14.4	13.0	13.6
15-19	10.5	11.2	10.8	9.9	9.0	9.4	10.0	9.5	9.7
20-24	8.3	10.5	9.4	6.2	7.4	6.8	6.6	8.1	7.4
25-29	8.2	9.8	9.1	5.2	7.0	6.1	5.8	7.6	6.8
30-34	7.0	7.5	7.3	5.5	5.7	5.6	5.8	6.1	6.0
35-39	6.2	6.0	6.1	4.5	5.1	4.8	4.9	5.3	5.1
40-44	4.3	3.6	3.9	3.3	3.6	3.4	3.5	3.6	3.5
45-49	2.9	3.2	3.1	3.3	3.3	3.3	3.3	3.3	3.3
50-54	2.9	2.6	2.7	2.2	2.8	2.5	2.3	2.8	2.5
55-59	2.3	2.0	2.1	2.2	2.4	2.3	2.2	2.3	2.3
60-64	1.5	1.6	1.5	1.5	1.9	1.7	1.5	1.8	1.7
65-69	1.4	1.1	1.2	1.4	1.5	1.5	1.4	1.5	1.4
70-74	0.7	1.1	0.9	1.3	1.3	1.3	1.2	1.2	1.2
75-79	0.7	0.4	0.6	1.0	0.8	0.9	0.9	0.7	0.8
80 +	0.4	0.6	0.5	1.0	1.3	1.1	0.9	1.1	1.0
Don't know/missing	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,228	4,820	9,049	15,804	17,019	32,823	20,032	21,839	41,871

Figure 2.1 presents a graphic picture of the population distribution by age and sex. The population pyramid conforms to the pattern typical of a high-fertility population. The wide base of the pyramid reflects the young age structure of the Tanzanian population. The pattern is similar to the one observed in the 2002 Population and Housing Census, as well as other earlier surveys. There is an unusually large proportion of girls and boys age 10-14 relative to those age 15-19. It is likely that this discrepancy is due to age misreporting. This pattern of age shifting has also been observed in other household surveys.

Figure 2.1 **Population Pyramid**



2.3 HOUSEHOLD COMPOSITION

Information on the composition of households, including the sex of the head of the household and the size of the household, is presented in Table 2.2. These characteristics are important because they are associated with the welfare of the household. Female-headed households are, for example, typically poorer than male-headed households. In larger households, economic resources are often more limited. Moreover, where the household size is large, crowding can lead to health problems.

The data show that 76 percent of the households in Tanzania are headed by men. This proportion is lower than that found in the 2003-04 THIS (77 percent) (TACAIDS, NBS, and ORC Macro, 2005). Households with one or two members constitute 19 percent of all households. Small household sizes are more common in urban areas (26 percent) than in rural areas (17 percent). The four- and five-person households account for the largest proportion (15 percent each) of all households. The overall average household size of 5.0 is the same as that reported in the 2003-04 THIS (TACAIDS, NBS and ORC Macro, 2005). Rural households are larger than urban households; the mean household size is 4.3 in urban areas and 5.2 in rural areas.

About one in four Tanzanian households includes a foster child, that is, a child living in a household with neither biological mother nor father present. Fourteen percent of households include single orphans (children with one parent deceased), and 2 percent of households include double orphans (children with both parents deceased). Overall, more than 31 percent of households include foster and/or orphan children and the differentials by urban-rural residence are small. The large proportion of households with foster children highlights the economic burden these children present.

Table 2.2 Household composition

Percent distribution of households by sex of head of household and by household size; mean size of household, and percentage of households with orphans and foster children under 18, according to residence, Tanzania HMIS 2007-08

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	73.8	76.2	75.6
Female	26.2	23.8	24.4
Total	100.0	100.0	100.0
Number of usual members			
0	0.1	0.0	0.0
1	11.8	6.6	7.9
2	13.9	10.5	11.3
3	16.7	12.8	13.8
4	16.0	15.0	15.3
5	13.8	15.0	14.7
6	9.7	12.5	11.8
7	7.3	10.0	9.3
8	3.7	6.5	5.8
9+	6.8	11.1	10.0
Total	100.0	100.0	100.0
Mean size of households	4.3	5.2	5.0
Percentage of households with orphans and foster children under 18			
Foster children	25.2	25.8	25.6
Double orphans	3.2	2.1	2.4
Single orphans	12.4	14.6	14.0
Foster and/or orphan children	29.1	32.1	31.4
Number of households	2,106	6,391	8,497

Note: Table is based on de jure household members, i.e., usual residents.
[1] Foster children are those under age 18 living in households with neither their mother nor their father present.

2.4 EDUCATIONAL ATTAINMENT OF HOUSEHOLD POPULATION

Education is a key determinant of the lifestyle and status an individual will attain in society. Studies have shown that educational attainment has a positive effect on health-seeking behaviour and attitudes (Wolfe and Behrman, 1987). The 2007-08 THMIS included questions on respondent educational attainment. In the analysis presented below, the official age for entry into the primary school level is seven. The official primary school consists of seven years (Grades 1-7) while the number of years assumed for completion of secondary school is six years (Form I to Form VI).

Tables 2.3.1 and 2.3.2 show the percent distribution of females and males age six and older by the highest level of education attained. There is a marked difference in educational attainment between males and females by urban-rural residence. Thirty-one percent of females in rural areas have never been to school compared with 15 percent of their counterparts in urban areas. Twenty-eight percent of females in Mainland Tanzania have never been to school compared with 19 percent of males. In Zanzibar, 26 percent of females and 18 percent of males have never been to school. Five percent of females in Tanzania have some secondary education compared with 7 percent of males. The proportion of respondents with no education increases substantially with age.

Table 2.3.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age six and over by highest level of schooling attended or completed, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	No education	Some primary	Completed primary	Some secondary	Completed secondary	More than secondary	Don't know/ missing	Total	Number
Age									
6-9	29.8	69.8	0.0	0.0	0.0	0.0	0.4	100.0	2,547
10-14	6.6	86.9	5.1	1.2	0.0	0.0	0.1	100.0	2,836
15-19	13.9	27.9	43.6	14.3	0.0	0.1	0.3	100.0	2,073
20-24	22.7	13.4	50.8	10.7	0.6	1.2	0.6	100.0	1,768
25-29	19.7	11.5	59.0	7.5	0.0	2.1	0.2	100.0	1,666
30-34	21.6	11.3	59.3	5.4	0.1	1.6	0.6	100.0	1,335
35-39	19.0	12.0	62.5	4.2	0.0	2.0	0.3	100.0	1,162
40-44	25.2	14.1	54.8	3.7	0.2	1.5	0.5	100.0	782
45-49	46.2	15.0	33.7	3.7	0.0	1.5	0.0	100.0	716
50-54	57.6	23.6	16.3	0.9	0.0	0.5	1.1	100.0	602
55-59	63.9	24.1	10.0	0.5	0.0	0.4	1.1	100.0	512
60-64	74.6	19.8	3.8	0.4	0.0	0.0	1.4	100.0	401
65+	81.7	14.9	1.5	0.0	0.0	0.0	1.9	100.0	987
Don't know/missing	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	12
Residence									
Urban	15.0	30.6	39.6	11.6	0.3	2.5	0.4	100.0	4,009
Rural	31.3	37.5	27.7	2.7	0.0	0.2	0.5	100.0	13,391
Mainland/Zanzibar									
Mainland	27.6	36.0	31.0	4.1	0.1	0.7	0.5	100.0	16,863
Mainland – Urban	15.0	30.6	40.8	10.6	0.3	2.4	0.4	100.0	3,831
Dar es Salaam City	9.7	23.9	47.4	14.6	0.6	3.7	0.2	100.0	1,127
Other Urban	17.2	33.4	38.0	8.9	0.1	1.9	0.6	100.0	2,704
Mainland – Rural	31.3	37.6	28.1	2.2	0.0	0.2	0.5	100.0	13,031
Zanzibar	26.0	32.9	13.6	24.9	0.2	2.0	0.3	100.0	537
Region/Island									
Arusha	26.5	31.8	31.3	8.4	0.5	1.0	0.5	100.0	668
Dar es Salaam	10.6	24.0	47.1	14.1	0.5	3.5	0.1	100.0	1,180
Dodoma	31.9	35.1	29.1	3.1	0.0	0.8	0.0	100.0	693
Iringa	27.9	35.9	31.7	3.9	0.0	0.2	0.4	100.0	808
Kagera	29.8	41.6	26.3	2.0	0.0	0.0	0.3	100.0	1,000
Kigoma	33.3	33.1	29.1	2.9	0.1	0.2	1.3	100.0	774
Kilimanjaro	11.5	39.0	38.3	8.9	0.0	1.8	0.6	100.0	760
Lindi	31.8	36.9	26.7	3.8	0.0	0.1	0.6	100.0	472
Manyara	30.8	34.0	30.1	3.9	0.0	0.8	0.5	100.0	473
Mara	20.3	37.4	36.0	4.5	0.0	0.0	1.9	100.0	680
Mbeya	28.1	38.9	28.9	3.1	0.0	0.8	0.4	100.0	1,097
Morogoro	26.3	33.5	35.8	3.1	0.0	1.1	0.1	100.0	803
Mtwara	28.7	39.0	29.6	2.4	0.0	0.0	0.3	100.0	620
Mwanza	23.4	43.0	29.5	3.0	0.0	1.0	0.2	100.0	1,513
Pwani	33.6	32.0	30.1	3.5	0.0	0.5	0.3	100.0	398
Rukwa	35.4	40.1	22.4	1.4	0.0	0.0	0.7	100.0	597
Ruvuma	16.5	41.9	36.7	4.1	0.2	0.5	0.1	100.0	654
Shinyanga	37.2	34.3	26.0	1.8	0.0	0.0	0.7	100.0	1,471
Singida	28.6	40.5	27.3	3.1	0.0	0.5	0.0	100.0	416
Tabora	42.9	30.7	22.8	2.3	0.1	0.3	0.8	100.0	969
Tanga	29.8	35.0	32.2	2.1	0.0	0.4	0.5	100.0	817
Pemba	37.5	36.3	10.8	14.8	0.1	0.4	0.1	100.0	179
Unguja	20.3	31.3	14.9	30.0	0.3	2.8	0.3	100.0	357
Zone									
Western	38.0	32.9	25.8	2.2	0.1	0.1	0.9	100.0	3,213
Northern	24.1	35.2	33.3	5.8	0.1	1.0	0.5	100.0	2,719
Central	30.6	37.1	28.4	3.1	0.0	0.7	0.0	100.0	1,109
Southern Highlands	29.8	38.2	28.2	2.9	0.0	0.4	0.4	100.0	2,502
Lake	24.7	41.4	29.9	3.0	0.0	0.5	0.6	100.0	3,193
Eastern	19.8	28.6	40.4	8.6	0.3	2.2	0.2	100.0	2,381
Southern	25.0	39.5	31.5	3.4	0.1	0.2	0.3	100.0	1,745
Zanzibar	26.0	32.9	13.6	24.9	0.2	2.0	0.3	100.0	537
Wealth quintile									
Lowest	45.6	33.9	19.3	0.6	0.0	0.0	0.5	100.0	3,359
Second	38.3	36.5	23.6	1.0	0.0	0.0	0.6	100.0	3,287
Middle	27.2	39.4	31.1	1.8	0.0	0.0	0.5	100.0	3,434
Fourth	19.6	41.4	34.0	4.5	0.0	0.1	0.4	100.0	3,566
Highest	9.8	28.9	42.5	14.8	0.4	3.3	0.5	100.0	3,753
Total	27.6	35.9	30.4	4.8	0.1	0.7	0.5	100.0	17,399

Note: Primary complete means completed standard 7 or 8, training after primary or pre-form 1. Some secondary education includes those who attended secondary level, but did not complete form 6.

Table 2.3.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age six and over by highest level of schooling attended or completed, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	No education	Some primary	Completed primary	Some secondary	Completed secondary	More than secondary	Don't know/ missing	Total	Number
Age									
6-9	37.5	61.8	0.1	0.0	0.0	0.0	0.6	100.0	2,615
10-14	7.1	88.1	3.9	0.4	0.0	0.0	0.5	100.0	2,879
15-19	7.2	39.5	36.3	17.0	0.0	0.0	0.1	100.0	2,003
20-24	16.0	18.4	46.7	17.0	0.7	0.9	0.3	100.0	1,327
25-29	14.1	16.8	57.2	7.6	0.9	3.1	0.4	100.0	1,172
30-34	15.3	15.0	57.4	7.5	1.0	3.2	0.6	100.0	1,160
35-39	12.0	11.9	63.5	9.2	0.5	2.2	0.7	100.0	974
40-44	10.9	7.0	71.6	7.0	0.4	2.3	0.8	100.0	703
45-49	17.6	17.0	53.1	7.6	0.4	2.7	1.5	100.0	652
50-54	18.6	27.2	39.8	6.3	0.3	5.9	1.8	100.0	462
55-59	31.2	39.2	22.8	4.0	0.0	2.4	0.3	100.0	450
60-64	41.3	38.4	12.7	2.2	0.2	4.8	0.3	100.0	300
65+	50.3	38.0	8.7	1.3	0.1	0.7	0.9	100.0	874
Don't know/missing	65.7	21.9	0.0	0.0	0.0	0.0	12.4	100.0	9
Residence									
Urban	9.1	35.8	34.8	14.9	0.9	3.9	0.5	100.0	3,493
Rural	22.1	44.1	28.5	4.0	0.1	0.5	0.6	100.0	12,085
Mainland/Zanzibar									
Mainland	19.2	42.3	30.4	5.9	0.3	1.2	0.6	100.0	15,130
Mainland – Urban	9.2	35.8	35.7	14.1	0.9	3.8	0.6	100.0	3,347
Dar es Salaam City	6.0	27.6	36.9	19.9	1.2	8.5	0.0	100.0	996
Other Urban	10.5	39.2	35.1	11.6	0.8	1.9	0.8	100.0	2,350
Mainland – Rural	22.1	44.2	29.0	3.6	0.1	0.5	0.6	100.0	11,784
Zanzibar	17.9	40.7	13.4	24.2	0.6	2.6	0.7	100.0	448
Region/Island									
Arusha	20.2	36.6	32.3	8.4	0.3	1.4	0.9	100.0	617
Dar es Salaam	6.7	27.3	37.6	19.2	1.1	8.1	0.0	100.0	1,054
Dodoma	31.4	39.9	25.0	2.7	0.0	0.9	0.0	100.0	618
Iringa	15.5	51.1	28.5	4.1	0.0	0.6	0.2	100.0	722
Kagera	14.1	50.6	27.3	6.8	0.0	1.0	0.2	100.0	877
Kigoma	21.5	37.3	32.3	6.3	0.3	1.0	1.3	100.0	641
Kilimanjaro	5.0	45.8	34.7	11.2	0.3	2.0	1.0	100.0	680
Lindi	20.3	44.6	29.0	4.5	0.7	0.2	0.7	100.0	393
Manyara	22.3	44.6	29.4	2.5	0.1	0.5	0.6	100.0	493
Mara	13.4	45.2	33.7	6.7	0.2	0.1	0.7	100.0	562
Mbeya	15.0	43.2	32.0	8.8	0.0	0.6	0.4	100.0	995
Morogoro	18.6	44.4	31.6	3.3	0.0	1.8	0.3	100.0	762
Mtwara	22.4	43.3	31.4	2.8	0.2	0.0	0.0	100.0	481
Mwanza	16.4	49.0	28.6	3.9	0.6	0.7	0.8	100.0	1,341
Pwani	25.1	43.3	27.3	3.7	0.3	0.3	0.0	100.0	329
Rukwa	23.9	43.6	27.3	3.8	0.4	1.0	0.0	100.0	575
Ruvuma	12.6	44.7	36.6	5.1	0.2	0.3	0.5	100.0	613
Shinyanga	31.2	33.5	29.7	4.1	0.0	0.1	1.5	100.0	1,365
Singida	19.9	44.4	32.4	2.4	0.3	0.6	0.0	100.0	389
Tabora	33.7	37.9	24.7	2.1	0.3	0.1	1.2	100.0	920
Tanga	16.8	49.8	27.9	3.5	0.3	1.3	0.4	100.0	704
Pemba	29.4	41.8	11.3	16.1	0.3	0.7	0.4	100.0	157
Unguja	11.7	40.2	14.5	28.6	0.7	3.6	0.8	100.0	291
Zone									
Western	29.9	35.7	28.7	3.9	0.1	0.3	1.4	100.0	2,926
Northern	15.5	44.4	31.1	6.6	0.3	1.3	0.7	100.0	2,494
Central	27.0	41.6	27.8	2.6	0.1	0.8	0.0	100.0	1,007
Southern Highlands	17.4	45.8	29.7	6.1	0.1	0.7	0.3	100.0	2,292
Lake	15.1	48.7	29.2	5.4	0.3	0.7	0.6	100.0	2,779
Eastern	13.7	35.8	33.9	11.2	0.6	4.7	0.1	100.0	2,145
Southern	17.8	44.2	32.9	4.2	0.3	0.2	0.4	100.0	1,487
Zanzibar	17.9	40.7	13.4	24.2	0.6	2.6	0.7	100.0	448
Wealth quintile									
Lowest	34.6	43.4	20.1	1.1	0.0	0.0	0.8	100.0	2,959
Second	24.2	44.6	28.9	1.8	0.0	0.0	0.5	100.0	3,119
Middle	19.6	45.9	30.3	3.6	0.0	0.0	0.4	100.0	3,066
Fourth	13.2	45.5	33.3	6.5	0.1	0.8	0.6	100.0	3,159
Highest	5.7	32.5	36.3	18.3	1.2	5.3	0.6	100.0	3,271
Total	19.2	42.3	30.0	6.5	0.3	1.3	0.6	100.0	15,578

Note: Primary complete means completed standard 7 or 8, training after primary or pre-form 1. Some secondary education includes those who attended secondary level, but did not complete form 6.

Educational attainment is higher in Dar es Salaam and other urban areas than in rural areas. For example, only 10 percent of females in Dar es Salaam and 17 percent of those in other urban areas in Mainland Tanzania have received no education compared with 31 percent of rural females. Among males, the proportion is 6 percent in Dar es Salaam, 11 percent in other urban areas, and 22 percent in rural areas.

Respondents' level of education differs substantially across regions. In the Mainland, Dar es Salaam and Kilimanjaro have lowest proportion of females with no education (11 percent and 12 percent). The same regions have the lowest proportion of males with no education (Dar es Salaam 7 percent and Kilimanjaro 5 percent). Regions with the highest proportion of populations with no education are Tabora (43 percent) and Shinyanga (37 percent) for females, and Tabora (34 percent) and Dodoma (31 percent) for males.

In Zanzibar, Unguja has the lowest proportion of population with no education (20 percent for females and 12 percent for males), while Pemba has the highest proportion (38 percent for females and 29 percent for males).

Tables 2.3.1 and 2.3.2 also show educational attainment by wealth quintile, an indicator of economic status. The wealth index has been tested in a number of countries in relation to inequalities in household income, use of health services, and health outcomes (Rutstein et al., 2000). It is an indicator of the level of wealth that is consistent with expenditure and income measures (Rutstein, 1999). The wealth index was constructed using household asset data and principal component analysis. The asset information collected in the 2007-08 THMIS Household Questionnaire covers information on household ownership of a number of consumer items ranging from a television to a bicycle or car, as well as dwelling characteristics such as source of drinking water, type of sanitation facilities, and type of material used in flooring. Each asset was assigned a weight (factor score) generated through principal component analysis, and the resulting asset scores were standardized in relation to a standard normal distribution with a mean of zero and a standard deviation of one (Rutstein and Johnson, 2004). Each household was then assigned a score for each asset, and the scores were summed for each household; individuals were ranked according to the total score of the household in which they resided. The sample was then divided into quintiles from one (lowest) to five (highest).

Results show that for both females and males, educational attainment is significantly higher for those in the higher quintiles. For females, the proportion with no education ranges from 46 percent for women in the lowest quintile to 10 percent for those in the highest quintile. For males, the corresponding proportions range from 35 percent to 6 percent, respectively.

2.5 HOUSING CHARACTERISTICS

The physical characteristics of the dwelling in which a household lives are important determinants of the health status of household members, especially children. They can also be used as indicators of the socio-economic status of households. The 2007-08 THMIS respondents in the household interview were asked a number of questions about their household environment, including questions on the source of drinking water, type of sanitation facility, type of flooring, walls and roof, and number of rooms in the dwelling. Other questions included sources of energy for cooking fuel and lighting, the number of rooms used for sleeping, and the availability of food in the household.

Table 2.4 provides a number of indicators that are useful in monitoring household access to improved drinking water (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2005). Information on the source of drinking water is important because waterborne diseases, including diarrhoea and dysentery, are prevalent in Tanzania. The source of drinking water is an indicator of whether the water is suitable for drinking. Sources which are likely to provide water suitable for drinking are identified as improved sources. They include piped source within the

dwelling or plot, public tap, tube well or borehole, protected well or spring, and rainwater.[1] Households in THMIS were also asked whether the provider of the water is a public or private agency.

Results of the survey show that 56 percent of households have safe water; 82 percent in urban areas and 48 percent in rural areas. Compared with results of the 2003-2004 THIS, which showed that 52 percent of households had safe water, there has been only a slight improvement. One in four households (24 percent) obtain water from the authorities and 11 percent obtain their water from a CBO or NGO. More than six in ten households stated that the water did not come from the authority or CBO/NGO.

Table 2.4 Household characteristics

Percent distribution of households by household characteristics, according to residence, Tanzania HMIS 2007-08

Characteristic	Households		
	Urban	Rural	Total
Source of drinking water			
Improved source	**82.1**	**48.0**	**56.4**
Piped water into dwelling/yard/plot	23.1	2.5	7.6
Shared tap/standpipe	30.3	3.9	10.4
Public tap/standpipe	15.8	15.0	15.2
Tube well or borehole	3.7	0.6	1.4
Protected dug well	7.1	15.8	13.7
Protected spring	2.1	10.0	8.0
Rainwater	0.0	0.1	0.1
Non-improved source	**17.7**	**50.0**	**42.0**
Unprotected dug well	8.8	28.4	23.6
Unprotected spring	2.0	17.6	13.8
Tanker truck/cart with small tank	5.8	0.9	2.1
Surface water	1.1	3.1	2.6
Missing	0.2	2.0	1.6
Total	100.0	100.0	100.0
Provider of water			
Authority	36.9	20.1	24.3
CBO/NGO	11.0	11.1	11.1
No provider	50.4	66.0	62.1
Don't know/missing	1.8	2.8	2.6
Total	100.0	100.0	100.0
Improved, not shared facility			
Flush/pour flush	8.0	0.5	2.4
Ventilated improved pit (VIP) latrine	4.5	1.2	2.0
Non-improved facility			
Any facility shared with other households	7.1	0.5	2.1
Flush/pour flush toilet	8.0	0.2	2.2
Pit latrine without slab/open pit	69.4	76.7	74.9
No facility/bush/field	3.0	20.6	16.2
Missing	0.1	0.2	0.2
Total	100.0	100.0	100.0
Number of households	2,106	6,391	8,497

Ensuring adequate sanitation facilities is one of the Millennium Development Goals that Tanzania intends to fulfil along with other countries. A household is classified as having an improved toilet if the facility is used only by members of that household (not shared) and if the facility separates the waste from human contact (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2004). Proper sanitation facilities lead to improved hygiene practices, and ultimately to lower infant mortality rates. Results of this survey show that three-quarters of households in Tanzania use the traditional pit latrine; 69 percent in urban areas and 77 percent in rural areas. About one-fifth (21 percent) of households in rural areas have no sanitation facility.

[1] The categories improved source and non-improved source of drinking water follow those proposed by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2004).

2.5.1 Energy Sources

Table 2.5 presents information on the energy sources used by Tanzanian households. Use of electricity usually goes hand in hand with improved housing structures and a better standard of living.

In Tanzania, about 12 percent of households have electricity. There is a large difference in access to electricity between urban and rural households (40 percent in urban areas compared with 2 percent in rural areas). The same results were obtained in the 2003-04 THIS (TACAIDS, NBS, and ORC Macro, 2005).

The type of fuel used for cooking can have a direct effect on people's health status; it also serves as an indicator of the socio-economic status of the household. Charcoal is the most common fuel used for cooking in urban areas (60 percent), whereas firewood is the predominant fuel for cooking in rural areas (94 percent). Both fuels have a negative impact on the environment because they involve cutting down trees.

About 85 percent of households use paraffin as their major source of energy for lighting (25 percent hurricane lamp, 2 percent pressure lamp, and 58 percent wick lamp). Forty percent of households in urban areas use electricity as their major source of energy for lighting, and 32 percent use a paraffin hurricane lamp. Use of electricity as the main source of energy for lighting in rural areas is very limited (2 percent).

Table 2.5 Household energy sources

Percent distribution of households by energy sources, according to residence, Tanzania HMIS 2007-08

	Households		
Housing characteristic	Urban	Rural	Total
Electricity			
Yes	40.1	2.1	11.5
No	59.9	97.8	88.4
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Cooking fuel			
Electricity	0.9	0.1	0.3
LPG/natural gas/biogas	0.8	0.0	0.2
Kerosene	8.5	0.3	2.3
Charcoal	59.6	5.7	19.0
Wood	29.0	93.5	77.5
Straw/shrubs/grass	0.2	0.1	0.1
No food cooked in household	1.1	0.3	0.5
Total	100.0	100.0	100.0
Lighting energy			
Electricity	39.6	1.9	11.3
Solar	0.1	0.1	0.1
Gas	0.0	0.1	0.1
Paraffin hurricane lamp	32.2	22.6	24.9
Paraffin pressure lamp	1.0	2.1	1.8
Paraffin wick lamp	25.1	68.7	57.9
Firewood	0.1	3.7	2.8
Candles	1.9	0.2	0.6
Other	0.1	0.7	0.5
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of households	2,106	6,391	8,497

Note: Percentages for electricity and cooking fuel may not add to 100 because of missing cases (no more that 0.2 percent of cases in any category).
LPG = Liquid petroleum gas

2.5.2 Housing Characteristics

The type of material used for flooring is also an indicator of socio-economic status, and to some extent determines the household's vulnerability to exposure to disease-causing agents. Table 2.6 shows that 71 percent of households have earthen floors (made of earth, sand, or dung). Large differences exist between rural and urban houses; earth flooring is most common in rural areas (85 percent) while cement is most common in urban areas (67 percent).

Quality wall materials ensure that household members are protected from hazardous conditions. Sun-dried bricks are the most common type of wall material in Tanzania (32 percent) followed by poles and mud (29 percent). Half of urban households live in cement block structures, while 34 percent of households in rural areas have structures made of poles and mud walls, and 37 percent have houses with sun-dried brick walls.

The most common form of roofing in Tanzania is iron sheets (53 percent). In rural areas, grass, thatch, and mud are the most common materials used for roofing (58 percent), while in urban areas iron sheets are the most common roofing material (88 percent).

Table 2.6 Household characteristics

Percent distribution of households and de jure population by housing characteristics, according to residence, Tanzania HMIS 2007-08

Housing characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Electricity						
Yes	40.1	2.1	11.5	42.0	2.1	10.7
No	59.9	97.8	88.4	58.0	97.7	89.2
Missing	0.0	0.1	0.1	0.0	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material						
Earth, sand, dung	28.5	85.5	71.3	27.7	85.6	73.1
Ceramic tiles	1.6	0.0	0.4	1.6	0.0	0.4
Cement	66.6	14.3	27.3	67.9	14.2	25.7
Carpet	3.0	0.1	0.8	2.6	0.1	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Wall material						
Grass	0.1	1.5	1.1	0.2	1.2	1.0
Poles and mud	12.8	33.6	28.5	11.7	32.6	28.1
Sun-dried bricks	17.6	36.7	32.0	18.1	37.9	33.7
Baked bricks	17.9	22.6	21.5	18.6	22.9	21.9
Wood, timber	0.5	1.1	1.0	0.5	1.1	0.9
Cement blocks	49.9	3.6	15.1	49.6	3.5	13.4
Stones	0.9	0.7	0.7	1.2	0.7	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Roof material						
Grass, thatch, mud	9.1	58.1	45.9	8.8	57.7	47.1
Iron sheets	87.6	41.6	53.0	87.5	42.0	51.8
Tiles	2.1	0.1	0.6	2.5	0.1	0.6
Concrete	0.3	0.0	0.1	0.5	0.0	0.1
Asbestos	0.8	0.0	0.2	0.7	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,106	6,391	8,497	9,125	33,285	42,410

Note: Percentages may not add to 100 because of missing cases (no more that 0.2 percent of cases in any category).

2.6 HOUSEHOLD POSSESSIONS

Another indication of the household's socio-economic status is the durable possessions the household owns. In Tanzania, the poverty monitoring master plan has identified some indicators as non-income proxies of poverty. These indicators include the ownership of selected household durable items that show a strong correlation with the economic status of the household.

The availability of durable possessions goods is a good indicator of a household's socio-economic status. Moreover, each particular item has specific benefits. For instance, having access to a radio or a television exposes household members to innovative ideas; a refrigerator prolongs the wholesomeness of foods; and a means of transport allows greater access to many services away from the local area. Table 2.7 shows the ownership of selected household possessions by urban-rural residence.

Table 2.7 Household possessions

Percentage of households possessing various household effects, means of transportation, and agricultural land by residence, Tanzania HMIS 2007-08

Possession	Households		
	Urban	Rural	Total
Household effects			
Paraffin Lamp	63.5	36.5	43.2
Radio	74.9	53.0	58.4
Television	30.5	1.6	8.8
Mobile telephone	61.4	17.1	28.1
Non-mobile telephone	2.4	0.1	0.7
Iron	44.2	16.7	23.6
Refrigerator	16.0	0.6	4.4
Watch	58.3	35.1	40.9
Bank account	24.5	5.2	9.9
Means of transport			
Bicycle	31.3	44.5	41.2
Motorcycle/scooter	2.4	1.0	1.4
Car/truck	3.7	0.5	1.3
Ownership of agricultural land	34.4	85.4	72.7
Number of households	2,106	6,391	8,497

The most common items are agricultural land (73 percent), radio (58 percent), and paraffin lamp (43 percent). More than one-quarter of households (28 percent) possess a mobile phone, although use of non-mobile phones is limited to very few households (less than 1 percent of households). Possession of a mobile phone is much higher in urban areas than in rural areas (61 and 17 percent, respectively). Forty-one percent of households own a bicycle and about 1 percent own a car or a motorcycle. Only 10 percent of households in Tanzania have at least one member who has a bank account. Possession of a bank account is much higher in urban areas (25 percent) than in rural areas (5 percent).

2.7 FOOD SECURITY

The 2007-08 THMIS included several questions related to household food security. The questions concerned the number of meals the household usually eats each day, the number of days the household consumed meat in the week preceding the survey, and how often the household had problems satisfying food needs in the year preceding the survey. Results are shown in Table 2.8.

Table 2.8 Household food security

Percentage distribution of households by food security characteristics, according to residence, Tanzania HMIS 2007-08

Food security characteristic	Residence		
	Urban	Rural	Total
Usual number of meals per day			
1 meal	1.5	2.4	2.2
2 meals	22.5	49.0	42.4
3+ meals	75.8	48.6	55.3
Don't know/missing	0.2	0.0	0.1
Total	100.0	100.0	100.0
Number of days consumed meat in past week			
0	30.4	58.5	51.5
1	22.8	19.7	20.5
2	20.2	12.2	14.2
3	13.4	6.3	8.1
4	6.2	1.6	2.8
5	2.5	0.7	1.1
6	1.2	0.1	0.4
7	3.1	0.6	1.2
Don't know/missing	0.1	0.3	0.3
Total	100.0	100.0	100.0
Frequency of problems satisfying food needs in past year			
Never	59.3	44.9	48.5
Seldom	18.4	18.1	18.2
Sometimes	12.4	18.9	17.3
Often	9.6	16.8	15.0
Always	0.1	1.1	0.8
Don't know/missing	0.2	0.2	0.2
Total	100.0	100.0	100.0
Number of households	2,106	6,391	8,497

The data show that 55 percent of households report that they usually have at least three meals per day and 42 percent have two meals per day. Similar results were observed in the 2003-04 THIS, in which 54 percent of households reported having three meals per day and 43 percent had two meals per day (TACAIDS, NBS, and ORC Macro, 2005).

Meat consumption is not common in Tanzania. More than half of households (52 percent) reported that they did not consume meat in the past week, 21 percent had meat once, 14 percent had meat twice, and only 14 percent had meat three or more times in the past week. Consumption of meat differs considerably between urban and rural households. Six in ten rural households (59 percent) did not consume meat at all in the week preceding the survey, compared with 30 percent of urban households.

Almost half of the population (49 percent) reported never having had problems meeting the food needs for the family in the year preceding the survey, and 18 percent said that they seldom had such problems. Less than one in five households (17 percent) said that they sometimes have a problem meeting food needs and 15 percent said that they often have a problem. One percent of households reported always having a problem providing food for the family.

2.8 WEALTH INDEX

Table 2.9 presents the distribution of the de jure household population by wealth status (wealth index quintiles) according to residence and region. There are substantial differences in the household distribution. While most of the households in urban areas (68 percent) are in the highest quintile, many households in rural areas are in the lowest quintile (25 percent). Only 7 percent of rural households are in the highest quintile. Disparities also exist between regions: 95 percent of households in Dar es Salaam are in the highest quintile, whereas 42 percent of households in Manyara are in the lowest quintile. On average, households in Mainland Tanzania are evenly distributed among the five quintiles, whereas in Zanzibar a larger proportion of households are in the highest quintile.

Table 2.9 Wealth status

Percent distribution of the de jure household population by wealth quintile, according to residence and region, Tanzania HMIS 2007-08

Residence/region	Wealth quintile					Total	Number of population
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	2.5	3.7	6.7	19.1	68.1	100.0	9,125
Rural	24.8	24.4	23.6	20.3	6.8	100.0	33,285
Mainland/Zanzibar							
Mainland	20.5	20.3	20.2	19.7	19.3	100.0	41,147
Zanzibar	5.9	8.9	11.9	29.9	43.4	100.0	1,263
Region							
Arusha	25.7	9.7	15.3	22.7	26.7	100.0	1,659
Dar es Salaam	0.0	0.2	0.7	4.3	94.8	100.0	2,640
Dodoma	24.2	25.7	21.3	17.7	11.1	100.0	1,723
Iringa	10.6	19.2	25.3	32.4	12.4	100.0	1,940
Kagera	22.1	22.7	27.7	21.5	6.0	100.0	2,457
Kigoma	21.1	22.4	31.6	19.4	5.6	100.0	1,842
Kilimanjaro	2.8	1.9	17.7	33.5	44.0	100.0	1,734
Lindi	33.9	31.1	13.8	13.1	8.1	100.0	1,060
Manyara	41.6	16.8	13.9	15.9	11.7	100.0	1,278
Mara	21.6	22.7	16.3	18.5	20.9	100.0	1,690
Mbeya	10.5	17.2	22.8	29.9	19.6	100.0	2,673
Morogoro	15.6	20.3	20.4	24.0	19.7	100.0	2,000
Mtwara	32.1	32.4	16.4	15.2	3.9	100.0	1,381
Mwanza	17.6	15.0	26.1	22.0	19.3	100.0	3,808
Pwani	19.3	18.2	26.6	21.1	14.9	100.0	913
Rukwa	19.9	30.5	24.0	17.8	7.9	100.0	1,588
Ruvuma	9.6	24.5	26.9	29.8	9.2	100.0	1,625
Shinyanga	30.8	29.9	21.4	12.5	5.4	100.0	3,759
Singida	38.9	25.5	19.0	9.0	7.4	100.0	1,045
Tabora	34.5	28.4	11.6	14.1	11.4	100.0	2,487
Tanga	18.9	22.2	23.9	19.7	15.3	100.0	1,846
Total	20.0	20.0	20.0	20.0	20.0	100.0	42,410

2.9 BIRTH REGISTRATION

The registration of births is the inscription of the facts of the birth into an official log kept at the registrar's office. A birth certificate is issued at the time of registration, or later, as proof of the registration of the birth. Birth registration is basic to ensuring a child's legal status and, thus, basic rights and services (UNICEF, 2006; United Nations General Assembly, 2002). The registration of vital events in most developing countries is a function of a number of socioeconomic factors.

Registration of births is mandatory in Tanzania. However, for most children this is delayed until a document is needed as a requirement to start schooling. Not all children who are registered may have a birth certificate because the certificate may have been lost or was never issued. However, all children with a certificate have been registered.

The 2007-08 THMIS included a question for all women who had given birth in the five years preceding the survey, regarding whether their most recent birth had been registered with the civil authorities. Survey results show that registration of children in Mainland Tanzania is low. Only 20 percent of children under five years are registered and of these, only 6 percent have a birth certificate. In Zanzibar, 90 percent of children under five years are registered and 67 percent have a birth certificate. Registration of children under age two years is slightly higher (23 percent) than that of children age two to four years (21 percent). These figures indicate that little progress has been made towards increasing the proportion of births that are registered. There are substantial differentials in birth registration by residence, region, and wealth quintile.

In the Mainland, registration is most complete in Dar es Salaam City (77 percent) followed by other urban areas (35 percent). Only 15 percent of births in rural areas in the Mainland are registered. Across regions in the Mainland, the highest registration rates are in Dar es Salaam (75 percent), Kilimanjaro (50 percent), and Tanga (44 percent). Regions with lowest registration rates are Tabora (4 percent), Manyara (5 percent) and Kigoma (6 percent). In Zanzibar, birth registration is 90 percent overall, ranging from 86 percent in Pemba to 93 percent in Unguja.

Table 2.10 Birth registration of children under age five

Percentage of de jure children under five years of age whose births are registered with the civil authorities, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of children whose births are registered: Had birth certificate	Did not have birth certificate	Total registered	Number of children
Age				
<2	7.4	15.8	23.2	3,037
2-4	8.2	12.7	20.9	4,451
Sex				
Male	7.6	13.6	21.3	3,765
Female	8.1	14.3	22.4	3,723
Residence				
Urban	22.9	24.7	47.6	1,313
Rural	4.7	11.7	16.4	6,175
Mainland/Zanzibar				
Mainland	6.3	13.7	20.1	7,299
Mainland – Urban	20.9	25.0	46.0	1,267
Dar es Salaam City	31.1	45.9	77.0	323
Other Urban	17.5	17.9	35.3	944
Mainland – Rural	3.3	11.4	14.6	6,032
Zanzibar	66.9	23.1	90.0	189
Region/Island				
Arusha	10.4	5.5	15.8	286
Dar es Salaam	30.1	45.0	75.1	348
Dodoma	3.2	5.6	8.8	288
Iringa	6.4	6.4	12.8	307
Kagera	1.1	17.4	18.5	488
Kigoma	1.4	4.1	5.5	360
Kilimanjaro	15.1	34.5	49.5	224
Lindi	6.9	0.2	7.1	152
Manyara	2.4	2.1	4.5	231
Mara	12.2	15.1	27.3	352
Mbeya	5.1	7.5	12.6	491
Morogoro	5.8	23.9	29.6	306
Mtwara	6.2	5.2	11.4	235
Mwanza	5.6	28.5	34.1	715
Pwani	12.2	20.0	32.1	136
Rukwa	3.1	11.8	14.9	340
Ruvuma	9.4	1.5	10.9	272
Shinyanga	0.5	5.1	5.6	802
Singida	2.1	5.5	7.5	180
Tabora	2.6	1.4	4.1	493
Tanga	8.6	35.7	44.3	290
Pemba	51.3	34.4	85.7	79
Unguja	78.1	15.1	93.1	110
Zone				
Western	1.3	3.8	5.1	1,654
Northern	9.1	19.5	28.6	1,032
Central	2.8	5.5	8.3	469
Southern Highlands	4.9	8.5	13.3	1,139
Lake	5.7	22.0	27.7	1,556
Eastern	17.6	32.5	50.1	790
Southern	7.7	2.5	10.2	658
Zanzibar	66.9	23.1	90.0	189
Wealth quintile				
Lowest	2.0	7.9	9.9	1,708
Second	2.8	7.3	10.0	1,634
Middle	4.1	13.2	17.2	1,587
Fourth	8.5	14.9	23.4	1,392
Highest	27.9	32.2	60.1	1,167
Total	7.9	14.0	21.8	7,488

CHARACTERISTICS OF RESPONDENTS 3

3.1 INTRODUCTION

This chapter provides a brief description of selected demographic and socio-economic characteristics of respondents to the 2007-08 THMIS, including age, sex, residence, education, economic status, employment, and marital status. Examination of these characteristics not only helps to gauge the accuracy of the survey data, but also provides a look at trends in these characteristics over time. Most importantly, these characteristics may correspond with other issues investigated in the survey, such as knowledge, attitudes, and behaviour related to HIV/AIDS and malaria prevention and treatment.

3.2 BACKGROUND CHARACTERISTICS OF RESPONDENTS

Table 3.1 shows the distribution of women and men age 15-49 by background characteristics. The unweighted numbers reflect the actual observations during enumeration, while the weighted numbers are adjusted figures by the probability of selection of the respondents. A total of 9,343 women and 6,975 men were interviewed in the survey. For both sexes, the proportion in each age group declines with increasing age, reflecting the young age structure of the population.

One in four women (24 percent) have never been married, 54 percent are currently married, 10 percent are living together, and 12 percent are formerly married (i.e., divorced, separated, or widowed). The corresponding figures for men are 42, 47, 6 and 5 percent, respectively. Polygyny and remarriage among men may contribute to the differences between sexes.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women			Men		
	Weighted percentage	Weighted number	Unweighted number	Weighted percentage	Weighted number	Unweighted number
Age						
15-19	21.2	1,984	2,138	25.3	1,768	1,881
20-24	18.7	1,746	1,678	16.5	1,148	1,149
25-29	17.2	1,603	1,512	14.4	1,004	933
30-34	14.4	1,346	1,319	14.4	1,004	931
35-39	12.6	1,175	1,154	12.1	842	834
40-44	8.3	774	804	9.0	628	669
45-49	7.6	714	738	8.3	581	578
Marital status						
Never married	23.7	2,214	2,503	42.0	2,931	3,124
Married	54.2	5,066	5,154	47.0	3,275	3,250
Living together	9.8	917	661	6.1	425	313
Divorced/separated	9.1	848	780	4.6	319	266
Widowed	3.2	298	245	0.3	24	22
Residence						
Urban	26.3	2,459	2,172	24.4	1,699	1,499
Rural	73.7	6,884	7,171	75.6	5,276	5,476

Continued…

Table 3.1—*Continued*

Background characteristics	Women			Men		
	Weighted percentage	Weighted number	Unweighted number	Weighted percentage	Weighted number	Unweighted number
Region/Island						
Mainland	96.7	9,034	6,673	97.0	6,763	5,185
Arusha	4.1	383	306	3.8	262	215
Dar es Salaam	8.5	797	448	8.3	580	321
Dodoma	3.6	338	263	3.7	255	211
Iringa	4.3	403	280	4.1	286	194
Kagera	5.3	495	312	5.7	397	272
Kigoma	4.4	414	362	4.2	292	274
Kilimanjaro	4.1	379	321	3.9	271	242
Lindi	2.6	246	287	2.4	164	214
Manyara	2.8	263	326	2.9	203	287
Mara	3.9	368	393	3.5	243	277
Mbeya	6.2	581	292	7.1	496	263
Morogoro	4.7	436	247	4.9	340	199
Mtwara	3.5	324	267	3.0	209	177
Mwanza	8.9	833	373	8.7	608	302
Pwani	2.2	203	233	1.7	119	137
Rukwa	3.4	314	312	3.8	264	255
Ruvuma	4.0	372	335	4.1	287	273
Shinyanga	8.0	750	390	9.1	633	352
Singida	2.1	194	261	2.2	153	222
Tabora	5.5	518	357	5.8	404	276
Tanga	4.5	424	308	4.3	298	222
Zanzibar	3.3	309	2,670	3.0	212	1,790
Pemba	1.0	94	1,486	0.9	63	988
Unguja	2.3	214	1,184	2.1	148	802
Education						
No education	21.2	1,983	2,068	11.9	829	814
Primary incomplete	16.2	1,517	1,562	22.0	1,534	1,607
Primary complete	52.9	4,945	4,139	51.6	3,597	3,095
Secondary +	9.6	898	1,574	14.6	1,016	1,459
Employment						
Currently employed	75.1	7,018	6,603	79.7	5,560	5,479
Not currently employed	5.0	472	438	1.3	92	108
Not employed in past 12 months	19.7	1,837	2,287	18.9	1,316	1,378
Missing	0.2	16	15	0.1	7	10
Wealth quintile						
Lowest	18.2	1,700	1,512	16.8	1,173	1,059
Second	17.5	1,634	1,534	20.2	1,411	1,272
Middle	18.8	1,757	1,652	18.9	1,322	1,297
Fourth	20.0	1,867	2,213	20.0	1,395	1,623
Highest	25.5	2,384	2,431	23.9	1,670	1,720
Total 15-49	100.0	9,343	9,343	100.0	6,975	6,975

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

Three in four women and eight in ten men are currently employed compared with 5 percent of women and 1 percent of men who are not currently employed. One in five women and men were not employed in the 12 months preceding the survey. Respondents of both sexes are more likely to live in households in the two highest wealth quintiles than in households in the lower wealth quintiles.

3.3 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Education provides people with knowledge and skills that can lead them to a better quality of life. Level of education is correlated with patterns of reproductive and health-seeking behaviour. Table 3.2 presents the distribution of women and men age 15-49 by the highest level of education attended, according to background characteristics.

Table 3.2 Educational attainment

Percent distribution of women and men age 15-49 by highest level of schooling attended, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women						Men					
	No education	Primary incomplete	Primary complete[1]	Secondary+	Total	Number of women	No education	Primary incomplete	Primary complete[1]	Secondary+	Total	Number of men
Age												
15-24	17.5	21.1	47.8	13.6	100.0	3,730	9.4	31.9	39.5	19.2	100.0	2,916
25-29	19.2	11.3	59.5	10.0	100.0	1,603	13.7	18.0	55.2	13.1	100.0	1,004
30-34	21.5	12.0	59.4	7.1	100.0	1,346	13.9	16.2	58.0	11.9	100.0	1,004
35-39	18.8	13.0	62.4	5.8	100.0	1,175	12.7	12.2	64.5	10.7	100.0	842
40-44	24.9	15.0	55.9	4.1	100.0	774	11.6	7.0	73.0	8.5	100.0	628
45-49	44.8	16.3	33.8	5.0	100.0	714	16.8	19.6	52.8	10.7	100.0	581
Residence												
Urban	9.2	10.6	59.0	21.1	100.0	2,459	4.7	12.4	50.0	32.9	100.0	1,699
Rural	25.5	18.2	50.7	5.5	100.0	6,884	14.2	25.1	52.1	8.7	100.0	5,276
Region/Island												
Mainland	21.3	16.3	54.1	8.4	100.0	9,034	12.0	22.0	52.7	13.4	100.0	6,763
Arusha	21.1	10.6	53.1	15.2	100.0	383	9.3	13.4	56.2	21.1	100.0	262
Dar es Salaam	7.3	5.0	65.1	22.6	100.0	797	2.1	8.3	47.0	42.6	100.0	580
Dodoma	22.1	11.5	59.2	7.2	100.0	338	19.9	21.8	50.8	7.5	100.0	255
Iringa	17.8	12.9	60.8	8.5	100.0	403	11.8	22.0	54.1	12.1	100.0	286
Kagera	25.4	19.9	50.3	4.4	100.0	495	13.3	25.8	47.1	13.7	100.0	397
Kigoma	26.3	15.9	52.4	5.4	100.0	414	12.0	18.9	56.1	12.9	100.0	292
Kilimanjaro	3.9	9.6	67.1	19.4	100.0	379	1.9	12.6	61.3	24.3	100.0	271
Lindi	26.2	17.4	48.7	7.7	100.0	246	13.6	21.5	54.3	10.6	100.0	164
Manyara	28.8	11.6	51.8	7.8	100.0	263	17.5	16.2	60.5	5.8	100.0	203
Mara	13.2	18.3	60.5	8.0	100.0	368	5.1	22.1	59.0	13.8	100.0	243
Mbeya	20.5	18.7	53.7	7.1	100.0	581	8.7	24.8	51.2	15.4	100.0	496
Morogoro	20.1	13.9	59.3	6.6	100.0	436	15.9	19.1	58.2	6.8	100.0	340
Mtwara	20.9	24.3	50.3	4.4	100.0	324	10.7	30.9	54.5	3.9	100.0	209
Mwanza	19.7	24.6	49.4	6.4	100.0	833	11.3	32.4	47.9	8.4	100.0	608
Pwani	25.2	14.2	52.3	8.3	100.0	203	9.7	24.0	55.2	11.1	100.0	119
Rukwa	35.4	21.7	39.8	3.1	100.0	314	11.5	30.0	48.1	10.4	100.0	264
Ruvuma	11.3	18.8	62.2	7.8	100.0	372	3.9	23.5	64.2	8.4	100.0	287
Shinyanga	29.5	18.1	49.5	2.9	100.0	750	19.3	21.7	50.9	8.1	100.0	633
Singida	19.5	17.0	56.6	6.8	100.0	194	11.3	18.0	63.4	7.3	100.0	153
Tabora	39.5	16.5	39.7	4.3	100.0	518	26.9	24.7	45.4	3.0	100.0	404
Tanga	22.2	19.9	52.7	5.2	100.0	424	12.5	27.1	50.0	10.4	100.0	298
Zanzibar	19.3	15.0	19.8	45.9	100.0	309	8.6	22.5	16.4	52.5	100.0	212
Pemba	33.2	20.4	18.1	28.2	100.0	94	16.8	28.5	17.7	37.0	100.0	63
Unguja	13.2	12.5	20.5	53.7	100.0	214	5.1	19.9	15.9	59.1	100.0	148
Wealth quintile												
Lowest	41.2	20.2	37.3	1.2	100.0	1,700	25.3	31.8	40.5	2.3	100.0	1,173
Second	32.2	20.9	44.8	2.2	100.0	1,634	15.8	28.1	52.7	3.4	100.0	1,411
Middle	21.1	19.6	56.2	3.1	100.0	1,757	12.2	23.8	56.7	7.3	100.0	1,322
Fourth	13.7	16.9	60.9	8.6	100.0	1,867	7.3	20.1	58.3	14.3	100.0	1,395
Highest	5.4	7.3	61.0	26.3	100.0	2,384	2.4	10.2	48.8	38.6	100.0	1,670
Total	21.2	16.2	52.9	9.6	100.0	9,343	11.9	22.0	51.6	14.6	100.0	6,975

[1] Primary complete means completed standard 7 or 8, training after primary or pre-form 1

More than half of women and men have completed primary education (53 and 52 percent, respectively). Ten percent of women and 15 percent of men have attained the level of secondary or higher education. Men are more likely to be educated than women. The proportion of women with no education is almost twice that of men (21 and 12 percent, respectively).

Education varies by urban-rural residence. Women in urban areas have more opportunities to go to school than women in rural areas. For example, 9 percent of urban women have no education compared with 26 percent of rural women. This variation may, in part, reflect the predominantly urban locations of education facilities.

There are small differences between Zanzibar and the Mainland at the lower education levels. But larger disparities are seen among respondents who completed primary or attended higher education. Overall, 46 percent of women and 53 percent of men in Zanzibar have received secondary or higher education, compared with 8 percent of women and 13 percent of men in Mainland Tanzania.

Education is positively related to household wealth quintile: 41 percent of women in the lowest quintile have no education compared with 5 percent of women in the highest wealth quintile. The same pattern is observed among men.

3.4 EMPLOYMENT STATUS OF RESPONDENTS

Male and female respondents age 15-49 were asked whether they were employed at the time of the survey and if not, whether they were employed in the 12 months preceding the survey. The measurement of employment status can be difficult; however, because some work, especially work on family farms, in family businesses, or in the informal sector, is often not perceived as employment, and hence not reported as such. To avoid underestimating respondents' employment status, the 2007-08 THMIS asked respondents several questions to probe for their employment status and to ensure complete coverage of employment in both the formal and informal sectors. Employed persons are those who report that they are currently working (i.e., worked in the past seven days) and those who worked at any time during the 12 months preceding the survey.

Tables 3.3.1 and 3.3.2 show the results for employment. The proportion of women who are currently employed increases with age and with the number of living children. Employment among rural women is higher than among urban women (78 and 66 percent, respectively). Women in Shinyanga are more likely to be employed than women in other regions. On the other hand, women in Arusha and Pemba (54 percent each) are the least likely to be employed.

About 88 percent of women who are divorced, separated, or widowed are employed compared with 83 percent of women in union and 46 percent of women who have never married. Women with no education and those who are in the two lowest wealth quintiles are more likely to be employed than educated women or women in the highest wealth quintile. For example, 83 percent of women with no education are currently employed compared with 51 percent of women who have secondary or higher education.

Table 3.3.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Tanzania HMIS 2007-08

Background characteristics	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of women
	Currently employed[1]	Not currently employed				
Age						
15-19	44.1	4.1	51.0	0.8	100.0	1,984
20-24	74.1	6.2	19.7	0.0	100.0	1,746
25-29	82.6	5.3	12.0	0.1	100.0	1,603
30-34	85.9	4.6	9.5	0.0	100.0	1,346
35-39	86.8	5.8	7.5	0.0	100.0	1,175
40-44	91.1	3.9	5.0	0.0	100.0	774
45-49	89.9	5.2	4.9	0.0	100.0	714
Marital status						
Never married	46.1	3.9	49.3	0.7	100.0	2,214
Married or living together	83.4	5.5	11.1	0.0	100.0	5,983
Divorced/separated/widowed	87.7	5.0	7.3	0.0	100.0	1,147
Number of living children						
0	47.4	4.3	47.7	0.6	100.0	2,399
1-2	81.0	5.7	13.3	0.0	100.0	2,972
3-4	86.8	4.7	8.6	0.0	100.0	2,136
5+	88.2	5.4	6.3	0.0	100.0	1,836
Residence						
Urban	66.2	4.5	29.1	0.3	100.0	2,459
Rural	78.3	5.3	16.3	0.1	100.0	6,884

Continued…

Table 3.3.1—Continued

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of women
Region/island						
Mainland	75.7	5.1	19.0	0.2	100.0	9,034
Arusha	54.4	9.5	36.1	0.0	100.0	383
Dar es Salaam	61.8	8.0	30.2	0.0	100.0	797
Dodoma	58.6	15.7	25.4	0.3	100.0	338
Iringa	82.4	0.3	17.3	0.0	100.0	403
Kagera	83.8	2.1	14.0	0.0	100.0	495
Kigoma	84.5	4.3	11.2	0.0	100.0	414
Kilimanjaro	75.4	3.7	20.9	0.0	100.0	379
Lindi	83.8	3.0	12.0	1.2	100.0	246
Manyara	64.3	5.2	30.5	0.0	100.0	263
Mara	73.8	7.7	17.4	1.0	100.0	368
Mbeya	83.7	0.7	15.6	0.0	100.0	581
Morogoro	73.2	6.2	20.6	0.0	100.0	436
Mtwara	80.4	9.3	9.1	1.2	100.0	324
Mwanza	70.8	3.5	25.7	0.0	100.0	833
Pwani	69.9	1.2	28.8	0.0	100.0	203
Rukwa	85.3	2.3	12.4	0.0	100.0	314
Ruvuma	77.4	2.4	20.2	0.0	100.0	372
Shinyanga	93.4	0.0	6.6	0.0	100.0	750
Singida	78.4	3.7	15.8	2.1	100.0	194
Tabora	77.4	12.5	10.1	0.0	100.0	518
Tanga	71.0	8.5	20.5	0.0	100.0	424
Zanzibar	58.8	3.0	38.1	0.0	100.0	309
Pemba	53.5	3.7	42.7	0.1	100.0	94
Unguja	61.2	2.7	36.1	0.0	100.0	214
Education						
No education	82.6	6.1	11.3	0.0	100.0	1,983
Primary incomplete	66.5	3.9	29.3	0.3	100.0	1,517
Primary complete	79.1	5.4	15.5	0.1	100.0	4,945
Secondary +	51.4	3.0	45.0	0.6	100.0	898
Wealth quintile						
Lowest	80.1	5.5	14.0	0.4	100.0	1,700
Second	81.2	6.9	11.8	0.1	100.0	1,634
Middle	78.6	4.3	17.0	0.1	100.0	1,757
Fourth	76.1	3.9	19.9	0.1	100.0	1,867
Highest	64.1	4.9	30.9	0.1	100.0	2,384
Total	75.1	5.0	19.7	0.2	100.0	9,343

[1] "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Table 3.3.2 shows the distribution of men age 15-49 by employment status. Eight in ten men are currently employed and 19 percent reported they were not employed in the 12 months preceding the survey. The proportion of men who are currently employed increases with age and the number of living children. Rural men are more likely to be employed than urban men (82 and 74 percent, respectively).

Virtually all men who are currently in union are currently employed (99 percent). Ninety-five percent of divorced, separated, or widowed men, and 54 percent of never-married men are employed. Almost all men with no education are currently employed (97 percent) compared with 90 percent of men with completed primary education. Only 55 percent of men with secondary and higher education are employed.

Table 3.3.2 Employment status: Men

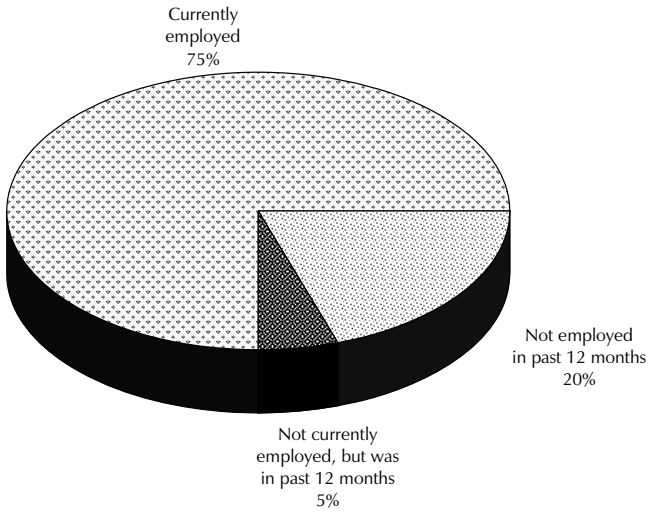
Percent distribution of men age 15-49 by employment status, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Missing/ don't know	Total	Number of men
Age						
15-19	36.6	1.1	61.9	0.4	100.0	1,768
20-24	82.2	2.3	15.5	0.0	100.0	1,148
25-29	96.1	1.6	2.4	0.0	100.0	1,004
30-34	98.1	1.0	0.9	0.0	100.0	1,004
35-39	98.7	0.8	0.4	0.0	100.0	842
40-44	97.9	1.8	0.3	0.0	100.0	628
45-49	98.7	0.4	0.9	0.0	100.0	581
Marital status						
Never married	54.0	1.6	44.2	0.3	100.0	2,931
Married or living together	98.7	0.9	0.4	0.0	100.0	3,701
Divorced/separated/widowed	94.9	3.6	1.5	0.0	100.0	343
Number of living children						
0	57.5	1.6	40.6	0.2	100.0	3,193
1-2	98.1	1.3	0.6	0.0	100.0	1,517
3-4	98.0	1.3	0.7	0.0	100.0	1,133
5+	99.3	0.6	0.1	0.0	100.0	1,132
Residence						
Urban	74.1	1.0	24.7	0.2	100.0	1,699
Rural	81.5	1.4	17.0	0.1	100.0	5,276
Region/Island						
Mainland	79.8	1.3	18.8	0.1	100.0	6,763
Arusha	81.6	0.8	17.6	0.0	100.0	262
Dar es Salaam	70.8	1.2	28.0	0.0	100.0	580
Dodoma	74.7	6.8	18.5	0.0	100.0	255
Iringa	79.1	0.0	20.9	0.0	100.0	286
Kagera	74.8	0.0	25.2	0.0	100.0	397
Kigoma	82.1	2.2	15.6	0.0	100.0	292
Kilimanjaro	74.7	2.1	23.2	0.0	100.0	271
Lindi	88.7	1.7	9.6	0.0	100.0	164
Manyara	84.1	1.7	14.2	0.0	100.0	203
Mara	70.6	1.1	28.3	0.0	100.0	243
Mbeya	79.9	0.0	20.1	0.0	100.0	496
Morogoro	83.1	1.1	15.8	0.0	100.0	340
Mtwara	83.7	3.8	12.5	0.0	100.0	209
Mwanza	77.3	1.1	21.7	0.0	100.0	608
Pwani	75.7	0.0	24.3	0.0	100.0	119
Rukwa	83.5	0.7	15.9	0.0	100.0	264
Ruvuma	79.8	1.2	19.1	0.0	100.0	287
Shinyanga	86.0	0.0	13.8	0.2	100.0	633
Singida	79.5	1.3	15.8	3.4	100.0	153
Tabora	89.3	3.2	7.1	0.3	100.0	404
Tanga	79.7	0.7	19.5	0.0	100.0	298
Zanzibar	78.0	1.9	20.2	0.0	100.0	212
Pemba	72.1	0.8	27.1	0.0	100.0	63
Unguja	80.5	2.3	17.2	0.0	100.0	148
Education						
No education	97.3	1.5	1.2	0.0	100.0	829
Primary incomplete	63.8	1.5	34.5	0.2	100.0	1,534
Primary complete	89.5	1.4	9.1	0.1	100.0	3,597
Secondary +	54.8	0.8	44.3	0.1	100.0	1,016
Wealth quintile						
Lowest	82.8	2.0	14.9	0.4	100.0	1,173
Second	84.8	1.3	13.9	0.1	100.0	1,411
Middle	82.9	0.7	16.3	0.1	100.0	1,322
Fourth	77.2	1.7	21.0	0.0	100.0	1,395
Highest	72.7	1.1	26.2	0.0	100.0	1,670
Total 15-49	79.7	1.3	18.9	0.1	100.0	6,975

[1] Currently employed is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

Figure 3.1 shows that three-quarters of women in Tanzania are currently employed; another 5 percent are not employed but worked in the past 12 months; and 20 percent did not work in the past 12 months.

Figure 3.1 **Women's Employment Status in the Past 12 Months**



3.5 ACCESS TO MASS MEDIA

Information access is essential to increasing people's knowledge and awareness of what is going on around them that may eventually affect their perceptions and behaviour. For purposes of planning programmes to spread health information, it is important to identify the populations that are likely to be reached by the media. In the THMIS survey, exposure to mass media was assessed by asking how often a respondent reads a newspaper, watches television, and listens to a radio. Tables 3.4.1 and 3.4.2 show the percentage of women and men who are exposed to the three media at least once a week, by age and background characteristics.

Table 3.4.1 shows that women are more likely to be exposed to the radio than to other types of mass media. More than half (56 percent) of women are exposed to the radio, followed by 20 percent who watch television, and 18 percent who read a newspaper. Only about 9 percent of women are exposed to all three types of media. Four in ten women (40 percent) are not exposed to any type of mass media.

Younger women have more exposure to mass media than older women. Women with secondary and higher education have more exposure to mass media than women with less education. For example, 63 percent of women with no education have no exposure to mass media compared with 13 percent of women with secondary or higher education. Seventy-one percent of women in the lowest wealth quintile are not exposed to mass media compared with 10 percent of women in the highest wealth quintile. As expected, urban residents are more exposed to mass media than rural residents. Across regions, respondents in Dar es Salaam are most likely to be exposed to mass media (93 percent).

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to radio at least once a week	All three media	No media	Number of women
Age						
15-19	20.1	23.6	54.5	9.5	39.1	1,984
20-24	18.8	23.7	60.1	10.0	35.4	1,746
25-29	18.3	21.6	58.6	10.4	37.5	1,603
30-34	18.8	18.8	55.6	8.9	39.7	1,346
35-39	16.3	16.1	54.8	7.4	41.9	1,175
40-44	14.0	14.6	53.3	7.5	44.1	774
45-49	11.2	11.5	50.5	5.4	46.7	714
Residence						
Urban	39.8	52.6	75.1	26.9	16.0	2,459
Rural	9.8	8.3	49.2	2.5	48.0	6,884
Region/Island						
Mainland	17.9	19.4	55.5	8.9	40.2	9,034
Arusha	17.4	20.3	57.7	9.0	38.2	383
Dar es Salaam	56.9	71.9	80.9	42.5	6.8	797
Dodoma	12.6	10.4	52.1	3.5	44.2	338
Iringa	10.9	8.5	51.6	3.6	44.7	403
Kagera	6.7	5.2	49.4	1.9	49.5	495
Kigoma	7.7	13.1	47.7	2.2	48.4	414
Kilimanjaro	20.9	29.8	76.3	9.1	20.1	379
Lindi	11.5	11.7	51.0	3.4	44.5	246
Manyara	5.2	8.5	34.6	4.1	63.4	263
Mara	26.6	21.4	53.7	11.8	40.0	368
Mbeya	6.5	10.1	44.6	3.3	52.6	581
Morogoro	23.8	24.3	71.7	13.1	25.2	436
Mtwara	17.4	15.0	55.7	3.6	37.5	324
Mwanza	16.6	15.1	53.5	7.3	41.6	833
Pwani	21.4	18.8	74.4	10.4	24.8	203
Rukwa	7.7	5.2	34.1	1.8	63.7	314
Ruvuma	14.9	16.3	60.2	4.9	35.8	372
Shinyanga	8.4	4.6	29.7	3.1	69.8	750
Singida	8.0	6.8	46.3	2.6	51.2	194
Tabora	17.4	20.1	60.9	7.4	34.6	518
Tanga	23.2	23.6	72.7	7.6	20.7	424
Zanzibar	11.4	37.9	72.8	7.7	21.8	309
Pemba	7.6	15.4	54.9	2.4	40.0	94
Unguja	13.1	47.9	80.7	10.1	13.8	214
Education						
No education	0.5	6.2	36.1	0.2	62.9	1,983
Primary incomplete	10.6	12.2	51.5	3.2	44.9	1,517
Primary complete	22.0	21.6	61.1	10.1	33.5	4,945
Secondary +	43.7	54.6	79.9	30.9	12.8	898
Wealth quintile						
Lowest	5.2	4.1	26.6	0.7	70.7	1,700
Second	7.3	6.5	47.6	1.9	50.5	1,634
Middle	9.1	5.3	50.1	1.6	46.4	1,757
Fourth	14.8	11.4	63.5	3.7	32.8	1,867
Highest	42.4	58.0	81.3	29.0	10.2	2,384
Total	17.7	20.0	56.0	8.9	39.6	9,343

Table 3.4.2 shows that 73 percent of men are exposed to radio, followed by 34 percent who watch television, and 30 percent who read newspapers. Only 18 percent of men are exposed to all three types of mass media, while 23 percent are not exposed to any type of media. Younger men, those who have secondary or higher education, and men in the highest wealth quintile have more exposure to mass media than other men. Across geographical areas, men in urban areas have more exposure to mass media than those in rural areas. Men in Dar es Salaam City have the highest level of exposure to mass media (98 percent).

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to radio at least once a week	All three media	No media	Number of men
Age						
15-19	27.4	34.6	67.1	15.6	26.9	1,768
20-24	32.2	40.0	76.4	19.4	18.6	1,148
25-29	33.3	39.9	78.9	23.1	18.6	1,004
30-34	27.1	31.3	73.6	17.4	23.1	1,004
35-39	30.9	30.8	76.1	17.7	21.6	842
40-44	31.6	26.0	74.8	16.5	22.4	628
45-49	27.9	24.6	67.8	14.0	28.7	581
Residence						
Urban	56.7	68.1	86.7	45.8	7.5	1,699
Rural	21.2	22.6	68.7	8.7	27.9	5,276
Region/Island						
Mainland	29.9	32.9	72.8	17.6	23.3	6,763
Arusha	45.0	48.2	80.7	38.4	17.6	262
Dar es Salaam	72.7	82.2	90.3	59.9	1.8	580
Dodoma	26.0	28.1	70.9	14.3	24.8	255
Iringa	29.1	22.1	74.5	9.9	20.2	286
Kagera	20.2	19.3	67.7	8.0	28.4	397
Kigoma	14.3	29.7	53.5	10.0	41.4	292
Kilimanjaro	33.5	42.6	86.8	20.0	9.1	271
Lindi	23.8	29.9	72.6	14.4	21.1	164
Manyara	15.6	22.1	59.0	9.7	38.6	203
Mara	42.0	43.5	75.3	27.5	21.1	243
Mbeya	12.1	25.8	74.5	7.0	24.5	496
Morogoro	38.4	36.1	88.9	21.9	10.0	340
Mtwara	29.8	36.4	77.0	16.1	17.4	209
Mwanza	35.1	28.8	74.8	18.4	23.0	608
Pwani	30.7	26.8	76.2	10.3	18.5	119
Rukwa	23.0	27.7	70.3	8.4	24.5	264
Ruvuma	29.4	37.3	67.8	15.2	23.4	287
Shinyanga	21.3	15.7	53.9	7.5	44.2	633
Singida	16.7	14.5	63.9	4.9	30.9	153
Tabora	15.5	20.3	63.2	6.7	33.8	404
Tanga	24.8	30.6	87.7	12.8	9.4	298
Zanzibar	29.8	59.6	82.5	22.0	9.6	212
Pemba	18.5	42.2	75.8	12.0	16.9	63
Unguja	34.5	67.1	85.4	26.3	6.5	148
Education						
No education	1.5	18.2	57.7	0.5	40.3	829
Primary incomplete	17.5	23.4	64.6	7.0	30.8	1,534
Primary complete	33.6	33.0	76.0	18.4	20.1	3,597
Secondary +	58.4	64.3	88.4	45.9	6.5	1,016
Wealth quintile						
Lowest	10.8	13.2	48.5	3.2	48.3	1,173
Second	17.0	18.4	67.4	5.0	28.8	1,411
Middle	21.9	21.4	71.6	7.5	24.2	1,322
Fourth	31.7	32.5	79.6	16.6	16.9	1,395
Highest	58.9	71.8	91.0	47.8	4.0	1,670
Total 15-49	29.9	33.7	73.1	17.8	22.9	6,975

3.6 CURRENT MARITAL STATUS

Marriage is the primary indicator of women's exposure to the risk of pregnancy. Both age at first marriage and the proportion of the population in union are proximate determinants of pregnancy risk, as they influence fertility. For example, populations in which age at first marriage is low, tend to have early childbearing and, consequently, high fertility.

Marriage exposes women and men to sexual intercourse, which is the primary means by which HIV is transmitted in Tanzania. In this report, the term 'marriage' refers to both formal and informal unions. Informal unions are those in which a man and a woman stay together, intending to have a lasting relationship, even if a formal, civil, or religious ceremony has not been conducted. The 2007-08 THMIS describes marital status in three broad categories—never married, currently married, and formerly married (i.e., widowed, divorced, or separated).

Table 3.5 shows the percent distribution of women and men by current marital status and age group. About two-thirds of women (64 percent) age 15-49 are currently married compared with 53 percent of men. About 24 percent of women and 42 percent of men have never been married. The proportion of women and men currently in union increases with age. Figure 3.2 shows the distribution of respondents by marital status.

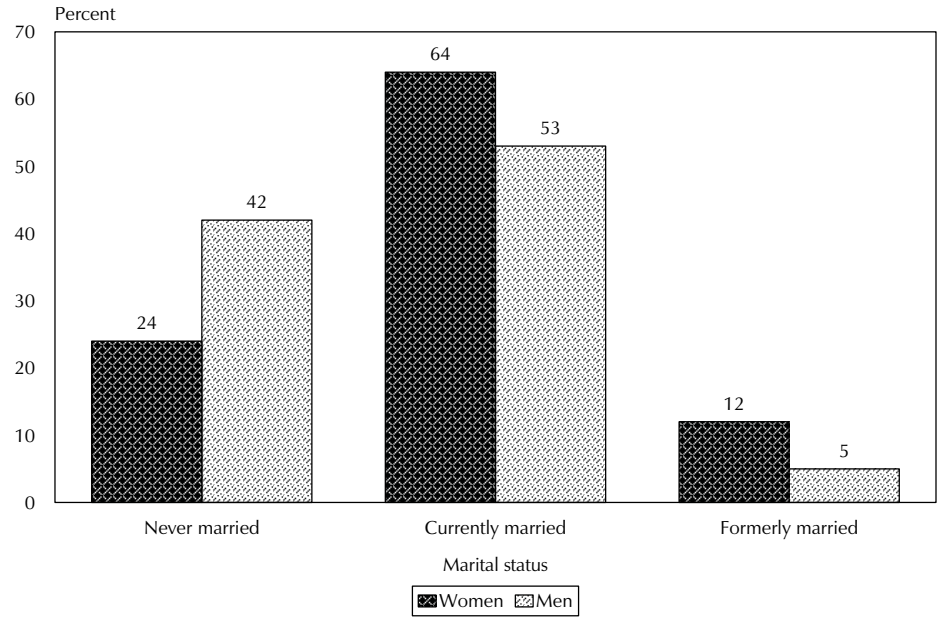
Table 3.5 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Tanzania HMIS 2007-08

Age	Marital status			Total	Percentage of respondents ever married	Number of respondents
	Never married	Currently married	Formerly married			
			WOMEN			
15-19	77.0	21.3	1.8	100.0	23.0	1,984
20-24	23.0	68.2	8.8	100.0	77.0	1,746
25-29	8.4	78.5	13.1	100.0	91.6	1,603
30-34	5.7	77.9	16.5	100.0	94.3	1,346
35-39	3.1	80.5	16.4	100.0	96.9	1,175
40-44	2.2	75.8	22.0	100.0	97.8	774
45-49	2.8	74.4	22.8	100.0	97.2	714
Total	23.7	64.0	12.3	100.0	76.3	9,343
			MEN			
15-19	98.1	1.4	0.5	100.0	1.9	1,768
20-24	68.1	28.1	3.8	100.0	31.9	1,148
25-29	27.3	66.7	6.0	100.0	72.7	1,004
30-34	7.5	84.7	7.8	100.0	92.5	1,004
35-39	4.2	89.4	6.4	100.0	95.8	842
40-44	3.6	87.0	9.4	100.0	96.4	628
45-49	1.2	92.1	6.7	100.0	98.8	581
Total	42.0	53.1	4.9	100.0	58.0	6,975

There are marked differentials in marital status by age group and sex; 21 percent of women age 15-19 are currently married compared with 1 percent of men the same age.

Figure 3.2 Women and Men Age 15-49 by Current Marital Status



3.7 POLYGYNY

Polygyny (i.e., the practice of having more than one spouse) is common in Africa and has implications for the frequency of sexual activity and for the fertility rate. Currently married men were asked, "*Do you have more than one wife or woman with whom you are living as if married?"* For women the question was, "*Besides yourself, does your husband/partner have other wives or does he live with other women as if married?"*

Table 3.6 shows the distribution of married women by number of co-wives and the distribution of men by number of wives, according to background characteristics. About 23 percent of women have co-wives and 12 percent of men have more than one wife. The extent of polygyny increases gradually with age. For men, the proportion with two or more wives increases from 3 percent among men age 20-24, to 20 percent among men age 45-49. Figure 3.3 illustrates the distribution of women and men in polygynous unions by age.

Differentials in polygyny by residence are marked; polygynous unions for women (i.e., co-wives) are 13 percent in urban areas and 26 percent in rural areas. For men, the proportions are 4 and 13 percent, respectively.

There are large differentials across regions. Polygyny among married women is slightly higher in Zanzibar (27 percent) than in Mainland (23 percent). Men in Zanzibar are more likely than men in Mainland to be in polygynous unions (18 and 11 percent, respectively). Mara region has the highest proportion of women with co-wives (38 percent) while Kilimanjaro, (6 percent) and Dar es Salaam (11 percent) have the lowest proportions

The practice of polygyny is inversely related to level of education. For example, 30 percent of women with no education have co-wives compared with 11 percent of women with a secondary or higher education.

Polygyny also varies by household wealth status. Women and men in households in the lower wealth quintiles are more likely to have multiple spouses/partners than those in households in the higher quintiles.

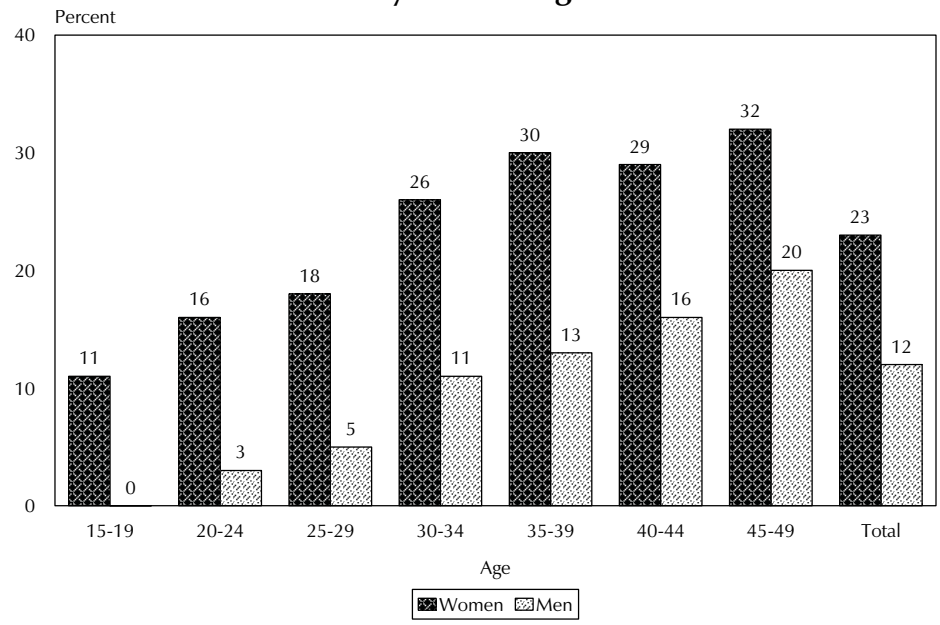
Table 3.6 Number of wives and co-wives

Percent distribution of currently married women age 15-49 by number of co-wives and percent distribution of currently married men age 15-49 by number of wives, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women						Men				
	0	1	2+	Missing	Total	Number	1	2+	Missing	Total	Number
Age											
15-19	87.8	8.0	3.4	0.9	100.0	422	*	*	*	100.0	24
20-24	83.7	12.0	3.7	0.6	100.0	1,191	96.6	3.4	0.0	100.0	322
25-29	81.2	13.5	4.8	0.5	100.0	1,258	95.0	5.0	0.0	100.0	669
30-34	73.7	19.0	6.8	0.5	100.0	1,048	88.8	11.0	0.2	100.0	850
35-39	70.2	21.6	7.9	0.2	100.0	946	87.1	12.7	0.2	100.0	753
40-44	70.5	21.6	7.6	0.3	100.0	587	83.8	15.9	0.3	100.0	547
45-49	68.0	22.6	8.9	0.5	100.0	531	79.5	19.9	0.6	100.0	535
Residence											
Urban	87.4	10.0	2.6	0.0	100.0	1,341	95.2	4.4	0.4	100.0	759
Rural	73.8	18.6	6.9	0.6	100.0	4,642	86.4	13.4	0.2	100.0	2,941
Region/Island											
Mainland	77.0	16.5	6.0	0.5	100.0	5,814	88.4	11.4	0.2	100.0	3,608
Arusha	71.5	14.0	14.5	0.0	100.0	260	96.5	3.5	0.0	100.0	145
Dar es Salaam	89.2	8.9	1.8	0.0	100.0	437	96.4	2.9	0.7	100.0	243
Dodoma	77.9	20.0	2.1	0.0	100.0	230	91.4	8.6	0.0	100.0	139
Iringa	74.3	18.9	6.2	0.6	100.0	251	88.4	10.7	0.9	100.0	148
Kagera	79.5	11.8	6.7	2.0	100.0	319	89.8	10.2	0.0	100.0	209
Kigoma	80.1	15.8	1.5	2.6	100.0	260	90.1	9.0	0.9	100.0	161
Kilimanjaro	94.1	3.7	2.2	0.0	100.0	197	100.0	0.0	0.0	100.0	109
Lindi	76.1	15.8	8.2	0.0	100.0	163	85.8	14.2	0.0	100.0	103
Manyara	70.9	18.9	10.2	0.0	100.0	186	84.6	15.4	0.0	100.0	112
Mara	61.5	23.4	14.4	0.7	100.0	222	79.9	20.1	0.0	100.0	124
Mbeya	74.2	20.1	5.4	0.4	100.0	401	83.7	16.3	0.0	100.0	270
Morogoro	84.3	8.2	7.5	0.0	100.0	310	94.2	5.8	0.0	100.0	215
Mtwara	68.2	22.1	9.2	0.6	100.0	217	88.8	11.2	0.0	100.0	140
Mwanza	78.9	17.7	2.9	0.4	100.0	510	87.9	12.1	0.0	100.0	302
Pwani	78.1	18.7	3.2	0.0	100.0	120	94.9	5.1	0.0	100.0	60
Rukwa	82.9	11.7	4.5	1.0	100.0	221	87.6	12.4	0.0	100.0	161
Ruvuma	80.8	14.6	3.7	0.9	100.0	243	91.6	8.4	0.0	100.0	164
Shinyanga	69.4	20.3	9.9	0.4	100.0	516	80.3	18.8	0.8	100.0	340
Singida	80.8	16.9	2.4	0.0	100.0	135	89.8	10.2	0.0	100.0	77
Tabora	67.0	25.9	7.2	0.0	100.0	360	81.8	18.2	0.0	100.0	238
Tanga	80.5	16.3	3.2	0.0	100.0	254	88.1	11.9	0.0	100.0	146
Zanzibar	71.9	23.6	3.7	0.8	100.0	168	81.9	18.0	0.1	100.0	93
Pemba	68.8	26.2	4.8	0.1	100.0	56	82.0	17.7	0.3	100.0	28
Unguja	73.4	22.2	3.2	1.1	100.0	112	81.9	18.1	0.0	100.0	65
Education											
No education	69.5	21.1	8.9	0.5	100.0	1,509	84.9	15.1	0.0	100.0	525
Primary incomplete	72.9	19.0	7.7	0.3	100.0	829	87.2	12.5	0.3	100.0	563
Primary complete	80.0	14.9	4.5	0.5	100.0	3,299	88.7	11.1	0.2	100.0	2,250
Secondary +	88.5	8.8	2.6	0.2	100.0	346	91.7	7.8	0.5	100.0	363
Wealth quintile											
Lowest	72.1	19.2	8.4	0.3	100.0	1,127	84.9	14.9	0.2	100.0	673
Second	73.1	19.3	6.9	0.7	100.0	1,198	87.7	11.9	0.4	100.0	813
Middle	74.0	19.0	6.3	0.7	100.0	1,165	86.7	13.3	0.0	100.0	733
Fourth	75.6	17.7	6.0	0.7	100.0	1,160	88.7	11.1	0.2	100.0	723
Highest	87.9	9.3	2.8	0.1	100.0	1,332	92.9	6.9	0.2	100.0	759
Total	76.9	16.7	6.0	0.5	100.0	5,983	88.2	11.6	0.2	100.0	3,701

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

Figure 3.3 Women and Men in Polygynous Unions by Current Age



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3.8 AGE AT FIRST MARRIAGE

Age at first marriage has an association with the spread of HIV infection because people who marry at an early age will, on average, have a longer period of exposure to sexual activity and, therefore, to the risk of sexually transmitted infections (STIs) including HIV. Table 3.7 shows the percentage of women and men age 15–49 who were married at exact ages, and the median age at first marriage according to their current age.

Table 3.7 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages, percentage who were never married, and median age at first marriage, according to current age, Tanzania HMIS 2007-08

	Percentage first married by exact age:					Percentage never		Median age at first
Current age	15	18	20	22	25	married	Number	marriage
				WOMEN				
15-19	3.2	na	na	na	na	77.0	1,984	a
20-24	5.9	37.8	62.9	na	na	23.0	1,746	18.9
25-29	6.9	36.2	60.0	75.2	86.4	8.4	1,603	19.0
30-34	8.0	37.7	60.9	73.4	84.0	5.7	1,346	19.1
35-39	10.4	43.4	64.8	77.6	87.2	3.1	1,175	18.6
40-44	9.7	41.3	62.4	77.2	88.4	2.2	774	18.8
45-49	14.3	48.3	63.8	76.9	85.4	2.8	714	18.2
20-49	8.4	39.7	62.2	na	na	9.3	7,359	18.8
25-49	9.2	40.3	62.0	75.8	86.1	5.1	5,613	18.8
				MEN				
15-19	0.2	na	na	na	na	98.1	1,768	a
20-24	0.4	4.2	11.8	na	na	68.1	1,148	a
25-29	0.6	3.6	13.3	28.9	57.1	27.3	1,004	24.1
30-34	0.5	6.0	15.2	29.8	59.6	7.5	1,004	23.8
35-39	0.7	6.4	16.5	29.8	51.7	4.2	842	24.8
40-44	0.3	5.3	11.4	26.1	56.6	3.6	628	24.3
45-49	0.9	4.6	14.2	25.4	50.6	1.2	581	24.9
20-49	0.6	4.9	13.7	na	na	23.0	5,207	a
25-49	0.6	5.2	14.3	28.4	55.6	10.2	4,059	24.3

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/ partner,
na = Not applicable due to censoring
a = Omitted because less than 50 percent of respondents had married for the first time.

Four in ten women age 20-49 marry before their 18th birthday, and 62 percent marry before age 20. In contrast, only one in 20 men (5 percent) marries before his 18th birthday, and 14 percent marry before age 20. The median age at first marriage for women and men is 18.8 and 24.3 years, respectively, a difference of 5.5 years. The 2007-08 THMIS findings are similar to those from the 2004-2005 TDHS.

3.9 CHARACTERISTICS OF COUPLES

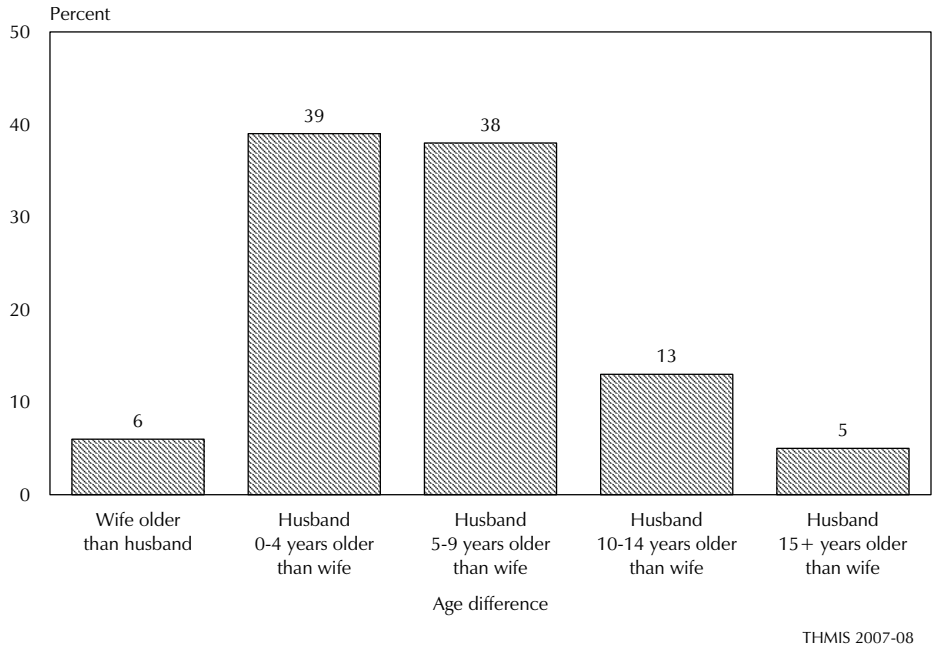
Because the 2007-08 THMIS interviewed women and men in the same household, it is possible to link data for a woman with that of her husband/live-in partner. Data are available for 3,139 married and live-in couples. In this section "husband" and "wife" included live-in partners. Table 3.8, Figure 3.4, and Figure 3.5 show the characteristics of these couples.

For the majority of couples (95 percent), husbands are older than their wives. The husband is up to five years older in 39 percent of couples, five to nine years older in 38 percent of couples, and 10 or more years older in 17 percent of couples. The husband is younger than his wife in only 6 percent of couples.

Table 3.8 Age and education differences between husbands and wives, THMIS 2007-08

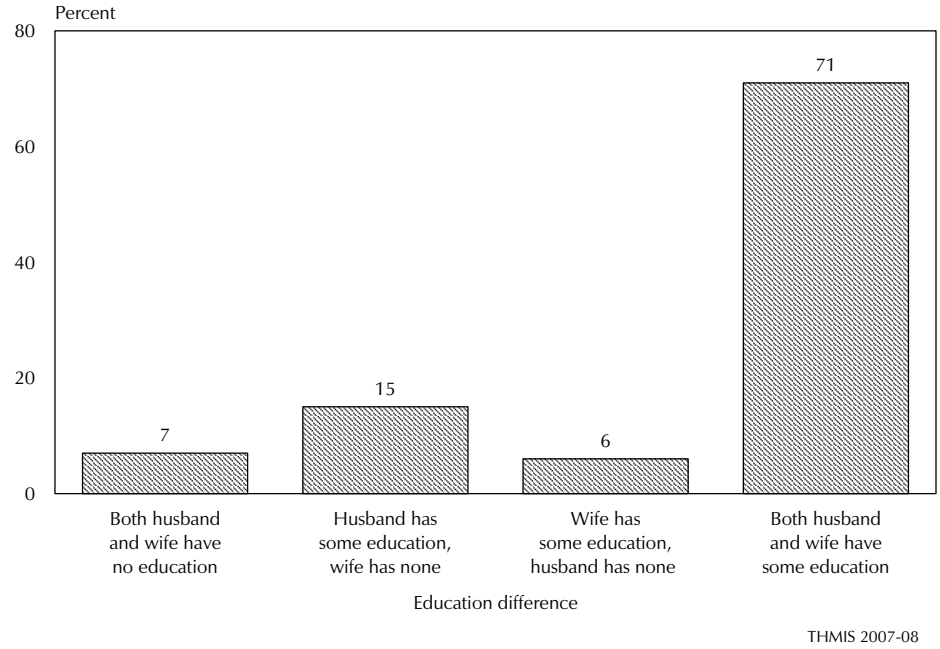
Characteristic	Percent distribution
Age difference	
Wife older than husband	5.7
Husband 0-4 years older than wife	39.3
Husband 5-9 years older than wife	37.6
Husband 10-14 years older than wife	12.7
Husband 15+ years older than wife	4.7
Education difference	
Both husband and wife no education	7.3
Husband some education, wife none	15.3
Wife some education, husband none	6.3
Both husband and wife some education	71.1
Total	100.0

Figure 3.4 **Age Difference Between Husband and Wife**



Regarding education differentials, seven in ten couples reported that both the husband and the wife have some education, while 7 percent of couples reported that both the husband and the wife have no education. Husbands were more likely than their wives to have some education (15 percent), while in 6 percent of couples, the wife had some education but her husband had none.

Figure 3.5 Difference in Education Between Husband and Wife



3.10 MALE CIRCUMCISION

Male circumcision involves the removal of some or all of the foreskin of the penis. Male circumcision—removal of the foreskin of the penis—is common in cultures throughout the world and has been shown to decrease the risk of HIV infection, in part because of physiological differences that reduce the susceptibility to HIV infection among circumcised men. (Auvert et al., 2005; NIAID, 2006).

Male circumcision places men at greater risk of being infected with HIV/AIDS because the procedure in Tanzania is usually performed on groups of children in non-sterile environments. If one member in the group is HIV positive, there is a high chance that others may become infected. On the other hand, some researchers argue that male circumcision has a protective effect against the spread of HIV and other sexually transmitted infections (Agot et al., 2004).

To measure trends in the practice of male circumcision, as it relates to HIV prevalence, the 2007-08 THMIS asked men whether they were circumcised. Data on the prevalence of male circumcision among men age 15-49 are presented in Table 3.9.

The results show that two in three men age 15-49 in Tanzania are circumcised, and urban men are more likely to be circumcised than rural men (88 percent and 60 percent, respectively). Differentials between regions show that practically all men in Zanzibar (99 percent) are circumcised compared with 66 percent in Mainland Tanzania. The prevalence of circumcision is lowest in Shinyanga (21 percent), Rukwa (24 percent), and Iringa (29 percent).

There is a positive relationship between the prevalence of circumcision and men's level of education; 54 percent for men with no education are circumcised compared with 85 percent of men with secondary or higher education (Figure 3.6).

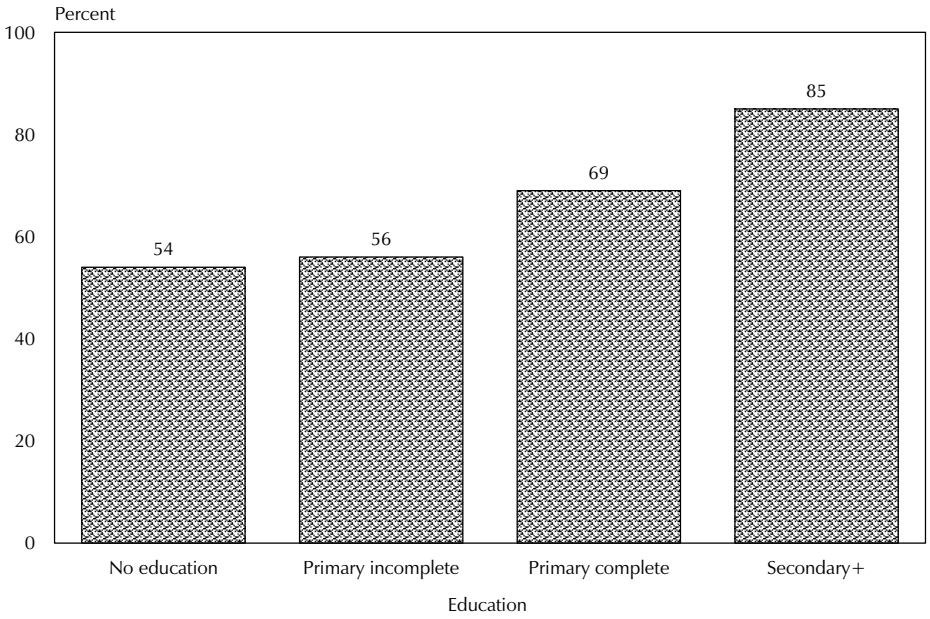
The prevalence of circumcision is also positively related to household wealth status; 52 percent of men in the lowest wealth quintile have been circumcised compared with 91 percent of men in the highest wealth quintile.

Table 3.9 Male circumcision

Percentage of men age 15-49 who reported having been circumcised, by background characteristics, THMIS 2007-08

Background characteristic	Percentage circumcised	Number of men
Residence		
Urban	88.4	1,699
Rural	59.9	5,276
Region/Island		
Mainland	65.8	6,763
Arusha	96.1	262
Dar es Salaam	97.7	580
Dodoma	97.5	255
Iringa	29.1	286
Kagera	38.2	397
Kigoma	70.7	292
Kilimanjaro	94.8	271
Lindi	100.0	164
Manyara	97.9	203
Mara	86.1	243
Mbeya	29.8	496
Morogoro	94.7	340
Mtwara	97.4	209
Mwanza	56.4	608
Pwani	99.2	119
Rukwa	23.9	264
Ruvuma	75.4	287
Shinyanga	20.9	633
Singida	83.4	153
Tabora	38.0	404
Tanga	97.1	298
Zanzibar	98.6	212
Pemba	98.5	63
Unguja	98.7	148
Education		
No education	53.8	829
Primary incomplete	56.1	1,534
Primary complete	69.4	3,597
Secondary +	84.8	1,016
Wealth quintile		
Lowest	52.4	1,173
Second	54.9	1,411
Middle	59.1	1,322
Fourth	69.9	1,395
Highest	90.7	1,670
Total 15-49	66.8	6,975

Figure 3.6 Male Circumcision by Level of Education



THMIS 2007-08

FERTILITY AND REPRODUCTIVE HEALTH 4

This chapter presents the 2007-08 THMIS results on fertility levels, trends, and differentials. The analysis is based on birth histories collected from women age 15-49 interviewed during the survey. To obtain this information, women were first asked a series of questions to determine the total number of live births that had occurred in their lifetime. Then, for each live birth, information was collected on the name, age, sex, and survival status of the child. For dead children, age at death was recorded. Information from the birth history is used to assess current and completed fertility and to look at other factors related to fertility, birth intervals, and adolescent childbearing.

The following measures of current fertility are derived from birth history data:

- Age-specific fertility rates (ASFR) are expressed as the number of births per thousand women in the age group and represent a valuable measure for assessing the current age pattern of childbearing. They are defined in terms of the number of live births during a specified period among women in the particular age group, divided by the number of woman-years lived in that age group during a specified period.
- The total fertility rate (TFR) is defined as the total number of births a woman would have by the end of her childbearing period if she were to pass through those years bearing children at the currently observed age-specific fertility rates. The TFR is obtained by summing the age-specific fertility rates and multiplying by five.
- The general fertility rate (GFR) is the number of live births occurring during a specified period per 1,000 women of reproductive age.
- The crude birth rate (CBR) is the number of births per 1,000 population during a specified period.

The various measures of current fertility are calculated for the three-year period preceding the survey, which roughly corresponds to the calendar period 2005-2007. This period was chosen because it allows the rates to be calculated based on the most recent information, thus avoiding the problem of omission or displacement of births because of a recall lapse, while obtaining enough cases to reduce sampling error.

4.1 FERTILITY LEVELS AND TRENDS

4.1.1 Fertility Levels

Table 4.1 presents information on the current fertility levels for Tanzania and for urban and rural areas. The TFR for Tanzania is 5.6 births per woman, the CBR is 41 births per 1,000 population, and the GFR is 196 per 1,000 women. All these measures of current fertility indicate that the level of fertility for the 2007-08 THMIS is almost the same as that observed in the 2004-05 Tanzania Demographic and Health Survey (TDHS) (5.7 births per woman).

Table 4.1 Current fertility

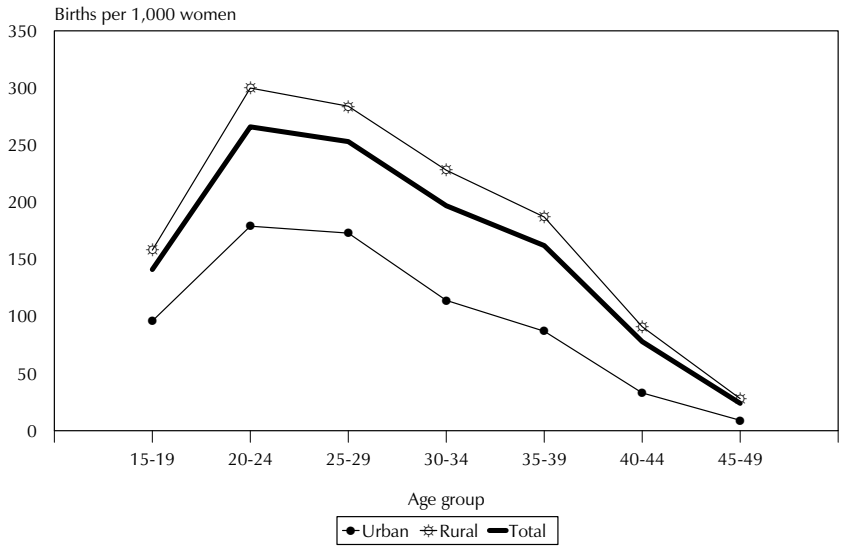
Age-specific and total rate, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Tanzania HMIS 2007-08

	Residence		
Age group	Urban	Rural	Total
15-19	96	158	141
20-24	179	300	266
25-29	173	284	253
30-34	114	228	197
35-39	87	187	162
40-44	33	91	78
45-49	9	28	24
TFR	3.5	6.4	5.6
GFR	127	220	196
CBR	32.8	43.2	41.0

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate expressed per 1,000 women
CBR: Crude birth rate, expressed per 1,000 population

In Tanzania, fertility peaks among women in their 20s. Age-specific fertility rates rise from 141 births per 1,000 women age 15-19 to 266 births among women age 20-24, and then fall to 24 births among women age 45-49. Figure 4.1 shows that women in rural areas have higher fertility throughout their reproductive period compared with their counterparts in urban areas. The figure also shows that some women in Tanzania continue to bear children into their later reproductive years.

Figure 4.1 Age-Specific Fertility Rates by Urban-Rural Residence



THMIS 2007-08

4.1.2 Differentials in Current and Completed Fertility

Table 4.2 presents differentials in two measures of current fertility, the TFR and the percentage of women who are currently pregnant. As expected, the total fertility rate in rural areas is higher than that of urban areas (6.4 and 3.5 births per woman, respectively). Across zones, fertility ranges from 6.9 children per woman in the Western Zone to 4.0 in the Eastern Zone. There is a marked difference in the level of fertility among women by level of education; women with no education have 1.1 more children than women who have completed primary education. Women with secondary or higher education have less than half the number of children born by women with no education (3.1 and 6.7 children per woman, respectively). Fertility differentials are notable according to household wealth status, ranging from 7.2 births among women in households in the lowest quintile to 3.4 births among women in households in the highest quintile.

The survey results show that 9 percent of women age 15-49 are currently pregnant. Although the percentage of women currently pregnant can be used to measure current fertility, it does not capture all pregnant women because some women may not be aware that they are pregnant, or may be reluctant to discuss their pregnancy at the early stages.

Table 4.2 also shows the mean number of children ever born to women age 40-49, that is, women who are at the end of their childbearing years. This is a measure of completed or past fertility and can be compared with the current TFR to assess the extent of fertility change in Tanzania over the past two decades.

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	3.5	7.1	4.7
Rural	6.4	10.1	6.3
Mainland/Zanzibar			
Mainland	5.6	9.4	5.9
Mainland - Urban	3.5	7.2	4.6
Dar es Salaam City	3.0	4.8	4.1
Other Urban	3.7	8.3	4.9
Mainland - Rural	6.4	10.2	6.2
Zanzibar	4.9	7.5	6.7
Pemba	6.6	10.2	8.2
Unguja	4.2	6.3	6.1
Zone			
Western	6.9	9.9	6.4
Northern	5.0	7.8	5.4
Central	6.3	9.6	6.4
Southern Highlands	6.0	10.5	6.1
Lake	6.6	13.1	6.8
Eastern	4.0	6.2	5.1
Southern	4.5	7.5	5.2
Zanzibar	4.9	7.5	6.7
Education			
No education	6.7	10.4	6.5
Primary incomplete	5.8	10.2	6.4
Primary complete	5.6	9.2	5.5
Secondary +	3.1	6.0	4.3
Wealth quintile			
Lowest	7.2	9.6	6.7
Second	6.7	10.8	6.5
Middle	6.4	11.2	5.8
Fourth	5.3	9.3	5.9
Highest	3.4	6.8	4.7
Total	5.6	9.3	5.9

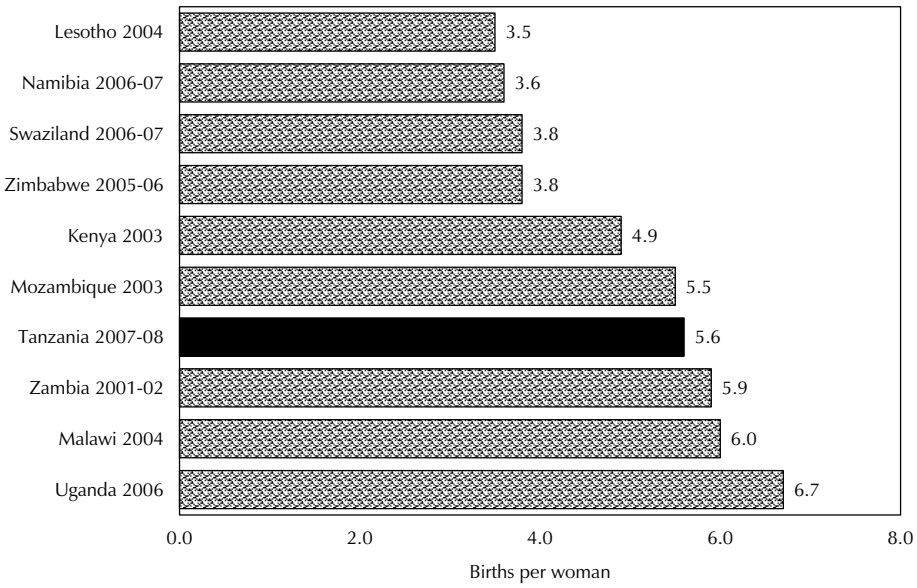
Note: Total fertility rates are for the period 1-36 months prior to interview.

The mean number of children ever born to women age 40-49 in Tanzania is 5.9. It is higher for women in rural areas (6.3 children per woman) than for women in urban areas (4.7). In Mainland Tanzania, the highest mean number of children ever born to women age 40-49 is in the Lake zone (6.8 children), whereas the lowest mean number is in the Eastern Zone (5.1 children). In Zanzibar the mean number of children ever born to women age 40-49 is higher in Pemba (8.2 children) than in Unguja (6.1 children).

As indicated by the other two fertility measures, women age 40-49 with secondary or higher education have a lower mean number of children ever born (4.3 children) than women with no education (6.5 children). A similar pattern is seen for differences by wealth quintile, with women in the highest quintile having a lower mean number of children ever born (4.7 children) than women in the lowest wealth quintile (6.7 children).

Figure 4.2 shows the total fertility rate among ten Sub-Saharan countries in which a DHS survey has been conducted since 2002. The figure shows that Malawi, Uganda, and Zambia have the highest fertility, and Lesotho and Namibia have the lowest. Tanzania has a higher fertility rate than its neighbour Kenya (5.6 and 4.9 children per woman, respectively).

Figure 4.2 Total Fertility Rates for Selected Countries in Southeast Africa



4.1.3 Trends in Fertility

Trends in fertility in Tanzania can be assessed in several ways. Fertility trends can be investigated using retrospective data from the birth histories collected from respondents in a single survey. Another way to assess fertility trends is by comparing estimates obtained in earlier surveys, population censuses, or vital registration data. Table 4.3 shows fertility rates estimated from various surveys conducted in Tanzania since 1991: the 1991-92 TDHS, the 1996 TDHS, the 1999 Tanzania Reproductive and Child Health Survey (TRCHS), the 2004-05 TDHS, and the 2007-08 THMIS. The TFR has declined from 6.3 births per woman in 1991 to 5.6 births per woman in the 2007-08 THMIS. The TFR has remained about the same since the 1996 TDHS (5.8 births), indicating that there has been little fertility decline for more than a decade.

Table 4.3 Trends in age-specific fertility rates

Age-specific fertility rates (per 1,000 women) and total fertility rates from selected surveys: 1991-92 TDHS, 1996 TDHS, 1999 TRCHS, 2004-05 TDHS and 2007-08 THMIS

Age group	TDHS 1991-92	TDHS 1996	TRCHS 1999	TDHS 2004-05	THMIS 2007-08
15-19	144	135	138	132	141
20-24	282	260	268	274	266
25-29	270	255	240	254	253
30-34	231	217	213	218	197
35-39	177	167	138	156	162
40-44	108	87	78	79	78
45-49	37	42	37	18	24
TFR	6.3	5.8	5.6	5.7	5.6

Note: Rates refer to the three-year period preceding the survey, except for the 2002 census.

4.1.4 Children Ever Born and Living

Table 4.4 shows all women and currently married women by number of children ever born, according to age. Children ever born is a measure of lifetime fertility. It reflects the accumulation of births over the past 30 years among women interviewed in the survey and, therefore, its relevance to the current fertility situation is limited. Furthermore, the data are subject to recall error, which is typically greater for older than younger women.

However, the information on children ever born (or parity) is useful in looking at a number of issues. The results show how average family size varies across age groups. The percentage of women in their forties who have never had children also provides an indicator of the level of primary

infertility,[1] or the inability to bear children. Voluntary childlessness is rare in developing countries like Tanzania; married women in their late forties with no live births are usually women who are involuntarily childless. Comparison of the differences in the mean number of children ever born and surviving reflects the cumulative effects of mortality during the period in which women have been bearing children.

The results in Table 4.4 show that the mean number of children ever born is 3.7 for currently married women and 2.9 for all women. The mean number of children born increases with age, reflecting the natural family growth process. For instance, the mean number of children for all women age 25-29 is 2.7 children, and for women age 35-39 it is 5.0 children. At the end of their reproductive period, women have an average of 6.2 children.

Table 4.4 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Tanzania HMIS 2007-08

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	81.9	15.6	2.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,984	0.21	0.19
20-24	21.8	32.9	31.1	11.6	1.9	0.6	0.0	0.0	0.0	0.0	0.0	100.0	1,746	1.41	1.28
25-29	7.7	13.5	26.3	22.6	16.3	10.4	2.6	0.5	0.1	0.0	0.0	100.0	1,603	2.71	2.41
30-34	4.6	8.0	12.5	19.9	18.0	17.0	10.0	7.2	2.3	0.4	0.0	100.0	1,346	3.83	3.36
35-39	3.0	4.2	7.6	12.3	15.1	18.0	16.1	9.4	7.2	3.8	3.3	100.0	1,175	4.96	4.27
40-44	2.0	6.4	5.3	8.0	12.1	12.9	13.4	13.1	10.1	7.1	9.6	100.0	774	5.71	4.79
45-49	2.4	6.0	6.0	7.3	8.2	11.6	10.7	13.1	10.1	10.8	13.9	100.0	714	6.15	5.10
Total	24.2	14.5	14.5	11.7	9.3	8.6	5.8	4.4	2.9	2.0	2.3	100.0	9,343	2.89	2.50
CURRENTLY MARRIED WOMEN															
15-19	44.1	46.2	9.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	422	0.66	0.61
20-24	9.1	33.3	38.7	15.6	2.5	0.8	0.0	0.0	0.0	0.0	0.0	100.0	1,191	1.72	1.57
25-29	4.4	11.6	25.8	23.2	18.7	12.8	2.9	0.6	0.1	0.0	0.0	100.0	1,258	2.94	2.64
30-34	2.8	5.8	11.1	18.7	19.6	19.5	11.5	7.9	2.7	0.6	0.0	100.0	1,048	4.10	3.60
35-39	2.2	3.1	5.8	12.5	13.7	19.0	18.0	9.7	7.7	4.7	3.6	100.0	946	5.20	4.50
40-44	2.1	4.9	4.7	6.6	11.2	13.0	14.4	12.3	11.2	7.6	12.0	100.0	587	6.00	5.04
45-49	1.5	5.3	5.5	7.0	6.9	11.0	9.4	14.5	11.9	11.7	15.3	100.0	531	6.44	5.39
Total	7.0	14.8	17.6	14.6	11.7	11.5	7.7	5.5	3.9	2.6	3.1	100.0	5,983	3.71	3.22

4.2 BIRTH INTERVALS

The term "birth interval" refers to the period of time between two successive live births. Information on the length of birth intervals provides insight into birth spacing patterns. Research has shown that children born too soon after a previous birth are at an increased risk of dying, particularly when the interval between births is less than 24 months. Maternal health is also jeopardized when births are closely spaced.

Table 4.5 shows the distribution of births in the five-year period preceding the survey by the number of months since the previous birth, according to selected demographic and socioeconomic variables. First births are excluded from the table. Seventeen percent of births in Tanzania occurred less than two years after a previous birth. Almost four in ten births have an interval of two to three years, and one in four births occurs at least four years after a previous birth. As expected, the median birth interval increases with the age of the mother. There are no significant differences in the median birth interval by sex or survival status of the preceding birth. However, the median birth interval for birth orders seven or higher is 26.7 months compared with 35.4 months for birth orders four to six. The overall median birth interval is 34.7 months.

[1] Primary infertility does not include women who may have had one or more births but who are unable to have more children, a measure of *secondary infertility*.

The median birth interval in urban areas is six months longer than that in rural areas (40.1 and 33.9 months, respectively). The median birth interval ranges from 44.8 months in the Southern Zone to 30.5 months in the Western Zone. While differences in median birth interval by the mother's education are small, the median birth interval for births among women who live in households in the highest quintile is much longer than the birth interval among women in households in the lowest quintile (41.1 and 32.1 months, respectively).

Table 4.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Age									
15-19	17.5	24.2	39.1	8.9	10.3	0.0	100.0	51	27.1
20-29	8.2	12.2	42.2	22.3	8.1	6.8	100.0	2,807	31.5
30-39	5.4	8.3	32.7	23.2	11.0	19.3	100.0	2,508	37.0
40-49	3.2	5.5	27.5	22.1	12.3	29.3	100.0	622	41.9
Sex of preceding birth									
Male	6.3	9.6	37.3	23.2	10.1	13.5	100.0	2,989	34.2
Female	6.9	10.4	36.1	21.9	9.5	15.2	100.0	2,998	35.5
Survival of preceding birth									
Living	4.7	9.1	37.7	23.5	10.3	14.6	100.0	5,371	34.7
Dead	22.8	17.6	28.4	13.9	5.2	12.0	100.0	616	34.7
Birth order									
2-3	6.7	10.9	37.4	21.3	10.2	13.6	100.0	2,622	-
4-6	6.0	9.0	36.1	23.8	9.3	15.9	100.0	2,363	35.4
7+	7.8	10.1	36.4	23.0	10.1	12.6	100.0	1,002	26.7
Residence									
Urban	4.9	7.4	29.1	18.9	12.4	27.1	100.0	951	40.1
Rural	6.9	10.5	38.1	23.2	9.3	11.9	100.0	5,036	33.9
Mainland/Zanzibar	6.6	9.9	36.7	22.7	9.7	14.4	100.0	5,817	34.7
Mainland - Urban	4.8	7.4	29.1	18.9	12.2	27.6	100.0	910	40.2
Dar es Salaam City	4.7	9.0	21.0	20.5	9.4	35.4	100.0	228	45.5
Other Urban	4.8	6.9	31.9	18.3	13.1	25.0	100.0	682	38.8
Mainland - Rural	6.9	10.4	38.1	23.4	9.3	12.0	100.0	4,907	34.0
Zanzibar	7.2	13.7	37.5	18.4	11.1	12.0	100.0	171	32.8
Pemba	9.0	18.6	42.3	15.8	8.2	6.0	100.0	70	29.6
Unguja	6.0	10.3	34.2	20.2	13.1	16.2	100.0	101	35.8
Zone									
Western	7.9	13.3	44.2	19.0	8.2	7.4	100.0	1,322	30.5
Northern	6.9	9.4	32.2	22.0	11.6	17.9	100.0	813	36.5
Central	6.0	7.6	36.8	24.1	9.8	15.7	100.0	391	35.8
Southern Highlands	5.1	8.0	37.0	27.9	8.8	13.2	100.0	911	36.0
Lake	9.0	12.5	42.6	19.9	6.9	9.1	100.0	1,289	31.0
Eastern	5.0	6.1	26.7	22.4	13.8	26.0	100.0	590	41.3
Southern	1.2	4.9	19.9	30.4	15.0	28.6	100.0	501	44.8
Zanzibar	7.2	13.7	37.5	18.4	11.1	12.0	100.0	171	32.8
Education									
No education	7.8	10.7	39.9	20.5	10.5	10.6	100.0	1,512	33.2
Primary incomplete	4.9	11.7	37.4	25.0	8.3	12.7	100.0	852	34.1
Primary complete	6.3	9.5	35.3	23.3	9.3	16.4	100.0	3,400	35.6
Secondary +	9.1	7.4	34.4	15.1	18.4	15.6	100.0	223	35.7
Wealth quintile									
Lowest	7.7	9.8	42.7	21.3	7.7	10.9	100.0	1,442	32.1
Second	6.9	10.7	37.1	23.6	10.6	11.2	100.0	1,272	34.3
Middle	6.6	11.6	39.2	22.3	9.3	11.1	100.0	1,335	33.4
Fourth	6.0	9.5	33.2	24.6	10.4	16.3	100.0	1,098	36.3
Highest	5.1	7.5	26.7	21.0	12.1	27.6	100.0	841	41.1
Total	6.6	10.0	36.7	22.5	9.8	14.4	100.0	5,988	34.7

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

4.3 ADOLESCENT FERTILITY

Adolescent childbearing has potentially negative demographic and social consequences. Teenage mothers, especially those under the age of 18, have been shown to be more likely to experience pregnancy and delivery complications than older mothers, resulting in higher morbidity and mortality for both themselves and their children. Early childbearing also limits the adolescent's ability to pursue educational and job opportunities.

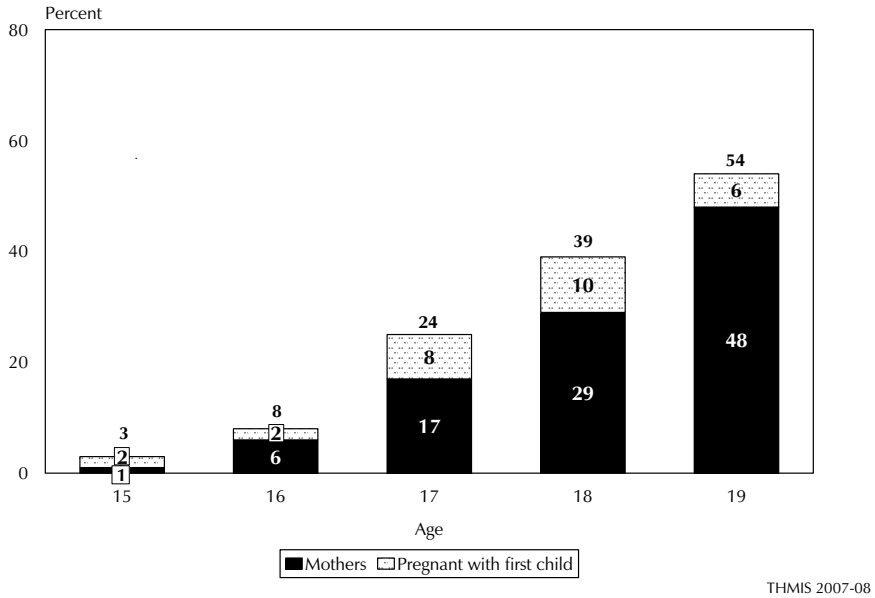
Table 4.6 and Figure 4.3 show the percentage of women age 15-19 who are mothers or who are pregnant with their first child. The survey shows that 23 percent of teenage women in Tanzania have begun childbearing: 18 percent are mothers and 5 percent are pregnant with their first child. This figure is slightly lower than that reported in the 2004-05 TDHS (26 percent).

Table 4.6 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child and percentage who have begun childrearing, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	1.3	1.8	3.2	522
16	5.9	1.8	7.7	374
17	16.7	7.5	24.3	419
18	29.0	10.1	39.2	325
19	48.3	5.5	53.9	344
Residence				
Urban	11.5	4.4	15.9	520
Rural	20.5	5.2	25.7	1,463
Mainland/Zanzibar	18.7	5.2	23.9	1,900
Mainland - Urban	11.9	4.6	16.5	495
Dar es Salaam City	11.7	4.2	15.8	159
Other Urban	12.0	4.8	16.8	336
Mainland - Rural	21.0	5.4	26.5	1,405
Zanzibar	5.9	1.6	7.6	84
Pemba	8.6	1.2	9.8	26
Unguja	4.8	1.8	6.6	58
Zone				
Western	20.5	4.6	25.1	398
Northern	11.5	4.6	16.1	289
Central	16.1	5.7	21.7	105
Southern Highlands	18.4	5.4	23.8	260
Lake	18.2	7.7	25.9	389
Eastern	17.0	4.7	21.7	279
Southern	31.6	2.1	33.7	181
Zanzibar	5.9	1.6	7.6	84
Education				
No education	39.6	10.0	49.6	261
Primary incomplete	13.3	4.1	17.4	546
Primary complete	20.2	5.3	25.5	883
Secondary +	1.8	1.5	3.3	293
Wealth quintile				
Lowest	30.0	4.2	34.2	347
Second	21.1	8.6	29.7	320
Middle	19.8	6.3	26.1	396
Fourth	15.9	3.1	19.0	405
Highest	8.8	3.9	12.8	516
Total	18.1	5.0	23.2	1,984

Figure 4.3 Adolescent Fertility



As expected, the percentage of teenagers who have started childbearing rises rapidly with age, from 3 percent among women age 15, to 54 percent among women age 19. The percentage is higher among rural women (26 percent) than urban women (16 percent). In the Mainland, adolescent childbearing is most common in the Southern Zone and least common in the Northern Zone (34 and 16 percent, respectively). Eight percent of women in Zanzibar have started childbearing; 10 percent in Pemba and 7 percent in Unguja.

Adolescent childbearing has a negative relationship with education. Half of women with no education have started childbearing compared with only 3 percent of women with secondary or higher education.

4.4 ANTENATAL CARE

The major objective of antenatal care is to identify and treat problems during pregnancy such as anaemia and infections. Antenatal care (ANC) visits include screening for complications, and advising on a range of issues such as place of delivery and referral of mothers with complications. In the 2007-08 THMIS, interviewers collected information about ANC for the most recent birth in the past five years (since January 2002). If a woman received ANC from more than one provider, the provider with the highest qualifications was used for the questionnaire. Table 4.7 shows the distribution of women who had a live birth in the five years preceding the survey by type of antenatal care provider, according to background characteristics.

Most pregnant women in Tanzania received ANC from skilled personnel (4 percent by a doctor, 7 percent from a clinical officer or assistant clinical officer, 65 percent from a nurse or midwife, and 21 percent from an MCH aide). Only 2 percent of women received ANC from unskilled personnel such as relatives and friends, and 1 percent of women received no ANC.

There are no significant differences in ANC by the age of mother, birth order, urban-rural residence. Women in the Eastern, Northern, and Central zones are more likely than women in other zones to receive ANC from a health professional. There were no substantial differences in antenatal care from a medical professional by women's level of education or household wealth status.

Table 4.7 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Doctor/ AMO	Clinical officer	Assistant clinical officer	Nurse/ midwife	MCH aide	Other	No one	Missing	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
Mother's age at birth											
<20	3.6	1.7	3.5	69.3	19.6	1.3	0.4	0.6	100.0	97.7	783
20-34	4.4	2.4	4.5	64.7	21.1	1.7	1.0	0.2	100.0	97.1	3,500
35-49	5.5	2.9	4.0	60.9	22.4	1.9	2.0	0.3	100.0	95.7	845
Birth order											
1	5.0	1.7	5.7	69.6	16.3	0.7	0.4	0.6	100.0	98.3	1,009
2-3	5.0	2.0	3.0	65.1	22.3	1.6	0.9	0.1	100.0	97.4	1,795
4-5	3.2	3.1	5.2	65.1	20.2	1.4	1.4	0.3	100.0	96.8	1,204
6+	4.3	2.8	3.9	59.5	24.6	2.7	1.7	0.4	100.0	95.2	1,119
Residence											
Urban	8.5	2.0	6.9	71.8	9.8	0.2	0.3	0.4	100.0	99.1	1,031
Rural	3.4	2.4	3.6	63.0	24.0	2.0	1.3	0.3	100.0	96.4	4,095
Mainland/Zanzibar	4.3	2.4	4.4	64.9	21.0	1.6	1.1	0.3	100.0	97.0	4,995
Mainland - Urban	8.6	1.9	7.2	71.7	9.7	0.2	0.3	0.4	100.0	99.1	995
Dar es Salaam City	8.9	2.1	19.0	66.9	3.0	0.0	0.0	0.0	100.0	100.0	286
Other Urban	8.5	1.8	2.4	73.7	12.3	0.2	0.5	0.5	100.0	98.8	709
Mainland - Rural	3.3	2.5	3.7	63.2	23.8	1.9	1.3	0.3	100.0	96.5	4,000
Zanzibar	8.9	1.9	0.2	58.5	26.2	4.0	0.2	0.1	100.0	95.7	131
Pemba	1.2	0.0	0.0	52.9	41.4	4.3	0.0	0.2	100.0	95.6	47
Unguja	13.1	3.0	0.3	61.5	17.8	3.8	0.3	0.1	100.0	95.7	84
Zone											
Western	0.6	3.8	4.7	53.1	36.0	0.2	1.1	0.6	100.0	98.2	1,018
Northern	10.4	4.3	3.1	68.1	8.0	4.3	1.6	0.3	100.0	93.8	742
Central	11.4	4.8	5.8	57.7	19.2	0.0	1.0	0.0	100.0	99.0	316
Southern Highlands	0.7	0.6	3.9	63.8	28.4	0.5	1.8	0.3	100.0	97.3	755
Lake	3.5	1.1	1.6	62.6	25.3	4.0	1.6	0.4	100.0	94.1	987
Eastern	5.9	0.9	9.7	74.5	8.8	0.0	0.1	0.1	100.0	99.8	660
Southern	3.6	2.1	4.0	81.9	7.7	0.4	0.2	0.0	100.0	99.3	517
Zanzibar	8.9	1.9	0.2	58.5	26.2	4.0	0.2	0.1	100.0	95.7	131
Education											
No education	2.6	1.8	4.9	58.4	26.2	3.5	2.4	0.2	100.0	93.9	1,222
Primary incomplete	3.2	2.5	3.0	61.8	26.1	2.2	1.2	0.0	100.0	96.6	717
Primary complete	4.8	2.6	4.2	67.7	18.8	0.9	0.7	0.4	100.0	98.1	2,914
Secondary +	12.3	1.9	5.5	69.8	9.6	0.2	0.0	0.7	100.0	99.1	274
Wealth quintile											
Lowest	3.0	2.4	3.2	62.7	22.3	3.5	2.7	0.1	100.0	93.7	1,117
Second	2.8	4.2	4.1	56.2	29.7	2.0	0.8	0.3	100.0	97.0	1,030
Middle	3.1	1.8	3.2	64.1	25.1	1.4	1.1	0.3	100.0	97.2	1,051
Fourth	4.6	1.2	4.0	71.2	17.4	0.8	0.7	0.1	100.0	98.5	974
Highest	9.2	2.1	7.2	70.6	9.8	0.3	0.0	0.7	100.0	98.9	955
Total	4.4	2.3	4.3	64.8	21.1	1.6	1.1	0.3	100.0	97.0	5,127

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
AMO = Assistant medical officer
[1] Skilled provider includes doctor, clinical officer, assistant clinical officer, nurse, midwife, and MCH aide

4.4.1 Place of Antenatal Care

In the 2007-08 THMIS, women who delivered a child in the five years before the survey were asked about the place where they received antenatal care. The care was that specifically to check the pregnancy and not for other reasons.

Table 4.8 shows that 51 percent of women in Tanzania receive antenatal care at dispensaries and 27 percent at health centres. As expected, very few women receive antenatal care at a referral or regional hospital (1 and 3 percent, respectively). The small number of women receiving antenatal care at district hospitals (9 percent) may be related to the distance to a regional hospital.

Urban women are more likely to receive antenatal care at a district hospital (17 percent) than rural women (6 percent). More than half of women in rural areas receive antenatal care at dispensaries (55 percent). In the Mainland, women in the Central Zone are more likely to receive antenatal care from district hospitals (15 percent) than women in other zones. However, women in the Lake Zone are more likely to receive antenatal care at health centres (43 percent). District hospitals are more popular among women with higher education and women in the highest wealth quintiles.

Table 4.8 Place of antenatal care

Percent distribution of live births in the five years preceding the survey by place of antenatal care, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	At home	Government/Parastatal							Religious/voluntary				Private			Number of women
		Referral/ special hospital	Regional hospital	District hospital	Health centre	Dispensary	Village health post	CBD worker	Referral/ special hospital	District hospital	Health centre	Dispensary	Specialised hospital	Health centre	Dispensary	
Mother's age at birth																
<20	1.4	0.4	2.4	11.0	26.7	51.9	0.8	0.5	3.1	1.5	2.1	3.4	0.5	0.4	0.7	783
20-34	2.3	0.8	3.1	8.3	26.5	50.0	0.5	0.1	2.1	2.0	3.6	2.8	0.8	0.6	0.9	3,500
35-49	2.3	1.2	2.5	7.6	26.8	51.7	0.3	0.1	1.7	1.7	1.9	4.2	1.2	0.4	0.3	845
Birth order																
1	1.1	0.8	3.7	11.0	26.8	49.0	0.5	0.4	2.9	1.3	3.1	4.0	1.1	0.4	1.7	1,009
2-3	2.5	1.1	3.6	10.0	26.8	48.7	0.4	0.1	2.3	1.9	2.9	2.4	0.9	0.5	0.9	1,795
4-5	1.8	0.5	2.2	6.2	25.6	52.9	0.6	0.1	1.6	2.4	4.2	3.1	0.4	0.8	0.4	1,204
6+	2.9	0.5	1.9	6.8	27.3	52.5	0.6	0.1	2.1	1.6	2.1	3.6	0.9	0.4	0.3	1,119
Residence																
Urban	0.7	2.6	7.8	17.3	29.8	32.1	0.6	0.0	1.0	2.2	4.1	2.7	2.1	0.8	2.5	1,031
Rural	2.5	0.3	1.7	6.4	25.8	55.3	0.5	0.2	2.5	1.8	2.8	3.2	0.5	0.5	0.4	4,095
Mainland/Zanzibar																
Mainland	2.0	0.5	2.9	8.6	25.3	51.9	0.5	0.2	2.3	1.9	3.1	3.2	0.8	0.5	0.8	4,995
Mainland - Urban	0.3	1.7	7.9	17.5	28.4	33.2	0.6	0.0	1.0	2.3	4.2	2.8	2.1	0.8	2.6	995
Dar es Salaam City	0.0	2.3	1.4	9.2	24.6	44.5	1.2	0.0	0.0	0.8	8.0	4.3	3.2	0.0	7.1	286
Other Urban	0.5	1.4	10.6	20.8	29.9	28.6	0.4	0.0	1.4	2.9	2.7	2.2	1.7	1.2	0.8	709
Mainland - Rural	2.4	0.1	1.6	6.3	24.5	56.6	0.5	0.2	2.6	1.8	2.8	3.3	0.5	0.5	0.4	4,000
Zanzibar	7.9	13.4	3.6	11.2	77.4	0.9	0.1	0.0	0.1	0.0	1.2	0.2	0.9	0.8	0.0	131
Pemba	7.7	0.5	0.1	12.4	86.6	0.1	0.1	0.0	0.0	0.0	0.9	0.3	0.0	0.0	0.0	47
Unguja	8.0	20.5	5.5	10.6	72.3	1.4	0.0	0.0	0.1	0.0	1.4	0.1	1.4	1.3	0.0	84
Zone																
Western	2.4	0.1	1.8	5.5	14.4	71.1	0.1	0.0	1.1	2.0	3.3	1.3	0.6	0.1	0.0	1,018
Northern	5.8	0.7	4.1	10.8	27.4	42.4	0.3	0.6	1.9	1.1	2.3	2.2	1.2	0.5	0.7	742
Central	0.0	0.2	5.7	15.2	19.7	63.4	0.0	1.0	2.0	2.7	1.5	2.0	0.0	0.0	0.6	316
Southern Highlands	0.4	0.3	3.8	7.2	23.9	54.8	0.0	0.0	2.0	1.4	1.5	2.2	1.4	0.8	0.0	755
Lake	2.5	0.5	2.3	7.3	43.4	38.4	1.5	0.0	1.3	4.0	3.0	0.4	0.7	0.7	0.5	987
Eastern	0.0	1.2	1.1	8.7	27.0	46.1	0.8	0.0	2.7	0.6	5.4	4.9	1.4	1.2	4.4	660
Southern	0.7	0.0	3.6	11.3	12.2	49.8	0.4	0.0	6.9	0.8	4.6	13.7	0.0	0.0	0.0	517
Zanzibar	7.9	13.4	3.6	11.2	77.4	0.9	0.1	0.0	0.1	0.0	1.2	0.2	0.9	0.8	0.0	131
Education																
No education	3.9	0.3	1.1	5.1	27.6	55.8	0.5	0.2	1.4	1.6	1.5	1.4	0.8	0.3	0.4	1,222
Primary incomplete	2.4	0.1	1.2	5.6	27.6	55.3	0.3	0.0	2.5	2.0	2.5	2.8	0.0	0.7	0.6	717
Primary complete	1.5	0.7	3.6	10.0	25.4	49.9	0.5	0.2	2.4	1.9	3.6	3.9	0.6	0.5	0.9	2,914
Secondary +	0.5	5.9	8.2	18.0	32.4	22.4	0.6	0.0	3.4	2.4	5.8	3.3	5.5	1.0	2.1	274
Wealth quintile																
Lowest	4.3	0.0	0.5	5.3	25.3	56.1	0.7	0.3	1.7	1.8	2.4	2.3	0.5	0.3	0.3	1,117
Second	1.8	0.0	1.2	5.2	23.5	63.1	0.3	0.3	2.3	0.7	2.2	2.6	0.5	0.1	0.1	1,030
Middle	2.3	0.2	1.7	7.8	27.2	51.3	0.5	0.1	2.3	1.9	3.8	4.0	0.4	0.5	0.6	1,051
Fourth	1.5	0.6	3.3	10.1	27.9	47.0	0.3	0.1	3.2	2.6	3.1	4.0	0.2	1.2	0.3	974
Highest	0.4	3.3	8.4	15.6	29.5	33.6	0.7	0.0	1.5	2.2	3.8	2.8	2.7	0.6	2.7	955
Total	2.1	0.8	2.9	8.6	26.6	50.6	0.5	0.2	2.2	1.8	3.1	3.1	0.8	0.5	0.8	5,127

CBD = Community-based distribution

HIV/AIDS-RELATED KNOWLEDGE 5

5.1 INTRODUCTION

The predominant mode of HIV transmission in Tanzania is through heterosexual contact, which accounts for over 90 percent of new AIDS cases, followed in magnitude by mother-to-child transmission, whereby the mother passes the HIV virus to the child during pregnancy, at the time of birth, or through breastfeeding. Other modes of transmission can be through infected blood, blood products, donated organs or bone grafts and tissues.

Based on this evidence therefore, the future direction of this pandemic depends in large part on the existing level of knowledge of how the virus is spread amongst different population groups, the consequent changes in sexual behaviour, and efforts to prevent mother-to-child transmission. The information obtained from the 2007-08 Tanzania HIV/AIDS and Malaria Survey (THMIS) provides an opportunity to assess, amongst other things, the level of knowledge regarding transmission of the AIDS virus. The results are useful for AIDS control programmes to plan for their IEC interventions targeting individuals and groups most in need of information and to strengthen interventions, aimed at preventing mother-to-child transmission (PMTCT).

The 2007-08 THMIS included a series of questions about HIV/AIDS knowledge and exposure to HIV/AIDS-related messages and information. For example, respondents were asked if they had ever heard of AIDS; if they knew about specific means of transmission of the virus; and if they were aware of mother-to-child transmission.

5.2 AWARENESS OF AIDS

Survey results indicate that over 98 percent of Tanzanians age 15-49 years have heard of AIDS (Table 5.1). The proportion is similar with results from the 2003-04 THIS and the 2004-05 TDHS. Overall, awareness of AIDS is very high in both Mainland Tanzania and Zanzibar, amongst men and women in all age groups, and across background characteristics, with at least 90 percent of people having heard of AIDS.

To ascertain the depth of knowledge about modes of HIV/AIDS transmission, specific questions were asked to respondents about whether it is possible to reduce the chances of getting AIDS by having just one faithful sexual partner, using a condom at every sexual encounter, and not having sex at all. These are the leading ways of preventing the spread of HIV/AIDS. Table 5.2 shows the percentage of women and men by their answers on ways of preventing HIV infection.

Over 80 percent of women and men say that abstaining from sexual intercourse and limiting sexual intercourse to one uninfected partner can reduce the chances of being infected with the AIDS virus. This belief is almost uniformly maintained amongst urban and rural populations, across different age groups, marital status, and wealth quintiles and in almost all regions in Tanzania. Exceptions are women in Mbeya, Rukwa, and Shinyanga regions, where less than 70 percent know that limiting sex to one partner can reduce the chances of getting the AIDS virus.

Table 5.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women		Men	
	Has heard of AIDS	Number of women	Has heard of AIDS	Number of men
Age				
15-24	97.8	3,730	98.0	2,916
15-19	97.2	1,984	97.3	1,768
20-24	98.4	1,746	99.2	1,148
25-29	98.4	1,603	99.5	1,004
30-39	98.7	2,521	99.5	1,846
40-49	99.3	1,488	99.5	1,210
Marital status				
Never married	97.9	2,214	97.8	2,931
Ever had sex	99.0	983	99.1	1,525
Never had sex	97.0	1,231	96.5	1,406
Married/living together	98.4	5,983	99.6	3,701
Divorced/separated/widowed	99.3	1,147	100.0	343
Residence				
Urban	99.6	2,459	99.6	1,699
Rural	97.9	6,884	98.7	5,276
Mainland/Zanzibar				
Mainland	98.3	9,034	98.9	6,763
Mainland – Urban	99.6	2,353	99.6	1,628
Dar es Salaam city	100.0	762	99.7	548
Other urban	99.5	1,591	99.6	1,079
Mainland – Rural	97.9	6,681	98.6	5,136
Zanzibar	99.0	309	99.3	212
Region/Island				
Arusha	94.4	383	96.5	262
Dar es Salaam	100.0	797	99.7	580
Dodoma	99.2	338	98.4	255
Iringa	99.4	403	98.5	286
Kagera	98.1	495	99.2	397
Kigoma	100.0	414	100.0	292
Kilimanjaro	100.0	379	100.0	271
Lindi	100.0	246	100.0	164
Manyara	98.3	263	98.3	203
Mara	97.8	368	98.6	243
Mbeya	99.1	581	99.1	496
Morogoro	99.2	436	100.0	340
Mtwara	100.0	324	100.0	209
Mwanza	98.6	833	97.3	608
Pwani	100.0	203	100.0	119
Rukwa	91.6	314	99.1	264
Ruvuma	98.5	372	99.0	287
Shinyanga	94.2	750	97.6	633
Singida	99.6	194	99.8	153
Tabora	99.7	518	99.4	404
Tanga	99.7	424	99.0	298
Pemba	99.6	94	99.8	63
Unguja	98.8	214	99.1	148
Zone				
Western	97.3	1,682	98.7	1,328
Northern	98.1	1,449	98.5	1,034
Central	99.3	532	98.9	408
Southern Highlands	97.4	1,297	98.9	1,046
Lake	98.2	1,696	98.2	1,249
Eastern	99.7	1,436	99.8	1,038
Southern	99.4	942	99.5	660
Zanzibar	99.0	309	99.3	212
Education				
No education	95.7	1,983	96.9	829
Primary incomplete	98.0	1,517	97.8	1,534
Primary complete	99.3	4,945	99.5	3,597
Secondary +	99.9	898	100.0	1,016
Wealth quintile				
Lowest	96.3	1,700	97.2	1,173
Second	98.0	1,634	99.0	1,411
Middle	98.0	1,757	99.1	1,322
Fourth	99.3	1,867	99.0	1,395
Highest	99.7	2,384	99.8	1,670
Total	98.4	9,343	98.9	6,975

Table 5.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, by having one sex partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics, Tanzania HMIS 2007-08

	Women					Men				
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Abstaining from sexual intercourse	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	Abstaining from sexual intercourse	Number of men
Age										
15-24	67.6	79.5	60.0	82.3	3,730	72.6	81.2	64.2	85.3	2,916
15-19	62.8	76.2	54.8	79.2	1,984	67.6	77.9	59.2	82.6	1,768
20-24	73.1	83.2	66.0	85.8	1,746	80.2	86.4	71.7	89.5	1,148
25-29	72.5	84.3	65.7	86.5	1,603	77.5	89.4	71.7	91.1	1,004
30-39	70.3	84.2	63.3	88.3	2,521	81.8	91.4	76.8	92.4	1,846
40-49	63.8	80.6	57.1	85.8	1,488	75.9	90.0	71.0	92.5	1,210
Marital status										
Never married	65.4	80.8	59.2	82.7	2,214	71.3	81.5	63.5	85.0	2,931
Ever had sex	78.7	85.9	71.9	85.7	983	82.4	87.0	74.6	88.8	1,525
Never had sex	54.8	76.7	49.2	80.3	1,231	59.2	75.6	51.5	80.8	1,406
Married/living together	68.7	82.2	61.6	85.7	5,983	79.9	90.5	74.3	92.4	3,701
Divorced/separated/widowed	74.2	81.4	64.7	87.1	1,147	80.3	88.0	74.1	92.6	343
Residence										
Urban	74.5	89.3	70.5	88.8	2,459	73.5	91.5	70.1	90.0	1,699
Rural	66.5	79.1	58.2	83.9	6,884	77.2	85.0	69.7	89.0	5,276
Mainland/Zanzibar										
Mainland	69.3	81.9	62.1	85.3	9,034	77.1	86.7	70.6	89.4	6,763
Mainland – Urban	75.6	89.6	71.6	89.0	2,353	74.7	91.7	71.4	90.2	1,628
Dar es Salaam City	76.3	91.0	72.8	86.6	762	68.4	92.3	65.5	88.7	548
Other Urban	75.2	88.9	71.1	90.2	1,591	78.0	91.4	74.4	91.0	1,079
Mainland – Rural	67.2	79.2	58.8	84.0	6,681	77.9	85.2	70.4	89.2	5,136
Zanzibar	46.1	78.8	40.9	81.7	309	49.4	82.1	42.5	84.4	212
Region/Island										
Arusha	58.5	85.3	56.6	84.6	383	77.3	91.1	76.4	90.5	262
Dar es Salaam	76.6	91.1	73.1	87.0	797	69.1	92.5	66.2	88.8	580
Dodoma	70.3	84.7	65.3	85.3	338	78.4	90.2	75.1	85.8	255
Iringa	53.4	69.8	42.0	70.2	403	68.8	79.6	60.6	81.7	286
Kagera	67.9	79.7	60.0	83.4	495	72.8	75.9	60.6	88.1	397
Kigoma	88.9	97.4	88.0	96.7	414	81.9	96.4	80.7	95.5	292
Kilimanjaro	73.9	94.8	70.7	93.2	379	70.6	91.3	66.3	93.1	271
Lindi	85.4	93.4	80.8	98.8	246	90.0	94.2	86.5	97.2	164
Manyara	53.8	89.8	53.1	89.7	263	79.0	96.5	78.5	94.5	203
Mara	72.1	80.4	63.6	86.9	368	78.2	84.9	70.8	90.0	243
Mbeya	50.7	68.6	43.6	84.3	581	74.0	85.9	67.8	95.8	496
Morogoro	77.6	83.7	69.5	87.9	436	82.5	91.8	77.2	89.4	340
Mtwara	85.8	89.6	78.6	96.2	324	84.7	91.6	80.6	95.1	209
Mwanza	64.0	79.4	55.6	83.2	833	79.9	75.7	65.6	86.2	608
Pwani	84.5	95.2	82.7	92.9	203	81.4	95.2	80.9	86.5	119
Rukwa	44.9	62.9	32.4	67.4	314	72.7	88.6	68.8	90.9	264
Ruvuma	70.3	71.0	55.4	75.9	372	78.8	80.7	68.6	85.0	287
Shinyanga	67.6	62.9	49.2	76.9	750	76.1	78.9	64.6	83.4	633
Singida	57.4	79.4	52.5	84.1	194	75.7	86.3	70.2	85.5	153
Tabora	82.1	96.6	80.6	94.3	518	84.9	92.1	80.0	90.6	404
Tanga	74.1	85.2	66.6	86.2	424	78.5	92.5	73.7	93.8	298
Pemba	36.9	72.1	33.0	80.9	94	48.7	71.9	36.5	83.0	63
Unguja	50.2	81.8	44.4	82.0	214	49.7	86.4	45.0	84.9	148
Zone										
Western	77.3	81.8	68.4	87.1	1,682	80.1	86.7	72.8	88.2	1,328
Northern	66.3	88.6	62.6	88.2	1,449	76.2	92.6	73.4	92.9	1,034
Central	65.6	82.8	60.7	84.9	532	77.4	88.7	73.2	85.7	408
Southern Highlands	50.1	67.6	40.4	75.8	1,297	72.3	84.9	66.1	90.7	1,046
Lake	66.9	79.7	58.6	84.1	1,696	77.3	77.5	65.0	87.5	1,249
Eastern	78.0	89.4	73.4	88.1	1,436	74.9	92.6	71.5	88.7	1,038
Southern	79.6	83.2	70.0	88.9	942	83.5	87.5	76.9	91.2	660
Zanzibar	46.1	78.8	40.9	81.7	309	49.4	82.1	42.5	84.4	212
Education										
No education	54.7	71.2	46.0	76.8	1,983	66.4	76.7	56.9	83.5	829
Primary incomplete	62.6	75.8	53.4	80.6	1,517	72.4	78.3	62.6	85.3	1,534
Primary complete	74.4	85.6	67.6	88.6	4,945	80.6	90.3	75.1	91.2	3,597
Secondary +	77.5	94.2	74.9	92.7	898	75.0	94.0	72.4	93.0	1,016
Wealth quintile										
Lowest	61.2	74.5	52.2	80.4	1,700	72.9	80.2	64.6	83.4	1,173
Second	66.5	77.2	56.7	82.1	1,634	80.3	85.9	73.0	89.7	1,411
Middle	68.9	78.7	60.2	83.3	1,757	78.2	84.8	68.8	90.3	1,322
Fourth	69.0	84.4	63.2	87.9	1,867	76.3	87.4	70.3	90.5	1,395
Highest	74.7	90.3	70.8	89.9	2,384	73.8	92.5	71.1	91.1	1,670
Total	68.6	81.8	61.4	85.2	9,343	76.3	86.6	69.8	89.3	6,975

[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

The use of condoms as an effective means of preventing HIV transmission is less commonly cited amongst the identified ways of HIV prevention, especially among women in the Southern Highlands Zone (50 percent) and women and men in Zanzibar (46 and 49 percent, respectively). The lowest proportions knowing about condom use as an HIV preventive measure are found in Pemba Island (37 percent for women and 49 percent for men). Urban residents are more likely than rural residents to know about all three methods mentioned to prevent HIV infection, except for condom use, which is cited by more rural than urban men. Another distinct feature observed from the data is that knowledge of all HIV prevention methods mentioned generally increases with increasing level of education and wealth quintile.

5.3 REJECTION OF MISCONCEPTIONS ABOUT HIV/AIDS

In line with knowledge about effective ways to avoid contracting HIV, it is useful to identify incorrect beliefs about AIDS, to eliminate misconceptions. Common misconceptions about HIV and AIDS include the belief that HIV-infected people always appear sick, and the belief that the virus can be transmitted through mosquito or other insect bites, by sharing food with someone who is infected, and by witchcraft or other supernatural means. Respondents were asked about these misconceptions and the findings are presented in Tables 5.3.1 and 5.3.2.

The vast majority of Tanzanians age 15-49 know that an HIV-infected person does not necessarily show signs of infection. This knowledge is maintained by about 80 percent of women and 86 percent of men in all age groups. As Figure 5.1 shows, between 1999 and 2007 there was an increase in the proportion of women and men who acknowledge that a healthy-looking person can be infected with HIV. There is, however, a distinct urban-rural differential in knowledge among women. Ninety-one percent of women in urban areas have knowledge about such misconceptions, compared with 76 percent of their rural counterparts.

Regarding other types of misconceptions, at least seven in ten people know that AIDS cannot be transmitted by mosquito bites, and at least eight in ten know that AIDS cannot be transmitted by supernatural means or by sharing food with a person with AIDS. Correct rejection of these misconceptions is more common among urban than rural women and men.

Table 5.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of women who say that:				Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconcaptions[1]	Percentage with a compre-hensive knowledge about AIDS[2]	Number of women
	A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS			
Age							
15-24	77.4	75.6	83.4	80.4	55.7	39.2	3,730
15-19	74.0	77.5	83.4	77.7	53.8	35.1	1,984
20-24	81.2	73.3	83.5	83.6	57.8	43.9	1,746
25-29	82.7	73.8	87.8	85.3	59.8	44.4	1,603
30-39	80.9	71.5	85.2	81.9	55.0	40.6	2,521
40-49	78.8	63.1	78.7	75.5	46.9	33.7	1,488
Marital status							
Never married	78.5	80.8	86.2	82.7	61.1	42.2	2,214
Ever had sex	82.4	79.6	87.5	85.9	63.7	51.6	983
Never had sex	75.4	81.7	85.1	80.2	59.0	34.8	1,231
Married/living together	79.6	69.7	83.2	80.2	53.1	38.6	5,983
Divorced/separated/widowed	80.7	68.2	83.4	81.1	51.7	39.9	1,147
Residence							
Urban	90.7	81.3	87.8	89.4	69.4	53.2	2,459
Rural	75.5	68.9	82.5	77.8	49.6	34.8	6,884
Mainland/Zanzibar							
Mainland	79.2	72.1	84.3	80.8	54.6	40.0	9,034
Mainland – Urban	90.7	81.4	88.4	89.3	69.4	54.0	2,353
Dar es Salaam City	93.6	83.2	87.7	93.8	75.0	59.4	762
Other Urban	89.3	80.6	88.7	87.2	66.7	51.4	1,591
Mainland – Rural	75.2	68.9	82.9	77.8	49.5	35.0	6,681
Zanzibar	87.0	73.1	71.9	82.7	59.5	29.0	309
Region/Island							
Arusha	78.5	57.9	75.5	73.0	51.1	40.1	383
Dar es Salaam	93.6	82.4	87.3	93.7	74.3	59.0	797
Dodoma	72.4	71.0	93.8	81.6	47.8	39.8	338
Iringa	74.3	61.9	86.8	72.9	41.3	18.7	403
Kagera	79.9	76.1	90.7	80.3	55.3	38.8	495
Kigoma	84.8	83.3	86.0	88.2	67.7	61.7	414
Kilimanjaro	91.7	82.6	89.6	83.7	68.6	53.2	379
Lindi	85.7	86.8	88.0	88.7	72.9	63.2	246
Manyara	75.2	57.9	71.3	68.9	46.2	32.4	263
Mara	87.5	67.5	87.0	81.5	55.2	39.8	368
Mbeya	76.9	74.3	87.9	83.6	55.5	32.4	581
Morogoro	81.7	69.2	79.3	82.0	53.3	40.5	436
Mtwara	81.2	78.5	90.1	89.2	63.1	52.4	324
Mwanza	71.0	75.9	85.1	78.3	47.4	29.8	833
Pwani	88.8	72.8	73.2	87.0	60.2	53.2	203
Rukwa	66.0	57.5	78.2	70.4	36.6	15.4	314
Ruvuma	78.7	65.7	78.1	80.5	47.3	30.8	372
Shinyanga	68.3	60.6	76.1	69.4	41.4	25.1	750
Singida	64.2	73.8	83.2	74.5	43.4	27.5	194
Tabora	77.7	80.0	87.8	82.9	57.6	51.4	518
Tanga	85.7	70.0	86.7	82.6	57.2	42.2	424
Pemba	82.1	65.2	66.2	76.6	49.1	21.0	94
Unguja	89.1	76.6	74.4	85.4	64.0	32.5	214
Zone							
Western	75.3	72.2	82.2	78.2	52.8	42.2	1,682
Northern	83.5	67.9	81.7	77.9	56.6	42.7	1,449
Central	69.4	72.0	89.9	79.0	46.2	35.3	532
Southern Highlands	73.5	66.4	85.2	77.1	46.5	24.1	1,297
Lake	77.2	74.1	87.1	79.6	51.4	34.6	1,696
Eastern	89.3	77.0	82.9	89.2	66.0	52.6	1,436
Southern	81.4	75.6	84.8	85.6	59.4	46.7	942
Zanzibar	87.0	73.1	71.9	82.7	59.5	29.0	309
Education							
No education	63.4	54.8	71.3	67.1	34.2	21.3	1,983
Primary incomplete	72.8	68.5	81.5	75.1	44.7	28.5	1,517
Primary complete	85.4	76.8	88.0	85.6	61.2	45.8	4,945
Secondary +	93.6	91.3	92.9	95.2	82.2	64.5	898
Wealth quintile							
Lowest	66.0	61.7	77.0	69.7	40.2	27.9	1,700
Second	72.6	68.8	80.8	76.0	46.4	32.9	1,634
Middle	77.5	69.0	84.4	78.8	49.8	34.7	1,757
Fourth	83.6	74.2	85.9	84.2	57.9	41.8	1,867
Highest	92.0	82.7	89.0	91.1	72.2	54.4	2,384
Total	79.5	72.2	83.9	80.9	54.8	39.6	9,343

[1] Two most common local misconceptions: AIDS can be transmitted by mosquito bites, and AIDS can be transmitted by supernatural means

[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Table 5.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with a comprehensive knowledge about AIDS, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of men who say that: A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of men
Age							
15-24	81.8	77.5	88.7	80.8	58.5	41.5	2,916
15-19	79.4	78.7	88.5	79.5	58.2	38.8	1,768
20-24	85.4	75.5	89.1	82.8	59.0	45.7	1,148
25-29	87.3	72.1	88.7	84.5	59.6	46.2	1,004
30-39	88.9	71.5	89.1	83.9	59.3	48.7	1,846
40-49	88.7	65.7	89.2	82.8	56.1	42.9	1,210
Marital status							
Never married	81.9	77.7	88.3	81.9	59.7	42.2	2,931
Ever had sex	85.0	76.4	89.5	84.0	60.3	48.9	1,525
Never had sex	78.5	79.1	87.0	79.7	59.1	35.0	1,406
Married/living together	88.5	70.4	89.4	83.3	58.4	46.6	3,701
Divorced/separated/widowed	86.5	61.6	88.1	79.1	48.3	37.7	343
Residence							
Urban	94.3	79.6	91.4	90.1	71.0	52.5	1,699
Rural	82.8	71.0	88.1	80.1	54.4	41.7	5,276
Mainland/Zanzibar							
Mainland	85.5	72.9	89.0	82.4	58.3	44.8	6,763
Mainland – Urban	94.5	79.5	91.7	90.1	71.0	53.4	1,628
Dar es Salaam City	96.2	81.3	88.9	91.9	74.1	51.8	548
Other Urban	93.6	78.6	93.0	89.2	69.5	54.3	1,079
Mainland – Rural	82.7	70.9	88.2	79.9	54.2	42.0	5,136
Zanzibar	89.8	77.1	84.1	86.9	65.0	30.1	212
Region/Island							
Arusha	84.3	72.2	86.9	82.7	61.1	52.6	262
Dar es Salaam	96.0	80.9	88.2	90.9	73.4	51.2	580
Dodoma	83.6	74.3	91.1	81.7	58.5	48.6	255
Iringa	88.7	55.8	85.3	75.2	46.8	32.4	286
Kagera	90.3	80.4	95.6	88.9	67.0	45.0	397
Kigoma	79.6	83.7	93.3	90.3	64.6	57.2	292
Kilimanjaro	92.5	73.3	91.6	78.4	58.5	38.8	271
Lindi	93.1	80.4	95.0	92.2	73.9	67.3	164
Manyara	81.9	70.4	86.3	75.4	55.9	50.4	203
Mara	89.8	68.4	91.5	84.1	57.3	44.0	243
Mbeya	83.9	75.3	88.7	81.3	58.3	44.7	496
Morogoro	85.8	66.4	87.5	83.3	51.8	42.2	340
Mtwara	88.4	79.1	93.4	79.6	65.5	54.2	209
Mwanza	83.4	78.9	88.8	80.7	60.8	43.7	608
Pwani	88.7	64.4	88.4	89.6	54.8	48.9	119
Rukwa	83.7	75.6	91.8	84.0	58.2	44.4	264
Ruvuma	83.5	64.6	84.6	84.5	49.3	35.7	287
Shinyanga	80.0	64.3	83.3	77.5	49.0	34.6	633
Singida	76.7	69.6	92.7	82.8	53.0	44.0	153
Tabora	76.7	74.2	85.0	79.7	52.0	45.6	404
Tanga	87.4	68.9	92.9	71.7	51.1	37.9	298
Pemba	88.6	74.6	82.8	84.1	61.7	26.3	63
Unguja	90.4	78.1	84.7	88.1	66.4	31.8	148
Zone							
Western	78.9	71.6	86.0	81.0	53.3	42.9	1,328
Northern	86.9	71.2	89.8	77.0	56.5	44.3	1,034
Central	81.1	72.5	91.7	82.1	56.4	46.9	408
Southern Highlands	85.2	70.0	88.6	80.3	55.1	41.3	1,046
Lake	86.8	77.3	91.5	84.0	62.1	44.2	1,249
Eastern	91.8	74.3	88.0	88.3	64.2	48.0	1,038
Southern	87.4	73.1	90.0	84.9	60.5	49.4	660
Zanzibar	89.8	77.1	84.1	86.9	65.0	30.1	212
Education							
No education	72.4	57.2	78.8	66.3	36.7	25.5	829
Primary incomplete	78.9	68.8	84.2	75.1	47.9	33.6	1,534
Primary complete	88.6	73.9	91.5	86.2	61.0	48.4	3,597
Secondary +	96.3	89.6	94.8	94.0	83.1	61.4	1,016
Wealth quintile							
Lowest	72.7	63.9	82.4	71.5	42.4	32.0	1,173
Second	83.3	68.5	87.9	78.6	52.3	41.0	1,411
Middle	84.4	72.3	91.2	83.5	55.9	42.2	1,322
Fourth	89.3	76.9	89.2	84.4	62.5	47.8	1,395
Highest	94.7	80.8	92.1	91.3	73.6	54.4	1,670
Total	85.6	73.1	88.9	82.5	58.5	44.3	6,975

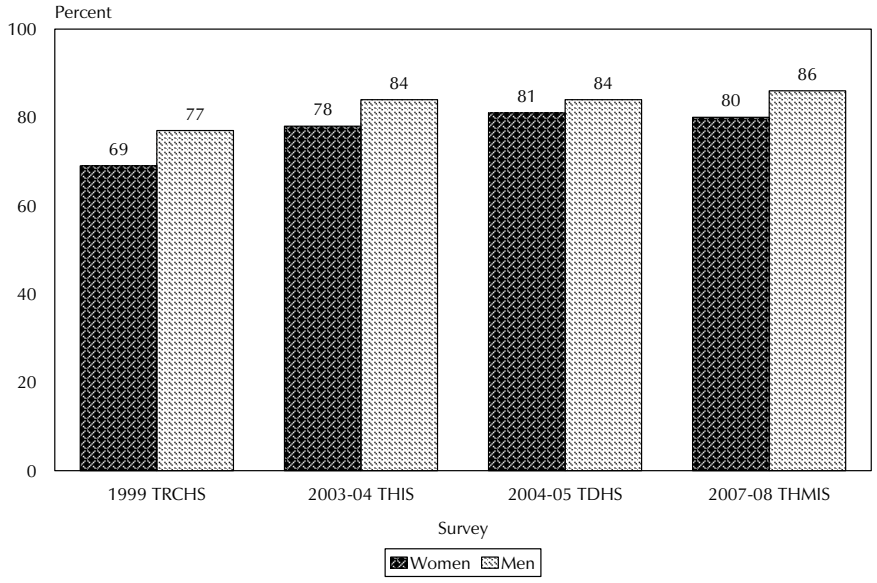
[1] Two most common local misconceptions: AIDS can be transmitted by mosquito bites, and AIDS can be transmitted by supernatural means

[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Data in Tables 5.3.1 and 5.3.2 provide an assessment of the level of comprehensive knowledge of HIV transmission and prevention. Comprehensive knowledge is defined as knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission and prevention: that HIV can be transmitted by mosquito bites and by sharing food with a person who has AIDS.

Despite a high level of knowledge about common misconceptions, the percentage of adults with comprehensive knowledge about AIDS is relatively low—only 40 percent of women and 44 percent of men. Comprehensive knowledge increases with increasing level of education and wealth quintile. It is also considerably higher in urban areas than in rural areas. The lowest comprehensive knowledge about AIDS among men is found in Iringa and Zanzibar, while among women, the lowest levels are found in Rukwa, Iringa, Shinyanga, Singida, and Pemba.

Figure 5.1 **Trends in Knowledge That a Healthy-Looking Person Can Have the AIDS Virus**



5.4 KNOWLEDGE OF MOTHER-TO-CHILD TRANSMISSION

The current strategies on HIV/AIDS in Tanzania are geared towards improving the health of HIV-infected mothers and reducing the transmission of the virus to their children during pregnancy, labour, delivery, postpartum, and breastfeeding, as outlined in the National Policy on HIV/AIDS. To achieve this, increasing the level of knowledge about the transmission of the virus from mother to child, and reducing the risk of transmission by use of anti-retroviral drugs are critical to achieving this goal.

All women and men age 15-49 years interviewed in the 2007-08 THMIS were asked if the virus that causes AIDS can be transmitted from a mother to a child. If the answer was in the affirmative, they were further asked whether the virus can be transmitted during pregnancy, during delivery, and during breastfeeding. They were also asked if a mother who is infected with the AIDS virus can reduce the risk of passing the virus to the baby by taking certain drugs during pregnancy.

Overall, findings from THMIS 2007-08 indicate that eight in ten women and seven in ten men age 15-49 years know that HIV can be transmitted from mother to child through breastfeeding (Table 5.4). However, only 53 percent of women and 44 percent of men know that HIV transmission risk can be reduced if the mother takes special drugs during pregnancy. Knowledge of both these facts is comparatively higher among women with higher education (completed primary and secondary or

more education) and those in the fourth and highest wealth quintiles, but it is lower among women age 15-19, those who have never married, and those who never had sex.

Urban-rural differentials exist between women and men especially in believing that the risk of mother-to-child transmission can be reduced by the mother taking special drugs during pregnancy; among women, 70 percent of urban residents compared with 47 percent of rural residents are aware of these special drugs. Regional differences show that knowledge about mother-to-child transmission, especially the reduction of risk by the mother taking special drugs, is minimal in Manyara and Shinyanga.

Table 5.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by mother taking special drugs during pregnancy, by background characteristics, Tanzania HMIS 2007-08

	Women				Men			
Background characteristic	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	77.7	49.9	46.3	3,730	72.3	39.1	33.8	2,916
15-19	74.7	41.0	38.3	1,984	69.7	34.1	29.0	1,768
20-24	81.1	60.0	55.4	1,746	76.3	46.7	41.1	1,148
25-29	86.5	61.2	58.2	1,603	78.2	46.9	42.1	1,004
30-39	83.4	55.7	52.5	2,521	74.2	50.4	42.6	1,846
40-49	80.1	45.9	41.9	1,488	74.2	42.9	37.8	1,210
Marital status								
Never married	77.4	46.0	42.8	2,214	72.3	39.3	34.1	2,931
Ever had sex	83.1	58.5	54.6	983	77.0	46.0	39.9	1,525
Never had sex	72.8	35.9	33.5	1,231	67.2	31.9	27.8	1,406
Married/living together	81.7	54.3	50.6	5,983	75.3	47.7	41.4	3,701
Divorced/separated/widowed	85.6	58.0	55.1	1,147	74.4	42.2	34.6	343
Pregnancy status								
Pregnant	80.2	53.7	51.5	872	na	na	na	0
Not pregnant or not sure	81.3	52.7	49.1	8,456	na	na	na	0
Residence								
Urban	89.5	70.2	66.1	2,459	80.6	51.4	45.1	1,699
Rural	78.2	46.5	43.3	6,884	71.9	41.5	35.7	5,276
Mainland/Zanzibar								
Mainland	81.0	52.5	49.0	9,034	73.7	43.7	37.7	6,763
Mainland – Urban	89.5	70.1	66.0	2,353	80.6	51.2	44.9	1,628
Dar es Salaam City	92.1	75.6	71.3	762	83.0	53.0	45.6	548
Other Urban	88.3	67.5	63.5	1,591	79.3	50.3	44.5	1,079
Mainland – Rural	78.0	46.3	43.0	6,681	71.5	41.3	35.4	5,136
Zanzibar	85.2	60.0	58.4	309	82.8	50.4	47.2	212
Region/Island								
Arusha	70.2	48.6	46.2	383	78.7	54.0	49.9	262
Dar es Salaam	91.8	75.8	71.2	797	82.5	53.9	46.0	580
Dodoma	78.0	47.4	43.3	338	67.2	41.3	33.2	255
Iringa	84.7	59.1	54.7	403	70.9	47.1	38.9	286
Kagera	80.5	47.7	42.7	495	72.7	41.5	36.3	397
Kigoma	82.1	57.8	55.7	414	77.3	53.6	47.9	292
Kilimanjaro	98.4	69.2	68.3	379	89.0	50.8	48.1	271
Lindi	92.6	53.2	51.7	246	89.5	45.9	45.9	164
Manyara	70.3	33.9	32.8	263	65.2	22.6	20.5	203
Mara	76.7	40.4	36.8	368	71.9	38.8	30.0	243
Mbeya	78.3	60.5	53.1	581	67.2	56.0	44.1	496
Morogoro	81.7	60.6	56.0	436	67.9	37.6	31.1	340
Mtwara	85.7	52.4	49.5	324	79.4	47.4	44.4	209
Mwanza	79.9	43.0	41.0	833	73.8	38.3	34.1	608
Pwani	89.3	64.5	62.9	203	72.5	37.4	34.8	119
Rukwa	64.3	37.8	31.7	314	67.9	43.2	35.0	264
Ruvuma	86.0	53.6	48.9	372	79.3	51.8	45.3	287
Shinyanga	65.6	28.6	25.0	750	60.6	22.7	19.4	633
Singida	79.5	52.6	48.4	194	72.0	39.9	35.0	153
Tabora	80.2	61.5	58.2	518	73.9	55.9	46.6	404
Tanga	91.4	52.4	51.7	424	85.0	37.1	33.5	298
Pemba	85.8	46.2	45.4	94	89.2	44.2	43.2	63
Unguja	85.0	66.0	64.2	214	80.1	53.1	49.0	148

Continued…

Table 5.4—*Continued*

Background characteristic	Women				Men			
	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Zone								
Western	74.2	45.9	42.8	1,682	68.3	39.6	33.9	1,328
Northern	83.8	52.4	51.2	1,449	80.5	42.1	38.9	1,034
Central	78.6	49.3	45.2	532	69.0	40.8	33.9	408
Southern Highlands	76.9	54.6	48.4	1,297	68.4	50.3	40.4	1,046
Lake	79.4	43.8	40.6	1,696	73.1	39.4	34.0	1,249
Eastern	88.4	69.6	65.4	1,436	76.6	46.7	39.8	1,038
Southern	87.6	53.1	49.8	942	81.9	48.9	45.2	660
Zanzibar	85.2	60.0	58.4	309	82.8	50.4	47.2	212
Education								
No education	69.2	35.9	33.8	1,983	61.1	28.4	25.0	829
Primary incomplete	75.7	42.2	39.2	1,517	70.6	35.3	30.7	1,534
Primary complete	85.7	59.2	55.3	4,945	75.8	46.5	40.0	3,597
Secondary +	91.8	72.1	67.8	898	83.2	60.1	52.5	1,016
Wealth quintile								
Lowest	70.3	36.6	33.6	1,700	63.5	30.3	25.9	1,173
Second	76.4	43.2	40.1	1,634	70.7	37.2	31.5	1,411
Middle	79.9	47.1	44.1	1,757	74.1	43.5	37.6	1,322
Fourth	83.7	58.3	53.8	1,867	77.4	50.0	43.7	1,395
Highest	91.0	70.7	67.1	2,384	81.3	54.4	47.6	1,670
Total 15-49	81.1	52.8	49.3	9,343	74.0	43.9	38.0	6,975

na = Not applicable

5.5 EXPOSURE TO MESSAGES ABOUT HIV/AIDS

Several HIV/AIDS-related messages have been developed and aired through the mass media as part of interventions aimed at combating HIV/AIDS in Tanzania. In an effort to gauge the coverage of these messages, survey respondents were asked if they had ever watched specific television talk shows like “Femina” (and other programmes) in the 12 months preceding the survey.

Results presented in Tables 5.5.1 and 5.5.2 indicate that women are less exposed to HIV education programmes on TV or radio than men. Only 47 percent of women have heard such a programme in the past 12 months, compared with 64 percent of men. However, there is a significant urban-rural differential, with 69 percent of women and 77 percent of men in urban areas having heard an HIV education programme compared with 39 percent of women and 60 percent of men in the rural areas. Women and men in Eastern Zone are more likely to listen to radio and TV HIV/AIDS messages than those in other zones. Women and men in Dar es Salaam are more likely to have heard HIV/AIDS messages than those in other regions and Zanzibar. Women and men in Shinyanga region are the least likely to have been exposed to HIV education messages on television or radio, followed by Manyara region in Tanzania Mainland and Pemba Island for women and Mara and Manyara regions for men. The highest levels of exposure are observed in Dar es Salaam, Kilimanjaro, and Tanga regions for women and in Dar es Salaam, Rukwa, Kagera and Lindi regions for men.

Education and economic status are related to exposure to HIV/AIDS messages. Women and men with more education and those in higher wealth quintiles are more likely to have heard a television or radio message about HIV/AIDS than those with less education or in the lower wealth quintiles.

Information about the specific HIV education programmes watched or heard was hampered by the fact that about two-thirds of those who said they were exposed to such programmes did not know the name of the programme. The programme mentioned most frequently was *Tuzungumze UKIMWI* (14 percent of women and 16 percent of men heard a program). *Femina/Fema* ranked second with 8 percent of women and 9 percent of men reporting that they watched the programme in the 12 months preceding the survey. Other programmes like *Afya ya Jamii*, *Jitambue* and *Simchezo* were less commonly mentioned.

Table 5.5.1 Exposure to HIV education programmes: Women

Percentage of women age 15-49 who watched or heard an HIV education programme on TV or radio in the past 12 months, and percent distribution of these women by specific HIV education programme watched or heard, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of women who watched/ heard HIV education programme on TV or radio in past 12 months	Number of women	HIV education programme watched or heard									Number of women who heard/ watched HIV education programme in past 12 months
			Femina/ Fema	Simchizo	Afya ya jamii	Jitambue	Tuzungumze Ukimwi	Other	Don't know/ depends	Missing	Total	
Age												
15-19	45.5	1,984	9.4	1.7	4.5	4.4	12.7	0.0	67.0	0.3	100.0	903
20-24	50.4	1,746	8.2	1.0	2.8	4.5	15.0	0.0	67.7	0.8	100.0	879
25-29	52.5	1,603	8.8	0.5	2.9	2.5	14.0	0.1	71.2	0.0	100.0	842
30-39	45.0	2,521	7.7	2.2	4.1	2.6	13.2	0.0	69.1	1.2	100.0	1,134
40-49	42.5	1,488	4.1	0.9	3.5	3.0	13.4	0.0	74.2	1.0	100.0	633
Marital status												
Ever had sex	56.4	983	14.0	2.1	5.4	7.0	12.5	0.0	58.6	0.3	100.0	554
Never had sex	46.5	1,231	10.1	1.3	3.6	5.1	15.2	0.0	64.6	0.1	100.0	573
Married/living together	46.0	5,983	6.0	1.2	3.5	2.5	13.6	0.0	72.3	0.8	100.0	2,750
Divorced/separated/widowed	44.8	1,147	8.3	1.1	2.1	2.2	13.2	0.0	72.1	0.9	100.0	514
Pregnancy status												
Pregnant	44.2	872	5.5	1.4	3.7	3.6	9.9	0.0	74.2	1.7	100.0	385
Not pregnant or not sure	47.3	8,456	8.0	1.3	3.6	3.3	14.0	0.0	69.1	0.6	100.0	4,001
Residence												
Urban	68.6	2,459	13.6	2.2	5.7	5.5	12.6	0.0	59.9	0.5	100.0	1,686
Rural	39.3	6,884	4.2	0.8	2.3	2.1	14.3	0.0	75.5	0.8	100.0	2,705
Mainland/Zanzibar												
Mainland	47.0	9,034	7.9	1.4	3.5	3.4	13.9	0.0	69.2	0.7	100.0	4,243
Mainland – Urban	69.1	2,353	13.8	2.3	5.6	5.6	12.8	0.0	59.5	0.5	100.0	1,625
Dar es Salaam City	78.7	762	16.6	3.2	5.6	8.4	12.3	0.0	53.9	0.0	100.0	599
Other Urban	64.5	1,591	12.2	1.7	5.6	3.9	13.1	0.0	62.7	0.8	100.0	1,026
Mainland – Rural	39.2	6,681	4.2	0.8	2.2	2.1	14.5	0.0	75.3	0.8	100.0	2,618
Zanzibar	47.8	309	5.4	0.7	6.2	2.0	6.8	0.0	77.8	1.1	100.0	148
Region/Island												
Arusha	36.3	383	23.4	8.7	7.0	2.8	13.0	0.0	43.7	1.4	100.0	139
Dar es Salaam	78.0	797	16.5	3.3	5.6	8.2	12.0	0.0	54.4	0.0	100.0	621
Dodoma	47.4	338	4.4	0.5	2.8	0.4	16.9	0.0	74.9	0.0	100.0	160
Iringa	42.5	403	7.4	1.8	1.2	4.0	16.8	0.0	67.3	1.5	100.0	171
Kagera	53.7	495	0.5	0.0	2.2	2.5	5.4	0.0	88.3	1.1	100.0	266
Kigoma	41.1	414	4.2	0.0	2.5	2.9	21.8	0.0	67.3	1.3	100.0	170
Kilimanjaro	61.8	379	5.8	0.0	7.9	9.2	26.6	0.0	50.2	0.4	100.0	234
Lindi	42.9	246	5.2	2.3	6.5	0.7	34.7	0.0	50.5	0.0	100.0	105
Manyara	26.9	263	6.6	1.0	6.0	0.9	10.1	0.0	72.7	2.6	100.0	71
Mara	38.4	368	19.6	4.6	2.5	1.1	4.4	0.0	67.8	0.0	100.0	141
Mbeya	50.2	581	2.5	1.8	2.8	6.4	16.0	0.0	68.3	2.2	100.0	292
Morogoro	55.4	436	7.4	0.0	1.2	0.5	4.6	0.0	84.6	1.7	100.0	241
Mtwara	50.5	324	3.0	0.8	2.5	0.0	26.1	0.0	66.3	1.4	100.0	164
Mwanza	42.3	833	1.7	0.0	4.5	1.6	7.8	0.0	84.4	0.0	100.0	353
Pwani	49.2	203	5.4	0.0	2.3	2.1	14.7	0.0	75.5	0.0	100.0	100
Rukwa	39.4	314	0.0	0.0	2.6	3.5	9.2	0.7	84.1	0.0	100.0	123
Ruvuma	49.8	372	4.7	0.5	2.2	1.7	14.3	0.0	75.8	0.9	100.0	185
Shinyanga	19.2	750	2.2	2.3	0.9	0.0	3.1	0.0	90.7	0.7	100.0	144
Singida	44.1	194	3.3	0.0	3.1	0.7	6.9	0.0	85.9	0.0	100.0	86
Tabora	41.9	518	13.8	0.6	1.2	4.0	19.5	0.0	60.8	0.0	100.0	217
Tanga	61.0	424	13.5	0.0	3.2	0.7	16.4	0.0	66.2	0.0	100.0	259
Pemba	32.6	94	0.7	0.2	2.5	1.7	6.0	0.0	88.1	0.8	100.0	31
Unguja	54.5	214	6.6	0.9	7.1	2.0	7.0	0.0	75.1	1.2	100.0	117
Zone												
Western	31.6	1,682	7.6	0.9	1.5	2.6	15.8	0.0	71.0	0.6	100.0	532
Northern	48.5	1,449	12.2	1.8	5.8	4.0	18.5	0.0	57.1	0.7	100.0	703
Central	46.2	532	4.0	0.3	2.9	0.5	13.4	0.0	78.8	0.0	100.0	246
Southern Highlands	45.2	1,297	3.4	1.4	2.3	5.0	14.8	0.1	71.3	1.5	100.0	586
Lake	44.8	1,696	4.6	0.9	3.3	1.8	6.3	0.0	82.7	0.4	100.0	760
Eastern	67.1	1,436	13.0	2.1	4.1	5.7	10.4	0.0	64.2	0.4	100.0	963
Southern	48.2	942	4.2	1.0	3.3	0.8	23.3	0.0	66.5	0.9	100.0	454
Zanzibar	47.8	309	5.4	0.7	6.2	2.0	6.8	0.0	77.8	1.1	100.0	148
Education												
No education	24.5	1,983	4.5	0.8	1.9	1.4	13.3	0.2	78.0	0.0	100.0	487
Primary incomplete	39.2	1,517	3.7	0.6	3.1	1.9	10.0	0.0	80.5	0.0	100.0	594
Primary complete	53.2	4,945	6.7	1.4	3.2	3.0	13.6	0.0	71.1	1.0	100.0	2,630
Secondary +	75.7	898	18.0	2.1	6.8	7.6	17.3	0.0	47.7	0.5	100.0	681
Wealth quintile												
Lowest	21.7	1,700	2.0	1.2	0.9	1.4	13.3	0.2	80.5	0.4	100.0	370
Second	35.7	1,634	3.5	0.7	2.7	1.3	14.2	0.0	76.8	0.8	100.0	584
Middle	43.2	1,757	3.6	0.6	2.3	1.9	11.9	0.0	79.3	0.3	100.0	759
Fourth	50.7	1,867	4.1	0.6	3.0	2.7	14.8	0.0	73.4	1.5	100.0	946
Highest	72.7	2,384	14.4	2.3	5.4	5.5	13.6	0.0	58.3	0.4	100.0	1,732
Total	47.0	9,343	7.8	1.3	3.6	3.4	13.6	0.0	69.5	0.7	100.0	4,391

Table 5.5.2 Exposure to HIV education programmes: Men

Percentage of men age 15-49 who watched or heard an HIV education programme on TV or radio in the past 12 months, and percent distribution of these men by specific HIV education programme watched or heard, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of men who watched/ heard HIV education programme on TV or radio in past 12 months	Number of men	HIV education programme watched or heard								Number of men who heard/watched HIV education programme in past 12 months
			Femina/ Fema	Simchizo	Afya ya jamii	Jitambue	Tuzungumze Ukimwi	Don't know/ depends	Missing	Total	
Age											
15-19	53.5	1,768	9.4	1.7	5.3	2.4	14.6	66.3	0.3	100.0	946
20-24	69.2	1,148	11.9	0.4	4.9	2.8	13.2	65.0	1.7	100.0	794
25-29	68.0	1,004	11.7	0.8	3.8	2.0	15.9	64.6	1.1	100.0	682
30-39	67.7	1,846	8.3	1.3	5.2	2.8	18.1	63.9	0.5	100.0	1,249
40-49	65.5	1,210	5.6	1.0	6.2	2.6	16.6	66.2	1.6	100.0	793
Marital status											
Ever had sex	64.3	1,525	12.5	0.9	4.8	2.5	15.3	62.8	1.1	100.0	981
Never had sex	53.4	1,406	11.8	1.8	6.6	3.0	15.2	61.1	0.5	100.0	751
Married/living together	67.8	3,701	7.5	1.0	4.6	2.4	16.1	67.3	0.9	100.0	2,511
Divorced/separated/ widowed	64.7	343	5.2	0.3	7.1	2.6	17.9	64.3	2.5	100.0	222
Residence											
Urban	77.4	1,699	17.2	2.3	8.2	2.9	14.8	54.3	0.3	100.0	1,315
Rural	59.7	5,276	5.9	0.6	3.9	2.4	16.3	69.7	1.2	100.0	3,150
Mainland/Zanzibar											
Mainland	64.0	6,763	9.4	1.1	5.2	2.6	16.1	64.7	1.0	100.0	4,329
Mainland – Urban	77.8	1,628	17.5	2.4	8.3	2.9	15.0	53.6	0.3	100.0	1,266
Dar es Salaam City	86.3	548	24.2	1.9	8.4	3.1	12.8	49.7	0.0	100.0	473
Other Urban	73.5	1,079	13.5	2.7	8.2	2.9	16.4	55.9	0.5	100.0	793
Mainland – Rural	59.6	5,136	6.0	0.6	3.9	2.4	16.6	69.3	1.3	100.0	3,063
Zanzibar	63.7	212	5.2	0.0	4.3	1.9	8.5	79.5	0.6	100.0	135
Region/Island											
Arusha	68.4	262	19.6	4.3	3.6	2.0	12.4	56.7	1.3	100.0	179
Dar es Salaam	85.9	580	24.4	2.1	8.3	3.3	13.5	48.3	0.0	100.0	498
Dodoma	60.9	255	14.2	0.0	1.7	0.0	22.6	60.9	0.5	100.0	155
Iringa	67.4	286	6.4	1.1	5.1	4.3	17.4	62.6	3.1	100.0	193
Kagera	73.9	397	0.9	0.0	9.6	3.3	11.8	72.3	2.2	100.0	294
Kigoma	59.0	292	8.2	0.0	2.5	5.5	28.6	54.6	0.6	100.0	172
Kilimanjaro	64.0	271	10.5	0.0	11.1	8.7	24.2	44.9	0.6	100.0	174
Lindi	71.3	164	8.1	4.5	4.1	0.0	23.9	58.0	1.4	100.0	117
Manyara	51.8	203	6.4	0.4	3.4	2.6	7.8	79.0	0.4	100.0	105
Mara	50.2	243	10.4	3.2	1.3	1.4	6.8	76.3	0.5	100.0	122
Mbeya	65.4	496	14.2	0.8	3.4	1.9	17.4	60.2	2.2	100.0	324
Morogoro	58.8	340	4.6	0.7	1.9	0.6	8.6	82.5	1.0	100.0	200
Mtwara	69.0	209	4.3	2.0	0.9	1.4	20.0	70.3	1.2	100.0	144
Mwanza	66.9	608	4.5	0.4	13.4	1.4	15.6	64.2	0.4	100.0	407
Pwani	63.7	119	1.4	1.4	0.0	2.7	16.7	77.7	0.0	100.0	76
Rukwa	75.9	264	1.9	0.0	4.8	3.3	9.8	80.2	0.0	100.0	201
Ruvuma	66.3	287	8.6	1.3	2.3	2.5	15.7	67.2	2.4	100.0	190
Shinyanga	43.5	633	1.8	0.7	0.0	3.6	7.1	86.3	0.5	100.0	276
Singida	56.7	153	7.5	0.0	0.0	1.0	9.8	80.5	1.2	100.0	86
Tabora	60.7	404	6.4	1.7	2.1	0.5	29.2	59.7	0.5	100.0	245
Tanga	57.5	298	12.5	0.4	6.9	2.2	24.0	53.2	0.8	100.0	171
Pemba	57.3	63	1.3	0.0	2.0	0.5	6.6	89.3	0.3	100.0	36
Unguja	66.4	148	6.6	0.0	5.2	2.4	9.2	75.8	0.7	100.0	99
Zone											
Western	52.2	1,328	5.0	0.9	1.3	3.0	20.2	69.0	0.5	100.0	693
Northern	60.8	1,034	13.0	1.4	6.5	4.0	18.1	56.2	0.8	100.0	629
Central	59.3	408	11.8	0.0	1.1	0.4	18.0	67.9	0.8	100.0	242
Southern Highlands	68.6	1,046	8.7	0.7	4.2	2.9	15.3	66.5	1.8	100.0	718
Lake	65.9	1,249	4.1	0.7	10.2	2.1	13.0	68.9	1.0	100.0	823
Eastern	74.5	1,038	17.1	1.7	5.8	2.6	12.6	60.0	0.3	100.0	773
Southern	68.4	660	7.1	2.4	2.3	1.5	19.2	65.8	1.8	100.0	451
Zanzibar	63.7	212	5.2	0.0	4.3	1.9	8.5	79.5	0.6	100.0	135
Education											
No education	41.9	829	1.6	0.0	2.5	0.9	11.3	83.1	0.5	100.0	347
Primary incomplete	54.0	1,534	3.5	0.9	3.9	1.2	12.8	76.6	1.2	100.0	828
Primary complete	68.2	3,597	7.9	1.3	4.8	2.9	17.1	64.9	1.1	100.0	2,453
Secondary +	82.3	1,016	21.9	1.2	8.6	3.6	17.3	47.0	0.4	100.0	836
Wealth quintile											
Lowest	41.7	1,173	3.3	0.3	2.2	1.2	13.2	79.2	0.5	100.0	489
Second	58.4	1,411	3.2	0.3	3.4	1.3	14.1	76.0	1.7	100.0	824
Middle	65.8	1,322	4.5	0.7	3.5	3.2	16.5	70.2	1.3	100.0	869
Fourth	68.5	1,395	8.5	1.4	4.8	2.5	18.7	62.7	1.4	100.0	955
Highest	79.3	1,670	18.8	1.9	8.6	3.5	15.5	51.6	0.2	100.0	1,325
Total	64.0	6,975	9.2	1.1	5.1	2.6	15.9	65.1	1.0	100.0	4,464

5.6 KNOWLEDGE AND ATTITUDE CONCERNING TUBERCULOSIS

Adequate knowledge and a positive attitude towards tuberculosis (TB) are critical to controlling the TB epidemic. Success in the control of TB is measured by the treatment completion rate. In Tanzania, the directly observed treatment-short course (DOTS) strategy requires a patient to use anti-tuberculosis medication continuously for eight months. This requires clients to have adequate information about the disease and an understanding of the routes of transmission. Compliance with the treatment regimen and a successful case-tracking system require clients to believe there is a cure, and to be assured that no discrimination or stigma is attached to tuberculosis patients and their families.

As shown in Tables 5.6.1 and 5.6.2, 93 percent of women and 96 percent of men age 15-49 in Tanzania have heard of tuberculosis. Differences by background characteristics in the proportion who have heard of TB are minimal.

Only about half of women and 60 percent of men know the correct route of TB transmission, namely through droplets in the air when an infected person coughs. Seventy-eight percent of women and 84 percent of men believe that tuberculosis can be cured. Stigma towards TB patients appears not to be widespread in Tanzania, with only 24 percent of women and 16 percent of men saying that they would keep a family member‘s sickness secret.

There is considerable variation in knowledge of TB between urban and rural areas for both sexes, with urban residents more likely to know that TB is spread through the air by coughing. Although the belief that tuberculosis can be cured is higher among men than women in both Mainland and Zanzibar, women in Rukwa, Ruvuma, and Kagera regions were less likely to believe that tuberculosis can be cured than women in other regions.

There is a relationship between level of education and knowledge about route of transmission, stigma towards tuberculosis patients, and belief about cure. Respondents with secondary education and above have favourable knowledge and attitudes towards tuberculosis control measures: they have heard about TB, know the route of transmission, believe TB is curable, and do not favour keeping family members’ sickness secret. Respondents with no education have much less favourable knowledge and attitudes towards tuberculosis control measures. A similar but less pronounced differential is seen among households in the higher wealth quintiles compared with households in the lower wealth quintiles.

Table 5.6.1 Knowledge and attitudes concerning tuberculosis: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB), and among women who have heard of TB, the percentages who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Tanzania HMIS 2007-08

	All women		Women who have heard of TB			
Background characteristic	Percentage who have heard of TB	Number	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number
Age						
15-19	87.8	1,984	50.2	70.7	29.4	1,741
20-24	93.3	1,746	45.3	76.7	26.1	1,629
25-29	94.5	1,603	50.6	79.3	23.2	1,515
30-34	94.9	1,346	53.9	80.7	21.6	1,278
35-39	95.8	1,175	54.0	81.9	19.5	1,126
40-44	97.1	774	53.8	79.8	20.0	751
45-49	96.5	714	55.4	78.5	21.2	689
Residence						
Urban	98.6	2,459	68.5	89.7	25.5	2,424
Rural	91.6	6,884	44.4	72.9	23.2	6,306
Mainland/Zanzibar						
Mainland	93.3	9,034	51.2	77.6	23.9	8,431
Mainland – Urban	98.6	2,353	69.0	90.0	25.7	2,320
Dar es Salaam City	99.3	762	79.4	94.4	32.0	757
Other Urban	98.2	1,591	63.9	87.8	22.7	1,563
Mainland – Rural	91.5	6,681	44.4	72.9	23.2	6,111
Zanzibar	96.6	309	49.5	78.1	21.9	298
Region/Island						
Arusha	95.7	383	58.8	92.2	9.3	366
Dar es Salaam	99.3	797	78.9	94.2	32.9	791
Dodoma	95.7	338	46.0	73.6	39.3	324
Iringa	95.6	403	47.3	73.9	28.4	385
Kagera	90.2	495	40.8	66.3	27.9	446
Kigoma	88.6	414	54.1	79.2	13.2	367
Kilimanjaro	99.1	379	68.5	81.6	27.4	376
Lindi	99.3	246	44.5	79.0	37.9	244
Manyara	96.2	263	44.5	83.6	9.2	253
Mara	95.0	368	49.9	82.1	19.7	350
Mbeya	92.9	581	31.4	70.7	16.1	540
Morogoro	96.7	436	62.8	85.5	26.4	421
Mtwara	97.0	324	31.6	78.2	37.4	314
Mwanza	91.4	833	45.8	68.9	17.2	761
Pwani	98.5	203	60.3	87.7	25.9	201
Rukwa	75.8	314	35.9	59.7	16.8	238
Ruvuma	94.6	372	51.5	65.4	21.6	352
Shinyanga	85.0	750	33.5	67.4	21.5	637
Singida	95.6	194	49.8	81.4	28.7	185
Tabora	89.4	518	60.6	74.7	17.2	463
Tanga	98.1	424	61.0	87.5	34.0	416
Pemba	96.8	94	37.9	69.4	26.2	91
Unguja	96.5	214	54.6	82.0	20.0	207
Education						
No education	85.8	1,983	34.7	64.4	26.6	1,701
Primary incomplete	89.7	1,517	40.3	69.9	27.0	1,361
Primary complete	96.6	4,945	55.9	82.1	22.9	4,775
Secondary +	99.4	898	73.4	90.4	19.2	893
Wealth quintile						
Lowest	87.8	1,700	37.2	69.2	24.7	1,494
Second	90.1	1,634	38.8	69.5	23.6	1,472
Middle	91.7	1,757	46.6	72.1	23.1	1,612
Fourth	96.1	1,867	52.6	78.3	23.4	1,794
Highest	98.9	2,384	69.6	91.2	24.3	2,358
Total	93.4	9,343	51.1	77.6	23.9	8,729

Table 5.6.2 Knowledge and attitudes concerning tuberculosis: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB), and among men who have heard of TB, the percentages who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Tanzania HMIS 2007-08

	All men		men who have heard of TB			
Background characteristic	Percentage who have heard of TB	Number of men	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number of men
Age						
15-19	90.0	1,768	58.8	77.4	24.7	1,591
20-24	97.4	1,148	54.0	82.6	16.3	1,118
25-29	98.4	1,004	54.6	82.3	16.2	987
30-34	98.4	1,004	59.0	86.5	12.8	988
35-39	99.1	842	63.8	88.9	11.9	834
40-44	98.3	628	66.8	88.7	11.5	617
45-49	98.1	581	67.3	85.4	11.9	570
Residence						
Urban	98.9	1,699	73.7	90.1	15.0	1,680
Rural	95.3	5,276	54.8	81.3	16.8	5,026
Mainland/Zanzibar						
Mainland	96.1	6,763	59.8	83.4	16.3	6,502
Mainland – Urban	99.0	1,628	74.4	90.2	14.9	1,611
Dar es Salaam City	98.9	548	81.0	96.4	17.8	542
Other Urban	99.1	1,079	71.0	87.1	13.4	1,069
Mainland – Rural	95.2	5,136	54.9	81.1	16.8	4,891
Zanzibar	96.4	212	51.1	86.1	19.2	204
Region/Island						
Arusha	97.7	262	77.3	94.2	15.1	256
Dar es Salaam	98.9	580	79.8	96.1	18.6	573
Dodoma	96.7	255	51.6	74.3	21.6	247
Iringa	97.1	286	49.5	85.1	18.2	278
Kagera	94.5	397	52.8	75.9	20.1	375
Kigoma	94.1	292	63.4	81.3	13.0	274
Kilimanjaro	98.9	271	75.0	84.3	16.0	268
Lindi	99.2	164	54.8	86.2	25.4	163
Manyara	95.3	203	62.4	85.0	13.2	194
Mara	97.9	243	60.0	84.1	13.8	238
Mbeya	93.4	496	51.6	84.5	10.9	463
Morogoro	96.7	340	61.5	86.8	18.5	329
Mtwara	98.6	209	55.2	79.3	14.3	206
Mwanza	96.2	608	51.5	81.7	16.4	585
Pwani	100.0	119	69.1	86.5	6.9	119
Rukwa	94.0	264	51.7	70.8	12.2	249
Ruvuma	97.9	287	54.2	67.0	16.0	281
Shinyanga	92.4	633	50.7	80.6	13.9	585
Singida	94.9	153	64.6	87.4	21.4	145
Tabora	93.9	404	59.6	86.3	12.2	379
Tanga	99.1	298	69.2	88.1	26.6	295
Pemba	96.3	63	42.6	86.1	27.0	61
Unguja	96.4	148	54.7	86.1	15.9	143
Education						
No education	90.8	829	34.8	72.3	20.7	753
Primary incomplete	91.9	1,534	46.7	74.5	22.2	1,410
Primary complete	98.3	3,597	63.5	86.4	14.7	3,536
Secondary +	99.2	1,016	81.7	94.2	10.9	1,008
Wealth quintile						
Lowest	93.0	1,173	46.3	77.3	18.0	1,090
Second	94.6	1,411	51.8	78.5	16.1	1,335
Middle	96.3	1,322	53.0	80.8	19.3	1,273
Fourth	97.2	1,395	63.5	85.7	14.6	1,356
Highest	98.6	1,670	76.1	91.8	14.7	1,647
Total 15-49	96.1	6,975	59.5	83.5	16.4	6,706

ATTITUDES RELATING TO HIV/AIDS 6

6.1 ATTITUDES TOWARDS PEOPLE LIVING WITH AIDS

Widespread stigma and discrimination in a population can adversely affect both people's willingness to be tested for HIV and their adherence to antiretroviral therapy. Reduction of stigma and discrimination in a population is thus an important indicator of the success of programmes targeting HIV and AIDS prevention and control.

As stated in the National Policy on HIV/AIDS, stigma is one of the key challenges in the prevention and control of the epidemic. People living with HIV/AIDS face discrimination and are sometimes neglected because of hostile attitudes. More importantly, stigma leads to secrecy and denial, which hinder people from seeking counselling and testing for HIV, crucial first steps in fighting the epidemic (Prime Minister's Office, 2001).

To assess the level of stigma, THMIS respondents who had heard of AIDS were asked several questions related to their attitudes towards people infected by HIV/AIDS. They were asked if they would be willing to care for a sick relative with AIDS in their own household, if they would be willing to buy fresh vegetables from a market vendor who has AIDS, if they thought a female teacher who has HIV but is not sick should be allowed to continue teaching, and if they would want to keep a family member's HIV status secret.

Results in Tables 6.1.1 and 6.1.2 show that 90 percent of women and men are willing to care for a family member with the AIDS virus in homes and 75 percent of respondents believe that a female teacher with the AIDS virus who is not sick should be allowed to continue teaching. However, only 57 percent of women and 65 percent of men express a willingness to buy fresh vegetables from a shopkeeper who has the AIDS virus and less than half of women and 59 percent of men say that if a family member got infected with the AIDS virus, they would not feel it necessary to keep it a secret.

A composite indicator combining all four of these attitudes is shown in the second-to-last column of Tables 6.1.1 and 6.1.2. The data show that stigma and discrimination are still widespread among Tanzanian adults because only about one in four women and one in three men interviewed expressed positive attitudes on all four indicators. This level is almost the same as that observed in the 2003-04 THIS, and slightly higher than the level observed in the 2004 TDHS, though there are slight differences in wording between the surveys. In all three surveys, women are less positive than men in acceptance of all four attitude indicators.

Adults in urban areas are more likely than rural adults to have positive attitudes towards people with HIV/AIDS. For example, the proportion of women who express accepting attitudes on all four indicators was 37 percent in urban areas and 23 percent in rural areas; among men, the comparable figures are 50 percent in urban areas and 30 percent in rural areas. Zonal variations indicate that women in Zanzibar exhibit the highest level of acceptance on all four attitudinal measures (34 percent), compared with other zones in Mainland Tanzania, while men in Eastern Zone are found to have the highest acceptance (46 percent). The lowest acceptance is found among women and men in Central and Western zones.

Differentials across regions are marked. Regions with low levels of acceptance on all four indicators include Dodoma, Mtwara, Shinyanga, Singida, Tabora, and Tanga for women, and Tabora, Tanga, Shinyanga, and Singida for men. Only about one in five adults in these regions have accepting attitudes on all four indicators. On the positive side, women and men in Arusha (42 and 48 percent, respectively) and men in Dar es Salaam (56 percent) are more likely than those in other regions to express accepting attitudes on all four indicators.

Table 6.1.1 Accepting attitudes towards people living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes towards people with AIDS, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of women who: Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of AIDS
Age						
15-24	89.9	54.0	74.8	49.5	25.7	3,648
15-19	87.1	51.6	71.6	47.7	23.5	1,929
20-24	93.0	56.6	78.4	51.5	28.2	1,719
25-29	96.0	60.6	80.1	48.6	27.2	1,577
30-39	93.2	58.5	74.9	49.8	27.6	2,488
40-49	95.0	54.8	70.4	49.4	24.6	1,478
Marital status						
Never married	89.8	57.9	78.1	51.0	30.1	2,167
Ever had sex	93.6	62.8	82.3	51.1	33.7	972
Never had sex	86.7	54.0	74.7	50.9	27.2	1,194
Married/living together	93.6	55.5	73.6	49.3	24.9	5,885
Divorced/separated/ widowed	93.5	58.9	76.5	47.2	26.0	1,139
Residence						
Urban	97.4	73.3	89.8	51.8	36.5	2,450
Rural	90.9	50.4	69.6	48.6	22.6	6,741
Mainland/Zanzibar						
Mainland	92.7	56.2	74.7	49.1	26.0	8,885
Mainland – Urban	97.5	73.4	89.7	51.6	36.3	2,344
Dar es Salaam City	98.8	76.9	95.2	44.1	33.0	762
Other Urban	96.9	71.7	87.0	55.2	38.0	1,583
Mainland – Rural	91.0	50.1	69.3	48.3	22.3	6,540
Zanzibar	90.5	63.3	85.1	57.7	34.4	306
Region/Island						
Arusha	89.8	67.5	72.2	69.6	41.8	362
Dar es Salaam	98.7	76.9	95.1	43.6	32.4	797
Dodoma	95.2	59.0	85.1	31.5	17.1	335
Iringa	93.3	49.3	75.8	49.2	20.3	400
Kagera	96.0	55.5	74.5	46.5	25.4	485
Kigoma	92.1	53.5	68.6	50.8	25.3	414
Kilimanjaro	97.3	66.3	85.7	52.4	36.0	379
Lindi	99.4	61.0	85.5	41.4	34.0	246
Manyara	87.9	68.2	66.3	63.0	37.6	259
Mara	92.7	60.2	73.4	59.1	30.1	360
Mbeya	89.6	54.4	69.7	58.8	27.2	576
Morogoro	94.6	61.0	76.0	44.1	25.6	432
Mtwara	99.4	53.5	80.4	30.4	17.1	324
Mwanza	90.0	56.3	71.1	48.5	27.6	821
Pwani	95.8	58.7	81.4	50.1	29.5	203
Rukwa	88.7	50.8	69.3	59.6	27.0	287
Ruvuma	94.6	61.6	79.2	52.1	28.3	367
Shinyanga	87.4	37.0	57.9	48.0	17.5	706
Singida	93.4	55.0	75.1	36.1	15.0	193
Tabora	87.1	36.9	53.9	56.4	17.0	516
Tanga	91.4	47.2	82.8	38.6	18.6	423
Pemba	87.9	48.6	78.5	55.8	24.3	94
Unguja	91.6	69.8	88.1	58.6	38.8	212
Zone						
Western	88.5	41.1	59.4	51.4	19.3	1,636
Northern	91.9	61.3	77.9	54.6	32.6	1,422
Central	94.5	57.5	81.4	33.2	16.3	528
Southern Highlands	90.5	52.0	71.5	56.0	25.0	1,263
Lake	92.3	56.9	72.6	50.2	27.5	1,666
Eastern	97.1	69.5	87.4	44.6	29.9	1,432
Southern	97.5	58.6	81.3	41.8	25.9	937
Zanzibar	90.5	63.3	85.1	57.7	34.4	306
Education						
No education	86.6	37.0	54.9	44.2	14.4	1,897
Primary incomplete	88.2	44.1	67.2	48.1	18.2	1,486
Primary complete	95.5	63.1	81.7	50.2	29.7	4,909
Secondary +	97.2	82.0	93.9	58.5	46.1	898
Wealth quintile						
Lowest	85.8	39.3	56.9	44.0	14.8	1,637
Second	91.2	45.6	67.0	49.4	20.5	1,602
Middle	92.3	50.2	71.1	48.0	21.7	1,723
Fourth	94.2	61.1	80.4	52.1	30.2	1,853
Highest	97.5	76.6	91.5	52.2	38.4	2,376
Total 15-49	92.7	56.5	75.0	49.4	26.3	9,191

Table 6.1.2 Accepting attitudes towards those living with HIV/AIDS: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes towards people with HIV/AIDS, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of men who: Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of men who have heard of AIDS
Age						
15-24	90.8	60.9	73.4	55.9	30.9	2,858
15-19	87.9	56.8	73.4	52.6	26.9	1,720
20-24	95.2	67.1	73.5	60.7	36.9	1,139
25-29	94.1	67.2	76.6	63.9	41.0	998
30-39	96.5	69.4	76.1	60.2	37.1	1,837
40-49	95.3	65.7	77.8	59.5	35.1	1,204
Marital status						
Never married	90.4	62.3	75.1	56.9	33.0	2,868
Ever had sex	92.4	65.5	76.8	58.6	35.4	1,512
Never had sex	88.1	58.6	73.3	55.1	30.4	1,356
Married/living together	95.8	67.3	75.6	60.7	36.6	3,686
Divorced/separated/ widowed	96.7	61.4	74.7	54.3	29.5	343
Residence						
Urban	97.4	80.9	89.1	65.6	49.6	1,692
Rural	92.3	59.7	70.9	56.6	29.9	5,205
Mainland/Zanzibar						
Mainland	93.5	64.6	75.0	58.7	34.5	6,687
Mainland – Urban	97.5	80.8	89.0	65.7	49.5	1,622
Dar es Salaam City	99.8	89.1	94.6	66.3	56.9	546
Other Urban	96.3	76.6	86.1	65.3	45.7	1,075
Mainland – Rural	92.3	59.4	70.5	56.5	29.7	5,066
Zanzibar	94.6	75.4	86.9	62.5	43.7	210
Region/Island						
Arusha	90.5	76.2	77.2	68.9	47.7	253
Dar es Salaam	99.8	88.8	93.7	65.6	56.1	578
Dodoma	92.9	64.8	78.8	47.7	27.1	251
Iringa	92.0	65.0	79.7	63.0	34.7	282
Kagera	94.2	61.3	78.3	48.4	30.5	394
Kigoma	95.1	67.0	75.7	64.3	42.8	292
Kilimanjaro	91.8	62.9	76.0	56.6	31.6	271
Lindi	98.9	69.4	88.5	46.4	33.8	164
Manyara	95.4	59.9	68.1	63.4	38.6	200
Mara	95.0	76.8	75.3	68.6	40.9	240
Mbeya	93.4	69.5	75.3	72.5	44.9	491
Morogoro	93.4	60.5	78.4	56.7	31.2	340
Mtwara	98.7	69.9	78.3	49.7	31.6	209
Mwanza	94.8	60.5	69.4	50.7	28.4	592
Pwani	94.9	65.9	83.8	58.1	35.0	119
Rukwa	93.6	70.3	71.1	67.0	39.1	262
Ruvuma	95.6	62.1	85.5	63.3	37.4	284
Shinyanga	87.0	48.2	57.3	56.9	22.5	618
Singida	92.6	56.0	78.7	41.0	22.5	152
Tabora	90.7	48.0	56.1	62.2	21.1	401
Tanga	88.7	59.8	75.0	46.0	21.9	295
Pemba	92.9	66.9	86.4	54.2	31.8	63
Unguja	95.2	79.1	87.2	66.0	48.8	147
Zone						
Western	90.0	52.3	61.0	60.2	26.6	1,311
Northern	91.3	64.7	74.5	57.9	34.2	1,018
Central	92.8	61.5	78.8	45.2	25.4	403
Southern Highlands	93.1	68.5	75.4	68.5	40.6	1,035
Lake	94.7	63.9	73.4	53.5	31.5	1,226
Eastern	97.1	76.9	87.5	61.8	45.5	1,036
Southern	97.4	66.4	83.9	54.8	34.6	657
Zanzibar	94.6	75.4	86.9	62.5	43.7	210
Education						
No education	87.8	41.7	53.3	48.2	14.8	803
Primary incomplete	87.8	50.0	67.0	50.9	21.6	1,500
Primary complete	96.2	70.0	79.0	61.2	37.9	3,579
Secondary +	97.3	87.5	92.3	70.6	59.1	1,016
Wealth quintile						
Lowest	87.2	45.8	56.2	53.2	20.1	1,139
Second	91.7	56.8	69.3	58.1	27.6	1,397
Middle	93.6	63.2	73.6	54.7	32.0	1,310
Fourth	95.6	69.7	82.5	60.2	38.2	1,381
Highest	97.7	82.0	88.9	65.4	50.0	1,666
Total 15-49	93.6	64.9	75.4	58.8	34.8	6,898

Stigma is also found to vary with level of education; data show that women and men with no education and those with incomplete primary level are less likely to have positive attitudes towards people with HIV and AIDS than those with higher levels of education. People in the lowest wealth quintiles are more likely found to have negative attitudes towards people with HIV and AIDS compared with those in the higher wealth quintiles.

6.2 ATTITUDES TOWARDS NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it are of little use if people feel powerless to negotiate safer sex practices with their partners. Thus, attitudes about the acceptability of negotiating safer sex practices with partners were probed in the 2007-08 THMIS. Respondents were asked if they think a wife is justified in refusing to have sex with her husband when she knows he has a disease that can be transmitted through sexual contact. They were also asked whether a woman in the same circumstances would be justified in asking her husband to use a condom.

As shown in Table 6.2 and Figure 6.1, about nine in ten women and men believe that if a husband has a sexually transmitted disease, his wife is justified in either refusing to have sexual intercourse with him or asking that they use a condom. This attitude is uniformly high across almost all background characteristics, with somewhat lower levels among respondents who have never married or never had sex and among women in Arusha and Rukwa.

There are small differences by level of education and wealth quintile that show greater acceptance of a woman's ability to negotiate safer sex with increasing education and wealth quintile. Minor urban-rural differences indicate that women and men in urban areas are more likely than those in rural areas to believe in women's sexual negotiation rights.

Table 6.2 Attitudes towards negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that if a husband has a sexually transmitted disease his wife is justified in refusing to have sexual intercourse with him, or in asking that they use a condom, by background characteristics, Tanzania HMIS 2007-08

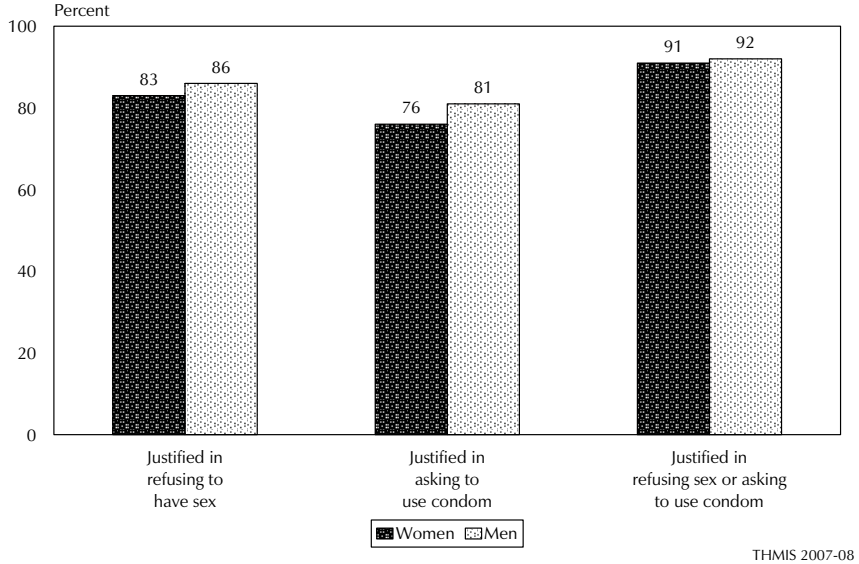
	Women: Wife is justified in:				Men: Wife is justified in:			
Background characteristic	Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of women	Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of men
Age								
15-24	78.4	72.2	87.1	3,730	79.3	76.4	87.2	2,916
15-19	73.9	66.6	82.9	1,984	74.9	72.5	83.9	1,768
20-24	83.5	78.6	91.8	1,746	86.1	82.5	92.2	1,148
25-29	85.5	81.2	93.7	1,603	86.5	85.3	94.9	1,004
30-39	86.9	77.8	93.4	2,521	91.3	85.8	96.3	1,846
40-49	85.1	74.4	92.0	1,488	90.5	79.7	94.8	1,210
Marital status								
Never married	75.3	69.5	84.0	2,214	79.2	76.1	87.1	2,931
Ever had sex	84.3	84.0	94.5	983	87.4	85.9	94.0	1,525
Never had sex	68.2	57.9	75.6	1,231	70.3	65.5	79.5	1,406
Married/living together	85.0	76.9	92.5	5,983	90.1	83.8	95.7	3,701
Divorced/separated/widowed	87.1	80.7	94.2	1,147	89.5	87.8	95.5	343
Residence								
Urban	88.1	84.2	94.9	2,459	90.2	84.5	95.8	1,699
Rural	81.1	72.6	89.2	6,884	83.9	79.6	90.8	5,276
Mainland/Zanzibar								
Mainland	83.4	76.1	91.1	9,034	85.5	81.2	92.1	6,763
Mainland – Urban								
Dar es Salaam City	90.9	87.5	97.1	762	92.4	83.0	96.7	548
Other Urban	87.3	83.3	94.2	1,591	89.4	86.7	95.7	1,079
Mainland – Rural	81.6	73.0	89.6	6,681	84.0	79.8	90.9	5,136
Zanzibar	71.1	62.6	80.2	309	83.0	67.3	90.1	212

Continued…

Table 6.2—*Continued*

Background characteristic	Women: Wife is justified in: Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of women	Men: Wife is justified in: Refusing to have sexual intercourse	Asking that they use a condom	Refusing sexual intercourse or asking that they use a condom	Number of men
Region/Island								
Arusha	77.9	58.3	79.9	383	89.3	84.6	92.6	262
Dar es Salaam	91.0	87.6	97.2	797	91.9	83.5	96.6	580
Dodoma	79.7	80.7	88.4	338	81.4	86.6	92.7	255
Iringa	72.0	72.8	87.2	403	73.6	73.6	85.3	286
Kagera	85.8	79.9	91.7	495	76.3	80.7	86.4	397
Kigoma	93.5	77.7	95.5	414	91.3	80.0	94.4	292
Kilimanjaro	85.9	83.7	96.4	379	88.3	88.2	94.4	271
Lindi	85.8	85.6	94.1	246	95.6	88.4	97.8	164
Manyara	86.5	50.9	87.5	263	91.4	72.9	92.7	203
Mara	84.0	80.7	91.9	368	81.3	77.6	88.8	243
Mbeya	76.3	65.2	90.7	581	82.1	73.8	90.8	496
Morogoro	81.3	81.2	92.7	436	83.0	82.1	88.6	340
Mtwara	80.4	81.5	91.1	324	90.7	87.5	94.7	209
Mwanza	85.5	78.0	90.0	833	84.4	84.9	91.9	608
Pwani	82.5	87.8	92.7	203	90.4	80.6	93.1	119
Rukwa	67.3	56.9	80.0	314	80.0	80.4	89.9	264
Ruvuma	78.0	85.3	92.6	372	82.2	86.7	92.3	287
Shinyanga	83.4	63.7	87.4	750	84.5	73.1	90.6	633
Singida	80.8	66.9	90.9	194	82.6	76.6	91.3	153
Tabora	92.2	80.3	95.3	518	91.5	79.8	94.4	404
Tanga	86.1	85.9	94.1	424	92.1	92.7	98.0	298
Pemba	69.9	53.3	75.5	94	79.5	63.1	86.9	63
Unguja	71.6	66.7	82.2	214	84.4	69.0	91.4	148
Zone								
Western	88.6	72.3	91.8	1,682	88.1	76.7	92.6	1,328
Northern	83.9	71.7	89.7	1,449	90.3	85.6	94.6	1,034
Central	80.1	75.7	89.3	532	81.9	82.9	92.2	408
Southern Highlands	72.8	65.5	87.0	1,297	79.2	75.4	89.0	1,046
Lake	85.2	79.2	90.9	1,696	81.2	82.1	89.5	1,249
Eastern	86.8	85.7	95.2	1,436	88.8	82.7	93.6	1,038
Southern	80.9	84.1	92.4	942	88.2	87.4	94.4	660
Zanzibar	71.1	62.6	80.2	309	83.0	67.3	90.1	212
Education								
No education	77.9	64.3	84.7	1,983	80.8	69.0	86.9	829
Primary incomplete	77.4	68.7	86.4	1,517	78.6	76.3	87.1	1,534
Primary complete	85.5	81.0	93.8	4,945	87.6	83.7	94.0	3,597
Secondary +	89.3	82.5	94.3	898	92.1	86.6	96.9	1,016
Wealth quintile								
Lowest	77.9	66.6	85.6	1,700	80.9	71.9	87.3	1,173
Second	81.4	70.3	88.4	1,634	83.8	78.9	91.0	1,411
Middle	82.0	75.8	91.6	1,757	83.3	83.1	91.4	1,322
Fourth	83.2	78.7	92.1	1,867	85.9	81.9	92.8	1,395
Highest	88.1	83.3	94.3	2,384	91.3	85.8	96.2	1,670
Total 15-49	83.0	75.6	90.7	9,343	85.5	80.8	92.0	6,975

Figure 6.1 Attitudes Towards Women's Ability to Negotiate Safer Sex if Husband Has an STD



THMIS 2007-08

6.3 Attitudes of Adults towards Educating Children about Condom Use to Prevent AIDS

Educating youths about condom use can be controversial, with some saying it promotes early sexual experimentation, despite the fact that condom use has long been one of the main strategies for combating the spread of sexually transmitted infections including HIV. To assess attitudes towards condom education, THMIS 2007-08 respondents were asked if they thought that children age 12-14 years should be taught about using a condom to avoid HIV. Results are shown in Table 6.3. Although all respondents age 15-49 were asked the question—because the aim was to ascertain adult opinion—results were tabulated only for respondents age 18-49.

The data in Table 6.3 indicate that about six in ten women and men age 18-49 years agree that children 12-14 years should be taught about using a condom to avoid HIV infection, with men showing higher approval (64 percent) than women (58 percent). Across age groups, younger women are more likely to approve of teaching children about condom use than older women, while for men, there is no such age difference. Interestingly, while urban women are more likely than rural women to approve of condom use education for youth, the reverse is true for men. However, there is a substantial difference of opinion between Mainland and Zanzibar, with 59 percent of women and 65 percent of men in Mainland Tanzania supporting condom use education for youth, compared with only 22 percent of women and 33 percent of men in Zanzibar. A positive correlation exists between the approval of teaching children about using condoms and wealth quintile among women, but not among men.

Table 6.3 Adult support of education about condom use to prevent AIDS

Percentage of women and men age 18-49 who agree that children age 12-14 years should be taught about using a condom to avoid AIDS, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women		Men	
	Percentage who agree	Number	Percentage who agree	Number
Age				
18-24	60.8	2,415	64.9	1,763
18-19	58.2	669	60.4	616
20-24	61.8	1,746	67.3	1,148
25-29	57.4	1,603	65.7	1,004
30-39	58.2	2,521	65.1	1,846
40-49	50.8	1,488	60.5	1,210
Marital status				
Never married	57.9	1,052	62.8	1,781
Married or living together	56.8	5,839	64.0	3,698
Divorced/separated/widowed	60.2	1,137	74.1	343
Residence				
Urban	61.3	2,118	56.3	1,452
Rural	56.1	5,910	66.8	4,371
Mainland/Zanzibar				
Mainland	58.6	7,772	65.2	5,645
Mainland – Urban	62.9	2,029	57.5	1,391
Dar es Salaam City	58.5	667	46.3	485
Other Urban	65.1	1,362	63.5	905
Mainland – Rural	57.1	5,743	67.7	4,254
Zanzibar	22.1	256	32.7	178
Region/Island				
Arusha	40.8	336	57.4	225
Dar es Salaam	59.2	700	46.8	512
Dodoma	71.4	282	79.6	212
Iringa	58.5	355	66.6	242
Kagera	59.6	422	71.0	309
Kigoma	39.9	349	52.3	232
Kilimanjaro	59.4	306	65.5	216
Lindi	77.9	215	79.2	149
Manyara	31.1	228	59.3	173
Mara	61.0	310	71.3	185
Mbeya	45.3	513	54.9	416
Morogoro	75.4	388	69.9	282
Mtwara	80.1	286	91.7	182
Mwanza	59.4	690	65.6	509
Pwani	68.8	173	61.4	100
Rukwa	39.9	273	65.3	219
Ruvuma	72.2	332	72.7	234
Shinyanga	44.9	636	63.4	525
Singida	72.2	169	71.0	129
Tabora	63.4	437	69.0	343
Tanga	74.8	373	73.7	251
Pemba	16.1	77	39.9	50
Unguja	24.7	179	30.0	128
Zone				
Western	49.4	1,421	62.8	1,099
Northern	53.8	1,243	64.5	864
Central	71.7	451	76.4	341
Southern Highlands	48.1	1,141	60.7	877
Lake	59.8	1,422	68.3	1,003
Eastern	65.5	1,262	55.7	895
Southern	76.4	832	80.5	565
Zanzibar	22.1	256	32.7	178
Education				
No education	47.0	1,856	65.9	777
Primary incomplete	61.7	1,078	72.4	963
Primary complete	61.6	4,380	63.8	3,228
Secondary +	52.9	714	55.1	854
Wealth quintile				
Lowest	53.8	1,487	67.9	971
Second	55.3	1,427	67.7	1,165
Middle	56.6	1,490	70.0	1,121
Fourth	59.7	1,575	63.3	1,141
Highest	60.5	2,048	54.9	1,420
Total 18-49	57.5	8,028	64.2	5,823

HIV/AIDS-RELATED BEHAVIOUR 7

7.1 INTRODUCTION

This chapter explores the prevalence of behaviours that relate to and influence the HIV/AIDS epidemic and other related infections. Discussed are issues such as age at sexual debut, multiple sexual partners, and sex with commercial sex workers, all of which are related to higher risk of spreading HIV and other Sexually Transmitted Infections (STIs). The chapter also examines the prevalence of sexually transmitted infections and their symptoms among women and men age 15-49. Moreover, information on the prevalence of voluntary counselling and testing for HIV is discussed. Finally, information on the use of injections is examined. To show trends for selected indicators, comparisons are made with previous surveys, i.e., the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS) and the 2004-05 Tanzania Demographic and Health Survey (TDHS).

7.2 AGE AT FIRST SEXUAL INTERCOURSE

Age at first sexual intercourse is of particular interest as HIV in Tanzania is mainly transmitted through heterosexual contact. Thus, analyzing data on age at first sex is a way to understand when individuals are first exposed to the risk of infection with the HIV virus. The 2007-08 Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) collected information on the timing of first sexual intercourse for both women and men. The data are presented in Table 7.1.

Table 7.1 Age at first sexual intercourse

Percentage of women and men age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had intercourse, and median age at first intercourse, according to current age, Tanzania HMIS 2007-08

	Percentage who had first sexual intercourse by exact age:					Percentage who never had		Median age at first
Current age	15	18	20	22	25	intercourse	Number	intercourse
				WOMEN				
15-19	10.7	na	na	na	na	54.1	1,984	a
20-24	11.5	58.8	82.4	na	na	7.1	1,746	17.5
25-29	11.6	56.2	78.3	86.9	90.8	1.4	1,603	17.5
30-34	14.2	55.9	78.8	86.7	89.6	0.7	1,346	17.5
35-39	16.7	60.7	79.3	87.5	91.5	0.1	1,175	17.0
40-44	16.1	59.1	77.5	87.3	92.0	0.0	774	17.2
45-49	20.8	65.3	80.7	89.3	92.3	0.1	714	16.7
20-49	14.2	58.7	79.7	na	na	2.1	7,359	17.3
25-49	15.1	58.6	78.8	87.3	91.0	0.6	5,613	17.3
15-24	11.1	na	na	na	na	32.1	3,730	a
				MEN				
15-19	10.8	na	na	na	na	64.4	1,768	a
20-24	8.1	41.8	69.8	na	na	17.8	1,148	18.5
25-29	7.1	40.7	67.3	82.6	92.2	4.5	1,004	18.5
30-34	9.3	40.9	70.0	83.9	92.9	0.8	1,004	18.5
35-39	9.1	40.2	67.2	82.0	89.7	0.8	842	18.5
40-44	8.1	39.4	65.6	81.1	88.2	0.3	628	18.6
45-49	5.8	39.1	63.9	80.9	89.7	0.3	581	18.6
20-49	8.0	40.6	67.8	na	na	5.1	5,207	18.5
25-49	8.0	40.2	67.2	82.3	90.9	1.5	4,059	18.5
15-24	9.7	na	na	na	na	46.1	2,916	a

na = Not applicable because of censoring
a = Omitted because less than 50 percent of the respondents had intercourse for the first time before reaching the beginning of the age group

The data show that while women and men both initiate sexual activity early, it is particularly the case for women. Fourteen percent of women age 20-49 first had sex before they were 15 and almost six in ten (59 percent) had first sex before the age of 18. Looking at the median age at first sex by age group, there appears to be a tendency for younger women to delay sex compared with women age 35-49. The median age at first sex for women is 17.3 years.

Men initiate sexual activity somewhat later than women. Among men age 20-49, only 8 percent had sex before they were 15, while 41 percent had sex before age 18 and 68 percent had sex by age 20. The median age at first sex for men is 18.5 years.

Comparison of these results with data from the 2003-04 THIS indicates that there has been little change in age at sexual debut. However, the median age at first sex for women 20-24 has declined slightly from 17.7 to 17.5 years in 2007-08, while for men it has remained the same at 18.5 years.

7.3 RECENT SEXUAL ACTIVITY

In the absence of contraception, the chances of becoming pregnant are related to the frequency of sexual intercourse. Thus, information on sexual activity can be used to refine measures of exposure to HIV and other sexually transmitted infections, as well as pregnancy. Women and men interviewed in the THMIS were asked when they last had sex. Tables 7.2.1 and 7.2.2 show the distribution of women and men, respectively, according to the timing of last sexual activity, by background characteristics.

The data show that over half of women and men age 15-49 were sexually active in the four weeks preceding the survey (56 percent of women and 55 percent of men), while about three-quarters had had sex in the 12 months before the survey. Thirteen percent of women and 20 percent of men age 15-49 had never had sexual intercourse at the time of the survey.

Among women, the level of recent sexual activity (within the four weeks preceding the survey) reaches a broad peak at ages 25-44. In the youngest age groups, recent sexual activity among men is lower than that among women; however, from ages 25-29, the proportion of men who have had sex in the past month exceeds that for women. As expected, recent sexual activity is far more common among currently married women and men than among those who never married or who are divorced, separated, or widowed (Figure 7.1). For example, 78 percent of currently married women and 86 percent of currently married men reported having had sex in the four weeks before the survey, compared with only 13 percent of never-married women and 17 percent of never-married men. Recent sexual activity does not decline with the duration of marriage; in fact, among married men, the proportion who had sex in the four weeks before the survey is highest among those married for 25 years or more (93 percent).

Both women and men in rural areas are more likely to have had sex in the four weeks before the survey than their urban counterparts. The proportion of women who reported recent sexual activity ranges from 45 percent in Kilimanjaro and Iringa regions to 67 percent in Shinyanga region. The range is greater among men, from 39 percent in Kilimanjaro region to 69 percent in Lindi region. Women and men with more education are less likely than those with less education to have had sex in the past four weeks. Recent sexual activity by household wealth status generally decreases with increasing wealth quintile, especially for men.

Table 7.2.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of women
Age							
15-19	23.7	17.2	4.9	0.1	54.1	100.0	1,984
20-24	59.2	25.1	8.4	0.3	7.1	100.0	1,746
25-29	68.2	23.1	6.9	0.3	1.4	100.0	1,603
30-34	68.8	20.2	10.0	0.3	0.7	100.0	1,346
35-39	67.8	22.7	9.3	0.1	0.1	100.0	1,175
40-44	67.6	16.7	15.4	0.2	0.0	100.0	774
45-49	59.7	16.4	23.2	0.6	0.1	100.0	714
Marital status							
Never married	12.8	20.5	11.0	0.1	55.6	100.0	2,214
Married or living together	78.0	17.9	3.8	0.3	0.0	100.0	5,983
Divorced/separated/widowed	27.8	35.7	36.2	0.3	0.0	100.0	1,147
Marital duration[2]							
0-4 years	77.5	19.1	2.9	0.5	0.0	100.0	1,363
5-9 years	78.2	18.6	2.9	0.3	0.0	100.0	1,116
10-14 years	74.7	20.3	4.8	0.2	0.0	100.0	814
15-19 years	79.3	17.1	3.6	0.1	0.0	100.0	661
20-24 years	78.5	16.5	5.0	0.0	0.0	100.0	484
25+ years	74.0	17.2	8.5	0.4	0.0	100.0	402
Married more than once	81.4	15.4	3.0	0.2	0.0	100.0	1,143
Residence							
Urban	52.1	22.3	10.1	0.5	15.0	100.0	2,459
Rural	57.9	20.1	9.2	0.2	12.5	100.0	6,884
Mainland/Zanzibar							
Mainland/	56.7	21.0	9.6	0.3	12.5	100.0	9,034
Mainland - Urban	52.4	22.7	10.3	0.5	14.1	100.0	2,353
Dar es Salaam City	50.5	22.0	13.0	0.4	14.1	100.0	762
Other Urban	53.4	23.0	9.0	0.5	14.1	100.0	1,591
Mainland - Rural	58.2	20.4	9.3	0.2	11.9	100.0	6,681
Zanzibar	47.9	12.7	6.2	0.0	33.1	100.0	309
Region/Island							
Arusha	51.6	19.1	13.3	0.7	15.3	100.0	383
Dar es Salaam	50.8	22.7	12.6	0.4	13.5	100.0	797
Dodoma	53.8	22.1	10.8	0.0	13.3	100.0	338
Iringa	45.2	21.4	21.2	0.0	12.1	100.0	403
Kagera	59.5	16.2	10.0	0.0	14.3	100.0	495
Kigoma	57.5	14.6	6.2	0.0	21.8	100.0	414
Kilimanjaro	44.9	21.7	11.5	0.0	21.9	100.0	379
Lindi	59.4	21.7	7.4	0.7	10.8	100.0	246
Manyara	51.5	20.2	11.0	0.0	17.2	100.0	263
Mara	55.8	23.9	8.7	1.2	10.4	100.0	368
Mbeya	61.8	14.1	10.4	0.0	13.7	100.0	581
Morogoro	59.8	23.6	9.3	0.3	7.0	100.0	436
Mtwara	60.0	24.7	7.2	0.0	8.1	100.0	324
Mwanza	60.2	20.2	6.7	0.0	12.9	100.0	833
Pwani	51.9	25.6	10.2	0.0	12.3	100.0	203
Rukwa	59.7	18.9	9.8	0.0	11.6	100.0	314
Ruvuma	57.7	21.1	13.7	0.3	7.2	100.0	372
Shinyanga	67.2	19.3	4.9	0.3	8.3	100.0	750
Singida	53.5	27.7	4.3	0.0	14.5	100.0	194
Tabora	61.2	23.3	5.5	0.8	9.3	100.0	518
Tanga	51.4	28.4	9.1	0.6	10.4	100.0	424
Pemba	50.0	11.8	5.4	0.1	32.7	100.0	94
Unguja	47.0	13.2	6.5	0.0	33.3	100.0	214
Zone							
Western	63.0	19.3	5.4	0.4	11.9	100.0	1,682
Northern	49.8	22.7	11.2	0.3	15.9	100.0	1,449
Central	53.7	24.1	8.4	0.0	13.8	100.0	532
Southern Highlands	56.2	17.5	13.6	0.0	12.7	100.0	1,297
Lake	59.0	19.9	8.1	0.3	12.8	100.0	1,696
Eastern	53.7	23.4	11.2	0.3	11.3	100.0	1,436
Southern	58.9	22.5	9.8	0.3	8.4	100.0	942
Zanzibar	47.9	12.7	6.2	0.0	33.1	100.0	309
Education							
No education	63.5	20.4	12.2	0.3	3.7	100.0	1,983
Primary incomplete	51.4	17.5	6.8	0.3	24.0	100.0	1,517
Primary complete	58.7	21.9	9.1	0.3	10.1	100.0	4,945
Secondary +	36.4	20.4	10.3	0.1	32.8	100.0	898
Wealth quintile							
Lowest	56.5	22.2	10.5	0.3	10.5	100.0	1,700
Second	63.6	17.6	8.3	0.3	10.3	100.0	1,634
Middle	56.9	21.4	9.2	0.0	12.5	100.0	1,757
Fourth	54.9	21.1	9.8	0.1	14.2	100.0	1,867
Highest	52.3	21.0	9.5	0.5	16.8	100.0	2,384
Total	56.4	20.7	9.5	0.2	13.2	100.0	9,343

[1] Excludes women who had sexual intercourse within the past 4 weeks
[2] Excludes women who are not currently married

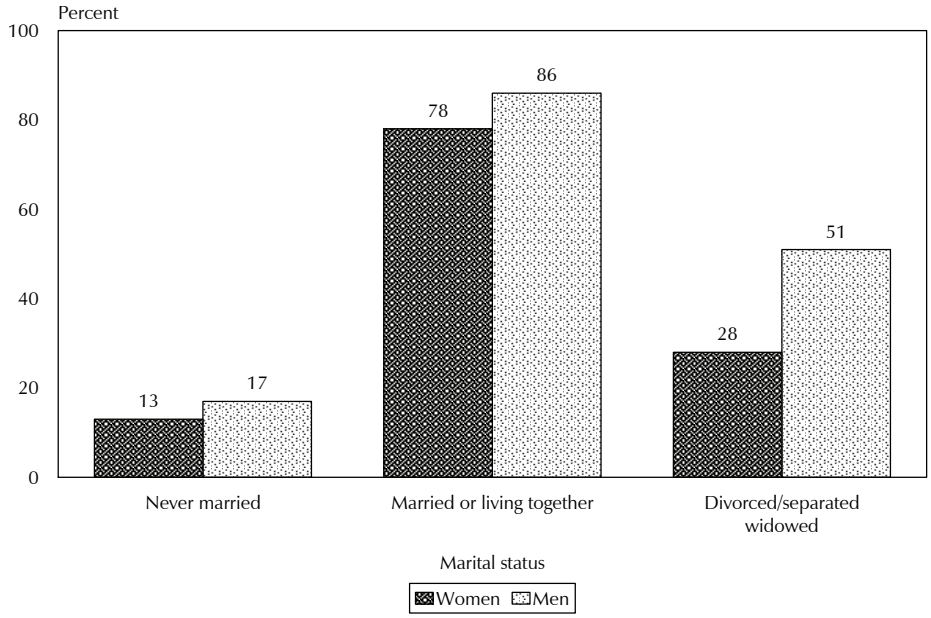
Table 7.2.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of men
Age							
15-19	11.6	13.4	10.5	0.0	64.4	100.0	1,768
20-24	44.6	24.6	13.0	0.0	17.8	100.0	1,148
25-29	69.2	19.8	6.2	0.2	4.5	100.0	1,004
30-34	78.0	16.4	4.6	0.2	0.8	100.0	1,004
35-39	79.5	14.7	4.3	0.7	0.8	100.0	842
40-44	79.8	13.6	5.0	1.3	0.3	100.0	628
45-49	83.2	12.2	3.9	0.4	0.3	100.0	581
Marital status							
Never married	17.4	20.1	14.6	0.0	48.0	100.0	2,931
Married or living together	85.5	12.5	1.4	0.5	0.0	100.0	3,701
Divorced/separated/widowed	51.1	32.4	15.8	0.6	0.0	100.0	343
Marital duration[2]							
0-4 years	85.5	13.5	0.6	0.4	0.0	100.0	831
5-9 years	83.2	14.1	2.1	0.6	0.0	100.0	738
10-14 years	82.6	15.8	1.0	0.6	0.0	100.0	516
15-19 years	89.9	8.9	0.9	0.3	0.0	100.0	406
20-24 years	83.2	13.7	1.7	1.4	0.0	100.0	277
25+ years	92.6	3.0	4.4	0.0	0.0	100.0	115
Married more than once	87.2	10.8	1.6	0.4	0.0	100.0	818
Residence							
Urban	47.1	19.7	11.1	0.4	21.7	100.0	1,699
Rural	57.8	15.7	6.6	0.3	19.6	100.0	5,276
Mainland/Zanzibar							
Mainland	55.6	16.9	7.7	0.3	19.5	100.0	6,763
Mainland – Urban	47.5	20.1	11.2	0.4	20.7	100.0	1,628
Dar es Salaam City	46.3	19.7	12.9	0.8	20.2	100.0	548
Other Urban	48.2	20.3	10.4	0.3	20.9	100.0	1,079
Mainland – Rural	58.1	15.8	6.6	0.3	19.1	100.0	5,136
Zanzibar	42.5	10.7	4.9	0.5	41.5	100.0	212
Region/Island							
Arusha	50.1	19.4	8.1	0.4	21.9	100.0	262
Dar es Salaam	47.0	19.4	12.8	0.8	20.0	100.0	580
Dodoma	55.1	19.8	8.6	1.5	15.1	100.0	255
Iringa	46.1	20.8	10.4	0.4	22.2	100.0	286
Kagera	49.4	10.3	11.1	0.4	28.9	100.0	397
Kigoma	57.6	9.9	3.3	0.0	29.2	100.0	292
Kilimanjaro	38.7	22.7	13.6	0.0	25.0	100.0	271
Lindi	69.0	20.0	3.8	0.0	7.2	100.0	164
Manyara	54.5	19.6	3.7	0.0	22.3	100.0	203
Mara	51.0	17.6	4.8	0.3	26.3	100.0	243
Mbeya	51.2	14.6	10.8	0.0	23.4	100.0	496
Morogoro	62.9	15.3	8.4	0.0	13.5	100.0	340
Mtwara	63.9	21.9	8.0	0.0	6.2	100.0	209
Mwanza	57.8	13.3	7.9	0.6	20.4	100.0	608
Pwani	47.5	28.0	4.1	0.0	20.3	100.0	119
Rukwa	59.6	15.3	7.8	0.8	16.5	100.0	264
Ruvuma	62.1	20.2	5.8	0.0	11.9	100.0	287
Shinyanga	66.6	12.2	3.8	0.0	17.4	100.0	633
Singida	45.3	21.0	11.0	0.5	22.3	100.0	153
Tabora	67.1	15.9	2.8	0.0	14.1	100.0	404
Tanga	53.6	21.9	6.7	0.5	17.2	100.0	298
Pemba	41.5	7.0	2.5	0.3	48.7	100.0	63
Unguja	42.9	12.3	6.0	0.5	38.4	100.0	148
Zone							
Western	64.8	12.8	3.4	0.0	19.0	100.0	1,328
Northern	49.0	21.0	8.3	0.3	21.4	100.0	1,034
Central	51.4	20.2	9.5	1.1	17.8	100.0	408
Southern Highlands	51.9	16.5	9.9	0.3	21.3	100.0	1,046
Lake	53.8	13.2	8.3	0.4	24.3	100.0	1,249
Eastern	52.3	19.0	10.4	0.4	17.9	100.0	1,038
Southern	64.4	20.7	6.0	0.0	8.9	100.0	660
Zanzibar	42.5	10.7	4.9	0.5	41.5	100.0	212
Education							
No education	66.1	17.1	5.2	0.0	11.6	100.0	829
Primary incomplete	43.8	15.1	6.6	0.1	34.3	100.0	1,534
Primary complete	62.7	16.9	7.4	0.4	12.6	100.0	3,597
Secondary +	37.0	17.9	12.0	0.4	32.7	100.0	1,016
Wealth quintile							
Lowest	61.1	15.6	4.0	0.1	19.2	100.0	1,173
Second	59.7	15.4	7.4	0.2	17.3	100.0	1,411
Middle	56.2	17.5	6.0	0.1	20.2	100.0	1,322
Fourth	53.1	15.5	9.3	0.5	21.5	100.0	1,395
Highest	48.2	18.8	10.4	0.5	22.0	100.0	1,670
Total	55.2	16.7	7.7	0.3	20.2	100.0	6,975

[1] Excludes men who had sexual intercourse within the past 4 weeks
[2] Excludes men who are not currently married

Figure 7.1 Recent Sexual Intercourse by Marital Status



7.4 MULTIPLE SEXUAL PARTNERS AND HIGHER-RISK SEX

Information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of HIV. The 2007-08 THMIS included questions about respondents' sexual partners over the 12 months preceding the survey as well as the number of lifetime partners. These questions allow for estimating the extent of higher-risk sexual activity. In the context of this survey, higher-risk sex is defined as sex with a nonmarital, noncohabiting partner in the 12 months preceding the survey. For male respondents, an additional question was asked on whether they paid for sex during the 12 months preceding the survey. Information on the use of condoms at the last sexual intercourse with each type of partner was collected for both women and men. These questions are sensitive, and it is recognized that some respondents may have been reluctant to provide information on recent sexual behaviour. Tables 7.3.1 and 7.3.2 show the percentage of women and men, respectively, age 15-49 years who had more than one sexual partner and the percentage who engaged in higher-risk sexual intercourse in the past 12 months among all respondents and among those who had sex in the previous 12 months.

Specifically, the data show that women are far less likely than men to report having had two or more sexual partners in the past 12 months. Only 3 percent of women reported having had sex with more than one partner in the 12 months preceding the survey, compared with 18 percent of men. A similar differential exists for higher-risk sex. Sixteen percent of all women and 29 percent of men reported having sex in the 12 months before the survey with someone who was not a husband/wife or cohabiting partner.

When the results are confined to only those who had sex in the 12 months before the survey, the proportions who had multiple partners and higher-risk sex are higher than among all women and men, particularly for men. Among men who had sex in the 12 months before the survey, one-quarter said they had more than one partner in that time period and 41 percent reported having had sex with a nonmarital, noncohabiting partner.

Table 7.3.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among all women age 15-49, percentage who had sexual intercourse with more than one partner in the past 12 months and percentage who had higher-risk sexual intercourse in the past 12 months; and among women who had sexual intercourse in the past 12 months, percentage who had sexual intercourse with more than one partner in the past 12 months and percentage who had higher-risk sexual intercourse in the past 12 months; and among women who had higher-risk sexual intercourse in the past 12 months, percentage who used a condom at last higher-risk sex; and among women who ever had sexual intercourse, mean number of sexual partners in lifetime, by background characteristics, Tanzania HMIS 2007-08

	All women			Women who had sexual intercourse in the past 12 months			Women who had higher-risk intercourse in the past 12 months		Women who ever had sexual intercourse	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number	Percentage who used a condom at last higher-risk intercourse[1]	Number	Mean number of sexual partners in lifetime	Number
Age										
15-24	2.5	19.3	3,730	4.1	31.5	2,282	46.3	719	2.0	2,529
15-19	1.9	20.0	1,984	4.8	49.1	810	48.2	398	1.8	907
20-24	3.1	18.4	1,746	3.7	21.9	1,472	43.9	322	2.1	1,622
25-29	2.6	14.3	1,603	2.8	15.6	1,465	42.0	229	2.4	1,568
30-39	3.1	14.2	2,521	3.4	15.8	2,262	41.6	357	2.6	2,499
40-49	2.3	11.9	1,488	2.9	14.8	1,196	32.3	177	2.8	1,478
Marital status										
Never married	1.4	32.9	2,214	4.3	98.8	737	48.1	728	2.3	978
Married or living together	2.5	3.1	5,983	2.6	3.2	5,739	38.8	185	2.3	5,958
Divorced/separated/ widowed	5.5	49.6	1,147	8.6	78.1	728	37.3	569	3.4	1,138
Residence										
Urban	2.3	21.5	2,459	3.1	28.9	1,831	51.7	529	2.6	2,078
Rural	2.7	13.8	6,884	3.5	17.7	5,374	37.8	952	2.4	5,996
Mainland/Zanzibar										
Mainland	2.7	16.2	9,034	3.5	20.8	7,017	43.1	1,462	2.5	7,868
Mainland – Urban	2.4	22.1	2,353	3.2	29.4	1,768	52.1	521	2.6	2,007
Dar es Salaam City	2.1	22.0	762	2.9	30.3	553	64.6	168	2.4	655
Other Urban	2.6	22.2	1,591	3.4	29.0	1,216	46.2	353	2.7	1,353
Mainland – Rural	2.8	14.1	6,681	3.6	17.9	5,249	38.1	942	2.4	5,861
Zanzibar	0.3	6.2	309	0.5	10.3	187	20.3	19	1.7	206
Region/Island										
Arusha	0.2	10.4	383	0.3	14.7	271	34.7	40	1.8	320
Dar es Salaam	2.5	22.5	797	3.4	30.6	586	64.2	179	2.5	689
Dodoma	4.7	14.5	338	6.2	19.1	256	38.4	49	2.5	293
Iringa	0.7	10.9	403	1.1	16.3	268	44.9	44	2.0	352
Kagera	2.5	11.9	495	3.3	15.7	375	37.7	59	2.0	422
Kigoma	0.5	9.1	414	0.7	12.6	298	28.5	37	1.7	324
Kilimanjaro	0.9	13.8	379	1.4	20.7	253	57.6	52	1.9	296
Lindi	5.0	22.3	246	6.2	27.5	200	45.5	55	3.7	218
Manyara	0.6	7.6	263	0.8	10.6	189	7.7	20	2.3	214
Mara	4.4	23.6	368	5.5	29.6	293	43.5	87	3.1	324
Mbeya	0.5	6.6	581	0.7	8.7	441	35.5	38	1.5	501
Morogoro	2.2	16.8	436	2.7	20.2	364	54.2	73	2.6	404
Mtwara	6.4	20.9	324	7.5	24.6	274	28.1	68	4.0	296
Mwanza	3.2	19.1	833	3.9	23.8	670	40.0	159	3.2	720
Pwani	4.3	24.2	203	5.6	31.2	158	36.7	49	3.0	178
Rukwa	0.2	7.3	314	0.2	9.3	247	28.6	23	1.5	276
Ruvuma	3.4	19.6	372	4.3	24.8	293	42.8	73	3.0	344
Shinyanga	2.7	17.0	750	3.1	19.6	648	36.8	127	2.5	686
Singida	3.8	15.6	194	4.6	19.2	157	16.0	30	2.2	166
Tabora	5.9	21.6	518	6.9	25.6	437	43.3	112	2.8	466
Tanga	4.1	20.5	424	5.1	25.7	339	50.2	87	2.0	380
Pemba	0.0	1.0	94	0.0	1.6	58	*	1	1.5	63
Unguja	0.5	8.5	214	0.8	14.2	129	20.3	18	1.8	143
Zone										
Western	3.1	16.5	1,682	3.8	20.0	1,384	38.3	277	2.4	1,476
Northern	1.6	13.7	1,449	2.2	19.0	1,051	44.8	199	1.9	1,209
Central	4.4	14.9	532	5.6	19.2	414	29.8	79	2.4	459
Southern Highlands	0.5	8.1	1,297	0.7	11.0	956	37.9	105	1.7	1,130
Lake	3.2	18.0	1,696	4.1	22.8	1,338	40.5	305	2.8	1,466
Eastern	2.7	21.0	1,436	3.5	27.3	1,107	57.3	302	2.6	1,271
Southern	4.8	20.7	942	5.9	25.4	767	38.5	195	3.5	857
Zanzibar	0.3	6.2	309	0.5	10.3	187	20.3	19	1.7	206
Education										
No education	2.2	11.6	1,983	2.6	13.8	1,663	30.3	229	2.3	1,898
Primary incomplete	2.8	16.8	1,517	4.0	24.4	1,046	31.4	256	2.8	1,147
Primary complete	3.0	16.6	4,945	3.7	20.6	3,984	46.0	822	2.4	4,426
Secondary +	1.4	19.4	898	2.5	34.1	511	60.8	174	2.1	603
Wealth quintile										
Lowest	4.0	16.3	1,700	5.1	20.7	1,338	25.2	276	2.7	1,516
Second	1.7	11.2	1,634	2.0	13.8	1,327	40.3	184	2.3	1,462
Middle	3.3	14.5	1,757	4.2	18.6	1,375	37.8	255	2.2	1,528
Fourth	2.1	16.0	1,867	2.7	21.1	1,418	42.8	299	2.6	1,598
Highest	2.3	19.6	2,384	3.1	26.7	1,747	56.9	467	2.4	1,969
Total	2.6	15.9	9,343	3.4	20.6	7,205	42.8	1,482	2.4	8,074

Note: An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed.
[1] Sexual intercourse with nonmarital, noncohabiting partner

Table 7.3.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15-49, percentage who had sexual intercourse with more than one partner in the past 12 months and percentage who had higher-risk sexual intercourse in the past 12 months; and among men who had sexual intercourse in the past 12 months, percentage who had sexual intercourse with more than one partner in the past 12 months and percentage who had higher-risk sexual intercourse in the past 12 months; and among men who had higher-risk sexual intercourse in the past 12 months, percentage who used a condom at last higher-risk sex; and among men who ever had sexual intercourse, mean number of sexual partners in lifetime, by background characteristics, Tanzania HMIS 2007-08

	All men			Men who had sexual intercourse in the past 12 months			Men who had 2+ partners in the past 12 months		Men who had higher-risk intercourse in the past 12 months		Men who ever had sexual intercourse	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months	Number	Percentage who used a condom during last sexual intercourse	Number	Percentage who used a condom at last higher-risk intercourse	Number	Mean number of sexual partners in lifetime	Number
Age												
15-24	9.3	33.9	2,916	22.0	79.8	1,237	36.9	272	49.0	987	3.6	1,564
15-19	3.6	23.9	1,768	14.2	95.3	443	42.0	63	41.3	422	2.5	625
20-24	18.2	49.2	1,148	26.4	71.1	794	35.3	209	54.7	565	4.3	939
25-29	21.5	36.7	1,004	24.1	41.2	894	34.4	215	60.2	368	6.0	951
30-39	25.3	24.4	1,846	26.8	25.9	1,741	15.8	466	57.2	451	8.1	1,778
40-49	24.2	19.0	1,210	25.6	20.1	1,142	10.5	292	53.1	230	9.7	1,148
Marital status												
Never married	6.9	37.2	2,931	18.5	99.4	1,097	54.0	203	51.2	1,091	3.8	1,517
Married or living together	25.4	18.6	3,701	25.8	18.9	3,629	13.5	937	57.9	687	7.6	3,590
Divorced/separated/ widowed	30.9	75.1	343	37.0	89.9	287	40.1	106	49.5	258	11.2	333
Residence												
Urban	13.6	31.3	1,699	20.3	46.8	1,135	35.2	231	69.9	531	6.3	1,299
Rural	19.3	28.5	5,276	26.2	38.8	3,879	19.5	1,015	47.4	1,505	6.9	4,142
Mainland/Zanzibar												
Mainland	18.1	29.7	6,763	25.0	41.0	4,901	22.7	1,224	53.5	2,011	6.8	5,318
Mainland – Urban	13.8	32.0	1,628	20.4	47.3	1,101	36.1	224	70.7	521	6.4	1,261
Dar es Salaam City	12.7	33.2	548	19.2	50.3	362	39.2	70	78.9	182	6.3	431
Other Urban	14.3	31.4	1,079	20.9	45.9	739	34.6	155	66.3	339	6.4	829
Mainland – Rural	19.5	29.0	5,136	26.3	39.2	3,800	19.7	1,000	47.5	1,490	7.0	4,057
Zanzibar	10.6	11.9	212	19.9	22.5	113	4.2	22	32.9	25	3.1	123
Region/Island												
Arusha	5.6	21.6	262	8.1	31.1	182	*	15	(43.6)	57	5.6	199
Dar es Salaam	12.4	32.9	580	18.7	49.5	385	(40.0)	72	79.8	191	6.6	456
Dodoma	21.4	38.0	255	28.6	50.8	191	(25.4)	55	50.5	97	7.2	211
Iringa	18.1	27.5	286	27.0	41.1	192	(37.9)	52	58.5	79	5.5	221
Kagera	10.5	13.2	397	17.6	22.1	237	(5.7)	42	(53.9)	52	4.0	273
Kigoma	8.6	15.2	292	12.7	22.5	197	*	25	(52.2)	44	3.9	201
Kilimanjaro	9.9	25.1	271	16.2	40.9	167	*	27	67.6	68	5.1	199
Lindi	27.4	43.6	164	30.8	49.0	146	29.7	45	58.0	72	8.4	150
Manyara	7.3	24.4	203	9.8	32.9	150	*	15	27.8	50	5.6	153
Mara	22.0	31.6	243	32.1	46.0	167	12.1	54	37.1	77	9.7	177
Mbeya	18.3	19.4	496	27.8	29.4	326	(17.3)	91	74.5	96	5.5	380
Morogoro	15.5	26.2	340	19.8	33.5	266	(20.7)	53	64.1	89	7.4	293
Mtwara	27.6	42.0	209	32.2	48.9	179	(22.1)	58	52.9	88	8.3	192
Mwanza	25.7	35.4	608	36.1	49.7	433	26.5	156	48.4	215	8.5	460
Pwani	15.5	35.7	119	20.5	47.2	90	*	18	(61.9)	42	6.2	93
Rukwa	18.2	24.8	264	23.7	33.2	198	(13.1)	47	48.2	66	5.8	219
Ruvuma	18.9	42.0	287	22.9	51.0	236	(25.2)	54	61.8	120	6.9	246
Shinyanga	25.1	33.0	633	31.8	41.9	499	7.9	159	28.4	209	8.9	520
Singida	14.0	24.8	153	21.2	37.5	101	(26.4)	21	46.6	38	5.6	117
Tabora	23.2	38.5	404	27.9	46.3	335	21.7	94	41.4	155	8.6	328
Tanga	24.7	35.7	298	32.7	47.3	225	36.9	74	66.4	106	5.5	227
Pemba	7.6	3.6	63	15.8	7.3	31	2.4	5	(24.0)	2	2.4	32
Unguja	11.8	15.5	148	21.4	28.2	82	4.7	18	33.8	23	3.3	91
Zone												
Western	20.9	30.8	1,328	26.9	39.6	1,031	13.4	277	35.9	409	7.9	1,049
Northern	12.6	27.1	1,034	18.0	38.8	724	35.6	130	55.2	281	5.4	779
Central	18.6	33.1	408	26.0	46.2	292	25.6	76	49.4	135	6.6	328
Southern Highlands	18.2	23.0	1,046	26.5	33.6	716	21.9	189	62.1	240	5.6	820
Lake	20.1	27.6	1,249	30.0	41.2	837	20.0	251	46.8	345	7.4	911
Eastern	13.8	31.0	1,038	19.3	43.5	740	30.5	143	73.1	322	6.9	842
Southern	23.8	42.4	660	27.9	49.8	561	25.3	157	58.1	280	7.8	588
Zanzibar	10.6	11.9	212	19.9	22.5	113	4.2	22	32.9	25	3.1	123
Education												
No education	20.5	29.7	829	24.6	35.7	689	15.5	170	39.3	246	7.6	719
Primary incomplete	17.2	30.5	1,534	29.2	51.7	904	26.0	264	44.0	468	5.7	982
Primary complete	19.4	29.3	3,597	24.3	36.8	2,862	20.9	695	55.2	1,054	7.0	3,068
Secondary +	11.5	26.4	1,016	21.0	48.1	558	33.3	117	74.6	268	6.0	672
Wealth quintile												
Lowest	17.8	28.6	1,173	23.0	37.2	900	12.2	207	32.8	335	7.3	929
Second	19.1	29.1	1,411	25.5	38.8	1,060	24.6	270	45.5	411	6.6	1,140
Middle	22.0	29.8	1,322	29.8	40.4	974	18.2	290	49.9	393	7.0	1,039
Fourth	17.4	28.1	1,395	25.3	41.0	957	24.2	242	58.6	392	6.7	1,058
Highest	14.2	30.0	1,670	21.1	44.8	1,120	32.2	236	71.9	502	6.4	1,272
Total 15-49	17.9	29.2	6,975	24.9	40.6	5,014	22.4	1,246	53.3	2,036	6.8	5,441

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

[1] Sexual intercourse with a nonmarital, noncohabiting partner

The survey also assessed condom use among women and men with multiple partners or higher-risk sex in the 12 months preceding the survey. Although truly effective protection would require condom use at every sexual encounter, the sexual encounters covered here are those considered to pose the greatest risk of HIV transmission. Because of the low proportion of women who reported having more than one partner in the 12 months before the survey, data are only shown for men. Over one-fifth (22 percent) of men who said they had two or more partners in the past 12 months, said they used a condom the last time they had sex.

Condom use at higher-risk sexual encounters is relatively common. Among women who reported having had higher-risk intercourse in the past 12 months, 43 percent used a condom at the last higher-risk sex. For men, the comparable figure is 53 percent.

The lower levels of multiple partnership, higher-risk sex, and condom use reported by women compared with men could be real or could be due to reluctance on the part of women to report behaviour that may not be generally accepted. Also, women may not always be aware of condom use by their sexual partners.

The proportion of respondents with more than one partner in the past 12 months does not vary much by age for women; however, it generally increases with age among men. Younger women and men are more likely to have had higher-risk sex than older respondents; however, this is partly because they are less likely to be married. Younger respondents are also more likely than older respondents to report having used condoms at the most recent higher-risk sex.

As expected, women and men who are married are far less likely to report having higher-risk sex than their counterparts who have never married or who used to be married. Urban women and men are more likely to have higher-risk sex than rural residents, and are also more likely to use condoms at higher-risk sex. There are large differentials by region. For example, the proportion of men who had two or more sexual partners in the 12 months before the survey ranges from 6 percent in Arusha region to almost 28 percent in Mtwara Region.

Education and socio-economic status, as measured by the wealth index (quintiles), do not have a clear relationship with either the number of sexual partners or the propensity of having higher-risk sex. However, condom use at last higher-risk sex increases substantially as education and wealth quintile increases.

Regarding mean number of lifetime sexual partners among those who ever had sex, women reported a mean of 2.4, compared with 6.8 for men. The mean number of lifetime sexual partners increases with age from 2.5 among men age 15-19 to 9.7 among men age 40-49; it is also particularly high among men who are divorced, separated or widowed (11.2).

7.5 PAID SEX

As mentioned above, higher-risk sex is defined as sex with a nonmarital, noncohabiting partner. This includes sex with commercial sex workers (i.e., prostitutes). Sex with prostitutes is particularly risky because they have many partners and are thus more likely to have sexually transmitted infections. Men interviewed in the THMIS were asked about paid sex.

Table 7.4 shows that 8 percent of men age 15-49 paid for sex in the 12 months before the survey and 60 percent of these men reported that they used a condom at their most recent paid sexual intercourse. Only 5 percent of young respondents age 15-19 paid for sex, more than half (56 percent) of whom used a condom at their last paid sexual intercourse. However, among those in the next age group age 20-24, 13 percent had paid sex and 58 percent reported using a condom at last paid sex. Men who are divorced, separated, or widowed are particularly likely to engage in paid sex (23 percent), but are no more likely than married or single men to use condoms when they have sex for money.

Table 7.4 Payment for sexual intercourse and condom use at last paid sexual intercourse: Men

Percentage of men age 15-49 reporting payment for sexual intercourse in the past 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Payment for sexual intercourse in the past 12 months		Condom use at last paid sexual intercourse	
	Percentage who paid for sexual intercourse	Number of men	Percentage reporting condom use	Number of men who paid for sexual intercourse in the past 12 months
Age				
15-24	8.1	2,916	57.2	236
15-19	4.6	1,768	55.6	82
20-24	13.4	1,148	58.0	154
25-29	10.8	1,004	60.6	108
30-39	8.9	1,846	62.6	165
40-49	5.5	1,210	61.8	67
Marital status				
Never married	8.4	2,931	58.4	246
Married or living together	6.8	3,701	61.7	253
Divorced/separated/widowed	22.5	343	58.7	77
Residence				
Urban	6.5	1,699	77.9	110
Rural	8.8	5,276	55.7	465
Mainland/Zanzibar	8.5	6,763	59.9	574
Mainland - Urban	6.7	1,628	78.1	110
Dar es Salaam City	7.7	548	*	42
Other Urban	6.3	1,079	76.1	68
Mainland - Rural	9.0	5,136	55.6	464
Zanzibar	0.7	212	*	2
Zone				
Western	10.4	1,328	49.1	138
Northern	2.4	1,034	*	25
Central	11.7	408	(47.8)	48
Southern Highlands	6.2	1,046	(70.9)	64
Lake	8.5	1,249	58.7	106
Eastern	8.3	1,038	73.5	86
Southern	16.2	660	60.9	107
Zanzibar	0.7	212	*	2
Education				
No education	10.4	829	53.2	86
Primary incomplete	9.0	1,534	60.2	138
Primary complete	8.8	3,597	59.4	316
Secondary +	3.5	1,016	(79.3)	36
Wealth quintile				
Lowest	9.7	1,173	41.8	114
Second	9.1	1,411	53.1	128
Middle	8.8	1,322	57.7	116
Fourth	9.0	1,395	67.6	125
Highest	5.4	1,670	83.7	91
Total	8.3	6,975	59.9	576

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

The proportion of men who paid for sexual intercourse in the 12 months before the survey is very low in Zanzibar (less than 1 percent) and very high in Southern zone (16 percent). Paid sex declines with increasing education; 10 percent of men with no education reported having paid sex, compared with only 4 percent of those with secondary or higher education.

7.6 VOLUNTARY HIV COUNSELLING AND TESTING

Knowledge of one's HIV status can empower individuals to take precautions to protect against either acquiring or transmitting the disease. Awareness of HIV status can motivate positive life styles among people who are HIV-positive. Consequently, Tanzania has established a number of

voluntary counselling and testing (VCT) sites across the country and encourages their use by the general population. To assess the awareness and coverage of HIV testing services, THMIS respondents were asked whether they had ever been tested for HIV. If they said that they had been tested, respondents were asked when they were most recently tested, whether they had received the results of their last test, and where they had been tested. If they had never been tested, they were asked if they knew a place where they could go to be tested.

As shown in Tables 7.5.1 and 7.5.2, the vast majority of Tanzanian adults know where to get VCT. Eighty-one percent of women and 86 percent of men said they know where to get an HIV test.

However, most people in the country have not been tested and consequently do not know their HIV status. As shown in Tables 7.5.1 and 7.5.2, only 37 percent of women and 27 percent of men have ever been tested and received results. A small proportion (4 percent of women and 3 percent of men) were tested but never received their test results. One in five women and men (19 percent) were tested and received their results in the 12 months before the survey. These results point to the need to keep encouraging the general population to know their health status through available VCT sites across the country.

Utilization of VCT services is higher among urban residents and increases with level of education and wealth quintile among both women and men (Figure 7.2). Residents of Eastern Zone are most likely to have ever been tested and received results, while women in Zanzibar and men in the Lake Zone are least likely.

Overall, the proportion of women and men age 15-49 who have been tested for HIV and received results in the 12 months before the survey has increased from 5 percent of women and 7 percent of men reported in the 2003-04 THIS to 19 percent of women and men reported in the 2007-08 THMIS.

It is assumed that all pregnant women should be counselled about HIV during antenatal care (ANC) and offered an HIV test. Currently, treatment exists that can significantly reduce the chances of an infant becoming infected with HIV from an HIV-positive mother during childbirth. Where treatment is not available, referral systems are in place and HIV-positive mothers should receive counselling on best practices for their new baby and on future pregnancy choices. These actions are important in reducing the likelihood of HIV-positive women passing the virus to their children during pregnancy, during delivery, or through breastfeeding. It is necessary to encourage pregnant women to be tested so that they know their own HIV status.

Table 7.5.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of women
		Ever tested and received results	Ever tested did not receive results	Never tested[1]				
Age								
15-24	76.1	33.3	3.8	62.9	100.0	37.1	18.4	3,730
15-19	68.0	21.8	2.5	75.7	100.0	24.3	14.7	1,984
20-24	85.3	46.4	5.3	48.3	100.0	51.7	22.6	1,746
25-29	86.5	50.1	3.0	46.8	100.0	53.2	24.9	1,603
30-39	83.8	40.4	4.4	55.2	100.0	44.8	18.9	2,521
40-49	81.0	27.4	3.0	69.6	100.0	30.4	15.0	1,488
Marital status								
Never married	73.4	23.7	2.6	73.7	100.0	26.3	15.6	2,214
Ever had sex	85.5	40.8	3.7	55.5	100.0	44.5	24.4	983
Never had sex	63.7	10.0	1.7	88.3	100.0	11.7	8.5	1,231
Married/living together	82.5	41.3	4.0	54.7	100.0	45.3	20.1	5,983
Divorced/separated/widowed	85.8	41.8	4.2	54.0	100.0	46.0	20.9	1,147
Residence								
Urban	90.4	51.5	2.9	45.6	100.0	54.4	24.4	2,459
Rural	77.3	32.1	4.0	64.0	100.0	36.0	17.2	6,884
Mainland/Zanzibar								
Mainland	80.7	37.5	3.8	58.7	100.0	41.3	19.3	9,034
Mainland – Urban	90.5	52.4	3.0	44.6	100.0	55.4	24.8	2,353
Dar es Salaam City	93.2	59.0	1.6	39.4	100.0	60.6	25.3	762
Other Urban	89.2	49.2	3.7	47.1	100.0	52.9	24.6	1,591
Mainland – Rural	77.3	32.3	4.0	63.7	100.0	36.3	17.4	6,681
Zanzibar	82.0	26.3	1.6	72.1	100.0	27.9	12.2	309
Region/Island								
Arusha	76.4	34.0	0.4	65.6	100.0	34.4	14.6	383
Dar es Salaam	93.2	59.7	1.5	38.8	100.0	61.2	26.5	797
Dodoma	87.1	28.5	4.2	67.3	100.0	32.7	17.2	338
Iringa	85.9	49.1	2.7	48.2	100.0	51.8	27.2	403
Kagera	85.2	33.0	8.6	58.4	100.0	41.6	17.9	495
Kigoma	93.5	53.5	1.3	45.2	100.0	54.8	28.7	414
Kilimanjaro	92.9	51.4	2.8	45.8	100.0	54.2	23.5	379
Lindi	85.2	35.2	3.9	60.9	100.0	39.1	21.8	246
Manyara	71.3	29.6	1.0	69.4	100.0	30.6	16.6	263
Mara	77.5	33.2	3.6	63.2	100.0	36.8	20.6	368
Mbeya	69.9	33.1	7.6	59.3	100.0	40.7	19.2	581
Morogoro	79.9	37.2	5.6	57.3	100.0	42.7	15.6	436
Mtwara	83.1	29.0	2.1	68.9	100.0	31.1	15.1	324
Mwanza	71.0	30.5	6.7	62.9	100.0	37.1	14.0	833
Pwani	80.6	44.4	4.3	51.3	100.0	48.7	14.6	203
Rukwa	53.2	21.4	3.6	75.0	100.0	25.0	11.4	314
Ruvuma	88.0	40.3	2.9	56.8	100.0	43.2	25.0	372
Shinyanga	68.5	19.2	3.3	77.5	100.0	22.5	12.4	750
Singida	86.7	42.9	2.8	54.4	100.0	45.6	21.9	194
Tabora	89.7	41.8	2.7	55.6	100.0	44.4	20.2	518
Tanga	83.6	40.7	2.8	56.6	100.0	43.4	23.5	424
Pemba	82.7	23.9	2.0	74.1	100.0	25.9	12.1	94
Unguja	81.7	27.3	1.4	71.2	100.0	28.8	12.2	214
Zone								
Western	81.2	34.6	2.6	62.8	100.0	37.2	18.9	1,682
Northern	81.9	39.7	1.8	58.5	100.0	41.5	19.9	1,449
Central	87.0	33.7	3.7	62.6	100.0	37.4	18.9	532
Southern Highlands	70.8	35.2	5.1	59.6	100.0	40.4	19.8	1,297
Lake	76.6	31.8	6.6	61.6	100.0	38.4	16.6	1,696
Eastern	87.4	50.7	3.1	46.2	100.0	53.8	21.5	1,436
Southern	85.6	35.1	2.9	62.1	100.0	37.9	20.8	942
Zanzibar	82.0	26.3	1.6	72.1	100.0	27.9	12.2	309
Education								
No education	66.7	25.3	3.0	71.7	100.0	28.3	12.4	1,983
Primary incomplete	69.1	25.7	4.2	70.2	100.0	29.8	12.0	1,517
Primary complete	87.7	43.2	4.1	52.7	100.0	47.3	22.2	4,945
Secondary +	93.3	49.3	2.3	48.4	100.0	51.6	29.1	898
Wealth quintile								
Lowest	69.5	26.2	3.6	70.2	100.0	29.8	14.2	1,700
Second	75.6	27.4	3.6	69.0	100.0	31.0	15.1	1,634
Middle	78.1	34.7	4.8	60.5	100.0	39.5	18.0	1,757
Fourth	85.1	40.1	3.9	56.0	100.0	44.0	20.9	1,867
Highest	90.9	51.2	2.8	45.9	100.0	54.1	24.8	2,384
Total	80.8	37.2	3.7	59.1	100.0	40.9	19.1	9,343

[1] Includes don't know/missing

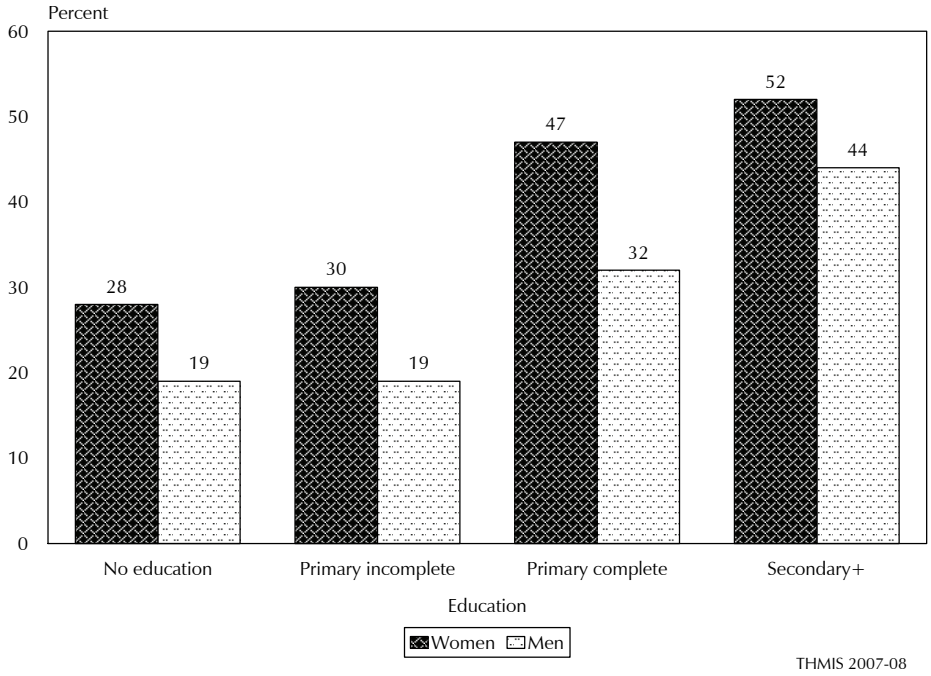
Table 7.5.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test			Total	Percentage ever tested[1]	Percentage who received results from last HIV test taken in the past 12 months	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested				
Age								
15-24	79.8	19.1	1.9	78.9	100.0	21.1	15.2	2,916
15-19	74.0	12.8	1.8	85.4	100.0	14.6	11.2	1,768
20-24	88.8	28.9	2.1	69.0	100.0	31.0	21.3	1,148
25-29	90.8	34.1	2.5	63.4	100.0	36.6	22.8	1,004
30-39	91.9	32.3	3.4	64.4	100.0	35.6	22.6	1,846
40-49	87.6	28.9	3.7	67.4	100.0	32.6	18.8	1,210
Marital status								
Never married	79.6	19.5	1.9	78.6	100.0	21.4	15.2	2,931
Ever had sex	87.6	26.4	2.2	71.4	100.0	28.6	19.7	1,525
Never had sex	70.9	12.1	1.5	86.3	100.0	13.7	10.4	1,406
Married/living together	90.5	31.6	3.3	65.1	100.0	34.9	21.4	3,701
Divorced/separated/widowed	90.7	30.5	2.9	66.6	100.0	33.4	22.3	343
Residence								
Urban	92.8	34.8	2.6	62.5	100.0	37.5	22.2	1,699
Rural	83.7	23.8	2.7	73.5	100.0	26.5	17.8	5,276
Mainland/Zanzibar								
Mainland	86.0	26.5	2.7	70.8	100.0	29.2	19.1	6,763
Mainland – Urban	93.2	35.2	2.7	62.1	100.0	37.9	22.7	1,628
Dar es Salaam City	95.9	39.0	2.4	58.6	100.0	41.4	23.0	548
Other Urban	91.8	33.3	2.8	63.9	100.0	36.1	22.5	1,079
Mainland – Rural	83.8	23.7	2.8	73.5	100.0	26.5	18.0	5,136
Zanzibar	83.2	25.2	1.5	73.3	100.0	26.7	10.9	212
Region/Island								
Arusha	84.0	33.6	0.4	66.0	100.0	34.0	26.2	262
Dar es Salaam	96.1	38.6	2.8	58.6	100.0	41.4	23.2	580
Dodoma	87.6	22.0	1.7	76.3	100.0	23.7	15.6	255
Iringa	83.1	28.6	5.5	65.9	100.0	34.1	24.0	286
Kagera	88.3	16.8	4.0	79.1	100.0	20.9	14.6	397
Kigoma	92.0	30.8	1.1	68.1	100.0	31.9	26.2	292
Kilimanjaro	92.4	30.4	4.2	65.4	100.0	34.6	23.0	271
Lindi	92.1	34.8	3.7	61.5	100.0	38.5	29.3	164
Manyara	76.1	21.7	0.3	78.0	100.0	22.0	18.6	203
Mara	84.1	28.5	3.3	68.2	100.0	31.8	22.4	243
Mbeya	84.5	26.3	3.1	70.6	100.0	29.4	20.2	496
Morogoro	81.7	21.5	3.4	75.1	100.0	24.9	14.2	340
Mtwara	92.4	14.7	2.7	82.6	100.0	17.4	10.9	209
Mwanza	80.6	21.0	2.1	76.9	100.0	23.1	14.2	608
Pwani	83.6	25.8	3.2	71.0	100.0	29.0	14.6	119
Rukwa	81.7	22.8	2.3	74.9	100.0	25.1	18.6	264
Ruvuma	90.2	30.3	3.9	65.8	100.0	34.2	23.6	287
Shinyanga	78.4	21.6	3.3	75.1	100.0	24.9	12.1	633
Singida	86.2	31.5	1.4	67.1	100.0	32.9	22.7	153
Tabora	88.1	29.2	1.1	69.7	100.0	30.3	20.6	404
Tanga	88.4	30.4	3.1	66.5	100.0	33.5	19.3	298
Pemba	85.4	23.8	0.7	75.5	100.0	24.5	11.3	63
Unguja	82.2	25.8	1.8	72.4	100.0	27.6	10.8	148
Zone								
Western	84.3	25.9	2.1	71.9	100.0	28.1	17.8	1,328
Northern	85.9	29.5	2.2	68.3	100.0	31.7	21.9	1,034
Central	87.0	25.5	1.6	72.9	100.0	27.1	18.3	408
Southern Highlands	83.4	26.0	3.5	70.4	100.0	29.6	20.8	1,046
Lake	83.8	21.1	2.9	75.9	100.0	24.1	15.9	1,249
Eastern	89.9	31.5	3.0	65.4	100.0	34.6	19.3	1,038
Southern	91.4	26.5	3.5	70.0	100.0	30.0	21.0	660
Zanzibar	83.2	25.2	1.5	73.3	100.0	26.7	10.9	212
Education								
No education	73.9	16.3	2.3	81.5	100.0	18.5	11.5	829
Primary incomplete	76.1	17.3	2.2	80.6	100.0	19.4	12.1	1,534
Primary complete	90.4	28.5	3.2	68.3	100.0	31.7	20.8	3,597
Secondary +	94.9	41.5	2.0	56.4	100.0	43.6	28.4	1,016
Wealth quintile								
Lowest	74.9	16.2	2.9	80.9	100.0	19.1	12.3	1,173
Second	83.2	21.3	2.2	76.5	100.0	23.5	15.5	1,411
Middle	87.1	23.2	2.7	74.0	100.0	26.0	18.2	1,322
Fourth	87.8	31.3	2.7	66.0	100.0	34.0	22.9	1,395
Highest	93.7	36.6	2.9	60.4	100.0	39.6	23.6	1,670
Total	86.0	26.5	2.7	70.8	100.0	29.2	18.9	6,975

[1] Includes don't know/missing

Figure 7.2 Prior HIV Testing by Education



In the 2007-08 THMIS, women age 15-49 who gave birth in the two years preceding the survey were asked if they received HIV counselling and were offered HIV testing during antenatal care for their most recent birth and if so, whether they received their test results. Survey results show that 43 percent of women were counselled for HIV during antenatal care. The same percentage were offered and accepted an HIV test and received their test results, while 6 percent accepted an HIV test but did not receive their test results (Table 7.6). Overall, 30 percent of women who gave birth in the two years before the survey were counselled about HIV during antenatal care, were offered and accepted an HIV test, and received the results of that test.

Women in urban areas were more than twice as likely as women in rural areas to have been counselled, tested, and given their HIV results during antenatal care. HIV counselling and testing during antenatal care visits varies by education and wealth. Mothers with secondary and higher education are more than three times as likely as those with no education to have been counselled, tested, and given their results (59 and 18 percent, respectively). Differences by wealth quintile are similar.

Table 7.6 Pregnant women counselled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV counselling during antenatal care for their most recent birth, and percentage who accepted an offer of HIV testing by whether they received their test results, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage who received HIV counselling during antenatal care[1]	Percentage who were offered and accepted an HIV test during antenatal care and who:[2]		Percentage who were counselled, were offered and accepted an HIV test, and who received results[2]	Number of women[3]
		Received results	Did not receive results		
Age					
15-24	40.3	43.3	6.9	28.6	1,141
15-19	39.4	46.2	6.0	29.6	282
20-24	40.6	42.4	7.2	28.3	859
25-29	46.3	44.9	5.7	33.1	790
30-39	44.8	40.3	6.0	29.5	931
40-49	41.9	37.3	7.3	26.1	185
Residence					
Urban	66.8	71.4	6.2	54.4	525
Rural	38.5	36.4	6.4	24.8	2,522
Mainland/Zanzibar					
Mainland	43.2	42.4	6.4	29.8	2,969
Mainland – Urban	67.5	71.7	6.3	54.9	506
Dar es Salaam City	85.5	87.4	3.8	79.1	147
Other Urban	60.1	65.2	7.4	45.0	359
Mainland – Rural	38.3	36.4	6.5	24.7	2,463
Zanzibar	47.1	45.1	2.6	32.6	77
Region/Island					
Arusha	41.9	41.3	0.0	29.1	114
Dar es Salaam	84.8	88.0	3.4	78.9	163
Dodoma	48.8	24.3	8.7	18.7	117
Iringa	65.6	53.6	4.5	46.4	120
Kagera	33.1	39.4	10.5	21.7	192
Kigoma	74.3	64.5	3.2	55.4	150
Kilimanjaro	51.3	83.8	4.7	46.7	92
Lindi	42.1	50.4	2.5	32.2	65
Manyara	27.8	31.5	1.3	22.0	92
Mara	21.3	22.1	4.3	11.7	128
Mbeya	50.2	32.3	15.5	22.8	173
Morogoro	62.5	42.9	10.8	38.9	137
Mtwara	36.3	39.4	5.1	19.1	93
Mwanza	25.1	27.0	13.8	17.3	279
Pwani	60.6	68.8	8.2	49.3	61
Rukwa	23.2	22.4	2.7	14.1	148
Ruvuma	45.2	43.3	4.9	34.4	122
Shinyanga	23.0	23.1	4.6	11.2	324
Singida	41.7	53.2	4.7	33.8	80
Tabora	50.7	53.6	2.7	36.9	200
Tanga	40.3	47.9	7.0	28.4	119
Pemba	43.6	32.8	3.2	26.5	31
Unguja	49.3	53.1	2.2	36.6	47
Zone					
Western	42.6	41.3	3.7	28.7	674
Northern	40.4	50.4	3.3	31.2	417
Central	45.9	36.0	7.1	24.8	198
Southern Highlands	45.3	34.8	8.2	26.3	441
Lake	26.9	29.9	10.7	17.5	599
Eastern	72.2	67.6	7.1	58.7	361
Southern	41.5	43.7	4.4	28.8	279
Zanzibar	47.1	45.1	2.6	32.6	77
Education					
No education	28.1	30.2	4.6	17.8	756
Primary incomplete	36.2	34.7	7.4	24.0	416
Primary complete	49.3	46.9	6.9	34.1	1,726
Secondary +	71.8	75.5	5.3	59.0	148
Wealth quintile					
Lowest	30.6	30.9	4.7	19.7	693
Second	33.0	30.4	5.3	18.6	664
Middle	42.6	38.7	8.4	26.8	642
Fourth	51.1	49.7	6.4	37.2	577
Highest	68.1	72.6	7.3	55.9	471
Total	43.3	42.5	6.3	29.9	3,046

[1] In this context, "counselled" means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus.
[2] Only women who were offered the test are included here; women who were either required or asked for the test are excluded from the numerator of this measure.
[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years

7.7 PREVALENCE OF SEXUALLY TRANSMITTED INFECTIONS

In the 2007-08 THMIS, respondents who had ever had sex were asked if they had contracted a sexually transmitted infection (STI) in the past 12 months or if they had exhibited either of two symptoms associated with STIs (a bad-smelling, abnormal discharge from the vagina or penis, or a genital sore or ulcer). It is believed that if some STIs are not treated immediately, an individual's chances of becoming infected with HIV during unprotected sex with an HIV-positive partner increase.

It is important to highlight that respondents' self-reporting of STI symptoms is not the same as clinical diagnosis. Additionally, if a respondent does not report symptoms of STI, it does not necessarily mean that he or she does not have an STI. A substantial proportion of respondents with STIs do not seek treatment because they have mild symptoms. Furthermore, it is possible to have an STI with no symptoms, especially in women. Because of embarrassment or shame associated with STIs, individuals may underreport the prevalence of STIs and their symptoms.

As shown in Table 7.7, 6 percent of women and 7 percent of men who had ever had sex reported having an STI or a genital discharge or a genital sore or ulcer in the 12 months preceding the survey. This is a slight increase since 2003-04, when 5 percent of women and 6 percent of men reported having an STI or symptoms of an STI.

Differences in the prevalence of STIs and their symptoms by background characteristics are not large. By level of education, both women and men with incomplete primary education have a higher prevalence of STIs and/or their symptoms than respondents with no education or those who have completed primary or secondary and higher education (Figure 7.3).

Respondents in the 2007-08 THMIS who reported having an STI and/or an STI symptom in the 12 months preceding the survey were asked if they sought treatment. Figure 7.4 shows that the main source of advice or treatment was a clinic, a hospital, a private doctor, or some other health professional (56 percent for women and 58 percent for men) as opposed to advice or medicine from a shop or pharmacy (8 percent for women and 14 percent for men). A substantial proportion of women (29 percent) and men (21 percent) did not seek medical advice for their reported STIs and/or STI symptom. These high levels of untreated illness suggest that STIs may continue to spread in the population.

Table 7.7 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women					Men				
	STI	Bad-smelling/ abnormal genital discharge	Genital sore/ ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad-smelling/ abnormal genital discharge	Genital sore/ ulcer	STI/ genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse
Age										
15-24	2.1	2.5	3.4	5.9	2,532	4.2	3.2	4.1	7.1	1,573
15-19	1.3	2.4	3.4	5.7	910	0.6	2.3	2.7	4.6	629
20-24	2.6	2.6	3.4	6.0	1,622	6.7	3.9	5.1	8.8	944
25-29	2.2	2.6	5.2	6.7	1,581	4.2	2.6	3.8	6.7	958
30-39	1.9	2.0	3.7	5.6	2,511	4.4	4.5	4.0	7.6	1,832
40-49	1.6	1.5	3.3	4.3	1,488	2.9	2.5	2.5	5.1	1,207
Marital status										
Never married	2.3	1.2	4.7	6.2	983	3.7	2.7	3.7	6.3	1,525
Married or living together	1.8	2.2	3.6	5.5	5,983	3.9	3.4	3.3	6.5	3,701
Divorced/separated/ widowed	2.8	2.8	4.5	6.3	1,147	6.6	6.4	7.3	11.5	343
Male circumcision										
Circumcised	na	na	na	na	0	3.9	3.0	2.7	6.1	3,827
Not circumcised	na	na	na	na	0	4.1	4.3	5.7	8.4	1,723
Residence										
Urban	2.2	2.0	3.8	5.6	2,091	3.4	2.2	1.6	5.0	1,330
Rural	1.9	2.3	3.9	5.7	6,021	4.2	3.8	4.3	7.3	4,239
Mainland/Zanzibar										
Mainland	2.0	2.2	3.9	5.8	7,905	4.1	3.5	3.8	6.9	5,445
Mainland – Urban	2.3	2.0	3.8	5.7	2,021	3.4	2.2	1.6	5.1	1,291
Dar es Salaam City	2.0	1.9	3.3	4.7	655	4.1	2.3	1.1	4.4	437
Other Urban	2.4	2.0	4.0	6.2	1,366	3.1	2.2	1.9	5.5	854
Mainland – Rural	1.9	2.3	3.9	5.8	5,885	4.3	3.9	4.4	7.4	4,154
Zanzibar	0.4	1.0	1.9	2.6	207	1.3	0.1	0.7	1.8	124
Region/island										
Arusha	0.7	0.4	2.1	2.5	324	5.0	0.6	2.7	5.0	204
Dar es Salaam	2.3	1.9	3.4	4.8	689	4.4	2.4	1.0	4.7	464
Dodoma	2.3	2.9	3.4	6.3	293	1.4	1.9	1.7	3.7	217
Iringa	1.2	1.6	4.7	5.5	354	4.0	4.3	6.5	9.8	223
Kagera	1.9	2.1	3.7	4.9	424	5.7	4.0	6.7	7.3	283
Kigoma	0.6	2.0	2.1	3.4	324	2.3	1.3	3.0	3.4	206
Kilimanjaro	1.1	0.8	4.1	6.0	296	1.9	3.4	2.4	6.6	203
Lindi	0.9	0.3	0.4	1.5	219	3.2	3.4	1.7	5.3	152
Manyara	1.3	0.3	1.8	2.2	218	3.4	1.5	3.0	3.8	158
Mara	2.4	2.2	5.2	7.1	330	4.9	2.9	3.8	6.3	179
Mbeya	2.3	3.2	3.1	6.5	501	2.1	2.7	3.1	5.3	380
Morogoro	3.5	5.3	8.2	11.6	406	2.1	3.0	4.7	5.5	294
Mtwara	1.4	0.3	3.5	4.7	298	5.9	6.5	1.1	10.2	196
Mwanza	2.0	2.0	4.0	5.1	726	8.5	5.5	6.3	10.9	484
Pwani	3.1	2.4	5.0	9.2	178	1.0	5.5	1.8	5.5	95
Rukwa	3.9	5.4	4.6	9.9	277	3.7	3.4	6.1	9.2	221
Ruvuma	1.7	2.9	2.9	5.1	346	2.9	3.0	2.0	6.6	253
Shinyanga	1.4	0.7	1.6	1.9	687	4.1	2.3	4.6	5.8	523
Singida	2.1	2.2	5.3	6.9	166	1.4	1.0	1.9	3.9	118
Tabora	3.6	4.3	6.1	10.0	470	4.8	5.4	4.9	9.4	346
Tanga	2.2	2.4	6.9	8.3	380	4.7	7.4	4.0	11.5	247
Pemba	0.6	0.7	0.8	1.3	64	1.0	0.2	0.4	1.5	32
Unguja	0.4	1.1	2.4	3.1	143	1.5	0.1	0.8	2.0	92
Zone										
Western	1.9	2.1	3.2	4.8	1,481	4.0	3.1	4.4	6.5	1,076
Northern	1.3	1.1	4.0	5.1	1,218	3.8	3.5	3.1	7.2	812
Central	2.2	2.6	4.1	6.5	459	1.4	1.6	1.8	3.8	335
Southern Highlands	2.4	3.3	4.0	7.0	1,132	3.0	3.3	4.8	7.5	823
Lake	2.1	2.1	4.2	5.5	1,479	7.0	4.6	6.0	8.9	946
Eastern	2.8	3.1	5.1	7.6	1,273	3.2	3.0	2.4	5.1	852
Southern	1.4	1.3	2.4	4.0	863	4.0	4.3	1.7	7.4	601
Zanzibar	0.4	1.0	1.9	2.6	207	1.3	0.1	0.7	1.8	124
Education										
No education	1.7	2.1	3.9	5.3	1,910	5.0	5.0	4.3	8.1	733
Primary incomplete	2.8	2.9	3.8	6.4	1,152	4.0	4.9	4.8	9.1	1,008
Primary complete	1.8	2.3	3.9	5.8	4,445	3.9	2.8	3.8	6.4	3,145
Secondary +	2.4	0.4	3.0	4.9	604	3.4	2.2	0.9	3.8	684
Wealth quintile										
Lowest	1.4	1.9	3.8	5.2	1,522	4.7	3.4	5.6	8.8	948
Second	1.9	2.6	3.3	5.1	1,467	3.5	4.0	2.4	6.1	1,167
Middle	2.3	3.1	4.2	6.8	1,537	5.6	4.9	5.9	8.6	1,055
Fourth	1.8	1.7	4.0	5.6	1,602	3.0	3.3	3.9	6.7	1,095
Highest	2.4	1.8	4.0	5.7	1,984	3.5	1.8	1.5	4.5	1,302
Total	2.0	2.2	3.8	5.7	8,112	4.0	3.4	3.7	6.8	5,569

Note: Total includes 19 men with information missing on circumcision status
na = Not applicable

Figure 7.3 Prevalence of STIs and STI Symptoms by Education

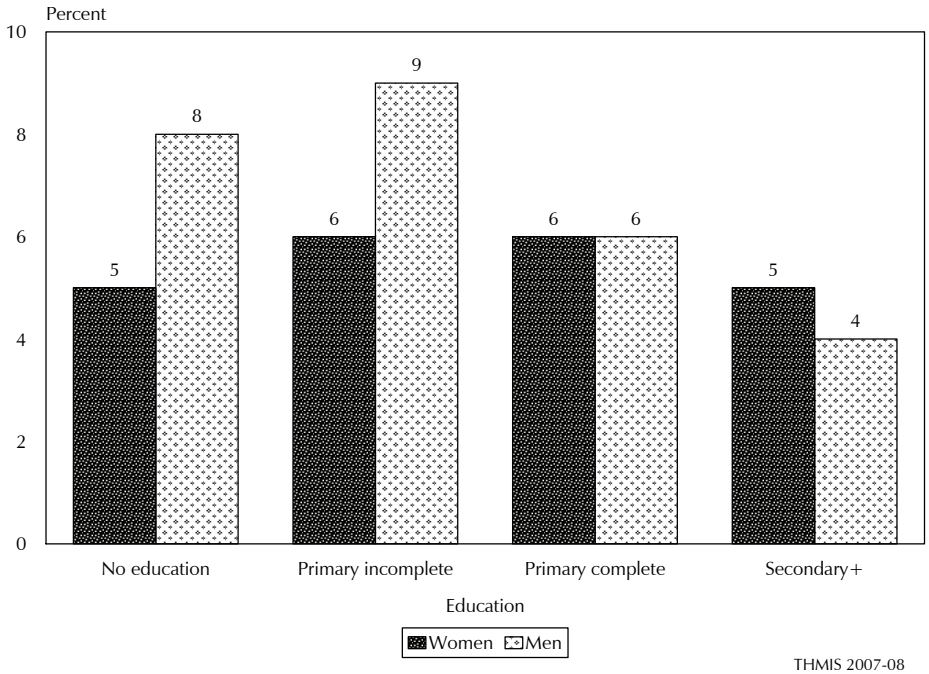
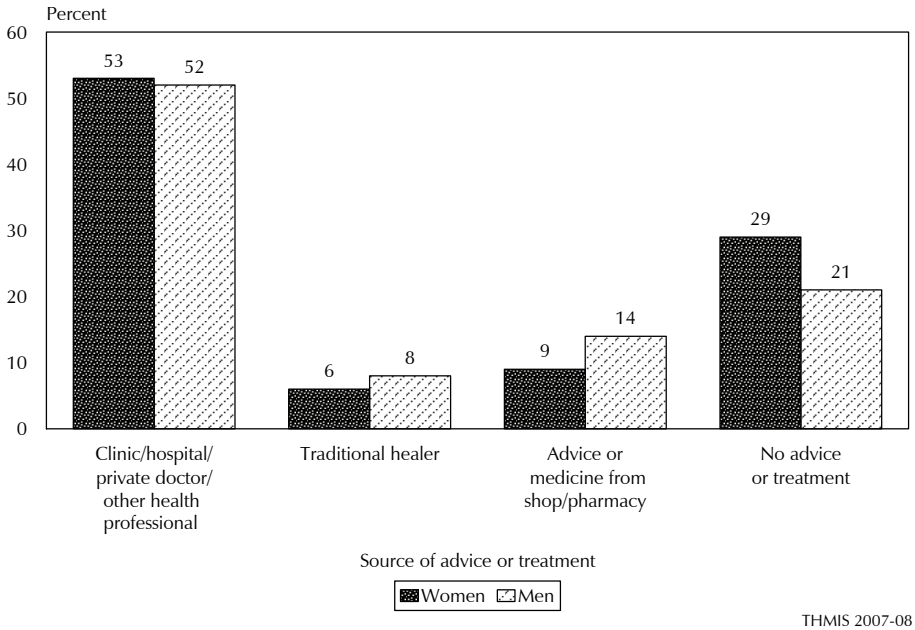


Figure 7.4 Sources of Advice and Treatment for Women and Men Seeking Treatment for STIs



7.8 PREVALENCE OF MEDICAL INJECTIONS

Nonsterile injections can pose a risk of infection with HIV and other diseases. To measure the potential risk of HIV transmission through medical injections, respondents in the 2007-08 THMIS were asked if they had received an injection in the past 12 months and, if so, the number of injections. Table 7.8 shows that 35 percent of women and 21 percent of men reported receiving an injection in the 12 months preceding the survey, with an average of 1.2 injections for women and 0.8 for men.

The data show that the likelihood of receiving an injection in the 12 months before the survey varies by education for both women and men. For women, the proportion ranges from 24 percent among women with no education to 39 percent among women with secondary or higher education. Among men, the proportion ranges from 15 percent among men with no education to 25 percent among men with secondary or higher education. The proportion receiving injections increases with wealth quintile for both women and men.

Regarding the safety of injections, 98 percent of women and 96 percent of men who received an injection in the past 12 months reported that for their most recent injection, the syringe and needle were taken from a new, unopened package.

Table 7.8 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the past 12 months, the average number of medical injections per person in the past 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Tanzania HMIS 2007-08

	Women					Men				
Background characteristic	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of women	For last injection, syringe and needle taken from a new, unopened package	Number of women receiving medical injections in the past 12 months	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of men	For last injection, syringe and needle taken from a new, unopened package	Number of men receiving medical injections in the past 12 months
Age										
15-24	38.6	1.2	3,730	98.3	1,440	20.6	0.7	2,916	95.7	600
15-19	33.1	1.0	1,984	98.0	656	19.9	0.7	1,768	96.4	351
20-24	44.9	1.4	1,746	98.5	784	21.7	0.7	1,148	94.6	249
25-29	40.3	1.3	1,603	97.6	646	23.6	0.8	1,004	93.4	237
30-39	34.1	1.3	2,521	99.0	859	21.8	0.9	1,846	95.8	402
40-49	21.8	1.0	1,488	95.0	325	21.1	0.9	1,210	97.9	255
Residence										
Urban	38.6	1.4	2,459	99.6	949	25.9	1.0	1,699	95.4	441
Rural	33.7	1.2	6,884	97.4	2,322	20.0	0.7	5,276	95.9	1,054
Mainland/Zanzibar										
Mainland	35.3	1.2	9,034	98.0	3,185	21.5	0.8	6,763	95.7	1,451
Mainland – Urban	38.9	1.4	2,353	99.6	915	26.3	1.0	1,628	95.5	427
Dar es Salaam City	43.3	1.5	762	99.5	330	30.7	1.2	548	98.1	169
Other Urban	36.7	1.4	1,591	99.7	585	24.0	1.0	1,079	93.7	259
Mainland – Rural	34.0	1.2	6,681	97.3	2,270	19.9	0.7	5,136	95.8	1,023
Zanzibar	27.5	1.0	309	98.8	85	20.6	0.7	212	96.5	44
Region/Island										
Arusha	32.9	0.8	383	99.0	126	19.6	0.6	262	(94.0)	51
Dar es Salaam	43.4	1.5	797	99.5	346	30.2	1.1	580	98.2	175
Dodoma	28.8	0.9	338	99.0	97	15.9	0.6	255	(97.6)	41
Iringa	29.4	1.0	403	98.9	118	23.4	0.8	286	(93.9)	67
Kagera	47.0	1.3	495	97.4	232	27.5	1.3	397	94.8	109
Kigoma	26.7	0.8	414	98.7	111	17.5	0.6	292	(98.2)	51
Kilimanjaro	45.3	1.3	379	98.8	172	37.3	0.9	271	96.3	101
Lindi	34.3	1.2	246	99.2	84	24.0	1.1	164	96.8	39
Manyara	28.7	0.9	263	92.8	76	10.6	0.3	203	(92.1)	21
Mara	37.5	1.8	368	99.4	138	19.1	0.9	243	97.0	47
Mbeya	26.2	1.0	581	98.6	152	21.9	0.7	496	95.8	108
Morogoro	37.2	1.2	436	96.3	162	17.8	0.6	340	(91.6)	60
Mtwara	35.5	1.1	324	96.8	115	19.6	0.7	209	(91.9)	41
Mwanza	40.8	1.5	833	99.0	340	15.1	0.5	608	(92.8)	92
Pwani	37.9	1.1	203	92.3	77	25.7	1.2	119	(97.2)	30
Rukwa	22.7	1.2	314	100.0	71	24.9	1.2	264	100.0	66
Ruvuma	41.7	1.6	372	96.2	155	20.3	1.1	287	97.2	58
Shinyanga	35.9	1.1	750	96.5	269	18.5	0.8	633	94.4	117
Singida	21.6	0.9	194	98.2	42	8.3	0.3	153	100.0	13
Tabora	26.9	1.2	518	97.6	139	16.9	0.7	404	97.3	68
Tanga	38.2	1.7	424	99.0	162	31.5	1.0	298	93.9	94
Pemba	29.1	0.9	94	98.9	27	21.9	0.9	63	99.0	14
Unguja	26.8	1.0	214	98.8	57	20.0	0.7	148	95.4	30
Zone										
Western	30.9	1.0	1,682	97.2	519	17.8	0.7	1,328	96.1	236
Northern	36.9	1.2	1,449	98.1	535	25.9	0.8	1,034	94.7	268
Central	26.2	0.9	532	98.8	139	13.0	0.5	408	98.2	53
Southern Highlands	26.3	1.0	1,297	99.0	342	23.1	0.9	1,046	96.4	241
Lake	41.9	1.5	1,696	98.6	710	19.8	0.8	1,249	94.5	248
Eastern	40.8	1.4	1,436	97.7	585	25.6	1.0	1,038	96.6	266
Southern	37.7	1.3	942	97.1	355	21.0	1.0	660	95.5	139
Zanzibar	27.5	1.0	309	98.8	85	20.6	0.7	212	96.5	44
Education										
No education	23.7	0.8	1,983	96.9	470	14.6	0.5	829	96.1	121
Primary incomplete	33.9	1.1	1,517	97.3	515	21.2	0.9	1,534	94.9	326
Primary complete	39.0	1.4	4,945	98.2	1,931	22.0	0.8	3,597	95.7	792
Secondary +	39.4	1.3	898	99.7	354	25.2	0.9	1,016	96.7	256
Wealth quintile										
Lowest	27.5	0.9	1,700	95.5	468	16.7	0.7	1,173	96.9	196
Second	30.5	1.0	1,634	97.7	499	18.6	0.8	1,411	94.0	262
Middle	36.2	1.2	1,757	97.6	635	21.7	0.8	1,322	94.8	287
Fourth	38.2	1.5	1,867	98.3	713	22.5	0.9	1,395	97.3	314
Highest	40.0	1.4	2,384	99.5	955	26.0	0.9	1,670	95.8	434
Total	35.0	1.2	9,343	98.0	3,270	21.4	0.8	6,975	95.7	1,494

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or other health worker. Figures in parentheses are based on 25-49 unweighted cases.

YOUTH AND HIV/AIDS 8

8.1 INTRODUCTION

This chapter addresses sexual behaviour among women and men age 15-24. HIV is mainly transmitted through sexual contact and is influenced by risky behaviour. Special attention is paid to this age group because it accounts for half of all new infections worldwide.

Findings on issues such as HIV/AIDS-related knowledge among youths, abstinence, age at first sex, and age differences between partners are covered in this chapter. In addition, sex associated with alcohol use, knowledge of sources of condoms, and condom use at first sex are also presented. Condom use plays an important role in the prevention of HIV/AIDS and other sexually transmitted infections.

8.2 HIV/AIDS-RELATED KNOWLEDGE AMONG YOUTH

Correct knowledge of how HIV is transmitted enables people to protect themselves from contracting the virus. Avoiding HIV is critically important for youth, who are often at greater risk because they may have multiple partners or engage in more risky sexual behaviours. In the 2007-08 THMIS, young respondents were asked the same set of questions on knowledge and beliefs about HIV transmission as older respondents.

Data in Table 8.1 show the level of comprehensive knowledge among youth, namely, the proportion who, in response to a prompted question, agree that people can reduce their chances of getting the HIV infection by having sex with only one uninfected, faithful partner and by using condoms consistently; who know that a healthy-looking person can have HIV; and who know that HIV cannot be transmitted by mosquito bites or by sharing food with a person who has AIDS.

Thirty-nine percent of women age 15-24, and 42 percent of men age 15-24 in Tanzania have comprehensive knowledge about AIDS. This knowledge is higher among youth in urban areas than in rural areas. The knowledge increases with increasing level of education and wealth quintile. For example, 21 percent of women with no education have comprehensive knowledge about AIDS compared with 59 percent of women with secondary or higher education.

Across the country, comprehensive knowledge of AIDS for women is highest in the Eastern, Northern and Southern zones (45 percent or higher), while for men the knowledge is highest in the Southern, Eastern, and Central zones (also above 45 percent). On the other hand, young women in Rukwa and young men in Iringa have the lowest levels of comprehensive knowledge about AIDS in Tanzania Mainland (16 and 28 percent, respectively).

Knowledge of a source for condoms is higher among young men than young women (77 and 59 percent, respectively). In general, knowledge of a condom source increases with age, education level, and wealth status. For example, 48 percent of women with no education know where to obtain condoms compared with 70 percent of women with secondary or higher education (Figure 8.1). Knowledge of a condom source is highest in Dar es Salaam and other urban areas, and it is higher in Mainland Tanzania than in Zanzibar. For women age 15-24, 61 percent in Mainland Tanzania know where to obtain condoms compared with 17 percent in Zanzibar.

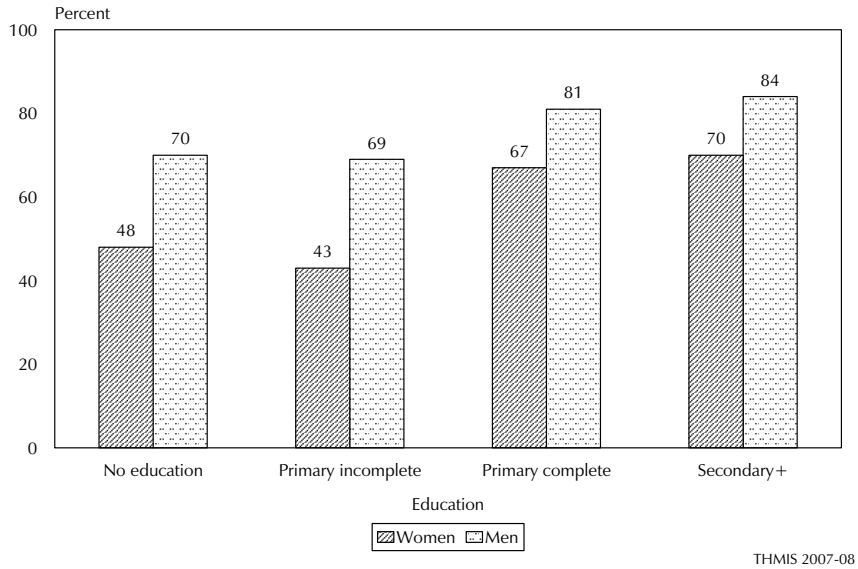
Table 8.1 Comprehensive knowledge about AIDS and of a source for condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source for condoms, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women age 15-24			Men age 15-24		
	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of women	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of men
Age						
15-19	35.1	50.1	1,984	38.8	68.6	1,768
15-17	34.1	43.5	1,315	35.6	63.9	1,152
18-19	37.1	63.1	669	44.6	77.5	616
20-24	43.9	69.0	1,746	45.7	89.0	1,148
20-22	43.9	67.3	1,076	45.9	89.0	778
23-24	44.0	71.8	671	45.2	89.0	370
Marital status						
Never married	40.8	52.6	1,928	41.9	74.6	2,516
Ever had sex	50.9	77.5	730	49.6	91.7	1,173
Never had sex	34.7	37.4	1,198	35.2	59.5	1,343
Ever married	37.5	65.8	1,802	38.5	89.8	399
Residence						
Urban	51.7	72.5	1,019	50.8	87.9	704
Rural	34.5	53.9	2,711	38.5	73.1	2,212
Mainland/Zanzibar						
Mainland	39.7	60.6	3,592	42.0	78.1	2,818
Mainland – Urban	52.7	74.5	973	51.9	90.0	670
Dar es Salaam City	59.7	76.5	301	53.9	91.0	207
Other Urban	49.6	73.6	672	50.9	89.5	463
Mainland – Rural	34.9	55.4	2,619	38.9	74.3	2,147
Zanzibar	25.9	17.4	138	27.4	36.1	98
Region/Island						
Arusha	44.2	63.1	144	54.9	78.2	88
Dar es Salaam	58.5	77.7	318	52.9	91.0	219
Dodoma	39.0	71.4	130	47.0	84.2	107
Iringa	28.0	58.5	125	28.3	62.4	112
Kagera	38.1	43.1	191	40.9	63.0	179
Kigoma	62.1	65.6	192	56.2	78.0	135
Kilimanjaro	53.8	76.3	157	38.0	82.8	132
Lindi	64.0	66.7	93	66.1	89.8	47
Manyara	36.4	57.7	96	45.1	61.3	81
Mara	38.3	62.0	159	40.8	78.5	111
Mbeya	29.0	42.2	219	38.8	78.8	223
Morogoro	37.7	72.0	152	39.2	94.6	112
Mtwara	51.8	52.6	115	59.6	80.9	75
Mwanza	29.2	46.2	352	35.2	75.4	275
Pwani	53.6	69.3	78	51.6	78.8	47
Rukwa	16.0	28.2	129	41.0	80.6	111
Ruvuma	28.3	76.6	148	36.1	86.1	124
Shinyanga	24.0	50.2	329	33.7	71.2	282
Singida	23.0	52.9	67	43.1	71.4	68
Tabora	42.5	76.8	236	40.7	79.3	173
Tanga	47.9	72.1	162	37.1	82.2	117
Pemba	21.0	7.6	41	26.7	17.6	32
Unguja	28.0	21.6	96	27.8	44.9	66
Zone						
Western	39.4	62.4	757	40.9	75.1	590
Northern	46.6	68.5	559	42.6	77.5	418
Central	33.5	65.1	197	45.5	79.2	175
Southern Highlands	25.2	42.7	472	36.7	75.1	446
Lake	33.7	48.9	703	38.1	72.1	565
Eastern	52.0	74.9	548	48.7	90.6	377
Southern	45.2	66.2	356	49.0	85.2	246
Zanzibar	25.9	17.4	138	27.4	36.1	98
Education						
No education	20.7	48.2	652	21.3	70.0	274
Primary incomplete	27.6	42.7	789	32.2	68.7	930
Primary complete	45.4	67.1	1,783	45.2	81.2	1,152
Secondary +	59.3	69.5	506	59.2	83.7	560
Wealth quintile						
Lowest	26.9	45.6	641	30.5	66.9	476
Second	31.1	52.8	647	39.5	73.7	583
Middle	33.6	53.2	704	37.9	74.0	561
Fourth	44.5	63.0	735	45.1	78.4	615
Highest	52.4	72.6	1,003	50.6	86.6	680
Total	39.2	59.0	3,730	41.5	76.6	2,916

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected, faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 5.2, 5.3.1, and 5.3.2.
[2] Friends, family members, and home are not considered sources for condoms.

Figure 8.1 **Knowledge of a Source for Condoms among Youth Age 15-24 by Level of Education**



8.3 FIRST SEXUAL EXPERIENCE

Given that the main route of HIV transmission in Tanzania is through heterosexual contact, age at first sexual intercourse marks the time at which most individuals risk exposure to HIV. Following this concern, the 2007-08 THMIS collected information on the timing of first sexual intercourse for both men and women. The percentage of young women and men who had sexual intercourse before reaching age 15 and age 18 is shown in Table 8.2. Because some of those who are age 15-24 are under age 18 and may still initiate sex before reaching age 18, the proportions who had sex before age 18 can only be shown for those age 18-24.

Eleven percent of young women and 10 percent of young men age 15-24 in Tanzania had sex before they were 15 years (the same levels as in the 2003-04 THIS). Over half of women and 43 percent of men age 18-24 reported having sex before reaching age 18 years. Rural women are more likely than urban women to have had sex by age 15 (12 and 8 percent, respectively). For men, these figures are 11 and 7 percent, respectively. Women and men in Mainland Tanzania are much more likely than those in Zanzibar to have had sex by age 15 years.

There is a strong negative relationship between a person's level of education and age at first sex. The percentage of women and men who had the first sex by age 15 decreases as level of education increases. Women age 15-24 with no education are far more likely to have had sex before age 15 (22 percent) than young women with secondary education and above (4 percent). There is a similar but less pronounced pattern among young men the same age. Young women in poorer households are more likely than those in wealthier households to have had sex by age 15; however, the relationship between wealth and age at first sex is less clear for young men.

Table 8.2 Age at first sexual intercourse among youth

Percentage of young women and of young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and of young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women age 15-24		Women age 18-24		Men age 15-24		Men age 18-24	
	Percentage who had sexual intercourse before age 15	Number of women	Percentage who had sexual intercourse before age 18	Number of women	Percentage who had sexual intercourse before age 15	Number of men	Percentage who had sexual intercourse before age 18	Number of men
Age								
15-19	10.7	1,984	na	na	10.8	1,768	na	na
15-17	11.1	1,315	na	na	12.4	1,152	na	na
18-19	10.0	669	57.5	669	7.8	616	45.5	616
20-24	11.5	1,746	58.8	1,746	8.1	1,148	41.8	1,148
20-22	13.4	1,076	60.3	1,076	7.8	778	39.8	778
23-24	8.3	671	56.4	671	8.6	370	45.9	370
Marital status								
Never married	6.6	1,928	36.6	766	9.2	2,516	38.0	1,366
Ever married	15.8	1,802	68.6	1,649	12.8	399	60.6	397
Knows condom source[1]								
Yes	11.7	2,199	62.9	1,627	11.0	2,235	46.8	1,498
No	10.1	1,531	49.2	788	5.4	681	21.8	265
Residence								
Urban	8.0	1,019	51.7	678	7.1	704	40.1	457
Rural	12.2	2,711	61.1	1,737	10.5	2,212	44.1	1,307
Mainland/Zanzibar								
Mainland	11.4	3,592	59.8	2,330	10.0	2,818	44.2	1,700
Mainland – Urban	8.3	973	53.1	649	7.4	670	41.6	433
Dar es Salaam City	5.5	301	46.3	206	3.9	207	39.8	144
Other Urban	9.5	672	56.3	442	9.0	463	42.5	290
Mainland – Rural	12.5	2,619	62.3	1,682	10.8	2,147	45.1	1,266
Zanzibar	3.4	138	22.2	85	1.7	98	12.6	64
Region/Island								
Arusha	10.3	144	54.0	97	11.4	88	(34.3)	51
Dar es Salaam	5.7	318	48.6	221	3.7	219	39.8	151
Dodoma	11.4	130	77.0	74	19.2	107	67.4	64
Iringa	9.6	125	51.5	77	9.2	112	(33.7)	68
Kagera	7.9	191	53.3	118	9.7	179	29.0	91
Kigoma	6.6	192	40.8	127	7.9	135	34.1	75
Kilimanjaro	4.2	157	36.0	84	3.2	132	40.7	76
Lindi	12.0	93	60.8	62	21.3	47	(62.6)	31
Manyara	5.5	96	38.4	61	2.4	81	38.6	51
Mara	12.7	159	68.6	101	8.9	111	35.2	52
Mbeya	11.1	219	56.2	151	10.9	223	32.7	143
Morogoro	17.2	152	73.0	105	13.5	112	(52.6)	54
Mtwara	15.2	115	69.1	77	18.6	75	(68.6)	49
Mwanza	12.0	352	67.1	209	11.8	275	40.2	175
Pwani	6.4	78	62.3	48	4.3	47	(47.3)	29
Rukwa	17.0	129	66.2	88	23.1	111	57.4	66
Ruvuma	13.9	148	71.7	108	16.4	124	44.6	71
Shinyanga	13.3	329	64.3	215	7.1	282	53.4	174
Singida	2.2	67	48.2	42	8.5	68	35.7	45
Tabora	24.9	236	82.9	155	8.7	173	57.8	112
Tanga	10.0	162	48.6	111	3.0	117	43.5	70
Pemba	4.1	41	26.7	24	1.1	32	9.3	18
Unguja	3.1	96	20.3	60	2.1	66	13.9	46
Zone								
Western	15.2	757	64.1	497	7.8	590	50.8	361
Northern	7.7	559	45.3	353	4.7	418	39.7	249
Central	8.3	197	66.5	116	15.1	175	54.4	109
Southern Highlands	12.3	472	57.8	316	13.6	446	38.8	277
Lake	11.0	703	63.6	428	10.6	565	36.2	318
Eastern	9.0	548	57.2	374	6.7	377	43.7	234
Southern	13.8	356	68.1	246	18.0	246	56.0	152
Zanzibar	3.4	138	22.2	85	1.7	98	12.6	64
Education								
No education	21.5	652	69.5	525	11.8	274	48.9	223
Primary incomplete	15.4	789	73.9	350	12.1	930	50.2	360
Primary complete	7.3	1,783	57.8	1,219	9.4	1,152	44.8	783
Secondary +	4.0	506	25.9	321	5.3	560	29.8	398
Wealth quintile								
Lowest	13.9	641	67.8	427	9.6	476	49.7	274
Second	15.4	647	66.0	440	12.4	583	52.9	337
Middle	11.6	704	65.0	438	9.8	561	40.8	360
Fourth	10.3	735	53.5	444	10.2	615	38.1	361
Highest	6.7	1,003	46.4	667	7.0	680	36.9	430
Total	11.1	3,730	58.4	2,415	9.7	2,916	43.1	1,763

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable
[1] Friends, family members, and home are not considered sources for condoms.

8.4 CONDOM USE AT FIRST SEX

Along with the postponement of first sexual intercourse, early and consistent use of condoms is a means of preventing youths from becoming infected with HIV. To assess the extent of condom use from the beginning of sexual exposure, respondents were asked whether they used a condom the first time they had sex. Since condom use is often viewed with stigma in Tanzania, there may have been underreporting of condom use.

Twenty-four percent of women and 29 percent of men age 15-24 in Tanzania used a condom the first time they had sex (Table 8.3). Interestingly, women age 15-19 years are more likely than those age 20-24 to use a condom at their first sex (33 and 19 percent, respectively). Among men, there is no consistent pattern in the use of condoms at their first sex by age.

Table 8.3 Condom use at first sexual intercourse among youth

Among young women and young men age 15-24 who have ever had sexual intercourse, percentage who used a condom the first time they had sexual intercourse, by background characteristics, Tanzania HMIS 2007-08

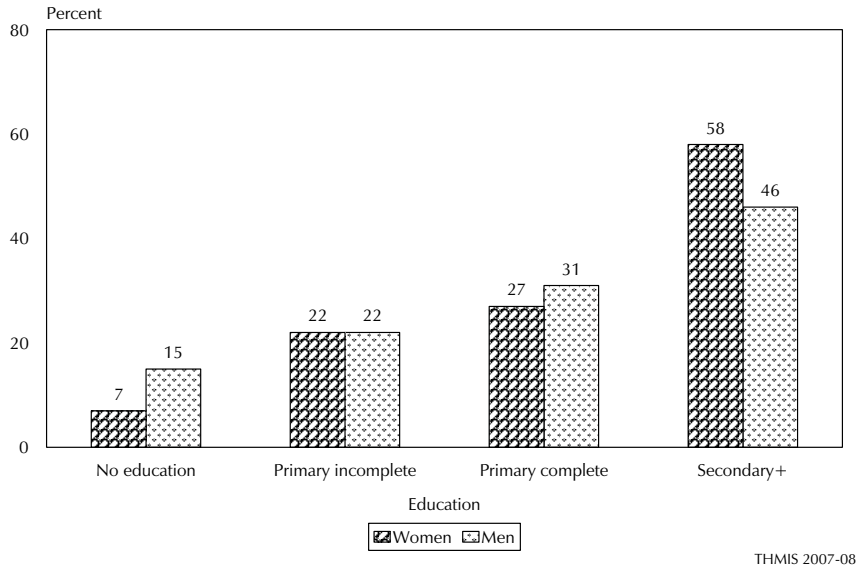
Background characteristic	Women age 15-24		Men age 15-24	
	Percentage who used a condom at first sexual intercourse	Number of women who have ever had sexual intercourse	Percentage who used a condom at first sexual intercourse	Number of men who have ever had sexual intercourse
Age				
15-19	33.4	910	29.7	629
15-17	37.0	431	23.8	299
18-19	30.2	479	34.9	330
20-24	19.2	1,622	28.1	944
20-22	23.1	976	30.1	604
23-24	13.3	647	24.6	340
Marital status				
Never married	50.1	730	32.9	1,173
Ever married	13.8	1,802	16.5	399
Knows condom source[1]				
Yes	30.4	1,752	30.4	1,435
No	10.6	780	11.4	138
Residence				
Urban	38.7	668	42.8	362
Rural	19.1	1,864	24.5	1,211
Mainland/Zanzibar				
Mainland	24.6	2,486	28.9	1,551
Mainland – Urban	39.3	651	43.5	354
Dar es Salaam City	46.1	197	53.9	109
Other Urban	36.3	454	38.8	245
Mainland – Rural	19.3	1,835	24.6	1,197
Zanzibar	10.4	46	14.8	22
Zone				
Western	16.1	559	11.2	346
Northern	25.7	334	29.6	207
Central	23.0	125	25.0	105
Southern Highlands	19.0	310	31.9	228
Lake	23.7	488	26.9	272
Eastern	39.0	393	49.8	205
Southern	28.2	277	39.5	188
Zanzibar	10.4	46	14.8	22
Education				
No education	7.1	583	14.5	192
Primary incomplete	22.0	425	21.9	417
Primary complete	26.9	1,300	30.6	717
Secondary +	58.4	224	45.9	247
Wealth quintile				
Lowest	10.8	462	14.7	257
Second	16.8	484	18.0	349
Middle	18.9	486	26.1	303
Fourth	28.7	475	37.0	329
Highest	41.1	625	45.0	334
Total	24.3	2,532	28.7	1,573

[1] Friends, family members, and home are not considered sources for condoms.

Never-married women and men age 15-24, and those living in urban areas, are much more likely to use a condom the first time they had sex than ever-married and rural youths. Similarly, young women and men in Mainland Tanzania are about twice as likely to have used a condom the first time they had sex as those in Zanzibar. Young women and men in Dar es Salaam and other urban areas are more likely than those in other areas to use a condom at first sex.

There is a strong positive relationship between condom use at first sex and level of education and household wealth status. Figure 8.2 shows that 58 percent of women with at least secondary education used a condom the first time they had sex, compared with 7 percent of young women with no education.

Figure 8.2 **Condom Use at First Sexual Intercourse among Youth 15-24, by Education**



8.5 PREMARITAL SEX

Because the period between first sexual intercourse and marriage is often a time of sexual experimentation, youths are often at greater risk of contracting sexually transmitted infections, including HIV/AIDS during this time; they are more likely to have shorter relationships with more partners before marriage. Table 8.4 shows the percentage of never-married young women and men age 15-24 who have not yet engaged in sex, the percentage who had sex in the 12 months preceding the survey, and the percentage who used a condom at their most recent sexual intercourse.

About six in ten (62 percent) never-married young women in Tanzania reported that they have never had sex, compared with 53 percent of men. The proportion of unmarried women who have never had sex drops rapidly from 70 percent for those age 15-19 to 31 percent for those age 20-24. For men in these age groups, the corresponding figures are 66 and 26 percent, respectively).

Never-married women age 15-24 are slightly less likely than never-married men of the same age to say that they had sex in the 12 months preceding the survey (30 percent compared with 33 percent). Condom use during premarital sex is high; 49 percent of women and men reported that they used a condom the last time they had sex.

Table 8.4 Premarital sexual intercourse and condom use during premarital sexual intercourse among youth

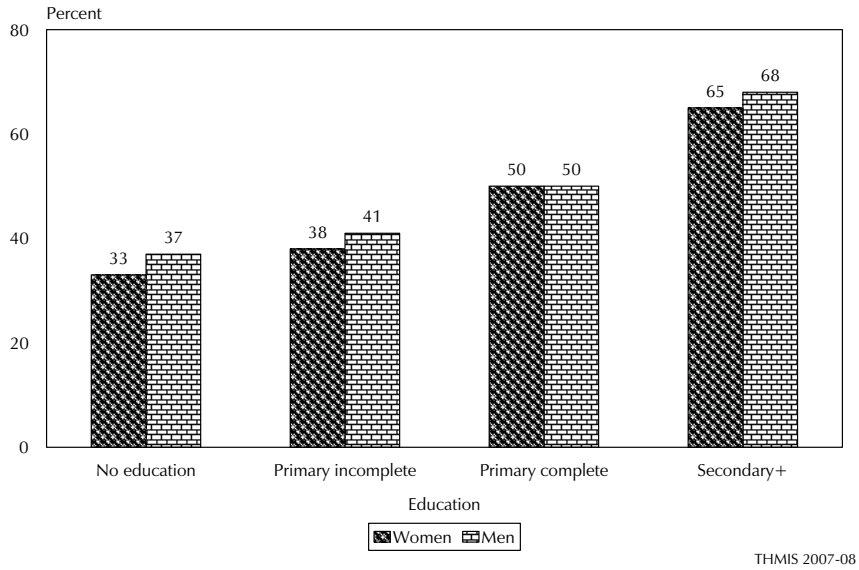
Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among those who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, Tanzania HMIS 2007-08

	Never-married women age 15-24					Never-married men age 15-24				
Background characteristic	Percentage who never had sexual intercourse	Percentage who had sexual intercourse in past 12 months	Number of never-married women	Of those who had sexual intercourse in past 12 months, percentage who used condom at last sexual intercourse	Number of women who had sexual intercourse in past 12 months	Percentage who never had sexual intercourse	Percentage who had sexual intercourse in past 12 months	Number of never-married men	Of those who had sexual intercourse in past 12 months, percentage who used condom at last sexual intercourse	Number of men who had sexual intercourse in past 12 months
Age										
15-19	70.3	23.8	1,527	49.4	364	65.6	23.6	1,735	40.3	410
15-17	76.1	18.6	1,162	49.9	216	74.2	17.0	1,150	31.6	196
18-19	52.0	40.4	365	48.6	147	48.8	36.6	585	48.3	214
20-24	30.9	51.9	401	47.4	208	26.1	55.1	781	56.6	430
20-22	33.5	49.5	299	49.9	148	28.7	53.5	605	56.3	323
23-24	23.1	59.0	103	41.3	61	17.0	60.5	176	57.6	107
Knows condom source[1]										
Yes	44.1	44.8	1,014	54.3	455	42.6	41.7	1,876	51.6	782
No	82.1	12.8	914	26.8	117	84.9	9.2	640	9.1	59
Residence										
Urban	55.4	35.8	634	54.8	227	52.6	30.9	650	69.6	201
Rural	65.4	26.6	1,294	44.6	345	53.6	34.3	1,866	42.1	640
Mainland/Zanzibar										
Mainland	60.5	31.0	1,829	49.0	5,66	52.3	34.2	2,424	49.1	828
Mainland – Urban	53.6	37.3	600	55.4	224	51.2	31.7	618	71.2	196
Dar es Salaam City	52.5	34.1	199	(68.2)	68	48.4	33.0	203	(76.2)	67
Other Urban	54.1	38.8	402	49.9	156	52.6	31.1	415	68.6	129
Mainland – Rural	63.9	27.9	1,228	44.8	343	52.6	35.0	1,806	42.3	632
Zanzibar	92.3	5.9	99	12.3	6	82.4	13.0	92	16.4	12
Zone										
Western	62.9	31.5	315	47.4	99	53.2	40.4	460	28.2	186
Northern	64.2	28.0	350	52.4	98	55.1	32.2	383	52.5	123
Central	72.5	19.3	100	*	19	43.5	39.7	162	42.1	64
Southern Highlands	67.5	18.9	240	(39.9)	45	57.2	26.5	382	65.8	101
Lake	60.9	34.6	352	44.5	122	59.7	24.4	491	37.1	120
Eastern	51.0	35.9	305	64.2	109	49.8	32.3	346	69.7	111
Southern	47.5	43.6	167	41.7	73	28.6	61.0	201	60.5	122
Zanzibar	92.3	5.9	99	(12.3)	6	82.4	13.0	92	16.4	12
Education										
No education	48.7	38.2	140	32.7	54	43.0	46.9	191	36.6	90
Primary incomplete	73.9	20.7	492	37.9	102	61.9	28.9	828	40.8	240
Primary complete	55.5	35.9	873	49.5	313	45.5	39.1	957	49.5	374
Secondary +	66.6	24.5	423	64.7	104	58.0	25.3	540	68.0	137
Wealth quintile										
Lowest	66.3	26.2	269	32.5	71	56.2	38.4	390	27.6	150
Second	63.9	29.2	254	48.3	74	50.1	35.7	466	42.2	167
Middle	65.3	27.2	335	45.1	91	54.0	33.8	478	43.3	162
Fourth	61.9	28.4	420	44.4	119	53.0	31.5	539	55.0	170
Highest	58.2	33.4	650	57.8	217	53.9	29.8	642	70.0	191
Total	62.1	29.7	1,928	48.6	572	53.4	33.4	2,516	48.7	840

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed.
[1] Friends, family members, and home are not considered sources for condoms.

As expected, premarital sex and condom use at last sex are higher among older males than among younger males (57 percent compared with 40 percent). The pattern is reversed for women; women age 15-19 are slightly more likely than women age 20-24 to use a condom at last sex (49 and 47 percent, respectively). Condom use and premarital sex are higher among urban than rural youth. The likelihood that a young woman or man uses a condom at premarital sex increases with level of education and wealth quintile. For women, use of a condom at the most recent premarital sex increases from 33 percent among women with no education to 65 percent among women with secondary or higher education. For men, the corresponding figures are 37 and 68 percent, respectively (Figure 8.3).

Figure 8.3 **Condom Use at Premarital Sex among Never-married Youth, by Education**



8.6 HIGHER-RISK SEX AND CONDOM USE AMONG YOUTH

The most common way the HIV virus is transmitted is through unprotected sex with an infected person. To prevent HIV/AIDS transmission, it is, therefore, important to practice safer sex, primarily through the recommended "ABC" method (abstinence, being faithful to one uninfected partner, and condom use). Tables 8.5.1 and 8.5.2 and Figure 8.4 show the proportion of young people who engage in higher-risk sex and the percentage who used a condom at last higher-risk sex.

Thirty-two percent of women age 15-24 years and 80 percent of men age 15-24 engaged in higher-risk sexual activity in the 12 months preceding the survey. Men who engage in higher-risk sex are slightly more likely than women to use a condom (49 and 46 percent, respectively).

By definition, all unmarried women and men who are sexually active are engaging in higher-risk sex (i.e., sexual intercourse with a nonmarital, noncohabiting partner). Thus, the higher proportion of women age 15-19 who engage in higher-risk sex compared with women age 20-24 (49 and 22 percent, respectively) is because a larger proportion of women in age group 20-24 are already married. Involvement in higher-risk sex is more common in urban areas, among better-educated women, and women in the highest wealth quintile.

The pattern of condom use follows that of higher-risk sex; higher among urban women, women with higher education, and women in the higher wealth quintile. Men show the same differentials across subgroups as women.

Table 8.5.1 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Women

Among young women age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, Tanzania HMIS 2007-08

	Respondents 15-24 who had sexual intercourse in the past 12 months:		Respondents 15-24 who had higher-risk intercourse in the past 12 months:	
Background characteristic	Percentage who had higher-risk intercourse in past 12 months[1]	Number of women	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of women
Age				
15-19	49.1	810	48.2	398
15-17	62.9	368	48.7	232
18-19	37.5	442	47.5	166
20-24	21.9	1,472	43.9	322
20-22	22.0	881	47.1	194
23-24	21.6	591	39.0	128
Marital status				
Never married	98.7	572	49.0	564
Ever married	9.0	1,710	36.1	155
Knows condom source[2]				
Yes	36.4	1,577	52.0	573
No	20.7	705	23.5	146
Residence				
Urban	44.8	599	55.2	268
Rural	26.8	1,683	40.9	451
Mainland/Zanzibar				
Mainland	31.7	2,239	46.6	711
Mainland – Urban	45.2	584	55.6	264
Dar es Salaam City	48.2	162	(68.3)	78
Other Urban	44.0	422	50.3	186
Mainland – Rural	27.0	1,655	41.2	447
Zanzibar	19.9	43	(18.6)	9
Zone				
Western	26.3	529	43.4	139
Northern	38.2	293	51.8	112
Central	26.5	106	(35.1)	28
Southern Highlands	18.4	272	(40.4)	50
Lake	32.5	462	43.0	150
Eastern	41.4	335	57.4	139
Southern	38.3	243	41.7	93
Zanzibar	19.9	43	(18.6)	9
Education				
No education	18.3	539	35.1	98
Primary incomplete	34.2	385	34.4	132
Primary complete	32.5	1,172	48.0	381
Secondary +	58.4	186	64.7	108
Wealth quintile				
Lowest	27.1	417	29.7	113
Second	21.0	441	42.8	93
Middle	25.0	450	44.0	113
Fourth	37.1	418	42.6	155
Highest	44.2	556	58.5	246
Total 15-24	31.5	2,282	46.3	719

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Sexual intercourse with a nonmarital, noncohabiting partner
[2] Friends, family members, and home are not considered sources for condoms.

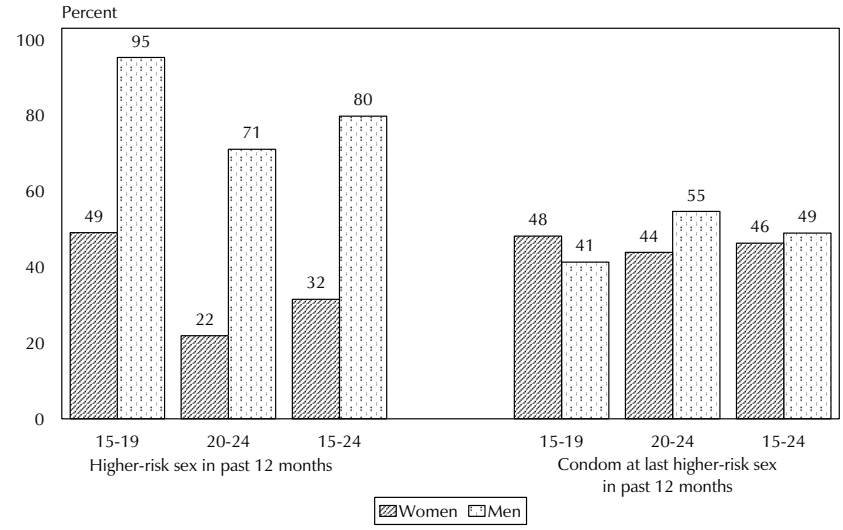
Table 8.5.2 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months: Men

Among young men age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, Tanzania HMIS 2007-08

	Respondents 15-24 who had sexual intercourse in past 12 months:		Respondents 15-24 who had higher risk intercourse in past 12 months:	
Background characteristic	Percentage who had higher-risk intercourse in past 12 months[1]	Number of men	Percentage who reported using a condom at last higher-risk intercourse[1]	Number of men
Age				
15-19	95.3	443	41.3	422
15-17	99.4	198	31.4	197
18-19	92.0	245	49.9	225
20-24	71.1	794	54.7	565
20-22	78.7	496	54.0	390
23-24	58.5	298	56.3	175
Marital status				
Never married	99.8	840	48.8	838
Ever married	37.5	397	50.1	149
Knows condom source[2]				
Yes	80.3	1,138	52.0	914
No	73.7	99	10.5	73
Residence				
Urban	87.9	254	68.5	224
Rural	77.7	983	43.2	764
Mainland/Zanzibar				
Mainland	79.8	1,220	49.4	974
Mainland – Urban	87.9	248	70.1	218
Dar es Salaam City	(94.1)	71	(76.2)	67
Other Urban	85.4	177	67.4	152
Mainland – Rural	77.7	972	43.4	755
Zanzibar	79.2	17	16.9	14
Zone				
Western	72.1	317	30.2	228
Northern	86.7	159	52.5	137
Central	87.7	77	40.9	68
Southern Highlands	75.1	166	65.0	124
Lake	75.3	193	41.3	146
Eastern	86.8	143	70.4	124
Southern	88.2	165	57.4	146
Zanzibar	79.2	17	16.9	14
Education				
No education	66.8	172	30.3	115
Primary incomplete	86.0	340	43.5	292
Primary complete	76.8	569	51.4	437
Secondary +	91.5	156	67.6	143
Wealth quintile				
Lowest	76.0	235	30.2	179
Second	70.2	282	42.2	198
Middle	83.0	245	44.9	203
Fourth	81.8	245	55.7	201
Highest	89.8	229	69.4	206
Total 15-24	79.8	1,237	49.0	987

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Sexual intercourse with a nonmarital, noncohabiting partner
[2] Friends, family members, and home are not considered sources for condoms.

Figure 8.4 **Higher-risk Sexual Intercourse and Use of a Condom at Last Higher-risk Sex among Women and Men Age 15-24**



Note: Higher-risk sex is sex with a nonmarital, noncohabiting partner.

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8.7 AGE DIFFERENCES BETWEEN SEXUAL PARTNERS

A wide gap in age between partners can lead to an imbalance in decision making and put pressure on the younger partner. Age gaps also tend to increase marital instability. This is especially true among young people. Older men who take up sexual relationships with younger women will have been nicknamed "sugar daddies."

In the 2007-08 THMIS, to measure the extent to which young women have sexual relationships with older men, women age 15-19 who had sex in the 12 months preceding the survey were asked for the age of their sexual partners. If they did not know the age of their partner, they were asked if their partners were older or younger than they were and, if older, whether they were 10 or more years older.

As shown in Table 8.6, 8 percent of women age 15-19 who had nonmarital sex in the 12 months preceding the survey had sex with a partner who was at least 10 years older. Such liaisons appear to be more common among urban young women than among rural young women (10 and 7 percent, respectively). The pattern by wealth quintile is unclear; however, women with no education are much more likely than those with secondary or higher education to have sex with an older partner. Eighteen percent of women with no education who had sex in the 12 months preceding the survey had sex with a man who was 10 or more years older than they were; the corresponding proportion for women with secondary or higher education is only 3 percent.

Table 8.6 Age-mixing in sexual relationships among women age 15-19

Percentage of women age 15-19 who had higher-risk sexual intercourse in the past 12 months with a man who was 10 or more years older than themselves, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of women who had higher-risk intercourse with a man 10+ years older[1]	Number of women who had higher-risk intercourse in the past 12 months
Age		
15-17	7.3	429
18-19	8.0	391
Marital status		
Never married	5.9	766
Ever married	33.0	54
Knows condom source[2]		
Yes	7.1	686
No	10.3	134
Residence		
Urban	10.4	216
Rural	6.7	604
Mainland/Zanzibar		
Mainland	7.6	813
Mainland – Urban	10.4	212
Dar es Salaam City	(4.8)	73
Other Urban	13.3	139
Mainland – Rural	6.7	601
Zanzibar	(9.7)	7
Zone		
Western	7.6	177
Northern	7.3	103
Central	6.8	58
Southern Highlands	2.7	77
Lake	14.1	139
Eastern	7.2	140
Southern	4.5	119
Zanzibar	(9.7)	7
Education		
No education	18.3	71
Primary incomplete	7.8	243
Primary complete	6.8	404
Secondary +	3.1	102
Wealth quintile		
Lowest	9.8	136
Second	6.1	158
Middle	7.8	153
Fourth	9.4	182
Highest	5.7	191
Total 15-19	7.7	820

[1] Sexual intercourse with a nonmarital, noncohabiting partner
[2] Friends, family members, and home are not considered sources for condoms.

8.8 ALCOHOL USE DURING SEX

Research has shown that alcohol use reduces inhibitions and increases risky behaviour. Alcohol use in conjunction with sex is associated with lower prevalence of condom use. In the 2007-08 THMIS, respondents were asked if they or their partners drank alcohol the last time they had sex. The question was asked for up to three partners in the past 12 months.

Four percent of women and 2 percent of men reported having had sex when drunk during the 12 months preceding the survey (Table 8.7). Mixing sexual intercourse and alcohol drinking is more common among women and men in their early 20s than among those age 15-19 years. It is also more common among young women and men age 15-24 who have ever been married compared with those who have never married. Sexual intercourse when drunk is also more common in young women and men with no education and those in the lower wealth quintiles.

Table 8.7 Drunkenness during sexual intercourse among youth

Among all young women and young men age 15-24, the percentage who had sexual intercourse in the past 12 months while being drunk and percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk, by background characteristics, Tanzania HMIS 2007-08

	Women age 15-24			Men age 15-24		
Background characteristic	Percentage who had sexual intercourse in past 12 months when drunk	Percentage who had sexual intercourse in past 12 months when drunk or with a partner who was drunk	Number of women	Percentage who had sexual intercourse in past 12 months when drunk	Percentage who had sexual intercourse in past 12 months when drunk or with a partner who was drunk	Number of men
Age						
15-19	1.9	1.9	1,984	0.5	0.5	1,768
15-17	1.5	1.5	1,315	0.1	0.1	1,152
18-19	2.7	2.7	669	1.4	1.4	616
20-24	6.9	6.9	1,746	2.9	2.9	1,148
20-22	5.8	5.8	1,076	2.5	2.5	778
23-24	8.7	8.7	671	3.8	3.8	370
Marital status						
Never married	1.2	1.2	1,928	1.0	1.0	2,516
Ever married	7.4	7.4	1,802	4.2	4.2	399
Knows condom source[1]						
Yes	5.3	5.3	2,199	1.9	1.9	2,235
No	2.7	2.7	1,531	0.2	0.2	681
Residence						
Urban	2.7	2.7	1,019	1.7	1.7	704
Rural	4.8	4.8	2,711	1.4	1.4	2,212
Mainland/Zanzibar						
Mainland	4.4	4.4	3,592	1.5	1.5	2,818
Mainland – Urban	2.8	2.8	973	1.8	1.8	670
Dar es Salaam City	2.5	2.5	301	0.9	0.9	207
Other Urban	2.9	2.9	672	2.1	2.1	463
Mainland – Rural	5.0	5.0	2,619	1.4	1.4	2,147
Zanzibar	0.1	0.1	138	0.5	0.5	98
Region						
Arusha	0.0	0.0	144	1.3	1.3	88
Dar es Salaam	2.4	2.4	318	0.9	0.9	219
Dodoma	11.5	11.5	130	0.0	0.0	107
Iringa	11.2	11.2	125	5.0	5.0	112
Kagera	4.1	4.1	191	0.0	0.0	179
Kigoma	5.8	5.8	192	1.3	1.3	135
Kilimanjaro	7.6	7.6	157	3.6	3.6	132
Lindi	4.2	4.2	93	2.6	2.6	47
Manyara	6.4	6.4	96	0.0	0.0	81
Mara	2.2	2.2	159	0.7	0.7	111
Mbeya	11.1	11.1	219	2.8	2.8	223
Morogoro	1.5	1.5	152	1.9	1.9	112
Mtwara	0.0	0.0	115	0.0	0.0	75
Mwanza	1.1	1.1	352	0.6	0.6	275
Pwani	5.1	5.1	78	1.6	1.6	47
Rukwa	9.1	9.1	129	2.4	2.4	111
Ruvuma	6.6	6.6	148	3.1	3.1	124
Shinyanga	1.9	1.9	329	1.6	1.6	282
Singida	5.7	5.7	67	1.7	1.7	68
Tabora	4.5	4.5	236	0.0	0.0	173
Tanga	0.0	0.0	162	1.7	1.7	117
Pemba	0.0	0.0	41	0.2	0.2	32
Unguja	0.1	0.1	96	0.6	0.6	66
Zone						
Western	3.7	3.7	757	1.1	1.1	590
Northern	3.2	3.2	559	1.9	1.9	418
Central	9.5	9.5	197	0.7	0.7	175
Southern Highlands	10.6	10.6	472	3.2	3.2	446
Lake	2.1	2.1	703	0.4	0.4	565
Eastern	2.5	2.5	548	1.3	1.3	377
Southern	3.8	3.8	356	2.0	2.0	246
Zanzibar	0.1	0.1	138	0.5	0.5	98
Education						
No education	6.5	6.5	652	3.1	3.1	274
Primary incomplete	3.9	3.9	789	1.3	1.3	930
Primary complete	4.5	4.5	1,783	1.7	1.7	1,152
Secondary +	0.7	0.7	506	0.3	0.3	560
Wealth quintile						
Lowest	5.4	5.4	641	0.9	0.9	476
Second	4.1	4.1	647	2.7	2.7	583
Middle	4.8	4.8	704	1.2	1.2	561
Fourth	4.1	4.1	735	1.0	1.0	615
Highest	3.2	3.2	1,003	1.4	1.4	680
Total 15-24	4.2	4.2	3,730	1.5	1.5	2,916

[1] Friends, family members, and home are not considered sources for condoms.

8.9 HIV TESTING AMONG YOUNG PEOPLE

Knowledge of one's own HIV sero-status can motivate a person to protect himself/herself, or to practice safer sexual behaviour to avoid transmitting the virus to others. It is particularly important to measure coverage of voluntary HIV testing among youths, not only because of their vulnerability, but also because they may experience obstacles in accessing voluntary counselling and testing (VCT). Table 8.8 shows, for young women and men age 15-24 who had sexual intercourse in the past 12 months, the percentage who reported having an HIV test in the past 12 months and received the results of the test.

In general, women are more likely than men to have been tested for HIV. For example, 23 percent of women and 22 percent of men age 20-24 who had sex in the 12 months preceding the survey were tested in the past 12 months and knew their results. While men age 20-24 were more likely to have been tested than men age 15-19 (22 and 17 percent, respectively), the pattern is reversed for women (25 percent women age 15-19 compared with 23 percent for women age 20-24).

Differences in HIV testing by marital status are minimal, however urban youth are more likely than rural youth to have been tested for HIV. Regional variations are small, which may suggest that VCT services in Tanzania are widespread in all zones, including Zanzibar. For women and men, there is a strong association between VCT and level of education or wealth status. Youth with no education and those in the lowest quintile are the less likely to have been tested for HIV than other youth.

Table 8.8 Recent HIV tests among youth

Among young women and young men age 15-24 who have had sexual intercourse in the past 12 months, the percentage who have had an HIV test in the past 12 months and received the results of the test, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women age 15-24 who had sexual intercourse in the past 12 months		Men age 15-24 who had sexual intercourse in the past 12 months	
	Percentage who have been tested for HIV and received results in past 12 months	Number of women	Percentage who have been tested for HIV and received results in past 12 months	Number of men
Age				
15-19	25.4	810	17.0	443
15-17	23.6	368	12.1	198
18-19	27.0	442	21.0	245
20-24	23.2	1,472	21.6	794
20-22	22.6	881	21.0	496
23-24	24.0	591	22.7	298
Marital status				
Never married	25.6	572	19.5	840
Ever married	23.4	1,710	20.9	397
Knows condom source[1]				
Yes	27.5	1,577	20.6	1,138
No	16.1	705	12.1	99
Residence				
Urban	30.4	599	27.7	254
Rural	21.7	1,683	18.0	983
Mainland/Zanzibar				
Mainland	23.9	2,239	20.0	1,220
Mainland – Urban	30.3	584	28.0	248
Dar es Salaam City	32.8	162	(25.7)	71
Other Urban	29.4	422	28.9	177
Mainland – Rural	21.7	1,655	18.0	972
Zanzibar	27.3	43	17.2	17
Zone				
Western	22.2	529	20.2	317
Northern	23.6	293	27.8	159
Central	21.8	106	16.1	77
Southern Highlands	27.7	272	18.7	166
Lake	22.8	462	14.9	193
Eastern	25.2	335	18.6	143
Southern	25.1	243	22.5	165
Zanzibar	27.3	43	17.2	17
Education				
No education	15.7	539	15.2	172
Primary incomplete	14.8	385	15.1	340
Primary complete	27.4	1,172	19.2	569
Secondary +	45.7	186	38.7	156
Wealth quintile				
Lowest	16.9	417	16.7	235
Second	19.7	441	15.4	282
Middle	24.7	450	14.5	245
Fourth	24.8	418	26.2	245
Highest	31.6	556	28.1	229
Total 15-24	24.0	2,282	20.0	1,237

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Friends, family members, and home are not considered sources for condoms.

HIV PREVALENCE 9

9.1 INTRODUCTION

Prior to the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS), national HIV prevalence was estimated using prevalence from blood donors and sentinel surveillance among pregnant women attending selected antenatal care (ANC) services. Prevalence estimates really began in 1990 when 24 ANC sites were established for HIV surveillance in 11 regions. In 2005-06, surveillance of HIV among ANC attendees had increased to 90 ANC sites in 15 regions. Results from that round of ANC surveillance data were analysed and used together with data from the 2003-04 THIS to estimate the prevalence of HIV among the Tanzania population. The 2008 round of sentinel surveillance of HIV among pregnant women is being collected from 134 ANC sites in all 21 regions in Mainland Tanzania.

Another source of information that was sometimes used in estimating HIV prevalence rates in the general population was data collected from blood donations. As a matter of policy, there is mandatory screening of blood that is used for blood transfusion. Data from this source were available throughout the country. Because for some years this was the only information available at the sub-national level, it has been used as a proxy for HIV infection rates in those areas.

From July 2007 to April 2008, Tanzania carried out the National Voluntary HIV Testing Campaign in all parts of the country. During this period, over 4 million Tanzanians were tested for HIV and results were made available to those tested. In some regions and districts, HIV test results from this campaign are being used to estimate the rate of HIV infection in those localities.

While the rates of HIV infection from the above-mentioned sources are important and are being used in various settings, they cannot be used as a reliable estimate of the HIV prevalence rate for the Tanzania population. The ANC data do not capture information on HIV prevalence in non-pregnant women, nor in women who do not attend clinics for ANC. Pregnant women are more at risk for HIV infection than women who may be avoiding both HIV and pregnancy through the use of condoms or women who are less sexually active and therefore less likely to become pregnant or expose themselves to HIV. In addition, there may be biases in the ANC surveillance data because HIV infection reduces fertility and knowledge of HIV status may influence fertility choices. Moreover, ANC data do not include socio-economic characteristics that may facilitate HIV infection. Finally, ANC data are sex selective; therefore, the rates among pregnant women are not a proxy for male HIV rates.

Although blood donor data have been used widely in various areas, they have limitations. First, before the introduction of the National Blood Transfusion Services (NTS) in Tanzania, most blood donors were relatives of the patient and hence were not representative of the general population. Secondly, it is likely that those who suspect that they might have contracted HIV do not volunteer to donate blood for fear of being tested and/or potentially infecting the patient. While the introduction of the NTS eliminated dependence on relatives of patients for blood donations, data from this source should not be used to estimate the prevalence of HIV in the general population. This is because NTS aims at obtaining blood of the highest quality and does a lot of screening during recruitment of donors; hence, NTS has a very low rate of HIV infection, which underestimates the actual prevalence in the general population.

The National Voluntary HIV Testing Campaign, which took place throughout the country, was voluntary. People came for testing by choice and no scientific methods were applied to obtain information about the clients.

Thus, although the information from the ANC surveillance system and blood donor data have been useful for monitoring trends in HIV infection in Tanzania, and the national testing campaign provided some prevalence data from different geographical locations of Tanzania, the HIV trends observed from the 2003-04 THIS and the 2007-08 THMIS give a clearer understanding of the magnitude and pattern of HIV infection in both Mainland Tanzania and Zanzibar. By using information obtained from the two surveys, it is possible to see the trends in HIV infection throughout Tanzania.

9.2 COVERAGE OF HIV TESTING

All women and men age 15-49 living in the households selected for the 2007-08 THMIS were eligible for the HIV testing component. Table 9.1 presents the coverage rates for HIV testing for eligible men and women by geographic location, while Table 9.2 presents coverage of HIV testing by selected background characteristics. Both tables are based on respondents who were eligible to be tested. They show the proportion of people who were interviewed and consented to HIV testing, the proportion who were interviewed and refused to provide blood when asked, the proportion who were absent at the time of blood collection, and the proportion who were not tested for other reasons, such as mismatch of questionnaires and blood samples, or technical problems in taking blood.

A total of 17,670 adults (9,735 women and 7,935 men) were eligible for HIV testing. Overall, 85 percent (90 percent of eligible women and 80 percent of eligible men) agreed to provide a blood sample for HIV testing. The response rate was higher in rural than in urban areas (87 percent and 79 percent respectively). Table 9.1 also shows that the response rate was higher among women than among men in both rural and urban areas.

Overall, the proportion of eligible adults who provided a blood sample for HIV testing was 84 percent for Mainland Tanzania and 89 percent for Zanzibar. Coverage of HIV testing by region ranges from 69 percent among adults in Dar es Salaam to 93 percent in Kagera. Rates are lower for men than for women in every region, mainly because of the higher proportion of men who were not interviewed.

Table 9.1 Coverage of HIV testing by residence and region

Percent distribution of women age 15-49 and men age 15-49 eligible for HIV testing by testing status, according to residence and region (unweighted), Tanzania HMIS 2007-08

Residence/ region	Testing status, women and men					
	Percentage nterviewed and tested[1]	Percentage interviewed, refused to provide blood	Other/missing[2]		Total	Number
			Percentage nterviewed	Percentage not interviewed		
	WOMEN					
Residence						
Urban	84.9	10.7	0.2	4.2	100.0	2,268
Rural	90.9	5.0	0.2	4.0	100.0	7,467
Mainland/Zanzibar						
Mainland	87.6	7.7	0.2	4.5	100.0	6,991
Mainland – Urban	81.4	13.9	0.2	4.5	100.0	1,654
Dar es Salaam City	77.6	16.1	0.4	5.8	100.0	447
Other Urban	82.8	13.1	0.2	4.0	100.0	1,207
Mainland – Rural	89.5	5.7	0.2	4.6	100.0	5,337
Zanzibar	94.4	2.8	0.1	2.7	100.0	2,744
Region/Island						
Arusha	75.4	19.9	0.0	4.7	100.0	321
Dar es Salaam	77.1	16.6	0.4	5.9	100.0	476
Dodoma	91.1	5.9	0.4	2.6	100.0	270
Iringa	94.0	5.0	0.4	0.7	100.0	282
Kagera	95.4	1.2	0.0	3.4	100.0	323
Kigoma	87.9	3.0	0.3	8.8	100.0	397
Kilimanjaro	91.6	4.8	0.0	3.6	100.0	333
Lindi	92.1	1.6	0.3	5.9	100.0	305
Manyara	89.4	8.8	0.6	1.2	100.0	330
Mara	93.5	4.5	0.0	2.0	100.0	401
Mbeya	92.6	5.4	0.0	2.0	100.0	298
Morogoro	83.5	13.3	0.0	3.1	100.0	255
Mtwara	82.0	11.6	0.4	6.0	100.0	284
Mwanza	84.8	8.0	0.2	7.0	100.0	401
Pwani	83.6	11.5	0.4	4.5	100.0	244
Rukwa	83.5	11.3	0.3	4.9	100.0	328
Ruvuma	90.7	3.4	0.0	5.9	100.0	356
Shinyanga	90.0	7.8	0.0	2.3	100.0	399
Singida	91.5	4.0	0.4	4.0	100.0	272
Tabora	87.4	4.4	0.3	8.0	100.0	388
Tanga	84.8	8.5	0.6	6.1	100.0	328
Pemba	94.3	3.0	0.1	2.6	100.0	1,525
Unguja	94.5	2.5	0.1	2.9	100.0	1,219
Zone						
Western	88.4	5.1	0.2	6.3	100.0	1,184
Northern	85.4	10.4	0.3	3.9	100.0	1,312
Central	91.3	5.0	0.4	3.3	100.0	542
Southern Highlands	89.8	7.4	0.2	2.6	100.0	908
Lake	90.9	4.8	0.1	4.2	100.0	1,125
Eastern	80.4	14.5	0.3	4.8	100.0	975
Southern	88.6	5.3	0.2	5.9	100.0	945
Zanzibar	94.4	2.8	0.1	2.7	100.0	2,744
Total	89.5	6.3	0.2	4.0	100.0	9,735

Continued…

Table 9.1—*Continued*

	Testing status, women and men					
			Other/missing[2]			
	Percentage interviewed and tested[1]	Percentage interviewed, refused to provide blood	Percentage nterviewed	Percentage not interviewed	Total	Number
	MEN					
Residence						
Urban	70.6	13.2	0.1	16.0	100.0	1,785
Rural	82.5	6.5	0.1	11.0	100.0	6,150
Mainland/Zanzibar						
Mainland	79.2	9.0	0.1	11.7	100.0	5,870
Mainland – Urban	67.6	15.9	0.2	16.3	100.0	1,325
Dar es Salaam City	58.6	21.8	0.3	19.3	100.0	367
Other Urban	71.1	13.7	0.1	15.1	100.0	958
Mainland – Rural	82.6	7.0	0.1	10.3	100.0	4,545
Zanzibar	81.6	5.0	0.1	13.3	100.0	2,065
Region/Island						
Arusha	66.8	18.2	0.0	15.0	100.0	253
Dar es Salaam	58.4	22.2	0.3	19.1	100.0	397
Dodoma	78.7	13.0	0.0	8.3	100.0	230
Iringa	79.6	6.2	0.0	14.2	100.0	226
Kagera	91.1	2.1	0.0	6.8	100.0	292
Kigoma	85.8	2.3	0.6	11.3	100.0	309
Kilimanjaro	86.6	3.3	0.0	10.0	100.0	269
Lindi	86.9	3.8	0.0	9.3	100.0	236
Manyara	81.4	14.0	0.0	4.7	100.0	301
Mara	81.4	5.3	0.3	12.9	100.0	318
Mbeya	86.6	6.0	0.0	7.4	100.0	284
Morogoro	79.4	11.9	0.0	8.7	100.0	218
Mtwara	72.3	15.3	0.0	12.4	100.0	202
Mwanza	82.7	5.6	0.0	11.7	100.0	342
Pwani	71.1	15.1	0.0	13.8	100.0	159
Rukwa	71.5	11.0	0.0	17.5	100.0	309
Ruvuma	78.5	8.7	0.3	12.5	100.0	312
Shinyanga	87.2	6.7	0.3	5.9	100.0	374
Singida	85.2	6.2	0.0	8.6	100.0	243
Tabora	75.4	5.6	0.0	19.1	100.0	341
Tanga	76.9	10.2	0.0	12.9	100.0	255
Pemba	81.8	3.6	0.1	14.5	100.0	1,155
Unguja	81.3	6.7	0.1	11.9	100.0	910
Zone						
Western	82.8	5.0	0.3	11.9	100.0	1,024
Northern	78.2	11.4	0.0	10.4	100.0	1,078
Central	82.0	9.5	0.0	8.5	100.0	473
Southern Highlands	79.0	7.9	0.0	13.1	100.0	819
Lake	84.9	4.4	0.1	10.6	100.0	952
Eastern	66.9	17.8	0.1	15.1	100.0	774
Southern	79.5	8.9	0.1	11.5	100.0	750
Zanzibar	81.6	5.0	0.1	13.3	100.0	2,065
Total	79.8	8.0	0.1	12.1	100.0	7,935

Continued…

Table 9.1—*Continued*

Background characteristic	Testing status, women and men: Percentage interviewed and tested[1]	Percentage interviewed, refused to provide blood	Other/missing[2]: Percentage interviewed	Other/missing[2]: Percentage not interviewed	Total	Number
			TOTAL			
Residence						
Urban	78.6	11.8	0.2	9.4	100.0	4,053
Rural	87.1	5.6	0.1	7.1	100.0	13,617
Mainland/Zanzibar						
Mainland	83.7	8.3	0.2	7.8	100.0	12,861
Mainland – Urban	75.3	14.8	0.2	9.7	100.0	2,979
Dar es Salaam City	69.0	18.7	0.4	11.9	100.0	814
Other Urban	77.6	13.3	0.1	8.9	100.0	2,165
Mainland – Rural	86.3	6.3	0.2	7.2	100.0	9,882
Zanzibar	88.9	3.7	0.1	7.3	100.0	4,809
Region/Island						
Arusha	71.6	19.2	0.0	9.2	100.0	574
Dar es Salaam	68.6	19.1	0.3	11.9	100.0	873
Dodoma	85.4	9.2	0.2	5.2	100.0	500
Iringa	87.6	5.5	0.2	6.7	100.0	508
Kagera	93.3	1.6	0.0	5.0	100.0	615
Kigoma	87.0	2.7	0.4	9.9	100.0	706
Kilimanjaro	89.4	4.2	0.0	6.5	100.0	602
Lindi	89.8	2.6	0.2	7.4	100.0	541
Manyara	85.6	11.3	0.3	2.9	100.0	631
Mara	88.2	4.9	0.1	6.8	100.0	719
Mbeya	89.7	5.7	0.0	4.6	100.0	582
Morogoro	81.6	12.7	0.0	5.7	100.0	473
Mtwara	78.0	13.2	0.2	8.6	100.0	486
Mwanza	83.8	6.9	0.1	9.2	100.0	743
Pwani	78.7	12.9	0.2	8.2	100.0	403
Rukwa	77.7	11.1	0.2	11.0	100.0	637
Ruvuma	85.0	5.8	0.1	9.0	100.0	668
Shinyanga	88.6	7.2	0.1	4.0	100.0	773
Singida	88.5	5.0	0.2	6.2	100.0	515
Tabora	81.8	4.9	0.1	13.2	100.0	729
Tanga	81.3	9.3	0.3	9.1	100.0	583
Pemba	88.9	3.3	0.1	7.7	100.0	2,680
Unguja	88.9	4.3	0.1	6.7	100.0	2,129
Zone						
Western	85.8	5.0	0.2	8.9	100.0	2,208
Northern	82.1	10.9	0.2	6.8	100.0	2,390
Central	87.0	7.1	0.2	5.7	100.0	1,015
Southern Highlands	84.7	7.6	0.1	7.6	100.0	1,727
Lake	88.2	4.6	0.1	7.1	100.0	2,077
Eastern	74.4	16.0	0.2	9.4	100.0	1,749
Southern	84.5	6.9	0.2	8.4	100.0	1,695
Zanzibar	88.9	3.7	0.1	7.3	100.0	4,809
Total	85.1	7.1	0.2	7.7	100.0	17,670

[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table 9.2 shows coverage of HIV testing by background characteristics. The data show that response rates among women are remarkably consistent across age groups, while among men, they show a U-shaped pattern, being highest among those aged 15-19 and 45-49. There is no clear pattern by education. However, with respect to wealth quintile, both women and men in the highest quintile were less likely to provide samples for HIV testing than those in the lower quintiles. In almost every category of background characteristics, women were more likely to be tested than men.

Coverage of HIV testing in the 2007-08 THMIS is higher than that in the 2003–04 THIS, increasing from 84 to 90 percent for women and from 77 to 80 percent for men in Mainland Tanzania.

Table 9.2 Coverage of HIV testing by selected background characteristics

Percent distribution of women age 15-49 and men age 15-49 eligible for HIV testing by testing status, according to selected background characteristics (unweighted), Tanzania HMIS 2007-08

Background characteristic	Testing status, women and men					
	Percentage interviewed and tested[1]	Percentage interviewed, refused to provide blood	Other/ missing[2]		Total	Number
			Percentage interviewed	Percentage not interviewed		
WOMEN						
Age						
15-19	89.2	4.9	0.3	5.6	100.0	2,266
20-24	89.4	6.3	0.2	4.0	100.0	1,749
25-29	89.4	6.0	0.2	4.4	100.0	1,580
30-34	89.5	7.8	0.0	2.7	100.0	1,355
35-39	89.7	8.0	0.2	2.2	100.0	1,180
40-44	88.3	6.9	0.4	4.4	100.0	841
45-49	91.4	5.1	0.1	3.4	100.0	764
Education						
No education	87.9	6.5	0.2	5.4	100.0	2,185
Primary incomplete	91.4	5.0	0.1	3.6	100.0	1,620
Primary complete	89.3	7.0	0.2	3.5	100.0	4,288
Secondary +	90.2	5.5	0.2	4.1	100.0	1,641
Wealth quintile						
Lowest	89.3	6.1	0.1	4.5	100.0	1,584
Second	90.0	5.4	0.1	4.5	100.0	1,607
Middle	91.4	4.1	0.3	4.2	100.0	1,724
Fourth	91.1	5.2	0.2	3.5	100.0	2,294
Highest	86.5	9.5	0.2	3.7	100.0	2,525
Total	89.5	6.3	0.2	4.0	100.0	9,735
MEN						
Age						
15-19	83.8	5.2	0.1	11.0	100.0	2,113
20-24	79.0	8.2	0.0	12.8	100.0	1,317
25-29	74.5	10.3	0.0	15.2	100.0	1,100
30-34	77.0	10.0	0.2	12.7	100.0	1,067
35-39	78.9	9.3	0.3	11.5	100.0	942
40-44	80.5	8.1	0.1	11.3	100.0	754
45-49	82.6	7.5	0.0	10.0	100.0	642
Education						
No education	75.2	9.0	0.0	15.8	100.0	967
Primary incomplete	81.9	6.3	0.1	11.7	100.0	1,820
Primary complete	79.4	8.6	0.2	11.8	100.0	3,510
Secondary +	81.3	7.9	0.1	10.8	100.0	1,635
Wealth quintile						
Lowest	82.3	7.0	0.1	10.6	100.0	1,185
Second	83.8	5.9	0.1	10.2	100.0	1,417
Middle	82.5	6.0	0.2	11.2	100.0	1,461
Fourth	80.4	7.6	0.1	12.0	100.0	1,844
Highest	73.1	11.8	0.1	15.0	100.0	2,024
Total	79.8	8.0	0.1	12.1	100.0	7,935

Note: Total includes 1 woman and 3 men missing information on education level.
[1] Includes all dried blood spot (DBS) samples tested at the lab and for which there is a result, i.e. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: 1) other results of blood collection (e.g., technical problem in the field), 2) lost specimens, 3) non-corresponding bar codes, and 4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

9.3 HIV PREVALENCE BY AGE AND SEX

Results from the 2007-08 THMIS show that 6 percent of Tanzanian adults age 15-49 are infected with HIV (Table 9.3). HIV prevalence is higher among women than men (7 percent and 5 percent, respectively).

Table 9.3 HIV prevalence by age

Among the de facto women age 15-49 and men age 15-49 who were interviewed and tested, the percentage HIV-1 positive, by age, Tanzania HMIS 2007-08

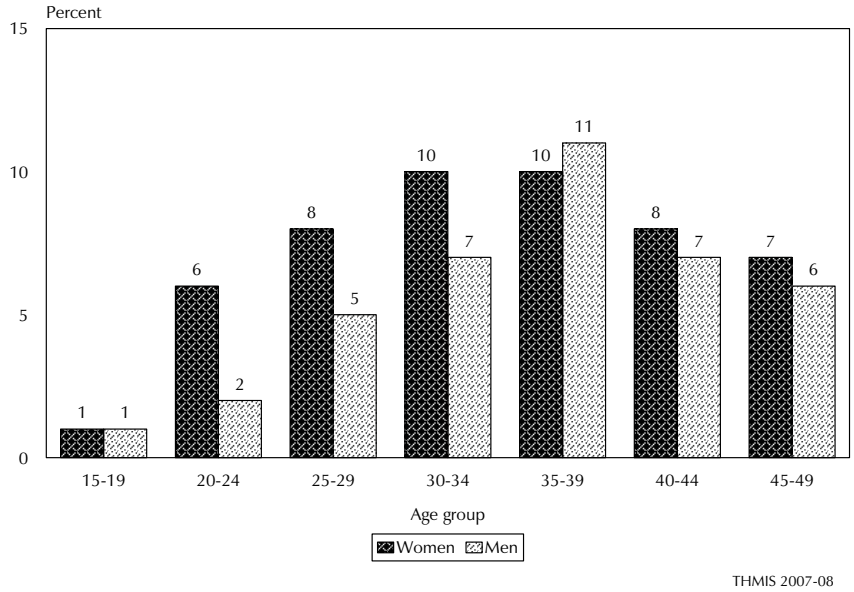
	Women		Men		Total	
Age	Percentage HIV-1 positive	Number	Percentage HIV-1 positive	Number	Percentage HIV-1 positive	Number
15-19	1.3	1,756	0.7	1,815	1.0	3,571
20-24	6.3	1,530	1.7	1,125	4.3	2,655
25-29	7.9	1,423	5.0	970	6.7	2,393
30-34	10.4	1,164	7.4	954	9.1	2,119
35-39	9.5	1,007	10.6	806	10.0	1,813
40-44	7.6	668	6.7	615	7.2	1,283
45-49	6.8	630	6.1	580	6.4	1,210
Total 15-49	6.6	8,179	4.6	6,865	5.7	15,044

Note: HIV positive refers to individuals who have HIV-1.

Looking at age and sex patterns, Table 9.3 shows that HIV prevalence increases with age for both women and men. For women, prevalence increases from 1 percent for those age 15-19 to a high of over 10 percent for women age 30-34. The same pattern is observed among men, though the peak of 10 percent is reached in a slightly older age group—men 35-39. As shown in Figure 9.1, women are more affected at younger ages compared with men. HIV prevalence among women is higher than that for men at all ages except 35-39.

Compared with HIV prevalence data from the 2003-04 THIS, there has been a slight decrease in overall prevalence of HIV among adults (one percentage point), from 7 percent in 2003-04 to 6 percent in 2007-08. Prevalence has declined for every age group except those 45-49. It is particularly encouraging to note that the decline in HIV infection among those age 15-19 was from 2 percent in 2003-04 to 1 percent in 2007-08.

Figure 9.1 **HIV Prevalence by Age Group and Sex**



9.4 HIV PREVALENCE BY SOCIO-ECONOMIC CHARACTERISTICS

Table 9.4 shows the variation in HIV prevalence by socio-economic characteristics. Data show that the prevalence of HIV is higher among those who are employed (6 percent) than those who are not employed (3 percent). This is true for both women and men, though the difference between persons who are employed and those who are not employed is slightly smaller among women than among men.

Table 9.4 HIV prevalence by socio-economic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by socio-economic characteristics, Tanzania HMIS 2007-08

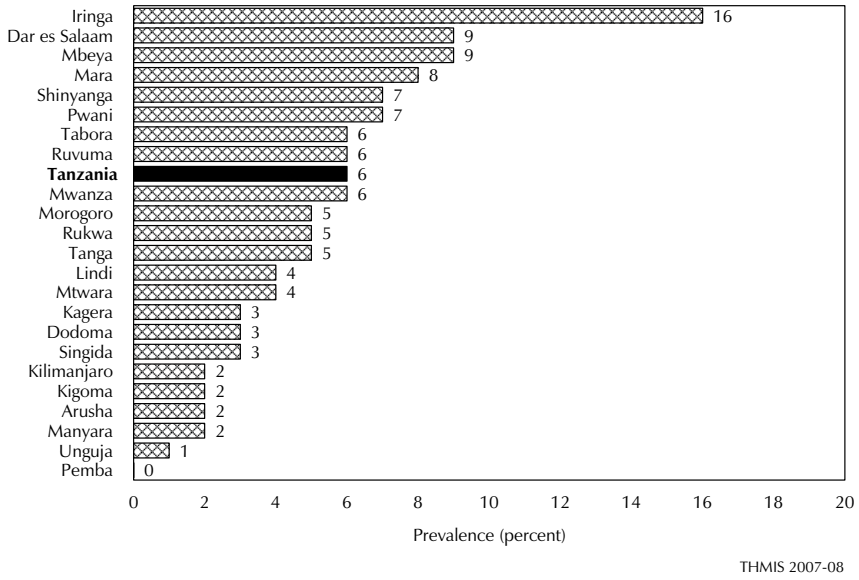
Socio-economic characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Residence						
Urban	10.6	2,065	6.4	1,605	8.7	3,670
Rural	5.3	6,114	4.0	5,260	4.7	11,374
Mainland/Zanzibar						
Mainland	6.8	7,909	4.7	6,657	5.8	14,566
Mainland – Urban	11.0	1,972	6.6	1,535	9.1	3,507
Dar es Salaam City	10.2	663	7.2	550	8.8	1,213
Other Urban	11.4	1,309	6.3	985	9.2	2,294
Mainland – Rural	5.4	5,937	4.1	5,122	4.8	11,059
Zanzibar	0.7	270	0.5	208	0.6	478
Region						
Arusha	0.8	345	2.7	260	1.6	605
Dar es Salaam	10.4	690	7.9	577	9.3	1,266
Dodoma	4.1	294	2.3	253	3.3	547
Iringa	18.6	353	12.1	283	15.7	636
Kagera	3.5	451	3.3	396	3.4	847
Kigoma	2.7	361	0.6	286	1.8	647
Kilimanjaro	2.5	328	1.2	266	1.9	594
Lindi	4.9	215	2.2	161	3.8	376
Manyara	2.3	229	0.7	201	1.5	430
Mara	8.5	319	6.6	237	7.7	556
Mbeya	9.3	502	9.2	487	9.2	990
Morogoro	7.1	379	2.9	333	5.1	712
Mtwara	4.4	285	2.5	207	3.6	492
Mwanza	7.1	729	3.7	588	5.6	1,317
Pwani	8.4	177	4.2	116	6.7	294
Rukwa	5.7	276	4.1	263	4.9	538
Ruvuma	7.4	326	4.2	285	5.9	610
Shinyanga	8.4	660	6.3	624	7.4	1,284
Singida	3.0	171	2.4	148	2.7	318
Tabora	7.2	447	5.6	390	6.4	837
Tanga	6.7	372	2.4	296	4.8	668
Pemba	0.3	82	0.2	62	0.3	145
Unguja	0.9	187	0.6	146	0.8	334
Zone						
Western	6.6	1,469	4.8	1,300	5.8	2,768
Northern	3.2	1,274	1.8	1,023	2.6	2,297
Central	3.7	464	2.3	401	3.0	865
Southern Highlands	11.3	1,131	8.7	1,033	10.1	2,164
Lake	6.3	1,499	4.1	1,222	5.3	2,721
Eastern	9.1	1,246	5.9	1,026	7.7	2,272
Southern	5.7	826	3.2	653	4.6	1,479
Zanzibar	0.7	270	0.5	208	0.6	478
Education						
No education	6.0	1,727	5.5	801	5.9	2,528
Primary incomplete	6.0	1,349	4.1	1,536	5.0	2,884
Primary complete	7.3	4,332	4.9	3,515	6.2	7,847
Secondary +	4.9	771	3.4	1,013	4.0	1,784
Employment (past 12 months)						
Not employed	3.7	1,569	1.0	1,330	2.5	2,898
Employed	7.3	6,596	5.4	5,528	6.4	12,124
Wealth quintile						
Lowest	5.0	1,501	4.1	1,168	4.6	2,669
Second	6.6	1,455	3.5	1,435	5.1	2,890
Middle	5.1	1,582	4.1	1,315	4.7	2,896
Fourth	6.0	1,641	4.5	1,363	5.3	3,004
Highest	9.5	2,000	6.3	1,582	8.1	3,582
Total 15-49	6.6	8,179	4.6	6,865	5.7	15,044

Note: HIV positive refers to individuals who have HIV-1. Total includes 14 women and 8 men for whom on employment status is missing

For both sexes, urban residents have higher levels of HIV infection than rural residents (9 and 5 percent, respectively). The HIV prevalence among urban women (11 percent) is twice that of rural women (5 percent). For men, the difference is not so large (6 percent among urban men and 4 percent among rural men).

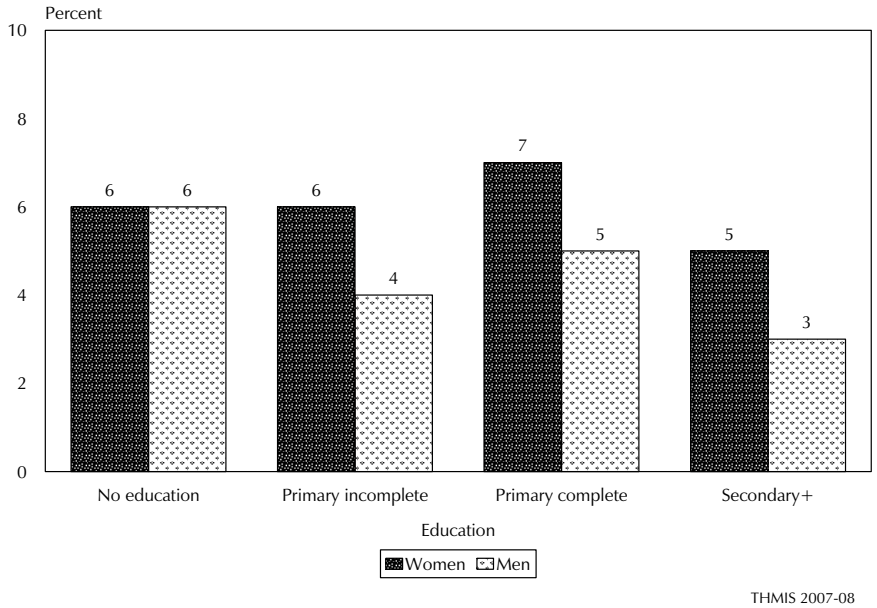
There are large variations in HIV prevalence by region (Figure 9.2). The highest HIV prevalence rate is found in Iringa region (16 percent), followed by Dar es Salaam (9 percent) and Mbeya (9 percent). Regions on the Mainland with the lowest HIV prevalence are Arusha, Kigoma, Kilimanjaro, and Manyara (2 percent each). The lowest prevalence, however, is found in Pemba and Unguja, both with less than 1 percent of adults HIV positive. In all regions except Arusha, HIV prevalence is higher among women than men.

Figure 9.2 HIV Prevalence by Region/Island



HIV prevalence does not have a consistent pattern by level of education (Figure 9.3). It is lowest among both women and men with at least some secondary education. The highest prevalence is found among women with complete primary education (7 percent) and among men with no education (6 percent). There was no difference between women with no education and those who had incomplete primary education.

Figure 9.3 HIV Prevalence by Education



There is also no consistent pattern of HIV prevalence by household wealth status, although HIV is highest overall among those in the highest wealth quintile (8 percent) and lowest in the lowest wealth quintile (5 percent). Women in the highest wealth quintile are about twice as likely to be infected with HIV (10 percent) as those in the lowest quintile (5 percent).

9.5 HIV PREVALENCE BY DEMOGRAPHIC CHARACTERISTICS

Marital status and type of union are both related to HIV prevalence. As shown in Table 9.5 and Figure 9.4, women and men who are widowed have a greater likelihood of being HIV positive than those who have never married or who are currently married or divorced or separated. Overall, HIV prevalence for those who are widowed is 27 percent (almost entirely women), followed by divorced/separated (13 percent) and those who are either married or living together (6 percent). Women and men who have never been in union have considerably lower HIV prevalence than other groups (2 percent for both women and men). Even lower levels are measured among those who say they have never had sex (less than 1 percent for women and 1 percent for men). The presence of HIV infection among those who say they have never been in a union and have never had sex suggests either errors in reporting sexual behaviour or non-sexual transmission of HIV infection, such as blood transfusions, mother-to-child transmission and unsterile injections.

Table 9.5 HIV prevalence by demographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by demographic characteristics, Tanzania HMIS 2007-08

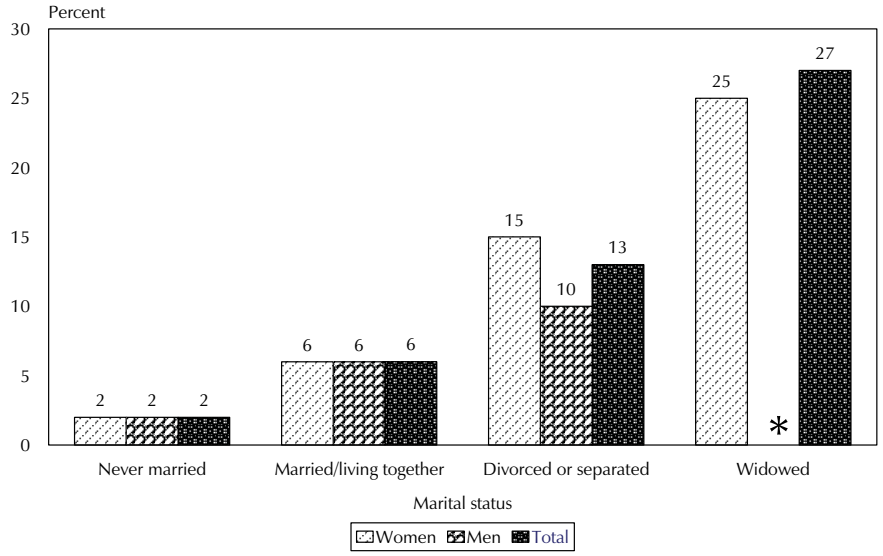
Demographic characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Marital status						
Never married	2.4	1,948	1.9	2,937	2.1	4,885
Ever had sex	4.6	856	2.6	1,536	3.3	2,391
Never had sex	0.7	1,092	1.1	1,401	0.9	2,494
Married/living together	6.1	5,235	6.1	3,600	6.1	8,835
Divorced or separated	14.9	737	9.7	306	13.3	1,044
Widowed	25.1	259	*	22	26.7	280
Type of union						
In polygynous union	5.8	1,148	8.3	398	6.4	1,546
Not in polygynous union	6.1	3,999	5.8	3,195	6.0	7,194
Not currently in union	7.5	2,944	2.9	3,265	5.1	6,209
Times travelled away from home in past 12 months						
None	5.9	4,802	4.3	3,410	5.3	8,211
1-2	7.0	2,661	4.8	1,956	6.1	4,617
3-4	8.9	517	3.8	803	5.8	1,320
5+	12.1	188	6.1	682	7.4	870
Time away in past 12 months						
Away for more than one month	7.1	1,074	4.3	1,057	5.7	2,131
Away only for less than 1 month	7.8	2,285	5.0	2,383	6.4	4,667
Not away	5.9	4,809	4.3	3,422	5.3	8,231
Pregnancy status						
Pregnant	5.0	754	na	na	na	na
Not pregnant or not sure	6.8	7,411	na	na	na	na
ANC for last birth in past 3 years						
ANC provided by the public sector	5.1	3,157	na	na	na	na
ANC provided by other than the public sector	8.5	418	na	na	na	na
No ANC/no birth in past 3 years	7.5	4,578	na	na	na	na
Male circumcision						
Circumcised	na	na	3.7	4,540	na	na
Not circumcised	na	na	6.4	2,302	na	na
Total 15-49	6.6	8,179	4.6	6,865	5.7	15,044

Note: HIV positive refers to individuals who have HIV-1. Total includes 88 women and 7 men with information on type of union missing, 11 women and 14 men with information on times travelled away from home missing, 11 women and 4 men with information on time away in past 12 months missing, 14 women with pregnancy status missing, and 23 men with information on circumcision missing. An asterisk indicates a figure based on fewer than 25 unweighted cases that has been suppressed.
na = Not applicable

Table 9.5 shows that men who are currently in polygamous unions have a higher prevalence of HIV than those who are not in polygamous unions or who are currently not in union. The reverse is seen among women; those who are not in union are more likely to be HIV positive than women in the two other groups.

Overall, those who travel away from home frequently are more likely to be HIV positive than those who do not. Among women, those who travelled away from home five or more times in the past 12 months were twice as likely to be HIV positive (12 percent) as those who did not travel away from home (6 percent). For men, the relationship is not as strong, however, prevalence of HIV is highest among those who travelled away from home at least 5 times in the past 12 months. The length of time away from home does not seem to be related to HIV prevalence.

Figure 9.4 Prevalence of HIV by Marital Status



* Figure for widowed men is suppressed because of the small number of cases.

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HIV prevalence is slightly higher among women who are not pregnant or not sure of their pregnancy status (7 percent) than among those who are pregnant (5 percent). This finding is important because the national prevalence of HIV has been estimated using data obtained from antenatal clinics (ANC) and adjusted using prevalence obtained from population-based surveys. Comparison is also shown for women who gave birth in the three years before the survey and received ANC from either a public or private source, as opposed to those who did not go for ANC or who did not give birth during the time period. Data show that women who attended ANC services provided by the government (public sector) are less likely to be HIV positive (5 percent) than those who either attended ANC provided by a non-public sector (9 percent) or those who did not get ANC services or did not give birth in the three years before the survey (8 percent).

It is also interesting to note that men who are circumcised are less likely to be HIV positive (4 percent) than those who have not been circumcised (6 percent).

9.6 HIV Prevalence by Sexual Behaviour

Table 9.6 examines the prevalence of HIV by selected indicators of sexual behaviour among respondents who have ever had sexual intercourse. In reviewing these results, it is important to remember that responses about sexual risk behaviour may be subject to reporting bias. Furthermore,

on issues of HIV, sexual behaviour in the past 12 months may not adequately reflect lifetime sexual risk or protection. Also, from the data, it is not possible to know the sequence of events, e.g., whether condom use predates or postdates HIV transmission.

Among women, results show a tendency for HIV prevalence to be lower for those who initiated sex at a later age. HIV prevalence is highest among women who first had sex before age 16 (8 percent) and it decreases to 6 percent among women who delayed sex until age 20 or later. Among men there is no clear pattern.

Table 9.6 HIV prevalence by sexual behaviour

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behaviour characteristics, Tanzania HMIS 2007-08

Sexual behaviour characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	8.4	2,381	5.4	1,390	7.3	3,772
16-17	7.4	2,104	4.9	1,280	6.4	3,384
18-19	6.6	1,431	6.4	1,420	6.5	2,851
20+	5.7	791	5.0	1,374	5.2	2,165
Higher-risk intercourse in past 12 months[1]						
Had higher-risk intercourse	10.8	1,305	4.6	2,081	7.0	3,385
Had sexual intercourse, not higher risk	6.1	4,996	6.6	2,838	6.3	7,834
No sexual intercourse in past 12 months	11.3	783	2.9	545	7.8	1,329
Number of sexual partners in past 12 months						
0	11.0	770	2.9	540	7.7	1,310
1	7.0	6,078	5.3	3,676	6.3	9,754
2	9.9	211	6.9	1,044	7.4	1,255
3	*	12	7.8	197	7.3	209
Number of higher-risk partners in past 12 months[2]						
0	6.8	5,779	6.0	3,383	6.5	9,162
1	10.8	1,237	3.7	1,360	7.1	2,597
2	10.3	64	5.3	540	5.8	604
3+	*	4	9.1	181	8.9	185
Condom use at last sexual intercourse in past 12 months[1]						
Used condom	11.8	751	6.0	995	8.5	1,746
Did not use condom	6.4	5,549	5.7	3,923	6.1	9,472
No sexual intercourse in past 12 months	11.3	783	2.9	545	7.8	1,329
Condom use at last higher-risk intercourse in past 12 months						
Used condom	10.4	549	4.7	1,074	6.6	1,623
Did not use condom	11.0	756	4.5	1,007	7.3	1,763
No higher-risk intercourse/no intercourse past 12 months	6.8	5,779	6.0	3,383	6.5	9,162
Number of lifetime partners						
1	3.0	2,862	1.4	846	2.6	3,708
2	7.3	1,933	3.6	897	6.1	2,830
3-4	12.2	1,563	3.9	1,430	8.3	2,993
5-9	14.0	553	6.3	1,192	8.8	1,745
10+	21.5	147	11.4	1,000	12.7	1,147
Total 15-49	7.5	7,084	5.5	5,464	6.6	12,548

Note: HIV positive refers to individuals who have HIV-1. Total includes 377 women missing information on age at first sex, 13 women and 7 men missing information on number of sexual partners in the previous 12 months, 1 woman missing information on condom use at last sex, and 26 women and 98 men missing information as to the number of lifetime partners. An asterisk indicates a figure based on fewer than 25 unweighted cases that has been suppressed.

[1] Sexual intercourse with a nonmarital, noncohabiting partner

[2] Number of nonmarital, noncohabiting partners among the last three partners in the past 12 months

Women who said they had higher-risk sex (i.e., sexual intercourse with a nonmarital, noncohabiting partner) during the year preceding the survey have a higher prevalence of HIV (11 percent) than those who said they had sex but not higher-risk sex (6 percent). Surprisingly, however, HIV prevalence is as high among women who have not had sex in the year before the survey (11 percent) as among those who had higher-risk sex. For men, prevalence of HIV infection is not differentiated by having higher-risk intercourse. Prevalence of HIV is 5 percent among men who had higher-risk sexual intercourse, while it is a bit higher (7 percent) for those who had sex but not higher-risk sex. Prevalence among men who did not have sex in the previous 12 months is low (3 percent).

HIV prevalence by the number of sexual partners in the 12 months before the survey shows the expected positive relationship for men but not for women. Among men, HIV prevalence increases as the number of partner increases. Prevalence of HIV is low (3 percent) among men who did not have sex in the past 12 months and increases to 8 percent among men who had three or more partners in the past year. Women who did not have sex in the year before the survey are more likely to be HIV-positive (11 percent) than those who had one or two sexual partners.

Table 9.6 also shows data on HIV prevalence by the number of higher-risk partners in the past 12 months. Women who had sex with one or two higher-risk partners have higher HIV prevalence than those who did not have sex with higher-risk partners. For men, HIV prevalence is highest among those who had at least three higher-risk partners in the previous year (9 percent); however, it is also higher (6 percent) among those who did not have sex with higher-risk partners than those who had one or two higher-risk sexual partners (4 and 5 percent, respectively).

When used consistently and correctly, condoms are a very effective way of preventing HIV infection, other sexually transmitted infections, and unwanted pregnancies. Results from the 2007-08 THMIS do not show any consistent pattern of HIV prevalence by condom use behaviour. Among women, HIV prevalence is higher among those who used a condom at last sexual intercourse in the 12 months before the survey (12 percent) than among those who did not use condom at their last sex (6 percent). It is about equally as high among those who used a condom at last higher-risk sex as among those who did not (10 and 11 percent, respectively). There are also no differences in HIV prevalence among men who used a condom at last sex and those who did not (both 6 percent) or among those who used a condom at last higher-risk sex and those who did not (both 5 percent).

Prevalence of HIV increases steadily as the number of lifetime partners increases. For women, HIV prevalence increases from 3 percent among those who have had only one sexual partner to 22 percent among women who have had 10 or more lifetime partners. Among men, prevalence is 1 percent for those with one lifetime partner and increases to 11 percent among men with 10 or more lifetime partners.

9.7 HIV PREVALENCE AMONG YOUTH

In general, cases of HIV among youth represent more recent infections and serve as an important indicator for detecting both prevalence and incidence. Table 9.7 shows HIV prevalence levels among youth according to several indicators of sexual behaviour.

Overall, HIV prevalence for the age group 15-24 is 2 percent—almost 3 percent for Mainland Tanzania and less than 1 percent for Zanzibar. Prevalence differs by sex, from 4 percent among women age 15-24 to 1 percent among men of the same age. Among women, prevalence generally increases with age, while for men, there is no consistent pattern. Urban youth are twice as likely to be infected as youth in rural areas (4 percent and 2 percent). Overall, young people without any education have a higher prevalence of HIV (4 percent) than those with secondary education (1 percent). Interpretation of regional differences should be done with caution. Because in some regions the number of youth who were tested for HIV is small, the small differences may not be reliable.

Table 9.7 HIV prevalence among young people by background characteristics

Percentage HIV positive among women and men age 15-24 who were tested for HIV, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age						
15-19	1.3	1,756	0.7	1,815	1.0	3,571
15-17	0.6	1,164	1.0	1,169	0.8	2,333
18-19	2.7	592	0.2	646	1.4	1,238
20-24	6.3	1,530	1.7	1,125	4.3	2,655
20-22	5.7	948	1.6	766	3.9	1,714
23-24	7.2	582	2.0	359	5.2	941
Marital status						
Never married	1.3	1,707	1.0	2,541	1.1	4,247
Ever had sex	2.3	643	0.9	1,198	1.4	1,842
Never had sex	0.7	1,063	1.1	1,342	0.9	2,405
Married/living together	5.6	1,417	1.8	349	4.9	1,766
Divorced/separated/widowed	10.3	162	(0.0)	51	7.8	213
Pregnancy status						
Pregnant	3.2	316	na	na	na	na
Not pregnant or not sure	3.7	2,965	na	na	na	na
Residence						
Urban	5.2	866	1.5	701	3.5	1,568
Rural	3.1	2,419	1.0	2,239	2.1	4,658
Mainland/Zanzibar						
Mainland	3.7	3,165	1.1	2,843	2.5	6,008
Mainland – Urban	5.4	826	1.6	667	3.7	1,493
Dar es Salaam City	5.2	265	0.6	218	3.1	483
Other Urban	5.5	561	2.0	449	4.0	1,010
Mainland – Rural	3.2	2,339	1.0	2,176	2.1	4,515
Zanzibar	0.3	121	0.1	97	0.2	218
Region/Island						
Arusha	0.0	128	1.2	86	0.5	215
Dar es Salaam	5.3	281	0.6	226	3.2	507
Dodoma	0.9	113	1.1	112	1.0	225
Iringa	8.2	107	1.6	112	4.8	219
Kagera	1.4	173	0.0	179	0.7	352
Kigoma	2.9	169	0.0	131	1.6	300
Kilimanjaro	0.0	139	0.0	128	0.0	267
Lindi	4.0	82	1.7	46	3.2	128
Manyara	3.8	82	0.8	80	2.4	162
Mara	2.7	141	3.2	110	2.9	250
Mbeya	6.1	188	0.9	223	3.3	411
Morogoro	1.1	138	0.0	119	0.6	257
Mtwara	2.7	101	1.1	82	2.0	183
Mwanza	5.9	308	1.4	278	3.8	585
Pwani	2.8	73	(0.0)	45	1.7	118
Rukwa	2.0	114	1.1	112	1.6	226
Ruvuma	4.4	129	0.0	128	2.2	258
Shinyanga	6.2	294	3.2	291	4.7	585
Singida	1.7	59	0.0	67	0.8	125
Tabora	4.3	200	2.2	178	3.3	377
Tanga	3.3	145	0.0	111	1.8	257
Pemba	0.1	36	0.2	31	0.2	67
Unguja	0.3	85	0.0	66	0.2	151
Zone						
Western	4.8	663	2.2	600	3.6	1,263
Northern	1.6	494	0.4	406	1.1	900
Central	1.2	172	0.7	179	0.9	351
Southern Highlands	5.5	409	1.1	446	3.2	856
Lake	3.9	621	1.3	566	2.7	1,188
Eastern	3.7	492	0.3	390	2.2	882
Southern	3.7	313	0.6	256	2.4	568
Zanzibar	0.3	121	0.1	97	0.2	218
Education						
No education	5.5	578	1.5	269	4.2	847
Primary incomplete	3.1	698	1.5	943	2.2	1,641
Primary complete	3.8	1,578	0.8	1,152	2.5	2,730
Secondary +	1.4	432	0.7	576	1.0	1,008
Wealth quintile						
Lowest	3.0	571	1.2	481	2.2	1,052
Second	4.6	582	0.3	599	2.4	1,180
Middle	3.2	639	1.8	571	2.6	1,210
Fourth	2.4	640	0.3	616	1.4	1,256
Highest	4.6	853	1.7	673	3.3	1,526
Total 15-24	3.6	3,286	1.1	2,940	2.4	6,226

Note: HIV positive refers to individuals who have HIV-1. Total includes 5 women missing information on pregnancy status. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Table 9.8 shows data on HIV prevalence among youth by sexual behaviour characteristics. Generally, differences are small.

Table 9.8 HIV prevalence among young people by sexual behaviour

Percentage HIV positive among women and men age 15-24 who ever had sex and were tested for HIV, by sexual behaviour, Tanzania HMIS 2007-08

Sexual behaviour characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Relative age of first sexual partner						
10+ years older	5.1	157	na	na	na	na
<10 years older/same age/younger/ don't know	4.9	1,975	na	na	na	na
Higher-risk intercourse in past 12 months[1]						
Had higher-risk intercourse	3.1	634	0.8	1,014	1.7	1,648
Had sexual intercourse, not higher risk	5.9	1,365	2.7	239	5.4	1,604
No sexual intercourse in past 12 months	4.8	224	0.8	345	2.4	568
Number of sexual partners in past 12 months						
0	5.0	217	0.8	345	2.4	562
1	5.0	1,916	1.0	974	3.6	2,890
2	5.9	79	1.3	234	2.5	313
3+	*	6	(2.7)	44	(2.4)	50
Number of higher-risk partners in past 12 months[2]						
0	5.7	1,589	1.6	584	4.6	2,173
1	2.8	600	0.2	671	1.5	1,271
2	10.4	29	1.6	263	2.4	291
3	*	4	2.4	81	2.3	85
Condom use at first sex						
Used condom	4.1	546	0.2	460	2.3	1,006
Did not use condom	5.1	1,614	1.5	1,114	3.6	2,728
Condom use at last sexual intercourse in past 12 months						
Used condom	3.3	366	0.7	486	1.8	852
Did not use condom	5.4	1,633	1.4	768	4.1	2,401
No sexual intercourse in past 12 months	4.8	224	0.8	345	2.4	568
Total	5.0	2,223	1.1	1,598	3.4	3,821

Note: HIV positive refers to individuals who have HIV-1. Totals include 90 women missing information as to the relative age of their partner, 5 women and 1 man missing information as to the number of sexual partners in the previous 12 months, and 55 women and 25 men missing information about condom use at first sex. Figures in parentheses are based on 25-49 unweighted cases, while an asterisk indicates a figure based on fewer than 25 unweighted cases that has been suppressed.
na = Not applicable
[1] Sexual intercourse with a nonmarital, noncohabiting partner
[2] Number of nonmarital, noncohabiting partners among the last three partners in the past 12 months

9.8 HIV PREVALENCE BY OTHER CHARACTERISTICS

Table 9.9 shows HIV prevalence by other characteristics related to HIV risk behaviour among men and women who ever had sex. The results show that women and men with a recent history of sexually transmitted infection (STI) or symptoms of an STI in the 12 months preceding the survey have higher rates of HIV infection than those with no STI or symptoms of an STI (11 and 6 percent, respectively). The same pattern is seen for both women and men.

HIV prevalence does not show any strong pattern by prior HIV testing. Among those who had been tested for HIV before the survey, 7 percent were HIV positive, compared with 6 percent of those who had never been tested.

Table 9.9 HIV prevalence by other characteristics

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by whether had an STI in the past 12 months and by prior testing for HIV, Tanzania HMIS 2007-08

Characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptoms	10.7	424	11.0	396	10.9	820
No STI, no symptoms	7.3	6,570	5.0	5,008	6.3	11,578
Prior HIV testing						
Ever tested	8.0	3,199	6.4	1,811	7.4	5,011
Received results	8.0	2,919	5.9	1,644	7.3	4,563
Did not received results	7.4	281	11.2	167	8.8	448
Never tested	7.1	3,869	5.0	3,652	6.1	7,521
Total 15-49	7.5	7,084	5.5	5,464	6.6	12,548

Note: HIV positive refers to individuals who have HIV-1. Totals include 90 women and 60 men missing information on STIs and 16 women missing information about prior HIV testing.

Table 9.10 shows the distribution of women and men who are HIV positive and HIV negative according to whether they were previously tested for HIV. The data show that those who are HIV positive are only slightly more likely than those who are HIV negative to have been tested previously and to know their results. For example, 39 percent of HIV-positive respondents were previously tested and given their results, compared with 32 percent of HIV-negative respondents. Looked at another way, more than three in five HIV-positive adults in Tanzania have either never been tested or were tested but not given the results of the most recent HIV test.

Table 9.10 Prior HIV testing and current HIV status

Percent distribution of women and men age 15-49 by HIV testing status prior to the survey, according to current HIV status, Tanzania HMIS 2007-08

HIV testing prior to the survey	Women		Men		Total	
	HIV positive	HIV negative	HIV positive	HIV negative	HIV positive	HIV negative
Previously tested, received result of last test	43.7	36.6	30.8	26.2	39.0	31.8
Previously tested, did not receive result of last test	3.8	3.6	6.2	2.6	4.7	3.2
Not previously tested	52.4	59.8	63.0	71.2	56.3	65.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	541	7,638	313	6,552	854	14,190

Note: HIV positive refers to individuals who have HIV-1.

9.9 HIV PREVALENCE AND MALE CIRCUMCISION

Previous studies have shown a protective effect of male circumcision on the transmission of HIV. Lack of circumcision is considered a risk factor for HIV infection, in part because of physiological differences that increase the susceptibility to HIV infection among uncircumcised men.

As shown in Table 9.11, men who have been circumcised are less likely to be HIV positive than those who are not circumcised (4 and 6 percent, respectively). Except for men age 15-19—for whom HIV prevalence is almost the same for both circumcised and uncircumcised men—prevalence of HIV is lower among circumcised men than uncircumcised men. This relationship holds for all categories of background characteristics.

Table 9.11 HIV prevalence by male circumcision

Among men age 15-49 who were tested for HIV, percentage HIV positive by whether circumcised and background characteristics, Tanzania HMIS 2007-08

Background characteristic	Circumcised		Not circumcised	
	Percentage HIV positive	Number	Percentage HIV positive	Number
Age				
15-19	0.7	1,085	0.6	717
20-24	0.5	702	3.7	421
25-29	4.2	681	6.9	289
30-34	4.8	673	13.8	280
35-39	9.5	560	13.4	242
40-44	5.5	452	10.1	163
45-49	4.2	387	9.9	190
Residence				
Urban	5.7	1,413	11.6	189
Rural	2.8	3,127	5.9	2,113
Mainland/Zanzibar				
Mainland	3.8	4,335	6.4	2,300
Mainland – Urban	6.0	1,344	11.6	188
Dar es Salaam City	7.4	538	*	12
Other Urban	5.0	806	12.4	176
Mainland – Rural	2.9	2,991	5.9	2,111
Zanzibar	0.5	205	*	3
Zone				
Western	4.2	464	5.3	822
Northern	1.9	986	(0.0)	34
Central	2.5	369	(0.0)	32
Southern Highlands	6.1	278	9.6	756
Lake	4.1	673	4.2	545
Eastern	5.7	993	*	32
Southern	2.9	573	5.0	79
Zanzibar	0.5	205	*	3
Education				
No education	2.7	424	8.7	371
Primary incomplete	2.9	853	5.8	676
Primary complete	4.3	2,401	6.1	1,107
Secondary +	3.0	863	5.4	149
Wealth quintile				
Lowest	1.2	612	7.3	549
Second	3.0	785	4.1	646
Middle	1.8	765	7.3	548
Fourth	3.9	945	6.1	413
Highest	6.0	1,434	10.0	144
Total 15-49	3.7	4,540	6.4	2,302

Note: HIV positive'refers to individuals who have HIV-1. Figures in parentheses are based on 25-49 unweighted men, while an asterisk indicates a figure based on fewer than 25 unweighted men that has been suppressed.

9.10 PREVALENCE OF HIV AMONG COUPLES

Data from the individual questionnaires used in the 2007-08 THMIS makes it possible to match husbands and wives. In this way, it is possible to tabulate data on the HIV status of couples who were married or living together in the same household, so long as both were tested for HIV.

The results show that for 91 percent of couples, both partners are HIV negative, while for 3 percent, both partners are HIV positive (Table 9.12). About 6 percent of couples are discordant, whereby one partner is infected and the other is not. In about 4 percent of couples, the man is infected while the woman is not; in another 3 percent of couples, the woman is infected while the man is not. Discordance is more common among urban couples than among rural couples.

Table 9.12 HIV prevalence among couples

Percent distribution of couples living in the same household, both of whom were tested for HIV, by the HIV status, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Number
Woman's age						
15-19	0.0	1.8	3.0	95.3	100.0	256
20-29	2.7	3.0	3.1	91.2	100.0	1,382
30-39	2.9	4.5	2.9	89.6	100.0	1,043
40-49	2.0	3.6	1.1	93.3	100.0	299
Man's age						
15-19	*	*	*	*	100.0	21
20-29	2.2	1.6	3.7	92.6	100.0	819
30-39	3.3	5.3	2.5	88.9	100.0	1,290
40-49	1.7	2.6	2.3	93.4	100.0	849
Age difference between partners						
Wife older than husband	3.0	4.4	1.3	91.3	100.0	169
Husband 0-4 years older than wife	2.6	3.2	2.7	91.5	100.0	1,184
Husband 5-9 years older than wife	2.6	3.2	3.1	91.2	100.0	1,125
Husband 10-14 years older than wife	1.8	5.4	2.4	90.5	100.0	366
Husband 15+ years older than wife	2.5	3.2	4.3	89.9	100.0	136
Type of union						
Monogamous	2.4	3.3	3.1	91.2	100.0	2,610
Polygynous	2.7	4.9	0.9	91.5	100.0	320
Residence						
Urban	5.8	4.4	4.2	85.6	100.0	527
Rural	1.8	3.3	2.5	92.4	100.0	2,453
Mainland/Zanzibar						
Mainland	2.5	3.6	2.9	91.0	100.0	2,905
Mainland – Urban	5.9	4.5	4.4	85.1	100.0	507
Dar es Salaam City	8.4	5.3	3.6	82.7	100.0	161
Other Urban	4.8	4.2	4.8	86.3	100.0	346
Mainland – Rural	1.8	3.4	2.6	92.3	100.0	2,398
Zanzibar	0.4	0.9	0.5	98.3	100.0	75
Region/Island						
Arusha	1.1	2.0	0.0	97.0	100.0	115
Dar es Salaam	8.6	6.1	3.3	82.1	100.0	174
Dodoma	4.1	0.0	0.0	95.9	100.0	112
Iringa	6.2	7.8	14.9	71.1	100.0	127
Kagera	3.1	1.4	1.4	94.1	100.0	191
Kigoma	1.2	0.0	0.7	98.1	100.0	142
Kilimanjaro	0.0	1.2	2.6	96.2	100.0	90
Lindi	0.0	3.2	4.5	92.3	100.0	88
Manyara	0.0	0.7	0.9	98.3	100.0	92
Mara	1.9	6.5	1.5	90.0	100.0	103
Mbeya	3.5	8.2	3.1	85.2	100.0	217
Morogoro	2.5	1.3	0.8	95.3	100.0	164
Mtwara	1.4	1.2	1.1	96.3	100.0	112
Mwanza	3.3	4.0	4.8	87.9	100.0	235
Pwani	0.0	2.1	5.3	92.6	100.0	39
Rukwa	1.1	2.8	1.3	94.8	100.0	130
Ruvuma	1.7	5.2	4.9	88.2	100.0	148
Shinyanga	1.2	4.5	3.5	90.8	100.0	275
Singida	0.9	3.4	0.0	95.7	100.0	67
Tabora	2.9	4.3	1.5	91.2	100.0	173
Tanga	1.2	1.7	2.5	94.5	100.0	111
Pemba	0.0	0.3	0.0	99.7	100.0	24
Unguja	0.5	1.2	0.7	97.6	100.0	52
Zone						
Western	1.7	3.4	2.2	92.7	100.0	590
Northern	0.6	1.5	1.5	96.4	100.0	408
Central	2.9	1.3	0.0	95.8	100.0	178
Southern Highlands	3.6	6.6	5.7	84.1	100.0	475
Lake	3.0	3.6	2.9	90.6	100.0	529
Eastern	5.1	3.6	2.4	88.9	100.0	376
Southern	1.2	3.4	3.6	91.8	100.0	349
Zanzibar	0.4	0.9	0.5	98.3	100.0	75
Woman's education						
No education	1.7	2.4	1.8	94.0	100.0	669
Primary	2.5	4.0	3.1	90.5	100.0	2,155
Secondary	5.3	1.8	3.9	89.0	100.0	133
More than secondary	*	*	*	*	100.0	23
Man's education						
No education	1.7	4.6	2.9	90.8	100.0	399
Primary	2.5	3.0	2.8	91.7	100.0	2,321
Secondary	2.3	6.7	1.8	89.2	100.0	195
More than secondary	7.3	3.6	6.8	82.3	100.0	65
Wealth quintile						
Lowest	1.4	3.6	2.7	92.2	100.0	576
Second	1.4	2.5	3.6	92.5	100.0	669
Middle	2.1	2.3	1.3	94.4	100.0	610
Fourth	2.1	4.9	2.1	90.8	100.0	590
Highest	5.8	4.4	4.4	85.3	100.0	535
Total	2.5	3.5	2.8	91.2	100.0	2,980

Note: HIV positive refers to individuals who have HIV-1. Table based on couples for which a valid test result (positive or negative) is available for both partners. Total includes 51 couples for whom type of union is missing. An asterisk indicates a figure based on fewer than 25 unweighted cases that has been suppressed.

INFANT AND CHILD MORTALITY 10

10.1 INTRODUCTION

This chapter analyses information on mortality levels, trends and differentials in neonatal, postnatal, infant, child and under-five mortality. Traditionally, the source of information for mortality data is the Population and Housing Censuses and the Tanzania Demographic and Health Surveys (TDHS). This is the first attempt to include a mortality component in the HIV/AIDS indicator survey. However, the methods and procedures applied are the same as those used in the TDHS. This provides an opportunity to link HIV/AIDS and malaria episodes with childhood mortality.

Tanzania is among the countries with a high burden of disease caused by HIV/AIDS and malaria. For many years, malaria has been a major cause of morbidity and mortality, particularly among children under age five. Furthermore, HIV/AIDS is increasingly seen among children under five. To address these two problems, both the Government of Tanzania and Zanzibar, through their Ministry of Health and Social Welfare, initiated a number of interventions that are currently being implemented. The aim is to scale down the prevalence of both malaria and HIV/AIDS in the country. The 2007-08 THMIS provides information that can be used to assess the impact of interventions on the population. Various stakeholders are interested to know the outcome of their programmes. Funding for interventions mainly comes from the two governments and the development partners.

The data for child mortality estimation were obtained from the Individual Questionnaire which was administered to women age 15-49. In the survey, women were asked to provide their complete birth history. Each woman was asked to list all of her children who were born alive, starting with the first birth. For each child, information was collected on the name, whether the child was single or twins, sex, month and year of birth, and survivorship. For each living child, the current age was reported. For dead children, the age at death was reported.

Because the primary cause of death varies with children's age, the mortality rates presented are age-specific. They are defined as follows:

Neonatal mortality (NN): the probability of dying within the first month of life

Postneonatal mortality (PNN): the difference between infant and neonatal mortality

Infant mortality ($_1q_0$): the probability of dying before the first birthday

Child mortality ($_4q_1$): the probability of dying between the first and fifth birthday

Under-five mortality ($_5q_0$): the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to twelve months of age.

10.1.1 Levels and Trends in Infant and Child Mortality

Neonatal, postneonatal, infant, child, and under-five mortality rates for three successive five-year periods before the survey are shown in Table 10.1. The infant mortality rate for the most recent period (2004-2009) is 58 deaths per 1,000 live births. This is a decline from 68 deaths per 1,000 live births in the 2004-05 TDHS. The child mortality rate is 36 deaths per 1,000 live births, lower than infant mortality rate, implying that the main factors contributing to under-five mortality are neonatal and postneonatal mortality. The under-five mortality rate for 2004-2008 is 91 per 1,000 live births, which is an improvement from the 2004-05 TDHS results (112 deaths per 1,000 live births).

Table 10.1 Early childhood mortality rates

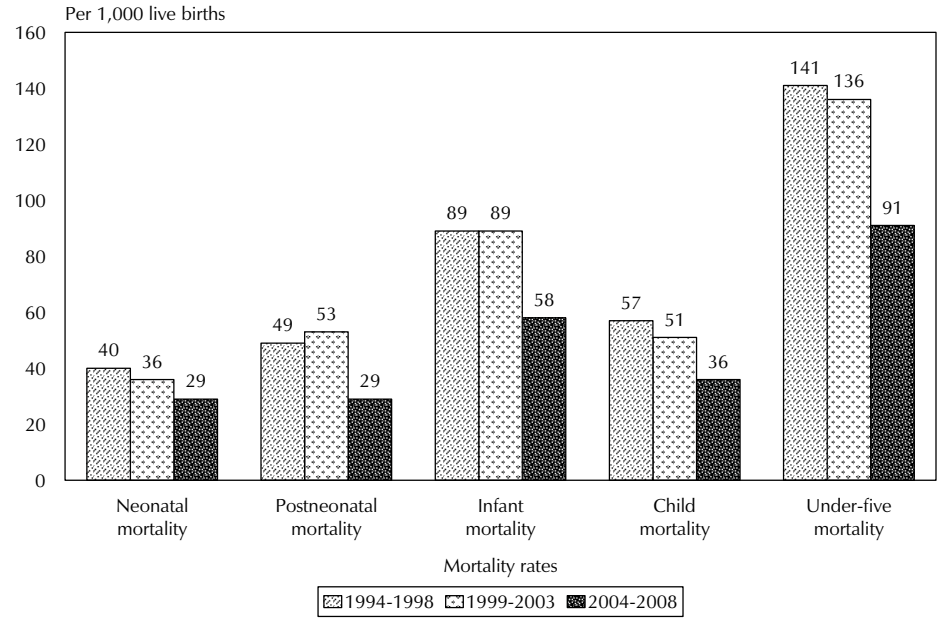
Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Tanzania HMIS 2007-08

Years preceding the survey	Approximate calendar years	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	2004-08	29	29	58	36	91
5-9	1999-2003	36	53	89	51	136
10-14	1994-98	40	49	89	57	141

[1] Computed as the difference between the infant and neonatal mortality rates

Figure 10.1 shows a recent and rapid decline in infant mortality and under-five mortality rates. The infant mortality rate declined from 89 deaths per 1,000 live births in 1999-2003 to 58 deaths per 1,000 live births in 2004-2008. Over the same period, under-five mortality declined from 136 to 91 deaths per 1,000 live births.

Figure 10.1 Early Childhood Mortality Rates



10.2 Socio-Economic Differentials in Child Mortality

Table 10.2 presents socio-economic differentials in childhood mortality for the ten-year period preceding the survey (1998-2007). The longer period was used to have a sufficient number of births to study mortality differentials across population subgroups.

In most cases, childhood mortality is higher among children living in rural areas than those in urban areas. Contrary to expectation, infant mortality in urban areas is higher than in rural areas (79 and 70 deaths per 1,000 live births, respectively). The opposite pattern is expected because urban areas typically have better health services, education, and living conditions than rural areas. The difference is a result of the higher neonatal mortality in urban areas than in rural areas. The reversed pattern may be associated with higher HIV/AIDS prevalence in urban than in rural areas. Under-five mortality in rural areas is slightly higher than in urban areas. This can be attributed to significantly higher child mortality in rural areas than in urban areas. Across zones, infant mortality ranges between 54 in Zanzibar and 103 deaths per 1,000 live births in the Eastern Zone.

As expected, the level of infant and child mortality is highest among women with no education, decreasing with higher levels of education. For example, infant mortality is 85 deaths per 1,000 live births for mothers with no education and 64 deaths per 1,000 live births for mothers with secondary or higher education.

Table 10.2 shows that mortality level is associated with wealth quintile. For instance, under-five mortality is 129 deaths per 1,000 live births for children in households in the lowest quintile and 101 deaths per 1,000 live births for children in households in the highest quintile.

Table 10.2 Early childhood mortality rates by socioe-conomic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristic, Tanzania HMIS 2007-08

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	46	33	79	34	110
Rural	29	41	70	45	112
Mainland/Zanzibar					
Mainland	32	40	72	43	112
Mainland – Urban	47	34	81	35	113
Dar es Salaam City	70	42	112	43	150
Other Urban	39	31	70	32	99
Mainland – Rural	29	42	70	45	112
Zanzibar	31	23	54	26	79
Unguja	36	19	55	18	72
Pemba	23	29	52	39	89
Zone					
Western	17	45	63	31	92
Northern	29	33	63	31	92
Central	43	35	78	54	128
Southern Highlands	36	39	75	50	121
Lake	23	45	68	56	120
Eastern	58	45	103	46	145
Southern	44	31	75	34	107
Zanzibar	31	23	54	26	79
Mother's education					
No education	33	51	85	49	129
Primary incomplete	26	45	71	42	110
Primary complete	33	34	67	42	106
Secondary +	32	31	64	15	78
Wealth quintile					
Lowest	31	51	82	51	129
Second	32	37	69	43	110
Middle	26	41	67	47	111
Fourth	32	36	68	37	103
Highest	41	32	73	30	101

[1] Computed as the difference between the infant and neonatal mortality rates

10.3 DEMOGRAPHIC DIFFERENTIALS IN CHILDHOOD MORTALITY

Table 10.3 presents differentials in childhood mortality by demographic characteristics of mother and child. In general, during childhood, male mortality is higher than female mortality. For example, infant mortality for boys is 74 deaths per 1,000 live births compared with 70 deaths per 1,000 live births for girls, and boys are more likely than girls to die during the neonatal period. On the other hand, girls are more likely to die during the postnatal period than boys.

Mother's age at birth is associated with childhood mortality in a U-shaped pattern. Children born to young mothers (under 20 years) and old mothers (age 40-49) have relatively higher infant mortality than children born to mothers in the middle age groups. Shorter birth intervals are associated with higher mortality. The under-five mortality rate for children born less than two years after the preceding birth is 159 per 1,000 live births compared with 77 deaths per 1,000 live births among children born four or more years after their preceding sibling.

Table 10.3 Early childhood mortality rates by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Tanzania HMIS 2007-08

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Child's sex					
Male	36	38	74	39	110
Female	28	42	70	46	112
Mother's age at birth					
<20	46	49	96	43	134
20-29	26	37	63	45	105
30-39	36	39	74	40	111
40-49	31	44	75	20	93
Birth order					
1	48	44	92	44	132
2-3	25	37	62	39	98
4-6	25	37	62	48	107
7+	41	48	89	36	122
Previous birth interval[2]					
<2 years	43	68	111	54	159
2 years	25	38	63	41	102
3 years	20	24	44	45	87
4+ years	23	28	51	28	77

[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births

10.4 HIGH-RISK FERTILITY BEHAVIOUR

There is a stronger relationship between children's chances of dying and the fertility behaviour of their mothers. The probability of dying in early childhood is much greater for children born to mothers who are too young, too old, born after a short preceding birth interval, and those who are high parity births.

Very young mothers may experience difficult pregnancies and deliveries because of their physical immaturity. Older women may also experience age-related problems during pregnancy and delivery. In this report, a mother is considered to be "too young" if she is less than 18 years and "too old" if she is above 34 years at the time of delivery. A short birth interval is a birth occurring within 24 months of previous birth.

Table 10.4 shows the distribution of children born in the five years preceding the survey by risk category. These are classified as: not in any high-risk category; unavoidable risk category; single high-risk category; and multiple high-risk category. Column 1 shows that in the five years before the survey, 27 percent of births were not in any high-risk category, 38 percent of births were in a single high-risk category, and 19 percent were in a multiple high-risk category. First births to women age 18-34 are treated as a separate risk category and considered to be an unavoidable risk category. They contribute to 16 percent of the total risk.

Column 2 shows risk ratios for births in various high-risk categories relative to births not having any high-risk characteristics. The risk ratio for children who are in any avoidable high-risk

category (1.41) is 41 percent higher than for children who are not in any high-risk category. The risk ratio for births in a single high-risk category is 1.41, which means that children in a single high-risk category are 41 percent more likely to die than children who are not in any high-risk category. Similarly, births in multiple high-risk categories are 42 percent more likely to die than births who are not in any high-risk category.

The last column in Table 10.4 looks to the future and addresses the question of how many currently married women have the potential for having a high-risk birth. A simulation procedure was carried out on mothers who are in a risk category. The result is a distribution of currently married women by the risk category into which a birth conceived at the time of the survey would fall. For example, a woman who was 37 years old at the time of survey and had three previous births would be classified in the multiple high-risk category for being too old (35 or older) and at risk of having a high-order birth (more than three previous births). About one in four (26 percent) currently married women would fall into this category. Overall, 45 percent of married women are in a multiple high-risk category, and three in four married women (76 percent) have the potential to give birth to a child with an elevated risk of dying.

Table 10.4 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Tanzania HMIS 2007-08

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women[1]
	Percentage of births	Risk ratio	
Not in any high-risk category	27.4	1.00	18.9[a]
Unavoidable risk category			
First-order births between ages 18 and 34 years	16.0	1.46	5.5
Single high-risk category			
Mother's age <18	6.2	1.84	0.9
Mother's age >34	0.6	1.84	4.2
Birth interval <24 months	5.6	2.06	9.5
Birth order >3	25.2	1.15	16.1
Subtotal	37.5	1.41	30.7
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.4	0.04	0.3
Age >34 and birth interval <24 months	0.1	3.32	0.1
Age >34 and birth order >3	11.7	1.16	26.4
Age >34 and birth interval <24 months and birth order >3	1.5	1.75	5.3
Birth interval <24 months and birth order >3	5.4	1.95	12.7
Subtotal	19.0	1.42	44.9
In any avoidable high-risk category	56.6	1.41	75.6
Total	100.0	na	100.0
Number of births/women	7,684	na	5,983

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category age <18 and birth order >3
[a] Includes sterilized women

MALARIA 11

Malaria is a major public health concern for all Tanzanians, especially for pregnant women and children under age five. The disease is a leading cause of morbidity and mortality among outpatient and inpatient admissions. It accounts for up to 40 percent of all outpatient attendances (MOHSW, 2008). Many parts of the country, including the uplands, report malaria transmission throughout the year although it occurs more frequently during and after the rainy season (April to May).

Malaria is caused by four species of plasmodia parasites that are transmitted by Anopheles mosquitoes. In Tanzania, *Plasmodium falciparum* is the most common. *Falciparum* causes severe malaria, and is fatal if not recognized promptly and properly managed. The most severe cases occur among persons who have not yet developed sufficient immunity to malaria through previous exposure. Children under age five are at highest risk, followed by pregnant women because of their reduced natural immunity. Pregnant women are four times as likely to experience the complications of malaria as non-pregnant women, and malaria is a major cause of pregnancy loss, low birth weight, and neonatal mortality (Jamison et al., 1993).

Malaria poses many societal and economic burdens in Tanzania, ranging from school absenteeism to low productivity in the workplace. In the short term, widespread malaria illness reduces agricultural production and other economic outputs; additionally, the accumulated effect in the long-term may decrease national economic capacity and development.

The international Roll Back Malaria (RBM) Initiative works to reduce the malaria burden. The primary objective of RBM is to increase access to the most effective and affordable protective measures. These measures include use of insecticide-treated mosquito nets (ITNs) for sleeping and increased coverage of prompt and effective treatment for malaria. The Initiative also promotes the use of intermittent preventive treatment (IPT) of malaria among pregnant women. In Tanzania, the recommendations of the RBMI are implemented through the National Malaria Control Strategy (MOHSW, 2002). The National Malaria Control Strategy also includes other vector control measures such as indoor residual spraying (IRS) and epidemic prevention and control.

The Government of Tanzania, primarily through the Ministry of Health and Social Welfare, is committed to the control and prevention of malaria. A considerable amount of the health budget is allocated to address malaria and malaria-related illnesses. Household expenditures related to malaria are high and are mainly spent on malaria treatment. These costs are expected to rise substantially because of the recent introduction of artemisinin-based combination therapy (ACT). In the 2007-08 THMIS, ACT was the first-line drug for treatment of malaria in both Mainland Tanzania and Zanzibar. ACT is a response to the emerging resistance of malaria parasites to mono-therapy antimalarial drugs like sulphadoxine pyrimethamine (SP) and chloroquine, which used to be first-line antimalarial drugs in Tanzania.

The Malaria Indicator Survey (MIS) component of the 2007-08 THMIS measures malaria prevention and treatment outcomes including household coverage of malaria interventions, possession and use of ITNs, IRS activities, access to prompt antimalarial treatment among children under age five with a fever, and use of IPT among pregnant women. Many of the indicators were assessed in the 2004-05 TDHS, which allows for trend analysis.

In the 2007-08 THMIS, blood samples were collected from children age 6-59 months in sampled households to detect the presence of malaria parasites and to estimate haemoglobin levels for anaemia prevalence. Anaemia testing was carried out in the 2004-05 TDHS, but the categories were different and not comparable with those in the 2007-08 THMIS.

11.1 Ownership and Use of Mosquito Nets

The use of ITNs is a primary health intervention to reduce malaria transmission in Tanzania. At the individual level, an ITN reduces biting intensities and offers protection against malaria. Widespread use of ITNs also reduces malaria at the population level by decreasing the length of adult mosquito life spans. ITNs are being promoted through three main channels: 1) the public sector, 2) the public/private partnerships implemented by nongovernmental organizations directly in communities, and 3) the private sector social marketing initiatives.

Significant advances have been made in the technology of insecticide-treated nets (ITN). Long-lasting insecticide nets (LLIN) such as Olyset® or Permanet® are pre-treated by the manufacturer and remain effective up to three times longer than previous ITNs. Long-lasting synthetic pyrethroids liquid can also be applied to any net at home. These longer-lasting ITNs remain effective after 15 washes on average, equivalent to use of approximately 36 months. These more effective nets modify the earlier definition of an ITN as "a bed net soaked in a liquid containing synthetic pyrethroids within the past 12 months."

11.1.1 Ownership of Mosquito Nets

All households in the 2007-08 THMIS were asked whether they owned mosquito nets, and if so, how many. Table 11.1 shows the household ownership of nets by type (treated or untreated) and the average number of nets per household by background characteristics. More than half (56 percent) of households in Mainland Tanzania and 82 percent of households in Zanzibar own at least one mosquito net. In the 2004-05 TDHS, these figures were 46 and 65 percent, respectively.

In this survey, an insecticide-treated net (ITN) is 1) a factory-treated net that does not require any further treatment, or 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months. Between 2004-05 and 2007-08, ownership of ITNs increased from 23 to 38 percent in Mainland and from 28 to 72 percent in Zanzibar. Increased levels of mosquito net ownership in Zanzibar may be attributable to government health programmes that since September 2005 have been distributing subsidized or free ITNs to households with children under age five and pregnant women.

Although coverage of mosquito nets in Mainland Tanzania is still low, three of the 21 regions show a substantial proportion of households with at least one mosquito net (89 percent in Dar es Salaam, 76 percent in Mwanza, and 77 percent Mara). Among regions in Mainland Tanzania, Iringa has the lowest level of mosquito net ownership (25 percent). Only two Mainland regions reached ITN ownership levels of 50 percent or more (71 percent in Dar es Salaam and 57 percent in Mara). ITN ownership was lowest in Iringa in both the 2004-05 TDHS and the 2007-08 THMIS (7 and 18 percent, respectively).

In the 2007-08 THMIS, rural households are less likely than urban households to own a mosquito net (49 and 79 percent, respectively). A similar pattern was observed in the 2004-05 TDHS (36 and 74 percent, respectively). Ownership of ITNs has increased since the 2004-05 TDHS; households with at least one ITN rose from 14 to 33 percent in rural areas, and from 47 to 59 percent in urban areas.

Table 11.1 Ownership of mosquito nets

Percentage of households with at least one and more than one mosquito net (treated or untreated), percentage with at least one and more than one ever-treated mosquito net, and percentage with at least one and more than one isecticide-treated net (ITN), and the average number of nets per household, by background characteristics, Tanzania HMIS 2007-08

Background daracteristic	Any type of mosquito net			Ever-treated mosquito net[1]			Insecticide-treated mosquito nets (ITNs)[2]			Number of households
	Percentage with at least one	Percentage with more than one	Average number of nets per household	Percentage with at least one	Percentage with more than one	Average number of ever-reated nets per household	Percentage with at least one	Percentage with more than one	Average number of ITNs per household	
Residence										
Urban	78.6	47.2	1.6	72.3	42.1	1.5	59.2	31.6	1.1	2,106
Rural	48.9	26.5	0.9	44.8	23.3	0.8	32.6	14.6	0.6	6,391
Mainland/Zanzibar										
Mainland	55.6	30.7	1.1	50.8	27.0	0.9	38.3	17.9	0.7	8,269
Mainland – Urban	78.5	46.6	1.6	72.0	41.4	1.5	58.8	30.9	1.1	2,041
Dar es Salaam City	89.2	54.3	1.9	81.2	46.9	1.7	70.0	36.6	1.3	593
Other Urban	74.1	43.5	1.5	68.2	39.1	1.4	54.2	28.6	1.0	1,448
Mainland – Rural	48.1	25.5	0.9	43.8	22.3	0.8	31.6	13.6	0.5	6,228
Zanzibar	81.7	65.3	2.2	80.6	64.2	2.2	71.9	53.1	1.7	228
Region/Island										
Arusha	45.1	21.3	0.8	43.1	20.9	0.8	32.4	15.0	0.5	362
Dar es Salaam	89.4	54.8	1.9	81.8	47.2	1.7	70.7	37.3	1.3	624
Dodoma	44.1	19.3	0.7	39.4	16.1	0.6	28.2	11.8	0.5	384
Iringa	24.6	9.7	0.4	23.5	8.9	0.4	17.6	6.7	0.3	451
Kagera	49.4	25.6	0.9	40.5	19.6	0.7	29.5	13.5	0.5	480
Kigoma	46.4	23.4	0.8	43.2	22.0	0.8	31.1	12.5	0.5	329
Kilimanjaro	43.8	24.2	0.8	38.6	19.0	0.7	29.9	13.5	0.5	363
Lindi	64.7	40.3	1.3	63.2	39.1	1.2	40.0	21.7	0.7	257
Manyara	33.1	13.8	0.6	31.8	11.8	0.5	22.1	6.9	0.3	244
Mara	76.5	47.1	1.6	70.4	39.7	1.4	56.5	23.4	1.0	280
Mbeya	41.7	24.8	0.8	41.0	24.8	0.8	29.9	14.5	0.5	610
Morogoro	64.1	36.8	1.2	60.6	32.8	1.1	44.1	20.2	0.8	489
Mtwara	68.0	37.0	1.3	67.2	35.7	1.2	42.9	17.8	0.7	341
Mwanza	76.0	48.9	1.6	61.6	39.3	1.3	48.4	28.1	1.0	623
Pwani	62.9	40.5	1.3	59.5	37.2	1.2	47.8	24.8	0.9	212
Rukwa	44.6	21.0	0.8	43.6	19.9	0.8	29.4	13.0	0.5	293
Ruvuma	60.7	33.6	1.1	56.8	30.8	1.0	39.4	17.0	0.6	317
Shinyanga	55.6	29.6	1.1	48.1	24.8	0.9	37.8	17.2	0.6	596
Singida	41.9	16.3	0.6	35.9	11.3	0.5	26.4	7.2	0.3	214
Tabora	58.0	28.9	1.1	55.4	27.3	1.1	39.8	18.4	0.7	393
Tanga	50.4	26.0	0.9	46.0	22.4	0.8	38.6	15.9	0.6	407
Pemba	82.6	69.4	2.3	82.3	69.0	2.3	76.2	59.0	1.9	79
Unguja	81.2	63.1	2.1	79.7	61.7	2.1	69.6	49.9	1.6	149
Zone										
Western	54.0	27.8	1.0	49.0	24.8	0.9	36.7	16.4	0.6	1,318
Northern	44.2	22.1	0.8	40.8	19.2	0.7	31.7	13.4	0.5	1,375
Central	43.3	18.3	0.7	38.1	14.4	0.6	27.6	10.2	0.4	598
Southern Highlands	36.7	19.0	0.7	35.7	18.4	0.7	25.7	11.6	0.4	1,355
Lake	66.9	40.4	1.4	56.0	32.6	1.1	43.5	22.1	0.8	1,383
Eastern	75.9	45.9	1.6	70.4	40.3	1.4	57.2	29.0	1.0	1,325
Southern	64.5	36.7	1.2	62.5	35.0	1.2	40.9	18.6	0.7	914
Wealth quintile										
Lowest	36.2	14.4	0.6	32.4	12.3	0.5	22.1	6.6	0.3	1,658
Second	45.6	21.6	0.8	40.9	19.0	0.7	28.2	11.6	0.4	1,656
Middle	49.3	26.5	0.9	45.2	24.2	0.8	33.7	15.0	0.6	1,618
Fourth	61.8	36.5	1.2	57.3	31.9	1.1	41.3	20.4	0.7	1,666
Highest	84.3	55.7	1.9	78.2	49.3	1.7	66.7	37.7	1.3	1,896
Total	56.3	31.7	1.1	51.6	28.0	1.0	39.2	18.8	0.7	8,497

[1] An ever-treated net is a pretreated net or a non-pretreated that has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is 1) a factory-treated net that does not require any further treatment or 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

11.1.2 Use of Mosquito Nets

The 2007-08 THMIS asked respondents about the use of mosquito nets by household members during the night before the survey. Table 11.2 shows the percentage of children under age five years who slept under a mosquito net the night before the survey, and Table 11.3 shows the percentage of women and pregnant women who slept under a mosquito net the night before the survey. Use of mosquito nets may vary with seasonal changes in rainfall and prevalence of malaria-

carrying mosquitoes. Much of the fieldwork for this survey was conducted between October and March, which is a period of low rainfall and low levels of malaria transmission.

Overall, 36 percent of children under age five slept under a mosquito net the night before the survey (35 percent in Mainland Tanzania and 69 percent in Zanzibar). These figures are higher than those reported in the 2004-05 TDHS (31 percent in Mainland and 55 percent in Zanzibar). Regarding ITN use, 25 percent of children under age five in Mainland Tanzania and 59 percent in Zanzibar slept under an ITN the night before the survey.

Use of mosquito nets and ITNs is associated with children's age. Younger children are more likely than older children to sleep under a mosquito net. There is no difference by sex in the use of mosquito nets, but urban children are more likely than rural children to sleep under an ITN (49 and 21 percent, respectively).

Table 11.3 shows the proportion of all women and pregnant women who slept under a mosquito net. Similar to the pattern for children under five, pregnant women in Mainland Tanzania (26 percent) are less likely than those in Zanzibar (51 percent) to sleep under an ITN. However, this is a substantial increase compared with the findings of the 2004-05 TDHS (15 percent for Mainland and 20 percent for Zanzibar). A programme of subsidized mosquito net distribution targeting pregnant women and children under five in Zanzibar may contribute to the greater use of ITNs there.

Table 11.2 Use of mosquito nets by children

Percentage of children under five years of age who slept under a mosquito net (treated or untreated), an ever-treated mosquito net, and an insecticide-treated net (ITN) the night before the survey, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage who slept under any net the past night	Percentage who slept under an ever-treated net the past night[1]	Percentage who slept under an ITN the past night[2]	Number of children
Age in months				
<12	39.8	37.6	32.3	1,540
12-23	41.8	39.2	28.8	1,542
24-35	35.9	32.2	23.4	1,495
36-47	32.0	30.1	22.3	1,400
48-59	31.6	28.5	21.1	1,537
Sex				
Male	36.4	33.4	25.2	3,770
Female	36.2	33.9	26.1	3,744
Residence				
Urban	65.6	60.9	49.2	1,327
Rural	30.0	27.8	20.6	6,187
Mainland/Zanzibar				
Mainland	35.4	32.7	24.8	7,319
Mainland – Urban	65.1	60.2	48.7	1,278
Dar es Salaam City	81.3	75.7	65.3	317
Other Urban	59.8	55.1	43.3	960
Mainland – Rural	29.1	26.8	19.7	6,041
Zanzibar	68.9	68.5	58.5	195
Region/Island				
Arusha	31.2	30.6	25.8	293
Dar es Salaam	80.7	75.5	65.2	341
Dodoma	16.9	16.4	12.9	287
Iringa	17.0	16.6	10.8	314
Kagera	33.8	26.6	20.4	483
Kigoma	32.7	32.2	22.1	357
Kilimanjaro	24.3	21.5	14.1	232
Lindi	45.3	43.8	29.3	156
Manyara	19.9	19.9	13.5	230
Mara	52.9	49.1	38.4	351
Mbeya	25.9	25.9	21.2	479
Morogoro	59.0	55.3	36.5	301
Mtwara	36.8	35.8	24.5	236
Mwanza	46.7	39.2	29.2	723
Pwani	55.4	52.5	40.0	142
Rukwa	16.6	16.0	12.5	337
Ruvuma	45.1	43.6	31.8	265
Shinyanga	37.4	33.7	25.5	816
Singida	24.4	21.9	16.4	181
Tabora	10.5	10.3	8.6	498
Tanga	35.0	32.7	27.3	297
Pemba	68.9	68.7	62.0	78
Unguja	68.9	68.4	56.2	117
Zone				
Western	28.4	26.4	19.7	1,670
Northern	28.3	26.8	20.9	1,052
Central	19.8	18.5	14.3	468
Southern Highlands	20.6	20.4	15.7	1,130
Lake	44.1	37.5	28.5	1,556
Eastern	67.8	63.6	49.6	785
Southern	42.2	40.9	28.6	658
Wealth quintile				
Lowest	20.3	18.3	12.9	1,693
Second	26.4	24.1	16.9	1,629
Middle	33.8	32.1	24.0	1,628
Fourth	42.9	38.6	28.8	1,387
Highest	68.6	65.0	54.9	1,177
Total	36.3	33.6	25.7	7,514

[1] An ever-treated net is a pretreated net or a non-pretreated tht has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is 1) a factory-treated net that does not require any further treatment, or 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

Table 11.3 Use of mosquito nets by women

Percentage of all women age 15-49 and pregnant women age 15-49 who slept under a mosquito net (treated or untreated), who slept under an ever-treated mosquito net, and who slept under an insecticide-treated net (ITN) the night before the survey, by background characteristics, Tanzania HMIS 2007-08

	Percentage of all women who:				Percentage of pregnant women who:			
Background characteristic	Slept under any net the past night	Slept under an ever-treated net the past night[1]	Slept under an ITN the past night[2]	Number of women	Slept under any net the past night	Slept under an ever-treated net the past night[1]	Slept under an ITN the past night[2]	Number of women
Residence								
Urban	66.1	60.1	47.1	2,488	62.9	59.5	47.8	170
Rural	26.7	24.3	17.3	7,014	29.3	27.9	21.4	676
Mainland/Zanzibar								
Mainland	36.4	33.0	24.5	9,189	35.3	33.4	26.0	823
Mainland – Urban	66.5	60.3	47.3	2,380	62.9	59.3	47.6	164
Dar es Salaam City	79.6	71.5	58.4	775	78.5	78.5	67.1	35
Other Urban	60.2	54.9	41.9	1,605	58.6	54.1	42.3	129
Mainland – Rural	25.9	23.4	16.6	6,809	28.4	27.0	20.7	660
Zanzibar	55.2	54.6	43.5	313	63.7	63.7	51.3	23
Region/Island								
Arusha	35.9	34.0	26.2	394	25.6	25.6	13.4	26
Dar es Salaam	79.8	71.9	59.0	810	76.4	76.4	62.1	38
Dodoma	15.3	13.2	11.0	341	4.9	4.9	4.9	33
Iringa	13.6	12.4	8.5	409	7.6	3.8	3.8	33
Kagera	29.0	22.1	16.8	497	35.0	35.0	28.6	67
Kigoma	23.4	22.6	14.8	421	29.6	27.3	20.9	36
Kilimanjaro	24.9	21.7	17.3	385	24.4	17.0	17.0	18
Lindi	43.9	43.0	28.4	252	46.6	46.6	31.8	12
Manyara	20.3	19.6	14.6	267	25.1	25.1	17.6	25
Mara	54.8	51.0	36.4	375	50.3	48.9	43.7	50
Mbeya	23.8	23.5	17.0	591	33.3	33.3	19.2	69
Morogoro	56.4	51.5	35.4	443	60.2	54.9	45.7	32
Mtwara	33.2	32.9	19.6	333	46.1	46.1	25.3	25
Mwanza	44.2	37.1	28.2	843	36.7	31.4	27.8	97
Pwani	52.4	49.5	39.2	205	43.5	43.5	37.1	17
Rukwa	17.1	16.6	11.8	317	3.0	3.0	3.0	33
Ruvuma	42.4	39.6	25.3	380	46.2	46.2	28.7	31
Shinyanga	38.9	33.5	24.3	767	62.1	55.4	44.3	68
Singida	24.7	21.9	17.2	196	23.8	23.8	18.0	17
Tabora	12.1	11.9	8.8	528	6.4	6.4	4.3	55
Tanga	31.2	27.9	22.5	434	32.5	32.5	28.4	40
Pemba	58.6	58.1	49.3	96	66.5	66.5	57.5	10
Unguja	53.7	53.0	40.9	217	61.8	61.8	46.7	13
Education								
No education	25.0	22.3	15.1	2,057	27.0	24.4	19.3	200
Primary incomplete	28.7	25.5	18.7	1,532	38.3	36.0	26.6	150
Primary complete	41.5	38.2	29.0	4,981	37.4	36.0	28.2	443
Secondary +	53.2	48.4	37.5	927	52.4	50.8	42.5	53
Zone								
Western	26.9	24.2	17.2	1,717	35.4	32.0	25.1	159
Northern	28.9	26.4	20.7	1,480	27.8	26.6	20.5	109
Central	18.7	16.4	13.2	537	11.4	11.4	9.4	50
Southern Highlands	19.0	18.4	13.1	1,317	19.6	18.7	11.5	135
Lake	42.1	35.8	26.7	1,714	39.4	36.6	31.8	214
Eastern	68.9	62.5	49.0	1,459	64.0	62.0	51.1	87
Southern	39.6	38.1	24.1	965	46.3	46.3	28.0	68
Wealth quintile								
Lowest	16.7	15.4	10.0	1,728	18.7	17.0	13.5	159
Second	22.9	20.3	14.1	1,674	26.0	25.2	21.6	171
Middle	29.8	27.4	19.3	1,792	35.3	35.3	26.8	191
Fourth	37.2	33.7	24.3	1,895	37.7	32.4	23.2	168
Highest	66.6	60.8	48.6	2,413	63.4	61.8	49.0	158
Total	37.0	33.7	25.1	9,503	36.0	34.2	26.7	846

Note: Total includes 5 women with information missing on education

[1] An ever-treated net is a pretreated net or a non-pretreated that has subsequently been soaked with insecticide at any time.

[2] An insecticide treated net (ITN) is 1) a factory-treated net that does not require any further treatment, or 2) a pretreated net obtained within the past 12 months, or 3) a net that has been soaked with insecticide within the past 12 months.

11.2 USE OF ANTIMALARIAL DRUGS DURING PREGNANCY

Malaria during pregnancy is extremely common among women who live in countries that are malaria-endemic. Pregnant women in these areas are semi-immune to malaria and often have a low prevalence of peripheral parasitaemia but have a high prevalence of placental infection (Steketee et al., 2001). Malaria placental infection is a major contributor to low birth weight, infant mortality, maternal anaemia, spontaneous abortion, and stillbirth. Studies have shown that IPT with two-doses of SP protect pregnant women from maternal anaemia, malaria placental infection, and reduce the incidence of low birth weight (Steketee et al., 2001). As a protective measure, it is recommended that all pregnant women in Tanzania receive at least two doses of IPT with SP during the second and third trimesters of pregnancy.

Regarding the pregnancy leading to their last live birth, women in the 2007-08 THMIS were asked whether they took any antimalarial medications during the pregnancy, and if so, what drugs were taken. Women were also asked whether the drugs they received were part of an antenatal care visit. It should be noted that obtaining information about drugs can be difficult because some respondents may not know or remember the name or the type of drug that they received.

Table 11.4 shows the percentage of women who had a live birth in the two years preceding the survey who took any antimalarial drug, and the percentage who took IPT during pregnancy. The fourth and fifth columns in Table 11.4 assess the extent to which women took SP for IPT.

Overall, 60 percent of pregnant women took an antimalarial drug during pregnancy (59 percent in Mainland and 78 percent in Zanzibar). The data suggest that IPT use of SP is integrated into routine antenatal care; 57 percent of pregnant women in Mainland Tanzania and 74 percent in Zanzibar reported having taken at least one dose of SP (IPT-1) during an ANC visit. However, only 30 percent of pregnant women in Mainland and 52 percent in Zanzibar received two or more doses of SP (IPT-2). These figures show an increase since the 2004-05 TDHS, when 22 percent of pregnant women in Mainland and 14 percent in Zanzibar received two or more doses of SP.

There are significant differences in the percentage of women who received complete IPT (IPT-2) by background characteristics. Women in urban areas are more likely (42 percent) to receive IPT-2 than women in rural areas (28 percent). The same pattern was observed in the 2004-05 TDHS (29 and 20 percent, respectively).

In only five regions in Mainland Tanzania do more than 40 percent of pregnant women receive IPT-2. These regions are Dar es Salaam (58 percent), Lindi (41 percent), Morogoro (44 percent), Singida (45 percent) and Tanga (42 percent). Mwanza and Shinyanga have the lowest proportions of women who received IPT-2 (16 and 17 percent, respectively). In Zanzibar, IPT-2 is received by 54 percent of pregnant women in Pemba and 50 percent in Unguja.

Women in households in the higher wealth quintiles and those with higher levels of education are more likely to receive IPT-2 than women in households in the lower wealth quintiles or who have little or no education.

Table 11.4 Prophylactic use of antimalarial drugs and use of Intermittent Preventive Treatment (IPT) by women during pregnancy

Percentage of women who took any antimalarial drugs for prevention of malaria, percentage who took SP/Fansidar, and percentage who received Intermittent Preventive Treatment (IPT) during the pregnancy for their last live birth in the two years preceding the survey, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage who took any antimalarial drug	SP/Fansidar		Intermittent Preventive Treatment[1]		Number of women
		Percentage who took any SP/Fansidar	Percentage who took 2+ doses	Percentage who received any SP/Fansidar during an ANC visit	Percentage who received 2+ doses, at least one during an ANC visit	
Residence						
Urban	69.9	69.4	42.5	69.0	42.3	525
Rural	57.3	56.7	28.3	55.0	27.6	2,520
Mainland/Zanzibar						
Mainland	59.0	58.4	30.1	57.0	29.6	2,967
Mainland – Urban	70.1	69.5	42.6	69.2	42.4	506
Dar es Salaam City	76.1	76.1	57.3	76.1	57.3	147
Other Urban	67.6	66.8	36.5	66.4	36.3	359
Mainland – Rural	56.8	56.1	27.5	54.4	27.0	2,461
Zanzibar	78.4	78.4	55.4	73.9	51.5	77
Region/Island						
Arusha	50.4	49.4	19.9	48.2	19.9	114
Dar es Salaam	77.1	77.1	58.3	77.1	58.3	163
Dodoma	70.0	68.8	30.0	67.2	29.2	117
Iringa	51.1	51.1	29.8	48.8	29.8	120
Kagera	65.1	63.6	33.5	60.0	29.9	192
Kigoma	75.2	75.2	31.0	75.2	31.0	150
Kilimanjaro	67.8	67.8	33.6	67.8	33.6	92
Lindi	68.4	68.4	41.5	65.5	40.5	65
Manyara	51.2	51.2	28.2	50.5	27.5	92
Mara	43.4	41.8	21.7	34.0	19.7	128
Mbeya	70.3	70.3	30.9	70.3	30.9	173
Morogoro	70.5	68.8	43.8	68.8	43.8	137
Mtwara	60.9	58.7	37.6	58.7	37.6	93
Mwanza	37.6	36.7	15.9	33.9	15.9	279
Pwani	63.5	62.2	31.9	62.2	31.9	61
Rukwa	69.7	69.7	29.6	67.9	29.6	148
Ruvuma	49.7	49.7	22.5	48.4	21.7	122
Shinyanga	39.0	38.5	17.1	38.0	17.1	323
Singida	81.1	81.1	46.2	80.1	45.2	80
Tabora	58.4	57.7	27.6	57.7	27.6	200
Tanga	74.3	74.3	43.6	71.7	42.4	119
Pemba	87.2	87.2	58.0	82.4	54.3	31
Unguja	72.5	72.5	53.7	68.2	49.7	47
Education						
No education	47.0	47.0	22.9	45.6	22.3	754
Primary incomplete	54.8	54.5	28.4	52.3	27.5	416
Primary complete	64.7	63.7	33.2	62.3	32.7	1,726
Secondary +	76.0	76.0	48.4	74.9	47.7	148
Zone						
Western	52.9	52.4	23.3	52.1	23.3	672
Northern	61.2	60.9	31.5	59.7	31.0	417
Central	74.5	73.8	36.6	72.4	35.7	198
Southern Highlands	64.9	64.9	30.2	63.6	30.2	441
Lake	47.7	46.4	22.8	42.3	21.2	599
Eastern	72.3	71.4	48.3	71.4	48.3	361
Southern	57.7	57.0	31.9	55.7	31.4	279
Zanzibar	78.4	78.4	55.4	73.9	51.5	77
Wealth quintile						
Lowest	47.3	47.0	24.7	45.6	24.3	691
Second	56.0	55.1	26.8	53.3	25.8	664
Middle	61.0	60.2	27.8	58.8	27.5	642
Fourth	66.1	65.5	32.1	62.9	31.2	577
Highest	72.2	72.1	47.5	71.7	47.3	471
Total	59.5	58.9	30.7	57.4	30.2	3,044

[1] Intermittent Preventive Treatment (IPT) is treatment with the antimalariaL drug SP/Fansidar during an antenatal care (ANC) visit.

11.3 Treatment of Children with Fever

In malaria-endemic areas of sub-Saharan Africa, acute malaria clinical disease is almost always confined to young children who suffer high parasite densities. If untreated, this can progress very rapidly to severe malaria which can cause death. The diagnosis of malaria is based on clinical criteria (clinical diagnosis) and supplemented by the detection of parasites in the blood (parasitological or confirmatory diagnosis).

11.4 Prompt Treatment with Antimalarial Drugs

Early treatment of malaria is critical to a positive outcome. Progression to severe malaria is often rapid, and children may die within 48 hours of onset of illness. Treatment must therefore be prompt. Studies show that provision of early treatment for persons with uncomplicated malaria within the community reduces progression to severe disease (Armstrong Schellenberg et al., 2002).

For each child under age five in the 2007-08 THMIS, mothers were asked if the child had had fever in the two weeks preceding the survey, whether treatment was sought for the fever, and the type of treatment given to the child for each episode. Table 11.5 shows the results.

Nineteen percent of children under age five in Mainland Tanzania and 24 percent in Zanzibar had a fever during the two weeks preceding the survey. Among children with a fever, 57 percent in Mainland and 66 percent in Zanzibar received treatment with antimalarial drugs. The prevalence for Mainland in the 2004-05 TDHS was similar (58 percent), but it was lower in Zanzibar (61 percent). Thirty-four percent of children with a fever in Mainland and 34 percent in Zanzibar received drugs on the same day or the day after the fever started. These figures are significantly lower than those in the 2004-05 TDHS (48 percent of children in Mainland and 51 percent in Zanzibar received prompt treatment for fever).

Children living in urban areas are more likely than those in rural areas to receive antimalarial drugs (69 percent and 54 percent, respectively). Similar figures are found in the 2004-05 TDHS (65 and 57 percent, respectively). Furthermore, urban children are more likely than rural children to receive treatment promptly.

There are striking differences in the timing of treatment of children with fever across regions. Children in Arusha are the least likely to receive malaria treatment on the same day or the day after the fever started (5 percent), while children in Morogoro are most likely to receive prompt treatment (61 percent). In the 2004-05 TDHS the same regions showed similar extremes with Morogoro treating 83 percent of children with a fever promptly, compared with 20 percent of children with a fever in Arusha.

The probability of having a fever in the two weeks preceding the survey does not differ much by wealth quintile or education of the mother. However, children whose mothers have completed primary school education and children from households in the highest wealth quintiles are more likely to receive antimalarial drugs, and more likely to receive them quickly. The same findings were reported in the 2004-05 TDHS.

Table 11.5 Prevalence and prompt treatment of fever in children

Percentage of children under age five with fever in the two weeks preceding the survey, and among children with fever, the percentage who took antimalarial drugs and the percentage who took the drugs the same day or the next day following the onset of fever, by background characteristics, Tanzania HMIS 2007-08

	Children under five		Children under five with fever		
Background characteristic	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same or next day	Number of children
Age (in months)					
<12	20.9	1,522	53.0	32.7	318
12-23	23.9	1,521	67.1	39.8	363
24-35	21.1	1,416	54.1	30.7	299
36-47	16.1	1,255	50.1	30.7	202
48-59	11.4	1,423	53.7	36.6	162
Residence					
Urban	20.7	1,253	69.0	49.6	259
Rural	18.4	5,884	53.8	30.7	1,084
Mainland/Zanzibar					
Mainland	19.0	6,942	57.0	34.4	1,320
Mainland – Urban	21.0	1,202	69.6	49.8	253
Dar es Salaam City	20.3	318	75.1	59.1	65
Other Urban	21.3	884	67.7	46.6	188
Mainland – Rural	18.6	5,739	54.1	30.8	1,067
Zanzibar	23.7	281	66.0	34.1	67
Region/Island					
Arusha	17.8	276	(32.6)	(5.0)	49
Dar es Salaam	21.0	340	(73.4)	(58.9)	71
Dodoma	19.5	260	(26.5)	(24.6)	51
Iringa	12.7	285	(67.0)	(27.3)	36
Kagera	23.4	456	49.0	29.7	107
Kigoma	15.0	361	(78.5)	(37.0)	54
Kilimanjaro	15.1	203	(68.2)	(46.5)	31
Lindi	22.1	148	(58.1)	(28.5)	33
Manyara	16.4	223	(30.6)	(12.6)	37
Mara	29.7	321	60.0	27.6	95
Mbeya	9.3	443	*	*	41
Morogoro	28.6	289	(80.8)	(60.7)	83
Mtwara	27.2	214	(67.5)	(58.4)	58
Mwanza	20.1	701	47.4	22.1	141
Pwani	27.4	136	(50.0)	(42.6)	37
Rukwa	14.7	322	(57.8)	(40.2)	47
Ruvuma	22.6	263	80.4	39.5	59
Shinyanga	19.8	771	45.3	31.2	152
Singida	6.5	175	*	*	11
Tabora	12.4	473	(64.1)	(28.5)	59
Tanga	23.7	281	66.0	34.1	67
Pemba	13.0	77	30.3	18.9	10
Unguja	11.2	119	43.9	41.1	13
Mother's education					
No education	18.8	1,767	43.0	24.6	331
Primary incomplete	19.2	5,028	60.8	37.0	965
Primary complete	12.7	302	74.4	53.2	38
Secondary +	(22.2)	40	*	*	9
Zone					
Western	16.5	1,605	56.3	31.8	265
Northern	18.6	983	50.3	24.1	183
Central	14.3	436	31.0	26.4	62
Southern Highlands	11.9	1,050	57.7	36.4	125
Lake	23.2	1,478	51.4	26.0	343
Eastern	25.0	765	72.0	56.5	191
Southern	24.0	626	70.5	44.4	150
Zanzibar	11.9	196	38.1	31.6	23
Wealth quintile					
Lowest	17.1	1,636	40.4	18.8	280
Second	19.5	1,517	61.2	36.9	296
Middle	20.5	1,549	52.4	28.1	317
Fourth	17.9	1,296	60.1	38.7	233
Highest	19.2	1,139	74.0	55.3	218
Total	18.8	7,137	56.7	34.3	1,343

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

11.4.1 Type and Timing of Antimalarial Drugs

Prompt access to effective antimalarial treatment is one of the major strategies for reducing the burden of malaria. Prompt access means having treatment available as near as possible to the house so that the drugs are given within 24 hours of onset of symptoms.

Table 11.6 shows the different antimalarial drugs that were received by children under age five with a fever in the two weeks preceding the survey. ACT, the first-line drug in Tanzania at the time of the survey, is the most often used antimalarial drug in government and faith-based health facilities. In Mainland Tanzania, there is no scale-up programme to facilitate availability of ACT in the private sector. Previous first- and second-line monotherapy drugs (SP and Amodiaquine) are not banned at this time, though the superiority of ACT, such as Artermether Lumefantrine (ALu), to monotherapies is well documented (MOHSW, 2006).

Table 11.6 Type and timing of antimalarial drugs

Among children under age five years with fever in the two weeks preceding the survey, percentage who took specific antimalarial drugs, and percentage who took the drugs the same day or the next day after developing the fever, by background characteristics, Tanzania HMIS 2007-08

	Percentage of children who took specific antimalarial drugs						Percentage of children who took specific antimalarial drugs the same day or the next day					Number of children with fever
Background characteristic	SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine	ALu/ Coartem	Other anti-malarial	SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine	ALu/ Coartem	
Age (in months)												
<12	1.6	0.2	19.8	10.9	19.0	2.9	0.8	0.0	12.3	6.1	12.7	318
12-23	4.8	1.1	17.3	12.7	30.8	0.8	1.1	0.6	10.6	6.4	20.7	363
24-35	5.1	0.3	19.6	11.2	17.7	2.0	2.3	0.3	9.5	5.1	12.0	299
36-47	4.6	0.4	18.6	11.9	15.0	1.6	2.7	0.0	13.5	4.9	9.3	202
48-59	12.0	0.0	13.0	10.1	19.4	0.4	10.0	0.0	7.6	7.0	11.6	162
Residence												
Urban	9.0	0.0	15.4	14.7	27.0	4.4	4.9	0.0	11.9	9.3	19.5	259
Rural	4.0	0.6	18.7	10.7	20.0	1.0	2.1	0.3	10.6	5.1	12.8	1,084
Mainland/Zanzibar												
Mainland	4.9	0.5	18.2	11.7	21.5	1.6	2.5	0.3	10.9	5.9	14.2	1,320
Mainland – Urban	8.9	0.0	15.5	15.1	27.5	4.3	4.7	0.0	11.8	9.6	19.9	253
Dar es Salaam City	11.2	0.0	11.7	15.9	28.0	8.2	11.2	0.0	11.7	13.6	16.5	65
Other Urban	8.1	0.0	16.7	14.8	27.4	2.9	2.5	0.0	11.8	8.2	21.1	188
Mainland – Rural	3.9	0.6	18.8	10.8	20.1	1.0	2.0	0.3	10.6	5.1	12.8	1,067
Zanzibar	8.6	0.0	11.4	3.0	10.3	4.8	6.9	0.0	9.3	3.0	8.4	23
Region/Island												
Arusha	(6.4)	(0.0)	(2.9)	(1.7)	(16.5)	(5.1)	(0.0)	(0.0)	(0.0)	(0.0)	(2.6)	49
Dar es Salaam	(10.2)	(0.0)	(10.6)	(16.5)	(28.8)	(7.4)	(10.2)	(0.0)	(10.6)	(14.3)	(18.3)	71
Dodoma	(1.6)	(0.0)	(5.0)	(5.1)	(16.7)	(0.0)	(1.6)	(0.0)	(5.0)	(3.2)	(14.8)	51
Iringa	(0.0)	(0.0)	(13.9)	(26.2)	(30.2)	(0.0)	(0.0)	(0.0)	(10.2)	(7.1)	(10.0)	36
Kagera	2.7	1.5	19.2	7.2	18.4	0.0	2.7	0.0	9.1	4.5	13.4	107
Kigoma	(4.7)	(0.0)	(34.8)	(11.6)	(24.9)	(2.5)	(1.9)	(0.0)	(20.1)	(5.9)	(9.1)	54
Kilimanjaro	(18.7)	(3.4)	(0.0)	(21.0)	(25.1)	(0.0)	(11.1)	(3.4)	(0.0)	(10.6)	(21.3)	31
Lindi	(4.9)	(0.0)	(15.7)	(3.7)	(36.3)	(0.0)	(2.4)	(0.0)	(4.0)	(1.2)	(20.9)	33
Manyara	(8.4)	(0.0)	(4.4)	(3.9)	(12.2)	(1.7)	(5.1)	(0.0)	(2.6)	(1.8)	(3.1)	37
Mara	2.7	1.5	15.6	19.6	19.5	3.0	0.0	0.0	2.8	13.6	12.2	95
Mbeya	*	*	*	*	*	*	*	*	*	*	*	41
Morogoro	(13.4)	(2.8)	(20.5)	(14.9)	(36.3)	(0.0)	(8.6)	(2.8)	(16.9)	(4.6)	(27.9)	83
Mtwara	(0.0)	(0.0)	(21.5)	(12.2)	(32.0)	(1.8)	(0.0)	(0.0)	(12.4)	(12.2)	(32.0)	58
Mwanza	3.5	0.0	29.3	7.8	8.0	1.2	2.3	0.0	11.7	3.0	3.9	141
Pwani	(7.0)	(0.0)	(5.5)	(4.4)	(35.1)	(0.0)	(1.6)	(0.0)	(5.5)	(2.3)	(33.3)	37
Rukwa	(1.9)	(0.0)	(10.2)	(10.6)	(35.1)	(0.0)	(1.9)	(0.0)	(7.8)	(10.6)	(19.9)	47
Ruvuma	4.9	0.0	16.8	29.8	28.8	1.6	0.0	0.0	11.5	12.8	15.2	59
Shinyanga	0.0	0.0	29.6	4.5	9.1	2.1	0.0	0.0	20.6	2.5	8.1	152
Singida	*	*	*	*	*	*	*	*	*	*	*	11
Tabora	(10.8)	(0.0)	(22.6)	(16.9)	(13.8)	(2.5)	(0.0)	(0.0)	(16.9)	(2.9)	(6.2)	59
Tanga	5.6	0.0	16.3	12.9	31.1	0.0	2.1	0.0	11.9	1.8	18.4	67
Pemba	6.1	0.0	13.1	0.0	5.6	5.5	2.3	0.0	9.1	0.0	4.5	10
Unguja	10.4	0.0	10.1	5.3	13.7	4.4	10.4	0.0	9.5	5.3	11.4	13
Mother's education												
No education	3.4	0.7	16.2	6.8	14.4	2.2	1.8	0.0	9.1	4.6	8.8	331
Primary incomplete	5.3	0.4	18.3	13.3	23.7	1.0	2.8	0.3	11.0	6.5	16.0	965
Primary complete	10.6	0.0	27.8	6.9	20.2	12.8	6.6	0.0	19.8	0.5	13.7	38
Secondary +	*	*	*	*	*	*	*	*	*	*	*	9

Continued…

Table 11.6—*Continued*

Background characteristic	Percentage of children who took specific antimalarial drugs						Percentage of children who took specific antimalarial drugs the same day or the next day					Number of children with fever
	SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine	ALu/ Coartem	Other anti-malarial	SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine	ALu/ Coartem	
Zone												
Western	3.4	0.0	29.1	8.7	13.4	2.3	0.4	0.0	19.7	3.3	7.9	265
Northern	8.6	0.6	7.6	9.5	22.4	1.7	3.6	0.6	4.8	2.8	11.6	183
Central	2.6	0.0	8.4	4.2	17.3	0.0	2.6	0.0	7.1	2.6	14.0	62
Southern Highlands	2.0	0.0	10.2	17.5	29.0	0.0	2.0	0.0	8.2	8.8	17.4	125
Lake	3.0	0.9	22.3	10.9	14.4	1.4	1.8	0.0	8.4	6.4	9.2	343
Eastern	10.9	1.2	13.9	13.4	33.3	2.8	7.8	1.2	12.3	7.8	25.4	191
Southern	3.0	0.0	18.4	17.3	31.7	1.3	0.5	0.0	10.2	10.0	22.9	150
Zanzibar	8.6	0.0	11.4	3.0	10.3	4.8	6.9	0.0	9.3	3.0	8.4	23
Wealth quintile												
Lowest	2.1	0.3	14.5	7.7	14.0	1.8	0.0	0.0	7.4	3.2	8.2	280
Second	3.8	0.0	21.1	11.2	24.7	0.7	1.7	0.0	12.4	6.0	16.8	296
Middle	4.7	1.4	19.3	10.6	17.5	0.3	3.3	0.7	9.4	5.2	9.5	317
Fourth	4.2	0.4	20.0	11.6	25.2	1.3	3.3	0.4	13.9	4.2	17.0	233
Highest	11.4	0.0	14.6	18.0	27.6	5.1	5.6	0.0	11.9	12.0	21.5	218
Total	5.0	0.5	18.1	11.5	21.3	1.6	2.6	0.2	10.8	5.9	14.1	1,343

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

In Mainland Tanzania, ALu is currently the recommended first-line antimalarial drug, and amodiaquine, a monotherapy drug, is no longer recommended. Table 11.6 shows that across Mainland Tanzania, 22 percent of children with a fever are treated with ALu, while 18 percent are still treated with amodiaquine. Quinine, the recommended second-line antimalarial drug at the time of the survey, was given to 12 percent of children with a fever, a similar proportion to the 2004-05 TDHS (12 percent), which had quinine as a third-line treatment for uncomplicated malaria.

In Zanzibar, the first-line antimalarial treatment is amodiaquine, and Alu is the second line of treatment. Table 11.6 shows that 11 percent of children with fever in Zanzibar received amodiaquine and 10 percent received Alu. The use of amodiaquine is also higher than Alu in the 2004-05 TDHS (38 and 36 percent, respectively).

Children age 12-23 months are more likely than those in Zanzibar younger or older children to be treated with ALu (31percent compared with 19 percent or less). The chances of a child being treated with ALu the same day or next day are higher in Mainland (14 percent) than in Zanzibar (8 percent). Treatment with ALu varies substantially across regions in Mainland Tanzania. Mwanza and Shinyanga regions have the lowest proportion of children treated with ALu (8 and 9 percent, respectively), while Morogoro and Lindi have the highest proportions (36 percent each).

In general, children whose mothers have formal education are more likely than those whose mothers have no education to receive ALu and to be treated with ALu on the same or next day. Children in urban areas are more likely to receive ALu than children in rural areas (27 and 20 percent, respectively).

Wealth status has a positive relationship with prompt treatment of fever with Alu. Children from the wealthiest households are the most likely to receive ALu and to be treated with ALu on the same or next day.

11.4.2 Availability of Drug at Home

Table 11.7 shows that for 17 percent of children who had fever and took any antimalarial drug, the drug was available at home. Availability of drugs at home varies by the type of drug; it is 11 percent for children who took ACT, 20 percent each for children who took Amodiaguine and Quinine, and 30 percent for children who were given SP/Fansidar (data not shown).

Table 11.7 Availability at home of antimalarial drugs taken by children with fever

Among children under age five who had fever in the two weeks preceding the survey and who took specific antimalarial drugs, the percentage for whom the drug was at home when the child became ill with fever, Tanzania HMIS 2007-08

Drug	Percentage for whom antimalarial drug was at home when child became ill with fever	Number of children who took the specific antimalarial drugs
SP/Fansidar	30.3	67
Amodiaquine	19.5	243
Quinine	20.0	155
ACT	10.8	287
Other antimalarial	(0.0)	28
Any antimalarial drugs	16.7	762

Note: Figures in parentheses are based on 25-49 unweighted cases.

11.5 INDOOR RESIDUAL SPRAYING

Indoor residual spraying (IRS) has a significant impact on mosquito densities, and therefore leads to a rapid reduction of malaria transmission and mortality. To reduce the incidence of malaria in a targeted area, WHO recommends that IRS be conducted in at least 85 percent of households. Repeated spraying is essential to maintain effectiveness against mosquitoes. The frequency of spraying is determined by the insecticide used, for example spraying of Lambda Cyhalothrin should be repeated approximately every six months.

Mainland Tanzania has recently adopted the IRS strategy—one of the Integrated Management of Vector Control Strategies (IMVC)—to complement scaling up the use of LLINs both in epidemic and malaria-endemic areas. It is envisaged that scaling up of IRS, in conjunction with increased LLIN coverage and availability of ACT, will rapidly reduce malaria transmission and contribute to significant reductions in the burden of malaria, leading ultimately to the elimination of malaria.

Since 2007, IRS operations in Mainland Tanzania have been limited to two districts (Muleba and Karagwe) in Kagera region, where repeated spraying has been carried out in more than 10 percent of households. Plans are underway to scale up IRS coverage to about half of the districts in Mainland Tanzania by the end of 2013.

In Zanzibar, IRS operations began in 2006 and covered both islands (Unguja and Pemba) using lambda cyhalothrin. Since then, spraying has been conducted every six months; the last spraying cycle was in July 2007. In all spraying cycles, over 85 percent of the targeted households were protected against malaria. At the time of the survey, IRS operations in Tanzania and Zanzibar were operated by the Government. However, the question on indoor residual spraying may have been misinterpreted to include fumigation, which has little impact on community-level malaria transmission.

11.5.1 Timing of Last Indoor Residual Spraying

Table 11.8 shows IRS operations conducted in the past 12 months. Overall, only 4 percent of households in Tanzania reported having their house sprayed; 1 percent were sprayed less than three months prior to the survey, and 3 percent were sprayed between 3 to 6 months before the survey. Over the past 12 months, households in Zanzibar were more likely to be sprayed than households in Mainland Tanzania (94 and 2 percent, respectively). In Kagera region in Mainland Tanzania, where IRS has been implemented on a small scale, 8 percent of households were sprayed in the 3 months before the survey.

There are variations in household spraying across wealth quintiles; wealthier households (5 percent) were more likely to have been sprayed in the 3 to 6 months preceding the survey than poorer households (1 percent).

Table 11.8 Residual indoor spraying by timing of last spraying

Percentage of households whose interior walls had been sprayed in the 12 months preceding the survey and among those that were sprayed, the timing of last spraying, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of households not sprayed in past 12 months	Among households sprayed in past 12 months, timing of last spraying				Total	Number of households
		<3 months	3-6 months	6+ months	Don't know/ missing		
Residence							
Urban	94.2	1.4	3.5	0.2	0.7	100.0	2,106
Rural	96.4	0.8	2.5	0.2	0.1	100.0	6,391
Mainland/Zanzibar							
Mainland	98.3	0.9	0.4	0.1	0.2	100.0	8,269
Mainland – Urban	96.9	1.3	1.0	0.2	0.6	100.0	2,041
Dar es Salaam City	94.0	3.1	1.2	0.0	1.6	100.0	593
Other Urban	98.1	0.5	0.9	0.3	0.2	100.0	1,448
Mainland – Rural	98.8	0.7	0.3	0.1	0.1	100.0	6,228
Zanzibar	6.4	5.5	85.8	1.4	1.0	100.0	228
Region/Island							
Arusha	98.6	0.8	0.2	0.3	0.0	100.0	362
Dar es Salaam	94.3	2.9	1.2	0.0	1.6	100.0	624
Dodoma	99.0	0.0	0.6	0.4	0.0	100.0	384
Iringa	100.0	0.0	0.0	0.0	0.0	100.0	451
Kagera	89.5	7.7	1.9	0.6	0.3	100.0	480
Kigoma	99.2	0.0	0.0	0.0	0.8	100.0	329
Kilimanjaro	98.2	0.0	0.6	0.0	1.1	100.0	363
Lindi	100.0	0.0	0.0	0.0	0.0	100.0	257
Manyara	99.2	0.0	0.3	0.5	0.0	100.0	244
Mara	99.7	0.3	0.0	0.0	0.0	100.0	280
Mbeya	99.2	0.5	0.0	0.3	0.0	100.0	610
Morogoro	99.6	0.0	0.0	0.4	0.0	100.0	489
Mtwara	100.0	0.0	0.0	0.0	0.0	100.0	341
Mwanza	100.0	0.0	0.0	0.0	0.0	100.0	623
Pwani	99.1	0.0	0.9	0.0	0.0	100.0	212
Rukwa	99.6	0.2	0.3	0.0	0.0	100.0	293
Ruvuma	99.8	0.0	0.2	0.0	0.0	100.0	317
Shinyanga	99.6	0.4	0.0	0.0	0.0	100.0	596
Singida	100.0	0.0	0.0	0.0	0.0	100.0	214
Tabora	99.0	0.7	0.0	0.0	0.3	100.0	393
Tanga	96.3	0.7	2.7	0.4	0.0	100.0	407
Pemba	4.6	5.5	86.9	2.3	0.7	100.0	79
Unguja	7.3	5.4	85.3	0.9	1.1	100.0	149
Mother's education							
No education	96.8	1.0	2.1	0.1	0.0	100.0	1,591
Primary incomplete	97.0	0.9	1.8	0.1	0.3	100.0	6,048
Primary complete	85.7	1.8	11.1	0.6	0.7	100.0	764
Secondary +	91.5	0.4	7.6	0.6	0.0	100.0	94
Zone							
Western	99.3	0.4	0.0	0.0	0.3	100.0	1,318
Northern	97.9	0.4	1.1	0.3	0.3	100.0	1,375
Central	99.4	0.0	0.4	0.2	0.0	100.0	598
Southern Highlands	99.5	0.3	0.1	0.1	0.0	100.0	1,355
Lake	96.3	2.7	0.7	0.2	0.1	100.0	1,383
Eastern	97.0	1.4	0.7	0.2	0.7	100.0	1,325
Southern	99.9	0.0	0.1	0.0	0.0	100.0	914
Wealth quintile							
Lowest	98.0	0.9	0.9	0.1	0.2	100.0	1,658
Second	98.1	0.5	1.3	0.0	0.0	100.0	1,656
Middle	97.0	0.9	2.0	0.0	0.1	100.0	1,618
Fourth	94.7	0.8	3.9	0.4	0.2	100.0	1,666
Highest	92.0	1.7	5.2	0.4	0.8	100.0	1,896
Total	95.8	1.0	2.7	0.2	0.3	100.0	8,497

11.5.2 Who Sprayed the House

The majority of IRS operations in Mainland Tanzania and Zanzibar have been coordinated by the Government (84 percent). Household members (8 percent) are the next most likely to do the spraying (data not shown).

11.6 SOURCE OF MOSQUITO NETS

Until late 2008, when free distribution of LLINs began in Tanzania, mosquito nets were mainly obtained through the commercial sector. They are sold as ordinary commodities in retail outlets or they are available at a subsidized rate through government health programmes. The same is true for insecticide treatment kits for mosquito nets. The Government health subsidy programme, referred to as the Tanzania National Voucher Scheme (TNVS) or *Hati Punguzo* Programme, provides vouchers for all pregnant women and infants who attend health facilities. Vouchers can be exchanged for a mosquito net at designated private outlets (with a small upfront cost). Occasionally, mosquito nets are distributed free of charge to households with children under five through specific health campaigns.

In the 2007-08 THMIS, respondents in households with mosquito nets were asked about the sources of the nets. Table 11.9 shows, among households with at least one mosquito net, the percentage of households that obtained the nets from specific sources, and the percentage of households that received the mosquito nets under the *Hati Punguzo* programme. Shops are the leading source of mosquito nets in Mainland Tanzania (33 percent) while health facilities are the leading source in Zanzibar (55 percent). The second most common source of mosquito nets in the Mainland is the *Hati Punguzo* programme (21 percent), and in Zanzibar it is shops (52 percent).

Similar proportions of urban and rural households obtained mosquito nets from *Hati Punguzo* (19 and 21 percent, respectively) and health facilities (19 and 22 percent, respectively). Shops are more likely to be the source of mosquito nets in urban households (54 percent) than in rural households (27 percent).

As expected, households in the highest wealth quintile (59 percent) are more likely than households in the lowest wealth quintile (18 percent) to obtain a mosquito net from a shop. The same differential is observed in households where mothers have a secondary or higher education (64 percent) compared with households where mothers have no education (27 percent). *Hati Punguzo* as a source of mosquito nets is not associated with the education level of the mother or the economic status of households.

There are minor differences in the percentage of people obtaining mosquito nets through the *Hati Punguzo* programme across the 21 regions of Mainland Tanzania, ranging from 12 percent in Iringa to 33 percent in each Lindi and Mtwara. Regional differences are sharper among households whose main source of a mosquito net is a shop, ranging from 12 percent in Iringa to 55 percent in Mara.

Table 11.9 Source of mosquito nets

Among households with at least one mosquito net, percentage that received their nets from specific sources, and the percentage of households that received mosquito nets under the Hati Punguzo programme, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Source of mosquito nets							Percentage of households that received net under Hati Pungozo programme	Number of households
	Shop	Mobile vendor (machinga)	Health facility	Market (sokoni)	Other	Gift	Don't know/ missing		
Residence									
Urban	54.4	10.1	18.6	2.6	2.7	5.7	1.0	19.3	2,106
Rural	26.7	2.6	21.6	4.8	1.7	2.9	0.1	21.0	6,391
Mainland/Zanzibar									
Mainland	33.0	4.6	19.9	4.4	2.0	3.5	0.3	20.9	8,269
Mainland – Urban	54.2	10.4	17.6	2.7	2.7	5.6	1.0	19.7	2,041
Dar es Salaam City	51.7	23.5	20.3	1.0	2.9	5.4	2.5	21.3	593
Other Urban	55.2	5.0	16.4	3.3	2.6	5.7	0.4	19.1	1,448
Mainland – Rural	26.1	2.7	20.7	4.9	1.7	2.8	0.1	21.3	6,228
Zanzibar	52.3	0.8	55.3	0.0	1.5	6.4	0.0	9.8	228
Region/Island									
Arusha	27.3	2.5	7.9	2.8	3.9	5.0	0.0	13.7	362
Dar es Salaam	51.7	23.7	20.6	1.0	3.1	5.6	2.6	21.6	624
Dodoma	23.7	1.1	23.2	0.0	0.0	2.2	0.0	24.4	384
Iringa	11.8	2.0	12.6	0.0	1.4	1.1	0.3	12.1	451
Kagera	19.6	2.0	21.0	8.6	3.8	4.5	0.6	23.5	480
Kigoma	22.9	2.6	21.4	6.1	1.5	1.6	0.0	22.0	329
Kilimanjaro	25.1	2.8	13.3	1.7	1.2	6.8	0.0	15.6	363
Lindi	38.4	0.8	42.3	0.4	1.0	2.5	0.2	32.6	257
Manyara	24.9	0.3	6.4	1.8	0.2	3.0	0.0	13.7	244
Mara	55.2	3.7	27.2	7.5	0.3	3.9	0.0	23.4	280
Mbeya	25.8	3.1	9.9	1.6	3.3	2.0	0.0	12.7	610
Morogoro	37.5	7.0	24.3	0.4	6.3	3.4	0.0	24.2	489
Mtwara	39.7	1.9	40.2	0.8	0.8	4.0	0.7	32.5	341
Mwanza	41.7	4.3	21.5	21.4	0.3	3.7	0.6	24.9	623
Pwani	36.4	6.3	27.1	4.4	4.3	4.3	0.0	27.3	212
Rukwa	34.3	0.6	10.6	0.3	0.9	1.7	0.0	14.2	293
Ruvuma	40.2	5.0	25.5	0.9	2.6	3.5	0.3	25.0	317
Shinyanga	35.8	3.7	22.3	8.1	0.0	1.3	0.0	21.4	596
Singida	17.7	0.0	21.8	1.0	2.6	7.2	0.0	21.8	214
Tabora	39.8	5.2	15.2	5.8	2.1	1.7	0.0	18.2	393
Tanga	34.7	1.7	15.5	3.9	0.7	6.7	0.0	20.6	407
Pemba	48.5	0.2	66.2	0.0	0.6	3.3	0.0	10.3	79
Unguja	54.3	1.1	49.6	0.0	1.9	8.1	0.0	9.5	149
Mother's education									
No education	27.1	2.8	20.1	3.9	1.6	2.1	0.3	19.6	1,591
Primary incomplete	33.0	4.7	21.2	4.4	1.9	3.7	0.3	21.3	6,048
Primary complete	47.2	5.8	20.7	3.4	2.9	5.5	0.5	18.1	764
Secondary +	63.8	10.9	11.9	3.4	5.0	8.8	0.0	11.0	94
Zone									
Western	33.8	3.9	20.0	6.9	1.0	1.5	0.0	20.6	1,318
Northern	28.5	2.0	11.3	2.6	1.6	5.6	0.0	16.2	1,375
Central	21.5	0.7	22.7	0.4	0.9	4.0	0.0	23.5	598
Southern Highlands	22.9	2.2	10.9	0.8	2.2	1.6	0.1	12.8	1,355
Lake	36.8	3.4	22.5	14.2	1.5	4.0	0.5	24.1	1,383
Eastern	44.0	14.7	23.0	1.3	4.5	4.6	1.2	23.5	1,325
Southern	39.5	2.7	35.7	0.7	1.5	3.4	0.4	29.9	914
Wealth quintile									
Lowest	18.3	0.7	17.6	3.1	1.1	1.9	0.0	17.5	1,658
Second	23.4	1.9	20.9	4.4	1.4	2.6	0.1	20.2	1,656
Middle	25.5	3.4	21.2	6.5	2.6	3.5	0.2	21.9	1,618
Fourth	37.2	5.1	23.2	5.0	1.8	4.5	0.5	22.0	1,666
Highest	59.4	10.4	21.3	2.6	2.8	5.2	0.8	21.2	1,896
Total	33.5	4.5	20.8	4.2	2.0	3.6	0.3	20.6	8,497

In spite of steady increases in ITN coverage and the special contributions of the *Hati Punguzo* programme, coverage of ITNs did not reach the set target of 60 percent of households by 2007. The government has responded by increasing the scope and scale of ITN distribution through subsidized national schemes.

11.7 Prevalence of Malaria and Anaemia

In areas of constant and high malaria transmission, partial immunity develops within the first two years of life. Many people, including children, may have malaria parasites in their blood without showing any outward signs of infection. Such asymptomatic infection not only contributes to further transmission of malaria but also take a toll on the health of individuals by contributing to anaemia.

The cause of anaemia in malaria-endemic areas is often multi-factorial and cyclical; nutritional deficiencies such as iron-deficiency anaemia make an individual vulnerable to infection, which further contributes to nutritional deficiencies. Anaemia is a major cause of morbidity and mortality associated with malaria, making prevention and treatment of malaria among children and pregnant women all the more important.

11.7.1 Coverage of Malaria Testing

All children age 6-59 months living in the households selected for the 2007-08 THMIS were eligible for malaria and haemoglobin testing. Table 11.10 shows the coverage rates for malaria testing among children by background characteristics. No significant associations were observed. Overall, nine in ten children (94 percent) were tested for malaria.

11.7.2 Malaria and Anaemia Prevalence

In the 2007-08 THMIS, the Paracheck Pf™ rapid diagnostic blood test was used to detect malaria and the HemoCue system was used to measure the concentration of haemoglobin in the blood. Table 11.11 shows the percentage of children age 6-59 months who tested positive for malaria and the percentage who tested positive for severe anaemia (haemoglobin concentration of less than 8.0 grams per decilitre), by select background characteristics.

Table 11.10 Coverage of malaria testing among children under five

Among children age 6-59 months eligible for malaria testing percentage who have been tested, by background characteristics (unweighted), Tanzania HMIS 2007-08

Background characteristic	Percentage of children age 6-59 months tested for malaria	Number of children eligible for testing (unweighted)
Age in months		
6-11	89.5	812
12-23	94.6	1,583
24-35	94.6	1,468
36-47	94.6	1,432
48-59	93.5	1,517
Residence		
Urban	90.2	1,128
Rural	94.5	5,684
Mainland/Zanzibar		
Mainland	93.5	5,068
Mainland – Urban	89.2	821
Dar es Salaam City	88.6	166
Other Urban	89.3	655
Mainland – Rural	94.3	4,247
Zanzibar	94.5	1,744
Region/Island		
Arusha	88.0	209
Dar es Salaam	86.9	183
Dodoma	95.0	202
Iringa	95.4	197
Kagera	97.5	283
Kigoma	94.0	302
Kilimanjaro	96.8	185
Lindi	94.0	166
Manyara	95.2	272
Mara	92.1	369
Mbeya	96.8	221
Morogoro	87.7	162
Mtwara	89.3	178
Mwanza	94.4	321
Pwani	93.7	158
Rukwa	97.0	302
Ruvuma	96.0	226
Shinyanga	93.1	376
Singida	97.7	220
Tabora	89.3	337
Tanga	90.5	199
Pemba	95.7	1,125
Unguja	92.2	619
Education		
No education	93.2	1,728
Primary incomplete	94.5	1,236
Primary complete	94.2	3,096
Secondary +	92.2	748
Missing	50.0	4
Zone		
Western	92.1	1,015
Northern	92.7	865
Central	96.4	422
Southern Highlands	96.5	720
Lake	94.5	973
Eastern	89.3	503
Southern	93.3	570
Wealth quintile		
Lowest	94.2	1,388
Second	93.5	1,360
Middle	95.8	1,373
Fourth	93.8	1,526
Highest	91.2	1,164
Total	93.8	6,812

Malaria parasites were detected in 18 percent of children under five in Mainland Tanzania compared with 1 percent in Zanzibar. These observations are similar to results obtained in other recent surveys. The 2006 NMCP Monitoring and Evaluation Survey estimate of the prevalence of asymptomatic malaria among children under five in Mainland Tanzania was 21 percent, while the Zanzibar 2007 RBM survey reported less than 1 percent prevalence of malaria among children under five in Zanzibar (MOHSW, 2006). For anaemia, the 2007-08 THMIS shows a smaller difference between the Mainland and Zanzibar in the percentage of children with severe anaemia (8 percent in Mainland and 5 percent in Zanzibar).

There are striking differences in the prevalence of malaria among regions in Mainland Tanzania. Malaria prevalence is 1 percent or less in Arusha, Kilimanjaro, and Manyara, compared with more than 30 percent in Kagera (41 percent) and Mwanza (31 percent), Mtwara (34 percent), and Lindi (36 percent). Although situated in a lowland area along the coastal belt—which favours malaria transmission—Dar es Salaam region and Dar es Salaam City have very low levels of malaria prevalence (1 percent each).

The prevalence of anaemia varies little by urban-rural residence, but there are large differentials across regions in Mainland Tanzania. While 10 percent or more of children in Shinyanga (11 percent), Mara (13 percent), Morogoro (14 percent), and Ruvuma (18 percent) are severely anaemic, the proportion of children who are severely anaemic in other regions is 9 percent or less.

As expected, older children are more likely than younger children to test positive for malaria. This may be because younger children are more likely to sleep under a mosquito net than older children. In contrast, younger children are more likely than older children to be severely anaemic. This finding indicates that malaria alone is not the cause of anaemia. Other possibilities include nutritional anaemia and hookworm infection.

Children under five in households in the lowest wealth quintile, or who have a mother with little or no education, are more likely to test positive for malaria and anaemia. For instance, only 4 percent of children in the highest wealth quintile tested positive for malaria, compared with 23 percent of children in the poorest households. Higher levels of malaria are associated with rural residence (20 percent in rural areas compared with 7 percent in urban areas), but anaemia levels are the same (8 percent) in both urban and rural areas.

Table 11.11 Prevalence of malaria and severe anaemia among children under five

Percentage of children age 6-59 months who tested positive for malaria and for severe anaemia, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Children under five: Percentage of children age 6-59 months positive for malaria	Children under five: Percentage of children age 6-59 months positive for severe anaemia <8 g/dl	Children under five: Number of children
Age in months			
6-11	9.1	11.1	760
12-23	14.4	12.4	1,454
24-35	19.6	8.2	1,409
36-47	19.5	5.2	1,310
48-59	21.9	3.0	1,443
Residence			
Urban	6.8	8.3	1,092
Rural	19.9	7.6	5,284
Mainland/Zanzibar			
Mainland	18.1	7.8	6,211
Mainland – Urban	7.1	8.4	1,050
Dar es Salaam City	1.3	8.2	261
Other Urban	9.0	8.5	788
Mainland – Rural	20.4	7.7	5,161
Zanzibar	0.8	4.7	165
Region/Island			
Arusha	0.4	6.8	242
Dar es Salaam	1.2	8.3	276
Dodoma	12.5	2.0	254
Iringa	2.6	3.1	275
Kagera	41.1	9.3	423
Kigoma	19.6	8.7	307
Kilimanjaro	1.0	3.6	203
Lindi	35.5	6.4	131
Manyara	1.0	1.5	194
Mara	30.3	13.3	297
Mbeya	3.0	1.1	421
Morogoro	15.7	14.4	246
Mtwara	33.6	7.4	196
Mwanza	31.4	9.5	618
Pwani	20.8	9.1	123
Rukwa	11.0	3.8	291
Ruvuma	23.9	17.5	231
Shinyanga	29.5	10.6	690
Singida	6.0	7.4	157
Tabora	9.7	6.7	401
Tanga	13.9	8.0	236
Pemba	0.9	5.2	68
Unguja	0.8	4.4	97
Education			
No education	20.9	9.5	1,598
Primary incomplete	22.1	6.8	1,088
Primary complete	16.0	7.5	3,361
Secondary +	5.2	4.5	327
Missing	0.0	0.0	2
Zone			
Western	21.6	9.1	1,398
Northern	4.3	5.2	875
Central	10.0	4.1	411
Southern Highlands	5.2	2.5	987
Lake	34.2	10.3	1,338
Eastern	10.5	10.8	645
Southern	30.0	11.4	558
Wealth quintile			
Lowest	23.3	9.4	1,453
Second	21.6	7.5	1,398
Middle	20.4	7.7	1,381
Fourth	14.0	5.8	1,192
Highest	4.0	7.8	951
Total	17.7	7.7	6,376

ORPHANS AND VULNERABLE CHILDREN 12

Poverty, social disintegration, and the effects of HIV/AIDS epidemic have resulted in an increase in the number of orphans and vulnerable children (OVCs). In Mainland Tanzania, the number of vulnerable children was estimated to be about 930,000 in 2006. Traditional ways of caring for OVCs are being eroded by a number of factors, including the impact of HIV/AIDS. The challenge to communities is to find solutions to the increasing number of vulnerable children and families. For this reason, the 2007-08 THMIS was designed to provide data for estimating the proportion of OVCs in the population and to assess the burden they pose for households in Tanzania.

In this report, an orphan is defined as a child below the age of 18 years with one or both parents dead. A vulnerable child is a child below the age of 18 years whose parent is very sick, or who lives in a household where an adult is very sick, or who lives in a household in which a very sick adult had died in the 12 months preceding the survey. An adult is considered very sick if he/she is too ill to work or undertake other normal activities for a period of at least three months during the past 12 months.

In reviewing the 2007-08 THMIS results, it is important to remember that the survey obtained information only for OVCs living in households. Children who are living in institutions or other non-household settings are not included in the OVC results. Thus, the THMIS results should be considered as a minimum estimate of the problem of OVCs in Tanzania.

12.1 CHILDREN'S LIVING ARRANGEMENTS AND ORPHANHOOD

The 2007 THMIS Household Questionnaire collected information on the living arrangements and parental survival status of children under age 18 in the sampled households. Data for de jure children under age 18—i.e., children under age 18 who were usual residents in the household—are presented by background characteristics in Table 12.1. The same data are also presented for de jure children under age 15.

Six in ten children under age 18 and 62 percent are children under age 15 are living with both parents. This proportion is similar to that reported in the 2004-05 TDHS (63 and 61 percent, respectively. Most children who are living with a single parent live with their mother (19 percent) rather than their father (5 percent). Seventeen percent of children are not living with either parent. Ten percent of children have lost one of their parents, and less than 1 percent of children are double orphans, that is, both their parents are dead. Children are twice as likely to have lost their father as their mother (8 percent and 4 percent, respectively).

Children in Mainland Tanzania are less likely than children in Zanzibar to live with both parents (60 and 67 percent, respectively). In Mainland Tanzania, the proportion of children who live with both parents ranges from 43 percent in Mtwara to 72 percent in Singida.

Seventeen percent of children under age 18 and 15 percent of children under age 15 are not living with a biological parent. As expected, younger children are more likely than older children to live with a biological parent. There are small differences by the child's sex: 16 percent of male children are not living with a biological parent compared with 18 percent of female children. However, more urban children (22 percent) are not living with a biological parent than rural children (15 percent). Across regions in Mainland Tanzania, Kigoma has the lowest proportion of children

who are not living with a biological parent (9 percent), while children in Pwani have the highest proportion (22 percent). In Zanzibar, the proportion of children who are not living with a biological parent ranges from 14 percent in Pemba to 18 percent in Unguja. Differences by zone are minimal, the Western Zone has the lowest percentage (16 percent) and the Southern Zone has the highest (18 percent).

Table 12.1 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by children's living arrangements and survival status of parents, and percentage of children not living with a biological parent, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent					Total	Percentage not living with a biological parent	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Information missing on father/mother			
Age													
0-4	72.3	17.0	1.9	1.5	0.2	5.8	0.5	0.4	0.1	0.3	100.0	7.1	7,488
<2	77.2	19.0	1.3	0.5	0.0	1.3	0.4	0.0	0.0	0.2	100.0	1.9	3,037
2-4	68.9	15.7	2.4	2.2	0.3	8.8	0.6	0.7	0.1	0.4	100.0	10.6	4,451
5-9	59.8	13.1	4.9	4.6	0.7	12.6	1.3	1.5	0.9	0.7	100.0	17.0	6,553
10-14	51.2	11.4	7.4	6.1	1.6	13.2	2.4	3.5	2.3	0.7	100.0	22.3	5,762
15-17	45.3	10.0	8.0	4.0	2.0	17.6	2.8	5.7	3.0	1.7	100.0	30.7	2,654
Sex													
Male	60.8	13.4	5.1	4.2	1.0	10.0	1.4	2.1	1.3	0.8	100.0	15.5	11,314
Female	59.3	13.8	4.7	3.6	0.8	12.1	1.6	2.3	1.1	0.6	100.0	17.8	11,142
Residence													
Urban	53.7	15.5	4.5	4.0	0.6	13.3	1.7	3.1	2.4	1.2	100.0	21.8	4,264
Rural	61.5	13.2	5.0	3.9	1.0	10.5	1.5	1.9	0.9	0.6	100.0	15.4	18,192
Mainland/Zanzibar													
Mainland	59.8	13.7	5.0	3.9	0.9	11.0	1.5	2.2	1.3	0.7	100.0	16.7	21,814
Mainland – Urban	53.5	15.5	4.5	3.9	0.6	13.3	1.7	3.1	2.5	1.2	100.0	21.9	4,088
Dar es Salaam City	57.7	15.7	5.1	5.1	0.6	8.7	1.2	3.3	1.9	0.8	100.0	15.8	1,018
Other Urban	52.1	15.5	4.4	3.5	0.6	14.8	1.9	3.0	2.8	1.4	100.0	23.9	3,070
Mainland – Rural	61.3	13.3	5.1	3.9	1.0	10.5	1.5	2.0	1.0	0.6	100.0	15.4	17,726
Zanzibar	66.7	10.4	3.3	3.0	0.3	12.6	0.9	1.8	0.3	0.5	100.0	16.3	642
Region/Island													
Arusha	64.1	16.6	6.0	1.8	1.0	7.9	0.7	0.4	1.2	0.4	100.0	10.5	857
Dar es Salaam	57.0	16.4	5.1	5.3	0.6	8.5	1.1	3.4	1.8	0.8	100.0	15.7	1,069
Dodoma	60.1	14.7	2.5	1.9	0.7	14.9	3.0	1.2	0.6	0.5	100.0	20.2	906
Iringa	51.0	13.6	12.1	1.2	1.1	10.6	3.9	2.8	3.7	0.1	100.0	21.1	1,029
Kagera	64.3	10.9	5.3	3.4	1.2	8.9	1.5	1.7	1.7	1.1	100.0	14.9	1,433
Kigoma	71.6	11.2	6.5	1.1	0.6	5.8	1.1	1.2	0.3	0.5	100.0	8.9	1,005
Kilimanjaro	51.8	16.5	5.7	3.3	1.7	14.6	1.4	3.0	1.4	0.6	100.0	20.9	896
Lindi	51.2	23.4	3.0	5.9	0.3	12.7	1.0	1.4	0.4	0.8	100.0	16.3	508
Manyara	65.9	14.4	5.2	2.7	0.4	8.7	1.4	0.6	0.6	0.1	100.0	11.4	708
Mara	54.7	14.5	7.0	4.5	0.5	9.1	1.2	4.8	1.4	2.5	100.0	18.9	975
Mbeya	66.5	7.9	5.8	2.4	0.3	11.7	1.5	2.6	1.1	0.2	100.0	17.1	1,426
Morogoro	62.8	10.8	3.6	4.8	1.6	9.7	3.2	2.0	0.9	0.6	100.0	16.4	1,014
Mtwara	42.5	24.7	3.2	7.3	0.9	16.2	2.3	2.2	0.3	0.5	100.0	21.4	662
Mwanza	58.4	16.1	2.1	4.1	1.5	13.1	1.0	2.0	1.2	0.6	100.0	17.8	2,156
Pwani	51.9	19.8	2.6	3.0	0.5	15.1	1.0	3.4	1.9	0.7	100.0	22.1	456
Rukwa	66.6	11.1	7.3	1.6	1.5	7.3	1.1	0.7	2.4	0.3	100.0	11.8	929
Ruvuma	55.9	15.2	4.8	5.5	1.3	12.0	2.0	1.9	0.6	0.9	100.0	17.3	835
Shinyanga	60.4	11.3	5.0	6.6	0.4	11.6	1.2	2.0	0.7	0.8	100.0	16.3	2,126
Singida	72.3	8.7	3.3	1.6	2.0	8.0	0.7	1.9	0.5	1.0	100.0	12.2	549
Tabora	60.3	9.6	2.9	7.6	0.5	13.3	0.7	2.5	1.6	1.0	100.0	19.1	1,395
Tanga	56.1	16.8	5.6	2.1	0.6	11.4	1.8	3.6	1.7	0.4	100.0	18.9	879
Pemba	71.8	9.3	2.9	2.0	0.5	10.9	0.9	1.2	0.5	0.0	100.0	13.5	253
Unguja	63.4	11.1	3.5	3.6	0.2	13.8	0.9	2.3	0.2	0.9	100.0	18.1	389
Zone													
Western	62.8	10.8	4.7	5.7	0.5	10.8	1.0	2.0	0.9	0.8	100.0	15.5	4,527
Northern	59.1	16.1	5.6	2.5	1.0	10.8	1.3	2.0	1.2	0.4	100.0	15.7	3,340
Central	64.7	12.4	2.8	1.7	1.2	12.3	2.2	1.5	0.6	0.7	100.0	17.2	1,456
Southern Highlands	61.8	10.5	8.1	1.8	0.9	10.2	2.1	2.2	2.2	0.2	100.0	16.8	3,383
Lake	59.5	14.1	4.1	3.9	1.2	10.9	1.2	2.5	1.4	1.1	100.0	17.1	4,564
Eastern	58.4	14.8	4.1	4.7	1.0	10.2	1.9	2.8	1.4	0.7	100.0	17.1	2,539
Southern	50.3	20.4	3.8	6.2	0.9	13.6	1.8	1.9	0.4	0.7	100.0	18.4	2,006
Zanzibar	66.7	10.4	3.3	3.0	0.3	12.6	0.9	1.8	0.3	0.5	100.0	16.3	642
Wealth quintile													
Lowest	59.2	17.1	7.0	3.7	0.9	8.2	1.4	1.3	0.6	0.7	100.0	12.2	4,770
Second	61.2	11.6	5.3	3.9	1.4	10.8	1.8	2.4	1.0	0.6	100.0	16.6	4,572
Middle	60.5	14.0	4.7	3.2	1.1	11.9	1.3	1.9	1.0	0.5	100.0	16.5	4,590
Fourth	59.8	13.1	4.2	4.7	0.5	11.5	1.5	2.3	1.6	0.9	100.0	17.7	4,604
Highest	59.5	11.8	3.1	3.9	0.6	13.5	1.7	3.1	2.2	0.7	100.0	21.1	3,921
Total <15	62.0	14.1	4.5	3.9	0.8	10.2	1.3	1.7	1.0	0.5	100.0	14.8	19,803
Total <18	60.0	13.6	4.9	3.9	0.9	11.1	1.5	2.2	1.2	0.7	100.0	16.6	22,457

Note: Table is based on children who usually live in the household

12.2 ORPHANS AND VULNERABLE CHILDREN

Orphaned children present a serious social, emotional, and economic burden for society. Children whose parents are ill for an extended period or who live in households where other adults suffer from chronic illness can experience significant hardship, because serious illness may limit the resources available to feed, clothe, and educate the youngest members of a family. Table 12.2 shows the prevalence of orphans and children who are vulnerable. The table presents these results for de jure children under age 18 by background characteristics and for the total population of de jure children under age 15.

Table 12.2 Orphans and vulnerable children (OVC)

Percentage of de jure children under age 18 years who are orphans or made vulnerable due to illness among adult household members (OVC), according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of children with one or both parents dead (orphans)	Percentage of children who: Have a parent who has been very sick for at least 3 of the past 12 months[1]	Percentage of children who: Live in a household where at least 1 adult has been very sick for at least 3 of the past 12 months[2]	Percentage of children who: Live in a household where at least 1 adult died in the past 12 months and had been very sick for at least 3 months before he/she died[2]	Percentage of children who have a very sick parent, or live in a household where an adult has been very sick or died in the past 12 months (vulnerable children)	Percentage of children who are orphans and/or vulnerable (OVC)	Number of children
Age							
0-4	3.2	2.0	6.2	1.2	7.4	9.8	7,488
<2	1.7	1.7	5.7	1.1	6.7	8.0	3,037
2-4	4.1	2.2	6.5	1.2	7.8	11.1	4,451
5-9	9.3	2.8	6.9	1.6	8.5	16.6	6,553
10-14	17.5	2.7	6.9	1.8	9.0	23.9	5,762
15-17	21.7	3.5	7.9	1.2	9.6	28.5	2,654
Sex							
Male	11.0	2.3	6.7	1.2	8.0	17.7	11,314
Female	10.6	2.8	6.9	1.7	8.8	17.6	11,142
Residence							
Urban	12.5	2.4	8.0	2.9	11.0	21.1	4,264
Rural	10.4	2.6	6.5	1.1	7.8	16.8	18,192
Mainland/Zanzibar							
Mainland	10.9	2.6	6.9	1.5	8.5	17.8	21,814
Mainland – Urban	12.7	2.5	8.1	3.0	11.3	21.5	4,088
Dar es Salaam City	12.2	2.8	7.4	1.4	9.2	20.6	1,018
Other Urban	12.9	2.4	8.4	3.5	12.0	21.8	3,070
Mainland – Rural	10.5	2.7	6.6	1.1	7.9	17.0	17,726
Zanzibar	6.7	0.8	3.8	0.3	4.3	10.4	642
Region/Island							
Arusha	9.3	3.2	4.7	1.2	6.5	14.9	857
Dar es Salaam	12.2	2.8	7.6	1.6	9.4	20.6	1,069
Dodoma	8.0	2.0	8.2	0.0	8.7	15.9	906
Iringa	23.6	4.1	6.6	2.0	8.8	28.8	1,029
Kagera	11.6	2.0	5.3	1.2	6.7	16.4	1,433
Kigoma	9.7	0.2	3.0	0.4	3.4	13.1	1,005
Kilimanjaro	13.2	1.5	4.1	1.8	6.6	18.3	896
Lindi	6.1	1.5	2.8	0.0	2.8	8.3	508
Manyara	8.3	1.6	4.9	0.6	5.6	12.8	708
Mara	14.7	2.7	10.4	0.1	11.1	22.2	975
Mbeya	11.4	5.7	10.8	2.5	13.5	21.2	1,426
Morogoro	11.3	3.8	7.4	0.6	8.1	18.6	1,014
Mtwara	8.9	2.1	7.6	1.0	8.8	16.8	662
Mwanza	8.1	2.6	7.6	1.5	9.3	15.9	2,156
Pwani	9.5	3.5	6.9	0.0	7.2	16.3	456
Rukwa	13.1	5.8	12.8	1.3	13.8	24.1	929
Ruvuma	11.0	4.7	9.5	3.0	12.5	21.2	835
Shinyanga	9.4	0.8	4.2	2.2	6.4	15.1	2,126
Singida	8.7	2.6	7.9	0.3	8.2	15.7	549
Tabora	8.2	1.3	5.5	3.7	8.6	14.9	1,395
Tanga	13.4	2.3	6.3	1.8	8.8	21.3	879
Pemba	6.0	1.1	3.1	0.4	3.7	9.3	253
Unguja	7.2	0.6	4.3	0.2	4.6	11.0	389

Continued…

Table 12.2—*Continued*

Background characteristic	Percentage of children with one or both parents dead (orphans)	Percentage of children who: Have a parent who has been very sick for at least 3 of the past 12 months[1]	Live in a household where at least 1 adult has been very sick for at least 3 of the past 12 months[2]	Live in a household where at least 1 adult died in the past 12 months and had been very sick for at least 3 months before he/she died[2]	Percentage of children who have a very sick parent, or live in a household where an adult has been very sick or died in the past 12 months (vulnerable children)	Percentage of children who are orphans and/or vulnerable (OVC)	Number of children
Zone							
Western	9.1	0.8	4.4	2.3	6.4	14.6	4,527
Northern	11.2	2.2	5.0	1.4	6.9	17.0	3,340
Central	8.2	2.2	8.1	0.1	8.5	15.8	1,456
Southern Highlands	15.6	5.2	10.1	2.0	12.1	24.3	3,383
Lake	10.6	2.4	7.5	1.1	8.9	17.4	4,564
Eastern	11.4	3.3	7.4	0.9	8.5	19.1	2,539
Southern	9.1	3.1	7.2	1.6	8.9	16.5	2,006
Zanzibar	6.7	0.8	3.8	0.3	4.3	10.4	642
Wealth quintile							
Lowest	11.2	2.1	5.1	1.0			
Second	11.9	2.8	6.4	1.2	7.7	17.9	4,572
Middle	10.0	3.1	7.9	1.9	10.0	18.2	4,590
Fourth	10.2	2.8	6.9	2.0	9.2	17.7	4,604
Highest	10.6	2.1	7.8	1.1	9.1	18.0	3,921
Total <15	9.4	2.4	6.6	1.5	8.2	16.2	19,803
Total <18	10.8	2.6	6.8	1.4	8.4	17.6	22,457

Note: Table is based on children who usually live in the household. Very sick means that the person was too sick to work or to perform normal activities.
[1] Whether or not parent lives in same household as child
[2] Adult age 18-59 years

Overall, about 11 percent of children under age 18 are orphans, and about 8 percent are considered to be vulnerable children. Looking at the factors that contribute to a child's vulnerability, 3 percent of children under age 18 had a parent who was very sick, 7 percent lived in a household in which at least one adult (a parent or other household member) had been very sick, and 1 percent lived in a household where at least one adult had been very sick and died during the 12 months preceding the survey. Overall, about 18 percent of children under age 18 in Tanzania are classified as OVCs.

The percentage of OVCs increases with age, from 10 percent for children age 0-4 to 29 percent for children age 15-17. Male children are as likely as female children to be OVCs. However, urban children are more likely than rural children to be OVCs (21 and 17 percent, respectively).

The percentage of OVCs is higher in Mainland Tanzania than in Zanzibar (18 and 10 percent, respectively). Across regions in Mainland Tanzania, Iringa has the highest proportion of OVCs)29 percent), while Lindi has the lowest (8 percent). The percentage of OVCs is more than 20 percent in Dar es Salaam, Mbeya, Ruvuma, and Tanga (21 percent each), Mara (22 percent), and Rukwa (24 percent). In Zanzibar, the proportion of children who are OVCs is higher in Unguja (11 percent) than in Pemba (9 percent). In Mainland Tanzania, the differences across zones range from 24 percent in the Southern Highlands to 15 percent in the Western Zone.

12.3 Social and Economic Situation of Orphans and Vulnerable Children

Information collected in the 2007-08 THMIS can be used to look at several important aspects of the social and economic situation of OVCs, including school attendance, possession of items considered basic for meeting a child's material needs, the extent to which OVCs reside with siblings, and their nutritional status. These results provide a means for assessing the impact of chronic illness and/or death of parents or other adult household members on children's welfare. The results assist in the monitoring and evaluation of OVC programmes (UNICEF, 2005).

12.3.1 School Attendance by Survivorship of Parents and OVC Status

Orphans and vulnerable children may be at a greater risk of dropping out of school because of lack of money to pay school-related expenses or the need to stay at home to care for a sick parent or sibling. Table 12.3 presents school attendance rates among de jure children age 10-14 years by background characteristics. The first few columns of the table contrast the situation of two groups of children: those whose parents are both dead and those children whose parents are both alive and they are living with at least one parent.

The data in Table 12.3 show that the differences in the proportion of children who are attending school by survival status of parents are small. Among children who have lost both parents, 86 percent are attending school. This is only slightly lower than the proportion attending school among children whose parents are both living and who live with at least one parent (89 percent). The difference in school attendance by OVC status is similar, 87 percent for OVCs, and 89 percent for non-OVCs.

For children with both parents deceased, male children are more likely than female children to go to school. However, the male-female differential is unclear for other groups of children, whether OVCs or non-OVCs. The likelihood that an OVC is attending school varies little by sex. However, children in urban areas are more likely than those in rural areas to attend school, regardless of their OVC status. Among OVCs, 90 percent in urban areas and 86 percent in rural areas are attending school compared with non-OVCs (95 and 86 percent, respectively). OVCs in Mainland Tanzania are less likely than those in Zanzibar to attend school (87 and 92 percent, respectively).

The last column compares school attendance ratios for OVCs and non-OVCs. There are minimal differences across subgroups (ratio about one).

Table 12.3 School attendance by survivorship of parents and by OVC status

For de jure children 10-14 years of age, the percentage attending school by parental survival and by OVC status and the ratios of the percentages attending for parental survival and OVC status, according to background characteristics, Tanzania HMIS 2007-08

	Percentage of children attending school by survivorship of parents					Percentage of children attending school by OVC status				
						OVC		Non-OVC		
Background characteristic	Both parents dead	Number	Both parents alive; child living with at least one parent	Number	Ratio[1]	Percentage attending school	Number	Percentage attending school	Number	Ratio[2]
Sex										
Male	89.9	68	87.6	2,022	1.03	87.8	684	87.4	2,227	1.00
Female	82.8	66	90.4	1,936	0.92	86.7	694	90.4	2,157	0.96
Residence										
Urban	86.2	51	96.4	736	0.89	90.0	327	94.8	835	0.95
Rural	86.5	82	87.3	3,223	0.99	86.4	1,051	87.5	3,548	0.99
Region										
Mainland	86.4	133	89.0	3,832	0.97	87.1	1,354	88.9	4,235	0.98
Zanzibar	89.5	1	88.4	127	1.01	92.1	24	89.0	148	1.03
Wealth quintile										
Lowest	*	15	79.5	864	1.16	84.2	255	79.5	929	1.06
Second	*	14	86.1	734	0.66	81.5	267	86.1	816	0.95
Middle	*	22	90.4	749	1.02	89.3	283	90.4	860	0.99
Fourth	(85.4)	28	92.0	904	0.93	89.9	310	92.2	982	0.97
Highest	(90.9)	53	98.3	707	0.93	90.6	265	97.1	797	0.93
Total	86.4	133	89.0	3,959	0.97	87.2	1,378	88.9	4,383	0.98

Note: Table is based on children who usually live in the household. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed.
[1] Ratio of the percentage with both parents deceased to the percentage with both parents alive and living with a parent
[2] Ratio of the percentage OVC to the percentage non-OVC

12.3.2 Basic Material Needs

The 2007-08 THMIS collected information on the availability of children's basic minimum material needs. Children are considered to have their basic material needs met if they have a pair of shoes, two sets of clothes, and a blanket. Table 12.4 shows that 17 percent of children age 5-17 possess the specified basic needs. The proportion is 14 percent for OVCs and 17 percent for non-OVCs.

Table 12.4 Possession of basic material needs by orphans and vulnerable children

Among de jure children age 5-17 years, the percentage possessing three minimum basic material needs, the percentages of OVC and non-OVC children who possess all three basic material needs, and the ratio of the percentage for OVC to the percentage for non-OVC, according to background characteristics, Tanzania HMIS 2007-08

Background characteristic	Among children age 5-17, percentage possessing:					Among children age 5-17, percentage possessing all three basic needs, by OVC status				
						OVC		Non-OVC		
	Shoes	Two sets of clothes	Blanket	All three basic needs[1]	Number of children	Percentage possessing all three basic needs	Number	Percentage possessing all three basic needs	Number	Ratio[2]
Age										
5-9	50.2	79.1	19.9	15.3	6,553	12.5	1,087	15.9	5,466	0.79
10-14	58.3	82.7	21.3	17.1	5,762	14.4	1,378	18.0	4,383	0.80
15-17	66.6	86.1	22.4	19.1	2,654	16.2	757	20.3	1,897	0.80
Sex										
Male	55.3	80.8	20.8	16.4	7,549	13.8	1,642	17.1	5,908	0.81
Female	57.3	82.7	20.9	17.0	7,419	14.5	1,581	17.7	5,839	0.82
Residence										
Urban	78.0	90.7	22.7	20.2	2,951	14.2	754	22.2	2,197	0.64
Rural	50.9	79.5	20.4	15.8	12,018	14.2	2,468	16.3	9,549	0.87
Mainland/Zanzibar										
Mainland	55.2	81.2	21.4	17.1	14,516	14.3	3,164	17.9	11,352	0.80
Mainland – Urban	77.3	90.4	23.6	20.9	2,821	14.3	735	23.2	2,086	0.62
Dar es Salaam City	90.7	96.4	2.5	2.5	695	0.0	172	3.3	523	0.00
Other Urban	72.9	88.5	30.5	26.9	2,126	18.7	562	29.9	1,564	0.63
Mainland – Rural	49.8	79.0	20.9	16.2	11,695	14.4	2,429	16.7	9,265	0.86
Zanzibar	90.4	97.2	2.1	2.1	453	3.9	58	1.8	395	2.18
Region/Island										
Arusha	67.6	81.0	35.9	33.6	571	21.2	108	36.5	463	0.58
Dar es Salaam	90.5	96.5	2.6	2.6	722	0.0	182	3.4	540	0.00
Dodoma	53.2	87.8	7.3	6.4	618	1.7	127	7.7	491	0.23
Iringa	54.4	77.5	48.9	35.4	721	19.4	246	43.7	475	0.44
Kagera	39.5	76.7	21.9	12.5	945	6.8	203	14.0	742	0.49
Kigoma	39.1	77.7	17.0	12.4	645	10.4	114	12.8	531	0.82
Kilimanjaro	76.9	95.0	48.2	45.3	672	33.8	139	48.4	533	0.70
Lindi	36.0	85.6	3.3	2.3	357	0.0	38	2.6	319	0.00
Manyara	46.0	72.5	19.0	16.1	477	29.0	76	13.7	401	2.13
Mara	61.8	71.9	20.4	17.7	622	11.8	162	19.7	460	0.60
Mbeya	57.7	76.9	46.4	33.5	935	14.9	244	40.1	691	0.37
Morogoro	58.8	85.8	10.7	9.6	707	5.8	163	10.7	544	0.54
Mtwara	33.0	82.7	3.2	1.8	428	1.7	86	1.9	341	0.93
Mwanza	58.9	85.3	13.0	11.7	1,440	16.0	271	10.7	1,169	1.50
Pwani	44.4	78.0	3.0	1.9	320	0.0	60	2.4	260	0.00
Rukwa	52.9	76.9	32.0	23.3	588	20.4	173	24.4	415	0.84
Ruvuma	41.8	64.8	33.3	21.9	563	17.1	138	23.4	425	0.73
Shinyanga	62.1	78.1	29.1	25.5	1,325	42.7	238	21.7	1,086	1.97
Singida	34.1	80.8	5.6	4.0	369	1.1	66	4.7	303	0.23
Tabora	53.0	85.2	5.3	5.1	903	1.3	174	6.0	729	0.21
Tanga	53.5	84.0	12.2	10.8	588	8.0	154	11.7	434	0.68
Pemba	92.1	98.2	0.8	0.8	174	2.7	20	0.5	153	5.32
Unguja	89.3	96.7	3.0	2.9	279	4.6	38	2.6	241	1.75
Zone										
Western	54.1	80.2	18.9	16.1	2,873	22.0	526	14.8	2,346	1.49
Northern	62.2	84.1	29.9	27.6	2,308	21.9	477	29.1	1,831	0.75
Central	46.1	85.1	6.7	5.5	987	1.5	193	6.5	794	0.23
Southern Highlands	55.4	77.1	43.4	31.4	2,245	18.0	664	37.1	1,581	0.49
Lake	53.4	79.8	17.3	13.2	3,008	12.0	637	13.5	2,371	0.89
Eastern	69.3	88.8	5.9	5.3	1,748	2.3	404	6.2	1,344	0.38
Southern	37.5	76.0	15.8	10.3	1,347	9.6	262	10.5	1,085	0.91
Zanzibar	90.4	97.2	2.1	2.1	453	3.9	58	1.8	395	2.18
Wealth quintile										
Lowest	30.4	68.9	10.0	6.2	3,062	6.8	621	6.0	2,441	1.12
Second	42.8	79.6	15.5	11.2	2,937	14.8	677	10.2	2,260	1.45
Middle	52.7	79.8	21.8	16.2	3,003	12.5	655	17.3	2,348	0.72
Fourth	69.1	86.6	28.1	22.8	3,213	15.4	675	24.7	2,538	0.62
Highest	88.2	94.6	29.2	27.6	2,754	21.7	594	29.2	2,160	0.74
Total	56.2	81.7	20.9	16.7	14,969	14.2	3,222	17.4	11,746	0.81

Note: Table is based on children who usually live in the household
[1] Shoes, two sets of clothing, a blanket
[2] Ratio of the percentage OVC to the percentage non-OVC

While there are no differences in possession of basic needs among children by sex and urban-rural residence, the percentage of children with the three basic needs increases with age, regardless of OVC status. The possession of all three basic needs among children age 5-17 is higher in urban areas than in rural areas (20 and 16 percent, respectively). The proportions are the same for OVCs in both urban and rural areas (14 percent), but for non-OVCs, 22 percent of urban children have all three basic needs, compared with 16 percent of rural children. In Mainland Tanzania, the percentage of OVCs with the three basic needs ranges from zero in Dar es Salaam, Lindi, and Pwani to 43 percent in Shinyanga. Among non-OVCs, possession of the three basic needs is 40 percent or higher in Kilimanjaro (48 percent), Iringa (44 percent), and Mbeya (40 percent). In Zanzibar, possession of the three basic needs is two times higher among OVCs than non-OVCs (4 percent compared with 2 percent for children, respectively).

12.4 ORPHANS NOT LIVING WITH SIBLINGS

Sibling relationships can be very close in situations where a parent is absent. It is particularly important to maintain these relationships when children are dealing with the loss of a parent. Table 12.5 presents information on the proportion of orphans under the age of 18 with one or more siblings also under age 18 who are not living with all of the other siblings. As Table 12.5 shows, one in four orphans under age 18 are not living with all of their siblings (26 percent). This proportion increases with age, from 14 percent among children age 0-4 to 40 percent among children age 15-17. The percentage of orphans not living with all their siblings in urban areas is 30 percent compared with 25 percent in rural areas. Orphans who are not living with their siblings are as likely to have lost their mother (maternal orphan) as their father (paternal orphans) (24 and 23 percent, respectively). Almost half of orphans who are not living with their siblings have both parents dead (49 percent).

In Mainland Tanzania, the percentage of orphans not living with all siblings is 26 percent compared with 22 percent in Zanzibar. In Dar es Salaam City, the percentage of orphans not living with all siblings is slightly higher than that of other urban areas (36 and 29 percent, respectively), while in rural areas it is 25 percent. In Zanzibar, the proportion of orphans who are not living with their siblings is higher in Pemba (24 percent) than in Unguja (21 percent). Across zones in Mainland Tanzania, the Eastern and Central zones have the highest proportion of orphans who are not living with all siblings (39 percent), while the Southern Highlands has the lowest proportion (18 percent).

Table 12.5 Orphan not living with siblings

Among orphans under age 18 who have one or more siblings under age 18, the percentage who do not live with all their siblings under age 18, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of orphans not living with all siblings	Number of orphans with one or more siblings
Age		
0-4	14.4	148
5-9	16.0	413
10-14	27.4	635
15-17	40.0	343
Sex		
Male	24.3	796
Female	27.6	743
Orphanhood status		
Maternal orphan	24.3	315
Paternal orphan	23.1	1,073
Both parents dead	49.1	152
Residence		
Urban	29.7	313
Rural	24.9	1,226
Mainland/Zanzibar		
Mainland	26.0	1,509
Mainland – Urban	30.1	304
Dar es Salaam City	36.0	59
Other Urban	28.7	245
Mainland – Rural	24.9	1,205
Zanzibar	22.1	30
Region/Island		
Pemba	23.6	11
Unguja	21.3	19
Zone		
Western	26.4	203
Northern	26.6	215
Central	39.0	73
Southern Highlands	17.8	400
Lake	25.6	364
Eastern	39.1	176
Southern	25.0	77
Zanzibar	22.1	30
Wealth quintile		
Lowest	21.0	359
Second	21.3	332
Middle	25.4	320
Fourth	28.1	286
Highest	37.6	243
Total	25.9	1,539

Note: Table is based on children who usually live in the household

12.5 EARLY SEXUAL INTERCOURSE

Orphans and vulnerable children may be exposed to greater risks of sexual abuse and exploitation than non-OVCs. In particular, girls may be forced into the sex trade in exchange for food,

clothes, shelter and protection because of lack of adult or family guidance to protect them. Age at first sexual intercourse is of particular concern given that in Tanzania HIV is mainly transmitted through heterosexual contact.

Table 12.6 shows that 11 percent of female children age 15-17 had sexual intercourse before exact age 15. Women who are OVCs are more likely to have had sexual intercourse before age 15 than women who are not OVCs (13 percent compared with 10 percent), which may suggest that OVC women lack proper care from parents or guardians. However, the pattern is different for men. Thirteen percent of men who are not OVCs began engaging in sexual activity before reaching age 15 compared with where 11 percent of OVCs.

The ratio of the percentage of OVCs to non-OVCs who had sexual intercourse before age 15 is 1.26 for girls compared with 0.85 for boys.

Table 12.6 Sexual intercourse before age 15 among orphans and vulnerable children

Percentage of de jure children age 15-17 who had sexual intercourse before exact age 15, by OVC status and sex, and ratio of the percentage OVC to the percentage non-OVC, Tanzania HMIS 2007-08

	Females		Males	
OVC status	Percentage who had sexual intercourse before exact age 15	Number	Percentage who had sexual intercourse before exact age 15	Number
OVC	13.2	305	11.2	344
Non-OVC	10.4	911	13.1	761
Total	11.1	1,216	12.5	1,104
Ratio[1]	1.26	na	0.85	na

Note: Table is based on children who usually live in the household and who slept in the household the night preceding the interview
na = Not applicable
[1] Ratio of the percentage OVC to the percentage non-OVC

12.7 WIDOWS DISPOSSESSED OF PROPERTY

Property grabbing, where relatives of the deceased come and claim the land and other property, is a serious problem for widows and child-headed households. Traditional law in many rural areas dictates that women and children cannot inherit property. Property grabbing has a number of negative consequences, particularly for girls and women. This can worsen the vulnerability of people who care for children and the children themselves. It is, therefore, important to improve laws, including enforcement mechanisms, to ensure the right of women and children to inherit property after the death of a husband or father (UNICEF, 2005).

In this survey, women were asked about their previous and current marital status to identify women who have ever been widowed. Property grabbing is usually done by the deceased husband's relatives in the interest of taking care of children. Table 12.7 shows that 5 percent of women age 15-49 were widowed at some time. Among ever-widowed women, 55 percent were dispossessed of property. This proportion is much higher for women who are currently married (73 percent) than for women who have not remarried (46 percent). Women in rural areas are more likely than those in urban areas to have experienced dispossession of property (57 and 48 percent, respectively). Dispossession of property is more prevalent in Zanzibar (60 percent) than in Mainland Tanzania (55 percent). In general, dispossession of property decreases with increasing level of women's education and wealth quintile.

Table 12.7 Widows dispossessed of property

Percentage of de facto women age 15-49 who have been widowed, and among ever-widowed women, percentage who have been dispossessed of property, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of women ever widowed	Number of women	Among ever-widowed women: Percentage who were dispossessed of property[1]	Among ever-widowed women: Number of women
Age				
15-19	0.0	1,984	*	1
20-29	1.7	3,349	(73.4)	56
30-39	7.3	2,521	52.4	185
40-49	14.4	1,488	52.7	215
Marital status				
Married	2.6	5,983	72.9	158
Widowed	100.0	298	45.6	298
Age of youngest child				
No children	0.3	2,258	*	6
<18 years	6.0	6,854	54.4	412
18+ years	16.2	231	(54.9)	37
Residence				
Urban	3.5	2,459	47.7	87
Rural	5.4	6,884	56.7	369
Mainland/Zanzibar				
Mainland	4.9	9,034	54.9	445
Mainland – Urban	3.5	2,353	47.3	83
Dar es Salaam City	4.3	762	*	33
Other Urban	3.1	1,591	(54.0)	50
Mainland – Rural	5.4	6,681	56.6	362
Zanzibar	3.5	309	59.7	11
Region/Island				
Pemba	2.9	94	(64.6)	3
Unguja	3.7	214	(58.0)	8
Zone				
Western	4.0	1,682	(72.8)	66
Northern	3.8	1,449	(40.2)	55
Central	5.9	532	(83.5)	31
Southern Highlands	9.7	1,297	59.7	126
Lake	4.0	1,696	49.3	68
Eastern	4.0	1,436	(44.7)	58
Southern	4.3	942	(31.8)	40
Zanzibar	3.5	309	59.7	11
Education				
No education	8.2	1,983	64.6	162
Primary incomplete	4.1	1,517	47.6	62
Primary complete	4.5	4,945	50.4	221
Secondary +	1.3	898	49.0	12
Wealth quintile				
Lowest	6.8	1,700	58.8	115
Second	6.0	1,634	61.2	97
Middle	4.8	1,757	55.0	85
Fourth	4.8	1,867	53.6	90
Highest	2.9	2,384	41.6	68
Total	4.9	9,343	55.0	456

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed. Table is based on women who slept in household the night preceding the interview

[1] Dispossessed of property indicates that none of the late husband's assets went to the respondent.

12.8 External Support for Very Sick Persons

When an adult member of a household is chronically ill or dies, it can have a devastating effect on the remaining members of the household, particularly children. The 2007-08 THMIS collected information on the extent to which free external care and support are reaching these households. This information was obtained by asking households in which someone age 18 to 59 had been chronically ill for three of the past 12 months, or had died after a chronic illness in the past 12 months, whether the household had received free medical, emotional, or material support to care for these persons.

Table 12.8 shows the percentage of women and men age 18-59 who have been either very sick or who died within the past 12 months after being very sick, whose households received certain free basic external support. Overall, a majority (80 percent) of households that cared for a chronically ill person or had lost a member, did not receive any of the three types of external support, and only 1 percent received all three types of support in the past 30 days. Looking at the specific support, the data indicate that medical support was received at least once a month for 14 percent of these people, emotional support was received in the past 30 days for 6 percent, and social or material support was received in the past 30 days for 4 percent.

The likelihood that sick people will receive external support is higher for younger persons, those in urban areas, and those in Mainland Tanzania. Very sick persons were somewhat more likely to receive at least one type of support if they were females than if they were males (21 and 18 percent, respectively). Chronically ill persons in the highest wealth quintile were more likely to receive external support than other persons.

Table 12.8 External support for very sick persons

Among women and men age 18-59 who have been either very sick or who died within the past 12 months after being very sick, percentage whose households received certain free basic external support to care for them within the past year, by background characteristics, Tanzania HMIS 2007-08

	Percentage of very sick persons whose households received:						
Background characteristic	Medical support at least once a month during illness	Emotional support in the past 30 days[1]	Social/ material support in the past 30 days[2]	At least one type of support in the past 30 days	All three types of support in the past 30 days	None of the three types of support	Number of persons
Age							
18-29	14.8	5.3	5.0	21.6	1.1	78.4	93
30-39	17.0	8.2	3.0	22.1	1.0	77.9	136
40-49	9.7	8.9	4.8	16.0	2.5	84.0	93
50-59	15.0	1.2	4.6	16.8	0.0	83.2	72
Sex							
Male	15.0	5.3	2.2	17.7	0.9	82.3	167
Female	14.0	7.2	5.6	20.9	1.4	79.1	227
Residence							
Urban	16.9	10.2	9.2	31.4	0.0	68.6	91
Rural	13.7	5.3	2.7	16.0	1.6	84.0	303
Mainland/Zanzibar							
Mainland	14.5	6.4	4.2	19.7	1.2	80.3	390
Mainland - Urban	17.2	10.3	9.3	31.8	0.0	68.2	90
Mainland - Rural	13.7	5.3	2.7	16.1	1.6	83.9	300
Zanzibar	(7.4)	(3.3)	(1.3)	(7.4)	(1.3)	(92.6)	4
Wealth quintile							
Lowest	13.9	4.1	1.8	17.9	0.0	82.1	69
Second	10.5	4.2	1.1	11.1	0.0	88.9	89
Middle	18.3	4.0	3.4	19.3	1.8	80.7	76
Fourth	11.4	7.5	2.8	17.2	1.7	82.8	88
Highest	19.4	12.5	12.6	34.6	2.6	65.4	73
Total	14.4	6.4	4.2	19.6	1.2	80.4	394

Note: Figures in parentheses are based on 25-49 unweighted cases. Table is based on women and men who usually live in the household and who were very sick (unable to work or do normal activities) in the past 12 months or who died in the past 12 months and were very sick at least 3 of the 12 months before death. Support refers to the past 30 days for living persons and in the 30 days preceding death for deceased persons.

[1] Support such as companionship, counselling from a trained counsellor, or spiritual support for which there was no payment

[2] Support such as help with household work, training for a caregiver, legal services, clothing, food, or financial support for which there was no payment

12.9 External Support for Orphans and Vulnerable Children

Orphans and vulnerable children are generally cared for by their families, which in turn often depend on community assistance to survive. Table 12.9 shows the percentage of orphans and vulnerable children under 18 years of age whose households received free basic external support to care for the children in the past 12 months.

Table 12.9 External support for orphans and vulnerable children

Among orphans and vulnerable children under age 18 years, percentage whose household received certain free basic external support to care for the child in the past 12 months, by background characteristics, Tanzania HMIS 2007-08

Background characteristic	Percentage of orphans and vulnerable children whose households received:							Number of OVC children
	Medical support in the past 12 months[1]	Emotional support in the past 3 months[2]	Social/ material support in the past 3 months[3]	School-related assistance in the past 12 months[4]	At least one type of support[5]	All of the types of support[5]	None of the types of support	
Age								
0-4	1.4	0.3	1.3	0.0	3.0	0.0	97.0	553
5-9	1.6	0.9	1.7	2.5	6.0	0.0	94.0	928
10-14	2.2	0.7	3.4	6.0	9.1	0.0	90.9	1,251
15-17	2.4	0.8	1.5	5.2	7.8	0.1	92.2	684
Sex								
Male	2.4	0.6	1.8	4.0	6.8	0.1	93.2	1,727
Female	1.6	0.9	2.6	3.8	7.2	0.0	92.8	1,690
Residence								
Urban	2.5	0.5	2.4	5.1	7.5	0.1	92.5	759
Rural	1.8	0.8	2.1	3.6	6.8	0.0	93.2	2,658
Mainland/Zanzibar								
Mainland	2.0	0.7	2.1	3.9	6.9	0.0	93.1	3,367
Mainland – Urban	2.6	0.5	2.3	5.0	7.5	0.1	92.5	744
Dar es Salaam City	0.0	0.0	6.2	4.2	8.2	0.0	91.8	188
Other Urban	3.5	0.7	1.0	5.3	7.3	0.2	92.7	556
Mainland – Rural	1.8	0.8	2.0	3.6	6.8	0.0	93.2	2,622
Zanzibar	0.9	1.4	8.7	4.4	12.0	0.0	88.0	50
Region/Island								
Arusha	1.7	2.5	10.0	5.0	15.0	0.8	85.0	119
Dar es Salaam	1.4	0.0	7.4	4.0	9.3	0.0	90.7	197
Dodoma	0.0	0.0	2.3	8.0	8.8	0.0	91.2	110
Iringa	5.8	0.0	2.0	5.4	10.8	0.0	89.2	290
Kagera	4.7	0.0	3.1	3.2	7.7	0.0	92.3	206
Kigoma	0.0	5.2	2.1	4.7	12.0	0.0	88.0	109
Kilimanjaro	1.2	0.7	3.8	10.9	13.1	0.0	86.9	144
Lindi	(3.2)	(0.0)	(4.6)	(3.8)	(9.5)	(0.0)	(90.5)	35
Manyara	0.0	2.1	0.0	0.0	2.1	0.0	97.9	80
Mara	0.4	0.0	0.0	0.4	0.9	0.0	99.1	176
Mbeya	1.5	0.0	0.8	2.0	3.4	0.0	96.6	265
Morogoro	2.2	0.0	2.5	2.2	6.9	0.0	93.1	165
Mtwara	2.9	0.0	0.0	0.9	3.8	0.0	96.2	93
Mwanza	2.4	0.9	1.6	2.5	4.0	0.0	96.0	262
Pwani	1.3	0.0	1.5	9.4	9.4	0.0	90.6	62
Rukwa	1.0	0.0	0.0	2.3	3.3	0.0	96.7	175
Ruvuma	0.0	0.0	0.0	1.6	1.6	0.0	98.4	161
Shinyanga	0.0	0.0	1.0	4.0	4.0	0.0	96.0	321
Singida	4.9	0.0	2.3	8.7	12.2	0.0	87.8	69
Tabora	4.7	5.5	0.0	6.4	14.0	0.0	86.0	170
Tanga	0.6	0.5	2.7	3.1	5.2	0.0	94.8	159
Pemba	0.7	3.7	13.2	5.7	17.6	0.0	82.4	19
Unguja	1.0	0.0	5.9	3.6	8.6	0.0	91.4	31
Zone								
Western	1.3	2.5	0.9	4.8	8.3	0.0	91.7	601
Northern	0.9	1.3	4.3	5.3	9.3	0.2	90.7	502
Central	1.9	0.0	2.3	8.2	10.1	0.0	89.9	179
Southern Highlands	3.1	0.0	1.1	3.4	6.3	0.0	93.7	730
Lake	2.6	0.3	1.6	2.2	4.3	0.0	95.7	643
Eastern	1.7	0.0	4.6	4.1	8.4	0.0	91.6	424
Southern	1.3	0.0	0.6	1.6	3.2	0.0	96.8	289
Zanzibar	0.9	1.4	8.7	4.4	12.0	0.0	88.0	50
Wealth quintile								
Lowest	2.3	2.1	3.0	4.2	10.1	0.0	89.9	718
Second	2.6	0.0	0.9	3.6	6.4	0.0	93.6	712
Middle	1.8	0.6	1.6	2.9	5.5	0.0	94.5	708
Fourth	1.9	0.1	1.8	5.1	6.2	0.0	93.8	690
Highest	1.0	0.7	3.9	3.8	6.7	0.2	93.3	589
Total	2.0	0.7	2.2	3.9	7.0	0.0	93.0	3,416

Note: Table is based on de jure household members, i.e., usual household members

[1] Medical care, supplies or medicine

[2] Companionship, counselling from a trained counsellor, or spiritual support for which there was no payment

[3] Help with household work, training for a caregiver, legal services, clothing, food, or financial support for which there was no payment

[4] Allowance, free admission, books, or supplies for which there as no payment. Percentage calculated for ages 5-17 years

[5] Four types of support for those age 5-17, three types of support (i.e., excluding school support) received by those age 0-4

The table shows that support is not readily available for the majority of OVCs. Overall, only 7 percent of OVCs received at least one type of support, most of which came in the form of school-related assistance (4 percent). Other types of support are: medical (2 percent) and social or material support (2 percent). The likelihood of receiving assistance generally increases with the child's age. No differentials were seen by sex of the child or residence. Children in Zanzibar are more likely than those in Mainland Tanzania to receive external support (12 and 7 percent, respectively). The likelihood of receiving support is highest for children in the lowest wealth quintile (10 percent) compared with other children (6-7 percent).

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SAMPLE IMPLEMENTATION APPENDIX A

Table A.1 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to urban-rural residence and region, Tanzania HMIS 2007-08

	Selected households											Eligible women										
Result	Completed (C)	Household present but no competent respondent at home (HP)	Postponed (P)	Refused (R)	Dwelling not found (DNF)	Household absent (HA)	Dwelling vacant/ address not a dwelling (DV)	Dwelling destroyed (DD)	Total	Number of sampled households	Household response rate (HRR)[1]	Completed (EWC)	Not at home (EWNH)	Postponed (EWP)	Refused (EWR)	Partly completed (EWPC)	Incapacitated (EWI)	Other (EWO)	Total	Number of women	Eligible woman response rate (EWRR)[2]	Overall response rate (ORR)[3]
Residence																						
Urban	90.0	2.3	0.0	0.5	0.9	3.8	2.1	0.4	100.0	2,039	96.1	95.8	3.0	0.0	0.8	0.1	0.3	0.0	100.0	2,268	95.8	92.0
Rural	93.8	1.0	0.0	0.3	0.5	2.9	0.9	0.6	100.0	7,105	98.1	96.0	2.4	0.0	0.6	0.1	0.7	0.1	100.0	7,467	96.0	94.2
Region/Island																						
Arusha	91.0	2.2	0.0	0.3	1.6	4.0	0.9	0.0	100.0	322	95.8	95.3	1.9	0.3	1.9	0.0	0.6	0.0	100.0	321	95.3	91.3
Dar es Salaam	91.2	2.5	0.3	1.0	0.8	3.0	0.3	1.0	100.0	399	95.3	94.1	3.6	0.0	1.5	0.0	0.8	0.0	100.0	476	94.1	89.7
Dodoma	90.7	0.6	0.0	0.3	0.6	2.5	4.6	0.6	100.0	323	98.3	97.4	1.1	0.0	0.7	0.4	0.4	0.0	100.0	270	97.4	95.8
Iringa	95.4	1.9	0.0	0.3	0.3	2.2	0.0	0.0	100.0	324	97.5	99.3	0.0	0.0	0.7	0.0	0.0	0.0	100.0	282	99.3	96.8
Kagera	95.1	1.2	0.0	0.0	0.0	0.3	2.5	0.9	100.0	324	98.7	96.6	1.9	0.0	0.6	0.3	0.6	0.0	100.0	323	96.6	95.4
Kigoma	96.0	0.0	0.0	0.0	0.3	3.4	0.0	0.3	100.0	324	99.7	91.2	6.8	0.3	0.8	0.0	0.5	0.5	100.0	397	91.2	90.9
Kilimanjaro	96.6	0.6	0.0	0.0	0.3	2.2	0.3	0.0	100.0	324	99.1	96.4	2.7	0.0	0.6	0.0	0.3	0.0	100.0	333	96.4	95.5
Lindi	97.5	0.6	0.0	0.0	0.0	1.5	0.0	0.3	100.0	324	99.4	94.1	3.9	0.0	0.7	0.0	1.3	0.0	100.0	305	94.1	93.5
Manyara	92.6	0.6	0.0	0.3	0.6	3.7	1.2	0.9	100.0	324	98.4	98.8	0.6	0.0	0.0	0.0	0.6	0.0	100.0	330	98.8	97.2
Mara	93.8	0.9	0.0	0.0	0.6	2.5	2.2	0.0	100.0	324	98.4	98.0	0.7	0.0	0.5	0.0	0.2	0.5	100.0	401	98.0	96.4
Mbeya	94.8	1.5	0.0	0.0	0.0	0.3	2.8	0.6	100.0	324	98.4	98.0	1.7	0.0	0.0	0.0	0.3	0.0	100.0	298	98.0	96.4
Morogoro	87.3	2.5	0.0	0.6	1.2	7.4	0.6	0.3	100.0	324	95.3	96.9	1.6	0.0	0.4	0.0	1.2	0.0	100.0	255	96.9	92.3
Mtwara	92.9	1.5	0.0	0.6	0.0	4.9	0.0	0.0	100.0	324	97.7	94.0	4.2	0.0	1.1	0.0	0.7	0.0	100.0	284	94.0	91.9
Mwanza	91.4	2.5	0.0	0.3	0.0	1.5	2.8	1.5	100.0	324	97.0	93.0	3.5	0.2	1.7	0.0	1.2	0.2	100.0	401	93.0	90.3
Pwani	77.5	0.9	0.0	0.6	3.1	14.8	0.9	2.2	100.0	324	94.4	95.5	2.0	0.0	1.2	0.4	0.8	0.0	100.0	244	95.5	90.1
Rukwa	93.2	1.5	0.0	0.9	0.6	0.6	2.8	0.3	100.0	324	96.8	95.1	4.0	0.0	0.6	0.3	0.0	0.0	100.0	328	95.1	92.1
Ruvuma	92.6	0.9	0.0	0.6	0.0	5.9	0.0	0.0	100.0	324	98.4	94.1	4.2	0.0	0.3	0.3	1.1	0.0	100.0	356	94.1	92.6
Shinyanga	96.0	0.3	0.0	0.0	0.6	0.6	1.9	0.6	100.0	324	99.0	97.7	0.8	0.0	0.5	0.3	0.8	0.0	100.0	399	97.7	96.8
Singida	89.8	0.9	0.0	0.0	0.0	3.7	4.3	1.2	100.0	324	99.0	96.0	1.8	0.0	0.7	0.4	1.1	0.0	100.0	272	96.0	95.0
Tabora	84.6	2.5	0.0	0.6	2.2	6.8	2.5	0.9	100.0	324	94.2	92.0	7.0	0.0	0.5	0.0	0.5	0.0	100.0	388	92.0	86.6
Tanga	94.1	1.2	0.0	0.9	0.0	2.5	0.6	0.6	100.0	324	97.8	93.9	2.1	0.0	1.8	0.3	1.8	0.0	100.0	328	93.9	91.8
Total	92.1	1.3	0.0	0.4	0.6	3.5	1.5	0.6	100.0	6,876	97.6	95.5	2.8	0.0	0.8	0.1	0.7	0.1	100.0	6,991	95.5	93.1
Region/Zanzibar																						
Unguja North	94.1	1.9	0.0	0.6	0.3	1.5	0.3	1.2	100.0	324	97.1	98.9	0.8	0.0	0.3	0.0	0.0	0.0	100.0	366	98.9	96.1
Unguja South	95.1	1.5	0.0	0.3	0.3	2.8	0.0	0.0	100.0	324	97.8	97.4	1.3	0.0	0.0	0.3	1.1	0.0	100.0	378	97.4	95.2
Unguja West	90.4	2.8	0.0	0.6	3.1	2.5	0.0	0.6	100.0	324	93.3	95.6	4.2	0.0	0.2	0.0	0.0	0.0	100.0	475	95.6	89.2
Pemba North	96.9	0.6	0.0	0.2	0.0	2.2	0.0	0.2	100.0	648	99.2	97.6	1.1	0.0	0.8	0.3	0.3	0.0	100.0	751	97.6	96.8
Pemba South	97.4	0.8	0.0	0.2	0.0	1.2	0.3	0.2	100.0	648	99.1	97.3	2.1	0.0	0.0	0.0	0.4	0.3	100.0	774	97.3	96.4
Total	95.5	1.3	0.0	0.3	0.5	1.9	0.1	0.4	100.0	2,268	97.8	97.3	1.9	0.0	0.3	0.1	0.3	0.1	100.0	2,744	97.3	95.2
Total	92.9	1.3	0.0	0.3	0.6	3.1	1.1	0.5	100.0	9,144	97.6	96.0	2.5	0.0	0.7	0.1	0.6	0.1	100.0	9,735	96.0	93.7

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = HRR * EWRR/100$$

Table A.2 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall response rates, according to urban-rural residence and region, Tanzania HMIS 2007-08

	Eligible men										
Result	Completed (EMC)	Not at home (EMNH)	Postponed (EMP)	Refused (EMR)	Partly completed (EMPC)	Incapaci-tated (EMI)	Other (EMO)	Total	Number of men	Eligible men response rate (EMRR)[1]	Overall response rate (ORR)[2]
Residence											
Urban	84.0	12.1	0.2	2.6	0.2	0.8	0.2	100.0	1,785	84.0	80.7
Rural	89.0	8.6	0.1	1.1	0.0	0.9	0.2	100.0	6,150	89.0	87.3
Region/Island											
Arusha	85.0	9.5	0.8	3.6	0.0	0.4	0.8	100.0	253	85.0	86.2
Dar es Salaam	80.9	13.6	0.5	4.0	0.5	0.3	0.3	100.0	397	80.9	81.4
Dodoma	91.7	4.8	0.0	1.7	0.0	1.7	0.0	100.0	230	91.7	77.0
Iringa	85.8	11.5	0.0	0.9	0.0	1.8	0.0	100.0	226	85.8	90.2
Kagera	93.2	6.2	0.0	0.3	0.0	0.3	0.0	100.0	292	93.2	83.7
Kigoma	88.7	9.7	0.0	0.3	0.0	0.3	1.0	100.0	309	88.7	92.0
Kilimanjaro	90.0	7.1	0.4	1.1	0.0	1.5	0.0	100.0	269	90.0	88.4
Lindi	90.7	8.1	0.0	0.4	0.0	0.8	0.0	100.0	236	90.7	89.1
Manyara	95.3	3.3	0.0	1.0	0.0	0.3	0.0	100.0	301	95.3	90.1
Mara	87.1	11.0	0.0	0.9	0.0	0.6	0.3	100.0	318	87.1	93.8
Mbeya	92.6	6.0	0.4	0.0	0.0	1.1	0.0	100.0	284	92.6	85.7
Morogoro	91.3	6.9	0.0	0.0	0.0	1.8	0.0	100.0	218	91.3	91.1
Mtwara	87.6	9.4	0.0	0.5	0.5	2.0	0.0	100.0	202	87.6	87.0
Mwanza	88.3	9.9	0.0	1.8	0.0	0.0	0.0	100.0	342	88.3	85.6
Pwani	86.2	8.2	0.0	3.1	0.0	2.5	0.0	100.0	159	86.2	85.7
Rukwa	82.5	13.3	0.0	2.6	0.3	1.3	0.0	100.0	309	82.5	81.3
Ruvuma	87.5	9.6	0.3	1.9	0.0	0.6	0.0	100.0	312	87.5	79.9
Shinyanga	94.1	3.7	0.0	1.3	0.0	0.8	0.0	100.0	374	94.1	86.1
Singida	91.4	4.9	0.0	1.6	0.0	1.6	0.4	100.0	243	91.4	93.2
Tabora	80.9	17.6	0.0	0.3	0.0	0.9	0.3	100.0	341	80.9	90.4
Tanga	87.1	10.2	0.0	0.8	0.4	1.6	0.0	100.0	255	87.1	76.2
Total	88.3	9.0	0.1	1.4	0.1	1.0	0.2	100.0	5,870	88.3	85.1
Region/Zanzibar											
Unguja North	88.8	6.2	0.4	4.2	0.0	0.4	0.0	100.0	260	88.8	84.8
Unguja South	93.9	3.0	0.3	1.4	0.0	1.0	0.3	100.0	296	93.9	86.3
Unguja West	82.8	13.8	0.0	2.5	0.3	0.3	0.3	100.0	354	82.8	91.8
Pemba North	88.9	9.0	0.0	1.1	0.0	0.5	0.5	100.0	558	88.9	77.2
Pemba South	82.4	16.1	0.0	0.5	0.0	0.8	0.2	100.0	597	82.4	88.2
Total	86.7	10.7	0.1	1.6	0.0	0.6	0.3	100.0	2,065	86.7	81.6
Total	87.9	9.4	0.1	1.4	0.1	0.9	0.2	100.0	7,935	87.9	85.8

[1] Using the number of eligible men falling into specific response categories, the eligible man response rate (EMRR) is calculated as:

$$\frac{100 * EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI + EMO}$$

[2] The overall response rate (ORR) is calculated as:

$$ORR = HRR * EMRR/100$$

Table A.3 Coverage of HIV testing among interviewed women by social and demographic characteristics

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Tanzania HMIS 2007-08

	Testing status				
Characteristic	Tested	Refused to provide blood	Other/ missing	Total	Number
Marital status					
Never married	93.8	5.9	0.4	100.0	2,503
Ever had sex	91.6	8.2	0.3	100.0	746
Never had sex	94.7	4.9	0.4	100.0	1,757
Married/Living together	93.2	6.7	0.2	100.0	5,815
Divorced or separated	92.3	7.6	0.1	100.0	780
Widowed	92.7	7.3	0.0	100.0	245
Type of union					
In polygynous union	95.2	4.7	0.1	100.0	1,370
Not in polygynous union	92.5	7.3	0.2	100.0	4,366
Not currently in union	93.4	6.3	0.3	100.0	3,528
Ever had sexual intercourse					
Yes	92.9	6.9	0.2	100.0	7,584
No	94.7	4.9	0.4	100.0	1,757
Pregnancy status					
Pregnant	93.0	7.0	0.0	100.0	828
Not pregnant or not sure	93.2	6.5	0.2	100.0	8,494
Times travelled away from home in past 12 months					
None	93.7	6.1	0.2	100.0	5,907
1-2	93.3	6.5	0.1	100.0	2,733
3-4	90.4	9.2	0.4	100.0	498
5+	85.3	14.1	0.5	100.0	191
Time away in past 12 months					
Away for more than one month	92.5	7.2	0.3	100.0	1,243
Away only for less than 1 month	92.3	7.5	0.1	100.0	2,169
Not away	93.7	6.1	0.2	100.0	5,914
Total	93.2	6.6	0.2	100.0	9,343

Note: Total includes 79 cases missing type of union, 2 missing whether ever had sex, 21 missing information on pregnancy status, 14 missing times travelled away from home, and 17 missing time away in past 12 months.

Table A.4 Coverage of HIV testing among interviewed men by social and demographic characteristics

Percent distribution of interviewed men 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Tanzania HMIS 2007-08

Characteristic	Testing status			Total	Number
	Tested	Refused to provide blood	Other/ missing		
Marital status					
Never married	92.0	7.9	0.1	100.0	3,124
Ever had sex	90.9	9.1	0.0	100.0	1,292
Never had sex	92.8	7.1	0.1	100.0	1,832
Married/Living together	90.0	9.8	0.2	100.0	3,563
Divorced or separated	87.2	12.8	0.0	100.0	266
Widowed	86.4	13.6	0.0	100.0	22
Type of union					
In polygynous union	91.1	8.7	0.2	100.0	427
Not in polygynous union	89.9	10.0	0.2	100.0	3,128
Not currently in union	91.6	8.3	0.1	100.0	3,412
Ever had sexual intercourse					
Yes	90.1	9.8	0.1	100.0	5,140
No	92.8	7.1	0.1	100.0	1,832
Male circumcision					
Circumcised	89.6	10.3	0.1	100.0	5,381
Not circumcised	95.1	4.8	0.1	100.0	1,570
Times travelled away from home in past 12 months					
None	91.4	8.5	0.1	100.0	3,751
1-2	90.4	9.5	0.1	100.0	1,891
3-4	91.8	8.1	0.1	100.0	718
5+	87.2	12.8	0.0	100.0	602
Time away in past 12 months					
Away for more than one month	90.3	9.4	0.3	100.0	1,069
Away only for less than 1 month	90.1	9.9	0.0	100.0	2,139
Not away	91.4	8.5	0.1	100.0	3,762
Total	90.8	9.1	0.1	100.0	6,975

Note: Total includes 8 cases missing type of union, 3 missing whether ever had sex, 24 missing information on circumcision, 13 missing times travelled away from home, and 5 missing time away in past 12 months.

Table A.5 Coverage of HIV testing among interviewed women by sexual behaviour characteristics

Percent distribution of interviewed women who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Tanzania HMIS 2007-08

Sexual behaviour characteristic	Testing status: Tested	Refused to provide blood	Other/ missing	Total	Number
Age at first sexual intercourse					
<16	93.3	6.6	0.1	100.0	2,503
16-17	93.2	6.6	0.2	100.0	2,173
18-19	93.2	6.5	0.3	100.0	1,536
20+	91.8	8.1	0.1	100.0	1,002
Higher-risk intercourse in past 12 months					
Had higher-risk intercourse	92.4	7.4	0.2	100.0	1,177
Had intercourse, not higher risk	93.1	6.8	0.2	100.0	5,614
No intercourse in past 12 months	92.4	7.6	0.0	100.0	793
Number of sexual partners in past 12 months					
0	92.7	7.3	0.0	100.0	780
1	92.9	6.9	0.2	100.0	6,595
2	95.2	4.8	0.0	100.0	187
3+	100.0	0.0	0.0	100.0	9
Number of higher-risk partners in past 12 months					
0	93.0	6.9	0.2	100.0	6,407
1	92.4	7.4	0.2	100.0	1,123
2	92.2	7.8	0.0	100.0	51
3+	100.0	0.0	0.0	100.0	3
Condom use at last sexual intercourse in past 12 months					
Used condom	90.5	9.5	0.0	100.0	664
Did not use condom	93.2	6.6	0.2	100.0	6,124
No sexual intercourse in past 12 months	92.4	7.6	0.0	100.0	793
Number of lifetime partners					
1	93.3	6.6	0.1	100.0	3,486
2	93.0	6.7	0.3	100.0	1,898
3-4	91.8	8.2	0.0	100.0	1,535
5-9	93.9	5.9	0.2	100.0	511
10+	93.3	6.7	0.0	100.0	119
Prior HIV testing status					
Ever tested, got result	92.6	7.2	0.1	100.0	3,016
Ever tested, did not get result	93.5	5.7	0.8	100.0	263
Never tested	93.0	6.9	0.1	100.0	4,290
Condom use at last higher-risk intercourse in past 12 months					
Used condom	90.4	9.6	0.0	100.0	477
Did not use condom	93.9	5.9	0.3	100.0	700
No higher-risk intercourse/no intercourse past 12 months	93.0	6.9	0.2	100.0	6,407
Condom use at first sex					
Used condom	92.4	7.4	0.2	100.0	472
Did not use condom	93.5	6.3	0.2	100.0	1,617
Total	92.9	6.9	0.2	100.0	7,584

Note: Total includes 370 cases missing information as to age at first sex, 13 cases missing number of partners in past 12 months, 3 cases missing information on condom use at last sex, 35 cases missing information about number of lifetime partners, 15 cases missing information as to prior HIV testing, and 62 cases missing information on condom use at last higher-risk sex

Table A.6 Coverage of HIV testing among interviewed men by sexual behaviour characteristics

Percent distribution of interviewed men who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Tanzania HMIS 2007-08

Sexual behaviour characteristic	Testing status			Total	Number
	Tested	Refused to provide blood	Other/ missing		
Age at first sexual intercourse					
<16	91.1	8.9	0.0	100.0	1,130
16-17	89.4	10.6	0.1	100.0	1,090
18-19	89.4	10.3	0.2	100.0	1,296
20+	90.6	9.3	0.1	100.0	1,623
Higher-risk intercourse in past 12 months					
Had higher-risk intercourse	91.1	8.7	0.2	100.0	1,701
Had sexual intercourse, not higher risk	89.6	10.3	0.1	100.0	2,964
No sexual intercourse in past 12 months	89.5	10.5	0.0	100.0	475
Number of sexual partners in past 12 months					
0	90.7	9.3	0.0	100.0	461
1	89.9	10.0	0.1	100.0	3,603
2	91.4	8.4	0.2	100.0	902
3+	90.6	8.8	0.6	100.0	159
Number of higher-risk partners in past 12 months					
0	89.6	10.3	0.1	100.0	3,439
1	91.9	7.9	0.2	100.0	1,137
2	89.2	10.6	0.2	100.0	424
3+	90.7	9.3	0.0	100.0	140
Condom use at last sexual intercourse in past 12 months					
Used condom	88.0	11.8	0.1	100.0	819
Did not use condom	90.6	9.2	0.1	100.0	3,846
No sexual intercourse in past 12 months	89.5	10.5	0.0	100.0	475
Number of lifetime partners					
1	92.0	8.0	0.0	100.0	1,043
2	90.2	9.6	0.2	100.0	899
3-4	88.9	11.0	0.1	100.0	1,327
5-9	91.5	8.4	0.1	100.0	972
10+	90.1	9.6	0.3	100.0	798
Prior HIV testing status					
Ever tested, got result	90.0	9.7	0.3	100.0	1,610
Ever tested, did not get result	91.6	8.4	0.0	100.0	143
Never tested	90.1	9.9	0.0	100.0	3,387
Condom use at last higher-risk intercourse in past 12 months					
Used condom	88.6	11.4	0.0	100.0	860
Did not use condom	93.7	5.9	0.4	100.0	841
No higher-risk intercourse/no intercourse past 12 months	89.6	10.3	0.1	100.0	3,439
Condom use at first sex					
Used condom	90.4	9.6	0.0	100.0	366
Did not use condom	93.1	6.9	0.0	100.0	938
Total	90.1	9.8	0.1	100.0	5,140

Note: Total includes 1 case missing information as to age at first sex, 15 cases missing number of partners in past 12 months, 101 cases missing information about number of lifetime partners, and 23 cases missing information on condom use at first sex

ESTIMATES OF SAMPLING ERRORS

Appendix B

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2007-08 Tanzania HIV/AIDS and Malaria Survey (THMIS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2007-08 THMIS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2007-08 THMIS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2007-08 THMIS is the ISSA Sampling Error Module. This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}\text{, and } \; z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the h^{th} stratum,
y_{hi} is the sum of the weighted values of variable y in the i^{th} cluster in the h^{th} stratum,
x_{hi} is the sum of the weighted number of cases in the i^{th} cluster in the h^{th} stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2007-08 THMIS, there were 474 non-empty clusters. Hence, 473 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 473 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 473 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, ISSA computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the 2007-08 THMIS are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 21 regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B1. Tables B.2 to B40 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to child-bearing.

The confidence interval (e.g., as calculated for *use condom at last high-risk sex*) can be interpreted as follows: the overall average from the national sample is 0.428 and its standard error is 0.0.17. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 0.428±2×0.017. There is a high probability (95 percent) that the true proportion of women age 15-49 who used condom at last high-risk sex is between 0.394 and 0.462.

Table B.1 List of selected variables for sampling errors, Tanzania 2007-08

Variable	Estimate	Base Population
	WOMEN	
Urban	Proportion	All women
No education	Proportion	All women
Secondary or higher education	Proportion	All women
Never married	Proportion	All women
Currently married	Proportion	All women
Had sexual intercourse before age 18	Proportion	All women
Currently pregnant	Proportion	All women
Children ever born	Mean	All women
Children surviving	Mean	All women
Children ever born to women age 40-49	Mean	Women age 40-49
Total fertility rate (3 years)	Rate	All women
Neonatal mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Post-neonatal mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Infant mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Infant mortality (5-9 years)	Rate	Children exposed to the risk of mortality
Infant mortality (10-14 years)	Rate	Children exposed to the risk of mortality
Child mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Under-five mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Mothers received tetanus injection for last birth	Proportion	Women with at least one live birth in five years before survey
Anaemia in children	Proportion	Children age 0-59 months
Malaria in children	Proportion	Children age 0-59 months
Had 2+ sexual partners in past 12 months	Proportion	All women who had sexual intercourse in past 12 months
Had higher-risk intercourse in past 12 months	Proportion	All women who had sexual intercourse in past 12 months
Condom use at last higher-risk intercourse	Proportion	All women who had higher-risk intercourse in past 12 months
Condom use at last higher-risk intercourse (youth)	Proportion	All women 15-24 who had higher-risk intercourse in past 12 months
Abstinence among youth (never had intercourse)	Proportion	Never-married women 15-24
Sexually active in past 12 months among never-married youth	Proportion	Never-married women 15-24
Had an injection in past 12 months	Proportion	All women
Had HIV test and received results in past 12 months	Proportion	All women
Accepting attitudes towards people with HIV	Proportion	All women who have heard of HIV/AIDS
HIV prevalence among all women 15-49	Proportion	All interviewed women with Dried Blood Sample (DBS) tested at lab
HIV prevalence all respondents	Proportion	All interviewed women and men with DBS tested at lab
	MEN	
Urban	Proportion	All men
No education	Proportion	All men
Secondary or higher education	Proportion	All men
Never married	Proportion	All men
Currently married	Proportion	All men
Had sexual intercourse before age 18	Proportion	All men
Had 2+ sexual partners in past 12 months	Proportion	All men who had sexual intercourse in past 12 months
Had higher-risk intercourse in past 12 months	Proportion	All men who had sexual intercourse in past 12 months
Condom use at last higher-risk intercourse	Proportion	All men who had higher-risk intercourse in past 12 months
Condom use at last higher-risk intercourse (youth)	Proportion	All men 15-24 who had higher-risk intercourse in past 12 months
Abstinence among youth (never had intercourse)	Proportion	Never-married men 15-24
Sexually active in past 12 months among never-married youth	Proportion	Never-married men 15-24
Had an injection in past 12 months	Proportion	All men
Had HIV test and received results in past 12 months	Proportion	All men
Accepting attitudes towards people with HIV	Proportion	All men who have heard of HIV/AIDS
HIV prevalence among all men 15-49	Proportion	All interviewed men with Dried Blood Sample (DBS) tested at lab

Table B.2 Sampling errors for National sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.263	0.021	9343	9343	4.666	0.081	0.221	0.306
No education	0.212	0.009	9343	9343	2.222	0.044	0.193	0.231
Secondary education or higher	0.096	0.006	9343	9343	1.931	0.061	0.084	0.108
Never married	0.237	0.007	9343	9343	1.509	0.028	0.224	0.250
Currently married/in union	0.640	0.008	9343	9343	1.666	0.013	0.624	0.657
Had sexual intercourse before age 18	0.587	0.009	7205	7359	1.474	0.015	0.570	0.604
Currently pregnant	0.093	0.004	9343	9343	1.204	0.039	0.086	0.101
Children ever born	2.890	0.042	9343	9343	1.482	0.014	2.807	2.973
Children surviving	2.502	0.035	9343	9343	1.442	0.014	2.432	2.572
Children ever born to women age 40-49	5.922	0.101	1542	1488	1.363	0.017	5.720	6.124
Anaemia in children	0.077	0.005	6387	6376	1.524	0.069	0.067	0.088
Malaria in children	0.177	0.011	6387	6376	2.014	0.063	0.155	0.199
Use condom at last high-risk sex	0.428	0.017	1177	1482	1.190	0.040	0.394	0.462
Use condom at last high-risk sex - 15-24	0.463	0.025	559	719	1.194	0.054	0.412	0.513
Had multipartners in past 12 months	0.034	0.003	6789	7205	1.227	0.079	0.029	0.040
Had high-risk intercourse	0.206	0.008	6789	7205	1.602	0.038	0.190	0.221
Abstinence among youth (never had sex)	0.621	0.015	2221	1928	1.448	0.024	0.591	0.651
Sexually active past 12 months, never-married youth	0.297	0.014	2221	1928	1.490	0.049	0.268	0.326
Had injection past 12 months	0.350	0.007	9343	9343	1.375	0.019	0.336	0.364
Accepting attitudes to people with HIV	0.263	0.008	9219	9191	1.685	0.029	0.247	0.278
HIV test and result in past 12 months	0.191	0.007	9343	9343	1.764	0.038	0.177	0.205
Total fertility rate (3 years)	5.609	0.147	180896	181058	1.797	0.026	5.316	5.902
Neonatal mortality (0-4 years)	28.717	2.717	7558	7770	1.302	0.095	23.282	34.151
Postneonatal mortality (0-4 years)	28.978	2.461	7578	7793	1.302	0.085	24.057	33.899
Infant mortality (0-4 years)	57.695	3.643	7580	7795	1.292	0.063	50.408	64.982
Infant mortality (5-9 years)	89.226	5.122	6536	6515	1.356	0.057	78.983	99.469
Infant mortality (10-14 years)	89.365	5.721	5322	5289	1.277	0.064	77.922	100.808
Child mortality (0-4 years)	35.774	3.055	7635	7851	1.343	0.085	29.665	41.884
Under 5 mortality (0-4 years)	91.405	4.357	7659	7879	1.261	0.048	82.691	100.119
HIV prevalence (women 15-49)	0.066	0.004	8711	8179	1.404	0.057	0.059	0.074
HIV prevalence (all respondents)	0.057	0.003	15044	15044	1.471	0.050	0.051	0.062
			MEN					
Urban residence	0.244	0.021	6975	6975	4.044	0.085	0.202	0.285
No education	0.119	0.007	6975	6975	1.681	0.055	0.106	0.132
Secondary or higher education	0.146	0.008	6975	6975	1.829	0.053	0.130	0.161
Never married	0.420	0.008	6975	6975	1.394	0.020	0.404	0.437
Currently married/in union	0.531	0.009	6975	6975	1.444	0.016	0.513	0.548
Had sexual intercourse before 18	0.406	0.010	5094	5207	1.452	0.025	0.386	0.426
Use condom at last high-risk sex	0.533	0.016	1675	2036	1.334	0.031	0.500	0.565
Condom use last higher-risk intercourse (youth)	0.490	0.022	840	987	1.257	0.044	0.446	0.533
Multipartners in past 12 months	0.249	0.008	4663	5012	1.258	0.032	0.233	0.265
Sex non marital 12 months (never-married youth)	0.406	0.010	4664	5014	1.391	0.025	0.386	0.426
Abstinence among youth (Never had intercourse)	0.534	0.014	2707	2516	1.481	0.027	0.505	0.562
Sexual active past 12 months (never-married youth)	0.334	0.014	2707	2516	1.494	0.041	0.307	0.361
Had injection past 12 months	0.214	0.007	6975	6975	1.342	0.031	0.201	0.227
Accepting attitudes to people with HIV	0.348	0.009	6916	6898	1.630	0.027	0.329	0.366
HIV test and result in past 12 months	0.189	0.006	6975	6975	1.361	0.034	0.176	0.201

Table B.3 Sampling errors for Urban sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	1.000	0.000	2172	2459	na	0.000	1.000	1.000
No education	0.092	0.011	2172	2459	1.712	0.115	0.071	0.113
Secondary education or higher	0.211	0.016	2172	2459	1.863	0.077	0.178	0.244
Never married	0.319	0.014	2172	2459	1.351	0.042	0.292	0.346
Currently married/in union	0.545	0.018	2172	2459	1.728	0.034	0.508	0.582
Had sexual intercourse before age 18	0.503	0.020	1688	1938	1.668	0.040	0.462	0.543
Currently pregnant	0.071	0.006	2172	2459	1.150	0.089	0.059	0.084
Children ever born	2.045	0.068	2172	2459	1.470	0.033	1.909	2.180
Children surviving	1.789	0.057	2172	2459	1.429	0.032	1.674	1.904
Children ever born to women age 40-49	4.682	0.227	314	326	1.483	0.049	4.227	5.137
Anaemia in children	0.083	0.013	1017	1092	1.384	0.157	0.057	0.109
Malaria in children	0.068	0.026	1017	1092	2.843	0.375	0.017	0.119
Use condom at last high-risk sex	0.517	0.026	388	529	1.027	0.050	0.465	0.570
Use condom at last high-risk sex - 15-24	0.552	0.034	197	268	0.951	0.061	0.484	0.619
Had multipartners in past 12 months	0.031	0.005	1537	1831	1.071	0.152	0.022	0.041
Had high-risk intercourse	0.289	0.021	1537	1831	1.790	0.072	0.248	0.331
Abstinence among youth (never had sex)	0.554	0.027	591	634	1.337	0.049	0.499	0.609
Sexually active past 12 months, never-married youth	0.358	0.030	591	634	1.510	0.083	0.299	0.418
Had injection past 12 months	0.386	0.013	2172	2459	1.265	0.034	0.359	0.412
Accepting attitudes to people with HIV	0.365	0.013	2164	2450	1.243	0.035	0.339	0.390
HIV test and result in past 12 months	0.244	0.012	2172	2459	1.302	0.049	0.220	0.268
Total fertility rate (3 years)	3.454	0.188	42830	47802	1.397	0.054	3.079	3.829
Neonatal mortality (0-9 years)	45.598	6.857	2328	2573	1.339	0.150	31.884	59.311
Postnenonatal mortality (0-9 years)	33.464	5.423	2333	2579	1.362	0.162	22.618	44.309
Infant mortality (0-9 years)	79.061	9.617	2333	2579	1.464	0.122	59.827	98.259
Child mortality (0-9 years)	33.725	5.252	2342	2585	1.200	0.156	23.222	44.229
Under-five mortality (0-9 years)	110.120	10.164	2347	2592	1.385	0.092	89.792	30.448
			MEN					
Urban residence	1.000	0.000	1499	1699	-NaN	0.000	1.000	1.000
No education	0.047	0.009	1499	1699	1.556	0.180	0.030	0.064
Secondary or higher education	0.329	0.021	1499	1699	1.762	0.065	0.287	0.372
Never married	0.498	0.016	1499	1699	1.207	0.031	0.466	0.529
Currently married/in union	0.447	0.017	1499	1699	1.305	0.038	0.413	0.480
Had sexual intercourse before 18	0.364	0.018	1125	1289	1.264	0.050	0.328	0.401
Use condom at last high-risk sex	0.699	0.027	399	531	1.167	0.038	0.646	0.753
Condom use last higher-risk intercourse (youth)	0.685	0.042	180	224	1.200	0.061	0.602	0.768
Multipartners in past 12 months	0.203	0.017	951	1135	1.269	0.081	0.170	0.237
Sex non marital 12 months (never-married youth)	0.468	0.019	951	1135	1.194	0.041	0.429	0.507
Abstinence among youth (Never had intercourse)	0.526	0.028	602	650	1.353	0.052	0.471	0.581
Sexual active past 12 months (never-married youth)	0.309	0.026	602	650	1.398	0.085	0.256	0.361
Had injection past 12 months	0.259	0.015	1499	1699	1.332	0.058	0.229	0.290
HIV prevalence (men 15-49)	0.064	0.009	1261	1605	1.302	0.140	0.046	0.082
Accepting attitudes to people with HIV	0.496	0.019	1492	1692	1.478	0.039	0.457	0.534
HIV test and result in past 12 months	0.222	0.014	1499	1699	1.272	0.062	0.194	0.249

na = Not applicable

Table B.4 Sampling errors for Rural sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.000	0.000	7171	6884	na	na	0.000	0.000
No education	0.255	0.011	7171	6884	2.225	0.045	0.232	0.278
Secondary education or higher	0.055	0.004	7171	6884	1.550	0.076	0.047	0.064
Never married	0.208	0.007	7171	6884	1.451	0.033	0.194	0.222
Currently married/in union	0.674	0.008	7171	6884	1.478	0.012	0.658	0.691
Had sexual intercourse before age 18	0.617	0.009	5517	5421	1.402	0.015	0.598	0.635
Currently pregnant	0.101	0.004	7171	6884	1.243	0.044	0.092	0.110
Children ever born	3.192	0.043	7171	6884	1.285	0.013	3.107	3.278
Children surviving	2.757	0.036	7171	6884	1.255	0.013	2.684	2.829
Children ever born to women age 40-49	6.269	0.107	1228	1163	1.313	0.017	6.054	6.484
Anaemia in children	0.076	0.006	5370	5284	1.595	0.078	0.064	0.088
Malaria in children	0.199	0.013	5370	5284	2.020	0.063	0.174	0.224
Use condom at last high-risk sex	0.378	0.022	789	952	1.282	0.059	0.334	0.423
Use condom at last high-risk sex - 15-24	0.409	0.034	362	451	1.314	0.083	0.341	0.477
Had multipartners in past 12 months	0.035	0.003	5252	5374	1.306	0.095	0.028	0.042
Had high-risk intercourse	0.177	0.007	5252	5374	1.404	0.042	0.162	0.192
Abstinence among youth (never had sex)	0.654	0.017	1630	1294	1.461	0.026	0.620	0.689
Sexually active past 12 months, never-married youth	0.266	0.015	1630	1294	1.398	0.057	0.236	0.297
Had injection past 12 months	0.337	0.008	7171	6884	1.444	0.024	0.321	0.353
Accepting attitudes to people with HIV	0.226	0.008	7055	6741	1.694	0.037	0.209	0.243
HIV test and result in past 12 months	0.172	0.008	7171	6884	1.892	0.049	0.155	0.189
Total fertility rate (3 years)	6.378	0.157	137998	133258	1.616	0.025	6.064	6.692
Neonatal mortality (0-9 years)	28.964	2.415	11730	11666	1.433	0.083	24.135	33.793
Postnenonatal mortality (0-9 years)	41.409	2.662	11759	11704	1.378	0.064	36.085	46.733
Infant mortality (0-9 years)	70.373	3.454	11761	11706	1.378	0.049	63.465	77.281
Child mortality (0-9 years)	44.533	3.257	11823	11760	1.567	0.073	38.019	51.047
Under-five mortality (0-9 years)	111.772	4.306	11856	11802	1.387	0.039	103.160	120.385
MEN								
Urban residence	0.000	0.000	5476	5276	-na	na	0.000	0.000
No education	0.142	0.008	5476	5276	1.665	0.055	0.126	0.158
Secondary or higher education	0.087	0.006	5476	5276	1.500	0.066	0.075	0.098
Never married	0.395	0.009	5476	5276	1.435	0.024	0.376	0.414
Currently married/in union	0.557	0.010	5476	5276	1.462	0.018	0.538	0.577
Had sexual intercourse before 18	0.419	0.012	3969	3918	1.492	0.028	0.396	0.442
Use condom at last high-risk sex	0.474	0.019	1276	1505	1.342	0.040	0.437	0.512
Condom use last higher-risk intercourse (youth)	0.432	0.024	660	764	1.228	0.055	0.385	0.480
Multipartners in past 12 months	0.262	0.009	3712	3878	1.257	0.035	0.244	0.280
Sex non marital 12 months (never-married youth)	0.388	0.012	3713	3879	1.490	0.031	0.364	0.412
Abstinence among youth (Never had intercourse)	0.536	0.017	2105	1866	1.519	0.031	0.503	0.569
Sexual active past 12 months (never-married youth)	0.343	0.016	2105	1866	1.526	0.046	0.311	0.374
Had injection past 12 months	0.200	0.007	5476	5276	1.343	0.036	0.185	0.214
HIV prevalence (men 15-49)	0.040	0.004	5072	5260	1.415	0.097	0.032	0.048
Accepting attitudes to people with HIV	0.299	0.009	5424	5205	1.501	0.031	0.281	0.318
HIV test and result in past 12 months	0.178	0.007	5476	5276	1.394	0.040	0.164	0.192

na = Not applicable

Table B.5 Sampling errors for Mainland sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
		WOMEN						
Urban residence	0.260	0.022	6673	9034	4.068	0.084	0.217	0.304
No education	0.213	0.010	6673	9034	1.935	0.046	0.194	0.232
Secondary education or higher	0.084	0.006	6673	9034	1.723	0.070	0.072	0.095
Never married	0.233	0.007	6673	9034	1.323	0.029	0.219	0.246
Currently married/in union	0.644	0.009	6673	9034	1.457	0.013	0.627	0.661
Had sexual intercourse before age 18	0.591	0.009	5258	7134	1.294	0.015	0.573	0.609
Currently pregnant	0.094	0.004	6673	9034	1.047	0.040	0.086	0.101
Children ever born	2.895	0.043	6673	9034	1.301	0.015	2.810	2.981
Children surviving	2.503	0.036	6673	9034	1.267	0.014	2.431	2.575
Children ever born to women age 40-49	5.892	0.104	1090	1437	1.188	0.018	5.684	6.101
Anaemia in children	0.078	0.005	4739	6211	1.343	0.070	0.067	0.089
Malaria in children	0.181	0.011	4739	6211	1.766	0.063	0.159	0.204
Use condom at last high-risk sex	0.431	0.017	1070	1462	1.146	0.040	0.396	0.466
Use condom at last high-risk sex - 15-24	0.466	0.025	511	711	1.153	0.055	0.415	0.517
Had multipartners in past 12 months	0.035	0.003	5157	7017	1.086	0.080	0.029	0.040
Had high-risk intercourse	0.208	0.008	5157	7017	1.425	0.039	0.192	0.225
Abstinence among youth (never had sex)	0.605	0.016	1376	1829	1.180	0.026	0.574	0.636
Sexually active past 12 months, never-married youth	0.310	0.015	1376	1829	1.211	0.049	0.279	0.340
Had injection past 12 months	0.353	0.007	6673	9034	1.197	0.020	0.339	0.367
HIV prevalence (women 15-49)	0.068	0.004	6121	7909	1.200	0.057	0.060	0.076
Accepting attitudes to people with HIV	0.260	0.008	6571	8885	1.471	0.031	0.244	0.276
HIV test and result in past 12 months	0.193	0.007	6673	9034	1.532	0.038	0.179	0.208
Total fertility rate (3 years)	5.636	0.151	129513	175182	1.562	0.027	5.334	5.937
Neonatal mortality (0-9 years)	32.013	2.419	10261	13849	1.248	0.076	27.176	36.850
Postnenonatal mortality (0-9 years)	40.453	2.457	10292	13892	1.191	0.061	35.539	45.366
Infant mortality (0-9 years)	72.466	3.412	10294	13894	1.226	0.047	65.641	79.290
Child mortality (0-9 years)	42.977	2.912	10337	13952	1.313	0.068	37.153	48.800
Under-five mortality (0-9 years)	112.328	4.072	10372	14001	1.208	0.036	104.185	120.471
		MEN						
Urban residence	0.241	0.021	5185	6763	3.590	0.089	0.198	0.283
No education	0.120	0.007	5185	6763	1.486	0.056	0.106	0.133
Secondary or higher education	0.134	0.008	5185	6763	1.647	0.058	0.118	0.149
Never married	0.417	0.008	5185	6763	1.236	0.020	0.400	0.434
Currently married/in union	0.533	0.009	5185	6763	1.280	0.017	0.516	0.551
Had sexual intercourse before 18	0.414	0.010	3849	5053	1.286	0.025	0.393	0.434
Use condom at last high-risk sex	0.535	0.016	1536	2011	1.294	0.031	0.502	0.568
Condom use last higher-risk intercourse (youth)	0.494	0.022	760	974	1.213	0.045	0.450	0.538
Multipartners in past 12 months	0.250	0.008	3750	4900	1.150	0.033	0.233	0.266
Sex non marital 12 months (never-married youth)	0.410	0.010	3751	4901	1.271	0.025	0.390	0.431
Abstinence among youth (Never had intercourse)	0.523	0.015	1899	2424	1.280	0.028	0.493	0.552
Sexual active past 12 months (never-married youth)	0.342	0.014	1899	2424	1.288	0.041	0.314	0.370
Had injection past 12 months	0.215	0.007	5185	6763	1.190	0.032	0.201	0.228
HIV prevalence (men 15-49)	0.047	0.004	4648	6657	1.220	0.081	0.039	0.054
Accepting attitudes to people with HIV	0.345	0.010	5135	6687	1.445	0.028	0.326	0.364
HIV test and result in past 12 months	0.191	0.007	5185	6763	1.200	0.034	0.178	0.204

Table B.6 Sampling errors for Mainland Urban sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	1.000	0.000	1580	2353	na	0.000	1.000	1.000
No education	0.092	0.011	1580	2353	1.517	0.120	0.070	0.114
Secondary education or higher	0.192	0.016	1580	2353	1.616	0.083	0.160	0.224
Never married	0.316	0.014	1580	2353	1.202	0.044	0.288	0.344
Currently married/in union	0.547	0.019	1580	2353	1.537	0.035	0.508	0.586
Had sexual intercourse before age 18	0.507	0.021	1243	1858	1.484	0.042	0.465	0.549
Currently pregnant	0.072	0.007	1580	2353	1.018	0.092	0.059	0.085
Children ever born	2.033	0.071	1580	2353	1.330	0.035	1.892	2.174
Children surviving	1.774	0.060	1580	2353	1.298	0.034	1.654	1.894
Children ever born to women age 40-49	4.606	0.239	207	307	1.284	0.052	4.128	5.084
Anaemia in children	0.084	0.013	732	1050	1.250	0.160	0.057	0.111
Malaria in children	0.071	0.026	732	1050	2.544	0.375	0.018	0.123
Use condom at last high-risk sex	0.521	0.026	351	521	0.992	0.051	0.468	0.574
Use condom at last high-risk sex - 15-24	0.556	0.034	179	264	0.919	0.062	0.488	0.625
Had multipartners in past 12 months	0.032	0.005	1183	1768	0.959	0.153	0.022	0.042
Had high-risk intercourse	0.294	0.021	1183	1768	1.609	0.072	0.252	0.337
Abstinence among youth (never had sex)	0.536	0.028	412	600	1.138	0.052	0.480	0.592
Sexually active past 12 months, never-married youth	0.373	0.031	412	600	1.291	0.083	0.311	0.434
Had injection past 12 months	0.389	0.014	1580	2353	1.121	0.035	0.361	0.416
HIV prevalence (women 15-49)	0.110	0.009	1346	1972	1.029	0.080	0.093	0.128
Accepting attitudes to people with HIV	0.363	0.013	1575	2344	1.103	0.037	0.337	0.390
HIV test and result in past 12 months	0.248	0.012	1580	2353	1.140	0.050	0.223	0.273
Total fertility rate (3 years)	3.462	0.195	30587	45772	1.239	0.056	3.072	3.852
Neonatal mortality (0-9 years)	46.954	7.127	1662	2472	1.176	0.152	32.699	61.208
Postnenonatal mortality (0-9 years)	33.970	5.642	1667	2478	1.203	0.166	22.686	45.254
Infant mortality (0-9 years)	80.924	9.997	1667	2478	1.288	0.124	60.930	100.917
Child mortality (0-9 years)	34.745	5.478	1672	2484	1.056	0.158	23.789	45.701
Under-five mortality (0-9 years)	112.857	10.559	1677	2490	1.219	0.094	91.740	133.974
			MEN					
Urban residence	1.000	0.000	1109	1628	-NaN	0.000	1.000	1.000
No education	0.049	0.009	1109	1628	1.373	0.182	0.031	0.066
Secondary or higher education	0.313	0.022	1109	1628	1.554	0.069	0.270	0.356
Never married	0.492	0.016	1109	1628	1.072	0.033	0.460	0.524
Currently married/in union	0.451	0.017	1109	1628	1.160	0.038	0.417	0.486
Had sexual intercourse before 18	0.374	0.019	843	1236	1.130	0.050	0.336	0.412
Use condom at last high-risk sex	0.707	0.027	359	521	1.134	0.039	0.653	0.762
Condom use last higher-risk intercourse (youth)	0.701	0.042	159	218	1.160	0.060	0.617	0.786
Multipartners in past 12 months	0.204	0.017	763	1101	1.169	0.084	0.169	0.238
Sex non marital 12 months (never-married youth)	0.473	0.020	763	1101	1.096	0.042	0.434	0.513
Abstinence among youth (Never had intercourse)	0.512	0.029	429	618	1.193	0.056	0.454	0.570
Sexual active past 12 months (never-married youth)	0.317	0.028	429	618	1.233	0.087	0.262	0.373
Had injection past 12 months	0.263	0.016	1109	1628	1.187	0.060	0.231	0.294
HIV prevalence (men 15-49)	0.066	0.009	896	1535	1.126	0.141	0.048	0.085
Accepting attitudes to people with HIV	0.495	0.020	1105	1622	1.323	0.040	0.455	0.535
HIV test and result in past 12 months	0.227	0.014	1109	1628	1.125	0.062	0.198	0.255

na = Not applicable

Table B.7 Sampling errors for Mainland Dar es Salaam City sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	1.000	0.000	421	762	na	0.000	1.000	1.000
No education	0.066	0.017	421	762	1.364	0.249	0.033	0.100
Secondary education or higher	0.235	0.035	421	762	1.697	0.150	0.164	0.305
Never married	0.332	0.028	421	762	1.222	0.085	0.276	0.388
Currently married/in union	0.538	0.038	421	762	1.559	0.070	0.462	0.614
Had sexual intercourse before age 18	0.423	0.028	333	602	1.037	0.066	0.367	0.479
Currently pregnant	0.048	0.011	421	762	1.081	0.236	0.025	0.070
Children ever born	1.766	0.128	421	762	1.359	0.073	1.510	2.023
Children surviving	1.522	0.110	421	762	1.320	0.072	1.302	1.743
Children ever born to women age 40-49	4.119	0.428	58	104	1.354	0.104	3.263	4.974
Anaemia in children	0.082	0.024	147	261	1.040	0.289	0.035	0.129
Malaria in children	0.013	0.009	147	261	0.999	0.710	0.000	0.032
Use condom at last high-risk sex	0.646	0.043	95	168	0.870	0.066	0.560	0.732
Use condom at last high-risk sex - 15-24	0.683	0.072	43	78	0.999	0.105	0.540	0.827
Had high-risk intercourse	0.303	0.042	304	553	1.574	0.137	0.220	0.386
Abstinence among youth (never had sex)	0.525	0.032	110	199	0.660	0.060	0.462	0.588
Sexually active past 12 months, never-married youth	0.341	0.045	110	199	1.001	0.133	0.250	0.431
Had injection past 12 months	0.433	0.020	421	762	0.836	0.047	0.393	0.474
HIV prevalence (women 15-49)	0.104	0.017	367	690	1.069	0.164	0.070	0.138
Accepting attitudes to people with HIV	0.330	0.026	421	762	1.114	0.077	0.279	0.381
HIV test and result in past 12 months	0.253	0.025	421	762	1.179	0.099	0.203	0.303
Total fertility rate (3 years)	3.007	0.349	8164	14858	1.225	0.116	2.309	3.706
Neonatal mortality (0-9 years)	69.973	17.698	350	654	1.151	0.253	34.576	105.369
Postnenonatal mortality (0-9 years)	41.985	14.636	352	658	1.248	0.349	12.713	71.256
Infant mortality (0-9 years)	111.957	26.690	352	658	1.245	0.238	58.576	165.338
Child mortality (0-9 years)	43.370	13.662	352	659	1.136	0.315	16.045	70.695
Under-five mortality (0-9 years)	150.472	24.699	354	663	1.102	0.164	101.074	199.869
MEN								
Urban residence	0.963	0.014	283	511	1.219	0.014	0.935	0.990
No education	0.022	0.010	283	511	1.103	0.434	0.003	0.042
Secondary or higher education	0.437	0.040	283	511	1.356	0.092	0.357	0.517
Never married	0.507	0.030	283	511	1.017	0.060	0.446	0.567
Currently married/in union	0.425	0.038	283	511	1.292	0.090	0.349	0.501
Had sexual intercourse before 18	0.345	0.036	220	401	1.110	0.103	0.274	0.417
Use condom at last high-risk sex	0.754	0.047	97	174	1.069	0.062	0.660	0.848
Condom use last higher-risk intercourse (youth)	0.730	0.077	36	67	1.026	0.105	0.576	0.884
Multipartners in past 12 months	0.198	0.028	194	349	0.979	0.142	0.142	0.254
Sex non marital 12 months (never-married youth)	0.500	0.035	194	349	0.974	0.070	0.430	0.570
Abstinence among youth (Never had intercourse)	0.470	0.065	102	180	1.313	0.139	0.340	0.601
Sexually active past 12 months (never-married youth)	0.362	0.051	102	180	1.064	0.140	0.261	0.464
Had injection past 12 months	0.304	0.027	283	511	0.973	0.088	0.251	0.357
HIV prevalence (men 15-49)	0.079	0.019	232	577	1.070	0.240	0.041	0.117
Accepting attitudes to people with HIV	0.549	0.035	282	509	1.171	0.063	0.479	0.618
HIV test and result in past 12 months	0.242	0.031	283	511	1.224	0.129	0.179	0.304

na = Not applicable

Table B.8 Sampling errors for Mainland Other Urban sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	1.000	0.000	1159	1591	na	0.000	1.000	1.000
No education	0.105	0.014	1159	1591	1.565	0.134	0.077	0.133
Secondary education or higher	0.172	0.016	1159	1591	1.441	0.093	0.140	0.204
Never married	0.309	0.016	1159	1591	1.155	0.051	0.277	0.340
Currently married/in union	0.551	0.022	1159	1591	1.477	0.039	0.508	0.594
Had sexual intercourse before age 18	0.547	0.026	910	1256	1.583	0.048	0.495	0.600
Currently pregnant	0.083	0.008	1159	1591	0.953	0.093	0.068	0.099
Children ever born	2.160	0.081	1159	1591	1.267	0.038	1.998	2.323
Children surviving	1.894	0.068	1159	1591	1.227	0.036	1.759	2.030
Children ever born to women age 40-49	4.856	0.288	149	203	1.261	0.059	4.281	5.432
Anaemia in children	0.085	0.016	585	788	1.329	0.190	0.053	0.117
Malaria in children	0.090	0.034	585	788	2.656	0.382	0.021	0.158
Use condom at last high-risk sex	0.462	0.032	256	353	1.012	0.068	0.399	0.525
Use condom at last high-risk sex - 15-24	0.503	0.035	136	186	0.820	0.070	0.432	0.574
Had high-risk intercourse	0.290	0.025	879	1216	1.602	0.084	0.241	0.340
Abstinence among youth (never had sex)	0.541	0.039	302	402	1.361	0.072	0.463	0.619
Sexually active past 12 months, never-married youth	0.388	0.040	302	402	1.409	0.102	0.309	0.468
Had injection past 12 months	0.367	0.018	1159	1591	1.271	0.049	0.331	0.403
HIV prevalence (women 15-49)	0.114	0.010	999	1309	0.967	0.085	0.095	0.134
Accepting attitudes to people with HIV	0.380	0.016	1154	1583	1.135	0.043	0.347	0.412
HIV test and result in past 12 months	0.246	0.014	1159	1591	1.082	0.056	0.219	0.273
Total fertility rate (3 years)	3.690	0.235	22421	30914	1.240	0.064	3.219	4.161
Neonatal mortality (0-9 years)	38.622	6.931	1312	1817	1.111	0.179	24.759	52.484
Postnenonatal mortality (0-9 years)	31.080	5.714	1315	1820	1.162	0.184	19.652	42.508
Infant mortality (0-9 years)	69.702	9.338	1315	1820	1.236	0.134	51.026	88.379
Child mortality (0-9 years)	31.694	5.613	1320	1825	1.022	0.177	20.467	42.921
Under-five mortality (0-9 years)	99.187	10.602	1323	1827	1.215	0.107	77.984	120.390
			MEN					
Urban residence	0.948	0.012	766	996	1.534	0.013	0.923	0.973
No education	0.061	0.011	766	996	1.317	0.187	0.038	0.084
Secondary or higher education	0.240	0.022	766	996	1.438	0.093	0.195	0.284
Never married	0.470	0.020	766	996	1.111	0.043	0.430	0.510
Currently married/in union	0.478	0.020	766	996	1.109	0.042	0.438	0.518
Had sexual intercourse before 18	0.423	0.022	576	746	1.070	0.052	0.379	0.467
Use condom at last high-risk sex	0.655	0.033	252	321	1.114	0.051	0.589	0.722
Condom use last higher-risk intercourse (youth)	0.637	0.053	125	151	1.224	0.083	0.532	0.743
Multipartners in past 12 months	0.215	0.024	537	692	1.333	0.110	0.168	0.262
Sex non marital 12 months (never-married youth)	0.464	0.026	537	692	1.206	0.056	0.412	0.516
Abstinence among youth (Never had intercourse)	0.514	0.035	302	383	1.205	0.068	0.444	0.583
Sexually active past 12 months (never-married youth)	0.329	0.034	302	383	1.249	0.103	0.261	0.396
Had injection past 12 months	0.235	0.021	766	996	1.346	0.088	0.193	0.276
HIV prevalence (men 15-49)	0.063	0.009	681	985	1.004	0.148	0.045	0.082
Accepting attitudes to people with HIV	0.428	0.025	762	991	1.393	0.058	0.378	0.478
HIV test and result in past 12 months	0.215	0.015	766	996	1.018	0.070	0.185	0.246

na = Not applicable

Table B.9 Sampling errors for Mainland Rural sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.000	0.000	5093	6681	na	na	0.000	0.000
No education	0.255	0.012	5093	6681	1.928	0.046	0.232	0.279
Secondary education or higher	0.046	0.004	5093	6681	1.356	0.087	0.038	0.054
Never married	0.203	0.007	5093	6681	1.263	0.035	0.189	0.218
Currently married/in union	0.678	0.008	5093	6681	1.283	0.012	0.661	0.694
Had sexual intercourse before age 18	0.621	0.009	4015	5276	1.223	0.015	0.602	0.639
Currently pregnant	0.102	0.005	5093	6681	1.074	0.045	0.093	0.111
Children ever born	3.199	0.044	5093	6681	1.120	0.014	3.111	3.287
Children surviving	2.760	0.037	5093	6681	1.095	0.013	2.686	2.835
Children ever born to women age 40-49	6.242	0.110	883	1130	1.147	0.018	6.021	6.462
Anaemia in children	0.077	0.006	4007	5161	1.395	0.079	0.065	0.089
Malaria in children	0.204	0.013	4007	5161	1.761	0.063	0.178	0.230
Use condom at last high-risk sex	0.381	0.022	719	942	1.233	0.059	0.336	0.426
Use condom at last high-risk sex - 15-24	0.412	0.034	332	447	1.268	0.083	0.344	0.481
Had multipartners in past 12 months	0.036	0.003	3974	5249	1.152	0.095	0.029	0.043
Had high-risk intercourse	0.179	0.008	3974	5249	1.242	0.042	0.164	0.195
Abstinence among youth (never had sex)	0.639	0.018	964	1228	1.165	0.028	0.603	0.675
Sexually active past 12 months, never-married youth	0.279	0.016	964	1228	1.111	0.058	0.247	0.311
Had injection past 12 months	0.340	0.008	5093	6681	1.249	0.024	0.323	0.356
HIV prevalence (women 15-49)	0.054	0.004	4775	5937	1.279	0.077	0.046	0.063
Accepting attitudes to people with HIV	0.223	0.009	4996	6540	1.468	0.039	0.206	0.240
HIV test and result in past 12 months	0.174	0.009	5093	6681	1.635	0.050	0.157	0.192
Total fertility rate (3 years)	6.400	0.161	98738	129409	1.398	0.025	6.077	6.722
Neonatal mortality (0-9 years)	28.763	2.471	8599	11377	1.259	0.086	23.822	33.705
Postnenonatal mortality (0-9 years)	41.861	2.728	8625	11414	1.198	0.065	36.405	47.316
Infant mortality (0-9 years)	70.624	3.540	8627	11416	1.204	0.050	63.545	77.703
Child mortality (0-9 years)	44.862	3.340	8665	11468	1.365	0.074	38.182	51.543
Under-five mortality (0-9 years)	112.318	4.413	8695	11511	1.211	0.039	103.492	121.145
			MEN					
Urban residence	0.000	0.000	4076	5136	-NaN	-NaN	0.000	0.000
No education	0.142	0.008	4076	5136	1.470	0.057	0.126	0.158
Secondary or higher education	0.077	0.006	4076	5136	1.335	0.072	0.066	0.088
Never married	0.393	0.010	4076	5136	1.272	0.025	0.373	0.412
Currently married/in union	0.559	0.010	4076	5136	1.296	0.018	0.539	0.580
Had sexual intercourse before 18	0.426	0.012	3006	3817	1.315	0.028	0.403	0.450
Use condom at last high-risk sex	0.475	0.019	1177	1490	1.302	0.040	0.437	0.513
Condom use last higher-risk intercourse (youth)	0.434	0.024	601	755	1.184	0.055	0.386	0.482
Multipartners in past 12 months	0.263	0.009	2987	3799	1.146	0.035	0.245	0.282
Sex non marital 12 months (never-married youth)	0.392	0.012	2988	3800	1.358	0.031	0.368	0.416
Abstinence among youth (Never had intercourse)	0.526	0.017	1470	1806	1.304	0.032	0.492	0.560
Sexual active past 12 months (never-married youth)	0.350	0.016	1470	1806	1.306	0.046	0.318	0.383
Had injection past 12 months	0.199	0.007	4076	5136	1.188	0.037	0.184	0.214
HIV prevalence (men 15-49)	0.041	0.004	3752	5122	1.236	0.098	0.033	0.049
Accepting attitudes to people with HIV	0.297	0.010	4030	5066	1.326	0.032	0.278	0.316
HIV test and result in past 12 months	0.180	0.007	4076	5136	1.228	0.041	0.165	0.195

na = Not applicable

Table B.10 Sampling errors for Zanzibar sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.372	0.076	1917	264	6.853	0.203	0.221	0.523
No education	0.187	0.020	1917	264	2.272	0.108	0.146	0.227
Secondary education or higher	0.482	0.029	1917	264	2.523	0.060	0.425	0.540
Never married	0.361	0.016	1917	264	1.431	0.043	0.330	0.393
Currently married/in union	0.538	0.017	1917	264	1.508	0.032	0.504	0.573
Had sexual intercourse before age 18	0.447	0.021	1385	192	1.594	0.048	0.404	0.489
Currently pregnant	0.071	0.007	1917	264	1.263	0.105	0.056	0.085
Children ever born	2.629	0.087	1917	264	1.250	0.033	2.455	2.804
Children surviving	2.357	0.074	1917	264	1.201	0.032	2.208	2.506
Children ever born to women age 40-49	6.459	0.258	327	44	1.572	0.040	5.943	6.976
Anaemia in children	0.047	0.008	1082	132	1.106	0.165	0.032	0.063
Malaria in children	0.008	0.004	1082	132	1.353	0.475	0.000	0.015
Use condom at last high-risk sex	0.205	0.044	103	19	1.096	0.214	0.118	0.293
Use condom at last high-risk sex - 15-24	0.188	0.057	47	8	0.989	0.304	0.074	0.302
Had multipartners in past 12 months	0.006	0.003	1183	161	1.253	0.468	0.000	0.012
Had high-risk intercourse	0.118	0.016	1183	161	1.710	0.136	0.086	0.150
Abstinence among youth (never had sex)	0.911	0.016	614	86	1.375	0.017	0.879	0.943
Sexually active past 12 months, never-married youth	0.068	0.014	614	86	1.356	0.204	0.040	0.095
Had injection past 12 months	0.273	0.015	1917	264	1.477	0.055	0.243	0.303
HIV prevalence (women 15-49)	0.007	0.002	2590	270	1.198	0.274	0.003	0.011
Accepting attitudes to people with HIV	0.352	0.019	1897	261	1.757	0.055	0.314	0.391
HIV test and result in past 12 months	0.123	0.011	1917	264	1.408	0.086	0.101	0.144
Total fertility rate (3 years)	4.916	0.289	51055	5877	1.920	0.059	4.337	5.495
Neonatal mortality (0-9 years)	30.555	4.460	3797	390	1.256	0.146	21.635	39.475
Postnenonatal mortality (0-9 years)	23.227	2.712	3800	391	1.036	0.117	17.804	28.650
Infant mortality (0-9 years)	53.782	4.897	3800	391	1.122	0.091	43.989	63.575
Child mortality (0-9 years)	26.418	3.235	3828	393	1.100	0.122	19.949	32.887
Under-five mortality (0-9 years)	78.779	5.909	3831	393	1.141	0.075	66.962	90.597
			MEN					
Urban residence	0.365	0.076	1298	181	5.695	0.208	0.213	0.518
No education	0.081	0.014	1298	181	1.845	0.172	0.053	0.109
Secondary or higher education	0.552	0.029	1298	181	2.073	0.052	0.495	0.609
Never married	0.530	0.023	1298	181	1.675	0.044	0.483	0.576
Currently married/in union	0.439	0.024	1298	181	1.760	0.055	0.391	0.488
Had sexual intercourse before 18	0.143	0.017	916	133	1.443	0.117	0.110	0.176
Use condom at last high-risk sex	0.334	0.050	115	24	1.137	0.150	0.233	0.434
Condom use last higher-risk intercourse (youth)	0.174	0.060	63	12	1.241	0.344	0.054	0.293
Multipartners in past 12 months	0.205	0.024	673	97	1.521	0.115	0.158	0.253
Sex non marital 12 months (never-married youth)	0.244	0.030	673	97	1.810	0.123	0.184	0.304
Abstinence among youth (Never had intercourse)	0.813	0.030	574	78	1.828	0.037	0.753	0.872
Sexual active past 12 months (never-married youth)	0.140	0.021	574	78	1.424	0.148	0.098	0.181
Had injection past 12 months	0.194	0.017	1298	181	1.513	0.086	0.161	0.227
HIV prevalence (men 15-49)	0.005	0.002	1685	208	1.323	0.463	0.000	0.009
Accepting attitudes to people with HIV	0.455	0.021	1291	180	1.520	0.046	0.413	0.498
HIV test and result in past 12 months	0.106	0.013	1298	181	1.511	0.122	0.080	0.132

Table B.11 Sampling errors for Western sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.127	0.044	1109	1682	4.394	0.346	0.039	0.215
No education	0.318	0.028	1109	1682	2.036	0.090	0.261	0.374
Secondary education or higher	0.040	0.011	1109	1682	1.829	0.269	0.018	0.061
Never married	0.210	0.017	1109	1682	1.375	0.080	0.177	0.244
Currently married/in union	0.676	0.017	1109	1682	1.202	0.025	0.642	0.710
Had sexual intercourse before age 18	0.638	0.019	834	1284	1.143	0.030	0.600	0.676
Currently pregnant	0.099	0.008	1109	1682	0.863	0.078	0.083	0.114
Children ever born	2.985	0.084	1109	1682	1.002	0.028	2.816	3.154
Children surviving	2.633	0.073	1109	1682	0.992	0.028	2.486	2.779
Children ever born to women age 40-49	6.448	0.301	123	191	1.072	0.047	5.847	7.049
Anaemia in children	0.092	0.011	935	1398	1.141	0.124	0.069	0.115
Malaria in children	0.216	0.020	935	1398	1.320	0.093	0.176	0.257
Use condom at last high-risk sex	0.383	0.043	174	277	1.167	0.113	0.297	0.469
Use condom at last high-risk sex - 15-24	0.434	0.067	86	139	1.250	0.155	0.300	0.569
Had multipartners in past 12 months	0.038	0.008	897	1384	1.217	0.204	0.023	0.054
Had high-risk intercourse	0.200	0.017	897	1384	1.249	0.083	0.167	0.233
Abstinence among youth (never had sex)	0.629	0.044	223	315	1.367	0.070	0.541	0.718
Sexually active past 12 months, never-married youth	0.315	0.041	223	315	1.309	0.130	0.234	0.397
Had injection past 12 months	0.309	0.017	1109	1682	1.228	0.055	0.275	0.343
HIV prevalence (women 15-49)	0.066	0.010	1047	1469	1.295	0.150	0.046	0.086
Accepting attitudes to people with HIV	0.193	0.019	1084	1636	1.562	0.097	0.156	0.231
HIV test and result in past 12 months	0.189	0.016	1109	1682	1.370	0.085	0.156	0.221
Total fertility rate (3 years)	6.949	0.365	21178	32399	1.234	0.052	6.220	7.679
Neonatal mortality (0-9 years)	17.300	2.713	1944	2997	0.845	0.157	11.875	22.725
Postnenonatal mortality (0-9 years)	45.313	6.024	1948	3002	1.189	0.133	33.264	57.362
Infant mortality (0-9 years)	62.613	6.635	1949	3004	1.108	0.106	49.342	75.884
Child mortality (0-9 years)	31.198	4.902	1951	3005	1.181	0.157	21.394	41.003
Under-five mortality (0-9 years)	91.858	7.083	1957	3014	1.003	0.077	77.691	106.024
			MEN					
Urban residence	0.108	0.039	902	1328	3.819	0.366	0.029	0.186
No education	0.200	0.018	902	1328	1.364	0.091	0.164	0.236
Secondary or higher education	0.076	0.013	902	1328	1.471	0.171	0.050	0.102
Never married	0.396	0.021	902	1328	1.307	0.054	0.354	0.439
Currently married/in union	0.557	0.020	902	1328	1.187	0.035	0.518	0.596
Had sexual intercourse before 18	0.462	0.026	664	983	1.321	0.055	0.411	0.513
Use condom at last high-risk sex	0.359	0.037	264	409	1.267	0.104	0.284	0.434
Condom use last higher-risk intercourse (youth)	0.302	0.044	150	228	1.176	0.146	0.214	0.391
Multipartners in past 12 months	0.269	0.023	687	1030	1.376	0.087	0.223	0.316
Sex non marital 12 months (never-married youth)	0.396	0.021	688	1031	1.133	0.053	0.354	0.439
Abstinence among youth (Never had intercourse)	0.532	0.035	323	460	1.273	0.067	0.461	0.603
Sexual active past 12 months (never-married youth)	0.404	0.033	323	460	1.219	0.082	0.338	0.471
Had injection past 12 months	0.178	0.012	902	1328	0.961	0.069	0.153	0.202
HIV prevalence (men 15-49)	0.048	0.010	848	1300	1.379	0.211	0.028	0.069
Accepting attitudes to people with HIV	0.266	0.023	892	1311	1.545	0.086	0.220	0.312
HIV test and result in past 12 months	0.178	0.016	902	1328	1.231	0.088	0.146	0.209

Table B.12 Sampling errors for Northern sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.263	0.050	1261	1449	3.997	0.188	0.164	0.363
No education	0.183	0.031	1261	1449	2.852	0.170	0.121	0.245
Secondary education or higher	0.120	0.013	1261	1449	1.403	0.107	0.095	0.146
Never married	0.274	0.017	1261	1449	1.323	0.061	0.241	0.307
Currently married/in union	0.619	0.017	1261	1449	1.234	0.027	0.585	0.653
Had sexual intercourse before age 18	0.456	0.020	1000	1160	1.299	0.045	0.415	0.496
Currently pregnant	0.078	0.008	1261	1449	1.079	0.105	0.061	0.094
Children ever born	2.663	0.085	1261	1449	1.212	0.032	2.494	2.832
Children surviving	2.391	0.070	1261	1449	1.133	0.029	2.250	2.532
Children ever born to women age 40-49	5.353	0.197	219	254	1.115	0.037	4.959	5.747
Anaemia in children	0.052	0.011	802	875	1.342	0.209	0.030	0.074
Malaria in children	0.043	0.010	802	875	1.359	0.242	0.022	0.064
Use condom at last high-risk sex	0.448	0.038	165	199	0.983	0.085	0.371	0.524
Use condom at last high-risk sex - 15-24	0.518	0.052	90	112	0.977	0.100	0.414	0.621
Had multipartners in past 12 months	0.022	0.007	903	1051	1.359	0.300	0.009	0.036
Had high-risk intercourse	0.190	0.017	903	1051	1.316	0.091	0.155	0.224
Abstinence among youth (never had sex)	0.642	0.036	318	350	1.334	0.056	0.570	0.713
Sexually active past 12 months, never-married youth	0.280	0.032	318	350	1.275	0.115	0.216	0.344
Had injection past 12 months	0.369	0.019	1261	1449	1.377	0.051	0.332	0.407
HIV prevalence (women 15-49)	0.032	0.007	1120	1274	1.363	0.223	0.018	0.047
Accepting attitudes to people with HIV	0.326	0.019	1245	1422	1.412	0.058	0.289	0.364
HIV test and result in past 12 months	0.199	0.016	1261	1449	1.418	0.080	0.167	0.231
Total fertility rate (3 years)	5.028	0.279	24357	28186	1.363	0.055	4.470	5.586
Neonatal mortality (0-9 years)	29.357	4.800	1761	1978	1.127	0.164	19.757	38.957
Postnenonatal mortality (0-9 years)	33.193	5.025	1768	1987	1.190	0.151	23.144	43.242
Infant mortality (0-9 years)	62.550	8.062	1768	1987	1.376	0.129	46.427	78.673
Child mortality (0-9 years)	30.986	5.165	1775	1998	1.067	0.167	20.656	41.315
Under-five mortality (0-9 years)	91.598	10.481	1782	2007	1.472	0.114	70.635	112.560
			MEN					
Urban residence	0.246	0.048	966	1034	3.471	0.196	0.150	0.342
No education	0.099	0.014	966	1034	1.449	0.141	0.071	0.127
Secondary or higher education	0.158	0.017	966	1034	1.410	0.105	0.125	0.191
Never married	0.440	0.017	966	1034	1.094	0.040	0.405	0.475
Currently married/in union	0.496	0.016	966	1034	1.022	0.033	0.463	0.529
Had sexual intercourse before 18	0.383	0.019	714	771	1.068	0.051	0.344	0.422
Use condom at last high-risk sex	0.552	0.031	247	281	0.963	0.055	0.491	0.614
Condom use last higher-risk intercourse (youth)	0.525	0.043	123	137	0.957	0.082	0.438	0.611
Multipartners in past 12 months	0.180	0.015	666	724	0.991	0.082	0.150	0.209
Sex non marital 12 months (never-married youth)	0.388	0.020	666	724	1.049	0.051	0.348	0.427
Abstinence among youth (Never had intercourse)	0.551	0.028	368	383	1.084	0.051	0.495	0.607
Sexual active past 12 months (never-married youth)	0.322	0.030	368	383	1.239	0.094	0.261	0.382
Had injection past 12 months	0.259	0.020	966	1034	1.420	0.077	0.219	0.299
HIV prevalence (men 15-49)	0.018	0.005	843	1023	0.979	0.247	0.009	0.027
Accepting attitudes to people with HIV	0.342	0.017	956	1018	1.129	0.051	0.307	0.376
HIV test and result in past 12 months	0.219	0.017	966	1034	1.280	0.078	0.185	0.253

Table B.13 Sampling errors for Central sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.122	0.037	524	532	2.602	0.305	0.048	0.197
No education	0.212	0.032	524	532	1.783	0.151	0.148	0.275
Secondary education or higher	0.070	0.011	524	532	1.016	0.162	0.048	0.093
Never married	0.203	0.022	524	532	1.234	0.107	0.160	0.247
Currently married/in union	0.686	0.023	524	532	1.156	0.034	0.639	0.733
Had sexual intercourse before age 18	0.644	0.034	421	427	1.445	0.052	0.577	0.712
Currently pregnant	0.096	0.012	524	532	0.922	0.124	0.072	0.120
Children ever born	3.310	0.132	524	532	1.062	0.040	3.046	3.575
Children surviving	2.802	0.113	524	532	1.079	0.040	2.577	3.028
Children ever born to women age 40-49	6.433	0.298	108	112	1.215	0.046	5.836	7.030
Anaemia in children	0.041	0.017	407	411	1.693	0.425	0.006	0.075
Malaria in children	0.100	0.033	407	411	1.657	0.329	0.034	0.166
Use condom at last high-risk sex	0.298	0.068	81	79	1.324	0.227	0.163	0.434
Use condom at last high-risk sex - 15-24	0.351	0.098	31	28	1.125	0.279	0.155	0.547
Had multipartners in past 12 months	0.056	0.014	413	414	1.198	0.242	0.029	0.083
Had high-risk intercourse	0.192	0.027	413	414	1.397	0.141	0.137	0.246
Abstinence among youth (never had sex)	0.725	0.043	100	100	0.953	0.059	0.639	0.810
Sexually active past 12 months, never-married youth	0.193	0.040	100	100	0.997	0.205	0.114	0.272
Had injection past 12 months	0.262	0.027	524	532	1.409	0.104	0.207	0.316
HIV prevalence (women 15-49)	0.037	0.013	495	464	1.549	0.358	0.010	0.063
Accepting attitudes to people with HIV	0.163	0.025	520	528	1.557	0.155	0.113	0.214
HIV test and result in past 12 months	0.189	0.023	524	532	1.315	0.119	0.144	0.234
Total fertility rate (3 years)	6.287	0.451	9991	10192	1.328	0.072	5.386	7.189
Neonatal mortality (0-9 years)	42.986	13.660	858	889	1.587	0.318	15.665	70.307
Postnenonatal mortality (0-9 years)	34.897	6.931	858	889	1.063	0.199	21.035	48.759
Infant mortality (0-9 years)	77.883	13.550	858	889	1.341	0.174	50.782	104.984
Child mortality (0-9 years)	53.857	12.604	871	903	1.406	0.234	28.649	79.064
Under-five mortality (0-9 years)	127.545	19.325	871	903	1.499	0.152	88.895	166.195
			MEN					
Urban residence	0.102	0.035	433	408	2.419	0.346	0.031	0.172
No education	0.167	0.028	433	408	1.535	0.165	0.112	0.222
Secondary or higher education	0.074	0.019	433	408	1.515	0.257	0.036	0.112
Never married	0.439	0.027	433	408	1.143	0.062	0.385	0.494
Currently married/in union	0.530	0.028	433	408	1.150	0.052	0.475	0.585
Had sexual intercourse before 18	0.495	0.040	308	291	1.399	0.081	0.416	0.575
Use condom at last high-risk sex	0.494	0.065	132	135	1.480	0.131	0.365	0.623
Condom use last higher-risk intercourse (youth)	0.409	0.086	69	68	1.444	0.210	0.237	0.581
Multipartners in past 12 months	0.260	0.025	303	292	0.997	0.097	0.210	0.310
Sex non marital 12 months (never-married youth)	0.462	0.033	303	292	1.137	0.071	0.397	0.527
Abstinence among youth (Never had intercourse)	0.435	0.044	176	162	1.164	0.100	0.348	0.522
Sexual active past 12 months (never-married youth)	0.397	0.037	176	162	0.991	0.092	0.324	0.470
Had injection past 12 months	0.130	0.022	433	408	1.329	0.165	0.087	0.173
HIV prevalence (men 15-49)	0.023	0.011	388	401	1.412	0.464	0.002	0.045
Accepting attitudes to people with HIV	0.254	0.030	429	403	1.447	0.120	0.193	0.315
HIV test and result in past 12 months	0.183	0.022	433	408	1.176	0.120	0.139	0.227

Table B.14 Sampling errors for Southern Highlands sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.203	0.061	884	1297	4.508	0.300	0.081	0.325
No education	0.233	0.019	884	1297	1.346	0.082	0.194	0.271
Secondary education or higher	0.066	0.013	884	1297	1.539	0.195	0.040	0.092
Never married	0.208	0.014	884	1297	1.048	0.069	0.179	0.237
Currently married/in union	0.674	0.018	884	1297	1.123	0.026	0.638	0.709
Had sexual intercourse before age 18	0.561	0.020	703	1037	1.067	0.036	0.521	0.601
Currently pregnant	0.105	0.010	884	1297	1.008	0.099	0.084	0.126
Children ever born	3.233	0.120	884	1297	1.309	0.037	2.993	3.472
Children surviving	2.740	0.096	884	1297	1.238	0.035	2.548	2.933
Children ever born to women age 40-49	6.119	0.252	156	230	1.231	0.041	5.616	6.623
Anaemia in children	0.025	0.006	695	987	0.926	0.231	0.013	0.036
Malaria in children	0.052	0.012	695	987	1.402	0.238	0.027	0.077
Use condom at last high-risk sex	0.379	0.061	73	105	1.062	0.160	0.258	0.500
Use condom at last high-risk sex - 15-24	0.404	0.085	36	50	1.027	0.211	0.234	0.574
Had multipartners in past 12 months	0.007	0.003	649	956	0.977	0.464	0.000	0.013
Had high-risk intercourse	0.110	0.012	649	956	1.000	0.112	0.085	0.135
Abstinence among youth (never had sex)	0.675	0.053	167	240	1.461	0.079	0.569	0.781
Sexually active past 12 months, never-married youth	0.189	0.040	167	240	1.306	0.210	0.110	0.269
Had injection past 12 months	0.263	0.017	884	1297	1.175	0.066	0.228	0.298
HIV prevalence (women 15-49)	0.113	0.014	815	1131	1.249	0.123	0.085	0.141
Accepting attitudes to people with HIV	0.250	0.020	853	1263	1.378	0.082	0.209	0.291
HIV test and result in past 12 months	0.198	0.019	884	1297	1.451	0.098	0.159	0.237
Total fertility rate (3 years)	6.002	0.336	17176	25338	1.268	0.056	5.330	6.675
Neonatal mortality (0-9 years)	36.477	6.637	1528	2186	1.168	0.182	23.204	49.750
Postnenonatal mortality (0-9 years)	38.512	6.117	1536	2197	1.147	0.159	26.277	50.747
Infant mortality (0-9 years)	74.989	7.574	1536	2197	1.002	0.101	59.840	90.138
Child mortality (0-9 years)	49.812	9.869	1542	2208	1.539	0.198	30.075	69.549
Under-five mortality (0-9 years)	121.066	12.097	1550	2219	1.224	0.100	96.871	145.260
MEN								
Urban residence	0.221	0.066	712	1046	4.211	0.297	0.090	0.352
No education	0.103	0.018	712	1046	1.542	0.171	0.068	0.138
Secondary or higher education	0.132	0.021	712	1046	1.638	0.157	0.091	0.174
Never married	0.414	0.021	712	1046	1.156	0.052	0.372	0.457
Currently married/in union	0.553	0.022	712	1046	1.170	0.039	0.510	0.597
Had sexual intercourse before 18	0.352	0.025	536	789	1.232	0.072	0.301	0.403
Use condom at last high-risk sex	0.621	0.043	165	240	1.136	0.069	0.535	0.707
Condom use last higher-risk intercourse (youth)	0.650	0.054	88	124	1.063	0.084	0.541	0.758
Multipartners in past 12 months	0.265	0.021	491	716	1.076	0.081	0.222	0.307
Sex non marital 12 months (never-married youth)	0.336	0.033	491	716	1.532	0.097	0.271	0.401
Abstinence among youth (Never had intercourse)	0.572	0.047	262	382	1.542	0.083	0.477	0.666
Sexual active past 12 months (never-married youth)	0.265	0.036	262	382	1.300	0.134	0.194	0.336
Had injection past 12 months	0.231	0.017	712	1046	1.047	0.072	0.198	0.264
HIV prevalence (men 15-49)	0.087	0.012	647	1033	1.055	0.135	0.063	0.110
Accepting attitudes to people with HIV	0.406	0.025	704	1035	1.376	0.063	0.355	0.457
HIV test and result in past 12 months	0.208	0.015	712	1046	0.975	0.071	0.179	0.238

Table B.15 Sampling errors for Lake sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.172	0.063	1078	1696	5.447	0.365	0.047	0.297
No education	0.200	0.021	1078	1696	1.708	0.104	0.158	0.241
Secondary education or higher	0.062	0.013	1078	1696	1.820	0.217	0.035	0.088
Never married	0.237	0.019	1078	1696	1.436	0.078	0.200	0.274
Currently married/in union	0.620	0.027	1078	1696	1.853	0.044	0.565	0.674
Had sexual intercourse before age 18	0.642	0.020	832	1307	1.209	0.031	0.602	0.682
Currently pregnant	0.131	0.011	1078	1696	1.039	0.082	0.110	0.152
Children ever born	3.238	0.134	1078	1696	1.469	0.041	2.970	3.507
Children surviving	2.784	0.114	1078	1696	1.444	0.041	2.556	3.011
Children ever born to women age 40-49	6.772	0.321	163	250	1.261	0.047	6.130	7.413
Anaemia in children	0.103	0.015	919	1338	1.445	0.149	0.073	0.134
Malaria in children	0.342	0.036	919	1338	1.915	0.105	0.270	0.414
Use condom at last high-risk sex	0.405	0.041	189	305	1.151	0.102	0.323	0.488
Use condom at last high-risk sex - 15-24	0.430	0.063	88	150	1.189	0.147	0.303	0.556
Had multipartners in past 12 months	0.041	0.006	857	1338	0.911	0.150	0.029	0.053
Had high-risk intercourse	0.228	0.024	857	1338	1.694	0.107	0.179	0.277
Abstinence among youth (never had sex)	0.609	0.033	213	352	0.996	0.055	0.542	0.676
Sexually active past 12 months, never-married youth	0.346	0.036	213	352	1.110	0.105	0.273	0.419
Had injection past 12 months	0.419	0.016	1078	1696	1.094	0.039	0.386	0.452
HIV prevalence (women 15-49)	0.063	0.006	1023	1499	0.776	0.094	0.051	0.075
Accepting attitudes to people with HIV	0.275	0.020	1059	1666	1.427	0.071	0.236	0.314
HIV test and result in past 12 months	0.166	0.022	1078	1696	1.948	0.133	0.121	0.210
Total fertility rate (3 years)	6.552	0.378	20576	32276	1.445	0.058	5.796	7.308
Neonatal mortality (0-9 years)	22.742	4.172	1947	2946	1.152	0.183	14.398	31.086
Postnenonatal mortality (0-9 years)	45.311	6.112	1954	2953	1.206	0.135	33.087	57.535
Infant mortality (0-9 years)	68.053	7.903	1954	2953	1.273	0.116	52.248	83.858
Child mortality (0-9 years)	55.961	7.373	1961	2966	1.279	0.132	41.215	70.706
Under-five mortality (0-9 years)	120.205	8.388	1968	2974	1.111	0.070	103.429	136.981
			MEN					
Urban residence	0.140	0.051	851	1249	4.273	0.363	0.038	0.242
No education	0.107	0.014	851	1249	1.291	0.128	0.080	0.135
Secondary or higher education	0.111	0.017	851	1249	1.549	0.150	0.078	0.145
Never married	0.443	0.019	851	1249	1.127	0.043	0.404	0.481
Currently married/in union	0.509	0.022	851	1249	1.281	0.043	0.465	0.552
Had sexual intercourse before 18	0.377	0.021	603	900	1.045	0.055	0.335	0.418
Use condom at last high-risk sex	0.468	0.035	235	345	1.072	0.075	0.398	0.538
Condom use last higher-risk intercourse (youth)	0.413	0.054	103	146	1.104	0.130	0.305	0.520
Multipartners in past 12 months	0.300	0.019	571	837	0.974	0.062	0.263	0.338
Sex non marital 12 months (never-married youth)	0.412	0.032	571	837	1.545	0.077	0.348	0.475
Abstinence among youth (Never had intercourse)	0.597	0.028	340	491	1.068	0.048	0.540	0.654
Sexual active past 12 months (never-married youth)	0.244	0.032	340	491	1.383	0.132	0.179	0.308
Had injection past 12 months	0.198	0.017	851	1249	1.256	0.087	0.164	0.233
HIV prevalence (men 15-49)	0.041	0.007	808	1222	0.981	0.166	0.028	0.055
Accepting attitudes to people with HIV	0.315	0.022	837	1226	1.344	0.069	0.272	0.358
HIV test and result in past 12 months	0.159	0.015	851	1249	1.172	0.092	0.130	0.189

Table B.16 Sampling errors for Eastern sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.668	0.046	928	1436	2.973	0.069	0.576	0.760
No education	0.137	0.017	928	1436	1.505	0.124	0.103	0.171
Secondary education or higher	0.157	0.022	928	1436	1.875	0.143	0.112	0.202
Never married	0.270	0.018	928	1436	1.267	0.068	0.233	0.307
Currently married/in union	0.604	0.024	928	1436	1.510	0.040	0.555	0.652
Had sexual intercourse before age 18	0.531	0.024	747	1157	1.333	0.046	0.483	0.580
Currently pregnant	0.062	0.009	928	1436	1.172	0.149	0.044	0.081
Children ever born	2.287	0.109	928	1436	1.416	0.047	2.070	2.505
Children surviving	1.949	0.089	928	1436	1.352	0.046	1.770	2.127
Children ever born to women age 40-49	5.123	0.270	149	223	1.142	0.053	4.583	5.663
Anaemia in children	0.108	0.016	449	645	1.030	0.150	0.075	0.140
Malaria in children	0.105	0.023	449	645	1.488	0.223	0.058	0.152
Use condom at last high-risk sex	0.573	0.035	199	302	1.008	0.062	0.502	0.644
Use condom at last high-risk sex - 15-24	0.574	0.051	91	139	0.987	0.090	0.471	0.677
Had multipartners in past 12 months	0.035	0.007	714	1107	1.012	0.200	0.021	0.049
Had high-risk intercourse	0.273	0.025	714	1107	1.478	0.090	0.223	0.322
Abstinence among youth (never had sex)	0.510	0.031	196	305	0.862	0.061	0.448	0.571
Sexually active past 12 months, never-married youth	0.359	0.036	196	305	1.061	0.102	0.286	0.432
Had injection past 12 months	0.408	0.017	928	1436	1.057	0.042	0.373	0.442
HIV prevalence (women 15-49)	0.091	0.011	784	1246	1.105	0.125	0.069	0.114
Accepting attitudes to people with HIV	0.299	0.018	926	1432	1.204	0.061	0.263	0.336
HIV test and result in past 12 months	0.215	0.017	928	1436	1.258	0.079	0.181	0.249
Total fertility rate (3 years)	4.032	0.295	18385	28238	1.346	0.073	3.442	4.623
Neonatal mortality (0-9 years)	58.183	8.985	1065	1609	1.090	0.154	40.213	76.153
Postnenonatal mortality (0-9 years)	44.921	8.331	1068	1617	1.168	0.185	28.259	61.584
Infant mortality (0-9 years)	103.105	13.323	1069	1617	1.187	0.129	76.458	129.751
Child mortality (0-9 years)	46.366	8.288	1075	1623	1.129	0.179	29.790	62.943
Under-five mortality (0-9 years)	144.690	13.472	1080	1631	1.061	0.093	117.746	171.634
			MEN					
Urban residence	0.651	0.052	657	1038	2.813	0.080	0.546	0.756
No education	0.075	0.015	657	1038	1.495	0.206	0.044	0.105
Secondary or higher education	0.273	0.028	657	1038	1.620	0.103	0.216	0.329
Never married	0.431	0.021	657	1038	1.090	0.049	0.389	0.473
Currently married/in union	0.499	0.026	657	1038	1.310	0.051	0.448	0.551
Had sexual intercourse before 18	0.360	0.025	502	797	1.151	0.069	0.310	0.409
Use condom at last high-risk sex	0.731	0.038	208	322	1.217	0.051	0.656	0.806
Condom use last higher-risk intercourse (youth)	0.704	0.053	79	124	1.022	0.075	0.599	0.810
Multipartners in past 12 months	0.193	0.018	473	740	0.991	0.093	0.157	0.229
Sex non marital 12 months (never-married youth)	0.435	0.025	473	740	1.083	0.057	0.385	0.484
Abstinence among youth (Never had intercourse)	0.498	0.043	220	346	1.273	0.086	0.412	0.584
Sexually active past 12 months (never-married youth)	0.323	0.035	220	346	1.111	0.109	0.252	0.393
Had injection past 12 months	0.256	0.019	657	1038	1.126	0.075	0.218	0.295
HIV prevalence (men 15-49)	0.059	0.013	518	1026	1.213	0.214	0.034	0.084
Accepting attitudes to people with HIV	0.455	0.025	656	1036	1.301	0.056	0.404	0.506
HIV test and result in past 12 months	0.193	0.019	657	1038	1.241	0.099	0.155	0.231

Table B.17 Sampling errors for Southern sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.190	0.059	889	942	4.448	0.308	0.073	0.307
No education	0.185	0.018	889	942	1.356	0.096	0.149	0.220
Secondary education or higher	0.066	0.012	889	942	1.400	0.177	0.043	0.089
Never married	0.196	0.013	889	942	0.980	0.067	0.169	0.222
Currently married/in union	0.662	0.019	889	942	1.188	0.028	0.624	0.700
Had sexual intercourse before age 18	0.732	0.020	721	762	1.241	0.028	0.691	0.773
Currently pregnant	0.075	0.009	889	942	1.008	0.118	0.058	0.093
Children ever born	2.701	0.103	889	942	1.329	0.038	2.494	2.907
Children surviving	2.290	0.090	889	942	1.365	0.039	2.110	2.470
Children ever born to women age 40-49	5.157	0.248	172	178	1.237	0.048	4.662	5.653
Anaemia in children	0.114	0.018	532	558	1.328	0.160	0.077	0.150
Malaria in children	0.300	0.030	532	558	1.457	0.099	0.241	0.360
Use condom at last high-risk sex	0.385	0.042	189	195	1.180	0.109	0.301	0.469
Use condom at last high-risk sex - 15-24	0.417	0.063	89	93	1.197	0.151	0.291	0.543
Had multipartners in past 12 months	0.059	0.009	724	767	1.009	0.150	0.042	0.077
Had high-risk intercourse	0.254	0.019	724	767	1.176	0.075	0.216	0.292
Abstinence among youth (never had sex)	0.475	0.037	159	167	0.930	0.078	0.401	0.549
Sexually active past 12 months, never-married youth	0.436	0.031	159	167	0.791	0.072	0.373	0.498
Had injection past 12 months	0.377	0.020	889	942	1.240	0.054	0.336	0.417
HIV prevalence (women 15-49)	0.057	0.008	837	826	0.983	0.138	0.041	0.073
Accepting attitudes to people with HIV	0.259	0.022	884	937	1.473	0.084	0.216	0.302
HIV test and result in past 12 months	0.208	0.022	889	942	1.646	0.108	0.163	0.253
Total fertility rate (3 years)	4.460	0.253	17595	18554	1.155	0.057	3.955	4.966
Neonatal mortality (0-9 years)	43.966	9.285	1158	1244	1.543	0.211	25.396	62.536
Postnenonatal mortality (0-9 years)	30.751	4.584	1160	1246	0.912	0.149	21.582	39.919
Infant mortality (0-9 years)	74.717	9.615	1160	1246	1.281	0.129	55.486	93.947
Child mortality (0-9 years)	34.495	4.841	1162	1250	0.886	0.140	24.813	44.177
Under-five mortality (0-9 years)	106.635	10.332	1164	1252	1.194	0.097	85.970	127.299
			MEN					
Urban residence	0.162	0.054	664	660	3.761	0.333	0.054	0.269
No education	0.085	0.015	664	660	1.397	0.178	0.055	0.115
Secondary or higher education	0.075	0.012	664	660	1.184	0.162	0.051	0.099
Never married	0.340	0.031	664	660	1.665	0.090	0.279	0.402
Currently married/in union	0.616	0.032	664	660	1.714	0.053	0.552	0.681
Had sexual intercourse before 18	0.561	0.031	522	523	1.445	0.056	0.498	0.624
Use condom at last high-risk sex	0.581	0.032	285	280	1.100	0.055	0.516	0.645
Condom use last higher-risk intercourse (youth)	0.574	0.039	148	146	0.953	0.068	0.497	0.652
Multipartners in past 12 months	0.279	0.018	559	561	0.942	0.064	0.243	0.315
Sex non marital 12 months (never-married youth)	0.498	0.026	559	561	1.218	0.052	0.447	0.550
Abstinence among youth (Never had intercourse)	0.286	0.037	210	201	1.186	0.130	0.212	0.360
Sexually active past 12 months (never-married youth)	0.610	0.042	210	201	1.234	0.068	0.526	0.693
Had injection past 12 months	0.210	0.019	664	660	1.181	0.089	0.173	0.247
HIV prevalence (men 15-49)	0.032	0.008	596	653	1.047	0.237	0.017	0.047
Accepting attitudes to people with HIV	0.346	0.027	661	657	1.445	0.077	0.293	0.400
HIV test and result in past 12 months	0.210	0.019	664	660	1.192	0.090	0.172	0.248

Table B.18 Sampling errors for Dodoma sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.092	0.021	263	338	1.163	0.225	0.051	0.134
No education	0.221	0.036	263	338	1.415	0.164	0.148	0.293
Secondary education or higher	0.072	0.011	263	338	0.713	0.159	0.049	0.094
Never married	0.200	0.030	263	338	1.216	0.150	0.140	0.260
Currently married/in union	0.680	0.032	263	338	1.110	0.047	0.616	0.744
Had sexual intercourse before age 18	0.696	0.043	213	272	1.364	0.062	0.609	0.782
Currently pregnant	0.099	0.014	263	338	0.769	0.143	0.071	0.127
Children ever born	3.291	0.176	263	338	1.017	0.053	2.939	3.643
Children surviving	2.696	0.139	263	338	0.991	0.052	2.418	2.975
Children ever born to women age 40-49	6.162	0.393	61	76	1.244	0.064	5.377	6.947
Anaemia in children	0.020	0.009	192	254	0.912	0.455	0.002	0.038
Malaria in children	0.125	0.046	192	254	1.385	0.365	0.034	0.217
Use condom at last high-risk sex	0.384	0.096	41	49	1.252	0.251	0.192	0.577
Use condom at last high-risk sex - 15-24	0.407	0.141	14	16	1.038	0.347	0.124	0.690
Had multipartners in past 12 months	0.062	0.017	201	256	1.001	0.275	0.028	0.096
Had high-risk intercourse	0.191	0.036	201	256	1.294	0.188	0.119	0.263
Abstinence among youth (never had sex)	0.696	0.057	50	63	0.865	0.082	0.582	0.810
Sexually active past 12 months, never-married youth	0.193	0.055	50	63	0.982	0.286	0.083	0.304
Had injection past 12 months	0.288	0.038	263	338	1.376	0.134	0.211	0.365
HIV prevalence (women 15-49)	0.041	0.019	246	294	1.493	0.464	0.003	0.078
Accepting attitudes to people with HIV	0.171	0.034	261	335	1.468	0.201	0.102	0.239
HIV test and result in past 12 months	0.172	0.028	263	338	1.210	0.164	0.115	0.228
MEN								
Urban residence	0.077	0.027	211	255	1.453	0.347	0.024	0.131
No education	0.199	0.039	211	255	1.406	0.195	0.121	0.276
Secondary or higher education	0.075	0.025	211	255	1.374	0.333	0.025	0.125
Never married	0.419	0.037	211	255	1.081	0.088	0.345	0.492
Currently married/in union	0.545	0.038	211	255	1.109	0.070	0.468	0.621
Had sexual intercourse before 18	0.605	0.053	149	179	1.317	0.088	0.499	0.711
Use condom at last high-risk sex	0.505	0.076	76	97	1.320	0.151	0.352	0.657
Condom use last higher-risk intercourse (youth)	0.387	0.096	38	47	1.201	0.248	0.195	0.580
Multipartners in past 12 months	0.286	0.033	156	191	0.910	0.116	0.220	0.352
Sex non marital 12 months (never-married youth)	0.508	0.042	156	191	1.043	0.083	0.424	0.591
Abstinence among youth (Never had intercourse)	0.385	0.062	84	100	1.162	0.161	0.261	0.510
Sexually active past 12 months (never-married youth)	0.454	0.050	84	100	0.908	0.109	0.355	0.554
Had injection past 12 months	0.159	0.031	211	255	1.238	0.197	0.096	0.221
HIV prevalence (men 15-49)	0.023	0.016	181	253	1.396	0.680	0.000	0.054
Accepting attitudes to people with HIV	0.271	0.043	208	251	1.392	0.159	0.185	0.357
HIV test and result in past 12 months	0.156	0.031	211	255	1.242	0.199	0.094	0.219

Table B.19 Sampling errors for Arusha sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.387	0.045	306	383	1.614	0.116	0.297	0.477
No education	0.211	0.091	306	383	3.903	0.433	0.028	0.393
Secondary education or higher	0.152	0.029	306	383	1.429	0.193	0.093	0.211
Never married	0.245	0.033	306	383	1.337	0.134	0.179	0.311
Currently married/in union	0.679	0.030	306	383	1.109	0.044	0.620	0.738
Had sexual intercourse before age 18	0.481	0.049	252	315	1.554	0.102	0.383	0.579
Currently pregnant	0.070	0.017	306	383	1.131	0.235	0.037	0.104
Children ever born	2.560	0.159	306	383	1.213	0.062	2.242	2.878
Children surviving	2.345	0.128	306	383	1.064	0.055	2.088	2.601
Children ever born to women age 40-49	5.337	0.377	42	53	1.115	0.071	4.583	6.091
Anaemia in children	0.068	0.021	184	242	1.190	0.308	0.026	0.110
Malaria in children	0.004	0.004	184	242	0.922	1.038	0.000	0.012
Use condom at last high-risk sex	0.347	0.080	35	40	0.985	0.232	0.186	0.508
Use condom at last high-risk sex - 15-24	0.406	0.124	16	18	0.976	0.305	0.158	0.653
Had multipartners in past 12 months	0.003	0.003	216	271	0.837	1.025	0.000	0.009
Had high-risk intercourse	0.147	0.032	216	271	1.324	0.217	0.083	0.211
Abstinence among youth (never had sex)	0.701	0.062	72	83	1.142	0.088	0.577	0.825
Sexually active past 12 months, never-married youth	0.218	0.050	72	83	1.011	0.227	0.119	0.318
Had injection past 12 months	0.329	0.040	306	383	1.475	0.121	0.249	0.408
HIV prevalence (women 15-49)	0.008	0.005	242	345	0.867	0.605	0.000	0.019
Accepting attitudes to people with HIV	0.418	0.047	296	362	1.644	0.113	0.324	0.512
HIV test and result in past 12 months	0.146	0.029	306	383	1.447	0.201	0.087	0.204
			MEN					
Urban residence	0.404	0.060	215	262	1.777	0.147	0.285	0.523
No education	0.093	0.026	215	262	1.328	0.283	0.040	0.146
Secondary or higher education	0.211	0.036	215	262	1.289	0.171	0.139	0.283
Never married	0.413	0.027	215	262	0.807	0.066	0.359	0.467
Currently married/in union	0.555	0.029	215	262	0.839	0.051	0.498	0.612
Had sexual intercourse before 18	0.421	0.047	167	205	1.235	0.112	0.326	0.515
Use condom at last high-risk sex	0.436	0.067	45	57	0.901	0.155	0.301	0.570
Condom use last higher-risk intercourse (youth)	0.421	0.129	18	20	1.080	0.307	0.163	0.680
Multipartners in past 12 months	0.081	0.022	147	182	0.978	0.273	0.037	0.125
Sex non marital 12 months (never-married youth)	0.311	0.036	147	182	0.947	0.117	0.238	0.384
Abstinence among youth (Never had intercourse)	0.638	0.060	71	82	1.046	0.094	0.518	0.758
Sexually active past 12 months (never-married youth)	0.228	0.060	71	82	1.194	0.263	0.108	0.347
Had injection past 12 months	0.196	0.040	215	262	1.473	0.204	0.116	0.276
HIV prevalence (men 15-49)	0.027	0.012	169	260	0.931	0.432	0.004	0.050
Accepting attitudes to people with HIV	0.477	0.047	211	253	1.357	0.098	0.383	0.570
HIV test and result in past 12 months	0.262	0.040	215	262	1.324	0.152	0.182	0.341

Table B.20 Sampling errors for Kilimanjaro sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.284	0.121	321	379	4.817	0.427	0.041	0.527
No education	0.039	0.013	321	379	1.182	0.330	0.013	0.064
Secondary education or higher	0.194	0.034	321	379	1.532	0.175	0.126	0.262
Never married	0.372	0.029	321	379	1.083	0.079	0.313	0.430
Currently married/in union	0.520	0.027	321	379	0.961	0.052	0.466	0.574
Had sexual intercourse before age 18	0.326	0.034	241	284	1.115	0.104	0.258	0.393
Currently pregnant	0.049	0.010	321	379	0.822	0.202	0.029	0.069
Children ever born	2.432	0.133	321	379	1.014	0.055	2.165	2.698
Children surviving	2.308	0.119	321	379	0.974	0.052	2.070	2.546
Children ever born to women age 40-49	4.937	0.290	68	79	1.022	0.059	4.357	5.516
Anaemia in children	0.036	0.020	179	203	1.483	0.573	0.000	0.076
Malaria in children	0.010	0.007	179	203	0.909	0.688	0.000	0.024
Use condom at last high-risk sex	0.576	0.076	42	52	0.982	0.131	0.425	0.728
Use condom at last high-risk sex - 15-24	0.681	0.099	26	33	1.059	0.145	0.483	0.878
Had multipartners in past 12 months	0.014	0.008	212	253	0.943	0.548	0.000	0.029
Had high-risk intercourse	0.207	0.033	212	253	1.188	0.160	0.141	0.273
Abstinence among youth (never had sex)	0.664	0.066	99	117	1.393	0.100	0.531	0.797
Sexually active past 12 months, never-married youth	0.270	0.064	99	117	1.419	0.235	0.143	0.398
Had injection past 12 months	0.453	0.028	321	379	0.998	0.061	0.397	0.508
HIV prevalence (women 15-49)	0.025	0.008	305	328	0.927	0.335	0.008	0.041
Accepting attitudes to people with HIV	0.360	0.031	321	379	1.157	0.086	0.298	0.422
HIV test and result in past 12 months	0.235	0.025	321	379	1.071	0.108	0.184	0.286
MEN								
Urban residence	0.282	0.121	242	271	4.190	0.431	0.039	0.524
No education	0.019	0.009	242	271	0.983	0.459	0.002	0.036
Secondary or higher education	0.243	0.038	242	271	1.384	0.157	0.167	0.320
Never married	0.540	0.040	242	271	1.248	0.074	0.460	0.620
Currently married/in union	0.402	0.036	242	271	1.153	0.091	0.329	0.475
Had sexual intercourse before 18	0.321	0.038	163	182	1.031	0.118	0.245	0.396
Use condom at last high-risk sex	0.676	0.038	58	68	0.620	0.057	0.599	0.752
Condom use last higher-risk intercourse (youth)	0.604	0.061	35	43	0.723	0.100	0.482	0.725
Multipartners in past 12 months	0.162	0.029	147	167	0.949	0.179	0.104	0.220
Sex non marital 12 months (never-married youth)	0.409	0.038	147	167	0.922	0.092	0.334	0.484
Abstinence among youth (Never had intercourse)	0.523	0.060	112	127	1.270	0.115	0.403	0.643
Sexually active past 12 months (never-married youth)	0.321	0.057	112	127	1.286	0.178	0.207	0.435
Had injection past 12 months	0.373	0.039	242	271	1.239	0.104	0.296	0.450
HIV prevalence (men 15-49)	0.012	0.006	233	266	0.862	0.517	0.000	0.024
Accepting attitudes to people with HIV	0.316	0.023	242	271	0.778	0.074	0.269	0.362
HIV test and result in past 12 months	0.230	0.026	242	271	0.942	0.111	0.179	0.282

Table B.21 Sampling errors for Tanga sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.223	0.104	308	424	4.387	0.468	0.014	0.431
No education	0.222	0.046	308	424	1.945	0.208	0.130	0.315
Secondary education or higher	0.052	0.015	308	424	1.151	0.279	0.023	0.082
Never married	0.247	0.031	308	424	1.251	0.125	0.185	0.309
Currently married/in union	0.600	0.036	308	424	1.293	0.060	0.528	0.672
Had sexual intercourse before age 18	0.529	0.034	252	352	1.071	0.064	0.462	0.597
Currently pregnant	0.100	0.018	308	424	1.062	0.182	0.063	0.136
Children ever born	2.809	0.210	308	424	1.405	0.075	2.389	3.229
Children surviving	2.312	0.168	308	424	1.405	0.073	1.977	2.647
Children ever born to women age 40-49	5.446	0.428	61	84	1.166	0.079	4.591	6.301
Anaemia in children	0.080	0.027	180	236	1.272	0.344	0.025	0.135
Malaria in children	0.139	0.035	180	236	1.332	0.253	0.069	0.210
Use condom at last high-risk sex	0.502	0.055	63	87	0.861	0.109	0.392	0.611
Use condom at last high-risk sex - 15-24	0.553	0.055	36	50	0.651	0.099	0.443	0.662
Had multipartners in past 12 months	0.051	0.018	245	339	1.280	0.352	0.015	0.088
Had high-risk intercourse	0.257	0.035	245	339	1.234	0.134	0.188	0.326
Abstinence among youth (never had sex)	0.459	0.074	72	97	1.249	0.161	0.311	0.607
Sexually active past 12 months, never-married youth	0.411	0.065	72	97	1.119	0.159	0.281	0.542
Had injection past 12 months	0.382	0.028	308	424	1.017	0.074	0.325	0.438
HIV prevalence (women 15-49)	0.067	0.023	278	372	1.520	0.342	0.021	0.112
Accepting attitudes to people with HIV	0.186	0.025	307	423	1.130	0.135	0.136	0.237
HIV test and result in past 12 months	0.235	0.026	308	424	1.072	0.110	0.183	0.287
			MEN					
Urban residence	0.169	0.085	222	298	3.362	0.502	0.000	0.338
No education	0.125	0.032	222	298	1.446	0.258	0.060	0.189
Secondary or higher education	0.104	0.027	222	298	1.337	0.264	0.049	0.159
Never married	0.396	0.032	222	298	0.963	0.080	0.332	0.459
Currently married/in union	0.491	0.028	222	298	0.828	0.057	0.435	0.546
Had sexual intercourse before 18	0.403	0.031	174	232	0.844	0.078	0.340	0.465
Use condom at last high-risk sex	0.664	0.058	78	106	1.072	0.087	0.548	0.779
Condom use last higher-risk intercourse (youth)	0.655	0.082	33	46	0.977	0.125	0.491	0.819
Multipartners in past 12 months	0.327	0.036	167	225	0.999	0.111	0.254	0.400
Sex non marital 12 months (never-married youth)	0.473	0.043	167	225	1.113	0.091	0.386	0.559
Abstinence among youth (Never had intercourse)	0.472	0.046	75	100	0.794	0.098	0.380	0.564
Sexually active past 12 months (never-married youth)	0.389	0.069	75	100	1.211	0.177	0.251	0.526
Had injection past 12 months	0.315	0.042	222	298	1.330	0.132	0.232	0.398
HIV prevalence (men 15-49)	0.024	0.010	196	296	0.907	0.410	0.004	0.045
Accepting attitudes to people with HIV	0.219	0.028	220	295	0.997	0.127	0.163	0.275
HIV test and result in past 12 months	0.193	0.029	222	298	1.107	0.152	0.135	0.252

Table B.22 Sampling errors for Morogoro sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.319	0.126	247	436	4.232	0.394	0.067	0.570
No education	0.201	0.041	247	436	1.623	0.206	0.118	0.284
Secondary education or higher	0.066	0.034	247	436	2.120	0.507	0.000	0.134
Never married	0.180	0.023	247	436	0.955	0.130	0.134	0.227
Currently married/in union	0.711	0.036	247	436	1.241	0.050	0.639	0.783
Had sexual intercourse before age 18	0.659	0.047	207	364	1.412	0.071	0.566	0.753
Currently pregnant	0.075	0.018	247	436	1.096	0.245	0.038	0.112
Children ever born	2.922	0.252	247	436	1.559	0.086	2.417	3.426
Children surviving	2.461	0.198	247	436	1.457	0.080	2.066	2.857
Children ever born to women age 40-49	5.899	0.425	47	78	0.990	0.072	5.050	6.748
Anaemia in children	0.144	0.029	142	246	0.941	0.202	0.086	0.202
Malaria in children	0.157	0.057	142	246	1.817	0.361	0.044	0.270
Use condom at last high-risk sex	0.542	0.087	41	73	1.110	0.161	0.367	0.717
Use condom at last high-risk sex - 15-24	0.488	0.082	18	31	0.678	0.169	0.323	0.652
Had multipartners in past 12 months	0.027	0.013	206	364	1.181	0.496	0.000	0.054
Had high-risk intercourse	0.202	0.035	206	364	1.265	0.176	0.131	0.273
Abstinence among youth (never had sex)	0.455	0.107	33	59	1.212	0.234	0.242	0.669
Sexually active past 12 months, never-married youth	0.366	0.090	33	59	1.053	0.245	0.187	0.545
Had injection past 12 months	0.372	0.040	247	436	1.302	0.108	0.292	0.452
HIV prevalence (women 15-49)	0.071	0.018	213	379	1.030	0.255	0.035	0.108
Accepting attitudes to people with HIV	0.256	0.033	245	432	1.183	0.129	0.190	0.322
HIV test and result in past 12 months	0.156	0.026	247	436	1.114	0.165	0.105	0.208
MEN								
Urban residence	0.286	0.126	199	340	3.911	0.439	0.035	0.538
No education	0.159	0.039	199	340	1.486	0.243	0.082	0.236
Secondary or higher education	0.068	0.024	199	340	1.325	0.349	0.020	0.115
Never married	0.300	0.027	199	340	0.818	0.089	0.247	0.353
Currently married/in union	0.634	0.037	199	340	1.079	0.058	0.560	0.708
Had sexual intercourse before 18	0.406	0.033	154	263	0.822	0.080	0.341	0.472
Use condom at last high-risk sex	0.641	0.084	54	89	1.273	0.131	0.474	0.809
Condom use last higher-risk intercourse (youth)	0.634	0.099	22	36	0.938	0.155	0.437	0.831
Multipartners in past 12 months	0.198	0.029	155	266	0.918	0.149	0.139	0.257
Sex non marital 12 months (never-married youth)	0.335	0.040	155	266	1.044	0.119	0.255	0.414
Abstinence among youth (Never had intercourse)	0.491	0.087	54	91	1.269	0.178	0.317	0.665
Sexually active past 12 months (never-married youth)	0.305	0.066	54	91	1.046	0.217	0.173	0.437
Had injection past 12 months	0.178	0.034	199	340	1.243	0.190	0.110	0.245
HIV prevalence (men 15-49)	0.029	0.014	173	333	1.131	0.503	0.000	0.057
Accepting attitudes to people with HIV	0.312	0.040	199	340	1.201	0.127	0.232	0.391
HIV test and result in past 12 months	0.142	0.025	199	340	1.019	0.178	0.092	0.193

Table B.23 Sampling errors for Pwani sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.286	0.128	233	203	4.305	0.447	0.030	0.541
No education	0.252	0.033	233	203	1.147	0.130	0.186	0.317
Secondary education or higher	0.083	0.037	233	203	2.022	0.440	0.010	0.157
Never married	0.264	0.027	233	203	0.941	0.103	0.209	0.318
Currently married/in union	0.591	0.034	233	203	1.050	0.057	0.524	0.659
Had sexual intercourse before age 18	0.602	0.048	184	161	1.319	0.079	0.507	0.698
Currently pregnant	0.086	0.029	233	203	1.565	0.336	0.028	0.143
Children ever born	2.802	0.272	233	203	1.517	0.097	2.257	3.347
Children surviving	2.367	0.223	233	203	1.461	0.094	1.921	2.812
Children ever born to women age 40-49	6.253	0.446	39	34	0.899	0.071	5.361	7.146
Anaemia in children	0.091	0.032	148	123	1.168	0.346	0.028	0.154
Malaria in children	0.208	0.042	148	123	1.108	0.200	0.124	0.291
Use condom at last high-risk sex	0.367	0.079	54	49	1.197	0.216	0.208	0.525
Use condom at last high-risk sex - 15-24	0.336	0.073	27	26	0.793	0.218	0.189	0.483
Had multipartners in past 12 months	0.056	0.019	178	158	1.114	0.345	0.017	0.094
Had high-risk intercourse	0.312	0.041	178	158	1.171	0.131	0.230	0.393
Abstinence among youth (never had sex)	0.541	0.074	51	45	1.054	0.137	0.392	0.689
Sexually active past 12 months, never-married youth	0.395	0.071	51	45	1.032	0.181	0.252	0.538
Had injection past 12 months	0.379	0.028	233	203	0.865	0.073	0.324	0.435
HIV prevalence (women 15-49)	0.084	0.020	204	177	1.003	0.233	0.045	0.123
Accepting attitudes to people with HIV	0.295	0.034	233	203	1.119	0.114	0.228	0.362
HIV test and result in past 12 months	0.146	0.025	233	203	1.086	0.173	0.095	0.196
			MEN					
Urban residence	0.255	0.117	137	119	3.133	0.459	0.021	0.489
No education	0.097	0.033	137	119	1.314	0.345	0.030	0.163
Secondary or higher education	0.111	0.047	137	119	1.756	0.426	0.016	0.205
Never married	0.421	0.060	137	119	1.412	0.142	0.302	0.541
Currently married/in union	0.502	0.059	137	119	1.369	0.117	0.385	0.620
Had sexual intercourse before 18	0.306	0.044	104	88	0.973	0.145	0.217	0.394
Use condom at last high-risk sex	0.619	0.096	49	42	1.368	0.155	0.427	0.811
Condom use last higher-risk intercourse (youth)	0.581	0.107	20	18	0.941	0.184	0.367	0.794
Multipartners in past 12 months	0.205	0.037	104	90	0.936	0.182	0.130	0.279
Sex non marital 12 months (never-married youth)	0.472	0.057	104	90	1.169	0.122	0.357	0.587
Abstinence among youth (Never had intercourse)	0.567	0.097	47	43	1.329	0.171	0.373	0.761
Sexually active past 12 months (never-married youth)	0.359	0.056	47	43	0.793	0.156	0.247	0.471
Had injection past 12 months	0.257	0.060	137	119	1.590	0.232	0.138	0.376
HIV prevalence (men 15-49)	0.042	0.028	113	116	1.446	0.654	0.000	0.097
Accepting attitudes to people with HIV	0.350	0.037	137	119	0.901	0.105	0.276	0.424
HIV test and result in past 12 months	0.146	0.050	137	119	1.650	0.342	0.046	0.246

Table B.24 Sampling errors for Dar es Salaam sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.957	0.034	448	797	3.529	0.036	0.888	1.025
No education	0.073	0.017	448	797	1.395	0.234	0.039	0.108
Secondary education or higher	0.226	0.035	448	797	1.771	0.155	0.156	0.296
Never married	0.321	0.029	448	797	1.313	0.090	0.263	0.379
Currently married/in union	0.549	0.038	448	797	1.608	0.069	0.473	0.624
Had sexual intercourse before age 18	0.439	0.032	356	632	1.207	0.072	0.376	0.503
Currently pregnant	0.049	0.011	448	797	1.094	0.227	0.027	0.072
Children ever born	1.809	0.128	448	797	1.378	0.071	1.552	2.066
Children surviving	1.561	0.111	448	797	1.338	0.071	1.340	1.783
Children ever born to women age 40-49	4.222	0.418	63	110	1.322	0.099	3.387	5.057
Anaemia in children	0.083	0.023	159	276	1.048	0.279	0.037	0.129
Malaria in children	0.012	0.009	159	276	1.012	0.710	0.000	0.030
Use condom at last high-risk sex	0.642	0.041	104	179	0.872	0.064	0.560	0.725
Use condom at last high-risk sex - 15-24	0.681	0.070	46	82	1.008	0.103	0.540	0.821
Had multipartners in past 12 months	0.034	0.009	330	586	0.880	0.259	0.016	0.051
Had high-risk intercourse	0.306	0.040	330	586	1.578	0.131	0.226	0.386
Abstinence among youth (never had sex)	0.519	0.032	112	201	0.673	0.062	0.455	0.583
Sexually active past 12 months, never-married youth	0.349	0.046	112	201	1.017	0.132	0.257	0.440
Had injection past 12 months	0.434	0.020	448	797	0.842	0.045	0.395	0.474
HIV prevalence (women 15-49)	0.104	0.017	367	690	1.069	0.164	0.070	0.138
Accepting attitudes to people with HIV	0.324	0.025	448	797	1.151	0.079	0.273	0.375
HIV test and result in past 12 months	0.265	0.026	448	797	1.268	0.100	0.212	0.318
			MEN					
Urban residence	0.946	0.039	321	580	3.096	0.041	0.868	1.024
No education	0.021	0.009	321	580	1.096	0.422	0.003	0.038
Secondary or higher education	0.426	0.040	321	580	1.443	0.094	0.346	0.506
Never married	0.510	0.029	321	580	1.021	0.056	0.453	0.567
Currently married/in union	0.420	0.035	321	580	1.262	0.083	0.350	0.490
Had sexual intercourse before 18	0.343	0.037	244	445	1.224	0.109	0.269	0.418
Use condom at last high-risk sex	0.798	0.045	105	191	1.155	0.057	0.707	0.889
Condom use last higher-risk intercourse (youth)	0.773	0.067	37	70	0.964	0.087	0.638	0.907
Multipartners in past 12 months	0.187	0.027	214	385	0.996	0.142	0.134	0.241
Sex non marital 12 months (never-married youth)	0.495	0.033	214	385	0.974	0.067	0.429	0.562
Abstinence among youth (Never had intercourse)	0.487	0.056	119	212	1.226	0.116	0.374	0.600
Sexually active past 12 months (never-married youth)	0.323	0.048	119	212	1.125	0.150	0.226	0.420
Had injection past 12 months	0.302	0.023	321	580	0.877	0.075	0.257	0.347
HIV prevalence (men 15-49)	0.079	0.019	232	577	1.070	0.240	0.041	0.117
Accepting attitudes to people with HIV	0.561	0.033	320	578	1.198	0.059	0.495	0.628
HIV test and result in past 12 months	0.232	0.029	321	580	1.213	0.123	0.175	0.290

Table B.25 Sampling errors for Lindi sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.222	0.119	287	246	4.860	0.538	0.000	0.461
No education	0.262	0.041	287	246	1.564	0.155	0.180	0.343
Secondary education or higher	0.077	0.021	287	246	1.345	0.275	0.035	0.120
Never married	0.232	0.021	287	246	0.841	0.090	0.190	0.274
Currently married/in union	0.664	0.037	287	246	1.317	0.055	0.591	0.738
Had sexual intercourse before age 18	0.773	0.024	236	200	0.877	0.031	0.725	0.821
Currently pregnant	0.052	0.012	287	246	0.950	0.240	0.027	0.077
Children ever born	2.645	0.190	287	246	1.353	0.072	2.266	3.024
Children surviving	2.149	0.170	287	246	1.540	0.079	1.809	2.489
Children ever born to women age 40-49	5.360	0.543	57	50	1.456	0.101	4.273	6.447
Anaemia in children	0.064	0.015	156	131	0.797	0.235	0.034	0.094
Malaria in children	0.355	0.057	156	131	1.463	0.160	0.241	0.468
Use condom at last high-risk sex	0.455	0.064	62	55	1.002	0.140	0.327	0.583
Use condom at last high-risk sex - 15-24	0.494	0.098	29	25	1.041	0.199	0.297	0.691
Had multipartners in past 12 months	0.062	0.019	235	200	1.207	0.307	0.024	0.100
Had high-risk intercourse	0.275	0.038	235	200	1.293	0.137	0.199	0.350
Abstinence among youth (never had sex)	0.552	0.062	54	48	0.906	0.112	0.428	0.676
Sexually active past 12 months, never-married youth	0.381	0.051	54	48	0.766	0.134	0.279	0.483
Had injection past 12 months	0.343	0.030	287	246	1.073	0.088	0.283	0.403
HIV prevalence (women 15-49)	0.049	0.013	281	215	1.035	0.272	0.022	0.076
Accepting attitudes to people with HIV	0.340	0.050	287	246	1.780	0.147	0.240	0.439
HIV test and result in past 12 months	0.218	0.038	287	246	1.543	0.173	0.143	0.293
			MEN					
Urban residence	0.203	0.113	214	164	4.107	0.557	0.000	0.430
No education	0.136	0.029	214	164	1.219	0.210	0.079	0.193
Secondary or higher education	0.106	0.025	214	164	1.173	0.234	0.056	0.155
Never married	0.315	0.031	214	164	0.980	0.099	0.252	0.377
Currently married/in union	0.627	0.038	214	164	1.159	0.061	0.550	0.703
Had sexual intercourse before 18	0.563	0.038	181	141	1.033	0.068	0.487	0.639
Use condom at last high-risk sex	0.580	0.060	92	72	1.167	0.104	0.460	0.701
Condom use last higher-risk intercourse (youth)	0.614	0.060	40	30	0.764	0.097	0.495	0.733
Multipartners in past 12 months	0.308	0.037	186	146	1.099	0.121	0.233	0.383
Sex non marital 12 months (never-married youth)	0.490	0.027	186	146	0.746	0.056	0.435	0.544
Abstinence among youth (Never had intercourse)	0.282	0.059	59	42	1.005	0.210	0.164	0.401
Sexually active past 12 months (never-married youth)	0.666	0.079	59	42	1.282	0.119	0.507	0.825
Had injection past 12 months	0.240	0.034	214	164	1.164	0.142	0.172	0.308
HIV prevalence (men 15-49)	0.022	0.011	205	161	1.106	0.513	0.000	0.045
Accepting attitudes to people with HIV	0.338	0.031	214	164	0.971	0.093	0.275	0.401
HIV test and result in past 12 months	0.293	0.034	214	164	1.088	0.116	0.225	0.361

Table B.26 Sampling errors for Mtwara sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.189	0.093	267	324	3.880	0.493	0.003	0.375
No education	0.209	0.028	267	324	1.129	0.135	0.153	0.265
Secondary education or higher	0.044	0.018	267	324	1.437	0.410	0.008	0.080
Never married	0.151	0.018	267	324	0.842	0.122	0.114	0.188
Currently married/in union	0.671	0.032	267	324	1.097	0.047	0.608	0.735
Had sexual intercourse before age 18	0.727	0.035	220	266	1.168	0.048	0.657	0.798
Currently pregnant	0.081	0.017	267	324	1.009	0.208	0.047	0.115
Children ever born	2.502	0.189	267	324	1.475	0.076	2.124	2.880
Children surviving	2.112	0.156	267	324	1.444	0.074	1.799	2.425
Children ever born to women age 40-49	4.333	0.529	47	54	1.314	0.122	3.274	5.391
Anaemia in children	0.074	0.025	159	196	1.284	0.339	0.024	0.125
Malaria in children	0.336	0.045	159	196	1.190	0.134	0.246	0.426
Use condom at last high-risk sex	0.281	0.076	61	68	1.311	0.271	0.129	0.433
Use condom at last high-risk sex - 15-24	0.274	0.098	27	33	1.117	0.356	0.079	0.470
Had multipartners in past 12 months	0.075	0.013	225	274	0.758	0.178	0.048	0.102
Had high-risk intercourse	0.246	0.033	225	274	1.153	0.135	0.180	0.313
Abstinence among youth (never had sex)	0.535	0.070	41	49	0.886	0.131	0.395	0.674
Sexually active past 12 months, never-married youth	0.431	0.070	41	49	0.890	0.162	0.292	0.571
Had injection past 12 months	0.355	0.045	267	324	1.541	0.127	0.265	0.446
HIV prevalence (women 15-49)	0.044	0.015	233	285	1.109	0.338	0.014	0.074
Accepting attitudes to people with HIV	0.171	0.028	267	324	1.215	0.164	0.115	0.227
HIV test and result in past 12 months	0.151	0.041	267	324	1.856	0.270	0.069	0.232
			MEN					
Urban residence	0.143	0.078	177	209	2.959	0.547	0.000	0.299
No education	0.107	0.027	177	209	1.149	0.250	0.054	0.161
Secondary or higher education	0.039	0.012	177	209	0.839	0.315	0.014	0.063
Never married	0.277	0.071	177	209	2.116	0.257	0.135	0.420
Currently married/in union	0.671	0.079	177	209	2.228	0.118	0.513	0.829
Had sexual intercourse before 18	0.610	0.054	135	166	1.293	0.089	0.501	0.719
Use condom at last high-risk sex	0.529	0.068	78	88	1.200	0.129	0.392	0.665
Condom use last higher-risk intercourse (youth)	0.472	0.078	40	45	0.973	0.165	0.317	0.628
Multipartners in past 12 months	0.322	0.035	149	179	0.900	0.107	0.252	0.391
Sex non marital 12 months (never-married youth)	0.489	0.066	149	179	1.594	0.134	0.358	0.621
Abstinence among youth (Never had intercourse)	0.241	0.065	51	54	1.070	0.269	0.111	0.370
Sexually active past 12 months (never-married youth)	0.644	0.063	51	54	0.935	0.098	0.517	0.771
Had injection past 12 months	0.196	0.025	177	209	0.829	0.127	0.146	0.245
HIV prevalence (men 15-49)	0.025	0.014	146	207	1.050	0.541	0.000	0.053
Accepting attitudes to people with HIV	0.316	0.046	177	209	1.320	0.146	0.223	0.408
HIV test and result in past 12 months	0.109	0.022	177	209	0.949	0.205	0.064	0.153

Table B.27 Sampling errors for Ruvuma sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.170	0.095	335	372	4.619	0.558	0.000	0.360
No education	0.113	0.026	335	372	1.502	0.231	0.061	0.164
Secondary education or higher	0.078	0.020	335	372	1.356	0.256	0.038	0.117
Never married	0.210	0.025	335	372	1.102	0.117	0.161	0.259
Currently married/in union	0.652	0.030	335	372	1.156	0.046	0.592	0.713
Had sexual intercourse before age 18	0.709	0.040	265	296	1.435	0.057	0.629	0.789
Currently pregnant	0.086	0.015	335	372	0.945	0.169	0.057	0.115
Children ever born	2.910	0.165	335	372	1.228	0.057	2.581	3.240
Children surviving	2.539	0.143	335	372	1.216	0.057	2.252	2.826
Children ever born to women age 40-49	5.614	0.211	68	75	0.765	0.038	5.193	6.036
Anaemia in children	0.175	0.037	217	231	1.381	0.211	0.101	0.249
Malaria in children	0.239	0.050	217	231	1.653	0.211	0.138	0.340
Use condom at last high-risk sex	0.428	0.064	66	73	1.038	0.149	0.301	0.556
Use condom at last high-risk sex - 15-24	0.494	0.096	33	35	1.089	0.195	0.301	0.686
Had multipartners in past 12 months	0.043	0.014	264	293	1.157	0.338	0.014	0.072
Had high-risk intercourse	0.248	0.029	264	293	1.078	0.116	0.191	0.306
Abstinence among youth (never had sex)	0.380	0.068	64	70	1.106	0.178	0.245	0.516
Sexually active past 12 months, never-married youth	0.477	0.045	64	70	0.719	0.095	0.386	0.567
Had injection past 12 months	0.417	0.023	335	372	0.863	0.056	0.371	0.464
HIV prevalence (women 15-49)	0.074	0.011	323	326	0.782	0.154	0.051	0.097
Accepting attitudes to people with HIV	0.283	0.032	330	367	1.296	0.114	0.218	0.347
HIV test and result in past 12 months	0.250	0.031	335	372	1.302	0.123	0.189	0.312
			MEN					
Urban residence	0.152	0.087	273	287	4.016	0.576	0.000	0.326
No education	0.039	0.027	273	287	2.302	0.692	0.000	0.093
Secondary or higher education	0.084	0.022	273	287	1.340	0.269	0.039	0.129
Never married	0.401	0.038	273	287	1.271	0.094	0.325	0.476
Currently married/in union	0.571	0.035	273	287	1.179	0.062	0.500	0.641
Had sexual intercourse before 18	0.522	0.054	206	216	1.541	0.103	0.415	0.630
Use condom at last high-risk sex	0.618	0.039	115	120	0.867	0.064	0.539	0.697
Condom use last higher-risk intercourse (youth)	0.623	0.058	68	70	0.971	0.092	0.508	0.738
Multipartners in past 12 months	0.229	0.021	224	236	0.738	0.091	0.188	0.271
Sex non marital 12 months (never-married youth)	0.510	0.030	224	236	0.892	0.058	0.451	0.570
Abstinence among youth (Never had intercourse)	0.311	0.058	100	105	1.255	0.188	0.194	0.428
Sexually active past 12 months (never-married youth)	0.569	0.066	100	105	1.322	0.116	0.438	0.701
Had injection past 12 months	0.203	0.033	273	287	1.352	0.162	0.137	0.269
HIV prevalence (men 15-49)	0.042	0.012	245	285	0.952	0.291	0.018	0.067
Accepting attitudes to people with HIV	0.374	0.048	270	284	1.627	0.128	0.278	0.470
HIV test and result in past 12 months	0.236	0.029	273	287	1.134	0.124	0.177	0.294

Table B.28 Sampling errors for Iringa sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.204	0.101	280	403	4.173	0.493	0.003	0.406
No education	0.178	0.018	280	403	0.803	0.103	0.141	0.215
Secondary education or higher	0.085	0.019	280	403	1.148	0.226	0.046	0.123
Never married	0.251	0.024	280	403	0.914	0.095	0.203	0.298
Currently married/in union	0.625	0.035	280	403	1.200	0.056	0.555	0.694
Had sexual intercourse before age 18	0.427	0.031	231	336	0.936	0.072	0.366	0.488
Currently pregnant	0.081	0.011	280	403	0.684	0.138	0.059	0.103
Children ever born	3.008	0.174	280	403	1.223	0.058	2.659	3.357
Children surviving	2.615	0.150	280	403	1.211	0.057	2.315	2.916
Children ever born to women age 40-49	5.488	0.292	59	88	1.005	0.053	4.905	6.072
Anaemia in children	0.031	0.011	188	275	0.896	0.362	0.009	0.054
Malaria in children	0.026	0.012	188	275	1.047	0.466	0.002	0.051
Use condom at last high-risk sex	0.449	0.099	30	44	1.067	0.220	0.252	0.646
Use condom at last high-risk sex - 15-24	0.460	0.132	15	23	0.992	0.287	0.195	0.724
Had multipartners in past 12 months	0.011	0.007	185	268	0.993	0.707	0.000	0.026
Had high-risk intercourse	0.163	0.026	185	268	0.955	0.159	0.111	0.215
Abstinence among youth (never had sex)	0.575	0.089	57	80	1.347	0.155	0.397	0.753
Sexually active past 12 months, never-married youth	0.292	0.079	57	80	1.307	0.272	0.133	0.450
Had injection past 12 months	0.294	0.036	280	403	1.318	0.122	0.222	0.366
HIV prevalence (women 15-49)	0.186	0.033	265	353	1.387	0.179	0.119	0.252
Accepting attitudes to people with HIV	0.203	0.029	278	400	1.193	0.142	0.146	0.261
HIV test and result in past 12 months	0.272	0.031	280	403	1.177	0.115	0.210	0.335
			MEN					
Urban residence	0.232	0.111	194	286	3.646	0.477	0.011	0.454
No education	0.118	0.025	194	286	1.066	0.210	0.068	0.167
Secondary or higher education	0.121	0.030	194	286	1.267	0.246	0.062	0.181
Never married	0.439	0.035	194	286	0.991	0.081	0.368	0.510
Currently married/in union	0.518	0.037	194	286	1.024	0.071	0.444	0.591
Had sexual intercourse before 18	0.365	0.044	146	214	1.107	0.121	0.276	0.453
Use condom at last high-risk sex	0.585	0.073	53	79	1.072	0.125	0.438	0.731
Condom use last higher-risk intercourse (youth)	0.689	0.110	25	35	1.166	0.160	0.469	0.910
Multipartners in past 12 months	0.270	0.039	130	192	0.990	0.143	0.193	0.348
Sex non marital 12 months (never-married youth)	0.411	0.046	130	192	1.072	0.113	0.318	0.504
Abstinence among youth (Never had intercourse)	0.599	0.092	71	103	1.574	0.154	0.415	0.783
Sexually active past 12 months (never-married youth)	0.309	0.076	71	103	1.377	0.246	0.157	0.461
Had injection past 12 months	0.234	0.032	194	286	1.054	0.137	0.170	0.299
HIV prevalence (men 15-49)	0.121	0.032	180	283	1.322	0.267	0.057	0.186
Accepting attitudes to people with HIV	0.347	0.031	191	282	0.901	0.090	0.285	0.409
HIV test and result in past 12 months	0.240	0.029	194	286	0.940	0.120	0.182	0.298

Table B.29 Sampling errors for Mbeya sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.233	0.109	292	581	4.401	0.469	0.015	0.450
No education	0.205	0.030	292	581	1.253	0.145	0.146	0.264
Secondary education or higher	0.071	0.024	292	581	1.623	0.343	0.022	0.120
Never married	0.190	0.025	292	581	1.098	0.133	0.140	0.241
Currently married/in union	0.690	0.028	292	581	1.044	0.041	0.633	0.747
Had sexual intercourse before age 18	0.595	0.034	227	455	1.036	0.057	0.527	0.663
Currently pregnant	0.120	0.018	292	581	0.949	0.151	0.083	0.156
Children ever born	3.099	0.216	292	581	1.400	0.070	2.667	3.531
Children surviving	2.632	0.170	292	581	1.302	0.065	2.292	2.972
Children ever born to women age 40-49	5.874	0.442	47	93	1.183	0.075	4.990	6.757
Anaemia in children	0.011	0.008	214	421	1.150	0.742	0.000	0.027
Malaria in children	0.030	0.020	214	421	1.704	0.665	0.000	0.070
Use condom at last high-risk sex	0.355	0.096	20	38	0.873	0.270	0.163	0.546
Use condom at last high-risk sex - 15-24	0.540	0.128	8	15	0.682	0.238	0.283	0.797
Had multipartners in past 12 months	0.007	0.005	221	441	0.876	0.697	0.000	0.017
Had high-risk intercourse	0.087	0.018	221	441	0.946	0.207	0.051	0.123
Abstinence among youth (never had sex)	0.759	0.087	54	105	1.477	0.114	0.586	0.933
Sexually active past 12 months, never-married youth	0.112	0.055	54	105	1.279	0.495	0.001	0.223
Had injection past 12 months	0.262	0.019	292	581	0.748	0.074	0.223	0.300
HIV prevalence (women 15-49)	0.093	0.017	276	502	0.998	0.188	0.058	0.128
Accepting attitudes to people with HIV	0.272	0.033	289	576	1.276	0.123	0.205	0.339
HIV test and result in past 12 months	0.192	0.036	292	581	1.541	0.186	0.121	0.263
			MEN					
Urban residence	0.251	0.115	263	496	4.275	0.456	0.022	0.480
No education	0.087	0.031	263	496	1.774	0.354	0.025	0.149
Secondary or higher education	0.154	0.037	263	496	1.683	0.244	0.079	0.229
Never married	0.426	0.034	263	496	1.120	0.080	0.358	0.495
Currently married/in union	0.544	0.034	263	496	1.117	0.063	0.475	0.613
Had sexual intercourse before 18	0.303	0.043	200	378	1.333	0.143	0.216	0.390
Use condom at last high-risk sex	0.745	0.058	51	96	0.935	0.077	0.630	0.860
Condom use last higher-risk intercourse (youth)	0.782	0.076	27	51	0.936	0.097	0.631	0.934
Multipartners in past 12 months	0.278	0.035	174	326	1.016	0.124	0.209	0.347
Sex non marital 12 months (never-married youth)	0.294	0.059	174	326	1.697	0.200	0.177	0.412
Abstinence among youth (Never had intercourse)	0.615	0.075	99	186	1.535	0.123	0.464	0.766
Sexually active past 12 months (never-married youth)	0.199	0.054	99	186	1.328	0.269	0.092	0.306
Had injection past 12 months	0.219	0.027	263	496	1.047	0.122	0.165	0.272
HIV prevalence (men 15-49)	0.092	0.016	246	487	0.846	0.170	0.060	0.123
Accepting attitudes to people with HIV	0.449	0.041	260	491	1.319	0.091	0.367	0.530
HIV test and result in past 12 months	0.202	0.017	263	496	0.691	0.085	0.168	0.236

Table B.30 Sampling errors for Singida sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
No education	0.195	0.060	261	194	2.440	0.307	0.075	0.315
Secondary education or higher	0.068	0.024	261	194	1.536	0.353	0.020	0.116
Never married	0.209	0.029	261	194	1.148	0.139	0.151	0.266
Currently married/in union	0.697	0.031	261	194	1.094	0.045	0.635	0.760
Had sexual intercourse before age 18	0.555	0.048	208	155	1.399	0.087	0.458	0.651
Currently pregnant	0.091	0.021	261	194	1.188	0.233	0.049	0.134
Children ever born	3.344	0.190	261	194	1.044	0.057	2.965	3.724
Children surviving	2.986	0.170	261	194	1.066	0.057	2.646	3.326
Children ever born to women age 40-49	6.995	0.371	47	36	0.949	0.053	6.254	7.736
Anaemia in children	0.074	0.043	215	157	2.295	0.584	0.000	0.160
Malaria in children	0.060	0.036	215	157	2.029	0.609	0.000	0.133
Use condom at last high-risk sex	0.160	0.079	40	30	1.346	0.495	0.002	0.318
Use condom at last high-risk sex - 15-24	0.274	0.120	17	12	1.075	0.438	0.034	0.513
Had multipartners in past 12 months	0.046	0.022	212	157	1.529	0.478	0.002	0.090
Had high-risk intercourse	0.192	0.040	212	157	1.492	0.211	0.111	0.273
Abstinence among youth (never had sex)	0.774	0.050	50	36	0.831	0.064	0.675	0.873
Sexually active past 12 months, never-married youth	0.192	0.049	50	36	0.877	0.257	0.093	0.291
Had injection past 12 months	0.216	0.035	261	194	1.357	0.160	0.147	0.285
HIV prevalence (women 15-49)	0.030	0.014	249	171	1.340	0.488	0.001	0.058
Accepting attitudes to people with HIV	0.150	0.035	259	193	1.588	0.235	0.079	0.221
HIV test and result in past 12 months	0.219	0.036	261	194	1.414	0.166	0.146	0.291
MEN								
Urban residence	0.143	0.084	222	153	3.552	0.586	0.000	0.310
No education	0.113	0.032	222	153	1.520	0.287	0.048	0.178
Secondary or higher education	0.073	0.029	222	153	1.684	0.403	0.014	0.132
Never married	0.473	0.037	222	153	1.094	0.078	0.400	0.547
Currently married/in union	0.506	0.036	222	153	1.061	0.071	0.435	0.577
Had sexual intercourse before 18	0.320	0.048	159	112	1.293	0.150	0.224	0.416
Use condom at last high-risk sex	0.466	0.122	56	38	1.811	0.261	0.223	0.710
Condom use last higher-risk intercourse (youth)	0.457	0.168	31	21	1.847	0.368	0.121	0.793
Multipartners in past 12 months	0.212	0.034	147	101	0.993	0.159	0.145	0.279
Sex non marital 12 months (never-married youth)	0.375	0.048	147	101	1.188	0.127	0.280	0.470
Abstinence among youth (Never had intercourse)	0.514	0.051	92	63	0.966	0.099	0.412	0.615
Sexually active past 12 months (never-married youth)	0.306	0.048	92	63	1.003	0.158	0.209	0.403
Had injection past 12 months	0.083	0.023	222	153	1.216	0.273	0.038	0.128
HIV prevalence (men 15-49)	0.024	0.012	207	148	1.150	0.511	0.000	0.049
Accepting attitudes to people with HIV	0.225	0.038	221	152	1.331	0.166	0.150	0.301
HIV test and result in past 12 months	0.227	0.028	222	153	1.011	0.125	0.170	0.284

Table B.31 Sampling errors for Tabora sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.146	0.086	357	518	4.606	0.590	0.000	0.319
No education	0.395	0.059	357	518	2.278	0.150	0.277	0.513
Secondary education or higher	0.043	0.027	357	518	2.526	0.628	0.000	0.098
Never married	0.185	0.029	357	518	1.404	0.156	0.127	0.243
Currently married/in union	0.695	0.032	357	518	1.330	0.047	0.630	0.760
Had sexual intercourse before age 18	0.803	0.035	258	377	1.422	0.044	0.732	0.873
Currently pregnant	0.114	0.015	357	518	0.891	0.131	0.084	0.145
Children ever born	2.993	0.162	357	518	1.071	0.054	2.668	3.317
Children surviving	2.627	0.143	357	518	1.072	0.054	2.341	2.913
Children ever born to women age 40-49	6.154	0.529	47	69	1.165	0.086	5.095	7.212
Anaemia in children	0.067	0.014	301	401	0.796	0.211	0.039	0.095
Malaria in children	0.097	0.023	301	401	1.079	0.234	0.052	0.142
Use condom at last high-risk sex	0.433	0.055	73	112	0.944	0.127	0.322	0.543
Use condom at last high-risk sex - 15-24	0.584	0.074	35	52	0.875	0.127	0.436	0.732
Had multipartners in past 12 months	0.069	0.017	302	437	1.186	0.250	0.035	0.104
Had high-risk intercourse	0.256	0.032	302	437	1.272	0.125	0.192	0.320
Abstinence among youth (never had sex)	0.546	0.079	61	88	1.234	0.145	0.388	0.705
Sexually active past 12 months, never-married youth	0.378	0.062	61	88	0.994	0.165	0.253	0.502
Had injection past 12 months	0.269	0.027	357	518	1.135	0.099	0.215	0.322
HIV prevalence (women 15-49)	0.072	0.016	339	447	1.157	0.226	0.039	0.104
Accepting attitudes to people with HIV	0.170	0.026	356	516	1.307	0.153	0.118	0.222
HIV test and result in past 12 months	0.202	0.028	357	518	1.301	0.137	0.147	0.258
			MEN					
Urban residence	0.115	0.074	276	404	3.832	0.641	0.000	0.262
No education	0.269	0.040	276	404	1.499	0.149	0.189	0.349
Secondary or higher education	0.030	0.012	276	404	1.194	0.407	0.006	0.055
Never married	0.369	0.033	276	404	1.129	0.089	0.303	0.434
Currently married/in union	0.590	0.030	276	404	0.998	0.050	0.531	0.649
Had sexual intercourse before 18	0.500	0.033	211	310	0.954	0.066	0.434	0.565
Use condom at last high-risk sex	0.414	0.057	108	155	1.199	0.138	0.299	0.528
Condom use last higher-risk intercourse (youth)	0.385	0.067	59	82	1.044	0.173	0.252	0.519
Multipartners in past 12 months	0.280	0.033	229	334	1.114	0.118	0.214	0.346
Sex non marital 12 months (never-married youth)	0.463	0.026	230	335	0.778	0.055	0.412	0.515
Abstinence among youth (Never had intercourse)	0.445	0.051	89	124	0.966	0.115	0.343	0.548
Sexually active past 12 months (never-married youth)	0.511	0.043	89	124	0.807	0.084	0.425	0.597
Had injection past 12 months	0.169	0.017	276	404	0.745	0.100	0.135	0.202
HIV prevalence (men 15-49)	0.056	0.017	257	390	1.188	0.306	0.022	0.090
Accepting attitudes to people with HIV	0.211	0.042	274	401	1.690	0.198	0.128	0.295
HIV test and result in past 12 months	0.206	0.027	276	404	1.119	0.133	0.151	0.261

Table B.32 Sampling errors for Rukwa sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.147	0.075	312	314	3.731	0.509	0.000	0.297
No education	0.354	0.048	312	314	1.759	0.135	0.258	0.449
Secondary education or higher	0.031	0.010	312	314	1.032	0.325	0.011	0.052
Never married	0.187	0.017	312	314	0.788	0.093	0.152	0.221
Currently married/in union	0.706	0.023	312	314	0.897	0.033	0.660	0.753
Had sexual intercourse before age 18	0.681	0.028	245	245	0.932	0.041	0.625	0.737
Currently pregnant	0.109	0.022	312	314	1.251	0.203	0.065	0.153
Children ever born	3.769	0.190	312	314	1.051	0.050	3.390	4.148
Children surviving	3.102	0.151	312	314	0.997	0.049	2.800	3.404
Children ever born to women age 40-49	7.744	0.376	50	48	1.072	0.049	6.992	8.496
Anaemia in children	0.038	0.011	293	291	0.910	0.280	0.017	0.059
Malaria in children	0.110	0.029	293	291	1.579	0.267	0.051	0.168
Use condom at last high-risk sex	0.286	0.100	23	23	1.040	0.350	0.086	0.487
Use condom at last high-risk sex - 15-24	0.121	0.087	13	12	0.927	0.720	0.000	0.296
Had multipartners in past 12 months	0.002	0.002	243	247	0.740	1.039	0.000	0.006
Had high-risk intercourse	0.093	0.017	243	247	0.924	0.185	0.059	0.128
Abstinence among youth (never had sex)	0.660	0.081	56	54	1.268	0.123	0.498	0.822
Sexually active past 12 months, never-married youth	0.189	0.054	56	54	1.019	0.284	0.082	0.297
Had injection past 12 months	0.227	0.045	312	314	1.883	0.197	0.137	0.316
HIV prevalence (women 15-49)	0.057	0.014	274	276	0.988	0.244	0.029	0.085
Accepting attitudes to people with HIV	0.270	0.042	286	287	1.610	0.157	0.185	0.354
HIV test and result in past 12 months	0.114	0.018	312	314	0.999	0.158	0.078	0.150
			MEN					
Urban residence	0.152	0.077	255	264	3.420	0.506	0.000	0.306
No education	0.115	0.027	255	264	1.367	0.238	0.061	0.170
Secondary or higher education	0.104	0.026	255	264	1.351	0.248	0.052	0.156
Never married	0.365	0.036	255	264	1.178	0.098	0.293	0.436
Currently married/in union	0.609	0.037	255	264	1.207	0.061	0.536	0.683
Had sexual intercourse before 18	0.432	0.037	190	197	1.015	0.085	0.359	0.505
Use condom at last high-risk sex	0.482	0.095	61	66	1.480	0.198	0.291	0.673
Condom use last higher-risk intercourse (youth)	0.441	0.110	36	39	1.308	0.249	0.221	0.660
Multipartners in past 12 months	0.237	0.036	187	198	1.163	0.153	0.165	0.310
Sex non marital 12 months (never-married youth)	0.332	0.053	187	198	1.548	0.161	0.225	0.439
Abstinence among youth (Never had intercourse)	0.454	0.060	92	93	1.152	0.132	0.334	0.574
Sexually active past 12 months (never-married youth)	0.349	0.051	92	93	1.019	0.146	0.247	0.451
Had injection past 12 months	0.249	0.024	255	264	0.879	0.096	0.202	0.297
HIV prevalence (men 15-49)	0.041	0.012	221	263	0.886	0.289	0.017	0.065
Accepting attitudes to people with HIV	0.391	0.060	253	262	1.937	0.152	0.272	0.510
HIV test and result in past 12 months	0.186	0.038	255	264	1.571	0.206	0.109	0.263

Table B.33 Sampling errors for Kigoma sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.145	0.082	362	414	4.436	0.567	0.000	0.309
No education	0.263	0.047	362	414	2.047	0.181	0.168	0.357
Secondary education or higher	0.054	0.017	362	414	1.464	0.321	0.019	0.089
Never married	0.265	0.030	362	414	1.283	0.112	0.205	0.325
Currently married/in union	0.629	0.028	362	414	1.086	0.044	0.574	0.684
Had sexual intercourse before age 18	0.479	0.035	274	314	1.148	0.072	0.410	0.548
Currently pregnant	0.093	0.014	362	414	0.921	0.151	0.065	0.121
Children ever born	2.773	0.148	362	414	0.970	0.053	2.477	3.068
Children surviving	2.493	0.127	362	414	0.932	0.051	2.239	2.747
Children ever born to women age 40-49	7.267	0.428	35	40	0.921	0.059	6.411	8.124
Anaemia in children	0.087	0.013	284	307	0.810	0.147	0.061	0.113
Malaria in children	0.196	0.027	284	307	1.084	0.139	0.141	0.250
Use condom at last high-risk sex	0.285	0.065	34	37	0.830	0.229	0.154	0.415
Use condom at last high-risk sex - 15-24	0.123	0.092	14	15	1.007	0.746	0.000	0.306
Had multipartners in past 12 months	0.007	0.005	260	298	0.943	0.696	0.000	0.017
Had high-risk intercourse	0.126	0.028	260	298	1.369	0.224	0.069	0.182
Abstinence among youth (never had sex)	0.862	0.051	90	102	1.392	0.059	0.761	0.964
Sexually active past 12 months, never-married youth	0.099	0.032	90	102	0.998	0.319	0.036	0.163
Had injection past 12 months	0.267	0.025	362	414	1.084	0.094	0.217	0.318
HIV prevalence (women 15-49)	0.027	0.009	349	361	1.031	0.333	0.009	0.045
Accepting attitudes to people with HIV	0.253	0.026	362	414	1.136	0.103	0.201	0.306
HIV test and result in past 12 months	0.287	0.040	362	414	1.679	0.139	0.207	0.367
			MEN					
Urban residence	0.113	0.066	274	292	3.474	0.590	0.000	0.245
No education	0.120	0.029	274	292	1.449	0.237	0.063	0.177
Secondary or higher education	0.129	0.030	274	292	1.453	0.228	0.070	0.189
Never married	0.433	0.018	274	292	0.589	0.041	0.398	0.468
Currently married/in union	0.554	0.021	274	292	0.699	0.038	0.512	0.596
Had sexual intercourse before 18	0.314	0.029	194	205	0.866	0.092	0.256	0.372
Use condom at last high-risk sex	0.522	0.101	42	44	1.294	0.193	0.320	0.724
Condom use last higher-risk intercourse (youth)	0.459	0.111	30	32	1.196	0.241	0.238	0.680
Multipartners in past 12 months	0.127	0.029	185	197	1.193	0.231	0.068	0.185
Sex non marital 12 months (never-married youth)	0.225	0.027	185	197	0.876	0.120	0.171	0.279
Abstinence among youth (Never had intercourse)	0.692	0.045	110	116	1.021	0.065	0.601	0.782
Sexually active past 12 months (never-married youth)	0.252	0.049	110	116	1.171	0.193	0.155	0.349
Had injection past 12 months	0.175	0.032	274	292	1.378	0.181	0.112	0.239
HIV prevalence (men 15-49)	0.006	0.003	265	286	0.634	0.508	0.000	0.012
Accepting attitudes to people with HIV	0.428	0.039	274	292	1.309	0.092	0.350	0.506
HIV test and result in past 12 months	0.262	0.046	274	292	1.716	0.174	0.170	0.353

Table B.34 Sampling errors for Shinyanga sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.104	0.063	390	750	4.079	0.608	0.000	0.230
No education	0.295	0.038	390	750	1.659	0.130	0.218	0.371
Secondary education or higher	0.029	0.011	390	750	1.331	0.387	0.007	0.052
Never married	0.198	0.026	390	750	1.296	0.132	0.145	0.250
Currently married/in union	0.689	0.026	390	750	1.089	0.037	0.638	0.740
Had sexual intercourse before age 18	0.618	0.024	302	593	0.863	0.039	0.569	0.666
Currently pregnant	0.091	0.012	390	750	0.841	0.135	0.067	0.116
Children ever born	3.098	0.121	390	750	0.884	0.039	2.855	3.340
Children surviving	2.714	0.107	390	750	0.894	0.039	2.500	2.927
Children ever born to women age 40-49	6.292	0.495	41	81	0.973	0.079	5.302	7.281
Anaemia in children	0.109	0.019	350	690	1.121	0.179	0.070	0.148
Malaria in children	0.295	0.039	350	690	1.448	0.133	0.216	0.374
Use condom at last high-risk sex	0.368	0.076	67	127	1.283	0.207	0.216	0.521
Use condom at last high-risk sex - 15-24	0.389	0.108	37	72	1.333	0.278	0.173	0.606
Had multipartners in past 12 months	0.031	0.011	335	648	1.194	0.363	0.009	0.054
Had high-risk intercourse	0.196	0.026	335	648	1.197	0.132	0.144	0.249
Abstinence among youth (never had sex)	0.497	0.074	72	125	1.255	0.150	0.348	0.646
Sexually active past 12 months, never-married youth	0.448	0.079	72	125	1.331	0.176	0.290	0.605
Had injection past 12 months	0.359	0.026	390	750	1.080	0.073	0.307	0.412
HIV prevalence (women 15-49)	0.084	0.018	359	660	1.236	0.216	0.048	0.120
Accepting attitudes to people with HIV	0.175	0.035	366	706	1.739	0.198	0.106	0.244
HIV test and result in past 12 months	0.124	0.019	390	750	1.128	0.152	0.087	0.162
			MEN					
Urban residence	0.101	0.061	352	633	3.771	0.602	0.000	0.222
No education	0.193	0.022	352	633	1.055	0.115	0.148	0.237
Secondary or higher education	0.081	0.022	352	633	1.477	0.265	0.038	0.124
Never married	0.397	0.039	352	633	1.484	0.098	0.319	0.474
Currently married/in union	0.537	0.036	352	633	1.337	0.066	0.466	0.609
Had sexual intercourse before 18	0.502	0.043	259	468	1.397	0.087	0.415	0.589
Use condom at last high-risk sex	0.284	0.047	114	209	1.113	0.166	0.190	0.379
Condom use last higher-risk intercourse (youth)	0.200	0.053	61	115	1.023	0.264	0.094	0.305
Multipartners in past 12 months	0.318	0.039	273	499	1.383	0.123	0.240	0.396
Sex non marital 12 months (never-married youth)	0.419	0.037	273	499	1.236	0.088	0.345	0.493
Abstinence among youth (Never had intercourse)	0.496	0.061	124	219	1.348	0.123	0.374	0.617
Sexually active past 12 months (never-married youth)	0.425	0.056	124	219	1.264	0.133	0.312	0.538
Had injection past 12 months	0.185	0.018	352	633	0.863	0.097	0.149	0.221
HIV prevalence (men 15-49)	0.063	0.018	326	624	1.369	0.293	0.026	0.100
Accepting attitudes to people with HIV	0.225	0.032	344	618	1.410	0.141	0.162	0.289
HIV test and result in past 12 months	0.121	0.021	352	633	1.190	0.171	0.079	0.162

Table B.35 Sampling errors for Kagera sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.089	0.086	312	495	5.319	0.967	0.000	0.260
No education	0.254	0.046	312	495	1.856	0.180	0.163	0.346
Secondary education or higher	0.044	0.017	312	495	1.438	0.379	0.011	0.078
Never married	0.214	0.026	312	495	1.118	0.122	0.162	0.266
Currently married/in union	0.645	0.030	312	495	1.092	0.046	0.586	0.704
Had sexual intercourse before age 18	0.569	0.049	245	389	1.539	0.086	0.472	0.667
Currently pregnant	0.140	0.028	312	495	1.429	0.201	0.084	0.196
Children ever born	3.487	0.187	312	495	1.129	0.054	3.114	3.861
Children surviving	2.993	0.170	312	495	1.194	0.057	2.652	3.334
Children ever born to women age 40-49	7.009	0.451	56	87	1.354	0.064	6.106	7.911
Anaemia in children	0.093	0.025	276	423	1.396	0.265	0.044	0.142
Malaria in children	0.411	0.068	276	423	1.951	0.165	0.275	0.546
Use condom at last high-risk sex	0.377	0.087	38	59	1.098	0.232	0.202	0.552
Use condom at last high-risk sex - 15-24	0.428	0.141	17	26	1.140	0.329	0.146	0.711
Had multipartners in past 12 months	0.033	0.015	238	375	1.265	0.441	0.004	0.063
Had high-risk intercourse	0.157	0.021	238	375	0.886	0.133	0.115	0.199
Abstinence among youth (never had sex)	0.727	0.049	60	95	0.839	0.067	0.630	0.824
Sexually active past 12 months, never-married youth	0.222	0.045	60	95	0.828	0.202	0.133	0.312
Had injection past 12 months	0.470	0.030	312	495	1.063	0.064	0.410	0.530
HIV prevalence (women 15-49)	0.035	0.009	308	451	0.872	0.263	0.016	0.053
Accepting attitudes to people with HIV	0.254	0.028	306	485	1.108	0.109	0.199	0.310
HIV test and result in past 12 months	0.179	0.022	312	495	1.024	0.124	0.135	0.224
			MEN					
Urban residence	0.075	0.073	272	397	4.587	0.982	0.000	0.221
No education	0.133	0.028	272	397	1.347	0.208	0.078	0.189
Secondary or higher education	0.137	0.027	272	397	1.307	0.200	0.082	0.191
Never married	0.449	0.028	272	397	0.936	0.063	0.393	0.506
Currently married/in union	0.527	0.032	272	397	1.061	0.061	0.463	0.591
Had sexual intercourse before 18	0.240	0.034	190	277	1.101	0.143	0.172	0.308
Use condom at last high-risk sex	0.539	0.080	37	52	0.964	0.148	0.379	0.700
Condom use last higher-risk intercourse (youth)	0.478	0.121	13	18	0.836	0.252	0.236	0.719
Multipartners in past 12 months	0.176	0.029	165	237	0.986	0.166	0.118	0.235
Sex non marital 12 months (never-married youth)	0.221	0.041	165	237	1.276	0.187	0.138	0.304
Abstinence among youth (Never had intercourse)	0.691	0.057	108	160	1.284	0.083	0.576	0.805
Sexually active past 12 months (never-married youth)	0.104	0.040	108	160	1.351	0.384	0.024	0.184
Had injection past 12 months	0.275	0.031	272	397	1.149	0.113	0.213	0.338
HIV prevalence (men 15-49)	0.033	0.012	266	396	1.070	0.354	0.010	0.057
Accepting attitudes to people with HIV	0.305	0.033	270	394	1.164	0.107	0.239	0.370
HIV test and result in past 12 months	0.146	0.030	272	397	1.381	0.203	0.087	0.205

Table B.36 Sampling errors for Mwanza sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.212	0.093	373	833	4.391	0.439	0.026	0.398
No education	0.197	0.030	373	833	1.436	0.150	0.138	0.256
Secondary education or higher	0.064	0.022	373	833	1.739	0.346	0.020	0.108
Never married	0.239	0.024	373	833	1.075	0.099	0.192	0.287
Currently married/in union	0.612	0.040	373	833	1.596	0.066	0.531	0.692
Had sexual intercourse before age 18	0.676	0.025	286	636	0.906	0.037	0.626	0.727
Currently pregnant	0.123	0.012	373	833	0.729	0.101	0.098	0.148
Children ever born	3.153	0.208	373	833	1.305	0.066	2.736	3.569
Children surviving	2.752	0.184	373	833	1.310	0.067	2.384	3.120
Children ever born to women age 40-49	7.018	0.464	53	113	0.966	0.066	6.090	7.946
Anaemia in children	0.095	0.028	303	618	1.546	0.295	0.039	0.151
Malaria in children	0.314	0.058	303	618	1.803	0.185	0.198	0.430
Use condom at last high-risk sex	0.400	0.070	71	159	1.192	0.175	0.260	0.540
Use condom at last high-risk sex - 15-24	0.412	0.101	38	86	1.248	0.245	0.210	0.614
Had multipartners in past 12 months	0.039	0.008	300	670	0.704	0.201	0.024	0.055
Had high-risk intercourse	0.238	0.036	300	670	1.447	0.150	0.167	0.309
Abstinence among youth (never had sex)	0.606	0.033	78	177	0.595	0.055	0.540	0.673
Sexually active past 12 months, never-married youth	0.372	0.033	78	177	0.598	0.088	0.306	0.438
Had injection past 12 months	0.408	0.025	373	833	0.977	0.061	0.358	0.458
HIV prevalence (women 15-49)	0.071	0.009	340	729	0.624	0.123	0.053	0.088
Accepting attitudes to people with HIV	0.276	0.031	367	821	1.331	0.113	0.213	0.338
HIV test and result in past 12 months	0.140	0.037	373	833	2.062	0.265	0.066	0.214
MEN								
Urban residence	0.194	0.086	302	608	3.774	0.443	0.022	0.367
No education	0.113	0.020	302	608	1.123	0.182	0.072	0.153
Secondary or higher education	0.084	0.026	302	608	1.598	0.305	0.033	0.135
Never married	0.427	0.031	302	608	1.084	0.072	0.365	0.488
Currently married/in union	0.496	0.038	302	608	1.314	0.076	0.420	0.572
Had sexual intercourse before 18	0.457	0.030	223	458	0.901	0.066	0.397	0.518
Use condom at last high-risk sex	0.484	0.051	111	215	1.080	0.106	0.382	0.587
Condom use last higher-risk intercourse (youth)	0.439	0.080	47	92	1.087	0.181	0.280	0.598
Multipartners in past 12 months	0.361	0.028	212	433	0.856	0.078	0.304	0.417
Sex non marital 12 months (never-married youth)	0.497	0.055	212	433	1.585	0.110	0.388	0.607
Abstinence among youth (Never had intercourse)	0.517	0.037	119	232	0.809	0.072	0.442	0.591
Sexually active past 12 months (never-married youth)	0.317	0.058	119	232	1.350	0.182	0.201	0.433
Had injection past 12 months	0.151	0.025	302	608	1.229	0.168	0.100	0.201
HIV prevalence (men 15-49)	0.037	0.010	283	588	0.898	0.273	0.017	0.057
Accepting attitudes to people with HIV	0.284	0.035	294	592	1.321	0.123	0.214	0.354
HIV test and result in past 12 months	0.142	0.021	302	608	1.060	0.150	0.100	0.185

Table B.37 Sampling errors for Mara sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.192	0.164	393	368	8.266	0.856	0.000	0.521
No education	0.132	0.025	393	368	1.445	0.187	0.083	0.182
Secondary education or higher	0.080	0.026	393	368	1.897	0.326	0.028	0.131
Never married	0.264	0.054	393	368	2.415	0.204	0.157	0.372
Currently married/in union	0.603	0.076	393	368	3.073	0.126	0.451	0.755
Had sexual intercourse before age 18	0.665	0.031	301	282	1.134	0.046	0.603	0.727
Currently pregnant	0.137	0.015	393	368	0.858	0.109	0.107	0.167
Children ever born	3.098	0.296	393	368	2.006	0.095	2.506	3.689
Children surviving	2.575	0.200	393	368	1.666	0.078	2.176	2.975
Children ever born to women age 40-49	5.796	0.815	54	50	1.613	0.141	4.166	7.425
Anaemia in children	0.135	0.016	340	297	0.792	0.115	0.104	0.167
Malaria in children	0.303	0.042	340	297	1.434	0.138	0.219	0.386
Use condom at last high-risk sex	0.435	0.033	80	87	0.597	0.077	0.368	0.501
Use condom at last high-risk sex - 15-24	0.470	0.041	33	39	0.469	0.088	0.388	0.553
Had multipartners in past 12 months	0.055	0.009	319	293	0.737	0.172	0.036	0.073
Had high-risk intercourse	0.296	0.062	319	293	2.424	0.210	0.172	0.420
Abstinence among youth (never had sex)	0.474	0.075	75	80	1.300	0.159	0.323	0.625
Sexually active past 12 months, never-married youth	0.435	0.102	75	80	1.761	0.233	0.232	0.638
Had injection past 12 months	0.375	0.035	393	368	1.438	0.094	0.304	0.445
HIV prevalence (women 15-49)	0.085	0.015	375	319	1.035	0.175	0.055	0.115
Accepting attitudes to people with HIV	0.301	0.040	386	360	1.704	0.132	0.222	0.381
HIV test and result in past 12 months	0.206	0.042	393	368	2.072	0.206	0.121	0.290
			MEN					
Urban residence	0.111	0.105	277	243	5.555	0.944	0.000	0.322
No education	0.051	0.017	277	243	1.264	0.329	0.017	0.084
Secondary or higher education	0.138	0.029	277	243	1.405	0.211	0.080	0.196
Never married	0.473	0.037	277	243	1.228	0.078	0.399	0.547
Currently married/in union	0.510	0.035	277	243	1.167	0.069	0.440	0.580
Had sexual intercourse before 18	0.382	0.040	190	165	1.142	0.106	0.301	0.463
Use condom at last high-risk sex	0.371	0.044	87	77	0.841	0.118	0.284	0.459
Condom use last higher-risk intercourse (youth)	0.310	0.068	43	35	0.954	0.219	0.174	0.447
Multipartners in past 12 months	0.321	0.033	194	167	0.993	0.104	0.254	0.387
Sex non marital 12 months (never-married youth)	0.460	0.045	194	167	1.268	0.099	0.369	0.551
Abstinence among youth (Never had intercourse)	0.633	0.053	113	100	1.159	0.083	0.528	0.739
Sexually active past 12 months (never-married youth)	0.298	0.047	113	100	1.098	0.159	0.203	0.393
Had injection past 12 months	0.191	0.023	277	243	0.973	0.120	0.145	0.237
HIV prevalence (men 15-49)	0.066	0.016	259	237	1.019	0.238	0.035	0.098
Accepting attitudes to people with HIV	0.409	0.036	273	240	1.224	0.089	0.336	0.482
HIV test and result in past 12 months	0.224	0.023	277	243	0.919	0.103	0.178	0.271

Table B.38 Sampling errors for Manyara sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
			WOMEN					
Urban residence	0.119	0.112	326	263	6.218	0.937	0.000	0.343
No education	0.288	0.070	326	263	2.782	0.243	0.148	0.428
Secondary education or higher	0.078	0.019	326	263	1.273	0.242	0.040	0.116
Never married	0.218	0.033	326	263	1.433	0.151	0.152	0.283
Currently married/in union	0.706	0.030	326	263	1.170	0.042	0.647	0.765
Had sexual intercourse before age 18	0.470	0.040	255	209	1.282	0.085	0.389	0.550
Currently pregnant	0.094	0.018	326	263	1.140	0.197	0.057	0.131
Children ever born	2.910	0.119	326	263	0.806	0.041	2.672	3.147
Children surviving	2.706	0.112	326	263	0.815	0.042	2.482	2.931
Children ever born to women age 40-49	6.026	0.462	48	38	1.051	0.077	5.103	6.950
Anaemia in children	0.015	0.010	259	194	1.251	0.648	0.000	0.035
Malaria in children	0.010	0.007	259	194	0.879	0.714	0.000	0.025
Use condom at last high-risk sex	0.077	0.056	25	20	1.032	0.729	0.000	0.189
Use condom at last high-risk sex - 15-24	0.054	0.057	12	11	0.840	1.061	0.000	0.168
Had multipartners in past 12 months	0.008	0.006	230	189	0.994	0.711	0.000	0.020
Had high-risk intercourse	0.106	0.019	230	189	0.929	0.178	0.068	0.144
Abstinence among youth (never had sex)	0.826	0.061	75	55	1.392	0.074	0.703	0.949
Sexually active past 12 months, never-married youth	0.162	0.064	75	55	1.506	0.398	0.033	0.291
Had injection past 12 months	0.287	0.062	326	263	2.464	0.215	0.164	0.411
HIV prevalence (women 15-49)	0.023	0.007	295	229	0.808	0.306	0.009	0.037
Accepting attitudes to people with HIV	0.376	0.042	321	259	1.563	0.113	0.292	0.461
HIV test and result in past 12 months	0.166	0.051	326	263	2.463	0.307	0.064	0.267
			MEN					
Urban residence	0.109	0.103	287	203	5.586	0.946	0.000	0.314
No education	0.175	0.040	287	203	1.768	0.227	0.095	0.254
Secondary or higher education	0.058	0.015	287	203	1.112	0.265	0.027	0.089
Never married	0.404	0.037	287	203	1.279	0.092	0.329	0.478
Currently married/in union	0.551	0.037	287	203	1.241	0.066	0.478	0.624
Had sexual intercourse before 18	0.375	0.033	210	151	0.997	0.089	0.309	0.442
Use condom at last high-risk sex	0.278	0.059	66	50	1.053	0.211	0.161	0.395
Condom use last higher-risk intercourse (youth)	0.263	0.060	37	28	0.814	0.227	0.144	0.383
Multipartners in past 12 months	0.098	0.025	205	150	1.179	0.250	0.049	0.148
Sex non marital 12 months (never-married youth)	0.329	0.036	205	150	1.096	0.109	0.257	0.401
Abstinence among youth (Never had intercourse)	0.608	0.047	110	74	1.003	0.077	0.514	0.702
Sexually active past 12 months (never-married youth)	0.337	0.046	110	74	1.019	0.137	0.245	0.430
Had injection past 12 months	0.106	0.024	287	203	1.329	0.228	0.057	0.154
HIV prevalence (men 15-49)	0.007	0.007	245	201	1.280	0.998	0.000	0.020
Accepting attitudes to people with HIV	0.386	0.032	283	200	1.093	0.082	0.323	0.449
HIV test and result in past 12 months	0.186	0.039	287	203	1.682	0.208	0.109	0.263

Table B.39 Sampling errors for Unguja sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.416	0.088	1184	214	6.151	0.212	0.240	0.593
No education	0.132	0.018	1184	214	1.856	0.138	0.096	0.169
Secondary education or higher	0.537	0.030	1184	214	2.040	0.055	0.478	0.596
Never married	0.371	0.019	1184	214	1.339	0.051	0.333	0.408
Currently married/in union	0.521	0.020	1184	214	1.391	0.039	0.481	0.562
Had sexual intercourse before age 18	0.420	0.024	865	156	1.430	0.057	0.372	0.468
Currently pregnant	0.063	0.008	1184	214	1.163	0.130	0.047	0.080
Children ever born	2.434	0.086	1184	214	1.029	0.035	2.262	2.606
Children surviving	2.203	0.076	1184	214	1.014	0.035	2.050	2.356
Children ever born to women age 40-49	6.099	0.305	200	35	1.494	0.050	5.490	6.709
Anaemia in children	0.044	0.009	571	97	1.063	0.218	0.025	0.063
Malaria in children	0.008	0.005	571	97	1.326	0.620	0.000	0.017
Use condom at last high-risk sex	0.203	0.045	92	18	1.074	0.223	0.113	0.294
Use condom at last high-risk sex - 15-24	0.185	0.058	43	8	0.974	0.316	0.068	0.301
Had multipartners in past 12 months	0.008	0.004	718	129	1.089	0.467	0.000	0.015
Had high-risk intercourse	0.142	0.019	718	129	1.460	0.134	0.104	0.180
Abstinence among youth (never had sex)	0.896	0.019	387	70	1.214	0.021	0.858	0.934
Sexually active past 12 months, never-married youth	0.080	0.016	387	70	1.185	0.204	0.047	0.113
Had injection past 12 months	0.268	0.018	1184	214	1.404	0.067	0.232	0.304
HIV prevalence (women 15-49)	0.009	0.003	1152	187	1.009	0.309	0.004	0.015
Accepting attitudes to people with HIV	0.388	0.022	1168	212	1.509	0.055	0.345	0.431
HIV test and result in past 12 months	0.122	0.012	1184	214	1.299	0.101	0.097	0.147
MEN								
Urban residence	0.409	0.089	802	148	5.101	0.217	0.232	0.586
No education	0.051	0.012	802	148	1.510	0.229	0.028	0.075
Secondary or higher education	0.591	0.031	802	148	1.760	0.052	0.530	0.652
Never married	0.530	0.027	802	148	1.558	0.052	0.475	0.585
Currently married/in union	0.435	0.029	802	148	1.641	0.066	0.377	0.492
Had sexual intercourse before 18	0.144	0.020	585	112	1.356	0.137	0.105	0.184
Use condom at last high-risk sex	0.338	0.051	104	23	1.105	0.152	0.235	0.441
Condom use last higher-risk intercourse (youth)	0.174	0.062	55	12	1.200	0.355	0.050	0.298
Multipartners in past 12 months	0.214	0.027	439	82	1.400	0.128	0.159	0.269
Sex non marital 12 months (never-married youth)	0.282	0.033	439	82	1.549	0.118	0.215	0.348
Abstinence among youth (Never had intercourse)	0.779	0.035	337	62	1.557	0.045	0.709	0.850
Sexually active past 12 months (never-married youth)	0.166	0.024	337	62	1.200	0.147	0.117	0.214
Had injection past 12 months	0.200	0.020	802	148	1.412	0.100	0.160	0.240
HIV prevalence (men 15-49)	0.006	0.003	740	146	1.106	0.525	0.000	0.012
Accepting attitudes to people with HIV	0.488	0.023	795	147	1.325	0.048	0.441	0.535
HIV test and result in past 12 months	0.108	0.015	802	148	1.385	0.141	0.077	0.138

Table B.40 Sampling errors for Pemba sample, Tanzania HMIS 2007-08

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.174	0.067	1486	94	6.823	0.386	0.040	0.308
No education	0.332	0.031	1486	94	2.544	0.094	0.270	0.394
Secondary education or higher	0.282	0.027	1486	94	2.290	0.095	0.229	0.336
Never married	0.332	0.011	1486	94	0.903	0.033	0.310	0.354
Currently married/in union	0.597	0.013	1486	94	1.037	0.022	0.571	0.623
Had sexual intercourse before age 18	0.513	0.019	1082	69	1.254	0.037	0.475	0.551
Currently pregnant	0.102	0.010	1486	94	1.238	0.095	0.083	0.122
Children ever born	3.451	0.094	1486	94	0.993	0.027	3.264	3.638
Children surviving	3.040	0.074	1486	94	0.900	0.024	2.892	3.188
Children ever born to women age 40-49	8.176	0.167	252	16	0.895	0.020	7.843	8.510
Anaemia in children	0.053	0.008	1077	68	1.122	0.153	0.037	0.069
Malaria in children	0.009	0.003	1077	68	1.061	0.367	0.002	0.016
Use condom at last high-risk sex	0.193	0.089	15	1	0.840	0.459	0.016	0.370
Use condom at last high-risk sex - 15-24	0.221	0.205	5	0	0.988	0.928	0.000	0.631
Had multipartners in past 12 months	0.000	0.000	914	58	na	na	0.000	0.000
Had high-risk intercourse	0.016	0.006	914	58	1.409	0.360	0.005	0.028
Abstinence among youth (never had sex)	0.988	0.005	458	29	0.991	0.005	0.978	0.998
Sexually active past 12 months, never-married youth	0.007	0.004	458	29	1.018	0.558	0.000	0.015
Had injection past 12 months	0.291	0.014	1486	94	1.223	0.050	0.262	0.320
HIV prevalence (women 15-49)	0.003	0.002	1438	82	1.097	0.508	0.000	0.007
Accepting attitudes to people with HIV	0.243	0.022	1480	94	1.986	0.091	0.199	0.287
HIV test and result in past 12 months	0.121	0.014	1486	94	1.648	0.115	0.093	0.149
MEN								
Urban residence	0.168	0.064	988	63	5.424	0.385	0.039	0.297
No education	0.168	0.025	988	63	2.106	0.149	0.118	0.218
Secondary or higher education	0.370	0.029	988	63	1.863	0.077	0.312	0.427
Never married	0.536	0.020	988	63	1.275	0.038	0.496	0.576
Currently married/in union	0.444	0.019	988	63	1.194	0.043	0.406	0.482
Had sexual intercourse before 18	0.136	0.014	660	42	1.070	0.105	0.108	0.165
Use condom at last high-risk sex	0.240	0.073	35	2	0.999	0.305	0.093	0.386
Condom use last higher-risk intercourse (youth)	0.125	0.055	25	2	0.816	0.441	0.015	0.235
Multipartners in past 12 months	0.158	0.016	474	31	0.967	0.103	0.125	0.190
Sex non marital 12 months (never-married youth)	0.073	0.016	474	31	1.318	0.215	0.042	0.105
Abstinence among youth (Never had intercourse)	0.917	0.015	471	30	1.191	0.017	0.886	0.947
Sexually active past 12 months (never-married youth)	0.056	0.014	471	30	1.301	0.247	0.028	0.083
Had injection past 12 months	0.219	0.017	988	63	1.284	0.077	0.185	0.253
HIV prevalence (men 15-49)	0.002	0.002	945	62	1.014	0.708	0.000	0.005
Accepting attitudes to people with HIV	0.318	0.021	986	63	1.385	0.065	0.277	0.360
HIV test and result in past 12 months	0.113	0.014	988	63	1.407	0.125	0.085	0.142

na = Not applicable

PERSONS INVOLVED IN THE 2007-08 TANZANIA HIV/AIDS AND MALARIA SURVEY

Appendix C

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QUESTIONNAIRES

Appendix ***D***

UNITED REPUBLIC OF TANZANIA
TANZANIA HIV/AIDS AND MALARIA INDICATOR SURVEY 2007
NATIONAL BUREAU OF STATISTICS

Last modified: 26 Sept 2007 SP

HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION

REGION _____ ☐☐

DISTRICT _____ ☐☐

WARD ..... ☐☐☐

ENUMERATION AREA (EA) NUMBER ..... ☐☐☐

NAME OF HEAD OF HOUSEHOLD _____

THIS CLUSTER NUMBER ..... ☐☐☐

HOUSEHOLD NUMBER ..... ☐☐☐

LARGE CITY=1, SMALL CITY=2, TOWN=3, COUNTRYSIDE=4 ..... ☐

LARGE CITIES ARE: DAR ES SALAAM, MWANZA, ARUSHA, TANGA, MBEYA. SMALL CITIES ARE: MOROGORO, DODOMA, MOSHI, BUKOBA, SINGIDA, MTWARA, IRINGA, SHINYANGA, TABORA, MUSOMA, SUMBAWANGA, SONGEA, KIGOMA, NA MJINI MAGHARIBI (ZANZIBAR). ALL OTHER URBAN AREAS ARE TOWNS.

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY ☐☐
				MONTH ☐☐
				YEAR 2 0 0 ☐
INTERVIEWER'S NAME	_____	_____	_____	INTERV. NO. ☐☐☐
RESULT*	_____	_____	_____	FINAL RESULT* ☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS ☐
TIME	_____	_____		

*RESULT 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)

TOTAL PERSONS IN HOUSEHOLD ☐☐

TOTAL WOMEN 15-49 ☐☐

TOTAL MEN 15-49 ☐☐

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE ☐☐

SUPERVISOR	OFFICE EDITOR	KEYED BY
NAME _____		
DATE _____ ☐☐	☐☐	☐☐

HOUSEHOLD SCHEDULE

Introduction and Consent

Hello, my name is _____ and I am working with the National Bureau of Statistics. We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey.

As part of the survey we would first like to ask some questions about your household. All of the answers you give will be confidential. Participation in the survey is completely voluntary. If we should come to 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 the interview at any time. However, we hope you will participate in the survey since your views are important.

At this time, do you want to aks me anything about the survey? May I begin the interview now?

Signature of interviewer _____ Date _____

RESPONDENT AGREES TO BE INTERVIEWED....1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2► END

							IF AGE 15 OR OLDER		
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY	
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-27 FOR EACH PERSON.	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) stay here last night?	How old is (NAME)?	What is (NAME'S) current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AND MEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9A)
			M F	Y N	Y N	IN YEARS			
01			1 2	1 2	1 2			01	01
02			1 2	1 2	1 2			02	02
03			1 2	1 2	1 2			03	03
04			1 2	1 2	1 2			04	04
05			1 2	1 2	1 2			05	05
06			1 2	1 2	1 2			06	06
07			1 2	1 2	1 2			07	07
08			1 2	1 2	1 2			08	08

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = CO-WIFE
10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/ STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

			IF AGE 0-17 YEARS								
LINE NO.	SICK PERSON	CARE TAKER	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS								
	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? WRITE CARE TAKER'S LINE NUMBER IF NO, WRITE 00'	Who is (NAME)'s main care taker?	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? WRITE MOTHER'S LINE NUMBER. IF NO, WRITE '00'.	**IF MOTHER NOT LISTED IN HOUSEHOLD** Has (NAME)'s 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?	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? WRITE FATHER'S LINE NUMBER. IF NO, WRITE '00'.	**IF FATHER NOT LISTED IN HOUSEHOLD** Has (NAME)'s 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?	**MOTHER / FATHER DEAD/ SICK** CIRCLE LINE NUMBER IF CHILD'S MOTHER AND/OR FATHER HAS DIED (Q.11 OR 14 = NO) OR BEEN SICK (Q.13 OR 16 = YES).	**BOTH PARENTS ALIVE** IF YES TO Q.11 AND Q.14 (BOTH ALIVE), CIRCLE '1'. FOR ALL OTHER CASES, CIRCLE '2'.	**CARE TAKER** Who is (NAME)'s main care taker? WRITE LINE NUMBER. IF NO, WRITE 00'
	(10)	(10A)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(18A)
01	Y N DK 1 2 8 GO TO 11		Y N DK 1 2 8 GO TO 14		Y N DK 1 2 8	Y N DK 1 2 8 GO TO 17		Y N DK 1 2 8	01	1 2 GO TO 21	
02	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	02	1 2 GO TO 21	
03	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	03	1 2 GO TO 21	
04	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	04	1 2 GO TO 21	
05	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	05	1 2 GO TO 23	
06	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	06	1 2 GO TO 21	
07	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	07	1 2 GO TO 21	
08	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	08	1 2 GO TO 21	

	IF AGE 0-17 YEARS		IF AGE 5 YEARS OR OLDER			IF AGE 5-17 YEARS			IF AGE 0-4 YEARS
LINE NO.	BROTHERS AND SISTERS		EDUCATION			BASIC MATERIAL NEEDS			BIRTH REGISTRATION
	Does (NAME) have any brothers or sisters under age 18 who have the same mother and the same father?	Do any of these brothers and sisters under age 18 not live in this household?	Has (NAME) ever attended school?	What is the highest grade or form of school (NAME) completed? SEE CODES BELOW.	IF AGE 5-24 YEARS: Did (NAME) attend school at any time during the 2007 school year?	Does (NAME) have a blanket?	Does (NAME) have a a pair of shoes?	Does (NAME) have at least two sets of clothes?	Does (NAME) have a a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
	Y N DK	Y N	Y N	GRADE	Y N	Y N DK	Y N DK	Y N DK	
01	1 2 → GO TO 21 8	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
02	1 2 → GO TO 21 8	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
03	1 2 → GO TO 21 8	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
04	1 2 → GO TO 21 8	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
05	1 2 → GO TO 21 8	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
06	1 2 → GO TO 21 8	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
07	1 2 → GO TO 21 8	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
08	1 2 → GO TO 21 8	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	

CODES FOR Q. 22: EDUCATION

00 = LESS THAN 1 YEAR	10 = PRE SECONDARY
01 = STANDARD 1	11 = FORM 1
02 = STANDARD 2	12 = FORM 2
03 = STANDARD 3	13 = FORM 3
04 = STANDARD 4	14 = FORM 4
05 = STANDARD 5	15 = FORM 5
06 = STANDARD 6	16 = FORM 6
07 = STANDARD 7	17 = TRAINING AFTER SECOND.
08 = STANDARD 8	18 = UNIVERSITY
09 = TRAIN.AFTER PRIM.	98 = DON'T KNOW

HOUSEHOLD SCHEDULE

Introduction and Consent

Hello, my name is _____ and I am working with the National Bureau of Statistics. We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey.
As part of the survey we would first like to ask some questions about your household. All of the answers you give will be confidential. Participation in the survey is completely voluntary. If we should come to 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 the interview at any time. However, we hope you will participate in the survey since your views are important.
At this time, do you want to aks me anything about the survey? May I begin the interview now?

Signature of interviewer _____ Date _____

RESPONDENT AGREES TO BE INTERVIEWED....1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2 END

							IF AGE 15 OR OLDER		
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY	
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, ASK QUESTIONS 2A-2C TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-27 FOR EACH PERSON.	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) stay here last night?	How old is (NAME)?	What is (NAME'S) current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER OF ALL WOMEN AND MEN AGE 15-49	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9A)
01			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		01	01
02			1 2	1 2	1 2			02	02
03			1 2	1 2	1 2			03	03
04			1 2	1 2	1 2			04	04
05			1 2	1 2	1 2			05	05
06			1 2	1 2	1 2			06	06
07			1 2	1 2	1 2			07	07
08			1 2	1 2	1 2			08	08

TICK HERE IF CONTINUATION SHEET USED ☐

2A) Just to make sure that I have a complete listing. Are there any other persons such as small children or infants that we have not listed? YES ☐ → ADD TO TABLE NO ☐

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live her YES ☐ → ADD TO TABLE NO ☐

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES ☐ → ADD TO TABLE NO ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
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			IF AGE 0-17 YEARS								
LINE NO.	SICK PERSON	CARE TAKER	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS								
	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? WRITE CARE TAKER'S LINE NUMBER IF NO, WRITE 00'	Who is (NAME)'s main care taker?	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually live in this household or was she a guest last night? IF YES: What is her name? WRITE MOTHER'S LINE NUMBER. IF NO, WRITE '00'.	**IF MOTHER NOT LISTED IN HOUSEHOLD** Has (NAME)'s 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?	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually live in this household or was he a guest last night? IF YES: What is his name? WRITE FATHER'S LINE NUMBER. IF NO, WRITE '00'.	**IF FATHER NOT LISTED IN HOUSEHOLD** Has (NAME)'s 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?	**MOTHER / FATHER DEAD/ SICK** CIRCLE LINE NUMBER IF CHILD'S MOTHER AND/OR FATHER HAS DIED (Q.11 OR 14 = NO) OR BEEN SICK (Q.13 OR 16 = YES).	**BOTH PARENTS ALIVE** IF YES TO Q.11 AND Q.14 (BOTH ALIVE), CIRCLE '1'. FOR ALL OTHER CASES, CIRCLE '2'.	**CARE TAKER** Who is (NAME)'s main care taker? WRITE CARE TAKER'S LINE NUMBER. IF NO, WRITE 00'
	(10)	(10A)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(18A)
01	Y N DK 1 2 8 GO TO 11		Y N DK 1 2 8 GO TO 14		Y N DK 1 2 8	Y N DK 1 2 8 GO TO 17		Y N DK 1 2 8	01	1 2 GO TO 21	
02	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	02	1 2 GO TO 21	
03	1 2 8 GO TO 11		1 2 8 GO TO 14		1 2 8	1 2 8 GO TO 17		1 2 8	03	1 2 GO TO 21	
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	IF AGE 0-17 YEARS		IF AGE 5 YEARS OR OLDER			IF AGE 5-17 YEARS			IF AGE 0-4 YEARS
LINE NO.	BROTHERS AND SISTERS		EDUCATION			BASIC MATERIAL NEEDS			BIRTH REGISTRATION
	Does (NAME) have any brothers or sisters under age 18 who have the same mother and the same father?	Do any of these brothers and sisters under age 18 not live in this household?	Has (NAME) ever attended school?	What is the highest grade or form of school (NAME) completed? SEE CODES BELOW.	**IF AGE 5-24 YEARS** Did (NAME) attend school at any time during the 2007 school year?	Does (NAME) have a blanket?	Does (NAME) have a a pair of shoes?	Does (NAME) have at least two sets of clothes?	Does (NAME) have a a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
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	Y N DK	Y N	Y N	GRADE	Y N	Y N DK	Y N DK	Y N DK	
01	1 2 → 8 GO TO 21	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
02	1 2 → 8 GO TO 21	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
03	1 2 → 8 GO TO 21	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
04	1 2 → 8 GO TO 21	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
05	1 2 → 8 GO TO 21	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
06	1 2 → 8 GO TO 21	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
07	1 2 → 8 GO TO 21	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	
08	1 2 → 8 GO TO 21	1 2	1 2 → GO TO 24		1 2	1 2 8	1 2 8	1 2 8	

CODES FOR Q. 22: EDUCATION

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07 = STANDARD 7	17 = TRAINING AFTER SECOND.
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09 = TRAIN.AFTER PRIM.	98 = DON'T KNOW

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED INTO YARD/PLOT . . . . . 12 PUBLIC TAP . . . . . 13 NEIGHBOUR'S TAP . . . . . 14 WATER FROM OPEN WELL OPEN WELL IN DWELLING . . . 21 OPEN WELL IN YARD/PLOT . . . 22 OPEN PUBLIC WELL . . . . . 23 NEIGHBOUR'S OPEN WEL . . . . . 24 WATER FROM COVERED WELL OR BOREHOLE PROTECTED WELL IN DWELLING . . . . . 31 PROTECTED WELL IN YARD/PLOT . . . . . 32 PROTECTED PUBLIC WELL . . . 33 BOREHOLE . . . . . 34 SURFACE WATER SPRING . . . . . 41 RIVER/STREAM . . . . . 42 POND/LAKE . . . . . 43 DAM . . . . . 44 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 WATER VENDOR . . . . . 62 BOTTLED WATER . . . . . 71 OTHER _____ 96 (SPECIFY)	→ 101B → 101B
101A	Who is providing water at your main source?	AUTHORITY . . . . . 1 CBO/NG0 . . . . . 2 PRIVATE OPERATOR . . . . . 3 DON'T KNOW 8	NEW
101B	How long does it take you to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] ON PREMISES 996	
102	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET . . . 11 PIT LATRINE VENTILATED IMPROVED PIT LATRINE (VIP) . . . . . 21 TRADITIONAL PIT LATRINE . . . . . 22 NO FACILITY/BUSH/FIELD . . . . . 31 OTHER _____ 96 (SPECIFY)	→ 104
103	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	
104	Does your household have:	**YES** **NO**	
	Electricity?	ELECTRICITY 1 2	
	A paraffin lamp?	PARAFFIN LAMP 1 2	
	A radio?	RADIO 1 2	
	A television?	TELEVISION 1 2	
	A mobile telephone?	MOBILE TELEPHONE 1 2	
	A non-mobile telephone (land line)?	NON-MOBILE TELEPHONE . 1 2	
	An iron (charcoal or electric)?	IRON 1 2	
	A refrigerator?	REFRIGERATOR 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
105	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 BOTTLED GAS . . . . . 02 PARAFFIN / KEROSENE . . . . . 03 CHARCOAL . . . . . 04 FIREWOOD . . . . . 05 CROP RESIDUALS, STRAW, GRASS 06 ANIMAL DUNG . . . . . 07 NO FOOD COOKED IN HOUSEHOLD 95 OTHER _____ 96 (SPECIFY)	
106	What is the main source of energy for lighting in the household?	ELECTRICITY . . . . . 01 SOLAR . . . . . 02 GAS . . . . . 03 PARAFFIN-HURRICANE LAMP . . . 04 PARAFFIN-PRESSURE LAMP . . . . . 05 PARAFFIN-WICK LAMP . . . . . 06 FIREWOOD . . . . . 07 CANDLES . . . . . 08 OTHER _____ 96 (SPECIFY)	
107	MAIN MATERIAL OF THE FLOOR RECORD OBSERVATION. MARK ONLY ONE.	EARTH, SAND, DUNG . . . . . 11 WOOD PLANKS, BAMBOO, PALM 21 PARQUET OR POLISHED WOOD . 31 VINYL OR ASPHALT STRIPS . . . . . 32 CERAMIC TILES, TERRAZZO . . . . 33 CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
108	WALL MATERIAL RECORD OBSERVATION. MARK ONLY ONE.	GRASS . . . . . 01 POLES AND MUD . . . . . 02 SUN-DRIED BRICKS . . . . . 03 BAKED BRICKS . . . . . 04 WOOD, TIMBER . . . . . 05 CEMENT BLOCKS . . . . . 06 STONES . . . . . 07 OTHER _____ 96 (SPECIFY)	
109	ROOFING MATERIAL RECORD OBSERVATION. MARK ONLY ONE.	GRASS / THATCH / MUD . . . . . 01 IRON SHEETS . . . . . 02 TILES . . . . . 03 CONCRETE . . . . . 04 ASBESTOS . . . . . 05 OTHER _____ 96 (SPECIFY)	
110	How many rooms in your household are used for sleeping? (INCLUDING ROOMS OUTSIDE THE MAIN DWELLING)	ROOMS . . . . . ☐☐	
111	Does any member of your household own:	YES NO	
	A watch?	WATCH 1 2	
	A bicycle?	BICYCLE 1 2	
	A motorcycle or motor scooter?	MOTORCYCLE/SCOOTER . . . 1 2	
	A car or truck?	CAR/TRUCK 1 2	
	A bank account?	BANK ACCOUNT 1 2	
112	How many acres of land for farming or grazing does this household own? (PUT '0000.0' IF NONE AND 9999.8 IF DOESN'T KNOW)	ACRES FOR FARMING ☐☐☐☐.☐ ACRES FOR GRAZING ☐☐☐☐.☐	
113	Does the household use land for farming or grazing that it doesn't own? IF YES: Is it rented, sharecropped, private land provided free, or open access/communal/other?	YES, RENTED . . . . . 1 YES, SHARECROPPED . . . . . 2 YES, PRIVATE LAND PROVIDED FREE 3 YES, OPEN ACCESS/COMMUNAL . . . 4 NO 5	→ 115

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
114	How many acres of land are used? (PUT '0000.0' IF NONE AND 9999.8 IF DOESN'T KNOW)	ACRES FOR FARMING [ ][ ][ ][ ].[ ] ACRES FOR GRAZING [ ][ ][ ][ ].[ ]	
115	How far is it to the nearest market place? (WRITE '00' IF LESS THAN ONE KILOMETRES)	KILOMETRES . . . . [ ][ ]	
116	Now I would like to ask you about the food your household eats. How many meals does your household usually have per day?	MEALS . . . . [ ][ ]	
117	In the past week, on how many days did the household eat meat?	DAYS . . . . [ ][ ]	
118	How often in the last year did you have problems in satisfying the food needs of the household?	NEVER . . . . 1 SELDOM . . . . 2 SOMETIMES . . . . 3 OFTEN . . . . 4 ALWAYS 5	
119	How far is it to the nearest health facility? (WRITE '00' IF LESS THAN ONE KILOMETRE+F244 IF MORE THAN 95 KM, WRITE 95)	KILOMETRES . . . . [ ][ ]	
120	If you were to go to (NAME OF HOSPITAL, HEALTH CENTRE, or HEALTH POST), how would you go there?	CAR/MOTORCYCLE . . . . 1 PUBLIC TRANSPORT (BUS, TAXI) . . . 2 ANIMAL/ANIMAL CART . . . . 3 WALKING . . . . 4 BICYCLE . . . . 5 OTHER ____________________ 6 (SPECIFY)	
121	At any time in the past 12 months, has anyone sprayed the interior walls of your dwelling against mosquitoes?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	2, 8 → 122
121A	How many months ago was the house last sprayed? IF LESS THAN ONE MONTH, RECORD '00' MONTHS AGO.	MONTHS AGO . . . . [ ][ ]	
121B	Who sprayed the house?	GOVERNMENT WORKER/PROGRAM 1 PRIVATE COMPANY . . . . 2 HOUSEHOLD MEMBER 3 OTHER ____________________ 6 (SPECIFY) DON'T KNOW 8	
122	Does your household have any mosquito nets that can be used while sleeping?	YES . . . . 1 NO 2	2 → 201
123	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS . . . . [ ]	

		NET # 1	NET # 2	NET # 3	
124	ASK RESPONDENT TO SHOW YOU THE NET(S). IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED . . . 1 NOT OBSERVED 2	OBSERVED . . . 1 NOT OBSERVED 2	OBSERVED . . . 1 NOT OBSERVED 2	
125	How many months ago did your household obtain the mosquito net? IF LESS THAN ONE MONTH, WRITE '00'.	MONTHS AGO [ ][ ] 37 OR MORE MONTHS AGO 95 NOT SURE 98	MONTHS AGO [ ][ ] 37 OR MORE MONTHS AGO 95 NOT SURE 98	MONTHS AGO [ ][ ] 37 OR MORE MONTHS AGO 95 NOT SURE 98	
126	Where did you get the mosquito net from?	SHOP . . . . 01 MACHINGA . . . . . 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 OTHER . . . . 05 GIFT . . . . 06 DOES NOT KNOW 98	SHOP . . . . 01 MACHINGA . . . . . 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 OTHER . . . . 05 GIFT . . . . 06 DOES NOT KNOW 98	SHOP . . . . 01 MACHINGA . . . . . 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 OTHER . . . . 05 GIFT . . . . 06 DOES NOT KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
126A	Did you get the mosquito net under the Hati Punguzo programme, that is a subsidy for pregnant women and children under age five?	YES . . . . 1 NO 2	YES . . . . 1 NO 2	YES . . . . 1 NO 2	
127	OBSERVE OR ASK THE BRAND OR TYPE OF MOSQUITO NET.	'PERMANENT' NET OLYSET . . . . . 11 OTHER/ DK BRAND . . . . . 16 (SKIP TO 131) 'PRETREATED' NET ONE PACKET . . . 21 TWO PACKETS 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 129) OTHER . . . . 31 DK TYPE/BRAND . 98	'PERMANENT' NET OLYSET . . . . . 11 OTHER/ DK BRAND . . . . . 16 (SKIP TO 131) 'PRETREATED' NET ONE PACKET . . . 21 TWO PACKETS 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 129) OTHER . . . . 31 DK TYPE/BRAND . 98	'PERMANENT' NET OLYSET . . . . . 11 OTHER/ DK BRAND . . . . . 16 (SKIP TO 131) 'PRETREATED' NET ONE PACKET . . . 21 TWO PACKETS 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 129) OTHER . . . . 31 DK TYPE/BRAND . 98	
128	When you got the net, was it already treated with an insecticide to kill or repel mosquitos?	YES . . . . 1 NO . . . . 2 NOT SURE 8	YES . . . . 1 NO . . . . 2 NOT SURE 8	YES . . . . 1 NO . . . . 2 NOT SURE 8	
129	Since you got the mosquito net, was it ever soaked or dipped in a liquid to repel mosquitos or bugs?	YES . . . . 1 NO . . . . 2 (SKIP TO 131) NOT SURE 8	YES . . . . 1 NO . . . . 2 (SKIP TO 131) NOT SURE 8	YES . . . . 1 NO . . . . 2 (SKIP TO 131) NOT SURE 8	
130	How many months ago was the net last soaked or dipped? IF LESS THAN 1 MONTH, RECORD '00'.	MONTHS AGO . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98	
131	Did anyone sleep under this mosquito net last night?	YES . . . . 1 NO . . . . 2 (SKIP TO 133) NOT SURE 8	YES . . . . 1 NO . . . . 2 (SKIP TO 133) NOT SURE 8	YES . . . . 1 NO . . . . 2 (SKIP TO 133) NOT SURE 8	
132	Who slept under this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE	NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ]	NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ]	NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ] NAME ______ LINE NUMBER [ ][ ]	
133		GO BACK TO 124 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO BACK TO 124 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO TO 124 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 201.	

NO.	QUESTIONS AND FILTERS	NET # 4	NET # 5	NET # 6	SKIP
124	ASK RESPONDENT TO SHOW YOU THE NET(S). IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED . . . 1 NOT OBSERVED 2	OBSERVED . . . 1 NOT OBSERVED 2	OBSERVED . . . 1 NOT OBSERVED 2	
125	How many months ago did your household obtain the mosquito net? IF LESS THAN ONE MONTH, WRITE '00'.	MONTHS AGO [ ][ ] 37 OR MORE MONTHS AGO 95 NOT SURE 98	MONTHS AGO [ ][ ] 37 OR MORE MONTHS AGO 95 NOT SURE 98	MONTHS AGO [ ][ ] 37 OR MORE MONTHS AGO 95 NOT SURE 98	
126	Where did you get the mosquito net from?	SHOP . . . . 01 MACHINGA . . . . . 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 OTHER . . . . 05 GIFT . . . . 06 DOES NOT KNOW 98	SHOP . . . . 01 MACHINGA . . . . . 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 OTHER . . . . 05 GIFT . . . . 06 DOES NOT KNOW 98	SHOP . . . . 01 MACHINGA . . . . . 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 OTHER . . . . 05 GIFT . . . . 06 DOES NOT KNOW 98	
126A	Did you get the mosquito net under the Hati Punguzo programme, that is a subsidy for pregnant women and children under age five?	YES . . . . 1 NO 2	YES . . . . 1 NO 2	YES . . . . 1 NO 2	\
127	OBSERVE OR ASK THE BRAND OR TYPE OF MOSQUITO NET.	'PERMANENT' NET OLYSET . . . . . 11 OTHER/ DK BRAND . . . . . 16 (SKIP TO 131) 'PRETREATED' NET ONE PACKET . . . 21 TWO PACKETS 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 129) OTHER . . . . 31 DK TYPE/BRAND . 98	'PERMANENT' NET OLYSET . . . . . 11 OTHER/ DK BRAND . . . . . 16 (SKIP TO 131) 'PRETREATED' NET ONE PACKET . . . 21 TWO PACKETS 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 129) OTHER . . . . 31 DK TYPE/BRAND . 98	'PERMANENT' NET OLYSET . . . . . 11 OTHER/ DK BRAND . . . . . 16 (SKIP TO 131) 'PRETREATED' NET ONE PACKET . . . 21 TWO PACKETS 22 OTHER/ DK BRAND . . . . . 26 (SKIP TO 129) OTHER . . . . 31 DK TYPE/BRAND . 98	
128	When you got the net, was it already treated with an insecticide to kill or repel mosquitos?	YES . . . . 1 NO . . . . 2 NOT SURE 8	YES . . . . 1 NO . . . . 2 NOT SURE 8	YES . . . . 1 NO . . . . 2 NOT SURE 8	
129	Since you got the mosquito net, was it ever soaked or dipped in a liquid to repel mosquitos or bugs?	YES . . . . 1 NO . . . . 2 (SKIP TO 131) NOT SURE 8	YES . . . . 1 NO . . . . 2 (SKIP TO 131) NOT SURE 8	YES . . . . 1 NO . . . . 2 (SKIP TO 131) NOT SURE 8	
130	How many months ago was the net last soaked or dipped? IF LESS THAN 1 MONTH, RECORD '00'.	MONTHS AGO . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98	MONTHS AGO . . . [ ][ ] 25 OR MORE MONTHS AGO . . . 95 NOT SURE 98	
131	Did anyone sleep under this mosquito net last night?	YES . . . . 1 NO . . . . 2 (SKIP TO 133) NOT SURE 8	YES . . . . 1 NO . . . . 2 (SKIP TO 133) NOT SURE 8	YES . . . . 1 NO . . . . 2 (SKIP TO 133) NOT SURE 8	
132	Who slept under this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE	NAME ________ LINE NUMBER [ ][ ] NAME ________ LINE NUMBER [ ][ ]	NAME ________ LINE NUMBER [ ][ ] NAME ________ LINE NUMBER [ ][ ]	NAME ________ LINE NUMBER [ ][ ] NAME ________ LINE NUMBER [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
		NET # 4	NET # 5	NET # 6	
		NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐	NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐	NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐ NAME _____ LINE NUMBER ☐☐	
133		GO BACK TO 124 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO BACK TO 124 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO TO 124 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 201.	

SUPPORT FOR SICK PEOPLE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			
201	CHECK QUESTIONS 7 AND 10 IN THE HOUSEHOLD SCHEDULE: AT LEAST ONE ☐ ↓ NUMBER OF SICK PEOPLE AGE 18-59 ☐☐ NONE ☐ → 301				
202	ENTER IN QUESTION 203 THE LINE NUMBER AND NAME OF EACH SICK PERSON AGE 18-59, BEGINNING WITH THE FIRST SICK PERSON LISTED IN QUESTION 10 IN THE HOUSEHOLD SCHEDULE. IF THERE ARE MORE THAN 3 SICK PEOPLE, USE ADDITIONAL QUESTIONNAIRE(S). READ THE INTRODUCTION THAT FOLLOWS. THEN ASK QUESTIONS 204-215 AS APPROPRIATE FOR EACH OF THE PERSONS AGE 18-59 REPORTED AS HAVING BEEN VERY SICK. You told me that in your household one (some) of the members of your household has(ve) been very sick for at least three of the past 12 months. We are interested in learning about the care and support that may have been received for [that/each of those persons]. First I would like to ask you about any formal, organized help or support that your household may have been given for [that/each of those] person(s) 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.				
203	NAME AND LINE NUMBER FROM COLUMNS 1 AND 2 OF THE HOUSEHOLD SCHEDULE	1ST SICK PERSON NAME _____ LINE NO. ... ☐☐	2ND SICK PERSON NAME _____ LINE NO. ... ☐☐	3RD SICK PERSON NAME _____ LINE NO. ... ☐☐	
204	Now I would like to ask you about any support you 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 (SKIP TO 206) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 206) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 206) ← DK 8	
205	Did your household receive any of this medical support at least once a month while (NAME) was sick?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	
206	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, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 208) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 208) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 208) ← DK 8	
207	Did your household receive of this any emotional or psychological support in the past 30 days?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	
208	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 (SKIP TO 210) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 210) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 210) ← DK 8	
209	Did your household receive any of this material support in the past 30 days?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	
210	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 (SKIP TO 212) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 212) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 212) ← DK 8	
211	Did your household receive any of this social support in the past 30 days?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	
212		GO BACK TO 204 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF THERE ARE NO MORE SICK PEOPLE, GO TO 301.			

SUPPORT FOR PERSONS WHO HAVE DIED

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
301	Now I would like to ask you a few more questions about your household. Think back over the past 12 months. Has any usual member of your household died in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 401
302	How many household members died in the last 12 months?	NUMBER OF DEATHS . . . . . ☐	

303	ASK 304-322 AS APPROPRIATE FOR EACH PERSON WHO DIED. IF THERE WERE MORE THAN 3 DEATHS, USE ADDITIONAL QUESTIONNAIRE(S).			
304	What was the name of the person who died (most recently/before him/her)?	NAME 1ST DEATH _____	NAME 2ND DEATH _____	NAME 3RD DEATH _____
305	Was (NAME) male or female?	MALE . . . . . 1 FEMALE 2	MALE . . . . . 1 FEMALE 2	MALE . . . . . 1 FEMALE 2
306	How old was (NAME) when (he/she) died?	AGE . ☐☐	AGE . ☐☐	AGE . ☐☐
307	CHECK 306: AGE OF PERSON AT DEATH	<18/60+ ☐ (SKIP TO 318) 18-59	<18/60+ ☐ (SKIP TO 318) 18-59	<18/60+ ☐ (SKIP TO 318) 18-59
308	Was (NAME) very sick for at least three of the 12 months before (he/she) died, that is (NAME) was too sick to work or do normal activities?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8
309	I would like to ask you about any formal, organized help or support that your household may have received for [NAME] before (he/she) died, 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.			
310	In the last 12 months, did your household receive any medical supplies for (NAME), such as medical care, supplies or medicine, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312) DK 8
311	Did your household receive any of this medical support at least once a month while (NAME) was sick?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
312	In the last 12 months, did your household receive any emotional or psychological support for (NAME), such as companionship, counseling from a trained counselor, or spiritual support for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 314) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 314) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 314) DK 8
313	Did your household receive any of this emotional or psychological support in the last 30 days before (NAME)'s death?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
314	In the last 12 months, did your household receive any material support for (NAME), such as clothing, food, or financial support, for which you did not have to pay?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 316) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 316) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 316) DK 8
315	Did your household receive any of this material support in the last 30 days before (NAME)'s death?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
316	In the last 12 months, did your household receive 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 (SKIP TO 318) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 318) DK 8
317	Did your household receive any of this social support in the last 30 days before (NAME)'s death?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
318		GO BACK TO 304 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE DEATHS, GO TO 401.		

SUPPORT FOR ORPHANS AND VULNERABLE CHILDREN

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
401	CHECK COLUMN 7 IN THE HOUSEHOLD SCHEDULE: **ANY CHILD AGE 0-17?** AT LEAST ONE CHILD AGE 0-17 ☐ NO CHILD AGE 0-17 ☐ → 501	
402	CHECK COLUMN 10 IN THE HOUSEHOLD SCHEDULE: **ANY SICK ADULT AGE 18-59?** NO SICK ADULT AGE 18-59 ☐ AT LEAST ONE SICK ADULT AGE 18-59 ☐ → GO TO 406. CHECK QUESTION 7 IN THE HOUSEHOLD SCHEDULE AND LIST THE NAME(S), LINE NUMBER(S) AND AGE(S) OF ALL PERSON(S) AGE 0-17 YEARS.	
403	CHECK 306 IN THE PREVIOUS SECTION: **ANY ADULT AGE 18-59 WHO DIED IN PAST 12 MONTHS?** NO ADULT DEATH AGE 18-59 IN 306 ☐ AT LEAST ONE ADULT DEATH AGE 18-59 IN 306 ☐ → GO TO 406. CHECK QUESTION 7 IN THE HOUSEHOLD SCHEDULE AND LIST THE NAME(S), LINE NUMBER(S) AND AGE(S) OF ALL PERSONS AGE 0-17 YEARS.	
404	CHECK COLUMN 17 IN THE HOUSEHOLD SCHEDULE: **ANY CHILD WHOSE MOTHER AND/OR FATHER HAS DIED OR WHOSE MOTHER AND/OR FATHER IS NOT LISTED IN THE HOUSEHOLD SCHEDULE AND IS VERY SICK?** AT LEAST ONE CHILD WHOSE MOTHER AND/OR FATHER HAS DIED/IS NOT LISTED IN THE HOUSEHOLD SCHEDULE AND HAS BEEN VERY SICK ☐ NO CHILD WHOSE MOTHER AND/OR FATHER HAS DIED OR IS NOT LISTED IN HOUSEHOLD SCHEDULE AND HAS BEEN VERY SICK ☐ → 501	
405	RECORD NAMES, LINE NUMBERS AND AGES OF CHILDREN AGE 0-17 FOR ALL CHILDREN WHO ARE IDENTIFIED IN COLUMN 17 AS HAVING A MOTHER AND/OR FATHER WHO HAS DIED OR HAS BEEN VERY SICK.	

		1ST CHILD	2ND CHILD	3RD CHILD	4TH CHILD
406	NAME (FROM COLUMN 2) LINE NUMBER (FROM COLUMN 1) AGE (FROM COLUMN 7)	NAME _____ LINE NO. ☐☐ AGE ☐☐	NAME _____ LINE NO. ☐☐ AGE ☐☐	NAME _____ LINE NO. ☐☐ AGE ☐☐	NAME _____ LINE NO. ☐☐ AGE ☐☐
407	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.				
408	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 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
409	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 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8
410	Did your household receive any of this emotional or psychological support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
411	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 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8
412	Did your household receive any of this material support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
413	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 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8
414	Did your household receive any of this social support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
415	CHECK 406: AGE OF CHILD	AGE 0-4 ☐→ (SKIP TO 417) ← AGE 5-17 ☐↓	AGE 0-4 ☐→ (SKIP TO 417) ← AGE 5-17 ☐↓	AGE 0-4 ☐→ (SKIP TO 417) ← AGE 5-17 ☐↓	AGE 0-4 ☐→ (SKIP TO 417) ← AGE 5-17 ☐↓
416	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 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
417		GO BACK TO 408 FOR NEXT CHILD; OR, IF NO MORE CHILDREN → END			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			
		5TH CHILD	6TH CHILD	7TH CHILD	8TH CHILD
406	NAME (FROM COLUMN 2) LINE NUMBER (FROM COLUMN 1) AGE (FROM COLUMN 7)	NAME _____ LINE NO. . . . ☐☐ AGE . ☐☐	NAME _____ LINE NO. . . . ☐☐ AGE . ☐☐	NAME _____ LINE NO. . . . ☐☐ AGE . ☐☐	NAME _____ LINE NO. . . . ☐☐ AGE . ☐☐
408	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 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
409	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 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 411) ← DK 8
410	Did your household receive any emotional or psychological support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
411	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 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413) ← DK 8
412	Did your household receive any material support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
413	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 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ← DK 8
414	Did your household receive any social support in the past 3 months?	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
415	CHECK 406: AGE OF CHILD	AGE 0-4 ☐ (SKIP TO 417) ← AGE 5-17 ☐ ↓	AGE 0-4 ☐ (SKIP TO 417) ← AGE 5-17 ☐ ↓	AGE 0-4 ☐ (SKIP TO 417) ← AGE 5-17 ☐ ↓	AGE 0-4 ☐ (SKIP TO 417) ← AGE 5-17 ☐ ↓
416	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 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8	YES . . . . . 1 NO . . . . . 2 DK 8
417		GO BACK TO 408 FOR NEXT CHILD; OR, IF NO MORE CHILDREN → END OF INTERVIEW			

ANAEMIA AND MALARIA TESTING FOR CHILDREN AGE 0-5

501	CHECK COLUMN 9A: ANY LINE NUMBER CIRCLED ☐ ↓ NO LINE NUMBER CIRCLED ☐ → END HOUSEHOLD INTERVIEW. WRITE THE LINE NUMBER AND NAME FOR ALL CHILDREN 0-5 YEARS IN Q. 502. IF MORE THAN 6 CHILDREN, USE ADDITIONAL QUESTIONNAIRES. A FINAL OUTCOME MUST BE RECORDED FOR THE ANAEMIA TEST IN Q. 508 AND FOR THE MALARIA TEST IN Q. 510			
		CHILD 1	CHILD 2	CHILD 3
502	LINE NUMBER FROM COLUMN 9A NAME FROM COLUMN 2	LINE NUMBER . . . ☐☐ NAME ______	LINE NUMBER . . . ☐☐ NAME ______	LINE NUMBER . . . ☐☐ NAME ______
503	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐	DAY . . . . ☐☐ MONTH . . . . . ☐☐ YEAR ☐☐☐☐
504	CHECK 503: CHILD BORN IN JANUARY 2002 OR LATER?	YES . . . . 1 NO . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514)	YES . . . . 1 NO . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514)	YES . . . . 1 NO . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514)
505	CHECK 503: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514) OLDER 2	0-5 MONTHS . . . . 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514) OLDER 2	0-5 MONTHS . . . . 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514) OLDER 2
506	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1) RECORD '00' IF NOT LISTED IN HH.	LINE NUMBER . . . ☐☐	LINE NUMBER . . . ☐☐	LINE NUMBER . . . ☐☐
507	READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE FOR WHICH TESTS ARE GRANTED. SIGN IN ALL CASES.	ANAEMIA AND MALARIA BOTH YES 1 ANAEMIA ONLY . . . . . 2 MALARIA ONLY . . . . . 3 NO TO BOTH . . . . 4 NOT ASKED . . . . 6 ______ (SIGN)	ANAEMIA AND MALARIA BOTH YES 1 ANAEMIA ONLY . . . . . 2 MALARIA ONLY . . . . . 3 NO TO BOTH . . . . 4 NOT ASKED . . . . 6 ______ (SIGN)	ANAEMIA AND MALARIA BOTH YES 1 ANAEMIA ONLY . . . . . 2 MALARIA ONLY . . . . . 3 NO TO BOTH . . . . 4 NOT ASKED . . . . 6 ______ (SIGN)
508	RECORD RESULT CODE OF **ANAEMIA** TEST.	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 510)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 510)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 510)
509	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANAEMIA PAMPHLET.	G/DL . ☐☐.☐	G/DL . ☐☐.☐	G/DL . ☐☐.☐
510	RECORD RESULT CODE OF **MALARIA** TEST	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 514)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 514)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 514)
511	RESULT OF MALARIA TEST	POSITIVE . . . . 1 (SKIP TO 513) NEGATIVE . . . . 2 OTHER 6	POSITIVE . . . . 1 (SKIP TO 513) NEGATIVE . . . . 2 OTHER 6	POSITIVE . . . . 1 (SKIP TO 513) NEGATIVE . . . . 2 OTHER 6
512	Does (NAME) currently have a fever?	YES . . . . 1 NO, NOT SURE . . . . . 2 (SKIP TO 514)	YES . . . . 1 NO, NOT SURE . . . . . 2 (SKIP TO 514)	YES . . . . 1 NO, NOT SURE . . . . . 2 (SKIP TO 514)
513	READ INFORMATION FOR MALARIA TREATMENT	ACCEPTED . . . . 1 REFUSED . . . . 2 OTHER 6	ACCEPTED . . . . 1 REFUSED . . . . 2 OTHER 6	ACCEPTED . . . . 1 REFUSED . . . . 2 OTHER 6
514		GO BACK TO 503 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, GO TO 515.		

		CHILD 4	CHILD 5	CHILD 6
502	LINE NUMBER FROM COLUMN 9A NAME FROM COLUMN 2	LINE NUMBER . . . NAME ________	LINE NUMBER . . . NAME ________	LINE NUMBER . . . NAME ________
503	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME'S) birth date?	DAY . . . . MONTH . . . . . YEAR	DAY . . . . MONTH . . . . . YEAR	DAY . . . . MONTH . . . . . YEAR
504	CHECK 503: CHILD BORN IN JANUARY 2002 OR LATER?	YES . . . . 1 NO . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514)	YES . . . . 1 NO . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514)	YES . . . . 1 NO . . . . 2 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514)
505	CHECK 503: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514) OLDER 2	0-5 MONTHS . . . . 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514) OLDER 2	0-5 MONTHS . . . . 1 (GO TO 503 FOR NEXT CHILD OR, IF NO MORE, GO TO 514) OLDER 2
506	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1) RECORD '00' IF NOT LISTED IN HH.	LINE NUMBER . . .	LINE NUMBER . . .	LINE NUMBER . . .
507	READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE FOR WHICH TESTS ARE GRANTED. SIGN IN ALL CASES.	ANAEMIA AND MALARIA BOTH YES 1 ANAEMIA ONLY . . . . . 2 MALARIA ONLY . . . . . 3 NO TO BOTH . . . . 4 NOT ASKED . . . . 6 ________ (SIGN)	ANAEMIA AND MALARIA BOTH YES 1 ANAEMIA ONLY . . . . . 2 MALARIA ONLY . . . . . 3 NO TO BOTH . . . . 4 NOT ASKED . . . . 6 ________ (SIGN)	ANAEMIA AND MALARIA BOTH YES 1 ANAEMIA ONLY . . . . . 2 MALARIA ONLY . . . . . 3 NO TO BOTH . . . . 4 NOT ASKED . . . . 6 ________ (SIGN)
508	RECORD RESULT CODE OF **ANAEMIA** TEST.	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 510)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 510)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 510)
509	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANAEMIA PAMPHLET.	G/DL .	G/DL .	G/DL .
510	RECORD RESULT CODE OF **MALARIA** TEST	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 514)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 514)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 514)
511	RESULT OF MALARIA TEST	POSITIVE . . . . 1 (SKIP TO 513) NEGATIVE . . . . 2 OTHER 6	POSITIVE . . . . 1 (SKIP TO 513) NEGATIVE . . . . 2 OTHER 6	POSITIVE . . . . 1 (SKIP TO 513) NEGATIVE . . . . 2 OTHER 6
512	Does (NAME) currently have a fever?	YES . . . . 1 NO, NOT SURE . . . . . 2 (SKIP TO 514)	YES . . . . 1 NO, NOT SURE . . . . . 2 (SKIP TO 514)	YES . . . . 1 NO, NOT SURE . . . . . 2 (SKIP TO 514)
513	READ INFORMATION FOR MALARIA TREATMENT	ACCEPTED . . . . 1 REFUSED . . . . 2 OTHER 6	ACCEPTED . . . . 1 REFUSED . . . . 2 OTHER 6	ACCEPTED . . . . 1 REFUSED . . . . 2 OTHER 6
514		GO BACK TO 503 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, GO TO 515.		

CONSENT STATEMENT FOR ANAEMIA AND MALARIA FOR CHILDREN

As part of this survey, we are asking that children all over the country take an **anaemia** test. Anaemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will help the government to develop programs to prevent and treat anaemia.

We request that all children born in 2002 or later participate in the anemia testing part of this survey and give a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anaemia immediately and the result will be told to you right away. The result will be kept confidential.

We are also doing **malaria** tests for children as part of this survey. Malaria is a serious health problem that is caused by a parasite that is transmitted by a mosquito bite. This survey will help the government to develop programs to prevent malaria.

We request that all children born in 2002 or later participate in the malaria testing part of this survey and give a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test. We will use blood from the same finger prick made for the anaemia test.

The blood will be tested for malaria immediately and the result will be told to you right away. The result will be kept confidential.

Do you have any questions about the anaemia test or the malaria test?

You can say yes to the test or you can say no. You can say yes to one and no to the other. It is up to you to decide.
Will you allow (NAME(S) OF CHILD(REN) to participate in the **anemia** test?
Will you allow (NAME(S) OF CHILD(REN) to participate in the **malaria** test?

TREATMENT FOR CHILDREN WITH POSITIVE MALARIA TESTS AND THOSE WITH NEGATIVE TESTS BUT WITH FEVER

IF MALARIA TEST IS POSITIVE: The malaria test shows that your child seems to have active malaria. We can provide you with a full course of treatment free of charge.

IF MALARIA TEST IS NEGATIVE AND CHILD HAS FEVER: The malaria test shows that your child does NOT seem to have active malaria. However, since your child has a fever, we can provide you with a full course of treatment for malaria free of charge.

Because the child does not seem to have malaria, this treatment is NOT likely to help him/her, so you should take the child to a health facility to see what is causing the fever.

The medicine is called ALu or Coartem®.
ALu is very effective and should in a few days rid him/her of fever and other symptoms.
ALu is also very safe. However, as with every medicine, this medicine may have undesired effects. The most common are dizziness, fatigue, lack of appetite, palpitations. ALu should not be taken by persons with severe heart problems or severe malaria (e.g., cerebral) or problems regulating their body salts [ASK IF THE CHILD HAS ANY OF THESE PROBLEMS, THAT THEY ARE AWARE OF; IF SO, DO NOT OFFER ALU. EXPLAIN THE RISKS OF MALARIA, AND REFER HIM/HER TO NEAREST HEALTH FACILITY].

You do not have to give the child the medicine. This is up to you. Please tell me whether you accept the medicine or not.

TREATMENT WITH ALU (COARTEM)

Weight (in Kg) – Approximate age	Dosage *
5 kgs. to less than 15 kgs. (under 3 years)	1 tablet twice daily for 3 days
15 kgs. to less than 25 kgs. (3 -8 years)	2 tablets twice daily for 3 days
25 kgs. to less than 35 kgs.	3 tablets twice daily for 3 days
Children 35 kg. and above	4 tablets twice daily for 3 days

First day starts by taking first dose followed by the second one 8 hours later; on subsequent days the recommendation is simply “morning” and “evening” (usually around 12 hours apart)
Take the medicine (crushed for smaller children) with high fat food or drinks like milk.

Make sure that the FULL 3 days treatment is taken at the recommended times, otherwise the infection may return.
If your child vomits within an hour of taking the medicine, repeat the dose and get additional tablets

ALSO TELL THE PARENT/GUARDIAN:

If [NAME OF CHILD] has any of the following symptoms, you should take him/her to a health professional for treatment immediately

-- High fever
-- Fast or difficult breathing
-- Not able to drink or breastfeed
-- Gets sicker or does not get better in 2 days

515	CHECK 509: NUMBER OF CHILDREN WITH HAEMOGLOBIN LEVEL BELOW THE CUTOFF POINT* ONE OR MORE → GIVE EACH PARENT OR RESPONSIBLE ADULT RESULT OF HAEMOGLOBIN MEASUREMENT AND CONTINUE WITH Q. 516.** NONE → END HOUSEHOLD INTERVIEW.
516	We detected a low level of haemoglobin in the blood of (NAME OF CHILD(REN)). This indicates that (NAME OF CHILD(REN)) has severe anemia, which is a serious health problem. We would like to inform the doctor at _____ about the condition of (NAME OF CHILD(REN)). This will assist you in obtaining appropriate treatment for the condition. Do you agree that the information about the level of haemoglobin in the blood of (NAME OF CHILD(REN)) may be given to the doctor?

NAME OF CHILD WITH HAEMOGLOBIN BELOW THE CUTOFF POINT	NAME OF PARENT/RESPONSIBLE ADULT	AGREES TO REFERRAL?
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2
		YES . . . . . 1 NO 2

* The cutoff point is 7 g/dl for children.

** If more than one child is below the cutoff point, read the statement in Q.516 to each parent or responsible adult of a child who is below the cutoff point.

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF THE SUPERVISOR: _____ DATE: _____

UNITED REPUBLIC OF TANZANIA
TANZANIA HIV/AIDS AND MALARIA INDICATOR SURVEY 2007
NATIONAL BUREAU OF STATISTICS

Last modified: 27 Sept 2007 SP

INDIVIDUAL QUESTIONNAIRE FOR WOMEN AND MEN 15-49

IDENTIFICATION

REGION _____

DISTRICT _____

WARD . . . . . .

ENUMERATION AREA . . . . . .

NAME OF HEAD OF HOUSEHOLD _____

THIS CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

LARGE CITY=1, SMALL CITY=2, TOWN=3, COUNTRYSIDE=4 . . . . . .

NAME AND LINE NUMBER OF RESPONDENT _____

SEX OF RESPONDENT (MALE = 1 FEMALE = 2)

LARGE CITIES ARE: DAR ES SALAAM, MWANZA, ARUSHA, TANGA, MBEYA. SMALL CITIES ARE: MOROGORO, DODOMA, MOSHI, BUKOBA, SINGIDA, MTWARA, IRINGA, SHINYANGA, TABORA, MUSOMA, SUMBAWANGA, SONGEA, KIGOMA, NA MJINI MAGHARIBI (ZANZIBAR). ALL OTHER URBAN AREAS ARE TOWNS.

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY / MONTH / YEAR 2 0 0
INTERVIEWER'S NAME				INTERV. NO.
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1 COMPLETED 4 REFUSED
2 NOT AT HOME 5 PARTLY COMPLETED 7 OTHER _____ (SPECIFY)
3 POSTPONED 6 INCAPACITATED

SUPERVISOR	OFFICE EDITOR	KEYED BY
NAME _____		
DATE _____		

SECTION 1 - RESPONDENT'S BACKGROUND

INFORMED CONSENT

Hello. My name is _____and I am working with the National Bureau of Statistics.

We are conducting a national survey that asks women and men about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes about 30 minutes to complete.
Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . 2→ END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ] MORNING . . . . . 1 AFTERNOON . . . . . 2 EVENING/NIGHT 3	
102	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
103	How old are you? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
104	Have you ever attended school?	YES . . . . . 1 NO 2	→ 107
105	What is the highest standard or form you completed?	PRE-PRIMARY . . . . . 00 STANDARD 1 . . . . . 01 STANDARD 2 . . . . . 02 STANDARD 3 . . . . . 03 STANDARD 4 . . . . . 04 STANDARD 5 . . . . . 05 STANDARD 6 . . . . . 06 STANDARD 7 . . . . . 07 STANDARD 8 . . . . . 08 TRAINING AFTER PRIMARY . . . . . 09 PRE-FORM 1 . . . . . 10 FORM 1 . . . . . 11 FORM 2 . . . . . 12 FORM 3 . . . . . 13 FORM 4 . . . . . 14 FORM 5 . . . . . 15 FORM 6 . . . . . 16 TRAINING AFTER SECONDARY . . . . . 17 UNIVERSITY . . . . . 18 OTHER _____ 96	
107	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL . . . . . 4 CANNOT READ 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
108	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
109	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
110	FEMALE ☐ MALE ☐		→ 113
111	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 116
112	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO 2	→ 116 → 114
113	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 116
114	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation or any other such reason?	YES . . . . . 1 NO 2	→ 116
115	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 117
116	What is your occupation, that is, what kind of work do you mainly do? INTERVIEWER: PROBE TO OBTAIN DETAILED INFORMATION ON THE KIND OF WORK RESPONDENT DOES.	_____ _____ _____ ☐☐☐	→ 118
117	What have you been doing for most of the time over the last 12 months?	GOING TO SCHOOL/STUDYING . . . . . 01 LOOKING FOR WORK . . . . . 02 RETIRED . . . . . 03 TOO ILL TO WORK . . . . . 04 HANDICAPPED, CANNOT WORK . . . 05 HOUSEWORK/CHILD CARE . . . . . 06 OTHER _____ 96 (SPECIFY)	
118	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . ☐☐ ALWAYS . . . . . 95 VISITOR 96	
119	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS . . . . . ☐☐ NONE 00	→ 201
120	In the last 12 months, have you been away from your home community for more than one month at a time?	YES . . . . . 1 NO 2	

SECTION 2 - REPRODUCTION

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	SKIP
201	MALE Now I would like to ask about all of the children you have had during your lifetime. I am interested only in the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	FEMALE Now I would like to ask about all the births you have had during your lifetime. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.		SONS AT HOME . . . . . ☐☐ DAUGHTERS AT HOME . . . . . ☐☐	
204	MALE Do you have any sons or daughters that you have fathered who are alive but do not live with you?	FEMALE Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.		SONS ELSEWHERE . . . . . ☐☐ DAUGHTERS ELSEWHERE . ☐☐	
206	MALE Have you ever fathered a boy or girl who was born alive but later died? Any baby who cried or showed signs of life but did not survive?	FEMALE Have you ever given birth to a boy or girl who was born alive but later died? Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.		BOYS DEAD . . . . . ☐☐ GIRLS DEAD . . . . . ☐☐	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.		TOTAL . . . . . ☐☐	
209	MALE Just to make sure that I have this right: you have fathered in TOTAL _____ children during your life. Is that correct?	FEMALE Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct?		
	YES ☐ NO ☐→ PROBE AND CORRECT 201-208 AS NECESSARY.			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
210	MALE ☐ → 401 FEMALE ☐ ↓		
210A	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	
211	CHECK 208: ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐ → 401		

212 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 213. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW).

213 What name was given to your (first/next) baby? (NAME)	214 Were any of these births twins?	215 Is (NAME) a boy or a girl?	216 In what month and year was (NAME) born? PROBE: What is his/her birthday?	217 Is (NAME) still alive?	218 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	219 IF ALIVE: Is (NAME) living with you?	220 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	221 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	222 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 221	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (NEXT BIRTH)	DAYS . . . 1 MONTHS 2 YEARS . . 3	
02	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 221	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
03	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 221	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
04	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 221	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
05	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 221	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
06	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 221	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
07	SING 1 MULT 2	BOY 1 GIRL 2	MONTH YEAR	YES . . 1 NO . . . 2 → 221	AGE IN YEARS	YES . . . 1 NO 2	LINE NUMBER (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

213 What name was given to your next baby? (NAME)	214 Were any of these births twins?	215 Is (NAME) a boy or a girl?	216 In what month and year was (NAME) born? PROBE: What is his/her birthday?	217 Is (NAME) still alive?	218 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	219 IF ALIVE: Is (NAME) living with you?	220 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).	221 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	222 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 221	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
09	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 221	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
10	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 221	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
11	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 221	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
12	SING 1 MULT 2	BOY 1 GIRL 2	MONTH ☐☐ YEAR ☐☐☐☐	YES . . 1 NO . . . 2 → 221	AGE IN YEARS ☐☐	YES . . . 1 NO 2	LINE NUMBER ☐☐ → (GO TO 222)	DAYS . . . 1 MONTHS 2 YEARS . . 3 ☐☐	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

223	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTHS IN TABLE.	YES . . . . . 1 NO 2

224 COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:

NUMBERS ARE SAME ☐↓ NUMBERS ARE DIFFERENT ☐→ (PROBE AND RECONCILE)

CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. ☐

FOR EACH BIRTH SINCE JANUARY 2002: MONTH AND YEAR OF BIRTH ARE RECORDED. ☐

FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. ☐

FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. ☐

FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS. ☐

225 CHECK 216 AND ENTER THE NUMBER OF BIRTHS IN 2002 OR LATER. IF NONE, RECORD '0'. ☐

SECTION 3. ANTENATAL CARE AND CHILDREN'S FEVER TREATMENT

301	CHECK 225: ONE OR MORE BIRTHS IN 2002 OR LATER ☐ ↓ NO BIRTHS IN 2002 OR LATER ☐ → 401			
302	CHECK 216: ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2002 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES. Now I would like to ask you some questions about the health of all your children born in the last five years. We will talk about each separately.			
303	LINE NUMBER FROM 213	LAST BIRTH LINE NO. ☐☐	NEXT-TO-LAST BIRTH LINE NO. ☐☐	SECOND-FROM-LAST BIRTH LINE NO. ☐☐
304	FROM 213 AND 217	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐
305	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	**HEALTH PROFESSIONAL** DOCTOR/AMO . A CLINICAL OFFICER B ASST. CLINICAL OFFICER . . . . . C NURSE/MIDWIFE . D MCH AIDE . . . . . E **OTHER PERSON** VILLAGE HEALTH WORKER . . . . . F TRAINED BIRTH ATTENDANT . G TRADITIONAL BIRTH ATTEND. H RELATIVE/FRIEND I OTHER_____ X (SPECIFY) NO ONE . . . . . Y (SKIP TO 307)		
306	Where did you receive antenatal care for this pregnancy? Anywhere else? RECORD ALL MENTIONED. IF UNABLE TO DETERMINE IF A HEALTH FACILITY IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** . . . . . A **GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL . . . B REGIONAL HOSP. C DISTRICT HOSP. D HEALTH CENTRE E DISPENSARY . . . F VILLAGE HEALTH POST . . . . . G CBD WORKER . H **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . I DISTRICT HOSP. J HEALTH CENTRE K DISPENSARY . . . L **PRIVATE** SPECIALISED HOSPITAL . . . M HEALTH CENTRE. N DISPENSARY . . . O OTHER _____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
307	During this pregnancy, did you take any drugs to keep you from getting malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 313) DON'T KNOW 8		
308	What drugs did you take? RECORD ALL MENTIONED. IF TYPE OF DRUG IS NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT.	SP/FANSIDAR . . . . . A CHLOROQUINE . . . B OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z		
309	CHECK 308: SP / FANSIDAR TAKEN FOR MALARIA PREVENTION?	CODE 'A' CIRCLED CODE A' NOT CIRCLED (SKIP TO 313)		
310	How many times did you take SP during this pregnancy?	TIMES		
311	CHECK 305: ANTENATAL CARE FROM HEALTH PERSONNEL DURING THIS PREGNANCY	CODE 'A', 'B', OTHER C', 'D' OR 'E' CIRCLED (SKIP TO 313)		
312	Did you get the SP during any antenatal care visit, during another visit to a health facility or from another source?	ANTENATAL VISIT . . 1 ANOTHER FACILITY VISIT . . . . . 2 OTHER SOURCE 6		
313	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
314	CHECK 304: IS CHILD LIVING?	LIVING DEAD (SKIP TO 316)		
315	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 318) NO 2		
316	For how many months did you breastfeed (NAME)?	MONTHS . . . DON'T KNOW . . . 98	MONTHS . . . STILL BF . . . . . 95 DON'T KNOW . . . 98	MONTHS . . . STILL BF . . . . . 95 DON'T KNOW . . . 98
317	CHECK 304: IS CHILD LIVING?	LIVING DEAD (SKIP TO 349)	LIVING DEAD (SKIP TO 349)	LIVING DEAD (SKIP TO 349)
318	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 349) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 349) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 349) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
319	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a fever. Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 NOTHING TO DRINK 5 DON'T KNOW 8
320	When (NAME) had a fever, was he/she given less than usual to eat, about the same amount, more than usual or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE .... 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
321	Did you seek advice or treatment for the illness from any source?	YES .... 1 NO .... 2 (SKIP TO 326)	YES .... 1 NO .... 2 (SKIP TO 326)	YES .... 1 NO .... 2 (SKIP TO 326)
322	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED. IF UNABLE TO DETERMINE IF A HEALTH FACILITY IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. ________________ (NAME OF PLACE(S))	**GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL ... B REGIONAL HOSP. C DISTRICT HOSP. D HEALTH CENTRE E DISPENSARY ... F VILLAGE HEALTH POST .... G CBD WORKER . H **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL ... I DISTRICT HOSP. J HEALTH CENTRE K DISPENSARY ... L **PRIVATE** SPECIALISED HOSPITAL ... M HEALTH CENTRE N DISPENSARY . O **OTHER** PHARMACY ... P OTHER ________ X (SPECIFY)	**GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL ... B REGIONAL HOSP. C DISTRICT HOSP. D HEALTH CENTRE E DISPENSARY ... F VILLAGE HEALTH POST .... G CBD WORKER . H **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL ... I DISTRICT HOSP. J HEALTH CENTRE K DISPENSARY ... L **PRIVATE** SPECIALISED HOSPITAL ... M HEALTH CENTRE N DISPENSARY O **OTHER** PHARMACY ... P OTHER ________ X (SPECIFY)	**GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL ... B REGIONAL HOSP. C DISTRICT HOSP. D HEALTH CENTRE E DISPENSARY ... F VILLAGE HEALTH POST .... G CBD WORKER . H **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL ... I DISTRICT HOSP. J HEALTH CENTRE K DISPENSARY ... L **PRIVATE** SPECIALISED HOSPITAL ... M HEALTH CENTRE N DISPENSARY O **OTHER** PHARMACY ... P OTHER ________ X (SPECIFY)
323	CHECK 322:	TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED ☐ (SKIP TO 325)	TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED ☐ (SKIP TO 325)	TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED ☐ (SKIP TO 325)
324	Where did you first seek advice or treatment? USE LETTER CODE FROM 322.	FIRST PLACE ... ☐	FIRST PLACE ... ☐	FIRST PLACE ... ☐
325	How many days after the fever began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS ..... ☐☐	DAYS ..... ☐☐	DAYS ..... ☐☐

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
326	Is (NAME) still sick with a fever?	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	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . 1 NO . . . . 2 (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401) DON'T KNOW 8	YES . . . . 1 NO . . . . 2 (GO TO 303 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 401) DON'T KNOW 8
328	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . D ALU, COARTEM E OTHER ANTI-MALARIAL ________ F (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . G INJECTION . . . H **OTHER DRUGS** ASPIRIN . . . . I PANADOL, PARA-CETAMOL . . . J IBUPROFEN . . . K OTHER ________ X (SPECIFY) DON'T KNOW . . . . . Z	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . D ALU, COARTEM E OTHER ANTI-MALARIAL ________ F (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . G INJECTION . . . H **OTHER DRUGS** ASPIRIN . . . . I PANADOL, PARA-CETAMOL . . . J IBUPROFEN . . . K OTHER ________ X (SPECIFY) DON'T KNOW . . . . . Z	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . D ALU, COARTEM E OTHER ANTI-MALARIAL ________ F (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . G INJECTION . . . H **OTHER DRUGS** ASPIRIN . . . . I PANADOL, PARA-CETAMOL . . . J IBUPROFEN . . . K OTHER ________ X (SPECIFY) DON'T KNOW . . . . . Z
329	CHECK 328: ANY CODE A-F CIRCLED?	YES ☐ NO ☐ NO: (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401)	YES ☐ NO ☐ NO: (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401)	YES ☐ NO ☐ NO: (GO TO 303 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 401)
330	Did you already have (NAME OF DRUG FROM 328) at home when the child became ill? ASK SEPARATELY FOR EACH OF THE DRUGS 'A' THROUGH 'F' THE CHILD IS RECORDED AS HAVING TAKEN IN 328. IF YES FOR ANY DRUG, CIRCLE CODE FOR THAT DRUG. IF NO FOR ALL, CIRCLE 'Y'.	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . D ALU, COARTEM . E OTHER ANTI-MALARIAL . . . F NO DRUG AT HOME . Y	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . D ALU, COARTEM . E OTHER ANTI-MALARIAL . . . F NO DRUG AT HOME . Y	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE . B AMODIAQUINE . C QUININE . . . . D ALU, COARTEM . E OTHER ANTI-MALARIAL . . . F NO DRUG AT HOME . Y

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
331	CHECK 328: SP/FANSIDAR ('A') GIVEN	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 334)	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 334)	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 334)
332	How long after the fever started did (NAME) first take SP/Fansidar?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
333	For how many days did (NAME) take the SP/Fansidar? IF 7 DAYS OR MORE, WRITE 7.	DAYS . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . ☐ DON'T KNOW . . . 8
334	CHECK 328: CHLOROQUINE ('B') GIVEN	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 337)	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 337)	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 337)
335	How long after the fever started did (NAME) first take chloroquine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
336	For how many days did (NAME) take the chloroquine? IF 7 DAYS OR MORE, WRITE 7.	DAYS . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . ☐ DON'T KNOW . . . 8
337	CHECK 328: AMODIAQUINE ('C') GIVEN	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 340)	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 340)	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 340)
338	How long after the fever started did (NAME) first take Amodiaquine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
339	For how many days did (NAME) take the Amodiaquine? IF 7 DAYS OR MORE, WRITE 7.	DAYS . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . ☐ DON'T KNOW . . . 8	DAYS . . . . ☐ DON'T KNOW . . . 8
340	CHECK 328: QUININE ('D') GIVEN	CODE 'D' CIRCLED ☐ CODE 'D' NOT CIRCLED ☐ (SKIP TO 343)	CODE 'D' CIRCLED ☐ CODE 'D' NOT CIRCLED ☐ (SKIP TO 343)	CODE 'D' CIRCLED ☐ CODE 'D' NOT CIRCLED ☐ (SKIP TO 343)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
341	How long after the fever started did (NAME) first take quinine?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
342	For how many days did (NAME) take the quinine? IF 7 DAYS OR MORE, WRITE 7.	DAYS . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . [ ] DON'T KNOW . . . 8
343	CHECK 328: ALU, COARTEM ('E') GIVEN	CODE 'E' CIRCLED [ ] CODE 'E' NOT CIRCLED [ ] (SKIP TO 346)	CODE 'E' CIRCLED [ ] CODE 'E' NOT CIRCLED [ ] (SKIP TO 346)	CODE 'E' CIRCLED [ ] CODE 'E' NOT CIRCLED [ ] (SKIP TO 346)
344	How long after the fever started did (NAME) first take ALu (Coartem)?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
345	For how many days did (NAME) take the ALu (COARTEM)? IF 7 DAYS OR MORE, WRITE 7.	DAYS . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . [ ] DON'T KNOW . . . 8
346	CHECK 328: OTHER ANTIMALARIAL ('F') GIVEN	CODE 'F' CIRCLED [ ] CODE 'F' NOT CIRCLED [ ] (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401)	CODE 'F' CIRCLED [ ] CODE 'F' NOT CIRCLED [ ] (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401)	CODE 'F' CIRCLED [ ] CODE 'F' NOT CIRCLED [ ] (GO TO 303 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 401)
347	How long after the fever started did (NAME) first take (OTHER ANTIMALARIAL)?	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8	SAME DAY . . . . . 0 NEXT DAY . . . . . 1 TWO DAYS AFTER FEVER . . . . . 2 THREE DAYS AFTER FEVER . . . . . 3 FOUR OR MORE DAYS AFTER FEVER . . 4 DON'T KNOW . . . 8
348	For how many days did (NAME) take the (OTHER ANTIMALARIAL)? IF 7 DAYS OR MORE, WRITE 7.	DAYS . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . [ ] DON'T KNOW . . . 8	DAYS . . . . [ ] DON'T KNOW . . . 8
349		GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401.	GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401.	GO TO 303 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 401.

SECTION 4 - MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	SKIP
401	MALE ☐ Are you currently married or living together with a woman as if married?	FEMALE ☐ Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN / WOMAN . 2 NO, NOT IN UNION 3	→ 404
402	Have you ever been married or lived together with a woman as if married?	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN / WOMAN . 2 NO 3	→ 420
403	What is your marital status now: are you widowed, divorced, or separated?	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 410
404	Is your wife/partner living with you now or is she staying elsewhere?	Is your husband/partner living with you now or is he staying elsewhere?	LIVING TOGETHER . . . . . 1 STAYING ELSEWHERE 2	
405	Do you have more than one wife or woman you live with as if married?	Does your husband/partner have other wives or does does he live with other women as if married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 407
406	Altogether, how many wives do you have or other partners do you live with as if married?	Including yourself, in total, how many wives or other partners does your husband live with now as if married?	NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . ☐☐ DON'T KNOW 98	
407	MALE ☐ CHECK 405: IF ONE WIFE/PARTNER: Please tell me the name of your wife (the woman you are living with as if married). IF MORE THAN ONE WIFE/PARTNER: Please tell me the name of each of your current wives (and/or of each woman you are living with as if married). RECORD THE NAME(S) AND THE LINE NUMBER(S) FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH SPOUSE AND LIVE-IN PARTNER. IF THE PERSON IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'. ASK 408 FOR EACH PERSON.	FEMALE ☐ Please tell me the name of your husband (the man you are living together with as if married).	NAME / LINE NUMBER / 408 How old was your wife/ husband/ partner on his/her last birthday? AGE _____ ☐☐ ☐☐ _____ ☐☐ ☐☐ _____ ☐☐ ☐☐ _____ ☐☐ ☐☐	
409	CHECK 407: MALE ONE WIFE ☐	FEMALE ☐	MALE MORE THAN ONE WIFE ☐	→ 418A
410	MALE ☐ Have you been married or lived with a woman only once or more than once?	FEMALE ☐ Have you been married or lived with a man only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	→ 413

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
411	MALE ☐ → 418 FEMALE ☐		
412	CHECK 403: IS RESPONDENT CURRENTLY WIDOWED? CURRENTLY WIDOWED ☐ → 415 NOT ASKED OR CURRENTLY DIVORCED/SEPARATED ☐ → 418		
413	MALE ☐ → 418A CHECK 403: IS FEMALE RESPONDENT CURRENTLY WIDOWED? FEMALE CURRENTLY WIDOWED ☐ → 415 FEMALE AND Q.403 NOT ASKED ☐ FEMALE CURRENTLY DIVORCED/SEPARATED ☐ → 418A		
414	How did your previous marriage or union end?	DEATH/WIDOWHOOD . . . . . 1 DIVORCE . . . . . 2 SEPARATION 3	→ 418A
415	To whom did most of your late husband's property go?	RESPONDENT . . . . . 1 OTHER WIFE . . . . . 2 SPOUSE'S CHILDREN . . . . . 3 SPOUSE'S FAMILY . . . . . 4 OTHER _____ 6 (SPECIFY) NO PROPERTY 7	→ 417
416	Did you receive any of your late husband's assets or valuables?	YES . . . . . 1 NO 2	
416A	CHECK 410: MARRIED MORE THAN ONCE ☐ MARRIED ONCE ☐ → 417		
416B	Is your current husband related to your previous husband? IF YES, What is the relationship between your current husband and your previous husband?	YES, BROTHER . . . . . 1 YES, UNCLE . . . . . 2 YES, OTHER _____ 3 (SPECIFY) NO, NOT RELATED 4	
417	CHECK 410: MARRIED/LIVED WITH A MAN/WOMAN ONLY ONCE OR MORE THAN ONCE MARRIED/LIVED WITH A MAN/WOMAN ONLY ONCE ☐ MARRIED/LIVED WITH A MAN/WOMAN MORE THAN ONCE ☐ → 418A		
418	MALE ☐ In what month and year did you start living with your wife/partner?	FEMALE ☐ In what month and year did you start living with your husband/partner?	MONTH . . . . . ☐☐ DON'T KNOW MONTH 98
418A	Now I would like to ask a question about your first wife/partner. In what month and year did you start living with your first wife/partner?	Now I would like to ask a question about your first husband/partner. In what month and year did you start living with your first husband/partner?	YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR . . . . . 9998 → 420
419	How old were you when you first started living with her?	How old were you when you first started living with him?	AGE . . . . . ☐☐
420	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
421	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE 00 AGE IN YEARS . . . . . ☐☐ FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/WIFE/PARTNER. 95	→ 424 → 424
422	CHECK 103: 15-24 YEARS OLD ☐ 25-49 YEARS OLD ☐		→ 450
423	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 450
424	CHECK 103: 15-24 YEARS OLD ☐ 25-49 YEARS OLD ☐		→ 428A
425	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
426	How old was the person you first had sexual intercourse with?	AGE OF PARTNER . . . . . ☐☐ DON'T KNOW 98	→ 428A
427	Was this person older than you, younger than you, or about the same age as you?	OLDER . . . . . 1 YOUNGER . . . . . 2 ABOUT THE SAME AGE . . . . . 3 DON'T KNOW/DON'T REMEMBER . . . 8	→ 428A
428	Would you say this person was 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	
428A	Now I would like to ask you some questions about your recent sexual activity. 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.		
429	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐	→ 431 → 449

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
430	When was the last time you had sexual intercourse with this person?		DAYS . 1 WEEKS 2 MONTHS 3	DAYS . 1 WEEKS 2 MONTHS 3
431	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . 1 NO . . . . 2 (SKIP TO 433)	YES . . . . 1 NO . . . . 2 (SKIP TO 433)	YES . . . . 1 NO . . . . 2 (SKIP TO 433)
432	Was a condom used every time you had sexual intercourse with this person in the last 12 months?	YES . . . . 1 NO 2	YES . . . . 1 NO 2	YES . . . . 1 NO 2
433	What was your relationship to this (second/third) person with whom you had sexual intercourse? IF BOYFRIEND/GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '2' IF NO, CIRCLE '3'	HUSBAND/WIFE . . . . . . 1 (SKIP TO 439) LIVE-IN PARTNER . . . . 2 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . 4 PROSTITUTE . . . . 5 OTHER ____________ 6 (SPECIFY)	HUSBAND/WIFE . . . . . . 1 (SKIP TO 439) LIVE-IN PARTNER . . . . 2 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . 4 PROSTITUTE . . . . 5 OTHER ____________ 6 (SPECIFY)	HUSBAND/WIFE . . . . . . 1 (SKIP TO 439) LIVE-IN PARTNER . . . . 2 BOYFRIEND/GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . 4 PROSTITUTE . . . . 5 OTHER ____________ 6 (SPECIFY)
434	For how long (have you had/did you have) a sexual relationship with this (second/third) person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . 1 MONTHS 2 YEARS 3	DAYS . 1 MONTHS 2 YEARS 3	DAYS . 1 MONTHS 2 YEARS 3
435	CHECK 103:	WOMAN 15-24 MAN 15-49/ WOMAN 25-49 (SKIP TO 439)	WOMAN 15-24 MAN 15-49/ WOMAN 25-49 (SKIP TO 439)	WOMAN 15-24 MAN 15-49/ WOMAN 25-49 (SKIP TO 439)
436	How old is this person?	AGE OF PARTNER (SKIP TO 439) DON'T KNOW 98	AGE OF PARTNER (SKIP TO 439) DON'T KNOW 98	AGE OF PARTNER (SKIP TO 439) DON'T KNOW 98
437	Is this person older than you, younger than you, or about the same age?	OLDER . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 439)	OLDER . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 439)	OLDER . . . . 1 YOUNGER . . . . . 2 SAME AGE . . . . . 3 DON'T KNOW . . . 8 (SKIP TO 439)
438	Would you say this person 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	TEN OR MORE YEARS OLDER . 1 LESS THAN TEN YEARS OLDER . 2 OLDER, UNSURE HOW MUCH . . . 3	TEN OR MORE YEARS OLDER . 1 LESS THAN TEN YEARS OLDER . 2 OLDER, UNSURE HOW MUCH . . . 3

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
439	The last time you had sexual intercourse with this (second/third) person, did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 441)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 441)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 442)
440	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4
441	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 430 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 443)	YES . . . . . 1 (GO BACK TO 430 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 443)	
442	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE ' 95'.			NUMBER OF PARTNERS LAST 12 MONTHS ☐☐ DON'T KNOW 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
443	MALE ☐ FEMALE ☐		→ 449
444	CHECK 433 (ALL COLUMNS): AT LEAST ONE PARTNER IS PROSTITUTE ☐ NO PARTNERS ARE PROSTITUTES ☐		→ 446
445	CHECK 433 AND 431 (ALL COLUMNS): NO CONDOM USED/ CONDOM NOT USED WITH EVERY PROSTITUTE ☐ CONDOM USED WITH EVERY PROSTITUTE ☐		→ 449 → 448
446	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 449
447	The last time you paid someone in exchange for sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 449
448	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
449	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
450	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 501
451	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** REGIONAL CONSULTANT HOSP. . A DISTRICT HOSPITAL . . . . . B GOVT. HEALTH CENTRE . . . . . C DISPENSARY/PARASTATAL . . . . . D VILLAGE HEALTH POST/WORKER . . . E OTHER PUBLIC _____ (SPECIFY) F **PRIVATE MEDICAL SECTOR** MISSION HOSP/RELIGIOUS ORG . . . G PRIVATE DOCTOR/CLINIC . . . . . H PHARMACY/CHEMIST . . . . . I UMATI . . . . . J OTHER PRIVATE MEDICAL _____ K **OTHER** SHOP, KIOSK . . . . . L WORK PLACE . . . . . M BAR . . . . . N SCHOOL . . . . . O GUEST HOUSE . . . . . P FRIEND, RELATIVES . . . . . Q OTHER _____ (SPECIFY) X	
452	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 5 - HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 601
502	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has sexual intercourse with no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
503	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
504	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
505	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
506	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
507	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
508	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
509	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
510	CHECK 509: AT LEAST ONE 'YES' ↓ OTHER →		→ 512
511	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
512	Have you heard about special antiretroviral drugs (USE LOCAL NAME) that people infected with the AIDS virus can get from a doctor or a nurse to help them live longer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
513	FEMALE ↓ MALE →		→ 524
514	CHECK 213 AND 216: NO BIRTHS → LAST BIRTH SINCE JANUARY 2004 ↓ LAST BIRTH BEFORE JANUARY 2004 →		→ 524 → 524
515	CHECK 305 FOR LAST BIRTH: CODES A-E CIRCLED ↓ OTHER CODES CIRCLED →		→ 524
516	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
517	During any of the antenatal visits for that birth, did anyone talk to you about: Babies getting the AIDS virus from their mother? Things that you can do to prevent getting the AIDS virus? Getting tested for the AIDS virus?	YES NO DK AIDS FROM MOTHER 1 2 8 THINGS TO DO . 1 2 8 TESTED FOR AIDS . 1 2 8	
518	Were you offered a test for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	
519	I don't want to know the results, but were you tested for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	→ 524
520	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
521	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**GOVERNMENT/PARASTATAL** REFERAL/SPEC. HOSPITAL . . . 11 REGIONAL HOSPITAL . . . . . 12 DISTRICT HOSPITAL . . . . . 13 HEALTH CENTRE . . . . . 14 DISPENSARY . . . . . 15 VILLAGE HEALTH POST (WORKER) 16 CBD WORKER . . . . . 17 **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . 21 DISTRICT HOSPITAL . . . . . 22 GOVT. HEALTH CENTRE . . . . . 23 DISPENSARY . . . . . 24 **PRIVATE** HOSPITAL . . . . . 31 HEALTH CENTRE . . . . . 32 DISPENSARY . . . . . 33 **OTHER** NGO . . . . . 42 VCT CENTRE . . . . . 43 OTHER _____ 96 (SPECIFY)	
522	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 525 .
523	When was the last time you were tested for the AIDS virus?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	→ 531
524	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 529
525	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	
526	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
527	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
528	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**GOVERNMENT/PARASTATAL** REFERAL/SPEC. HOSPITAL . . . 11 REGIONAL HOSPITAL . . . . . 12 DISTRICT HOSPITAL . . . . . 13 HEALTH CENTRE . . . . . 14 DISPENSARY . . . . . 15 VILLAGE HEALTH POST (WORKER) 16 CBD WORKER . . . . . 17 **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . 21 DISTRICT HOSPITAL . . . . . 22 GOVT. HEALTH CENTRE . . . . . 23 DISPENSARY . . . . . 24 **PRIVATE** HOSPITAL . . . . . 31 HEALTH CENTRE . . . . . 32 DISPENSARY . . . . . 33 **OTHER** NGO . . . . . 42 VCT CENTRE . . . . . 43 OTHER _____ 96 (SPECIFY)	→ 531
529 .	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 531
530	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) Any other place? RECORD ALL SOURCES MENTIONED.	**GOVERNMENT/PARASTATAL** REFERAL/SPEC. HOSPITAL . . . B REGIONAL HOSPITAL . . . . . C DISTRICT HOSPITAL . . . . . D HEALTH CENTRE . . . . . E DISPENSARY . . . . . F VILLAGE HEALTH POST (WORKER) G CBD WORKER . . . . . H **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . I DISTRICT HOSPITAL . . . . . J GOVT. HEALTH CENTRE . . . . . K DISPENSARY . . . . . L **PRIVATE** HOSPITAL . . . . . M HEALTH CENTRE . . . . . N DISPENSARY . . . . . O **OTHER** NGO . . . . . Q VCT CENTRE . . . . . R OTHER _____ X (SPECIFY)	
531	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
532	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
533	If a member of your family became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
534	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
535	Do you personally know someone who has been denied health services in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH AIDS 3	→ 540
536	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO 2	
537	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she is suspected to have the AIDS virus or has the AIDS virus?	YES . . . . . 1 NO 2	
538	CHECK 535, 536, 537: NOT A SINGLE "YES' ↓ AT LEAST ONE 'YES' →		540
539	Do you personally know someone who is suspected to have the AIDS virus or who has the AIDS virus?	YES . . . . . 1 NO 2	
540	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
541	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
542	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
543	Should children age 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
544	During the past 12 months, did you ever watch on television or heard on the radio an HIV education programme?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 601
545	What is the name of the programme?	FEMINA/FEMA . . . . . 1 SIMCHIZO . . . . . 2 OTHER _____ 6 SPECIFY DON'T KNOW 8	

SECTION 6 - OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 605
602	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
603	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
604	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS . 8	
605	Now I would like to ask you some questions about any injections you have had in the last twelve months. Have you had an injection for any reason in the last twelve months? IF YES: How many injections did you have? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 609
606	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 609
607	The last time you had an injection given to you by a health worker, where did you go to get the injection? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**GOVERNMENT/PARASTATAL** REFERAL/SPEC. HOSPITAL . . . 11 REGIONAL HOSPITAL . . . . . 12 DISTRICT HOSPITAL . . . . . 13 HEALTH CENTRE . . . . . 14 DISPENSARY . . . . . 15 VILLAGE HEALTH POST (WORKER 16 CBD WORKER . . . . . 17 **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . 21 DISTRICT HOSPITAL . . . . . 22 GOVT. HEALTH CENTRE . . . . . 23 DISPENSARY . . . . . 24 **PRIVATE** HOSPITAL . . . . . 31 HEALTH CENTRE . . . . . 32 DISPENSARY . . . . . 33 **OTHER** NGO . . . . . 42 VCT CENTRE . . . . . 43 OTHER _____ 96 (SPECIFY)	
608	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DK 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
609	FEMALE ☐ → 611 MALE ☐ ↓		
610	Some men are circumcised. Are you circumcised?	YES . . . . . 1 NO 2	
611	CHECK 501: ☐ HEARD ABOUT AIDS Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? ☐ NOT HEARD ABOUT AIDS Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
612	CHECK 421: HAS HAD SEXUAL INTERCOURSE ☐ ↓ HAS NOT HAD SEXUAL INTERCOURSE ☐ → 620		
613	CHECK 611: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓ NO ☐ → 615		
614	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
615	MALE ☐ ↓ Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
	FEMALE ☐ ↓ Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?		
616	Sometimes men have a sore or ulcer on or near their penis. 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	
	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?		
617	CHECK 614, 615, AND 616: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ → 620		
618	The last time you had (PROBLEM FROM 614/615/616), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 620

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
619	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**GOVERNMENT/PARASTATAL** REFERAL/SPEC. HOSPITAL . . . B REGIONAL HOSPITAL . . . . . C DISTRICT HOSPITAL . . . . . D HEALTH CENTRE . . . . . E DISPENSARY . . . . . F VILLAGE HEALTH POST (WORKER) G CBD WORKER . . . . . H **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . I DISTRICT HOSPITAL . . . . . J GOVT. HEALTH CENTRE . . . . . K DISPENSARY . . . . . L **PRIVATE** HOSPITAL . . . . . M HEALTH CENTRE . . . . . N DISPENSARY . . . . . O **OTHER** PHARMACY . . . . . P NGO . . . . . Q VCT CENTRE . . . . . R OTHER _____ X (SPECIFY)	
620	Husbands and wives do not always agree on everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
621	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
622	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
623	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with women other than his wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
624	CHECK 401: FEMALE, CURRENTLY MARRIED/ LIVING WITH A PARTNER ↓ FEMALE, NOT IN UNION → 627 MALE → 627		
625	Can you say no to your husband/partner if you do not want to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DEPENDS/UNSURE 8	
626	Could you ask your husband/partner to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/UNSURE 8	
627	RECORD THE TIME. THEN GO TO 701	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐ MORNING . . . . . 1 AFTERNOON . . . . . 2 EVENING/NIGHT 3	

SECTION 7 - HIV TEST

THIS PAGE TO BE DESTROYED BEFORE MERGING DATA AND HIV RESULTS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK Q. 103: AGE 15-17 ☐ ↓ AGE 18-49 ☐ →		704
702	CHECK Q. 402: NO IN 402 (NEVER IN UNION) ☐ ↓ OTHER ☐ →		704
703	FIND THE PARENT OR OTHER RESPONSIBLE ADULT FOR THE ADOLESCENT. WRITE NAME AND LINE NUMBER OF PARENT/OTHER RESPONSIBLE ADULT FROM THE HOUSEHOLD QUESTIONNAIRE. IF YOUTH LIVES INDEPENDENTLY, WRITE A NOTE AT BOTTOM TO INDICATE THIS AND RECORD '00'.	NAME AND LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT _____ ☐☐	
704	READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IF RESPONDENT CONSENTS TO HIV TEST AND CODE 3' IF HE/SHE REFUSES. FOR NEVER-IN-UNION MEN/WOMEN AGE 15-17, ASK CONSENT FROM PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE QUESTION 703) BEFORE ASKING FOR HIS/HER CONSENT). CIRCLE CODE '2' IF THE PARENT (OTHER ADULT) REFUSES. CIRCLE CODE '1' ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT. As part of this survey we also are asking people all over Tanzania to take an **HIV** test. HIV is the virus that causes AIDS. AIDS is a very serious illness. The HIV test is being done to see how big the AIDS problem is in Tanzania. For the HIV test, we need a **few drops of blood** from a finger. The equipment being used in taking the blood is **clean and completely safe**. It has never been used before and will be thrown away after each test. No names will be attached so **we will not be able to tell you the test results**. No one will be able to know your test results either. If you want to know whether you have HIV, I can provide you with a list of the nearby facilities offering free counseling and testing for HIV. Do you have any questions? **You can say yes to the test, or you can say no**. It is up to you to decide. Will you (allow NAME OF ADOLESCENT to) take the HIV test?	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 SIGNATURE OF INTERVIEWER: _____ DO NOT FORGET TO SIGN	→ END → END
705	BAR CODE LABEL	PUT THE 1ST BAR CODE LABEL HERE. PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	
706	OUTCOME OF HIV TEST PROCEDURE	SAMPLE TAKEN . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)	→ END

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF THE SUPERVISOR: _____ DATE: _____