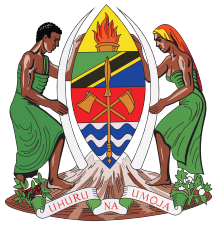
Tanzania

HIV/AIDS and Malaria Indicator Survey

2011-12



Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12

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FOREWORD

This report presents major findings of the 2011-12 Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS). The Tanzania Commission for AIDS (TACAIDS) and the Zanzibar AIDS Commission authorized the National Bureau of Statistics (NBS) to conduct the 2011-12 THMIS. The survey covers both the Tanzania Mainland and Zanzibar.

The objectives of the 2011-12 THMIS were to collect data on knowledge and behaviour regarding HIV/AIDS and malaria, measure HIV prevalence among women and men age 15-49, and measure the presence of malaria parasites and anaemia among children age 6-59 months. The 2011-12 THMIS follows up on the 2007-08 THMIS and the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS). The 2011-12 THMIS also updates 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, the 2004-05 TDHS, and the 2010 TDHS.

Both HIV/AIDS and malaria continue to be two of the most important health problems facing Tanzania today. The government of Tanzania has developed national policies to combat both diseases, including efforts to change sexual behaviour, promote wider coverage of HIV testing, distribute mosquito nets, and introduce newer, more effective antimalarial drug treatments.

The inclusion of HIV and malaria testing in the 2011-12 THMIS offers the opportunity to better understand the magnitude and pattern of infections in the general reproductive-age population and among children under age 5 in Tanzania. The 2011-12 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 contained in this report cover many of the most important indicators and should be used by policy makers and programme administrators to evaluate their activities and plan future directions. Advantage should be taken of the availability of this valuable information to inform the process of policy formulation, planning, monitoring, and evaluation of the HIV/AIDS and malaria programmes in Tanzania. The 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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MILLENNIUM DEVELOPMENT GOAL INDICATORS

Millennium Development Goal Indicators

Tanzania 2011-12

Indicator		Sex		
		Female	Male	Total
2.	**Achieve universal primary education**			
2.1	Net attendance ratio in primary education[1]	80.1	74.7	77.4
3.	**Promote gender equality and empower women**			
3.1	Ratio of girls to boys in primary, secondary and tertiary education			
3.1a	Ratio of girls to boys in primary education[2]	na	na	1.1
3.1b	Ratio of girls to boys in secondary education[2]	na	na	0.9
3.1c	Ratio of girls to boys in tertiary education[2]	na	na	1.5
5.	**Improve maternal health**			
5.2	Percentage of births attended by skilled health personnel[3]	na	na	42.6
5.4	Adolescent birth rate[4]	67.1	na	na
5.5	Antenatal care coverage			
5.5a	At least one visit with a skilled provider	96.5	na	na
6.	**Combat HIV/AIDS, malaria, and other diseases**			
6.1	HIV prevalence among the population age 15-24	2.7	1.2	2.0
6.2	Condom use at last higher-risk sex[5]	54.6	56.8	55.7[a]
6.3	Percentage of the population age 15-24 with comprehensive correct knowledge of HIV/AIDS[6]	40.1	46.7	43.4[a]
6.4	Ratio of school attendance of orphans to school attendance of non-orphans age 10-14	0.95	0.96	0.95
6.7	Percentage of children under age 5 sleeping under insecticide-treated bednets	72.1	71.9	72.0
6.8	Percentage of children under age 5 with fever who are treated with appropriate antimalarial drugs[7]	51.1	56.2	53.7
		Urban	Rural	Total
7.	**Ensure environmental sustainability**			
7.8	Percentage of population using an improved water source[8]	88.5	46.2	55.3
7.9	Percentage of population using an improved sanitation facility[9]	34.2	8.3	13.9

na = Not applicable

[a] The total is calculated as the simple arithmetic mean of the percentages in the columns for males and females.

[1] The ratio is based on reported attendance, not enrollment, in primary education among primary school age children (age 7-13). The rate also includes children of primary school age enrolled in secondary education. This is a proxy for MDG indicator 2.1, Net enrollment ratio.

[2] Based on reported net attendance, not gross enrollment, among students age 7-13 for primary, age 14-19 for secondary, and age 20-24 for tertiary education

[3] Among births in the five years preceding the survey

[4] Equivalent to the age-specific fertility rate for women age 15-19 for the three-year period preceding the survey, expressed in terms of births per 1,000 women age 15-19

[5] Higher-risk sex refers to sexual intercourse with a nonmarital, noncohabiting partner. Expressed as a percentage of men and women age 15-24 who had higher-risk sex in the past 12 months.

[6] Comprehensive knowledge means knowing that consistent use of a condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance 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 transmission or prevention of HIV/AIDS.

[7] Measured as the percentage of children age 0-59 months who were ill with a fever in the two weeks preceding the interview and received any antimalarial drug

[8] Percentage of de jure population whose main source of drinking water is a household connection (piped), public tap or standpipe, tubewell or borehole, protected dug well, protected spring, rainwater collection, or bottled water

[9] Percentage of de jure population whose household has a flush toilet, ventilated improved pit latrine, pit latrine with a slab, or composting toilet and does not share this facility with other households

TANZANIA


N
UGANDA
KENYA
RWANDA
BURUNDI
DEM. REP. OF THE CONGO
ZAMBIA
MALAWI
MOZAMBIQUE
Zanzibar
Kaskazini Pemba
Kusini Pemba
Kaskazini Unguja
Kusini Unguja
Mjini Magharibi
Kagera
Mara
Mwanza
Lake
Simiyu
Geita
Shinyanga
Arusha
Northern
Kilimanjaro
Manyara
Kigoma
Western
Tabora
Central
Singida
Dodoma
Tanga
Katavi
Eastern
Dar es Salaam
Pwani
Southwest Highlands
Rukwa
Mbeya
Iringa
Morogoro
Lindi
Njombe
Southern Highlands
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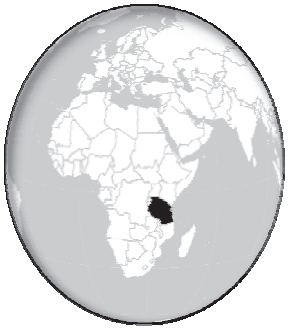


INTRODUCTION 1

1.1 BACKGROUND INFORMATION

HIV continues to spread around the world. Based on the latest UNAIDS report on the global AIDS epidemic (UNAIDS, 2012), an estimated 34 million people worldwide are living with HIV—more than ever before— and due in part to the life-prolonging effect of antiretroviral therapy. Sub-Saharan Africa remains the region most heavily affected by HIV. In 2011, there were an estimated 1.8 million new HIV infections in sub-Saharan Africa; 69 percent of all people living with HIV/AIDS are found in sub-Saharan Africa (UNAIDS, 2012).

In Tanzania, the HIV/AIDS epidemic began in 1983, with the diagnosis and reporting of three cases in Kagera region. By 1986, all regions had reported cases of HIV/AIDS. Since then, HIV has continued to spread. There has been a dramatic increase in the number of AIDS cases as more HIV-infected people have succumbed to opportunistic infections arising from suppressed immune systems. As in other sub-Saharan countries, HIV infection is spread predominantly by heterosexual contact.

Over the 30 years since the HIV/AIDS epidemic in Tanzania began, emphasis has been placed on the development of strategies and approaches to scale up interventions, and care and treatment services. As of 2011, an estimated 1.6 million people in Tanzania are living with HIV, and among them, about 1.3 million are age 15 and older (UNAIDS, 2012). From 2004 to 2008, the national HIV prevalence in Tanzania decreased from 7 percent to 6 percent (TACAIDS, et al., 2005; TACAIDS et al., 2008). Nevertheless, the number of people estimated to be infected with HIV has held steady because of ongoing new infections, population growth, and the availability of life-sustaining treatment for those infected. The cumulative number of clients on anti-retroviral treatment (ART) as of June 2012 was 626,444, surpassing the anticipated target of 440,000 by 2011 (MoHSW, 2012).

The impact of HIV/AIDS has been devastating. It has affected all spheres of life. The demographic consequences of the epidemic are reflected in the country's quality-of-life indicators, including the infant mortality rate and life expectancy. HIV infection has resulted in a surge of opportunistic infections, such as tuberculosis and some forms of cancer. HIV/AIDS morbidity and mortality of women and men in their prime years of productivity has had a serious social and economic impact on all sectors, and at community and individual levels. The epidemic has necessitated the diversion of resources from other areas to HIV prevention, care, and treatment.

The economy has been adversely affected by the loss of the most productive segment of society. Loss of human capital 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 reduction of income due to HIV/AIDS morbidity and mortality leads to poverty, which in turn increases the suffering of 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). A social consequence is the growing number of households headed by children and widows. Morbidity and mortality among parents has severely affected children, especially those supposed to be in school, who are forced instead to stay home and take care of sick parents.

The 2011-12 Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) was designed to monitor the trends in HIV infection and behavioural risk factors. It is also designed to provide an estimate of the prevalence of malaria and anaemia among children under age 5. The 2011-12 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

The HIV/AIDS epidemic is a national disaster affecting Tanzanian society economically, politically, socially, and culturally. The government of Tanzania is committed to the national vision of freeing the country from the epidemic, thus producing a generation living without fear of HIV and AIDS. This vision will be attained in line with the UNAIDS vision of three zeros: zero new HIV infections, zero discrimination, and zero AIDS-related deaths.

The government of Tanzania has made substantial progress in HIV and AIDS prevention, care, treatment, and impact mitigation. Progress has been made in resource mobilization, communication, advocacy, and community participation. The government continues to increase the level of funding for the national response to HIV/AIDS in its annual budget and through collaboration with national and international communities.

The government has been facing social, economic, and development challenges resulting from the HIV epidemic and has made various efforts to address these challenges. The challenges need concerted, multidisciplinary effort from all HIV stakeholders at all levels, government and nongovernment, which includes civil society organizations, communities, and individuals. The Tanzania Commission for AIDS (TACAIDS) under the Prime Minister's Office is mandated to provide strategic leadership and coordination of HIV and AIDS national responses through development of a strategic framework and national guidelines for HIV and AIDS. The development of the National Guidelines on HIV Prevention Strategy (Prime Minister's Office: TACAIDS, 2010) and the National Stigma and Discrimination Reduction Strategy (Prime Minister's Office: TACAIDS, 2012a) are the government's road maps to curbing the epidemic. The revised National HIV Policy 2011 and the National Multisectoral Strategic Framework (2013-2017) are the guiding tools for the implementation of HIV/AIDS activities (Prime Minister's Office: TACAIDS, 2012b; Prime Minister's Office: TACAIDS, 2012c). These documents are developed in line with international guidelines on HIV and human rights to ensure the accountability of the government and other stakeholders (the private sector, development partners, civil society organizations (CSOs), and the community) in their actions within the national response to HIV/AIDS.

The National Strategy for Poverty Eradication (MKUKUTA II) and the National Development Vision 2025 stipulated the need to address HIV in the development agenda. This policy emphasizes the importance of HIV mainstreaming in all sectors (MFEA, 2010; President's Office, 1999). The 2011-12 THMIS is a potential source of information for planning, monitoring, and evaluation of HIV and AIDS programmes.

1.3 NATIONAL POLICY ON MALARIA

Although, in Zanzibar, malaria is controlled and therefore not a major public health problem, in Mainland Tanzania it continues to be a significant cause of illness and death. The disease remains an impediment to socioeconomic growth and welfare. To reduce the burden of malaria, the government of Tanzania through 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 AIDS, Tuberculosis, and Malaria (GFATM), the US President's Malaria Initiative (PMI), The World Bank, and UNICEF.

The vision of NMCP 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 socioeconomic status. The goal of NMCP, through implementation of the National Malaria Medium Term Strategic Plan 2008–2013, is to reduce the burden of malaria by 80 percent (MoHSW, 2009). This goal is in line with the global strategic plan that advocates for a rapid scaling up of malaria interventions to achieve the Roll Back Malaria target of universal coverage by 2010 and the Millennium Development Goals related to malaria by 2015 (RBM, 2005).

The long-term goal of ZMCP is to eliminate malaria in Zanzibar. The medium-term goal of ZMCP through the Zanzibar Strategic Plan for Malaria Control 2007-2012 is to significantly reduce morbidity and mortality from malaria in the population of Zanzibar with special attention to the most vulnerable groups—children under age 5, pregnant women, and the poor—and in so doing, promote economic development. To contribute towards achieving this goal, the overall objective of the 2007-2012 Strategic Plan is to further reduce morbidity attributed to malaria by 70 percent of 2006 levels. This plan should be achievable by 2012, by maintaining high coverage of effective interventions and by establishing epidemic detection and response mechanisms (ZMoHSW, 2007).

For both Mainland Tanzania and Zanzibar, the recommended key malaria control strategies are as follows:

- To improve early recognition of malaria and prompt treatment with effective antimalarial drugs
- To 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 nets (ITN/LLIN)
- To prevent infection with malaria by maintaining high coverage of LLINs, with emphasis on all groups, complemented by other vector-control methods such as indoor residual spraying
- To strengthen, within the Ministry of Health and Social Welfare (MoHSW) and other key stakeholders, support for malaria control through improved planning, management, partnership, and coordination
- To strengthen monitoring and evaluation surveillance systems to support localized control and enable early detection and response to malaria epidemics

In Zanzibar, an additional specific objective is to improve access to effective diagnosis of malaria. Concerted effort, effective partnership, and coordination of all key players in malaria control at all levels are critical to achievement of control and elimination of malaria in Tanzania.

1.4 OBJECTIVES OF THE SURVEY

The 2011-12 Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) is the third 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 2011-12 THMIS was implemented by the National Bureau of Statistics (NBS) in collaboration with the Office of the Chief Government Statistician (OCGS), Zanzibar. ICF 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 (NACP), the National Malaria Control Programme (NMCP), the Ministry of Health and Social Welfare (MoHSW), the Zanzibar Malaria Control Programme (ZMCP), the Muhimbili University of Health and Allied Sciences (MUHAS), and the Ifakara Health Institute (IHI)-Bagamoyo Site.

The primary objectives of the 2011-12 THMIS survey were to provide up-to-date information on (1) the prevalence of HIV among Tanzanian adults and (2) the prevalence of malaria and anaemia among young children. The findings will be used to evaluate ongoing programmes and to develop new health strategies. Where appropriate, the findings from the 2011-12 THMIS are compared with those from the 2007-08 THMIS and the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS). The findings of these

three 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 2011-12 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), the 2004-05 TDHS, and the 2010 TDHS.

More specifically, the objectives of the 2011-12 THMIS were the following:

- 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 gauge the extent to which these indicators vary by characteristics such as age, sex, region, education, marital status, and wealth
- To measure the presence of malaria and anaemia among children age 6-59 months
- To measure the extent of ownership, access, and use of mosquito nets
- To assess coverage of the intermittent preventive treatment program to protect pregnant women from malaria
- To identify practices used to treat malaria among children under age 5 and the use of specific antimalarial medications
- To assess malaria-related knowledge and communications related to malaria prevention and treatment in the general population

The results of the 2011-12 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, President's Emergency Plan for AIDS Relief (PEPFAR), and the World Health Organization (WHO).

1.5 SAMPLE SIZE AND DESIGN

The sampling frame used for the 2011-12 THMIS was developed by the National Bureau of Statistics (NBS) after the 2002 Population and Housing Census (PHC) and is the same as that used for the 2010 and 2004-05 Tanzania Demographic and Health Surveys (TDHS), the 2007-2008 THMIS, and the 2003-04 Tanzania HIV and AIDS Indicator Survey (THIS). The sampling frame excluded nomadic and institutional populations such as persons in hotels, barracks, and prisons.

The 2011-12 THMIS was designed to allow estimates of key indicators for each of Tanzania's 30 regions. The sample was selected in two stages. The first stage involved selecting sample points (clusters) consisting of enumeration areas (EAs) delineated for the 2002 PHC. A total of 583 clusters were selected.[1]

[1] It should be noted that at the time of designing the 2011-12 THMIS sample, four new regions (Geita, Katavi, Njombe, and Simiyu) had just been formed on Mainland Tanzania. There was uncertainty related to boundaries of wards and/or districts falling in the new regions. As a consequence of this uncertainty, two EAs were dropped from the sample. The first EA dropped was erroneously selected twice; initially, it had been considered to be two different EAs from two different regions, but later was determined to be a single EA. The second EA dropped was inadvertent. After the fieldwork was completed, it was determined that the EA had not been visited. The problem was administrative. Because it was initially not certain to which region it belonged and team assignments were made based on regions, no team was assigned to cover it.

On the Mainland, 30 sample points were selected in Dar es Salaam and 20 were selected in each of the other 24 regions.[2] In Zanzibar, 15 sample points were selected in each of the five regions.

The second stage of selection involved the systemic sampling of households. 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. Approximately 18 households were selected from each sample point for a total sample size of 10,496 households.

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.

Furthermore, the recent formation of the new regions on Mainland Tanzania shifted certain regional boundaries; hence, some regions are no longer comparable with those from previous TDHS and THMIS surveys, and attempts to compare any indicators in affected regions should be performed with caution. Of the former 21 Mainland regions, the boundaries of five (Kagera, Mwanza, Shinyanga, Rukwa, and Iringa) were altered. The boundaries of the remaining 16 are unchanged.

To estimate geographic differentials for certain demographic indicators, the regions of Mainland Tanzania were collapsed into eight geographic zones. Although these are not official administrative zones, this classification is used by the Reproductive and Child Health Section of the MoHSW. Zones were used in each geographic area in order to have a relatively large number of cases and a reduced sampling error.

Zones are not directly comparable to those used in the previous TDHS, 2007-08 THMIS, and 2003-04 THIS due to their restructuring after the introduction of the new regions. Only the Eastern zone remained unchanged; the boundaries of all other zones shifted due to the inclusion or exclusion of specific regions. Also, a completely new zone, Southwest Highlands, was formed. The zones are now as follows:

Western: Tabora, Kigoma
Northern: Kilimanjaro, Tanga, Arusha
Central: Dodoma, Singida, Manyara
Southern Highlands: Njombe, Iringa, Ruvuma
Lake: Kagera, Mwanza, Mara, Shinyanga, Geita, Simiyu
Eastern: Dar es Salaam, Pwani, Morogoro
Southern: Lindi, Mtwara
Southwest Highlands: Rukwa, Katavi, Mbeya

Zanzibar consists of five regions Kaskazini Unguja, Kusini Unguja, Mjini Magharibi, Kaskazini Pemba, and Kusini Pemba.[3]

All women and men age 15-49 who were either permanent residents of the selected households or visitors who stayed in the household the night before the survey were eligible to be interviewed. With a parent's or guardian's consent, children age 6-59 months were tested for anaemia and malaria in each household. Blood samples were collected for laboratory testing of HIV in each household from eligible women and men who consented.

[2] The exact boundaries of the four new regions on Mainland Tanzania only became official while the THMIS was being fielded. Consequently, several of the EAs that had been thought to be assigned to one region were realized to be in another. Thus, with the exception of Dar es Salaam, the actual number of sample points selected in each of the Mainland regions varied between 16 and 23.

[3] The regions are also known in English as Unguja North, Unguja South, Town West, Pemba North, and Pemba South, respectively.

1.6 QUESTIONNAIRES

Two questionnaires were used for the 2011-12 THMIS: the Household Questionnaire and the Individual Questionnaire. These questionnaires are based on the MEASURE DHS standard AIDS Indicator Survey and Malaria Indicator Survey questionnaires and were adapted to reflect the population and health issues relevant to Tanzania. Input was solicited from various stakeholders representing government ministries and agencies, nongovernmental organizations, development partners, and international donors. After the preparation of the definitive questionnaires in English, the questionnaires were translated into Kiswahili.

The Household Questionnaire was used to list all the usual members and visitors of selected households. Some basic demographic information was collected on the characteristics of each person, including his or her age, sex, education, and relationship to the head of the household. For children under age 18, survival status of the parents was determined. The data on age and sex of household members obtained in the Household Questionnaire was 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's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor of the house, ownership of various durable goods, and ownership and use of mosquito nets. The Household Questionnaire was also used to record haemoglobin and malaria testing results for children age 6-59 months.

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

- Background characteristics (education, media exposure, etc.)
- Marriage and sexual activity
- Employment
- Awareness and behaviour regarding HIV/AIDS and other sexually transmitted infections (STIs)
- Knowledge and awareness of malaria
- Other health issues

Female respondents were asked to provide their birth history for the six years preceding the interview and information about recent fever and treatment of fever for children born since January 2006.

1.7 TRAINING OF FIELD STAFF

The field staff main training took place in Morogoro over three weeks (21 November to 10 December 2011). The training was conducted following MEASURE DHS training procedures, including class presentations, mock interviews, tests, and field practice. Out of a total of approximately 90 nurses who were recruited and attended the main training, 48 women and 32 men were selected as interviewers. Main training participants also included 16 team supervisors from NBS and the Office of Chief Government Statistician–Zanzibar (OCGS) who were provided with additional training in methods of field editing, data quality control procedures, and fieldwork coordination. Trainers were senior staff from NBS, OCGS-Zanzibar, NMCP, and ICF International, as well as laboratory technicians from the Muhimbili University of Health and Allied Sciences (MUHAS), and the Ifakara Health Institute (IHI) − Bagamoyo Site.

Field practice in malaria and anaemia testing and blood collection for HIV testing was carried out towards the end of the training period. During this period, 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 16 field teams, each consisting of one team leader, three female interviewers, two male interviewers, and one driver. Five senior staff members from NBS coordinated and supervised the fieldwork activities. Data collection in the Mainland took place over a five-month period from 16 December 2011 to 24 May 2012. Data collection in Zanzibar took place from 16 December 2011 to 10 April 2012.

1.9 ANAEMIA, MALARIA, AND HIV TESTING

The 2011-12 THMIS incorporated three biomarkers that required taking finger prick blood samples from children age 6-59 months and one biomarker that required taking finger prick blood from adults age 15-49. For children, on-the-spot testing was performed for anaemia and malaria, and thick blood smears were prepared for later reading in the laboratory to determine the presence of malaria parasites. For adults, blood specimens were collected for eventual HIV testing in the laboratory. Verbal informed consent for testing of children was requested from each child's parent or guardian at the end of the household interview. Verbal consent for blood collection for HIV testing for adults was requested from each respondent at the end of the individual interview. The protocol for anaemia, malaria, and HIV testing was approved by Tanzania's National Institute for Medical Research (NIMR), the Zanzibar Medical Ethics and Research Committee (ZAMREC), the Institutional Review Board of ICF International, and the Centers for Disease Control and Prevention in Atlanta.

Anaemia testing. Because of the strong correlation between malarial infection and anaemia, the THMIS included anaemia testing for children age 6-59 months. Blood samples were drawn from a drop of blood taken from a finger prick (or a heel prick in the case of young children with small fingers) and collected in a microcuvette. Haemoglobin analysis was carried out on site using a battery-operated portable HemoCue analyzer. Results were given to the child's parent or guardian verbally and in writing. Parents of children with a haemoglobin level under 7 g/dl were urged to take the child to the nearest health facility for follow-up care and were given a referral slip with the haemoglobin results to show to staff at the health facility. Results of the anaemia test were recorded on the Household Questionnaire as well as in a brochure. The brochure, which explained the causes and prevention of anaemia, was left in the household.

Rapid malaria testing. Another major objective of the THMIS was to provide information about the extent of malarial infection among children age 6-59 months. Using the same finger prick as for anaemia testing, a drop of blood was tested immediately using the SD Bioline Malaria Ag P.f/Pan (Standard Diagnostics) rapid diagnostic test (RDT). This test, which is the standard RDT used by health facilities throughout Tanzania, has relatively high sensitivity and specificity and can distinguish between infection with *P. falciparum* and other species of Plasmodium. Parents or guardians were advised of the malaria test result verbally and in writing. RDT results were also recorded in the same brochure with the anaemia result. This brochure also explained the causes and prevention of malaria. In addition, the result of the RDT was recorded on the Household Questionnaire.

Following the National Guidelines for Malaria Diagnosis and Treatment, those children who tested positive for malaria using the RDT were provided with a full course of the antimalarial drug artemether-lumefantrine (ALu or Coartem). THMIS field staff explained to the parent or guardian that ALu is effective and should rid the child of fever and other symptoms within a few days. Parents were advised to take the child to a health professional for treatment immediately if, after taking the ALu, the child still had high fever, fast or difficult breathing, was not able to drink or breastfeed, became sicker, or did not get better in two days. All medicines for malaria treatment were provided by NMCP. All children

who tested positive for malaria using the RDT and who had taken artemisinin-based combination therapy (ACT) within the past two weeks were referred to a health facility. In addition, those who tested positive using the RDT and who had symptoms indicative of complicated malaria (e.g. haemoglobin level below 7.0 g/dl) were referred to a health facility for immediate treatment.

Malaria testing: blood smears. In addition to the SD Bioline RDT, a thick blood smear was taken from all children tested. Each blood smear slide was given a barcode label with a duplicate label attached to the Household Questionnaire. A third copy of the same barcode label was affixed to a Blood Sample Transmittal Form in order to track the blood samples from the field to the laboratory. The blood smears were dried and packed carefully in the field. They were periodically collected in the field, along with the completed questionnaires, and transported to NBS headquarters in Dar es Salaam for logging in, after which they were taken to the Ifakara Health Institute site in Bagamoyo for microscopic reading and determination of malarial infection.

HIV testing. Blood specimens were collected by THMIS interviewers for laboratory testing of HIV from all women and men age 15-49 who consented to the test. The protocol for the blood specimen collection and analysis was based on the anonymous linked protocol developed by MEASURE DHS. This protocol allows for the merging of the HIV test results with the sociodemographic data collected in the individual questionnaires after all information that could potentially identify an individual is destroyed.

Interviewers explained the procedure, the confidentiality of the data, and the fact that the test results would not be made available to the respondent. If a respondent consented to the HIV testing, five blood spots from a finger prick were collected on a filter paper card to which a barcode label unique to the respondent was affixed. Respondents were asked whether they consented to having the laboratory store their blood sample for future unspecified testing. If the respondent did not consent to additional testing using their sample, it was indicated on the Individual Questionnaire that the respondent refused additional tests using their specimen, and the words 'no additional testing' were written on the filter paper card. Each respondent, whether the individual consented to HIV testing or not, was given an informational brochure on HIV/AIDS and a list of nearby fixed sites providing voluntary counselling and testing (VCT) services.

Each blood sample was given a barcode label, with a duplicate label attached to the Individual Questionnaire. A third copy of the same barcode was affixed to the Blood Sample Transmittal Form to track the blood samples from the field to the laboratory. Blood samples were dried overnight and packaged for storage the following morning. Samples were periodically collected from the field, along with the completed questionnaires, and transported to NBS in Dar es Salaam to be logged in and checked; blood samples were then transported to the Muhimbili University of Health and Allied Sciences (MUHAS) in Dar es Salaam for storage and testing.

At MUHAS, each blood sample was logged into the CSPro HIV Test Tracking System (CHTTS) database, given a laboratory number, and stored at -30˚C until tested. The HIV testing protocol stipulates that testing of blood can only be conducted after the questionnaire data entry is completed, verified, and cleaned, and all unique identifiers are removed from the questionnaire file except the anonymous barcode number. The algorithm calls for testing all samples on the first assay test, an enzyme-linked immunosorbent assay (ELISA), the Vironostika® HIV Ag/Ab (Biomérieux). A negative result was rendered negative. All positives and 10 percent of the negatives were subjected to a second ELISA, the Enzygnost® HIV Integral II assay (Siemens). Positive samples on both tests were rendered positive. If the first and second tests were discordant, the two ELISAs were repeated. If the results remained discordant, a third confirmatory test, the HIV 2.2 western blot (DiaSorin), was administered. The final result was rendered positive if the western blot confirmed the result to be positive and rendered negative if the western blot confirmed it to be negative. If the western blot results were indeterminate, the sample was rendered indeterminate.

Upon finalizing HIV testing, the HIV test results for the 2011-12 THMIS were entered into a spreadsheet with a barcode as the unique identifier to the result. The barcode was used to link the HIV test results with the data from the individual interviews.

1.10 DATA PROCESSING

All questionnaires for the THMIS were returned to the NBS central office in Dar es Salaam for data processing, which consisted of office editing, coding of open-ended questions, data entry, and editing computer-identified errors. The data were processed by a team of 10 data entry clerks, two data editors, one data entry supervisor, and one administrator of questionnaires; the latter checked that the clusters were completed according to the sample selection and that all members of the household eligible for individual interview were identified. One data editor had the additional responsibility of receiving the blood samples from the field and checking them before sending them to the appropriate laboratory. Data entry and editing were accomplished using CSPro software. The process of office editing and data processing was initiated mid-January 2012 and completed in late June 2012.

1.11 RESPONSE RATES

Table 1.1 shows response rates for the 2011-12 THMIS. A total of 10,496 households were selected for the sample, from both Mainland Tanzania and Zanzibar. Of these, 10,226 were found to be occupied at the time of the survey. A total of 10,040 households were successfully interviewed, yielding a response rate of 98 percent. In the interviewed households, 11,423 women were identified as eligible for the individual interview. Completed interviews were obtained for 10,967 women, yielding a response rate of 96 percent. Of the 9,388 eligible men identified, 8,352 were successfully interviewed (89 percent response rate).

The principal reason for nonresponse among both eligible women and men was the failure to find them at home despite repeated visits to the households. The lower response rate among men than among women was due to the more frequent and longer absences of men from the households. Overall, the response rates for women and men were comparable to those of the 2007-08 THMIS.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Tanzania 2011-12

	Mainland				
Result	Urban	Rural	Total	Zanzibar	Total
Household interviews					
Households selected	2,088	7,056	9,144	1,352	10,496
Households occupied	2,002	6,896	8,898	1,328	10,226
Households interviewed	1,949	6,778	8,727	1,313	10,040
Household response rate[1]	97.4	98.3	98.1	98.9	98.2
Interviews with women age 15-49					
Number of eligible women	2,305	7,507	9,812	1,611	11,423
Number of eligible women interviewed	2,202	7,185	9,387	1,580	10,967
Eligible women response rate[2]	95.5	95.7	95.7	98.1	96.0
Interviews with men age 15-49					
Number of eligible men	1,871	6,301	8,172	1,216	9,388
Number of eligible men interviewed	1,614	5,616	7,230	1,122	8,352
Eligible men response rate[2]	86.3	89.1	88.5	92.3	89.0

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

HOUSING CHARACTERISTICS AND HOUSEHOLD POPULATION 2

Key Findings

- The majority (59 percent) of Tanzanian households have access to clean drinking water. Forty-four percent of households take more than 30 minutes roundtrip to fetch water.
- Only 13 percent of households in Tanzania use improved toilet facilities that are not shared with other households.
- Overall, few Tanzanian households (15 percent) have electricity. However, 41 percent of households in Zanzibar, and 46 percent of households in urban areas of Mainland Tanzania have electricity.
- The vast majority of Tanzanian households use solid fuel for cooking (96 percent).
- Six in 10 households own a mobile telephone.
- Over half of all households report having at least three meals per day; however, almost one-third of Tanzanian households report that they consumed no meat or fish in the previous seven days. Fifteen percent of households report that they often or always have problems satisfying their food needs.
- Tanzanian households consist of an average of 5.1 members.
- Nineteen percent of children in Tanzania under age 5 have had their birth registered with civil authorities.
- Nine percent of children under age 18 are orphans (i.e., they have lost one or both biological parents).

2.1 INTRODUCTION

This chapter presents information on demographic and socioeconomic characteristics of the household population sampled in the 2011-12 THMIS, such as age, sex, education, marital status, and place of residence. The environmental profile of households in the 2011-12 THMIS sample is also examined. Taken together, these descriptive data provide a context for the interpretation of demographic and health indices and can furnish an approximate indication of the representativeness of the survey.

In the 2011-12 THMIS, a household is defined as a person or a group of related and unrelated persons who live together in the same dwelling unit(s), who acknowledge one adult male or female as head of household, who share the same housekeeping arrangements, and who are considered one unit. The 2011-12 THMIS collected information for all usual residents of each selected household and visitors who had stayed in the selected household the night before the interview. Those persons who stayed in the selected household the night before the interview (whether usual residents or visitors) represent the de facto population; usual residents alone constitute the de jure population. To maintain comparability with other surveys, all tables in this report refer to the de facto population unless otherwise specified.

2.2 HOUSEHOLD ENVIRONMENT

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 socioeconomic status of households. The 2011-12 THMIS respondents were asked about their household environment, including questions on source of drinking water, water provider, time taken to fetch water, type of sanitation facility, access to electricity, type of flooring, and number of rooms in the dwelling used for sleeping. Other questions asked about sources of energy for cooking fuel and lighting, the availability of food in the household, and the distance to the nearest health facility.

2.2.1 Drinking Water

Increasing access to improved drinking water is one of the Millennium Development Goals that Tanzania along with other nations worldwide has adopted (United Nations General Assembly, 2002). Table 2.1 includes a number of indicators that are useful in monitoring household access to improved drinking water (WHO and UNICEF, 2012a). The source of the drinking water is an indicator of whether it is suitable for drinking. Sources that are likely to provide water suitable for drinking are identified as improved sources in Table 2.1. These include a piped source within the dwelling, yard, or plot; a public tap, tube well, or borehole; a protected well or spring; and rainwater or bottled water.[1] Lack of ready access to a water source may limit the quantity of suitable drinking water that is available to a household. Even if the water is obtained from an improved source, if the water must be fetched from a source that is not immediately accessible to the household, it may be contaminated during transport or storage. Finally, home water treatment can be effective in improving the quality of household drinking water.

The source of drinking water is important because waterborne diseases, including diarrhoea and dysentery, are prevalent in Tanzania. Sources of water expected to be relatively free of the agents responsible for these diseases are piped water, protected wells, and protected springs. Other sources such as unprotected wells, rivers or streams, and ponds, lakes, or dams are more likely to carry disease-causing agents. Table 2.1 indicates that a majority of Tanzanian households (59 percent) have access to clean water sources: 38 percent from piped water (including standpipe, shared and public tap), 8 percent from tube well or borehole, 10 percent from a protected dug well, 2 percent from a protected spring, and less than 1 percent from rain water or bottled water. Households in Zanzibar are more likely than those on the Mainland to have access to clean water. For example, 97 percent of households in Zanzibar use drinking water from an improved source compared with 58 percent in the Mainland.

Respondents to the household interview from households with a piped water source were also asked who provides drinking water at their main source. The results in Table 2.1 show that two in ten households say that the water is provided by the water authority. Households in Zanzibar are more likely than those in Mainland Tanzania to obtain water from an authority (62 percent compared with 18 percent). Within Mainland Tanzania, urban households are more likely than rural households to report that their drinking water is provided by the authority (35 percent and 13 percent).

For 14 percent of households in Mainland Tanzania and 40 percent in Zanzibar, the source of drinking water is on their premises. Eighty-five percent of Tanzanian households obtain water from a source not on the premises; 41 percent of households are less than 30 minutes from a water source and 44 percent take 30 minutes or longer to obtain drinking water.

[1] The categorisation into improved and non-improved categories follows that proposed by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (WHO and UNICEF, 2012b).

Table 2.1 Household drinking water

Percent distribution of households and de jure population by source of drinking water, provider of water, and time to obtain drinking water, according to residence, Tanzania 2011-12

	Households					Population				
	Mainland					Mainland				
Characteristic	Urban	Rural	Total	Zanzibar	Total	Urban	Rural	Total	Zanzibar	Total
Source of drinking water										
Improved source	88.6	46.8	57.5	96.5	58.7	88.1	44.7	54.0	96.5	55.3
Piped water into dwelling/yard/plot	29.1	3.4	10.0	36.3	10.8	31.2	3.1	9.1	37.1	10.0
Shared tap/standpipe	29.5	6.9	12.6	10.8	12.6	27.5	5.6	10.2	9.8	10.2
Public tap/standpipe	11.2	15.0	14.0	28.7	14.5	10.9	13.9	13.2	28.7	13.7
Tube well or borehole	5.8	8.8	8.0	1.4	7.8	5.6	9.5	8.7	1.4	8.4
Protected dug well	9.4	9.9	9.7	19.1	10.0	10.3	10.1	10.1	19.2	10.4
Protected spring	1.7	2.3	2.2	0.1	2.1	1.4	2.2	2.0	0.2	2.0
Rain water	0.4	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.0	0.3
Bottled water	1.6	0.1	0.5	0.1	0.5	0.8	0.1	0.3	0.1	0.3
Non-improved source	10.7	52.7	41.9	3.4	40.8	11.5	54.8	45.5	3.5	44.1
Unprotected dug well	4.1	22.6	17.9	1.8	17.4	4.3	24.1	19.9	1.8	19.3
Unprotected spring	1.6	10.0	7.8	0.3	7.6	1.8	9.7	8.0	0.3	7.7
Tanker truck/cart with small tank	2.4	0.4	0.9	1.3	0.9	2.5	0.4	0.8	1.4	0.8
Surface water	2.6	19.7	15.3	0.0	14.9	2.9	20.6	16.8	0.0	16.3
Other source	0.7	0.5	0.6	0.0	0.5	0.5	0.6	0.6	0.0	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Provider of water										
Authority	35.0	12.6	18.3	61.6	19.6	36.7	11.7	17.0	62.1	18.4
CBO/NGO	1.8	3.9	3.3	1.2	3.3	1.6	3.3	3.0	1.2	2.9
Private operator	2.3	1.2	1.5	1.8	1.5	2.4	1.2	1.4	2.1	1.5
No provider	59.7	81.6	76.0	35.0	74.7	57.9	83.0	77.7	34.2	76.3
Don't know	0.4	0.5	0.5	0.1	0.5	0.6	0.4	0.5	0.1	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)										
Water on premises	33.4	6.9	13.7	40.2	14.5	35.7	7.0	13.1	41.0	14.0
Less than 30 minutes	48.5	38.1	40.8	44.0	40.9	45.0	36.9	38.7	42.7	38.8
30 minutes or longer	17.4	54.3	44.9	15.6	44.0	18.5	55.5	47.6	16.1	46.6
Don't know	0.5	0.3	0.3	0.1	0.3	0.5	0.2	0.3	0.1	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,486	7,247	9,732	308	10,040	10,597	39,191	49,788	1,651	51,439

Note: Totals include 45 households for which information of provider of water is missing, and 31 households for which information on time to obtain drinking water is missing.

2.2.2 Household Sanitation Facilities

Ensuring adequate sanitation facilities is another Millennium Development Goal that Tanzania shares with other countries. A household is classified as having an improved toilet if the toilet is used only by members of one household (i.e., it is not shared) and if the facility used by the household separates the waste from human contact (WHO and UNICEF, 2012a).

Table 2.2 shows that 13 percent of households in Tanzania use improved toilet facilities that are not shared with other households, and 10 percent of households use facilities that would be considered improved if they were not shared. In Mainland Tanzania, 26 percent of households in urban areas have improved toilet facilities compared with 7 percent in rural areas. The most common type of non-improved toilet facility is an open pit latrine or one without slabs, used by 74 percent of Mainland households in rural areas and 37 percent of Mainland households in urban areas. Overall, 12 percent of households in the Mainland have no toilet facility. Most of these households are in rural areas. In Zanzibar, 17 percent of households have no toilet facility.

Table 2.2 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Tanzania 2011-12

	Households					Population				
	Mainland					Mainland				
Type of toilet/latrine facility	Urban	Rural	Total	Zanzibar	Total	Urban	Rural	Total	Zanzibar	Total
Improved, not shared facility	26.1	6.9	11.8	59.6	13.3	32.1	6.9	12.3	62.3	13.9
Flush/pour flush to piped sewer system	1.4	0.1	0.4	0.1	0.4	1.3	0.1	0.3	0.1	0.3
Flush/pour flush to septic tank	3.2	0.4	1.1	6.5	1.3	3.9	0.4	1.2	6.9	1.3
Flush/pour flush to pit latrine	11.0	1.9	4.2	18.1	4.6	13.9	1.8	4.4	19.0	4.9
Ventilated improved pit (VIP) latrine	2.4	0.6	1.0	4.2	1.1	3.4	0.6	1.2	4.7	1.3
Pit latrine with slab	8.0	3.9	4.9	30.8	5.5	9.7	4.0	5.2	31.8	5.8
Shared facility[1]	33.4	2.6	10.4	10.4	10.4	28.1	1.7	7.4	8.5	7.4
Flush/pour flush to piped sewer system	0.9	0.0	0.2	0.0	0.2	0.7	0.0	0.2	0.0	0.2
Flush/pour flush to septic tank	2.1	0.1	0.6	0.6	0.6	1.6	0.1	0.4	0.3	0.4
Flush/pour flush to pit latrine	10.9	0.9	3.5	4.4	3.5	10.0	0.7	2.7	3.5	2.7
Ventilated improved pit (VIP) latrine	3.8	0.1	1.1	0.6	1.1	2.8	0.1	0.6	0.6	0.6
Pit latrine with slab	15.7	1.3	5.0	4.7	5.0	13.0	0.9	3.5	4.0	3.5
Non-improved facility	40.5	90.5	77.8	30.0	76.3	39.8	91.4	80.4	29.2	78.7
Flush/pour flush not to sewer/septic tank/pit latrine	2.1	0.2	0.7	3.8	0.8	2.7	0.2	0.7	3.4	0.8
Pit latrine with non-washable slab/pit latrine without slab/open pit	37.0	73.8	64.4	9.3	62.7	35.7	74.2	66.0	8.9	64.2
No facility/bush/field	1.2	15.9	12.2	16.8	12.3	1.1	16.6	13.3	16.8	13.4
Other	0.1	0.4	0.3	0.1	0.3	0.0	0.3	0.2	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,486	7,247	9,732	308	10,040	10,597	39,191	49,788	1,651	51,439

Note: Total includes 2 households using composting toilets that are not shared, 2 households using composting toilets that are shared, 2 households using bucket toilets, and 14 households for which information on type of toilet is missing.
[1] Facilities that would be considered improved if they were not shared by two or more households.

2.2.3 Housing Characteristics

Table 2.3 presents information on characteristics of the dwelling in which households live. In addition to reflecting the household's socioeconomic situation, these characteristics show environmental conditions in which the household lives. For example, use of biomass fuels exposes the household members to indoor pollution, which has a direct bearing on their health and welfare.

Table 2.3 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, 15 percent of households have electricity. Although only 15 percent of Mainland Tanzania households have electricity, in Zanzibar 41 percent of households have electricity. Within the Mainland, there is a large difference in access to electricity between urban and rural households (46 percent in urban areas compared with 4 percent in rural areas). Comparable results were obtained in the 2007-08 THMIS.

The type of material used for flooring is also an indicator of socioeconomic status and to some extent determines the household's vulnerability to exposure to disease-causing agents. Sixty-four percent of Tanzanian households have earthen floors (made of earth or sand). Large differences exist between rural and urban households in the Mainland; earth flooring is most common in rural areas (81 percent) while cement is most common in urban areas (71 percent). Cement is also the most common flooring material in households in Zanzibar (60 percent).

The number of rooms used for sleeping is an indicator of the extent of crowding. Overcrowding increases the risk of contracting diseases. Overall, 26 percent of Tanzanian households use one room for sleeping, 37 percent use two rooms, and 37 percent use three or more rooms for sleeping. Almost half of households in Zanzibar have three or more rooms for sleeping.

Cooking and heating with solid fuels can lead to high levels of indoor smoke, a complex mix of health-damaging pollutants that could increase the risk of contracting diseases. Solid fuels are defined as charcoal, wood, straw, shrubs, and grass. In the 2011-12 THMIS, households were asked about their primary source of fuel for cooking. The results show that 96 percent of households use solid fuel for cooking, with wood being the major source of solid fuel (72 percent of households). There are large differentials in cooking fuel between urban and rural areas in the Mainland. Whereas 90 percent of households in the rural areas use wood for cooking, the main source of cooking fuel in the urban areas is charcoal (69 percent). In addition to health effects on the household population, both fuels have a negative impact on the environment because they involve cutting down trees.

Table 2.3 Household characteristics

Percent distribution of households by housing characteristics, and percentage using solid fuel for cooking, according to residence, Tanzania 2011-12

	Mainland				
Housing characteristic	Urban	Rural	Total	Zanzibar	Total
Electricity					
Yes	46.4	3.6	14.5	40.8	15.3
No	53.6	96.3	85.4	59.2	84.6
Total	100.0	100.0	100.0	100.0	100.0
Flooring material					
Earth, sand	20.7	80.9	65.5	29.2	64.4
Dung	0.0	0.3	0.3	0.0	0.2
Ceramic tiles, terrazo	3.6	0.8	1.5	3.8	1.5
Concrete/cement	70.8	17.5	31.1	59.5	31.9
Carpet	4.7	0.3	1.4	7.5	1.6
Other[1]	0.2	0.2	0.2	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping					
One	39.1	22.3	26.6	17.8	26.3
Two	27.9	39.5	36.6	34.6	36.5
Three or more	33.0	38.2	36.9	47.6	37.2
Total	100.0	100.0	100.0	100.0	100.0
Cooking fuel					
Electricity	0.7	0.0	0.2	1.5	0.3
Bottled gas	1.7	0.1	0.5	0.4	0.5
Biogas	0.4	0.1	0.2	0.0	0.2
Paraffin, kerosene	7.0	0.5	2.1	0.7	2.1
Charcoal	69.2	8.5	24.0	31.2	24.2
Firewood	18.8	90.1	71.9	66.1	71.7
Straw/shrubs/grass	0.0	0.2	0.1	0.0	0.1
Agricultural crop	0.1	0.1	0.1	0.0	0.1
Other	0.4	0.2	0.2	0.0	0.2
No food cooked in household	1.7	0.2	0.6	0.1	0.5
Total	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking[2]	88.2	98.8	96.1	97.3	96.1
Lighting energy					
Electricity	46.1	3.3	14.2	41.0	15.1
Solar	2.0	2.3	2.2	0.2	2.2
Gas	0.2	0.0	0.1	0.0	0.1
Paraffin-hurricane lamp	28.7	19.7	22.0	18.9	21.9
Paraffin-pressure lamp	1.2	1.4	1.4	1.4	1.4
Paraffin-wick lamp	15.3	46.2	38.3	36.8	38.2
Firewood	0.0	2.9	2.1	0.9	2.1
Candles	1.6	0.5	0.8	0.5	0.8
Lantern, Chinese battery lamp	4.9	23.6	18.8	0.3	18.2
Other	0.0	0.1	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0
Number	2,486	7,247	9,732	308	10,040

Note: Totals include 8 households for which information on electricity is missing, 4 households for which information on flooring material is missing, 1 household for which information on rooms used for sleeping is missing, 4 households for which information on cooking fuel is missing, and 2 households for which information on lighting is missing.

[1]Other flooring material includes wood/planks, palm/bamboo, parquet or polished wood, vinyl or asphalt strips, and other materials.

[2] Includes charcoal, firewood, straw/shrubs/grass, and agricultural crops.

About 62 percent of Tanzanian households use paraffin as their major source of energy for lighting (22 percent hurricane lamp, 1 percent pressure lamp, and 38 percent wick lamp). In Mainland Tanzania, 46 percent of households in urban areas use electricity as their major source of energy for lighting, and 29 percent use a paraffin hurricane lamp. Use of electricity as the main source of energy for lighting in rural areas in the Mainland is very limited (3 percent). In Zanzibar, 41 percent of households use electricity as their major source of energy for lighting.

2.2.4 Household Possessions

The availability of durable goods is an indicator of a household's socioeconomic 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 2.4 shows the ownership of selected household possessions nationally, by Mainland-Zanzibar residence, and by urban-rural residence on the Mainland.

Nationally, the most commonly owned items by households are a radio (61 percent of households), a mobile telephone (61 percent), and a bicycle (46 percent). Additionally, 15 percent of households own a television, 6 percent of households own a refrigerator, and 6 percent own a motorcycle or scooter. All of these figures are higher than those recorded in the 2007-08 THMIS. Most notably, household ownership of mobile phones has risen from 28 percent to 61 percent.

In the Mainland, urban households are more likely than rural households to own each of the items, with the exception of animal drawn carts and bicycles. The latter are owned by 51 percent of households in rural areas compared with 31 percent of households in urban areas. With the exception of a battery/generator and an animal drawn cart, ownership of durable goods for households in Zanzibar is higher than in the Mainland.

Ownership of agricultural land and farm animals are common in Tanzania, with about 7 in 10 households possessing land and 6 in 10 households owning farm animals. Not surprisingly, in the Mainland, the proportion of households in rural areas that own agricultural land (84 percent) and farm animals (76 percent) is much higher than in the proportion of households in urban areas that own agricultural land (32 percent) and farm animals (32 percent).

Table 2.4 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land, livestock/farm animals, and bank account by residence, Tanzania 2011-12

	Mainland				
Possession	Urban	Rural	Total	Zanzibar	Total
Household effects					
Battery/generator	4.7	4.3	4.4	3.5	4.4
Paraffin lamp	65.1	50.5	54.3	84.3	55.2
Radio	70.7	57.1	60.6	75.6	61.1
Television	41.4	5.3	14.5	36.9	15.2
Mobile telephone	86.7	51.3	60.3	85.8	61.1
Non-mobile telephone	1.4	0.2	0.5	1.7	0.6
Iron	52.1	19.6	27.9	34.8	28.1
Refrigerator	18.6	1.2	5.7	25.9	6.3
Means of transport					
Bicycle	31.0	50.9	45.9	56.6	46.2
Animal drawn cart	2.7	4.2	3.8	2.4	3.8
Motorcycle/scooter	7.0	4.9	5.4	15.6	5.7
Car/truck	5.3	1.1	2.2	4.0	2.2
Boat with a motor	0.1	0.0	0.1	0.5	0.1
Ownership of agricultural land	31.8	84.2	70.8	36.8	69.8
Ownership of farm animals[1]	31.9	76.1	64.9	47.8	64.3
Ownership of bank account	38.5	10.0	17.2	28.4	17.6
Number	2,486	7,247	9,732	308	10,040

[1] Cattle, cows, bulls, horses, donkeys, goats, sheep, pigs, or chickens, or other poultry

Only 18 percent of households in Tanzania have at least one member who has a bank account. Ownership of a bank account is higher among households in Zanzibar than the Mainland (28 and 17 percent, respectively). In the Mainland, possession of a bank account is much more common in urban areas (39 percent) than in rural areas (10 percent).

2.2.5 Food Security

The 2011-12 THMIS included several questions to gauge household food security. The questions concerned the number of meals the household usually eats each day, the number of days in the week preceding the survey in which the household consumed meat or fish, and how often the household had problems satisfying household food needs in the year before the survey. Results are shown in Table 2.5.

The data show that 58 percent of households report that they usually have at least three meals per day and 41 percent have two meals per day. Similar results were observed in the 2007-08 THMIS, in which 55 percent of households reported having three meals per day and 42 percent had two meals per day.

Meat or fish consumption is not common in Tanzania. Thirty percent of households reported that they did not consume meat or fish in the week before the survey, 19 percent had meat or fish once, 18 percent had meat or fish twice, and only 33 percent had meat or fish three or more times in the past week. Consumption of meat or fish differs considerably between urban and rural households on the Mainland. About 4 in 10 rural households (37 percent) did not consume meat or fish at all in the week preceding the survey, compared with 13 percent of urban households. In contrast, only 4 percent of households in Zanzibar did not consume meat or fish in the week before the survey, and 4 in 5 households in Zanzibar consumed meat or fish three or more times.

Table 2.5 Household food security

Percent distribution of households by usual number of meals per day, number of days that meat or fish was consumed during the last week, and frequency of problems satisfying food needs in the past year, according to residence, Tanzania 2011-12

	Mainland				
Food security characteristic	Urban	Rural	Total	Zanzibar	Total
Usual number of meals per day					
1 meal	1.0	1.6	1.4	0.9	1.4
2 meals	19.9	48.0	40.8	29.6	40.5
3+ meals	79.2	50.4	57.7	69.5	58.1
Total[1]	100.0	100.0	100.0	100.0	100.0
Number of days consumed meat or fish in the past week					
0	13.3	37.2	31.1	3.9	30.3
1	15.0	20.4	19.0	4.2	18.6
2	21.3	17.6	18.6	9.9	18.3
3	19.0	11.4	13.4	17.4	13.5
4	11.0	4.4	6.1	14.5	6.3
5	6.2	2.5	3.4	11.2	3.7
6	2.1	1.1	1.4	8.3	1.6
7	11.7	5.1	6.8	30.5	7.5
Total[2]	100.0	100.0	100.0	100.0	100.0
Frequency of problems satisfying food needs in past year					
Never	58.6	44.4	48.0	65.5	48.6
Seldom	19.9	21.2	20.9	20.7	20.9
Sometimes	11.9	16.3	15.2	10.1	15.0
Often	9.0	17.1	15.1	3.4	14.7
Always	0.3	0.7	0.6	0.0	0.6
Total[3]	100.0	100.0	100.0	100.0	100.0
Number of households	2,486	7,247	9,732	308	10,040

[1] Total excludes 1 household reporting zero meals per day and includes 2 households for which information on number of meals per day is missing.
[2] Total includes 22 households for which the number of days meat or fish was consumed in the past week is unknown or missing.
[3] Total includes 22 household for which the frequency of problems satisfying food needs in the past year is missing.

Almost half of all households (49 percent) reported never having had problems meeting their food needs in the year preceding the survey. Twenty-one percent said that they seldom had such problems. Fifteen percent said that they sometimes have a problem meeting their food needs, and another 15 percent said that they often have a problem. Less than 1 percent of households report always having a problem satisfying the food needs of their household.

2.2.6 Distance to a Health Facility

The government through the MoHSW has developed a framework to reform the health sector to improve health services at all levels in the country. The emphasis of the strategic health plan is on Council Health Services, where most of the essential health services are provided close to the communities, and on hospital services to save lives of people who cannot be treated in first line health facilities.

In the 2011-12 THMIS, households were asked how far it was to the nearest health facility. They were also asked the means of transportation they would use to get to the nearest health facility if they needed to go there. The results are shown in Table 2.6.

Thirty-four percent of Tanzanian households are less than 2 km from a health facility, and 43 percent are within 2 to 5 kilometres. On the Mainland, only 33 percent of the households reside less than 2 kilometres from a health facility. As expected, urban households are much more likely to be located less than 2 kilometres from a health facility than rural households (54 percent and 26 percent, respectively). The percentage of households in Zanzibar that are less than 2 kilometres from a health facility is much greater than on the Mainland (63 percent and 33 percent, respectively).

Walking is the major means of transport to health facilities (cited by 64 percent of household respondents), followed by bicycles (21 percent) and cars or motorcycles (9 percent). In Mainland Tanzania, rural households are more likely than urban households to use bicycles (27 percent and 7 percent), whereas urban households are more likely to use public transport than rural households (12 percent versus 2 percent). In Zanzibar, the most commonly used means of transport is walking (53 percent), followed by public transport (21 percent) and cars or motorcycles (19 percent).

Table 2.6 Distance to the nearest health facility

Percent distribution of households by distance to nearest health facility and transportation method to nearest health facility, according to residence, Tanzania 2011-12

	Mainland				
Characteristic	Urban	Rural	Total	Zanzibar	Total
Distance to nearest health facility					
<2 km	53.5	25.8	32.9	62.6	33.8
2-5 km	42.8	44.3	43.9	28.8	43.4
6-10 km	2.4	18.6	14.5	8.3	14.3
11-15 km	0.5	4.9	3.8	0.0	3.7
>15 km	0.0	5.6	4.2	0.1	4.1
Total	100.0	100.0	100.0	100.0	100.0
Transportation method to nearest health facility					
Car/motorcycle	11.9	8.0	9.0	19.4	9.3
Public transport	11.9	2.2	4.7	21.4	5.2
Animal/animal cart	0.2	0.1	0.1	0.0	0.1
Walking	68.9	62.4	64.0	52.9	63.7
Bicycle	6.6	26.7	21.6	5.7	21.1
Other	0.0	0.4	0.3	0.0	0.3
Total	100.0	100.0	100.0	100.0	100.0
Number of households	2,486	7,247	9,732	308	10,040

Note: Totals include 72 households for which distance to nearest health facility is missing and 28 households for which transportation method to nearest health facility is missing.

2.3 HOUSEHOLD WEALTH

Information on household assets was used to create an index that is used throughout this report to represent the wealth of the households interviewed in the 2011-12 THMIS. This method for calculating a country-specific wealth index was developed and tested in a large number of countries in relation to inequalities in household income, use of health services, and health outcomes (Rutstein and Johnson, 2004). It has been shown to be consistent with expenditure and income measures.

The wealth index is constructed using household asset data, including ownership of consumer items ranging from a television to a bicycle or car, as well as dwelling characteristics, such as source of drinking water, sanitation facilities, and type of flooring material. In its current form, which takes account of urban-rural differences in these items and characteristics, the wealth index is created in three steps. In the first step, a subset of indicators common to urban and rural areas is used to create wealth scores for households in both areas. For purposes of creating scores, categorical variables are transformed into separate dichotomous (0-1) indicators. These indicators and those that are continuous are then examined using principal components analysis to produce a common factor score for each household. In the second step, separate factor scores are produced for households in urban and rural areas using area-specific indicators (Rutstein, 2008). The third step combines the separate area-specific factor scores to produce a nationally applicable combined wealth index by adjusting area-specific scores through a regression on the common factor scores. The resulting combined wealth index has a mean of zero and a standard deviation of one. Once the index is computed, national-level wealth quintiles (from lowest to highest) are formed by assigning the household score to each de jure household member, ranking each person in the population by that score, and then dividing the ranking into five equal categories, each comprising 20 percent of the population. Thus, throughout this report, wealth quintiles are expressed in terms of quintiles of individuals in the overall population rather than quintiles of individuals at risk for any one health or population indicator.

Table 2.7 presents wealth quintiles by urban-rural residence, Mainland-Zanzibar residence, zone, and province. Also included in the table is the Gini Coefficient, which indicates the level of concentration of wealth, 0 being an equal distribution and 1 a totally unequal distribution.

Almost all of the urban population is represented in the fourth and highest quintiles (91 percent), while half of the population (50 percent) in rural areas is in the lowest and second wealth quintiles. Mainland Tanzania has the largest proportion of the population in the lowest wealth quintile (21 percent), while Zanzibar has the largest proportion in the highest wealth quintile (52 percent). The distribution of the population by wealth quintile among regions shows large variations. As expected, Dar es Salaam has the largest proportion in the highest wealth quintile (89 percent). In contrast, Singida and Shinyanga have the largest proportions in the lowest wealth quintile (39 percent each).

Table 2.7 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini Coefficient, according to residence and region, Tanzania 2011-12

Residence/region	Wealth quintile					Total	Number of persons	Gini coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Urban	2.5	1.8	4.9	21.2	69.6	100.0	11,077	0.20
Rural	24.8	25.0	24.2	19.7	6.4	100.0	40,362	0.36
Mainland/Zanzibar								
Mainland	20.6	20.4	20.3	19.7	19.0	100.0	49,788	0.46
Urban	2.5	1.9	5.1	21.6	68.9	100.0	10,597	0.21
Rural	25.5	25.4	24.4	19.2	5.5	100.0	39,191	0.35
Zanzibar	2.2	7.2	10.7	28.4	51.5	100.0	1,651	0.30
Unguja	0.7	4.8	5.4	26.2	62.9	100.0	1,193	0.19
Pemba	6.3	13.6	24.6	33.9	21.6	100.0	458	0.35
Zone								
Eastern	9.2	7.1	7.2	17.2	59.2	100.0	6,404	0.28
Western	22.3	20.8	20.8	23.1	13.1	100.0	4,295	0.49
Southern	30.6	21.3	17.8	16.8	13.6	100.0	2,438	0.47
Southern Highlands	11.1	18.8	29.1	28.3	12.8	100.0	5,729	0.32
Southwest Highlands	18.1	25.2	21.6	22.5	12.6	100.0	5,228	0.47
Central	35.5	23.3	19.0	12.8	9.5	100.0	6,027	0.55
Northern	23.3	15.0	16.8	24.3	20.6	100.0	5,904	0.45
Lake	20.8	26.3	24.6	16.8	11.5	100.0	13,762	0.52
Region								
Dodoma	34.3	25.3	18.8	12.6	9.0	100.0	2,495	0.53
Arusha	27.1	14.9	18.8	20.6	18.6	100.0	1,498	0.49
Kilimanjaro	2.3	11.4	20.2	37.1	29.0	100.0	1,753	0.38
Tanga	35.1	17.4	13.5	17.9	16.1	100.0	2,654	0.51
Morogoro	23.0	16.5	15.6	25.6	19.4	100.0	1,846	0.52
Pwani	16.3	14.8	17.1	24.3	27.6	100.0	1,029	0.42
Dar es Salaam	0.0	0.0	0.0	10.8	89.2	100.0	3,530	0.15
Lindi	33.3	24.8	11.8	14.9	15.2	100.0	821	0.50
Mtwara	29.1	19.6	20.8	17.7	12.7	100.0	1,617	0.46
Ruvuma	8.3	19.8	32.1	26.6	13.2	100.0	3,430	0.37
Iringa	22.5	26.6	21.9	23.3	5.7	100.0	1,018	0.33
Mbeya	13.8	22.8	18.7	27.7	17.0	100.0	3,162	0.44
Singida	38.8	23.6	17.3	10.3	10.0	100.0	2,139	0.60
Tabora	24.5	26.1	20.5	22.5	6.5	100.0	2,211	0.44
Rukwa	26.8	27.2	21.3	16.3	8.3	100.0	937	0.51
Kigoma	20.0	15.1	21.1	23.6	20.2	100.0	2,084	0.51
Shinyanga	39.1	24.4	15.4	14.3	6.8	100.0	2,030	0.59
Kagera	14.0	32.7	25.1	15.4	12.7	100.0	2,193	0.46
Mwanza	15.4	22.7	19.1	19.2	23.5	100.0	2,728	0.59
Mara	20.5	20.6	20.0	22.3	16.7	100.0	2,069	0.53
Manyara	32.4	19.2	22.0	17.0	9.4	100.0	1,392	0.54
Njombe	9.4	10.0	26.9	36.5	17.1	100.0	1,282	0.34
Katavi	23.0	30.2	30.0	13.1	3.7	100.0	1,129	0.47
Simiyu	20.4	30.9	34.0	11.2	3.5	100.0	3,087	0.37
Geita	17.7	24.5	32.6	21.2	4.1	100.0	1,656	0.36
Kaskazini Unguja	3.5	8.2	17.4	54.7	16.3	100.0	192	0.32
Kusini Unguja	1.1	7.2	8.6	43.3	39.8	100.0	116	0.33
Mjini Magharibi	0.0	3.7	2.4	17.8	76.1	100.0	884	0.23
Kaskazini Pemba	7.6	18.8	25.5	29.3	18.7	100.0	235	0.42
Kusini Pemba	4.8	8.2	23.6	38.7	24.7	100.0	223	0.30
Total	20.0	20.0	20.0	20.0	20.0	100.0	51,439	0.45

2.4 HOUSEHOLD POPULATION BY AGE, SEX, AND RESIDENCE

Age and sex are important demographic variables that are the primary basis for demographic classification in vital statistics, censuses, and surveys. They are also very important variables in the study of mortality, fertility, and marriage. The distribution of the de facto household population in the 2011-12 THMIS is shown in Table 2.8 by five-year age groups, according to sex and residence. A total of 50,282 individuals resided in the 10,040 households successfully interviewed; 26,417 were female (representing 53 percent of the population), and 23,864 were male (representing 47 percent of the population).

Table 2.8 Household population by age, sex, and residence

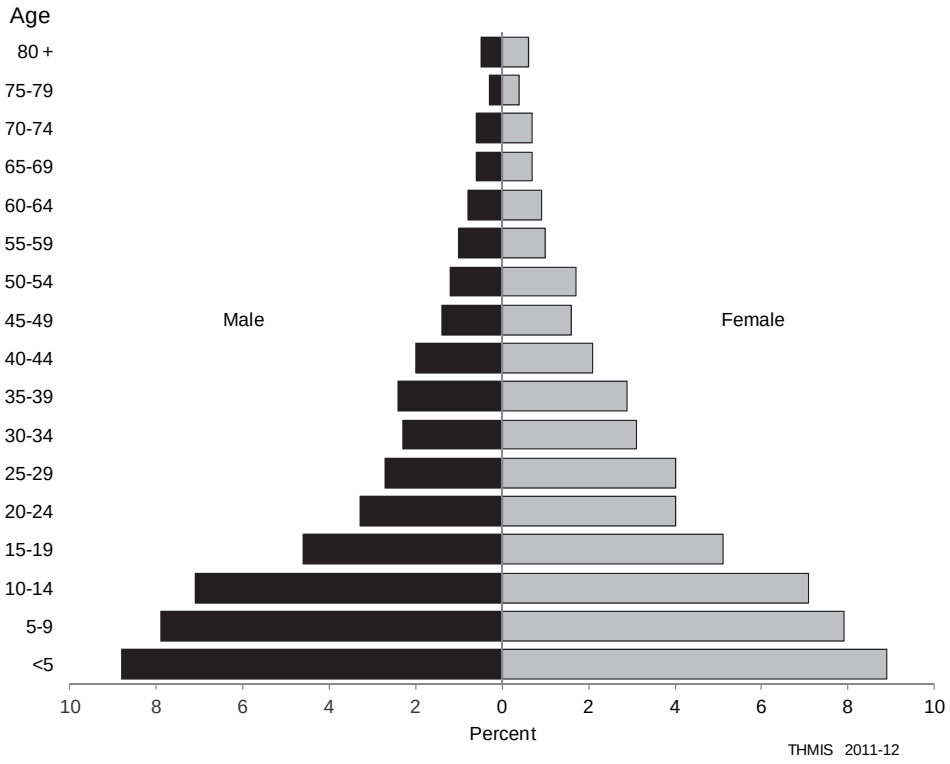
Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Tanzania 2011-12

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	15.4	11.9	13.5	19.3	18.3	18.8	18.5	16.9	17.6
5-9	14.0	12.6	13.3	17.5	15.6	16.5	16.7	15.0	15.8
10-14	12.5	12.1	12.3	15.6	14.0	14.8	15.0	13.6	14.3
15-19	10.3	12.0	11.2	9.4	8.9	9.2	9.6	9.6	9.6
20-24	9.6	9.8	9.7	6.3	7.0	6.6	7.0	7.6	7.3
25-29	7.9	10.5	9.2	5.0	6.8	5.9	5.6	7.6	6.6
30-34	6.5	7.9	7.2	4.4	5.3	4.9	4.9	5.9	5.4
35-39	5.9	5.9	5.9	4.7	5.4	5.1	5.0	5.5	5.3
40-44	4.5	4.5	4.5	4.1	4.0	4.0	4.2	4.1	4.1
45-49	3.3	3.1	3.2	2.9	3.1	3.0	3.0	3.1	3.1
50-54	3.2	3.3	3.3	2.5	3.2	2.8	2.6	3.2	2.9
55-59	2.9	2.2	2.6	2.0	1.9	1.9	2.2	2.0	2.1
60-64	1.5	1.5	1.5	1.7	1.8	1.7	1.6	1.7	1.7
65-69	1.0	0.8	0.9	1.3	1.4	1.4	1.3	1.3	1.3
70-74	0.9	0.9	0.9	1.3	1.4	1.4	1.2	1.3	1.3
75-79	0.4	0.3	0.3	0.7	0.8	0.8	0.7	0.7	0.7
80 +	0.3	0.7	0.5	1.2	1.2	1.2	1.0	1.1	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5,122	5,749	10,870	18,743	20,669	39,412	23,864	26,417	50,282

Note: Total includes 5 cases for which age is unknown or missing.

The age-sex structure of the population is shown in the population pyramid in Figure 2.1. The broad base of the pyramid indicates that Tanzania's population is young, a scenario typical of countries with high fertility rates. The proportion of children under age 15 was about 48 percent in 2011-12, while the proportion of individuals age 65 and older was about 4 percent. This pattern is similar to the ones observed in the 2010 TDHS, the 2007-08 THMIS, the 2002 Population and Housing Census, and earlier surveys. Nevertheless, the drop off from age 10-14 to 15-19 is implausibly sharp and is indicative of some age displacement, presumably to reduce interviewers' workloads since individuals under age 15 were not eligible for interview.

Figure 2.1 **Population pyramid**



2.5 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 2.9. 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.

Table 2.9 shows that 76 percent of the households in Tanzania are headed by men. This proportion is the same as that found in the 2007-08 THMIS. Households with one or two members constitute 19 percent of all households. On the Mainland, small household sizes are more common in urban areas than in rural areas. For example, 43 percent of the households in urban areas have one to three household members compared with 29 percent in the rural areas. The four-person households account for the largest proportion (15 percent) of all households. The overall average household size of 5.1 is almost the same as that reported in the 2007-08 THMIS (5.0). The mean household size in Mainland Tanzania is 5.1, which is slightly lower than that of Zanzibar (5.4 persons). In the Mainland, rural households are larger than urban households; the mean household size is 4.3 in urban areas and 5.4 in rural areas.

Information was also collected on the living arrangements and survival status of all children under age 18 residing in households. These data can be used to assess the extent to which households are faced with a need to care for orphaned or foster children. Orphans include children whose mother or father has died (single orphans) as well as children who have lost both parents (double orphans). In the case of foster children, both parents are alive but the children are living in a household where neither their natural mother nor natural father resides. Overall, 31 percent of households in Tanzania are caring for foster and/or orphaned children. Differentials by Mainland-Zanzibar residence are small.

Table 2.9 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 years of age, according to residence, Tanzania 2011-12

	Mainland				
Characteristic	Urban	Rural	Total	Zanzibar	Total
Household headship					
Male	72.8	76.6	75.6	79.5	75.7
Female	27.2	23.4	24.4	20.5	24.3
Total	100.0	100.0	100.0	100.0	100.0
Number of usual members					
1	13.9	6.7	8.6	4.2	8.4
2	12.9	9.2	10.1	8.5	10.1
3	15.8	12.6	13.4	13.3	13.4
4	16.0	14.6	15.0	15.6	15.0
5	15.3	13.8	14.2	14.8	14.2
6	9.4	13.9	12.8	12.3	12.7
7	6.9	9.5	8.8	12.3	8.9
8	3.4	7.0	6.1	7.2	6.1
9+	6.4	12.6	11.0	11.8	11.1
Total	100.0	100.0	100.0	100.0	100.0
Mean size of households	4.3	5.4	5.1	5.4	5.1
Percentage of households with orphans and foster children under 18 years of age					
Foster children[1]	24.6	26.6	26.1	27.5	26.1
Double orphans	1.9	2.2	2.1	0.9	2.1
Single orphans[2]	12.3	13.4	13.1	8.8	13.0
Foster and/or orphan children	28.9	31.7	31.0	30.0	31.0
Number of households	2,486	7,247	9,732	308	10,040

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] Includes children with one dead parent and an unknown survival status of the other parent.

2.6 BIRTH REGISTRATION

The registration of births is the formal 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).

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. Table 2.10 presents the percentage of children under age 5 whose births were officially registered.

Nineteen percent of children in Tanzania under age 5 have been registered with civil authorities, of whom about half (10 percent) have received a birth certificate. Birth registration seems to have remained at the same level in the past 5 years; the coverage for children under age 2 is comparable to that for children age 2-4. However, registration coverage differs markedly by urban-rural residence, regions, and wealth quintiles. Fifty-three percent of children in urban areas are registered compared with only 13 percent in rural areas. Registration in Zanzibar is much more widespread than in Mainland Tanzania (95 percent and 17 percent, respectively). Across

Table 2.10 Birth registration of children under age 5

Percentage of de jure children under age 5 whose births are registered with the civil authorities, according to background characteristics, Tanzania 2011-12

Background characteristic	Children whose births are registered: Percentage who had a birth certificate	Percentage who did not have birth certificate	Percentage registered	Number of children
Age				
<2	7.8	12.1	19.9	3,642
2-4	10.8	7.9	18.7	5,178
Sex				
Male	10.6	9.4	20.0	4,403
Female	8.6	9.8	18.4	4,417
Residence				
Urban	29.2	23.8	53.0	1,452
Rural	5.7	6.8	12.5	7,368
Mainland/Zanzibar				
Mainland	7.7	9.2	16.9	8,562
Urban	26.6	24.2	50.9	1,385
Rural	4.1	6.3	10.4	7,177
Zanzibar	71.0	23.8	94.8	258
Unguja	77.4	19.6	97.0	180
Pemba	56.0	33.7	89.7	78
Zone				
Eastern	20.6	33.2	53.8	868
Western	4.8	8.0	12.8	789
Southern	8.8	13.9	22.7	307
Southern Highlands	3.3	8.0	11.4	914
Southwest Highlands	5.3	0.7	6.0	947
Central	5.3	5.9	11.2	1,028
Northern	12.4	11.0	23.4	923
Lake	6.0	5.4	11.4	2,785
Region				
Dodoma	5.5	2.5	8.0	385
Arusha	7.8	6.7	14.5	250
Kilimanjaro	26.4	22.0	48.4	188
Tanga	9.3	9.0	18.3	486
Morogoro	2.8	19.6	22.4	278
Pwani	12.7	36.7	49.4	142
Dar es Salaam	34.2	40.5	74.8	448
Lindi	6.1	12.2	18.4	105
Mtwara	10.2	14.8	25.0	203
Ruvuma	3.2	11.5	14.7	554
Iringa	2.8	1.5	4.3	153
Mbeya	8.9	0.4	9.3	513
Singida	6.3	9.8	16.1	406
Tabora	1.4	1.5	2.9	425
Rukwa	1.9	0.8	2.7	206
Kigoma	8.8	15.5	24.3	365
Shinyanga	1.4	1.1	2.5	408
Kagera	2.6	8.1	10.6	434
Mwanza	20.2	10.8	31.0	514
Mara	7.2	4.1	11.3	438
Manyara	3.2	4.9	8.1	238
Njombe	4.2	3.5	7.7	207
Katavi	0.1	1.4	1.5	228
Simiyu	2.1	0.4	2.4	626
Geita	0.7	9.9	10.6	365
Kaskazini Unguja	56.6	36.6	93.2	30
Kusini Unguja	74.8	21.8	96.7	18
Mjini Magharibi	82.5	15.4	97.9	132
Kaskazini Pemba	49.1	37.2	86.2	37
Kusini Pemba	62.4	30.6	93.0	40
Wealth quintile				
Lowest	2.2	2.8	5.1	2,069
Second	2.8	5.8	8.6	2,013
Middle	4.0	7.6	11.7	1,820
Fourth	10.0	14.0	24.0	1,574
Highest	38.0	23.4	61.5	1,344
Total	9.6	9.6	19.2	8,820

regions in the Mainland, the proportion of births that are registered ranges from 75 percent in Dar es Salaam to 5 percent or lower in Iringa, Tabora, Rukwa, Shinyanga, Katavi, and Simiyu. Birth registration varies greatly by wealth; ranging from 5 percent for children in the lowest quintile to 62 percent of children in the highest wealth quintile.

2.7 CHILDREN'S LIVING ARRANGEMENTS, SCHOOL ATTENDANCE, AND PARENTAL SURVIVAL

Information was collected on the living arrangements and survival status of all children under age 18 to assess the potential burden orphaned or foster children may place on households. These data were also used to assess the situation from the perspective of the children themselves. Table 2.11 presents the proportion of children under age 18 who are not living with one or both parents, either because the parent(s) died or for other reasons.

Around four in ten Tanzanian children under age 18 are not living with both parents; 16 percent are not living with either parent. Almost one in ten children under age 18 is orphaned, that is, one or both parents are dead.

The percentage of orphaned children increases rapidly with age, from 3 percent of children under age 5 to 20 percent of children age 15-17. Mainland children (10 percent) are more likely to be orphaned than Zanzibar children (6 percent). Kaskazini Unguja had the lowest proportion of children orphaned (3 percent), and Iringa had the highest (19 percent). The percentage of children with one or both parents dead varies little by wealth quintile.

Table 2.12 presents data on school attendance rates and parental survivorship among de jure children age 10-14. The table contrasts the situation among children whose parents are both dead (double orphans) with that among children whose parents are both alive and the children living with at least one parent. The school attendance ratio in the final column of the table allows an assessment of the extent to which orphaned children are disadvantaged in terms of access to education; ratios below 1.0 indicate that access to education is more limited for double orphans.

The results in Table 2.12 show that double orphans are slightly less likely than children whose parents are both alive and who live with at least one parent to be currently in school (84 percent and 88 percent, respectively).

Table 2.11 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Tanzania 2011-12

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent					Total	Percentage not living with a biological parent	Percentage with one or both parents dead[1]	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only mother alive	Only father alive	Both dead	Missing information on father/mother				
Age														
0-4	70.3	18.8	1.9	1.6	0.2	5.9	0.4	0.3	0.0	0.5	100.0	6.7	2.9	8,820
<2	74.1	22.2	1.4	0.4	0.0	1.2	0.2	0.1	0.0	0.4	100.0	1.5	1.7	3,642
2-4	67.6	16.4	2.3	2.5	0.4	9.2	0.6	0.4	0.1	0.5	100.0	10.3	3.8	5,178
5-9	58.6	13.7	4.1	5.1	0.6	13.3	1.8	1.0	0.6	1.2	100.0	16.7	8.3	8,008
10-14	52.1	12.3	6.4	6.4	1.3	14.1	2.8	1.9	1.9	0.9	100.0	20.7	14.4	7,255
15-17	40.7	10.4	7.3	5.8	2.1	20.6	4.4	2.2	3.4	3.1	100.0	30.7	19.6	2,915
Sex														
Male	59.8	13.6	4.5	4.8	0.9	11.1	1.8	0.9	1.2	1.1	100.0	15.1	9.6	13,483
Female	57.7	15.6	4.1	3.9	0.8	12.6	2.0	1.3	0.9	1.1	100.0	16.9	9.2	13,515
Residence														
Urban	51.6	17.6	4.3	4.0	0.8	14.7	3.0	1.5	1.3	1.2	100.0	20.4	11.0	4,954
Rural	60.4	13.9	4.3	4.5	0.8	11.3	1.7	1.1	1.0	1.1	100.0	15.0	9.1	22,044
Mainland/Zanzibar														
Mainland	58.6	14.6	4.4	4.4	0.8	11.9	1.9	1.1	1.1	1.1	100.0	16.0	9.5	26,174
Urban	51.1	17.9	4.4	4.0	0.9	14.7	3.1	1.5	1.3	1.2	100.0	20.6	11.2	4,728
Rural	60.3	13.9	4.4	4.5	0.8	11.2	1.7	1.1	1.0	1.1	100.0	15.0	9.2	21,446
Zanzibar	63.4	13.8	2.0	4.3	0.8	12.3	1.0	1.2	0.6	0.5	100.0	15.1	5.6	824
Unguja	59.3	17.0	1.6	5.5	0.8	12.3	1.0	1.2	0.7	0.6	100.0	15.2	5.3	580
Pemba	73.2	6.2	3.0	1.7	0.7	12.3	1.0	1.4	0.3	0.3	100.0	14.9	6.4	244
Zone														
Eastern	54.0	15.4	3.2	5.4	1.1	14.5	2.8	1.6	1.0	1.0	100.0	19.9	9.8	2,741
Western	61.1	14.8	3.9	4.9	0.7	10.2	1.5	0.9	1.2	0.7	100.0	13.9	8.2	2,356
Southern	41.1	22.8	4.4	7.3	1.2	18.0	2.0	1.1	0.6	1.3	100.0	21.8	9.5	1,127
Southern Highlands	54.1	15.2	5.3	4.5	1.1	11.4	2.9	1.4	2.3	1.7	100.0	18.1	13.4	2,981
Southwest Highlands	68.2	8.0	4.6	3.3	1.1	9.2	2.3	1.2	2.0	0.3	100.0	14.6	11.0	2,869
Central	63.9	12.7	3.0	2.6	0.8	11.7	1.4	1.6	0.5	1.8	100.0	15.2	7.4	3,226
Northern	55.3	19.0	3.8	3.4	0.9	13.5	1.1	0.9	1.0	1.1	100.0	16.6	7.9	2,969
Lake	59.2	14.5	5.4	4.9	0.6	11.2	1.8	0.8	0.6	1.0	100.0	14.4	9.3	7,905
Region														
Dodoma	59.3	14.8	2.4	2.3	0.0	14.9	1.8	2.1	0.5	1.9	100.0	19.2	6.9	1,329
Arusha	59.8	19.7	3.5	1.6	1.2	10.9	0.9	0.9	1.2	0.4	100.0	13.9	7.7	772
Kilimanjaro	49.6	18.0	4.4	3.9	0.4	18.2	2.0	1.4	0.4	1.9	100.0	21.9	8.6	828
Tanga	56.2	19.1	3.6	4.1	1.0	12.2	0.8	0.7	1.3	1.1	100.0	14.9	7.5	1,369
Morogoro	56.3	17.1	3.3	7.9	0.9	10.9	1.7	0.9	0.3	0.7	100.0	13.8	7.1	885
Pwani	49.4	12.5	2.8	7.0	2.2	16.9	3.2	3.3	1.4	1.4	100.0	24.7	13.2	505
Dar es Salaam	54.2	15.4	3.3	3.2	0.8	15.9	3.5	1.5	1.2	1.0	100.0	22.1	10.3	1,352
Lindi	44.1	22.7	3.8	7.5	0.3	16.0	2.4	0.9	1.1	1.3	100.0	20.3	8.6	370
Mtwara	39.6	22.8	4.8	7.2	1.7	19.0	1.9	1.3	0.4	1.3	100.0	22.6	10.0	757
Ruvuma	52.9	16.0	4.1	5.7	1.2	12.6	2.8	0.5	1.9	2.3	100.0	17.8	11.1	1,799
Iringa	55.0	15.3	7.9	0.5	0.9	9.6	3.1	3.9	3.5	0.5	100.0	20.1	19.2	541
Mbeya	66.7	7.6	5.3	3.7	1.1	8.4	2.9	1.5	2.4	0.3	100.0	15.2	13.3	1,692
Singida	64.2	13.5	4.0	2.7	1.6	9.2	0.8	0.8	0.6	2.6	100.0	11.3	8.2	1,134
Tabora	59.6	11.8	2.8	7.5	0.9	11.9	1.9	1.0	1.8	0.7	100.0	16.6	8.4	1,219
Rukwa	71.1	9.2	4.0	2.2	0.9	9.5	0.8	1.0	1.0	0.3	100.0	12.2	7.6	538
Kigoma	62.7	18.1	5.1	2.1	0.4	8.4	1.2	0.8	0.5	0.6	100.0	10.9	8.0	1,137
Shinyanga	52.4	20.8	3.8	5.3	0.4	12.9	1.8	1.0	0.5	1.2	100.0	16.1	7.6	1,145
Kagera	66.3	14.2	4.7	3.6	0.5	7.5	2.1	0.3	0.6	0.2	100.0	10.5	8.3	1,227
Mwanza	55.9	16.4	4.0	5.4	0.5	13.1	1.2	1.4	0.8	1.2	100.0	16.5	8.1	1,522
Mara	59.7	10.0	8.9	5.5	0.9	8.9	2.5	0.9	1.1	1.5	100.0	13.5	14.4	1,199
Manyara	71.3	8.1	2.5	2.8	0.9	10.0	1.5	2.1	0.3	0.5	100.0	14.0	7.4	763
Njombe	56.9	12.9	6.5	4.5	1.0	9.8	3.1	2.0	2.2	1.1	100.0	17.1	14.9	641
Katavi	69.5	7.9	3.1	3.2	1.0	11.0	1.8	0.5	1.6	0.4	100.0	14.9	8.0	639
Simiyu	61.2	12.5	6.6	4.0	0.3	12.0	1.5	0.4	0.3	1.1	100.0	14.2	9.2	1,785
Geita	59.4	13.5	3.8	6.1	1.0	12.2	1.9	0.8	0.7	0.7	100.0	15.6	8.3	1,028
Kaskazini Unguja	70.4	11.3	1.8	0.8	0.0	13.6	1.0	0.5	0.0	0.4	100.0	15.2	3.3	100
Kusini Unguja	52.3	11.2	2.7	6.0	0.0	22.6	1.9	1.2	0.2	1.9	100.0	25.9	6.0	57
Mjini Magharibi	57.6	19.1	1.4	6.5	1.1	10.6	0.9	1.4	0.9	0.5	100.0	13.7	5.7	422
Kaskazini Pemba	73.8	6.9	2.4	1.9	0.3	12.0	0.7	1.4	0.0	0.7	100.0	14.1	4.9	127
Kusini Pemba	72.6	5.4	3.7	1.4	1.1	12.6	1.3	1.3	0.7	0.0	100.0	15.8	8.0	117
Wealth quintile														
Lowest	58.7	18.7	5.5	3.2	0.6	9.4	1.5	1.3	0.4	0.7	100.0	12.6	9.3	5,742
Second	60.1	14.1	5.0	3.9	0.9	11.1	1.8	1.0	0.8	1.3	100.0	14.7	9.6	5,731
Middle	62.9	11.9	4.1	4.9	0.9	10.9	1.2	0.9	1.1	1.2	100.0	14.1	8.3	5,679
Fourth	58.8	12.6	3.7	5.3	0.8	12.7	2.4	0.8	1.6	1.1	100.0	17.6	9.5	5,307
Highest	51.8	15.7	3.1	4.7	1.0	16.2	3.0	1.8	1.5	1.2	100.0	22.6	10.5	4,539
Total <15	60.9	15.1	4.0	4.2	0.7	10.8	1.6	1.0	0.8	0.9	100.0	14.2	8.2	24,083
Total <18	58.7	14.6	4.3	4.4	0.8	11.9	1.9	1.1	1.1	1.1	100.0	16.0	9.4	26,998

Note: Table is based on de jure members, i.e., usual residents.
[1] Includes children with father dead, mother dead, both dead, and one parent dead but missing information on survival status of the other parent.

Table 2.12 School attendance by survivorship of parents

For de jure children age10-14, the percentage attending school by parental survival and the ratio of the percentage attending, by parental survival, according to background characteristics, Tanzania 2011-12

Background characteristic	Percentage attending school by survivorship of parents: Both parents deceased	Number	Both parents alive and living with at least one parent	Number	Ratio[1]
Sex					
Male	83.4	74	86.7	2,575	0.96
Female	84.8	62	89.3	2,554	0.95
Residence					
Urban	(85.7)	25	97.5	910	(0.88)
Rural	83.7	111	85.9	4,218	0.97
Wealth quintile					
Lowest	*	14	74.7	1,043	*
Second	*	19	82.4	1,038	*
Middle	*	23	90.5	1,141	*
Fourth	(82.1)	48	95.8	1,080	(0.86)
Highest	(98.8)	32	98.1	827	(1.01)
Total	84.0	136	88.0	5,129	0.95

Note: Table is based only on children who usually live in the household. 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.
[1] Ratio of the percentage with both parents deceased to the percentage with both parents alive and living with at least one parent

2.8 EDUCATIONAL ATTAINMENT OF HOUSEHOLD POPULATION

Tables 2.13.1 and 2.13.2 present data for each sex on educational attainment of household members age 6 and older. A comparison of the two tables reveals that there is a substantial gap in educational attainment between males and females. Although the majority of the household population age 6 and older has some education, 26 percent of females have never attended school; this compares with 19 percent of males. The median number of years of schooling for females is 4.2 years, which is 0.7 year less than that for males (4.9 years).

Urban residents are more likely than rural residents to have attended school and to have remained in school for a longer time. The median number of years of schooling for females and males in urban areas is almost the same (6.3 years and 6.4 years, respectively), compared with just 3.3 years and 3.9 years for rural females and males, respectively.

Educational attainment also differs markedly among regions. For example, the largest proportion of the household population over age 6 that has never been to school is found in Katavi (42 percent) and Dodoma (40 percent) for females, and Dodoma (32 percent), Manyara (30 percent), and Simiyu (30 percent) for males. On the other hand, regions with the lowest proportion of household members who have never attended school are Dar es Salaam (6 percent for females and 6 percent for males) and Kilimanjaro (13 percent for females and 6 percent for males). The highest proportion of population with no education in Zanzibar is found in Kaskazini Pemba (38 percent of females and 28 percent of males).

The most substantial variation in educational attainment is across the wealth quintiles. Only 8 percent of females in the wealthiest households have never been to school compared with 46 percent of females from the poorest households. The wealth disparity in education is somewhat smaller among males; 6 percent of males in the wealthiest households have never been to school compared with 34 percent of males in the poorest households.

Table 2.13.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Tanzania 2011-12

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	41.4	57.7	0.0	0.0	0.0	0.0	0.9	100.0	3,177	0.0
10-14	6.8	80.4	9.2	3.4	0.0	0.0	0.2	100.0	3,594	3.7
15-19	10.0	15.6	43.0	31.5	0.0	0.0	0.0	100.0	2,539	6.6
20-24	17.7	10.3	46.4	24.0	0.1	0.8	0.7	100.0	1,999	6.5
25-29	20.3	11.6	52.9	13.8	0.5	0.8	0.1	100.0	2,001	6.3
30-34	20.5	9.5	58.5	10.5	0.2	0.5	0.3	100.0	1,551	6.3
35-39	20.3	13.2	58.6	6.9	0.8	0.1	0.0	100.0	1,464	6.3
40-44	18.6	12.0	62.2	6.4	0.3	0.3	0.2	100.0	1,074	6.3
45-49	26.2	13.0	55.0	5.3	0.2	0.2	0.1	100.0	816	6.2
50-54	46.6	17.1	30.7	4.3	0.3	0.5	0.5	100.0	846	1.7
55-59	56.4	22.6	17.2	2.0	0.2	0.2	1.5	100.0	521	0.0
60-64	59.6	27.7	10.6	1.0	0.0	0.5	0.7	100.0	454	0.0
65+	78.4	18.5	2.1	0.3	0.0	0.0	0.7	100.0	1,146	0.0
Residence										
Urban	11.7	26.5	39.1	20.9	0.6	0.9	0.4	100.0	4,925	6.3
Rural	30.0	33.4	29.5	6.6	0.1	0.1	0.4	100.0	16,261	3.3
Mainland/Zanzibar										
Mainland	25.9	31.9	32.4	9.0	0.2	0.3	0.4	100.0	20,502	4.1
Urban	11.5	26.6	40.4	19.6	0.5	0.9	0.4	100.0	4,707	6.3
Rural	30.2	33.4	30.0	5.8	0.0	0.1	0.4	100.0	15,794	3.2
Zanzibar	20.7	29.2	10.4	38.6	0.6	0.2	0.1	100.0	685	6.0
Unguja	15.8	27.2	12.1	43.6	0.9	0.3	0.1	100.0	500	6.6
Pemba	34.2	34.7	5.8	25.3	0.1	0.0	0.0	100.0	185	2.8
Zone										
Eastern	15.3	26.6	38.9	17.1	0.3	1.5	0.2	100.0	2,797	6.2
Western	30.4	31.2	29.3	7.5	0.5	0.1	1.0	100.0	1,766	3.5
Southern	23.2	34.0	35.1	7.6	0.0	0.0	0.1	100.0	1,063	4.3
Southern Highlands	18.6	34.5	37.1	9.5	0.1	0.0	0.1	100.0	2,312	5.4
Southwest Highlands	27.7	32.9	29.5	9.1	0.0	0.0	0.7	100.0	2,128	3.8
Central	34.1	30.5	29.8	5.5	0.1	0.0	0.0	100.0	2,414	2.9
Northern	27.3	30.5	29.6	11.6	0.2	0.3	0.5	100.0	2,567	4.0
Lake	28.6	34.1	31.1	5.6	0.0	0.0	0.5	100.0	5,454	3.3
Region										
Dodoma	39.9	33.3	24.4	2.4	0.0	0.0	0.0	100.0	1,054	1.4
Arusha	31.8	27.4	28.5	11.3	0.4	0.5	0.0	100.0	635	3.5
Kilimanjaro	12.7	32.1	37.1	17.1	0.2	0.0	0.8	100.0	809	6.1
Tanga	35.2	31.1	24.8	7.8	0.1	0.4	0.6	100.0	1,124	2.3
Morogoro	28.1	33.0	30.3	8.2	0.3	0.0	0.0	100.0	750	3.7
Pwani	28.1	33.3	28.4	9.6	0.0	0.5	0.1	100.0	445	3.5
Dar es Salaam	5.8	21.7	45.9	23.3	0.4	2.5	0.4	100.0	1,603	6.5
Lindi	28.1	32.0	32.8	7.0	0.1	0.0	0.0	100.0	350	3.7
Mtwara	20.8	34.9	36.3	7.9	0.0	0.0	0.1	100.0	713	4.6
Ruvuma	16.4	36.3	37.6	9.6	0.2	0.0	0.0	100.0	1,352	5.6
Iringa	24.3	33.3	32.8	9.5	0.0	0.1	0.0	100.0	423	3.9
Mbeya	21.7	32.3	33.6	11.7	0.0	0.0	0.7	100.0	1,323	5.3
Singida	29.9	25.3	36.2	8.6	0.0	0.0	0.0	100.0	829	4.3
Tabora	35.4	34.1	25.5	4.7	0.0	0.1	0.1	100.0	879	2.6
Rukwa	32.5	35.2	25.0	5.6	0.0	0.0	1.7	100.0	357	2.2
Kigoma	25.4	28.4	33.1	10.2	1.1	0.0	1.9	100.0	887	4.7
Shinyanga	34.9	30.7	29.7	4.3	0.1	0.0	0.2	100.0	790	2.7
Kagera	25.1	36.0	31.4	7.3	0.0	0.0	0.1	100.0	876	4.0
Mwanza	20.5	34.6	34.7	9.8	0.0	0.1	0.3	100.0	1,107	4.9
Mara	22.7	34.5	37.5	4.8	0.2	0.0	0.4	100.0	825	4.2
Manyara	29.0	33.1	30.5	7.1	0.4	0.0	0.0	100.0	531	3.8
Njombe	19.7	31.0	39.2	9.6	0.0	0.0	0.5	100.0	537	5.8
Katavi	41.7	32.8	21.0	4.4	0.0	0.0	0.2	100.0	448	1.4
Simiyu	35.4	32.3	28.0	3.2	0.0	0.0	1.2	100.0	1,228	2.2
Geita	34.6	37.6	23.9	3.5	0.0	0.0	0.3	100.0	628	1.7
Kaskazini Unguja	30.0	36.7	8.1	24.6	0.2	0.0	0.4	100.0	78	3.1
Kusini Unguja	17.6	30.0	13.0	39.0	0.2	0.0	0.2	100.0	46	6.2
Mjini Magharibi	12.6	24.9	12.9	48.1	1.1	0.4	0.0	100.0	375	7.1
Kaskazini Pemba	38.2	34.1	4.8	22.9	0.0	0.0	0.0	100.0	96	1.9
Kusini Pemba	29.9	35.3	6.8	27.8	0.2	0.1	0.0	100.0	89	3.7
Wealth quintile										
Lowest	46.2	30.4	21.7	1.3	0.0	0.0	0.3	100.0	4,094	0.3
Second	33.7	34.9	27.5	3.4	0.0	0.0	0.6	100.0	4,100	2.6
Middle	25.9	36.7	31.5	5.5	0.0	0.0	0.5	100.0	4,098	3.6
Fourth	17.9	33.7	36.8	11.2	0.0	0.0	0.3	100.0	4,314	5.6
Highest	7.6	24.1	39.7	26.4	0.8	1.1	0.3	100.0	4,580	6.5
Total	25.8	31.8	31.7	9.9	0.2	0.3	0.4	100.0	21,186	4.2

Note: Total includes 4 cases for which age is missing.
[1] Completed at least grade 7 at the primary level
[2] Completed grade 6 at the secondary level

Table 2.13.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Tanzania 2011-12

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	46.5	52.5	0.0	0.1	0.0	0.0	0.8	100.0	3,203	0.0
10-14	8.2	81.8	7.1	2.6	0.0	0.0	0.3	100.0	3,571	3.4
15-19	6.0	21.7	38.7	33.4	0.0	0.0	0.2	100.0	2,294	6.6
20-24	9.1	12.6	40.8	35.9	0.6	0.4	0.5	100.0	1,667	6.7
25-29	12.9	15.7	49.2	19.1	0.9	2.1	0.0	100.0	1,339	6.4
30-34	13.0	12.0	60.7	11.5	0.7	1.9	0.1	100.0	1,168	6.4
35-39	12.1	15.3	61.3	9.7	0.1	1.4	0.1	100.0	1,187	6.4
40-44	9.8	7.2	70.3	10.0	0.8	1.4	0.6	100.0	998	6.5
45-49	7.9	9.0	72.3	9.5	0.4	0.7	0.1	100.0	720	6.5
50-54	19.3	11.6	57.3	9.5	0.7	1.3	0.2	100.0	627	6.4
55-59	20.1	23.7	44.3	9.8	0.8	1.4	0.0	100.0	524	6.2
60-64	25.9	38.1	25.2	9.2	0.6	0.0	0.9	100.0	388	3.6
65+	45.0	40.2	10.1	2.7	0.3	0.7	1.0	100.0	986	1.8
Residence										
Urban	7.5	29.0	34.5	25.9	0.9	1.8	0.4	100.0	4,186	6.4
Rural	21.8	38.0	30.9	8.4	0.1	0.3	0.4	100.0	14,485	3.9
Mainland/Zanzibar										
Mainland	18.7	35.9	32.4	11.7	0.3	0.6	0.4	100.0	18,098	4.9
Urban	7.4	28.8	35.4	25.2	0.9	1.8	0.4	100.0	4,027	6.4
Rural	21.9	38.0	31.6	7.8	0.1	0.3	0.4	100.0	14,071	3.9
Zanzibar	14.9	38.8	10.8	34.5	0.4	0.6	0.1	100.0	574	5.4
Unguja	10.7	37.4	12.5	38.1	0.6	0.7	0.1	100.0	412	6.2
Pemba	25.3	42.5	6.4	25.2	0.1	0.3	0.1	100.0	161	3.3
Zone										
Eastern	11.0	26.8	37.8	21.1	0.7	2.4	0.2	100.0	2,533	6.3
Western	21.6	36.2	29.6	11.0	0.1	0.7	0.7	100.0	1,567	4.4
Southern	15.1	39.8	33.7	10.8	0.1	0.2	0.2	100.0	878	4.9
Southern Highlands	10.3	44.1	35.3	9.5	0.3	0.1	0.3	100.0	2,043	5.1
Southwest Highlands	19.0	36.6	30.7	11.8	0.3	0.8	0.8	100.0	1,872	4.8
Central	27.9	33.3	30.6	8.0	0.1	0.1	0.0	100.0	2,223	3.6
Northern	18.3	37.2	30.8	12.7	0.3	0.5	0.1	100.0	2,111	4.7
Lake	21.7	36.7	31.3	9.2	0.2	0.2	0.6	100.0	4,871	4.0
Region										
Dodoma	32.4	34.5	27.9	5.1	0.0	0.0	0.1	100.0	894	2.8
Arusha	26.8	29.6	29.7	13.0	0.2	0.7	0.1	100.0	528	4.3
Kilimanjaro	6.0	40.2	36.4	15.6	0.5	0.9	0.3	100.0	720	6.1
Tanga	23.4	39.4	26.7	10.1	0.3	0.0	0.0	100.0	863	3.3
Morogoro	17.7	33.9	36.5	11.1	0.1	0.5	0.2	100.0	721	5.6
Pwani	17.9	34.3	28.7	16.4	0.5	1.4	0.7	100.0	374	5.5
Dar es Salaam	5.9	21.3	40.9	27.3	1.1	3.5	0.1	100.0	1,437	6.6
Lindi	18.8	38.5	33.6	9.1	0.0	0.0	0.0	100.0	303	4.5
Mtwara	13.2	40.5	33.7	11.7	0.2	0.3	0.3	100.0	575	5.2
Ruvuma	8.7	46.3	36.5	7.6	0.4	0.2	0.3	100.0	1,204	5.0
Iringa	13.8	44.0	29.7	12.1	0.2	0.1	0.0	100.0	373	4.2
Mbeya	14.3	35.5	33.8	14.4	0.3	1.3	0.3	100.0	1,150	6.0
Singida	21.5	32.3	35.3	10.5	0.2	0.2	0.0	100.0	790	5.1
Tabora	26.0	35.8	30.7	7.5	0.1	0.0	0.0	100.0	836	3.8
Rukwa	27.0	37.4	25.9	8.5	0.2	0.0	1.0	100.0	338	3.4
Kigoma	16.6	36.7	28.5	15.0	0.2	1.5	1.5	100.0	731	5.3
Shinyanga	25.4	36.6	29.5	7.4	0.3	0.3	0.5	100.0	750	3.6
Kagera	15.3	41.1	32.5	10.6	0.1	0.0	0.3	100.0	779	4.8
Mwanza	17.6	37.3	31.0	12.6	0.3	0.3	1.1	100.0	991	4.6
Mara	14.0	35.4	35.3	13.2	0.8	0.7	0.6	100.0	691	6.0
Manyara	29.9	32.7	28.2	9.0	0.3	0.0	0.0	100.0	539	3.6
Njombe	11.9	38.6	36.5	12.6	0.2	0.0	0.3	100.0	466	5.9
Katavi	25.9	39.3	25.5	6.9	0.3	0.0	2.1	100.0	384	3.0
Simiyu	29.6	31.3	32.7	6.0	0.0	0.0	0.5	100.0	1,069	3.2
Geita	27.2	41.7	25.2	5.4	0.0	0.1	0.5	100.0	591	2.6
Kaskazini Unguja	17.4	48.5	12.1	21.4	0.6	0.0	0.0	100.0	61	3.6
Kusini Unguja	8.9	39.3	12.6	38.1	0.1	0.0	1.0	100.0	42	6.1
Mjini Magharibi	9.7	34.9	12.5	41.4	0.6	0.9	0.0	100.0	308	6.5
Kaskazini Pemba	28.1	42.6	5.9	22.8	0.2	0.4	0.0	100.0	87	2.5
Kusini Pemba	22.2	42.4	7.1	28.0	0.0	0.1	0.2	100.0	75	4.3
Wealth quintile										
Lowest	34.4	37.7	24.9	2.8	0.0	0.0	0.2	100.0	3,451	2.1
Second	24.6	39.8	30.0	5.1	0.0	0.0	0.4	100.0	3,591	3.4
Middle	18.5	39.8	34.4	6.7	0.1	0.1	0.4	100.0	3,779	4.2
Fourth	11.8	37.8	36.0	13.7	0.2	0.1	0.4	100.0	3,881	6.0
Highest	5.9	25.7	32.6	31.4	1.2	2.7	0.5	100.0	3,969	6.6
Total	18.6	36.0	31.7	12.4	0.3	0.6	0.4	100.0	18,671	4.9

Note: Total includes 1 case for which age is missing.
[1] Completed at least grade 7 at the primary level
[2] Completed grade 6 at the secondary level

CHARACTERISTICS OF RESPONDENTS 3

Key Findings

- A total of 10,967 women and 8,352 men age 15-49 were interviewed as part of the 2011-12 THMIS.
- Seventy percent of women and 75 percent of men age 15-49 have completed primary school.
- Only 6 percent of women and 18 percent of men access three media (read a newspaper, watch television, and listen to the radio) at least once a week.
- In Mainland Tanzania, 35 percent of women and 53 percent of men age 15-49 own a mobile phone; in Zanzibar, 58 percent of women and 71 percent of men in Zanzibar own mobile phones.
- Eighty percent of women and 85 percent of men age 15-49 are currently employed.
- Sixty-three percent of women and 53 percent of men age 15-49 are currently in union; 26 percent of women and 42 percent of men have never been married.
- Twenty-two percent of married women have a co-wife; 11 percent of married men have more than one wife.
- In 38 percent of currently married couples, the husband is 0-4 years older than the wife; in 37 percent of couples, the husband is 5-9 years older than the wife; and in 19 percent of couples, the husband is 10 or more years older than the wife. The husband is younger than the wife in only 5 percent of couples.
- Ten percent of women and 6 percent of men age 20-49 first had sexual intercourse before age 15.

3.1 INTRODUCTION

This chapter presents information on demographic and socioeconomic characteristics of the survey respondents such as age, education, place of residence, marital status, employment, and wealth status. This information is useful for understanding the factors that affect knowledge, attitudes, and behaviour related to HIV/AIDS, malaria prevention and treatment, and other health behaviours, as they provide a context for the interpretation of demographic and health indices.

3.2 BACKGROUND CHARACTERISTICS OF RESPONDENTS

Table 3.1 presents the distribution of women and men age 15-49 by background characteristics. The unweighted numbers reflect the actual observations during enumeration, whereas the weighted numbers reflect figures that have been adjusted by the probability of selection of the respondents.

A total of 10,967 women and 8,352 men were interviewed in the survey. For both sexes, the proportion in each age group generally declines with increasing age, reflecting the young age structure of the population. Fifty-six percent of women and 48 percent of men are currently married, and an additional 7 percent of women and 5 percent of men are living together in 'informal' unions. The proportion never-married is 26 percent for women and 42 percent for men. The sex difference can be attributed to the

relatively older age of men at first marriage, as well as polygyny and remarriage among men. Twelve percent of women and 5 percent of men are divorced, separated, or widowed.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Tanzania 2011-12

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	22.0	2,414	2,477	24.1	2,012	2,118
20-24	17.2	1,888	1,927	18.3	1,525	1,501
25-29	17.3	1,902	1,817	13.4	1,116	1,145
30-34	13.7	1,497	1,427	12.7	1,064	1,011
35-39	13.1	1,435	1,425	12.7	1,064	1,038
40-44	9.3	1,023	1,050	10.9	913	872
45-49	7.4	808	844	7.9	658	667
Marital status						
Never married	25.5	2,798	2,917	42.3	3,534	3,643
Married	55.6	6,101	6,090	47.7	3,985	3,960
Living together	7.4	810	743	5.3	443	381
Divorced/separated	8.3	912	875	4.3	359	329
Widowed	3.2	347	342	0.4	31	39
Residence						
Urban	27.0	2,956	2,624	25.6	2,142	1,901
Rural	73.0	8,011	8,343	74.4	6,210	6,451
Mainland/Zanzibar						
Mainland	96.4	10,576	9,387	96.7	8,079	7,230
Urban	25.8	2,834	2,202	24.7	2,066	1,614
Rural	70.6	7,742	7,185	72.0	6,013	5,616
Zanzibar	3.6	391	1,580	3.3	273	1,122
Unguja	2.7	298	979	2.4	204	687
Pemba	0.8	93	601	0.8	69	435
Zone						
Eastern	15.5	1,696	1,254	16.3	1,363	985
Western	8.1	890	857	8.8	736	677
Southern	5.1	557	613	4.4	371	424
Southern Highlands	10.5	1,155	996	9.8	818	776
Southwest Highlands	10.0	1,101	1,019	10.2	851	738
Central	10.0	1,100	1,048	10.9	908	890
Northern	11.7	1,281	1,024	10.2	855	703
Lake	25.5	2,797	2,576	26.1	2,178	2,037
Region						
Dodoma	3.8	422	277	4.1	342	217
Arusha	3.0	331	341	3.0	254	261
Kilimanjaro	3.5	384	331	3.1	256	226
Tanga	5.2	566	352	4.1	344	216
Morogoro	3.6	399	341	4.1	343	278
Pwani	1.9	213	284	2.0	166	212
Dar es Salaam	9.9	1,084	629	10.2	854	495
Lindi	1.7	188	312	1.5	129	225
Mtwara	3.4	369	301	2.9	242	199
Ruvuma	6.2	684	364	5.4	455	273
Iringa	1.8	200	315	1.8	153	244
Mbeya	6.4	699	378	6.7	557	294
Singida	3.8	416	386	3.9	328	330
Tabora	3.9	432	440	4.9	411	398
Rukwa	1.7	187	342	1.6	137	236
Kigoma	4.2	458	417	3.9	325	279
Shinyanga	3.8	415	333	3.9	327	259
Kagera	4.1	448	340	4.5	372	287
Mwanza	5.2	570	430	5.0	420	326
Mara	4.0	433	441	4.0	332	327
Manyara	2.4	262	385	2.9	238	343
Njombe	2.5	271	317	2.5	210	259
Katavi	2.0	214	299	1.9	157	208
Simiyu	5.7	626	466	5.7	477	381
Geita	2.8	304	566	3.0	250	457
Kaskazini Unguja	0.4	42	319	0.3	25	197
Kusini Unguja	0.2	26	289	0.2	20	236
Mjini Magharibi	2.1	230	371	1.9	159	254
Kaskazini Pemba	0.4	47	300	0.4	33	216
Kusini Pemba	0.4	46	301	0.4	36	219
Education						
No education	17.8	1,955	1,949	9.3	776	721
Primary incomplete	12.6	1,380	1,518	16.0	1,338	1,452
Primary complete	52.1	5,713	5,202	51.0	4,264	3,954
Secondary+	17.5	1,919	2,298	23.6	1,974	2,225
Wealth quintile						
Lowest	17.0	1,864	1,803	16.3	1,358	1,268
Second	18.0	1,974	1,940	18.3	1,532	1,500
Middle	18.0	1,977	2,097	19.0	1,590	1,691
Fourth	20.6	2,257	2,447	20.9	1,749	1,940
Highest	26.4	2,895	2,680	25.4	2,123	1,953
Total	100.0	10,967	10,967	100.0	8,352	8,352

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

Twenty-seven percent of women and 26 percent of men live in urban areas. There are no marked differences between sexes by region. Ninety-six percent of women and 97 percent of men in the nationally representative sample are from Mainland Tanzania. A large proportion of the population resides in Dar es Salaam region (10 percent of women and men).

About half of all respondents have completed primary education but have not gone on to attain higher education. Thirteen percent of women and 16 percent of men have gone to primary school but have not completed it. Women are more disadvantaged in terms of educational attainment than men, with twice as many women as men having no education (18 percent and 9 percent, respectively).

3.3 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Education provides people with the knowledge and skills that can lead to a better quality of life. Education correlates with the health of mothers and their children, and with reproductive and health-seeking behaviour. Tables 3.2.1 and 3.2.2 provide an overview of the relationship between the respondents' level of education and other background characteristics.

Fifty-two percent of women and 51 percent of men age 15-49 have completed primary school only. Eighteen percent of women and 24 percent of men have at least some secondary education, and 1 percent of women and 2 percent of men have completed secondary school. Less than 1 percent of women and 1 percent of men have attained more than secondary school. About 18 percent of women and 9 percent of men have no education at all.

Increasing age is generally associated with lower levels of education, particularly for women. The most educationally disadvantaged are women age 45-49, an age group in which 28 percent have had no education. In contrast, only 7 percent of men age 45-49 have had no education.

Educational differentials are also found by residence. The rural-urban differentials, as expected, show wide variations. Six percent of urban women, compared with 22 percent of rural women, lack any formal education. Three percent of urban men have had no education; this compares with 12 percent of rural men. About one-third (32 percent) of urban women and 43 percent of urban men have attended secondary school compared with 12 percent of women and 17 percent of men in rural areas. The urban-rural gap in education may, in part, reflect the predominantly urban locations of secondary and tertiary learning institutions.

There are marked differentials by residence between Mainland Tanzania and Zanzibar. In Zanzibar, women and men have more education than in Mainland Tanzania; 63 percent of women and 63 percent of men in Zanzibar have had at least some secondary education compared with 16 percent of women and 22 percent of men in Mainland Tanzania. Large differentials are also observed by zone and region. As expected, for both women and men, educational attainment increases with wealth.

The median years of schooling for women and men age 15-49 are 6.4 and 6.5 respectively. Differences by urban-rural residence are not large. In urban areas, the median years of schooling are 6.7 for women and 6.9 for men; in rural areas, the median years of schooling are 6.3 for women and 6.4 for men. Differences in the median years of schooling by Mainland and Zanzibar residence are more notable. Whereas the median years of schooling among Mainland women and men are 6.4 and 6.5 years, respectively, the median years of schooling for women and men from Zanzibar are 8.2 and 8.1, respectively. Among regions, Katavi and Kaskazini Pemba stand out because the median years of education among women in both regions are below 6 years (5.4 and 5.8, respectively).

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Tanzania 2011-12

Background characteristic	Highest level of schooling						Total	Median years completed	Number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	13.0	13.2	44.5	28.8	0.1	0.4	100.0	6.5	4,303
15-19	8.5	15.2	43.6	32.7	0.0	0.0	100.0	6.6	2,414
20-24	18.6	10.7	45.7	23.8	0.2	0.8	100.0	6.5	1,888
25-29	19.7	12.8	52.5	13.5	0.5	1.0	100.0	6.3	1,902
30-34	20.6	9.7	59.0	10.0	0.5	0.3	100.0	6.3	1,497
35-39	21.6	12.9	58.8	6.3	0.3	0.1	100.0	6.3	1,435
40-44	17.7	12.6	62.2	6.9	0.3	0.3	100.0	6.3	1,023
45-49	27.6	13.4	54.1	4.7	0.0	0.2	100.0	6.2	808
Residence									
Urban	6.2	7.8	54.2	30.0	0.7	1.1	100.0	6.7	2,956
Rural	22.1	14.4	51.3	12.0	0.1	0.1	100.0	6.3	8,011
Mainland/Zanzibar									
Mainland	18.1	12.6	53.6	15.2	0.2	0.4	100.0	6.4	10,576
Urban	6.3	7.9	55.9	28.2	0.6	1.2	100.0	6.7	2,834
Rural	22.4	14.3	52.7	10.5	0.1	0.1	100.0	6.3	7,742
Zanzibar	11.5	13.5	12.2	60.9	1.3	0.5	100.0	8.2	391
Unguja	7.9	11.1	13.1	65.5	1.6	0.7	100.0	8.4	298
Pemba	23.0	21.2	9.2	46.1	0.3	0.1	100.0	6.5	93
Zone									
Eastern	8.6	8.2	55.9	24.9	0.4	1.9	100.0	6.6	1,696
Western	24.1	14.0	47.7	13.6	0.5	0.1	100.0	6.3	890
Southern	15.1	18.1	54.4	12.4	0.1	0.0	100.0	6.3	557
Southern Highlands	9.8	10.7	62.4	16.7	0.2	0.0	100.0	6.5	1,155
Southwest Highlands	21.4	13.8	49.5	15.3	0.0	0.0	100.0	6.3	1,101
Central	24.1	10.3	54.0	11.6	0.1	0.0	100.0	6.3	1,100
Northern	20.0	9.5	50.4	19.4	0.3	0.4	100.0	6.4	1,281
Lake	21.3	16.2	53.1	9.2	0.1	0.1	100.0	6.2	2,797
Region									
Dodoma	33.5	9.6	50.1	6.8	0.0	0.0	100.0	6.1	422
Arusha	22.8	9.0	47.4	19.5	0.4	0.9	100.0	6.4	331
Kilimanjaro	2.1	4.2	66.5	27.1	0.1	0.0	100.0	6.7	384
Tanga	30.5	13.4	41.1	14.2	0.4	0.3	100.0	6.1	566
Morogoro	20.5	17.3	49.3	12.9	0.0	0.0	100.0	6.2	399
Pwani	17.2	11.6	51.8	18.5	0.0	0.8	100.0	6.4	213
Dar es Salaam	2.5	4.2	59.1	30.6	0.7	2.8	100.0	6.8	1,084
Lindi	17.6	16.4	53.3	12.4	0.3	0.0	100.0	6.3	188
Mtwara	13.8	18.9	55.0	12.4	0.0	0.0	100.0	6.3	369
Ruvuma	8.4	11.6	62.1	17.6	0.4	0.0	100.0	6.5	684
Iringa	17.0	9.5	58.3	14.9	0.0	0.3	100.0	6.4	200
Mbeya	16.2	10.3	54.2	19.3	0.0	0.0	100.0	6.4	699
Singida	17.2	7.6	59.8	15.3	0.0	0.0	100.0	6.4	416
Tabora	30.5	17.7	42.7	8.8	0.0	0.3	100.0	6.0	432
Rukwa	27.4	20.2	42.8	9.6	0.0	0.0	100.0	6.1	187
Kigoma	18.1	10.4	52.3	18.1	1.1	0.0	100.0	6.4	458
Shinyanga	28.3	13.5	51.0	6.9	0.3	0.0	100.0	6.2	415
Kagera	19.8	14.0	55.5	10.8	0.0	0.0	100.0	6.3	448
Mwanza	12.4	18.5	54.9	13.9	0.0	0.4	100.0	6.3	570
Mara	12.9	15.0	62.2	9.6	0.3	0.0	100.0	6.4	433
Manyara	20.0	15.6	50.8	13.3	0.3	0.0	100.0	6.3	262
Njombe	8.2	9.4	66.4	16.0	0.0	0.0	100.0	6.5	271
Katavi	33.0	19.6	40.1	7.1	0.0	0.2	100.0	5.4	214
Simiyu	28.2	15.6	49.5	6.7	0.0	0.0	100.0	6.1	626
Geita	28.2	21.8	43.8	6.3	0.0	0.0	100.0	6.0	304
Kaskazini Unguja	25.5	20.3	12.5	41.4	0.4	0.0	100.0	6.4	42
Kusini Unguja	4.2	11.5	18.3	65.6	0.4	0.0	100.0	8.2	26
Mjini Magharibi	5.1	9.4	12.7	69.9	2.0	0.9	100.0	8.6	230
Kaskazini Pemba	30.3	21.1	7.4	40.9	0.4	0.0	100.0	5.8	47
Kusini Pemba	15.5	21.2	11.2	51.6	0.3	0.2	100.0	7.0	46
Wealth quintile									
Lowest	39.8	16.1	41.2	3.0	0.0	0.0	100.0	4.2	1,864
Second	25.4	17.0	51.2	6.4	0.0	0.0	100.0	6.1	1,974
Middle	18.4	16.9	54.3	10.4	0.0	0.0	100.0	6.3	1,977
Fourth	11.2	10.8	59.4	18.4	0.1	0.0	100.0	6.5	2,257
Highest	3.3	5.8	52.4	36.1	0.9	1.5	100.0	6.8	2,895
Total	17.8	12.6	52.1	16.8	0.3	0.4	100.0	6.4	10,967

[1] Completed at least grade 7 at the primary level
[2] Completed grade 6 at the secondary level

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Tanzania 2011-12

Background characteristic	Highest level of schooling						Total	Median years completed	Number of men
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	6.4	18.0	38.8	36.4	0.2	0.2	100.0	6.7	3,537
15-19	5.4	20.5	38.0	36.1	0.0	0.0	100.0	6.6	2,012
20-24	7.7	14.6	39.8	36.8	0.6	0.5	100.0	6.7	1,525
25-29	13.8	18.5	47.7	16.6	1.1	2.3	100.0	6.4	1,116
30-34	12.2	16.8	57.5	10.8	0.6	2.1	100.0	6.4	1,064
35-39	12.0	16.3	59.3	10.7	0.1	1.6	100.0	6.4	1,064
40-44	10.4	8.3	69.7	9.6	0.7	1.3	100.0	6.5	913
45-49	6.7	10.4	73.1	9.0	0.4	0.4	100.0	6.5	658
Residence									
Urban	2.9	9.0	45.4	38.6	1.4	2.7	100.0	6.9	2,142
Rural	11.5	18.5	53.0	16.4	0.1	0.5	100.0	6.4	6,210
Mainland/Zanzibar									
Mainland	9.4	15.9	52.3	20.8	0.5	1.1	100.0	6.5	8,079
Urban	2.9	8.9	46.6	37.4	1.5	2.7	100.0	6.9	2,066
Rural	11.7	18.3	54.3	15.1	0.1	0.5	100.0	6.4	6,013
Zanzibar	4.8	19.1	13.1	61.8	0.3	0.9	100.0	8.1	273
Unguja	3.1	16.5	14.0	65.0	0.3	1.0	100.0	8.3	204
Pemba	9.8	26.8	10.5	52.2	0.2	0.5	100.0	7.3	69
Zone									
Eastern	6.0	9.1	49.2	31.6	1.0	3.0	100.0	6.8	1,363
Western	11.1	20.5	47.4	19.1	0.3	1.6	100.0	6.4	736
Southern	7.6	16.1	54.7	20.8	0.2	0.5	100.0	6.5	371
Southern Highlands	3.8	14.5	61.1	19.5	0.7	0.3	100.0	6.5	818
Southwest Highlands	9.0	17.6	50.5	20.9	0.5	1.6	100.0	6.5	851
Central	13.4	15.1	58.0	13.5	0.0	0.0	100.0	6.4	908
Northern	13.5	11.2	51.5	22.8	0.3	0.6	100.0	6.5	855
Lake	10.4	20.6	50.9	17.3	0.3	0.4	100.0	6.4	2,178
Region									
Dodoma	19.6	15.6	57.6	7.2	0.0	0.0	100.0	6.3	342
Arusha	17.5	8.6	50.1	22.0	0.3	1.4	100.0	6.5	254
Kilimanjaro	0.0	6.8	62.3	30.1	0.0	0.8	100.0	6.7	256
Tanga	20.6	16.5	44.4	17.8	0.6	0.0	100.0	6.3	344
Morogoro	13.1	15.5	51.8	18.8	0.0	0.8	100.0	6.4	343
Pwani	9.4	10.9	43.1	34.8	0.0	1.9	100.0	6.7	166
Dar es Salaam	2.5	6.2	49.3	36.1	1.7	4.1	100.0	6.9	854
Lindi	9.4	15.8	57.4	17.4	0.0	0.0	100.0	6.4	129
Mtwara	6.7	16.3	53.3	22.6	0.4	0.7	100.0	6.5	242
Ruvuma	2.1	18.5	61.3	16.6	1.0	0.5	100.0	6.5	455
Iringa	5.5	9.6	58.4	26.1	0.0	0.3	100.0	6.6	153
Mbeya	6.9	13.8	52.7	23.5	0.7	2.4	100.0	6.6	557
Singida	7.8	11.0	63.4	17.9	0.0	0.0	100.0	6.5	328
Tabora	12.4	24.8	50.1	12.6	0.1	0.0	100.0	6.3	411
Rukwa	13.7	22.6	47.5	16.2	0.0	0.0	100.0	6.3	137
Kigoma	9.5	15.1	43.9	27.4	0.4	3.7	100.0	6.6	325
Shinyanga	15.2	18.1	51.5	14.3	0.6	0.3	100.0	6.3	327
Kagera	11.3	20.9	50.0	17.8	0.0	0.0	100.0	6.4	372
Mwanza	8.7	15.4	49.7	25.5	0.0	0.6	100.0	6.5	420
Mara	2.9	17.8	53.6	22.5	1.7	1.5	100.0	6.6	332
Manyara	12.3	20.0	51.3	16.4	0.0	0.0	100.0	6.4	238
Njombe	6.2	9.6	62.7	21.0	0.5	0.0	100.0	6.6	210
Katavi	12.4	26.4	45.6	15.7	0.0	0.0	100.0	6.2	157
Simiyu	11.7	23.7	53.0	11.5	0.0	0.0	100.0	6.3	477
Geita	12.7	30.5	46.0	10.7	0.0	0.1	100.0	6.1	250
Kaskazini Unguja	10.4	26.9	15.8	45.9	0.9	0.0	100.0	6.9	25
Kusini Unguja	1.5	19.1	14.5	64.8	0.0	0.0	100.0	8.2	20
Mjini Magharibi	2.2	14.5	13.6	68.1	0.3	1.3	100.0	8.4	159
Kaskazini Pemba	12.8	21.9	9.6	54.5	0.5	0.7	100.0	7.7	33
Kusini Pemba	7.1	31.3	11.3	50.1	0.0	0.3	100.0	7.1	36
Wealth quintile									
Lowest	22.7	22.7	48.7	5.9	0.0	0.0	100.0	6.1	1,358
Second	13.3	23.3	54.1	9.3	0.0	0.0	100.0	6.2	1,532
Middle	8.7	19.6	58.2	13.5	0.0	0.1	100.0	6.4	1,590
Fourth	5.3	13.4	54.9	26.0	0.3	0.1	100.0	6.6	1,749
Highest	1.6	6.0	41.8	45.1	1.5	4.0	100.0	8.1	2,123
Total	9.3	16.0	51.0	22.1	0.5	1.0	100.0	6.5	8,352

[1] Completed at least grade 7 at the primary level
[2] Completed grade 6 at the secondary level

3.4 EXPOSURE TO MASS MEDIA

The 2011-12 THMIS collected information on respondents' exposure to common print and electronic media. Respondents were asked how often they read a newspaper, watched television, or listened to the radio. This information is important because it indicates the extent to which Tanzanians are regularly exposed to mass media, often used to convey messages on HIV/AIDS awareness, malaria prevention and treatment, and other health topics.

Tables 3.3.1 and 3.3.2 show by background characteristics the percentages of female and male respondents who were exposed to different types of mass media. Twelve percent of women and 25 percent of men read newspapers at least once a week, 22 percent of women and 34 percent of men watch television at least once a week, and 49 percent of women and 74 percent of men listen to the radio at least once a week; thus, radio is by far the most popular form of media in Tanzania. Overall, only 6 percent of women and 18 percent of men are exposed to all three media at least once per week. Forty-four percent of women and 23 percent of men are not exposed to any of the three media on a weekly basis.

As expected, women and men living in urban areas are more likely than those living in rural areas to be exposed to mass media. Fifteen percent of urban women are exposed to all forms of media at least once a week as are 44 percent of urban men. The most popular form of media for urban respondents is the radio: 63 percent of women and 85 percent of men listen to the radio at least once a week. Newspapers are the least popular form of media among both female and male urban respondents.

By region, Dar es Salaam has the highest proportion of respondents with exposure to all forms of media, although the difference between women and men is striking (18 and 66 percent, respectively). There is a positive correlation between exposure to mass media and the respondent's level of education and wealth.

Table 3.3.1 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 2011-12

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	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Age						
15-19	16.4	25.2	48.4	7.5	42.2	2,414
20-24	12.1	23.1	50.3	5.8	42.5	1,888
25-29	12.7	24.7	52.1	6.9	40.8	1,902
30-34	12.3	22.8	52.6	6.0	40.2	1,497
35-39	9.8	17.2	49.0	4.7	46.5	1,435
40-44	9.7	15.3	46.1	4.9	49.6	1,023
45-49	7.2	13.8	41.9	3.1	52.6	808
Residence						
Urban	24.4	51.7	63.1	15.1	20.7	2,956
Rural	7.8	10.5	44.3	2.6	52.2	8,011
Mainland/Zanzibar						
Mainland	12.4	20.9	48.9	6.0	44.3	10,576
Urban	24.9	51.2	63.2	15.2	20.7	2,834
Rural	7.9	9.8	43.7	2.6	52.9	7,742
Zanzibar	8.6	40.9	61.2	6.0	29.8	391
Unguja	10.2	46.2	64.6	7.3	25.8	298
Pemba	3.2	24.0	50.2	1.8	42.4	93
Zone						
Eastern	23.6	49.0	59.9	15.3	23.1	1,696
Western	13.9	18.6	53.0	4.8	38.1	890
Southern	15.3	11.2	60.4	3.1	35.2	557
Southern Highlands	13.0	19.3	52.0	5.5	41.2	1,155
Southwest Highlands	14.6	16.0	52.3	5.1	43.7	1,101
Central	6.8	12.2	37.2	3.8	58.8	1,100
Northern	8.1	19.9	43.8	4.6	51.2	1,281
Lake	7.7	12.9	43.0	3.3	53.4	2,797
Region						
Dodoma	5.2	9.9	35.2	2.9	62.6	422
Arusha	6.9	21.2	47.2	3.5	48.2	331
Kilimanjaro	7.4	23.0	49.6	5.2	44.1	384
Tanga	9.2	17.0	37.9	4.7	57.7	566
Morogoro	20.0	26.4	56.9	11.3	35.9	399
Pwani	20.1	28.0	63.2	10.5	30.5	213
Dar es Salaam	25.7	61.5	60.4	17.6	16.9	1,084
Lindi	13.4	16.8	56.6	4.6	37.2	188
Mtwara	16.3	8.3	62.3	2.4	34.2	369
Ruvuma	13.5	22.9	49.4	5.5	42.5	684
Iringa	13.6	9.3	57.5	2.9	40.5	200
Mbeya	17.7	19.1	60.1	6.6	36.2	699
Singida	10.1	16.3	41.4	5.7	51.7	416
Tabora	10.3	8.1	49.4	1.0	45.4	432
Rukwa	9.0	14.8	36.4	3.4	58.0	187
Kigoma	17.4	28.6	56.3	8.4	31.2	458
Shinyanga	3.9	3.1	40.7	0.3	57.6	415
Kagera	8.7	19.8	53.3	3.2	41.7	448
Mwanza	14.5	22.9	56.4	7.5	39.2	570
Mara	8.9	15.3	43.3	4.6	52.5	433
Manyara	3.9	9.4	33.6	2.1	63.9	262
Njombe	11.6	17.8	54.5	7.2	38.5	271
Katavi	9.2	7.0	40.9	1.9	55.7	214
Simiyu	0.8	4.4	21.7	0.2	75.8	626
Geita	11.2	11.7	48.8	3.9	47.1	304
Kaskazini Unguja	6.0	11.0	54.1	1.9	42.2	42
Kusini Unguja	6.2	43.3	72.0	4.3	21.1	26
Mjini Magharibi	11.5	53.0	65.7	8.7	23.3	230
Kaskazini Pemba	4.1	25.1	57.9	2.8	37.0	47
Kusini Pemba	2.3	22.7	42.1	0.8	48.0	46
Education						
No education	0.2	4.9	30.7	0.0	67.6	1,955
Primary incomplete	5.3	11.8	40.8	1.5	54.2	1,380
Primary complete	12.4	20.9	52.1	5.3	40.7	5,713
Secondary+	29.2	47.8	66.3	17.2	20.9	1,919
Wealth quintile						
Lowest	3.9	2.7	25.8	0.5	71.6	1,864
Second	5.8	5.5	36.9	1.3	60.7	1,974
Middle	7.4	7.4	49.1	2.3	49.0	1,977
Fourth	12.2	12.4	56.4	3.7	38.7	2,257
Highest	25.5	61.6	67.6	16.9	14.6	2,895
Total	12.3	21.6	49.3	6.0	43.7	10,967

Table 3.3.2 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 2011-12

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
Age						
15-19	19.5	32.6	65.0	12.8	29.2	2,012
20-24	29.3	39.8	76.5	21.3	19.2	1,525
25-29	28.1	38.1	74.6	20.3	20.5	1,116
30-34	27.6	35.0	79.3	19.4	18.8	1,064
35-39	25.4	32.3	76.7	17.9	20.4	1,064
40-44	27.0	29.9	74.1	18.1	22.7	913
45-49	23.0	26.0	74.6	15.1	23.7	658
Residence						
Urban	54.2	70.5	84.7	44.1	7.9	2,142
Rural	15.3	21.6	69.6	8.4	27.7	6,210
Mainland/Zanzibar						
Mainland	25.1	32.9	73.1	17.2	23.0	8,079
Urban	54.7	69.9	84.5	44.3	8.0	2,066
Rural	14.9	20.2	69.1	7.9	28.2	6,013
Zanzibar	33.2	70.1	84.3	30.1	9.7	273
Unguja	39.0	78.1	92.4	36.4	3.5	204
Pemba	16.1	46.4	60.4	11.1	28.2	69
Zone						
Eastern	62.3	71.1	84.1	50.1	7.4	1,363
Western	12.2	17.2	60.4	5.2	35.7	736
Southern	18.8	25.2	80.9	12.6	17.1	371
Southern Highlands	27.9	28.2	91.8	16.3	7.0	818
Southwest Highlands	34.5	43.2	85.3	20.1	8.9	851
Central	12.3	23.9	65.7	7.6	32.0	908
Northern	14.9	27.5	68.7	11.4	28.6	855
Lake	11.7	19.2	62.2	6.8	35.2	2,178
Region						
Dodoma	18.7	26.6	71.9	11.7	24.5	342
Arusha	7.3	17.8	45.6	4.6	50.6	254
Kilimanjaro	12.8	26.2	77.8	10.0	20.9	256
Tanga	22.1	35.7	79.0	17.6	18.1	344
Morogoro	33.9	43.2	73.0	19.2	17.4	343
Pwani	46.9	50.9	80.0	30.4	11.5	166
Dar es Salaam	76.6	86.2	89.3	66.3	2.6	854
Lindi	12.9	29.5	74.8	9.5	21.1	129
Mtwara	22.0	22.9	84.2	14.2	15.0	242
Ruvuma	27.9	27.7	93.2	17.5	5.4	455
Iringa	39.5	33.8	88.2	20.9	9.1	153
Mbeya	36.2	50.8	88.7	23.4	4.5	557
Singida	13.6	30.0	78.3	8.6	20.3	328
Tabora	12.1	13.1	62.4	5.5	36.3	411
Rukwa	35.6	37.4	75.3	20.1	17.9	137
Kigoma	12.4	22.4	57.9	4.8	34.9	325
Shinyanga	6.1	15.0	52.4	3.2	44.8	327
Kagera	6.7	8.0	34.6	1.9	62.8	372
Mwanza	21.8	27.4	77.8	12.9	18.8	420
Mara	23.3	40.3	83.3	17.0	13.6	332
Manyara	1.3	11.5	39.5	0.1	58.9	238
Njombe	19.2	25.1	91.2	10.1	8.8	210
Katavi	27.6	21.4	82.2	8.8	16.9	157
Simiyu	3.8	13.1	59.2	2.2	39.2	477
Geita	9.2	10.9	67.2	3.8	30.2	250
Kaskazini Unguja	21.8	53.6	89.0	18.9	7.3	25
Kusini Unguja	23.3	67.3	88.7	19.1	5.5	20
Mjini Magharibi	43.7	83.4	93.4	41.4	2.6	159
Kaskazini Pemba	12.7	45.6	54.0	10.6	34.0	33
Kusini Pemba	19.1	47.2	66.2	11.6	22.8	36
Education						
No education	1.5	13.5	50.0	1.3	48.5	776
Primary incomplete	9.1	18.5	63.5	5.0	33.3	1,338
Primary complete	24.7	31.6	75.3	16.5	21.2	4,264
Secondary+	47.1	58.1	85.4	34.8	8.2	1,974
Wealth quintile						
Lowest	5.2	10.0	53.5	1.5	43.8	1,358
Second	10.0	15.3	66.5	5.0	30.9	1,532
Middle	14.6	17.5	73.0	6.7	25.4	1,590
Fourth	24.9	30.8	78.5	13.1	17.8	1,749
Highest	57.6	78.3	87.5	48.8	5.0	2,123
Total	25.3	34.1	73.5	17.6	22.6	8,352

3.5 MOBILE PHONE OWNERSHIP

Access to a mobile phone allows news and information to be shared, and is a practical tool in developing and maintaining business and personal relationships. As shown in Table 2.4 of Chapter 2, six in ten households in Tanzania possess at least one mobile telephone. To measure access to mobile phones at the individual level, THMIS respondents were asked whether they had a mobile phone.

Table 3.4 presents mobile phone ownership among women and men age 15-49, by background characteristics. Thirty-six percent of women and 53 percent of men own a mobile phone. For each background characteristic, ownership of mobile phones by men exceeds that of women. For example, in urban areas, 65 percent of women own a mobile phone compared with 74 percent of men; in rural areas, the difference is even more pronounced: 25 percent of women own a mobile phone compared with 46 percent of men. Mobile phone ownership positively correlates with education levels and wealth.

Table 3.4 Mobile phone ownership

Percentage of women and men age 15-49 who have a mobile phone, by background characteristics, Tanzania 2011-12

	Women		Men	
Background characteristic	Have a mobile phone	Number	Have a mobile phone	Number
Age				
15-19	16.0	2,414	22.6	2,012
20-24	36.2	1,888	56.2	1,525
25-29	44.3	1,902	65.2	1,116
30-34	46.1	1,497	66.9	1,064
35-39	42.1	1,435	69.0	1,064
40-44	40.4	1,023	62.6	913
45-49	37.3	808	58.2	658
Residence				
Urban	65.0	2,956	73.8	2,142
Rural	25.0	8,011	46.1	6,210
Mainland/Zanzibar				
Mainland	34.9	10,576	52.6	8,079
Urban	64.8	2,834	73.6	2,066
Rural	24.0	7,742	45.4	6,013
Zanzibar	57.9	391	70.9	273
Unguja	63.2	298	72.4	204
Pemba	41.0	93	66.7	69
Zone				
Eastern	61.9	1,696	75.2	1,363
Western	29.2	890	46.8	736
Southern	34.3	557	47.0	371
Southern Highlands	30.2	1,155	50.5	818
Southwest Highlands	24.6	1,101	50.5	851
Central	23.8	1,100	43.4	908
Northern	47.3	1,281	59.2	855
Lake	25.2	2,797	44.1	2,178
Education				
No education	15.0	1,955	35.5	776
Primary incomplete	21.1	1,380	36.6	1,338
Primary complete	39.4	5,713	56.7	4,264
Secondary+	56.6	1,919	63.8	1,974
Wealth quintile				
Lowest	9.0	1,864	22.6	1,358
Second	14.9	1,974	39.4	1,532
Middle	22.2	1,977	50.8	1,590
Fourth	42.1	2,257	61.2	1,749
Highest	71.5	2,895	77.8	2,123
Total	35.8	10,967	53.2	8,352

3.6 EMPLOYMENT STATUS

The 2011-12 THMIS asked respondents several questions about their current employment status and continuity of employment in the 12 months prior to the survey. Table 3.5.1 presents the proportion of women who were currently employed (i.e., who were working in the seven days preceding the survey), the proportion who were not currently employed but who had been employed at some time during the 12 months before the survey, and the proportion who had not been employed at any time during the 12-month period. Table 3.5.2 presents the same employment status data for men.

Overall, 80 percent of women reported that they are currently employed. An additional 2 percent of women were not currently employed but had worked in the 12 months preceding the survey. Among men, 85 percent are currently employed, and an additional 1 percent of men were not currently employed but had worked in the 12 months preceding the survey.

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 (85 and 67 percent, respectively). The proportion of women in Katavi who are currently employed (95 percent) exceeds that of women in all other regions. Women in Kaskazini Pemba and Kusini Pemba regions (50 and 49 percent, respectively) are the least likely to be employed.

About 92 percent of women who are divorced, separated, or widowed are employed compared with 89 percent of women who are married or living together as if married and 54 percent of women who have never married. Women with no education and those who are in the lowest wealth quintiles are more likely to be employed than educated women or women in the highest wealth quintile. For example, 89 percent of women with no education are currently employed compared with 53 percent of women who have secondary or higher education.

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 (88 and 76 percent, respectively). Virtually all men who are married or living together as if married are currently employed (99 percent). Ninety-eight percent of divorced, separated, or widowed men and 66 percent of never-married men are employed. Almost all men with no education are currently employed (99 percent) compared with 57 percent of men with secondary and higher education.

Eight percent of women and 13 percent of men were not employed in the 12 months preceding the survey but were going to school. One percent of women and men were looking for work, and 8 percent of women and less than one percent of men were engaged in house work and child care rather than formal employment.

Table 3.5.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Tanzania 2011-12

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey				Total	Number of women
	Currently employed[1]	Not currently employed	Going to school	Looking for work	Housework/ child care	Other		
Age								
15-19	55.1	2.1	32.6	0.9	9.0	0.2	100.0	2,414
20-24	75.6	3.1	6.0	1.6	13.2	0.5	100.0	1,888
25-29	86.4	1.9	1.1	0.5	9.7	0.5	100.0	1,902
30-34	89.7	1.9	0.1	0.1	7.8	0.4	100.0	1,497
35-39	92.8	1.6	0.2	0.0	5.2	0.3	100.0	1,435
40-44	93.0	1.8	0.0	0.0	5.0	0.2	100.0	1,023
45-49	93.9	2.1	0.0	0.0	2.9	1.1	100.0	808
Marital status								
Never married	54.1	1.8	32.6	1.8	9.0	0.6	100.0	2,798
Married or living together	88.5	2.2	0.2	0.1	8.7	0.3	100.0	6,910
Divorced/separated/widowed	92.0	2.0	0.0	0.0	5.2	0.7	100.0	1,258
Number of living children								
0	55.5	2.3	31.5	1.5	8.8	0.4	100.0	2,867
1-2	84.3	2.8	0.7	0.6	11.3	0.4	100.0	3,303
3-4	89.9	1.6	0.0	0.0	8.0	0.5	100.0	2,544
5+	94.2	1.5	0.0	0.0	4.0	0.3	100.0	2,253
Residence								
Urban	66.5	3.1	12.3	1.4	16.1	0.5	100.0	2,956
Rural	85.1	1.7	7.0	0.2	5.5	0.4	100.0	8,011
Mainland/Zanzibar								
Mainland	81.0	2.1	8.1	0.5	7.8	0.4	100.0	10,576
Urban	67.2	3.2	12.1	1.4	15.6	0.5	100.0	2,834
Rural	86.1	1.7	6.6	0.2	5.0	0.4	100.0	7,742
Zanzibar	55.4	2.4	18.1	1.4	22.4	0.2	100.0	391
Unguja	57.4	2.4	17.7	1.8	20.4	0.2	100.0	298
Pemba	49.2	2.3	19.2	0.3	28.9	0.2	100.0	93
Zone								
Eastern	66.6	2.4	10.0	2.8	17.9	0.3	100.0	1,696
Western	87.7	3.1	5.3	0.0	3.7	0.1	100.0	890
Southern	83.0	2.3	7.8	0.0	6.7	0.1	100.0	557
Southern Highlands	87.5	1.2	6.6	0.0	4.4	0.3	100.0	1,155
Southwest Highlands	88.1	1.4	8.8	0.0	1.4	0.3	100.0	1,101
Central	82.4	4.3	6.9	0.3	5.9	0.2	100.0	1,100
Northern	66.3	2.3	13.0	0.2	16.3	1.9	100.0	1,281
Lake	88.1	1.2	6.3	0.1	4.1	0.2	100.0	2,797
Region								
Dodoma	94.2	0.3	4.3	0.0	1.2	0.0	100.0	422
Arusha	53.8	5.6	12.5	0.0	28.1	0.0	100.0	331
Kilimanjaro	74.0	0.5	16.4	0.2	7.5	1.4	100.0	384
Tanga	68.4	1.7	11.0	0.3	15.4	3.3	100.0	566
Morogoro	80.2	0.7	7.9	0.2	10.4	0.5	100.0	399
Pwani	61.5	0.7	9.2	0.0	28.6	0.0	100.0	213
Dar es Salaam	62.6	3.4	11.0	4.2	18.6	0.2	100.0	1,084
Lindi	79.0	1.4	11.6	0.0	8.0	0.0	100.0	188
Mtwara	85.0	2.8	5.9	0.0	6.1	0.2	100.0	369
Ruvuma	86.2	1.2	5.7	0.0	6.5	0.3	100.0	684
Iringa	90.0	0.6	7.6	0.0	1.2	0.5	100.0	200
Mbeya	84.8	1.8	11.8	0.0	1.3	0.3	100.0	699
Singida	86.4	1.0	7.5	0.3	4.6	0.2	100.0	416
Tabora	86.9	2.3	6.3	0.0	4.3	0.2	100.0	432
Rukwa	92.2	0.9	4.3	0.0	2.0	0.4	100.0	187
Kigoma	88.4	3.9	4.4	0.0	3.2	0.1	100.0	458
Shinyanga	89.7	0.2	5.4	0.0	4.5	0.2	100.0	415
Kagera	89.7	0.2	6.6	0.0	3.0	0.2	100.0	448
Mwanza	82.4	2.1	7.2	0.0	7.9	0.4	100.0	570
Mara	83.8	1.8	7.5	0.6	6.3	0.0	100.0	433
Manyara	57.0	16.0	10.3	0.8	15.4	0.5	100.0	262
Njombe	88.9	1.3	8.3	0.0	1.5	0.0	100.0	271
Katavi	95.4	0.8	2.9	0.0	0.9	0.0	100.0	214
Simiyu	92.0	1.7	5.6	0.0	0.5	0.2	100.0	626
Geita	92.1	0.1	5.3	0.0	2.5	0.0	100.0	304
Kaskazini Unguja	66.2	2.8	14.5	0.0	15.8	0.7	100.0	42
Kusini Unguja	76.9	2.8	7.5	0.7	12.1	0.0	100.0	26
Mjini Magharibi	53.6	2.3	19.5	2.2	22.2	0.2	100.0	230
Kaskazini Pemba	49.5	0.8	19.2	0.2	29.9	0.4	100.0	47
Kusini Pemba	48.9	3.9	19.1	0.4	27.8	0.0	100.0	46
Education								
No education	89.1	2.3	0.0	0.0	8.3	0.4	100.0	1,955
Primary incomplete	80.1	1.9	10.0	0.2	7.0	0.8	100.0	1,380
Primary complete	86.2	2.3	1.7	0.4	9.0	0.4	100.0	5,713
Secondary+	52.9	1.6	35.9	2.0	7.5	0.1	100.0	1,919
Wealth quintile								
Lowest	87.1	1.7	3.6	0.0	7.3	0.4	100.0	1,864
Second	89.7	2.2	4.8	0.0	2.9	0.4	100.0	1,974
Middle	86.8	2.0	7.5	0.1	3.4	0.1	100.0	1,977
Fourth	80.0	1.9	9.0	0.5	8.0	0.5	100.0	2,257
Highest	64.6	2.5	14.2	1.6	16.5	0.6	100.0	2,895
Total	80.1	2.1	8.4	0.6	8.4	0.4	100.0	10,967

Note: Total includes 1 case in which the respondent has not been employed in the 12 months preceding the survey, but information on her main activity during this time period is missing.

[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 3.5.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Tanzania 2011-12

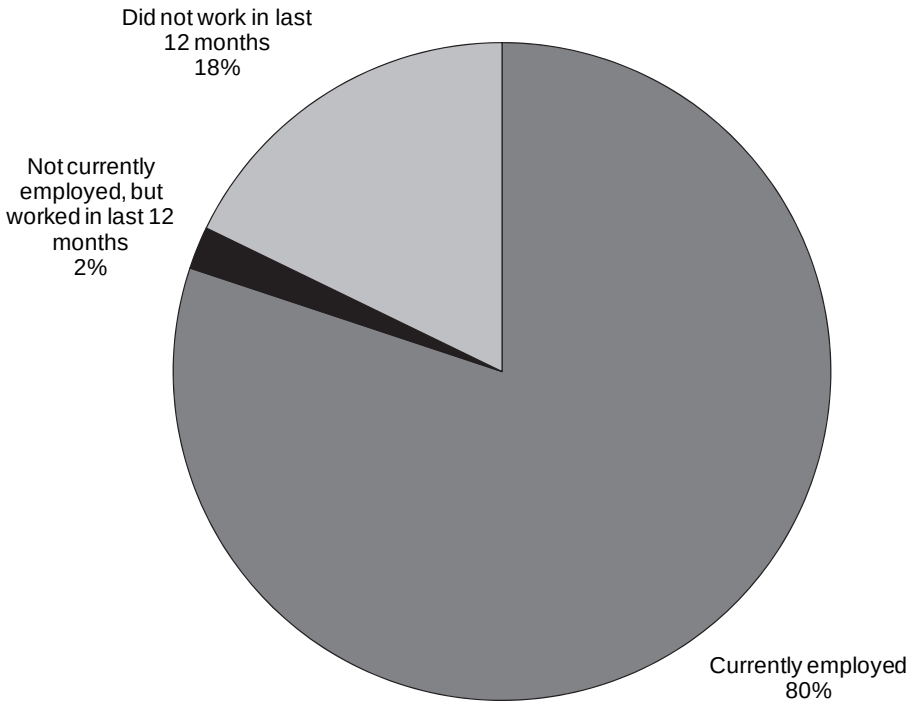
Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey				Total	Number of men
	Currently employed[1]	Not currently employed	Going to school	Looking for work	Housework/ child care	Other		
Age								
15-19	55.1	1.0	41.9	0.5	0.6	0.9	100.0	2,012
20-24	82.7	1.3	13.7	1.7	0.4	0.2	100.0	1,525
25-29	96.1	1.0	1.9	0.7	0.0	0.2	100.0	1,116
30-34	98.6	0.3	0.5	0.4	0.0	0.1	100.0	1,064
35-39	98.9	0.3	0.0	0.3	0.0	0.4	100.0	1,064
40-44	99.1	0.0	0.3	0.2	0.0	0.4	100.0	913
45-49	99.1	0.0	0.0	0.3	0.0	0.4	100.0	658
Marital status								
Never married	65.9	1.3	30.2	1.2	0.5	0.8	100.0	3,534
Married or living together	99.2	0.3	0.3	0.2	0.0	0.1	100.0	4,428
Divorced/separated/widowed	97.9	0.0	0.0	0.9	0.0	0.8	100.0	390
Number of living children								
0	68.0	1.3	28.3	1.2	0.5	0.7	100.0	3,752
1-2	98.3	0.3	0.7	0.4	0.0	0.2	100.0	1,776
3-4	98.8	0.2	0.3	0.2	0.0	0.4	100.0	1,393
5+	99.6	0.2	0.1	0.0	0.0	0.1	100.0	1,432
Residence								
Urban	75.5	1.4	20.0	2.0	0.3	0.8	100.0	2,142
Rural	88.3	0.4	10.5	0.2	0.2	0.3	100.0	6,210
Mainland/Zanzibar								
Mainland	85.3	0.6	12.7	0.6	0.2	0.4	100.0	8,079
Urban	75.7	1.3	19.9	1.9	0.3	0.8	100.0	2,066
Rural	88.7	0.4	10.2	0.2	0.2	0.3	100.0	6,013
Zanzibar	75.3	2.1	20.5	1.8	0.2	0.1	100.0	273
Unguja	78.3	1.1	19.4	1.2	0.0	0.0	100.0	204
Pemba	66.6	4.9	23.7	3.8	0.7	0.2	100.0	69
Zone								
Eastern	77.4	1.0	16.7	3.2	1.3	0.3	100.0	1,363
Western	87.4	1.5	8.8	0.0	0.0	2.2	100.0	736
Southern	85.4	0.0	14.4	0.0	0.2	0.0	100.0	371
Southern Highlands	86.6	0.0	12.8	0.0	0.0	0.3	100.0	818
Southwest Highlands	88.9	1.1	9.8	0.0	0.0	0.2	100.0	851
Central	88.4	0.1	10.9	0.0	0.0	0.5	100.0	908
Northern	85.3	1.4	12.9	0.4	0.0	0.0	100.0	855
Lake	86.5	0.2	12.9	0.1	0.0	0.2	100.0	2,178
Region								
Dodoma	92.2	0.0	7.3	0.0	0.0	0.6	100.0	342
Arusha	83.5	0.3	16.2	0.0	0.0	0.0	100.0	254
Kilimanjaro	81.2	1.8	15.7	1.3	0.0	0.0	100.0	256
Tanga	89.8	1.9	8.3	0.0	0.0	0.0	100.0	344
Morogoro	84.9	1.0	13.3	0.0	0.6	0.2	100.0	343
Pwani	72.4	0.0	21.4	0.6	5.6	0.0	100.0	166
Dar es Salaam	75.4	1.2	17.1	5.0	0.8	0.4	100.0	854
Lindi	90.7	0.0	9.3	0.0	0.0	0.0	100.0	129
Mtwara	82.6	0.0	17.1	0.0	0.3	0.0	100.0	242
Ruvuma	88.5	0.0	10.9	0.0	0.0	0.2	100.0	455
Iringa	78.7	0.0	20.6	0.0	0.0	0.6	100.0	153
Mbeya	88.2	0.8	11.0	0.0	0.0	0.0	100.0	557
Singida	88.1	0.2	11.4	0.0	0.0	0.3	100.0	328
Tabora	94.8	0.0	5.0	0.0	0.0	0.2	100.0	411
Rukwa	87.2	1.5	10.3	0.0	0.0	1.0	100.0	137
Kigoma	78.2	3.3	13.6	0.1	0.0	4.8	100.0	325
Shinyanga	95.7	0.5	3.8	0.0	0.0	0.0	100.0	327
Kagera	87.5	0.0	12.1	0.4	0.0	0.0	100.0	372
Mwanza	78.2	0.0	21.7	0.1	0.0	0.0	100.0	420
Mara	81.3	1.0	17.2	0.0	0.0	0.2	100.0	332
Manyara	83.6	0.2	15.6	0.0	0.0	0.7	100.0	238
Njombe	88.2	0.0	11.5	0.0	0.0	0.3	100.0	210
Katavi	92.7	1.7	5.4	0.0	0.0	0.3	100.0	157
Simiyu	90.5	0.0	8.5	0.0	0.0	0.7	100.0	477
Geita	85.8	0.0	13.9	0.0	0.0	0.3	100.0	250
Kaskazini Unguja	85.0	0.4	12.6	2.0	0.0	0.0	100.0	25
Kusini Unguja	87.5	0.9	11.6	0.0	0.0	0.0	100.0	20
Mjini Magharibi	76.1	1.3	21.4	1.2	0.0	0.0	100.0	159
Kaskazini Pemba	70.0	0.4	22.8	6.8	0.0	0.0	100.0	33
Kusini Pemba	63.5	9.1	24.5	1.1	1.4	0.4	100.0	36
Education								
No education	99.0	0.1	0.1	0.3	0.0	0.3	100.0	776
Primary incomplete	86.4	0.3	12.0	0.2	0.2	0.8	100.0	1,338
Primary complete	95.2	0.6	3.0	0.4	0.3	0.5	100.0	4,264
Secondary+	56.6	1.3	40.1	1.6	0.2	0.1	100.0	1,974
Wealth quintile								
Lowest	92.9	0.4	6.0	0.0	0.0	0.6	100.0	1,358
Second	92.5	0.2	6.7	0.2	0.1	0.2	100.0	1,532
Middle	87.4	0.3	11.7	0.1	0.1	0.2	100.0	1,590
Fourth	85.0	1.0	13.3	0.4	0.1	0.2	100.0	1,749
Highest	72.7	1.3	22.5	2.1	0.6	0.8	100.0	2,123
Total	85.0	0.7	12.9	0.7	0.2	0.4	100.0	8,352

Note: Total includes 4 cases in which the respondent has not been employed in the 12 months preceding the survey, but information on his main activity during this time period is missing.

[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 80 percent of women in Tanzania are currently employed; another 2 percent are not employed but worked in the past 12 months; and 18 percent did not work in the past 12 months.

Figure 3.1 **Women's employment status in the past 12 months**



THMIS 2011-12

3.7 CURRENT MARITAL STATUS

Marriage is a primary indicator of the regular exposure of women to sexual intercourse and the risk of pregnancy. Populations in which women marry at a young age tend to initiate early childbearing and, consequently, have high fertility. Marriage also exposes women and men to the risk of HIV as sexual intercourse is the primary means by which HIV is transmitted in Tanzania. The term 'marriage' refers to both formal and informal unions. Informal unions are those in which a man and a woman live together, intending to have a lasting relationship, even if a formal, civil, or religious ceremony has not been conducted. In later tables that do not list 'living together' as a separate category, these respondents are included in the 'currently married' group. Respondents who are currently married, widowed, divorced, or separated are referred to as 'ever married.'

Table 3.6 shows the percent distribution of women and men age 15-49 by marital status, according to age. Fifty-six percent of women and 48 percent of men are married, 7 percent of women and 5 percent of men are living together, and 12 percent of women and 5 percent of men are divorced, separated, or widowed. One in four women and four in ten men have never been married.

There are marked differentials in marital status by age and sex. For example, 22 percent of women age 15-19 are currently in union compared with 2 percent of men in the same age group. Among both women and men, the proportion currently married increases up to age 35-39 at which point it declines slightly. The percentage of women and men who are living together but are not married also increases with age, peaking at age 25-29 and 30-34 for women (10 percent) and age 25-29 and 30-34 for men (8 percent), before decreasing. As expected, the proportion of women and men who are divorced or widowed increases with age. Strikingly, however, 13 percent of women age 45-49 are widowed whereas only 1 percent of men are.

Table 3.6 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Tanzania 2011-12

Age	Marital status						Total	Percentage of respondents currently in union	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
					WOMEN				
15-19	76.5	17.8	3.9	1.2	0.4	0.2	100.0	21.7	2,414
20-24	31.1	52.2	8.8	5.2	2.1	0.6	100.0	60.9	1,888
25-29	10.5	67.3	10.1	6.8	3.9	1.4	100.0	77.4	1,902
30-34	5.3	71.3	10.4	7.1	2.8	3.1	100.0	81.7	1,497
35-39	2.6	73.3	8.0	8.0	3.5	4.7	100.0	81.3	1,435
40-44	2.8	71.6	5.1	8.9	2.9	8.8	100.0	76.7	1,023
45-49	2.3	68.7	4.3	9.3	2.9	12.5	100.0	72.9	808
Total 15-49	25.5	55.6	7.4	5.9	2.5	3.2	100.0	63.0	10,967
					MEN				
15-19	98.1	1.6	0.3	0.0	0.0	0.0	100.0	1.9	2,012
20-24	70.1	22.7	4.5	2.2	0.5	0.0	100.0	27.2	1,525
25-29	27.0	58.0	8.4	3.7	2.6	0.2	100.0	66.4	1,116
30-34	12.4	70.9	8.3	6.0	2.1	0.2	100.0	79.2	1,064
35-39	2.9	84.5	6.6	3.7	1.7	0.6	100.0	91.1	1,064
40-44	1.9	83.9	7.7	4.0	1.4	1.1	100.0	91.6	913
45-49	1.4	82.2	6.9	6.0	2.1	1.4	100.0	89.0	658
Total 15-49	42.3	47.7	5.3	3.1	1.3	0.4	100.0	53.0	8,352

3.8 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. Polygyny was measured by asking all currently married female respondents whether their husbands or partners had other wives, and if so, how many. Male respondents were asked whether they had more than one wife, and if so, how many.

Tables 3.7.1 and 3.7.2 show the distribution of married women by number of co-wives and the distribution of men by number of wives, respectively, according to background characteristics. A minority of Tanzanians are in polygynous marriages; about 22 percent of married women have co-wives and 11 percent of married 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 4 percent among men age 20-24 to 17 percent among men age 40-44 and age 45-49.

Table 3.7.1 Number of women's co-wives

Percent distribution of currently married women age 15-49 by number of co-wives, according to background characteristics, Tanzania 2011-12

Background characteristic	Number of co-wives					Total	Number of women
	0	1	2+	Don't know	Missing		
Age							
15-19	84.4	10.9	3.3	0.4	0.9	100.0	524
20-24	86.0	11.2	1.9	0.6	0.3	100.0	1,151
25-29	78.0	17.3	3.2	1.4	0.1	100.0	1,472
30-34	74.6	20.9	2.8	1.5	0.2	100.0	1,224
35-39	70.0	24.0	4.5	0.7	0.8	100.0	1,166
40-44	73.0	19.3	6.0	1.6	0.2	100.0	784
45-49	70.3	21.4	7.1	0.8	0.5	100.0	589
Residence							
Urban	85.7	11.1	0.8	1.8	0.6	100.0	1,535
Rural	74.0	20.1	4.6	0.9	0.3	100.0	5,376
Mainland/Zanzibar							
Mainland	76.8	17.9	3.8	1.1	0.4	100.0	6,700
Urban	86.1	10.8	0.6	1.9	0.6	100.0	1,474
Rural	74.2	19.9	4.7	0.9	0.3	100.0	5,226
Zanzibar	71.2	25.3	2.9	0.3	0.4	100.0	210
Unguja	71.5	25.0	2.7	0.4	0.5	100.0	155
Pemba	70.3	26.1	3.6	0.0	0.0	100.0	54
Zone							
Eastern	88.3	8.9	1.3	1.6	0.0	100.0	929
Western	81.1	15.3	3.4	0.2	0.0	100.0	526
Southern	76.8	18.4	3.2	0.2	1.3	100.0	365
Southern Highlands	73.4	21.9	2.6	1.5	0.5	100.0	733
Southwest Highlands	69.5	23.1	3.9	3.3	0.2	100.0	762
Central	78.9	15.4	4.0	1.6	0.1	100.0	761
Northern	77.0	17.8	4.6	0.4	0.2	100.0	781
Lake	73.2	20.5	5.4	0.3	0.7	100.0	1,843
Region							
Dodoma	77.8	16.9	5.3	0.0	0.0	100.0	315
Arusha	70.0	19.1	10.7	0.0	0.2	100.0	216
Kilimanjaro	93.9	5.4	0.0	0.0	0.7	100.0	195
Tanga	72.1	23.5	3.4	0.9	0.0	100.0	369
Morogoro	81.5	13.7	3.6	1.2	0.0	100.0	274
Pwani	84.1	14.2	1.4	0.0	0.3	100.0	137
Dar es Salaam	92.9	4.9	0.0	2.2	0.0	100.0	519
Lindi	83.2	14.1	2.8	0.0	0.0	100.0	119
Mtwara	73.7	20.5	3.4	0.4	2.0	100.0	246
Ruvuma	71.0	23.9	3.2	2.0	0.0	100.0	447
Iringa	77.7	16.7	1.1	1.3	3.2	100.0	118
Mbeya	65.0	26.4	4.2	4.4	0.0	100.0	478
Singida	81.3	14.7	2.0	2.0	0.0	100.0	268
Tabora	83.6	13.1	3.0	0.3	0.0	100.0	287
Rukwa	74.1	18.1	4.9	1.9	0.9	100.0	133
Kigoma	78.1	17.8	4.0	0.2	0.0	100.0	240
Shinyanga	73.2	20.5	4.0	0.0	2.4	100.0	270
Kagera	80.2	18.6	1.2	0.0	0.0	100.0	313
Mwanza	82.1	14.8	2.4	0.4	0.3	100.0	369
Mara	62.6	22.1	15.1	0.2	0.0	100.0	292
Manyara	77.3	13.8	4.9	3.7	0.4	100.0	178
Njombe	76.9	20.5	2.2	0.4	0.0	100.0	168
Katavi	79.7	17.1	1.9	1.1	0.2	100.0	151
Simiyu	69.3	24.4	5.2	0.0	1.1	100.0	396
Geita	69.0	23.3	5.5	1.4	0.8	100.0	203
Kaskazini Unguja	70.0	23.9	6.1	0.0	0.0	100.0	24
Kusini Unguja	72.7	22.6	3.4	1.2	0.0	100.0	16
Mjini Magharibi	71.6	25.5	1.9	0.3	0.7	100.0	115
Kaskazini Pemba	70.6	25.5	3.9	0.0	0.0	100.0	27
Kusini Pemba	70.0	26.8	3.2	0.0	0.0	100.0	27
Education							
No education	68.1	23.6	7.1	0.6	0.6	100.0	1,543
Primary incomplete	74.9	19.4	4.4	1.2	0.1	100.0	866
Primary complete	79.2	16.4	2.8	1.3	0.4	100.0	3,910
Secondary+	84.6	13.8	0.6	0.6	0.4	100.0	592
Wealth quintile							
Lowest	71.5	22.1	5.0	1.1	0.3	100.0	1,333
Second	74.7	19.4	4.7	0.8	0.5	100.0	1,372
Middle	74.2	20.0	4.5	0.9	0.4	100.0	1,303
Fourth	76.5	18.0	4.3	1.0	0.2	100.0	1,424
Highest	85.2	11.9	0.8	1.6	0.6	100.0	1,478
Total	76.6	18.1	3.8	1.1	0.4	100.0	6,910

Table 3.7.2 Number of men's wives

Percent distribution of currently married men age 15-49 by number of wives, according to background characteristics, Tanzania 2011-12

Background characteristic	Number of wives			Total	Number of men
	1	2+	Missing		
Age					
15-19	(100.0)	(0.0)	(0.0)	100.0	38
20-24	96.3	3.6	0.1	100.0	415
25-29	94.2	5.3	0.5	100.0	741
30-34	91.0	8.8	0.2	100.0	843
35-39	86.7	13.3	0.0	100.0	969
40-44	83.3	16.6	0.1	100.0	836
45-49	82.4	17.0	0.6	100.0	586
Residence					
Urban	96.1	3.7	0.2	100.0	956
Rural	86.5	13.3	0.3	100.0	3,472
Mainland/Zanzibar					
Mainland	88.7	11.1	0.2	100.0	4,306
Urban	96.4	3.5	0.2	100.0	925
Rural	86.5	13.2	0.3	100.0	3,381
Zanzibar	85.4	14.6	0.0	100.0	122
Unguja	86.9	13.1	0.0	100.0	92
Pemba	80.5	19.5	0.0	100.0	30
Zone					
Eastern	96.9	2.9	0.3	100.0	635
Western	91.5	8.1	0.3	100.0	379
Southern	93.7	6.3	0.0	100.0	218
Southern Highlands	85.9	14.1	0.0	100.0	458
Southwest Highlands	86.9	12.8	0.2	100.0	505
Central	90.0	10.0	0.0	100.0	488
Northern	82.8	17.2	0.0	100.0	436
Lake	85.8	13.7	0.5	100.0	1,187
Region					
Dodoma	85.2	14.8	0.0	100.0	206
Arusha	79.0	21.0	0.0	100.0	139
Kilimanjaro	98.9	1.1	0.0	100.0	102
Tanga	77.1	22.9	0.0	100.0	195
Morogoro	94.3	5.7	0.0	100.0	181
Pwani	96.2	3.0	0.8	100.0	76
Dar es Salaam	98.2	1.5	0.3	100.0	379
Lindi	89.7	10.3	0.0	100.0	73
Mtwara	95.7	4.3	0.0	100.0	145
Ruvuma	84.5	15.5	0.0	100.0	264
Iringa	87.3	12.7	0.0	100.0	72
Mbeya	86.4	13.6	0.0	100.0	308
Singida	91.3	8.7	0.0	100.0	170
Tabora	91.2	8.8	0.0	100.0	223
Rukwa	88.3	11.7	0.0	100.0	94
Kigoma	92.0	7.2	0.8	100.0	156
Shinyanga	87.2	12.8	0.0	100.0	186
Kagera	88.1	11.9	0.0	100.0	223
Mwanza	88.1	9.4	2.5	100.0	210
Mara	82.1	17.9	0.0	100.0	167
Manyara	96.7	3.3	0.0	100.0	111
Njombe	88.2	11.8	0.0	100.0	122
Katavi	87.2	11.6	1.1	100.0	104
Simiyu	82.4	17.6	0.0	100.0	267
Geita	87.9	11.3	0.8	100.0	135
Kaskazini Unguja	86.1	13.9	0.0	100.0	12
Kusini Unguja	80.3	19.7	0.0	100.0	11
Mjini Magharibi	88.1	11.9	0.0	100.0	69
Kaskazini Pemba	80.7	19.3	0.0	100.0	14
Kusini Pemba	80.3	19.7	0.0	100.0	16
Education					
No education	82.9	16.9	0.2	100.0	537
Primary incomplete	86.5	13.2	0.3	100.0	670
Primary complete	89.2	10.5	0.2	100.0	2,680
Secondary+	93.5	6.3	0.2	100.0	541
Wealth quintile					
Lowest	83.7	16.0	0.3	100.0	827
Second	87.5	12.1	0.4	100.0	919
Middle	86.4	13.3	0.3	100.0	879
Fourth	90.6	9.4	0.0	100.0	886
Highest	94.2	5.7	0.2	100.0	917
Total	88.6	11.2	0.2	100.0	4,428

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

Differentials in polygyny by residence are marked; polygynous unions for women (i.e., co-wives) are 12 percent in urban areas and 25 percent in rural areas. For men, the proportions are 4 percent and 13 percent, respectively. There are also large differentials across regions. Polygyny among married women is slightly higher in Zanzibar (28 percent) than in Mainland (22 percent). Men in Zanzibar are more likely than men in Mainland to be in polygynous unions (15 and 11 percent, respectively). Among regions, Mara has the highest proportion of women with co-wives (37 percent) while Dar es Salaam (5 percent) has the lowest proportion; Tanga has the highest proportion of men with two or more wives (23 percent) whereas Kilimanjaro has the lowest proportion (1 percent).

The practice of polygyny is inversely related to level of education. For example, 31 percent of women with no education have co-wives compared with 14 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 co-wives or wives, respectively, than those in households in the higher quintiles.

3.9 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 3.8 shows the percentages of women and men age 15–49 who were married by exact ages, and the median age at first marriage, according to their current age.

Table 3.8 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Tanzania 2011-12

	Percentage first married by exact age:					Percentage never married	Number of respondents	Median age at first marriage
Current age	15	18	20	22	25			
				WOMEN				
15-19	2.7	na	na	na	na	76.5	2,414	a
20-24	5.3	31.1	52.2	na	na	31.1	1,888	19.8
25-29	6.7	33.3	55.3	69.9	83.8	10.5	1,902	19.4
30-34	5.9	35.6	59.3	73.7	84.4	5.3	1,497	19.2
35-39	7.2	38.0	58.6	74.6	85.4	2.6	1,435	19.1
40-44	8.7	40.2	61.8	75.8	86.1	2.8	1,023	18.8
45-49	7.4	35.2	59.3	75.4	84.7	2.3	808	19.2
20-49	6.7	35.0	57.0	na	na	11.1	8,553	19.3
25-49	7.0	36.1	58.4	73.3	84.7	5.5	6,664	19.1
				MEN				
15-19	0.1	na	na	na	na	98.1	2,012	a
20-24	0.4	3.7	10.4	na	na	70.1	1,525	a
25-29	0.3	4.4	14.1	29.5	54.6	27.0	1,116	24.4
30-34	0.7	4.4	14.8	30.1	51.8	12.4	1,064	24.7
35-39	0.6	3.9	10.4	27.7	55.2	2.9	1,064	24.3
40-44	0.1	4.3	14.4	29.9	58.2	1.9	913	24.1
45-49	1.0	4.9	11.2	25.9	49.6	1.4	658	25.0
20-49	0.5	4.2	12.5	na	na	24.6	6,340	a
25-49	0.5	4.3	13.1	28.8	54.1	10.2	4,815	24.4

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 the women or men began living with their spouse/partner for the first time before reaching the beginning of the age group

Thirty-six percent of women age 25-49 married before their 18th birthday, and 58 percent married before age 20. In contrast, only 4 percent of men age 25-49 married before their 18th birthday, and 13 percent married before age 20. The median age at first marriage for women and men age 25-49 is 19.1 and 24.4 years, respectively, a difference of 5.3 years. The median age at first marriage has slightly increased from the figures reported in the 2007-08 THMIS (from 18.8 to 19.1 for women and from 24.3 to 24.4 for men).

3.10 CHARACTERISTICS OF COUPLES

Because the 2011-12 THMIS interviewed women and men in the same household, it is possible to link data for a woman with that of her husband. Data are available for 3,992 currently married couples. Figures 3.2 and 3.3 show the characteristics of these couples.

For the majority of couples, husbands are older than their wives. For 38 percent of couples, the husband is up to four years older than the wife, for 37 percent of couples, the husband is five to nine years older than the wife, and for 19 percent of couples, the husband is 10 or more years older than the wife. The husband is younger than his wife in only 5 percent of couples.

Figure 3.2 **Age difference between husband and wife**

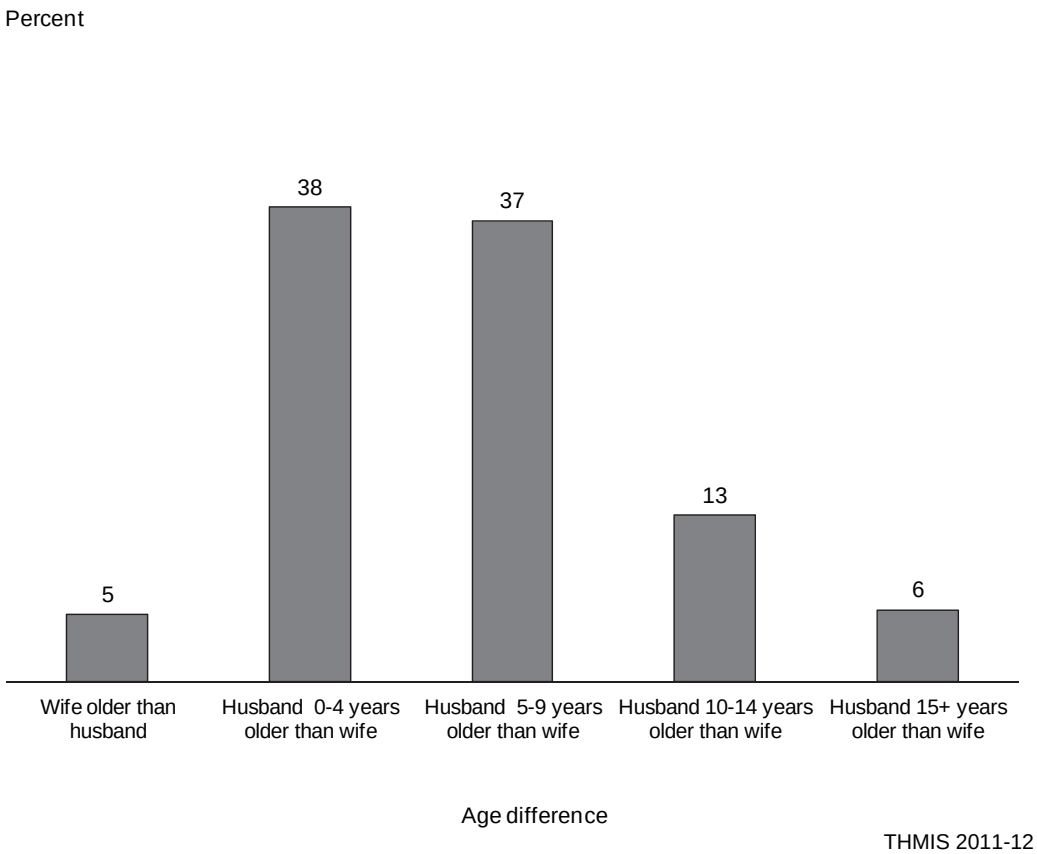
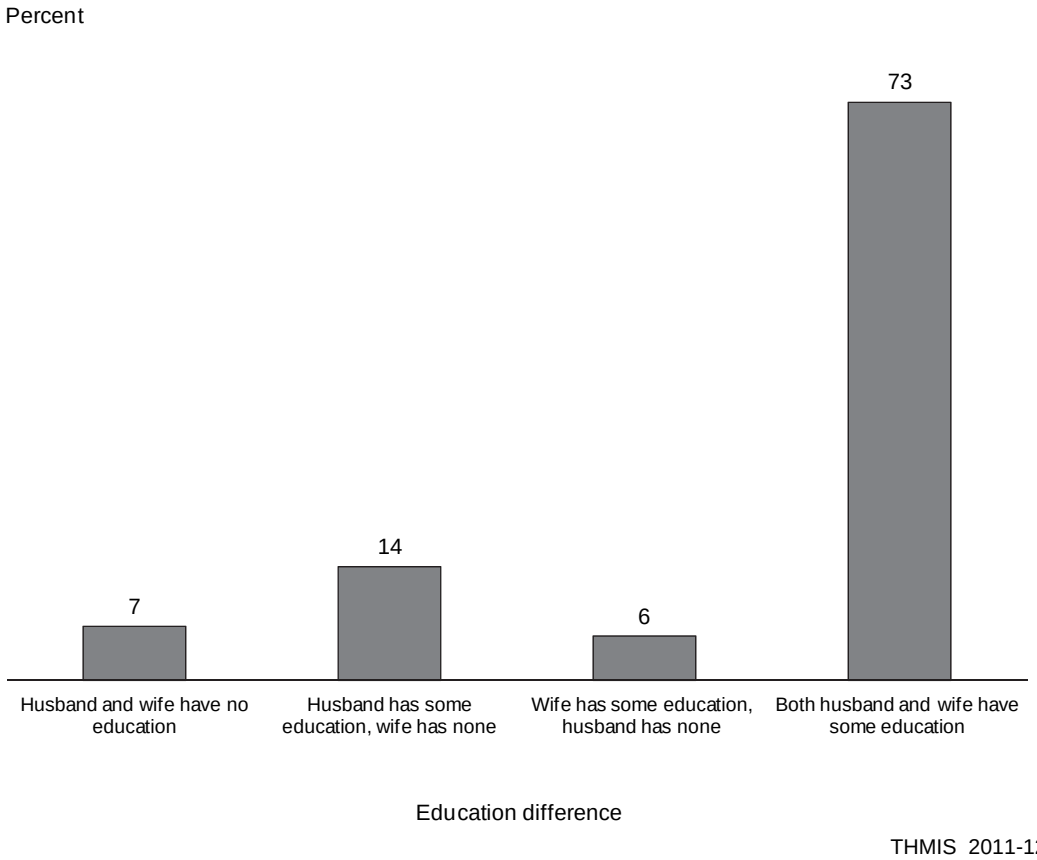


Figure 3.3 **Difference in education between husband and wife**



Regarding education differentials, seven in ten couples (73 percent) 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. Fourteen percent of couples reported that the husband has some education, while the wife has none. In contrast, in 6 percent of couples, the wife has some education and the husband has none.

3.11 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 2011-12 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 3.9.

The data show that while women and men both initiate sexual activity early, it is particularly the case for women. Ten percent of women age 20-49 first had sex before they were age 15, and five in ten (50 percent) had first sex before age 18. The median age at first sex for women age 20-49 is 18 years. Men initiate sexual activity somewhat later than women. Among men age 20-49, 6 percent had sex before they were age 15, 36 percent had sex before age 18, and 65 percent had sex by age 20. The median age at first sex for men age 20-49 is 18.7 years.

Comparison of the results of the 2011-12 THMIS with data from the 2007-08 THMIS indicates that there has been an increase in the age of sexual debut. The median age at first sex for women age 20-49 has increased from 17.3 to 18.0 years. For men, the change is smaller; the median age at first sex for men age 20-49 increased from 18.5 to 18.7 years.

Table 3.9 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 sexual intercourse, and median age at first sexual intercourse, according to current age, Tanzania 2011-12

	Percentage who had first sexual intercourse by exact age:					Percentage who never had intercourse		Median age at first intercourse
Current age	15	18	20	22	25		Number	
				WOMEN				
15-19	9.4	na	na	na	na	52.7	2,414	a
20-24	9.4	48.8	76.4	na	na	8.7	1,888	18.1
25-29	10.2	51.7	77.5	90.1	95.3	1.9	1,902	17.9
30-34	9.4	50.8	78.1	90.4	95.5	0.7	1,497	17.9
35-39	10.9	50.8	76.8	91.6	96.1	0.2	1,435	17.9
40-44	10.5	50.4	76.8	89.4	95.0	0.1	1,023	18.0
45-49	9.8	48.7	74.1	89.0	94.8	0.1	808	18.1
20-49	10.0	50.3	76.8	na	na	2.5	8,553	18.0
25-49	10.2	50.7	77.0	90.3	95.4	0.8	6,664	17.9
15-24	9.4	na	na	na	na	33.4	4,303	a
				MEN				
15-19	12.0	na	na	na	na	60.9	2,012	a
20-24	7.1	40.3	70.9	na	na	15.0	1,525	18.5
25-29	7.8	39.3	66.9	82.9	92.8	2.8	1,116	18.6
30-34	5.7	34.0	65.2	83.6	91.5	1.0	1,064	18.8
35-39	6.3	32.6	60.7	78.6	88.8	0.7	1,064	18.9
40-44	5.3	30.0	59.5	80.0	90.1	0.5	913	19.0
45-49	5.7	35.9	62.3	81.2	90.1	0.0	658	18.9
20-49	6.4	35.8	65.0	na	na	4.5	6,340	18.7
25-49	6.2	34.4	63.1	81.3	90.8	1.1	4,815	18.8
15-24	9.9	na	na	na	na	41.1	3,537	a

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

HIV/AIDS-RELATED KNOWLEDGE 4

Key Findings

- Knowledge of AIDS is universal, with almost 100 percent of all respondents having heard of AIDS.
- There is widespread knowledge of HIV/AIDS prevention methods. Sixty-nine percent of women and 77 percent of men know that a person's chance of getting the AIDS virus can be reduced by using condoms. Eighty-four percent of women and 87 percent of men know that the chance of becoming infected with the AIDS virus is reduced by limiting sexual intercourse to one uninfected partner who has no other partners.
- The vast majority of Tanzanian adults know that people infected with HIV do not necessarily show signs of infection. Eighty percent of women and 86 percent of men know that a healthy-looking person can have the virus that causes AIDS.
- Eighty-five percent of women and 79 percent of men know that HIV can be transmitted through breastfeeding; 68 percent of women and 63 percent of men know that the risk of mother-to-child transmission (MTCT) can be reduced by the mother taking special drugs during pregnancy.
- HIV/AIDS-related educational programmes have been developed and aired through the mass media; 48 percent of women and 62 percent of men have seen or heard an HIV programme on TV or on the radio or in a magazine in the past 12 months.

4.1 INTRODUCTION

The predominant mode of HIV transmission in Tanzania is through heterosexual contact, which accounts for more than 90 percent of new AIDS cases. It is 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 HIV transmission are through infected blood, blood products, donated organs or bone grafts and tissues, and unsafe injections.

The future direction of this pandemic depends in large part on the existing level of knowledge of how the virus spreads among different population groups, consequent changes in sexual behaviour, and efforts to prevent mother-to-child transmission. The information obtained from the 2011-12 Tanzania HIV/AIDS and Malaria Survey (THMIS) provides an opportunity to assess the level of knowledge regarding transmission of the AIDS virus. AIDS control programmes can then plan information, education, and communication (IEC) interventions targeting those individuals and groups most in need of information. Programs can also strengthen interventions aimed at preventing mother-to-child transmission (PMTCT).

The 2011-12 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.

4.2 HIV/AIDS KNOWLEDGE AND PREVENTION METHODS

Table 4.1 shows that knowledge of AIDS is nearly universal, with almost 100 percent of respondents having heard of AIDS.

Table 4.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Tanzania 2011-12

Background characteristic	Women		Men	
	Has heard of AIDS	Number of women	Has heard of AIDS	Number of men
Age				
15-24	98.5	4,303	99.3	3,537
15-19	98.0	2,414	98.8	2,012
20-24	99.1	1,888	100.0	1,525
25-29	99.5	1,902	99.8	1,116
30-39	99.4	2,932	99.8	2,128
40-49	99.8	1,831	99.9	1,571
Marital status				
Never married	98.5	2,798	99.2	3,534
Ever had sex	99.1	1,303	99.8	2,022
Never had sex	98.0	1,495	98.5	1,513
Married/living together	99.3	6,910	99.9	4,428
Divorced/separated/widowed	99.7	1,258	99.8	390
Residence				
Urban	99.8	2,956	100.0	2,142
Rural	98.9	8,011	99.5	6,210
Mainland/Zanzibar				
Mainland	99.1	10,576	99.6	8,079
Urban	99.8	2,834	100.0	2,066
Rural	98.9	7,742	99.5	6,013
Zanzibar	100.0	391	100.0	273
Unguja	100.0	298	99.9	204
Pemba	100.0	93	100.0	69
Zone				
Eastern	100.0	1,696	100.0	1,363
Western	100.0	890	100.0	736
Southern	99.7	557	100.0	371
Southern Highlands	99.8	1,155	99.9	818
Southwest Highlands	98.1	1,101	99.8	851
Central	98.3	1,100	99.5	908
Northern	97.9	1,281	99.2	855
Lake	99.1	2,797	99.2	2,178
Education				
No education	97.1	1,955	98.3	776
Primary incomplete	98.8	1,380	99.1	1,338
Primary complete	99.6	5,713	99.9	4,264
Secondary+	100.0	1,919	99.9	1,974
Wealth quintile				
Lowest	97.5	1,864	99.2	1,358
Second	98.7	1,974	99.3	1,532
Middle	99.6	1,977	99.4	1,590
Fourth	99.7	2,257	100.0	1,749
Highest	99.7	2,895	100.0	2,123
Total	99.1	10,967	99.6	8,352

In Tanzania, HIV/AIDS prevention programs focus messages and efforts on three important aspects of behaviour: using condoms, limiting the number of sexual partners (or staying faithful to one partner), and delaying sexual debut (abstinence) of the young and the never married. To ascertain whether programmes have effectively communicated at least two of these messages, respondents were prompted with specific questions about whether it is possible to reduce the chance of getting the AIDS virus by having just one faithful sexual partner and using a condom every time one has sexual intercourse.

As shown in Table 4.2, there is widespread knowledge of HIV prevention methods. Sixty-nine percent of women and 77 percent of men know that the chance of contracting HIV is reduced by using condoms. Eighty-four percent of women and 87 percent of men know that the chance of becoming infected with the AIDS virus is reduced by limiting sexual intercourse to one uninfected partner who has no other partners. The table also shows that 63 percent of women and 71 percent of men know that using condoms and limiting sexual intercourse to one uninfected partner are ways of reducing the risk of getting the AIDS virus.

There are notable differences in knowledge of HIV prevention. Although age differentials are inconsistent, youth age 15-19 appear to have lower levels of knowledge than those in older age groups. Knowledge of HIV prevention methods is lowest among those who have never had sex. Levels of knowledge of preventive methods are higher in urban than in rural areas. Overall, respondents in the Mainland are more likely than those in Zanzibar to be aware of various HIV prevention methods. For instance, 72 percent of men on the Mainland and 39 percent in Zanzibar are aware that both condom use and limiting sex to one partner reduces the risk of contracting HIV. As expected, better educated women and men and those in higher wealth quintiles are more likely than other respondents to be aware of prevention methods.

Table 4.2 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, and by having one sex partner who is not infected and has no other partners, by background characteristics, Tanzania 2011-12

	Women				Men			
	Percentage who say HIV can be prevented by:				Percentage who say HIV can be prevented by:			
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]	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]	Number of men
Age								
15-24	65.1	79.9	58.7	4,303	74.5	82.0	65.8	3,537
15-19	59.4	76.4	52.9	2,414	71.5	77.5	60.7	2,012
20-24	72.3	84.5	66.1	1,888	78.6	88.0	72.6	1,525
25-29	74.3	86.9	69.1	1,902	78.4	90.9	73.3	1,116
30-39	73.2	87.1	67.5	2,932	78.4	90.5	73.6	2,128
40-49	68.3	84.4	60.9	1,831	79.7	91.1	74.7	1,571
Marital status								
Never married	64.9	81.6	59.3	2,798	75.2	82.6	66.9	3,534
Ever had sex	80.8	88.3	75.5	1,303	82.6	88.5	76.0	2,022
Never had sex	51.0	75.9	45.3	1,495	65.3	74.7	54.7	1,513
Married/living together	69.9	84.5	63.9	6,910	77.5	90.4	72.3	4,428
Divorced/separated/widowed	76.4	85.1	68.4	1,258	88.4	90.2	81.6	390
Residence								
Urban	78.2	92.6	74.7	2,956	78.6	92.6	74.3	2,142
Rural	66.1	80.6	59.0	8,011	76.5	85.2	69.1	6,210
Mainland/Zanzibar								
Mainland	69.9	83.5	63.6	10,576	78.2	87.1	71.5	8,079
Urban	79.3	92.5	75.6	2,834	79.7	92.6	75.4	2,066
Rural	66.4	80.2	59.1	7,742	77.7	85.2	70.2	6,013
Zanzibar	56.1	92.3	54.8	391	42.2	87.1	38.5	273
Unguja	55.5	92.1	54.2	298	39.2	88.3	36.5	204
Pemba	58.1	92.9	56.6	93	51.1	83.4	44.3	69
Zone								
Eastern	81.0	93.7	78.5	1,696	80.7	91.3	75.3	1,363
Western	72.3	89.3	67.8	890	74.1	86.5	68.3	736
Southern	81.6	89.5	76.4	557	86.0	94.5	81.8	371
Southern Highlands	76.5	85.0	69.5	1,155	82.6	89.1	76.4	818
Southwest Highlands	55.0	72.5	46.6	1,101	86.3	94.4	83.1	851
Central	66.1	84.4	62.6	1,100	76.9	86.6	71.1	908
Northern	55.5	86.0	52.0	1,281	73.8	88.6	71.3	855
Lake	71.1	76.5	60.5	2,797	74.1	79.3	62.4	2,178
Education								
No education	52.4	71.0	44.4	1,955	60.4	73.8	51.3	776
Primary incomplete	64.0	78.7	55.9	1,380	71.7	78.7	61.3	1,338
Primary complete	74.1	86.2	68.1	5,713	81.2	89.6	75.1	4,264
Secondary+	76.4	93.3	73.4	1,919	78.1	92.5	74.2	1,974
Wealth quintile								
Lowest	58.2	74.6	50.7	1,864	74.1	80.0	65.9	1,358
Second	64.9	79.0	56.7	1,974	74.8	82.7	65.8	1,532
Middle	68.6	80.9	61.1	1,977	78.8	86.1	70.8	1,590
Fourth	72.7	85.5	66.3	2,257	77.1	89.6	71.4	1,749
Highest	77.6	93.7	74.9	2,895	79.1	93.5	75.7	2,123
Total	69.4	83.8	63.2	10,967	77.0	87.1	70.5	8,352

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

4.3 REJECTION OF MISCONCEPTIONS ABOUT HIV/AIDS

The 2011-12 THMIS also asked about common misconceptions regarding HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person to have the AIDS virus. Results for women and men are presented in Tables 4.3.1 and 4.3.2. The tables also present the percentages of the population that correctly reject the common misconceptions about transmission of the AIDS virus. Respondents were asked whether a person can get the AIDS virus from mosquito bites, from supernatural means, or from sharing food with a person who has AIDS.

The vast majority of Tanzanian adults know that people infected with HIV do not necessarily show signs of infection. Eighty percent of women and 86 percent of men know that a healthy-looking person can have the virus that causes AIDS. There are minimal differences by sex in misconceptions about HIV transmission: nearly 8 in ten respondents (80 percent of women and men) understand that the AIDS virus cannot be transmitted by mosquito bites, and 85 percent of women and 89 percent of men know that the AIDS virus cannot be transmitted by supernatural means. Similarly, 86 percent of women and 87 percent of men know that a person cannot become infected with the AIDS virus by sharing food with a person who has AIDS. A majority of respondents (59 percent of women and 65 percent of men) know that a healthy-looking person can have the AIDS virus and reject the two most common misconceptions about transmission. These findings represent a slight improvement relative to the results of the 2007-08 THMIS, in which 55 percent of women and 59 percent of men reported that a healthy-looking person can have the AIDS virus and rejected the two most common misconceptions about HIV transmission.

Comprehensive knowledge about AIDS is defined as (1) knowing that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods, (2) being aware that a healthy-looking person can be infected with the AIDS virus, and (3) rejecting the two most common local misconceptions—that the AIDS virus can be transmitted through mosquito bites and by supernatural means. The 2011-12 THMIS reveals that comprehensive knowledge about AIDS is low and has changed little from the results reported in the 2007-08 THMIS. Tables 4.3.1 and 4.3.2 show that 42 percent of women and 50 percent of men have comprehensive knowledge about HIV/AIDS transmission and prevention methods. Comprehensive knowledge about AIDS varies with respondent's age, education, wealth, and residence. The youngest (age 15-19) respondents and the oldest (age 40-49) respondents are the least likely to have comprehensive knowledge about AIDS. As expected, women and men with higher levels of schooling, those from the wealthier households, and those in urban areas are more likely than other respondents to have comprehensive knowledge about HIV/AIDS.

The percentage of women and men who have a comprehensive knowledge about AIDS is lower in Zanzibar than in Mainland Tanzania (37 percent compared with 42 percent for women, and 30 percent compared with 50 percent for men, respectively).

The 2011-12 THMIS respondents were also asked whether AIDS can be cured. This is a country-specific question that was last asked in the 1996 TDHS. As shown in Tables 4.3.1 and 4.3.2, 7 percent of women and 6 percent of men believe AIDS can be cured. In the 1996 TDHS, only 2 percent of women and 2 percent of men believed AIDS can be cured. In interpreting these results, the possibility that the respondent was confused by the question cannot be ruled out. For example, a respondent may be aware that medicines exist to treat a person infected with HIV and may have confused such treatment with a cure for AIDS.

Table 4.3.1 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 transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Tanzania 2011-12

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 misconceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Percentage who say that AIDS can be cured	Number of women
	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS				
Age								
15-24	76.3	82.3	87.0	85.7	59.0	40.1	6.9	4,303
15-19	74.4	82.7	87.5	84.6	59.1	36.8	6.8	2,414
20-24	78.6	81.7	86.3	87.2	58.9	44.2	7.1	1,888
25-29	81.5	81.0	84.2	86.6	61.3	47.1	7.4	1,902
30-39	82.8	78.2	83.7	85.9	58.7	44.2	6.1	2,932
40-49	82.5	75.9	80.5	85.6	55.1	38.0	8.1	1,831
Marital status								
Never married	79.5	86.0	89.2	88.3	64.9	44.5	6.6	2,798
Ever had sex	85.5	88.8	91.8	91.4	72.9	59.4	6.2	1,303
Never had sex	74.2	83.6	86.9	85.6	58.0	31.6	7.0	1,495
Married/living together	79.9	78.0	83.0	84.9	56.3	40.8	7.0	6,910
Divorced/separated/widowed	81.2	76.9	82.7	86.2	57.5	43.5	7.7	1,258
Residence								
Urban	88.9	86.8	88.3	93.1	70.1	55.0	8.0	2,956
Rural	76.7	77.4	83.1	83.2	54.4	37.3	6.6	8,011
Mainland/Zanzibar								
Mainland	79.4	79.7	85.1	85.7	58.6	42.2	7.1	10,576
Urban	88.6	86.7	89.0	93.1	70.4	55.8	8.1	2,834
Rural	76.0	77.1	83.7	83.0	54.3	37.3	6.7	7,742
Zanzibar	95.2	85.4	68.7	92.1	59.3	36.6	4.2	391
Unguja	95.7	87.2	68.0	92.8	59.8	36.2	4.6	298
Pemba	93.5	79.3	70.8	89.9	57.7	37.7	2.8	93
Zone								
Eastern	86.4	87.3	87.9	92.6	69.9	59.1	5.2	1,696
Western	81.4	80.2	87.3	90.4	59.0	43.9	6.1	890
Southern	83.9	80.6	82.1	87.7	62.4	51.6	20.2	557
Southern Highlands	81.7	79.0	82.8	86.9	56.6	42.9	10.6	1,155
Southwest Highlands	82.2	79.1	83.6	86.2	59.5	29.6	5.2	1,101
Central	72.9	78.2	86.7	78.9	57.2	42.6	6.7	1,100
Northern	79.1	75.7	86.1	82.2	60.1	38.6	7.4	1,281
Lake	74.2	77.7	83.8	83.1	51.3	35.9	5.2	2,797

Continued…

Table 4.3.1—*Continued*

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 transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of women who say that: A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus 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]	Percentage who say that AIDS can be cured	Number of women
Region								
Dodoma	71.6	73.2	89.0	77.9	56.2	43.7	8.2	422
Arusha	78.2	72.2	85.0	76.5	55.6	42.2	6.2	331
Kilimanjaro	91.0	82.9	89.4	88.3	70.0	40.4	6.8	384
Tanga	71.5	72.8	84.4	81.5	56.1	35.4	8.5	566
Morogoro	73.2	81.8	88.1	86.5	58.7	48.9	3.9	399
Pwani	90.4	84.2	89.2	93.5	71.0	60.4	1.7	213
Dar es Salaam	90.5	89.9	87.6	94.6	73.8	62.5	6.4	1,084
Lindi	85.2	84.1	84.5	90.1	65.2	58.1	14.0	188
Mtwara	83.3	78.8	80.9	86.5	60.9	48.3	23.4	369
Ruvuma	81.6	78.4	82.9	86.4	55.6	43.0	9.2	684
Iringa	91.4	82.5	88.9	92.8	70.4	48.3	5.6	200
Mbeya	82.2	81.2	85.2	88.0	61.5	27.6	6.6	699
Singida	71.2	84.8	82.2	82.4	57.1	43.5	5.7	416
Tabora	79.9	81.0	89.1	90.2	61.5	53.2	5.8	432
Rukwa	82.7	75.9	84.6	85.4	58.7	39.2	3.3	187
Kigoma	82.9	79.4	85.6	90.6	56.6	35.1	6.3	458
Shinyanga	64.0	81.1	87.3	90.5	46.4	39.3	5.9	415
Kagera	85.8	87.1	96.8	93.7	72.6	54.4	5.7	448
Mwanza	72.9	81.2	81.7	82.4	53.0	39.1	4.8	570
Mara	84.9	73.7	88.3	83.0	56.1	34.7	3.8	433
Manyara	77.6	75.8	90.3	74.8	59.1	39.2	6.1	262
Njombe	74.9	78.0	78.1	83.8	49.0	38.7	17.7	271
Katavi	82.0	75.1	77.6	80.9	53.4	27.7	1.9	214
Simiyu	68.7	67.6	75.3	72.3	37.9	19.6	5.4	626
Geita	69.3	79.3	74.9	81.2	44.1	32.8	6.2	304
Kaskazini Unguja	90.6	71.7	51.8	83.4	38.9	20.3	6.5	42
Kusini Unguja	94.1	86.2	69.4	94.6	60.1	36.3	10.3	26
Mjini Magharibi	96.9	90.2	70.8	94.3	63.6	39.2	3.6	230
Kaskazini Pemba	92.1	76.2	65.2	87.5	50.7	33.2	3.9	47
Kusini Pemba	95.0	82.6	76.5	92.5	64.9	42.4	1.6	46
Education								
No education	62.6	64.7	73.1	73.5	35.3	20.3	6.1	1,955
Primary incomplete	75.6	73.2	77.3	79.2	47.8	31.2	7.4	1,380
Primary complete	83.1	82.9	87.7	88.4	63.0	46.2	7.3	5,713
Secondary+	91.4	91.2	92.0	95.9	77.5	59.6	6.5	1,919
Wealth quintile								
Lowest	64.2	70.7	78.5	76.3	42.4	26.8	7.1	1,864
Second	74.4	75.6	83.3	82.0	51.5	34.8	7.0	1,974
Middle	80.0	78.2	83.5	84.5	56.4	37.8	7.2	1,977
Fourth	84.4	81.3	86.5	88.6	62.0	45.1	6.9	2,257
Highest	90.5	88.8	88.5	93.6	72.9	57.3	6.7	2,895
Total	80.0	79.9	84.5	85.9	58.7	42.0	7.0	10,967

[1] Two most common local misconceptions determined upon the population of women and men combined: the AIDS virus can be transmitted through mosquito bites and 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 chance 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 transmission or prevention of the AIDS virus.

Table 4.3.2 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 transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of men who say that: A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus 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]	Percentage who say that AIDS can be cured	Number of men
Age								
15-24	82.2	82.1	88.6	85.5	63.9	46.7	6.1	3,537
15-19	78.9	81.6	87.0	82.6	60.8	41.9	6.3	2,012
20-24	86.5	82.8	90.6	89.3	68.0	53.0	5.9	1,525
25-29	89.5	80.1	90.7	89.4	68.0	52.3	6.4	1,116
30-39	89.1	78.9	88.5	87.4	66.6	52.1	5.8	2,128
40-49	89.8	74.4	87.6	86.2	63.1	50.8	7.1	1,571
Marital status								
Never married	83.2	83.3	89.2	86.1	66.0	48.7	6.4	3,534
Ever had sex	87.7	84.8	91.1	88.3	70.2	56.9	6.2	2,022
Never had sex	77.2	81.4	86.7	83.2	60.3	37.7	6.8	1,513
Married/living together	88.4	77.0	88.3	86.9	64.4	50.1	6.2	4,428
Divorced/separated/widowed	91.5	75.3	88.1	88.7	62.3	52.4	6.0	390
Residence								
Urban	94.7	85.9	91.3	92.7	75.6	57.8	6.2	2,142
Rural	83.5	77.4	87.7	84.5	61.3	46.8	6.3	6,210
Mainland/Zanzibar								
Mainland	86.1	79.4	88.7	86.4	64.7	50.3	6.3	8,079
Urban	94.6	85.7	91.3	92.7	75.4	58.6	6.2	2,066
Rural	83.2	77.2	87.8	84.3	61.0	47.4	6.3	6,013
Zanzibar	93.3	85.2	86.9	92.3	73.0	30.1	6.4	273
Unguja	97.5	86.6	88.6	92.3	77.7	30.4	3.8	204
Pemba	81.1	81.3	82.1	92.0	59.1	29.3	14.3	69
Zone								
Eastern	95.4	83.2	90.1	90.6	73.9	57.2	5.9	1,363
Western	84.4	77.9	88.7	87.5	60.5	44.0	3.7	736
Southern	93.9	78.3	83.4	86.2	66.4	56.1	14.7	371
Southern Highlands	89.5	81.0	89.5	90.0	68.0	55.5	6.7	818
Southwest Highlands	93.1	83.0	92.3	89.2	74.3	63.9	4.9	851
Central	81.1	76.7	87.3	80.1	60.0	47.0	5.7	908
Northern	82.8	76.9	84.7	80.1	61.4	50.7	5.2	855
Lake	78.9	77.7	89.2	86.2	58.3	40.9	6.9	2,178

Continued...

Table 4.3.2—*Continued*

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 transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of men who say that:				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]	Percentage who say that AIDS can be cured	Number of men
	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS				
Region								
Dodoma	86.7	72.5	89.2	77.1	59.7	42.1	6.8	342
Arusha	75.0	75.7	77.4	76.2	57.4	53.0	3.2	254
Kilimanjaro	93.3	82.2	88.2	85.4	68.6	51.5	5.8	256
Tanga	80.9	74.0	87.5	79.0	59.0	48.4	6.3	344
Morogoro	91.9	72.4	86.1	79.1	61.9	47.9	4.3	343
Pwani	95.2	81.8	83.6	86.1	70.0	50.0	6.5	166
Dar es Salaam	96.8	87.9	92.9	96.1	79.4	62.3	6.5	854
Lindi	93.5	73.6	80.6	87.2	62.3	57.7	10.2	129
Mtwara	94.0	80.9	84.8	85.7	68.7	55.2	17.0	242
Ruvuma	90.1	78.7	91.0	89.3	66.2	54.3	4.6	455
Iringa	86.5	87.7	86.3	92.2	72.6	64.4	6.1	153
Mbeya	96.0	85.5	92.5	90.4	79.1	67.9	5.8	557
Singida	76.6	82.1	85.8	85.7	60.8	47.0	6.6	328
Tabora	76.8	80.5	91.1	91.8	57.8	45.3	4.1	411
Rukwa	84.4	74.4	92.6	83.9	61.1	50.1	1.9	137
Kigoma	94.1	74.5	85.6	82.0	63.9	42.3	3.2	325
Shinyanga	73.3	81.7	90.2	93.0	57.4	46.7	2.4	327
Kagera	85.6	76.4	93.7	86.7	64.9	44.0	9.6	372
Mwanza	77.0	77.9	88.2	85.1	55.9	35.4	7.3	420
Mara	82.1	73.0	91.6	88.7	57.2	44.7	8.7	332
Manyara	79.4	75.3	86.7	76.8	59.5	54.3	3.0	238
Njombe	90.3	81.0	88.6	90.1	68.5	51.8	11.6	210
Katavi	90.2	81.8	91.4	89.6	68.9	61.7	4.2	157
Simiyu	74.2	78.9	86.6	83.3	56.5	37.8	8.6	477
Geita	84.5	78.3	84.3	80.6	59.1	39.2	2.9	250
Kaskazini Unguja	95.3	75.6	84.0	90.4	65.2	23.1	4.2	25
Kusini Unguja	96.5	87.2	85.9	95.2	76.8	43.3	7.8	20
Mjini Magharibi	98.0	88.2	89.6	92.3	79.8	30.0	3.2	159
Kaskazini Pemba	81.4	76.7	80.2	92.2	56.5	25.1	13.6	33
Kusini Pemba	80.8	85.4	83.9	91.9	61.5	33.2	14.9	36
Education								
No education	67.9	58.0	73.3	67.3	36.1	24.3	6.5	776
Primary incomplete	78.4	72.3	83.6	79.4	51.6	35.9	7.9	1,338
Primary complete	88.8	80.9	90.5	88.5	66.9	52.9	6.0	4,264
Secondary+	93.8	90.3	94.1	95.1	81.1	61.7	5.5	1,974
Wealth quintile								
Lowest	74.2	69.9	83.4	76.7	49.7	38.7	6.9	1,358
Second	83.2	75.5	85.9	82.2	58.4	43.2	6.4	1,532
Middle	85.3	78.4	89.0	86.3	62.7	47.8	6.2	1,590
Fourth	88.8	82.7	89.6	89.4	69.1	51.9	6.8	1,749
Highest	95.2	87.0	92.9	94.1	77.7	60.6	5.4	2,123
Total	86.4	79.6	88.6	86.6	65.0	49.6	6.3	8,352

[1] Two most common local misconceptions determined upon the population of women and men combined: the AIDS virus can be transmitted through mosquito bites and 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 chance 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 transmission or prevention of the AIDS virus.

4.4 KNOWLEDGE OF MOTHER-TO-CHILD TRANSMISSION

Increasing the level of general knowledge of HIV transmission from mother to child and reducing the risk of transmission using antiretroviral drugs (ARTs) is critical to reducing mother-to-child transmission (MTCT) of HIV during pregnancy, delivery, and breastfeeding. To assess MTCT knowledge, respondents were asked if the virus that causes AIDS can be transmitted from a mother to a child through breastfeeding and whether a mother infected with the AIDS virus can reduce the risk of transmission to the baby by taking certain drugs during pregnancy. In the context of this report, respondents who know that HIV can be transmitted by breastfeeding and that the risk of MTCT can be reduced by the mother taking special drugs during pregnancy are described as having a comprehensive knowledge of prevention of MTCT.

As shown in Table 4.4, 85 percent of women and 79 percent of men know that HIV can be transmitted through breastfeeding. Somewhat fewer (68 percent of women and 63 percent of men) know that the risk of MTCT can be reduced through the use of ARTs during pregnancy. Sixty-four percent of women and 55 percent of men are aware both that HIV can be transmitted through breastfeeding and that the risk of MTCT can be reduced by taking ARTs. These results represent an increase from those reported in the 2007-08 THMIS (49 percent of women and 38 percent of men).

There are notable differences in knowledge of MTCT among women and men by age, marital status, education, and wealth. Women and men age 15-19 are less knowledgeable than older age groups about MTCT prevention. Whereas 66 percent of married women and 59 percent of married men have a comprehensive knowledge of MTCT prevention, only 59 percent of never-married women and 50 percent of never-married men have comprehensive knowledge of MTCT prevention. Respondents in Zanzibar reported higher comprehensive knowledge of MTCT prevention than in Mainland. On the Mainland, women and men in the Central zone have the lowest comprehensive knowledge of MTCT (51 percent of women and 44 percent of men).

MTCT knowledge varies directly with education level and wealth. Comprehensive knowledge is lowest among those with no education (46 percent of women and 36 percent of men) and highest among those with secondary school or higher (75 percent of women and 62 percent of men). Comprehensive knowledge is lowest among those in the bottom wealth quintile (50 percent of women and 45 percent of men) and highest in the top wealth quintile (77 percent of women and 63 percent of men).

Table 4.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 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 the mother taking special drugs during pregnancy, by background characteristics, Tanzania 2011-12

	Women				Men			
	Percentage who know that:				Percentage who know that:			
Background characteristic	HIV can be transmitted by breast-feeding	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 breast-feeding	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	80.5	63.1	58.8	4,303	74.4	58.8	50.1	3,537
15-19	75.9	56.1	50.8	2,414	70.5	54.9	45.5	2,012
20-24	86.5	71.9	69.1	1,888	79.6	63.8	56.2	1,525
25-29	88.0	76.0	72.6	1,902	82.3	65.0	57.4	1,116
30-39	88.6	70.8	67.5	2,932	82.6	67.8	60.9	2,128
40-49	86.5	67.1	63.5	1,831	79.7	64.5	57.2	1,571
Marital status								
Never married	79.7	63.7	58.7	2,798	74.7	58.4	50.2	3,534
Ever had sex	86.3	75.1	69.8	1,303	78.7	63.6	55.1	2,022
Never had sex	73.9	53.7	49.1	1,495	69.4	51.5	43.6	1,513
Married/living together	87.0	69.1	65.7	6,910	81.2	66.1	58.6	4,428
Divorced/separated/widowed	85.8	72.1	69.1	1,258	83.3	68.6	61.5	390
Pregnancy status								
Pregnant	86.2	69.9	66.2	994	na	na	na	na
Not pregnant/not sure	84.9	67.9	64.2	9,973	na	na	na	na
Residence								
Urban	90.6	81.7	78.0	2,956	85.1	70.8	63.4	2,142
Rural	82.9	63.0	59.3	8,011	76.3	60.3	52.3	6,210
Mainland/Zanzibar								
Mainland	84.7	67.8	64.0	10,576	78.2	63.0	54.9	8,079
Urban	90.4	81.7	77.9	2,834	85.0	70.7	63.2	2,066
Rural	82.6	62.7	58.8	7,742	75.8	60.3	52.1	6,013
Zanzibar	93.4	75.8	74.7	391	89.0	63.6	62.1	273
Unguja	93.5	80.1	78.9	298	88.9	65.9	64.4	204
Pemba	93.3	62.3	61.4	93	89.2	56.8	55.2	69
Zone								
Eastern	89.1	80.3	75.7	1,696	86.6	66.7	60.7	1,363
Western	87.9	75.0	70.6	890	77.5	65.3	56.8	736
Southern	92.9	80.8	80.5	557	83.2	71.7	64.1	371
Southern Highlands	91.2	78.1	75.2	1,155	88.1	79.9	73.1	818
Southwest Highlands	80.9	66.4	60.4	1,101	77.4	74.8	63.2	851
Central	77.4	56.0	51.1	1,100	67.4	55.5	44.2	908
Northern	83.4	55.8	53.8	1,281	74.8	51.5	47.1	855
Lake	81.6	61.7	57.9	2,797	74.7	54.9	46.7	2,178
Region								
Dodoma	76.6	52.9	48.1	422	63.5	62.1	46.7	342
Arusha	88.6	60.3	60.3	331	79.6	53.5	47.7	254
Kilimanjaro	87.9	61.7	58.1	384	72.4	57.8	53.8	256
Tanga	77.3	49.1	47.0	566	73.1	45.4	41.5	344
Morogoro	84.9	70.4	67.5	399	82.8	61.5	55.6	343
Pwani	92.5	82.5	80.1	213	85.6	73.1	65.8	166
Dar es Salaam	89.9	83.5	77.8	1,084	88.3	67.6	61.7	854
Lindi	93.9	79.0	78.7	188	85.7	66.2	62.0	129
Mtwara	92.4	81.7	81.4	369	81.9	74.6	65.2	242
Ruvuma	92.9	73.1	71.6	684	92.6	79.8	75.1	455
Iringa	92.4	89.2	85.8	200	81.8	82.0	71.5	153
Mbeya	84.7	73.7	67.6	699	80.6	79.0	68.2	557
Singida	74.7	60.0	54.4	416	68.9	49.3	42.0	328
Tabora	84.2	73.1	67.9	432	79.6	66.2	58.2	411
Rukwa	75.8	55.7	49.6	187	70.1	66.4	53.6	137
Kigoma	91.3	76.7	73.2	458	74.8	64.1	55.0	325
Shinyanga	83.8	62.9	60.0	415	77.7	57.1	51.1	327
Kagera	93.2	74.3	71.2	448	78.4	52.6	45.3	372
Mwanza	85.6	71.6	67.5	570	76.6	54.1	46.9	420
Mara	80.0	61.1	55.5	433	71.9	67.0	53.8	332
Manyara	82.9	54.7	50.9	262	70.9	54.6	43.5	238
Njombe	86.1	82.4	76.4	271	82.8	78.7	70.1	210
Katavi	73.0	51.9	46.3	214	72.5	67.2	54.1	157
Simiyu	69.6	41.6	37.5	626	67.9	49.8	40.5	477
Geita	81.6	65.2	63.0	304	79.0	50.5	45.1	250
Kaskazini Unguja	90.5	65.0	63.7	42	84.9	55.9	52.1	25
Kusini Unguja	94.5	81.8	79.7	26	87.4	62.7	60.2	20
Mjini Magharibi	93.9	82.6	81.6	230	89.7	67.9	66.9	159
Kaskazini Pemba	92.8	60.8	59.7	47	86.7	46.0	43.9	33
Kusini Pemba	93.9	63.8	63.2	46	91.6	66.8	65.7	36
Education								
No education	72.8	48.4	46.0	1,955	68.0	40.3	35.8	776
Primary incomplete	82.2	61.6	58.0	1,380	72.9	53.3	46.8	1,338
Primary complete	88.0	72.4	68.5	5,713	79.9	66.4	58.2	4,264
Secondary+	90.7	79.9	75.1	1,919	83.5	71.2	62.0	1,974
Wealth quintile								
Lowest	76.0	52.8	49.8	1,864	71.6	51.8	44.8	1,358
Second	80.2	58.1	54.1	1,974	75.0	59.2	51.3	1,532
Middle	85.7	67.6	63.7	1,977	77.3	61.6	53.1	1,590
Fourth	89.3	73.0	69.9	2,257	81.6	67.3	59.4	1,749
Highest	90.3	81.1	76.8	2,895	83.9	70.4	62.7	2,123
Total	85.0	68.1	64.3	10,967	78.5	63.0	55.2	8,352

na = Not applicable

4.5 EXPOSURE TO EDUCATIONAL PROGRAMMES ABOUT HIV

HIV-related educational programmes have been developed and aired through mass media as interventions to combat HIV in Tanzania. To gauge the coverage of these programmes, survey respondents were asked if they had ever seen or heard an HIV education programme on television, on the radio, or in a magazine in the 12 months preceding the survey.

Tables 4.5.1 and 4.5.2 show that 48 percent of women and 62 percent of men have seen or heard an HIV programme in the media in the past 12 months. There is a significant urban-rural differential, with 69 percent of women and 78 percent of men in urban areas having seen or heard an HIV education programme compared with 41 percent of women and 56 percent of men in the rural areas. Women in Eastern and Southern Highlands (63 percent and 62 percent, respectively) zones are more likely to have seen or heard an HIV educational programme than women in other zones. Three in four men living in Eastern, Southern Highlands, and Southwest Highlands zones have seen or heard an HIV education programme in the past 12 months.

Education and economic status are related to exposure to HIV/AIDS education programmes. Women and men with more education and those in higher wealth quintiles are more likely to have seen or heard a programme 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 limited because 60 percent of women and 52 percent of men who said they were exposed to such programmes did not know their name. The programme mentioned most frequently was Femina (16 percent of women and 19 percent of men mentioned it). Si Mchezo (4 percent) ranked second for women while Ukimwi na Jamii (7 percent) ranked second for men. Other educational programmes like Fataki, Afya ya Jamii, and Jikinge na Ukimwi were less commonly mentioned.

Table 4.5.1 Exposure to HIV education programmes: Women

Percentage of women age 15-49 who saw or heard an HIV education programme on TV, on the radio, or in a magazine in the past 12 months, and percentage of these women by specific HIV education programmes seen or heard, according to background characteristics, Tanzania 2011-12

Background characteristic	Percentage of women who saw or heard an HIV education programme on TV or radio or in a magazine in past 12 months	Number of women	HIV education programme seen or heard:								Number of women who saw/heard an HIV education programme in past 12 months
			Femina/ Fema	Si Mchezo	Afya ya jamii	Fataki	Jikinge na ukimwi	Ukimwi na jamii	Other	Don't know	
Age											
15-24	49.5	4,303	21.3	4.0	2.6	1.3	0.6	2.2	15.5	55.0	2,129
15-19	46.9	2,414	22.5	4.2	3.0	1.2	0.7	2.5	15.5	53.4	1,133
20-24	52.7	1,888	20.0	3.8	2.2	1.4	0.5	1.9	15.4	56.7	996
25-29	51.1	1,902	16.2	5.2	2.8	0.4	0.4	3.4	13.2	59.4	971
30-39	48.4	2,932	12.8	3.6	2.3	1.2	0.6	1.8	14.3	65.4	1,420
40-49	42.1	1,831	9.4	4.1	2.4	1.0	0.5	4.3	12.8	67.0	770
Marital status											
Never married	55.6	2,798	25.3	4.8	3.5	1.3	0.8	2.8	16.6	48.1	1,556
Ever had sex	64.2	1,303	22.9	4.6	3.4	1.1	0.5	3.1	18.1	49.3	837
Never had sex	48.1	1,495	28.1	5.0	3.6	1.5	1.1	2.5	14.8	46.8	719
Married/living together	45.6	6,910	12.6	4.0	2.4	1.0	0.4	2.5	13.0	65.2	3,152
Divorced/separated/widowed	46.3	1,258	13.2	2.9	0.8	0.6	0.8	2.7	15.5	66.4	583
Pregnancy status											
Pregnant	43.0	994	12.2	2.4	3.4	0.6	0.2	1.5	14.9	66.2	427
Not pregnant/not sure	48.8	9,973	16.7	4.3	2.5	1.1	0.6	2.7	14.3	59.8	4,864
Residence											
Urban	68.5	2,956	25.9	4.0	4.4	1.5	0.5	2.5	14.9	48.8	2,024
Rural	40.8	8,011	10.5	4.2	1.4	0.8	0.6	2.7	14.0	67.5	3,267
Mainland/Zanzibar											
Mainland	48.4	10,576	16.5	4.3	2.6	1.1	0.5	2.7	14.4	59.8	5,121
Urban	69.2	2,834	26.2	4.1	4.5	1.5	0.5	2.6	14.9	48.2	1,962
Rural	40.8	7,742	10.5	4.4	1.4	0.8	0.6	2.8	14.1	67.1	3,159
Zanzibar	43.4	391	11.2	0.1	1.4	0.1	0.3	0.0	11.9	75.0	170
Unguja	44.9	298	13.9	0.2	1.5	0.2	0.4	0.0	12.2	71.7	134
Pemba	38.6	93	1.1	0.0	1.1	0.0	0.0	0.0	10.9	86.9	36
Zone											
Eastern	62.8	1,696	31.6	1.8	6.5	2.6	0.2	1.4	15.6	43.2	1,065
Western	52.3	890	6.3	1.0	1.5	0.0	1.3	3.8	12.4	73.8	465
Southern	45.5	557	20.7	15.5	5.2	4.7	0.2	0.5	17.0	48.1	253
Southern Highlands	61.9	1,155	8.1	5.9	0.2	0.2	0.0	2.3	13.9	71.0	715
Southwest Highlands	41.7	1,101	12.5	6.5	1.0	2.1	0.2	4.2	13.9	62.7	459
Central	42.8	1,100	13.3	4.4	0.7	0.2	0.2	1.1	13.6	67.0	471
Northern	42.8	1,281	29.6	5.9	2.9	0.0	0.9	0.6	13.6	48.1	549
Lake	40.9	2,797	7.7	2.6	1.5	0.3	1.1	5.4	14.9	66.9	1,144
Education											
No education	21.0	1,955	1.8	2.4	1.4	0.5	0.0	3.1	8.3	82.6	411
Primary incomplete	37.0	1,380	6.1	3.4	1.0	0.8	0.6	2.3	11.8	75.1	511
Primary complete	51.1	5,713	12.6	3.9	2.3	1.3	0.5	2.3	14.2	63.9	2,920
Secondary+	75.5	1,919	31.7	5.3	3.8	0.9	0.7	3.4	17.2	41.6	1,449
Wealth quintile											
Lowest	23.9	1,864	6.7	3.1	0.4	1.6	0.0	2.7	13.9	73.2	446
Second	32.9	1,974	5.1	5.2	1.3	1.4	0.5	2.3	15.3	69.8	650
Middle	46.0	1,977	8.0	3.9	1.4	0.1	0.2	3.1	12.2	72.6	910
Fourth	52.8	2,257	11.6	5.6	1.5	0.8	0.9	3.2	14.6	63.2	1,192
Highest	72.3	2,895	28.3	3.3	4.5	1.4	0.6	2.2	14.9	47.7	2,092
Total	48.2	10,967	16.4	4.1	2.5	1.1	0.5	2.6	14.3	60.3	5,291

Table 4.5.2 Exposure to HIV education programmes: Men

Percentage of men age 15-49 who saw or heard an HIV education programme on TV, on the radio, or in a magazine in the past 12 months, and percentage of these men by specific HIV education programmes seen or heard, according to background characteristics, Tanzania 2011-12

Background characteristic	Percentage of men who saw or heard an HIV education programme on TV or radio or in a magazine in past 12 months	Number of men	HIV education programme seen or heard:								Number of men who saw/heard an HIV education programme in past 12 months
			Femina/ Fema	Si Mchezo	Afya ya jamii	Fataki	Jikinge na ukimwi	Ukimwi na jamii	Other	Don't know	
Age											
15-24	59.9	3,537	22.8	4.1	1.5	1.3	0.6	8.1	17.1	48.4	2,117
15-19	53.5	2,012	22.9	3.3	1.9	1.2	0.5	7.2	15.8	50.0	1,076
20-24	68.3	1,525	22.7	4.9	1.0	1.5	0.7	9.0	18.3	46.8	1,041
25-29	65.7	1,116	17.2	4.6	1.1	1.6	1.2	5.9	19.0	53.3	733
30-39	63.6	2,128	16.2	3.4	0.6	1.0	0.9	7.2	19.0	54.8	1,353
40-49	62.4	1,571	13.2	3.2	2.4	0.7	1.7	5.7	18.8	57.1	979
Marital status											
Never married	60.2	3,534	26.0	4.5	1.8	1.3	0.7	7.2	17.3	46.3	2,126
Ever had sex	65.5	2,022	25.8	4.3	2.4	1.6	1.0	7.6	17.9	45.1	1,325
Never had sex	53.0	1,513	26.3	4.8	0.8	0.7	0.3	6.5	16.3	48.1	801
Married/living together	63.3	4,428	13.0	3.2	1.2	1.0	1.2	7.1	18.5	57.2	2,805
Divorced/separated/widowed	64.7	390	15.9	5.5	0.4	2.2	0.0	5.4	21.6	51.0	252
Residence											
Urban	78.4	2,142	32.5	6.4	1.9	1.0	0.6	5.3	18.0	40.9	1,678
Rural	56.4	6,210	11.8	2.6	1.1	1.3	1.1	7.9	18.3	57.9	3,506
Mainland/Zanzibar											
Mainland	62.0	8,079	17.8	3.9	1.4	1.2	1.0	7.3	18.6	52.3	5,007
Urban	78.6	2,066	31.8	6.6	1.9	1.0	0.6	5.5	18.4	40.9	1,624
Rural	56.3	6,013	11.1	2.7	1.2	1.3	1.2	8.2	18.6	57.8	3,383
Zanzibar	64.5	273	38.0	0.3	0.0	0.3	0.0	0.0	7.0	54.7	176
Unguja	67.1	204	48.5	0.0	0.0	0.4	0.0	0.1	7.2	44.0	137
Pemba	56.7	69	1.1	1.2	0.0	0.0	0.0	0.0	6.1	92.1	39
Zone											
Eastern	74.4	1,363	30.8	2.0	1.7	0.2	1.4	1.9	20.4	45.9	1,014
Western	51.7	736	20.9	15.9	4.3	0.5	0.9	5.2	20.4	41.7	380
Southern	61.6	371	12.7	13.1	0.3	0.5	1.0	9.0	21.8	44.1	229
Southern Highlands	76.2	818	18.8	2.3	0.8	2.2	2.5	9.3	15.8	52.2	624
Southwest Highlands	75.1	851	9.0	0.6	0.5	4.1	1.1	8.9	17.0	60.3	639
Central	47.0	908	7.0	1.2	0.4	0.3	0.3	6.0	26.2	58.6	427
Northern	55.3	855	21.2	1.7	0.8	1.0	0.0	1.4	15.2	60.0	473
Lake	56.1	2,178	13.7	4.5	2.0	0.8	0.5	13.1	16.9	53.2	1,222
Education											
No education	28.3	776	7.0	2.3	0.0	2.1	1.2	5.2	11.5	72.0	220
Primary incomplete	44.8	1,338	8.1	3.7	0.6	1.6	0.6	4.4	13.1	69.3	599
Primary complete	64.5	4,264	12.6	3.6	1.1	1.0	1.2	7.5	18.8	56.5	2,750
Secondary+	81.8	1,974	34.0	4.5	2.3	1.2	0.7	7.6	19.9	36.5	1,614
Wealth quintile											
Lowest	39.5	1,358	6.0	2.1	0.2	1.0	1.5	6.9	14.1	68.3	536
Second	53.3	1,532	7.4	3.3	1.2	1.7	1.3	11.2	17.8	57.3	816
Middle	59.3	1,590	9.0	2.3	1.2	1.2	0.9	6.3	20.4	60.6	943
Fourth	65.4	1,749	16.0	3.6	1.6	1.3	0.7	8.5	17.2	55.4	1,144
Highest	82.1	2,123	34.3	5.6	1.7	0.8	0.8	4.7	19.1	38.8	1,744
Total	62.1	8,352	18.5	3.8	1.4	1.2	1.0	7.1	18.2	52.4	5,184

ATTITUDES RELATING TO HIV/AIDS 5

Key Findings

- Stigma and discrimination related to HIV/AIDS are widespread among Tanzanian adults. Only 25 percent of women and 40 percent of men expressed accepting attitudes on all four standard indicators used to measure stigma: they would be willing (1) to care for a family member sick with the AIDS virus in their own home, (2) to buy fresh food from a shopkeeper with the AIDS virus, (3) to allow a female teacher with the AIDS virus to continue teaching, and (4) to not keep the HIV-positive status of a family member a secret.
- Women and men in Zanzibar report less HIV/AIDS-related stigma compared with those in Mainland Tanzania: 43 percent of women and 55 percent of men from Zanzibar express accepting attitudes on all four standard indicators compared with 25 percent of women and 40 percent of men in Mainland Tanzania.
- About six in ten women and seven in ten men say that a woman is justified in refusing to have sex with her husband if he has sex with women other than his wives.
- Seventy-nine percent of women and 84 percent of men say that a woman is justified in asking that they use a condom if she knows her husband has a sexually-transmitted infection.
- About six in ten women and men age 18-49 agree that children age 12-14 should be taught that using a condom helps one to avoid getting AIDS.
- There is a substantial difference of opinion between Mainland Tanzania and Zanzibar regarding condom use education for youth: 59 percent of women and 63 percent of men in Mainland Tanzania support condom use education for youth compared with only 28 percent of women and 25 percent of men in Zanzibar.

5.1 ATTITUDES TOWARDS PEOPLE LIVING WITH AIDS

Widespread stigma and discrimination towards people infected with HIV or living with AIDS can adversely affect both people's willingness to be tested for HIV and also their adherence to antiretroviral therapy (ART). Thus, reduction of stigma and discrimination is an important indicator of the success of programmes targeting HIV/AIDS prevention and control.

In both Mainland Tanzania and Zanzibar, people living with HIV/AIDS still face discrimination and encounter hostile attitudes. Such stigma towards people living with HIV/AIDS hampers their ability to access a wide-array of HIV-related services in prevention, care, treatment, and support that are currently available (Prime Minister's Office and TACAIDS, 2012b; ZAC, 2011).

To assess survey respondents' attitudes towards people living with HIV/AIDS, respondents who had heard of AIDS were asked if they would (1) be willing to care for a relative sick with the AIDS virus in their own households, (2) be willing to buy fresh vegetables from a market vendor who had the AIDS virus, (3) say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching, and (4) not want to keep a family member's HIV positive status secret. Tables 5.1.1 and 5.1.2 show the results for women and men, respectively.

Most women and men would be willing to care at home for a relative sick with the AIDS virus (nine in ten respondents), would buy fresh vegetables from a market vendor with the AIDS virus (over six in ten), and believe that an HIV-positive female teacher should be allowed to continue teaching (eight in ten). In contrast, whereas over half of male respondents (57 percent) would not want to keep secret the fact that a family member is infected with the AIDS virus, less than half of female respondents (41 percent) share this attitude.

Overall, only 25 percent of women and 40 percent of men expressed accepting attitudes on all four indicators. These results are comparable to those reported in the 2007-08 THMIS. It is noteworthy that in both surveys, the proportion of women who express accepting attitudes on all four indicators is smaller than the proportion of men.

Respondents in urban areas are more likely than those in rural areas to express accepting attitudes on all four indicators: 36 percent of women and 55 percent of men in urban areas express accepting attitudes compared with 21 percent of women and 35 percent of men in rural areas. The percentage of women and men in Zanzibar who express accepting attitudes on all four indicators (43 percent and 55 percent, respectively) is greater than women and men in Mainland Tanzania (25 percent and 40 percent, respectively).

Differentials across regions are marked. Regions with low levels of acceptance by women on all four indicators include Geita (7 percent), Simiyu (9 percent), and Katavi (11 percent), and those with low acceptance by men include Dodoma (22 percent), Geita (23 percent) and Simiyu (23 percent). In contrast, women in Mjini Magharibi and Kusini Unguja (49 and 44 percent, respectively) and men in Mjini Magharibi and Dar es Salaam (65 and 63 percent, respectively) are more likely than those in other regions to express accepting attitudes on all four indicators.

Respondents' accepting attitudes towards people living with HIV/AIDS increases with level of education and wealth. Women and men with at least some secondary education and those in wealthier households are more likely than other respondents to express accepting attitudes on all four indicators.

Table 5.1.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of women who:				Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of AIDS
	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 who has the AIDS virus but 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		
Age						
15-24	89.9	62.2	84.4	39.1	24.1	4,238
15-19	88.7	60.2	83.1	37.9	23.0	2,367
20-24	91.4	64.8	86.0	40.8	25.5	1,872
25-29	93.4	66.1	85.9	40.6	27.2	1,893
30-39	94.8	63.5	82.6	40.4	25.5	2,914
40-49	95.2	60.2	82.4	45.1	26.1	1,827
Marital status						
Never married	91.9	70.5	88.3	41.6	29.7	2,757
Ever had sex	96.1	77.7	92.5	40.6	32.8	1,291
Never had sex	88.2	64.1	84.5	42.5	27.0	1,466
Married/living together	92.9	59.6	81.8	40.6	23.8	6,861
Divorced/separated/widowed	93.6	63.9	85.1	39.5	24.4	1,254
Residence						
Urban	97.6	83.4	95.0	43.2	36.0	2,950
Rural	90.9	55.2	79.7	39.8	21.4	7,922
Mainland/Zanzibar						
Mainland	92.6	62.6	83.5	40.0	24.7	10,482
Urban	97.6	83.5	95.1	42.3	35.4	2,828
Rural	90.7	54.8	79.2	39.2	20.8	7,654
Zanzibar	95.8	71.3	93.1	59.4	42.7	391
Unguja	97.3	78.3	94.3	61.2	47.6	298
Pemba	91.0	49.1	89.3	53.5	27.0	93
Zone						
Eastern	96.9	86.0	94.1	40.1	34.1	1,695
Western	94.6	59.0	84.3	45.7	25.7	890
Southern	98.2	69.2	91.8	35.1	27.4	555
Southern Highlands	97.6	67.2	88.5	49.6	31.2	1,152
Southwest Highlands	92.0	66.0	84.0	47.4	29.0	1,080
Central	86.6	49.2	81.1	41.3	19.8	1,082
Northern	86.2	62.0	83.8	40.6	25.8	1,255
Lake	91.6	50.3	73.6	31.5	15.2	2,773
Region						
Dodoma	88.3	42.5	78.9	47.2	21.4	419
Arusha	84.6	55.6	71.2	34.1	18.1	324
Kilimanjaro	94.8	79.3	93.1	50.3	38.8	383
Tanga	81.0	53.8	84.8	37.6	21.3	548
Morogoro	94.1	79.0	88.4	40.9	31.9	398
Pwani	98.4	82.4	93.3	44.3	37.1	213
Dar es Salaam	97.7	89.3	96.4	39.1	34.2	1,084
Lindi	97.1	69.1	92.0	36.0	25.5	188
Mtwara	98.7	69.2	91.7	34.7	28.3	367
Ruvuma	96.6	64.8	87.8	46.0	26.9	681
Iringa	99.2	70.6	92.1	46.2	36.2	200
Mbeya	94.1	76.5	83.7	53.4	37.7	688
Singida	90.5	59.8	87.7	39.0	20.4	403
Tabora	93.3	53.3	79.4	40.6	20.2	432
Rukwa	87.9	52.7	86.2	38.3	17.0	183
Kigoma	95.8	64.4	88.9	50.6	31.0	458
Shinyanga	92.5	39.2	77.3	31.8	17.8	415
Kagera	95.6	64.5	76.1	37.0	20.6	448
Mwanza	96.6	61.5	81.4	24.1	13.6	559
Mara	93.3	58.5	76.6	42.2	24.2	431
Manyara	77.9	43.5	74.3	35.2	16.3	260
Njombe	99.0	70.9	87.9	61.5	38.4	271
Katavi	88.7	42.9	82.9	36.0	11.2	210
Simiyu	83.3	37.3	63.9	28.3	8.5	618
Geita	89.4	38.6	65.8	28.1	7.2	301
Kaskazini Unguja	91.5	62.5	83.3	63.7	40.8	42
Kusini Unguja	96.9	77.1	94.5	56.5	43.9	26
Mjini Magharibi	98.4	81.3	96.3	61.3	49.3	230
Kaskazini Pemba	87.3	47.5	86.2	55.0	27.0	47
Kusini Pemba	94.7	50.7	92.6	51.9	27.1	46
Education						
No education	83.8	38.5	65.1	33.6	11.4	1,898
Primary incomplete	90.1	50.2	76.5	37.9	14.9	1,364
Primary complete	94.7	66.7	87.7	40.0	26.2	5,691
Secondary+	97.5	84.8	96.2	52.0	44.1	1,919
Wealth quintile						
Lowest	84.1	42.4	70.7	35.7	13.6	1,817
Second	90.1	47.8	75.9	36.3	16.2	1,949
Middle	92.6	56.8	81.6	39.7	22.5	1,968
Fourth	95.8	69.1	88.7	42.6	28.0	2,250
Highest	97.6	85.3	95.3	46.2	38.9	2,887
Total	92.7	62.9	83.8	40.7	25.4	10,872

Table 5.1.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of men who:				Percentage expressing accepting attitudes on all four indicators	Number of men who have heard of AIDS
	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 who has the AIDS virus but 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		
Age						
15-24	94.4	67.6	82.1	53.1	35.9	3,511
15-19	92.2	63.3	80.2	51.3	32.5	1,987
20-24	97.3	73.1	84.6	55.5	40.2	1,524
25-29	97.2	75.0	83.4	59.2	44.2	1,114
30-39	98.4	73.9	82.3	61.5	44.0	2,124
40-49	97.5	71.8	84.3	60.4	42.8	1,570
Marital status						
Never married	94.5	69.9	83.4	55.1	38.6	3,507
Ever had sex	96.1	74.4	85.9	56.3	41.5	2,018
Never had sex	92.4	63.8	80.0	53.5	34.7	1,490
Married/living together	97.6	71.4	81.8	58.7	41.1	4,423
Divorced/separated/widowed	98.3	75.8	86.7	64.7	47.5	389
Residence						
Urban	98.5	85.4	92.6	64.7	54.5	2,142
Rural	95.6	66.0	79.3	54.9	35.4	6,178
Mainland/Zanzibar						
Mainland	96.4	70.6	82.5	57.1	39.9	8,046
Urban	98.6	85.4	92.6	64.4	54.3	2,066
Rural	95.6	65.4	79.0	54.6	34.9	5,981
Zanzibar	96.8	83.0	89.4	67.1	55.1	273
Unguja	98.8	87.1	92.8	71.8	62.3	204
Pemba	90.6	70.7	79.5	53.0	33.8	69
Zone						
Eastern	97.2	84.0	92.8	66.9	55.4	1,363
Western	97.1	68.1	73.6	57.6	37.1	736
Southern	98.5	72.5	87.7	60.2	43.7	371
Southern Highlands	98.8	71.6	88.6	64.2	45.0	817
Southwest Highlands	96.4	76.2	84.0	64.5	48.2	849
Central	94.1	57.3	75.8	54.5	30.4	904
Northern	94.6	67.6	82.7	52.4	33.7	848
Lake	95.8	66.7	78.1	47.7	31.5	2,160
Region						
Dodoma	93.9	50.3	70.9	47.6	21.6	342
Arusha	92.5	64.3	72.7	58.9	39.2	249
Kilimanjaro	96.0	80.8	90.5	53.0	35.8	255
Tanga	95.1	60.2	84.1	47.1	28.1	344
Morogoro	94.0	63.0	82.1	66.6	41.4	343
Pwani	96.9	84.3	90.2	60.9	46.9	166
Dar es Salaam	98.6	92.4	97.5	68.1	62.6	854
Lindi	99.1	75.4	88.1	60.9	42.7	129
Mtwara	98.2	71.0	87.5	59.8	44.3	242
Ruvuma	98.7	66.6	86.3	65.1	41.4	455
Iringa	98.8	82.6	92.4	58.3	46.2	152
Mbeya	96.5	79.7	87.0	65.6	52.3	557
Singida	95.1	61.9	87.8	58.1	37.7	326
Tabora	97.9	58.5	67.7	53.3	31.0	411
Rukwa	95.4	73.2	83.1	64.6	44.4	136
Kigoma	96.1	80.3	81.1	62.9	44.9	325
Shinyanga	97.0	61.6	67.6	38.3	25.7	325
Kagera	96.6	79.0	85.5	59.5	44.9	370
Mwanza	95.5	71.2	76.9	54.9	36.7	417
Mara	98.1	70.1	85.2	48.8	33.7	331
Manyara	93.0	61.0	66.3	59.4	33.2	236
Njombe	99.1	74.6	90.7	66.5	51.8	210
Katavi	97.0	66.2	74.4	60.1	37.1	156
Simiyu	93.7	56.6	80.9	40.2	23.4	469
Geita	94.9	61.9	67.5	42.8	22.7	249
Kaskazini Unguja	98.7	77.4	91.9	67.2	53.2	25
Kusini Unguja	99.3	87.1	95.5	63.4	53.5	20
Mjini Magharibi	98.8	88.7	92.5	73.6	64.8	159
Kaskazini Pemba	89.2	69.3	75.0	57.1	35.2	33
Kusini Pemba	92.0	71.9	83.6	49.2	32.5	36
Education						
No education	90.0	44.4	58.5	40.4	15.9	763
Primary incomplete	92.7	57.8	73.4	48.4	25.1	1,326
Primary complete	97.3	72.1	84.7	59.2	41.5	4,258
Secondary+	99.3	87.7	94.1	66.4	57.6	1,972
Wealth quintile						
Lowest	93.0	51.3	67.7	49.3	23.0	1,346
Second	95.1	63.5	76.6	53.6	32.6	1,521
Middle	95.9	67.4	81.2	55.4	36.5	1,581
Fourth	97.8	75.8	87.1	59.6	45.1	1,749
Highest	98.6	87.5	94.2	65.1	56.0	2,123
Total	96.4	71.0	82.7	57.4	40.4	8,320

5.2 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. To assess the ability of women to negotiate safer sex with a husband who has a sexually transmitted infection (STI), respondents were asked two attitudinal questions: Is a wife justified in refusing to have sex with her husband when she knows he has sex with women other than his wives? Is a woman who knows her husband has a disease that can be transmitted through sexual intercourse justified in asking her husband to use a condom?

About six in ten women and seven in ten men say that a woman is justified in refusing to have sex with her husband if he has sex with women other than his wives. Seventy-nine percent of women and 84 percent of men say that a woman is justified in asking that they use a condom if she knows her husband has a sexually transmitted infection.

The percentages of women and men who believe that a woman is justified in refusing sex and asking that she and her husband use a condom vary by background characteristic. For both women and men, the percentages that believe that a woman is justified in either situation generally increases with the respondents' age, education, and wealth. Ever-married and urban respondents are more likely than never-married and rural respondents to believe that a woman is justified.

The higher a woman's educational attainment, the more likely she is to say that a woman can refuse sex (45 percent for women with no education versus 66 percent for women with secondary or higher education) or ask that a condom be used (61 percent for women with no education versus 88 percent for women with secondary or higher education). For men, a comparable trend is observed. For both women and men, the percentages that believe a woman is justified in refusing sex or asking that a condom be used correlates positively with wealth.

Table 5.2 Attitudes towards negotiating safer sexual relations with husband

Percentages of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with women other than his wives, and percentages who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), by background characteristics, Tanzania 2011-12

	Women			Men		
	Woman is justified in:			Woman is justified in:		
Background characteristic	Refusing to have sexual intercourse with her husband if she knows he has sex with women other than his wives	Asking that they use a condom if she knows that her husband has an STI	Number of women	Refusing to have sexual intercourse with her husband if she knows he has sex with women other than his wives	Asking that they use a condom if she knows that her husband has an STI	Number of men
Age						
15-24	53.3	75.2	4,303	62.6	81.6	3,537
15-19	50.4	69.8	2,414	58.4	76.7	2,012
20-24	57.0	82.1	1,888	68.2	88.0	1,525
25-29	57.4	83.8	1,902	67.8	85.3	1,116
30-39	61.7	82.6	2,932	71.4	86.5	2,128
40-49	60.2	79.6	1,831	74.7	84.7	1,571
Marital status						
Never married	54.0	74.2	2,798	64.2	81.4	3,534
Ever had sex	64.3	89.7	1,303	68.2	88.7	2,022
Never had sex	45.0	60.6	1,495	58.7	71.6	1,513
Married/living together	57.8	80.7	6,910	70.5	85.5	4,428
Divorced/separated/widowed	62.6	84.1	1,258	70.9	88.6	390
Residence						
Urban	65.3	89.0	2,956	79.8	91.1	2,142
Rural	54.5	75.9	8,011	63.7	81.4	6,210
Mainland/Zanzibar						
Mainland	57.4	79.6	10,576	67.5	84.0	8,079
Urban	65.4	89.5	2,834	79.7	91.2	2,066
Rural	54.5	76.0	7,742	63.4	81.4	6,013
Zanzibar	57.7	73.2	391	76.8	82.7	273
Unguja	58.5	73.5	298	77.9	85.1	204
Zone						
Eastern	69.7	89.9	1,696	83.7	93.0	1,363
Western	53.3	81.1	890	66.7	81.6	736
Southern	69.5	87.2	557	61.1	82.9	371
Southern Highlands	50.6	88.8	1,155	72.8	93.2	818
Southwest Highlands	45.0	69.2	1,101	70.2	85.8	851
Central	55.3	66.0	1,100	62.8	80.9	908
Northern	58.9	72.9	1,281	66.9	80.4	855
Lake	56.6	80.2	2,797	58.0	77.7	2,178
Region						
Dodoma	56.3	75.7	422	59.8	83.2	342
Arusha	41.4	67.8	331	58.1	80.0	254
Kilimanjaro	68.8	80.9	384	74.0	84.8	256
Tanga	62.5	70.4	566	68.0	77.5	344
Morogoro	64.9	81.8	399	73.5	90.4	343
Pwani	60.7	92.2	213	88.4	92.8	166
Dar es Salaam	73.3	92.4	1,084	86.8	94.2	854
Lindi	70.7	90.0	188	56.1	85.0	129
Mtwara	68.9	85.8	369	63.8	81.8	242
Ruvuma	53.3	89.0	684	72.8	95.2	455
Iringa	42.2	89.7	200	72.1	90.4	153
Mbeya	43.0	70.1	699	71.9	91.3	557
Singida	61.8	62.4	416	64.6	76.1	328
Tabora	57.0	82.3	432	63.9	85.3	411
Rukwa	58.2	75.8	187	75.0	78.7	137
Kigoma	49.8	80.0	458	70.3	76.8	325
Shinyanga	50.1	80.7	415	61.8	79.7	327
Kagera	46.8	89.5	448	46.9	67.6	372
Mwanza	68.1	84.0	570	61.3	74.1	420
Mara	56.4	81.6	433	62.5	89.5	332
Manyara	43.5	56.0	262	64.7	84.1	238
Njombe	50.0	87.8	271	73.3	90.9	210
Katavi	40.2	60.6	214	59.8	72.6	157
Simiyu	58.0	71.6	626	57.6	77.9	477
Geita	55.8	74.5	304	59.2	80.1	250
Kaskazini Unguja	48.3	65.7	42	71.3	82.4	25
Kusini Unguja	57.9	82.7	26	60.0	88.2	20
Mjini Magharibi	60.4	73.9	230	81.2	85.1	159
Kaskazini Pemba	49.2	68.2	47	67.3	70.9	33
Kusini Pemba	61.3	76.9	46	79.2	80.3	36
Education						
No education	45.2	61.3	1,955	52.2	64.4	776
Primary incomplete	55.5	73.4	1,380	60.2	76.2	1,338
Primary complete	59.2	84.2	5,713	68.8	86.2	4,264
Secondary+	65.8	88.0	1,919	77.2	91.8	1,974
Wealth quintile						
Lowest	50.4	67.0	1,864	55.7	72.3	1,358
Second	52.2	74.9	1,974	60.4	79.0	1,532
Middle	55.7	78.3	1,977	65.1	83.4	1,590
Fourth	57.6	83.8	2,257	69.9	87.5	1,749
Highest	66.4	87.8	2,895	81.3	92.4	2,123
Total	57.4	79.4	10,967	67.8	83.9	8,352

5.3 ATTITUDES TOWARDS CONDOM EDUCATION FOR YOUNG PEOPLE

Condom use is one of the main strategies for combating the spread of HIV/AIDS. However, educating young people about condoms is sometimes controversial, with some saying it promotes early sexual experimentation. To gauge attitudes toward condom education, THMIS respondents were asked whether they thought that children age 12-14 should be taught about using a condom to avoid getting AIDS. Because the focus is on adults' opinions, results are tabulated for respondents age 18-49.

As shown in Table 5.3, about six in ten women and men age 18-49 agree that children age 12-14 should be taught about using a condom to avoid AIDS, with women showing slightly less approval (58 percent) than men (62 percent). Women and men age 20-24 (61 and 67 percent, respectively) are more likely to approve of teaching children about condom use than other age groups.

Interestingly, while urban women (66 percent) are more likely than rural women (54 percent) to approve of condom use education for youth, the reverse is true for urban and rural men (58 and 64 percent, respectively). There is a substantial difference of opinion between Mainland and Zanzibar, with 59 percent of women and 63 percent of men in Mainland Tanzania supporting condom use education for youth, compared with only 28 percent of women and 25 percent of men in Zanzibar. Large regional differentials are also observed. The percentage of women who support condom use education for youth is highest in Pwani (75 percent), Lindi (73 percent), Mara (73 percent), and Ruvuma (72 percent) and lowest in Kaskazini Unguja and Kaskazini Pemba (18 and 21 percent, respectively). For men, the percentage is highest in Ruvuma and Mara (81 percent each) and lowest in Kusini Pemba and Kaskazini Pemba (18 percent each). A positive correlation exists between the approval of teaching children about using condoms and increasing education and wealth among women but not among men.

Table 5.3 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 should be taught about using a condom to avoid AIDS, by background characteristics, Tanzania 2011-12

Background characteristic	Women		Men	
	Percentage who agree	Number	Percentage who agree	Number
Age				
18-24	59.8	2,866	63.9	2,322
18-19	58.0	978	58.6	798
20-24	60.6	1,888	66.7	1,525
25-29	58.7	1,902	63.7	1,116
30-39	56.7	2,932	60.6	2,128
40-49	53.9	1,831	60.8	1,571
Marital status				
Never married	60.7	1,560	63.0	2,325
Married or living together	56.0	6,726	61.5	4,422
Divorced/separated/widowed	61.5	1,245	65.6	390
Residence				
Urban	66.3	2,557	58.3	1,877
Rural	54.2	6,974	63.6	5,261
Mainland/Zanzibar				
Mainland	58.6	9,196	63.4	6,909
Urban	68.2	2,451	59.1	1,812
Rural	55.0	6,745	65.0	5,097
Zanzibar	27.7	335	25.0	229
Unguja	29.3	257	27.2	173
Pemba	22.5	78	18.3	55
Zone				
Eastern	68.1	1,507	61.3	1,223
Western	53.8	747	59.7	613
Southern	64.9	486	62.1	319
Southern Highlands	62.9	1,035	74.3	696
Southwest Highlands	46.9	945	60.8	733
Central	49.3	981	61.1	783
Northern	54.5	1,125	57.2	729
Lake	61.2	2,371	66.8	1,813
Region				
Dodoma	55.7	385	59.8	299
Arusha	50.2	290	68.6	210
Kilimanjaro	58.2	326	52.9	217
Tanga	54.6	509	52.4	302
Morogoro	70.1	366	64.2	300
Pwani	74.8	185	57.7	142
Dar es Salaam	66.1	955	60.8	782
Lindi	73.3	159	65.4	113
Mtwara	60.8	327	60.2	206
Ruvuma	71.6	605	81.0	394
Iringa	45.9	184	64.3	124
Mbeya	44.6	596	61.2	467
Singida	47.8	370	54.7	278
Tabora	50.1	360	66.5	343
Rukwa	57.3	169	58.5	125
Kigoma	57.2	388	51.2	269
Shinyanga	43.3	359	61.7	278
Kagera	63.3	389	64.4	310
Mwanza	69.8	488	52.1	353
Mara	72.7	372	80.7	269
Manyara	40.8	225	71.7	205
Njombe	54.5	245	66.2	178
Katavi	44.9	180	61.2	140
Simiyu	58.0	509	75.0	397
Geita	56.3	252	68.9	206
Kaskazini Unguja	17.8	36	18.5	21
Kusini Unguja	31.1	23	37.9	17
Mjini Magharibi	31.2	198	27.2	136
Kaskazini Pemba	21.2	39	18.3	28
Kusini Pemba	23.8	39	18.2	27
Education				
No education	39.6	1,843	53.7	714
Primary incomplete	58.8	1,102	62.0	1,017
Primary complete	62.1	5,111	64.2	3,811
Secondary+	62.8	1,475	61.4	1,596
Wealth quintile				
Lowest	43.7	1,668	58.1	1,158
Second	52.9	1,733	62.6	1,306
Middle	57.4	1,673	67.6	1,343
Fourth	65.4	1,993	63.3	1,479
Highest	63.7	2,464	59.7	1,852
Total 18-49	57.5	9,531	62.2	7,137

SEXUAL ACTIVITY AND BEHAVIOUR 6

Key Findings

- On average, among respondents age 15-49 who have ever had sexual intercourse, women had 2.3 sexual partners over their lifetimes and men had 6.6.
- Four percent of women and 21 percent of men reported having sex with two or more partners in the 12 months preceding the survey.
- Twenty-seven percent of both women and men who had more than one sexual partner in the past 12 months reported using a condom during their last sexual intercourse.
- Nine percent of men reported paying for sex in the past 12 months.
- Fifty-three percent of men who had engaged in paid sex in the past 12 months used a condom the last time they paid for sex.

6.1 INTRODUCTION

This chapter explores the prevalence of sexual activity and behaviours that relate to and influence the HIV/AIDS epidemic and other related infections. Discussed are issues such as recent sexual activity, multiple sexual partners, and paid sex, all of which are linked to higher risk of spreading HIV and other sexually transmitted infections (STIs).

6.2 RECENT SEXUAL ACTIVITY

In the absence of contraception, the chance of becoming pregnant is related to the frequency of sexual intercourse. Information on the frequency of sexual activity can also be used to refine measures of exposure to HIV and other STIs. Women and men interviewed in the 2011-12 THMIS were asked when they last had sex. Tables 6.1.1 and 6.1.2 show the distribution of women and men, respectively, according to the timing of last sexual activity, by background characteristics.

Over half of women and men age 15-49 were sexually active in the four weeks preceding the survey (53 percent of women and 56 percent of men), while about three quarters of all respondents had had sex in the 12 months preceding the survey. Fourteen percent of women and 18 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 age 25-44. In the youngest age groups, recent sexual activity among men is lower than that among women; however, from ages 25-49, the proportion of men who have had sex in the past four weeks 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. For example, 76 percent of currently married women and 85 percent of currently married men reported having had sex in the four weeks before the survey, compared with only 11 percent of never-married women and 19 percent of never-married men.

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 40 percent in Kigoma region to 66 percent in Geita region. The range is modestly greater among men, from 38 percent in Iringa region to 68 percent in Ruvuma 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 generally correlates negatively with increasing wealth quintile, especially for men.

Table 6.1.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Tanzania 2011-12

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	22.4	19.8	5.0	0.1	52.7	100.0	2,414
20-24	52.8	29.0	9.1	0.3	8.7	100.0	1,888
25-29	64.0	25.8	7.9	0.3	1.9	100.0	1,902
30-34	65.9	26.6	6.1	0.7	0.7	100.0	1,497
35-39	64.9	24.8	10.1	0.1	0.2	100.0	1,435
40-44	64.7	19.7	15.0	0.5	0.1	100.0	1,023
45-49	60.4	20.5	18.1	0.9	0.1	100.0	808
Marital status							
Never married	10.9	25.0	10.6	0.2	53.3	100.0	2,798
Married or living together	75.5	20.8	3.3	0.4	0.0	100.0	6,910
Divorced/separated/widowed	23.9	40.0	35.8	0.2	0.0	100.0	1,258
Marital duration[2]							
0-4 years	74.0	23.8	2.0	0.2	0.0	100.0	1,586
5-9 years	76.0	21.1	2.4	0.5	0.0	100.0	1,159
10-14 years	78.0	17.8	4.2	0.0	0.0	100.0	995
15-19 years	72.2	23.2	3.8	0.8	0.0	100.0	748
20-24 years	79.2	17.0	3.2	0.6	0.0	100.0	617
25+ years	73.3	19.7	5.4	1.5	0.0	100.0	516
Married more than once	76.1	19.8	4.0	0.1	0.0	100.0	1,290
Residence							
Urban	48.6	26.0	9.3	0.6	15.4	100.0	2,956
Rural	54.8	23.3	8.8	0.2	12.9	100.0	8,011
Mainland/Zanzibar							
Mainland	53.3	24.4	9.0	0.4	12.9	100.0	10,576
Urban	48.9	26.6	9.4	0.7	14.4	100.0	2,834
Rural	55.0	23.6	8.8	0.2	12.3	100.0	7,742
Zanzibar	46.4	13.9	7.3	0.0	32.4	100.0	391
Unguja	45.5	14.9	8.0	0.0	31.6	100.0	298
Pemba	49.4	10.8	5.0	0.0	34.8	100.0	93
Zone							
Eastern	50.8	26.4	9.7	0.1	13.0	100.0	1,696
Western	48.6	24.2	10.1	1.4	15.8	100.0	890
Southern	55.8	26.0	9.7	0.0	8.5	100.0	557
Southern Highlands	50.0	28.6	11.6	0.3	9.6	100.0	1,155
Southwest Highlands	55.6	20.8	8.7	0.0	14.8	100.0	1,101
Central	55.5	23.5	8.2	0.5	12.2	100.0	1,100
Northern	46.1	24.2	12.1	0.4	17.2	100.0	1,281
Lake	58.9	23.1	6.0	0.4	11.7	100.0	2,797
Region							
Dodoma	56.2	27.4	9.4	0.3	6.6	100.0	422
Arusha	50.4	26.0	9.4	0.0	14.2	100.0	331
Kilimanjaro	45.7	13.2	17.0	0.6	23.5	100.0	384
Tanga	43.9	30.6	10.3	0.6	14.6	100.0	566
Morogoro	59.8	21.6	10.0	0.2	8.5	100.0	399
Pwani	55.2	24.1	8.9	0.2	11.5	100.0	213
Dar es Salaam	46.6	28.7	9.7	0.0	15.0	100.0	1,084
Lindi	54.2	27.1	8.7	0.0	10.0	100.0	188
Mtwara	56.6	25.5	10.2	0.0	7.8	100.0	369
Ruvuma	52.9	31.8	7.6	0.1	7.5	100.0	684
Iringa	43.4	22.8	20.7	0.0	13.1	100.0	200
Mbeya	54.4	20.1	9.1	0.0	16.4	100.0	699
Singida	55.3	22.9	6.6	1.1	14.1	100.0	416
Tabora	58.2	26.7	6.5	0.0	8.6	100.0	432
Rukwa	56.3	22.7	10.7	0.0	10.3	100.0	187
Kigoma	39.5	21.9	13.4	2.6	22.6	100.0	458
Shinyanga	56.4	24.6	8.9	0.0	10.1	100.0	415
Kagera	62.4	17.4	5.0	0.3	14.9	100.0	448
Mwanza	60.6	24.0	5.7	0.0	9.7	100.0	570
Mara	58.3	26.6	4.9	1.0	9.2	100.0	433
Manyara	54.6	18.0	9.0	0.0	18.4	100.0	262
Njombe	47.4	24.7	15.0	0.8	12.1	100.0	271
Katavi	59.0	21.6	5.6	0.0	13.8	100.0	214
Simiyu	53.6	24.9	6.6	0.7	14.2	100.0	626
Geita	65.7	19.0	4.3	0.0	11.0	100.0	304
Kaskazini Unguja	48.0	13.6	8.5	0.0	29.9	100.0	42
Kusini Unguja	55.7	12.9	8.3	0.0	23.1	100.0	26
Mjini Magharibi	43.9	15.3	7.9	0.0	32.9	100.0	230
Kaskazini Pemba	48.5	9.5	6.2	0.0	35.8	100.0	47
Kusini Pemba	50.3	12.3	3.7	0.0	33.7	100.0	46
Education							
No education	59.2	26.2	10.1	0.3	4.2	100.0	1,955
Primary incomplete	53.0	21.6	9.1	0.6	15.7	100.0	1,380
Primary complete	58.8	23.4	8.4	0.3	9.1	100.0	5,713
Secondary+	30.1	25.5	9.2	0.2	35.0	100.0	1,919
Wealth quintile							
Lowest	53.0	27.3	10.9	0.3	8.5	100.0	1,864
Second	56.3	24.8	8.3	0.3	10.3	100.0	1,974
Middle	57.2	21.7	7.8	0.2	13.0	100.0	1,977
Fourth	54.8	22.3	7.9	0.1	14.8	100.0	2,257
Highest	46.9	24.3	9.6	0.6	18.5	100.0	2,895
Total	53.1	24.0	8.9	0.3	13.6	100.0	10,967

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

Table 6.1.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Tanzania 2011-12

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	13.6	17.2	8.2	0.1	60.9	100.0	2,012
20-24	42.7	32.4	9.9	0.1	15.0	100.0	1,525
25-29	68.2	22.0	6.8	0.1	2.8	100.0	1,116
30-34	75.8	19.5	3.5	0.2	1.0	100.0	1,064
35-39	80.7	15.1	2.8	0.7	0.7	100.0	1,064
40-44	81.6	15.2	2.4	0.3	0.5	100.0	913
45-49	81.7	13.3	4.3	0.7	0.0	100.0	658
Marital status							
Never married	19.1	26.6	11.5	0.1	42.7	100.0	3,534
Married or living together	85.0	13.4	1.2	0.4	0.0	100.0	4,428
Divorced/separated/widowed	49.6	38.1	12.1	0.1	0.0	100.0	390
Marital duration[2]							
0-4 years	80.9	17.4	1.5	0.3	0.0	100.0	979
5-9 years	82.4	15.3	1.6	0.7	0.0	100.0	658
10-14 years	86.6	12.0	0.9	0.5	0.0	100.0	584
15-19 years	81.4	17.1	1.4	0.0	0.0	100.0	418
20-24 years	80.7	16.2	2.6	0.5	0.0	100.0	267
25+ years	78.7	19.3	2.1	0.0	0.0	100.0	74
Married more than once	90.5	8.5	0.6	0.3	0.0	100.0	1,449
Residence							
Urban	49.7	24.2	7.3	0.3	18.5	100.0	2,142
Rural	57.5	18.7	5.7	0.2	17.9	100.0	6,210
Mainland/Zanzibar							
Mainland	55.9	20.4	6.2	0.3	17.2	100.0	8,079
Urban	49.9	24.5	7.5	0.3	17.7	100.0	2,066
Rural	58.0	18.9	5.8	0.2	17.0	100.0	6,013
Zanzibar	42.0	13.3	1.3	0.2	43.3	100.0	273
Unguja	42.6	16.0	0.8	0.1	40.6	100.0	204
Pemba	40.0	5.3	2.7	0.5	51.5	100.0	69
Zone							
Eastern	52.8	27.3	5.7	0.1	14.0	100.0	1,363
Western	55.3	20.5	6.6	0.6	17.1	100.0	736
Southern	62.1	21.2	7.3	0.0	9.4	100.0	371
Southern Highlands	60.7	18.1	4.0	0.1	17.0	100.0	818
Southwest Highlands	56.3	19.6	7.0	0.0	17.1	100.0	851
Central	54.2	18.5	7.5	0.1	19.8	100.0	908
Northern	52.9	16.2	9.5	1.0	20.4	100.0	855
Lake	57.0	19.4	5.0	0.2	18.3	100.0	2,178
Region							
Dodoma	61.1	15.6	10.3	0.0	13.0	100.0	342
Arusha	51.3	14.8	9.8	0.0	24.1	100.0	254
Kilimanjaro	43.8	15.2	13.3	0.9	26.8	100.0	256
Tanga	61.0	17.9	6.5	1.8	12.8	100.0	344
Morogoro	57.8	21.1	6.1	0.0	15.0	100.0	343
Pwani	50.6	21.6	5.6	1.2	21.0	100.0	166
Dar es Salaam	51.2	31.0	5.6	0.0	12.3	100.0	854
Lindi	64.1	21.6	4.0	0.0	10.3	100.0	129
Mtwara	61.0	21.0	9.1	0.0	8.9	100.0	242
Ruvuma	68.4	18.2	1.2	0.0	12.1	100.0	455
Iringa	38.4	22.1	10.7	0.0	28.8	100.0	153
Mbeya	54.4	19.3	7.5	0.0	18.8	100.0	557
Singida	49.5	21.7	4.6	0.2	23.9	100.0	328
Tabora	61.5	23.5	4.6	0.0	10.4	100.0	411
Rukwa	62.4	16.7	6.0	0.0	15.0	100.0	137
Kigoma	47.5	16.6	9.2	1.3	25.5	100.0	325
Shinyanga	57.6	25.8	0.0	0.0	16.6	100.0	327
Kagera	59.0	8.8	8.8	1.3	22.0	100.0	372
Mwanza	50.1	20.9	4.1	0.0	24.9	100.0	420
Mara	58.1	21.4	6.2	0.0	14.3	100.0	332
Manyara	50.6	18.1	7.3	0.0	24.1	100.0	238
Njombe	60.2	15.0	5.3	0.4	19.1	100.0	210
Katavi	58.0	23.0	6.0	0.0	13.1	100.0	157
Simiyu	59.6	20.9	6.7	0.0	12.8	100.0	477
Geita	58.4	18.6	2.7	0.2	20.1	100.0	250
Kaskazini Unguja	48.8	6.3	0.4	0.4	44.1	100.0	25
Kusini Unguja	51.7	12.6	4.8	0.0	30.9	100.0	20
Mjini Magharibi	40.5	17.9	0.4	0.0	41.2	100.0	159
Kaskazini Pemba	38.8	4.5	2.3	0.9	53.5	100.0	33
Kusini Pemba	41.2	6.1	3.0	0.0	49.7	100.0	36
Education							
No education	66.3	17.3	5.9	0.4	10.1	100.0	776
Primary incomplete	54.8	17.6	4.4	0.2	22.9	100.0	1,338
Primary complete	64.3	19.0	4.9	0.2	11.5	100.0	4,264
Secondary+	32.6	25.4	9.8	0.3	32.0	100.0	1,974
Wealth quintile							
Lowest	61.1	19.1	5.1	0.3	14.4	100.0	1,358
Second	60.5	17.6	4.9	0.4	16.7	100.0	1,532
Middle	56.7	19.4	5.3	0.2	18.5	100.0	1,590
Fourth	53.7	18.8	7.1	0.2	20.1	100.0	1,749
Highest	48.8	24.3	7.3	0.3	19.4	100.0	2,123
Total	55.5	20.1	6.1	0.3	18.1	100.0	8,352

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

6.3 MULTIPLE SEXUAL PARTNERS

Information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of HIV. The 2011-12 THMIS included questions on respondents' sexual partners during their lifetimes and over the 12 months preceding the survey. Men were also asked whether they paid for sex during the 12 months preceding the interview. In addition, information was collected on women's and men's use of condoms during their most recent sexual intercourse. These questions are sensitive, and it is recognized that some respondents may have been reluctant to provide information on recent sexual behaviour.

Tables 6.2.1 and 6.2.2 show the percentages of women and men, respectively, who had two or more partners in the 12 months preceding the survey. Among those with two or more partners in the past 12 months, the tables also show the percentage who used a condom during their last sexual intercourse. Finally, the tables provide information on the mean number of lifetime sexual partners among those who have ever had sexual intercourse.

A much larger proportion of men than women reported having had more than one sexual partner (21 percent and 4 percent, respectively) at some time in the past 12 months. Men age 20-49, those who had ever been married, and those without any secondary education were more likely than their counterparts to have had more than one sexual partner in the past 12 months. As would be expected, the proportion of men with multiple sexual partners in the past 12 months was exceptionally high among those in polygynous unions (83 percent). By residence, men in rural areas (versus urban) and those on the Mainland (versus Zanzibar) were more likely to have had more than one sexual partner than men living in other areas. The likelihood of having more than one sexual partner generally decreased with wealth. Differentials for women by background characteristics are minor.

Among respondents who had more than one sexual partner in the past 12 months, women and men were equally likely to report using a condom during their last sexual intercourse (27 percent). On average, men had had 6.6 sexual partners over their lifetimes, and women had had 2.3 partners.

Among those with more than one sexual partner in the past 12 months, never-married men and divorced, separated, or widowed men were much more likely to report condom use during their most recent sexual intercourse than those who were married (52 percent, 55 percent, and 14 percent, respectively). Urban men were more likely to report using a condom during their last sexual intercourse than rural men (44 percent and 22 percent, respectively). Condom use among men during last sexual intercourse generally increased with education level and wealth. Data for women are not discussed by background characteristics due to the small number of women with more than one sexual partner.

Mean number of lifetime sexual partners increased with age, with men age 40-49 reporting an average of 10.0 lifetime partners and women in the same age group reporting an average of 2.6 partners. Among men, those in a polygynous union and those who were divorced, separated, or widowed had the highest average numbers of lifetime sexual partners (9.2 and 12.3 partners, respectively). Among women who had ever had sexual intercourse, those who were divorced, separated, or widowed had more partners on average (3.3 partners) than those who had never been married (2.4 partners) and those who were married (2.1 partners). For both men and women, differences in the number of lifetime sexual partners by urban-rural residence were minor. By region, the mean reported number of lifetime sex partners among men varied from 1.9 in both Kaskazini Pemba and Kusini Pemba to 12.8 in Shinyanga. Among women, mean number of lifetime sex partners varied from 1.3 in Kaskazini Pemba and Kusini Pemba to 3.9 in Mtwara region.

A comparison of the results from the 2011-12 THMIS with the 2007-08 THMIS reveals only small differences in the proportions of men and women who have had multiple sexual partners in the past 12 months and in mean number of lifetime partners. For example, the proportion of men and women having more than one sexual partner in the 2011-12 THMIS is slightly higher than that reported in the 2007-08 THMIS (for men, 21 and 18 percent, respectively; for women, 4 and 3 percent, respectively). Likewise, the mean number of lifetime sexual partners for both men and women reported in the 2011-12 THMIS (6.6 and 2.3, respectively) is nearly identical to that reported in the 2007-08 THMIS (6.8 and 2.4, respectively).

Table 6.2.1 Multiple sexual partners: Women

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for women who ever had sexual intercourse, by background characteristics, Tanzania 2011-12

Background characteristic	Among all women:		Among women who had 2+ partners in the past 12 months:		Among women who ever had sexual intercourse[1]:	
	Percentage who had 2+ partners in the past 12 months	Number of women	Percentage who reported using a condom during last sexual intercourse	Number of women	Mean number of sexual partners in lifetime	Number of women
Age						
15-24	3.7	4,303	33.9	159	1.8	2,851
15-19	3.0	2,414	37.7	72	1.6	1,135
20-24	4.6	1,888	30.8	87	2.0	1,716
25-29	4.5	1,902	34.2	86	2.5	1,848
30-39	3.7	2,932	20.8	109	2.5	2,889
40-49	3.3	1,831	11.8	60	2.6	1,808
Marital status						
Never married	2.9	2,798	52.4	81	2.4	1,288
Married or living together	3.2	6,910	11.2	223	2.1	6,864
Divorced/separated/widowed	8.8	1,258	41.7	110	3.3	1,244
Residence						
Urban	4.5	2,956	41.9	134	2.8	2,449
Rural	3.5	8,011	20.4	280	2.1	6,947
Mainland/Zanzibar						
Mainland	3.9	10,576	27.4	413	2.3	9,132
Urban	4.7	2,834	42.0	134	2.8	2,373
Rural	3.6	7,742	20.4	280	2.2	6,760
Zanzibar	0.2	391	*	1	1.6	264
Unguja	0.2	298	*	1	1.7	203
Pemba	0.2	93	*	0	1.3	61
Zone						
Eastern	4.0	1,696	42.7	68	2.9	1,447
Western	4.0	890	(42.8)	36	2.2	734
Southern	9.0	557	22.1	50	3.8	505
Southern Highlands	3.2	1,155	(16.2)	37	2.3	1,040
Southwest Highlands	0.8	1,101	*	8	1.5	938
Central	2.7	1,100	(28.5)	29	2.0	958
Northern	1.1	1,281	*	14	1.7	1,054
Lake	6.1	2,797	22.5	171	2.4	2,458
Region						
Dodoma	3.8	422	*	16	2.2	390
Arusha	1.2	331	*	4	1.7	284
Kilimanjaro	0.8	384	*	3	1.7	293
Tanga	1.2	566	*	7	1.8	477
Morogoro	3.9	399	*	15	2.6	364
Pwani	1.3	213	*	3	2.7	188
Dar es Salaam	4.6	1,084	(44.8)	49	3.1	895
Lindi	8.3	188	(39.9)	16	3.8	168
Mtwara	9.3	369	(14.1)	34	3.9	337
Ruvuma	5.0	684	*	34	2.7	628
Iringa	0.0	200	nc	0	1.7	173
Mbeya	0.5	699	*	4	1.5	585
Singida	2.7	416	*	11	1.8	354
Tabora	6.0	432	(35.3)	26	2.6	395
Rukwa	2.6	187	*	5	1.5	168
Kigoma	2.1	458	*	9	1.6	339
Shinyanga	7.9	415	(21.3)	33	3.2	374
Kagera	1.3	448	*	6	1.7	379
Mwanza	6.9	570	(17.6)	39	2.3	512
Mara	8.7	433	(32.8)	38	2.9	392
Manyara	0.7	262	*	2	1.8	214
Njombe	1.2	271	*	3	1.8	238
Katavi	0.0	214	nc	0	1.6	185
Simiyu	6.6	626	(23.3)	41	2.1	535
Geita	5.0	304	(13.0)	15	2.6	267
Kaskazini Unguja	0.2	42	*	0	1.5	30
Kusini Unguja	1.8	26	*	0	1.7	20
Mjini Magharibi	0.0	230	nc	0	1.7	154
Kaskazini Pemba	0.0	47	nc	0	1.3	30
Kusini Pemba	0.3	46	*	0	1.3	30
Education						
No education	4.6	1,955	21.5	91	2.3	1,854
Primary incomplete	4.7	1,380	31.2	65	2.4	1,153
Primary complete	3.9	5,713	25.4	223	2.4	5,149
Secondary+	1.8	1,919	(48.3)	35	2.1	1,240
Wealth quintile						
Lowest	4.7	1,864	21.1	87	2.3	1,700
Second	3.6	1,974	17.8	71	2.1	1,765
Middle	3.6	1,977	23.2	71	2.2	1,711
Fourth	4.1	2,257	30.8	92	2.2	1,912
Highest	3.2	2,895	40.3	93	2.6	2,309
Total	3.8	10,967	27.3	414	2.3	9,396

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.
nc = No cases
[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 6.2.2 Multiple sexual partners: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by background characteristics, Tanzania 2011-12

	Among all men:		Among men who had 2+ partners in the past 12 months:		Among men who ever had sexual intercourse[1]:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Mean number of sexual partners in lifetime	Number of men
Age						
15-24	13.9	3,537	40.6	493	3.7	2,052
15-19	7.1	2,012	45.2	142	2.7	781
20-24	23.0	1,525	38.8	351	4.3	1,271
25-29	25.5	1,116	31.6	285	5.6	1,048
30-39	25.9	2,128	21.1	551	7.5	2,015
40-49	25.8	1,571	14.4	405	10.0	1,465
Marital status						
Never married	12.4	3,534	51.9	437	3.8	1,993
Married or living together	26.4	4,428	14.3	1,168	7.4	4,227
Divorced/separated/widowed	32.9	390	55.3	128	12.3	359
Type of union						
In polygynous union	82.6	496	3.8	409	9.2	468
In non-polygynous union	19.3	3,921	20.0	755	7.2	3,749
Not currently in union	14.4	3,924	52.7	565	5.1	2,352
Residence						
Urban	17.4	2,142	43.8	374	7.2	1,676
Rural	21.9	6,210	22.2	1,360	6.4	4,903
Mainland/Zanzibar						
Mainland	21.2	8,079	27.0	1,709	6.7	6,425
Urban	17.9	2,066	44.1	369	7.3	1,631
Rural	22.3	6,013	22.3	1,341	6.5	4,794
Zanzibar	8.7	273	16.0	24	2.7	154
Unguja	8.8	204	20.6	18	2.9	121
Pemba	8.7	69	(2.1)	6	1.9	33
Zone						
Eastern	22.4	1,363	41.0	305	7.1	1,092
Western	12.2	736	24.2	89	6.5	600
Southern	24.7	371	19.8	92	9.0	335
Southern Highlands	27.3	818	33.6	223	6.4	678
Southwest Highlands	17.7	851	22.5	150	4.1	702
Central	21.1	908	23.9	191	5.6	712
Northern	15.3	855	22.3	131	5.3	638
Lake	24.2	2,178	21.4	528	8.1	1,669
Region						
Dodoma	25.1	342	(22.6)	86	5.4	287
Arusha	12.7	254	(16.3)	32	3.8	193
Kilimanjaro	2.6	256	*	7	6.0	175
Tanga	26.7	344	24.2	92	5.9	270
Morogoro	27.3	343	38.3	94	7.0	248
Pwani	21.7	166	(37.4)	36	7.8	104
Dar es Salaam	20.5	854	43.2	175	7.1	739
Lindi	29.8	129	18.5	38	8.5	115
Mtwara	22.0	242	20.7	53	9.3	220
Ruvuma	34.4	455	32.7	157	7.7	400
Iringa	8.8	153	*	13	2.7	108
Mbeya	20.0	557	22.6	111	4.6	450
Singida	21.4	328	27.5	70	6.3	244
Tabora	16.3	411	26.4	67	7.0	363
Rukwa	12.0	137	(23.3)	17	1.9	117
Kigoma	6.9	325	*	22	5.7	236
Shinyanga	26.0	327	22.9	85	12.8	273
Kagera	11.4	372	(23.2)	43	3.5	285
Mwanza	22.4	420	23.1	94	10.5	291
Mara	29.8	332	19.8	99	6.7	255
Manyara	14.9	238	(19.7)	35	4.9	181
Njombe	25.4	210	42.2	53	5.7	170
Katavi	14.2	157	(21.2)	22	4.5	135
Simiyu	27.0	477	25.1	129	6.4	369
Geita	31.4	250	12.6	78	10.1	197
Kaskazini Unguja	8.1	25	*	2	2.2	14
Kusini Unguja	15.1	20	(8.0)	3	2.8	14
Mjini Magharibi	8.1	159	*	13	3.0	93
Kaskazini Pemba	7.6	33	*	3	1.9	15
Kusini Pemba	9.6	36	*	3	1.9	18
Education						
No education	24.6	776	15.4	191	6.6	665
Primary incomplete	21.1	1,338	21.0	283	6.6	1,000
Primary complete	23.4	4,264	25.9	999	7.2	3,612
Secondary+	13.2	1,974	45.1	260	4.7	1,303
Wealth quintile						
Lowest	22.4	1,358	12.3	304	7.0	1,105
Second	23.6	1,532	21.5	362	6.9	1,237
Middle	22.3	1,590	27.1	354	6.2	1,251
Fourth	19.4	1,749	28.0	339	6.4	1,344
Highest	17.6	2,123	42.4	375	6.5	1,643
Total	20.8	8,352	26.8	1,733	6.6	6,579

Note: Total includes 10 cases for which type of union is missing. 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.
[1]Means are calculated excluding respondents who gave non-numeric responses.

Point prevalence and cumulative prevalence of concurrent sexual partners are new concepts that were incorporated for the first time in the 2011-12 THMIS. The point prevalence of concurrent sexual partners is defined as the percentage of respondents who had two (or more) sexual partners concurrently at the point in time six months before the survey. The cumulative prevalence of concurrent sexual partners is defined as the percentage of respondents who had two (or more) sexual partners concurrently at any time during the 12 months preceding the survey.

Table 6.3 shows the point prevalence and cumulative prevalence of concurrent sexual partners among all respondents during the 12 months before the survey. It also shows the percentage of respondents who had concurrent sexual partners among those who had multiple sexual partners during the 12 months before the survey.

Among women, point prevalence and cumulative prevalence were 1 percent and 3 percent, respectively; among men, point prevalence was 8 percent and cumulative prevalence was 16 percent. Among female respondents, point prevalence and cumulative prevalence were generally similar in urban and rural areas. Among male respondents, point prevalence and cumulative prevalence were higher in rural areas than in urban areas. Men in polygynous unions had the highest cumulative prevalence (79 percent), and those not currently in a union had the lowest (7 percent). Not surprisingly, for both women and men, the percentage of those who had concurrent sexual partners was much higher among respondents who reported having multiple partners during the 12 months before the survey. Sixty-six percent of women and 76 percent of men who had two or more partners in the 12 months before the survey had concurrent sexual partners.

Table 6.3 Point prevalence and cumulative prevalence of concurrent sexual partners

Percentage of all women and men age 15-49 who had concurrent sexual partners six months before the survey (point prevalence[1]), and percentage of all women and men 15-49 who had any concurrent sexual partners during the 12 months before the survey (cumulative prevalence[2]), and among women and men age 15-49 who had multiple sexual partners during the 12 months before the survey, percentage who had concurrent sexual partners, by background characteristics, Tanzania 2011-12

Background characteristic	Among all respondents:			Among all respondents who had multiple partners during the 12 months before the survey:	
	Point prevalence of concurrent sexual partners[1]	Cumulative prevalence of concurrent sexual partners[2]	Number of respondents	Percentage who had concurrent sexual partners[2]	Number of respondents
		WOMEN			
Age					
15-24	0.7	2.1	4,303	57.8	159
15-19	0.4	1.6	2,414	53.1	72
20-24	1.0	2.8	1,888	61.7	87
25-29	2.2	3.2	1,902	70.8	86
30-39	1.4	2.8	2,932	74.4	109
40-49	1.2	2.2	1,831	66.8	60
Marital status					
Never married	0.6	1.6	2,798	54.5	81
Married or living together	1.3	2.5	6,910	77.1	223
Divorced/separated/widowed	1.9	4.6	1,258	52.6	110
Residence					
Urban	1.5	2.9	2,956	63.0	134
Rural	1.1	2.4	8,011	67.7	280
Mainland/Zanzibar					
Mainland	1.2	2.6	10,576	66.1	413
Urban	1.5	3.0	2,834	63.0	134
Rural	1.1	2.4	7,742	67.6	280
Zanzibar	0.1	0.2	391	*	1
Unguja	0.1	0.2	298	*	1
Pemba	0.0	0.2	93	*	0
Zone					
Eastern	1.3	2.8	1,696	71.1	68
Western	0.5	1.9	890	(47.2)	36
Southern	1.7	4.1	557	45.6	50
Southern Highlands	1.0	2.4	1,155	(74.2)	37
Southwest Highlands	0.1	0.6	1,101	*	8
Central	0.8	1.8	1,100	(69.1)	29
Northern	0.5	0.6	1,281	*	14
Lake	2.4	4.4	2,797	71.6	171
Total	1.2	2.5	10,967	66.2	414
		MEN			
Age					
15-24	2.4	7.9	3,537	56.5	493
15-19	1.0	3.2	2,012	45.0	142
20-24	4.3	14.1	1,525	61.2	351
25-29	7.7	19.0	1,116	74.7	285
30-39	12.0	21.5	2,128	83.1	551
40-49	16.1	23.2	1,571	89.8	405
Marital status					
Never married	1.7	6.4	3,534	51.5	437
Married or living together	13.7	23.3	4,428	88.5	1,168
Divorced/separated/widowed	4.1	13.8	390	42.0	128
Type of union					
In polygynous union	66.2	79.1	496	95.8	409
In non-polygynous union	7.0	16.3	3,921	84.5	755
Not currently in union	1.9	7.1	3,924	49.3	565
Residence					
Urban	4.9	12.3	2,142	70.6	374
Rural	9.3	16.9	6,210	77.1	1,360
Mainland/Zanzibar					
Mainland	8.2	16.0	8,079	75.4	1,709
Urban	4.9	12.5	2,066	70.2	369
Rural	9.3	17.1	6,013	76.9	1,341
Zanzibar	6.4	8.5	273	97.8	24
Unguja	6.2	8.6	204	98.1	18
Pemba	7.0	8.4	69	(96.8)	6
Zone					
Eastern	6.8	15.8	1,363	70.8	305
Western	4.4	8.7	736	71.5	89
Southern	7.2	20.1	371	81.4	92
Southern Highlands	8.7	18.7	818	68.6	223
Southwest Highlands	7.5	15.2	851	86.0	150
Central	8.7	15.4	908	73.2	191
Northern	5.3	11.7	855	76.5	131
Lake	11.5	18.9	2,178	78.2	528
Total	8.1	15.7	8,352	75.7	1,733

Note: Two sexual partners are considered to be concurrent if the date of the most recent sexual intercourse with the earlier partner is after the date of the first sexual intercourse with the later partner. Total for men includes 10 cases for which type of union is missing. 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.

[1] The percentage of respondents who had two (or more) sexual partners that were concurrent at the point in time six months before the survey

[2] The percentage of respondents who had two (or more) sexual partners that were concurrent anytime during the 12 months preceding the survey

6.4 PAID SEX

The act of paying for sex introduces an uneven negotiating ground for safer sexual intercourse. Condom use is an important indicator in efforts to ascertain the level of risk associated with sexual intercourse involving payments. Table 6.4 presents information on the extent to which men ever engaged in paid sex and engaged in paid sex in the 12-month period before the survey. It also shows among men who engaged in paid sex in the 12-month period, the percentage reporting condom use during last paid sexual intercourse.

Fifteen percent of men reported ever paying for sex; 9 percent reported paying for sex at least once during the 12 months preceding the survey. Men age 20-49 (15-18 percent), ever-married men (15-37 percent), and rural men (15 percent) were most likely to have ever paid for sex. By region, the percentage of men who had ever paid for sex ranged from 0 percent in Kaskazini Unguja and Mjini Magharibi to 54 percent in Lindi. Payment for sexual intercourse was negatively associated with education and wealth. For example, 14 percent of men with no education and 16 percent of men in the lowest wealth quintile had ever paid for sexual intercourse, compared with 8 percent of men with secondary education and 10 percent of men in the highest wealth quintile. Divorced, widowed, or separated men (25 percent) had the highest rate of paid sex during the 12 months preceding the survey. Fifty-three percent of men who had engaged in paid sex in the past 12 months used a condom the last time they paid for sex.

The proportion of men that reported paying for sex during the 12 months preceding the 2011-12 THMIS (9 percent) is essentially unchanged from that reported in the 2007-08 THMIS (8 percent).

Table 6.4 Payment for sexual intercourse and condom use at last paid sexual intercourse

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage 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 2011-12

Background characteristic	Among all men:			Among men who paid for sex in the past 12 months:	
	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men	Percentage reporting condom use at last paid sexual intercourse	Number of men
Age					
15-24	12.1	9.1	3,537	44.5	323
15-19	7.3	5.7	2,012	35.6	115
20-24	18.4	13.6	1,525	49.4	208
25-29	16.5	9.5	1,116	54.3	106
30-39	17.2	8.5	2,128	67.3	181
40-49	15.1	6.2	1,571	52.0	98
Marital status					
Never married	11.6	8.9	3,534	42.8	314
Married or living together	15.0	6.7	4,428	59.1	295
Divorced/separated/widowed	36.6	25.3	390	66.3	99
Residence					
Urban	12.7	7.0	2,142	66.7	149
Rural	15.2	9.0	6,210	49.1	559
Mainland/Zanzibar					
Mainland	15.0	8.8	8,079	52.9	707
Urban	13.1	7.2	2,066	66.7	149
Rural	15.7	9.3	6,013	49.2	558
Zanzibar	0.6	0.3	273	*	1
Unguja	0.4	0.3	204	*	1
Pemba	1.2	0.5	69	*	0
Zone					
Eastern	11.8	5.9	1,363	63.2	80
Western	10.5	6.5	736	(60.5)	48
Southern	45.4	22.3	371	57.4	83
Southern Highlands	15.0	9.3	818	(64.4)	76
Southwest Highlands	8.3	4.9	851	(44.0)	41
Central	9.7	6.6	908	50.4	60
Northern	11.4	4.5	855	(57.0)	38
Lake	19.7	12.9	2,178	45.6	281
Region					
Dodoma	9.1	6.4	342	*	22
Arusha	1.4	1.0	254	*	3
Kilimanjaro	13.1	2.3	256	*	6
Tanga	17.6	8.7	344	*	30
Morogoro	16.4	7.0	343	*	24
Pwani	13.1	2.9	166	*	5
Dar es Salaam	9.6	6.0	854	(71.2)	51
Lindi	53.6	29.0	129	61.4	37
Mtwara	41.0	18.7	242	(54.2)	45
Ruvuma	20.9	13.6	455	(68.6)	62
Iringa	2.7	1.0	153	*	1
Mbeya	7.6	4.4	557	*	24
Singida	14.2	9.4	328	(51.7)	31
Tabora	15.4	8.4	411	(50.9)	35
Rukwa	3.6	3.6	137	*	5
Kigoma	4.3	4.0	325	*	13
Shinyanga	23.4	17.5	327	(48.2)	57
Kagera	3.4	3.2	372	*	12
Mwanza	17.6	15.7	420	(44.1)	66
Mara	23.9	13.0	332	(43.0)	43
Manyara	4.6	3.1	238	*	7
Njombe	10.9	5.9	210	*	12
Katavi	14.7	7.7	157	*	12
Simiyu	25.1	11.8	477	(51.8)	56
Geita	26.9	18.9	250	33.2	47
Kaskazini Unguja	0.0	0.0	25	nc	0
Kusini Unguja	4.0	2.7	20	*	1
Mjini Magharibi	0.0	0.0	159	nc	0
Kaskazini Pemba	0.8	0.5	33	*	0
Kusini Pemba	1.5	0.5	36	*	0
Education					
No education	13.9	8.0	776	43.1	62
Primary incomplete	16.8	9.6	1,338	41.8	128
Primary complete	17.0	9.9	4,264	55.7	420
Secondary+	8.1	5.0	1,974	61.4	98
Wealth quintile					
Lowest	16.4	9.0	1,358	44.8	123
Second	17.0	10.0	1,532	52.4	153
Middle	16.0	9.9	1,590	51.6	158
Fourth	15.1	8.9	1,749	53.0	156
Highest	10.1	5.6	2,123	63.3	119
Total	14.6	8.5	8,352	52.9	708

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.
nc = No cases

TESTING AND TRANSMISSION RISK FACTORS 7

Key Findings

- Nine in ten women and men know where to get an HIV test.
- Sixty-two percent of women and 47 percent of men have ever been tested and received the results of their HIV test.
- Sixty-two percent of women who gave birth during the two years preceding the survey were tested for HIV, received the test results, and received post-test counselling.
- Seventy-two percent of men report having been circumcised.
- Eight percent of women and 7 percent of men who ever had sex reported having had a sexually transmitted infection (STI), an abnormal discharge, or a genital sore in the 12 months before the survey.
- More than half of all respondents (50 percent of women and 62 percent of men) sought care for the STIs and/or symptoms of STIs from a clinic, hospital, or health professional.
- Sixty-six percent of women age 15–49 reported having heard of cervical cancer.

7.1 INTRODUCTION

The chapter examines the extent to which voluntary counselling and testing for HIV take place among women and men age 15-49. Data are also presented on the prevalence of self-reported sexually transmitted infections, the prevalence of circumcision among men, and the prevalence of medical injections. Finally, information is presented regarding women's knowledge of cervical cancer.

7.2 COVERAGE OF HIV TESTING SERVICES

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safe sex practices so that they can remain disease free. For those who are HIV infected, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future.

To assess for awareness and coverage of HIV testing services, 2011-12 THMIS respondents were asked whether they had ever been tested for HIV. If they said that they had been, they were asked 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.

Tables 7.1.1 and 7.1.2 show the coverage of prior HIV testing of women and men. The results show that nine in ten women and men know where to get an HIV test. The tables also show that 67 percent of women and 50 percent of men have ever been tested for HIV, and 62 percent of women and 47 percent of men have been tested at some time and received the results of their HIV test. Three in ten women and 27 percent of men were tested for HIV in the 12 months preceding the survey and received the results of their test. These latter figures are higher than those recorded in the 2007-08 THMIS (19 percent of both women and men), suggesting that Tanzanians are becoming increasingly aware of opportunities for testing and learning their HIV status. Nevertheless, 33 percent of women and 50 percent of men have never been tested.

Women age 20-39 and men age 25 and older are the most likely to have ever been tested for HIV. Respondents in urban areas (74 percent of women and 59 percent of men) are more likely than those in rural areas (65 percent of women and 47 percent of men) to have had an HIV test. Women and men who have never had sex are the least likely to have ever been tested (20 percent each). Similar patterns are observed in testing and receiving results for women and men.

Regional variations exist among women and men. The proportion of women who took the test and received their results in the 12 months prior to the survey ranges from 17 percent in Geita to 42 percent in Ruvuma. Among men, rates vary from 11 percent in Kaskazini Pemba to 44 percent in Njombe. HIV testing is more common among better educated and wealthier respondents.

Table 7.1.1 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 were tested in the past 12 months and received the results of the last test, according to background characteristics, Tanzania 2011-12

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 have been tested for HIV in the past 12 months and received the results of the last test	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	85.9	49.2	4.5	46.3	100.0	53.7	28.6	4,303
15-19	79.7	30.9	3.5	65.6	100.0	34.4	20.8	2,414
20-24	93.9	72.6	5.7	21.6	100.0	78.4	38.6	1,888
25-29	95.5	78.3	6.1	15.7	100.0	84.3	37.4	1,902
30-39	93.6	74.7	4.2	21.0	100.0	79.0	34.3	2,932
40-49	91.5	57.1	4.8	38.1	100.0	61.9	20.2	1,831
Marital status								
Never married	83.4	38.2	3.2	58.7	100.0	41.3	23.5	2,798
Ever had sex	92.4	61.2	4.1	34.7	100.0	65.3	37.5	1,303
Never had sex	75.6	18.1	2.3	79.6	100.0	20.4	11.3	1,495
Married/living together	92.8	70.9	5.3	23.8	100.0	76.2	32.5	6,910
Divorced/separated/widowed	94.0	69.7	5.1	25.2	100.0	74.8	32.8	1,258
Residence								
Urban	95.2	70.1	3.8	26.1	100.0	73.9	38.0	2,956
Rural	88.8	59.6	5.1	35.4	100.0	64.6	27.4	8,011
Mainland/Zanzibar								
Mainland	90.4	62.5	4.8	32.7	100.0	67.3	30.5	10,576
Urban	95.2	70.5	3.9	25.6	100.0	74.4	38.9	2,834
Rural	88.7	59.5	5.1	35.4	100.0	64.6	27.5	7,742
Zanzibar	94.8	59.7	3.9	36.4	100.0	63.6	23.5	391
Unguja	95.6	61.4	4.6	34.0	100.0	66.0	24.2	298
Pemba	92.1	54.5	1.5	44.0	100.0	56.0	21.3	93
Zone								
Eastern	94.4	68.6	5.1	26.3	100.0	73.7	33.5	1,696
Western	93.4	65.5	3.9	30.7	100.0	69.3	35.4	890
Southern	96.2	72.1	4.7	23.2	100.0	76.8	39.4	557
Southern Highlands	94.6	70.2	4.5	25.3	100.0	74.7	37.1	1,155
Southwest Highlands	84.5	50.8	6.0	43.2	100.0	56.8	24.2	1,101
Central	84.8	60.8	3.9	35.3	100.0	64.7	25.8	1,100
Northern	88.8	61.0	4.3	34.7	100.0	65.3	29.9	1,281
Lake	89.4	58.7	5.0	36.3	100.0	63.7	27.3	2,797
Region								
Dodoma	85.1	63.0	5.4	31.6	100.0	68.4	21.3	422
Arusha	90.8	63.9	5.7	30.3	100.0	69.7	34.0	331
Kilimanjaro	94.9	63.7	4.8	31.5	100.0	68.5	27.8	384
Tanga	83.4	57.4	3.2	39.5	100.0	60.5	28.8	566
Morogoro	91.9	56.1	8.1	35.8	100.0	64.2	24.0	399
Pwani	96.8	72.4	7.4	20.2	100.0	79.8	39.2	213
Dar es Salaam	94.9	72.4	3.6	24.0	100.0	76.0	35.9	1,084
Lindi	97.3	73.6	7.0	19.4	100.0	80.6	39.1	188
Mtwara	95.7	71.3	3.6	25.1	100.0	74.9	39.5	369
Ruvuma	92.3	69.3	3.7	27.0	100.0	73.0	41.6	684
Iringa	98.5	68.6	5.8	25.6	100.0	74.4	26.0	200
Mbeya	86.2	53.8	5.5	40.7	100.0	59.3	26.1	699
Singida	82.7	61.3	2.5	36.2	100.0	63.8	30.4	416
Tabora	95.8	69.5	3.2	27.3	100.0	72.7	38.6	432
Rukwa	79.8	44.7	7.7	47.6	100.0	52.4	18.7	187
Kigoma	91.2	61.7	4.5	33.9	100.0	66.1	32.4	458
Shinyanga	89.8	60.5	3.8	35.8	100.0	64.2	22.1	415
Kagera	95.9	66.1	5.2	28.8	100.0	71.2	27.8	448
Mwanza	87.8	63.0	4.8	32.2	100.0	67.8	38.0	570
Mara	92.1	59.1	3.9	37.0	100.0	63.0	32.9	433
Manyara	87.6	56.4	3.7	39.9	100.0	60.1	25.8	262
Njombe	97.5	73.5	5.6	20.9	100.0	79.1	33.7	271
Katavi	82.8	46.5	6.2	47.4	100.0	52.6	22.6	214
Simiyu	87.5	52.3	6.2	41.5	100.0	58.5	21.5	626
Geita	82.7	50.0	6.4	43.6	100.0	56.4	17.4	304
Kaskazini Unguja	90.0	54.1	3.7	42.1	100.0	57.9	20.7	42
Kusini Unguja	97.7	65.9	3.0	31.1	100.0	68.9	23.8	26
Mjini Magharibi	96.4	62.2	4.9	32.9	100.0	67.1	24.9	230
Kaskazini Pemba	90.2	52.4	2.2	45.4	100.0	54.6	19.5	47
Kusini Pemba	94.2	56.7	0.7	42.6	100.0	57.4	23.2	46
Education								
No education	82.4	54.1	5.7	40.2	100.0	59.8	21.3	1,955
Primary incomplete	86.7	55.9	5.8	38.3	100.0	61.7	26.7	1,380
Primary complete	92.3	67.0	4.5	28.5	100.0	71.5	32.3	5,713
Secondary+	96.5	61.8	3.7	34.4	100.0	65.6	36.0	1,919
Wealth quintile								
Lowest	83.8	53.4	6.0	40.6	100.0	59.4	21.5	1,864
Second	88.6	58.9	5.7	35.5	100.0	64.5	27.3	1,974
Middle	90.3	61.6	4.5	33.9	100.0	66.1	28.4	1,977
Fourth	92.3	64.4	4.9	30.7	100.0	69.3	33.5	2,257
Highest	95.0	69.6	3.3	27.1	100.0	72.9	36.7	2,895
Total	90.6	62.4	4.7	32.9	100.0	67.1	30.3	10,967

[1] Includes 'don't know/missing'

Table 7.1.2 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 were tested in the past 12 months and received the results of the last test, according to background characteristics, Tanzania 2011-12

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	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	84.2	32.2	2.0	65.8	100.0	34.2	20.5	3,537
15-19	77.4	19.8	1.3	79.0	100.0	21.0	13.1	2,012
20-24	93.2	48.7	2.8	48.5	100.0	51.5	30.3	1,525
25-29	95.6	58.6	4.2	37.2	100.0	62.8	31.9	1,116
30-39	95.4	58.8	2.7	38.5	100.0	61.5	30.9	2,128
40-49	95.2	56.2	3.6	40.3	100.0	59.7	30.4	1,571
Marital status								
Never married	84.4	32.0	2.2	65.9	100.0	34.1	19.5	3,534
Ever had sex	90.9	42.5	2.6	54.9	100.0	45.1	26.1	2,022
Never had sex	75.7	17.9	1.6	80.5	100.0	19.5	10.7	1,513
Married/living together	95.2	58.8	3.1	38.2	100.0	61.8	32.1	4,428
Divorced/separated/widowed	96.0	50.0	4.6	45.4	100.0	54.6	27.6	390
Residence								
Urban	96.5	56.6	2.0	41.4	100.0	58.6	32.6	2,142
Rural	88.6	43.7	3.0	53.3	100.0	46.7	24.4	6,210
Mainland/Zanzibar								
Mainland	90.7	47.0	2.8	50.2	100.0	49.8	26.7	8,079
Urban	96.7	56.6	2.0	41.3	100.0	58.7	32.9	2,066
Rural	88.6	43.7	3.0	53.3	100.0	46.7	24.5	6,013
Zanzibar	89.0	48.1	2.2	49.7	100.0	50.3	22.9	273
Unguja	89.3	52.1	2.4	45.4	100.0	54.6	25.8	204
Pemba	88.2	35.9	1.6	62.5	100.0	37.5	14.1	69
Zone								
Eastern	94.6	49.5	2.5	48.0	100.0	52.0	26.0	1,363
Western	92.5	52.7	3.9	43.4	100.0	56.6	30.7	736
Southern	95.8	51.2	5.1	43.7	100.0	56.3	27.3	371
Southern Highlands	96.1	54.8	5.0	40.2	100.0	59.8	34.6	818
Southwest Highlands	91.6	40.1	2.3	57.6	100.0	42.4	21.3	851
Central	83.3	44.8	2.1	53.1	100.0	46.9	27.4	908
Northern	87.2	43.5	2.1	54.4	100.0	45.6	22.0	855
Lake	88.8	44.8	2.1	53.1	100.0	46.9	26.3	2,178
Region								
Dodoma	80.3	41.9	1.3	56.8	100.0	43.2	21.8	342
Arusha	81.8	29.2	1.0	69.8	100.0	30.2	18.6	254
Kilimanjaro	93.3	51.5	3.1	45.5	100.0	54.5	22.4	256
Tanga	86.7	48.1	2.1	49.7	100.0	50.3	24.2	344
Morogoro	91.2	36.4	3.2	60.4	100.0	39.6	17.3	343
Pwani	92.8	48.2	2.7	49.1	100.0	50.9	23.4	166
Dar es Salaam	96.3	55.1	2.1	42.8	100.0	57.2	30.1	854
Lindi	94.3	53.4	5.7	40.9	100.0	59.1	28.1	129
Mtwara	96.6	50.0	4.8	45.2	100.0	54.8	26.8	242
Ruvuma	97.2	50.9	5.5	43.7	100.0	56.3	32.5	455
Iringa	92.6	52.7	2.9	44.4	100.0	55.6	28.2	153
Mbeya	92.1	41.7	2.3	56.0	100.0	44.0	22.0	557
Singida	83.1	50.7	1.9	47.4	100.0	52.6	37.8	328
Tabora	93.3	52.2	3.9	43.9	100.0	56.1	30.5	411
Rukwa	89.9	31.2	2.3	66.4	100.0	33.6	20.3	137
Kigoma	91.5	53.3	3.9	42.8	100.0	57.2	30.9	325
Shinyanga	90.8	48.8	1.5	49.7	100.0	50.3	25.3	327
Kagera	93.7	44.4	1.7	53.9	100.0	46.1	24.3	372
Mwanza	89.9	42.5	0.6	56.9	100.0	43.1	27.4	420
Mara	90.8	50.3	5.3	44.4	100.0	55.6	32.8	332
Manyara	87.8	40.9	3.3	55.8	100.0	44.2	21.1	238
Njombe	96.2	64.7	5.7	29.6	100.0	70.4	43.7	210
Katavi	91.4	42.1	2.3	55.6	100.0	44.4	19.3	157
Simiyu	81.5	45.5	1.7	52.7	100.0	47.3	27.7	477
Geita	88.5	35.4	2.2	62.5	100.0	37.5	17.1	250
Kaskazini Unguja	86.4	35.9	1.2	62.9	100.0	37.1	18.0	25
Kusini Unguja	90.1	45.7	3.0	51.3	100.0	48.7	19.6	20
Mjini Magharibi	89.7	55.5	2.6	41.9	100.0	58.1	27.8	159
Kaskazini Pemba	87.5	35.3	2.5	62.1	100.0	37.9	11.0	33
Kusini Pemba	88.9	36.5	0.8	62.8	100.0	37.2	16.9	36
Education								
No education	74.2	32.3	3.4	64.3	100.0	35.7	17.4	776
Primary incomplete	83.1	36.7	2.0	61.3	100.0	38.7	19.3	1,338
Primary complete	93.3	49.8	2.8	47.4	100.0	52.6	28.7	4,264
Secondary+	96.4	53.9	2.8	43.3	100.0	56.7	30.5	1,974
Wealth quintile								
Lowest	81.5	35.7	3.4	60.9	100.0	39.1	19.8	1,358
Second	88.9	42.2	2.7	55.1	100.0	44.9	23.8	1,532
Middle	89.7	45.1	2.7	52.1	100.0	47.9	25.2	1,590
Fourth	93.2	48.5	2.6	49.0	100.0	51.0	27.2	1,749
Highest	96.2	58.0	2.5	39.5	100.0	60.5	33.3	2,123
Total	90.6	47.0	2.8	50.2	100.0	49.8	26.5	8,352

[1] Includes 'don't know/missing'

Mother-to-child transmission of HIV is the second most common cause of HIV transmission in Tanzania. Because of the effectiveness of antiretroviral drugs (ARVs) in preventing mother-to-child transmission, screening for HIV in pregnant women is a key tool in reducing HIV transmission. Table 7.2 shows that 57 percent of women who gave birth during the two years preceding the survey received HIV counselling during antenatal care (ANC). This percentage is higher than in the 2007–08 THMIS which was 43 percent. Sixty-two percent of women who gave birth during the two years preceding the survey were tested for HIV, received the test results, and received post-test counselling while 15 percent of women were tested and received the test results, but did not receive post-test counselling. Fifty-two percent of women reported that they had both received counselling about HIV and had been offered, accepted, and received the results of an HIV test during ANC. Seventy-seven percent of women had an HIV test either during ANC or during labour and received their test results.

Women were more likely to have been both counselled about HIV and tested for HIV during ANC, and to have received the result of their test, if they had secondary or higher education (65 percent), were in the highest wealth quintile (70 percent) or lived in urban areas (68 percent). Women were least likely to report receiving the full range of voluntary counselling and testing services during ANC if they were in the lowest wealth quintile (38 percent) or if they had no education (38 percent).

Table 7.2 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 counselling on HIV during antenatal care (ANC), the percentage who received an HIV test during antenatal care for their most recent birth by whether they received their results and post-test counselling, and percentage who received an HIV test during ANC or labour for their most recent birth by whether they received their test results, according to background characteristics, Tanzania 2011-12

Background characteristic	Percentage who received counselling on HIV during antenatal care[1]	Percentage who were tested for HIV during ANC and who:			Percentage who received counselling on HIV and an HIV test during ANC, and the results	Percentage who had an HIV test during ANC or labour and who:[2]		Number of women who gave birth in the past two years[3]
		Received results and:						
		Received post-test counselling	Did not receive post-test counselling	Did not receive results		Received results	Did not receive results	
Age								
15-24	52.9	59.7	14.3	4.8	46.8	74.5	4.9	1,328
15-19	52.1	52.9	15.9	5.9	42.7	69.9	6.3	404
20-24	53.2	62.7	13.6	4.3	48.6	76.5	4.3	924
25-29	64.1	65.5	13.6	2.9	58.6	79.4	3.1	900
30-39	55.2	60.4	15.0	2.8	50.8	76.3	2.8	1,124
40-49	67.2	62.5	17.9	3.6	61.0	80.6	3.6	203
Marital status								
Never married	64.7	68.4	10.2	5.4	57.2	79.3	5.4	308
Married/living together	56.2	60.7	14.9	3.5	51.0	76.1	3.6	2,947
Divorced/separated/widowed	59.7	63.3	15.6	3.2	54.6	79.3	3.2	299
Residence								
Urban	73.2	77.1	12.5	3.6	67.6	90.3	3.6	637
Rural	53.8	58.2	15.0	3.6	48.4	73.7	3.8	2,918
Mainland/Zanzibar								
Mainland	56.8	60.9	14.7	3.7	51.3	76.2	3.8	3,455
Urban	73.0	76.9	12.6	3.7	67.4	90.2	3.7	618
Rural	53.3	57.4	15.2	3.6	47.8	73.2	3.8	2,836
Zanzibar	72.4	83.2	9.0	2.6	70.0	92.3	2.6	100
Unguja	76.2	85.1	9.8	3.3	75.2	94.9	3.3	70
Pemba	64.0	79.1	7.3	1.2	58.3	86.5	1.2	31
Zone								
Eastern	72.0	79.3	11.1	1.3	69.0	90.8	1.3	398
Western	54.3	62.8	21.6	4.3	49.7	84.6	4.3	326
Southern	78.6	78.8	11.6	3.8	75.1	90.7	3.8	119
Southern Highlands	73.9	77.4	13.1	3.7	68.4	92.1	3.7	383
Southwest Highlands	52.9	44.6	15.5	5.3	40.9	60.2	5.9	378
Central	50.9	62.7	11.7	2.5	46.9	76.1	2.5	376
Northern	60.7	60.6	10.1	2.7	56.5	71.2	2.7	369
Lake	45.9	51.2	17.2	4.4	40.3	68.6	4.6	1,105
Region								
Dodoma	43.3	60.8	8.6	4.9	36.2	72.8	4.9	131
Arusha	70.6	60.2	8.9	3.1	64.7	70.7	3.1	106
Kilimanjaro	69.1	77.8	14.6	3.8	65.2	92.3	3.8	68
Tanga	52.3	54.9	9.3	2.2	49.0	64.2	2.2	195
Morogoro	62.8	57.7	14.7	3.6	54.2	73.8	3.6	120
Pwani	80.3	80.8	15.9	0.0	77.3	96.7	0.0	60
Dar es Salaam	74.8	90.8	7.8	0.4	74.8	98.5	0.4	218
Lindi	71.6	67.2	20.9	5.5	67.0	89.1	5.5	43
Mtwara	82.6	85.4	6.3	2.9	79.8	91.7	2.9	76
Ruvuma	73.5	71.9	16.9	4.6	67.3	91.2	4.6	237
Iringa	85.7	89.4	3.5	2.3	81.4	93.8	2.3	59
Mbeya	57.4	45.5	19.8	4.8	45.2	65.2	5.6	210
Singida	50.7	63.6	11.7	0.8	48.6	76.3	0.8	158
Tabora	50.7	53.2	34.3	2.0	50.0	87.5	2.0	167
Rukwa	42.9	41.7	10.8	5.6	33.8	52.6	5.6	83
Kigoma	58.0	72.8	8.3	6.6	49.4	81.5	6.6	159
Shinyanga	34.9	63.9	16.3	4.1	30.4	81.1	4.1	150
Kagera	70.4	71.0	8.4	4.1	62.4	79.4	5.1	160
Mwanza	53.4	56.8	13.9	4.8	47.4	71.2	4.8	216
Mara	34.2	43.5	13.2	5.6	28.7	56.7	5.6	167
Manyara	62.9	64.0	16.4	1.8	59.7	80.4	1.8	87
Njombe	67.1	84.2	9.1	2.2	62.6	93.3	2.2	87
Katavi	51.3	45.5	9.8	6.2	37.3	55.3	7.0	86
Simiyu	38.4	37.6	28.3	4.0	34.5	66.2	4.0	274
Geita	46.8	41.7	16.0	3.9	40.3	58.0	3.9	138
Kaskazini Unguja	71.1	77.9	16.2	2.6	70.3	94.1	2.6	11
Kusini Unguja	77.5	87.6	8.3	2.6	76.2	96.0	2.6	7
Mjini Magharibi	77.1	86.3	8.6	3.5	76.1	94.9	3.5	51
Kaskazini Pemba	65.9	80.2	4.2	1.3	58.4	84.4	1.3	14
Kusini Pemba	62.4	78.2	10.0	1.2	58.2	88.2	1.2	17
Education								
No education	43.0	45.4	15.8	4.2	37.9	61.4	4.4	832
Primary incomplete	51.0	58.5	14.4	5.9	45.3	73.2	6.5	440
Primary complete	62.5	66.4	14.3	3.2	56.8	81.5	3.2	1,894
Secondary+	69.4	75.9	13.5	1.7	65.2	89.6	1.7	388
Wealth quintile								
Lowest	44.5	48.3	13.2	5.6	37.8	63.0	5.6	797
Second	51.3	53.2	17.6	4.1	44.9	71.0	4.3	811
Middle	61.0	64.6	14.0	3.5	55.8	78.8	3.8	693
Fourth	61.7	70.5	13.0	2.2	57.2	84.1	2.2	679
Highest	73.5	77.4	14.7	2.1	70.3	92.3	2.1	575
Total	57.3	61.6	14.6	3.6	51.9	76.7	3.7	3,555

[1] In this context, counselling means that someone talked with the respondent about all three of the following topics: (1) babies getting HIV from their mother, (2) preventing the virus, and (3) getting tested for the virus.
[2] Women are asked whether they received an HIV test during labour only if they were not tested for HIV during ANC.
[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

7.3 MALE CIRCUMCISION

Circumcision is a common practice in many parts of sub-Saharan Africa for traditional, health, and other reasons. Recently, male circumcision – removal of some or the entire foreskin of the penis – has been associated with a lower risk of HIV transmission from women to men (Williams et al., 2006; WHO and UNAIDS, 2007). To examine this practice at the national level, men interviewed in the 2011-12 THMIS were asked whether they had been circumcised. The results are presented in Table 7.3.

Table 7.3 Male circumcision

Percentage of men age 15-49 who report having been circumcised, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage circumcised	Number of men
Age		
15-24	70.2	3,537
15-19	66.2	2,012
20-24	75.5	1,525
25-29	72.1	1,116
30-39	74.4	2,128
40-49	72.0	1,571
Residence		
Urban	94.2	2,142
Rural	64.2	6,210
Mainland/Zanzibar		
Mainland	70.9	8,079
Urban	94.0	2,066
Rural	63.0	6,013
Zanzibar	99.5	273
Unguja	99.5	204
Pemba	99.8	69
Zone		
Eastern	95.9	1,363
Western	64.8	736
Southern	99.5	371
Southern Highlands	67.2	818
Southwest Highlands	37.4	851
Central	91.8	908
Northern	96.0	855
Lake	48.5	2,178
Region		
Dodoma	95.1	342
Arusha	90.9	254
Kilimanjaro	97.3	256
Tanga	98.8	344
Morogoro	87.5	343
Pwani	98.3	166
Dar es Salaam	98.7	854
Lindi	99.2	129
Mtwara	99.6	242
Ruvuma	77.9	455
Iringa	59.7	153
Mbeya	37.9	557
Singida	88.4	328
Tabora	55.6	411
Rukwa	27.5	137
Kigoma	76.5	325
Shinyanga	32.1	327
Kagera	38.9	372
Mwanza	63.8	420
Mara	87.6	332
Manyara	91.7	238
Njombe	49.2	210
Katavi	44.3	157
Simiyu	30.4	477
Geita	41.0	250
Kaskazini Unguja	99.4	25
Kusini Unguja	99.3	20
Mjini Magharibi	99.5	159
Kaskazini Pemba	99.6	33
Kusini Pemba	100.0	36
Total	71.9	8,352

Seventy-two percent of men reported that they had been circumcised, an increase from the 67 percent reported in the 2007-08 THMIS. The level of male circumcision is substantially higher among urban men than rural men (94 and 64 percent, respectively). More than half of the regions on Mainland Tanzania show levels of male circumcision of 50 percent or more. The prevalence of circumcision is lowest in Rukwa (28 percent), Simiyu (30 percent), and Shinyanga (32 percent). In contrast, circumcision in Zanzibar is almost universal.

7.4 SELF-REPORTING OF SEXUALLY TRANSMITTED INFECTIONS

Information about the incidence of sexually transmitted infections (STIs) is not only useful as a marker of unprotected sexual intercourse but also as a co-factor for HIV transmission. The 2011-12 THMIS asked respondents who had ever had sex whether they had had a disease that they got through sexual contact in the past 12 months. They were also asked whether, in the past 12 months, they had had any genital discharge and whether they had experienced a genital sore or ulcer. These symptoms have been shown to be useful in identifying STIs in men. They are less easily interpreted in women because women are likely to experience more non-STI conditions of the reproductive tract that produce a discharge.

Table 7.4 shows that among those who ever had sex, 3 percent of women and 4 percent of men in Tanzania reported having an STI in the past 12 months. Five percent of women and 4 percent of men reported having had a bad smell or an abnormal genital discharge, and 3 percent of both women and men reported having had a genital sore or ulcer in the 12 months before the survey. Overall, 8 percent of women and 7 percent of men reported having had an STI, an abnormal discharge, or a genital sore. These numbers, however, may be underestimates because respondents may have been embarrassed or ashamed to admit having STIs.

Table 7.4 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 2011-12

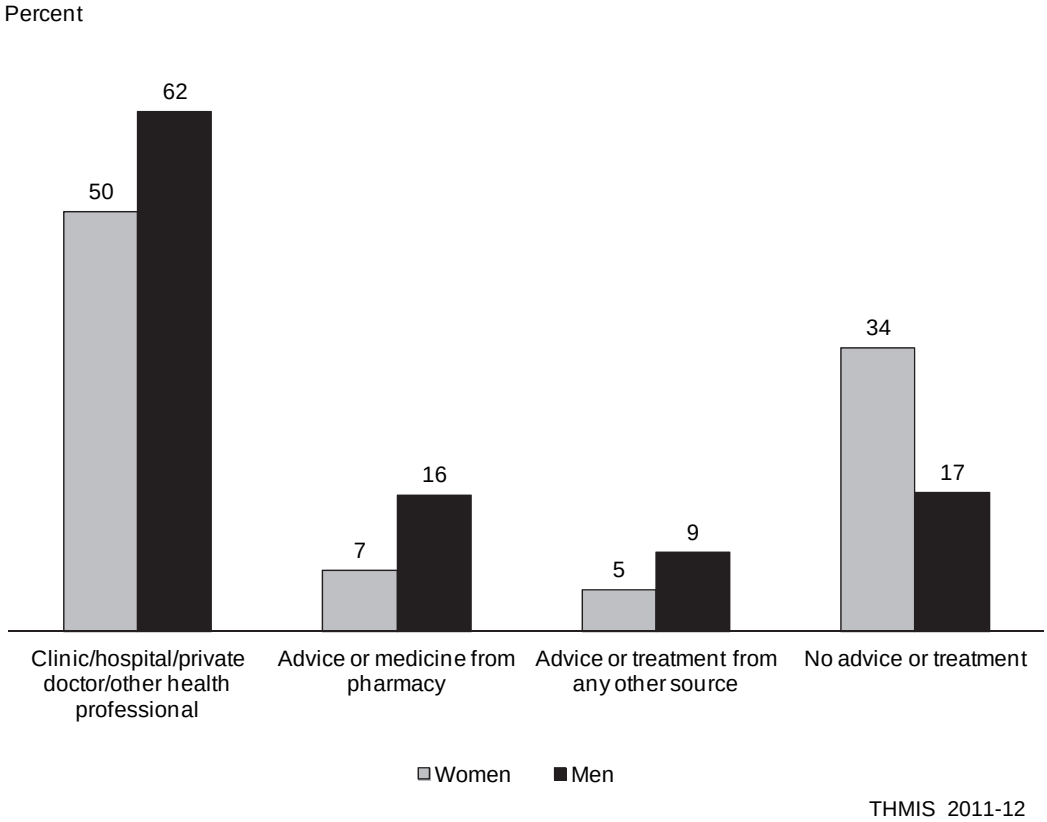
	Women					Men				
	Percentage of women who reported having in the past 12 months:					Percentage of men who reported having in the past 12 months:				
Background characteristic	STI	Bad smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse
Age										
15-24	2.6	5.5	3.4	8.4	2,859	4.0	3.8	3.2	6.8	2,079
15-19	2.1	5.7	3.3	8.1	1,139	2.0	2.5	2.3	5.0	786
20-24	2.9	5.4	3.6	8.6	1,720	5.2	4.5	3.8	7.9	1,293
25-29	3.6	6.0	3.7	9.6	1,865	5.5	6.2	4.2	9.6	1,081
30-39	3.7	5.1	2.5	7.8	2,916	4.5	3.3	2.0	6.3	2,105
40-49	2.1	4.6	2.7	6.7	1,826	3.8	2.2	2.2	5.3	1,559
Marital status										
Never married	1.9	5.9	2.7	8.2	1,303	3.4	3.4	2.3	5.8	2,022
Ever had sex	1.9	5.9	2.7	8.2	1,303	3.4	3.4	2.3	5.8	2,022
Married/living together	3.1	5.0	3.1	7.7	6,907	4.5	3.4	2.9	6.8	4,413
Divorced/separated/widowed	3.9	6.4	3.4	10.3	1,256	7.2	8.1	3.4	11.6	390
Circumcised										
Yes	na	na	na	na	na	4.2	3.5	2.2	6.2	4,983
No	na	na	na	na	na	4.6	4.2	4.3	8.3	1,838
Residence										
Urban	4.2	6.1	3.3	9.6	2,498	4.7	3.9	2.5	7.1	1,738
Rural	2.6	5.0	3.0	7.6	6,969	4.2	3.6	2.9	6.6	5,087
Mainland/Zanzibar										
Mainland	3.1	5.4	3.1	8.3	9,202	4.4	3.7	2.8	6.9	6,670
Urban	4.4	6.2	3.4	9.8	2,421	4.8	4.0	2.6	7.2	1,692
Rural	2.7	5.1	3.0	7.7	6,781	4.2	3.6	2.9	6.7	4,978
Zanzibar	1.3	2.5	2.3	3.9	264	1.9	1.4	0.2	2.2	154
Unguja	1.5	2.9	2.6	4.3	204	2.3	1.7	0.2	2.5	121
Pemba	0.6	1.1	1.5	2.5	61	0.5	0.3	0.3	0.8	33
Zone										
Eastern	3.6	4.4	2.7	7.2	1,475	3.7	4.0	1.1	4.8	1,169
Western	2.8	6.3	3.3	9.8	749	3.2	4.5	3.0	7.0	606
Southern	3.5	4.3	2.1	7.3	509	6.0	3.8	2.1	6.9	336
Southern Highlands	2.0	5.2	2.1	7.6	1,042	3.6	2.3	4.0	6.0	678
Southwest Highlands	3.5	6.3	5.3	9.6	936	3.4	4.9	3.6	6.9	705
Central	3.0	4.4	2.8	6.7	964	7.4	6.3	3.6	9.5	728
Northern	1.5	2.9	0.6	4.1	1,060	2.8	2.1	2.0	4.8	678
Lake	3.9	7.1	4.2	10.8	2,468	5.1	2.9	3.4	8.2	1,770
Region										
Dodoma	3.9	3.3	3.6	6.5	392	7.8	5.7	3.8	10.5	298
Arusha	2.1	5.7	0.0	6.0	284	2.3	1.8	0.0	2.3	193
Kilimanjaro	0.0	1.3	1.0	2.1	294	0.6	0.8	1.3	1.3	185
Tanga	2.0	2.1	0.7	4.2	482	4.6	3.1	3.8	8.5	300
Morogoro	2.2	1.5	0.6	3.0	365	4.0	5.6	2.8	7.3	291
Pwani	2.1	1.2	1.3	2.5	189	2.6	3.1	0.0	3.6	129
Dar es Salaam	4.4	6.3	3.8	9.9	921	3.7	3.5	0.6	4.0	749
Lindi	1.7	3.6	2.9	5.6	169	5.8	2.3	2.9	6.5	116
Mtwara	4.5	4.7	1.7	8.1	340	6.1	4.5	1.7	7.1	220
Ruvuma	2.3	4.1	2.3	7.4	630	5.3	2.1	4.7	7.3	399
Iringa	1.6	5.5	2.5	7.1	174	1.9	3.7	2.3	4.7	109
Mbeya	4.1	6.4	5.7	10.3	583	4.7	7.0	4.0	8.7	452
Singida	2.2	4.0	2.1	6.5	357	7.9	7.5	5.7	9.8	249
Tabora	2.6	3.7	1.3	6.1	395	4.5	3.4	2.2	6.9	367
Rukwa	3.2	6.7	5.7	9.5	168	1.5	2.3	2.5	4.2	116
Kigoma	3.0	9.3	5.5	13.8	354	1.1	6.2	4.1	7.1	239
Shinyanga	3.5	7.4	2.9	10.4	374	11.9	3.3	1.2	13.6	273
Kagera	5.1	7.3	5.3	13.0	380	1.6	1.3	0.8	2.3	286
Mwanza	5.8	6.1	4.7	11.7	514	4.8	2.7	2.2	6.8	314
Mara	3.6	8.1	5.0	11.4	393	6.0	4.8	5.1	10.4	284
Manyara	2.9	7.1	2.6	7.3	214	5.9	5.5	0.3	7.6	181
Njombe	1.5	7.9	1.6	8.6	238	0.7	1.8	3.3	3.6	170
Katavi	1.6	5.7	3.7	7.6	184	0.6	0.0	3.2	3.2	136
Simiyu	2.2	7.7	3.9	9.5	537	3.1	2.4	6.5	8.9	414
Geita	2.6	5.2	3.4	8.2	270	4.1	3.1	3.1	6.7	199
Kaskazini Unguja	0.8	1.2	2.6	4.2	30	0.0	1.2	0.0	1.2	14
Kusini Unguja	1.1	2.5	1.7	4.4	20	5.0	1.4	1.3	5.5	14
Mjini Magharibi	1.7	3.3	2.7	4.3	154	2.3	1.9	0.0	2.3	93
Kaskazini Pemba	0.5	0.9	1.1	2.1	30	0.0	0.0	0.0	0.0	15
Kusini Pemba	0.6	1.2	1.8	3.0	30	1.0	0.5	0.5	1.5	18
Education										
No education	2.6	5.0	2.1	7.1	1,871	4.8	4.1	3.2	7.4	694
Primary incomplete	3.8	6.7	5.5	11.0	1,161	6.9	6.0	4.1	9.5	1,028
Primary complete	3.2	5.0	3.2	8.0	5,190	4.4	3.6	2.9	7.1	3,760
Secondary+	2.5	5.5	1.7	7.7	1,246	1.9	1.9	1.2	3.3	1,343
Wealth quintile										
Lowest	2.3	5.3	3.5	7.7	1,704	6.6	6.4	4.4	10.2	1,159
Second	3.3	5.0	2.7	7.9	1,770	4.1	3.3	3.2	7.0	1,275
Middle	2.6	5.7	3.5	8.6	1,719	2.7	2.3	2.7	5.3	1,294
Fourth	3.3	5.2	2.8	7.7	1,919	4.7	3.8	2.4	6.8	1,391
Highest	3.5	5.3	2.9	8.6	2,355	3.9	2.9	1.8	5.3	1,704
Total	3.1	5.3	3.1	8.1	9,467	4.3	3.6	2.8	6.7	6,824

na = Not applicable
Note: Total includes 3 cases for which information on circumcision is missing.

Given the low levels of incidence of STIs, variation across subgroups is limited. Nevertheless, several statistics stand out. Female and male respondents living in Mainland Tanzania are two to three times more likely to have an STI or STI symptoms than those living in Zanzibar. Women reporting the highest incidence of STIs or STI symptoms live in Kigoma region (14 percent) while men reporting the highest incidence of STIs or STI symptoms live in Shinyanga (14 percent) region.

It is important for people experiencing symptoms of STIs to be able to recognise them and seek appropriate treatment. If respondents reported an STI or an STI symptom (i.e., discharge, sore, or ulcer) in the past 12 months, they were asked questions about what they did about the illness or symptom. Figure 7.1 presents information on women and men who sought care, advice, or treatment from any source. More than half of the respondents (50 percent of women and 62 percent of men) sought care for the STIs and/or symptoms of STIs from a clinic, hospital, or health professional as opposed to 7 percent of women and 16 percent of men who sought advice or medicine from a private pharmacy. Five percent of women and 9 percent of men sought advice or treatment from other sources. A substantial proportion of women and men (34 percent and 17 percent, respectively) who had an STI or STI symptom in the past 12 months did not seek advice or treatment.

Figure 7.1 Women and men seeking advice or treatment for STIs



7.5 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 2011-12 THMIS were asked if they had received an injection in the past 12 months and, if so, the number of injections. Table 7.5 shows that 35 percent of women and 19 percent of men reported receiving an injection in the 12 months preceding the survey, with an average of 1.2 injections for women and 0.7 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 30 percent among women with no education to 37 percent among women with secondary or higher education. Among men, the proportion ranges from 13 percent among men with no education to 21 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 97 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 7.5 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the last 12 months, the average number of medical injections per person in the last 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 2011-12

	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	36.4	1.2	4,303	97.8	1,568	19.9	0.7	3,537	96.6	703
15-19	32.3	1.1	2,414	97.9	779	21.0	0.7	2,012	96.9	424
20-24	41.7	1.4	1,888	97.8	788	18.4	0.6	1,525	96.3	280
25-29	39.4	1.5	1,902	98.8	750	19.2	0.8	1,116	95.5	214
30-39	35.3	1.2	2,932	98.6	1,033	17.4	0.7	2,128	97.3	370
40-49	24.5	0.9	1,831	97.2	448	18.1	0.8	1,571	98.7	284
Marital status										
Never married	29.9	1.0	2,798	97.6	836	20.4	0.7	3,534	96.9	721
Ever had sex	35.3	1.1	1,303	97.9	460	21.0	0.7	2,022	96.7	424
Never had sex	25.1	1.0	1,495	97.2	376	19.6	0.7	1,513	97.1	296
Married/living together	37.0	1.3	6,910	98.3	2,554	17.6	0.7	4,428	97.0	779
Divorced/separated/widowed	32.4	1.3	1,258	98.2	408	18.2	0.9	390	99.2	71
Residence										
Urban	37.7	1.5	2,956	98.9	1,114	24.6	0.9	2,142	96.8	526
Rural	33.5	1.1	8,011	97.9	2,685	16.8	0.6	6,210	97.1	1,045
Mainland/Zanzibar										
Mainland	34.6	1.2	10,576	98.1	3,658	18.6	0.7	8,079	97.0	1,500
Urban	37.7	1.5	2,834	98.8	1,069	24.6	0.9	2,066	96.9	507
Rural	33.4	1.1	7,742	97.8	2,589	16.5	0.6	6,013	97.1	993
Zanzibar	36.0	1.2	391	98.9	141	25.9	0.7	273	97.2	71
Unguja	35.3	1.3	298	98.7	105	29.1	0.7	204	98.3	60
Pemba	38.4	0.9	93	99.3	36	16.5	0.6	69	91.5	11
Zone										
Eastern	39.4	1.6	1,696	98.6	668	26.0	0.9	1,363	98.0	354
Western	38.3	1.1	890	98.7	341	13.8	0.6	736	98.7	102
Southern	42.2	1.4	557	98.9	235	21.4	0.8	371	100.0	79
Southern Highlands	33.2	1.0	1,155	93.7	384	14.1	0.5	818	95.4	116
Southwest Highlands	32.2	1.2	1,101	98.1	355	17.8	0.6	851	97.3	152
Central	33.2	1.0	1,100	99.6	366	16.5	0.7	908	96.6	150
Northern	30.2	0.9	1,281	98.0	387	17.6	0.9	855	98.9	151
Lake	33.0	1.3	2,797	98.6	923	18.3	0.7	2,178	94.9	398
Education										
No education	30.0	1.0	1,955	98.0	587	13.3	0.6	776	91.2	103
Primary incomplete	32.2	1.2	1,380	98.3	444	16.8	0.7	1,338	98.4	224
Primary complete	36.0	1.3	5,713	98.0	2,056	19.4	0.7	4,264	96.8	827
Secondary+	37.1	1.3	1,919	98.7	712	21.1	0.7	1,974	98.2	417
Wealth quintile										
Lowest	30.2	0.9	1,864	98.2	562	14.1	0.6	1,358	97.5	191
Second	31.4	1.0	1,974	98.2	620	15.4	0.6	1,532	96.5	237
Middle	34.0	1.1	1,977	98.4	672	17.0	0.7	1,590	96.2	271
Fourth	37.0	1.3	2,257	96.8	836	19.2	0.8	1,749	96.0	335
Highest	38.3	1.5	2,895	99.0	1,109	25.3	0.9	2,123	98.1	538
Total	34.6	1.2	10,967	98.2	3,799	18.8	0.7	8,352	97.0	1,571

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or other health worker.

7.6 AWARENESS OF CERVICAL CANCER

Cervical cancer continues to be among the leading and most devastating causes of death among women in the world, and this is especially true in Sub-Saharan Africa. Most recent estimates (2008) by the WHO International Agency for Research on Cancer (IARC) suggest that each year there are more than a quarter of a million deaths from cervical cancer and an estimated 530,000 new cases, most of which could be prevented (Ferlay et al., 2010).

Cervical cancer is the leading cause of cancer-related morbidity and mortality in women in Tanzania. According to the Ocean Road Cancer Institute report (MoHSW and ORCI, 2011), Tanzania suffers one of the highest cervical cancer burdens in the world and the highest in Eastern Africa, with an age-standardized incidence rate (ASR) of 50.9 cases per 100,000 women, and an age-standardized mortality rate of 37.5 per 100,000 women. In 2011, cervical cancer accounted for 36 percent of all cancer patients seen at the ORCI, the only specialized facility for cancer management in Tanzania (MoHSW and ORCI, 2011).

To assess the awareness of cervical cancer, 2011-12 THMIS female respondents were asked whether they had ever heard of cervical cancer. If they said that they had heard of it, they were asked whether they had spoken to someone about it during any visit to a health facility in the past six months. Results are presented in Table 7.6.

Table 7.6 Cervical cancer

Percentage of women age 15-49 who have heard of cervical cancer, and among women who have heard of cervical cancer, the percentage who spoke to someone about it during any visit to a health facility in the past six months, by background characteristics, Tanzania 2011-12

Background characteristic	Have heard of cervical cancer	Number of women	Women who have heard of cervical cancer: Spoke to someone about cervical cancer during a visit to any health facility in the past six months	Number of women
Age				
15-19	50.6	2,414	9.7	1,222
20-24	66.6	1,888	17.3	1,258
25-29	70.5	1,902	16.9	1,340
30-34	74.4	1,497	17.7	1,114
35-39	69.7	1,435	16.6	1,000
40-44	73.9	1,023	18.5	756
45-49	72.8	808	20.5	588
Residence				
Urban	80.7	2,956	14.7	2,387
Rural	61.1	8,011	17.1	4,892
Mainland/Zanzibar				
Mainland	66.8	10,576	16.2	7,060
Urban	81.5	2,834	14.4	2,309
Rural	61.4	7,742	17.1	4,751
Zanzibar	56.1	391	19.8	219
Unguja	61.2	298	21.9	182
Pemba	39.8	93	9.6	37
Zone				
Eastern	84.7	1,696	11.2	1,436
Western	64.9	890	21.6	578
Southern	60.2	557	17.6	335
Southern Highlands	55.8	1,155	18.2	644
Southwest Highlands	58.0	1,101	15.3	638
Central	77.3	1,100	28.3	851
Northern	65.9	1,281	13.3	845
Lake	62.0	2,797	13.3	1,733
Education				
No education	52.0	1,955	17.0	1,018
Primary incomplete	57.6	1,380	16.5	795
Primary complete	70.4	5,713	17.2	4,023
Secondary+	75.2	1,919	13.4	1,443
Wealth quintile				
Lowest	53.3	1,864	18.0	993
Second	57.1	1,974	17.4	1,127
Middle	61.8	1,977	18.7	1,222
Fourth	68.8	2,257	16.5	1,553
Highest	82.4	2,895	13.8	2,384
Total	66.4	10,967	16.3	7,279

Sixty-six percent of women age 15-49 reported having heard of cervical cancer. Respondents living in urban areas are more likely to have heard of cervical cancer than women in rural areas (81 percent and 61 percent, respectively). Women in Mainland are more likely to have heard of cervical cancer than those in Zanzibar (67 percent and 56 percent respectively).

The proportion of women who have heard of cervical cancer increases with education level and wealth. For example, the proportion ranges from 52 percent among women with no education to 75 percent among women with secondary or higher education and increases from 53 percent among women in the lowest wealth quintile to 82 percent among women in the highest quintile. Among women who have heard of cervical cancer, younger women, women with secondary or higher education, and those in the highest wealth quintile are less likely than older women, less educated women, and those in lower wealth quintiles to have spoken to someone about cervical cancer during a visit to any health facility in the past six months.

YOUTH AND HIV/AIDS 8

Key Findings

- Forty percent of young women age 15-24 and 47 percent of young men age 15-24 have comprehensive knowledge of HIV/AIDS.
- Sixty-five percent of young women and 85 percent of young men know a condom source.
- Nine percent of women and 10 percent of men age 15-24 report having had sexual intercourse for the first time before age 15. Fifty percent of women and 43 percent of men age 18-24 report having had sex before age 18.
- Thirty-two percent of never-married young women and 42 percent of never-married young men had sexual intercourse during the 12 months preceding the survey; condom use at last sex was nearly identical for both groups (58 percent and 59 percent, respectively).
- Among all women age 15-24, only 4 percent report having sexual intercourse with two or more partners in the past 12 months; in contrast, among young men age 15-24, 14 percent report having two or more partners in the past 12 months.

8.1 INTRODUCTION

This section addresses HIV/AIDS-related knowledge among Tanzanian young people age 15-24 and also assesses the extent to which Tanzanian young people are engaged in behaviours that may place them at risk of contracting HIV. Specific topics presented in this section include knowledge of a source for condoms, age at first sex, abstinence, and among young people who had sexual intercourse in the past 12 months, condom use at last sex.

8.2 KNOWLEDGE ABOUT HIV/AIDS AND SOURCE OF CONDOMS

Knowledge of how HIV is transmitted is crucial to enabling people to avoid HIV infection, and this is especially true for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviours. Because condom use plays an important role in the prevention of HIV/AIDS and other sexually transmitted infections (STIs), the percentage of young people who know a source for condoms is also an important indicator.

Table 8.1 shows the level of comprehensive knowledge about AIDS among young people and the percentage of young people who know a source for condoms. As discussed in Chapter 4, comprehensive knowledge about AIDS is defined as knowing that both condom use and limiting sexual intercourse to one uninfected partner are HIV prevention methods, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS virus transmission.

Table 8.1 shows that 40 percent of young women and 47 percent of young men have comprehensive knowledge about AIDS. Among both sexes, the proportion with comprehensive knowledge increases with age and educational attainment. Urban young people are more likely than rural young people to have comprehensive knowledge about AIDS.

Although less than half of young people have comprehensive knowledge about AIDS, knowledge of a source for condoms is relatively common. Sixty-five percent of young women and 85 percent of young men know a place where they can obtain a condom. Knowledge of a condom source differs quite substantially between Mainland Tanzania and Zanzibar (for women, 66 percent and 30 percent, respectively; for men, 86 percent and 34 percent, respectively).

Table 8.1 Comprehensive knowledge about AIDS and knowledge of a source of condoms among young people

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, Tanzania 2011-12

	Women age 15-24			Men age 15-24		
Background characteristic	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	36.8	57.9	2,414	41.9	78.7	2,012
15-17	33.4	52.8	1,436	38.5	74.6	1,215
18-19	41.8	65.5	978	47.1	85.1	798
20-24	44.2	73.3	1,888	53.0	92.1	1,525
20-22	44.0	71.9	1,153	52.7	91.5	997
23-24	44.7	75.6	735	53.8	93.3	528
Marital status						
Never married	42.3	62.0	2,434	47.4	83.5	3,043
Ever had sex	58.0	85.8	992	56.0	95.1	1,586
Never had sex	31.5	45.7	1,442	38.0	70.8	1,457
Ever married	37.2	68.1	1,869	42.5	90.8	494
Residence						
Urban	51.9	76.1	1,160	56.3	92.2	925
Rural	35.7	60.5	3,142	43.3	81.8	2,612
Mainland/Zanzibar						
Mainland	40.3	66.1	4,131	47.3	86.4	3,407
Urban	52.9	78.3	1,104	57.3	94.0	889
Rural	35.8	61.7	3,027	43.8	83.7	2,518
Zanzibar	33.8	29.6	171	30.8	33.7	130
Unguja	32.4	34.9	128	30.7	37.9	96
Pemba	37.9	13.8	43	31.0	21.7	33
Zone						
Eastern	56.4	77.7	666	55.8	94.2	568
Western	44.0	60.5	399	41.9	85.8	349
Southern	52.0	71.8	193	62.2	94.6	146
Southern Highlands	43.6	72.4	401	54.0	89.8	312
Southwest Highlands	30.2	55.1	422	62.4	84.4	340
Central	43.9	70.7	383	42.1	82.8	376
Northern	33.1	58.5	480	49.5	82.5	324
Lake	32.5	64.0	1,188	36.1	83.3	992
Education						
No education	20.3	46.0	558	18.2	67.9	226
Primary incomplete	26.9	57.4	569	30.4	76.4	636
Primary complete	39.9	65.1	1,916	46.2	86.9	1,371
Secondary+	55.0	75.7	1,260	60.1	88.8	1,304
Total	40.1	64.7	4,303	46.7	84.5	3,537

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance 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 transmission or prevention of the AIDS virus. The components of comprehensive knowledge are presented in Tables 4.2, 4.3.1, and 4.3.2.
[2] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

8.3 AGE AT FIRST SEX

Given that the main route of HIV transmission in Tanzania is through heterosexual contact, age at first sex is an important indicator of exposure to risk of pregnancy and sexually transmitted infections (STIs), including HIV infection. Young people who initiate sex at an early age are typically at higher risk of becoming pregnant or contracting an STI than young people who initiate sex later. Consistent condom use can reduce such risks.

Nine percent of young women and 10 percent of young men in the 15-24 age group reported having sex before age 15 (Table 8.2). Among those age 18-24, 50 percent of young women and 43 percent of young men report having had sex by age 18.

As expected, the proportion of young people initiating sexual intercourse early is higher among those who have ever been married than among those who were not yet married at the time of the survey. Rural young women are more likely than their urban counterparts to have initiated sex before age 15 (10 percent compared with 7 percent) or age 18 (54 percent compared with 40 percent), a pattern that is at least partly attributable to the greater prevalence of earlier marriage among rural women than urban women (data not shown).

Among women, initiation of sexual intercourse before age 18 varies modestly according to knowledge of a condom source; those who know a condom source are more likely than those who do not know a condom source to have had sexual intercourse before age 18 (52 percent versus 46 percent). Variations by education level are vast: approximately two-thirds of women age 18-24 with no education (69 percent) had sexual intercourse before age 18 compared with 25 percent of women with at least some secondary education.

There are large variations among the proportion of young men who had sexual intercourse before age 18 by whether they know of a condom source; for example, 45 percent of men age 18-24 who know a source of condoms initiated sex before age 18, compared with 18 percent of men who do not know a condom source. The variation by education is not as pronounced as among young women; however, nearly half of men age 18-24 with only a primary education had sexual intercourse before age 18, as compared with one-third of men with at least some secondary school.

Table 8.2 Age at first sexual intercourse among young people

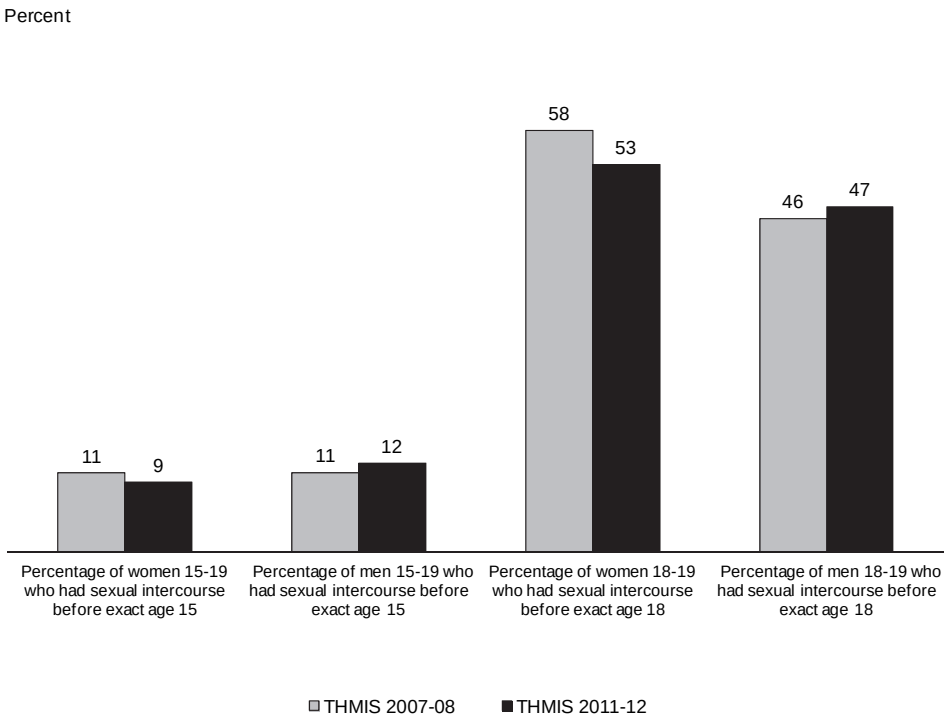
Percentage of young women and young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and young men age 18-24 who had sexual intercourse before age 18, by background characteristics, Tanzania 2011-12

	Women age 15-24		Women age 18-24		Men age 15-24		Men age 18-24	
Background characteristic	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	9.4	2,414	na	na	12.0	2,012	na	na
15-17	10.0	1,436	na	na	12.9	1,215	na	na
18-19	8.4	978	52.8	978	10.6	798	47.1	798
20-24	9.4	1,888	48.8	1,888	7.1	1,525	40.3	1,525
20-22	7.6	1,153	48.8	1,153	7.1	997	40.8	997
23-24	12.2	735	48.7	735	7.0	528	39.3	528
Marital status								
Never married	5.1	2,434	29.9	1,195	9.6	3,043	40.3	1,834
Ever married	15.0	1,869	64.6	1,671	11.5	494	51.3	489
Knows condom source[1]								
Yes	9.6	2,783	52.1	2,025	10.6	2,989	45.4	2,083
No	9.0	1,519	45.6	841	5.6	548	18.2	239
Residence								
Urban	6.7	1,160	40.3	761	7.0	925	39.6	660
Rural	10.3	3,142	53.7	2,105	10.9	2,612	43.8	1,662
Mainland/Zanzibar								
Mainland	9.7	4,131	51.6	2,751	10.2	3,407	43.9	2,238
Urban	7.0	1,104	41.9	721	7.3	889	40.8	635
Rural	10.6	3,027	55.0	2,030	11.3	2,518	45.1	1,603
Zanzibar	2.2	171	16.8	116	0.2	130	9.8	85
Unguja	2.1	128	15.3	87	0.3	96	11.0	65
Pemba	2.4	43	21.1	29	0.0	33	5.7	20
Zone								
Eastern	6.2	666	44.8	476	11.1	568	47.1	429
Western	13.5	399	50.6	256	9.8	349	42.0	226
Southern	19.0	193	74.8	122	20.0	146	62.1	94
Southern Highlands	6.9	401	40.7	281	5.3	312	41.4	190
Southwest Highlands	6.9	422	50.5	266	11.8	340	38.3	222
Central	9.3	383	37.0	263	7.4	376	40.8	251
Northern	7.8	480	43.4	323	8.5	324	34.8	198
Lake	11.5	1,188	65.2	762	11.1	992	46.4	628
Education								
No education	23.0	558	69.1	445	13.1	226	48.8	163
Primary incomplete	14.5	569	72.3	291	11.1	636	53.1	315
Primary complete	8.5	1,916	54.2	1,314	11.3	1,371	46.4	919
Secondary+	2.3	1,260	25.4	816	7.2	1,304	34.2	925
Total	9.4	4,303	50.1	2,866	9.9	3,537	42.6	2,322

na = Not applicable
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Figure 8.1 examines trends in age at first sexual intercourse among young people. The percentage of young people age 15-19 who have had sex by age 15 is nearly unchanged since the 2007-08 THMIS (decreasing from 11 percent to 9 percent among young women and increasing from 11 percent to 12 percent among young men). In contrast, whereas 58 percent of women age 18-19 reported that they had sexual intercourse before age 18 in the 2007-08 THMIS, this figure had decreased to 53 percent in the 2011-12 THMIS. Among young men age 18-19, however, no appreciable change was observed (an increase from 46 percent in 2007-08 to 47 percent in 2011-12).

Figure 8.1 **Trends in age of first sexual intercourse**



8.4 PREMARITAL SEX

The period between age at first sex and age at marriage is often a time of sexual experimentation. As a result, during this time, young people may be at risk of contracting sexually transmitted infections, including HIV/AIDS. Consistent condom use is advocated by HIV control programs to reduce the risk of sexual transmission of HIV among sexually active young adults.

Table 8.3 presents information on the patterns of sexual activity among never-married young people age 15-24 in Tanzania, including the percentage who have never had sexual intercourse, the percentage who engaged in sexual intercourse in the 12 months before the survey, and, among those who had sexual intercourse in the past 12 months, the percentage who used a condom during their most recent sexual intercourse.

Never-married young women age 15-24 are more likely than never-married young men age 15-24 to report that they have never engaged in sexual intercourse (59 percent and 48 percent, respectively). The percentage of never-married young people who have never had sex declines rapidly with age; 78 percent of young women and 73 percent of young men age 15-17 report that they have not yet had sexual intercourse compared with 23 percent of women age 23-24 and 15 percent of men age 23-24.

Never-married young women and men who know a condom source are considerably less likely than those who do not know a source to have never had sexual intercourse: 44 percent of young women who know a condom source have never had sexual intercourse, compared with 85 percent of young women who do not know a condom source. Similarly, 41 percent of young men who know a condom source have never had sexual intercourse, compared with 85 percent of young men who do not know a condom source. Variations in the percentages of young people who had sexual intercourse in the past 12 months by knowledge of a condom source are similarly striking: 45 percent of young women and 48 percent of young men who know of a condom source had sexual intercourse in the past 12 months, compared with only 12 percent of young women and 11 percent of young men who do not know of a condom source.

Overall, 32 percent of never-married young women reported that they had sexual intercourse during the 12 months preceding the survey, compared with 42 percent of never-married young men. Among never-married young people who had intercourse in the past 12 months, condom use at last sexual intercourse was nearly identical among young women and young men (58 percent and 59 percent, respectively).

Table 8.3 Premarital sexual intercourse and condom use during premarital sexual intercourse among young people

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 2011-12

	Never-married women age 15-24					Never-married men age 15-24				
				Women who had sexual intercourse in the past 12 months:					Men who had sexual intercourse in the past 12 months:	
Background characteristic	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married women	Percentage who used a condom at last sexual intercourse	Number of women	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married men	Percentage who used a condom at last sexual intercourse	Number of men
Age										
15-19	69.0	25.3	1,847	60.2	468	62.1	29.5	1,974	50.7	581
15-17	78.1	17.7	1,239	61.0	219	72.9	21.3	1,209	40.5	257
18-19	50.6	41.0	608	59.6	249	45.1	42.4	765	58.8	324
20-24	28.5	54.0	587	53.8	317	21.5	64.8	1,069	65.4	693
20-22	30.4	50.6	431	52.9	218	23.8	62.7	786	66.4	493
23-24	23.1	63.3	156	55.6	99	15.2	70.7	283	62.9	200
Knows condom source[1]										
Yes	43.6	44.9	1,510	62.1	678	40.6	48.0	2,540	61.0	1,220
No	84.8	11.6	924	29.5	107	84.5	10.7	503	6.2	54
Residence										
Urban	52.3	38.8	821	67.3	319	46.0	41.7	833	73.0	347
Rural	62.8	28.9	1,613	51.0	466	48.6	41.9	2,209	53.3	927
Mainland/Zanzibar										
Mainland	57.5	33.7	2,309	57.9	778	46.3	43.0	2,917	59.0	1,256
Urban	50.1	40.7	776	67.9	316	44.8	42.5	799	73.9	340
Rural	61.3	30.1	1,532	51.0	462	46.9	43.3	2,118	53.4	916
Zanzibar	91.3	5.8	125	*	7	83.9	14.5	126	42.0	18
Unguja	88.7	7.7	95	*	7	80.5	18.4	93	43.6	17
Pemba	99.4	0.0	30	nc	0	93.9	3.2	32	*	1
Zone										
Eastern	46.2	43.3	458	62.3	199	38.0	53.3	484	73.7	258
Western	57.8	30.5	223	57.1	68	42.2	47.9	298	53.3	143
Southern	49.4	44.8	96	(47.2)	43	29.1	55.6	120	54.3	67
Southern Highlands	43.5	46.3	253	61.5	117	51.3	42.3	273	64.0	115
Southwest Highlands	69.0	22.0	232	(60.7)	51	49.1	36.2	288	56.2	104
Central	67.5	22.9	192	(62.4)	44	50.8	38.7	339	56.9	131
Northern	69.7	22.7	311	50.9	71	54.4	32.1	304	59.9	98
Lake	59.5	34.1	544	54.4	185	47.9	41.8	813	50.7	340
Education										
No education	59.9	31.8	138	(28.2)	44	44.4	45.7	157	27.9	72
Primary incomplete	69.6	25.1	301	46.9	76	55.7	38.3	527	41.0	202
Primary complete	55.6	34.1	907	50.2	309	42.0	48.4	1,143	53.6	553
Secondary+	59.4	32.8	1,088	70.0	356	50.5	36.8	1,216	77.9	448
Total	59.2	32.2	2,434	57.6	785	47.9	41.9	3,043	58.7	1,274

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.
nc = No cases
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

There are large differentials by background characteristics in the percentages of never-married young people using condoms during their most recent sexual intercourse in the past 12 months. Condom use at last sexual intercourse increases with age for young men and with education for both young women and young men. Not surprisingly, condom use at last sexual intercourse is more common among those who know a condom source. Condom use at last sexual intercourse is also more common among never-married young women and young men in urban areas (67 percent and 73 percent, respectively) than among those in rural areas (51 percent and 53 percent, respectively).

8.5 MULTIPLE SEXUAL PARTNERS

The most common means of transmission of HIV in Tanzania is through unprotected sex with an infected person. To prevent HIV transmission, it is important that young people practice safe sex. Tables 8.4.1 and 8.4.2 present data on the percentage of young people who had engaged in sexual intercourse with more than one partner in the 12 months before the survey and the rate of condom use at last sex.

Table 8.4.1 Multiple sexual partners in the past 12 months among young people: Women

Among all young women age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse, by background characteristics, Tanzania 2011-12

	Women age 15-24		Women age 15-24 who had 2+ partners in the past 12 months	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Number of women	Percentage who reported using a condom at last intercourse	Number of women
Age				
15-19	3.0	2,414	37.7	72
15-17	2.7	1,436	(46.1)	39
18-19	3.4	978	(27.9)	33
20-24	4.6	1,888	30.8	87
20-22	4.1	1,153	(28.6)	47
23-24	5.5	735	(33.4)	40
Marital status				
Never married	2.2	2,434	(52.5)	54
Ever married	5.6	1,869	24.4	105
Knows condom source[1]				
Yes	4.2	2,783	41.0	118
No	2.7	1,519	(13.8)	41
Residence				
Urban	4.3	1,160	(49.2)	50
Rural	3.5	3,142	26.9	109
Mainland/Zanzibar				
Mainland	3.8	4,131	34.0	159
Urban	4.5	1,104	(49.2)	50
Rural	3.6	3,027	27.0	109
Zanzibar	0.2	171	*	0
Unguja	0.2	128	*	0
Pemba	0.3	43	*	0
Zone				
Eastern	4.4	666	*	30
Western	3.0	399	*	12
Southern	12.2	193	(24.8)	23
Southern Highlands	2.6	401	*	10
Southwest Highlands	1.0	422	*	4
Central	1.7	383	*	7
Northern	0.6	480	*	3
Lake	5.9	1,188	29.5	70
Education				
No education	5.2	558	*	29
Primary incomplete	4.7	569	(46.7)	27
Primary complete	4.6	1,916	35.7	89
Secondary+	1.1	1,260	*	14
Total	3.7	4,303	33.9	159

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.
[1] For this table, the following responses are not considered a source for condoms: friends, family members and home.

Table 8.4.2 Multiple sexual partners in the past 12 months among young people: Men

Among all young men age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse, by background characteristics, Tanzania 2011-12

Background characteristic	Men age 15-24		Men age 15-24 who had 2+ partners in the past 12 months	
	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom at last intercourse	Number of men
Age				
15-19	7.1	2,012	45.2	142
15-17	4.3	1,215	44.5	53
18-19	11.2	798	45.5	89
20-24	23.0	1,525	38.8	351
20-22	20.2	997	39.8	201
23-24	28.4	528	37.5	150
Marital status				
Never married	10.9	3,043	49.9	331
Ever married	32.8	494	21.8	162
Knows condom source[1]				
Yes	16.1	2,989	41.5	483
No	1.9	548	*	11
Residence				
Urban	13.8	925	52.8	128
Rural	14.0	2,612	36.4	365
Mainland/Zanzibar				
Mainland	14.3	3,407	40.4	489
Urban	14.3	889	53.1	127
Rural	14.4	2,518	35.9	362
Zanzibar	3.2	130	*	4
Unguja	4.0	96	*	4
Pemba	0.9	33	*	0
Zone				
Eastern	17.3	568	46.0	98
Western	7.5	349	(44.8)	26
Southern	13.0	146	(22.1)	19
Southern Highlands	20.7	312	(37.2)	65
Southwest Highlands	12.9	340	(51.7)	44
Central	13.5	376	(50.9)	51
Northern	9.6	324	(42.6)	31
Lake	15.6	992	32.5	155
Education				
No education	16.3	226	(19.1)	37
Primary incomplete	14.2	636	25.6	90
Primary complete	17.1	1,371	42.5	234
Secondary+	10.1	1,304	53.6	132
Total	13.9	3,537	40.6	493

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.
[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Young women were much less likely than young men to report having multiple sexual partners in the 12 months preceding the survey (4 percent compared with 14 percent, respectively). Among young people who had ever been married, only 6 percent of young women reported having had sexual intercourse with more than one partner in the previous 12 months, compared with 33 percent of young men. The percentage of young people who reported having sexual intercourse with more than one partner in the past 12 months increased with age, although the correlation was much stronger among young men than among young women.

Among young women and men who had multiple partners in the past 12 months, 34 percent and 41 percent, respectively, reported that they used a condom during their most recent sexual intercourse.

HIV PREVALENCE 9

Key Findings

- Five percent of Tanzanian adults age 15-49 are HIV-positive.
- Six percent of Tanzanian women and 4 percent of Tanzania men are infected with HIV.
- HIV prevalence is higher in urban areas than in rural areas (7 percent versus 4 percent), and is higher in Mainland Tanzania (5 percent) than in Zanzibar (1 percent).
- HIV prevalence is higher among respondents who reported having had a sexually transmitted infection (STI) or STI symptoms in the past 12 months than among those who did not.
- Men age 15-49 who were circumcised were less likely to be HIV positive than those who were uncircumcised (3 percent versus 5 percent, respectively).
- More than 3,000 cohabitating couples were tested for HIV in the 2011-12 THMIS. In 93 percent of couples, both partners were HIV negative. In 2 percent of couples, both partners were HIV positive. Five percent of couples were discordant, that is, one partner was infected with HIV and the other was not.

9.1 INTRODUCTION

Much of the information on national HIV prevalence in Tanzania derives from surveillance of HIV in special populations, such as women attending antenatal clinics and blood donors. For example, Mainland Tanzania currently maintains a network of 134 antenatal care (ANC) sites from which HIV prevalence estimates are generated. However, these surveillance data do not provide an estimate of the HIV prevalence among the general population. To better understand the magnitude and pattern of HIV prevalence in the general reproductive-age population in Tanzania, the 2003-04 THIS included HIV testing for female and male survey respondents age 15-49. The 2003-04 THIS provided, for the first time, direct estimates of HIV prevalence among the general female and male populations in Mainland Tanzania and detailed information about HIV prevalence by age, residence, region, and other socioeconomic characteristics. In addition, HIV prevalence was analyzed according to demographic characteristics and sexual behaviour to identify factors associated with the epidemic. HIV prevalence estimates among the general population were repeated in the 2007-08 THMIS, but this time included Zanzibar.

To obtain a new estimate of HIV prevalence among the general population and update information on the characteristics of the epidemic, it was decided to repeat HIV testing as part of the 2011-12 THMIS. As was done previously with the 2003-04 THIS and the 2007-08 THMIS, the results of this testing will be used to refine HIV prevalence estimates based on the sentinel surveillance system and to allow better monitoring of the epidemic.

The methodology used in conducting HIV testing as part of the 2011-12 THMIS is described in detail in the first chapter of this report. This chapter addresses the results of the testing and provides information on HIV testing coverage rates among eligible survey respondents. HIV prevalence estimates from the 2003-04 THIS, the 2007-08 THMIS, and 2011-12 THMIS are also compared. In addition, this chapter presents the differentials in HIV prevalence among women and men age 15-49 that were tested.

9.2 COVERAGE RATES FOR HIV TESTING

Table 9.1 shows by residence and region the distribution of women and men age 15-49 eligible for HIV testing by testing outcome. Overall, 85 percent of THMIS respondents who were eligible for testing were both interviewed and tested. Testing coverage rates were higher among women than among men (90 percent and 79 percent, respectively). Among all respondents eligible for testing, 7 percent refused to provide blood and 7 percent were not interviewed. However, because blood collection occurred immediately after completion of the individual interview, few respondents (less than 1 percent) who were interviewed were absent at the time of blood collection. One percent of respondents consented to testing but a test result was not obtained for other reasons. Among female respondents, refusal to give blood was a larger component of nonresponse than not being interviewed (5 percent compared with 4 percent). Among male respondents, the opposite was true: the proportion of men not interviewed (11 percent) was a larger component of nonresponse than the proportion that refused to give blood for HIV testing (9 percent). A comparison of the 2007-08 THMIS and 2011-12 THMIS indicates that HIV coverage rates have held steady across the two surveys.

Coverage of HIV testing among all respondents was slightly higher in rural areas (86 percent) than in urban areas (83 percent), and was markedly higher in Zanzibar (92 percent) than in Mainland Tanzania (84 percent). Among regions, coverage rates varied from a low of 67 percent in Pwani to a high of 96 percent in Kusini Unguja. Pwani, in fact, had the lowest coverage rates for both men and women (57 percent for men and 75 percent for women). Kusini Unguja had the highest coverage rate for men (94 percent) and shared the highest coverage rate for women with Kaskazini Unguja (97 percent). Coverage 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, 2011-12

Residence and region	Interviewed				Not interviewed	Total	Number
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]			
	WOMEN 15-49						
Residence							
Urban	88.5	6.6	0.0	0.7	4.2	100.0	2,739
Rural	90.7	4.9	0.0	0.5	3.9	100.0	8,684
Mainland/Zanzibar							
Mainland	89.4	5.8	0.1	0.4	4.3	100.0	9,812
Urban	87.2	7.5	0.0	0.8	4.5	100.0	2,305
Rural	90.1	5.3	0.1	0.3	4.3	100.0	7,507
Zanzibar	94.8	2.0	0.0	1.2	1.9	100.0	1,611
Unguja	96.7	1.9	0.0	0.0	1.4	100.0	993
Pemba	91.9	2.3	0.0	3.1	2.8	100.0	618
Zone							
Eastern	87.5	6.4	0.0	1.1	5.0	100.0	1,320
Western	92.4	3.4	0.1	0.0	4.1	100.0	894
Southern	90.1	6.3	0.0	0.2	3.5	100.0	635
Southern Highlands	87.8	5.2	0.1	1.5	5.3	100.0	1,052
Southwest Highlands	86.9	7.3	0.0	0.0	5.8	100.0	1,082
Central	92.5	5.0	0.1	0.0	2.3	100.0	1,073
Northern	87.3	7.5	0.0	0.3	4.9	100.0	1,077
Lake	90.4	5.6	0.1	0.1	3.8	100.0	2,679
Region							
Dodoma	93.2	5.3	0.0	0.0	1.4	100.0	281
Arusha	87.9	8.5	0.0	0.0	3.7	100.0	354
Kilimanjaro	89.9	5.5	0.0	0.3	4.3	100.0	346
Tanga	84.4	8.5	0.0	0.5	6.6	100.0	377
Morogoro	89.0	7.1	0.0	0.3	3.7	100.0	354
Pwani	75.2	14.2	0.0	0.0	10.7	100.0	318
Dar es Salaam	92.7	2.2	0.0	2.2	2.9	100.0	648
Lindi	95.3	3.2	0.0	0.0	1.6	100.0	317
Mtwara	84.9	9.4	0.0	0.3	5.3	100.0	318
Ruvuma	90.7	3.6	0.0	0.0	5.7	100.0	386
Iringa	84.9	9.3	0.3	0.3	5.1	100.0	332
Mbeya	83.8	11.6	0.0	0.0	4.5	100.0	396
Singida	91.7	5.0	0.3	0.0	3.0	100.0	398
Tabora	95.3	2.7	0.0	0.0	2.0	100.0	449
Rukwa	85.9	6.5	0.0	0.0	7.6	100.0	370
Kigoma	89.4	4.0	0.2	0.0	6.3	100.0	445
Shinyanga	95.6	1.8	0.3	0.0	2.3	100.0	341
Kagera	94.6	1.7	0.0	0.0	3.7	100.0	353
Mwanza	87.6	9.3	0.0	0.2	2.9	100.0	443
Mara	89.0	6.0	0.0	0.0	5.0	100.0	464
Manyara	92.9	4.8	0.0	0.0	2.3	100.0	394
Njombe	87.4	3.0	0.0	4.5	5.1	100.0	334
Katavi	91.8	2.8	0.0	0.0	5.4	100.0	316
Simiyu	81.4	11.4	0.2	0.2	6.8	100.0	500
Geita	95.7	1.9	0.0	0.3	2.1	100.0	578
Kaskazini Unguja	96.9	2.2	0.0	0.0	0.9	100.0	322
Kusini Unguja	97.3	2.1	0.0	0.0	0.7	100.0	291
Mjini Magharibi	96.1	1.6	0.0	0.0	2.4	100.0	380
Kaskazini Pemba	88.6	2.6	0.0	6.2	2.6	100.0	308
Kusini Pemba	95.2	1.9	0.0	0.0	2.9	100.0	310
Total	90.2	5.3	0.0	0.5	4.0	100.0	11,423

[1] Includes all dried blood samples (DBS) 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) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Continued…

Table 9.1—*Continued*

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, 2011-12

Residence and region	Interviewed				Not interviewed	Total	Number
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]			
	MEN 15-49						
Residence							
Urban	75.2	10.7	0.1	0.9	13.0	100.0	2,186
Rural	80.6	8.5	0.0	0.5	10.4	100.0	7,202
Mainland/Zanzibar							
Mainland	78.1	9.8	0.0	0.5	11.5	100.0	8,172
Urban	73.0	12.0	0.2	1.1	13.7	100.0	1,871
Rural	79.6	9.1	0.0	0.3	10.9	100.0	6,301
Zanzibar	87.3	3.9	0.1	1.0	7.7	100.0	1,216
Unguja	91.7	3.0	0.0	0.1	5.1	100.0	724
Pemba	80.9	5.1	0.2	2.2	11.6	100.0	492
Zone							
Eastern	73.6	12.1	0.2	1.4	12.7	100.0	1,128
Western	80.6	3.7	0.0	0.0	15.7	100.0	803
Southern	87.0	5.7	0.0	0.7	6.6	100.0	454
Southern Highlands	80.5	7.5	0.0	2.1	9.9	100.0	861
Southwest Highlands	69.1	16.3	0.0	0.1	14.5	100.0	863
Central	82.7	8.8	0.0	0.0	8.4	100.0	972
Northern	76.9	11.4	0.0	0.0	11.7	100.0	796
Lake	78.7	9.8	0.1	0.2	11.2	100.0	2,295
Region							
Dodoma	80.2	9.5	0.0	0.0	10.3	100.0	242
Arusha	82.2	9.1	0.0	0.0	8.7	100.0	286
Kilimanjaro	81.3	8.8	0.0	0.0	10.0	100.0	251
Tanga	66.8	16.6	0.0	0.0	16.6	100.0	259
Morogoro	73.0	14.2	0.3	0.0	12.6	100.0	318
Pwani	56.7	23.2	0.4	0.4	19.4	100.0	263
Dar es Salaam	82.1	5.7	0.0	2.7	9.5	100.0	547
Lindi	90.6	4.7	0.0	0.9	3.8	100.0	234
Mtwara	83.2	6.8	0.0	0.5	9.5	100.0	220
Ruvuma	89.5	2.7	0.0	0.3	7.5	100.0	295
Iringa	69.5	16.1	0.0	0.0	14.4	100.0	285
Mbeya	73.4	14.4	0.0	0.3	12.0	100.0	334
Singida	84.1	7.8	0.0	0.0	8.1	100.0	359
Tabora	85.1	3.1	0.0	0.0	11.8	100.0	451
Rukwa	58.5	23.2	0.0	0.0	18.3	100.0	289
Kigoma	74.7	4.5	0.0	0.0	20.7	100.0	352
Shinyanga	86.2	5.3	0.0	0.0	8.5	100.0	283
Kagera	85.6	4.1	0.0	0.3	10.0	100.0	319
Mwanza	61.1	25.3	0.5	0.0	13.1	100.0	375
Mara	80.4	6.1	0.0	0.0	13.5	100.0	378
Manyara	83.0	9.4	0.0	0.0	7.5	100.0	371
Njombe	82.2	3.9	0.0	6.0	7.8	100.0	281
Katavi	75.8	10.8	0.0	0.0	13.3	100.0	240
Simiyu	78.5	9.7	0.0	0.0	11.8	100.0	432
Geita	82.3	7.1	0.0	0.6	10.0	100.0	508
Kaskazini Unguja	91.3	3.4	0.0	0.5	4.8	100.0	207
Kusini Unguja	93.5	2.4	0.0	0.0	4.1	100.0	246
Mjini Magharibi	90.4	3.3	0.0	0.0	6.3	100.0	271
Kaskazini Pemba	80.3	7.7	0.0	4.7	7.3	100.0	233
Kusini Pemba	81.5	2.7	0.4	0.0	15.4	100.0	259
Total	79.3	9.0	0.1	0.6	11.0	100.0	9,388

[1] Includes all dried blood samples (DBS) 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) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Continued…

Table 9.1—*Continued*

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 2011-12

Residence and region	Interviewed				Not interviewed	Total	Number
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]			
	TOTAL (WOMEN and MEN 15-49)						
Residence							
Urban	82.6	8.4	0.1	0.8	8.1	100.0	4,925
Rural	86.1	6.5	0.0	0.5	6.9	100.0	15,886
Mainland/Zanzibar							
Mainland	84.3	7.6	0.1	0.5	7.6	100.0	17,984
Urban	80.8	9.6	0.1	0.9	8.6	100.0	4,176
Rural	85.3	7.0	0.0	0.3	7.3	100.0	13,808
Zanzibar	91.6	2.8	0.0	1.1	4.4	100.0	2,827
Unguja	94.6	2.4	0.0	0.1	3.0	100.0	1,717
Pemba	87.0	3.5	0.1	2.7	6.7	100.0	1,110
Zone							
Eastern	81.1	9.0	0.1	1.3	8.5	100.0	2,448
Western	86.8	3.5	0.1	0.0	9.6	100.0	1,697
Southern	88.8	6.1	0.0	0.4	4.8	100.0	1,089
Southern Highlands	84.5	6.3	0.1	1.8	7.4	100.0	1,913
Southwest Highlands	79.0	11.3	0.0	0.1	9.7	100.0	1,945
Central	87.9	6.8	0.0	0.0	5.2	100.0	2,045
Northern	82.9	9.2	0.0	0.2	7.8	100.0	1,873
Lake	85.0	7.5	0.1	0.2	7.3	100.0	4,974
Region							
Dodoma	87.2	7.3	0.0	0.0	5.5	100.0	523
Arusha	85.3	8.8	0.0	0.0	5.9	100.0	640
Kilimanjaro	86.3	6.9	0.0	0.2	6.7	100.0	597
Tanga	77.2	11.8	0.0	0.3	10.7	100.0	636
Morogoro	81.4	10.4	0.1	0.1	7.9	100.0	672
Pwani	66.8	18.2	0.2	0.2	14.6	100.0	581
Dar es Salaam	87.9	3.8	0.0	2.4	5.9	100.0	1,195
Lindi	93.3	3.8	0.0	0.4	2.5	100.0	551
Mtwara	84.2	8.4	0.0	0.4	7.1	100.0	538
Ruvuma	90.2	3.2	0.0	0.1	6.5	100.0	681
Iringa	77.8	12.5	0.2	0.2	9.4	100.0	617
Mbeya	79.0	12.9	0.0	0.1	7.9	100.0	730
Singida	88.1	6.3	0.1	0.0	5.4	100.0	757
Tabora	90.2	2.9	0.0	0.0	6.9	100.0	900
Rukwa	73.9	13.8	0.0	0.0	12.3	100.0	659
Kigoma	82.9	4.3	0.1	0.0	12.7	100.0	797
Shinyanga	91.3	3.4	0.2	0.0	5.1	100.0	624
Kagera	90.3	2.8	0.0	0.1	6.7	100.0	672
Mwanza	75.4	16.6	0.2	0.1	7.6	100.0	818
Mara	85.2	6.1	0.0	0.0	8.8	100.0	842
Manyara	88.1	7.1	0.0	0.0	4.8	100.0	765
Njombe	85.0	3.4	0.0	5.2	6.3	100.0	615
Katavi	84.9	6.3	0.0	0.0	8.8	100.0	556
Simiyu	80.0	10.6	0.1	0.1	9.1	100.0	932
Geita	89.4	4.3	0.0	0.5	5.8	100.0	1,086
Kaskazini Unguja	94.7	2.6	0.0	0.2	2.5	100.0	529
Kusini Unguja	95.5	2.2	0.0	0.0	2.2	100.0	537
Mjini Magharibi	93.7	2.3	0.0	0.0	4.0	100.0	651
Kaskazini Pemba	85.0	4.8	0.0	5.5	4.6	100.0	541
Kusini Pemba	88.9	2.3	0.2	0.0	8.6	100.0	569
Total	85.3	7.0	0.0	0.5	7.2	100.0	20,811

[1] Includes all dried blood samples (DBS) 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) noncorresponding 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 the distribution of women and men age 15-49 by HIV testing status according to background characteristics. Overall, there is little variation by background characteristics in the proportion of respondents that gave blood for HIV testing. Among women, HIV testing coverage is generally uniform (89-92 percent) across all age groups. Age differentials in HIV testing coverage were slightly greater among men (77-82 percent). Among both women and men, coverage levels were lowest among those who had no education. Variation by wealth quintile was slight and did not follow a clear pattern for either women or men.

Additional tables describing the relationship between participation in HIV testing and characteristics related to HIV risk are presented in Appendix A (see Tables A.7-A.10). Overall, the results in Tables A.7-A.10 do not show a systematic relationship between participation in testing and variables associated with a higher risk of HIV infection.

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 2011-12

Background characteristic	Interviewed: DBS Tested[1]	Interviewed: Refused to provide blood	Interviewed: Absent at the time of blood collection	Interviewed: Other/ missing[2]	Not interviewed	Total	Number
WOMEN 15-49							
Age							
15-19	88.8	4.6	0.2	0.8	5.6	100.0	2,625
20-24	91.2	4.8	0.0	0.3	3.6	100.0	2,000
25-29	90.4	5.3	0.0	0.5	3.8	100.0	1,889
30-34	91.0	5.3	0.0	0.3	3.4	100.0	1,478
35-39	89.7	6.3	0.0	0.5	3.5	100.0	1,475
40-44	89.7	6.2	0.0	0.5	3.6	100.0	1,089
45-49	91.5	5.4	0.0	0.5	2.7	100.0	867
Education							
No education	87.3	6.5	0.0	0.2	5.8	100.0	2,070
Primary incomplete	90.6	4.6	0.0	0.6	4.2	100.0	1,584
Primary complete	90.8	5.3	0.0	0.5	3.4	100.0	5,387
Secondary+	91.0	4.8	0.1	0.7	3.4	100.0	2,380
Missing	0.0	0.0	0.0	0.0	100.0	100.0	2
Wealth quintile							
Lowest	90.5	5.3	0.2	0.1	4.0	100.0	1,879
Second	89.8	5.5	0.0	0.3	4.4	100.0	2,029
Middle	90.0	4.9	0.0	0.7	4.4	100.0	2,194
Fourth	91.1	4.9	0.0	0.5	3.5	100.0	2,535
Highest	89.5	5.9	0.0	0.8	3.8	100.0	2,786
Total	90.2	5.3	0.0	0.5	4.0	100.0	11,423
MEN 15-49							
Age							
15-19	79.7	7.9	0.2	0.8	11.4	100.0	2,393
20-24	78.6	9.3	0.0	0.6	11.5	100.0	1,693
25-29	76.5	9.8	0.0	0.4	13.4	100.0	1,323
30-34	79.2	10.1	0.0	0.1	10.6	100.0	1,130
35-39	78.7	10.3	0.0	0.5	10.5	100.0	1,160
40-44	82.3	8.1	0.0	0.4	9.2	100.0	960
45-49	82.2	8.2	0.0	1.1	8.5	100.0	729
Education							
No education	72.5	10.9	0.0	0.8	15.8	100.0	856
Primary incomplete	79.9	8.7	0.1	0.4	10.9	100.0	1,630
Primary complete	79.4	9.2	0.0	0.4	10.9	100.0	4,440
Secondary+	81.2	8.3	0.1	0.9	9.5	100.0	2,458
Missing	0.0	0.0	0.0	0.0	100.0	100.0	4
Wealth quintile							
Lowest	78.7	9.5	0.0	0.1	11.7	100.0	1,436
Second	79.5	9.5	0.0	0.4	10.6	100.0	1,677
Middle	79.0	9.0	0.1	0.7	11.3	100.0	1,906
Fourth	81.5	7.4	0.0	0.5	10.6	100.0	2,170
Highest	77.7	10.0	0.1	1.0	11.2	100.0	2,199
Total	79.3	9.0	0.1	0.6	11.0	100.0	9,388

[1] Includes all dried blood samples (DBS) 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) noncorresponding 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

The adult HIV prevalence observed in the 2011-12 THMIS is 5 percent (Table 9.3). HIV prevalence is higher among women than among men (6 percent and 4 percent, respectively).

Among both women and men, HIV prevalence generally increases with age. For women, HIV prevalence increases from 1 percent among those age 15-19 to 10 percent among those age 45-49. For men, HIV prevalence increases from 1 percent among those age 15-19 to a plateau of 7 percent among those age 30-49. When HIV prevalence estimates among men and women are compared for each age cohort, women have a higher HIV prevalence estimate than men for each age group.

The HIV prevalence estimate for age group 15-19 is assumed to represent new infections and therefore serves as a proxy for HIV incidence among young people. A comparison of HIV prevalence estimates in the age group 15-19, between the 2007-08 THMIS and the 2011-12 THMIS, reveals no change in prevalence, which was 1 percent in both the 2007-08 and the 2011-12 survey.

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 positive, by age, Tanzania 2011-12

	Women		Men		Total	
Age	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
15-19	1.3	2,153	0.8	1,944	1.0	4,097
20-24	4.4	1,699	1.7	1,449	3.2	3,148
25-29	7.0	1,691	2.5	1,053	5.3	2,744
30-34	9.2	1,320	6.5	1,013	8.0	2,333
35-39	8.0	1,269	7.1	1,007	7.6	2,276
40-44	9.3	901	7.1	892	8.2	1,793
45-49	10.2	722	6.5	631	8.5	1,353
Total 15-49	6.2	9,756	3.8	7,989	5.1	17,745

9.4 HIV PREVALENCE BY SOCIOECONOMIC CHARACTERISTICS

Table 9.4 shows the variation in HIV prevalence among women and men age 15-49 by socioeconomic characteristics. HIV prevalence is higher among individuals who are employed (6 percent) than among those who are not employed (3 percent) and is higher in urban areas than in rural areas (7 percent and 4 percent, respectively). In Mainland Tanzania, HIV prevalence is markedly higher than in Zanzibar (5 percent versus 1 percent). Differentials by region are large. Among regions on the Mainland, Njombe has the highest prevalence estimate (15 percent), followed by Iringa and Mbeya (9 percent each); Manyara and Tanga have the lowest prevalence (2 percent). Among the five regions that comprise Zanzibar, all have HIV prevalence estimates at 1 percent or below. Consistent with the overall national estimate among men and women, HIV prevalence is higher among women than men in nearly all regions of Tanzania.

Among women who were tested, HIV prevalence did not vary by education level in a consistent fashion. The lowest HIV prevalence estimate was found among those with no education and at least some secondary education (5 percent for each), while the highest prevalence estimates were observed among those that did not complete primary school and those that completed their primary education (7 percent each). Among men age 15-49 who were tested, HIV prevalence peaked among those who had completed primary school (5 percent) and was lowest among those with at least some secondary education (2 percent).

HIV prevalence is positively correlated with wealth; among women, prevalence increases from 5 percent in the lowest wealth quintile to 8 percent in the highest. Among men, prevalence increases from 3 percent in the lowest wealth quintile to 5 percent in the highest wealth quintile.

Table 9.4 HIV prevalence by socioeconomic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by socioeconomic characteristics, Tanzania 2011-12

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Employment (past 12 months)						
Not employed	4.2	1,732	1.9	1,156	3.3	2,888
Employed	6.6	8,018	4.2	6,829	5.5	14,847
Residence						
Urban	8.9	2,627	5.2	2,094	7.2	4,720
Rural	5.1	7,129	3.4	5,895	4.3	13,025
Mainland/Zanzibar						
Mainland	6.3	9,409	3.9	7,730	5.3	17,139
Urban	9.3	2,519	5.4	2,021	7.5	4,539
Rural	5.3	6,891	3.5	5,709	4.5	12,600
Zanzibar	1.1	347	0.9	259	1.0	606
Unguja	1.2	265	1.1	194	1.2	458
Pemba	0.5	82	0.2	65	0.3	148
Zone						
Eastern	7.7	1,501	4.1	1,283	6.0	2,785
Western	5.1	788	3.4	696	4.3	1,484
Southern	5.4	500	1.4	360	3.7	860
Southern Highlands	10.8	1,042	7.2	787	9.3	1,829
Southwest Highlands	9.2	972	6.5	819	8.0	1,792
Central	3.2	975	2.1	879	2.7	1,854
Northern	4.0	1,141	1.7	813	3.0	1,954
Lake	5.4	2,489	3.9	2,093	4.7	4,582
Region						
Dodoma	2.1	373	3.7	332	2.9	705
Arusha	3.9	290	2.3	245	3.2	535
Kilimanjaro	4.9	343	2.2	244	3.8	587
Tanga	3.5	508	0.7	325	2.4	833
Morogoro	5.3	352	2.1	322	3.8	674
Pwani	9.2	187	2.1	159	5.9	346
Dar es Salaam	8.2	962	5.3	802	6.9	1,764
Lindi	4.3	167	1.1	123	2.9	290
Mtwara	6.0	333	1.5	237	4.1	570
Ruvuma	9.1	619	4.1	441	7.0	1,061
Iringa	10.9	183	6.9	145	9.1	328
Mbeya	11.0	619	6.7	538	9.0	1,157
Singida	4.5	370	1.8	320	3.3	690
Tabora	5.8	383	4.5	390	5.1	774
Rukwa	6.8	164	5.5	131	6.2	295
Kigoma	4.5	405	2.0	305	3.4	710
Shinyanga	8.1	368	6.6	313	7.4	681
Kagera	5.5	399	4.1	355	4.8	754
Mwanza	4.7	509	3.7	411	4.2	920
Mara	5.2	385	3.5	321	4.5	706
Manyara	2.7	232	0.3	227	1.5	459
Njombe	15.4	240	14.2	200	14.8	440
Katavi	5.3	190	6.7	150	5.9	340
Simiyu	4.3	558	2.7	457	3.6	1,015
Geita	5.7	270	3.5	236	4.7	506
Kaskazini Unguja	0.2	37	0.0	24	0.1	62
Kusini Unguja	0.7	23	0.3	19	0.5	42
Mjini Magharibi	1.5	204	1.4	150	1.4	354
Kaskazini Pemba	0.2	42	0.3	32	0.3	74
Kusini Pemba	0.8	40	0.0	34	0.4	74
Education						
No education	5.4	1,715	3.5	715	4.8	2,430
Primary incomplete	6.6	1,241	3.4	1,276	5.0	2,517
Primary complete	6.7	5,110	4.9	4,093	5.9	9,202
Secondary+	4.9	1,690	2.0	1,905	3.4	3,595
Wealth quintile						
Lowest	4.8	1,654	3.1	1,271	4.0	2,925
Second	4.7	1,758	2.9	1,458	3.9	3,216
Middle	5.5	1,764	4.4	1,523	5.0	3,287
Fourth	6.8	2,017	3.5	1,677	5.3	3,693
Highest	8.0	2,564	4.9	2,060	6.6	4,624
Total	6.2	9,756	3.8	7,989	5.1	17,745

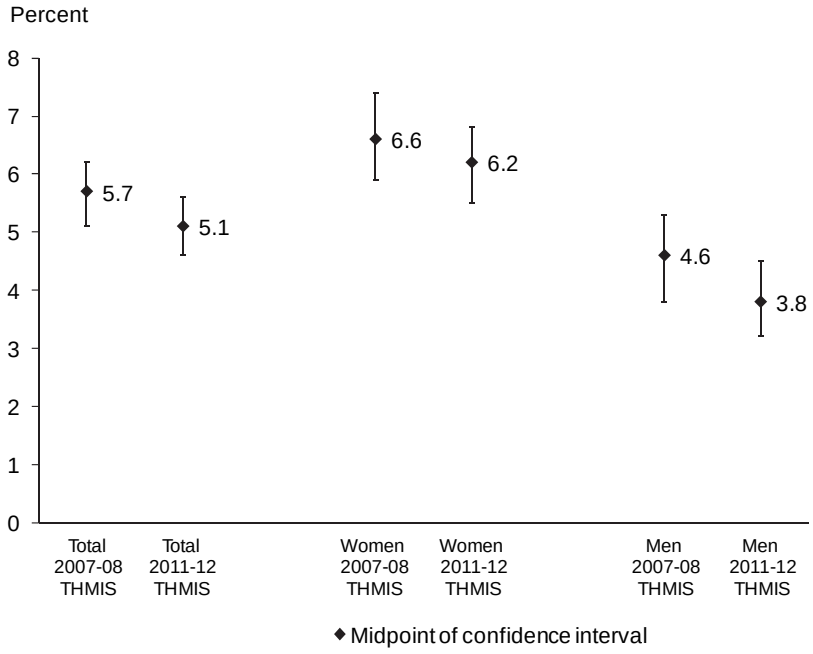
Note: For women, total includes 6 cases for which information on employment is missing. For men, total includes 3 cases for which information on employment is missing.

9.5 TRENDS IN HIV PREVALENCE

A comparison of the 2007-08 THMIS and 2011-12 THMIS HIV prevalence estimates indicates that HIV prevalence has declined slightly from 6 percent to 5 percent among adults age 15-49. Similarly, HIV prevalence has also modestly declined among women, from 7 to 6 percent, and among men, from 5 to 4 percent.

As shown in Figure 9.1, the confidence intervals for the 2007-08 and 2011-12 HIV prevalence estimates for all adults age 15-49 (5.1-6.2 and 4.6-5.6, respectively) overlap. Thus, it is unlikely that the decline in HIV prevalence observed between the two surveys is statistically significant. Likewise, the declines among women and among men also show overlapping confidence intervals. For women, the confidence interval is 5.5-6.8 in 2011-12 compared with 5.9-7.4 reported in the 2007-08 THMIS. For men, the confidence interval is 3.2-4.5 in 2011-12 compared with 3.8-5.3 reported in the 2007-08 THMIS.

Figure 9.1 **HIV prevalence among all adults age 15-49, and by sex, Tanzania 2007-08 and 2011-12**



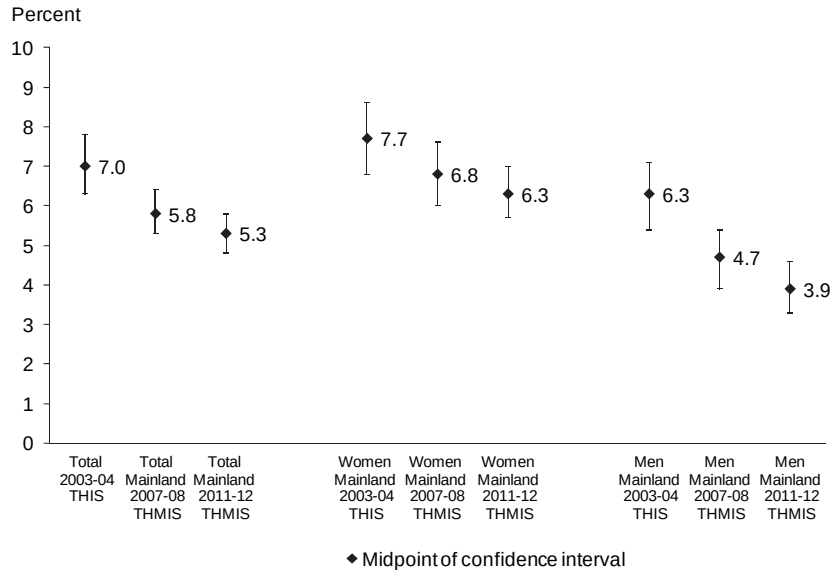
The 2003-04 THIS produced estimates of HIV prevalence for Mainland Tanzania only. A comparison of the 2003-04 THIS with the 2007-08 THMIS and 2011-12 THMIS HIV prevalence estimates from the Mainland indicates that HIV prevalence has declined in the Mainland from 7 percent (2003-04) to 6 percent (2007-08) to 5 percent (2011-12) among adults age 15-49. Prevalence among women on the Mainland has declined from 8 to 7 to 6 percent, and prevalence among men on the Mainland has declined from 6 to 5 to 4 percent, as measured over the course of the three surveys.

As shown in Figure 9.2, the confidence interval for the 2003-04 THIS HIV prevalence estimates for all Mainland adults age 15-49 overlaps with the confidence interval for the 2007-08 THMIS HIV prevalence estimate for all Mainland adults; in turn, the confidence interval for the prevalence estimates for all Mainland adults in the 2007-08 THMIS overlaps with the confidence interval for the prevalence estimates from the 2011-12 THMIS.

Importantly, however, the confidence intervals of the HIV prevalence estimates for all Mainland adults age 15-49 reported in the 2003-04 THIS and in the 2011-12 THMIS (6.3-7.8 and 4.8-5.8, respectively) do not overlap. Thus, the decline in HIV prevalence observed between these two surveys is statistically significant. By sex, the decline is not statistically significant among women; however, the decline is significant among men. For women, the confidence interval in 2011-12 is 5.7-7.0 compared with

6.8-8.6 reported in 2003-04. For men, the confidence interval is 3.3-4.6 reported in 2011-12 compared with 5.4-7.1 reported in 2003-04.

Figure 9.2 **HIV prevalence among all adults age 15-49, and by sex, Mainland Tanzania, 2003-04, 2007-08 and 2011-12**



9.6 HIV PREVALENCE BY DEMOGRAPHIC AND HEALTH CHARACTERISTICS

Table 9.5 presents HIV prevalence estimates among the Tanzanian adult population by demographic characteristics. The table shows that marital status and HIV prevalence are related, with the highest infection rates among adults who have been widowed (25 percent) followed by those that are divorced (13 percent). Fifteen percent of women and 9 percent of men who were divorced or separated are HIV positive, compared with 5 percent of women or men who are currently married or living with a partner. Among never-married women who reported that they had ever had sexual intercourse, 6 percent were HIV positive, compared with 1 percent among never-married men who had ever had sexual intercourse. One percent of never-married women and men who said they had never had sex are HIV positive, indicating that some respondents failed to report sexual activity or that there is some degree of nonsexual transmission of HIV.

Among all respondents who were tested, those in polygynous unions were no more likely to be HIV positive than those in nonpolygynous unions or those not currently in a union (5 percent each). Notably, however, when examined by sex, the pattern becomes more complex. Whereas women in polygynous unions are just as likely as those in nonpolygynous unions to be HIV positive (5 percent each), those who are not in union are more likely to be HIV positive (8 percent) than those in either of the first two groups. The opposite is true for men: men who are currently in polygynous unions have a higher prevalence of HIV (6 percent) than those who are in nonpolygynous unions (5 percent) or those who are not currently in union (2 percent).

HIV prevalence was higher among respondents who slept away from home one or more times during the 12-month period before the survey than among those who had not been away at all. Differences were greater for women than for men. Among women, those who travelled away from home five or more times in the past 12 months were more than twice as likely to be HIV positive (11 percent) as those who did not travel away from home (5 percent). HIV prevalence also differed between respondents by the amount of time they had been away from home. HIV prevalence was higher among women (8 percent) and men (5 percent) who had been away for less than one month at a time compared with those who had been away for more than one month at a time (7 percent for women and 4 percent for men).

Women who were pregnant at the time of the survey had a lower HIV prevalence rate than those who were not pregnant or who were unsure of their pregnancy status (3 percent and 7 percent, respectively). HIV prevalence was lower among women who received antenatal care (ANC) for their last birth in the three-year period preceding the survey (5 percent) than among those who had no ANC or did not give birth in the period (7 percent) regardless of whether ANC was provided through the public sector or another source. This finding is important because national HIV prevalence estimates are regularly produced using data obtained from antenatal clinics and adjusted using prevalence data obtained from population-based surveys such as the THMIS.

HIV prevalence was slightly lower among men who reported that they had been circumcised than among those who reported that they had not been circumcised (3 percent and 5 percent, respectively). The relationship between circumcision and HIV prevalence is discussed further in Section 9.10.

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 2011-12

	Women		Men		Total	
Demographic characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Marital status						
Never married	3.3	2,466	1.2	3,384	2.1	5,850
Ever had sexual intercourse	5.5	1,152	1.4	1,924	3.0	3,076
Never had sexual intercourse	1.3	1,314	1.0	1,460	1.1	2,774
Married/living together	5.2	6,164	5.4	4,236	5.3	10,401
Divorced or separated	15.2	808	8.9	341	13.3	1,149
Widowed	24.7	317	(27.9)	28	25.0	345
Type of union						
In polygynous union	5.0	1,337	6.1	466	5.2	1,803
In nonpolygynous union	5.2	4,740	5.3	3,761	5.3	8,501
Not currently in union	7.8	3,592	2.1	3,752	4.9	7,344
In union, polygyny status unknown	5.0	87	*	9	4.5	97
Times slept away from home in past 12 months						
None	4.9	5,373	3.1	3,639	4.1	9,012
1-2	7.5	3,339	4.6	2,556	6.3	5,895
3-4	7.7	771	4.6	970	6.0	1,741
5+	10.7	266	3.8	803	5.5	1,069
Time away in past 12 months						
Away for more than 1 month	6.6	1,506	3.8	1,464	5.2	2,970
Away for less than 1 month	8.4	2,867	4.9	2,861	6.6	5,728
Not away	4.9	5,378	3.1	3,653	4.1	9,031
Pregnancy status						
Pregnant	3.2	910	na	na	na	na
Not pregnant or not sure	6.5	8,846	na	na	na	na
ANC for last birth in the last 3 years						
ANC provided by the public sector	4.6	3,661	na	na	na	na
ANC provided by other than the public sector	4.9	404	na	na	na	na
No ANC/No birth in last 3 years	7.2	5,673	na	na	na	na
Male circumcision						
Circumcised	na	na	3.3	5,734	na	na
Not circumcised	na	na	5.2	2,250	na	na
Total	6.2	9,756	3.8	7,989	5.1	17,745

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. For women, total includes 7 cases for which the number of times slept away from home in past 12 months is missing, 5 cases for which the amount of time away in past 12 months is missing, and 17 cases for which information on ANC is missing. For men, total includes 21 cases for which the number of times slept away from home in past 12 months is missing, and 11 cases for which the amount of time away in past 12 months is missing
na = Not applicable

9.7 HIV PREVALENCE BY SEXUAL BEHAVIOUR

Table 9.6 presents HIV prevalence rates by sexual behaviour characteristics among respondents who have ever had sexual intercourse. In reviewing these results, it is important to remember that responses about sexual risk behaviours may be subject to reporting bias. Also, sexual behaviour in the 12 months preceding the survey may not adequately reflect lifetime sexual risk. Nor is it possible to know the sequence of events (e.g., whether any reported condom use occurred before or after HIV transmission).

Table 9.6 shows no clear correlation between HIV prevalence and age at first sexual intercourse for either women or men. The association of HIV prevalence with multiple sexual partners and partner concurrency was examined in the 2011-12 THMIS and is also presented in Table 9.6. A respondent was considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. Concurrent partnership among men also includes those who had overlapping sexual partnerships with two or more wives. Among women, HIV prevalence was highest among those who had or two or more sexual partners (11 percent) in the past 12 months, followed by those women that had no sexual partners (10 percent) in the past year. Women who reported only having one sexual partner in the past 12 months (6 percent) had the lowest HIV prevalence estimate. When the HIV prevalence estimate among those with two or more partners is further reviewed, HIV prevalence was lower among women who had concurrent partners (7 percent) than among those who did not (12 percent). Among men, HIV prevalence was marginally higher among men who had one sexual partner in the past 12 months (5 percent) than among those who had two or more sexual partners (4 percent). Among men who have had two or more sexual partners in the past year, HIV prevalence was slightly lower among men who had concurrent partners (4 percent) than among those who did not (5 percent).

Table 9.6 also shows that condom use at last sexual intercourse was linked to HIV status among both women and men. Women who reported using a condom during their most recent sexual intercourse in the 12-month period before the survey were twice as likely to be HIV positive as those who did not use a condom during their last sexual intercourse (12 percent and 6 percent, respectively). Although the difference in HIV prevalence was less extreme than for women, men who reported condom use during their most recent sexual intercourse in the 12-month period before the survey were also more likely to be infected than men who did not use a condom (5 percent and 4 percent, respectively). One possible explanation for this pattern is that HIV-positive respondents are more likely to use condoms because they either know or suspect that they are infected with HIV and use condoms to prevent transmission (rather than to avoid being infected).

Among both women and men, there was a marked increase in the likelihood of being HIV positive with increasing number of lifetime partners. For example, 1 percent of men who had had only one sexual partner in their lifetime were HIV positive compared with 8 percent of men with 10 or more lifetime sexual partners. Likewise, among women, the proportion of HIV-positive women increases with the number of lifetime partners, from 3 percent of women who had had only one sexual partner in their lifetime to 10 percent of women with 3-4 lifetime sex partners to a high of 19 percent of women with 10 or more lifetime sexual partners.

The HIV prevalence estimate among men who paid for sexual intercourse during the 12 months before the survey is 4 percent compared with 5 percent among those who did not pay for sexual intercourse or did not have sexual intercourse in the past 12 months. Among those who paid for sex in the past 12 months, HIV prevalence by condom use differs only slightly.

In summary, the results presented in Table 9.6 do not demonstrate a consistent relationship between sexual risk behaviour and HIV prevalence. More detailed analysis is clearly necessary to understand these relationships because they are often confounded by other factors that are associated with

both behavioural measures and HIV prevalence, including demographic characteristics such as age, marital status, and residence.

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 2011-12

	Women		Men		Total	
Sexual behaviour characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	7.8	2,244	3.6	1,423	6.2	3,667
16-17	5.7	2,435	4.2	1,403	5.2	3,838
18-19	6.6	2,171	5.2	1,862	5.9	4,033
20+	8.1	1,482	4.7	1,827	6.2	3,310
Don't know/missing	6.1	106	*	3	6.0	109
Multiple sexual partners and partner concurrency in past 12 months						
0	10.0	860	(2.1)	39	9.7	899
1	6.4	7,180	4.8	4,750	5.7	11,930
2+	10.5	384	4.1	1,593	5.3	1,977
Had concurrent partners[1]	7.1	122	3.7	842	4.1	964
None of the partners were concurrent	12.1	262	4.6	751	6.5	1,013
Condom use at last sexual intercourse in past 12 months						
Used condom	12.2	1,157	5.3	1,469	8.3	2,626
Did not use condom	5.6	6,406	4.4	4,581	5.1	10,986
No sexual intercourse in past 12 months	9.9	874	3.0	464	7.5	1,337
Number of lifetime partners						
1	2.9	3,637	0.9	1,051	2.4	4,688
2	8.7	2,202	4.1	1,136	7.1	3,339
3-4	9.9	1,844	4.2	1,632	7.2	3,476
5-9	13.6	582	5.4	1,361	7.8	1,943
10+	18.9	124	7.5	1,094	8.7	1,218
Don't know/missing	(6.6)	49	5.0	244	5.3	292
Paid for sexual intercourse in past 12 months						
Yes	na	na	3.5	697	na	na
Used condom	na	na	3.3	377	na	na
Did not use condom	na	na	3.7	320	na	na
No (No paid sexual intercourse/no sexual intercourse in past 12 months)	na	na	4.6	5,821	na	na
Total	6.9	8,438	4.5	6,518	5.9	14,956

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. Total includes 14 women and 136 men for whom information on multiple sexual partners and partner concurrency in the past 12 months is missing and 1 woman and 5 men for whom information on condom use at last sexual intercourse in past 12 months is missing.

[1] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives.)

na = Not applicable

9.8 HIV PREVALENCE AMONG YOUNG PEOPLE

Young people age 15-24 are an important group to monitor for reduction of HIV incidence. This was specified in the United Nations General Assembly Special Session (UNGASS) on HIV and AIDS.

Table 9.7 shows that 2 percent of respondents age 15-24 (3 percent of young women and 1 percent of young men) are HIV positive. The HIV prevalence among young adults who have never had sex (1 percent) suggests that there may be other underlying determinants of HIV transmission that will need to be targeted in order to reduce the incidence of HIV in this population. It may also reflect underreporting of sexual activity among young people.

Results by marital status show that HIV prevalence was greatest among the comparatively small numbers of young women and men who were widowed, divorced, or separated (10 percent). The lowest prevalence estimates were found among young people who had not yet married (2 percent among never-married young women and 1 percent among never-married young men). However, the prevalence estimate among never-married young women who had ever had sex was comparable to the estimate among their married counterparts (3 percent each for both men and women).

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 2011-12

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age						
15-19	1.3	2,153	0.8	1,944	1.0	4,097
15-17	1.1	1,275	0.6	1,180	0.8	2,455
18-19	1.5	878	1.1	765	1.3	1,643
20-24	4.4	1,699	1.7	1,449	3.2	3,148
20-22	3.0	1,037	1.2	956	2.1	1,993
23-24	6.6	663	2.8	492	5.0	1,155
Marital status						
Never married	2.0	2,154	0.9	2,919	1.4	5,073
Ever had sex	3.2	877	0.9	1,513	1.7	2,390
Never had sex	1.2	1,277	0.9	1,406	1.1	2,683
Married/living together	2.5	1,519	2.8	433	2.6	1,952
Divorced/separated/widowed	11.3	179	(3.6)	41	9.9	220
Pregnancy status						
Pregnant	2.2	384	na	na	na	na
Not pregnant or not sure	2.7	3,468	na	na	na	na
Residence						
Urban	3.9	1,035	2.4	915	3.2	1,949
Rural	2.2	2,817	0.7	2,478	1.5	5,295
Mainland/Zanzibar						
Mainland	2.8	3,699	1.2	3,270	2.0	6,969
Urban	4.1	985	2.5	880	3.3	1,865
Rural	2.3	2,715	0.7	2,390	1.5	5,104
Zanzibar	0.1	153	1.1	123	0.5	276
Unguja	0.0	114	1.4	91	0.6	206
Pemba	0.4	39	0.0	32	0.2	70
Zone						
Eastern	4.7	593	0.6	530	2.8	1,122
Western	0.9	354	2.0	332	1.4	687
Southern	2.4	178	1.7	148	2.1	326
Southern Highlands	4.4	361	1.9	304	3.3	664
Southwest Highlands	3.7	376	0.4	321	2.2	697
Central	0.6	334	1.3	366	1.0	701
Northern	1.6	435	0.6	312	1.2	747
Lake	2.6	1,068	1.3	957	2.0	2,025
Region						
Dodoma	0.0	101	2.5	135	1.4	237
Arusha	1.5	106	0.0	84	0.8	190
Kilimanjaro	1.9	133	1.7	116	1.8	249
Tanga	1.6	196	0.0	112	1.0	308
Morogoro	2.2	123	0.0	129	1.1	252
Pwani	0.0	71	0.0	76	0.0	147
Dar es Salaam	6.3	399	1.0	324	4.0	723
Lindi	2.4	60	1.6	44	2.1	105
Mtwara	2.4	118	1.7	103	2.0	221
Ruvuma	2.2	224	2.5	166	2.3	390
Iringa	7.0	61	1.5	69	4.1	130
Mbeya	3.8	236	0.0	227	2.0	462
Singida	1.5	144	0.9	137	1.2	281
Tabora	1.0	174	0.6	180	0.8	354
Rukwa	3.9	52	0.0	41	2.2	94
Kigoma	0.8	180	3.6	153	2.1	333
Shinyanga	5.1	164	2.0	136	3.7	300
Kagera	2.3	147	2.7	129	2.5	275
Mwanza	1.7	202	1.0	200	1.3	402
Mara	0.9	156	1.1	156	1.0	312
Manyara	0.0	88	0.0	94	0.0	182
Njombe	8.6	75	1.2	69	5.1	145
Katavi	3.2	88	2.1	53	2.8	141
Simiyu	2.2	282	0.6	219	1.5	502
Geita	4.3	116	1.4	116	2.9	233
Kaskazini Unguja	0.0	16	0.0	12	0.0	28
Kusini Unguja	0.0	8	0.0	9	0.0	17
Mjini Magharibi	0.0	89	1.9	71	0.8	161
Kaskazini Pemba	0.0	19	0.0	15	0.0	34
Kusini Pemba	0.8	19	0.0	17	0.4	36
Education						
No education	3.2	498	1.2	203	2.6	701
Primary incomplete	3.6	514	2.0	613	2.8	1,128
Primary complete	2.4	1,722	0.7	1,305	1.7	3,027
Secondary+	2.4	1,118	1.2	1,271	1.8	2,388
Wealth quintile						
Lowest	2.2	610	0.7	483	1.5	1,094
Second	2.1	691	0.5	578	1.4	1,269
Middle	2.1	722	0.8	643	1.5	1,365
Fourth	2.4	791	1.4	747	1.9	1,538
Highest	3.9	1,038	1.9	942	2.9	1,980
Total 15-24	2.7	3,852	1.2	3,393	2.0	7,245

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable.

Young people living in urban areas are only somewhat more likely to be infected than those in rural areas (3 percent compared with 2 percent). The prevalence among those in Mainland Tanzania is higher than those in Zanzibar (2 percent versus 1 percent). Njombe (5 percent) has the highest HIV prevalence among young people. However, because the number of young people who were tested was relatively small, regional differences in HIV prevalence should be interpreted with caution.

Table 9.8 shows HIV prevalence among young people by sexual behaviour. As was the case for women and men age 15-49 who had ever had sex, the variations in HIV prevalence according to the measures of sexual behaviour included in Table 9.8 are difficult to interpret. Among young women who had ever had sex, those who had no partners in the past 12 months were more likely to be HIV positive than those who had one partner but less likely to be HIV positive than those who had two or more partners. In contrast, among young men, HIV prevalence was higher among those who had two or more sexual partners in the past 12 months (2 percent) than among those who had one partner in the past 12 months (1 percent). Among young women, there were too few cases of respondents having concurrent partners to make inferences about the relationship between partner concurrency and HIV status. Among young men, respondents having concurrent partners were less likely to be HIV positive (less than 1 percent) than those with no concurrent partners in the past 12 months (4 percent). Condom use also has an inconsistent relationship with HIV prevalence among young people.

Table 9.8 HIV prevalence among young people by sexual behaviour

Percentage HIV positive among women and men age 15-24 who have ever had sex and were tested for HIV, by sexual behaviour, Tanzania 2011-12

	Women		Men		Total	
Sexual behaviour characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Multiple sexual partners and partner concurrency in past 12 months						
0	4.2	265	*	12	4.0	277
1	3.2	2,159	1.2	1,423	2.4	3,582
2+	4.7	148	2.0	468	2.7	616
Had concurrent partners[1]	*	25	0.2	252	0.8	277
None of the partners were concurrent	4.1	123	4.2	217	4.2	339
Condom use at last sexual intercourse in past 12 months						
Used condom	4.4	576	0.7	780	2.3	1,357
Did not use condom	2.9	1,731	2.2	915	2.6	2,646
No sexual intercourse in past 12 months	4.2	267	0.7	289	2.4	556
Total 15-24	3.4	2,574	1.4	1,986	2.5	4,560

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 1 woman and 83 men for whom information on multiple sexual partners and partner concurrency in the past 12 months is missing, and 2 men for whom information on condom use at last sexual intercourse in past 12 months is missing.
[1] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

9.9 HIV PREVALENCE BY OTHER CHARACTERISTICS RELATED TO HIV RISK

Table 9.9 presents HIV prevalence by other characteristics related to HIV risk among women and men age 15-49 who have ever had sex. The table shows that women and men with a history of a sexually transmitted infection (STI) or STI symptoms in the past 12 months have a higher HIV prevalence than those with no history or symptoms (11 percent and 6 percent, respectively).

The table also shows that individuals who had been tested for HIV previously were slightly more likely to be HIV positive than those who had never been tested (6 percent and 5 percent, respectively). Among women who had been tested previously, the HIV prevalence rate was higher among those who reported that they had received the result from their last test than among those who reported that they had not received the result (7 percent compared with 5 percent). Among men, however, the proportion HIV positive is the same for those that received their test result and for those that did not (5 percent for each group).

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 they had an STI in the past 12 months and by prior testing for HIV, Tanzania 2011-12

	Women		Men		Total	
Characteristic	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptoms	13.5	703	6.1	457	10.6	1,161
No STI, no symptoms	6.3	7,664	4.4	6,019	5.5	13,683
Prior HIV testing						
Ever tested	7.1	6,316	5.2	3,723	6.4	10,039
Received results	7.2	5,951	5.2	3,525	6.5	9,477
Did not received results	4.5	364	4.8	198	4.6	563
Never tested	6.3	2,045	3.6	2,794	4.7	4,839
Total	6.9	8,438	4.5	6,518	5.9	14,956

Note: Total includes 71 women and 42 men for whom information on sexually transmitted infections in the past 12 months is missing. Total includes 77 women and 1 man for whom information on prior HIV testing is missing.

Table 9.10 provides further information about the relationship between prior HIV testing and the actual HIV status of respondents. The results show that the majority of individuals who are HIV positive have been tested previously and received the result of their last test. Sixty-nine percent of infected respondents (73 percent of infected women and 61 percent of infected men) received the result of their last HIV test. This represents a vast increase from the 2007-08 THMIS, in which only 44 percent of infected women and 31 percent of infected men had been previously tested and received the result of their last test. However, 30 percent of HIV-positive respondents have never been tested or have not received the results of their last test and therefore do not know that they can transmit HIV if they have unprotected sex.

Table 9.10 Prior HIV testing by current HIV status

Percent distribution of women and men age 15-49 who tested HIV positive and who tested HIV negative by HIV testing status prior to the survey, Tanzania 2011-12

	Women		Men		Total	
HIV testing prior to the survey	HIV positive	HIV negative	HIV positive	HIV negative	HIV positive	HIV negative
Previously tested						
Received result of last test	73.4	61.8	60.9	46.9	69.2	55.0
Did not receive result of last test	2.8	5.0	4.8	2.7	3.5	3.9
Not previously tested	22.6	32.4	34.3	50.4	26.5	40.6
Missing	1.2	0.8	0.0	0.0	0.8	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	601	9,156	308	7,681	908	16,837

9.10 MALE CIRCUMCISION AND HIV PREVALENCE

Male circumcision is assumed to reduce the risk of HIV infection, in part because of physiological differences that decrease the susceptibility to HIV infection among circumcised men. Several studies in sub-Saharan Africa, including clinical trials conducted in South Africa, Kenya, and Uganda (Auvert et al., 2005; NIAID, 2006), have documented that the protective effect of male circumcision is significant.

Table 9.11 presents data on the relationship between HIV prevalence and male circumcision among men age 15-49 who were tested for HIV in the survey and who responded to the question about their circumcision status. The table shows that men who reported being circumcised had a lower infection rate than uncircumcised men (3 percent and 5 percent, respectively). Except for men age 15-19, those from the Southwest Highlands, those with secondary or higher education, and those from the highest wealth quintile, the relationship between male circumcision and HIV prevalence according to background characteristics shown in Table 9.11 conforms to the national pattern (i.e., circumcised men are less likely to be HIV infected than uncircumcised men).

Table 9.11 HIV prevalence by male circumcision

Among men age 15-49 who were tested for HIV, the percentage HIV positive by whether circumcised, according to background characteristics, Tanzania 2011-12

Background characteristic	Circumcised		Not circumcised	
	Percentage HIV positive	Number	Percentage HIV positive	Number
Age				
15-19	1.1	1,292	0.1	652
20-24	1.4	1,098	2.6	348
25-29	2.0	760	4.0	292
30-34	5.5	772	9.6	241
35-39	5.5	726	11.3	281
40-44	5.9	647	10.3	244
45-49	5.9	439	7.9	192
Residence				
Urban	4.9	1,973	8.8	121
Rural	2.5	3,762	5.0	2,129
Mainland/Zanzibar				
Mainland	3.5	5,477	5.2	2,249
Urban	5.1	1,900	8.8	121
Rural	2.6	3,577	4.9	2,128
Zanzibar	0.6	258	*	1
Unguja	0.7	192	*	1
Pemba	0.2	65	nc	0
Zone				
Eastern	4.3	1,223	(0.0)	60
Western	2.9	449	4.4	244
Southern	1.4	358	*	1
Southern Highlands	5.5	521	10.5	266
Southwest Highlands	7.0	303	6.2	516
Central	2.1	808	3.1	71
Northern	1.7	779	*	33
Lake	3.8	1,035	4.1	1,058
Education				
No education	1.2	386	6.2	329
Primary incomplete	2.9	778	4.1	497
Primary complete	4.5	2,871	6.0	1,219
Secondary+	2.0	1,699	1.5	205
Wealth quintile				
Lowest	1.9	772	4.9	498
Second	1.8	822	4.4	636
Middle	3.0	940	6.6	582
Fourth	3.0	1,254	5.2	422
Highest	5.0	1,946	3.7	114
Total	3.3	5,734	5.2	2,250

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.
nc = no cases

9.11 HIV PREVALENCE AMONG COUPLES

Data from the individual questionnaires used in the 2011-12 THMIS make 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.

Well over 3,000 cohabiting couples were tested for HIV in the 2011-12 THMIS. The results shown in Table 9.12 indicate that, among 93 percent of cohabiting couples, both partners tested negative for HIV. Both partners were HIV positive in 2 percent of cohabiting couples, while 5 percent of couples were discordant, that is, one partner was infected and the other was not. In 3 percent of couples, the male partner was infected and the female was not, while in 2 percent of couples, the female was infected and the male was not.

The percentage of couples in which both the man and the woman are HIV negative is lowest in couples in which the woman is older than her partner (84 percent) and in couples who reside in urban areas (90 percent).

The percentage of couples in which the man and woman are both HIV negative is strikingly lower in Njombe (75 percent) than in other provinces. The breakdown by sex in this region is uneven: in 9 percent of couples, both partners are HIV positive; in 12 percent of couples, the male partner is infected and the female partner is not; and in 4 percent of couples, the female partner is infected and the male partner is not.

Table 9.12 HIV prevalence among couples

Percent distribution of couples living in the same household, both of whom were tested for HIV, by HIV status, according to background characteristics, Tanzania 2011-12

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	0.3	1.2	0.6	97.9	100.0	347
20-29	2.1	2.2	1.4	94.3	100.0	1,638
30-39	3.3	3.4	2.5	90.8	100.0	1,367
40-49	2.1	3.2	3.9	90.8	100.0	394
Man's Age						
15-19	(0.0)	(0.0)	(0.0)	(100.0)	100.0	26
20-29	1.2	1.6	0.9	96.3	100.0	946
30-39	2.6	3.5	1.9	92.1	100.0	1,536
40-49	3.0	2.5	3.0	91.5	100.0	1,238
Age difference between partners						
Woman older	5.6	4.5	5.5	84.4	100.0	200
Same age/man older by 0-4 years	1.7	2.9	1.5	93.9	100.0	1,429
Man older by 5-9 years	1.7	2.4	2.0	93.9	100.0	1,382
Man older by 10-14 years	4.2	2.2	1.9	91.7	100.0	514
Man older by 15+ years	3.6	2.2	2.4	91.8	100.0	222
Type of union						
Nonpolygynous	2.4	2.5	2.1	93.1	100.0	3,128
Polygynous	2.1	3.6	1.3	92.9	100.0	579
Don't know/missing	(4.3)	(0.0)	(8.0)	(87.7)	100.0	39
Multiple partners in past 12 months[1]						
Both no	2.4	2.4	1.7	93.4	100.0	2,604
Man yes, woman no	2.4	3.3	2.5	91.8	100.0	1,015
Woman yes, man no	0.2	4.5	6.2	89.1	100.0	66
Both yes	(1.8)	(0.0)	(1.3)	(96.9)	100.0	47
Concurrent sexual partners in past 12 months[2]						
Both no	2.3	2.5	1.9	93.3	100.0	3,115
Man yes, woman no	2.8	3.4	2.8	91.0	100.0	582
Woman yes, man no	(0.0)	(2.7)	(0.0)	(97.3)	100.0	32
Both yes	*	*	*	*	100.0	17
Residence						
Urban	2.6	4.4	3.5	89.5	100.0	775
Rural	2.3	2.2	1.6	93.9	100.0	2,971
Mainland/Zanzibar						
Mainland	2.4	2.7	2.0	92.9	100.0	3,646
Urban	2.6	4.6	3.6	89.2	100.0	748
Rural	2.4	2.2	1.6	93.8	100.0	2,898
Zanzibar	0.0	0.0	2.7	97.3	100.0	99
Unguja	0.0	0.0	3.6	96.4	100.0	73
Pemba	0.0	0.0	0.0	100.0	100.0	26
Zone						
Eastern	1.2	5.0	2.8	91.0	100.0	523
Western	2.2	1.9	0.3	95.6	100.0	310
Southern	0.0	1.6	2.9	95.6	100.0	180
Southern Highlands	5.2	3.6	3.1	88.1	100.0	417
Southwest Highlands	5.4	2.5	2.7	89.4	100.0	433
Central	0.6	0.8	1.6	97.0	100.0	422
Northern	0.3	1.7	0.2	97.7	100.0	345
Lake	2.6	2.8	1.9	92.6	100.0	1,016

Continued…

Table 9.12—*Continued*

Percent distribution of couples living in the same household, both of whom were tested for HIV, by HIV status, according to background characteristics, Tanzania 2011-12

Background characteristic	Both HIV positive	Man HIV positive, woman HIV negative	Woman HIV positive, man HIV negative	Both HIV negative	Total	Number
Region						
Dodoma	0.0	0.1	2.4	97.4	100.0	170
Arusha	0.0	2.1	0.8	97.2	100.0	109
Kilimanjaro	1.3	1.5	0.0	97.1	100.0	88
Tanga	0.0	1.6	0.0	98.4	100.0	147
Morogoro	0.9	1.8	0.9	96.4	100.0	153
Pwani	1.8	0.0	7.1	91.1	100.0	58
Dar es Salaam	1.3	7.5	2.9	88.3	100.0	312
Lindi	0.0	0.7	4.9	94.4	100.0	58
Mtwara	0.0	2.0	1.9	96.1	100.0	122
Ruvuma	3.3	0.7	2.7	93.3	100.0	241
Iringa	4.9	0.2	2.6	92.3	100.0	64
Mbeya	6.8	0.8	3.0	89.4	100.0	270
Singida	1.4	2.1	0.6	95.9	100.0	155
Tabora	3.6	3.2	0.5	92.8	100.0	188
Rukwa	3.7	5.3	0.0	91.0	100.0	72
Kigoma	0.0	0.0	0.0	100.0	100.0	123
Shinyanga	5.1	2.9	1.6	90.5	100.0	156
Kagera	3.5	2.0	1.2	93.4	100.0	186
Mwanza	2.2	3.7	1.0	93.1	100.0	191
Mara	0.8	5.7	2.5	91.0	100.0	143
Manyara	0.3	0.0	1.8	97.9	100.0	97
Njombe	9.3	11.8	4.4	74.6	100.0	112
Katavi	2.6	5.4	3.8	88.1	100.0	91
Simiyu	2.0	1.0	2.1	94.9	100.0	225
Geita	2.2	2.7	4.2	90.9	100.0	114
Kaskazini Unguja	0.0	0.0	0.0	100.0	100.0	10
Kusini Unguja	0.0	0.0	0.0	100.0	100.0	9
Mjini Magharibi	0.0	0.0	4.9	95.1	100.0	54
Kaskazini Pemba	0.0	0.0	0.0	100.0	100.0	12
Kusini Pemba	0.0	0.0	0.0	100.0	100.0	14
Woman's education						
No education	3.2	2.1	1.5	93.1	100.0	765
Primary incomplete	2.0	3.6	2.7	91.7	100.0	461
Primary complete	2.2	2.5	2.0	93.3	100.0	2,220
Secondary+	2.1	3.6	1.8	92.4	100.0	300
Man's education						
No education	2.6	2.2	1.7	93.5	100.0	436
Primary incomplete	2.2	2.5	1.6	93.7	100.0	582
Primary complete	2.6	2.8	2.0	92.6	100.0	2,314
Secondary+	0.9	2.5	2.8	93.7	100.0	414
Wealth quintile						
Lowest	2.2	2.0	1.7	94.1	100.0	713
Second	2.7	2.0	1.7	93.6	100.0	798
Middle	2.5	3.0	2.2	92.4	100.0	764
Fourth	2.0	2.2	1.5	94.3	100.0	734
Highest	2.5	4.0	3.0	90.5	100.0	737
Total	2.4	2.6	2.0	93.0	100.0	3,746

Note: The table is based on couples for which a valid test result (positive or negative) is available for both partners. 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. Total includes 14 couples for whom information on multiple partners in past 12 months is missing.

[1] A respondent is considered to have had multiple sexual partners in the past 12 months if he or she had sexual intercourse with 2 or more people during this time period. (Respondents with multiple partners include polygynous men who had sexual intercourse with 2 or more wives).

[2] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

MALARIA PREVENTION 10

Key Findings

- Among all households in Tanzania, 95 percent possess at least one mosquito net and 91 percent own at least one insecticide-treated net (ITN).
- Eighty-seven percent of households in Zanzibar had indoor residual spraying (IRS) in the past 12 months; on the Mainland, 92 percent of the households in Kagera, 61 percent in Mara, 50 percent in Geita, and 40 percent in Mwanza received IRS in the past 12 months.
- Ninety-two percent of Tanzanian households are covered by vector control; that is they have at least 1 ITN and/or have been sprayed by IRS in the last 12 months.
- Seventy-five percent of Tanzanians have access to ITNs, meaning that three-quarters of the household population could sleep under an ITN if each ITN in the household were used by up to two people.
- Overall, 68 percent of the household population slept under an ITN the night before the survey.
- Among children under age 5, 72 percent slept under an ITN the night before the survey.
- Among pregnant women, 75 percent slept under an ITN the night before the survey.
- Thirty-one percent of women with a live birth in the two years preceding the survey in Mainland Tanzania received intermittent preventive treatment (IPTp) during an ANC visit compared with 48 percent of women in Zanzibar.

Malaria is a major public health concern for all Tanzanians, especially for pregnant women and children under age 5. 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 visits (MoHSW, 2008). Many parts of the country, including the uplands, report malaria transmission throughout the year, although, on average, it occurs more frequently during and after the rainy season (April through May).

Malaria is caused by four species of plasmodia parasites that are transmitted by Anopheles mosquitoes. In Tanzania, *Plasmodium falciparum* is the most common. It causes severe malaria, which can be 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 (for example, young children) or who have reduced natural malaria immunity (for example, pregnant women). Children under age 5 are at highest risk. Pregnant women are four times as likely to experience the complications of malaria as nonpregnant 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 cumulative effect over 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) and long-lasting insecticidal nets (LLINs) for sleeping and increased coverage of prompt and effective treatment for malaria. The RBM Initiative also promotes the use of intermittent preventive treatment (IPTp) of malaria among pregnant women. The primary objective of IPTp is to prevent malaria-related maternal complications such as maternal anaemia and to improve birth outcomes by preventing low birth weight among infants. In Mainland Tanzania, the recommendations of the RBM Initiative are implemented through the Malaria Medium Term Strategic Plan 2008-13 (MoHSW, 2009). The strategic plan 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. In the 2011-12 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 antimalarial drugs like sulphadoxine pyrimethamine (SP) and chloroquine, which used to be first-line antimalarial drugs in Tanzania. In Mainland Tanzania, ACT as a first-line treatment of malaria has been in use since January 2007.

The Malaria Indicator Survey (MIS) component of the 2011-12 THMIS measures malaria prevention and treatment outcomes including household coverage of malaria interventions, possession and use of ITNs, IRS activities, and use of IPTp among pregnant women. Many of these indicators were assessed in past TDHS surveys in addition to the 2007-08 THMIS, which allows for trend analysis.

10.1 OWNERSHIP AND SOURCE OF MOSQUITO NETS

The use of insecticide-treated mosquito nets (ITNs) is a primary health intervention designed to reduce malaria transmission in Tanzania. An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment, or (2) a net that has been soaked with insecticide within the past 12 months. Long-lasting insecticidal nets (LLINs) are a subset of ITNs. An LLIN is a factory-treated mosquito net made with netting material that has insecticide incorporated within or bound around the fibres. The current generation of LLINs lasts three to five years, after which the net should be replaced.

It is anticipated that widespread use of ITNs will reduce mosquito density and biting intensity. ITNs are being promoted through three main channels: (1) in the public sector as community-based projects, (2) in public/private partnerships implemented by nongovernmental organisations directly in the community, and (3) in the private sector as social marketing initiatives, supported by implementing partners.

The Global Malaria Action Plan (GMAP) on universal access to utilization of prevention measures advocates that, in malaria endemic areas, every person sleep under an ITN/LLIN or in a dwelling protected by IRS and every pregnant woman receive at least one dose of IPTp during each of the second and third trimesters of pregnancy (RBM, 2008).

Tanzania's goal of universal coverage with LLINs is in line with the GMAP. From 2004 to 2010, the Tanzania National Voucher Scheme (TNVS) targeted only those most biologically vulnerable to malaria – infants and pregnant women. More recently, this scheme was expanded to include all household members. Two mass distribution campaigns were successfully carried out: (1) the Under Five Catch-up Campaign (U5CC), which was completed in May 2010, and (2) the Universal Coverage Campaign (UCC), a household distribution campaign completed in June 2011.

The following section presents 2011-12 THMIS findings on household possession and source of mosquito nets.

10.1.1 Ownership of Mosquito Nets

All households in the 2011-12 THMIS were asked whether they own mosquito nets, and if so, how many. Table 10.1 shows the household ownership of nets by type (any, ITN, and LLIN) and the average number of nets per household, by background characteristics. Among all households in Tanzania, 95 percent possess at least one mosquito net, 91 percent own at least one ITN, and 90 percent own at least one LLIN.

Coverage of mosquito nets in Tanzania has greatly improved in the last decade. For example, between the 2004-05 TDHS and the 2011-12 THMIS, ownership of at least one ITN increased from 23 to 92 percent on the Mainland and from 28 to 74 percent in Zanzibar (Figure 10.1). On the Mainland, while large increases were observed in both urban and rural residences, the increase in ITN ownership among rural households is most substantial. Government health programmes, which now target the whole population, have greatly contributed to the increase in ITN ownership.

In the 2007-08 THMIS, rural households were less likely than urban households to own at least one ITN (33 percent and 59 percent, respectively). In the 2011-12 THMIS, by contrast, rural households are more likely than urban households to own an ITN (92 percent and 87 percent, respectively). Since 2007-08, ownership of ITNs has increased dramatically among all regions. As shown in Figure 10.2, in Mainland Tanzania, ownership of ITNs is 90 percent or more in all regions except Arusha, Dar es Salaam, Rukwa, Manyara, and Katavi. Ownership of ITNs varies little by wealth quintile.

Although mosquito net ownership is a key indicator of the success of malaria control measures, it is also important to determine if a household has a sufficient number of nets for those sleeping within the home. Households in Tanzania own, on average, 2.3 ITNs, the vast majority of which are LLINs (2.2 LLINs per household). By assuming that each net is shared by two people in the household, universal net coverage within the population can be measured. Table 10.1 also shows the percentage of households with at least one mosquito net for every two persons who stayed in the household the night before interview.

More than half of Tanzanian households have reached universal ITN coverage; that is, 56 percent of households have at least one ITN for every two people who slept in the household the previous night. Households in urban areas are more likely than households in rural areas to own at least one ITN for every two persons who stayed in the household the night before the survey (63 percent and 54 percent, respectively). Among regions in Mainland Tanzania, Lindi has the highest percentage of households with at least one ITN for every two people who stayed in the household the night before the survey (81 percent) and Geita has the lowest (27 percent). By wealth quintile, a larger proportion of households in the highest two quintiles have reached universal ITN coverage when compared with those in other quintiles.

Table 10.1 Household possession of mosquito nets

Percentage of households with at least one mosquito net (treated or untreated), insecticide-treated net (ITN), and long-lasting insecticidal net (LLIN); average number of nets, ITNs, and LLINs per household; and percentage of households with at least one net, ITN, and LLIN per two persons who stayed in the household last night, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of households with at least one mosquito net			Average number of nets per household			Number of house-holds	Percentage of households with at least one net for every two persons who stayed in the household last night[1]			Number of households with at least one person who stayed in the household last night
	Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)	Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)		Any mosquito net	Insecticide-treated mosquito net (ITN)[2]	Long-lasting insecticidal net (LLIN)	
Residence											
Urban	94.9	86.7	83.9	2.5	2.2	2.0	2,571	73.6	62.6	57.6	2,558
Rural	94.5	92.4	91.6	2.5	2.4	2.3	7,469	58.0	54.0	52.6	7,442
Mainland/Zanzibar											
Mainland	94.8	91.5	90.4	2.5	2.3	2.3	9,732	62.0	56.6	54.4	9,694
Urban	95.2	87.2	84.5	2.5	2.2	2.0	2,486	74.0	63.3	58.3	2,473
Rural	94.7	93.0	92.4	2.5	2.4	2.3	7,247	57.9	54.3	53.1	7,221
Zanzibar	86.0	73.8	66.1	2.4	1.8	1.6	308	60.6	42.5	35.2	306
Unguja	84.1	70.1	61.2	2.3	1.7	1.4	226	59.8	41.2	32.6	225
Pemba	91.3	83.9	79.9	2.7	2.2	2.0	82	62.7	46.2	42.6	81
Zone											
Eastern	94.6	84.2	80.8	2.5	2.1	1.9	1,510	73.4	60.8	54.9	1,502
Western	95.8	94.5	93.8	2.7	2.5	2.5	740	54.7	48.8	47.2	739
Southern	96.8	94.2	93.3	2.6	2.4	2.4	609	85.6	79.1	77.4	602
Southern Highlands	96.0	94.3	93.8	2.7	2.5	2.5	1,178	72.4	68.7	67.8	1,172
Southwest Highlands	92.9	89.8	89.2	2.4	2.3	2.2	1,024	61.9	57.2	56.5	1,022
Central	93.9	92.6	92.3	2.4	2.3	2.2	1,163	58.5	55.9	54.8	1,158
Northern	91.9	90.3	89.0	2.1	2.0	2.0	1,253	53.8	51.2	48.9	1,248
Lake	96.5	94.0	93.4	2.6	2.5	2.4	2,256	51.5	47.2	45.4	2,250
Region											
Dodoma	93.4	92.8	92.3	2.3	2.2	2.2	530	62.6	60.5	59.1	527
Arusha	87.3	84.7	83.7	1.8	1.7	1.7	342	47.2	43.5	42.1	340
Kilimanjaro	95.3	94.8	93.6	2.3	2.2	2.2	394	63.8	61.8	60.4	392
Tanga	92.4	90.5	89.0	2.2	2.1	2.0	517	50.5	48.2	44.7	515
Morogoro	95.8	91.2	89.4	2.5	2.3	2.2	397	71.7	65.3	62.6	395
Pwani	98.1	95.4	92.4	3.0	2.6	2.4	213	81.7	69.5	62.3	213
Dar es Salaam	93.3	78.5	74.3	2.4	1.9	1.7	900	72.3	56.7	49.7	894
Lindi	97.9	96.4	95.1	2.6	2.5	2.4	210	85.7	81.2	79.8	207
Mtwara	96.3	93.1	92.3	2.6	2.4	2.3	400	85.5	78.0	76.2	396
Ruvuma	96.8	94.6	94.2	2.9	2.8	2.7	657	72.7	69.1	68.2	654
Iringa	93.1	92.1	91.4	2.3	2.2	2.2	226	68.2	65.5	64.5	224
Mbeya	93.4	91.4	91.4	2.6	2.4	2.4	647	70.2	66.1	65.8	647
Singida	96.5	94.8	94.6	2.6	2.5	2.5	384	60.8	58.2	57.0	382
Tabora	96.0	94.5	93.1	2.7	2.5	2.4	383	56.6	49.2	48.4	382
Rukwa	91.7	86.2	85.2	2.2	1.9	1.9	175	44.6	39.7	38.5	174
Kigoma	95.6	94.5	94.5	2.7	2.6	2.5	357	52.7	48.4	45.9	357
Shinyanga	97.3	94.1	93.4	2.8	2.6	2.5	349	65.1	58.6	56.1	349
Kagera	94.0	91.6	91.6	2.3	2.1	2.1	452	53.9	50.4	48.7	452
Mwanza	98.5	95.9	95.1	2.6	2.5	2.4	469	55.9	52.0	50.4	467
Mara	97.2	95.8	94.7	2.9	2.7	2.7	333	56.8	52.1	49.9	332
Manyara	91.0	88.6	88.6	2.2	2.1	2.1	249	46.0	42.6	42.2	248
Njombe	96.2	95.5	94.7	2.5	2.3	2.3	295	75.0	70.3	69.3	294
Katavi	92.5	87.7	85.9	2.3	2.1	2.0	202	50.2	43.9	42.1	202
Simiyu	96.7	94.9	94.3	2.7	2.5	2.4	432	39.6	35.7	34.0	430
Geita	94.6	90.8	90.1	2.5	2.4	2.3	220	31.0	27.0	26.5	220
Kaskazini Unguja	83.1	76.9	70.6	2.2	1.9	1.8	36	58.3	48.4	41.3	35
Kusini Unguja	84.7	78.7	75.4	2.2	1.8	1.6	24	57.9	45.7	40.1	24
Mjini Magharibi	84.2	67.4	57.0	2.3	1.6	1.3	166	60.4	39.0	29.6	166
Kaskazini Pemba	89.8	84.3	82.5	2.9	2.5	2.4	41	66.0	54.0	52.1	41
Kusini Pemba	92.9	83.4	77.1	2.6	1.9	1.7	40	59.2	38.1	32.8	40
Wealth quintile											
Lowest	91.7	90.2	89.9	2.0	1.9	1.9	2,092	52.4	49.9	49.4	2,082
Second	94.3	92.2	92.0	2.4	2.3	2.3	1,873	53.0	49.7	49.2	1,862
Middle	95.7	94.9	94.4	2.7	2.6	2.6	1,764	58.3	55.2	54.3	1,762
Fourth	96.2	92.7	91.8	2.6	2.4	2.4	2,012	67.3	62.6	60.4	2,003
Highest	95.1	86.0	82.0	2.7	2.3	2.1	2,300	76.2	62.2	55.6	2,290
Total	94.6	90.9	89.6	2.5	2.3	2.2	10,040	62.0	56.2	53.9	10,000

[1] De facto household members
[2] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment (LLIN) or a net that has been soaked with insecticide within the past 12 months.

Figure 10.1 Trends in ITN ownership: Percentage of households with at least one ITN

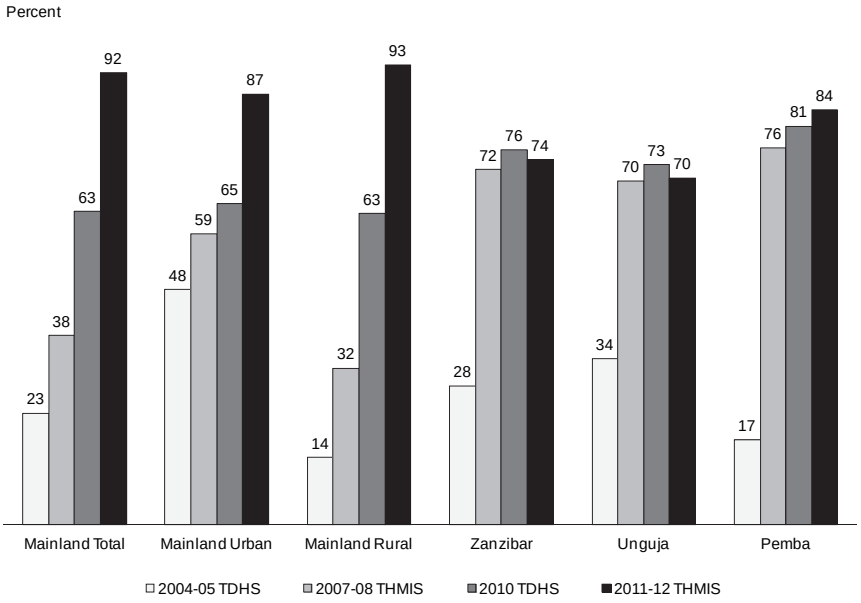
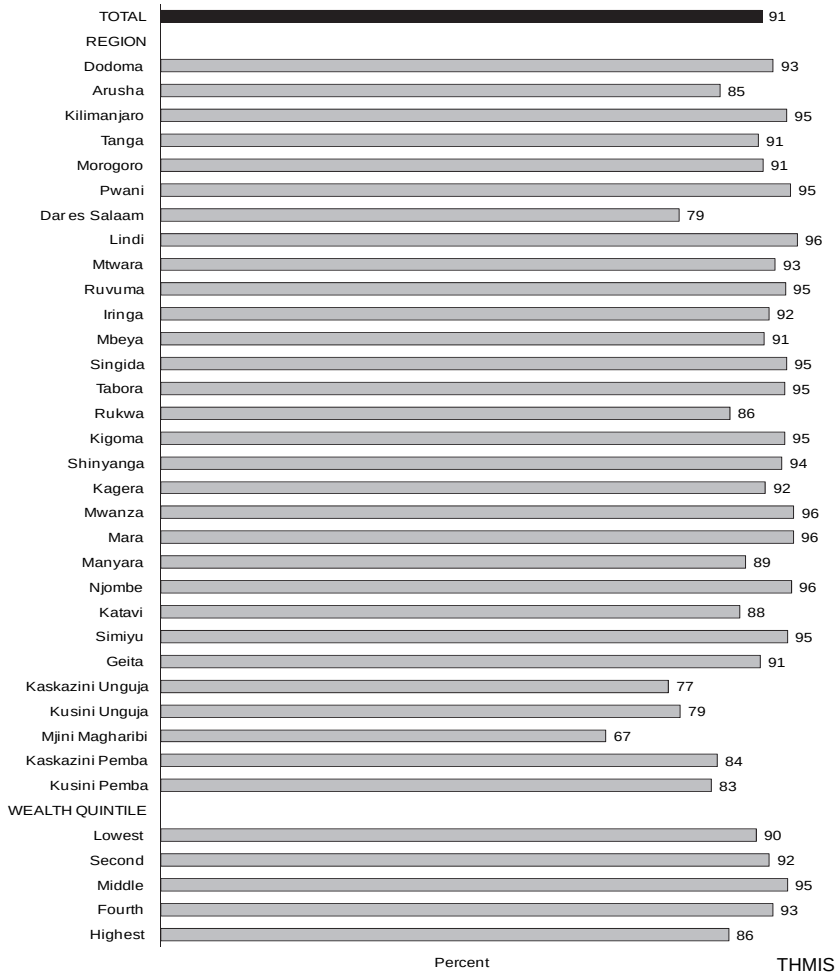


Figure 10.2 Percentage of households with at least one ITN



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10.1.2 Source of Mosquito Nets

Until late 2008, when free distribution of LLINs began in Tanzania, mosquito nets were mainly obtained through the commercial sector. Today, they continue to be sold as ordinary commodities in retail outlets but are also available at a subsidized rate through government health programmes. The government health subsidy programme, referred to as the Tanzania National Voucher Scheme (TNVS) or *Hati Punguzo* programme, targets the most at risk population by providing 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). Currently, the *Hati Punguzo* programme is only supported in Mainland Tanzania. However, mosquito nets are also distributed free of charge to all households through specific health campaigns. In Mainland Tanzania, specific campaign nets are distributed to the households by Ward Executive Officers; in Zanzibar, Shehia Executive Officers (Sheha) are responsible for distributing nets to households.

In the 2011-12 THMIS, respondents in households with mosquito nets were asked about the sources of the nets. Results have been tabulated in two distinct ways (Tables 10.2 and 10.3). Table 10.2 shows the percent distribution of nets by the specific sources from which the net was obtained, and the percentage of mosquito nets owned by households in the Mainland that were obtained under the *Hati Punguzo* programme. The majority of nets (71 percent) were received for free or as part of a campaign from Ward Executive Officers or Sheha. Fourteen percent of nets were purchased from a shop, vendor, or market, and 12 percent were obtained from a health facility. In the Mainland, 12 percent of all nets were obtained through the *Hati Punguzo* programme.

Table 10.3 shows, among households with at least one net, the percentage of households that obtained nets from specific sources, and among households in Mainland Tanzania with at least one net, the percentage that received nets under the *Hati Punguzo* programme. Eighty-one percent of households received one or more nets for free or as part of a campaign from Ward Executive Officers or Sheha. Twenty-four percent of households purchased a net from a shop, vendor, or market, and 20 percent of households obtained a net from a health facility. One in five Mainland households (21 percent) received a net via the *Hati Punguzo* programme.

Table 10.2 Source of mosquito nets by net

Percent distribution of mosquito nets by where the net was obtained, and, for mosquito nets in households in Mainland Tanzania, the percentage of nets received through the *Hati Punguzo* programme, by background characteristics, Tanzania 2011-12

Background characteristic	All nets							Nets in households in Mainland Tanzania	
	Shop/ vendor/ market	Health facility	Free/ campaign/ Sheha	Other	Don't know/ missing	Total	Number of nets	Received through *Hati Punguzo* programme	Number of nets
Residence									
Urban	28.8	6.9	61.1	2.2	1.1	100.0	6,410	8.4	6,186
Rural	9.4	13.5	73.9	1.6	1.6	100.0	18,703	12.8	18,187
Mainland/Zanzibar									
Mainland	13.6	11.9	71.3	1.7	1.4	100.0	24,373	11.7	24,373
Urban	28.5	6.8	61.5	2.1	1.1	100.0	6,186	8.4	6,186
Rural	8.6	13.6	74.7	1.6	1.6	100.0	18,187	12.8	18,187
Zanzibar	36.9	10.7	47.2	3.2	2.1	100.0	740	na	na
Unguja	39.2	3.9	51.9	3.1	1.9	100.0	516	na	na
Pemba	31.3	26.4	36.4	3.3	2.5	100.0	223	na	na
Zone									
Eastern	32.6	5.0	59.2	2.1	1.1	100.0	3,756	6.3	3,756
Western	12.2	13.5	70.4	1.6	2.3	100.0	2,009	14.7	2,009
Southern	10.9	9.2	77.7	1.6	0.6	100.0	1,607	5.8	1,607
Southern Highlands	8.7	19.3	70.1	1.2	0.7	100.0	3,161	14.3	3,161
Southwest Highlands	8.2	14.8	74.5	1.1	1.5	100.0	2,505	15.2	2,505
Central	7.4	10.2	79.3	2.5	0.7	100.0	2,749	11.9	2,749
Northern	11.7	6.1	80.3	1.0	1.0	100.0	2,666	5.0	2,666
Lake	11.6	14.6	69.2	2.1	2.5	100.0	5,921	15.7	5,921
Region									
Dodoma	6.6	9.3	81.3	2.2	0.7	100.0	1,195	12.4	1,195
Arusha	10.4	7.4	79.7	1.3	1.2	100.0	628	6.4	628
Kilimanjaro	11.3	7.8	78.6	0.5	1.8	100.0	918	4.1	918
Tanga	12.8	3.9	81.9	1.1	0.2	100.0	1,120	5.1	1,120
Morogoro	18.7	6.6	71.7	1.9	1.1	100.0	1,008	10.1	1,008
Pwani	23.3	6.8	65.3	2.4	2.2	100.0	633	7.6	633
Dar es Salaam	42.0	3.6	51.4	2.2	0.8	100.0	2,115	4.1	2,115
Lindi	9.0	9.7	79.1	1.8	0.4	100.0	551	8.1	551
Mtwara	11.9	8.9	77.0	1.6	0.7	100.0	1,056	4.6	1,056
Ruvuma	9.9	20.1	68.2	1.2	0.5	100.0	1,917	14.3	1,917
Iringa	4.4	13.4	80.5	0.8	1.0	100.0	514	10.5	514
Mbeya	5.5	12.9	79.3	1.1	1.2	100.0	1,666	15.3	1,666
Singida	9.4	9.4	78.5	1.9	0.8	100.0	999	12.5	999
Tabora	11.0	13.6	73.5	1.2	0.7	100.0	1,029	14.9	1,029
Rukwa	10.4	26.7	59.6	1.1	2.2	100.0	377	18.7	377
Kigoma	13.5	13.4	67.2	2.0	4.0	100.0	979	14.6	979
Shinyanga	12.2	9.9	75.3	1.5	1.1	100.0	980	10.8	980
Kagera	5.9	10.9	76.9	3.9	2.4	100.0	1,022	11.0	1,022
Mwanza	14.6	28.4	51.3	1.7	4.0	100.0	1,206	25.6	1,206
Mara	13.2	8.8	72.7	2.9	2.3	100.0	972	10.6	972
Manyara	5.5	13.6	76.4	4.0	0.5	100.0	555	9.4	555
Njombe	8.4	21.2	67.8	1.4	1.2	100.0	730	17.2	730
Katavi	16.0	12.0	69.2	1.0	1.8	100.0	462	12.0	462
Simiyu	10.8	15.4	70.0	1.8	2.1	100.0	1,186	20.2	1,186
Geita	12.9	8.2	75.6	0.2	3.1	100.0	556	10.7	556
Kaskazini Unguja	20.4	4.9	70.1	2.7	1.9	100.0	80	na	na
Kusini Unguja	26.6	14.5	50.7	6.2	2.1	100.0	54	na	na
Mjini Magharibi	45.0	2.2	48.2	2.8	1.9	100.0	382	na	na
Kaskazini Pemba	17.7	20.2	57.1	1.9	3.1	100.0	118	na	na
Kusini Pemba	46.7	33.4	13.2	4.8	1.9	100.0	105	na	na
Wealth quintile									
Lowest	5.1	12.9	78.0	2.1	1.9	100.0	4,253	11.7	4,237
Second	5.9	15.1	75.6	1.9	1.6	100.0	4,531	13.7	4,483
Middle	7.3	14.7	75.1	1.2	1.7	100.0	4,820	14.2	4,736
Fourth	12.8	12.1	72.0	1.8	1.4	100.0	5,278	11.9	5,070
Highest	33.4	6.3	57.4	1.9	1.0	100.0	6,230	8.0	5,846
Total	14.3	11.8	70.6	1.8	1.4	100.0	25,113	11.7	24,373

na = Not applicable

Table 10.3 Source of mosquito nets by household

Among households with at least one mosquito net, the percentage that received nets from specific sources, and, among households in Mainland Tanzania with at least one net, the percentage of households that received mosquito nets under the *Hati Punguzo* programme, by background characteristics, Tanzania 2011-12

Background characteristic	Source of mosquito nets						Households in Mainland Tanzania	
	Shop/ vendor/ market	Health facility	Free campaign/ Sheha	Other	Don't know/ missing	Number of households	Net received through *Hati Punguzo* programme	Number of households
Residence								
Urban	47.7	12.9	70.9	4.2	0.6	2,439	16.0	2,365
Rural	16.2	21.9	84.7	3.1	0.7	7,056	22.9	6,865
Mainland/Zanzibar								
Mainland	23.6	19.6	81.9	3.3	0.6	9,230	21.1	9,230
Urban	47.5	12.9	71.1	4.1	0.5	2,365	16.0	2,365
Rural	15.3	22.0	85.6	3.0	0.6	6,865	22.9	6,865
Zanzibar	49.7	16.6	56.8	6.7	1.6	265	na	na
Unguja	49.7	7.2	62.5	6.3	2.1	190	na	na
Pemba	49.7	40.4	42.3	7.8	0.5	75	na	na
Zone								
Eastern	51.4	10.5	69.3	4.3	0.9	1,429	13.2	1,429
Western	26.2	22.0	82.3	3.0	0.4	709	25.5	709
Southern	20.4	15.9	87.1	3.2	0.3	590	12.9	590
Southern Highlands	15.9	32.5	81.1	2.4	0.2	1,131	28.9	1,131
Southwest Highlands	13.9	24.7	85.8	2.0	0.5	951	25.6	951
Central	12.9	18.6	90.4	4.2	0.1	1,092	22.2	1,092
Northern	17.0	8.9	88.2	2.1	0.8	1,152	9.3	1,152
Lake	22.3	23.2	79.6	3.9	1.0	2,177	26.8	2,177
Region								
Dodoma	10.6	15.9	91.8	4.3	0.0	495	21.6	495
Arusha	15.6	10.9	84.8	2.8	1.1	299	10.3	299
Kilimanjaro	15.4	10.9	87.5	1.3	1.7	375	8.3	375
Tanga	19.3	5.9	90.8	2.3	0.0	478	9.4	478
Morogoro	33.3	14.0	84.6	4.1	1.0	380	20.1	380
Pwani	40.2	14.2	83.8	5.3	2.0	209	15.9	209
Dar es Salaam	62.4	8.0	58.9	4.1	0.6	840	9.4	840
Lindi	16.9	18.5	87.7	4.0	0.2	205	17.0	205
Mtwara	22.2	14.5	86.8	2.9	0.3	385	10.7	385
Ruvuma	18.8	34.4	76.8	2.5	0.0	636	30.3	636
Iringa	7.5	21.4	89.4	1.5	0.1	210	18.3	210
Mbeya	10.9	24.8	93.0	2.1	0.0	605	28.3	605
Singida	17.7	20.2	91.8	3.9	0.0	371	25.9	371
Tabora	22.6	20.3	84.1	2.6	0.0	368	23.4	368
Rukwa	15.0	34.6	65.6	1.5	1.2	160	25.9	160
Kigoma	30.1	23.8	80.3	3.5	0.8	341	27.8	341
Shinyanga	25.2	18.2	86.3	3.9	0.4	340	21.2	340
Kagera	10.7	19.2	87.6	4.0	0.5	425	20.7	425
Mwanza	25.1	32.6	55.6	2.4	2.4	462	33.0	462
Mara	28.5	20.4	87.2	7.5	0.0	324	24.9	324
Manyara	9.9	21.9	85.1	4.5	0.5	226	17.6	226
Njombe	15.5	36.3	84.5	2.8	0.8	284	33.5	284
Katavi	22.9	16.0	80.1	2.1	1.7	186	16.4	186
Simiyu	22.8	28.0	84.7	4.3	0.6	418	36.3	418
Geita	24.6	13.5	83.1	0.6	2.0	208	18.7	208
Kaskazini Unguja	35.6	9.0	79.8	6.1	1.0	30	na	na
Kusini Unguja	47.9	23.6	69.2	12.5	0.9	21	na	na
Mjini Magharibi	53.0	4.5	57.8	5.5	2.5	140	na	na
Kaskazini Pemba	32.2	30.0	66.1	4.2	0.4	37	na	na
Kusini Pemba	67.0	50.7	18.7	11.3	0.5	38	na	na
Wealth quintile								
Lowest	8.8	17.7	86.7	3.3	0.9	1,917	17.7	1,911
Second	11.4	23.2	84.9	3.3	0.6	1,766	24.2	1,746
Middle	15.1	24.5	86.4	2.2	0.6	1,689	25.8	1,658
Fourth	25.1	21.3	82.5	3.8	0.4	1,935	23.1	1,856
Highest	54.7	12.8	68.0	4.0	0.6	2,188	16.0	2,060
Total	24.3	19.5	81.2	3.4	0.6	9,495	21.1	9,230

na = Not applicable

10.2 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, the 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.

In Mainland Tanzania, IRS application started in Kagera region in selected malaria epidemic-prone areas in 2007. Expansion to all districts of Kagera region began in 2009. In 2010, the programme was further expanded to include two more regions of Lake zone: Mwanza and Mara. The IRS implementation in the three Lake zone regions excluded urban districts.

In Zanzibar, IRS operations began in 2006 and covered both islands (Unguja and Pemba). Through 2011, in all spraying cycles, over 90 percent of the targeted households were reached. Starting in 2012, IRS has been conducted only in targeted areas, resulting in about half of all housing structures being sprayed. Further scale down is planned.

10.2.1 Timing of Last Indoor Residual Spraying

To obtain information on the prevalence of indoor residual spraying, all households interviewed in the 2011-12 THMIS were asked whether the interior walls of their dwelling had been sprayed to protect against mosquitoes during the 12-month period before the survey and, if so, who had sprayed the dwelling. The percentage of households with IRS in the past 12 months is presented in Table 10.4.

Overall, only 14 percent of Tanzanian households have been sprayed in the past 12 months. Among Mainland zones, the percentage of households with IRS in the last 12 months was the highest in Lake zone (42 percent); for all other Mainland zones except Eastern zone (10 percent), the percentage of households with IRS was 1 percent or below. Not surprisingly then, among Mainland regions, four of the six that compose the Lake zone had the greatest percentage of households with IRS in the past 12 months: Kagera (92 percent), Mwanza (40 percent), Mara (61 percent), and Geita (50 percent). Households in Zanzibar were much more likely to be sprayed than households in Mainland Tanzania (87 percent versus 12 percent).

Table 10.4 also shows the proportion of Tanzania households that are covered by vector control. Households are considered to be covered if they own at least one ITN, have been sprayed by IRS at any time in the past 12 months, or both. Because IRS is limited to specific regions within Tanzania, it is more appropriate to assess both ITN ownership and IRS coverage in conjunction to provide a better picture of the methods of vector control available to Tanzanian households. Overall, ninety-two percent of households are covered by vector control; that is, they report either owning at least one ITN or have been sprayed by IRS in the past 12 months. Vector control coverage, while high throughout Tanzania, is more common among rural households than among urban households. The percent of households that own at least one ITN and/or have been sprayed by IRS in the past 12 months varies according to region. On the Mainland, Dar es Salaam (81 percent) has the lowest proportion of households covered, while Mara (99 percent) has the highest.

Table 10.4 Indoor residual spraying against mosquitoes

Percentage of households in which someone has come into the dwelling to spray the interior walls against mosquitoes (IRS) in the past 12 months, and the percentage of households with at least one ITN and/or IRS in the past 12 months, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of households with IRS[1] in the past 12 months	Percentage of households with at least one ITN[2] and/or IRS in the past 12 months	Number of households
Residence			
Urban	12.6	88.6	2,571
Rural	14.4	93.5	7,469
Mainland/Zanzibar			
Mainland	11.6	92.2	9,732
Urban	9.9	88.4	2,486
Rural	12.2	93.5	7,247
Zanzibar	87.4	94.0	308
Unguja	84.9	92.5	226
Pemba	94.2	98.0	82
Zone			
Eastern	9.9	85.5	1,510
Western	0.0	94.5	740
Southern	1.1	94.2	609
Southern Highlands	0.9	94.3	1,178
Southwest Highlands	0.4	89.8	1,024
Central	0.2	92.6	1,163
Northern	0.3	90.3	1,253
Lake	42.3	96.1	2,256
Region			
Dodoma	0.2	92.8	530
Arusha	0.0	84.7	342
Kilimanjaro	0.3	94.8	394
Tanga	0.4	90.5	517
Morogoro	1.4	91.2	397
Pwani	0.9	95.7	213
Dar es Salaam	15.7	80.6	900
Lindi	0.8	96.4	210
Mtwara	1.2	93.1	400
Ruvuma	1.6	94.6	657
Iringa	0.0	92.1	226
Mbeya	0.6	91.4	647
Singida	0.5	95.0	384
Tabora	0.0	94.5	383
Rukwa	0.0	86.2	175
Kigoma	0.0	94.5	357
Shinyanga	0.0	94.1	349
Kagera	91.5	97.7	452
Mwanza	40.1	96.5	469
Mara	61.0	98.8	333
Manyara	0.0	88.6	249
Njombe	0.0	95.5	295
Katavi	0.2	87.7	202
Simiyu	9.1	94.9	432
Geita	50.4	93.7	220
Kaskazini Unguja	90.6	97.5	36
Kusini Unguja	88.3	94.8	24
Mjini Magharibi	83.1	91.1	166
Kaskazini Pemba	92.9	97.6	41
Kusini Pemba	95.6	98.4	40
Wealth quintile			
Lowest	9.2	90.9	2,092
Second	15.8	93.1	1,873
Middle	15.0	95.4	1,764
Fourth	12.9	94.1	2,012
Highest	16.9	88.7	2,300
Total	13.9	92.2	10,040

[1] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or nongovernmental organization.
[2] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment (LLIN) or a net that has been soaked with insecticide within the past 12 months.

Among those households that received IRS in the past 12 months, 9 out of 10 (91 percent) received spraying from a government worker or programme (data not shown).

10.3 ACCESS TO MOSQUITO NETS

The 2011-12 THMIS presents the proportion of the population that could sleep under an ITN if each ITN in the household were used by up to two people. This population is referred to as having access to an ITN. Coupled with mosquito net usage, ITN access can provide useful information on the magnitude of the behavioural gap in ITN ownership and use, or, in other words, the population with access to an ITN but not using it. If the difference between these indicators is substantial, the programme may need to focus on behaviour change and how to identify the main drivers/barriers to ITN use in order to design an appropriate intervention. This analysis helps ITN programmes determine whether they need to achieve higher ITN coverage, promote ITN use, or both. Table 10.5 shows the percent distribution of the de facto household population by the number of ITNs the household owns, according to the number of persons who stayed in the household the night before the survey.

Nationally, three-quarters of the Tanzanian population (75 percent) has access to ITNs. Seven percent of the population slept in homes with no ITN the night before the survey, and therefore they were not able to use an ITN. Thirteen percent of the household population stayed in households that own one ITN, 28 percent stayed in households that own two ITNs, 26 percent stayed in households with three ITNs, and 14 percent stayed in households with four ITNs. Thirteen percent of the population stayed in households with five or more ITNs.

In general, ITN access tends to decrease as household size increases. For example, 85 percent of persons that stayed in households where two people stayed the night before the survey had access to an ITN, whereas 65 percent of persons that stayed in households where more than eight people stayed the night before the survey had access to an ITN.

Table 10.5 Access to an insecticide-treated net (ITN)

Percent distribution of the de facto household population by number of ITNs the household owns, according to number of persons who stayed in the household the night before the survey, Tanzania 2011-12

	Number of persons who stayed in the household the night before the survey								
Number of ITNs	1	2	3	4	5	6	7	8+	Total
0	23.2	14.9	9.0	7.4	6.4	4.0	7.4	4.7	6.6
1	51.6	38.2	25.4	18.4	11.6	10.9	8.7	4.4	12.5
2	18.4	34.8	43.2	41.2	35.4	30.3	23.1	16.8	27.8
3	5.6	7.8	15.5	23.1	33.0	35.6	31.9	24.7	26.1
4	1.2	3.4	5.9	6.9	9.7	14.1	20.0	20.5	14.2
5	0.0	0.3	0.9	2.2	2.9	3.1	6.9	14.3	6.9
6	0.1	0.7	0.2	0.6	0.9	2.1	2.1	10.9	4.6
7+	0.0	0.0	0.0	0.3	0.0	0.0	0.0	3.6	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	996	2,098	4,127	6,124	6,686	6,968	5,860	17,422	50,282
Percent with access to an ITN[1,2]	76.8	85.1	82.5	83.4	79.6	78.7	72.0	65.2	74.5

[1] Percentage of the de facto household population who could sleep under an ITN if each ITN in the household were used by up to two people
[2] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment (LLIN) or a net that has been soaked with insecticide within the past 12 months.

10.4 USE OF MOSQUITO NETS

Community level protection against malaria helps reduce the spread of the disease and offers an additional level of protection against malaria for those most vulnerable: children under age 5 and pregnant women. This section of chapter 10 describes use of mosquito nets among all persons in the household, among children under age 5, and among pregnant women.

10.4.1 Use of Mosquito Nets by Persons in the Household

Mosquito net coverage of the entire population is necessary to accomplish large reductions in the malaria burden. Although vulnerable groups, such as children under age 5 and pregnant women, should still be prioritized, the equitable and communal benefits of wide-scale ITN use by older children and adults should be promoted and evaluated by national malaria control programmes (Killeen et al., 2007).

The 2011-12 THMIS asked about use of mosquito nets by household members during the night before the survey. Use of mosquito nets may vary with seasonal changes in rainfall and the prevalence of malaria-carrying mosquitoes. The fieldwork for this survey was conducted between mid-December and mid-May.

As shown in Table 10.6, overall, 74 percent of the household population slept under a mosquito net the night before the survey; 68 percent slept under an ITN and 66 percent slept under a LLIN. Those age 35-49 report the highest use of ITNs (74 percent), followed by children under 5 (72 percent). Women, urban dwellers, those living in the Southern zone, and those in the top three wealth quintiles are more likely than their counterparts to report having slept under an ITN the night before the survey.

Among households with at least one ITN, nearly three-quarters of the household population (73 percent) slept under the ITN the previous night. Net usage among the population that owns at least one ITN is only modestly higher than that of the general population, a reflection of the fact that ITN ownership in Tanzania is high. Variations in ITN use among those households that own at least one ITN are similar to those within the general population.

Figure 10.3 compares the percentage of the population with access to an ITN in the household with the percentage of the population using an ITN the night before the survey, by select background characteristics. In general, the population with access to an ITN is modestly higher than the percentage using ITNs. Among regions, Mbeya, Njombe, and Kaskazini Pemba are exceptions to this observation in that the percentage of the population with access to an ITN is 19 percentage points or more than the percentage of the population using an ITN. For example, 79 percent of the household population in Mbeya had access to an ITN, but only 60 percent of the household population slept under an ITN the night before the survey. Interestingly, in Rukwa, Mwanza, Katavi, and Geita, the percentage of the population that is using an ITN exceeds the percentage of the population with access to an ITN; this implies that those who have access to a mosquito net are sleeping under a net, and in some cases, that more than two people are sharing a net.

Table 10.6 Use of mosquito nets by persons in the household

Percentage of the de facto household population who slept the night before the survey under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among the de facto household population in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Tanzania 2011-12

	Household population					Household population in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number	Percentage who slept under an ITN[1] last night	Number
Age							
<5	77.7	72.0	69.9	77.2	8,877	76.7	8,334
5-14	69.8	66.1	64.6	71.8	15,092	69.6	14,336
15-34	73.1	66.5	63.8	72.8	14,525	72.5	13,322
35-49	81.0	74.0	70.3	78.3	6,291	78.9	5,899
50+	73.9	67.2	65.4	71.6	5,491	72.8	5,074
Sex							
Male	71.6	66.2	64.0	72.2	23,864	71.0	22,236
Female	76.2	70.4	68.0	75.3	26,417	75.2	24,732
Residence							
Urban	84.3	72.5	66.7	77.5	10,870	80.1	9,829
Rural	71.2	67.3	65.9	72.8	39,412	71.4	37,139
Mainland/Zanzibar							
Mainland	74.5	69.2	67.0	73.2	48,717	73.6	45,792
Urban	85.4	73.9	68.2	76.8	10,414	81.1	9,488
Rural	71.5	67.9	66.7	72.2	38,303	71.6	36,304
Zanzibar	59.0	44.4	37.2	94.7	1,564	59.0	1,176
Unguja	58.8	43.2	34.8	93.6	1,127	61.2	796
Pemba	59.6	47.3	43.1	97.5	438	54.4	380
Zone							
Eastern	85.6	71.1	64.5	74.8	6,397	80.1	5,676
Western	78.2	73.0	71.5	73.0	4,269	75.4	4,132
Southern	83.1	77.2	74.9	77.3	2,311	81.1	2,200
Southern Highlands	74.1	70.1	69.3	70.2	5,426	73.1	5,209
Southwest Highlands	67.5	62.6	61.6	62.9	5,108	68.2	4,685
Central	70.1	68.2	67.0	68.3	5,830	72.6	5,477
Northern	67.3	65.0	62.6	65.0	5,773	70.1	5,349
Lake	74.3	69.9	68.5	82.3	13,602	72.8	13,064
Region							
Dodoma	73.2	71.9	70.2	71.9	2,387	75.6	2,271
Arusha	58.7	55.9	54.2	55.9	1,457	63.5	1,282
Kilimanjaro	67.6	65.9	64.5	66.0	1,762	68.0	1,706
Tanga	72.0	69.5	66.0	69.5	2,555	75.2	2,361
Morogoro	84.2	76.3	72.0	76.6	1,816	81.9	1,690
Pwani	88.9	80.1	73.7	80.1	993	82.8	959
Dar es Salaam	85.4	66.0	58.1	72.4	3,589	78.3	3,027
Lindi	87.1	82.8	81.1	82.8	784	84.8	767
Mtwara	81.0	74.3	71.7	74.4	1,527	79.2	1,433
Ruvuma	78.3	73.8	72.9	73.8	3,208	76.8	3,080
Iringa	70.2	67.8	67.1	67.8	982	72.3	922
Mbeya	64.0	59.6	59.3	60.2	3,070	63.7	2,872
Singida	76.1	74.2	72.9	74.5	2,083	78.5	1,968
Tabora	78.8	73.5	72.1	73.5	2,204	75.2	2,154
Rukwa	69.7	63.9	62.8	63.9	943	73.5	820
Kigoma	77.5	72.5	70.8	72.5	2,065	75.7	1,977
Shinyanga	79.7	73.1	71.0	73.1	2,007	75.2	1,951
Kagera	70.8	68.3	66.9	96.9	2,166	72.8	2,033
Mwanza	80.6	77.3	76.4	89.7	2,700	79.2	2,636
Mara	76.9	72.7	70.2	91.8	2,038	74.7	1,982
Manyara	55.2	52.5	52.2	52.5	1,360	57.7	1,238
Njombe	66.5	62.6	61.8	62.6	1,236	64.1	1,207
Katavi	75.7	69.7	67.2	69.7	1,095	76.9	992
Simiyu	67.2	62.0	60.6	64.1	3,041	64.7	2,912
Geita	72.0	67.3	67.0	84.1	1,648	71.6	1,549
Kaskazini Unguja	55.8	49.3	44.7	96.7	175	62.0	139
Kusini Unguja	59.6	47.8	42.2	94.7	112	57.8	92
Mjini Magharibi	59.3	41.4	31.8	92.8	840	61.5	565
Kaskazini Pemba	49.4	41.4	39.2	96.8	228	47.8	197
Kusini Pemba	70.7	53.7	47.4	98.3	210	61.7	183
Wealth quintile							
Lowest	67.8	65.4	65.0	68.3	9,965	71.3	9,135
Second	70.2	66.9	66.3	72.8	10,037	70.9	9,468
Middle	73.0	69.8	68.8	74.5	10,019	72.3	9,671
Fourth	75.8	70.1	68.1	75.8	10,084	74.1	9,546
Highest	83.0	69.6	62.2	77.6	10,177	77.4	9,148
Total	74.0	68.4	66.1	73.8	50,282	73.2	46,969

Note: Total includes 5 cases for which information on the age of a household member is missing.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment (LLIN) or a net that has been soaked with insecticide within the past 12 months.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or nongovernmental organization.

Figure 10.3 Percentage of the de facto population with access to an ITN in the household and percentage using an ITN

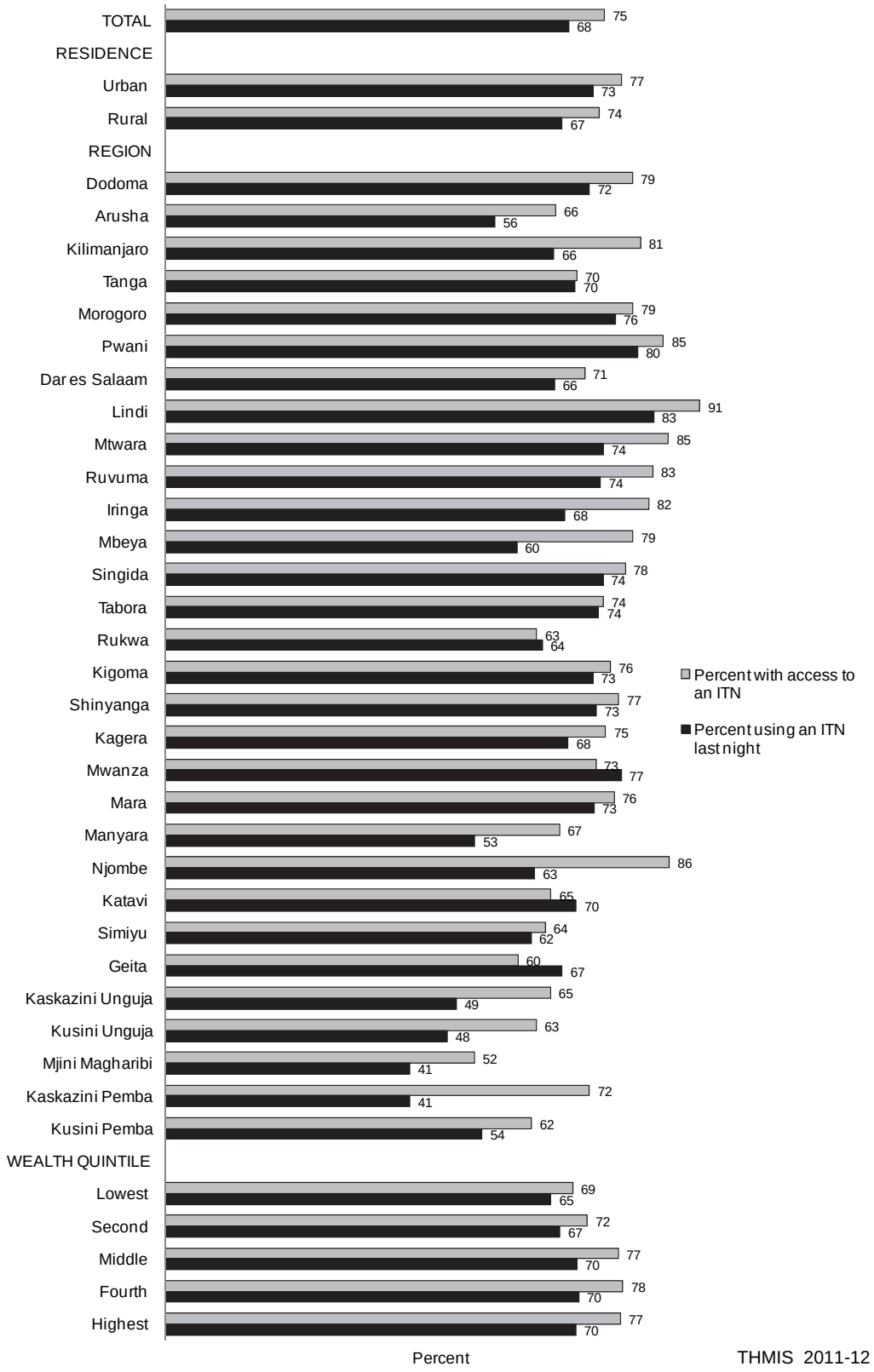
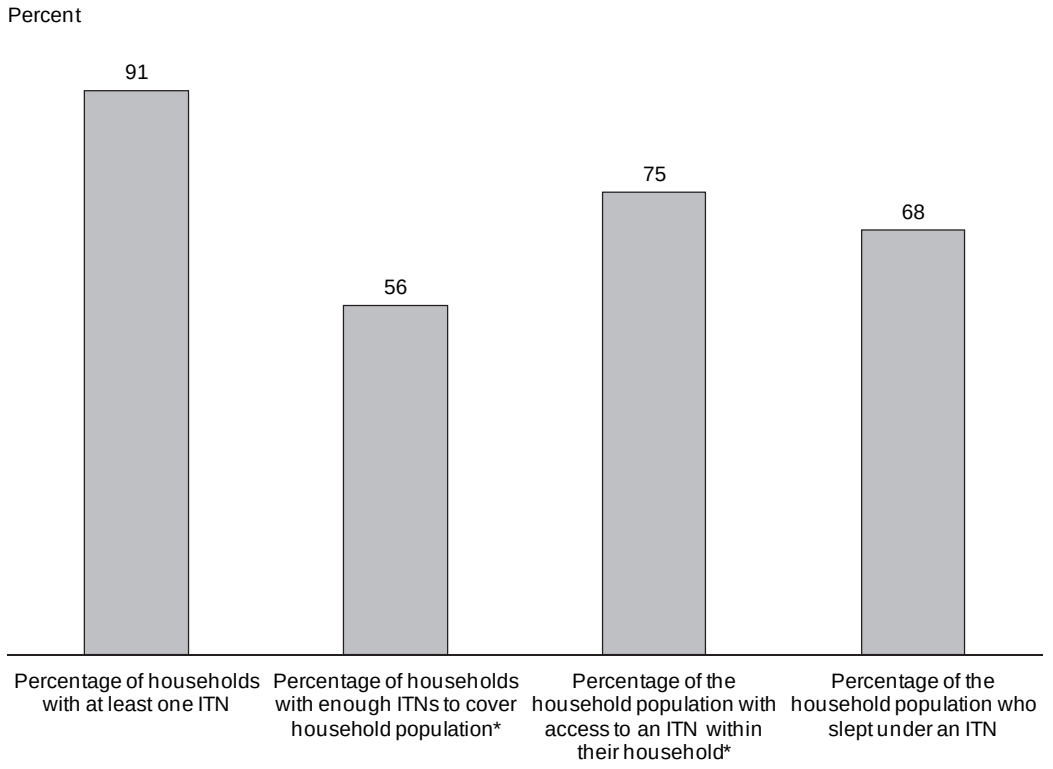


Figure 10.4 presents ownership of, coverage with, access to, and use of ITNs in Tanzania. As shown in column 1, nine in ten households own at least one ITN. However, only 56 percent of households have enough ITNs to cover their entire household population, assuming one ITN is used by two persons (column 2). Among the household population, 75 percent of individuals have access to an ITN (column 3), and 68 percent slept under a mosquito net the night before the survey (column 4). A comparison of columns 1 and 2 indicates that Tanzanian households do not have a sufficient number of ITNs to cover the population sleeping in the household. A comparison of columns 3 and 4, on the other hand, suggests that ITN access is similar to usage. This implies that the majority of those who have access to an ITN are sleeping under an ITN (91 percent).

Figure 10.4 **Ownership of, access to, and use of ITNs**



* Assuming one ITN covers two persons

THMIS 2011-12

10.4.2 Use of Mosquito Nets by Children under Age 5

Those living in areas of high malaria transmission naturally acquire immunity to the disease over time (Doolan et al., 2009). Acquired immunity is not the same as sterile immunity—that is, acquired immunity does not prevent P. falciparum infection but rather protects against severe disease and death. Age is an important factor in determining levels of acquired immunity to malaria. For about six months following birth, antibodies acquired from the mother during pregnancy protect children born in areas of endemic malaria. This immunity is gradually lost, and children start to develop their own immunity to malaria. The pace at which immunity develops depends on the exposure to malarial infection, and in high malaria-endemic areas, children are thought to attain a high level of immunity by their fifth birthday. Such children may experience episodes of malaria illness but usually do not suffer from severe, life-threatening malaria. Immunity in areas of low malaria transmission is acquired more slowly, and malaria affects all age groups of the population. Malaria transmission is heavy in many regions of Mainland Tanzania, and the Tanzanian government recognizes children under age 5 as a high-risk group and recommends that they be protected by sleeping under insecticide-treated nets.

Table 10.7 Use of mosquito nets by children

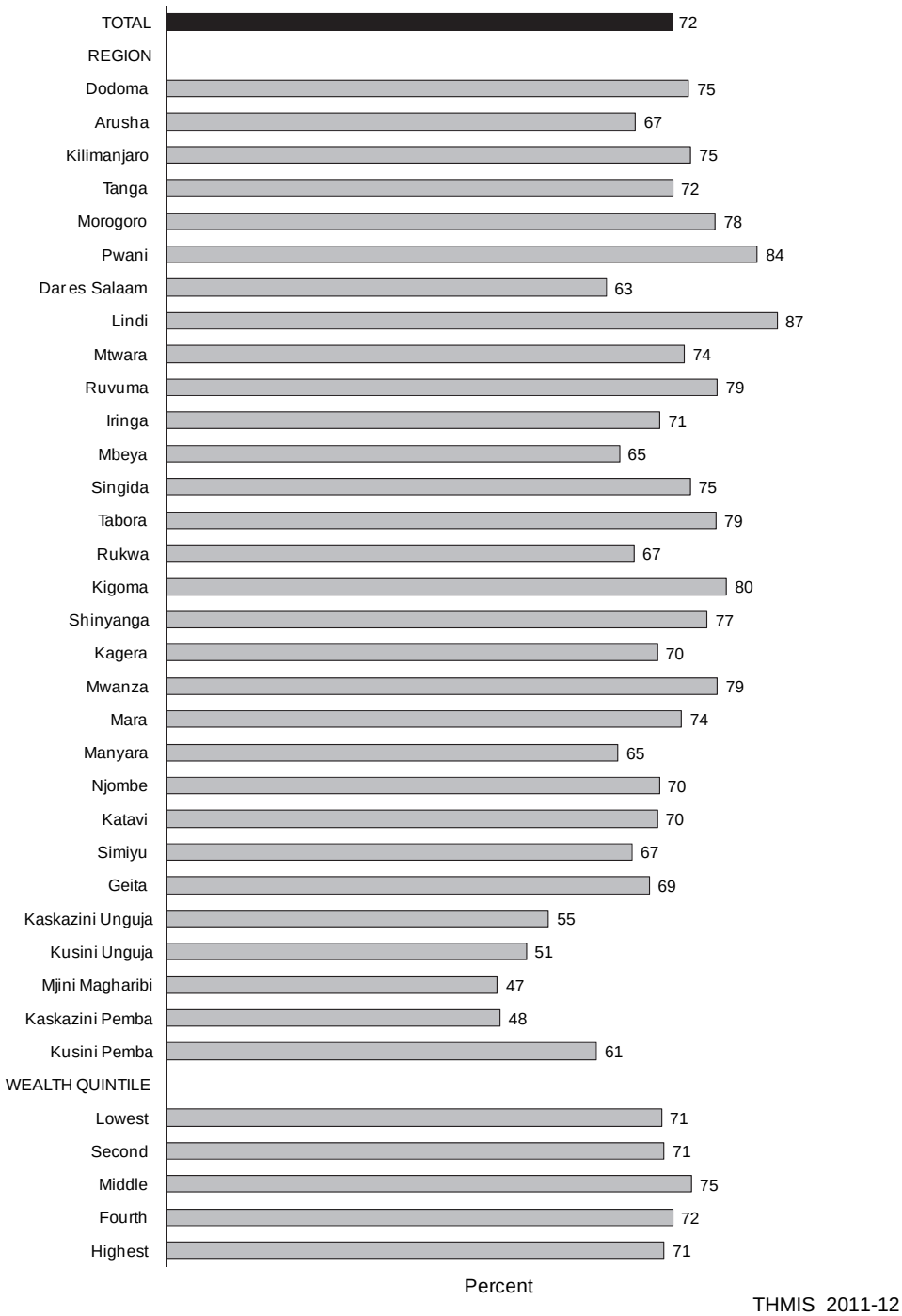
Percentage of children under age 5 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among children under age 5 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Tanzania 2011-12

	Children under age 5 in all households					Children under age 5 in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number of children	Percentage who slept under an ITN[1] last night	Number of children
Age (in months)							
<12	80.8	74.3	72.6	78.5	1,819	78.5	1,721
12-23	79.2	73.6	71.3	78.4	1,873	78.5	1,757
24-35	77.3	72.5	70.5	77.7	1,730	77.4	1,622
36-47	75.1	68.8	66.4	75.6	1,797	74.1	1,670
48-59	75.7	70.7	68.4	75.6	1,659	75.0	1,563
Sex							
Male	77.4	71.9	69.6	77.4	4,414	76.8	4,133
Female	77.9	72.1	70.1	77.0	4,463	76.6	4,200
Residence							
Urban	87.6	73.4	67.3	77.8	1,486	81.5	1,338
Rural	75.7	71.8	70.4	77.1	7,392	75.8	6,996
Mainland/Zanzibar							
Mainland	77.9	72.7	70.7	76.7	8,624	77.0	8,141
Urban	88.5	74.8	68.9	77.1	1,419	82.5	1,287
Rural	75.8	72.2	71.0	76.6	7,205	75.9	6,854
Zanzibar	68.4	50.7	42.8	95.2	254	66.8	193
Unguja	67.8	48.9	39.4	94.9	175	68.7	125
Pemba	69.7	54.8	50.2	95.8	79	63.4	68
Zone							
Eastern	87.7	71.3	65.3	73.6	908	80.6	803
Western	84.1	79.2	77.8	79.2	808	81.4	786
Southern	84.0	78.7	75.3	79.0	309	82.4	295
Southern Highlands	79.5	75.4	74.4	75.4	883	78.1	853
Southwest Highlands	70.3	66.5	65.6	66.7	954	71.8	882
Central	74.5	72.3	71.3	72.5	1,016	77.2	952
Northern	73.2	71.4	68.0	71.4	940	77.2	868
Lake	77.3	72.4	71.1	83.7	2,808	75.2	2,703
Region							
Dodoma	75.7	74.6	72.9	74.6	375	78.1	358
Arusha	69.4	67.0	64.3	67.0	252	74.6	226
Kilimanjaro	75.2	74.9	74.2	74.9	198	77.5	192
Tanga	74.3	72.3	67.4	72.3	489	78.5	451
Morogoro	87.0	78.4	73.9	78.7	291	84.9	269
Pwani	92.1	84.4	77.2	84.4	144	87.7	139
Dar es Salaam	86.7	62.8	56.3	67.1	472	75.1	395
Lindi	89.4	87.2	84.3	87.2	110	88.5	108
Mtwara	81.1	74.0	70.3	74.5	199	78.8	187
Ruvuma	83.7	78.7	77.3	78.7	534	81.9	513
Iringa	72.8	70.5	70.0	70.5	147	72.9	142
Mbeya	67.4	64.7	64.7	65.1	509	68.1	483
Singida	77.0	74.8	74.2	75.3	403	80.5	375
Tabora	83.9	78.5	77.3	78.5	426	79.4	421
Rukwa	70.9	66.8	65.8	66.8	218	76.9	189
Kigoma	84.3	80.0	78.3	80.0	382	83.8	364
Shinyanga	84.4	77.2	75.6	77.2	404	79.2	394
Kagera	72.5	70.1	69.0	96.1	438	75.0	410
Mwanza	82.9	78.7	77.9	91.1	529	79.8	522
Mara	79.3	73.6	71.6	91.5	439	75.5	428
Manyara	68.5	64.5	63.6	64.5	238	70.0	219
Njombe	73.4	70.4	69.7	70.4	202	71.9	198
Katavi	76.2	70.1	67.3	70.1	227	75.8	210
Simiyu	72.3	66.5	65.2	67.8	633	69.5	606
Geita	73.1	69.0	68.5	83.5	365	73.3	343
Kaskazini Unguja	63.4	54.6	49.9	96.8	29	70.1	23
Kusini Unguja	67.7	51.4	47.2	95.5	18	61.3	15
Mjini Magharibi	68.8	47.3	35.9	94.4	127	69.7	86
Kaskazini Pemba	59.3	47.7	45.3	93.5	38	56.0	33
Kusini Pemba	79.4	61.4	54.8	98.0	41	70.3	36
Wealth quintile							
Lowest	73.0	70.7	70.4	73.5	2,065	76.7	1,902
Second	75.1	71.1	70.7	77.1	2,016	75.3	1,904
Middle	78.5	75.0	73.8	79.7	1,809	77.1	1,762
Fourth	77.9	72.3	70.0	77.9	1,605	76.6	1,515
Highest	86.9	71.1	62.6	78.6	1,383	78.7	1,250
Total	77.7	72.0	69.9	77.2	8,877	76.7	8,334

Note: Table is based on children who stayed in the household the night before the interview.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment (LLIN) or a net that has been soaked with insecticide within the past 12 months.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or nongovernmental organization.

Table 10.7 shows the percentage of children younger than age 5 who slept under various categories of mosquito nets the night before the survey. Nationally, 78 percent of children under age 5 slept under a mosquito net, 72 percent slept under an ITN, and 70 percent slept under an LLIN. ITN utilization among children tends to decrease slightly with age. For example, 74 percent of children less than 12 months old slept under an ITN the night before the survey compared with 69 percent of children age 36-47 months. ITN utilization does not vary much by a child's sex or urban-rural residence but does vary by whether the child lives on the Mainland (73 percent) or Zanzibar (51 percent). Variations in ITN use by region and wealth are highlighted in Figure 10.5.

Figure 10.5 **Percentage of children under age 5 who slept under an ITN the night before the survey**



10.4.3 Use of Mosquito Nets by Pregnant Women

In malaria-endemic areas, adults usually have acquired some degree of immunity to severe, life-threatening malaria. However, pregnancy leads to a depression of the immune system so that pregnant women, especially those in their first pregnancy, have a higher risk of malarial infection. Moreover, malaria among pregnant women may be asymptomatic. Malaria during pregnancy is a major contributor to low birth weight, maternal anaemia, infant mortality, spontaneous abortion, and stillbirth. Pregnant women can reduce the risk of these adverse effects of malaria by sleeping under insecticide-treated mosquito nets.

Table 10.8 shows the use of mosquito nets by pregnant women by background characteristics. Eight in 10 pregnant women (80 percent) slept under a mosquito net the night before the survey; 75 percent slept under an ITN, and 71 percent slept under a LLIN. As with children under age 5, ITN utilization differs little by urban-rural residence but is higher among pregnant women in Mainland Tanzania than Zanzibar (76 percent and 36 percent, respectively). Among pregnant women, those with secondary education or higher and those in the highest wealth quintile are less likely than their less wealthy and less educated counterparts to have slept under an ITN.

Figure 10.6 shows trends in ITN use among household members, children under age 5, and pregnant women, as measured in the 2011-12 THMIS and past surveys. ITN use among all categories of people has increased dramatically. Since 2004-05, use of ITNs by children has increased from 16 percent to 72 percent, and use by pregnant women has increased from 16 percent to 75 percent. Thus, for children and pregnant women, ITN use has more than quadrupled since 2004-05.

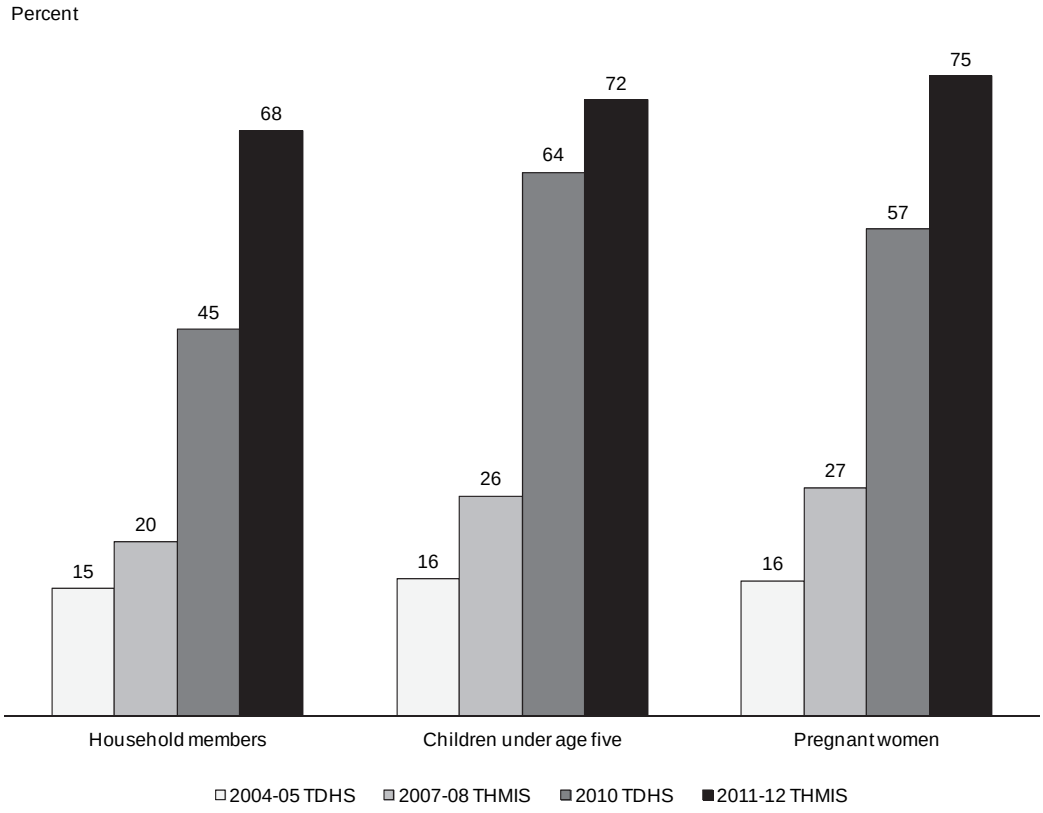
Table 10.8 Use of mosquito nets by pregnant women

Percentages of pregnant women age 15-49 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among pregnant women age 15-49 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, Tanzania 2011-12

	Among pregnant women age 15-49 in all households					Among pregnant women age 15-49 in households with at least one ITN[1]	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number of women	Percentage who slept under an ITN[1] last night	Number of women
Residence							
Urban	87.2	76.3	63.7	79.7	207	84.6	187
Rural	78.7	74.4	73.3	78.7	783	79.9	729
Mainland/Zanzibar							
Mainland	81.6	76.2	72.7	78.5	957	82.0	889
Urban	89.3	78.4	65.5	79.1	199	86.8	180
Rural	79.6	75.6	74.6	78.3	758	80.7	709
Zanzibar	47.2	36.4	31.6	90.9	34	45.1	28
Unguja	40.3	32.3	28.4	87.0	22	41.0	18
Pemba	60.6	44.3	37.9	98.4	12	52.3	10
Zone							
Eastern	92.2	74.5	55.0	75.5	104	84.8	91
Western	84.7	77.8	76.7	77.8	86	83.5	80
Southern	90.9	80.7	72.8	80.7	56	84.8	53
Southern Highlands	82.2	77.1	75.5	77.1	79	80.1	76
Southwest Highlands	62.6	58.5	58.5	58.5	90	67.8	78
Central	73.5	71.3	71.3	71.3	105	79.1	95
Northern	73.3	70.8	66.3	70.8	87	82.8	75
Lake	85.5	82.7	82.0	88.8	350	84.6	342
Education							
No education	76.6	73.1	72.7	76.5	208	79.1	192
Primary incomplete	77.6	73.0	71.2	76.7	129	79.4	119
Primary complete	83.5	78.3	74.1	81.3	564	83.6	528
Secondary+	74.1	59.4	50.8	73.2	89	68.8	77
Wealth quintile							
Lowest	79.7	77.9	77.1	78.8	202	83.5	188
Second	75.2	72.2	69.6	76.9	202	78.1	186
Middle	79.2	77.1	76.6	80.8	219	82.1	205
Fourth	84.8	77.6	77.4	82.6	189	82.7	178
Highest	84.2	68.3	53.7	75.1	179	77.2	159
Total	80.4	74.8	71.3	78.9	991	80.9	917

Note: Table is based on women who stayed in the household the night before the interview.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment (LLIN) or a net that has been soaked with insecticide within the past 12 months.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or nongovernmental organization.

Figure 10.6 **Trends in use of ITNs**



10.4.4 Reasons for not Using Nets

As has been demonstrated, the household population with access to nets exceeds the household population that slept under a net the night before the survey. This implies that some households own nets that are not being used. Indeed, as shown in Table 10.9, one in four nets possessed by households was not used the night before the survey. To determine why some nets were not used, households with unused nets were asked why each unused net was not used. The most common reasons provided are presented. By far and away the most common reason given for not using a net was that it was being saved for later (51 percent). Other common reasons were that there were no mosquitoes (18 percent), the usual user did not sleep in the household the night before the survey (9 percent), or the net was too old or torn (5 percent).

Table 10.9 Reasons for not using mosquito nets

The percentage of mosquito nets not used the night before the survey, and among those nets, the reason given, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of nets not used the night before the survey	Total number of nets	Reason for not using a net									Number of nets not used the night before the survey
			No mosquitoes	Too hot	Net too old/torn	Net too dirty	Net not available last night/net being washed	Usual user(s) did not sleep in household last night	Net too small	Saving for later	Other	
Residence												
Urban	22.1	6,410	5.4	2.7	3.2	0.9	1.5	13.1	7.9	62.0	5.8	1,414
Rural	25.5	18,703	21.3	4.0	6.0	3.3	2.4	8.2	0.8	48.1	10.2	4,763
Mainland/Zanzibar												
Mainland	24.6	24,373	17.5	3.0	5.4	2.8	2.2	9.3	2.5	51.9	9.2	5,990
Urban	21.8	6,186	4.8	1.6	3.2	0.9	1.5	13.2	8.3	63.2	5.4	1,350
Rural	25.5	18,187	21.2	3.4	6.0	3.4	2.4	8.2	0.8	48.6	10.4	4,640
Zanzibar	25.3	740	22.5	27.2	2.9	1.9	1.9	10.4	0.1	32.9	9.0	187
Unguja	22.6	516	22.9	25.6	3.4	2.6	1.1	10.2	0.2	34.8	8.2	117
Pemba	31.5	223	21.7	29.7	2.1	0.7	3.3	10.6	0.0	29.7	10.3	70
Zone												
Eastern	21.9	3,756	5.2	1.0	3.4	2.1	1.8	11.2	10.2	65.2	3.4	822
Western	21.1	2,009	12.9	5.3	6.1	2.7	2.8	8.3	4.2	55.8	7.8	423
Southern	24.8	1,607	10.7	4.6	6.1	1.1	1.4	14.8	0.6	52.1	9.0	398
Southern Highlands	28.5	3,161	17.6	1.9	5.2	5.0	3.0	11.8	0.4	45.0	12.8	899
Southwest Highlands	31.1	2,505	35.2	2.4	3.1	1.7	1.3	6.2	2.6	36.2	14.5	779
Central	26.3	2,749	17.9	3.8	8.5	3.4	0.6	6.1	0.2	52.1	12.9	722
Northern	27.4	2,666	28.6	3.5	1.7	2.7	1.0	9.7	1.6	50.7	7.6	730
Lake	20.5	5,921	11.5	3.4	8.3	2.7	4.2	8.5	0.9	57.2	6.6	1,216
Region												
Dodoma	24.0	1,195	21.2	6.8	13.5	4.0	0.6	8.1	0.0	44.8	6.6	287
Arusha	35.4	628	26.8	3.3	3.8	7.8	2.8	8.1	1.0	54.2	10.0	222
Kilimanjaro	30.6	918	43.2	0.6	0.0	0.9	0.4	1.9	1.1	45.4	8.0	281
Tanga	20.3	1,120	12.2	7.2	1.7	0.0	0.0	20.8	2.7	53.9	4.7	227
Morogoro	20.8	1,008	11.0	0.0	6.3	1.9	2.9	12.5	0.6	61.0	3.7	210
Pwani	22.1	633	2.8	1.4	2.3	2.0	0.4	17.2	1.6	70.8	0.4	140
Dar es Salaam	22.3	2,115	3.4	1.4	2.4	2.2	1.7	8.8	17.0	65.4	4.1	472
Lindi	21.4	551	15.2	0.4	2.8	0.0	0.9	14.1	0.7	62.8	3.0	118
Mtwara	26.5	1,056	8.9	6.4	7.4	1.5	1.6	15.1	0.6	47.6	11.6	280
Ruvuma	26.7	1,917	9.5	2.4	4.4	6.6	3.4	15.5	0.1	53.6	9.1	512
Iringa	26.8	514	30.6	1.5	6.7	3.4	2.5	8.7	0.2	35.8	11.7	138
Mbeya	36.7	1,666	41.5	2.8	1.6	0.9	0.9	5.4	3.2	31.0	16.8	611
Singida	21.2	999	2.5	0.9	7.5	3.1	1.2	4.4	0.0	57.8	23.8	212
Tabora	20.8	1,029	22.0	7.8	6.0	4.4	4.2	4.8	0.0	55.8	7.3	214
Rukwa	25.3	377	15.4	1.6	5.5	6.2	3.9	7.9	0.0	51.1	7.4	95
Kigoma	21.3	979	3.5	2.8	6.3	0.9	1.3	11.8	8.6	55.7	8.3	209
Shinyanga	21.7	980	16.0	8.6	9.3	1.8	1.6	3.6	1.1	65.5	4.3	213
Kagera	28.8	1,022	10.6	2.1	4.5	6.1	10.0	6.3	0.7	50.5	10.4	294
Mwanza	16.2	1,206	13.3	0.6	1.3	0.0	0.0	13.7	0.8	65.9	4.3	196
Mara	21.2	972	6.0	1.4	8.7	0.8	1.0	14.5	0.3	63.6	3.9	206
Manyara	40.2	555	28.2	2.7	3.0	3.1	0.1	5.1	0.5	55.9	10.6	223
Njombe	34.1	730	27.0	1.0	6.3	2.7	2.6	6.0	1.0	32.5	21.0	249
Katavi	15.8	462	8.4	0.0	11.8	2.8	0.9	10.9	0.4	60.8	4.0	73
Simiyu	21.7	1,186	12.2	4.7	16.8	2.6	5.6	6.5	1.5	45.2	9.4	258
Geita	9.1	556	10.2	2.4	10.0	5.5	3.9	6.8	0.0	62.0	0.0	51
Kaskazini Unguja	25.0	80	22.4	30.1	9.4	7.4	3.3	18.6	0.9	15.6	1.8	20
Kusini Unguja	26.6	54	27.2	35.2	2.5	0.6	0.0	16.0	0.0	25.2	3.8	14
Mjini Magharibi	21.6	382	22.3	22.9	2.1	1.8	0.8	7.2	0.0	41.1	10.5	82
Kaskazini Pemba	43.2	118	25.5	33.4	1.5	0.9	1.1	3.6	0.0	28.8	13.9	51
Kusini Pemba	18.3	105	11.7	19.9	3.6	0.0	8.9	28.9	0.0	32.0	0.8	19
Wealth quintile												
Lowest	24.4	4,253	18.7	3.5	9.5	3.6	2.7	7.1	0.6	45.8	12.9	1,039
Second	26.0	4,531	19.7	4.7	7.0	3.2	2.1	7.4	0.1	48.6	11.0	1,176
Middle	25.4	4,820	22.2	4.0	4.5	3.6	2.7	9.4	1.0	46.4	10.9	1,224
Fourth	23.6	5,278	21.5	3.7	4.0	2.6	1.9	8.6	1.4	51.8	8.9	1,248
Highest	23.9	6,230	8.5	2.9	2.8	1.3	1.8	13.0	7.6	61.0	4.3	1,490
Total	24.6	25,113	17.7	3.7	5.3	2.8	2.2	9.4	2.4	51.3	9.2	6,177

Note: Percentages may sum to more than 100 because more than one reason can be given.

10.5 INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY

As explained previously, in areas of high malaria transmission, by the time an individual reaches adulthood, she or he has acquired immunity that protects against severe disease. However, pregnant women—especially those pregnant for the first time—frequently regain their susceptibility to malaria. Although malaria in pregnant women may not manifest itself as either febrile illness or severe disease, it is frequently the cause of mild to severe anaemia. In addition, malaria during pregnancy can interfere with the maternal-fetus exchange that occurs at the placenta, leading to the delivery of low-birth-weight infants.

In Tanzania, NMCP and ZMCP guidelines require that pregnant women receive intermittent preventative treatment for malaria in pregnancy (IPTp). Specifically, IPTp is preventive treatment with the antimalarial drugs SP/Fansidar once at the beginning of the second trimester of pregnancy and once at the beginning of the third trimester. It is preferable that women receive IPTp during routine antenatal care. Pregnant women who take malaria medicine only to treat an existing case of malaria are not considered to have received IPTp.

Women in the 2011-12 THMIS who had a live birth in the two years preceding the survey were asked whether they took any antimalarial medications during the pregnancy leading to their most recent birth, and if so, which drugs were taken. Women were also asked whether the drugs they took were received as 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 10.10 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. Sixty-three percent of women took an antimalarial drug during their last pregnancy. Nearly all pregnant women who took any antimalarial drug during their pregnancy took at least one dose of SP/Fansidar (63 percent of pregnant women), and most of these – 60 percent of pregnant women – received SP/Fansidar during an ANC visit. One-third of women (33 percent) reported taking two or more doses of SP/Fansidar during their last pregnancy, classifying them as having received IPTp. Almost all of the women who took at least two doses of SP/Fansidar received at least one dose during an antenatal care (ANC) visit (32 percent of pregnant women).

IPTp received during ANC is higher among women living in urban areas (39 percent) compared with women in rural areas (30 percent). The same pattern was observed in the 2007-08 THMIS (42 and 28 percent, respectively). Women with secondary education and those in the highest wealth quintile are more likely than other women to have received IPTp during an ANC visit. Women in Zanzibar were more likely than those in Mainland Tanzania to receive IPTp during an ANC visit (48 percent compared with 31 percent). Regional variation in IPTp received during ANC is also observed. Whereas nearly 6 in 10 women in Kaskazini Unguja and Kusini Unguja received IPTp during ANC, only 1 in 10 women in Mara did.

Figure 10.7 compares IPTp trends across four surveys. The percentage of pregnant women who received at least one dose of SP/Fansidar during an ANC visit increased from 2004-05 to 2010, but has been stable from 2010 to 2011-12. The percentage of women who received two or more doses of SP/Fansidar with at least one dose received during an ANC visit has slowly increased: from 21 percent in the 2004-05 TDHS to 32 percent in the 2011-12 THMIS.

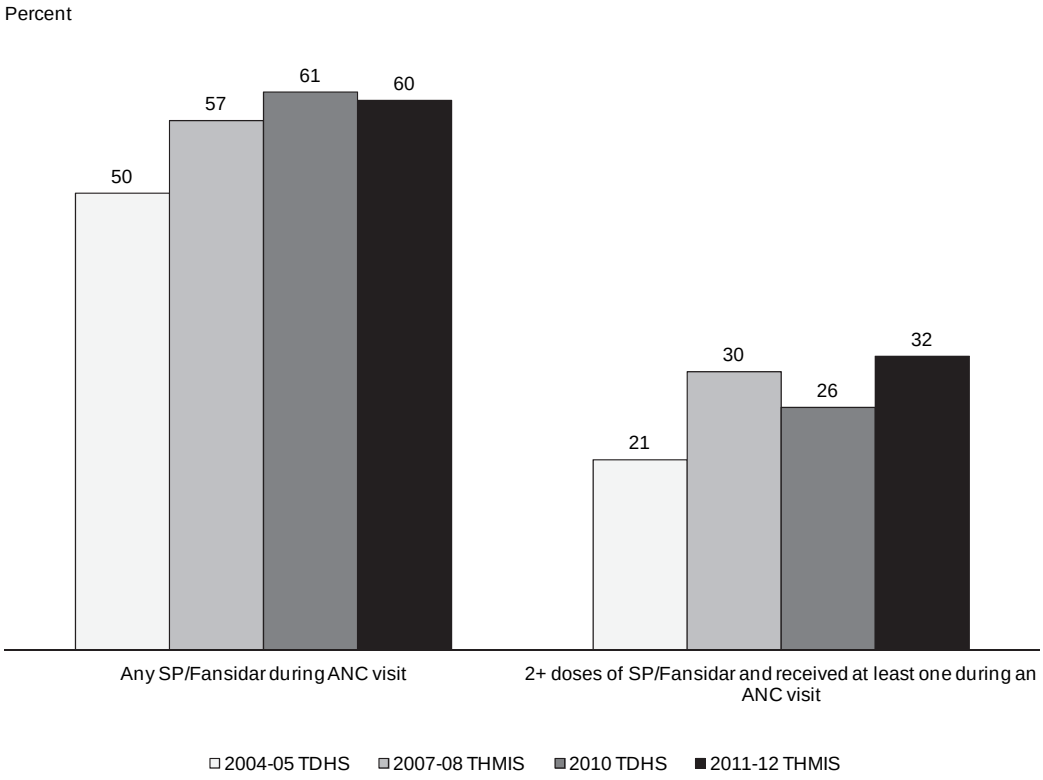
Table 10.10 Prophylactic use of antimalarial drugs and use of intermittent preventive treatment (IPTp) by women during pregnancy

Percentage of women age 15-49 with a live birth in the two years preceding the survey who, during the pregnancy preceding the last birth, took any antimalarial drug for prevention, who took one dose of SP/Fansidar, and who received intermittent preventive treatment (IPTp)[1], by background characteristics, Tanzania 2011-12

Background characteristic	Percentage who took any antimalarial drug	SP/Fansidar		Intermittent preventive treatment (IPTp)[1]		Number of women with a live birth in the two years preceding the survey
		Percentage who took any SP/Fansidar	Percentage who received any SP/Fansidar during an ANC visit	Percentage who took 2+ doses of SP/Fansidar	Percentage who took 2+ doses of SP/Fansidar and received at least one during ANC visit	
Residence						
Urban	78.5	77.3	73.8	39.9	39.1	637
Rural	60.1	59.4	56.5	31.7	30.2	2,918
Mainland/Zanzibar						
Mainland	63.1	62.2	59.1	32.7	31.3	3,455
Urban	78.8	77.5	73.9	40.2	39.4	618
Rural	59.6	58.9	55.9	31.1	29.6	2,836
Zanzibar	75.4	75.4	75.3	48.4	48.3	100
Unguja	77.0	77.0	76.8	54.4	54.3	70
Pemba	71.9	71.9	71.9	34.8	34.8	31
Zone						
Eastern	77.6	77.0	74.8	47.6	46.5	398
Western	57.2	56.9	50.6	27.9	24.5	326
Southern	81.9	81.9	79.8	43.5	42.6	119
Southern Highlands	74.4	72.5	67.5	42.6	39.3	383
Southwest Highlands	64.9	64.5	62.4	30.9	29.9	378
Central	69.2	69.2	68.3	37.5	37.0	376
Northern	71.1	70.4	69.9	34.9	34.6	369
Lake	48.2	46.8	43.0	22.4	21.3	1,105
Region						
Dodoma	68.5	68.5	67.6	50.4	49.5	131
Arusha	68.6	68.6	68.6	36.3	36.3	106
Kilimanjaro	81.8	80.7	80.7	32.0	32.0	68
Tanga	68.7	67.7	66.9	35.1	34.6	195
Morogoro	70.0	70.0	67.7	46.1	44.9	120
Pwani	84.1	84.1	77.4	48.1	43.0	60
Dar es Salaam	79.9	78.9	78.0	48.3	48.3	218
Lindi	83.8	83.8	80.5	47.7	47.7	43
Mtwara	80.8	80.8	79.3	41.1	39.7	76
Ruvuma	69.8	66.7	62.6	38.9	37.1	237
Iringa	92.0	92.0	79.3	59.4	48.6	59
Mbeya	68.8	68.8	68.1	36.6	36.6	210
Singida	71.9	71.9	71.7	30.7	30.7	158
Tabora	48.2	48.2	45.6	27.6	26.3	167
Rukwa	54.6	53.0	46.2	23.5	19.2	83
Kigoma	66.6	65.9	55.8	28.3	22.6	159
Shinyanga	44.7	44.7	39.1	33.6	31.4	150
Kagera	61.6	60.6	57.5	32.6	31.7	160
Mwanza	67.3	64.7	53.6	29.2	26.7	216
Mara	33.5	32.0	29.3	10.0	9.6	167
Manyara	65.6	65.6	63.2	30.6	29.8	87
Njombe	75.1	75.1	72.6	41.4	38.9	87
Katavi	65.2	65.2	64.2	24.1	24.1	86
Simiyu	41.2	40.3	40.3	16.3	16.3	274
Geita	38.2	36.3	35.4	15.1	14.1	138
Kaskazini Unguja	84.3	84.3	84.3	59.1	59.1	11
Kusini Unguja	82.0	82.0	80.9	58.9	57.7	7
Mjini Magharibi	74.7	74.7	74.7	52.8	52.8	51
Kaskazini Pemba	72.7	72.7	72.7	36.1	36.1	14
Kusini Pemba	71.3	71.3	71.3	33.7	33.7	17
Education						
No education	50.4	49.7	46.6	26.7	25.2	832
Primary incomplete	57.4	55.8	52.1	30.2	27.5	440
Primary complete	68.3	67.7	64.8	34.8	33.7	1,894
Secondary+	74.1	73.0	70.0	42.2	41.6	388
Wealth quintile						
Lowest	54.3	53.7	50.3	27.5	25.8	797
Second	60.0	59.4	56.1	30.8	28.7	811
Middle	59.2	58.3	55.0	31.9	30.3	693
Fourth	69.5	68.3	66.6	35.3	34.7	679
Highest	78.7	77.8	74.3	43.3	42.8	575
Total	63.4	62.6	59.6	33.2	31.8	3,555

[1] IPTp: Intermittent preventive treatment during pregnancy is preventive treatment with two or more doses of SP/Fansidar.

Figure 10.7 Trends in use of intermittent preventive treatment of malaria in pregnancy



MANAGEMENT OF FEVER IN CHILDREN AND ANAEMIA AND MALARIA IN CHILDREN 11

Key Findings

- One in five children under age 5 had a fever in the two weeks preceding the survey.
- Among children with fever, one-quarter had blood taken for testing, and 54 percent took antimalarial drugs.
- Among those children under age 5 with fever who took an antimalarial drug, 6 in 10 received artemisinin-combination therapy (ACT), but only 4 in 10 children received it on the same or next day relative to the onset of fever.
- Six percent of Tanzanian children age 6-59 months have haemoglobin levels below 8.0 g/dl.
- The prevalence of malaria in children age 6-59 months is 9 percent by rapid diagnostic test (RDT) and 4 percent by microscopy. Large differences in malaria prevalence are observed by region.
- Malaria prevalence in children age 6-59 months increases with age.

A key aspect of malaria control is the effective diagnosis and treatment of malaria, especially in the most vulnerable populations such as young children. Fever is a common, easily detected symptom of malaria. However, because fever can be due to life-threatening infections and/or conditions other than malaria, it is important that children with fever be taken to a health facility for advice, diagnosis, and treatment. Children with uncomplicated malaria should receive an appropriate antimalarial drug within 24 hours of onset of fever.

This chapter first presents information on the percentage of children under age 5 who experienced an episode of fever in the two weeks preceding the survey and then gives details about whether they were taken for treatment, whether they had blood taken from a finger or heel for testing at any time during the fever, and whether they were treated with antimalarial drugs. For children who were treated with antimalarials, the specific drug(s) they received and the timeliness with which they received drug treatment was determined. The chapter concludes by presenting the percentages of children age 6-59 months with moderate to severe anaemia and with malaria, according to the results of a rapid diagnostic test (RDT) and microscopy.

11.1 TREATMENT OF CHILDREN WITH FEVER

In Mainland Tanzania, the artemisinin combination therapy (ACT) artermether-lumefantrine (ALu) is the recommended first-line antimalarial drug for uncomplicated malaria. Quinine is the second-line treatment. In Zanzibar, the first-line antimalarial treatment for uncomplicated malaria is artesunate-amodiaquine (ASAQ), and ALu is the second line of treatment.

11.1.1 Diagnosis of Malaria and Prompt Treatment with Antimalarial Drugs

In moderate to high-endemic areas of malaria in sub-Saharan Africa, acute clinical disease is almost always confined to young children who suffer high parasite densities. If untreated, this condition can progress very rapidly to severe malaria, which can result in 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). Fever is a major manifestation of malaria in young children, although it also accompanies other illnesses.

In Mainland Tanzania, the introduction of routine use of malaria rapid diagnostic test (RDT) services in health facilities was through a national roll-out. By April 2012, the roll-out covered 11 of 21 regions, as classified under the former scheme.[1] The regions covered were Iringa, Kagera, Pwani, Manyara, Arusha, Dodoma, Singida, Mwanza, Mara, Mbeya and Rukwa. All public health facilities (government and faith-based-organizations) were targeted.

The 2011-12 THMIS asked mothers whether their children under age 5 had had a fever in the two weeks preceding the survey and, if so, whether any treatment was sought. Questions were also asked about blood testing, the types of drugs given to the child, and how soon the drugs were taken.

Table 11.1 shows the percentage of children under age 5 who had fever in the two weeks preceding the survey. Also shown, among those children under age 5 with fever, are the percentage for whom advice or treatment was sought from a health facility, provider, or pharmacy; the percentage of such children who had a drop of blood taken from a finger- or heel-prick (presumably for a malaria test), the percentage who took ACT or any antimalarial drugs, and the percentage who took drugs on the same or next day.

Twenty percent of children under age 5 had a fever during the two weeks preceding the survey. Prevalence of fever differed little by sex and urban-rural residence. Children age 12-23 months and those residing in Western and Southern zones (about 3 in 10) are more likely than other children to have had recent fever. Reports of fever vary little by mother's education or wealth.

Among children with fever, three-quarters (77 percent) sought treatment from a health facility, provider, or pharmacy, and one-quarter (25 percent) had blood taken from a finger or heel for testing. Treatment-seeking behaviour is more common among children less than 12 months old and children of women with secondary education or higher. Treatment-seeking behaviour also increases with household wealth. Similar patterns are observed for children with fever who had blood taken from their finger or heel for testing. Notably, however, although the percentage of children with fever for whom advice or treatment is sought differs little by urban-rural residence (81 and 77 percent, respectively), the proportion of children with fever who have blood taken for testing is much greater in urban areas (61 percent) than rural areas (17 percent).

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).

The 2011-12 THMIS asked mothers whose children under age 5 had had a fever in the two weeks preceding the survey about whether any drug treatment was sought. Questions were also asked about the types of drugs given to the child and how soon the drugs were taken.

Fifty-four percent of children under age 5 with fever in the two weeks preceding the survey took some type of antimalarial drug, and 33 percent took ACT. The proportion of children with fever who were given antimalarial drugs is somewhat higher among children in urban areas (59 percent) than those in rural areas (53 percent) and among those in the highest wealth quintile (60 percent) compared with those in the other wealth quintiles (51-54 percent); however, children from rural areas (34 percent) and those from the lowest wealth quintile (40 percent) were more likely to have received ACT than those from urban areas (26 percent) and those in the highest wealth quintile (28 percent). Of the children with fever, one-third (34 percent) were given an antimalarial drug the same day or the next day after getting the fever, while one-fifth (21 percent) were given ACT the same or next day following the onset of fever.

[1] As of March 2012, Mainland Tanzania has 25 regions.

Table 11.1 Prevalence, diagnosis, and prompt treatment of children with fever

Percentage of children under age 5 with fever in the two weeks preceding the survey; and among children under age 5 with fever, the percentage for whom advice or treatment was sought from a health facility, provider, or pharmacy, the percentage who had blood taken from a finger or heel, the percentage who took artemisinin-based combination therapy (ACT), the percentage who took ACT the same or next day following the onset of fever, the percentage who took antimalarial drugs, and the percentage who took the drugs the same or next day following the onset of fever, by background characteristics, Tanzania 2011-12

	Among children under age 5:		Among children under age 5 with fever:						
Background characteristic	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought from a health facility, provider, or pharmacy[1]	Percentage who had blood taken from a finger or heel for testing	Percentage who took ACT	Percentage who took ACT same or next day	Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same or next day	Number of children
Age (in months)									
<12	21.2	1,769	84.7	24.6	21.1	12.5	43.0	27.2	374
12-23	28.8	1,776	76.7	25.8	36.0	22.4	55.6	36.3	512
24-35	21.0	1,576	75.5	25.5	30.7	20.6	56.3	33.4	332
36-47	17.4	1,630	77.0	25.0	40.7	25.1	61.6	37.6	284
48-59	11.9	1,465	67.5	22.0	40.2	25.7	53.6	36.0	174
Sex									
Male	20.9	4,079	79.2	26.9	34.5	21.1	56.2	35.3	854
Female	19.9	4,137	75.4	22.9	31.1	20.2	51.1	32.3	821
Residence									
Urban	22.3	1,416	81.2	60.5	26.4	15.5	58.8	38.3	316
Rural	20.0	6,800	76.5	16.7	34.3	21.9	52.5	32.8	1,359
Mainland/Zanzibar									
Mainland	20.5	7,973	77.6	24.9	33.6	21.1	55.0	34.7	1,635
Urban	22.8	1,360	81.4	60.8	27.0	15.8	60.0	39.1	310
Rural	20.0	6,613	76.7	16.5	35.2	22.4	53.8	33.6	1,325
Zanzibar	16.6	244	68.6	25.9	1.1	0.9	1.7	1.5	40
Unguja	16.7	167	71.1	27.3	0.4	0.0	0.4	0.0	28
Pemba	16.3	77	63.1	22.8	2.8	2.8	4.8	4.8	13
Zone									
Eastern	21.9	865	81.7	51.9	42.0	27.7	73.0	49.0	189
Western	33.0	744	83.7	31.3	40.8	22.4	65.4	39.6	245
Southern	29.3	286	73.5	21.0	38.5	27.8	49.2	35.8	84
Southern Highlands	22.3	796	78.4	21.0	34.8	26.7	47.4	39.6	177
Southwest Highlands	17.6	873	72.2	14.5	22.5	17.9	35.0	26.7	154
Central	10.8	935	78.0	26.7	21.4	12.3	44.9	19.9	101
Northern	12.2	861	71.1	25.9	36.0	22.4	53.0	36.3	105
Lake	22.2	2,611	76.5	17.4	31.5	18.0	55.3	30.5	579
Region									
Dodoma	7.1	335	*	*	*	*	*	*	24
Arusha	7.3	229	*	*	*	*	*	*	17
Kilimanjaro	14.1	162	*	*	*	*	*	*	23
Tanga	14.0	470	(74.1)	(20.3)	(35.0)	(17.9)	(54.1)	(35.3)	66
Morogoro	30.7	276	74.1	24.1	52.6	36.0	73.8	50.5	85
Pwani	10.9	133	*	*	*	*	*	*	14
Dar es Salaam	19.8	457	89.2	78.1	30.7	18.1	74.2	47.7	90
Lindi	24.4	100	(77.2)	(21.4)	(55.2)	(43.4)	(57.5)	(43.4)	24
Mtwara	31.9	186	72.0	20.9	31.6	21.4	45.8	32.7	59
Ruvuma	26.4	469	73.9	20.6	37.0	26.2	46.4	36.6	124
Iringa	14.1	130	*	*	*	*	*	*	18
Mbeya	17.2	463	(67.1)	(8.7)	(19.7)	(14.2)	(29.0)	(19.5)	79
Singida	12.6	385	(82.1)	(18.1)	(9.9)	(2.9)	(46.3)	(10.9)	48
Tabora	32.3	390	85.4	18.3	32.3	14.7	56.5	30.1	126
Rukwa	16.5	195	66.5	19.2	15.6	13.3	37.3	32.4	32
Kigoma	33.8	354	82.0	45.1	49.7	30.6	74.7	49.7	119
Shinyanga	26.1	366	94.6	11.7	40.2	16.0	47.1	17.1	95
Kagera	11.8	421	(87.3)	(30.7)	(55.3)	(36.3)	(68.4)	(49.4)	50
Mwanza	22.1	500	71.2	33.1	23.0	19.3	54.6	46.5	111
Mara	29.1	408	63.1	20.6	24.1	11.3	53.4	23.1	119
Manyara	13.1	215	(65.4)	(28.1)	(26.8)	(21.3)	(43.9)	(30.9)	28
Njombe	18.0	197	(84.2)	(26.0)	(23.3)	(20.5)	(38.8)	(36.0)	35
Katavi	19.7	214	86.1	22.0	33.2	28.6	44.6	36.1	42
Simiyu	22.0	594	91.8	6.1	26.7	12.3	55.3	22.3	131
Geita	23.0	323	48.1	7.1	37.1	26.6	61.4	37.8	74
Kaskazini Unguja	15.7	29	(87.8)	(38.9)	(0.0)	(0.0)	(0.0)	(0.0)	5
Kusini Unguja	18.2	16	(71.0)	(38.3)	(3.4)	(0.0)	(3.4)	(0.0)	3
Mjini Magharibi	16.8	121	(67.4)	(23.1)	(0.0)	(0.0)	(0.0)	(0.0)	20
Kaskazini Pemba	13.3	37	(55.5)	(22.8)	(0.0)	(0.0)	(3.2)	(3.2)	5
Kusini Pemba	19.1	40	(68.2)	(22.9)	(4.7)	(4.7)	(5.8)	(5.8)	8
Mother's education									
No education	18.0	2,070	78.9	16.6	35.6	24.4	53.4	35.2	372
Primary incomplete	22.5	1,088	68.0	15.0	31.1	22.2	48.8	34.1	245
Primary complete	20.9	4,363	77.7	26.8	33.2	19.2	56.3	33.4	912
Secondary+	20.9	695	86.7	51.2	26.3	17.4	46.9	32.8	146
Wealth quintile									
Lowest	21.3	1,874	73.4	16.9	39.5	24.4	51.8	30.3	399
Second	20.8	1,879	75.9	11.2	33.0	22.4	53.2	34.5	391
Middle	18.5	1,643	79.0	18.7	30.4	18.9	51.0	32.3	304
Fourth	19.3	1,496	77.8	26.8	31.1	18.3	54.2	32.4	289
Highest	22.0	1,325	82.5	59.0	28.0	17.4	59.5	41.1	292
Total	20.4	8,216	77.3	24.9	32.9	20.6	53.7	33.9	1,675

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.

[1] Excludes market, shop, and traditional practitioner

There are striking differences in the type and timing of treatment of children with fever across zones. For example, whereas in the Eastern zone 73 percent of children under age 5 with fever in the two weeks preceding the survey took some sort of antimalarial and 42 percent took ACT, only 2 percent of children in Zanzibar took an antimalarial and only 1 percent took an ACT. This finding presumably is explained by the low prevalence of malaria in Zanzibar (see below).

11.1.2 Type and Timing of Antimalarial Drugs

Prompt access to effective antimalarial treatment is one of the major strategies for reducing the burden of malaria. In practical terms, prompt access means providing malaria treatment within 24 hours of onset of symptoms following a positive malaria diagnosis. Table 11.2 presents the type of antimalarial drugs used among children under age 5 with fever in the two weeks preceding the survey who took any antimalarial medication, and the percentage of children who took specific antimalarial drugs on the same or the next day after developing fever, by the various background characteristics.

Among those children under age 5 who took an antimalarial drug, 6 in 10 (61 percent) received ACT during the course of illness. Nineteen percent took quinine, and 16 percent took amodiaquine. SP/Fansidar accounts for less than 4 percent of the antimalarial drugs given to children with fever. Adherence to the recommended malaria treatment, ACT, is highest in children age 48-59 months (75 percent), those in rural areas (65 percent), and those in the lowest wealth quintile (76 percent).

Only 4 in 10 (38 percent) children who received an antimalarial took ACT on the same or next day to the onset of fever. The chances of a child being treated with ACT the same day or next day generally increases with a child's age and for those children living in rural areas. Children whose mothers have no formal education or who have not completed primary school and those in the lowest wealth quintile are more likely than those whose mothers have completed primary school or who are in the highest wealth quintile to be treated with ACT on the same or next day.

11.1.3 Cost of ACT

Mothers whose children took ALu were asked whether or not they purchased the Alu, and if so, how much they paid for it. Fifty-three percent of the children who took ALu received ALu that had been purchased; the average cost of the ALu was 1,372 TSH (data not shown).

Table 11.2 Type and timing of antimalarial drugs used

Among children under age 5 with fever in the two weeks preceding the survey who took any antimalarial medication, the percentage who took specific antimalarial drugs and the percentage who took each type of drug the same or next day after developing fever, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of children who took drug:							Percentage of children who took drug the same or next day:							Number of children with fever who took anti-malarial drug
	SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine	ACT	Artesunate	Other anti-malarial	SP/ Fansidar	Chloro-quine	Amodia-quine	Quinine	ACT	Artesunate	Other anti-malarial	
Age (in months)															
<12	2.1	0.0	17.6	29.2	49.0	2.0	1.2	2.1	0.0	11.5	17.7	29.1	2.0	1.2	161
12-23	4.7	0.4	15.8	13.6	64.8	0.0	2.1	2.9	0.4	11.2	9.9	40.4	0.0	0.9	284
24-35	4.8	1.9	17.2	22.2	54.6	0.0	2.4	4.0	1.5	1.6	13.1	36.6	0.0	2.4	187
36-47	3.7	0.0	12.2	18.3	66.0	0.2	1.3	1.6	0.0	7.1	11.3	40.7	0.0	0.6	175
48-59	0.3	0.0	15.6	12.0	74.9	0.0	0.0	0.3	0.0	12.8	6.2	47.9	0.0	0.0	93
Sex															
Male	3.8	0.4	14.5	18.4	61.4	0.1	2.5	2.3	0.2	8.0	13.3	37.5	0.0	1.8	480
Female	3.4	0.6	17.0	19.5	60.9	0.8	0.6	2.7	0.6	9.4	10.2	39.5	0.8	0.3	420
Residence															
Urban	8.1	0.0	19.4	23.2	45.0	0.0	6.3	6.0	0.0	11.4	17.2	26.3	0.0	4.9	186
Rural	2.4	0.7	14.7	17.8	65.4	0.5	0.4	1.6	0.5	7.9	10.4	41.6	0.4	0.1	714
Mainland/Zanzibar															
Mainland	3.6	0.5	15.7	18.9	61.1	0.4	1.6	2.5	0.4	8.6	11.8	38.4	0.4	1.1	899
Urban	8.1	0.0	19.4	23.3	45.0	0.0	6.3	6.0	0.0	11.3	17.2	26.3	0.0	4.9	186
Rural	2.4	0.7	14.7	17.8	65.4	0.5	0.4	1.6	0.5	7.9	10.4	41.6	0.4	0.1	713
Zanzibar	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Unguja	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0
Pemba	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Zone															
Eastern	5.2	0.0	15.0	16.6	57.6	2.3	6.5	2.9	0.0	7.7	12.7	37.9	2.3	4.5	138
Western	4.2	0.7	7.1	26.8	62.4	0.0	0.0	3.3	0.7	4.9	17.8	34.3	0.0	0.0	160
Southern	(0.0)	(0.0)	(7.4)	(18.3)	(78.2)	(0.0)	(0.0)	(0.0)	(0.0)	(5.2)	(11.1)	(56.5)	(0.0)	(0.0)	41
Southern Highlands	5.0	0.0	6.6	20.7	73.4	0.0	0.0	4.2	0.0	6.6	16.5	56.2	0.0	0.0	84
Southwest Highlands	5.3	0.0	18.6	11.2	64.3	0.6	0.0	5.3	0.0	11.9	7.9	51.2	0.0	0.0	54
Central	(2.7)	(0.0)	(32.5)	(16.7)	(47.7)	(0.0)	(0.5)	(1.5)	(0.0)	(5.6)	(9.6)	(27.3)	(0.0)	(0.5)	45
Northern	(4.6)	(0.0)	(5.2)	(23.0)	(68.0)	(0.0)	(1.6)	(4.6)	(0.0)	(3.3)	(16.8)	(42.2)	(0.0)	(1.6)	56
Lake	2.4	1.1	22.7	16.6	56.9	0.0	1.4	1.1	0.9	12.7	7.5	32.4	0.0	0.8	321
Mother's education															
No education	2.3	1.4	12.3	17.9	66.8	0.2	0.6	0.4	1.4	7.0	11.5	45.8	0.0	0.0	199
Primary incomplete	2.4	0.0	20.3	15.9	63.7	0.0	0.0	2.4	0.0	14.2	8.2	45.5	0.0	0.0	120
Primary complete	4.7	0.2	17.1	18.5	59.1	0.0	2.2	3.6	0.2	8.2	12.0	34.1	0.0	1.6	513
Secondary+	0.7	1.2	6.8	30.1	56.0	4.7	2.6	0.7	0.0	6.8	18.1	37.0	4.7	2.6	68
Wealth quintile															
Lowest	1.9	0.0	12.6	11.4	76.2	0.0	0.0	1.3	0.0	6.3	4.1	47.0	0.0	0.0	207
Second	1.3	0.0	18.0	17.6	62.0	0.2	0.9	0.5	0.0	9.6	12.6	42.1	0.0	0.0	208
Middle	3.0	1.8	16.6	20.7	59.6	0.0	0.0	1.5	1.8	10.2	13.1	37.1	0.0	0.0	155
Fourth	4.8	1.2	14.8	24.3	57.3	0.0	0.6	3.3	0.7	6.5	14.9	33.7	0.0	0.6	157
Highest	7.7	0.0	16.6	23.0	47.1	1.8	6.8	6.4	0.0	10.8	16.3	29.2	1.8	5.2	174
Total	3.6	0.5	15.7	18.9	61.1	0.4	1.6	2.5	0.4	8.6	11.8	38.4	0.4	1.1	900

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.
ACT = Artemisinin-based combination therapy

11.2 ANAEMIA AND MALARIA PREVALENCE AMONG CHILDREN

Anaemia—a low level of haemoglobin in the blood—decreases the amount of oxygen reaching the tissues and organs of the body, thus reducing their capacity to function. It is associated with impaired cognitive and motor development in children. Although there are many causes of anaemia, inadequate intake of iron, folate, vitamin B12, or other nutrients usually accounts for the majority of cases in many populations. Malaria accounts for a significant proportion of anaemia in children under age 5 in malaria-endemic areas. Other causes of anaemia include thalassemia, sickle cell disease, and intestinal worms. Promotion of the use of insecticide-treated nets and deworming every six months for children under age 5 are important measures to reduce anaemia prevalence among children.

As mentioned previously, malaria is the leading cause of sickness and death among children under 5 in Tanzania. 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 takes a toll on the health of individuals by contributing to anaemia. Anaemia is a major cause of morbidity and mortality associated with malaria, making prevention and treatment of malaria among children and pregnant women very important.

All children age 6-59 months living in the households selected for the 2011-12 THMIS were eligible for haemoglobin and malaria testing. In the field, the HemoCue system was used to measure the concentration of haemoglobin in the blood, and the SD Bioline Malaria AG Pf/Pan rapid diagnostic test (RDT) was used to test for malaria. To detect the presence of malaria parasites, thick blood smears were also collected and were analyzed by microscopy in a lab. As shown in Table 11.3, of the 8,119 children age 6-59 months eligible for testing, 95 percent were tested for anaemia and 94 percent were tested for malaria by RDT. Additionally, 92 percent of the children were tested for malaria by microscopy. The coverage levels were uniformly high across background characteristics with one exception: only 7 in 10 children of mothers who were not interviewed but who were in the household were tested for anaemia and malaria.

Table 11.3 Coverage of testing for anaemia and malaria in children

Percentage of eligible children age 6-59 months who were tested for anaemia and for malaria, by background characteristics (unweighted), Tanzania 2011-12

Background characteristic	Percentage tested for: Anaemia	Malaria with RDT	Malaria by microscopy	Number of children eligible for testing
Age (in months)				
6-8	88.0	86.7	85.0	460
9-11	94.3	93.0	91.0	458
12-17	95.4	94.5	92.5	976
18-23	95.3	94.1	92.3	922
24-35	96.4	94.8	93.7	1,773
36-47	95.3	94.3	92.6	1,810
48-59	94.4	93.2	91.3	1,720
Sex				
Male	95.4	94.2	92.8	4,078
Female	94.4	93.2	91.3	4,041
Mother's interview status				
Interviewed	95.9	94.7	93.1	6,981
Not interviewed but in household	72.6	71.3	69.6	296
Not interviewed, and not in the household[1]	94.4	93.2	90.9	842
Residence				
Urban	92.8	91.8	89.6	1,193
Rural	95.2	94.0	92.4	6,926
Mainland/Zanzibar				
Mainland	94.7	93.4	92.8	7,109
Urban	92.4	91.3	90.6	962
Rural	95.0	93.7	93.1	6,147
Zanzibar	96.5	95.7	86.7	1,010
Unguja	97.5	96.1	89.1	562
Pemba	95.3	95.3	83.7	448
Zone				
Eastern	93.1	91.4	91.5	639
Western	95.6	93.3	92.8	746
Southern	93.0	91.5	93.0	316
Southern Highlands	91.4	90.0	91.2	617
Southwest Highlands	92.2	90.6	90.9	894
Central	97.0	96.0	91.6	835
Northern	94.3	94.3	94.8	632
Lake	96.0	94.9	94.0	2,430
Region				
Dodoma	96.7	93.4	75.5	212
Arusha	96.7	96.2	96.7	213
Kilimanjaro	92.1	92.1	92.1	164
Tanga	93.7	94.1	94.9	255
Morogoro	94.5	91.7	93.6	218
Pwani	92.8	90.7	91.2	194
Dar es Salaam	92.1	91.6	89.9	227
Lindi	94.9	92.9	93.6	156
Mtwara	91.3	90.0	92.5	160
Ruvuma	90.8	88.3	90.4	240
Iringa	89.3	88.1	89.3	168
Mbeya	91.7	89.7	91.7	242
Singida	98.4	98.0	98.4	305
Tabora	97.3	97.0	96.2	368
Rukwa	91.5	89.7	87.8	378
Kigoma	93.9	89.7	89.4	378
Shinyanga	96.5	95.8	94.4	287
Kagera	98.7	97.4	98.7	308
Mwanza	95.8	93.5	88.5	356
Mara	96.7	96.2	96.7	426
Manyara	95.9	95.9	95.9	318
Njombe	93.8	93.3	93.8	209
Katavi	93.4	92.7	94.5	274
Simiyu	90.8	89.5	89.7	447
Geita	97.9	97.2	95.9	606
Kaskazini Unguja	99.0	97.4	90.2	194
Kusini Unguja	98.9	97.8	98.9	179
Mjini Magharibi	94.7	93.1	78.8	189
Kaskazini Pemba	94.7	94.7	87.6	209
Kusini Pemba	95.8	95.8	80.3	239
Mother's education[2]				
No education	94.0	92.9	90.6	1,840
Primary incomplete	95.3	94.1	91.5	1,084
Primary complete	95.1	93.9	93.1	3,584
Secondary+	96.0	94.4	92.3	766
Wealth quintile				
Lowest	95.3	93.9	92.7	1,778
Second	95.8	94.3	93.7	1,780
Middle	94.3	93.3	90.8	1,776
Fourth	95.4	94.7	92.3	1,603
Highest	93.1	91.6	89.9	1,182
Total	94.9	93.7	92.0	8,119

Note: Total includes 3 cases for which information on mother's education is missing.
RDT = Rapid Diagnostic Test (SD Bioline Pf/Pan)
[1] Includes children whose mothers are deceased
[2] Excludes children whose mothers were not interviewed and not listed in the Household Questionnaire.

11.2.1 Anaemia Prevalence among Children

Table 11.4 shows the percentage of children age 6-59 months classified as having moderate to severe anaemia (haemoglobin concentration of less than 8.0 grams per decilitre) by background characteristics. A haemoglobin level below 8.0 g/dl is often associated with malaria infection in malaria-endemic regions. Six percent of Tanzanian children age 6-59 months have a haemoglobin level below 8.0 g/dl, indicating that anaemia is a critical public health problem in Tanzania. Haemoglobin concentrations below 8.0 g/dl are more prevalent in children age 6-35 months than in older children age 36-59 months. There is little variation in the proportion of children with haemoglobin concentrations below 8.0 g/dl when presented by sex and urban-rural residence, but large differences are observed among zones and regions. The prevalence of haemoglobin concentrations below 8.0 g/dl is highest in the Northern zone (9 percent). Among the three regions that make up Northern zone, the prevalence of haemoglobin concentrations below 8.0 g/dl varied widely: in Arusha and Tanga, it was well above the national average (16 and 10 percent, respectively). In contrast, in Kilimanjaro, the prevalence of anaemia was less than 1 percent.

Table 11.4 Haemoglobin <8.0 g/dl in children

Percentage of children age 6-59 months with haemoglobin lower than 8.0 g/dl, by background characteristics, Tanzania 2011-12

Background characteristic	Percent with haemoglobin < 8 g/dl	Number of children tested
Age (in months)		
6-8	9.1	412
9-11	7.4	408
12-17	8.5	927
18-23	6.5	842
24-35	6.2	1,668
36-47	3.8	1,707
48-59	3.2	1,534
Sex		
Male	6.0	3,777
Female	5.1	3,721
Mother's interview status		
Interviewed	5.7	6,559
Not interviewed but in household	5.5	205
Not interviewed, and not in the household[1]	4.7	734
Residence		
Urban	6.3	1,206
Rural	5.4	6,292
Mainland/Zanzibar		
Mainland	5.6	7,271
Urban	6.6	1,148
Rural	5.4	6,123
Zanzibar	4.1	227
Unguja	4.2	159
Pemba	3.8	68
Zone		
Eastern	7.7	752
Western	5.5	676
Southern	7.2	255
Southern Highlands	4.5	690
Southwest Highlands	3.1	778
Central	3.8	881
Northern	9.4	793
Lake	5.4	2,446
Region		
Dodoma	4.1	324
Arusha	15.9	225
Kilimanjaro	0.0	167
Tanga	9.6	401
Morogoro	5.3	245
Pwani	10.6	121
Dar es Salaam	8.4	386
Lindi	11.8	92
Mtwara	4.6	163
Ruvuma	6.2	404
Iringa	0.8	119
Mbeya	1.4	405
Singida	2.9	347
Tabora	3.5	367
Rukwa	7.1	185
Kigoma	7.8	309
Shinyanga	5.3	354
Kagera	3.2	408
Mwanza	7.7	448
Mara	9.6	392
Manyara	4.6	210
Njombe	2.9	167
Katavi	3.1	187
Simiyu	1.6	516
Geita	6.3	328
Kaskazini Unguja	8.7	26
Kusini Unguja	7.0	16
Mjini Magharibi	2.8	116
Kaskazini Pemba	4.9	33
Kusini Pemba	2.9	35
Mother's education[2]		
No education	7.3	1,687
Primary incomplete	6.6	903
Primary complete	4.8	3,618
Secondary+	5.1	553
Wealth quintile		
Lowest	8.0	1,764
Second	4.1	1,718
Middle	4.3	1,536
Fourth	4.7	1,340
Highest	6.7	1,140
Total	5.6	7,498

Note: Total includes 2 cases for which information on mother's education is missing. Table is based on children who stayed in the household the night before the interview. Haemoglobin levels are adjusted for altitude using CDC formulas (CDC, 1998). Haemoglobin is measured in grams per deciliter (g/dl).

[1] Includes children whose mothers are deceased

[2] Excludes children whose mothers were not interviewed and not listed in the Household Questionnaire

11.2.2 Malaria Prevalence among Children

Malaria prevalence among children age 6-59 months was measured in the 2011-12 THMIS in two ways (Table 11.5). In the field, interviewers/nurses used the SD Bioline Malaria AG Pf/Pan RDT to diagnose malaria from finger-prick blood samples. Children who tested positive for the presence of *P. falciparum* or other Plasmodium species by the RDT were screened by the interviewer/nurse for symptoms of complicated malaria. If the RDT-positive child presented symptoms indicative of severe malaria, the child was referred to a health facility. If the RDT-positive child did not show symptoms of complicated malaria, the parent or adult responsible for the child was offered treatment with ACT. In addition, interviewers prepared thick blood smears that were brought to Ifakara Health Institute – Bagamoyo site for microscopic examination in the laboratory.[2] Blood smears in which parasites were identified were classified as 'microscopy positives'.

Table 11.5 shows the results of both tests. Using the RDT, 9 percent of children age 6-59 months in Tanzania tested positive for malaria. Analysis of blood smears by microscopy revealed a lower prevalence: 4 percent of children age 6-59 months tested positive. Regardless of which diagnostic test was used, malaria prevalence increased gradually with age (see also Figure 11.1).The observed pattern of malaria prevalence by age differs from that of fever in the past two weeks and moderate to severe anaemia. For example, the prevalence of fever peaks among children age 12-23 months whereas the prevalence of haemoglobin concentration below 8.0 g/dl peaks among children 6-8 months and gradually declines with age. The most probable explanation for these different patterns is the contribution of causes of fever and anaemia other than malaria.

[2] All slides were read twice, first by any of 10 microscopists and then by 1 of these same 10 microscopists who did not know the result of the first reading (blinded). In the roughly 0.5 percent of cases with discordant results from these two readings, the slide was examined a third time by another blinded, independent reader.

Table 11.5 Prevalence of malaria in children

Percentage of children age 6-59 months classified in two tests as having malaria, by background characteristics, Tanzania 2011-12

Background characteristic	Malaria prevalence according to RDT		Malaria prevalence according to microscopy	
	RDT positive	Number of children tested	Microscopy positive	Number of children tested
Age (in months)				
6-8	3.5	405	2.1	400
9-11	5.1	401	1.9	400
12-17	6.4	917	2.2	906
18-23	8.9	831	4.0	821
24-35	9.7	1,641	4.4	1,632
36-47	10.7	1,687	4.9	1,668
48-59	11.7	1,516	5.2	1,494
Sex				
Male	9.2	3,724	4.1	3,694
Female	9.3	3,676	4.1	3,628
Mother's interview status				
Interviewed	8.8	6,479	4.0	6,418
Not interviewed but in household	14.3	200	5.9	198
Not interviewed, and not in the household[1]	11.7	720	4.2	706
Residence				
Urban	3.3	1,191	1.0	1,179
Rural	10.4	6,208	4.7	6,143
Mainland/Zanzibar				
Mainland	9.5	7,177	4.2	7,126
Urban	3.4	1,133	1.1	1,128
Rural	10.7	6,044	4.8	5,997
Zanzibar	0.2	222	0.4	197
Unguja	0.3	154	0.1	138
Pemba	0.0	68	1.0	59
Zone				
Eastern	7.7	740	3.6	741
Western	16.7	662	6.5	659
Southern	20.6	251	2.7	256
Southern Highlands	7.6	680	0.8	690
Southwest Highlands	2.7	762	1.4	775
Central	1.2	871	0.3	816
Northern	2.8	792	1.4	797
Lake	14.8	2,419	8.1	2,393
Region				
Dodoma	2.5	314	0.5	258
Arusha	0.0	223	0.0	225
Kilimanjaro	0.0	167	0.5	167
Tanga	5.6	402	2.5	405
Morogoro	13.0	238	6.9	242
Pwani	10.2	118	7.4	119
Dar es Salaam	3.6	385	0.3	379
Lindi	26.3	90	4.1	90
Mtwara	17.4	161	2.0	166
Ruvuma	12.0	395	0.8	403
Iringa	0.4	118	0.0	119
Mbeya	0.5	394	0.0	405
Singida	0.2	346	0.0	347
Tabora	9.2	366	3.8	363
Rukwa	4.5	182	0.0	179
Kigoma	26.0	296	9.9	296
Shinyanga	6.8	351	4.4	348
Kagera	8.3	404	5.5	408
Mwanza	18.6	439	5.4	419
Mara	25.4	389	14.4	392
Manyara	0.9	210	0.7	210
Njombe	2.4	167	1.4	167
Katavi	5.4	186	5.7	191
Simiyu	3.4	508	2.0	511
Geita	31.8	326	20.7	316
Kaskazini Unguja	0.0	26	0.0	24
Kusini Unguja	0.0	16	0.6	16
Mjini Magharibi	0.5	112	0.0	97
Kaskazini Pemba	0.0	33	0.0	30
Kusini Pemba	0.0	35	2.1	29
Mother's education[2]				
No education	11.1	1,664	6.1	1,647
Primary incomplete	11.2	892	5.2	876
Primary complete	8.3	3,578	3.3	3,555
Secondary+	3.5	542	1.5	536
Wealth quintile				
Lowest	12.6	1,738	5.3	1,722
Second	12.4	1,694	5.5	1,684
Middle	9.4	1,517	4.3	1,493
Fourth	7.3	1,331	3.6	1,304
Highest	1.3	1,119	0.6	1,119
Total	9.2	7,399	4.1	7,322

Note: Total includes 2 cases for which information on mother's education is missing.
[1] Includes children whose mothers are deceased
[2] Excludes children whose mothers were not interviewed and not listed in the Household Questionnaire

Figure 11.1 **Malaria prevalence among children 6-59 months by age of child, according to microscopy**

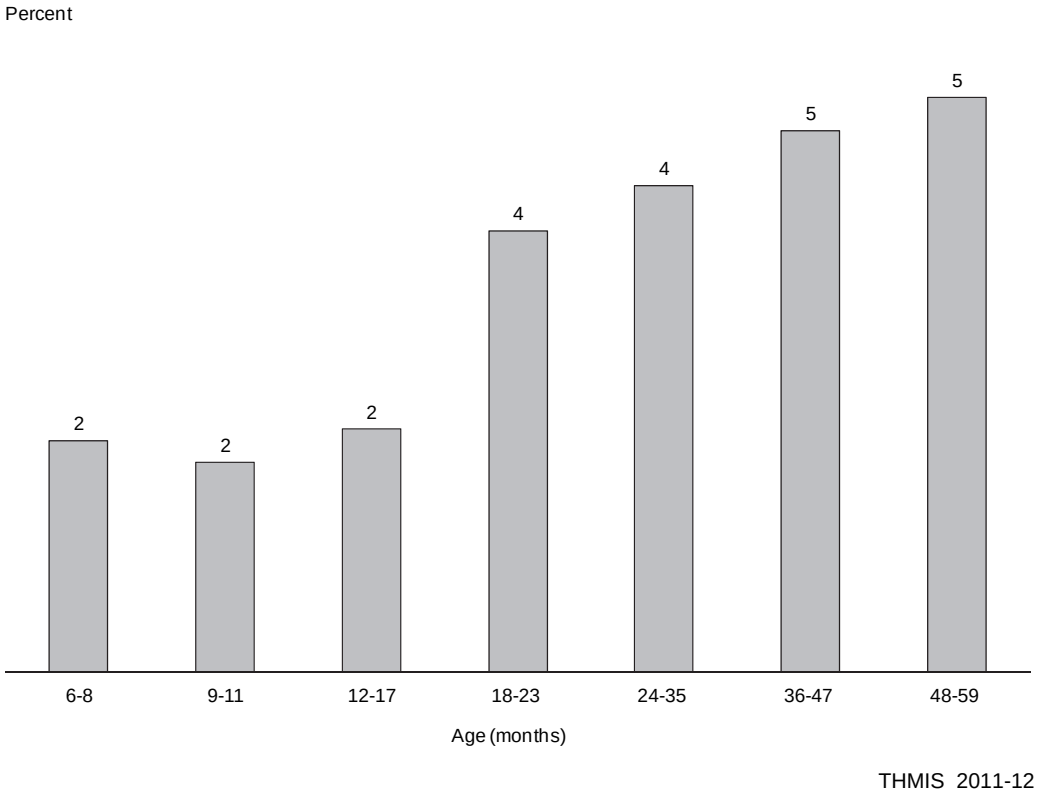
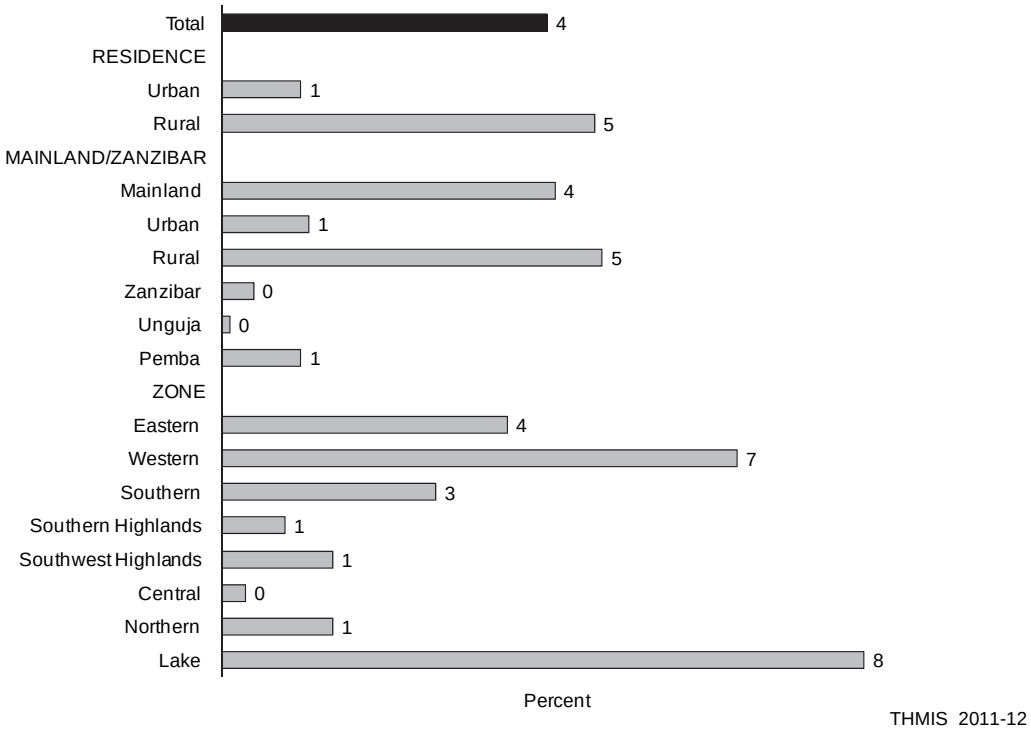


Figure 11.2 shows malaria prevalence estimates by residence and zone according to microscopy. Malaria prevalence is much higher in rural areas (5 percent) than in urban areas (1 percent). Among zones, malaria prevalence is highest in Lake and Western zones. Malaria prevalence decreases, in general, with the mother's education level and with increasing levels of household wealth (Table 11.5 and Figure 11.3).

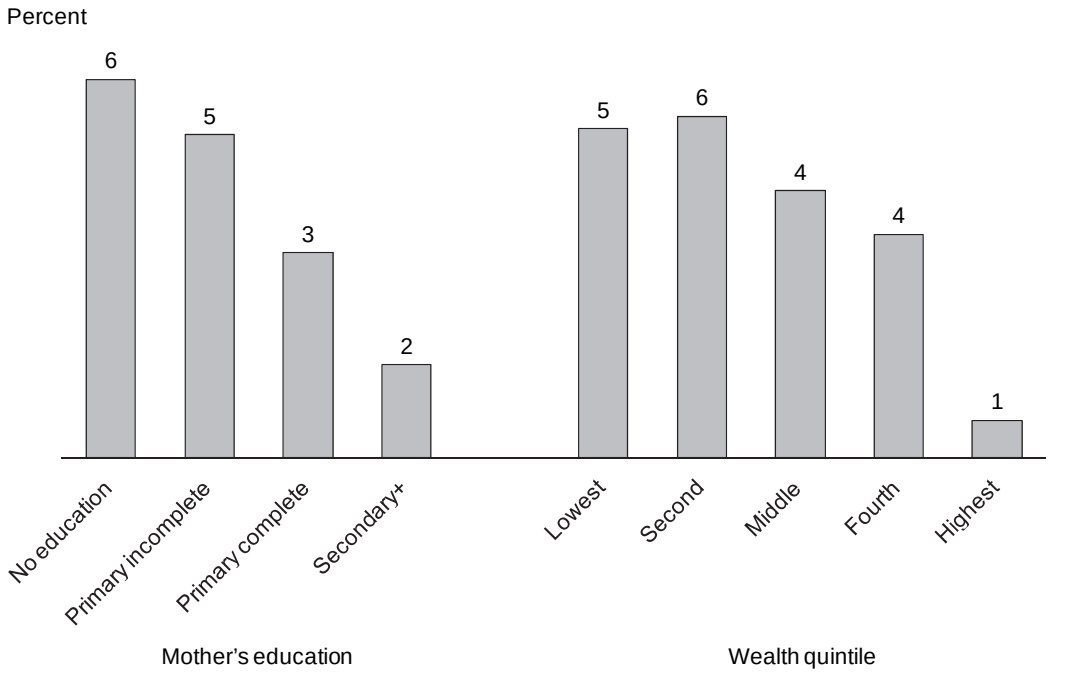
The differences in malaria prevalence observed between the SD Bioline Malaria AG Pf/Pan RDT and microscopy are not unexpected. Microscopic analysis of blood smears for malaria parasites has long been considered the gold standard of malaria diagnosis; when performed under optimal conditions, it is highly sensitive. For example, when a thick smear is read by an experienced microscopist, the detection limit is approximately 50 parasites per microlitre of blood. Many studies, however, have shown a much higher detection limit, resulting in a lower sensitivity (Moody, 2002). Under field conditions, thick smears are difficult to make. Moreover, extended exposure to heat and humidity naturally autofix the blood sample to the slide, which causes the slides to be more difficult to read. An external quality control analysis of a subsample of 835 field-prepared slides showed a larger proportion of the slides to be 'unreadable' (12 percent) than the proportion of slides deemed 'unreadable' in the primary reading (3 percent; data not shown). Unreadable slides were excluded from the malaria prevalence calculation.

Figure 11.2 **Malaria prevalence among children 6-59 months by residence and zone, according to microscopy**



THMIS 2011-12

Figure 11.3 **Malaria prevalence among children age 15-49 months by mother's education and wealth quintile, according to microscopy**



THMIS 2011-12

In comparison with microscopy performed under ideal conditions, RDTs have the advantage of being quick and easy to use, but they can be less sensitive. The SD Bioline Malaria AG Pf/Pan RDT, however, is very sensitive.[3] Like many other commercially available RDTs, the SD Bioline Malaria AG Pf/Pan RDT detects the HRP-2 protein of *P. falciparum* and the pLDH protein of Plasmodium species rather than the parasite itself. Because HRP-2 remains in the blood for up to a month following parasite clearance with antimalarials, in areas highly endemic for *P. falciparum* malaria, its persistence could account for the observation that a higher malaria prevalence was detected using RDTs than with microscopy.

In the 2007-08 THMIS, malaria prevalence was also measured among children 6-59 months. At that time, the overall prevalence of malaria among children age 6-59 months was 18 percent. However, key differences between the 2007-08 THMIS and the 2011-12 THMIS complicate trend analysis. First, malaria prevalence in the two surveys was measured by different parameters. The 2007-08 THMIS used RDTs to measure malaria prevalence; in contrast the 2011-12 THMIS measured malaria prevalence by both RDT and microscopy analysis of thick blood smears. Second, the RDT used in the 2007-08 THMIS was the Paracheck Pf™ rather than the SD Bioline Malaria Ag Pf/Pan RDT used in the 2011-12 THMIS. These two RDTs do not detect exactly the same antigens; whereas Paracheck Pf detects a single *P. falciparum*-specific antigen, SD Bioline Malaria Ag Pf/Pan RDT detects both the *P. falciparum* specific antigen and an antigen found in three other human-infecting Plasmodium species. In addition, the sensitivity and specificity of the Paracheck Pf™ and SD Bioline Malaria Ag Pf/Pan RDTs differ. Third, in many places in Tanzania, malaria transmission is seasonal with peak transmission occurring after the start of the long rains; the timing of the 2007-08 THMIS and 2011-12 THMIS was not identical. Specifically, the 2007-08 THMIS was fielded between mid-October 2007 and mid-February 2008 whereas the 2011-12 THMIS was fielded between mid-December 2011 and mid-May 2012. Due to the differences between the two surveys' methodology and implementation, caution should be used when comparing malaria prevalence estimates from these two surveys.

[3] The SD Bioline Malaria AG Pf/Pan RDT was recently evaluated by WHO (WHO, 2011). In samples with high parasitemia, the test's detection rate was nearly 100 percent; in samples with low parasitemia, the detection rate was similar.

MALARIA KNOWLEDGE AND COMMUNICATION 12

Key Findings

- Seventy-eight percent of women and 70 percent of men reported fever as a sign or symptom of malaria in a young child.
- Knowledge that malaria can be prevented is nearly universal. Among both women and men who know that it can be prevented, 98 percent cited sleeping under mosquito net as a way to avoid malaria.
- Eighty-four percent of women and 93 percent of men have heard either the message 'Malaria Haikubaliki' or 'Maliza Malaria' in the past year.
- Among women and men in the Mainland, over 8 in 10 have heard of *Hati Punguzo*, the voucher programme for insecticide-treated nets (ITNs) for pregnant women and infants.
- Among women on the Mainland who had a live birth in the past five years and who received antenatal care (ANC), 63 percent received a *Hati Punguzo* voucher; among women who received a *Hati Punguzo* voucher, just over half received it at their first ANC visit.

Behaviour Change Communication (BCC) and Information Education and Communication (IEC) are essential in effective implementation of the National Malaria Control Programme's (NMCP) technical strategies. Effective communication not only promotes positive behaviour for prevention and control of malaria, but also creates demand, whereby communities can make informed choices that will result in improved health and more effective services.

The NMCP Communication Strategy for Malaria Control Interventions 2008-2013 (MoHSW, 2010) was developed to support the two core strategies that were identified in the malaria prevention and treatment section of the National Malaria Medium Term Strategic Plan 2008-2013 (MoHSW, 2009). First, NMCP communication strategy aims to change behaviours at various levels, including political, service delivery, community, and individual levels. Second, the NMCP communication strategy aims to reduce the burden of malaria by 80 percent, by the end of 2013.

This chapter addresses the BCC component of malaria control in Tanzania. It presents information regarding the basic knowledge and awareness of malaria, malaria prevention, and malaria treatment among women and men age 15-49. The findings presented here can be used to assess the success of NMCP's BCC programmes.

12.1 RECOGNITION OF MALARIA AS A SERIOUS HEALTH PROBLEM

In Tanzania, most malaria is caused by infection with *Plasmodium falciparum*. In the absence of treatment, *P. falciparum* malaria can rapidly progress from uncomplicated malaria to severe, life-threatening malaria. Because of the high mortality associated with malaria, particularly among children, malaria is recognized by the government as among the most serious health problems facing Tanzania. To gauge respondents' awareness of the extent of the problem of malaria in Tanzania, all women and men age 15-49 were asked to name the most serious health problem in their community. Results are presented in Tables 12.1.1 and 12.1.2 for women and men, respectively.

Sixty-six percent of women and 73 percent of men reported malaria as the most serious health problem in their community. Eight percent of women and 9 percent of men stated that HIV was the most important health problem in their community. With the exception of women and men living in Zanzibar, the belief that malaria is the most serious health problem in the community varied only moderately by background characteristic for both women and men. However, given that the respondents knew that they were being interviewed for a survey that focused on malaria and HIV, the possibility that respondents' responses were influenced by the subject matter of the survey cannot be ruled out.

Table 12.1.1 Most serious health problem in community: Women

Among women age 15-49, the percent distribution of those who believe that malaria, HIV/AIDS, or other health issues is the most serious health problem in their community, by background characteristics, Tanzania 2011-12

Background characteristic	Most serious health problem in community:				Total	Number of women
	Malaria	HIV/AIDS	Other	Don't know		
Age						
15-19	58.3	10.1	14.2	17.4	100.0	2,414
20-24	67.1	7.3	15.2	10.4	100.0	1,888
25-29	68.4	6.2	16.3	9.1	100.0	1,902
30-34	67.6	7.6	16.5	8.3	100.0	1,497
35-39	67.9	7.3	17.1	7.7	100.0	1,435
40-44	68.9	9.4	14.8	6.9	100.0	1,023
45-49	65.3	11.6	14.7	8.4	100.0	808
Residence						
Urban	71.9	7.8	9.4	10.9	100.0	2,956
Rural	63.3	8.4	17.8	10.5	100.0	8,011
Mainland/Zanzibar						
Mainland	67.4	8.4	14.6	9.6	100.0	10,576
Urban	74.0	7.8	8.4	9.8	100.0	2,834
Rural	65.0	8.6	16.9	9.5	100.0	7,742
Zanzibar	16.9	5.1	38.7	39.3	100.0	391
Unguja	21.0	6.7	41.1	31.1	100.0	298
Pemba	3.5	0.0	30.9	65.5	100.0	93
Zone						
Eastern	79.2	4.8	6.3	9.7	100.0	1,696
Western	74.4	8.8	10.1	6.7	100.0	890
Southern	80.9	1.9	12.5	4.7	100.0	557
Southern Highlands	58.8	12.6	18.3	10.3	100.0	1,155
Southwest Highlands	51.5	17.1	24.7	6.7	100.0	1,101
Central	66.9	5.5	19.8	7.8	100.0	1,100
Northern	70.5	4.8	12.7	12.0	100.0	1,281
Lake	63.9	9.4	15.0	11.8	100.0	2,797
Education						
No education	60.7	6.7	17.8	14.8	100.0	1,955
Primary incomplete	62.1	8.5	16.6	12.8	100.0	1,380
Primary complete	68.1	9.1	14.7	8.0	100.0	5,713
Secondary+	65.5	7.2	14.6	12.7	100.0	1,919
Wealth quintile						
Lowest	66.0	6.3	17.7	10.1	100.0	1,864
Second	64.1	8.1	18.3	9.5	100.0	1,974
Middle	63.4	10.1	17.2	9.3	100.0	1,977
Fourth	64.1	10.1	15.1	10.7	100.0	2,257
Highest	69.0	7.1	11.3	12.5	100.0	2,895
Total	65.6	8.3	15.5	10.6	100.0	10,967

Note: Total includes 1 case for which information on the most serious health problem in the community is missing.

Table 12.1.2 Most serious health problem in community: Men

Among men age 15-49, the percent distribution of those who believe that malaria, HIV/AIDS, or another health issue is the most serious health problem in their community, by background characteristics, Tanzania 2011-12

Background characteristic	Most serious health problem in community:				Total	Number of men
	Malaria	HIV/AIDS	Other	Don't know		
Age						
15-19	65.5	10.1	12.3	12.0	100.0	2,012
20-24	69.1	9.7	12.3	8.9	100.0	1,525
25-29	73.4	8.1	12.2	6.3	100.0	1,116
30-34	76.8	8.8	9.8	4.6	100.0	1,064
35-39	80.2	7.9	7.6	4.3	100.0	1,064
40-44	79.8	7.4	8.9	3.9	100.0	913
45-49	76.2	9.1	10.7	4.1	100.0	658
Residence						
Urban	78.3	6.4	7.6	7.7	100.0	2,142
Rural	71.1	9.8	12.0	7.1	100.0	6,210
Mainland/Zanzibar						
Mainland	74.5	9.1	9.6	6.7	100.0	8,079
Urban	80.2	6.6	6.3	7.0	100.0	2,066
Rural	72.6	10.0	10.8	6.6	100.0	6,013
Zanzibar	24.8	3.5	47.3	24.4	100.0	273
Unguja	19.8	4.4	50.3	25.4	100.0	204
Pemba	39.7	0.9	38.3	21.2	100.0	69
Zone						
Eastern	85.3	3.4	4.3	6.9	100.0	1,363
Western	80.3	8.9	7.0	3.8	100.0	736
Southern	80.1	3.6	10.4	5.9	100.0	371
Southern Highlands	70.3	20.0	6.2	3.5	100.0	818
Southwest Highlands	60.4	16.0	16.3	7.3	100.0	851
Central	76.8	3.6	14.3	5.3	100.0	908
Northern	78.4	3.8	8.4	9.1	100.0	855
Lake	69.6	11.3	10.9	8.2	100.0	2,178
Education						
No education	68.8	6.8	12.6	11.7	100.0	776
Primary incomplete	66.4	10.0	12.4	11.2	100.0	1,338
Primary complete	76.3	9.0	9.1	5.5	100.0	4,264
Secondary+	71.6	8.9	12.9	6.6	100.0	1,974
Wealth quintile						
Lowest	72.6	7.2	13.4	6.8	100.0	1,358
Second	72.8	9.9	10.8	6.6	100.0	1,532
Middle	72.3	9.4	11.7	6.6	100.0	1,590
Fourth	70.6	11.2	11.5	6.6	100.0	1,749
Highest	75.6	7.1	8.2	9.1	100.0	2,123
Total	72.9	8.9	10.9	7.2	100.0	8,352

Note: Total includes 2 cases for which information on the most serious health problem in the community is missing.

12.2 KNOWLEDGE OF MALARIA SIGNS OR SYMPTOMS

If not treated promptly, the health of a child with malaria can quickly deteriorate. For this reason, knowledge of the signs and symptoms of malaria in young children is vital, and combating low awareness of signs and symptoms of malaria is a priority of NMCP. Although there are a variety of symptoms caused by malaria, fever is the most common and should be recognized by caregivers as possibly being the result of malaria. All children under age 5 with fever should be tested for malaria and, for those who are infected, treated within 24 hours of the onset of fever.

The 2011-12 THMIS respondents were asked to name the signs or symptoms of malaria in a young child. Results are presented in Tables 12.2.1 and 12.2.2 for women and men age 15-49, respectively. Fever is the most recognized specific malaria symptom in a young child to both women (78 percent) and men (70 percent). Although the exact proportions differ, vomiting, diarrhoea, weakness and poor appetite were cited by between 18 and 39 percent of women and men.

The lowest percentages of women reporting fever as a sign or symptom of malaria were those age 15-19 (57 percent) and those living in Pemba (53 percent). Similarly, only 57 percent of men age 15-19 and only 42 percent of men from Pemba reported fever as a sign or symptom of malaria.

Table 12.2.1 Knowledge of malaria symptoms: Women

Among women age 15-49, the percentage who reported specific signs or symptoms of malaria in a young child, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of women who reported specific signs or symptoms of malaria in a young child:													Number of women
	Fever	Feeling cold/chills	Perspiration/ sweating	Headache	Body aches	Poor appetite	Vomiting	Diarrhoea	Weakness	Coughing	Convulsions	Other	Does not know any	
Age														
15-19	57.3	9.5	2.6	19.8	4.3	14.2	27.8	15.1	21.6	7.6	3.4	12.2	19.5	2,414
20-24	75.9	10.2	3.3	14.4	4.1	21.6	39.7	23.2	25.5	10.8	6.5	14.6	7.4	1,888
25-29	85.3	11.1	3.2	15.0	4.3	23.5	40.1	23.4	24.8	12.6	9.1	15.7	2.9	1,902
30-34	87.5	11.6	3.4	15.9	3.9	24.3	44.7	27.3	23.3	14.2	8.6	16.8	2.9	1,497
35-39	87.6	12.3	3.4	14.9	2.8	19.8	44.1	29.4	20.0	12.9	12.1	15.5	3.1	1,435
40-44	85.8	14.0	3.0	17.8	4.8	22.5	43.8	27.5	20.5	14.4	16.9	17.3	2.6	1,023
45-49	86.5	14.4	2.9	21.5	6.7	17.3	40.0	25.8	21.2	12.3	11.4	18.8	3.0	808
Residence														
Urban	80.0	9.7	4.6	20.8	5.7	28.3	45.9	25.3	27.6	8.8	7.8	14.0	5.7	2,956
Rural	77.6	11.9	2.5	15.3	3.7	17.2	36.2	22.7	20.9	12.6	8.9	15.7	7.9	8,011
Mainland/Zanzibar														
Mainland	78.5	11.3	3.1	16.5	4.2	20.1	39.1	23.4	22.3	11.6	8.7	15.6	7.3	10,576
Urban	80.3	9.8	4.5	20.6	5.7	28.6	46.1	25.0	27.2	8.7	7.9	14.4	5.8	2,834
Rural	77.9	11.8	2.5	15.0	3.6	17.0	36.5	22.7	20.5	12.7	9.0	16.0	7.8	7,742
Zanzibar	71.2	12.7	3.7	25.3	6.2	23.8	32.1	24.9	34.7	11.5	5.5	6.7	9.2	391
Unguja	77.0	14.4	4.6	28.8	7.7	27.5	33.5	25.4	41.1	12.0	6.1	6.9	2.2	298
Pemba	52.6	7.1	1.1	13.9	1.2	11.7	27.5	23.4	14.3	10.1	3.8	6.0	31.7	93
Zone														
Eastern	81.9	8.1	2.7	25.2	8.5	31.5	43.7	23.9	28.4	10.2	7.1	17.3	4.6	1,696
Western	83.0	9.7	2.6	10.2	2.4	16.4	37.5	17.4	22.1	8.0	10.9	18.5	8.0	890
Southern	77.4	13.9	6.6	20.7	6.7	25.7	52.6	21.2	33.2	7.0	14.0	20.1	5.4	557
Southern Highlands	76.5	9.5	0.9	14.1	1.3	22.3	47.8	26.1	24.4	10.2	10.4	14.2	7.8	1,155
Southwest Highlands	73.5	11.2	2.1	18.5	2.4	13.5	27.2	20.4	18.2	9.6	11.2	11.6	14.1	1,101
Central	87.7	10.0	2.7	14.9	5.2	18.7	44.1	33.1	23.6	12.4	11.2	11.8	2.7	1,100
Northern	81.0	12.9	4.5	22.5	5.8	24.3	45.1	22.1	19.7	10.0	6.3	12.1	5.9	1,281
Lake	73.3	13.7	3.5	10.4	2.3	13.4	30.4	22.0	17.8	16.2	6.5	17.9	8.5	2,797
Education														
No education	81.0	10.1	3.0	11.7	3.5	12.8	29.0	20.1	17.3	13.2	9.6	15.7	7.9	1,955
Primary incomplete	74.4	11.0	1.8	13.7	4.6	15.6	32.6	20.3	20.9	11.2	10.0	17.0	10.8	1,380
Primary complete	79.6	11.5	3.1	16.1	3.8	21.0	41.6	25.5	22.7	12.0	8.6	15.3	6.5	5,713
Secondary+	74.1	12.4	3.9	26.3	6.1	28.6	45.1	22.7	29.7	9.1	6.8	13.5	6.6	1,919
Wealth quintile														
Lowest	78.5	11.1	2.2	12.3	3.2	14.2	34.9	25.1	18.9	13.6	9.8	16.8	8.5	1,864
Second	78.4	12.3	2.7	14.0	3.3	14.4	32.6	22.0	19.4	13.9	9.3	16.1	8.2	1,974
Middle	75.0	11.3	3.4	13.4	3.1	15.9	36.3	21.5	19.6	12.5	9.6	17.0	9.3	1,977
Fourth	79.0	10.9	3.3	17.3	3.6	21.4	42.4	23.0	23.4	9.2	7.8	12.6	6.6	2,257
Highest	79.6	11.1	3.5	23.6	6.8	30.1	44.6	25.0	29.1	10.0	7.3	14.6	5.2	2,895
Total	78.3	11.3	3.1	16.8	4.2	20.2	38.8	23.4	22.7	11.6	8.6	15.3	7.3	10,967

Note: Percentages may add to more than 100 since multiple responses were allowed.

Table 12.2.2 Knowledge of malaria symptoms: Men

Among men age 15-49, the percentage who reported specific signs or symptoms of malaria in a young child, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage of men who reported specific signs or symptoms of malaria in a young child:													Number of men
	Fever	Feeling cold/chills	Perspiration/ sweating	Headache	Body aches	Poor appetite	Vomiting	Diarrhoea	Weakness	Coughing	Convulsions	Other	Does not know any	
Age														
15-19	56.7	12.6	2.4	19.7	7.1	18.1	28.0	14.6	26.4	5.3	2.7	10.4	25.8	2,012
20-24	60.6	13.3	3.9	18.5	6.2	23.5	27.3	14.2	31.8	5.1	4.1	12.8	21.8	1,525
25-29	70.3	13.4	5.2	15.3	6.1	27.1	31.2	18.5	34.4	9.5	6.1	13.3	14.6	1,116
30-34	78.1	11.4	3.1	13.3	6.5	28.1	35.0	17.9	34.5	8.6	7.5	13.7	11.2	1,064
35-39	80.3	13.1	4.6	15.0	5.9	25.2	37.1	20.5	34.1	9.9	7.6	13.3	8.5	1,064
40-44	81.9	13.4	3.2	17.0	7.9	25.8	40.0	22.4	35.3	8.0	8.8	14.6	8.4	913
45-49	80.8	17.0	3.4	15.7	5.9	29.5	34.0	20.7	31.0	10.0	9.3	17.3	9.1	658
Residence														
Urban	75.0	12.2	3.6	21.0	8.7	34.4	34.8	15.7	39.7	5.3	3.3	11.1	12.4	2,142
Rural	67.8	13.5	3.6	15.4	5.8	20.7	31.2	18.2	29.1	8.2	6.7	13.7	17.6	6,210
Mainland/Zanzibar														
Mainland	69.7	13.2	3.6	16.9	6.7	24.2	31.9	17.4	32.0	7.5	6.0	13.3	16.0	8,079
Urban	75.0	12.2	3.6	20.7	8.9	34.6	34.4	15.5	39.8	5.2	3.4	11.4	12.3	2,066
Rural	67.9	13.5	3.6	15.6	5.9	20.6	31.1	18.1	29.3	8.3	6.8	14.0	17.2	6,013
Zanzibar	65.6	12.9	2.3	16.4	3.7	24.9	38.5	20.9	26.3	6.7	1.9	3.4	26.4	273
Unguja	73.6	14.3	1.3	19.6	4.4	30.6	45.7	22.8	31.5	5.4	1.9	3.6	18.0	204
Pemba	41.7	8.9	5.4	6.7	1.6	8.1	17.2	15.3	10.6	10.4	1.9	2.9	51.3	69
Zone														
Eastern	76.9	10.9	2.7	19.6	8.8	34.7	34.8	14.7	39.9	4.0	3.3	14.4	14.6	1,363
Western	77.5	8.1	1.4	18.7	9.8	26.5	39.4	19.0	28.2	5.7	10.5	8.3	16.8	736
Southern	67.1	11.4	4.1	20.0	2.8	19.9	29.9	12.4	27.2	3.1	4.2	24.5	6.8	371
Southern Highlands	73.3	15.3	3.0	16.3	2.2	30.8	52.4	31.0	49.1	8.0	15.0	4.8	12.0	818
Southwest Highlands	69.2	18.0	10.5	11.6	5.2	17.5	27.2	17.4	20.8	7.4	7.2	13.3	18.2	851
Central	61.2	11.0	2.8	17.1	5.9	17.2	31.4	18.0	23.3	8.5	3.7	10.1	21.1	908
Northern	66.0	11.8	1.5	11.9	3.7	30.0	27.1	13.3	36.7	8.7	2.1	15.4	20.4	855
Lake	67.0	15.4	3.6	18.1	8.6	18.4	24.2	15.7	28.8	10.1	5.0	16.2	14.9	2,178
Education														
No education	60.0	9.9	3.6	13.3	7.5	14.4	19.4	12.8	23.7	9.8	3.5	11.6	24.6	776
Primary incomplete	61.2	11.9	3.0	13.5	5.0	17.2	24.2	14.5	25.7	7.0	4.3	12.9	24.5	1,338
Primary complete	71.0	13.6	3.2	15.3	6.3	22.9	32.5	17.3	31.9	7.9	6.6	13.6	15.4	4,264
Secondary+	76.0	14.4	4.8	23.9	7.7	35.6	41.8	21.9	38.9	6.1	6.1	12.4	9.5	1,974
Wealth quintile														
Lowest	62.4	12.3	4.2	13.8	5.9	15.6	23.8	15.3	20.7	10.0	5.5	15.9	21.1	1,358
Second	67.5	14.1	3.5	15.4	6.6	17.9	28.0	15.2	28.8	7.4	6.3	13.4	18.1	1,532
Middle	67.0	15.0	3.5	14.6	5.4	21.3	32.8	17.9	31.7	8.3	7.6	11.8	17.5	1,590
Fourth	69.5	12.6	3.3	17.3	6.3	25.4	35.6	22.1	33.7	7.7	6.4	13.5	16.0	1,749
Highest	77.8	12.1	3.5	21.1	8.0	35.5	37.1	16.7	39.5	5.2	3.9	11.5	11.3	2,123
Total	69.6	13.2	3.6	16.8	6.6	24.2	32.1	17.5	31.8	7.5	5.8	13.0	16.3	8,352

Note: Percentages may add to more than 100 since multiple responses were allowed.

12.3 KNOWLEDGE OF WAYS TO AVOID MALARIA

Increasing community awareness on the importance of integrated malaria vector control is a priority of the NMCP Communication Strategy. Combinations of interventions such as the use of insecticide-treated nets (ITNs) by household members, maintaining a clean environment around the dwelling (for example, by removing items that could hold water and inadvertently serve as mosquito breeding sites), and intermittent preventive treatment (IPTp) for pregnant women increase the likelihood of malaria prevention and control in the community.

Knowledge of ways to avoid malaria is an important trigger to behavioural change. Women and men and were asked if there were ways to avoid getting malaria, and if so, they were asked to cite them. The results are presented in Tables 12.3.1 and 12.3.2, for women and men age 15-49, respectively.

Ninety-two percent of women and 96 percent of men know that there are ways to avoid malaria. Among women and men who say that there are ways to avoid malaria, the most commonly cited way is sleeping under a mosquito net (98 percent of women and men). Keeping surroundings clean (21 percent of women and 33 percent of men), removing standing water (12 percent of women and 20 percent of men), cutting the grass (10 percent of women and 15 percent of men), and indoor residual spraying (7 percent of women and 15 percent of men) are the next most commonly cited ways of avoiding malaria. Only 4 percent of women and 2 percent of men mentioned IPTp as a way to avoid malaria.

Table 12.3.1 Knowledge of ways to avoid malaria: Women

Among women age 15-49, the percentage who say there are ways to avoid getting malaria, and among those, the percentage who cite specific ways of avoiding malaria, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage who say there are ways to avoid malaria	Number of women	Among women who say there are ways to avoid getting malaria, percentage who cite specific ways to avoid malaria: Sleep under mosquito net	Use mosquito coils	Use insecticide spray	Indoor residual spraying (IRS)	Keep door and windows closed	Use insect repellent	Keep surround-ings clean	Cut the grass	Remove standing water	Intermittent preventive treatment during pregnancy (IPTp)	Other	Does not know any	Number of women
Age															
15-19	89.1	2,414	97.3	3.6	2.2	5.2	1.1	1.6	24.5	12.4	15.3	2.4	3.9	0.4	2,151
20-24	91.8	1,888	97.8	3.9	4.7	6.7	2.4	2.7	21.6	10.1	12.4	5.2	4.2	0.2	1,733
25-29	94.1	1,902	98.0	4.2	5.1	7.7	1.5	1.5	19.8	10.2	14.1	3.9	3.0	0.3	1,790
30-34	94.0	1,497	98.8	5.8	4.9	7.7	2.5	1.9	20.8	8.6	10.7	3.8	4.7	0.2	1,407
35-39	92.7	1,435	97.8	4.1	1.8	7.2	1.8	1.5	18.2	6.8	8.4	4.9	4.5	0.2	1,330
40-44	91.5	1,023	97.5	7.2	4.0	7.9	2.4	2.0	19.7	9.1	10.3	4.8	5.9	0.7	935
45-49	93.5	808	97.5	4.7	2.3	6.2	1.8	2.2	19.3	8.4	8.7	5.9	7.5	0.0	755
Residence															
Urban	97.3	2,956	98.4	8.7	7.5	12.7	3.2	3.4	30.2	14.0	20.2	4.7	5.2	0.2	2,877
Rural	90.2	8,011	97.6	2.9	2.1	4.5	1.3	1.3	17.3	8.0	8.8	4.0	4.1	0.3	7,224
Mainland/Zanzibar															
Mainland	91.9	10,576	97.9	4.4	3.5	6.3	1.8	1.7	20.1	9.6	11.6	4.2	4.4	0.3	9,724
Urban	97.2	2,834	98.4	8.8	7.3	12.4	3.1	3.0	29.7	14.0	19.8	4.8	5.2	0.2	2,756
Rural	90.0	7,742	97.7	2.7	2.0	3.9	1.2	1.1	16.4	7.9	8.4	4.0	4.1	0.3	6,968
Zanzibar	96.5	391	95.8	7.4	7.8	20.1	4.6	7.5	42.7	13.3	23.9	3.5	4.7	0.3	377
Unguja	98.0	298	95.4	7.9	9.1	21.8	5.4	9.3	45.2	16.4	28.5	4.1	5.7	0.2	292
Pemba	91.8	93	97.0	5.9	3.4	14.2	1.7	1.6	34.2	2.9	8.2	1.5	1.5	0.6	85
Zone															
Eastern	97.3	1,696	99.1	7.6	7.4	15.2	3.0	2.8	36.2	16.2	24.5	5.7	5.2	0.0	1,651
Western	90.5	890	98.3	3.3	1.6	2.8	1.0	0.5	13.9	5.7	5.7	4.1	4.2	0.8	806
Southern	94.9	557	96.9	1.3	7.3	7.4	3.6	2.2	42.4	23.9	24.8	9.6	3.4	0.0	528
Southern Highlands	93.0	1,155	96.8	1.5	2.1	2.2	1.0	2.2	24.3	7.0	14.3	2.4	9.2	0.3	1,074
Southwest Highlands	90.9	1,101	98.1	3.7	1.9	4.1	0.6	1.6	15.3	7.6	9.0	2.6	3.5	0.2	1,000
Central	89.2	1,100	99.0	5.8	1.6	3.3	1.1	0.5	21.8	11.9	8.2	3.3	3.5	0.3	981
Northern	89.5	1,281	96.4	9.4	1.6	4.4	1.7	1.9	15.8	10.1	8.9	3.9	5.5	0.2	1,147
Lake	90.7	2,797	97.9	2.2	3.5	6.0	1.9	1.3	8.5	4.4	4.7	4.0	2.4	0.4	2,536
Education															
No education	80.9	1,955	97.3	1.8	2.8	2.4	1.1	1.0	8.4	2.7	2.8	3.5	3.3	0.5	1,581
Primary incomplete	87.2	1,380	96.4	3.0	2.1	4.4	1.9	1.3	12.4	5.0	4.9	5.2	3.6	0.4	1,204
Primary complete	94.8	5,713	98.2	4.6	3.0	6.0	1.8	1.6	19.8	8.7	10.7	4.0	4.3	0.3	5,416
Secondary+	99.0	1,919	98.1	7.8	7.1	14.3	2.6	3.8	40.3	21.6	28.2	4.5	6.3	0.1	1,900
Wealth quintile															
Lowest	85.2	1,864	97.0	1.4	1.9	1.2	1.0	0.9	12.5	5.3	3.8	4.4	4.2	0.5	1,587
Second	88.3	1,974	97.2	2.1	2.1	3.2	1.1	1.2	12.5	5.1	6.5	3.4	2.7	0.4	1,743
Middle	90.7	1,977	97.5	2.7	1.4	3.2	1.2	0.6	15.9	7.7	6.7	4.8	4.5	0.2	1,794
Fourth	94.9	2,257	97.8	3.6	3.3	5.2	1.5	1.4	21.5	9.2	11.8	3.5	4.2	0.4	2,141
Highest	97.9	2,895	98.9	9.7	7.2	15.7	3.5	4.0	33.8	16.7	23.7	4.6	5.8	0.0	2,835
Total	92.1	10,967	97.8	4.5	3.7	6.8	1.9	1.9	21.0	9.7	12.1	4.2	4.4	0.3	10,101

Note: Percentages may add to more than 100 since multiple responses were allowed.

Table 12.3.2 Knowledge of ways to avoid malaria: Men

Among men age 15-49, the percentage who say there are ways to avoid getting malaria, and among those, the percentage who cite specific ways of avoiding malaria, by background characteristics, Tanzania 2011-12

Background characteristic	Percentage who say there are ways to avoid malaria	Number of men	Among men who say there are ways to avoid getting malaria, percentage who cite specific ways to avoid malaria: Sleep under mosquito net	Use mosquito coils	Use insecticide spray	Indoor residual spraying (IRS)	Keep door and windows closed	Use insect repellent	Keep surround-ings clean	Cut the grass	Remove standing water	Intermittent preventive treatment during pregnancy (IPTp)	Other	Does not know any	Number of men
Age															
15-19	92.7	2,012	98.2	4.4	6.6	12.9	0.9	2.2	34.7	19.3	22.8	2.1	3.5	0.6	1,866
20-24	96.5	1,525	98.7	5.0	7.8	12.6	1.2	1.7	40.7	21.1	26.0	1.3	3.2	0.2	1,472
25-29	96.3	1,116	99.0	6.5	7.8	16.2	1.6	1.6	30.3	12.2	17.8	1.4	3.9	0.2	1,075
30-34	96.4	1,064	98.0	6.0	7.6	17.6	1.5	1.7	28.5	12.3	17.1	1.5	4.4	0.3	1,026
35-39	96.2	1,064	98.5	4.3	8.8	17.7	1.6	1.8	28.8	9.7	18.6	1.2	4.2	0.6	1,023
40-44	96.0	913	98.0	4.6	6.3	12.5	1.6	1.7	30.7	11.8	17.2	2.8	5.6	0.3	876
45-49	96.5	658	97.7	5.6	6.5	16.1	0.7	1.0	30.1	9.9	17.1	2.2	6.1	0.6	635
Residence															
Urban	98.9	2,142	99.0	6.8	9.5	24.5	2.0	2.3	46.9	23.8	33.1	1.4	4.0	0.2	2,118
Rural	94.3	6,210	98.1	4.5	6.6	11.2	1.0	1.6	27.7	11.7	15.8	1.9	4.2	0.5	5,855
Mainland/Zanzibar															
Mainland	95.4	8,079	98.4	5.1	7.4	14.4	1.3	1.8	31.9	15.0	20.1	1.8	4.1	0.4	7,710
Urban	98.9	2,066	99.1	6.8	9.5	24.3	2.0	2.3	46.3	23.9	32.5	1.5	3.8	0.2	2,043
Rural	94.2	6,013	98.2	4.5	6.6	10.8	1.0	1.6	26.8	11.8	15.6	1.9	4.2	0.5	5,667
Zanzibar	96.4	273	95.6	5.6	7.3	25.1	0.9	1.1	58.7	14.3	29.2	0.0	6.5	0.6	263
Unguja	98.2	204	95.0	6.8	6.1	31.3	0.9	1.4	66.4	17.0	36.9	0.0	8.2	0.4	201
Pemba	91.0	69	97.5	1.7	11.2	5.2	0.7	0.2	34.2	5.5	4.4	0.2	1.3	1.0	63
Zone															
Eastern	97.5	1,363	98.7	6.4	8.5	26.1	2.2	2.8	50.6	32.8	39.2	2.6	4.3	0.3	1,328
Western	95.6	736	98.9	6.4	11.6	9.1	1.3	1.4	31.5	16.1	14.7	3.5	4.0	0.4	703
Southern	94.7	371	98.5	5.2	6.5	8.0	0.3	4.0	24.5	2.8	6.0	0.9	4.0	0.0	351
Southern Highlands	98.2	818	98.9	1.6	1.5	14.6	3.3	3.2	56.2	16.4	46.8	0.2	2.2	0.7	803
Southwest Highlands	97.5	851	98.8	1.7	8.4	10.7	0.1	1.8	34.3	14.2	15.6	0.8	3.1	0.9	829
Central	91.7	908	98.4	4.6	1.5	5.4	1.1	0.5	17.3	11.2	8.6	0.4	5.8	0.2	832
Northern	95.9	855	99.1	12.2	4.8	5.9	1.2	1.0	18.9	5.0	12.4	2.3	3.1	0.4	819
Lake	93.8	2,178	97.5	3.9	10.6	18.1	0.7	1.1	22.0	10.4	10.9	2.3	4.8	0.3	2,043
Education															
No education	84.6	776	97.0	3.9	3.5	8.3	0.7	0.8	11.3	5.6	3.8	0.6	3.7	0.6	656
Primary incomplete	91.4	1,338	97.8	4.2	5.9	12.4	0.9	1.3	19.7	6.6	7.9	1.4	2.9	0.8	1,224
Primary complete	96.8	4,264	98.4	4.5	6.3	13.6	1.2	1.3	27.9	10.1	15.7	1.7	4.2	0.4	4,127
Secondary+	99.6	1,974	99.0	7.3	11.9	20.7	1.9	3.3	58.6	33.4	43.4	2.4	5.0	0.1	1,966
Wealth quintile															
Lowest	90.1	1,358	97.2	3.7	5.9	6.0	0.5	0.9	15.8	7.1	7.3	1.1	4.7	0.7	1,223
Second	92.8	1,532	98.0	3.4	5.4	9.7	0.9	1.4	22.9	8.6	11.4	2.0	4.4	0.8	1,421
Middle	95.2	1,590	98.4	4.2	5.6	10.8	1.0	1.7	28.7	10.0	14.1	1.4	3.6	0.3	1,514
Fourth	97.6	1,749	98.8	6.4	8.2	14.9	1.3	1.8	33.6	15.1	21.2	2.3	3.3	0.2	1,708
Highest	99.2	2,123	98.9	6.6	10.1	25.9	2.2	2.6	51.7	27.3	37.9	1.8	4.7	0.2	2,107
Total	95.5	8,352	98.3	5.1	7.4	14.7	1.3	1.8	32.8	15.0	20.4	1.8	4.2	0.4	7,973

Note: Percentages may add to more than 100 since multiple responses were allowed.

12.4 ACCESS TO ACTS, MESSAGES ABOUT MALARIA PREVENTION AND TREATMENT, AND VISITS FROM HEALTH WORKERS

The NMCP communication strategy outlines the importance of messages about malaria prevention and malaria treatment. The former includes messages about sleeping under insecticide-treated nets (ITNs) and the benefits of indoor residual spraying. The latter includes ensuring that the community is aware that artemisinin combination therapy (ACT) is the first-line treatment for malaria and is now widely available in Tanzania. To communicate these messages, NMCP relies not only on traditional sources of media, in the form of radio, television, and printed materials, but also on direct outreach via health care workers and volunteers.

Women and men age 15-49 were asked a series of questions regarding the availability of ACTs, messages about malaria, and visits from health workers. Specifically, they were asked whether ACTs could be obtained at their nearest health facility or pharmacy. They were also asked whether they had seen or heard any messages about malaria prevention and malaria treatment in the past year. In addition, they were asked if, in the past 6 months, they had been visited by a health worker or volunteer who talked to them about malaria. The results to these questions are presented in Tables 12.4.1 and 12.4.2, for women and men age 15-49, respectively.

Eighty-seven percent of women and 83 percent of men reported that ACTs could be obtained at their nearest health facility. In addition, a majority of women and men reported that they had seen or heard messages about malaria prevention as well as messages about malaria treatment. Fifty-seven percent of women reported that they had seen or heard messages about malaria prevention, and 59 percent reported that they had seen or heard messages about malaria treatment; 67 percent of men reported that they had seen or heard messages about malaria prevention, and 65 percent reported that they had seen or heard messages about malaria treatment. In contrast, only 5 percent of women and 6 percent of men had been visited by a health worker or volunteer in the past six months who had spoken with them about malaria.

The proportion of women and men who stated that ACTs could be obtained at their nearest health facility or pharmacy, and who had seen or heard messages about malaria prevention and messages about malaria treatment was greater in urban areas than in rural areas and increased with level of educational attainment and by wealth quintile. In contrast, the proportion of women and men who reported being visited by a health worker or volunteer to talk about malaria differed little by background characteristics.

Table 12.4.1 Access to ACTs, messages about malaria prevention and treatment, and visits from health workers: Women

Percentage of women age 15-49 who say that ACTs can be obtained at the nearest health facility or pharmacy; who have seen or heard messages about malaria prevention in the past year; who have seen or heard messages about malaria treatment in the past year; and who were visited by a health worker or volunteer who talked about malaria in the past six months, by background characteristics, Tanzania 2011-12

Background characteristic	ACTs can be obtained at nearest health facility or pharmacy	Seen or heard messages about malaria prevention	Seen or heard messages about malaria treatment	Visited by a health worker or volunteer who talked about malaria	Number of women
Age					
15-19	81.1	53.2	53.6	3.4	2,414
20-24	87.0	57.8	59.9	4.1	1,888
25-29	89.5	60.3	62.1	5.7	1,902
30-34	89.7	60.7	62.3	5.2	1,497
35-39	89.5	54.5	56.7	4.2	1,435
40-44	89.6	62.3	60.9	7.2	1,023
45-49	86.4	54.2	56.0	6.2	808
Residence					
Urban	92.2	71.4	75.4	4.6	2,956
Rural	85.1	52.1	52.4	4.9	8,011
Mainland/Zanzibar					
Mainland	88.0	57.2	58.5	4.9	10,576
Urban	93.2	71.4	75.5	4.7	2,834
Rural	86.1	52.0	52.3	5.0	7,742
Zanzibar	60.1	61.1	61.5	2.2	391
Unguja	64.0	66.6	69.4	2.4	298
Pemba	47.8	43.6	36.0	1.4	93
Zone					
Eastern	92.4	69.9	78.4	4.2	1,696
Western	87.0	55.1	54.1	3.9	890
Southern	97.7	72.8	85.5	5.2	557
Southern Highlands	88.8	62.4	73.6	8.0	1,155
Southwest Highlands	84.5	53.7	51.1	2.1	1,101
Central	82.8	47.2	46.5	6.5	1,100
Northern	89.9	56.9	57.0	2.6	1,281
Lake	86.0	50.4	44.6	5.9	2,797
Education					
No education	79.5	33.5	34.4	3.5	1,955
Primary incomplete	83.7	45.0	46.9	3.6	1,380
Primary complete	89.9	61.6	62.9	5.0	5,713
Secondary+	88.5	77.8	79.0	6.5	1,919
Wealth quintile					
Lowest	80.7	39.0	38.1	3.4	1,864
Second	84.4	45.5	47.4	4.6	1,974
Middle	87.1	55.7	55.4	5.4	1,977
Fourth	89.3	61.2	62.6	5.3	2,257
Highest	91.1	75.3	78.5	5.1	2,895
Total	87.0	57.3	58.6	4.8	10,967

Table 12.4.2 Access to ACTs, messages about malaria prevention and treatment, and visits from health workers: Men

Percentage of men age 15-49 who say that ACTs can be obtained at the nearest health facility or pharmacy; who have seen or heard messages about malaria prevention in the past year; who have seen or heard messages about malaria treatment in the past year; and who were visited by a health worker or volunteer who talked about malaria in the past six months, by background characteristics, Tanzania 2011-12

Background characteristic	ACTs can be obtained at nearest health facility or pharmacy	Seen or heard messages about malaria prevention	Seen or heard messages about malaria treatment	Visited by a health worker or volunteer who talked about malaria	Number of men
Age					
15-19	74.8	60.4	57.7	4.2	2,012
20-24	83.5	66.6	66.7	4.9	1,525
25-29	85.5	68.0	65.9	5.5	1,116
30-34	83.3	67.2	67.2	5.0	1,064
35-39	87.2	68.5	66.9	6.3	1,064
40-44	87.0	74.5	70.3	7.2	913
45-49	86.1	70.0	67.7	7.7	658
Residence					
Urban	91.9	79.9	79.3	4.4	2,142
Rural	79.5	62.2	60.0	5.9	6,210
Mainland/Zanzibar					
Mainland	83.3	66.2	64.4	5.5	8,079
Urban	92.6	79.6	79.1	4.4	2,066
Rural	80.2	61.6	59.3	5.8	6,013
Zanzibar	63.6	83.0	82.5	6.1	273
Unguja	64.9	89.6	89.2	6.6	204
Pemba	60.0	63.2	62.8	4.8	69
Zone					
Eastern	93.7	74.4	75.5	5.2	1,363
Western	85.3	59.5	58.9	3.8	736
Southern	89.2	72.1	79.5	7.9	371
Southern Highlands	89.9	87.9	87.3	6.6	818
Southwest Highlands	80.6	68.2	64.9	4.1	851
Central	77.0	46.3	42.4	2.2	908
Northern	81.4	69.3	68.0	2.3	855
Lake	77.3	60.4	55.7	8.4	2,178
Education					
No education	68.3	37.0	36.1	2.7	776
Primary incomplete	75.1	51.8	48.0	3.7	1,338
Primary complete	85.2	68.7	66.5	6.1	4,264
Secondary+	88.1	84.2	84.5	6.4	1,974
Wealth quintile					
Lowest	72.3	48.1	45.7	4.7	1,358
Second	78.0	58.2	55.8	4.9	1,532
Middle	83.2	65.9	62.7	6.7	1,590
Fourth	84.8	70.8	69.3	6.2	1,749
Highest	90.6	82.1	82.1	4.9	2,123
Total	82.7	66.7	65.0	5.5	8,352

12.5 EXPOSURE TO MALARIA MESSAGES

A crucial element in the fight to eliminate malaria is the ability to reach the population with informational and educational messages. The NMCP communication strategy identifies a number of communication channels for delivery of malaria messages to the population. The identified communication channels include health provider to client, newspaper, radio, and television.

To assess coverage of communication programmes, both women and men interviewed during the 2011-12 THMIS were asked if they had seen or heard specific messages about malaria in the year before the survey. Respondents on the Mainland were asked if they had seen or heard the phrase 'Malaria Haikubaliki' in the past year; respondents on Zanzibar were asked if they had seen or heard the phrase 'Maliza Malaria' in the past year. If respondents had heard the relevant phrase, they were asked specific places where they had seen or heard the message. Tables 12.5.1 and 12.5.2 present the responses for women and men age 15-49, respectively.

Eighty-four percent of women and 93 percent of men saw or heard the malaria message 'Malaria Haikubaliki' or 'Maliza Malaria' in the past year. Among respondents who heard either of these malaria messages, radio is by far the most common channel by which the message was heard (84 percent of women and 91 percent of men), followed by television (23 percent of women and 34 percent of men). Other places where these specific malaria messages were commonly seen included billboards, posters, and leaflets; similarly, they were often heard from healthcare workers, at community events, and among friends or family.

Table 12.5.1 Media exposure to malaria messages: Women

Percentage of women age 15-49 who have seen or heard the malaria message 'Malaria Haikubaliki' or 'Maliza Malaria' in the past year, and among those who have seen or heard the malaria message, the percentage who cite specific places where they saw or heard the malaria message, by background characteristics, Tanzania 2011-12

Background characteristic	Among all women: Percentage who have seen or heard a malaria message in the past year	Among all women: Number of women	Among women who have seen or heard a malaria message in the past year, the percentage who cite specific places where they saw or heard a malaria message: Radio	Billboard	Poster	Leaflet/fact sheet/ brochure	Television	Healthcare worker	Community event/ presentation	Friend/ neighbor/ family member	Newspaper	Other	Number of women who have seen or heard a malaria message in the past year
Age													
15-19	86.6	2,414	81.6	10.5	7.4	7.4	27.5	10.8	4.3	13.9	3.1	9.7	2,091
20-24	86.7	1,888	83.2	9.8	8.3	6.4	25.8	17.3	4.4	12.5	2.6	4.5	1,638
25-29	86.2	1,902	83.9	8.6	8.3	6.4	23.6	19.4	6.3	11.3	1.3	3.9	1,639
30-34	83.2	1,497	85.6	12.5	9.4	4.4	22.9	22.7	7.1	11.7	1.1	4.3	1,246
35-39	80.0	1,435	83.3	9.8	6.7	4.1	15.6	18.9	6.9	13.3	1.3	4.7	1,148
40-44	79.7	1,023	84.7	8.6	5.4	5.5	17.2	18.5	5.9	11.5	1.1	3.1	815
45-49	72.1	808	86.7	5.4	5.4	5.6	16.1	18.0	7.8	15.0	1.9	4.2	582
Residence													
Urban	94.1	2,956	83.3	14.6	11.0	7.6	48.9	14.6	8.9	13.8	3.1	5.8	2,781
Rural	79.6	8,011	83.8	7.6	6.1	5.2	11.3	18.4	4.4	12.2	1.4	5.3	6,377
Mainland/Zanzibar													
Mainland	84.0	10,576	84.2	9.4	7.5	5.4	22.1	17.5	5.8	12.5	2.0	5.3	8,884
Urban	94.7	2,834	84.0	14.6	10.9	7.2	48.2	14.9	9.1	13.9	3.2	5.7	2,683
Rural	80.1	7,742	84.4	7.2	6.1	4.7	10.8	18.7	4.4	11.9	1.4	5.1	6,201
Zanzibar	70.3	391	64.6	18.1	10.4	22.6	44.3	8.6	3.3	17.2	0.6	10.8	275
Unguja	73.4	298	73.4	13.4	9.4	18.5	52.4	7.8	3.9	16.9	0.7	11.7	219
Pemba	60.5	93	30.6	36.6	14.0	38.3	13.0	11.5	0.8	18.4	0.3	7.3	56
Zone													
Eastern	93.0	1,696	85.3	16.4	11.8	5.3	53.0	10.0	14.6	22.1	2.0	4.6	1,577
Western	89.9	890	88.8	6.7	4.1	8.0	16.3	14.2	1.7	6.6	1.4	4.4	800
Southern	90.8	557	79.8	10.8	12.1	7.9	12.8	22.3	11.8	21.4	3.4	15.2	505
Southern Highlands	89.4	1,155	88.1	6.8	7.3	6.4	17.0	19.2	5.8	8.6	3.5	4.3	1,032
Southwest Highlands	79.8	1,101	84.5	8.3	5.0	4.4	12.4	22.4	4.1	6.0	1.0	3.7	879
Central	65.7	1,100	87.2	13.6	7.9	4.3	18.0	14.6	2.2	8.0	2.1	7.8	722
Northern	82.9	1,281	86.7	3.5	4.5	2.6	20.6	11.7	1.7	11.8	0.4	3.1	1,062
Lake	82.4	2,797	79.1	8.4	7.1	5.6	12.9	23.8	3.7	12.1	2.2	5.1	2,306
Education													
No education	62.6	1,955	79.6	1.4	2.1	0.8	6.7	17.5	3.9	16.0	0.4	1.8	1,224
Primary incomplete	80.5	1,380	82.1	4.8	4.5	3.6	11.4	14.2	3.6	13.0	1.0	4.9	1,111
Primary complete	87.9	5,713	85.6	9.0	7.9	5.0	20.1	19.6	5.9	12.3	1.7	4.9	5,021
Secondary+	93.9	1,919	82.0	20.4	12.5	13.3	48.0	12.6	8.1	11.3	4.3	9.8	1,802
Wealth quintile													
Lowest	67.4	1,864	77.1	5.9	5.4	3.4	3.9	20.5	4.1	16.9	0.8	4.6	1,256
Second	75.4	1,974	80.7	5.8	5.5	3.6	5.9	18.2	3.6	12.6	0.9	5.2	1,488
Middle	84.2	1,977	86.2	7.5	7.3	5.9	7.4	19.8	4.2	11.1	1.2	5.5	1,665
Fourth	88.9	2,257	88.3	8.6	7.2	5.7	14.2	19.1	4.9	10.3	1.9	6.1	2,008
Highest	94.7	2,895	83.3	15.7	10.3	8.6	56.1	12.4	9.3	13.5	3.4	5.4	2,742
Total	83.5	10,967	83.7	9.7	7.6	5.9	22.8	17.3	5.8	12.7	1.9	5.4	9,159

Note: Respondents in Mainland Tanzania were asked about the phrase ‘Malaria Haikubaliki’ whereas respondents in Zanzibar were asked about the phrase ‘Maliza malaria’.

Table 12.5.2 Media exposure to malaria messages: Men

Percentage of men age 15-49 who have seen or heard the malaria message 'Malaria Haikubaliki' or 'Maliza Malaria' in the past year, and among those who have seen or heard the malaria message, the percentage who cite specific places where they saw or heard the malaria message, by background characteristics, Tanzania 2011-12

Background characteristic	Among all men: Percentage who have seen or heard a malaria message in the past year	Among all men: Number of men	Among men who have seen or heard a malaria message in the past year, the percentage who cite specific places where they saw or heard a malaria message: Radio	Billboard	Poster	Leaflet/fact sheet/ brochure	Television	Healthcare worker	Community event/ presentation	Friend/ neighbor/ family member	Newspaper	Other	Number of men who have seen or heard a malaria message in the past year
Age													
15-19	93.1	2,012	88.6	15.1	12.2	10.3	34.3	6.6	5.8	11.3	3.6	12.1	1,874
20-24	95.3	1,525	92.3	14.8	13.5	10.4	38.9	8.2	8.4	10.0	5.6	7.7	1,452
25-29	93.9	1,116	93.2	14.6	11.9	12.4	37.0	7.9	6.9	7.9	2.9	5.1	1,048
30-34	94.3	1,064	91.8	15.0	11.8	10.1	32.7	9.9	8.5	6.3	5.2	5.9	1,003
35-39	90.6	1,064	92.0	16.9	11.6	10.6	33.3	8.3	8.4	7.7	3.3	8.2	964
40-44	91.9	913	92.4	17.1	11.3	11.2	26.8	8.5	8.8	7.8	4.7	5.4	838
45-49	91.9	658	89.7	15.8	11.4	9.7	23.1	13.4	10.8	7.5	4.5	4.3	605
Residence													
Urban	97.3	2,142	91.4	21.2	13.5	14.4	66.2	5.5	8.5	7.8	9.0	9.0	2,084
Rural	91.8	6,210	91.2	13.4	11.6	9.3	21.6	9.5	7.5	9.2	2.5	7.2	5,700
Mainland/Zanzibar													
Mainland	93.2	8,079	91.7	14.9	12.2	9.7	33.5	8.6	8.0	9.0	4.4	7.3	7,533
Urban	97.5	2,066	91.7	20.7	13.7	13.0	67.4	5.6	8.8	8.0	9.4	8.5	2,013
Rural	91.8	6,013	91.7	12.8	11.6	8.5	21.2	9.7	7.7	9.4	2.6	6.9	5,520
Zanzibar	91.9	273	77.5	32.7	9.4	39.6	33.3	3.4	3.5	3.5	0.0	19.1	251
Unguja	94.8	204	77.6	35.1	8.6	43.7	35.9	3.9	4.2	3.8	0.0	23.3	194
Pemba	83.3	69	76.9	24.6	12.2	25.6	24.7	1.5	1.2	2.7	0.0	4.9	57
Zone													
Eastern	96.2	1,363	93.9	19.0	13.7	9.1	68.5	8.2	16.1	11.7	12.4	9.8	1,311
Western	94.5	736	96.5	12.7	9.2	9.3	26.8	7.5	6.6	6.9	1.9	7.2	695
Southern	96.4	371	88.8	5.8	7.6	12.2	20.0	2.7	9.7	4.6	0.2	3.8	358
Southern Highlands	97.3	818	95.5	15.8	10.3	17.3	28.3	18.7	5.7	9.0	2.4	9.9	796
Southwest Highlands	95.0	851	94.2	15.8	10.8	8.7	27.8	9.0	4.1	7.3	5.4	6.4	808
Central	87.4	908	89.1	15.7	9.4	6.1	26.3	7.0	5.6	6.9	2.5	8.7	794
Northern	90.1	855	93.5	16.8	11.6	7.7	35.9	8.9	5.9	9.7	2.0	4.1	770
Lake	91.8	2,178	86.9	12.7	15.7	9.4	21.8	6.7	7.0	10.2	2.7	6.4	2,000
Education													
No education	78.3	776	91.7	1.0	2.3	2.0	9.6	4.1	2.7	12.6	0.4	2.7	607
Primary incomplete	89.1	1,338	91.2	8.2	7.2	6.2	19.9	6.7	4.9	11.6	1.6	6.5	1,192
Primary complete	94.6	4,264	91.5	14.8	11.9	9.8	31.4	10.0	8.4	8.5	3.6	6.6	4,032
Secondary+	98.9	1,974	90.6	25.8	18.5	17.9	53.8	7.7	10.0	6.8	8.4	12.3	1,953
Wealth quintile													
Lowest	84.7	1,358	89.3	7.0	7.7	4.5	11.3	9.7	5.2	12.4	1.3	5.8	1,150
Second	91.0	1,532	90.6	11.2	10.8	6.7	13.8	7.9	6.7	8.8	2.2	6.7	1,394
Middle	93.4	1,590	91.8	14.0	11.7	10.9	17.8	10.3	7.3	9.0	1.4	7.0	1,485
Fourth	95.3	1,749	93.2	17.1	12.9	12.9	32.3	8.8	8.0	7.9	3.6	8.8	1,666
Highest	98.4	2,123	90.8	22.6	15.0	14.7	71.1	6.6	10.2	7.5	9.7	9.1	2,089
Total	93.2	8,352	91.2	15.5	12.1	10.7	33.5	8.4	7.8	8.8	4.2	7.7	7,784

Note: Respondents in Mainland Tanzania were asked about the phrase ‘Malaria Haikubaliki’ whereas respondents in Zanzibar were asked about the phrase ‘Maliza malaria’.

12.6 *HATI PUNGUZO* PROGRAMME

The *Hati Punguzo* programme aims to provide all pregnant women with a voucher that can be used to purchase a discounted LLIN. Pregnant women should be provided with a *Hati Punguzo* at their first ANC visit. For women who did not attend antenatal care or who did not receive a *Hati Punguzo* at an ANC visit, a second opportunity to receive one occurs when she brings her infant for his or her first vaccinations. Currently, the *Hati Punguzo* programme operates only on Mainland Tanzania.

The NMCP communication strategy describes targeted primary audiences – that is, the core group of people on whom the strategic communication objectives are focused and for whom the primary behaviour change is expected to take place. With regard to the *Hati Punguzo* programme, the primary audience is adult women and men, particularly those who are or are about to become mothers, fathers, and caregivers. All female and male respondents in Mainland Tanzania were asked if they had heard of the *Hati Punguzo* programme. If they responded affirmatively, they were asked where they had heard about the programme. Tables 12.6.1 and 12.6.2 present results for women and men, respectively.

The *Hati Punguzo* programme is well known in Mainland Tanzania. Eighty-eight percent of women and 86 percent of men have heard of *Hati Punguzo*. Both women and men report a wide array of places where they have heard about *Hati Punguzo*, ranging from traditional media to friends and family members. However, the most commonly cited place where respondents heard of *Hati Punguzo* differed for women and men. Among women, the most commonly cited place was a health facility (74 percent), followed by radio (46 percent), friends, neighbours or family members (13 percent), and television (12 percent). For men, the most commonly cited place was the radio (74 percent), followed by a health facility (48 percent), television (23 percent), and friends, neighbours, and family members (14 percent). For both women and men, large variation is observed across background characteristics.

Table 12.6.1 Heard of *Hati Punguzo*: Women

Among women age 15-49 who live in Mainland Tanzania the percentage who have heard of *Hati Punguzo*, and among those who have heard of *Hati Punguzo*, the percentage who cite specific places where they heard about *Hati Punguzo*, by background characteristics, Tanzania 2011-12

Background characteristic	Among women who live in Mainland Tanzania:		Among women who have heard of *Hati Punguzo*, place where heard about *Hati Punguzo*:										
	Percentage who have heard of *Hati Punguzo*	Number of women	Radio	Poster/ brochure	Newspaper	Television	Community volunteer	Village government	Shop	Health facility	Friend/ neighbor/ family member	Other	Number of women who have heard of Hati Punguzo
Age													
15-19	76.7	2,319	51.5	6.0	4.5	19.2	2.2	2.5	2.7	47.3	19.2	4.4	1,780
20-24	90.3	1,812	45.4	3.4	2.4	12.8	2.1	2.6	2.7	77.7	11.1	1.8	1,635
25-29	93.8	1,829	44.3	3.5	2.5	11.8	2.4	2.3	3.6	83.1	10.5	1.3	1,716
30-34	93.0	1,453	43.0	2.4	2.1	11.6	2.8	2.8	3.5	84.4	10.9	1.1	1,351
35-39	91.4	1,393	41.0	2.9	1.2	7.9	2.3	3.0	2.3	84.5	10.9	1.2	1,274
40-44	88.8	987	45.7	3.6	0.6	6.9	3.1	4.2	2.8	74.3	13.6	2.7	876
45-49	81.9	783	47.2	3.2	1.1	6.6	1.7	4.4	3.1	69.3	16.6	2.2	642
Residence													
Urban	93.4	2,834	56.2	5.7	5.2	29.3	3.1	2.4	3.0	67.6	17.4	3.1	2,648
Rural	85.6	7,742	41.3	2.9	1.2	5.1	2.1	3.1	3.0	76.4	11.3	1.8	6,626
Zone													
Eastern	93.5	1,696	62.9	6.8	6.0	35.3	2.6	2.7	1.3	69.0	26.4	2.9	1,586
Western	88.7	890	45.8	3.7	0.7	9.3	0.5	3.0	2.1	71.4	7.4	1.2	789
Southern	94.4	557	48.8	7.6	2.5	7.5	8.7	5.0	9.6	74.7	18.3	7.2	526
Southern Highlands	91.7	1,155	38.6	3.4	0.8	5.5	3.1	5.3	4.1	81.8	8.0	2.3	1,059
Southwest Highlands	79.3	1,101	41.3	2.7	1.8	6.9	0.8	2.1	4.4	71.4	8.8	2.4	873
Central	82.9	1,100	42.8	2.3	1.7	6.3	4.5	2.9	5.4	76.2	9.6	1.1	912
Northern	83.3	1,281	48.4	2.0	1.3	11.3	0.9	1.3	1.0	67.3	13.3	1.5	1,067
Lake	88.1	2,797	38.0	2.7	2.0	5.9	1.6	2.4	1.9	77.1	10.1	1.3	2,463
Education													
No education	76.9	1,910	31.2	0.2	0.0	2.2	1.5	1.9	2.1	81.3	12.7	0.5	1,470
Primary incomplete	83.8	1,327	42.2	2.5	0.4	6.2	1.7	2.3	3.4	71.0	13.8	2.0	1,112
Primary complete	90.7	5,665	45.9	3.7	2.0	10.3	2.5	3.2	3.2	77.1	12.4	2.0	5,140
Secondary+	92.8	1,673	60.5	8.0	7.1	31.0	3.2	3.3	3.0	58.1	15.1	4.1	1,552
Wealth quintile													
Lowest	78.6	1,857	30.0	1.8	0.8	1.2	2.7	3.0	3.7	81.0	12.4	1.4	1,459
Second	84.7	1,948	36.1	2.3	0.4	2.1	2.1	2.8	3.2	78.1	11.4	1.7	1,650
Middle	87.4	1,941	42.0	2.6	1.2	2.9	1.7	3.4	3.0	76.4	8.9	2.4	1,696
Fourth	91.2	2,156	50.1	3.4	2.0	5.4	2.5	3.0	2.8	73.7	12.9	1.5	1,967
Highest	93.6	2,674	59.7	6.8	5.5	36.3	2.7	2.4	2.6	65.3	17.5	3.2	2,502
Total	87.7	10,576	45.6	3.7	2.3	12.0	2.4	2.9	3.0	73.9	13.1	2.1	9,274

Note: Percentages may add to more than 100 since multiple responses were allowed.

Table 12.6.2 Heard of Hati Punguzo: Men

Among men age 15-49 who live in Mainland Tanzania, the percentage who have heard of *Hati Punguzo*, and among those who have heard of *Hati Punguzo*, the percentage who cite specific places where they heard about *Hati Punguzo*, by background characteristics, Tanzania 2011-12

Background characteristic	Among men who live in Mainland Tanzania:		Among men who have heard of *Hati Punguzo*, place where heard about *Hati Punguzo*:										Number of men who have heard of *Hati Punguzo*
	Percentage who have heard of *Hati Punguzo*	Number of men	Radio	Poster/ brochure	Newspaper	Television	Community volunteer	Village government	Shop	Health facility	Friend/ neighbor/ family member	Other	
Age													
15-19	75.7	1,939	76.5	7.7	7.2	28.4	3.4	6.4	5.3	33.0	13.3	4.5	1,467
20-24	84.8	1,469	76.1	8.4	9.0	27.1	3.8	7.1	4.3	40.9	17.2	3.8	1,245
25-29	88.9	1,080	72.8	7.2	6.9	24.0	2.9	6.0	6.5	52.0	12.3	3.3	960
30-34	89.5	1,037	70.0	9.5	7.6	20.5	3.1	9.3	5.6	54.6	14.4	2.9	928
35-39	91.6	1,036	76.1	5.6	6.6	19.8	4.9	8.1	4.7	56.9	13.6	2.8	949
40-44	90.4	880	71.9	6.7	7.0	18.0	4.6	10.6	5.2	57.5	12.2	2.8	796
45-49	88.1	639	68.8	8.6	7.9	13.4	3.7	8.8	8.3	53.7	15.3	4.0	563
Residence													
Urban	92.5	2,066	79.2	12.2	14.5	51.9	3.6	7.5	5.4	34.3	18.9	4.4	1,912
Rural	83.1	6,013	71.7	5.9	4.8	11.8	3.8	7.9	5.5	52.9	12.3	3.2	4,995
Zone													
Eastern	90.7	1,363	80.5	12.0	16.7	53.5	9.0	13.2	8.7	33.0	28.5	6.2	1,236
Western	86.4	736	84.6	6.0	2.8	18.9	1.0	5.1	4.4	53.4	10.3	2.5	636
Southern	95.9	371	68.9	10.8	4.5	13.1	3.8	1.3	6.2	29.2	8.2	5.2	356
Southern Highlands	91.6	818	79.8	5.7	10.4	17.5	2.2	13.2	5.1	68.5	12.9	2.5	749
Southwest Highlands	85.9	851	79.6	7.6	6.7	18.3	4.5	6.2	4.5	45.4	6.9	2.8	731
Central	82.0	908	62.0	5.0	3.2	14.7	3.4	6.5	6.3	54.2	5.1	1.2	745
Northern	74.1	855	79.0	10.3	9.1	25.9	2.0	4.1	3.2	43.4	11.9	4.1	634
Lake	83.6	2,178	64.8	5.8	3.6	11.8	2.2	6.4	4.4	50.7	14.6	3.2	1,821
Education													
No education	64.1	763	68.9	0.4	0.1	2.8	1.9	5.2	4.3	43.0	18.1	1.0	489
Primary incomplete	77.0	1,286	71.0	4.2	2.7	11.7	3.3	8.3	3.8	44.7	13.4	2.5	990
Primary complete	88.0	4,228	72.6	7.4	7.2	19.1	3.8	8.4	5.8	52.6	13.5	3.5	3,721
Secondary+	94.7	1,802	79.4	12.4	13.0	43.4	4.4	7.0	6.1	40.3	14.6	4.9	1,707
Wealth quintile													
Lowest	73.7	1,354	64.6	3.7	2.3	4.4	3.3	8.5	5.3	52.0	12.0	2.4	997
Second	83.4	1,515	71.6	4.8	3.8	6.0	3.3	5.7	4.3	52.6	11.3	2.6	1,264
Middle	84.5	1,560	71.1	6.5	5.2	9.7	3.4	8.2	5.6	56.5	11.8	2.6	1,318
Fourth	88.1	1,672	74.7	7.9	6.5	19.1	4.8	9.0	5.5	50.0	13.3	4.2	1,473
Highest	93.7	1,979	81.5	12.4	15.2	56.7	3.7	7.5	6.3	34.1	19.4	4.9	1,855
Total	85.5	8,079	73.8	7.7	7.5	22.9	3.7	7.8	5.5	47.8	14.1	3.5	6,907

Note: Percentages may add to more than 100 since multiple responses were allowed.

According to national policy, pregnant women should receive the *Hati Punguzo* at their first ANC visit. Women age 15-49 from Mainland Tanzania who had a live birth in the past five years and who received ANC for their most recent live birth were asked whether they received a *Hati Punguzo* voucher during an ANC visit, and, if so, whether they received the voucher at their first visit or a later visit. Results are presented in Table 12.7. Sixty-three percent of women received a *Hati Punguzo* voucher at an ANC visit. Women age 25-29, those in urban areas, and those living in Southern and Southern Highlands zones are more likely than their counterparts to receive a *Hati Punguzo*. Receipt of a *Hati Punguzo* is positively correlated with education level and wealth. Among women that received a *Hati Punguzo* voucher at an ANC visit, more than half (53 percent) of them received a *Hati Punguzo* at their first ANC visit, while 44 percent received the voucher at a subsequent visit.

Table 12.7 Receipt of Hati Punguzo voucher during antenatal care (ANC) visit

Among women age 15-49 from Mainland Tanzania who had a live birth in the past five years and who received ANC for their most recent live birth, the percentage who received a *Hati Punguzo* voucher from a health care provider during an ANC visit, and among those who received a *Hati Punguzo* voucher, the percent distribution of the ANC visit at which the *Hati Punguzo* voucher was received, by background characteristics, Tanzania 2011-12

Background characteristic	Among women from Mainland Tanzania who had a live birth in the past five years and who received ANC:		Among women from Mainland Tanzania who had a live birth in the past five years, who received ANC, and who received a *Hati Punguzo* voucher, the visit number at which the *Hati Punguzo* was received:				
	Percentage who received a *Hati Punguzo* voucher at an ANC visit	Number of women	First visit	Second visit or later	Don't know/don't remember	Total	Number of women
Age							
15-19	52.4	437	59.1	39.1	1.9	100.0	229
20-24	62.3	1,315	57.3	40.8	1.5	100.0	819
25-29	67.1	1,535	52.5	45.4	2.1	100.0	1,031
30-34	61.9	1,138	54.2	43.2	2.3	100.0	704
35-39	64.3	977	50.0	47.2	2.3	100.0	628
40-44	63.6	481	48.9	47.4	3.3	100.0	306
45-49	60.8	183	47.9	49.3	2.9	100.0	111
Residence							
Urban	71.6	1,314	52.0	47.0	0.9	100.0	941
Rural	60.8	4,753	53.8	43.3	2.5	100.0	2,888
Zone							
Eastern	70.9	848	54.9	44.6	0.5	100.0	601
Western	60.4	502	65.4	32.3	1.3	100.0	303
Southern	74.5	301	39.0	59.4	1.5	100.0	224
Southern Highlands	74.5	701	55.9	43.2	0.5	100.0	522
Southwest Highlands	50.4	628	59.0	38.6	2.0	100.0	317
Central	70.0	667	50.9	39.7	9.1	100.0	467
Northern	58.0	674	41.7	57.1	1.2	100.0	391
Lake	57.5	1,747	54.7	43.5	1.5	100.0	1,004
Education							
No education	49.1	1,313	54.4	41.5	3.7	100.0	644
Primary incomplete	57.2	762	50.5	47.0	2.4	100.0	436
Primary complete	68.8	3,467	52.6	45.2	2.0	100.0	2,384
Secondary+	69.4	525	60.3	39.1	0.3	100.0	365
Wealth quintile							
Lowest	52.7	1,275	52.2	44.3	3.0	100.0	672
Second	60.6	1,273	52.3	44.5	2.9	100.0	772
Middle	62.0	1,158	55.1	42.1	2.5	100.0	718
Fourth	67.9	1,201	54.6	43.6	1.8	100.0	815
Highest	73.4	1,160	52.8	46.4	0.7	100.0	851
Total	63.1	6,066	53.4	44.2	2.1	100.0	3,828

Note: Total includes 10 cases for which information on the visit at which the *Hati Punguzo* voucher was received is missing.

12.7 ATTITUDES TOWARDS MALARIA

The NMCP communication strategy describes communication tools, approaches, and channels. One tool is publicity – specifically, publicity to raise and sustain the profile of malaria among Tanzanians and to help positively affect awareness of, and attitudes towards desired practices. The traditional attitude of resignation towards malaria must be overcome and replaced with one of empowerment.

To gauge respondents' attitudes towards malaria, women age 15-49 who had had one or more live births in the past five years were read six statements about malaria. For each, they were asked if they strongly agreed with the statement, somewhat agreed, somewhat disagreed, or strongly disagreed. Table 12.8 presents the percentage of women who strongly agreed with each statement, by background characteristics.

Eighty-two percent of women strongly agreed with the statement 'I can protect my children from malaria'. Eighty percent of women strongly agreed with the statement 'I can ensure my children sleep under a mosquito net every night of the year'. Nine in ten women (91 percent) strongly agreed with the statement 'I can easily hang my children's mosquito nets'. Similar percentages of women strongly agreed with the statements: 'It is important to sleep under a net every single night' (93 percent), 'Pregnant women are at high risk of getting malaria' (90 percent), and 'Women should attend antenatal care early in their pregnancy' (92 percent). For each of the statements, the percentage that strongly agrees is larger among urban women than rural women, and increases with education level and with wealth, in general.

Table 12.8 Women's attitudes towards malaria

Among women age 15-49 who had one or more births in the past five years, the percentage who strongly agree with each of six statements about malaria, by background characteristics, Tanzania 2011-12

Background characteristic	I can protect my children from malaria	I can ensure my children sleep under a mosquito net every night of the year	I can easily hang my children's mosquito nets	It is important to sleep under a net every single night	Pregnant women are at high risk of getting malaria	Women should attend antenatal care early in their pregnancy	Number of women
Age							
15-19	82.2	82.2	90.9	93.9	88.0	90.9	445
20-24	83.2	80.7	92.4	92.6	88.5	91.8	1,372
25-29	83.7	82.0	90.5	94.3	91.3	94.3	1,616
30-34	81.3	79.2	90.2	92.2	88.9	91.2	1,203
35-39	81.0	81.3	91.5	94.2	91.0	91.9	1,028
40-44	75.6	75.2	87.8	89.7	88.8	89.7	507
45-49	78.9	76.5	87.0	91.9	90.6	92.4	198
Residence							
Urban	86.4	87.2	93.5	97.7	94.2	98.2	1,361
Rural	80.6	78.5	90.0	91.8	88.5	90.4	5,007
Mainland/Zanzibar							
Mainland	81.9	80.6	90.8	93.0	89.6	91.9	6,183
Urban	86.4	87.4	93.5	97.7	94.3	98.1	1,315
Rural	80.6	78.8	90.1	91.7	88.4	90.2	4,867
Zanzibar	81.0	71.3	88.4	95.3	93.0	99.3	186
Unguja	82.0	72.2	85.7	94.7	92.9	99.5	138
Pemba	78.1	68.6	96.0	97.0	93.3	98.8	48
Zone							
Eastern	82.2	80.0	92.5	96.4	93.5	95.7	849
Western	70.8	78.3	82.9	87.5	87.7	83.1	511
Southern	79.2	73.7	86.3	88.1	87.7	91.0	302
Southern Highlands	82.6	75.2	92.4	89.5	83.4	85.9	704
Southwest Highlands	86.4	81.7	93.3	96.1	87.9	96.7	650
Central	80.5	83.3	89.2	91.7	88.7	91.4	696
Northern	92.0	90.3	94.3	95.7	92.3	97.5	697
Lake	79.9	79.7	90.7	93.5	91.1	91.3	1,774
Education							
No education	74.2	72.3	86.2	88.9	84.7	87.0	1,402
Primary incomplete	78.6	75.7	89.4	90.2	89.0	91.2	812
Primary complete	84.6	83.6	92.6	94.7	91.4	93.5	3,525
Secondary+	87.4	86.1	91.9	96.9	92.7	96.9	630
Wealth quintile							
Lowest	76.1	73.2	86.2	90.0	85.6	87.4	1,331
Second	78.4	79.1	89.3	91.8	88.4	89.8	1,322
Middle	82.9	80.3	91.9	91.7	90.9	92.7	1,190
Fourth	86.3	83.8	94.1	94.8	90.4	93.0	1,265
Highest	85.9	85.9	92.5	97.1	93.6	98.0	1,260
Total	81.8	80.4	90.7	93.1	89.7	92.1	6,369

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SAMPLE DESIGN

Appendix A

A.1 INTRODUCTION

The 2011-12 Tanzania HIV/AIDS and Malaria Indicator Survey is the second such survey conducted in Tanzania. As was the case in the 2007-08 THMIS, the primary objective of the 2011-12 THMIS is to provide up-to-date information on key indicators needed to track progress in Tanzania's health programmes, including knowledge, attitudes, and behaviours relating to HIV/AIDS and other sexually transmitted diseases and knowledge and behaviours relating to malaria. In addition, the 2011-12 THMIS provides prevalence of anaemia, prevalence of malaria among children 6-59 months, and prevalence of HIV among the general population (men and women 15-49).

To obtain these data, a nationally representative sample of households was selected. All women and men age 15-49 who were usual residents of the sampled households or who stayed in the households on the night before the interview were eligible for individual interview. All women and men age 15-49 who were eligible for the individual survey were also eligible for the HIV testing; all children age 6-59 months were eligible for anaemia and malaria testing.

The 2011-12 THMIS sample was designed to yield representative results for most indicators for the country as a whole, for urban and rural areas, and for each of Tanzania's 30 regions.

A.2 SAMPLE FRAME

The 2011-12 THMIS sample was selected using a stratified, two-stage cluster design. The frame used for the first stage of the selection of the 2011-12 THMIS sample was based on the last population census in Tanzania, which was carried out in 2002. Administratively, each of Tanzania's regions is divided into districts and each district is divided into smaller administrative units called wards. For purposes of the 2002 Population and Housing Census, each of the wards was subdivided into smaller enumeration areas (EAs), typically including about 100 households. The small size of the EAs and the availability of sketch maps and other materials to delimit their geographic boundaries made the census EA an ideal unit for use as the first stage sampling unit of the THMIS sample. Households were the units for the second stage of sampling.

Table A.1 shows the distribution of enumeration areas and households at the time of the 2002 census by the geographic domains of interest for the THMIS, i.e., region and urban-rural areas. Table A.2 presents the distribution of the population in the sample frame by region and residence. Note that the sampling frame did not include urban-rural information for Zanzibar.

Table A.1 Enumeration areas and households

Distribution of the enumeration areas and households in the sampling frame by region and residence, Tanzania 2011-12

Region	Number of enumeration areas in frame			Number of households in frame		
	Urban	Rural	Total	Urban	Rural	Total
Dodoma	485	1,732	2,217	50,429	330,711	381,140
Arusha	893	1,254	2,147	107,024	177,940	284,964
Kilmanjaro	681	1,632	2,313	70,791	227,471	298,262
Tanga	685	1,599	2,284	67,915	292,583	360,498
Morogoro	1,206	1,750	2,956	114,539	270,609	385,148
Pwani	470	919	1,389	45,997	155,284	201,281
Dar es Salaam	6,540	181	6,721	565,705	37,688	603,393
Lindi	328	1,010	1,338	33,274	158,175	191,449
Mtwara	665	1,408	2,073	59,839	237,918	297,757
Ruvuma	390	1,080	1,470	40,172	192,957	233,129
Iringa	59	611	670	6,068	92,718	98,786
Mbeya	943	2,103	3,046	106,640	390,286	496,926
Singida	301	1,199	1,500	33,853	185,364	219,217
Tabora	472	1,728	2,200	48,948	244,715	293,663
Rukwa	279	799	1,078	29,703	120,249	149,952
Kigoma	488	1,273	1,761	37,649	201,134	238,783
Shinyanga	429	1,693	2,122	42,089	222,012	264,101
Kagera	165	1,873	2,038	23,156	326,937	350,093
Mwanza	999	1,595	2,594	111,324	226,451	337,775
Mara	628	1,398	2,026	53,482	195,088	248,570
Manyara	314	1,215	1,529	33,974	162,473	196,447
Njombe	244	800	1,044	25,212	128,341	153,553
Katavi	256	1,244	1,500	26,088	143,978	170,066
Simiyu	280	2,660	2,940	25,718	301,137	326,855
Geita	228	1,191	1,419	23,293	161,865	185,158
Kaskazini Unguja	na	na	325	na	na	28,177
Kusini Unguja	na	na	218	na	na	20,163
Mjini Magharibi	na	na	873	na	na	75,223
Kaskazini Pemba	na	na	378	na	na	33,418
Kusini Pemba	na	na	362	na	na	30,109
Tanzania	na	na	54,531	na	na	7,154,056

na = Not available

Table A.2 Population

Distribution of the population in the sampling frame by region and residence, Tanzania 2011-12

Region	Population in frame			Percent of total population	Percent urban
	Urban	Rural	Total		
Dodoma	211,990	1,472,571	1,684,561	4.9	12.6
Arusha	402,450	850,632	1,253,082	3.6	32.1
Kilmanjaro	282,320	1,064,778	1,347,098	3.9	21.0
Tanga	298,283	1,324,969	1,623,252	4.7	18.4
Morogoro	471,853	1,237,420	1,709,273	5.0	27.6
Pwani	190,692	677,139	867,831	2.5	22.0
Dar es Salaam	2,310,217	150,607	2,460,824	7.1	93.9
Lindi	125,138	654,313	779,451	2.3	16.1
Mtwara	226,365	898,298	1,124,663	3.3	20.1
Ruvuma	170,232	925,236	1,095,468	3.2	15.5
Iringa	24,456	399,918	424,374	1.2	5.8
Mbeya	419,124	1634,081	2,053,205	6.0	20.4
Singida	146,791	932,900	1,079,691	3.1	13.6
Tabora	215,491	1,486,126	1,701,617	4.9	12.7
Rukwa	134,944	587,824	722,768	2.1	18.7
Kigoma	201,707	1,094,881	1,296,588	3.8	15.6
Shinyanga	178,400	1,359,660	1,538,060	4.5	11.6
Kagera	91,252	1,514,148	1,605,400	4.7	5.7
Mwanza	500,959	1,418,625	1,919,584	5.6	26.1
Mara	252,355	1,103,847	1,356,202	3.9	18.6
Manyara	138,916	866,186	1,005,102	2.9	13.8
Njombe	98,650	540,464	639,114	1.9	15.4
Katavi	120,573	878,974	999,547	2.9	12.1
Simiyu	122,767	2,050,905	2,173,672	6.3	5.6
Geita	114,098	1,017,426	1,131,524	3.3	10.1
Kaskazini Unguja	na	na	136,953	0.4	na
Kusini Unguja	na	na	94,504	0.3	na
Mjini Magharibi	na	na	391,602	1.1	na
Kaskazini Pemba	na	na	136,013	0.4	na
Kusini Pemba	na	na	176,153	0.5	na
Tanzania	na	na	1,684,561	100.0	na

na = Not available

A.3 SAMPLE DESIGN AND IMPLEMENTATION

The target sample for the 2011-12 THMIS was initially set at 585 EAs and 10,530 households, taking into account the interest in obtaining estimates of adequate precision for key domains, the level of non-response at the household and individual woman level experienced in the 2007-08 THMIS and 2010 TDHS, and available resources (financial and human) for carrying out the survey.

A complete listing of households was carried out in late November-December 2011 in each of the EAs selected for the THMIS. Previously prepared maps were identified for each of the clusters, and all private households were listed. If an EA was too large, the EA was segmented into smaller units following specified guidelines, and one of the resulting segments was selected with probability proportional to size. That segment was then listed and the listing used in the selection of the final household sample.

At the time of designing the sample, four new regions (Geita, Katavi, Njombe, and Simiyu) had just been formed in Mainland Tanzania. There was uncertainty related to boundaries of wards and/or districts falling to the new regions. As a consequence of this uncertainty, two EAs were dropped from the sample. The first EA dropped was erroneously selected twice; initially, it had been considered to be two different EAs from two different regions, but later it was determined to be a single EA. The second EA dropped was inadvertent. After the fieldwork was completed, it was determined that the EA had not been visited. The problem was administrative. Because it was initially not certain to which region it belonged and team assignments were made based on regions, no team was assigned to cover it. Thus, in total the THMIS sample consisted of 583 EAs.

Table A.3 shows the sample allocation of the 583 EAs in the THMIS sample and the number of households by region, according to residence. The sample allocation among regions was not done in proportion to the number of households in the region at the time of the 2002 census. If that approach had been adopted, some of the less populated regions would have received a too-small sample size. Instead the number of EAs in each region was determined in such a way that they would provide an adequate sample in each region. Note that although the sampling frame did not provide urban-rural information for Zanzibar, it was possible to determine whether a given EA in Zanzibar was urban or rural based on its EA code.

Table A.3 Sample allocation of clusters and households

Sample allocation of clusters and households by region, according to residence, Tanzania 2011-12

	Allocation of clusters			Allocation of households		
Region	Urban	Rural	Total	Urban	Rural	Total
Dodoma	2	18	20	36	324	360
Arusha	8	12	20	144	216	360
Kilimanjaro	5	15	20	90	270	360
Tanga	4	16	20	72	288	360
Morogoro	6	14	20	108	252	360
Pwani	4	16	20	72	288	360
Dar es salaam	28	2	30	504	36	540
Lindi	3	17	20	54	306	360
Mtwara	4	16	20	72	288	360
Ruvuma	3	17	20	54	306	360
Iringa	5	15	20	90	270	360
Mbeya	4	16	20	72	288	360
Singida	3	17	20	54	306	360
Tabora	4	18	22	72	324	396
Rukwa	4	16	20	72	288	360
Kigoma	3	17	20	54	306	360
Shinyanga	2	14	16	36	252	288
Kagera	1	19	20	18	342	360
Mwanza	6	14	20	108	252	360
Mara	4	16	20	72	288	360
Manyara	3	17	20	54	306	360
Njombe	4	16	20	72	288	360
Katavi	1	16	17	18	288	306
Simiyu	2	18	20	36	324	360
Geita	3	20	23	54	360	414
Kaskazini Unguja	0	15	15	0	270	270
Kusini Unguja	1	14	15	18	252	270
Mjini Magharibi	11	4	15	198	72	270
Kaskazini Pemba	4	11	15	72	198	270
Kusini Pemba	2	13	15	36	234	270
Tanzania	134	449	583	8,082	2,412	10,494

The number of interviews with women and men that were expected to be completed based on the sample design is shown in Table A.4.

Table A.4 Sample allocation of completed interviews with women and men

Sample allocation of expected number of completed interviews with women and men by region, according to residence, Tanzania 2011-12

	Women 15-49			Men 15-49		
Region	Urban	Rural	Total	Urban	Rural	Total
Dodoma	40	326	366	29	262	291
Arusha	159	218	377	117	175	292
Kilimanjaro	99	272	371	73	218	292
Tanga	80	290	370	59	233	292
Morogoro	119	254	373	88	204	292
Pwani	80	290	370	59	233	292
Dar es salaam	557	36	593	410	29	439
Lindi	60	308	368	44	248	291
Mtwara	80	290	370	59	233	292
Ruvuma	60	308	368	44	248	291
Iringa	99	272	371	73	218	292
Mbeya	80	290	370	59	233	292
Singida	60	308	368	44	248	291
Tabora	80	326	406	59	262	321
Rukwa	80	290	370	59	233	292
Kigoma	60	308	368	44	248	291
Shinyanga	40	254	294	29	204	233
Kagera	20	344	364	15	277	291
Mwanza	119	254	373	88	204	292
Mara	80	290	370	59	233	292
Manyara	60	308	368	44	248	291
Njombe	80	290	370	59	233	292
Katavi	20	290	310	15	233	248
Simiyu	40	326	366	29	262	291
Geita	60	363	422	44	291	335
Kaskazini Unguja	0	272	272	0	218	218
Kusini Unguja	20	254	274	15	204	219
Mjini Magharibi	219	73	291	161	58	219
Kaskazini Pemba	80	199	279	59	160	219
Kusini Pemba	40	236	275	29	189	219
Tanzania	2,671	8,139	10,807	1,966	6,539	8,502

An examination of response rates for the 2011-12 THMIS indicates that the survey was successfully implemented. Table A.5 and Table A.6 present the interview response rates in the 2011-12 THMIS for women and men, respectively, by urban and rural area and region. Overall, the number of completed interviews is similar to the expected number for both women and men. The coverage of HIV testing was also comparable in the 2011-12 THMIS relative to the 2007-08 survey. Tables A.7-A.10 present response rates for the HIV testing by background characteristics.

A.4 SAMPLE PROBABILITIES AND SAMPLE WEIGHTS

Due to the nonproportional allocation of the sample across domains and urban-rural areas, and the differential response rates, sampling weights must be calculated using all analyses of the THMIS results to ensure that survey results are representative at both the national and domain level. Since the THMIS sample is a two-stage stratified cluster sample, sampling weights are based on sampling probabilities calculated separately for each sampling stage and for each cluster where:

P_{1hi}: first-stage sampling probability of the i^{th} cluster in stratum h
P_{2hi}: second-stage sampling probability within the i^{th} cluster (households)

The following describes the calculation of these probabilities:

Let a_h be the number of clusters selected in stratum h, M_{hi} the number of households according to the sampling frame in the i^{th} cluster, and $\sum M_{hi}$ the total number of households in the stratum. The probability of selecting the i^{th} cluster in the THMIS 2011-12 sample is calculated as follows:

$$\frac{a_h \, M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected cluster compared with the total number of households in cluster i in stratum h if the cluster is segmented, otherwise $b_{hi} = 1$. Then the probability of selecting cluster i in the sample is:

$$P_{1hi} = \frac{a_h \, M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster i in stratum h, and let g_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is therefore the product of the two stages of selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The design weight for each household in cluster i of stratum h is the inverse of its overall selection probability:

$$W_{hi} = 1 / P_{hi}$$

Next, the design weight is adjusted for household non-response and individual non-response to get the sampling weights for households and for women and men, respectively. Non-response is adjusted at the sampling stratum level. For the household sampling weight, the household design weight is multiplied by the inverse of the household response rate, by stratum. For the women's individual sampling weight, the household sampling weight is multiplied by the inverse of the women's individual response rate, by stratum. For the men's individual sampling weight, the household sampling weight is multiplied by the inverse of the men's individual response rate, by stratum. After adjusting for non-response, the sampling weights are normalized to get the final standard weights that appear in the data files. The normalization process is done to obtain a total number of un-weighted cases equal to the total number of weighted cases at the national level, for the total number of households, women, and men. Normalization is done by multiplying the sampling weight by the estimated sampling fraction obtained from the survey for the household weight, the individual woman's weight, and the individual man's weight. The normalized weights are relative weights that are valid for estimating means, proportions, ratios, and rates, but they are not valid for estimating population totals or pooled data. The sampling weights for HIV testing are calculated in a similar way, but the normalization of the HIV weights is different. The individual HIV testing weights are normalized at the national level for women and men together so that HIV prevalence estimates calculated for women and men together are valid.

Table A.5 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), Tanzania 2011-12

	Residence		Region													
Result	Urban	Rural	Dodoma	Arusha	Kilimanjaro	Tanga	Morogoro	Pwani	Dar es Salaam	Lindi	Mtwara	Ruvuma	Iringa	Mbeya	Singida	Total
Selected households																
Completed (C)	93.8	96.2	95.8	94.4	96.4	93.1	93.9	86.7	96.5	97.5	95.3	97.5	95.3	96.9	98.3	95.7
Household present but no competent respondent at home (HP)	0.8	0.9	0.6	0.3	0.8	3.3	0.8	4.4	0.9	0.3	0.3	0.3	1.1	0.3	0.6	0.9
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.5	0.2	0.8	0.6	0.0	0.0	0.3	0.3	0.4	0.0	0.3	0.0	0.3	0.0	0.3	0.2
Dwelling not found (DNF)	1.2	0.4	0.3	1.4	0.3	1.9	1.4	4.2	0.4	0.3	0.0	0.0	0.3	0.3	0.0	0.6
Household absent (HA)	1.9	1.5	2.2	0.3	2.2	1.1	3.3	3.6	1.1	1.4	3.9	1.9	1.7	2.5	0.8	1.6
Dwelling vacant/address not a dwelling (DV)	1.2	0.4	0.0	2.5	0.0	0.3	0.3	0.6	0.0	0.0	0.3	0.3	1.4	0.0	0.0	0.6
Dwelling destroyed (DD)	0.5	0.2	0.3	0.6	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.3
Other (O)	0.2	0.1	0.0	0.0	0.3	0.3	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	2,412	8,084	360	360	360	360	360	360	540	360	360	360	360	360	360	10,496
Household response rate (HRR)[1]	97.5	98.4	98.3	97.7	98.9	94.6	97.4	90.7	98.3	99.4	99.4	99.7	98.3	99.4	99.2	98.2
Eligible women																
Completed (EWC)	95.8	96.1	98.6	96.3	95.7	93.4	96.3	89.3	97.1	98.4	94.7	94.3	94.9	95.5	97.0	96.0
Not at home (EWNH)	2.6	2.6	1.1	2.3	2.3	6.1	2.3	6.0	2.0	0.9	2.8	3.9	2.7	3.5	1.8	2.6
Refused (EWR)	1.0	0.4	0.4	0.8	0.3	0.5	0.0	1.6	0.9	0.0	0.9	0.3	1.5	0.0	0.3	0.6
Partly completed (EWPC)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1
Incapacitated (EWI)	0.4	0.8	0.0	0.6	1.7	0.0	1.4	2.8	0.0	0.6	1.6	1.3	0.9	0.8	1.0	0.7
Other (EWO)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	2,739	8,684	281	354	346	377	354	318	648	317	318	386	332	396	398	11,423
Eligible women response rate (EWRR)[2]	95.8	96.1	98.6	96.3	95.7	93.4	96.3	89.3	97.1	98.4	94.7	94.3	94.9	95.5	97.0	96.0
Overall women response rate (ORR)[3]	93.4	94.5	96.9	94.1	94.6	88.4	93.8	81.0	95.4	97.9	94.1	94.0	93.2	94.9	96.2	94.3

[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] The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC).
[3] The overall women response rate (OWRR) is calculated as:

$$OWRR = HRR * EWRR/100$$

Table A.5 Sample Implementation: Women—Continued

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), Tanzania 2011-12

	Region																	
Result	Tabora	Rukwa	Kigoma	Shinyanga	Kagera	Mwanza	Mara	Manyara	Njombe	Katavi	Simiyu	Geita	Kaskazini Unguja	Kusini Unguja	Mjini Magharibi	Kaskazini Pemba	Kusini Pemba	Total
Selected households																		
Completed (C)	94.9	94.2	97.5	96.2	95.6	93.6	95.0	95.8	96.1	94.8	96.1	97.8	98.9	97.4	97.0	95.2	97.0	95.7
Household present but no competent respondent at home (HP)	0.5	1.1	0.8	1.0	1.1	0.8	1.4	1.4	1.1	1.6	0.0	0.0	0.0	0.0	0.0	0.4	1.5	0.9
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Refused (R)	0.0	0.6	0.0	0.0	1.1	0.6	0.3	0.6	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.2
Dwelling not found (DNF)	0.5	0.8	0.0	0.0	0.8	0.8	0.0	0.0	0.6	0.3	0.3	0.5	0.0	0.7	1.5	0.7	0.0	0.6
Household absent (HA)	1.3	3.1	0.6	0.3	0.6	1.9	1.9	0.3	1.1	2.3	2.2	0.2	1.1	1.1	0.7	3.0	1.5	1.6
Dwelling vacant/address not a dwelling (DV)	2.5	0.0	0.8	2.1	0.8	1.4	0.6	1.1	0.0	0.0	0.6	0.5	0.0	0.4	0.4	0.0	0.0	0.6
Dwelling destroyed (DD)	0.3	0.0	0.3	0.3	0.0	0.3	0.8	0.8	0.8	1.0	0.6	0.7	0.0	0.0	0.0	0.0	0.0	0.3
Other (O)	0.0	0.3	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.4	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	396	360	360	288	360	360	360	360	360	306	360	414	270	272	270	270	270	10,496
Household response rate (HRR)[1]	98.9	97.4	99.2	98.9	96.9	97.7	98.3	98.0	98.0	98.0	99.4	99.5	100.0	99.3	98.5	98.1	98.5	98.2
Eligible women																		
Completed (EWC)	98.0	92.4	93.7	97.7	96.3	97.1	95.0	97.7	94.9	94.6	93.2	97.9	99.1	99.3	97.6	97.4	97.1	96.0
Not at home (EWNH)	1.6	5.9	4.5	2.1	2.5	2.0	3.7	1.0	3.3	1.6	5.6	1.2	0.6	0.0	1.3	0.3	1.6	2.6
Refused (EWR)	0.0	1.1	0.7	0.3	0.3	0.2	0.6	1.0	0.9	1.9	0.6	0.0	0.0	0.3	0.3	1.3	0.6	0.6
Partly completed (EWPC)	0.0	0.0	0.2	0.0	0.3	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.1
Incapacitated (EWI)	0.4	0.3	0.9	0.0	0.6	0.2	0.6	0.3	0.6	1.9	0.6	0.9	0.3	0.3	0.0	0.6	0.6	0.7
Other (EWO)	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	449	370	445	341	353	443	464	394	334	316	500	578	322	291	380	308	310	11,423
Eligible women response rate (EWRR)[2]	98.0	92.4	93.7	97.7	96.3	97.1	95.0	97.7	94.9	94.6	93.2	97.9	99.1	99.3	97.6	97.4	97.1	96.0
Overall women response rate (ORR)[3]	97.0	90.0	92.9	96.6	93.3	94.8	93.4	95.8	93.0	92.7	92.7	97.4	99.1	98.6	96.2	95.5	95.6	94.3

Table A.6 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall men response rates, according to urban-rural residence and region (unweighted), Tanzania 2011-12

	Residence		Region													
Result	Urban	Rural	Dodoma	Arusha	Kilimanjaro	Tanga	Morogoro	Pwani	Dar es Salaam	Lindi	Mtwara	Ruvuma	Iringa	Mbeya	Singida	Total
Selected households																
Completed (C)	93.8	96.2	95.8	94.4	96.4	93.1	93.9	86.7	96.5	97.5	95.3	97.5	95.3	96.9	98.3	95.7
Household present but no competent respondent at home (HP)	0.8	0.9	0.6	0.3	0.8	3.3	0.8	4.4	0.9	0.3	0.3	0.3	1.1	0.3	0.6	0.9
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.5	0.2	0.8	0.6	0.0	0.0	0.3	0.3	0.4	0.0	0.3	0.0	0.3	0.0	0.3	0.2
Dwelling not found (DNF)	1.2	0.4	0.3	1.4	0.3	1.9	1.4	4.2	0.4	0.3	0.0	0.0	0.3	0.3	0.0	0.6
Household absent (HA)	1.9	1.5	2.2	0.3	2.2	1.1	3.3	3.6	1.1	1.4	3.9	1.9	1.7	2.5	0.8	1.6
Dwelling vacant/address not a dwelling (DV)	1.2	0.4	0.0	2.5	0.0	0.3	0.3	0.6	0.0	0.0	0.3	0.3	1.4	0.0	0.0	0.6
Dwelling destroyed (DD)	0.5	0.2	0.3	0.6	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.3
Other (O)	0.2	0.1	0.0	0.0	0.3	0.3	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	2,412	8,084	360	360	360	360	360	360	540	360	360	360	360	360	360	10,496
Household response rate (HRR)[1]	97.5	98.4	98.3	97.7	98.9	94.6	97.4	90.7	98.3	99.4	99.4	99.7	98.3	99.4	99.2	98.2
Eligible men																
Completed (EMC)	87.0	89.6	89.7	91.3	90.0	83.4	87.4	80.6	90.5	96.2	90.5	92.5	85.6	88.0	91.9	89.0
Not at home (EMNH)	9.7	8.1	9.1	7.7	6.8	14.7	10.1	16.3	6.6	3.0	7.7	5.8	9.1	7.8	6.7	8.5
Postponed (EMP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Refused (EMR)	2.0	1.0	0.8	0.7	2.8	0.8	1.6	1.1	2.6	0.0	0.0	0.0	3.5	1.5	0.6	1.2
Partly completed (EMPC)	0.2	0.1	0.0	0.0	0.0	0.4	0.0	0.4	0.2	0.4	0.0	0.0	0.0	0.0	0.3	0.1
Incapacitated (EMI)	0.9	1.0	0.4	0.3	0.4	0.8	0.6	1.5	0.2	0.4	1.8	1.4	1.8	2.4	0.6	1.0
Other (EMO)	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	2,186	7,202	242	286	251	259	318	263	547	234	220	295	285	334	359	9,388
Eligible men response rate (EMRR)[2]	87.0	89.6	89.7	91.3	90.0	83.4	87.4	80.6	90.5	96.2	90.5	92.5	85.6	88.0	91.9	89.0
Overall men response rate (ORR)[3]	84.8	88.1	88.1	89.2	89.0	78.9	85.2	73.1	89.0	95.6	89.9	92.3	84.1	87.5	91.1	87.3

[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] The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC).
[3] The overall men response rate (OMRR) is calculated as:

$$OMRR = HRR * EMRR/100$$

Table A.6 Sample implementation: Men—Continued

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men and overall men response rates, according to urban-rural residence and region (unweighted), Tanzania 2011-12

	Region																
Result	Tabora	Rukwa	Kigoma	Shinyanga	Kagera	Mwanza	Mara	Manyara	Njombe	Katavi	Simiyu	Geita	Kaskazini Unguja	Kusini Unguja	Mjini Magharibi	Kaskazini Pemba	Kusini Pemba	Total
Selected households																		
Completed (C)	94.9	94.2	97.5	96.2	95.6	93.6	95.0	95.8	96.1	94.8	96.1	97.8	98.9	97.4	97.0	95.2	97.0	95.7
Household present but no competent respondent at home (HP)	0.5	1.1	0.8	1.0	1.1	0.8	1.4	1.4	1.1	1.6	0.0	0.0	0.0	0.0	0.0	0.4	1.5	0.9
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Refused (R)	0.0	0.6	0.0	0.0	1.1	0.6	0.3	0.6	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.2
Dwelling not found (DNF)	0.5	0.8	0.0	0.0	0.8	0.8	0.0	0.0	0.6	0.3	0.3	0.5	0.0	0.7	1.5	0.7	0.0	0.6
Household absent (HA)	1.3	3.1	0.6	0.3	0.6	1.9	1.9	0.3	1.1	2.3	2.2	0.2	1.1	1.1	0.7	3.0	1.5	1.6
Dwelling vacant/address not a dwelling (DV)	2.5	0.0	0.8	2.1	0.8	1.4	0.6	1.1	0.0	0.0	0.6	0.5	0.0	0.4	0.4	0.0	0.0	0.6
Dwelling destroyed (DD)	0.3	0.0	0.3	0.3	0.0	0.3	0.8	0.8	0.8	1.0	0.6	0.7	0.0	0.0	0.0	0.0	0.0	0.3
Other (O)	0.0	0.3	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.4	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	396	360	360	288	360	360	360	360	360	306	360	414	270	272	270	270	270	10,496
Household response rate (HRR)[1]	98.9	97.4	99.2	98.9	96.9	97.7	98.3	98.0	98.0	98.0	99.4	99.5	100.0	99.3	98.5	98.1	98.5	98.2
Eligible men																		
Completed (EMC)	88.2	81.7	79.3	91.5	90.0	86.9	86.5	92.5	92.2	86.7	88.2	90.0	95.2	95.9	93.7	92.7	84.6	89.0
Not at home (EMNH)	9.3	14.2	15.9	7.1	7.8	10.7	10.8	4.9	5.7	11.7	10.2	8.9	2.4	2.0	3.3	3.0	11.6	8.5
Postponed (EMP)	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EMR)	0.9	2.1	2.3	0.7	0.3	0.5	1.1	1.6	0.7	0.8	1.2	0.2	1.4	1.2	2.2	1.3	2.3	1.2
Partly completed (EMPC)	0.2	0.0	0.3	0.0	0.0	0.3	0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.1
Incapacitated (EMI)	1.1	1.7	2.0	0.4	1.9	1.3	1.1	1.1	1.1	0.8	0.5	0.4	1.0	0.8	0.4	2.1	1.2	1.0
Other (EMO)	0.2	0.3	0.3	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.4	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	451	289	352	283	319	375	378	371	281	240	432	508	207	246	271	233	259	9,388
Eligible men response rate (EMRR)[2]	88.2	81.7	79.3	91.5	90.0	86.9	86.5	92.5	92.2	86.7	88.2	90.0	95.2	95.9	93.7	92.7	84.6	89.0
Overall men response rate (ORR)[3]	87.3	79.5	78.6	90.5	87.2	84.9	85.0	90.6	90.3	84.9	87.7	89.5	95.2	95.2	92.3	90.9	83.3	87.3

Table A.7 Coverage of HIV testing by social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Tanzania 2011-12

Characteristic	HIV test status				Total	Number of women
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Marital status						
Never married	93.1	5.9	0.2	0.8	100.0	2,917
Ever had sexual intercourse	92.8	6.2	0.0	1.0	100.0	1,159
Never had sexual intercourse	93.3	5.7	0.3	0.7	100.0	1,758
Married/living together	94.3	5.2	0.0	0.5	100.0	6,833
Divorced or separated	93.7	6.2	0.0	0.1	100.0	875
Widowed	93.6	6.1	0.0	0.3	100.0	342
Type of union						
In polygynous union	94.4	5.2	0.0	0.4	100.0	1,507
In non-polygynous union	94.4	5.1	0.0	0.5	100.0	5,231
Not currently in union	93.3	6.0	0.1	0.6	100.0	4,134
In union, polygyny status unknown	89.5	10.5	0.0	0.0	100.0	95
Ever had sexual intercourse						
Yes	94.0	5.5	0.0	0.5	100.0	9,203
No	93.3	5.7	0.3	0.7	100.0	1,754
Missing	80.0	20.0	0.0	0.0	100.0	10
Pregnancy status						
Pregnant	96.0	3.6	0.0	0.4	100.0	1,023
Not pregnant or not sure	93.7	5.7	0.1	0.5	100.0	9,944
Times slept away from home in past 12 months						
None	93.8	5.6	0.0	0.5	100.0	6,103
1-2	94.3	5.0	0.1	0.6	100.0	3,704
3-4	93.0	6.8	0.0	0.2	100.0	824
5+	93.3	6.4	0.0	0.3	100.0	330
Missing	100.0	0.0	0.0	0.0	100.0	6
Time away in past 12 months						
Away for more than 1 month	94.1	5.2	0.1	0.6	100.0	1,764
Away for less than 1 month	93.9	5.5	0.0	0.5	100.0	3,090
Not away	93.8	5.6	0.0	0.5	100.0	6,107
Missing	83.3	16.7	0.0	0.0	100.0	6
Total	93.9	5.5	0.0	0.5	100.0	10,967

[1] Includes all dried blood samples (DBS) 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) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.8 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), Tanzania 2011-12

Characteristic	HIV test status				Total	Number of men
	DBS Tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Marital status						
Never married	89.3	9.7	0.1	0.9	100.0	3,643
Ever had sexual intercourse	88.6	10.7	0.0	0.7	100.0	1,842
Never had sexual intercourse	90.0	8.8	0.3	1.0	100.0	1,801
Married/living together	89.1	10.3	0.0	0.5	100.0	4,341
Divorced or separated	88.4	11.6	0.0	0.0	100.0	329
Widowed	84.6	15.4	0.0	0.0	100.0	39
Type of union						
In polygynous union	89.3	10.3	0.0	0.4	100.0	496
In non-polygynous union	89.2	10.3	0.0	0.5	100.0	3,835
Not currently in union	89.2	9.9	0.1	0.8	100.0	4,011
In union, polygyny status unknown	80.0	20.0	0.0	0.0	100.0	10
Ever had sexual intercourse						
Yes	89.0	10.4	0.0	0.5	100.0	6,532
No	89.9	8.8	0.3	1.0	100.0	1,797
Missing	60.9	30.4	0.0	8.7	100.0	23
Male circumcision						
Circumcised	88.9	10.2	0.1	0.8	100.0	6,139
Not circumcised	89.9	9.8	0.0	0.2	100.0	2,205
Times slept away from home in past 12 months						
None	88.9	10.3	0.1	0.8	100.0	4,005
1-2	90.8	8.5	0.1	0.7	100.0	2,552
3-4	87.9	11.7	0.0	0.4	100.0	956
5+	87.1	12.7	0.0	0.2	100.0	820
Missing	84.2	15.8	0.0	0.0	100.0	19
Time away in past 12 months						
Away for more than 1 month	89.2	10.0	0.0	0.8	100.0	1,486
Away for less than 1 month	89.5	10.0	0.1	0.4	100.0	2,839
Not away	88.9	10.3	0.1	0.8	100.0	4,016
Missing	90.9	9.1	0.0	0.0	100.0	11
Total	89.2	10.1	0.1	0.6	100.0	8,352

[1] Includes all dried blood samples (DBS) 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) noncorresponding bar codes, and (4) other lab results, such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.9 Coverage of HIV testing by sexual behaviour characteristics: Women

Percent distribution of interviewed women age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Tanzania 2011-12

Sexual behaviour characteristic	HIV test status			Total	Number of women
	DBS Tested[1]	Refused to provide blood	Other/ missing[2]		
Age at first sexual intercourse					
<16	93.1	6.3	0.7	100.0	2,452
16-17	94.0	5.6	0.3	100.0	2,659
18-19	94.8	4.7	0.6	100.0	2,278
20+	94.2	5.3	0.5	100.0	1,706
Don't know/missing	98.1	1.9	0.0	100.0	108
Multiple sexual partners and partner concurrency in past 12 months					
0	91.5	8.1	0.4	100.0	948
1	94.3	5.2	0.5	100.0	7,871
2+	96.7	2.7	0.5	100.0	366
Had concurrent partners[1]	96.4	3.6	0.0	100.0	112
None of the partners were concurrent	96.9	2.4	0.8	100.0	254
Missing	55.6	44.4	0.0	100.0	18
Condom use at last sexual intercourse in past 12 months					
Used condom	93.3	5.5	1.2	100.0	1,147
Did not use condom	94.6	5.0	0.4	100.0	7,088
No sexual intercourse in last 12 months	90.8	8.8	0.4	100.0	966
Don't know/missing	100.0	0.0	0.0	100.0	2
Number of lifetime partners					
1	93.7	5.9	0.5	100.0	4,237
2	93.9	5.6	0.5	100.0	2,386
3-4	95.0	4.4	0.5	100.0	1,828
5-9	95.6	3.9	0.5	100.0	592
10+	92.1	7.0	0.9	100.0	114
Don't know/missing	78.3	19.6	2.2	100.0	46
Prior HIV testing					
Ever tested	94.6	5.0	0.5	100.0	6,862
Received results	94.5	5.0	0.5	100.0	6,479
Did not received results	95.6	4.2	0.3	100.0	383
Never tested	92.4	7.1	0.6	100.0	2,266
Missing	96.0	4.0	0.0	100.0	75
Total	94.0	5.5	0.5	100.0	9,203

[1] Includes all dried blood samples (DBS) 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.
[3] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey

Table A.10 Coverage of HIV testing by sexual behaviour characteristics: Men

Percent distribution of interviewed men age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behaviour characteristics (unweighted), Tanzania 2011-12

Sexual behaviour characteristic	HIV test status			Total	Number of men
	DBS Tested[1]	Refused to provide blood	Other/ missing[2]		
Age at first sexual intercourse					
<16	88.7	10.9	0.5	100.0	1,326
16-17	88.7	10.8	0.4	100.0	1,394
18-19	90.0	9.5	0.5	100.0	1,804
20+	88.6	10.8	0.6	100.0	2,005
Don't know/missing	100.0	0.0	0.0	100.0	3
Multiple sexual partners and partner concurrency in past 12 months					
0	90.5	9.5	0.0	100.0	42
1	88.7	10.7	0.6	100.0	4,776
2+	90.6	9.2	0.3	100.0	1,579
Had concurrent partners[1]	91.2	8.6	0.2	100.0	883
None of the partners were concurrent	89.8	9.9	0.3	100.0	696
Missing	84.4	14.8	0.7	100.0	135
Condom use at last sexual intercourse in past 12 months					
Used condom	87.8	11.6	0.7	100.0	1,350
Did not use condom	89.9	9.6	0.4	100.0	4,705
No sexual intercourse in last 12 months	83.7	15.3	1.1	100.0	472
Don't know/missing	80.0	20.0	0.0	100.0	5
Paid for sexual intercourse in past 12 months					
Yes	92.2	7.2	0.6	100.0	640
Used condom	92.5	6.9	0.6	100.0	320
Did not use condom	91.9	7.5	0.6	100.0	320
No (No paid sexual intercourse/no sexual intercourse in last 12 months)	88.7	10.8	0.5	100.0	5,892
Number of lifetime partners					
1	87.5	12.1	0.4	100.0	1,210
2	88.5	11.4	0.2	100.0	1,249
3-4	90.0	9.4	0.6	100.0	1,575
5-9	91.9	7.5	0.6	100.0	1,221
10+	88.4	10.8	0.8	100.0	1,059
Don't know/missing	81.2	18.3	0.5	100.0	218
Prior HIV testing					
Ever tested	90.3	9.3	0.4	100.0	3,685
Received results	90.1	9.4	0.5	100.0	3,497
Did not received results	93.6	6.4	0.0	100.0	188
Never tested	87.4	12.0	0.6	100.0	2,846
Missing	100.0	0.0	0.0	100.0	1
Total	89.0	10.4	0.5	100.0	6,532

[1] Includes all dried blood samples (DBS) 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.
[3] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

ESTIMATES OF SAMPLING ERRORS *Appendix* **B**

The estimates from a sample survey are affected by two types of errors: non-sampling errors and sampling errors. Non-sampling 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 2011-12 Tanzania HIV/AIDS and Malaria Indicator Survey (2011-12 THMIS) to minimize this type of error, non-sampling 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 2011-12 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 among all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

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 2011-12 THMIS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. Sampling errors are computed by SAS, using programs developed by ICF International. These programs use the Taylor linearization method of variance estimation for survey estimates that are means, proportions, or ratios. 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.

Sampling errors for the 2011-12 THMIS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, for Mainland Tanzania and Zanzibar, for zones, and for each of thirty regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 through B.48 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 a simple random sample is zero (when the estimate is close to 0 or 1).

The confidence interval (e.g., as calculated for *child slept under an ITN last night*) can be interpreted as follows: the overall proportion from the national sample is 0.72 and its standard error is 0.009. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 0.72±2×0.009. There is a high probability (95 percent) that the *true* proportion of children under 5 who slept under an ITN last night is between 0.703 and 0.738.

For the total sample, the value of the DEFT, averaged over all variables at national level, is 1.614. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.614 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Tanzania 2011-12

Variable	Estimate	Base population
WOMEN		
Urban residence	Proportion	All women 15-49
No education	Proportion	All women 15-49
Secondary education or higher	Proportion	All women 15-49
Never married/in union	Proportion	All women 15-49
Currently married/in union	Proportion	All women 15-49
Had sexual intercourse before age 15	Proportion	All women 20-49
Had 2+ sexual partners in past 12 months	Proportion	All women 15-49
Had an HIV test and received results in past 12 months	Proportion	All women 15-49
Condom use at last sex	Proportion	Women 15-49 with 2+ partners in past 12 months
Abstinence among youth (never had sex)	Proportion	Never-married women 15-24
Sexually active in past 12 months among never-married youth	Proportion	Never-married women 15-24
Accepting attitudes towards people with HIV	Proportion	All women who have heard of HIV/AIDS
Owns at least 1 insecticide-treated net (ITN)	Proportion	Households
Child slept under an ITN last night	Proportion	Children under five in households
Pregnant woman slept under an ITN last night	Proportion	All pregnant women 15-49 in households
Received 2+ doses of SP/Fansidar, at least one from antenatal visit	Proportion	Last birth of women 15-49 with live births last 2 years
Child has fever in last 2 weeks	Proportion	Child under five in women's birth history
Child sought care/treatment from a health facility, provider, or pharmacy	Proportion	Child under five with fever in last 2 weeks
Child took ACT	Proportion	Child under five with fever in last 2 weeks who received any antimalarial drugs
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	Proportion	Child 6-59 months tested for anaemia
Child 6-59 months has malaria (on rapid test)	Proportion	Children 6-59 months tested (rapid test) for malaria
Child 6-59 months has malaria (on microscopy)	Proportion	Children 6-59 months tested (on microscopy) for malaria
HIV prevalence among all women 15-49	Proportion	All interviewed women with Dried Blood Sample (DBS) tested at the lab
HIV prevalence among pregnant women 15-49	Proportion	All interviewed pregnant women 15-49 with DBS tested at the lab
HIV prevalence among young women 15-24	Proportion	All interviewed women 15-24 with DBS tested at the lab
MEN		
Urban residence	Proportion	All men 15-49
No education	Proportion	All men 15-49
Secondary education or higher	Proportion	All men 15-49
Never married/in union	Proportion	All men 15-49
Currently married/in union	Proportion	All men 15-49
Had sexual intercourse before age 15	Proportion	All men 20-49
Had 2+ sexual partners in past 12 months	Proportion	All men 15-49
Had an HIV test and received results in past 12 months	Proportion	All men 15-49
Paid for sexual intercourse in past 12 months	Proportion	All men 15-49
Condom use at last sex	Proportion	Men 15-49 with 2+ partners in past 12 months
Abstinence among youth (never had sex)	Proportion	Never-married men 15-24
Sexually active in past 12 months among never-married youth	Proportion	Never-married men 15-24
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 the lab
HIV prevalence among young men 15-24	Proportion	All interviewed men 15-24 with DBS tested at the lab
WOMEN AND MEN		
HIV prevalence all respondents (men and women 15-49)	Proportion	All interviewed women and men 15-49 with DBS tested at the lab
HIV prevalence all respondents (men and women 15-24)	Proportion	All interviewed women and men 15-24 with DBS tested at the lab

Table B.2 Sampling errors: Total sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
Urban residence	0.270	0.014	10,967	10,967	3.357	0.053	0.241	0.298
No education	0.178	0.010	10,967	10,967	2.693	0.055	0.159	0.198
Secondary education or higher	0.175	0.007	10,967	10,967	1.819	0.038	0.162	0.188
Never married/in union	0.255	0.007	10,967	10,967	1.572	0.026	0.242	0.268
Currently married/in union	0.630	0.008	10,967	10,967	1.708	0.012	0.614	0.646
Had sexual intercourse before age of 15	0.100	0.005	8,490	8,553	1.563	0.051	0.090	0.110
Had 2+ sexual partners in past 12 months	0.038	0.003	10,967	10,967	1.378	0.066	0.033	0.043
Had an HIV test and received results in past 12 months	0.303	0.008	10,967	10,967	1.760	0.026	0.287	0.318
Condom use at last sex	0.273	0.026	366	414	1.094	0.093	0.222	0.325
Abstinence among never married youth (never had intercourse)	0.592	0.013	2,579	2,434	1.314	0.021	0.567	0.618
Sexually active in past 12 months among never married youth	0.322	0.013	2,579	2,434	1.450	0.041	0.296	0.349
Accepting attitudes towards people with HIV	0.254	0.008	10,892	10,872	1.922	0.032	0.238	0.270
Owns at least 1 insecticide-treated net (ITN)	0.909	0.004	10,040	10,040	1.477	0.005	0.901	0.918
Child slept under an ITN last night	0.720	0.009	9,029	8,877	1.426	0.012	0.703	0.738
Pregnant woman slept under an ITN last night	0.748	0.018	1,023	991	1.298	0.024	0.712	0.784
Received 2+ doses of SP/Fansidar during antenatal visit	0.318	0.012	3,525	3,555	1.598	0.039	0.293	0.343
Child has fever in last 2 weeks	0.204	0.008	8,289	8,216	1.606	0.037	0.189	0.219
Child sought care/treatment from a health facility, provider, or pharmacy, provider, or pharmacy	0.773	0.014	1,679	1,675	1.278	0.018	0.745	0.802
Child took ACT	0.611	0.024	854	900	1.392	0.039	0.564	0.659
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.056	0.004	7,704	7,498	1.506	0.075	0.047	0.064
Child 6-59 months has malaria (based on rapid test)	0.092	0.007	7,606	7,399	1.735	0.074	0.079	0.106
Child 6-59 months has malaria (based on microscopy test)	0.041	0.004	7,471	7,322	1.462	0.096	0.033	0.049
HIV prevalence among all women 15-49	0.062	0.003	10,299	9,756	1.287	0.050	0.055	0.068
HIV prevalence among pregnant women 15-49	0.032	0.007	982	910	1.283	0.224	0.018	0.047
HIV prevalence among young women 15-24	0.027	0.003	4,154	3,852	1.330	0.125	0.020	0.033
			MEN					
Urban residence	0.256	0.014	8,352	8,352	2.917	0.054	0.229	0.284
No education	0.093	0.007	8,352	8,352	2.276	0.078	0.078	0.107
Secondary education or higher	0.236	0.009	8,352	8,352	1.943	0.038	0.218	0.254
Never married/in union	0.423	0.008	8,352	8,352	1.520	0.019	0.407	0.440
Currently married/in union	0.530	0.008	8,352	8,352	1.518	0.016	0.514	0.547
Had sexual intercourse before age of 15	0.064	0.004	6,234	6,340	1.213	0.059	0.057	0.072
Had 2+ sexual partners in past 12 months	0.208	0.007	8,352	8,352	1.621	0.035	0.193	0.222
Had an HIV test and received results in past 12 months	0.265	0.008	8,352	8,352	1.557	0.028	0.250	0.280
Paid for sexual intercourse in past 12 months	0.085	0.004	8,352	8,352	1.470	0.053	0.076	0.094
Condom use at last sex	0.268	0.017	1,586	1,733	1.492	0.062	0.235	0.302
Abstinence among never married youth (never had intercourse)	0.479	0.013	3,172	3,043	1.461	0.027	0.453	0.505
Sexually active in past 12 months among never married youth	0.419	0.013	3,172	3,043	1.436	0.030	0.394	0.444
Accepting attitudes towards people with HIV	0.404	0.009	8,317	8,320	1.750	0.023	0.385	0.422
HIV prevalence among all men 15-49	0.038	0.003	7,446	7,989	1.401	0.081	0.032	0.045
HIV prevalence among young men 15-24	0.012	0.003	3,237	3,393	1.330	0.214	0.007	0.017
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.051	0.002	17,745	17,745	1.449	0.047	0.046	0.056
HIV prevalence all respondents (men and women 15-24)	0.020	0.002	7,391	7,245	1.279	0.105	0.016	0.024

Table B.3 Sampling errors: Urban sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.062	0.010	2,624	2,956	2.087	0.159	0.042	0.082
Secondary education or higher	0.318	0.013	2,624	2,956	1.421	0.041	0.293	0.344
Had 2+ sexual partners in past 12 months	0.045	0.006	2,624	2,956	1.383	0.124	0.034	0.057
Had an HIV test and received results in past 12 months	0.380	0.017	2,624	2,956	1.769	0.044	0.347	0.414
Condom use at last sex	0.419	0.047	98	134	0.943	0.113	0.325	0.514
Abstinence among never married youth (never had intercourse)	0.523	0.018	788	821	1.000	0.034	0.488	0.559
Sexually active in past 12 months among never married youth	0.388	0.024	788	821	1.408	0.063	0.339	0.437
Accepting attitudes towards people with HIV	0.360	0.015	2,618	2,950	1.636	0.043	0.330	0.391
Owns at least 1 insecticide-treated net (ITN)	0.867	0.010	2,262	2,571	1.412	0.012	0.847	0.887
Child slept under an ITN last night	0.734	0.020	1,341	1,486	1.375	0.027	0.695	0.773
Pregnant woman slept under an ITN last night	0.763	0.045	168	207	1.441	0.059	0.673	0.854
Received 2+ doses of SP/Fansidar during antenatal visit	0.391	0.027	535	637	1.306	0.069	0.338	0.445
Child has fever in last 2 weeks	0.223	0.021	1,245	1,416	1.760	0.095	0.181	0.266
Child sought care/treatment from a health facility, provider, or pharmacy, provider, or pharmacy	0.812	0.032	255	316	1.310	0.039	0.748	0.876
Child took ACT	0.450	0.054	141	186	1.348	0.121	0.341	0.558
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.063	0.009	1,107	1,206	1.201	0.143	0.045	0.081
Child 6-59 months has malaria (based on rapid test)	0.033	0.008	1,095	1,191	1.357	0.245	0.017	0.049
Child 6-59 months has malaria (based on microscopy test)	0.010	0.004	1,069	1,179	1.105	0.365	0.003	0.018
HIV prevalence among all women 15-49	0.089	0.007	2,424	2,627	1.195	0.078	0.075	0.103
HIV prevalence among young women 15-24	0.039	0.008	1,016	1,035	1.385	0.215	0.022	0.056
	MEN							
No education	0.029	0.007	1,901	2,142	1.707	0.227	0.016	0.042
Secondary education or higher	0.428	0.023	1,901	2,142	2.029	0.054	0.382	0.474
Had 2+ sexual partners in past 12 months	0.174	0.014	1,901	2,142	1.595	0.080	0.147	0.202
Had an HIV test and received results in past 12 months	0.326	0.011	1,901	2,142	1.036	0.034	0.304	0.349
Paid for sexual intercourse in past 12 months	0.070	0.009	1,901	2,142	1.572	0.132	0.051	0.088
Condom use at last sex	0.438	0.035	308	374	1.233	0.080	0.368	0.508
Abstinence among never married youth (never had intercourse)	0.460	0.029	767	833	1.610	0.063	0.402	0.518
Sexually active in past 12 months among never married youth	0.417	0.025	767	833	1.428	0.061	0.366	0.468
Accepting attitudes towards people with HIV	0.545	0.017	1,901	2,142	1.457	0.031	0.512	0.579
HIV prevalence among all men 15-49	0.052	0.008	1,644	2,094	1.445	0.153	0.036	0.068
HIV prevalence among young men 15-24	0.024	0.008	728	915	1.374	0.327	0.008	0.039
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.072	0.005	4,068	4,720	1.246	0.070	0.062	0.083
HIV prevalence all respondents (men and women 15-24)	0.032	0.005	1,744	1,949	1.248	0.164	0.021	0.043

Table B.4 Sampling errors: Rural sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.221	0.012	8,343	8,011	2.748	0.056	0.196	0.246
Secondary education or higher	0.122	0.007	8,343	8,011	1.851	0.054	0.109	0.135
Had 2+ sexual partners in past 12 months	0.035	0.003	8,343	8,011	1.347	0.077	0.030	0.040
Had an HIV test and received results in past 12 months	0.274	0.009	8,343	8,011	1.758	0.031	0.257	0.291
Condom use at last sex	0.204	0.028	268	280	1.147	0.139	0.147	0.260
Abstinence among never married youth (never had intercourse)	0.628	0.017	1,791	1,613	1.479	0.027	0.594	0.661
Sexually active in past 12 months among never married youth	0.289	0.016	1,791	1,613	1.516	0.056	0.256	0.321
Accepting attitudes towards people with HIV	0.214	0.009	8,274	7,922	1.987	0.042	0.196	0.232
Owns at least 1 insecticide-treated net (ITN)	0.924	0.004	7,778	7,469	1.491	0.005	0.915	0.933
Child slept under an ITN last night	0.718	0.010	7,688	7,392	1.453	0.013	0.698	0.737
Pregnant woman slept under an ITN last night	0.744	0.019	855	783	1.241	0.026	0.706	0.782
Received 2+ doses of SP/Fansidar during antenatal visit	0.302	0.014	2,990	2,918	1.670	0.046	0.274	0.330
Child has fever in last 2 weeks	0.200	0.008	7,044	6,800	1.567	0.040	0.184	0.216
Child sought care/treatment from a health facility, provider, or pharmacy	0.765	0.016	1,424	1,359	1.286	0.020	0.733	0.796
Child took ACT	0.654	0.025	713	714	1.379	0.038	0.603	0.704
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.054	0.005	6,597	6,292	1.584	0.086	0.045	0.064
Child 6-59 months has malaria (based on rapid test)	0.104	0.008	6,511	6,208	1.794	0.077	0.088	0.120
Child 6-59 months has malaria (based on microscopy test)	0.047	0.005	6,402	6,143	1.505	0.098	0.038	0.056
HIV prevalence among all women 15-49	0.051	0.003	7,875	7,129	1.333	0.065	0.045	0.058
HIV prevalence among young women 15-24	0.022	0.003	3,138	2,817	1.242	0.148	0.015	0.028
	MEN							
No education	0.115	0.009	6,451	6,210	2.348	0.081	0.096	0.134
Secondary education or higher	0.170	0.008	6,451	6,210	1.755	0.048	0.154	0.187
Had 2+ sexual partners in past 12 months	0.219	0.008	6,451	6,210	1.610	0.038	0.202	0.236
Had an HIV test and received results in past 12 months	0.244	0.009	6,451	6,210	1.734	0.038	0.226	0.263
Paid for sexual intercourse in past 12 months	0.090	0.005	6,451	6,210	1.439	0.057	0.080	0.100
Condom use at last sex	0.222	0.017	1,278	1,360	1.441	0.076	0.188	0.255
Abstinence among never married youth (never had intercourse)	0.486	0.014	2,405	2,209	1.386	0.029	0.457	0.514
Sexually active in past 12 months among never married youth	0.419	0.014	2,405	2,209	1.432	0.034	0.391	0.448
Accepting attitudes towards people with HIV	0.354	0.010	6,416	6,178	1.733	0.029	0.334	0.375
HIV prevalence among all men 15-49	0.034	0.003	5,802	5,895	1.313	0.092	0.028	0.040
HIV prevalence among young men 15-24	0.007	0.002	2,509	2,478	1.053	0.243	0.004	0.011
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.043	0.003	13,677	13,025	1.544	0.062	0.038	0.049
HIV prevalence all respondents (men and women 15-24)	0.015	0.002	5,647	5,295	1.214	0.130	0.011	0.019

Table B.5 Sampling errors: Mainland sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.181	0.010	9,387	10,576	2.562	0.056	0.160	0.201
Secondary education or higher	0.158	0.006	9,387	10,576	1.708	0.041	0.145	0.171
Had 2+ sexual partners in past 12 months	0.039	0.003	9,387	10,576	1.297	0.066	0.034	0.044
Had an HIV test and received results in past 12 months	0.305	0.008	9,387	10,576	1.683	0.026	0.289	0.321
Condom use at last sex	0.274	0.026	359	413	1.085	0.093	0.223	0.325
Abstinence among never married youth (never had intercourse)	0.575	0.013	2,075	2,309	1.222	0.023	0.549	0.602
Sexually active in past 12 months among never married youth	0.337	0.014	2,075	2,309	1.356	0.042	0.309	0.365
Accepting attitudes towards people with HIV	0.247	0.008	9,313	10,482	1.844	0.033	0.231	0.264
Owns at least 1 insecticide-treated net (ITN)	0.915	0.004	8,727	9,732	1.426	0.005	0.906	0.923
Child slept under an ITN last night	0.727	0.009	7,920	8,624	1.369	0.012	0.709	0.744
Pregnant woman slept under an ITN last night	0.762	0.018	874	957	1.250	0.024	0.725	0.798
Received 2+ doses of SP/Fansidar during antenatal visit	0.313	0.013	3,098	3,455	1.527	0.041	0.288	0.339
Child has fever in last 2 weeks	0.205	0.008	7,223	7,973	1.524	0.038	0.190	0.221
Child sought care/treatment from a health facility, provider, or pharmacy	0.776	0.014	1,508	1,635	1.223	0.018	0.747	0.804
Child took ACT	0.611	0.024	849	899	1.312	0.039	0.564	0.659
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.056	0.004	6,729	7,271	1.437	0.076	0.048	0.065
Child 6-59 months has malaria (based on rapid test)	0.095	0.007	6,639	7,177	1.651	0.075	0.081	0.109
Child 6-59 months has malaria (based on microscopy test)	0.042	0.004	6,595	7,126	1.388	0.096	0.034	0.050
HIV prevalence among all women 15-49	0.063	0.003	8,771	9,409	1.214	0.050	0.057	0.070
HIV prevalence among young women 15-24	0.028	0.003	3,481	3,699	1.245	0.125	0.021	0.035
			MEN					
No education	0.094	0.007	7,230	8,079	2.169	0.079	0.080	0.109
Secondary education or higher	0.223	0.009	7,230	8,079	1.879	0.041	0.205	0.241
Had 2+ sexual partners in past 12 months	0.212	0.007	7,230	8,079	1.539	0.035	0.197	0.226
Had an HIV test and received results in past 12 months	0.267	0.008	7,230	8,079	1.492	0.029	0.251	0.282
Paid for sexual intercourse in past 12 months	0.088	0.005	7,230	8,079	1.388	0.053	0.078	0.097
Condom use at last sex	0.270	0.017	1,481	1,709	1.455	0.062	0.236	0.303
Abstinence among never married youth (never had intercourse)	0.463	0.013	2,670	2,917	1.358	0.028	0.437	0.489
Sexually active in past 12 months among never married youth	0.430	0.013	2,670	2,917	1.341	0.030	0.405	0.456
Accepting attitudes towards people with HIV	0.399	0.010	7,196	8,046	1.683	0.024	0.379	0.418
HIV prevalence among all men 15-49	0.039	0.003	6,384	7,730	1.321	0.082	0.033	0.046
HIV prevalence among young men 15-24	0.012	0.003	2,736	3,270	1.253	0.219	0.007	0.017
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.053	0.002	15,155	17,139	1.364	0.047	0.048	0.058
HIV prevalence all respondents (men and women 15-24)	0.020	0.002	6,217	6,969	1.199	0.106	0.016	0.025

Table B.6 Sampling errors: Mainland Urban sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.063	0.010	2,202	2,834	1.980	0.163	0.042	0.083
Secondary education or higher	0.300	0.013	2,202	2,834	1.352	0.044	0.273	0.326
Had 2+ sexual partners in past 12 months	0.047	0.006	2,202	2,834	1.290	0.124	0.036	0.059
Had an HIV test and received results in past 12 months	0.389	0.018	2,202	2,834	1.693	0.045	0.353	0.424
Condom use at last sex	0.420	0.047	97	134	0.939	0.113	0.325	0.514
Abstinence among never married youth (never had intercourse)	0.501	0.019	634	776	0.954	0.038	0.463	0.539
Sexually active in past 12 months among never married youth	0.407	0.026	634	776	1.350	0.065	0.354	0.460
Accepting attitudes towards people with HIV	0.354	0.016	2,196	2,828	1.553	0.045	0.322	0.385
Owns at least 1 insecticide-treated net (ITN)	0.872	0.010	1,949	2,486	1.358	0.012	0.851	0.892
Child slept under an ITN last night	0.748	0.021	1,091	1,419	1.369	0.027	0.707	0.789
Pregnant woman slept under an ITN last night	0.784	0.045	137	199	1.360	0.057	0.695	0.874
Received 2+ doses of SP/Fansidar during antenatal visit	0.394	0.027	452	618	1.233	0.070	0.339	0.449
Child has fever in last 2 weeks	0.228	0.022	1,023	1,360	1.667	0.097	0.184	0.272
Child sought care/treatment from a health facility, provider, or pharmacy	0.814	0.033	228	310	1.244	0.040	0.749	0.880
Child took ACT	0.450	0.054	140	186	1.262	0.121	0.341	0.559
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.066	0.010	889	1,148	1.147	0.145	0.047	0.085
Child 6-59 months has malaria (based on rapid test)	0.034	0.008	878	1,133	1.290	0.249	0.017	0.051
Child 6-59 months has malaria (based on microscopy test)	0.011	0.004	872	1,128	1.045	0.365	0.003	0.019
HIV prevalence among all women 15-49	0.093	0.007	2,009	2,519	1.124	0.079	0.078	0.107
HIV prevalence among young women 15-24	0.041	0.009	824	985	1.279	0.215	0.024	0.059
			MEN					
No education	0.029	0.007	1,614	2,066	1.618	0.232	0.016	0.043
Secondary education or higher	0.416	0.024	1,614	2,066	1.931	0.057	0.368	0.463
Had 2+ sexual partners in past 12 months	0.179	0.014	1,614	2,066	1.509	0.081	0.150	0.207
Had an HIV test and received results in past 12 months	0.329	0.012	1,614	2,066	0.986	0.035	0.306	0.352
Paid for sexual intercourse in past 12 months	0.072	0.010	1,614	2,066	1.473	0.131	0.053	0.091
Condom use at last sex	0.441	0.035	285	369	1.195	0.080	0.371	0.512
Abstinence among never married youth (never had intercourse)	0.448	0.030	636	799	1.527	0.067	0.388	0.508
Sexually active in past 12 months among never married youth	0.425	0.026	636	799	1.350	0.062	0.372	0.478
Accepting attitudes towards people with HIV	0.543	0.017	1,614	2,066	1.390	0.032	0.509	0.578
HIV prevalence among all men 15-49	0.054	0.008	1,366	2,021	1.340	0.153	0.037	0.070
HIV prevalence among young men 15-24	0.025	0.008	596	880	1.266	0.327	0.009	0.041
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.075	0.005	3,375	4,539	1.168	0.071	0.065	0.086
HIV prevalence all respondents (men and women 15-24)	0.033	0.005	1,420	1,865	1.150	0.164	0.022	0.044

Table B.7 Sampling errors: Mainland Rural sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.224	0.013	7,185	7,742	2.615	0.057	0.198	0.250
Secondary education or higher	0.106	0.006	7,185	7,742	1.647	0.056	0.094	0.118
Had 2+ sexual partners in past 12 months	0.036	0.003	7,185	7,742	1.271	0.078	0.031	0.042
Had an HIV test and received results in past 12 months	0.275	0.009	7,185	7,742	1.683	0.032	0.257	0.292
Condom use at last sex	0.204	0.028	262	280	1.136	0.139	0.147	0.261
Abstinence among never married youth (never had intercourse)	0.613	0.018	1,441	1,532	1.372	0.029	0.577	0.648
Sexually active in past 12 months among never married youth	0.301	0.017	1,441	1,532	1.408	0.057	0.267	0.335
Accepting attitudes towards people with HIV	0.208	0.009	7,117	7,654	1.908	0.044	0.189	0.226
Owns at least 1 insecticide-treated net (ITN)	0.930	0.004	6,778	7,247	1.435	0.005	0.921	0.939
Child slept under an ITN last night	0.722	0.010	6,829	7,205	1.390	0.014	0.703	0.742
Pregnant woman slept under an ITN last night	0.756	0.019	737	758	1.201	0.026	0.717	0.795
Received 2+ doses of SP/Fansidar during antenatal visit	0.296	0.014	2,646	2,836	1.600	0.048	0.267	0.324
Child has fever in last 2 weeks	0.200	0.008	6,200	6,613	1.486	0.040	0.184	0.217
Child sought care/treatment from a health facility, provider, or pharmacy	0.767	0.016	1,280	1,325	1.234	0.021	0.735	0.799
Child took ACT	0.654	0.025	709	713	1.303	0.039	0.603	0.704
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.054	0.005	5,840	6,123	1.514	0.088	0.045	0.064
Child 6-59 months has malaria (based on rapid test)	0.107	0.008	5,761	6,044	1.709	0.078	0.090	0.123
Child 6-59 months has malaria (based on microscopy test)	0.048	0.005	5,723	5,997	1.430	0.099	0.038	0.057
HIV prevalence among all women 15-49	0.053	0.003	6,762	6,891	1.259	0.065	0.046	0.060
HIV prevalence among young women 15-24	0.023	0.003	2,657	2,715	1.167	0.149	0.016	0.029
	MEN							
No education	0.117	0.010	5,616	6,013	2.240	0.082	0.098	0.136
Secondary education or higher	0.157	0.008	5,616	6,013	1.676	0.052	0.141	0.173
Had 2+ sexual partners in past 12 months	0.223	0.008	5,616	6,013	1.529	0.038	0.206	0.240
Had an HIV test and received results in past 12 months	0.245	0.010	5,616	6,013	1.665	0.039	0.226	0.264
Paid for sexual intercourse in past 12 months	0.093	0.005	5,616	6,013	1.361	0.057	0.082	0.103
Condom use at last sex	0.223	0.017	1,196	1,341	1.405	0.076	0.189	0.256
Abstinence among never married youth (never had intercourse)	0.469	0.014	2,034	2,118	1.269	0.030	0.441	0.497
Sexually active in past 12 months among never married youth	0.433	0.015	2,034	2,118	1.328	0.034	0.403	0.462
Accepting attitudes towards people with HIV	0.349	0.011	5,582	5,981	1.665	0.030	0.327	0.370
HIV prevalence among all men 15-49	0.035	0.003	5,018	5,709	1.244	0.093	0.028	0.041
HIV prevalence among young men 15-24	0.007	0.002	2,140	2,390	0.988	0.252	0.004	0.011
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.045	0.003	11,780	12,600	1.459	0.062	0.039	0.050
HIV prevalence all respondents (men and women 15-24)	0.015	0.002	4,797	5,104	1.144	0.132	0.011	0.019

Table B.8 Sampling errors: Zanzibar sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.115	0.012	1,580	391	1.533	0.107	0.091	0.140
Secondary education or higher	0.628	0.025	1,580	391	2.091	0.041	0.577	0.679
Had 2+ sexual partners in past 12 months	0.002	0.001	1,580	391	0.635	0.373	0.000	0.003
Had an HIV test and received results in past 12 months	0.235	0.015	1,580	391	1.375	0.062	0.206	0.265
Abstinence among never married youth (never had intercourse)	0.913	0.025	504	125	2.000	0.028	0.863	0.963
Sexually active in past 12 months among never married youth	0.058	0.026	504	125	2.459	0.443	0.007	0.110
Accepting attitudes towards people with HIV	0.427	0.019	1,579	391	1.536	0.045	0.389	0.465
Owns at least 1 insecticide-treated net (ITN)	0.738	0.022	1,313	308	1.821	0.030	0.694	0.782
Child slept under an ITN last night	0.507	0.031	1,109	254	1.655	0.062	0.445	0.570
Pregnant woman slept under an ITN last night	0.364	0.045	149	34	1.115	0.122	0.275	0.454
Received 2+ doses of SP/Fansidar during antenatal visit	0.483	0.032	427	100	1.295	0.066	0.419	0.548
Child has fever in last 2 weeks	0.166	0.032	1,066	244	2.480	0.191	0.102	0.229
Child sought care/treatment from a health facility, provider, or pharmacy	0.686	0.029	171	40	0.717	0.043	0.628	0.745
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.041	0.009	975	227	1.467	0.230	0.022	0.060
Child 6-59 months has malaria (based on rapid test)	0.002	0.002	967	222	1.481	1.003	0.000	0.007
Child 6-59 months has malaria (based on microscopy test)	0.004	0.002	876	197	0.909	0.522	0.000	0.007
HIV prevalence among all women 15-49	0.011	0.004	1,528	347	1.662	0.412	0.002	0.019
HIV prevalence among young women 15-24	0.001	0.001	673	153	0.819	1.001	0.000	0.003
	MEN							
No education	0.048	0.009	1,122	273	1.471	0.195	0.029	0.067
Secondary education or higher	0.630	0.018	1,122	273	1.218	0.028	0.595	0.665
Had 2+ sexual partners in past 12 months	0.087	0.013	1,122	273	1.510	0.146	0.062	0.113
Had an HIV test and received results in past 12 months	0.229	0.016	1,122	273	1.269	0.070	0.197	0.260
Paid for sexual intercourse in past 12 months	0.003	0.001	1,122	273	0.793	0.415	0.001	0.006
Condom use at last sex	0.160	0.104	105	24	2.792	0.649	0.000	0.367
Abstinence among never married youth (never had intercourse)	0.839	0.038	502	126	2.333	0.046	0.763	0.916
Sexually active in past 12 months among never married youth	0.145	0.039	502	126	2.443	0.266	0.068	0.222
Accepting attitudes towards people with HIV	0.551	0.024	1,121	273	1.639	0.044	0.502	0.600
HIV prevalence among all men 15-49	0.009	0.005	1,062	259	1.770	0.581	0.000	0.019
HIV prevalence among young men 15-24	0.011	0.010	501	123	2.139	0.922	0.000	0.031
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.010	0.004	2,590	606	2.051	0.406	0.002	0.018
HIV prevalence all respondents (men and women 15-24)	0.005	0.005	1,174	276	2.144	0.856	0.000	0.014

Table B.9 Sampling errors: Unguja sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.079	0.011	979	298	1.218	0.133	0.058	0.100
Secondary education or higher	0.678	0.027	979	298	1.825	0.040	0.624	0.733
Had 2+ sexual partners in past 12 months	0.002	0.001	979	298	0.530	0.388	0.000	0.003
Had an HIV test and received results in past 12 months	0.242	0.017	979	298	1.262	0.071	0.208	0.277
Abstinence among never married youth (never had intercourse)	0.887	0.031	307	95	1.727	0.035	0.825	0.950
Sexually active in past 12 months among never married youth	0.077	0.032	307	95	2.099	0.418	0.013	0.141
Accepting attitudes towards people with HIV	0.476	0.026	978	298	1.642	0.055	0.423	0.528
Owns at least 1 insecticide-treated net (ITN)	0.701	0.028	794	226	1.691	0.039	0.646	0.756
Child slept under an ITN last night	0.489	0.042	612	175	1.705	0.086	0.405	0.573
Pregnant woman slept under an ITN last night	0.323	0.059	77	22	1.114	0.182	0.206	0.441
Received 2+ doses of SP/Fansidar during antenatal visit	0.543	0.039	231	70	1.176	0.071	0.466	0.620
Child has fever in last 2 weeks	0.167	0.045	577	167	2.593	0.269	0.077	0.257
Child sought care/treatment from a health facility, provider, or pharmacy	0.711	0.041	93	28	0.740	0.058	0.629	0.793
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.042	0.013	548	159	1.540	0.310	0.016	0.068
Child 6-59 months has malaria (based on rapid test)	0.003	0.003	540	154	1.347	1.005	0.000	0.010
Child 6-59 months has malaria (based on microscopy test)	0.001	0.001	501	138	0.584	1.013	0.000	0.002
HIV prevalence among all women 15-49	0.012	0.006	960	265	1.581	0.457	0.001	0.024
HIV prevalence among young women 15-24	0.000	0.000	407	114	na	na	0.000	0.000
	MEN							
No education	0.031	0.009	687	204	1.338	0.284	0.014	0.049
Secondary education or higher	0.664	0.019	687	204	1.069	0.029	0.625	0.703
Had 2+ sexual partners in past 12 months	0.088	0.016	687	204	1.492	0.184	0.055	0.120
Had an HIV test and received results in past 12 months	0.258	0.017	687	204	0.996	0.065	0.225	0.291
Paid for sexual intercourse in past 12 months	0.003	0.001	687	204	0.676	0.501	0.000	0.005
Condom use at last sex	0.206	0.132	68	18	2.562	0.641	0.000	0.471
Abstinence among never married youth (never had intercourse)	0.805	0.052	297	93	2.245	0.065	0.701	0.909
Sexually active in past 12 months among never married youth	0.184	0.052	297	93	2.291	0.283	0.080	0.288
Accepting attitudes towards people with HIV	0.623	0.033	686	204	1.781	0.053	0.557	0.689
HIV prevalence among all men 15-49	0.011	0.007	664	194	1.666	0.611	0.000	0.025
HIV prevalence among young men 15-24	0.014	0.013	308	91	1.898	0.898	0.000	0.040
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.012	0.005	1,624	458	1.963	0.446	0.001	0.022
HIV prevalence all respondents (men and women 15-24)	0.006	0.006	715	206	2.012	0.939	0.000	0.018

Table B.10 Sampling errors: Pemba sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.230	0.029	601	93	1.709	0.128	0.172	0.289
Secondary education or higher	0.465	0.033	601	93	1.642	0.072	0.398	0.532
Had 2+ sexual partners in past 12 months	0.002	0.002	601	93	0.999	1.016	0.000	0.005
Had an HIV test and received results in past 12 months	0.213	0.024	601	93	1.423	0.112	0.165	0.261
Abstinence among never married youth (never had intercourse)	0.994	0.006	197	30	1.134	0.006	0.981	1.007
Sexually active in past 12 months among never married youth	0.000	0.000	197	30	na	na	0.000	0.000
Accepting attitudes towards people with HIV	0.270	0.022	601	93	1.233	0.083	0.226	0.315
Owns at least 1 insecticide-treated net (ITN)	0.839	0.024	519	82	1.460	0.028	0.792	0.886
Child slept under an ITN last night	0.548	0.034	497	79	1.182	0.062	0.480	0.615
Pregnant woman slept under an ITN last night	0.443	0.058	72	12	1.008	0.132	0.326	0.560
Received 2+ doses of SP/Fansidar during antenatal visit	0.348	0.034	196	31	1.004	0.098	0.280	0.416
Child has fever in last 2 weeks	0.163	0.023	489	77	1.318	0.142	0.117	0.209
Child sought care/treatment from a health facility, provider, or pharmacy	0.631	0.043	78	13	0.756	0.069	0.545	0.718
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.038	0.009	427	68	0.904	0.228	0.021	0.056
Child 6-59 months has malaria (based on rapid test)	0.000	0.000	427	68	na	na	0.000	0.000
Child 6-59 months has malaria (based on microscopy test)	0.010	0.006	375	59	1.149	0.577	0.000	0.022
HIV prevalence among all women 15-49	0.005	0.004	568	82	1.303	0.784	0.000	0.012
HIV prevalence among young women 15-24	0.004	0.004	266	39	1.013	0.989	0.000	0.012
	MEN							
No education	0.098	0.023	435	69	1.589	0.232	0.053	0.144
Secondary education or higher	0.529	0.037	435	69	1.537	0.070	0.455	0.603
Had 2+ sexual partners in past 12 months	0.087	0.016	435	69	1.217	0.189	0.054	0.120
Had an HIV test and received results in past 12 months	0.141	0.024	435	69	1.410	0.167	0.094	0.188
Paid for sexual intercourse in past 12 months	0.005	0.004	435	69	1.041	0.703	0.000	0.012
Condom use at last sex	0.021	0.021	37	6	0.869	0.980	0.000	0.063
Abstinence among never married youth (never had intercourse)	0.939	0.014	205	32	0.824	0.015	0.912	0.967
Sexually active in past 12 months among never married youth	0.032	0.012	205	32	1.000	0.384	0.007	0.057
Accepting attitudes towards people with HIV	0.338	0.031	435	69	1.350	0.091	0.277	0.399
HIV prevalence among all men 15-49	0.002	0.002	398	65	0.780	1.002	0.000	0.005
HIV prevalence among young men 15-24	0.000	0.000	193	32	na	na	0.000	0.000
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.003	0.002	966	148	1.298	0.718	0.000	0.008
HIV prevalence all respondents (men and women 15-24)	0.002	0.002	459	70	0.985	0.988	0.000	0.006

Table B.11 Sampling errors: Eastern sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.086	0.016	1,254	1,696	1.991	0.184	0.054	0.118
Secondary education or higher	0.273	0.019	1,254	1,696	1.475	0.068	0.236	0.310
Had 2+ sexual partners in past 12 months	0.040	0.008	1,254	1,696	1.515	0.210	0.023	0.057
Had an HIV test and received results in past 12 months	0.335	0.023	1,254	1,696	1.686	0.067	0.290	0.380
Condom use at last sex	0.427	0.060	51	68	0.864	0.141	0.306	0.548
Abstinence among never married youth (never had intercourse)	0.462	0.029	323	458	1.028	0.062	0.405	0.519
Sexually active in past 12 months among never married youth	0.433	0.031	323	458	1.118	0.071	0.372	0.495
Accepting attitudes towards people with HIV	0.341	0.023	1,253	1,695	1.713	0.067	0.295	0.386
Owns at least 1 insecticide-treated net (ITN)	0.842	0.013	1,171	1,510	1.217	0.015	0.816	0.868
Child slept under an ITN last night	0.713	0.028	722	908	1.436	0.040	0.656	0.769
Pregnant woman slept under an ITN last night	0.745	0.058	79	104	1.191	0.078	0.629	0.861
Received 2+ doses of SP/Fansidar during antenatal visit	0.465	0.034	309	398	1.177	0.074	0.396	0.533
Child has fever in last 2 weeks	0.219	0.020	668	865	1.180	0.089	0.180	0.258
Child sought care/treatment from a health facility, provider, or pharmacy	0.817	0.029	149	189	0.855	0.036	0.758	0.875
Child took ACT	0.576	0.067	108	138	1.345	0.116	0.442	0.710
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.077	0.013	595	752	1.170	0.167	0.051	0.103
Child 6-59 months has malaria (based on rapid test)	0.077	0.017	584	740	1.380	0.227	0.042	0.112
Child 6-59 months has malaria (based on microscopy test)	0.036	0.008	585	741	1.043	0.234	0.019	0.053
HIV prevalence among all women 15-49	0.077	0.009	1,155	1,501	1.089	0.111	0.060	0.094
HIV prevalence among young women 15-24	0.047	0.013	457	593	1.271	0.268	0.022	0.072
	MEN							
No education	0.060	0.016	985	1,363	2.069	0.261	0.029	0.092
Secondary education or higher	0.357	0.026	985	1,363	1.694	0.073	0.305	0.408
Had 2+ sexual partners in past 12 months	0.224	0.015	985	1,363	1.115	0.066	0.194	0.253
Had an HIV test and received results in past 12 months	0.260	0.012	985	1,363	0.885	0.048	0.236	0.285
Paid for sexual intercourse in past 12 months	0.059	0.009	985	1,363	1.236	0.158	0.040	0.077
Condom use at last sex	0.410	0.038	223	305	1.156	0.093	0.334	0.486
Abstinence among never married youth (never had intercourse)	0.380	0.032	355	484	1.224	0.083	0.317	0.443
Sexually active in past 12 months among never married youth	0.533	0.038	355	484	1.420	0.071	0.458	0.609
Accepting attitudes towards people with HIV	0.554	0.026	985	1,363	1.656	0.047	0.501	0.606
HIV prevalence among all men 15-49	0.041	0.010	830	1,283	1.399	0.235	0.022	0.060
HIV prevalence among young men 15-24	0.006	0.005	339	530	1.043	0.707	0.000	0.015
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.060	0.007	1,985	2,785	1.249	0.111	0.047	0.074
HIV prevalence all respondents (men and women 15-24)	0.028	0.007	796	1,122	1.196	0.251	0.014	0.042

Table B.12 Sampling errors: Western sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.241	0.023	857	890	1.585	0.096	0.194	0.287
Secondary education or higher	0.143	0.032	857	890	2.638	0.222	0.079	0.206
Had 2+ sexual partners in past 12 months	0.040	0.008	857	890	1.188	0.199	0.024	0.056
Had an HIV test and received results in past 12 months	0.354	0.018	857	890	1.081	0.050	0.319	0.390
Condom use at last sex	0.428	0.067	33	36	0.767	0.156	0.295	0.562
Abstinence among never married youth (never had intercourse)	0.578	0.034	208	223	0.991	0.059	0.510	0.646
Sexually active in past 12 months among never married youth	0.305	0.054	208	223	1.677	0.177	0.197	0.413
Accepting attitudes towards people with HIV	0.257	0.033	857	890	2.235	0.130	0.190	0.324
Owns at least 1 insecticide-treated net (ITN)	0.945	0.012	727	740	1.463	0.013	0.921	0.970
Child slept under an ITN last night	0.792	0.018	831	808	1.064	0.023	0.755	0.828
Pregnant woman slept under an ITN last night	0.778	0.038	94	86	0.849	0.049	0.703	0.854
Received 2+ doses of SP/Fansidar during antenatal visit	0.245	0.029	319	326	1.205	0.120	0.186	0.303
Child has fever in last 2 weeks	0.330	0.028	759	744	1.510	0.085	0.274	0.386
Child sought care/treatment from a health facility, provider, or pharmacy	0.837	0.026	231	245	1.078	0.031	0.785	0.890
Child took ACT	0.624	0.054	160	160	1.256	0.086	0.517	0.731
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.055	0.012	713	676	1.307	0.228	0.030	0.079
Child 6-59 months has malaria (based on rapid test)	0.167	0.029	696	662	1.790	0.175	0.109	0.226
Child 6-59 months has malaria (based on microscopy test)	0.065	0.016	692	659	1.491	0.240	0.034	0.096
HIV prevalence among all women 15-49	0.051	0.009	826	788	1.158	0.173	0.034	0.069
HIV prevalence among young women 15-24	0.009	0.005	370	354	1.014	0.554	0.000	0.019
	MEN							
No education	0.111	0.019	677	736	1.547	0.169	0.073	0.148
Secondary education or higher	0.210	0.037	677	736	2.369	0.177	0.136	0.285
Had 2+ sexual partners in past 12 months	0.122	0.019	677	736	1.498	0.155	0.084	0.159
Had an HIV test and received results in past 12 months	0.307	0.017	677	736	0.946	0.055	0.273	0.340
Paid for sexual intercourse in past 12 months	0.065	0.012	677	736	1.281	0.187	0.040	0.089
Condom use at last sex	0.242	0.050	90	89	1.101	0.207	0.142	0.342
Abstinence among never married youth (never had intercourse)	0.422	0.048	269	298	1.575	0.113	0.327	0.517
Sexually active in past 12 months among never married youth	0.479	0.035	269	298	1.151	0.073	0.408	0.549
Accepting attitudes towards people with HIV	0.371	0.027	677	736	1.442	0.072	0.318	0.425
HIV prevalence among all men 15-49	0.034	0.008	647	696	1.154	0.242	0.018	0.050
HIV prevalence among young men 15-24	0.020	0.015	303	332	1.882	0.768	0.000	0.050
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.043	0.007	1,473	1,484	1.356	0.166	0.029	0.058
HIV prevalence all respondents (men and women 15-24)	0.014	0.007	673	687	1.457	0.470	0.001	0.027

Table B.13 Sampling errors: Southern sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.151	0.028	613	557	1.925	0.185	0.095	0.207
Secondary education or higher	0.124	0.016	613	557	1.221	0.131	0.092	0.157
Had 2+ sexual partners in past 12 months	0.090	0.015	613	557	1.310	0.169	0.059	0.120
Had an HIV test and received results in past 12 months	0.394	0.021	613	557	1.048	0.053	0.352	0.435
Condom use at last sex	0.221	0.047	56	50	0.841	0.212	0.127	0.315
Abstinence among never married youth (never had intercourse)	0.494	0.048	109	96	1.000	0.097	0.398	0.590
Sexually active in past 12 months among never married youth	0.448	0.042	109	96	0.882	0.094	0.364	0.533
Accepting attitudes towards people with HIV	0.274	0.032	611	555	1.743	0.115	0.211	0.337
Owns at least 1 insecticide-treated net (ITN)	0.942	0.012	694	609	1.326	0.012	0.918	0.966
Child slept under an ITN last night	0.787	0.035	354	309	1.406	0.045	0.716	0.857
Pregnant woman slept under an ITN last night	0.807	0.050	52	56	1.006	0.062	0.707	0.907
Received 2+ doses of SP/Fansidar during antenatal visit	0.426	0.058	137	119	1.342	0.136	0.310	0.542
Child has fever in last 2 weeks	0.293	0.025	329	286	0.943	0.084	0.244	0.342
Child sought care/treatment from a health facility, provider, or pharmacy	0.735	0.047	93	84	1.024	0.064	0.641	0.829
Child took ACT	0.782	0.053	48	41	0.865	0.068	0.675	0.889
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.072	0.018	294	255	1.158	0.245	0.037	0.107
Child 6-59 months has malaria (based on rapid test)	0.206	0.040	289	251	1.553	0.195	0.126	0.286
Child 6-59 months has malaria (based on microscopy test)	0.027	0.010	294	256	1.020	0.357	0.008	0.047
HIV prevalence among all women 15-49	0.054	0.017	572	500	1.838	0.322	0.019	0.089
HIV prevalence among young women 15-24	0.024	0.010	210	178	0.994	0.440	0.003	0.045
	MEN							
No education	0.076	0.015	424	371	1.148	0.194	0.047	0.106
Secondary education or higher	0.215	0.035	424	371	1.728	0.161	0.146	0.284
Had 2+ sexual partners in past 12 months	0.247	0.040	424	371	1.888	0.161	0.168	0.327
Had an HIV test and received results in past 12 months	0.273	0.020	424	371	0.923	0.073	0.233	0.312
Paid for sexual intercourse in past 12 months	0.223	0.044	424	371	2.169	0.198	0.135	0.311
Condom use at last sex	0.198	0.031	119	92	0.846	0.157	0.136	0.260
Abstinence among never married youth (never had intercourse)	0.291	0.034	126	120	0.831	0.116	0.223	0.358
Sexually active in past 12 months among never married youth	0.556	0.044	126	120	0.987	0.079	0.468	0.644
Accepting attitudes towards people with HIV	0.437	0.030	424	371	1.255	0.069	0.377	0.498
HIV prevalence among all men 15-49	0.014	0.006	395	360	1.099	0.473	0.001	0.026
HIV prevalence among young men 15-24	0.017	0.013	146	148	1.177	0.751	0.000	0.042
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.037	0.011	967	860	1.766	0.289	0.016	0.059
HIV prevalence all respondents (men and women 15-24)	0.021	0.008	356	326	1.117	0.409	0.004	0.037

Table B.14 Sampling errors: Southern Highlands sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.098	0.016	996	1,155	1.664	0.160	0.067	0.130
Secondary education or higher	0.170	0.019	996	1,155	1.557	0.109	0.133	0.207
Had 2+ sexual partners in past 12 months	0.032	0.007	996	1,155	1.199	0.208	0.019	0.046
Had an HIV test and received results in past 12 months	0.371	0.028	996	1,155	1.836	0.076	0.314	0.427
Condom use at last sex	0.162	0.084	26	37	1.134	0.519	0.000	0.330
Abstinence among never married youth (never had intercourse)	0.435	0.040	243	253	1.259	0.092	0.354	0.515
Sexually active in past 12 months among never married youth	0.463	0.045	243	253	1.399	0.097	0.373	0.552
Accepting attitudes towards people with HIV	0.312	0.032	995	1,152	2.173	0.103	0.248	0.376
Owns at least 1 insecticide-treated net (ITN)	0.943	0.010	1,040	1,178	1.339	0.010	0.924	0.963
Child slept under an ITN last night	0.754	0.036	692	883	1.900	0.047	0.683	0.825
Pregnant woman slept under an ITN last night	0.771	0.069	72	79	1.365	0.089	0.633	0.908
Received 2+ doses of SP/Fansidar during antenatal visit	0.393	0.045	284	383	1.685	0.115	0.302	0.484
Child has fever in last 2 weeks	0.223	0.028	623	796	1.684	0.127	0.166	0.279
Child sought care/treatment from a health facility, provider, or pharmacy	0.784	0.053	126	177	1.639	0.068	0.677	0.891
Child took ACT	0.734	0.050	62	84	0.966	0.068	0.633	0.834
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.045	0.015	564	690	1.724	0.335	0.015	0.075
Child 6-59 months has malaria (based on rapid test)	0.076	0.023	555	680	1.875	0.296	0.031	0.122
Child 6-59 months has malaria (based on microscopy test)	0.008	0.005	563	690	1.177	0.566	0.000	0.017
HIV prevalence among all women 15-49	0.108	0.012	924	1,042	1.147	0.108	0.085	0.132
HIV prevalence among young women 15-24	0.044	0.013	318	361	1.171	0.308	0.017	0.070
	MEN							
No education	0.038	0.010	776	818	1.419	0.256	0.019	0.058
Secondary education or higher	0.206	0.029	776	818	2.015	0.143	0.147	0.264
Had 2+ sexual partners in past 12 months	0.273	0.023	776	818	1.451	0.085	0.226	0.319
Had an HIV test and received results in past 12 months	0.346	0.024	776	818	1.382	0.068	0.298	0.393
Paid for sexual intercourse in past 12 months	0.093	0.021	776	818	2.054	0.231	0.050	0.136
Condom use at last sex	0.336	0.046	177	223	1.291	0.137	0.244	0.428
Abstinence among never married youth (never had intercourse)	0.513	0.050	285	273	1.664	0.097	0.414	0.612
Sexually active in past 12 months among never married youth	0.423	0.056	285	273	1.901	0.132	0.311	0.535
Accepting attitudes towards people with HIV	0.450	0.024	774	817	1.365	0.054	0.401	0.499
HIV prevalence among all men 15-49	0.072	0.013	693	787	1.326	0.181	0.046	0.098
HIV prevalence among young men 15-24	0.019	0.009	281	304	1.082	0.459	0.002	0.037
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.093	0.010	1,617	1,829	1.323	0.103	0.073	0.112
HIV prevalence all respondents (men and women 15-24)	0.033	0.008	599	664	1.124	0.251	0.016	0.049

Table B.15 Sampling errors: Southwest Highlands sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.214	0.033	1,019	1,101	2.540	0.153	0.149	0.280
Secondary education or higher	0.153	0.024	1,019	1,101	2.098	0.155	0.106	0.201
Had 2+ sexual partners in past 12 months	0.008	0.003	1,019	1,101	1.082	0.385	0.002	0.014
Had an HIV test and received results in past 12 months	0.242	0.020	1,019	1,101	1.477	0.082	0.202	0.282
Abstinence among never married youth (never had intercourse)	0.690	0.047	208	232	1.464	0.068	0.595	0.784
Sexually active in past 12 months among never married youth	0.220	0.036	208	232	1.233	0.162	0.149	0.291
Accepting attitudes towards people with HIV	0.290	0.023	1,000	1,080	1.586	0.079	0.245	0.336
Owns at least 1 insecticide-treated net (ITN)	0.898	0.013	978	1,024	1.376	0.015	0.871	0.925
Child slept under an ITN last night	0.665	0.027	1,016	954	1.278	0.041	0.611	0.719
Pregnant woman slept under an ITN last night	0.585	0.063	93	90	1.211	0.107	0.460	0.710
Received 2+ doses of SP/Fansidar during antenatal visit	0.299	0.038	380	378	1.553	0.127	0.223	0.376
Child has fever in last 2 weeks	0.176	0.022	896	873	1.570	0.126	0.132	0.221
Child sought care/treatment from a health facility, provider, or pharmacy	0.722	0.063	171	154	1.526	0.087	0.596	0.848
Child took ACT	0.643	0.071	74	54	0.973	0.110	0.501	0.785
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.031	0.006	824	778	0.927	0.193	0.019	0.044
Child 6-59 months has malaria (based on rapid test)	0.027	0.009	810	762	1.244	0.331	0.009	0.044
Child 6-59 months has malaria (based on microscopy test)	0.014	0.005	813	775	1.076	0.345	0.004	0.024
HIV prevalence among all women 15-49	0.092	0.011	940	972	1.150	0.118	0.070	0.114
HIV prevalence among young women 15-24	0.037	0.012	370	376	1.176	0.313	0.014	0.060
			MEN					
No education	0.090	0.021	738	851	2.021	0.237	0.047	0.133
Secondary education or higher	0.229	0.033	738	851	2.146	0.145	0.163	0.296
Had 2+ sexual partners in past 12 months	0.177	0.027	738	851	1.901	0.151	0.123	0.230
Had an HIV test and received results in past 12 months	0.213	0.027	738	851	1.780	0.126	0.159	0.266
Paid for sexual intercourse in past 12 months	0.049	0.008	738	851	1.019	0.166	0.032	0.065
Condom use at last sex	0.225	0.069	115	150	1.742	0.306	0.087	0.362
Abstinence among never married youth (never had intercourse)	0.491	0.061	242	288	1.880	0.124	0.369	0.613
Sexually active in past 12 months among never married youth	0.362	0.049	242	288	1.582	0.136	0.264	0.461
Accepting attitudes towards people with HIV	0.482	0.033	735	849	1.783	0.068	0.416	0.548
HIV prevalence among all men 15-49	0.065	0.012	596	819	1.194	0.185	0.041	0.089
HIV prevalence among young men 15-24	0.004	0.004	226	321	0.891	1.000	0.000	0.011
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.080	0.009	1,536	1,792	1.361	0.118	0.061	0.099
HIV prevalence all respondents (men and women 15-24)	0.022	0.007	596	697	1.126	0.311	0.008	0.035

Table B.16 Sampling errors: Central sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.241	0.035	1,048	1,100	2.662	0.146	0.171	0.312
Secondary education or higher	0.116	0.017	1,048	1,100	1.737	0.148	0.082	0.151
Had 2+ sexual partners in past 12 months	0.027	0.006	1,048	1,100	1.226	0.230	0.014	0.039
Had an HIV test and received results in past 12 months	0.258	0.029	1,048	1,100	2.136	0.112	0.200	0.316
Condom use at last sex	0.285	0.086	26	29	0.957	0.302	0.113	0.458
Abstinence among never married youth (never had intercourse)	0.675	0.050	201	192	1.498	0.074	0.575	0.774
Sexually active in past 12 months among never married youth	0.229	0.053	201	192	1.760	0.230	0.124	0.334
Accepting attitudes towards people with HIV	0.198	0.024	1,030	1,082	1.954	0.123	0.149	0.247
Owns at least 1 insecticide-treated net (ITN)	0.926	0.013	1,044	1,163	1.622	0.014	0.899	0.952
Child slept under an ITN last night	0.723	0.028	942	1,016	1.358	0.039	0.667	0.779
Pregnant woman slept under an ITN last night	0.713	0.075	97	105	1.589	0.105	0.563	0.862
Received 2+ doses of SP/Fansidar during antenatal visit	0.370	0.042	363	376	1.642	0.113	0.286	0.454
Child has fever in last 2 weeks	0.108	0.011	892	935	1.015	0.103	0.085	0.130
Child sought care/treatment from a health facility, provider, or pharmacy	0.780	0.063	94	101	1.451	0.081	0.654	0.906
Child took ACT	0.477	0.147	42	45	1.893	0.309	0.182	0.771
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.038	0.009	810	881	1.315	0.239	0.020	0.055
Child 6-59 months has malaria (based on rapid test)	0.012	0.005	802	871	1.169	0.416	0.002	0.022
Child 6-59 months has malaria (based on microscopy test)	0.003	0.002	765	816	0.969	0.614	0.000	0.008
HIV prevalence among all women 15-49	0.032	0.007	993	975	1.339	0.236	0.017	0.046
HIV prevalence among young women 15-24	0.006	0.004	364	334	1.064	0.703	0.000	0.015
			MEN					
No education	0.134	0.025	890	908	2.206	0.188	0.084	0.185
Secondary education or higher	0.135	0.020	890	908	1.744	0.148	0.095	0.175
Had 2+ sexual partners in past 12 months	0.211	0.027	890	908	1.936	0.126	0.158	0.264
Had an HIV test and received results in past 12 months	0.274	0.037	890	908	2.468	0.135	0.200	0.348
Paid for sexual intercourse in past 12 months	0.066	0.011	890	908	1.312	0.165	0.044	0.088
Condom use at last sex	0.239	0.050	156	191	1.468	0.211	0.138	0.339
Abstinence among never married youth (never had intercourse)	0.508	0.035	346	339	1.292	0.069	0.438	0.577
Sexually active in past 12 months among never married youth	0.387	0.033	346	339	1.264	0.086	0.321	0.453
Accepting attitudes towards people with HIV	0.304	0.033	882	904	2.108	0.108	0.239	0.370
HIV prevalence among all men 15-49	0.021	0.012	804	879	2.276	0.545	0.000	0.045
HIV prevalence among young men 15-24	0.013	0.009	345	366	1.533	0.734	0.000	0.031
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.027	0.007	1,797	1,854	1.781	0.254	0.013	0.040
HIV prevalence all respondents (men and women 15-24)	0.010	0.006	709	701	1.580	0.605	0.000	0.021

Table B.17 Sampling errors: Northern sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.200	0.051	1,024	1,281	4.026	0.254	0.099	0.301
Secondary education or higher	0.201	0.022	1,024	1,281	1.724	0.107	0.158	0.245
Had 2+ sexual partners in past 12 months	0.011	0.004	1,024	1,281	1.182	0.354	0.003	0.018
Had an HIV test and received results in past 12 months	0.299	0.024	1,024	1,281	1.697	0.081	0.250	0.347
Abstinence among never married youth (never had intercourse)	0.697	0.030	269	311	1.065	0.043	0.637	0.757
Sexually active in past 12 months among never married youth	0.227	0.030	269	311	1.184	0.134	0.166	0.287
Accepting attitudes towards people with HIV	0.258	0.023	1,013	1,255	1.703	0.091	0.211	0.305
Owns at least 1 insecticide-treated net (ITN)	0.903	0.013	1,022	1,253	1.406	0.014	0.876	0.929
Child slept under an ITN last night	0.714	0.030	691	940	1.469	0.042	0.654	0.774
Pregnant woman slept under an ITN last night	0.708	0.057	68	87	0.998	0.080	0.595	0.822
Received 2+ doses of SP/Fansidar during antenatal visit	0.346	0.045	262	369	1.624	0.130	0.256	0.436
Child has fever in last 2 weeks	0.122	0.022	610	861	1.693	0.180	0.078	0.166
Child sought care/treatment from a health facility, provider, or pharmacy	0.711	0.046	85	105	0.877	0.065	0.620	0.803
Child took ACT	0.680	0.086	44	56	1.208	0.127	0.507	0.852
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.094	0.023	596	793	1.908	0.246	0.048	0.140
Child 6-59 months has malaria (based on rapid test)	0.028	0.018	596	792	2.277	0.634	0.000	0.064
Child 6-59 months has malaria (based on microscopy test)	0.014	0.009	599	797	1.771	0.697	0.000	0.032
HIV prevalence among all women 15-49	0.040	0.007	940	1,141	1.122	0.179	0.026	0.055
HIV prevalence among young women 15-24	0.016	0.007	351	435	0.990	0.409	0.003	0.030
	MEN							
No education	0.135	0.042	703	855	3.222	0.310	0.051	0.219
Secondary education or higher	0.238	0.027	703	855	1.709	0.116	0.183	0.292
Had 2+ sexual partners in past 12 months	0.153	0.023	703	855	1.716	0.153	0.106	0.199
Had an HIV test and received results in past 12 months	0.220	0.022	703	855	1.391	0.099	0.176	0.263
Paid for sexual intercourse in past 12 months	0.045	0.010	703	855	1.310	0.229	0.024	0.065
Condom use at last sex	0.223	0.063	91	131	1.437	0.284	0.096	0.350
Abstinence among never married youth (never had intercourse)	0.544	0.038	266	304	1.229	0.069	0.468	0.619
Sexually active in past 12 months among never married youth	0.321	0.035	266	304	1.219	0.109	0.251	0.391
Accepting attitudes towards people with HIV	0.337	0.027	699	848	1.518	0.081	0.282	0.391
HIV prevalence among all men 15-49	0.017	0.005	612	813	0.911	0.283	0.007	0.026
HIV prevalence among young men 15-24	0.006	0.004	245	312	0.873	0.700	0.000	0.015
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.030	0.005	1,552	1,954	1.211	0.174	0.020	0.041
HIV prevalence all respondents (men and women 15-24)	0.012	0.004	596	747	0.933	0.344	0.004	0.021

Table B.18 Sampling errors: Lake sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.213	0.017	2,576	2,797	2.147	0.081	0.178	0.247
Secondary education or higher	0.094	0.008	2,576	2,797	1.396	0.085	0.078	0.110
Had 2+ sexual partners in past 12 months	0.061	0.005	2,576	2,797	1.158	0.089	0.050	0.072
Had an HIV test and received results in past 12 months	0.273	0.015	2,576	2,797	1.685	0.054	0.243	0.302
Condom use at last sex	0.225	0.043	145	171	1.222	0.189	0.140	0.311
Abstinence among never married youth (never had intercourse)	0.595	0.027	514	544	1.224	0.045	0.542	0.648
Sexually active in past 12 months among never married youth	0.341	0.026	514	544	1.258	0.077	0.288	0.393
Accepting attitudes towards people with HIV	0.152	0.012	2,554	2,773	1.702	0.080	0.128	0.176
Owns at least 1 insecticide-treated net (ITN)	0.940	0.006	2,051	2,256	1.067	0.006	0.929	0.952
Child slept under an ITN last night	0.724	0.013	2,672	2,808	1.137	0.018	0.698	0.749
Pregnant woman slept under an ITN last night	0.827	0.024	319	350	1.133	0.029	0.778	0.875
Received 2+ doses of SP/Fansidar during antenatal visit	0.213	0.018	1,044	1,105	1.381	0.083	0.178	0.249
Child has fever in last 2 weeks	0.222	0.012	2,446	2,611	1.280	0.053	0.198	0.245
Child sought care/treatment from a health facility, provider, or pharmacy	0.765	0.025	559	579	1.210	0.033	0.715	0.815
Child took ACT	0.569	0.040	311	321	1.312	0.070	0.489	0.648
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.054	0.006	2,333	2,446	1.134	0.107	0.043	0.066
Child 6-59 months has malaria (based on rapid test)	0.148	0.014	2,307	2,419	1.578	0.096	0.120	0.177
Child 6-59 months has malaria (based on microscopy test)	0.081	0.010	2,284	2,393	1.392	0.120	0.061	0.100
HIV prevalence among all women 15-49	0.054	0.005	2,421	2,489	1.131	0.096	0.044	0.065
HIV prevalence among young women 15-24	0.026	0.006	1,041	1,068	1.191	0.225	0.014	0.038
	MEN							
No education	0.104	0.012	2,037	2,178	1.803	0.118	0.079	0.128
Secondary education or higher	0.181	0.016	2,037	2,178	1.827	0.086	0.149	0.212
Had 2+ sexual partners in past 12 months	0.242	0.012	2,037	2,178	1.226	0.048	0.219	0.266
Had an HIV test and received results in past 12 months	0.263	0.013	2,037	2,178	1.351	0.050	0.236	0.289
Paid for sexual intercourse in past 12 months	0.129	0.009	2,037	2,178	1.167	0.067	0.112	0.147
Condom use at last sex	0.214	0.026	510	528	1.437	0.122	0.162	0.266
Abstinence among never married youth (never had intercourse)	0.479	0.020	781	813	1.144	0.043	0.438	0.519
Sexually active in past 12 months among never married youth	0.418	0.022	781	813	1.266	0.053	0.373	0.463
Accepting attitudes towards people with HIV	0.315	0.014	2,020	2,160	1.333	0.044	0.287	0.343
HIV prevalence among all men 15-49	0.039	0.005	1,807	2,093	1.034	0.120	0.030	0.049
HIV prevalence among young men 15-24	0.013	0.004	851	957	0.950	0.281	0.006	0.021
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.047	0.004	4,228	4,582	1.195	0.082	0.040	0.055
HIV prevalence all respondents (men and women 15-24)	0.020	0.004	1,892	2,025	1.151	0.185	0.013	0.028

Table B.19 Sampling errors: Dodoma sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.335	0.044	277	422	1.536	0.131	0.247	0.422
Secondary education or higher	0.068	0.030	277	422	1.998	0.448	0.007	0.129
Had 2+ sexual partners in past 12 months	0.038	0.012	277	422	1.080	0.327	0.013	0.063
Had an HIV test and received results in past 12 months	0.213	0.032	277	422	1.308	0.151	0.149	0.278
Accepting attitudes towards people with HIV	0.214	0.043	274	419	1.722	0.201	0.128	0.299
Owns at least 1 insecticide-treated net (ITN)	0.928	0.025	345	530	1.764	0.027	0.878	0.977
Child slept under an ITN last night	0.746	0.058	239	375	1.715	0.078	0.630	0.862
Received 2+ doses of SP/Fansidar during antenatal visit	0.495	0.075	83	131	1.384	0.151	0.345	0.645
Child has fever in last 2 weeks	0.071	0.018	219	335	1.068	0.258	0.034	0.108
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.041	0.011	205	324	0.844	0.279	0.018	0.064
Child 6-59 months has malaria (based on rapid test)	0.025	0.011	198	314	0.959	0.418	0.004	0.046
Child 6-59 months has malaria (based on microscopy test)	0.005	0.005	160	258	0.955	1.033	0.000	0.015
HIV prevalence among all women 15-49	0.021	0.011	262	373	1.260	0.535	0.000	0.043
HIV prevalence among young women 15-24	0.000	0.000	73	101	na	na	0.000	0.000
	MEN							
No education	0.196	0.047	217	342	1.732	0.239	0.102	0.290
Secondary education or higher	0.072	0.016	217	342	0.910	0.222	0.040	0.104
Had 2+ sexual partners in past 12 months	0.251	0.051	217	342	1.733	0.205	0.148	0.354
Had an HIV test and received results in past 12 months	0.218	0.030	217	342	1.053	0.136	0.159	0.277
Paid for sexual intercourse in past 12 months	0.064	0.022	217	342	1.327	0.345	0.020	0.109
Condom use at last sex	0.226	0.074	48	86	1.214	0.329	0.077	0.375
Accepting attitudes towards people with HIV	0.216	0.045	216	342	1.588	0.207	0.127	0.306
HIV prevalence among all men 15-49	0.037	0.028	194	332	2.056	0.757	0.000	0.094
HIV prevalence among young men 15-24	0.025	0.022	78	135	1.252	0.897	0.000	0.070
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.029	0.014	456	705	1.754	0.480	0.001	0.056
HIV prevalence all respondents (men and women 15-24)	0.014	0.013	151	237	1.377	0.939	0.000	0.041

Table B.20 Sampling errors: Arusha sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.228	0.074	341	331	3.200	0.324	0.080	0.375
Secondary education or higher	0.209	0.037	341	331	1.695	0.180	0.134	0.283
Had 2+ sexual partners in past 12 months	0.012	0.007	341	331	1.210	0.593	0.000	0.026
Had an HIV test and received results in past 12 months	0.340	0.033	341	331	1.297	0.098	0.274	0.407
Accepting attitudes towards people with HIV	0.181	0.026	336	324	1.245	0.145	0.128	0.233
Owns at least 1 insecticide-treated net (ITN)	0.847	0.032	340	342	1.655	0.038	0.782	0.912
Child slept under an ITN last night	0.670	0.071	231	252	1.964	0.107	0.527	0.813
Received 2+ doses of SP/Fansidar during antenatal visit	0.363	0.061	94	106	1.323	0.169	0.240	0.485
Child has fever in last 2 weeks	0.073	0.015	211	229	0.889	0.206	0.043	0.104
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.159	0.059	206	225	2.258	0.370	0.041	0.277
Child 6-59 months has malaria (based on rapid test)	0.000	0.000	205	223	na	na	0.000	0.000
Child 6-59 months has malaria (based on microscopy test)	0.000	0.000	206	225	na	na	0.000	0.000
HIV prevalence among all women 15-49	0.039	0.013	311	290	1.215	0.341	0.012	0.066
HIV prevalence among young women 15-24	0.015	0.010	117	106	0.891	0.670	0.000	0.035
	MEN							
No education	0.175	0.067	261	254	2.821	0.385	0.040	0.310
Secondary education or higher	0.238	0.052	261	254	1.961	0.219	0.133	0.342
Had 2+ sexual partners in past 12 months	0.127	0.022	261	254	1.088	0.177	0.082	0.172
Had an HIV test and received results in past 12 months	0.186	0.042	261	254	1.740	0.227	0.101	0.270
Paid for sexual intercourse in past 12 months	0.010	0.006	261	254	0.938	0.566	0.000	0.022
Condom use at last sex	0.163	0.063	34	32	0.981	0.387	0.037	0.289
Accepting attitudes towards people with HIV	0.392	0.061	258	249	2.006	0.157	0.269	0.515
HIV prevalence among all men 15-49	0.023	0.010	235	245	0.983	0.414	0.004	0.043
HIV prevalence among young men 15-24	0.000	0.000	85	84	na	na	0.000	0.000
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.032	0.010	546	535	1.327	0.313	0.012	0.052
HIV prevalence all respondents (men and women 15-24)	0.008	0.005	202	190	0.851	0.654	0.000	0.019

Table B.21 Sampling errors: Kilimanjaro sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.021	0.011	331	384	1.465	0.557	0.000	0.044
Secondary education or higher	0.272	0.024	331	384	0.971	0.087	0.225	0.320
Had 2+ sexual partners in past 12 months	0.008	0.005	331	384	0.964	0.585	0.000	0.018
Had an HIV test and received results in past 12 months	0.278	0.034	331	384	1.389	0.123	0.210	0.347
Accepting attitudes towards people with HIV	0.388	0.030	330	383	1.119	0.077	0.328	0.448
Owns at least 1 insecticide-treated net (ITN)	0.948	0.012	347	394	1.046	0.013	0.923	0.973
Child slept under an ITN last night	0.749	0.041	178	198	1.088	0.055	0.667	0.832
Received 2+ doses of SP/Fansidar during antenatal visit	0.320	0.073	60	68	1.193	0.227	0.174	0.465
Child has fever in last 2 weeks	0.141	0.029	143	162	0.907	0.208	0.082	0.199
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.000	0.000	151	167	na	na	0.000	0.000
Child 6-59 months has malaria (based on rapid test)	0.000	0.000	151	167	na	na	0.000	0.000
Child 6-59 months has malaria (based on microscopy test)	0.005	0.005	151	167	0.850	1.019	0.000	0.014
HIV prevalence among all women 15-49	0.049	0.011	311	343	0.868	0.216	0.028	0.071
HIV prevalence among young women 15-24	0.019	0.012	120	133	0.978	0.652	0.000	0.043
	MEN							
No education	0.000	0.000	226	256	na	na	0.000	0.000
Secondary education or higher	0.309	0.048	226	256	1.558	0.156	0.213	0.405
Had 2+ sexual partners in past 12 months	0.026	0.009	226	256	0.877	0.359	0.007	0.044
Had an HIV test and received results in past 12 months	0.224	0.034	226	256	1.235	0.153	0.155	0.292
Paid for sexual intercourse in past 12 months	0.023	0.010	226	256	0.985	0.432	0.003	0.042
Accepting attitudes towards people with HIV	0.358	0.031	225	255	0.960	0.086	0.297	0.420
HIV prevalence among all men 15-49	0.022	0.009	204	244	0.901	0.417	0.004	0.041
HIV prevalence among young men 15-24	0.017	0.012	97	116	0.889	0.689	0.000	0.040
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.038	0.009	515	587	1.083	0.240	0.020	0.057
HIV prevalence all respondents (men and women 15-24)	0.018	0.009	217	249	0.949	0.479	0.001	0.035

Table B.22 Sampling errors: Tanga sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.305	0.093	352	566	3.716	0.305	0.119	0.492
Secondary education or higher	0.149	0.036	352	566	1.890	0.242	0.077	0.221
Had 2+ sexual partners in past 12 months	0.012	0.007	352	566	1.186	0.578	0.000	0.026
Had an HIV test and received results in past 12 months	0.288	0.045	352	566	1.858	0.157	0.198	0.378
Accepting attitudes towards people with HIV	0.213	0.041	347	548	1.865	0.194	0.130	0.295
Owns at least 1 insecticide-treated net (ITN)	0.905	0.021	335	517	1.328	0.024	0.862	0.947
Child slept under an ITN last night	0.723	0.040	282	489	1.220	0.055	0.643	0.802
Received 2+ doses of SP/Fansidar during antenatal visit	0.346	0.074	108	195	1.713	0.214	0.198	0.495
Child has fever in last 2 weeks	0.140	0.042	256	470	1.999	0.300	0.056	0.224
Child sought care/treatment from a health facility, provider, or pharmacy	0.741	0.057	46	66	0.784	0.077	0.627	0.855
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.096	0.026	239	401	1.347	0.266	0.045	0.147
Child 6-59 months has malaria (based on rapid test)	0.056	0.036	240	402	2.109	0.648	0.000	0.128
Child 6-59 months has malaria (based on microscopy test)	0.025	0.019	242	405	1.652	0.760	0.000	0.062
HIV prevalence among all women 15-49	0.035	0.012	318	508	1.167	0.347	0.011	0.059
HIV prevalence among young women 15-24	0.016	0.011	114	196	0.959	0.709	0.000	0.038
	MEN							
No education	0.206	0.085	216	344	3.027	0.413	0.036	0.377
Secondary education or higher	0.184	0.039	216	344	1.474	0.212	0.106	0.262
Had 2+ sexual partners in past 12 months	0.267	0.047	216	344	1.569	0.178	0.172	0.362
Had an HIV test and received results in past 12 months	0.242	0.036	216	344	1.236	0.149	0.170	0.315
Paid for sexual intercourse in past 12 months	0.087	0.023	216	344	1.193	0.265	0.041	0.132
Condom use at last sex	0.242	0.089	52	92	1.465	0.367	0.064	0.419
Accepting attitudes towards people with HIV	0.281	0.042	216	344	1.360	0.149	0.197	0.364
HIV prevalence among all men 15-49	0.007	0.007	173	325	1.056	0.946	0.000	0.021
HIV prevalence among young men 15-24	0.000	0.000	63	112	na	na	0.000	0.000
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.024	0.008	491	833	1.198	0.346	0.007	0.040
HIV prevalence all respondents (men and women 15-24)	0.010	0.007	177	308	0.923	0.687	0.000	0.024

Table B.23 Sampling errors: Morogoro sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.205	0.055	341	399	2.500	0.269	0.095	0.316
Secondary education or higher	0.129	0.025	341	399	1.358	0.192	0.080	0.178
Had 2+ sexual partners in past 12 months	0.039	0.013	341	399	1.196	0.323	0.014	0.064
Had an HIV test and received results in past 12 months	0.240	0.038	341	399	1.629	0.158	0.164	0.315
Accepting attitudes towards people with HIV	0.319	0.034	340	398	1.351	0.107	0.251	0.388
Owns at least 1 insecticide-treated net (ITN)	0.912	0.015	338	397	0.991	0.017	0.881	0.942
Child slept under an ITN last night	0.784	0.038	245	291	1.287	0.049	0.708	0.860
Received 2+ doses of SP/Fansidar during antenatal visit	0.449	0.044	100	120	0.904	0.099	0.360	0.537
Child has fever in last 2 weeks	0.307	0.031	231	276	0.973	0.101	0.245	0.369
Child sought care/treatment from a health facility, provider, or pharmacy	0.741	0.046	69	85	0.839	0.062	0.648	0.833
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.053	0.015	206	245	0.977	0.288	0.022	0.083
Child 6-59 months has malaria (based on rapid test)	0.130	0.041	200	238	1.517	0.318	0.047	0.213
Child 6-59 months has malaria (based on microscopy test)	0.069	0.018	204	242	1.107	0.267	0.032	0.106
HIV prevalence among all women 15-49	0.053	0.016	315	352	1.239	0.294	0.022	0.085
HIV prevalence among young women 15-24	0.022	0.013	109	123	0.936	0.602	0.000	0.048
			MEN					
No education	0.131	0.054	278	343	2.636	0.412	0.023	0.239
Secondary education or higher	0.196	0.049	278	343	2.039	0.250	0.098	0.293
Had 2+ sexual partners in past 12 months	0.273	0.026	278	343	0.982	0.096	0.221	0.326
Had an HIV test and received results in past 12 months	0.173	0.024	278	343	1.041	0.137	0.126	0.220
Paid for sexual intercourse in past 12 months	0.070	0.017	278	343	1.076	0.235	0.037	0.103
Condom use at last sex	0.383	0.062	77	94	1.112	0.162	0.259	0.507
Accepting attitudes towards people with HIV	0.414	0.037	278	343	1.260	0.090	0.340	0.489
HIV prevalence among all men 15-49	0.021	0.015	232	322	1.551	0.701	0.000	0.050
HIV prevalence among young men 15-24	0.000	0.000	90	129	na	na	0.000	0.000
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.038	0.013	547	674	1.621	0.350	0.011	0.064
HIV prevalence all respondents (men and women 15-24)	0.011	0.007	199	252	0.944	0.645	0.000	0.024

Table B.24 Sampling errors: Pwani sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.172	0.024	284	213	1.064	0.139	0.124	0.220
Secondary education or higher	0.193	0.028	284	213	1.212	0.147	0.136	0.250
Had 2+ sexual partners in past 12 months	0.013	0.007	284	213	1.023	0.535	0.000	0.026
Had an HIV test and received results in past 12 months	0.392	0.044	284	213	1.495	0.111	0.305	0.479
Accepting attitudes towards people with HIV	0.371	0.030	284	213	1.029	0.080	0.312	0.430
Owns at least 1 insecticide-treated net (ITN)	0.954	0.015	312	213	1.277	0.016	0.923	0.984
Child slept under an ITN last night	0.844	0.028	218	144	1.020	0.033	0.788	0.901
Received 2+ doses of SP/Fansidar during antenatal visit	0.430	0.060	88	60	1.081	0.140	0.309	0.550
Child has fever in last 2 weeks	0.109	0.026	184	133	1.116	0.236	0.057	0.160
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.106	0.031	180	121	1.294	0.290	0.045	0.168
Child 6-59 months has malaria (based on rapid test)	0.102	0.036	176	118	1.299	0.355	0.030	0.174
Child 6-59 months has malaria (based on microscopy test)	0.074	0.028	177	119	1.218	0.377	0.018	0.130
HIV prevalence among all women 15-49	0.092	0.015	239	187	0.813	0.166	0.061	0.122
HIV prevalence among young women 15-24	0.000	0.000	93	71	na	na	0.000	0.000
			MEN					
No education	0.094	0.020	212	166	0.976	0.209	0.055	0.133
Secondary education or higher	0.366	0.049	212	166	1.464	0.133	0.269	0.464
Had 2+ sexual partners in past 12 months	0.217	0.046	212	166	1.631	0.214	0.124	0.310
Had an HIV test and received results in past 12 months	0.234	0.053	212	166	1.814	0.227	0.128	0.341
Paid for sexual intercourse in past 12 months	0.029	0.014	212	166	1.195	0.479	0.001	0.056
Condom use at last sex	0.374	0.056	49	36	0.802	0.149	0.262	0.486
Accepting attitudes towards people with HIV	0.469	0.038	212	166	1.102	0.081	0.393	0.544
HIV prevalence among all men 15-49	0.021	0.013	149	159	1.078	0.609	0.000	0.046
HIV prevalence among young men 15-24	0.000	0.000	70	76	na	na	0.000	0.000
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.059	0.010	388	346	0.807	0.163	0.040	0.079
HIV prevalence all respondents (men and women 15-24)	0.000	0.000	163	147	na	na	0.000	0.000

Table B.25 Sampling errors: Dar es Salaam sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.025	0.007	629	1,084	1.129	0.280	0.011	0.039
Secondary education or higher	0.341	0.028	629	1,084	1.482	0.082	0.285	0.398
Had 2+ sexual partners in past 12 months	0.046	0.012	629	1,084	1.432	0.262	0.022	0.069
Had an HIV test and received results in past 12 months	0.359	0.032	629	1,084	1.680	0.090	0.295	0.424
Condom use at last sex	0.448	0.068	30	49	0.742	0.152	0.312	0.584
Accepting attitudes towards people with HIV	0.342	0.033	629	1,084	1.742	0.096	0.276	0.408
Owns at least 1 insecticide-treated net (ITN)	0.785	0.019	521	900	1.055	0.024	0.747	0.823
Child slept under an ITN last night	0.628	0.039	259	472	1.191	0.063	0.549	0.707
Received 2+ doses of SP/Fansidar during antenatal visit	0.483	0.054	121	218	1.220	0.112	0.375	0.592
Child has fever in last 2 weeks	0.198	0.025	253	457	1.022	0.124	0.148	0.247
Child sought care/treatment from a health facility, provider, or pharmacy	0.892	0.033	57	90	0.776	0.037	0.826	0.959
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.084	0.022	209	386	1.218	0.264	0.039	0.128
Child 6-59 months has malaria (based on rapid test)	0.036	0.014	208	385	1.130	0.390	0.008	0.064
Child 6-59 months has malaria (based on microscopy test)	0.003	0.003	204	379	0.809	1.019	0.000	0.009
HIV prevalence among all women 15-49	0.082	0.012	601	962	1.045	0.143	0.059	0.106
HIV prevalence among young women 15-24	0.063	0.018	255	399	1.155	0.279	0.028	0.098
			MEN					
No education	0.025	0.014	495	854	1.952	0.548	0.000	0.053
Secondary education or higher	0.419	0.033	495	854	1.484	0.079	0.353	0.485
Had 2+ sexual partners in past 12 months	0.205	0.020	495	854	1.104	0.098	0.165	0.245
Had an HIV test and received results in past 12 months	0.301	0.011	495	854	0.555	0.038	0.278	0.324
Paid for sexual intercourse in past 12 months	0.060	0.013	495	854	1.192	0.213	0.034	0.085
Condom use at last sex	0.432	0.054	97	175	1.060	0.124	0.325	0.539
Accepting attitudes towards people with HIV	0.626	0.033	495	854	1.492	0.052	0.561	0.691
HIV prevalence among all men 15-49	0.053	0.014	449	802	1.340	0.268	0.025	0.082
HIV prevalence among young men 15-24	0.010	0.007	179	324	0.982	0.716	0.000	0.025
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.069	0.009	1,050	1,764	1.192	0.135	0.050	0.088
HIV prevalence all respondents (men and women 15-24)	0.040	0.010	434	723	1.080	0.256	0.019	0.060

Table B.26 Sampling errors: Lindi sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.176	0.030	312	188	1.391	0.171	0.116	0.237
Secondary education or higher	0.126	0.027	312	188	1.441	0.215	0.072	0.181
Had 2+ sexual partners in past 12 months	0.083	0.016	312	188	0.998	0.188	0.052	0.114
Had an HIV test and received results in past 12 months	0.391	0.036	312	188	1.307	0.093	0.318	0.463
Condom use at last sex	0.399	0.095	25	16	0.949	0.237	0.209	0.588
Accepting attitudes towards people with HIV	0.255	0.033	312	188	1.341	0.130	0.189	0.322
Owns at least 1 insecticide-treated net (ITN)	0.964	0.010	351	210	0.985	0.010	0.944	0.983
Child slept under an ITN last night	0.872	0.025	176	110	0.939	0.028	0.823	0.922
Received 2+ doses of SP/Fansidar during antenatal visit	0.477	0.059	70	43	1.000	0.124	0.359	0.595
Child has fever in last 2 weeks	0.244	0.038	165	100	1.104	0.154	0.168	0.319
Child sought care/treatment from a health facility, provider, or pharmacy	0.772	0.090	37	24	1.355	0.117	0.592	0.953
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.118	0.032	148	92	1.225	0.268	0.055	0.181
Child 6-59 months has malaria (based on rapid test)	0.263	0.071	145	90	1.809	0.269	0.122	0.405
Child 6-59 months has malaria (based on microscopy test)	0.041	0.018	146	90	1.132	0.444	0.005	0.078
HIV prevalence among all women 15-49	0.043	0.012	302	167	1.046	0.285	0.018	0.067
HIV prevalence among young women 15-24	0.024	0.014	111	60	0.938	0.569	0.000	0.052
			MEN					
No education	0.094	0.025	225	129	1.263	0.262	0.045	0.144
Secondary education or higher	0.174	0.033	225	129	1.302	0.190	0.108	0.240
Had 2+ sexual partners in past 12 months	0.298	0.039	225	129	1.285	0.132	0.219	0.377
Had an HIV test and received results in past 12 months	0.281	0.029	225	129	0.950	0.101	0.224	0.339
Paid for sexual intercourse in past 12 months	0.290	0.043	225	129	1.408	0.148	0.204	0.375
Condom use at last sex	0.185	0.035	69	38	0.736	0.187	0.116	0.254
Accepting attitudes towards people with HIV	0.427	0.036	225	129	1.093	0.085	0.354	0.499
HIV prevalence among all men 15-49	0.011	0.007	212	123	0.937	0.613	0.000	0.024
HIV prevalence among young men 15-24	0.016	0.015	77	44	1.058	0.939	0.000	0.047
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.029	0.008	514	290	1.107	0.282	0.013	0.046
HIV prevalence all respondents (men and women 15-24)	0.021	0.010	188	105	0.988	0.495	0.000	0.042

Table B.27 Sampling errors: Mtwara sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.138	0.040	301	369	1.998	0.290	0.058	0.218
Secondary education or higher	0.124	0.020	301	369	1.074	0.165	0.083	0.164
Had 2+ sexual partners in past 12 months	0.093	0.022	301	369	1.290	0.233	0.050	0.137
Had an HIV test and received results in past 12 months	0.395	0.025	301	369	0.893	0.064	0.345	0.446
Condom use at last sex	0.141	0.051	31	34	0.813	0.365	0.038	0.244
Accepting attitudes towards people with HIV	0.283	0.045	299	367	1.724	0.159	0.193	0.373
Owns at least 1 insecticide-treated net (ITN)	0.931	0.018	343	400	1.281	0.019	0.895	0.966
Child slept under an ITN last night	0.740	0.050	178	199	1.285	0.068	0.640	0.840
Received 2+ doses of SP/Fansidar during antenatal visit	0.397	0.085	67	76	1.363	0.214	0.227	0.567
Child has fever in last 2 weeks	0.319	0.034	164	186	0.899	0.108	0.250	0.387
Child sought care/treatment from a health facility, provider, or pharmacy	0.720	0.055	56	59	0.862	0.077	0.609	0.830
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.046	0.019	146	163	1.052	0.405	0.009	0.084
Child 6-59 months has malaria (based on rapid test)	0.174	0.047	144	161	1.391	0.271	0.080	0.269
Child 6-59 months has malaria (based on microscopy test)	0.020	0.011	148	166	0.928	0.551	0.000	0.041
HIV prevalence among all women 15-49	0.060	0.026	270	333	1.776	0.430	0.008	0.112
HIV prevalence among young women 15-24	0.024	0.014	99	118	0.925	0.600	0.000	0.052
	MEN							
No education	0.067	0.018	199	242	1.030	0.274	0.030	0.103
Secondary education or higher	0.237	0.047	199	242	1.566	0.201	0.142	0.332
Had 2+ sexual partners in past 12 months	0.220	0.054	199	242	1.832	0.246	0.112	0.329
Had an HIV test and received results in past 12 months	0.268	0.027	199	242	0.857	0.101	0.214	0.322
Paid for sexual intercourse in past 12 months	0.187	0.061	199	242	2.168	0.324	0.066	0.308
Condom use at last sex	0.207	0.047	50	53	0.821	0.229	0.112	0.302
Accepting attitudes towards people with HIV	0.443	0.042	199	242	1.183	0.094	0.359	0.526
HIV prevalence among all men 15-49	0.015	0.009	183	237	1.018	0.613	0.000	0.033
HIV prevalence among young men 15-24	0.017	0.017	69	103	1.068	0.991	0.000	0.050
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.041	0.016	453	570	1.710	0.388	0.009	0.073
HIV prevalence all respondents (men and women 15-24)	0.020	0.011	168	221	1.039	0.556	0.000	0.043

Table B.28 Sampling errors: Ruvuma sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.084	0.020	364	684	1.384	0.240	0.044	0.124
Secondary education or higher	0.179	0.026	364	684	1.280	0.144	0.128	0.231
Had 2+ sexual partners in past 12 months	0.050	0.010	364	684	0.905	0.207	0.029	0.071
Had an HIV test and received results in past 12 months	0.416	0.040	364	684	1.530	0.095	0.337	0.496
Accepting attitudes towards people with HIV	0.269	0.046	363	681	1.977	0.172	0.176	0.361
Owns at least 1 insecticide-treated net (ITN)	0.946	0.013	351	657	1.106	0.014	0.919	0.973
Child slept under an ITN last night	0.787	0.052	279	534	1.665	0.066	0.684	0.890
Received 2+ doses of SP/Fansidar during antenatal visit	0.371	0.074	117	237	1.702	0.198	0.224	0.518
Child has fever in last 2 weeks	0.264	0.045	236	469	1.543	0.170	0.174	0.353
Child sought care/treatment from a health facility, provider, or pharmacy	0.739	0.071	65	124	1.328	0.096	0.596	0.881
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.062	0.022	218	404	1.321	0.360	0.017	0.107
Child 6-59 months has malaria (based on rapid test)	0.120	0.038	212	395	1.536	0.314	0.045	0.196
Child 6-59 months has malaria (based on microscopy test)	0.008	0.006	217	403	1.034	0.778	0.000	0.021
HIV prevalence among all women 15-49	0.091	0.016	350	619	1.036	0.176	0.059	0.122
HIV prevalence among young women 15-24	0.022	0.013	122	224	0.990	0.600	0.000	0.048
	MEN							
No education	0.021	0.011	273	455	1.284	0.530	0.000	0.044
Secondary education or higher	0.182	0.039	273	455	1.673	0.216	0.103	0.260
Had 2+ sexual partners in past 12 months	0.344	0.031	273	455	1.087	0.091	0.281	0.407
Had an HIV test and received results in past 12 months	0.325	0.037	273	455	1.299	0.114	0.251	0.399
Paid for sexual intercourse in past 12 months	0.136	0.033	273	455	1.574	0.241	0.071	0.202
Condom use at last sex	0.327	0.057	87	157	1.119	0.173	0.213	0.440
Accepting attitudes towards people with HIV	0.414	0.034	273	455	1.142	0.082	0.346	0.483
HIV prevalence among all men 15-49	0.041	0.014	264	441	1.115	0.333	0.014	0.068
HIV prevalence among young men 15-24	0.025	0.015	104	166	0.956	0.594	0.000	0.054
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.070	0.010	614	1061	0.990	0.146	0.050	0.090
HIV prevalence all respondents (men and women 15-24)	0.023	0.008	226	390	0.777	0.337	0.008	0.039

Table B.29 Sampling errors: Iringa sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.170	0.051	315	200	2.391	0.301	0.068	0.272
Secondary education or higher	0.152	0.047	315	200	2.283	0.307	0.059	0.245
Had 2+ sexual partners in past 12 months	0.000	0.000	315	200	na	na	0.000	0.000
Had an HIV test and received results in past 12 months	0.260	0.046	315	200	1.858	0.178	0.168	0.352
Accepting attitudes towards people with HIV	0.362	0.059	315	200	2.164	0.163	0.244	0.480
Owns at least 1 insecticide-treated net (ITN)	0.921	0.027	343	226	1.809	0.029	0.867	0.974
Child slept under an ITN last night	0.705	0.042	181	147	1.252	0.060	0.620	0.789
Received 2+ doses of SP/Fansidar during antenatal visit	0.486	0.050	73	59	0.966	0.103	0.386	0.586
Child has fever in last 2 weeks	0.141	0.034	168	130	1.397	0.245	0.072	0.209
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.008	0.008	150	119	1.277	1.068	0.000	0.024
Child 6-59 months has malaria (based on rapid test)	0.004	0.004	148	118	0.842	1.054	0.000	0.011
Child 6-59 months has malaria (based on microscopy test)	0.000	0.000	150	119	na	na	0.000	0.000
HIV prevalence among all women 15-49	0.109	0.025	282	183	1.367	0.233	0.058	0.160
HIV prevalence among young women 15-24	0.070	0.036	103	61	1.423	0.517	0.000	0.142
			MEN					
No education	0.055	0.015	244	153	1.044	0.277	0.025	0.086
Secondary education or higher	0.264	0.082	244	153	2.851	0.310	0.101	0.428
Had 2+ sexual partners in past 12 months	0.088	0.032	244	153	1.732	0.359	0.025	0.151
Had an HIV test and received results in past 12 months	0.282	0.049	244	153	1.696	0.174	0.184	0.380
Paid for sexual intercourse in past 12 months	0.010	0.007	244	153	1.056	0.688	0.000	0.023
Accepting attitudes towards people with HIV	0.462	0.031	242	152	0.973	0.068	0.400	0.525
HIV prevalence among all men 15-49	0.069	0.021	198	145	1.177	0.308	0.026	0.112
HIV prevalence among young men 15-24	0.015	0.013	95	69	1.015	0.856	0.000	0.040
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.091	0.020	480	328	1.482	0.214	0.052	0.130
HIV prevalence all respondents (men and women 15-24)	0.041	0.017	198	130	1.217	0.421	0.006	0.075

Table B.30 Sampling errors: Mbeya sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.162	0.045	378	699	2.342	0.276	0.073	0.252
Secondary education or higher	0.193	0.036	378	699	1.753	0.185	0.122	0.265
Had 2+ sexual partners in past 12 months	0.005	0.004	378	699	1.034	0.747	0.000	0.013
Had an HIV test and received results in past 12 months	0.261	0.028	378	699	1.218	0.106	0.206	0.317
Accepting attitudes towards people with HIV	0.377	0.035	372	688	1.377	0.092	0.307	0.446
Owns at least 1 insecticide-treated net (ITN)	0.914	0.019	349	647	1.233	0.020	0.877	0.951
Child slept under an ITN last night	0.647	0.043	277	509	1.099	0.066	0.561	0.732
Received 2+ doses of SP/Fansidar during antenatal visit	0.366	0.063	115	210	1.385	0.172	0.240	0.492
Child has fever in last 2 weeks	0.172	0.038	249	463	1.527	0.221	0.096	0.247
Child sought care/treatment from a health facility, provider, or pharmacy	0.671	0.107	42	79	1.334	0.159	0.458	0.884
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.014	0.009	222	405	1.171	0.656	0.000	0.031
Child 6-59 months has malaria (based on rapid test)	0.005	0.005	217	394	1.054	1.019	0.000	0.015
Child 6-59 months has malaria (based on microscopy test)	0.000	0.000	222	405	na	na	0.000	0.000
HIV prevalence among all women 15-49	0.110	0.016	332	619	0.935	0.146	0.078	0.142
HIV prevalence among young women 15-24	0.038	0.017	130	236	1.025	0.452	0.004	0.073
			MEN					
No education	0.069	0.028	294	557	1.871	0.404	0.013	0.125
Had sexual intercourse before age of 15	0.045	0.013	213	411	0.931	0.294	0.019	0.072
Had 2+ sexual partners in past 12 months	0.200	0.040	294	557	1.686	0.197	0.121	0.279
Had an HIV test and received results in past 12 months	0.220	0.039	294	557	1.615	0.178	0.142	0.299
Paid for sexual intercourse in past 12 months	0.044	0.011	294	557	0.880	0.240	0.023	0.065
Condom use at last sex	0.226	0.089	59	111	1.598	0.394	0.048	0.404
Accepting attitudes towards people with HIV	0.523	0.045	294	557	1.532	0.086	0.433	0.612
HIV prevalence among all men 15-49	0.067	0.017	245	538	1.049	0.251	0.033	0.101
HIV prevalence among young men 15-24	0.000	0.000	106	227	na	na	0.000	0.000
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.090	0.014	577	1,157	1.157	0.153	0.063	0.118
HIV prevalence all respondents (men and women 15-24)	0.020	0.009	236	462	1.014	0.468	0.001	0.038

Table B.31 Sampling errors: Singida sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.172	0.075	386	416	3.805	0.433	0.023	0.321
Secondary education or higher	0.153	0.025	386	416	1.368	0.164	0.103	0.204
Had 2+ sexual partners in past 12 months	0.027	0.010	386	416	1.176	0.359	0.008	0.047
Had an HIV test and received results in past 12 months	0.304	0.063	386	416	2.677	0.208	0.177	0.430
Accepting attitudes towards people with HIV	0.204	0.043	375	403	2.057	0.211	0.118	0.290
Owns at least 1 insecticide-treated net (ITN)	0.948	0.015	354	384	1.228	0.015	0.919	0.977
Child slept under an ITN last night	0.748	0.039	349	403	1.052	0.053	0.669	0.826
Received 2+ doses of SP/Fansidar during antenatal visit	0.307	0.054	142	158	1.412	0.176	0.199	0.415
Child has fever in last 2 weeks	0.126	0.012	338	385	0.637	0.097	0.101	0.150
Child sought care/treatment from a health facility, provider, or pharmacy	0.821	0.097	38	48	1.576	0.118	0.627	1.015
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.029	0.017	300	347	1.694	0.584	0.000	0.062
Child 6-59 months has malaria (based on rapid test)	0.002	0.002	299	346	0.758	1.085	0.000	0.005
Child 6-59 months has malaria (based on microscopy test)	0.000	0.000	300	347	na	na	0.000	0.000
HIV prevalence among all women 15-49	0.045	0.015	365	370	1.349	0.325	0.016	0.075
Urban residence	0.128	0.036	330	328	1.952	0.282	0.056	0.201
HIV prevalence among young women 15-24	0.015	0.010	142	144	1.020	0.707	0.000	0.035
	MEN							
No education	0.078	0.041	330	328	2.751	0.527	0.000	0.160
Secondary education or higher	0.179	0.046	330	328	2.153	0.256	0.087	0.270
Had 2+ sexual partners in past 12 months	0.214	0.042	330	328	1.831	0.194	0.131	0.297
Had an HIV test and received results in past 12 months	0.378	0.082	330	328	3.021	0.216	0.215	0.542
Paid for sexual intercourse in past 12 months	0.094	0.018	330	328	1.132	0.194	0.057	0.130
Condom use at last sex	0.275	0.098	64	70	1.715	0.357	0.079	0.471
Accepting attitudes towards people with HIV	0.377	0.055	326	326	2.033	0.146	0.267	0.487
HIV prevalence among all men 15-49	0.018	0.009	302	320	1.181	0.502	0.000	0.036
HIV prevalence among young men 15-24	0.009	0.008	140	137	1.043	0.927	0.000	0.026
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.033	0.011	667	690	1.615	0.341	0.010	0.055
HIV prevalence all respondents (men and women 15-24)	0.012	0.009	282	281	1.333	0.727	0.000	0.029

Table B.32 Sampling errors: Tabora sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.305	0.040	440	432	1.836	0.133	0.224	0.385
Secondary education or higher	0.091	0.021	440	432	1.547	0.234	0.048	0.133
Had 2+ sexual partners in past 12 months	0.060	0.015	440	432	1.317	0.248	0.030	0.090
Had an HIV test and received results in past 12 months	0.386	0.027	440	432	1.168	0.070	0.332	0.441
Condom use at last sex	0.353	0.070	27	26	0.753	0.198	0.213	0.493
Accepting attitudes towards people with HIV	0.202	0.031	440	432	1.627	0.155	0.139	0.264
Owns at least 1 insecticide-treated net (ITN)	0.945	0.012	376	383	1.002	0.012	0.922	0.969
Child slept under an ITN last night	0.785	0.022	418	426	0.920	0.028	0.741	0.828
Received 2+ doses of SP/Fansidar during antenatal visit	0.263	0.044	164	167	1.299	0.167	0.175	0.351
Child has fever in last 2 weeks	0.323	0.022	389	390	0.906	0.068	0.279	0.367
Child sought care/treatment from a health facility, provider, or pharmacy	0.854	0.025	122	126	0.801	0.029	0.804	0.903
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.035	0.013	358	367	1.360	0.372	0.009	0.061
Child 6-59 months has malaria (based on rapid test)	0.092	0.035	357	366	2.158	0.381	0.022	0.162
Child 6-59 months has malaria (based on microscopy test)	0.038	0.019	354	363	1.777	0.497	0.000	0.075
HIV prevalence among all women 15-49	0.058	0.014	428	383	1.239	0.242	0.030	0.086
HIV prevalence among young women 15-24	0.010	0.007	191	174	0.980	0.704	0.000	0.024
	MEN							
No education	0.124	0.020	398	411	1.229	0.164	0.083	0.164
Secondary education or higher	0.127	0.020	398	411	1.166	0.153	0.088	0.166
Had 2+ sexual partners in past 12 months	0.163	0.022	398	411	1.193	0.136	0.119	0.207
Had an HIV test and received results in past 12 months	0.305	0.018	398	411	0.793	0.060	0.268	0.342
Paid for sexual intercourse in past 12 months	0.084	0.020	398	411	1.436	0.238	0.044	0.125
Condom use at last sex	0.264	0.052	66	67	0.950	0.196	0.160	0.368
Accepting attitudes towards people with HIV	0.310	0.036	398	411	1.558	0.117	0.238	0.383
HIV prevalence among all men 15-49	0.045	0.012	384	390	1.115	0.262	0.021	0.069
HIV prevalence among young men 15-24	0.006	0.006	175	180	1.010	0.983	0.000	0.018
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.051	0.011	812	774	1.403	0.212	0.030	0.073
HIV prevalence all respondents (men and women 15-24)	0.008	0.005	366	354	0.983	0.572	0.000	0.017

Table B.33 Sampling errors: Rukwa sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
No education	0.274	0.065	342	187	2.679	0.238	0.144	0.405
Secondary education or higher	0.096	0.024	342	187	1.509	0.252	0.048	0.144
Had 2+ sexual partners in past 12 months	0.026	0.009	342	187	1.018	0.335	0.009	0.044
Had an HIV test and received results in past 12 months	0.187	0.039	342	187	1.857	0.211	0.108	0.265
Accepting attitudes towards people with HIV	0.170	0.036	335	183	1.745	0.212	0.098	0.242
Owns at least 1 insecticide-treated net (ITN)	0.862	0.022	339	175	1.194	0.026	0.817	0.907
Child slept under an ITN last night	0.668	0.048	423	218	1.475	0.072	0.572	0.763
Received 2+ doses of SP/Fansidar during antenatal visit	0.192	0.040	144	83	1.255	0.210	0.111	0.273
Child has fever in last 2 weeks	0.165	0.027	353	195	1.352	0.165	0.110	0.219
Child sought care/treatment from a health facility, provider, or pharmacy	0.665	0.068	63	32	1.049	0.102	0.529	0.801
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.071	0.015	346	185	1.028	0.204	0.042	0.101
Child 6-59 months has malaria (based on rapid test)	0.045	0.027	339	182	2.014	0.604	0.000	0.099
Child 6-59 months has malaria (based on microscopy test)	0.000	0.000	332	179	na	na	0.000	0.000
HIV prevalence among all women 15-49	0.068	0.016	318	164	1.163	0.243	0.035	0.100
HIV prevalence among young women 15-24	0.039	0.019	111	52	1.035	0.490	0.001	0.077
MEN								
No education	0.137	0.042	236	137	1.849	0.305	0.053	0.220
Secondary education or higher	0.162	0.052	236	137	2.163	0.324	0.057	0.266
Had 2+ sexual partners in past 12 months	0.120	0.033	236	137	1.535	0.271	0.055	0.186
Had an HIV test and received results in past 12 months	0.203	0.030	236	137	1.133	0.146	0.144	0.263
Paid for sexual intercourse in past 12 months	0.036	0.014	236	137	1.133	0.383	0.008	0.063
Condom use at last sex	0.233	0.109	29	17	1.344	0.468	0.015	0.450
Accepting attitudes towards people with HIV	0.444	0.061	234	136	1.850	0.136	0.322	0.565
HIV prevalence among all men 15-49	0.055	0.017	169	131	0.954	0.304	0.022	0.089
HIV prevalence among young men 15-24	0.000	0.000	56	41	na	na	0.000	0.000
MEN AND WOMEN								
HIV prevalence all respondents (men and women 15-49)	0.062	0.011	487	295	1.045	0.184	0.039	0.085
HIV prevalence all respondents (men and women 15-24)	0.022	0.012	167	94	1.016	0.528	0.000	0.045

Table B.34 Sampling errors: Kigoma sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
WOMEN								
No education	0.181	0.021	417	458	1.128	0.118	0.138	0.223
Secondary education or higher	0.191	0.049	417	458	2.514	0.255	0.094	0.289
Had 2+ sexual partners in past 12 months	0.021	0.008	417	458	1.189	0.401	0.004	0.037
Had an HIV test and received results in past 12 months	0.324	0.019	417	458	0.838	0.059	0.286	0.363
Accepting attitudes towards people with HIV	0.310	0.047	417	458	2.062	0.151	0.216	0.404
Owns at least 1 insecticide-treated net (ITN)	0.945	0.022	351	357	1.829	0.024	0.901	0.990
Child slept under an ITN last night	0.800	0.030	413	382	1.223	0.037	0.740	0.859
Received 2+ doses of SP/Fansidar during antenatal visit	0.226	0.037	155	159	1.068	0.165	0.151	0.300
Child has fever in last 2 weeks	0.338	0.053	370	354	1.864	0.158	0.231	0.444
Child sought care/treatment from a health facility, provider, or pharmacy	0.820	0.045	109	119	1.182	0.055	0.730	0.911
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.078	0.021	355	309	1.206	0.266	0.037	0.119
Child 6-59 months has malaria (based on rapid test)	0.260	0.044	339	296	1.546	0.169	0.172	0.348
Child 6-59 months has malaria (based on microscopy test)	0.099	0.023	338	296	1.226	0.238	0.052	0.145
HIV prevalence among all women 15-49	0.045	0.012	398	405	1.104	0.254	0.022	0.068
HIV prevalence among young women 15-24	0.008	0.007	179	180	1.036	0.868	0.000	0.022
MEN								
No education	0.095	0.031	279	325	1.782	0.332	0.032	0.157
Secondary education or higher	0.315	0.061	279	325	2.164	0.193	0.194	0.436
Had 2+ sexual partners in past 12 months	0.069	0.024	279	325	1.546	0.341	0.022	0.116
Had an HIV test and received results in past 12 months	0.309	0.030	279	325	1.078	0.097	0.249	0.368
Paid for sexual intercourse in past 12 months	0.040	0.012	279	325	1.003	0.295	0.016	0.063
Accepting attitudes towards people with HIV	0.449	0.026	279	325	0.882	0.059	0.396	0.501
HIV prevalence among all men 15-49	0.020	0.014	263	305	1.591	0.694	0.000	0.047
HIV prevalence among young men 15-24	0.036	0.029	128	153	1.763	0.820	0.000	0.094
MEN AND WOMEN								
HIV prevalence all respondents (men and women 15-49)	0.034	0.010	661	710	1.477	0.305	0.013	0.055
HIV prevalence all respondents (men and women 15-24)	0.021	0.012	307	333	1.443	0.569	0.000	0.044

Table B.35 Sampling errors: Shinyanga sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.283	0.034	333	415	1.359	0.119	0.216	0.350
Secondary education or higher	0.072	0.017	333	415	1.206	0.238	0.038	0.106
Had 2+ sexual partners in past 12 months	0.079	0.019	333	415	1.316	0.248	0.040	0.117
Had an HIV test and received results in past 12 months	0.221	0.025	333	415	1.078	0.111	0.172	0.270
Condom use at last sex	0.213	0.086	26	33	1.052	0.405	0.040	0.386
Accepting attitudes towards people with HIV	0.178	0.035	333	415	1.681	0.199	0.107	0.249
Owns at least 1 insecticide-treated net (ITN)	0.941	0.011	277	349	0.792	0.012	0.918	0.963
Child slept under an ITN last night	0.772	0.038	318	404	1.118	0.049	0.697	0.848
Received 2+ doses of SP/Fansidar during antenatal visit	0.314	0.055	121	150	1.304	0.176	0.203	0.424
Child has fever in last 2 weeks	0.261	0.027	292	366	0.985	0.104	0.207	0.315
Child sought care/treatment from a health facility, provider, or pharmacy	0.946	0.028	77	95	0.893	0.029	0.890	1.001
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.053	0.015	277	354	1.026	0.287	0.022	0.083
Child 6-59 months has malaria (based on rapid test)	0.068	0.022	275	351	1.290	0.319	0.025	0.112
Child 6-59 months has malaria (based on microscopy test)	0.044	0.015	271	348	1.196	0.346	0.014	0.075
HIV prevalence among all women 15-49	0.081	0.017	326	368	1.120	0.209	0.047	0.115
HIV prevalence among young women 15-24	0.051	0.019	146	164	1.021	0.365	0.014	0.089
	MEN							
No education	0.152	0.036	259	327	1.619	0.239	0.079	0.224
Secondary education or higher	0.152	0.034	259	327	1.527	0.225	0.084	0.221
Had 2+ sexual partners in past 12 months	0.260	0.024	259	327	0.877	0.092	0.212	0.308
Had an HIV test and received results in past 12 months	0.253	0.033	259	327	1.231	0.132	0.187	0.320
Paid for sexual intercourse in past 12 months	0.175	0.026	259	327	1.110	0.150	0.123	0.228
Condom use at last sex	0.229	0.085	69	85	1.641	0.369	0.060	0.399
Accepting attitudes towards people with HIV	0.257	0.046	257	325	1.666	0.178	0.166	0.348
HIV prevalence among all men 15-49	0.066	0.019	244	313	1.171	0.283	0.028	0.103
HIV prevalence among young men 15-24	0.020	0.013	103	136	0.942	0.660	0.000	0.045
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.074	0.013	570	681	1.229	0.182	0.047	0.101
HIV prevalence all respondents (men and women 15-24)	0.037	0.011	249	300	0.958	0.310	0.014	0.060

Table B.36 Sampling errors: Kagera sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.198	0.036	340	448	1.658	0.182	0.126	0.270
Secondary education or higher	0.108	0.017	340	448	0.993	0.155	0.074	0.141
Had 2+ sexual partners in past 12 months	0.013	0.006	340	448	1.056	0.504	0.000	0.026
Had an HIV test and received results in past 12 months	0.278	0.027	340	448	1.119	0.098	0.223	0.332
Accepting attitudes towards people with HIV	0.206	0.031	340	448	1.411	0.151	0.144	0.268
Owns at least 1 insecticide-treated net (ITN)	0.916	0.014	344	452	0.959	0.016	0.887	0.944
Child slept under an ITN last night	0.701	0.045	326	438	1.465	0.065	0.611	0.792
Received 2+ doses of SP/Fansidar during antenatal visit	0.317	0.041	118	160	0.972	0.130	0.235	0.399
Child has fever in last 2 weeks	0.118	0.025	311	421	1.269	0.212	0.068	0.168
Child sought care/treatment from a health facility, provider, or pharmacy	0.873	0.065	36	50	0.952	0.075	0.742	1.004
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.032	0.009	304	408	0.908	0.281	0.014	0.050
Child 6-59 months has malaria (based on rapid test)	0.083	0.036	300	404	1.923	0.438	0.010	0.156
Child 6-59 months has malaria (based on microscopy test)	0.055	0.017	304	408	1.153	0.305	0.022	0.089
HIV prevalence among all women 15-49	0.055	0.009	334	399	0.760	0.173	0.036	0.074
HIV prevalence among young women 15-24	0.023	0.016	126	147	1.214	0.709	0.000	0.056
	MEN							
No education	0.113	0.020	287	372	1.081	0.179	0.073	0.154
Secondary education or higher	0.178	0.026	287	372	1.155	0.147	0.126	0.231
Had 2+ sexual partners in past 12 months	0.114	0.017	287	372	0.893	0.147	0.081	0.148
Had an HIV test and received results in past 12 months	0.243	0.037	287	372	1.468	0.154	0.168	0.317
Paid for sexual intercourse in past 12 months	0.032	0.010	287	372	1.016	0.333	0.011	0.053
Condom use at last sex	0.232	0.057	33	43	0.768	0.245	0.118	0.346
Accepting attitudes towards people with HIV	0.449	0.027	285	370	0.931	0.061	0.394	0.504
HIV prevalence among all men 15-49	0.041	0.009	273	355	0.744	0.219	0.023	0.059
HIV prevalence among young men 15-24	0.027	0.014	104	129	0.866	0.510	0.000	0.055
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.048	0.007	607	754	0.818	0.148	0.034	0.062
HIV prevalence all respondents (men and women 15-24)	0.025	0.012	230	275	1.117	0.462	0.002	0.048

Table B.37 Sampling errors: Mwanza sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.124	0.034	430	570	2.112	0.272	0.057	0.192
Secondary education or higher	0.142	0.020	430	570	1.168	0.138	0.103	0.182
Had 2+ sexual partners in past 12 months	0.069	0.011	430	570	0.927	0.165	0.046	0.091
Had an HIV test and received results in past 12 months	0.380	0.043	430	570	1.843	0.114	0.294	0.467
Condom use at last sex	0.176	0.077	27	39	1.031	0.438	0.022	0.330
Accepting attitudes towards people with HIV	0.136	0.012	421	559	0.737	0.091	0.111	0.160
Owns at least 1 insecticide-treated net (ITN)	0.959	0.015	337	469	1.357	0.015	0.929	0.988
Child slept under an ITN last night	0.787	0.019	399	529	0.704	0.024	0.750	0.824
Received 2+ doses of SP/Fansidar during antenatal visit	0.267	0.046	164	216	1.320	0.172	0.175	0.359
Child has fever in last 2 weeks	0.221	0.030	380	500	1.268	0.137	0.161	0.282
Child sought care/treatment from a health facility, provider, or pharmacy	0.712	0.063	83	111	1.112	0.088	0.586	0.837
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.077	0.014	341	448	0.969	0.180	0.049	0.104
Child 6-59 months has malaria (based on rapid test)	0.186	0.036	333	439	1.508	0.195	0.114	0.259
Child 6-59 months has malaria (based on microscopy test)	0.054	0.013	315	419	0.920	0.241	0.028	0.080
HIV prevalence among all women 15-49	0.047	0.007	388	509	0.687	0.158	0.032	0.061
HIV prevalence among young women 15-24	0.017	0.009	161	202	0.853	0.512	0.000	0.034
	MEN							
No education	0.087	0.042	326	420	2.670	0.483	0.003	0.172
Secondary education or higher	0.261	0.051	326	420	2.078	0.195	0.160	0.363
Had 2+ sexual partners in past 12 months	0.224	0.037	326	420	1.576	0.163	0.151	0.297
Had an HIV test and received results in past 12 months	0.274	0.036	326	420	1.435	0.130	0.203	0.345
Paid for sexual intercourse in past 12 months	0.157	0.025	326	420	1.225	0.158	0.108	0.207
Condom use at last sex	0.231	0.067	70	94	1.312	0.290	0.097	0.365
Accepting attitudes towards people with HIV	0.367	0.037	323	417	1.385	0.101	0.293	0.442
HIV prevalence among all men 15-49	0.037	0.012	229	411	0.985	0.334	0.012	0.061
HIV prevalence among young men 15-24	0.010	0.007	120	200	0.766	0.715	0.000	0.023
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.042	0.009	617	920	1.056	0.203	0.025	0.059
HIV prevalence all respondents (men and women 15-24)	0.013	0.007	281	402	0.968	0.499	0.000	0.027

Table B.38 Sampling errors: Mara sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.129	0.029	441	433	1.820	0.226	0.070	0.187
Secondary education or higher	0.099	0.019	441	433	1.355	0.195	0.061	0.138
Had 2+ sexual partners in past 12 months	0.087	0.016	441	433	1.208	0.187	0.054	0.119
Had an HIV test and received results in past 12 months	0.329	0.032	441	433	1.433	0.098	0.265	0.393
Condom use at last sex	0.328	0.115	36	38	1.427	0.351	0.098	0.557
Accepting attitudes towards people with HIV	0.242	0.039	438	431	1.892	0.161	0.164	0.320
Owns at least 1 insecticide-treated net (ITN)	0.958	0.009	342	333	0.823	0.009	0.940	0.976
Child slept under an ITN last night	0.736	0.025	463	439	0.913	0.035	0.685	0.787
Received 2+ doses of SP/Fansidar during antenatal visit	0.096	0.030	179	167	1.315	0.310	0.037	0.156
Child has fever in last 2 weeks	0.291	0.039	420	408	1.586	0.135	0.212	0.369
Child sought care/treatment from a health facility, provider, or pharmacy	0.631	0.068	129	119	1.364	0.108	0.495	0.767
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.096	0.024	412	392	1.448	0.249	0.048	0.144
Child 6-59 months has malaria (based on rapid test)	0.254	0.053	410	389	1.984	0.210	0.147	0.360
Child 6-59 months has malaria (based on microscopy test)	0.144	0.040	412	392	1.819	0.278	0.064	0.224
HIV prevalence among all women 15-49	0.052	0.010	413	385	0.944	0.198	0.032	0.073
HIV prevalence among young women 15-24	0.009	0.007	168	156	0.955	0.781	0.000	0.023
	MEN							
No education	0.029	0.017	327	332	1.796	0.574	0.000	0.063
Secondary education or higher	0.256	0.042	327	332	1.711	0.162	0.173	0.339
Had 2+ sexual partners in past 12 months	0.298	0.034	327	332	1.322	0.113	0.231	0.365
Had an HIV test and received results in past 12 months	0.328	0.039	327	332	1.500	0.119	0.250	0.406
Paid for sexual intercourse in past 12 months	0.130	0.024	327	332	1.310	0.188	0.081	0.179
Condom use at last sex	0.198	0.061	97	99	1.485	0.307	0.077	0.320
Accepting attitudes towards people with HIV	0.337	0.034	326	331	1.294	0.101	0.269	0.405
HIV prevalence among all men 15-49	0.035	0.010	304	321	0.992	0.299	0.014	0.056
HIV prevalence among young men 15-24	0.011	0.007	150	156	0.890	0.700	0.000	0.026
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.045	0.009	717	706	1.153	0.200	0.027	0.062
HIV prevalence all respondents (men and women 15-24)	0.010	0.005	318	312	0.906	0.511	0.000	0.020

Table B.39 Sampling errors: Manyara sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.200	0.046	385	262	2.219	0.228	0.109	0.291
Secondary education or higher	0.136	0.031	385	262	1.795	0.232	0.073	0.199
Had 2+ sexual partners in past 12 months	0.007	0.004	385	262	0.987	0.602	0.000	0.015
Had an HIV test and received results in past 12 months	0.258	0.025	385	262	1.133	0.098	0.208	0.309
Accepting attitudes towards people with HIV	0.163	0.030	381	260	1.579	0.184	0.103	0.223
Owns at least 1 insecticide-treated net (ITN)	0.886	0.020	345	249	1.166	0.023	0.846	0.926
Child slept under an ITN last night	0.645	0.038	354	238	1.184	0.058	0.570	0.721
Received 2+ doses of SP/Fansidar during antenatal visit	0.298	0.046	138	87	1.140	0.155	0.206	0.390
Child has fever in last 2 weeks	0.131	0.027	335	215	1.390	0.205	0.077	0.185
Child sought care/treatment from a health facility, provider, or pharmacy	0.654	0.096	41	28	1.283	0.147	0.461	0.846
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.046	0.016	305	210	1.293	0.338	0.015	0.077
Child 6-59 months has malaria (based on rapid test)	0.009	0.009	305	210	1.140	0.997	0.000	0.027
Child 6-59 months has malaria (based on microscopy test)	0.007	0.005	305	210	0.968	0.676	0.000	0.016
HIV prevalence among all women 15-49	0.027	0.012	366	232	1.411	0.443	0.003	0.051
HIV prevalence among young women 15-24	0.000	0.000	149	88	na	na	0.000	0.000
			MEN					
No education	0.123	0.029	343	238	1.614	0.233	0.066	0.181
Secondary education or higher	0.164	0.037	343	238	1.829	0.224	0.091	0.238
Had 2+ sexual partners in past 12 months	0.149	0.040	343	238	2.075	0.270	0.068	0.229
Had an HIV test and received results in past 12 months	0.211	0.042	343	238	1.903	0.199	0.127	0.296
Paid for sexual intercourse in past 12 months	0.031	0.013	343	238	1.372	0.417	0.005	0.056
Condom use at last sex	0.197	0.055	44	35	0.905	0.278	0.087	0.306
Accepting attitudes towards people with HIV	0.332	0.055	340	236	2.121	0.164	0.223	0.441
HIV prevalence among all men 15-49	0.003	0.002	308	227	0.685	0.764	0.000	0.007
HIV prevalence among young men 15-24	0.000	0.000	127	94	na	na	0.000	0.000
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.015	0.006	674	459	1.291	0.404	0.003	0.027
HIV prevalence all respondents (men and women 15-24)	0.000	0.000	276	182	na	na	0.000	0.000

Table B.40 Sampling errors: Njombe sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.082	0.012	317	271	0.805	0.151	0.057	0.107
Secondary education or higher	0.160	0.030	317	271	1.427	0.184	0.101	0.219
Had 2+ sexual partners in past 12 months	0.012	0.007	317	271	1.230	0.637	0.000	0.027
Had an HIV test and received results in past 12 months	0.337	0.027	317	271	0.998	0.079	0.284	0.390
Accepting attitudes towards people with HIV	0.384	0.035	317	271	1.296	0.092	0.313	0.455
Owns at least 1 insecticide-treated net (ITN)	0.955	0.013	346	295	1.207	0.014	0.928	0.982
Child slept under an ITN last night	0.704	0.050	232	202	1.434	0.071	0.604	0.803
Received 2+ doses of SP/Fansidar during antenatal visit	0.389	0.038	94	87	0.788	0.098	0.313	0.466
Child has fever in last 2 weeks	0.180	0.040	219	197	1.405	0.219	0.101	0.259
Child sought care/treatment from a health facility, provider, or pharmacy	0.842	0.072	40	35	1.358	0.086	0.698	0.986
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.029	0.014	196	167	1.082	0.488	0.001	0.056
Child 6-59 months has malaria (based on rapid test)	0.024	0.022	195	167	1.689	0.931	0.000	0.068
Child 6-59 months has malaria (based on microscopy test)	0.014	0.012	196	167	1.172	0.828	0.000	0.037
HIV prevalence among all women 15-49	0.154	0.023	292	240	1.069	0.147	0.108	0.199
HIV prevalence among young women 15-24	0.086	0.036	93	75	1.238	0.421	0.014	0.159
			MEN					
No education	0.062	0.028	259	210	1.858	0.451	0.006	0.119
Secondary education or higher	0.214	0.045	259	210	1.735	0.208	0.125	0.303
Had 2+ sexual partners in past 12 months	0.254	0.034	259	210	1.239	0.132	0.187	0.321
Had an HIV test and received results in past 12 months	0.437	0.027	259	210	0.874	0.062	0.383	0.491
Paid for sexual intercourse in past 12 months	0.059	0.017	259	210	1.166	0.291	0.025	0.093
Condom use at last sex	0.422	0.088	72	53	1.493	0.209	0.246	0.599
Accepting attitudes towards people with HIV	0.518	0.049	259	210	1.587	0.096	0.419	0.617
HIV prevalence among all men 15-49	0.142	0.033	231	200	1.428	0.232	0.076	0.207
HIV prevalence among young men 15-24	0.012	0.012	82	69	1.027	1.034	0.000	0.037
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.148	0.023	523	440	1.506	0.158	0.101	0.195
HIV prevalence all respondents (men and women 15-24)	0.051	0.025	175	145	1.485	0.488	0.001	0.100

Table B.41 Sampling errors: Katavi sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.330	0.059	299	214	2.167	0.180	0.211	0.449
Secondary education or higher	0.073	0.020	299	214	1.301	0.269	0.034	0.112
Had 2+ sexual partners in past 12 months	0.000	0.000	299	214	na	na	0.000	0.000
Had an HIV test and received results in past 12 months	0.226	0.034	299	214	1.404	0.151	0.158	0.294
Accepting attitudes towards people with HIV	0.112	0.024	293	210	1.317	0.217	0.064	0.161
Owns at least 1 insecticide-treated net (ITN)	0.877	0.025	290	202	1.293	0.028	0.827	0.927
Child slept under an ITN last night	0.701	0.034	316	227	1.053	0.049	0.633	0.770
Received 2+ doses of SP/Fansidar during antenatal visit	0.241	0.036	121	86	0.914	0.148	0.169	0.312
Child has fever in last 2 weeks	0.197	0.032	294	214	1.250	0.162	0.133	0.260
Child sought care/treatment from a health facility, provider, or pharmacy	0.861	0.037	66	42	0.808	0.043	0.788	0.934
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.031	0.006	256	187	0.599	0.203	0.018	0.043
Child 6-59 months has malaria (based on rapid test)	0.054	0.024	254	186	1.447	0.440	0.007	0.102
Child 6-59 months has malaria (based on microscopy test)	0.057	0.014	259	191	1.031	0.249	0.029	0.086
HIV prevalence among all women 15-49	0.053	0.015	290	190	1.132	0.281	0.023	0.083
HIV prevalence among young women 15-24	0.032	0.013	129	88	0.866	0.422	0.005	0.059
	MEN							
No education	0.124	0.048	208	157	2.098	0.391	0.027	0.221
Secondary education or higher	0.157	0.032	208	157	1.271	0.205	0.092	0.221
Had 2+ sexual partners in past 12 months	0.142	0.024	208	157	0.983	0.168	0.094	0.190
Had an HIV test and received results in past 12 months	0.193	0.033	208	157	1.196	0.170	0.128	0.259
Paid for sexual intercourse in past 12 months	0.077	0.015	208	157	0.817	0.197	0.046	0.107
Condom use at last sex	0.212	0.100	27	22	1.239	0.474	0.011	0.412
Accepting attitudes towards people with HIV	0.371	0.043	207	156	1.264	0.115	0.286	0.456
HIV prevalence among all men 15-49	0.067	0.022	182	150	1.182	0.328	0.023	0.111
HIV prevalence among young men 15-24	0.021	0.021	64	53	1.146	0.981	0.000	0.063
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.059	0.013	472	340	1.161	0.213	0.034	0.085
HIV prevalence all respondents (men and women 15-24)	0.028	0.010	193	141	0.857	0.365	0.008	0.048

Table B.42 Sampling errors: Simiyu sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.282	0.046	466	626	2.202	0.164	0.190	0.374
Secondary education or higher	0.067	0.016	466	626	1.394	0.242	0.034	0.099
Had 2+ sexual partners in past 12 months	0.066	0.011	466	626	0.997	0.174	0.043	0.089
Had an HIV test and received results in past 12 months	0.215	0.025	466	626	1.333	0.118	0.164	0.266
Condom use at last sex	0.233	0.083	26	41	0.977	0.354	0.068	0.398
Accepting attitudes towards people with HIV	0.085	0.024	459	618	1.857	0.285	0.037	0.134
Owns at least 1 insecticide-treated net (ITN)	0.949	0.012	346	432	1.012	0.013	0.925	0.973
Child slept under an ITN last night	0.665	0.027	501	633	1.045	0.040	0.611	0.718
Received 2+ doses of SP/Fansidar during antenatal visit	0.163	0.038	210	274	1.458	0.232	0.088	0.239
Child has fever in last 2 weeks	0.220	0.023	453	594	1.139	0.105	0.173	0.266
Child sought care/treatment from a health facility, provider, or pharmacy	0.918	0.026	96	131	0.964	0.029	0.866	0.971
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.016	0.007	406	516	1.018	0.447	0.002	0.030
Child 6-59 months has malaria (based on rapid test)	0.034	0.010	400	508	1.037	0.285	0.015	0.053
Child 6-59 months has malaria (based on microscopy test)	0.020	0.010	401	511	1.449	0.495	0.000	0.040
HIV prevalence among all women 15-49	0.043	0.015	407	558	1.488	0.348	0.013	0.073
HIV prevalence among young women 15-24	0.022	0.014	196	282	1.359	0.646	0.000	0.051
	MEN							
No education	0.117	0.022	381	477	1.340	0.189	0.073	0.162
Secondary education or higher	0.115	0.024	381	477	1.440	0.205	0.068	0.163
Had 2+ sexual partners in past 12 months	0.270	0.022	381	477	0.975	0.082	0.226	0.315
Had an HIV test and received results in past 12 months	0.277	0.023	381	477	1.006	0.083	0.231	0.323
Paid for sexual intercourse in past 12 months	0.118	0.014	381	477	0.876	0.123	0.089	0.147
Condom use at last sex	0.251	0.056	98	129	1.261	0.222	0.140	0.362
Accepting attitudes towards people with HIV	0.234	0.024	374	469	1.094	0.102	0.186	0.282
HIV prevalence among all men 15-49	0.027	0.008	339	457	0.920	0.300	0.011	0.043
HIV prevalence among young men 15-24	0.006	0.006	164	219	1.031	1.011	0.000	0.019
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.036	0.009	746	1,015	1.292	0.245	0.018	0.054
HIV prevalence all respondents (men and women 15-24)	0.015	0.008	360	502	1.280	0.542	0.000	0.032

Table B.43 Sampling errors: Geita sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.282	0.031	566	304	1.644	0.110	0.220	0.344
Secondary education or higher	0.063	0.011	566	304	1.080	0.176	0.041	0.085
Had 2+ sexual partners in past 12 months	0.050	0.009	566	304	0.950	0.175	0.032	0.067
Had an HIV test and received results in past 12 months	0.174	0.023	566	304	1.416	0.130	0.128	0.219
Condom use at last sex	0.130	0.054	25	15	0.793	0.415	0.022	0.238
Accepting attitudes towards people with HIV	0.072	0.013	563	301	1.166	0.176	0.047	0.098
Owns at least 1 insecticide-treated net (ITN)	0.908	0.014	405	220	0.962	0.015	0.880	0.935
Child slept under an ITN last night	0.690	0.022	665	365	0.989	0.032	0.646	0.735
Received 2+ doses of SP/Fansidar during antenatal visit	0.141	0.031	252	138	1.411	0.217	0.080	0.203
Child has fever in last 2 weeks	0.230	0.024	590	323	1.325	0.105	0.182	0.278
Child sought care/treatment from a health facility, provider, or pharmacy	0.481	0.051	138	74	1.130	0.106	0.379	0.583
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.063	0.010	593	328	0.957	0.161	0.043	0.084
Child 6-59 months has malaria (based on rapid test)	0.318	0.038	589	326	1.750	0.118	0.243	0.393
Child 6-59 months has malaria (based on microscopy test)	0.207	0.037	581	316	1.847	0.179	0.133	0.281
HIV prevalence among all women 15-49	0.057	0.008	553	270	0.767	0.132	0.042	0.073
HIV prevalence among young women 15-24	0.043	0.015	244	116	1.128	0.340	0.014	0.073
	MEN							
No education	0.127	0.028	457	250	1.805	0.223	0.070	0.183
Secondary education or higher	0.109	0.017	457	250	1.147	0.154	0.075	0.142
Had 2+ sexual partners in past 12 months	0.314	0.023	457	250	1.056	0.073	0.268	0.360
Had an HIV test and received results in past 12 months	0.171	0.022	457	250	1.221	0.126	0.128	0.214
Paid for sexual intercourse in past 12 months	0.189	0.021	457	250	1.153	0.112	0.147	0.231
Condom use at last sex	0.126	0.032	143	78	1.152	0.255	0.062	0.190
Accepting attitudes towards people with HIV	0.227	0.027	455	249	1.370	0.119	0.173	0.281
HIV prevalence among all men 15-49	0.035	0.012	418	236	1.297	0.334	0.012	0.058
HIV prevalence among young men 15-24	0.014	0.008	210	116	0.939	0.550	0.000	0.029
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.047	0.008	971	506	1.228	0.178	0.030	0.064
HIV prevalence all respondents (men and women 15-24)	0.029	0.010	454	233	1.237	0.339	0.009	0.048

Table B.44 Sampling errors: Kaskazini Unguja sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
	WOMEN							
No education	0.255	0.034	319	42	1.385	0.133	0.187	0.323
Secondary education or higher	0.417	0.047	319	42	1.688	0.112	0.324	0.511
Had 2+ sexual partners in past 12 months	0.002	0.002	319	42	0.906	1.030	0.000	0.007
Had an HIV test and received results in past 12 months	0.207	0.025	319	42	1.094	0.120	0.158	0.257
Accepting attitudes towards people with HIV	0.408	0.046	318	42	1.655	0.112	0.316	0.499
Owns at least 1 insecticide-treated net (ITN)	0.769	0.037	267	36	1.410	0.048	0.696	0.842
Child slept under an ITN last night	0.546	0.061	213	29	1.481	0.112	0.423	0.668
Received 2+ doses of SP/Fansidar during antenatal visit	0.591	0.053	85	11	0.997	0.090	0.485	0.698
Child has fever in last 2 weeks	0.157	0.025	218	29	1.031	0.160	0.106	0.207
Child sought care/treatment from a health facility, provider, or pharmacy	0.878	0.046	35	5	0.824	0.053	0.786	0.970
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.087	0.022	192	26	1.038	0.247	0.044	0.130
Child 6-59 months has malaria (based on rapid test)	0.000	0.000	189	26	na	na	0.000	0.000
Child 6-59 months has malaria (based on microscopy test)	0.000	0.000	175	24	na	na	0.000	0.000
HIV prevalence among all women 15-49	0.002	0.002	312	37	0.888	1.025	0.000	0.007
HIV prevalence among young women 15-24	0.000	0.000	137	16	na	na	0.000	0.000
	MEN							
No education	0.104	0.023	197	25	1.037	0.217	0.059	0.150
Secondary education or higher	0.469	0.061	197	25	1.703	0.130	0.347	0.591
Had 2+ sexual partners in past 12 months	0.081	0.019	197	25	1.000	0.241	0.042	0.119
Had an HIV test and received results in past 12 months	0.180	0.024	197	25	0.868	0.132	0.133	0.228
Paid for sexual intercourse in past 12 months	0.000	0.000	197	25	na	na	0.000	0.000
Accepting attitudes towards people with HIV	0.532	0.037	197	25	1.035	0.069	0.459	0.606
HIV prevalence among all men 15-49	0.000	0.000	189	24	na	na	0.000	0.000
HIV prevalence among young men 15-24	0.000	0.000	91	12	na	na	0.000	0.000
	MEN AND WOMEN							
HIV prevalence all respondents (men and women 15-49)	0.001	0.001	501	62	0.875	1.022	0.000	0.004
HIV prevalence all respondents (men and women 15-24)	0.000	0.000	228	28	na	na	0.000	0.000

Table B.45 Sampling errors: Kusini Unguja sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.042	0.012	289	26	0.975	0.273	0.019	0.066
Secondary education or higher	0.660	0.045	289	26	1.614	0.069	0.569	0.750
Had 2+ sexual partners in past 12 months	0.018	0.007	289	26	0.866	0.377	0.004	0.031
Had an HIV test and received results in past 12 months	0.238	0.035	289	26	1.406	0.149	0.167	0.309
Accepting attitudes towards people with HIV	0.439	0.024	289	26	0.837	0.056	0.390	0.488
Owns at least 1 insecticide-treated net (ITN)	0.787	0.033	265	24	1.324	0.042	0.721	0.854
Child slept under an ITN last night	0.514	0.061	197	18	1.494	0.119	0.392	0.635
Received 2+ doses of SP/Fansidar during antenatal visit	0.577	0.079	79	7	1.421	0.136	0.420	0.735
Child has fever in last 2 weeks	0.182	0.035	180	16	1.124	0.194	0.111	0.252
Child sought care/treatment from a health facility, provider, or pharmacy	0.710	0.117	33	3	1.312	0.165	0.475	0.945
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.070	0.021	177	16	1.129	0.298	0.028	0.112
Child 6-59 months has malaria (based on rapid test)	0.000	0.000	175	16	na	na	0.000	0.000
Child 6-59 months has malaria (based on microscopy test)	0.006	0.006	177	16	1.044	1.030	0.000	0.018
HIV prevalence among all women 15-49	0.007	0.005	283	23	0.971	0.675	0.000	0.017
HIV prevalence among young women 15-24	0.000	0.000	104	8	na	na	0.000	0.000
			MEN					
No education	0.015	0.007	236	20	0.888	0.463	0.001	0.030
Secondary education or higher	0.648	0.054	236	20	1.737	0.084	0.540	0.757
Had 2+ sexual partners in past 12 months	0.151	0.026	236	20	1.122	0.174	0.098	0.203
Had an HIV test and received results in past 12 months	0.196	0.024	236	20	0.938	0.124	0.148	0.245
Paid for sexual intercourse in past 12 months	0.027	0.013	236	20	1.257	0.494	0.000	0.054
Condom use at last sex	0.080	0.042	33	3	0.872	0.519	0.000	0.164
Accepting attitudes towards people with HIV	0.535	0.035	235	20	1.066	0.065	0.465	0.604
HIV prevalence among all men 15-49	0.003	0.003	230	19	0.898	1.021	0.000	0.010
HIV prevalence among young men 15-24	0.000	0.000	103	9	na	na	0.000	0.000
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.005	0.003	513	42	0.920	0.547	0.000	0.012
HIV prevalence all respondents (men and women 15-24)	0.000	0.000	207	17	na	na	0.000	0.000

Table B.46 Sampling errors: Mjini Magharibi sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.051	0.009	371	230	0.764	0.171	0.034	0.069
Secondary education or higher	0.728	0.028	371	230	1.192	0.038	0.673	0.784
Had 2+ sexual partners in past 12 months	0.000	0.000	371	230	na	na	0.000	0.000
Had an HIV test and received results in past 12 months	0.249	0.021	371	230	0.929	0.084	0.207	0.291
Accepting attitudes towards people with HIV	0.493	0.034	371	230	1.313	0.069	0.424	0.561
Owns at least 1 insecticide-treated net (ITN)	0.674	0.035	262	166	1.206	0.052	0.604	0.744
Child slept under an ITN last night	0.473	0.054	202	127	1.260	0.115	0.364	0.581
Received 2+ doses of SP/Fansidar during antenatal visit	0.528	0.051	67	51	0.934	0.097	0.425	0.630
Child has fever in last 2 weeks	0.168	0.061	179	121	2.068	0.365	0.045	0.290
Child sought care/treatment from a health facility, provider, or pharmacy	0.674	0.046	25	20	0.478	0.069	0.581	0.766
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.028	0.016	179	116	1.308	0.560	0.000	0.059
Child 6-59 months has malaria (based on rapid test)	0.005	0.005	176	112	0.907	1.008	0.000	0.014
Child 6-59 months has malaria (based on microscopy test)	0.000	0.000	149	97	na	na	0.000	0.000
HIV prevalence among all women 15-49	0.015	0.007	365	204	1.168	0.500	0.000	0.030
HIV prevalence among young women 15-24	0.000	0.000	166	89	na	na	0.000	0.000
			MEN					
No education	0.022	0.010	254	159	1.092	0.459	0.002	0.042
Secondary education or higher	0.697	0.021	254	159	0.729	0.030	0.655	0.739
Had 2+ sexual partners in past 12 months	0.081	0.020	254	159	1.147	0.244	0.041	0.120
Had an HIV test and received results in past 12 months	0.278	0.018	254	159	0.647	0.065	0.242	0.315
Paid for sexual intercourse in past 12 months	0.000	0.000	254	159	na	na	0.000	0.000
Accepting attitudes towards people with HIV	0.648	0.044	254	159	1.448	0.067	0.561	0.735
HIV prevalence among all men 15-49	0.014	0.009	245	150	1.179	0.636	0.000	0.032
HIV prevalence among young men 15-24	0.019	0.016	114	71	1.275	0.876	0.000	0.051
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.014	0.007	610	354	1.440	0.483	0.000	0.028
HIV prevalence all respondents (men and women 15-24)	0.008	0.008	280	161	1.403	0.925	0.000	0.023

Table B.47 Sampling errors: Kaskazini Pemba sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.303	0.050	300	47	1.884	0.166	0.202	0.403
Secondary education or higher	0.412	0.042	300	47	1.490	0.103	0.327	0.497
Had 2+ sexual partners in past 12 months	0.000	0.000	300	47	na	na	0.000	0.000
Had an HIV test and received results in past 12 months	0.195	0.033	300	47	1.426	0.168	0.129	0.260
Accepting attitudes towards people with HIV	0.270	0.033	300	47	1.289	0.123	0.204	0.337
Owns at least 1 insecticide-treated net (ITN)	0.843	0.040	257	41	1.740	0.047	0.764	0.923
Child slept under an ITN last night	0.477	0.050	233	38	1.170	0.104	0.378	0.577
Received 2+ doses of SP/Fansidar during antenatal visit	0.361	0.053	88	14	1.044	0.147	0.255	0.467
Child has fever in last 2 weeks	0.133	0.027	231	37	1.258	0.202	0.079	0.187
Child sought care/treatment from a health facility, provider, or pharmacy	0.555	0.075	31	5	0.874	0.134	0.406	0.704
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.049	0.014	198	33	0.870	0.294	0.020	0.077
Child 6-59 months has malaria (based on rapid test)	0.000	0.000	198	33	na	na	0.000	0.000
Child 6-59 months has malaria (based on microscopy test)	0.000	0.000	183	30	na	na	0.000	0.000
HIV prevalence among all women 15-49	0.002	0.002	273	42	0.807	1.024	0.000	0.007
HIV prevalence among young women 15-24	0.000	0.000	126	19	na	na	0.000	0.000
			MEN					
No education	0.128	0.039	216	33	1.683	0.301	0.051	0.205
Secondary education or higher	0.557	0.045	216	33	1.320	0.080	0.467	0.647
Had 2+ sexual partners in past 12 months	0.076	0.017	216	33	0.935	0.222	0.043	0.110
Had an HIV test and received results in past 12 months	0.110	0.022	216	33	1.032	0.200	0.066	0.154
Paid for sexual intercourse in past 12 months	0.005	0.005	216	33	0.987	0.991	0.000	0.014
Accepting attitudes towards people with HIV	0.352	0.038	216	33	1.168	0.108	0.276	0.428
HIV prevalence among all men 15-49	0.003	0.003	187	32	0.772	1.007	0.000	0.009
HIV prevalence among young men 15-24	0.000	0.000	89	15	na	na	0.000	0.000
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.003	0.003	460	74	1.121	1.015	0.000	0.008
HIV prevalence all respondents (men and women 15-24)	0.000	0.000	215	34	na	na	0.000	0.000

Table B.48 Sampling errors: Kusini Pemba sample, Tanzania 2011-12

VARIABLE	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
			WOMEN					
No education	0.155	0.030	301	46	1.430	0.193	0.095	0.215
Secondary education or higher	0.521	0.051	301	46	1.759	0.098	0.419	0.622
Had 2+ sexual partners in past 12 months	0.003	0.003	301	46	1.025	1.031	0.000	0.010
Had an HIV test and received results in past 12 months	0.232	0.035	301	46	1.421	0.149	0.163	0.302
Accepting attitudes towards people with HIV	0.271	0.030	301	46	1.165	0.111	0.211	0.331
Owns at least 1 insecticide-treated net (ITN)	0.834	0.025	262	40	1.099	0.030	0.784	0.885
Child slept under an ITN last night	0.614	0.046	264	41	1.217	0.075	0.522	0.706
Received 2+ doses of SP/Fansidar during antenatal visit	0.337	0.043	108	17	0.948	0.127	0.251	0.423
Child has fever in last 2 weeks	0.191	0.037	258	40	1.370	0.195	0.116	0.265
Child sought care/treatment from a health facility, provider, or pharmacy	0.682	0.051	47	8	0.684	0.075	0.580	0.784
Child 6-59 months has anaemia (Haemoglobin < 8.0 g/dl)	0.029	0.011	229	35	0.974	0.366	0.008	0.050
Child 6-59 months has malaria (based on rapid test)	0.000	0.000	229	35	na	na	0.000	0.000
Child 6-59 months has malaria (based on microscopy test)	0.021	0.012	192	29	1.185	0.584	0.000	0.046
HIV prevalence among all women 15-49	0.008	0.007	295	40	1.438	0.962	0.000	0.022
HIV prevalence among young women 15-24	0.008	0.008	140	19	1.030	0.976	0.000	0.023
			MEN					
No education	0.071	0.027	219	36	1.564	0.385	0.016	0.125
Secondary education or higher	0.503	0.058	219	36	1.692	0.114	0.388	0.618
Had 2+ sexual partners in past 12 months	0.096	0.027	219	36	1.363	0.283	0.042	0.151
Had an HIV test and received results in past 12 months	0.169	0.040	219	36	1.579	0.238	0.089	0.250
Paid for sexual intercourse in past 12 months	0.005	0.005	219	36	1.072	0.984	0.000	0.016
Accepting attitudes towards people with HIV	0.325	0.048	219	36	1.501	0.147	0.230	0.421
HIV prevalence among all men 15-49	0.000	0.000	211	34	na	na	0.000	0.000
HIV prevalence among young men 15-24	0.000	0.000	104	17	na	na	0.000	0.000
			MEN AND WOMEN					
HIV prevalence all respondents (men and women 15-49)	0.004	0.004	506	74	1.407	0.975	0.000	0.012
HIV prevalence all respondents (men and women 15-24)	0.004	0.004	244	36	0.994	0.974	0.000	0.013

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Tanzania 2011-12

	Female		Male			Female		Male	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	930	3.9	940	3.6	36	201	0.8	287	1.1
1	883	3.7	950	3.6	37	257	1.1	325	1.2
2	857	3.6	853	3.2	38	214	0.9	247	0.9
3	885	3.7	900	3.4	39	251	1.1	268	1.0
4	854	3.6	815	3.1	40	246	1.0	304	1.2
5	783	3.3	774	2.9	41	155	0.7	186	0.7
6	816	3.4	819	3.1	42	248	1.0	228	0.9
7	871	3.6	828	3.1	43	208	0.9	197	0.7
8	780	3.3	796	3.0	44	140	0.6	160	0.6
9	736	3.1	734	2.8	45	199	0.8	213	0.8
10	706	3.0	719	2.7	46	110	0.5	142	0.5
11	758	3.2	765	2.9	47	138	0.6	170	0.6
12	775	3.2	792	3.0	48	135	0.6	174	0.7
13	705	3.0	731	2.8	49	137	0.6	118	0.4
14	628	2.6	587	2.2	50	159	0.7	230	0.9
15	469	2.0	498	1.9	51	131	0.5	173	0.7
16	467	2.0	547	2.1	52	139	0.6	180	0.7
17	447	1.9	476	1.8	53	90	0.4	142	0.5
18	517	2.2	540	2.0	54	108	0.5	121	0.5
19	394	1.7	478	1.8	55	125	0.5	128	0.5
20	413	1.7	481	1.8	56	93	0.4	100	0.4
21	356	1.5	378	1.4	57	103	0.4	108	0.4
22	355	1.5	394	1.5	58	117	0.5	122	0.5
23	266	1.1	385	1.5	59	85	0.4	63	0.2
24	277	1.2	361	1.4	60	140	0.6	195	0.7
25	314	1.3	441	1.7	61	61	0.3	57	0.2
26	254	1.1	417	1.6	62	72	0.3	67	0.3
27	260	1.1	363	1.4	63	51	0.2	76	0.3
28	279	1.2	415	1.6	64	63	0.3	58	0.2
29	232	1.0	364	1.4	65	93	0.4	110	0.4
30	316	1.3	408	1.5	66	53	0.2	44	0.2
31	205	0.9	289	1.1	67	62	0.3	47	0.2
32	243	1.0	337	1.3	68	55	0.2	96	0.4
33	200	0.8	229	0.9	69	39	0.2	38	0.1
34	205	0.9	288	1.1	70+	684	2.9	810	3.1
35	263	1.1	336	1.3	Don't know/ missing	1	0.0	4	0.0
					Total	23,864	100.0	26,417	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54 and interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Tanzania 2011-12

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	3,594	na	na	na
15-19	2,539	2,373	21.7	93.5
20-24	1,999	1,919	17.5	96.0
25-29	2,001	1,924	17.6	96.1
30-34	1,551	1,503	13.7	96.9
35-39	1,464	1,403	12.8	95.8
40-44	1,074	1,034	9.5	96.3
45-49	816	782	7.1	95.8
50-54	846	na	na	na
15-49	11,445	10,938	100.0	95.6

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-54 and interviewed men age 15-49; and percent distribution and percentage of eligible men who were interviewed (weighted), by five-year age groups, Tanzania 2011-12

Age group	Household population of men age 10-54	Interviewed men age 15-49		Percentage of eligible men interviewed
		Number	Percentage	
10-14	3,571	na	na	na
15-19	2,294	2,013	24.2	87.8
20-24	1,667	1,487	17.9	89.2
25-29	1,339	1,146	13.8	85.6
30-34	1,168	1,040	12.5	89.0
35-39	1,187	1,062	12.8	89.5
40-44	998	906	10.9	90.9
45-49	720	658	7.9	91.5
50-54	627	na	na	na
15-49	9,372	8,313	100.0	88.7

Note: The de facto population includes all residents and non residents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Tanzania 2011-12

Subject	Reference group	Percentage with information missing	Number of cases
Birth date	Births in the 5 years preceding the survey		
Month only		0.36	8,573
Month and year		0.00	8,573
Age/date at first union[1]	Ever-married women age 15-49	1.08	8,169
	Ever-married men age 15-49	0.84	4,818
Respondent's education	All women age 15-49	0.00	10,967
	All men age 15-49	0.00	8,352
Anaemia	Living children age 6-59 months (from the Household Questionnaire)	5.70	7,951
Malaria	Living children age 6-59 months (from the Household Questionnaire)		
Rapid diagnostic test		6.94	7,951
Microscopy		7.91	7,951

[1] Both year and age missing

PERSONS INVOLVED IN THE 2011-12 TANZANIA HIV/AIDS AND MALARIA INDICATOR SURVEY

APPENDIX D

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QUESTIONNAIRES

Appendix E

TANZANIA HIV/AIDS AND MALARIA INDICATOR SURVEY
HOUSEHOLD QUESTIONNAIRE

UNITED REPUBLIC OF TANZANIA
NATIONAL BUREAU OF STATISTICS

IDENTIFICATION

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . | | | |

HOUSEHOLD NUMBER . . . . . | | | |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				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 ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE

SUPERVISOR	OFFICE EDITOR	KEYED BY
NAME _____		

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INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with the National Bureau of Statistics. We are conducting a survey about health all over Tanzania. The information we collect will help the government to plan health services. Your household was selected for the survey. I would like to ask you some questions about your household. The questions usually take about 15 to 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you 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.

In case you need more information about the survey, you may contact the person listed on this card.

GIVE CARD WITH CONTACT INFORMATION

Do you have any questions?
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

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9A**	**9B**	**9C**
	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 5-18 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)? IF 95 OR MORE, RECORD '95'.	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 NUM-BER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUM-BER OF ALL MEN AGE 15-49	CIRCLE LINE NUM-BER OF ALL CHILD-REN AGE 0-5
01			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		01	01	01
02			1 2	1 2	1 2			02	02	02
03			1 2	1 2	1 2			03	03	03
04			1 2	1 2	1 2			04	04	04
05			1 2	1 2	1 2			05	05	05
06			1 2	1 2	1 2			06	06	06
07			1 2	1 2	1 2			07	07	07
08			1 2	1 2	1 2			08	08	08
09			1 2	1 2	1 2			09	09	09
10			1 2	1 2	1 2			10	10	10

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				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 0-4 YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGIS-TRATION
	10	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**
	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? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	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? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2011 school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority or has a birth notification been obtained? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	Y N DK		Y N DK		Y N	LEVEL GRADE	Y N	LEVEL GRADE	
01	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
02	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
03	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
04	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
05	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
06	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
07	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
08	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
09	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
10	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		

CODES FOR Qs. 15 AND 17: EDUCATION

LEVEL
0 = PRE-PRIMARY
1 = PRIMARY
2 = POST PRIMARY TRAINING
3 = SECONDARY 'O'-LEVEL
4 = SECONDARY 'A'-LEVEL
5 = POST-SECONDARY TRAINING 'O' LEVEL
6 = POST-SECONDARY TRAINING 'A' LEVEL
7 = UNIVERSITY
8 = DON'T KNOW

GRADE
00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 15 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 17)
98 = DON'T KNOW

							IF AGE 15 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9A**	**9B**	**9C**
	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 5-18 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)? IF 95 OR MORE, RECORD '95'.	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 NUM-BER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUM-BER OF ALL MEN AGE 15-49	CIRCLE LINE NUM-BER OF ALL CHILD-REN AGE 0-5
11			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		11	11	11
12			1 2	1 2	1 2			12	12	12
13			1 2	1 2	1 2			13	13	13
14			1 2	1 2	1 2			14	14	14
15			1 2	1 2	1 2			15	15	15
16			1 2	1 2	1 2			16	16	16
17			1 2	1 2	1 2			17	17	17
18			1 2	1 2	1 2			18	18	18
19			1 2	1 2	1 2			19	19	19
20			1 2	1 2	1 2			20	20	20

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 here? 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 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				IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 0-4 YEARS
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS				EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		BIRTH REGIS-TRATION
	10	11	12	13	14	15	16	17	18
	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? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	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? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest grade (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2011 school year?	During this/that school year, what level and grade [is/was] (NAME) attending? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority or has a birth notification been obtained? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
	Y N DK		Y N DK		Y N	LEVEL GRADE	Y N	LEVEL GRADE	
11	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
12	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
13	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
14	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
15	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
16	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
17	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
18	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
19	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		
20	1 2 8 GO TO 12		1 2 8 GO TO 14		1 2 NEXT LINE		1 2 NEXT LINE		

CODES FOR Qs. 15 AND 17: EDUCATION

LEVEL

0 = PRE-PRIMARY
1 = PRIMARY
2 = POST PRIMARY TRAINING
3 = SECONDARY 'O'-LEVEL
4 = SECONDARY 'A'-LEVEL
5 = POST-SECONDARY TRAINING 'O' LEVEL
6 = POST-SECONDARY TRAINING 'A' LEVEL
7 = UNIVERSITY
8 = DON'T KNOW

GRADE

00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 15 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 17)
98 = DON'T KNOW

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 TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 NEIGHBOR'S TAP . . . . . 14 TUBE WELL OR BOREHOLE . . . . . 21 DUG WELL PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 WATER FROM SPRING PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) . . . . . 81 BOTTLED WATER . . . . . 91 OTHER _____ 96 (SPECIFY)	→ 103 → 102 → 104 → 102
101A	Who is providing water at your main source?	AUTHORITY . . . . . 1 CBO/NGO . . . . . 2 PRIVATE OPERATOR . . . . . 3 DON'T KNOW 8	
101B	CHECK 101: CODE 13 CIRCLED (SKIP TO 103)	CODE 11 OR 12 CIRCLED	→ 104
102	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	→ 104
103	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] DON'T KNOW 998	
104	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . . . 14 FLUSH, DON'T KNOW WHERE . . . . . 15 PIT LATRINE VENTILATED IMPROVED PIT LATRINE (VIP) . . . . . 21 PIT LATRINE WITH SLAB (WASHABLE) 22 PIT LATRINE WITH SLAB (NOT WASHABLE) . . . . . 23 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . . . 24 COMPOSTING TOILET/ECOSAN . . . . . 31 BUCKET . . . . . 41 NO FACILITY/BUSH/FIELD . . . . . 51 OTHER _____ 96 (SPECIFY)	→ 107
105	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 107

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . 0 [ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
107	Does your household have: Electricity that is connected? A battery or generator for power? A paraffin lamp in working condition? A radio in working condition? A television in working condition? A mobile telephone in working condition? A non-mobile telephone in working condition? An iron (charcoal or electric)? A refrigerator in working condition?	YES NO ELECTRICITY . . . . . 1 2 BATTERY/GENERATOR . . . . . 1 2 PARAFFIN LAMP . . . . . 1 2 RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 MOBILE TELEPHONE . . . . . 1 2 NON-MOBILE TELEPHONE . . . 1 2 IRON . . . . . 1 2 REFRIGERATOR 1 2	
108	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 BOTTLED GAS . . . . . 02 BIOGAS . . . . . 03 PARAFFIN/KEROSENE . . . . . 04 CHARCOAL . . . . . 05 FIREWOOD . . . . . 06 STRAW/SHRUBS/GRASS . . . . . 07 AGRICULTURAL CROP . . . . . 08 ANIMAL DUNG . . . . . 09 NO FOOD COOKED IN HOUSEHOLD . . . . . 95 OTHER _____ 96 (SPECIFY)	
108A	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 _____ (SPECIFY) 96	
109	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND . . . . . 11 DUNG . . . . . 12 RUDIMENTARY FLOOR WOOD PLANKS/TIMBER 21 PALM/BAMBOO . . . . . 22 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . . . 31 VINYL OR ASPHALT STRIPS . . . . . 32 CERAMIC TILES, TERRAZZO . . . . . 33 CONCRETE/CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
110	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING GRASS/THATCH/MUD . . . . . 11 FINISHED ROOFING IRON SHEETS . . . . . 21 TILES . . . . . 22 CONCRETE/CEMENT . . . . . 23 ASBESTOS SHEETS . . . . . 24 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS PALM/TRUNKS/BAMBOO . . . . . 12 DIRT/MUD . . . . . 13 RUDIMENTARY WALLS BAMBOO/POLES WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 PLYWOOD . . . . . 23 CARDBOARD/CARTON . . . . . 24 REUSED WOOD . . . . . 25 FINISHED WALLS CONCRETE/CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 SUN-DRIED BRICKS/MUD BRICK . . . . . 33 BAKED BRICKS . . . . . 34 CEMENT BLOCKS . . . . . 35 WOOD PLANKS . . . . . 36 OTHER _____ 96 (SPECIFY)	
112	How many rooms in this household are used for sleeping? INCLUDE ROOMS OUTSIDE MAIN DWELLING.	ROOMS	
112A	How many sleeping spaces such as mats, rugs, mattresses or beds are used in this household?	SLEEPING SPACES	
113	Does any member of this household own: A watch? A bicycle? A motorcycle or motor scooter? An animal-drawn cart? A car or truck? A boat with a motor?	YES NO WATCH . . . . . 1 2 BICYCLE . . . . . 1 2 MOTORCYCLE/SCOOTER . . . 1 2 ANIMAL-DRAWN CART . . . . . 1 2 CAR/TRUCK . . . . . 1 2 BOAT WITH MOTOR 1 2	
114	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 115A
115	How many acres of land for farming or grazing do members of this household own? IF NONE, RECORD 0000.0. IF 9500 ACRES OR MORE OR TOO LARGE TO ESTIMATE, RECORD 9500.0. IF DOESN'T KNOW, RECORD 9999.8.	ACRES FOR FARMING . . ACRES FOR GRAZING . .	
115A	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	→ 116
115B	How many acres of land are used? IF NONE, RECORD 0000.0. IF 9500 ACRES OR MORE OR TOO LARGE TO ESTIMATE, RECORD 9500.0. IF DOESN'T KNOW, RECORD 9999.8.	ACRES FOR FARMING . . ACRES FOR GRAZING . .	
116	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 118

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
117	How many of the following animals does this household own? IF 95 OR MORE, ENTER '95'. IF UNKNOWN, ENTER '98'.		
	Cattle?	CATTLE	
	Milk cows or bulls?	COWS/BULLS	
	Horses or donkeys?	HORSES/DONKEYS	
	Goats?	GOATS	
	Sheep?	SHEEP	
	Pigs?	PIGS	
	Chickens or other poultry?	CHICKENS/POULTRY	
118	Does any member of this household have a bank account?	YES . . . . . 1 NO 2	
119	How far is it to the nearest marketplace? IF LESS THAN ONE KM, ENTER '00'. IF MORE THAN 95 KM, ENTER '95'.	KILOMETRES	
120	Now I would like to ask you about the food your household eats. How many meals does your household usually have per day?	MEALS	
121	In the past week, on how many days did the household eat meat or fish?	DAYS	
122	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	
123	How far is it to the nearest health facility? IF LESS THAN ONE KM, ENTER '00'. IF MORE THAN 95 KM, ENTER '95'.	KILOMETRES	
123A	If you were to go to (NAME OF HOSPITAL/HEALTH CENTRE/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)	
124	At any time in the past 12 months, has anyone come into your dwelling to spray the interior walls against mosquitoes?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 126
125	Who sprayed the dwelling?	GOVERNMENT WORKER/PROGRAM . . . . . A PRIVATE COMPANY . . . . . B NONGOVERNMENTAL ORGANIZATION (NGO) . . . . . C OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
126	Does your household have any mosquito nets that can be used while sleeping?	YES . . . . . 1 NO 2	→ 201
127	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS	

		NET #1	NET #2	NET #3
128	ASK THE RESPONDENT TO SHOW YOU ALL THE NETS IN THE HOUSEHOLD IF MORE THAN 6 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED ..... 1 NOT OBSERVED ... 2	OBSERVED ..... 1 NOT OBSERVED ... 2	OBSERVED ..... 1 NOT OBSERVED ... 2
128A	IF NET OBSERVED, RECORD ITS COLOR(S). IF NET NOT OBSERVED, ASK: What color is the net?	SOLID BLUE ..... 1 SOLID WHITE ..... 2 BLUE AND WHITE STRIPED .... 3 OTHER 6	SOLID BLUE ..... 1 SOLID WHITE ..... 2 BLUE AND WHITE STRIPED .... 3 OTHER 6	SOLID BLUE ..... 1 SOLID WHITE ..... 2 BLUE AND WHITE STRIPED .... 3 OTHER 6
129	How many months ago did your household get the mosquito net? IF LESS THAN ONE MONTH AGO, RECORD '00'.	MONTHS AGO ... [ ][ ] MORE THAN 36 MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO ... [ ][ ] MORE THAN 36 MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO ... [ ][ ] MORE THAN 36 MONTHS AGO ... 95 NOT SURE 98
129A	Where did you get the mosquito net from?	SHOP .... 01 MACHINGA .... 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 GIFT .... 05 FREE/CAMPAIGN 06 SHEHA .... 07 OTHER .... 96 DON'T KNOW 98	SHOP .... 01 MACHINGA .... 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 GIFT .... 05 FREE/CAMPAIGN 06 SHEHA .... 07 OTHER .... 96 DON'T KNOW 98	SHOP .... 01 MACHINGA .... 02 HEALTH FACILITY 03 MARKET (SOKONI) 04 GIFT .... 05 FREE/CAMPAIGN 06 SHEHA .... 07 OTHER .... 96 DON'T KNOW 98
129B	LOCATION OF INTERVIEW: MAINLAND TANZANIA [ ]	ZANZIBAR [ ]		→ SKIP TO 130
129C	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 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8	YES .... 1 NO .... 2 DON'T KNOW 8
130	OBSERVE OR ASK THE BRAND/ TYPE OF MOSQUITO NET.	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) OLYSET .... 11 INTERCEPTOR ... 12 OTHER LLIN/DK BRAND ..... 16 (SKIP TO 134) CONVENTIONAL POLYESTER NET 21 DK BRAND 98	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) OLYSET .... 11 INTERCEPTOR ... 12 OTHER LLIN/DK BRAND ..... 16 (SKIP TO 134) CONVENTIONAL POLYESTER NET 21 DK BRAND 98	LONG-LASTING INSECTICIDE-TREATED NET (LLIN) OLYSET .... 11 INTERCEPTOR ... 12 OTHER LLIN/DK BRAND ..... 16 (SKIP TO 134) CONVENTIONAL POLYESTER NET 21 DK BRAND 98
132	Since you got the net, was it ever soaked or dipped in a liquid to kill or repel mosquitoes?	YES .... 1 NO .... 2 (SKIP TO 134) NOT SURE 8	YES .... 1 NO .... 2 (SKIP TO 134) NOT SURE 8	YES .... 1 NO .... 2 (SKIP TO 134) NOT SURE 8
133	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH AGO, RECORD '00'.	MONTHS AGO ... [ ][ ] MORE THAN 24 MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO ... [ ][ ] MORE THAN 24 MONTHS AGO ... 95 NOT SURE 98	MONTHS AGO ... [ ][ ] MORE THAN 24 MONTHS AGO ... 95 NOT SURE 98

		NET #1	NET #2	NET #3
134	Did anyone sleep under this mosquito net last night?	YES . . . . 1 NO . . . . 2 (SKIP TO 135A) NOT SURE . . . . 8 (SKIP TO 136)	YES . . . . 1 NO . . . . 2 (SKIP TO 135A) NOT SURE . . . . 8 (SKIP TO 136)	YES . . . . 1 NO . . . . 2 (SKIP TO 135A) NOT SURE . . . . 8 (SKIP TO 136)
135	Who slept under this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]
		NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]
		NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]
		NAME_____________ LINE NO. . . . . . [ ][ ] GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	NAME_____________ LINE NO. . . . . . [ ][ ] GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	NAME_____________ LINE NO. . . . . . [ ][ ] GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.
135A	Why not? RECORD ALL MENTIONED	NO MOSQUITOES A NO MALARIA NOW B TOO HOT . . . . C DON'T LIKE SMELL D FEEL CLOSED IN/ AFRAID . . . . E NET TOO OLD/TORN F NET TOO DIRTY . . . G NET NOT AVAILABLE LAST NIGHT/NET BEING WASHED H USUAL USER(S) DID NOT SLEEP HERE LAST NIGHT . . . I NET TOO SMALL . . . J SAVING NET FOR LATER . . . . K NO LONGER KILLS/ REPELS MOSQ. L OTHER_____________X (SPECIFY) DON'T KNOW . . . . . Z	NO MOSQUITOES A NO MALARIA NOW B TOO HOT . . . . C DON'T LIKE SMELL D FEEL CLOSED IN/ AFRAID . . . . E NET TOO OLD/TORN F NET TOO DIRTY . . . G NET NOT AVAILABLE LAST NIGHT/NET BEING WASHED H USUAL USER(S) DID NOT SLEEP HERE LAST NIGHT . . . I NET TOO SMALL . . . J SAVING NET FOR LATER . . . . K NO LONGER KILLS/ REPELS MOSQ. L OTHER_____________X (SPECIFY) DON'T KNOW . . . . . Z	NO MOSQUITOES A NO MALARIA NOW B TOO HOT . . . . C DON'T LIKE SMELL D FEEL CLOSED IN/ AFRAID . . . . E NET TOO OLD/TORN F NET TOO DIRTY . . . G NET NOT AVAILABLE LAST NIGHT/NET BEING WASHED H USUAL USER(S) DID NOT SLEEP HERE LAST NIGHT . . . I NET TOO SMALL . . . J SAVING NET FOR LATER . . . . K NO LONGER KILLS/ REPELS MOSQ. L OTHER_____________X (SPECIFY) DON'T KNOW . . . . . Z
136		GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO BACK TO 128 IN FIRST COLUMN OF NEXT PAGE FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.

<table>
<tr><th></th><th></th><th>NET #4</th><th>NET #5</th><th>NET #6</th></tr>
<tr><td>128</td><td>ASK THE RESPONDENT TO SHOW YOU ALL THE NETS IN THE HOUSEHOLD
IF MORE THAN 6 NETS, USE ADDITIONAL QUESTIONNAIRE(S).</td><td>OBSERVED 1
NOT OBSERVED ... 2</td><td>OBSERVED 1
NOT OBSERVED ... 2</td><td>OBSERVED 1
NOT OBSERVED ... 2</td></tr>
<tr><td>128A</td><td>IF NET OBSERVED, RECORD ITS COLOR(S).
IF NET NOT OBSERVED, ASK: What color is the net?</td><td>SOLID BLUE 1
SOLID WHITE 2
BLUE AND WHITE STRIPED 3
OTHER .... 6</td><td>SOLID BLUE 1
SOLID WHITE 2
BLUE AND WHITE STRIPED 3
OTHER .... 6</td><td>SOLID BLUE 1
SOLID WHITE 2
BLUE AND WHITE STRIPED 3
OTHER .... 6</td></tr>
<tr><td>129</td><td>How many months ago did your household get the mosquito net?
IF LESS THAN ONE MONTH AGO, RECORD '00'.</td><td>MONTHS AGO ... [ ][ ]
MORE THAN 36 MONTHS AGO ... 95
NOT SURE .... 98</td><td>MONTHS AGO ... [ ][ ]
MORE THAN 36 MONTHS AGO ... 95
NOT SURE .... 98</td><td>MONTHS AGO ... [ ][ ]
MORE THAN 36 MONTHS AGO ... 95
NOT SURE .... 98</td></tr>
<tr><td>129A</td><td>Where did you get the mosquito net from?</td><td>SHOP 01
MACHINGA 02
HEALTH FACILITY 03
MARKET (SOKONI) 04
GIFT 05
FREE/CAMPAIGN 06
SHEHA 07
OTHER 96
DON'T KNOW ..... 98</td><td>SHOP 01
MACHINGA 02
HEALTH FACILITY 03
MARKET (SOKONI) 04
GIFT 05
FREE/CAMPAIGN 06
SHEHA 07
OTHER 96
DON'T KNOW ..... 98</td><td>SHOP 01
MACHINGA 02
HEALTH FACILITY 03
MARKET (SOKONI) 04
GIFT 05
FREE/CAMPAIGN 06
SHEHA 07
OTHER 96
DON'T KNOW ..... 98</td></tr>
<tr><td>129B</td><td colspan="4">LOCATION OF INTERVIEW:
MAINLAND TANZANIA [ ]   ZANZIBAR [ ] → SKIP TO 130</td></tr>
<tr><td>129C</td><td>Did you get the mosquito net under the Hati Punguzo programme, that is a subsidy for pregnant women and children under age five?</td><td>YES 1
NO 2
DON'T KNOW ..... 8</td><td>YES 1
NO 2
DON'T KNOW ..... 8</td><td>YES 1
NO 2
DON'T KNOW ..... 8</td></tr>
<tr><td>130</td><td>OBSERVE OR ASK THE BRAND/ TYPE OF MOSQUITO NET.</td><td>LONG-LASTING INSECTICIDE-TREATED NET (LLIN)
OLYSET 11
INTERCEPTOR ... 12
OTHER LLIN/DK BRAND 16
(SKIP TO 134)
CONVENTIONAL POLYESTER NET 21
DK BRAND .... 98</td><td>LONG-LASTING INSECTICIDE-TREATED NET (LLIN)
OLYSET 11
INTERCEPTOR ... 12
OTHER LLIN/DK BRAND 16
(SKIP TO 134)
CONVENTIONAL POLYESTER NET 21
DK BRAND .... 98</td><td>LONG-LASTING INSECTICIDE-TREATED NET (LLIN)
OLYSET 11
INTERCEPTOR ... 12
OTHER LLIN/DK BRAND 16
(SKIP TO 134)
CONVENTIONAL POLYESTER NET 21
DK BRAND .... 98</td></tr>
<tr><td>132</td><td>Since you got the net, was it ever soaked or dipped in a liquid to kill or repel mosquitoes?</td><td>YES 1
NO 2
(SKIP TO 134)
NOT SURE .... 8</td><td>YES 1
NO 2
(SKIP TO 134)
NOT SURE .... 8</td><td>YES 1
NO 2
(SKIP TO 134)
NOT SURE .... 8</td></tr>
<tr><td>133</td><td>How many months ago was the net last soaked or dipped?
IF LESS THAN ONE MONTH AGO, RECORD '00'.</td><td>MONTHS AGO ... [ ][ ]
MORE THAN 24 MONTHS AGO ... 95
NOT SURE .... 98</td><td>MONTHS AGO ... [ ][ ]
MORE THAN 24 MONTHS AGO ... 95
NOT SURE .... 98</td><td>MONTHS AGO ... [ ][ ]
MORE THAN 24 MONTHS AGO ... 95
NOT SURE .... 98</td></tr>
</table>

		NET #4	NET #5	NET #6
134	Did anyone sleep under this mosquito net last night?	YES . . . . 1 NO . . . . 2 (SKIP TO 135A) NOT SURE . . . . 8 (SKIP TO 136)	YES . . . . 1 NO . . . . 2 (SKIP TO 135A) NOT SURE . . . . 8 (SKIP TO 136)	YES . . . . 1 NO . . . . 2 (SKIP TO 135A) NOT SURE . . . . 8 (SKIP TO 136)
135	Who slept under this mosquito net last night? RECORD THE PERSON'S NAME AND LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]
		NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]
		NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]	NAME_____________ LINE NO. . . . . . [ ][ ]
		NAME_____________ LINE NO. . . . . . [ ][ ] GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	NAME_____________ LINE NO. . . . . . [ ][ ] GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	NAME_____________ LINE NO. . . . . . [ ][ ] GO TO 128 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO T0 201.
135A	Why not? RECORD ALL MENTIONED	NO MOSQUITOES A NO MALARIA NOW B TOO HOT . . . . C DON'T LIKE SMELL D FEEL CLOSED IN/ AFRAID . . . . E NET TOO OLD/TORN F NET TOO DIRTY . . . G NET NOT AVAILABLE LAST NIGHT/NET BEING WASHED H USUAL USER(S) DID NOT SLEEP HERE LAST NIGHT . . . I NET TOO SMALL . . . J SAVING NET FOR LATER . . . . K NO LONGER KILLS/ REPELS MOSQ. L OTHER__________ X (SPECIFY) DON'T KNOW . . . . . Z	NO MOSQUITOES A NO MALARIA NOW B TOO HOT . . . . C DON'T LIKE SMELL D FEEL CLOSED IN/ AFRAID . . . . E NET TOO OLD/TORN F NET TOO DIRTY . . . G NET NOT AVAILABLE LAST NIGHT/NET BEING WASHED H USUAL USER(S) DID NOT SLEEP HERE LAST NIGHT . . . I NET TOO SMALL . . . J SAVING NET FOR LATER . . . . K NO LONGER KILLS/ REPELS MOSQ. L OTHER__________ X (SPECIFY) DON'T KNOW . . . . . Z	NO MOSQUITOES A NO MALARIA NOW B TOO HOT . . . . C DON'T LIKE SMELL D FEEL CLOSED IN/ AFRAID . . . . E NET TOO OLD/TORN F NET TOO DIRTY . . . G NET NOT AVAILABLE LAST NIGHT/NET BEING WASHED H USUAL USER(S) DID NOT SLEEP HERE LAST NIGHT . . . I NET TOO SMALL . . . J SAVING NET FOR LATER . . . . K NO LONGER KILLS/ REPELS MOSQ. L OTHER__________ X (SPECIFY) DON'T KNOW . . . . . Z
136		GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO BACK TO 128 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 201.	GO TO 128 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 201.

HEMOGLOBIN MEASUREMENT AND MALARIA TESTING FOR CHILDREN AGE 0-5

201	CHECK COLUMN 9C IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 202. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 1	**CHILD 2**	**CHILD 3**
202	LINE NUMBER FROM COLUMN 9C NAME FROM COLUMN 2	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH 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 ☐☐☐☐
204	CHECK 203: CHILD BORN IN SEPTEMBER 2006 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)
205	CHECK 203: WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	YES . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) NO 2	YES . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) NO 2	YES . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) NO 2
206	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . ☐☐	LINE NUMBER . . . . . ☐☐	LINE NUMBER . . . . . ☐☐
207	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 206 AS RESPONSIBLE FOR CHILD.	As part of this survey, we are asking children all over the country to take an **anemia** test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. We ask that all children born in September 2006 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take 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 anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. 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 CHILD) to participate in the anemia test?		
208	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER 6	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER 6	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER 6

		CHILD 1	CHILD 2	CHILD 3
209	ASK CONSENT FOR MALARIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 206 AS RESPONSIBLE FOR CHILD.	As part of this survey, we are asking that children all over the country take a test to see if they have **malaria**. Malaria is a serious illness caused by a parasite transmitted by a mosquito bite. This survey will help the government to develop programs to prevent malaria. We ask that all children born in September 2006 or later take part in malaria testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take 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 anemia test). One blood drop will be tested for malaria immediately, and the result will be told to you right away. A few blood drops will be collected on a slide and taken to a laboratory for testing. You will not be told the results of the laboratory testing. All results will be kept strictly confidential and will not be shared with anyone other than members of our survey team. 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 CHILD) to participate in the malaria testing?		
210	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . 1 ______ (SIGN) REFUSED . . . . 2 NOT PRESENT . . . . 5 OTHER 6	GRANTED . . . . 1 ______ (SIGN) REFUSED . . . . 2 NOT PRESENT . . . . 5 OTHER 6	GRANTED . . . . 1 ______ (SIGN) REFUSED . . . . 2 NOT PRESENT . . . . 5 OTHER 6
211	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
212	BARCODE LABEL	PUT THE 1ST BARCODE LABEL HERE. NOT PRESENT 99994 REFUSED . . . . . 99995 OTHER . . . . 99996 PUT THE 2ND BARCODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BARCODE LABEL HERE. NOT PRESENT 99994 REFUSED . . . . . 99995 OTHER . . . . 99996 PUT THE 2ND BARCODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BARCODE LABEL HERE. NOT PRESENT 99994 REFUSED . . . . . 99995 OTHER . . . . 99996 PUT THE 2ND BARCODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.
213	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA AND MALARIA BROCHURE.	G/DL [ ][ ].[ ] NOT PRESENT . . . 99.4 REFUSED . . . . 99.5 OTHER 99.6	G/DL [ ][ ].[ ] NOT PRESENT . . . 99.4 REFUSED . . . . 99.5 OTHER 99.6	G/DL [ ][ ].[ ] NOT PRESENT . . . 99.4 REFUSED . . . . 99.5 OTHER 99.6
214	RECORD RESULT CODE OF THE MALARIA RDT.	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 217)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 217)	TESTED . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . 3 OTHER . . . . 6 (SKIP TO 217)
215	RECORD THE RESULT OF THE MALARIA RDT HERE AND IN THE ANEMIA AND MALARIA BROCHURE.	POSITIVE . . . . 1 NEGATIVE . . . . 2 OTHER . . . . 6 (SKIP TO 217)	POSITIVE . . . . 1 NEGATIVE . . . . 2 OTHER . . . . 6 (SKIP TO 217)	POSITIVE . . . . 1 NEGATIVE . . . . 2 OTHER . . . . 6 (SKIP TO 217)
216	CLASSIFICATION OF POSITIVE MALARIA TEST.	P.F. . . . . 1 PAN . . . . 2 P.F. AND PAN . . . . 3 (SKIP TO 219)	P.F. . . . . 1 PAN . . . . 2 P.F. AND PAN . . . . 3 (SKIP TO 219)	P.F. . . . . 1 PAN . . . . 2 P.F. AND PAN . . . . 3 (SKIP TO 219)
217	CHECK 213 HEMOGLOBIN RESULT	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . . 4 REFUSED . . . . 5 OTHER . . . . 6 (SKIP TO 228)	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . . 4 REFUSED . . . . 5 OTHER . . . . 6 (SKIP TO 228)	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . . 4 REFUSED . . . . 5 OTHER . . . . 6 (SKIP TO 228)
218	**SEVERE ANEMIA REFERRAL** STATEMENT	The anemia test shows that (NAME OF CHILD) has severe anemia. Your child must be taken to a health facility right away. SKIP TO 228		

		CHILD 1	CHILD 2	CHILD 3
219	Does (NAME) suffer from the any of following illnesses or symptoms: Extreme weakness? Inability to drink or breastfeed? Vomiting everything? Loss of consciousness? Deep and laboured breathing? Multiple convulsions? Abnormal spontaneous bleeding? Yellow skin/jaundice? IF NO SYMPTOMS, CIRCLE CODE Y.	EXTREME WEAKNESS A FAILURE TO FEED . . . B VOMITING . . . . C LOSS OF CONSCIOUSNESS D DEEP BREATHING . . . E CONVULSIONS . . . . . F BLEEDING . . . . G JAUNDICE . . . . H NO SYMPTOMS . . . . . Y	EXTREME WEAKNESS A FAILURE TO FEED . . . B VOMITING . . . . C LOSS OF CONSCIOUSNESS D DEEP BREATHING . . . E CONVULSIONS . . . . . F BLEEDING . . . . G JAUNDICE . . . . H NO SYMPTOMS . . . . . Y	EXTREME WEAKNESS A FAILURE TO FEED . . . B VOMITING . . . . C LOSS OF CONSCIOUSNESS D DEEP BREATHING . . . E CONVULSIONS . . . . . F BLEEDING . . . . G JAUNDICE . . . . H NO SYMPTOMS . . . . . Y
220	CHECK 219 ANY CODE CIRCLED?	CODE Y CIRCLED . . . 1 ANY CODE A-H CIRCLED 2 (SKIP TO 223)	CODE Y CIRCLED . . . 1 ANY CODE A-H CIRCLED 2 (SKIP TO 223)	CODE Y CIRCLED . . . 1 ANY CODE A-H CIRCLED 2 (SKIP TO 223)
221	CHECK 213 HEMOGLOBIN RESULT	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 (SKIP TO 223) 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . . 4 REFUSED . . . . 5 OTHER 6	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 (SKIP TO 223) 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . . 4 REFUSED . . . . 5 OTHER 6	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 (SKIP TO 223) 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . . 4 REFUSED . . . . 5 OTHER 6
222	In the past two weeks has (NAME) taken or is taking ALu given by a doctor or health center to treat the malaria? VERIFY BY ASKING TO SEE TREATMENT.	YES . . . . 1 (SKIP TO 224) NO . . . . 2 (SKIP TO 225)	YES . . . . 1 (SKIP TO 224) NO . . . . 2 (SKIP TO 225)	YES . . . . 1 (SKIP TO 224) NO . . . . 2 (SKIP TO 225)
223	**SEVERE MALARIA REFERRAL** STATEMENT	The malaria test shows that (NAME OF CHILD) has malaria. (NAME OF CHILD) also has symptoms of severe malaria. Your child must be taken to a health facility right away. We can give you free medicine called ALu, however, it may not help your child. You do not have to give the (NAME OF CHILD) the medicine. This is up to you. Please tell me whether you accept the medicine or not. SKIP TO 227		
224	**ALREADY TAKING ACT REFERRAL** STATEMENT	You have told me that (NAME OF CHILD) has already received ALu for malaria. Therefore, I cannot give you additional ALu. However, the test shows that he/she is positive for malaria. If your child has a fever for four days after the last dose of ALu, you should take him/her to the nearest health facility for further examination. SKIP TO 227		
225	READ INFORMATION FOR MALARIA TREATMENT AND CONSENT STATEMENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR THE CHILD.	The malaria test shows that (NAME OF CHILD) has malaria. We can give you free medicine. The medicine is called ALu. ALu is very effective and in a few days it should get rid of the fever and other symptoms. ALu is also very safe. However all medicines can have unwanted effects. Sometimes ALu can cause dizziness, weakness, lack of appetite for eating, and rapid heartbeats. You do not have to give (NAME OF CHILD) the medicine. This is up to you. Please tell me whether you accept the medicine or not.		
226	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	ACCEPTED MEDICINE 1 ______________ (SIGN) REFUSED . . . . 2 OTHER 6	ACCEPTED MEDICINE 1 ______________ (SIGN) REFUSED . . . . 2 OTHER 6	ACCEPTED MEDICINE 1 ______________ (SIGN) REFUSED . . . . 2 OTHER 6
227	RECORD THE RESULT CODE OF **MALARIA TREATMENT AND REFERRAL**	MEDICATION GIVEN 1 MEDS REFUSED . . . . . 2 SEVERE MALARIA REFERRAL . . . . 3 ALREADY TAKING MEDS REFERRAL . . . . 4 OTHER 6	MEDICATION GIVEN 1 MEDS REFUSED . . . . . 2 SEVERE MALARIA REFERRAL . . . . 3 ALREADY TAKING MEDS REFERRAL . . . . 4 OTHER 6	MEDICATION GIVEN 1 MEDS REFUSED . . . . . 2 SEVERE MALARIA REFERRAL . . . . 3 ALREADY TAKING MEDS REFERRAL . . . . 4 OTHER 6
228	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, END INTERVIEW.			

		CHILD 4	CHILD 5	CHILD 6
202	LINE NUMBER FROM COLUMN 9C NAME FROM COLUMN 2	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____	LINE NUMBER . . . . . ☐☐ NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH 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 ☐☐☐☐
204	CHECK 203: CHILD BORN IN SEPTEMBER 2006 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW)
205	CHECK 203: WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	YES . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) NO 2	YES . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) NO 2	YES . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, END INTERVIEW) NO 2
206	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (FROM COLUMN 1 OF HOUSEHOLD SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . ☐☐	LINE NUMBER . . . . . ☐☐	LINE NUMBER . . . . . ☐☐
207	ASK CONSENT FOR ANEMIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 206 AS RESPONSIBLE FOR CHILD.	As part of this survey, we are asking children all over the country to take an **anemia** test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. We ask that all children born in September 2006 or later take part in anemia testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take 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 anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. 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 CHILD) to participate in the anemia test?		
208	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER 6	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER 6	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER 6

		CHILD 4	CHILD 5	CHILD 6
209	ASK CONSENT FOR MALARIA TEST FROM PARENT/OTHER ADULT IDENTIFIED IN 206 AS RESPONSIBLE FOR CHILD.	As part of this survey, we are asking that children all over the country take a test to see if they have **malaria**. Malaria is a serious illness caused by a parasite transmitted by a mosquito bite. This survey will help the government to develop programs to prevent malaria. We ask that all children born in September 2006 or later take part in malaria testing in this survey and give a few drops of blood from a finger or heel. The equipment used to take 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 anemia test). One blood drop will be tested for malaria immediately, and the result will be told to you right away. A few blood drops will be collected on a slide and taken to a laboratory for testing. You will not be told the results of the laboratory testing. All results will be kept strictly confidential and will not be shared with anyone other than members of our survey team. 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 CHILD) to participate in the malaria testing?		
210	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED .... 1 (SIGN) REFUSED .... 2 NOT PRESENT .... 5 OTHER 6	GRANTED .... 1 (SIGN) REFUSED .... 2 NOT PRESENT .... 5 OTHER 6	GRANTED .... 1 (SIGN) REFUSED .... 2 NOT PRESENT .... 5 OTHER 6
211	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).			
212	BARCODE LABEL	PUT THE 1ST BARCODE LABEL HERE. NOT PRESENT 99994 REFUSED ...... 99995 OTHER .... 99996 PUT THE 2ND BARCODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BARCODE LABEL HERE. NOT PRESENT 99994 REFUSED ...... 99995 OTHER .... 99996 PUT THE 2ND BARCODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BARCODE LABEL HERE. NOT PRESENT 99994 REFUSED ...... 99995 OTHER .... 99996 PUT THE 2ND BARCODE LABEL ON THE SLIDE AND THE 3RD ON THE TRANSMITTAL FORM.
213	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA AND MALARIA BROCHURE.	G/DL [ ][ ].[ ] NOT PRESENT ... 99.4 REFUSED .... 99.5 OTHER 99.6	G/DL [ ][ ].[ ] NOT PRESENT ... 99.4 REFUSED .... 99.5 OTHER 99.6	G/DL [ ][ ].[ ] NOT PRESENT ... 99.4 REFUSED .... 99.5 OTHER 99.6
214	RECORD RESULT CODE OF THE MALARIA RDT.	TESTED .... 1 NOT PRESENT ...... 2 REFUSED .... 3 OTHER .... 6 (SKIP TO 217)	TESTED .... 1 NOT PRESENT ...... 2 REFUSED .... 3 OTHER .... 6 (SKIP TO 217)	TESTED .... 1 NOT PRESENT ...... 2 REFUSED .... 3 OTHER .... 6 (SKIP TO 217)
215	RECORD THE RESULT OF THE MALARIA RDT HERE AND IN THE ANEMIA AND MALARIA BROCHURE.	POSITIVE .... 1 NEGATIVE .... 2 OTHER .... 6 (SKIP TO 217)	POSITIVE .... 1 NEGATIVE .... 2 OTHER .... 6 (SKIP TO 217)	POSITIVE .... 1 NEGATIVE .... 2 OTHER .... 6 (SKIP TO 217)
216	CLASSIFICATION OF POSITIVE MALARIA TEST.	P.F. .... 1 PAN .... 2 P.F. AND PAN .... 3 (SKIP TO 219)	P.F. .... 1 PAN .... 2 P.F. AND PAN .... 3 (SKIP TO 219)	P.F. .... 1 PAN .... 2 P.F. AND PAN .... 3 (SKIP TO 219)
217	CHECK 213 HEMOGLOBIN RESULT	BELOW 7.0 G/DL, SEVERE ANEMIA ... 1 7.0 G/DL OR ABOVE 2 NOT PRESENT ...... 4 REFUSED .... 5 OTHER .... 6 (SKIP TO 228)	BELOW 7.0 G/DL, SEVERE ANEMIA ... 1 7.0 G/DL OR ABOVE 2 NOT PRESENT ...... 4 REFUSED .... 5 OTHER .... 6 (SKIP TO 228)	BELOW 7.0 G/DL, SEVERE ANEMIA ... 1 7.0 G/DL OR ABOVE 2 NOT PRESENT ...... 4 REFUSED .... 5 OTHER .... 6 (SKIP TO 228)
218	**SEVERE ANEMIA REFERRAL** STATEMENT	The anemia test shows that (NAME OF CHILD) has severe anemia. Your child must be taken to a health facility right away. SKIP TO 228		

HH-20

		CHILD 4	CHILD 5	CHILD 6
219	Does (NAME) suffer from the any of following illnesses or symptoms: Extreme weakness? Inability to drink or breastfeed? Vomiting everything? Loss of consciousness? Deep and laboured breathing? Multiple convulsions? Abnormal spontaneous bleeding? Yellow skin/jaundice? IF NO SYMPTOMS, CIRCLE CODE Y.	EXTREME WEAKNESS A FAILURE TO FEED . . . B VOMITING . . . . C LOSS OF CONSCIOUSNESS D DEEP BREATHING . . . E CONVULSIONS . . . . . . F BLEEDING . . . . G JAUNDICE . . . . H NO SYMPTOMS . . . . . . Y	EXTREME WEAKNESS A FAILURE TO FEED . . . B VOMITING . . . . C LOSS OF CONSCIOUSNESS D DEEP BREATHING . . . E CONVULSIONS . . . . . . F BLEEDING . . . . G JAUNDICE . . . . H NO SYMPTOMS . . . . . . Y	EXTREME WEAKNESS A FAILURE TO FEED . . . B VOMITING . . . . C LOSS OF CONSCIOUSNESS D DEEP BREATHING . . . E CONVULSIONS . . . . . . F BLEEDING . . . . G JAUNDICE . . . . H NO SYMPTOMS . . . . . . Y
220	CHECK 219 ANY CODE CIRCLED?	CODE Y CIRCLED . . . 1 ANY CODE A-H CIRCLED 2 (SKIP TO 223)	CODE Y CIRCLED . . . 1 ANY CODE A-H CIRCLED 2 (SKIP TO 223)	CODE Y CIRCLED . . . 1 ANY CODE A-H CIRCLED 2 (SKIP TO 223)
221	CHECK 213 HEMOGLOBIN RESULT	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 (SKIP TO 223) 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . 4 REFUSED . . . . 5 OTHER 6	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 (SKIP TO 223) 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . 4 REFUSED . . . . 5 OTHER 6	BELOW 7.0 G/DL, SEVERE ANEMIA . . . 1 (SKIP TO 223) 7.0 G/DL OR ABOVE 2 NOT PRESENT . . . . 4 REFUSED . . . . 5 OTHER 6
222	In the past two weeks has (NAME) taken or is taking ALu given by a doctor or health center to treat the malaria? VERIFY BY ASKING TO SEE TREATMENT	YES . . . . 1 (SKIP TO 224) NO . . . . 2 (SKIP TO 225)	YES . . . . 1 (SKIP TO 224) NO . . . . 2 (SKIP TO 225)	YES . . . . 1 (SKIP TO 224) NO . . . . 2 (SKIP TO 225)
223	**SEVERE MALARIA REFERRAL** STATEMENT	The malaria test shows that (NAME OF CHILD) has malaria. (NAME OF CHILD) also has symptoms of severe malaria. Your child must be taken to a health facility right away. We can give you free medicine called ALu, however, it may not help your child. You do not have to give the (NAME OF CHILD) the medicine. This is up to you. Please tell me whether you accept the medicine or not. SKIP TO 227		
224	**ALREADY TAKING ACT REFERRAL** STATEMENT	You have told me that (NAME OF CHILD) has already received ALu for malaria. Therefore, I cannot give you additional ALu. However, the test shows that he/she is positive for malaria. If your child has a fever for four days after the last dose of ALu, you should take him/her to the nearest health facility for further examination. SKIP TO 227		
225	READ INFORMATION FOR MALARIA TREATMENT AND CONSENT STATEMENT TO PARENT OR OTHER ADULT RESPONSIBLE FOR THE CHILD.	The malaria test shows that (NAME OF CHILD) has malaria. We can give you free medicine. The medicine is called ALu. ALu is very effective and in a few days it should get rid of the fever and other symptoms. ALu is also very safe. However all medicines can have unwanted effects. Sometimes ALu can cause dizziness, weakness, lack of appetite for eating, and rapid heartbeats. You do not have to give (NAME OF CHILD) the medicine. This is up to you. Please tell me whether you accept the medicine or not.		
226	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	ACCEPTED MEDICINE 1 __________ (SIGN) REFUSED . . . . 2 OTHER 6	ACCEPTED MEDICINE 1 __________ (SIGN) REFUSED . . . . 2 OTHER 6	ACCEPTED MEDICINE 1 __________ (SIGN) REFUSED . . . . 2 OTHER 6
227	RECORD THE RESULT CODE OF **MALARIA TREATMENT AND REFERRAL**	MEDICATION GIVEN 1 MEDS REFUSED . . . . . . 2 SEVERE MALARIA REFERRAL . . . . 3 ALREADY TAKING MEDS REFERRAL . . . . 4 OTHER 6	MEDICATION GIVEN 1 MEDS REFUSED . . . . . . 2 SEVERE MALARIA REFERRAL . . . . 3 ALREADY TAKING MEDS REFERRAL . . . . 4 OTHER 6	MEDICATION GIVEN 1 MEDS REFUSED . . . . . . 2 SEVERE MALARIA REFERRAL . . . . 3 ALREADY TAKING MEDS REFERRAL . . . . 4 OTHER 6
228	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF A NEW QUESTIONNAIRE; IF NO MORE CHILDREN, END INTERVIEW.			

TREATMENT FOR CHILDREN WITH POSITIVE MALARIA TESTS

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 (for children, put the tablet in a little water, mix water and tablet well, and give to the child) with fatty food or drinks like milk or breast 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

11 December 2011

TANZANIA HIV AND MALARIA INDICATOR SURVEY
INDIVIDUAL QUESTIONNAIRE FOR MEN AND WOMEN AGE 15-49

UNITED REPUBLIC OF TANZANIA
NATIONAL BUREAU OF STATISTICS

IDENTIFICATION

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . | | | |

HOUSEHOLD NUMBER . . . . . | | | |

NAME AND LINE NUMBER OF RESPONDENT _____ | | |

SEX OF RESPONDENT (MALE = 1 FEMALE = 2) |

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0
INTERVIEWER'S NAME				INT. NUMBER
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 _____		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with the National Bureau of Statistics. We are conducting a survey about health all over Tanzania. The information we collect will help the government to plan health services. Your household was selected for the survey. The survey usually takes about 30 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you 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.

In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.

Do you have any questions?

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 were you at your last birthday? 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 level of school you attended?	PRE-PRIMARY . . . . . 0 PRIMARY . . . . . 1 POST-PRIMARY TRAINING . . . . . 2 SECONDARY 'O'-LEVEL . . . . . 3 SECONDARY 'A'-LEVEL . . . . . 4 POST-SECOND TRAINING 'O' LEVEL 5 POST-SECOND TRAINING 'A' LEVEL 6 UNIVERSITY 7	
106	What is the highest grade you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	GRADE . . . . . ☐☐	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	Do you read a newspaper or magazine, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL . . . . . 3 CANNOT READ 8	
108	Do you listen to the radio, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
109	Do you watch television, at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
109A	Do you have a mobile phone?	YES . . . . . 1 NO 2	
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	In the last 12 months, how many times have you been away from home for one or more nights?	NUMBER OF TIMES . . . . . ☐☐ NONE 00	→ 201
119	In the last 12 months, have you been away from home 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 any children you have had during your life. I am interested in all of 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 women?	FEMALE Now I would like to ask about all the births you have had during your life. 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 son or daughter who was born alive but later died? PROBE: Any baby who cried or showed signs of life but did not survive?	FEMALE Have you ever given birth to a son or daughter who was born alive but later died? PROBE: 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 BIRTHS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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.		
210	MALE → FEMALE		401
210A	CHECK 208: ONE OR MORE BIRTHS NO BIRTHS →		225
210B	CHECK 208: ONE BIRTH Was this child born in the last six years? IF NO, CIRCLE '00'. TWO OR MORE BIRTHS How many of these children were born in the last six years? IF NONE, CIRCLE '00'.	NONE . . . . . 00 → TOTAL BIRTHS IN LAST SIX YEARS	225

211 Now I would like to record the names of all your births in the last six years, whether still alive or not, starting with the most recent one you had.

RECORD NAMES OF ALL THE BIRTHS IN THE LAST 6 YEARS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE ROWS.

212 What name was given to your (most recent/previous) baby? RECORD NAME. BIRTH HISTORY NUMBER	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 Were there any other live births between (NAME) and (NAME OF BIRTH ON PREVIOUS LINE), including any children who died after birth?
01	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . . . 1 NO . . . . 2 (NEXT BIRTH)	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER (NEXT BIRTH)	
02	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . . . 1 NO 2 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER	YES . . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
03	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . . . 1 NO 2 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER	YES . . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
04	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . . . 1 NO 2 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER	YES . . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
05	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . . . 1 NO 2 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER	YES . . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
06	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . . . 1 NO 2 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER	YES . . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
07	BOY 1 GIRL 2	SING 1 MULT 2	MONTH YEAR	YES . . . . 1 NO 2 220	AGE IN YEARS	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER	YES . . . . . 1 ADD BIRTH NO 2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
222	Have you had any live births since the birth of (NAME OF MOST RECENT BIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.	YES . . . . . 1 NO 2	
223	COMPARE 210B WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME ☐ NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE.)		
224	CHECK 215: ENTER THE NUMBER OF BIRTHS IN 2006 OR LATER.	NUMBER OF BIRTHS . . . . . ☐ NONE 0	
225	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 227
226	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . ☐☐	
227	CHECK 224: ONE OR MORE BIRTHS IN 2006 OR LATER ☐ → 301 NO BIRTHS IN 2006 OR LATER OR BLANK ☐ → 401		

SECTION 3. ANTENATAL CARE AND CHILDREN'S FEVER TREATMENT

301	CHECK 215: ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2006 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 since January 2006. We will talk about each separately.			
302	LINE NUMBER FROM 212	LAST BIRTH LINE NO. ☐☐	NEXT-TO-LAST BIRTH LINE NO. ☐☐	SECOND-FROM-LAST BIRTH LINE NO. ☐☐
303	FROM 212 AND 216	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐ (GO TO NEXT COLUMN)	NAME _____ LIVING ☐ DEAD ☐ (SKIP TO 355)
304	When you were pregnant with (NAME), did you see anyone for antenatal care for this pregnancy?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 307)		
305	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 TBA/TBA G OTHER _____ X (SPECIFY)		
306	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND RECORD ALL MENTIONED. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITETHE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** YOUR HOME . . . A OTHER HOME . . . B **GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL . . . C REGIONAL HOSP. D DISTRICT HOSP. E HEALTH CENTRE F DISPENSARY . . . G VILLAGE HEALTH POST . . . . . H CBD WORKER . . . I OTHER PUBLIC SECTOR _____ J (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . K DISTRICT HOSP. L HEALTH CENTRE M DISPENSARY . . . N **PRIVATE MED. SECTOR** SPECIALISED HOSPITAL . . . O HEALTH CENTRE. P DISPENSARY . . . Q OTHER PRIVATE MED. SECTOR R _____ (SPECIFY) OTHER _____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
306A	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . ☐☐ DON'T KNOW 98		
307	During this pregnancy, did you take any drugs to prevent you from getting malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 312A) 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 312A)		
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', 'C', 'D' OR 'E' CIRCLED ☐ OTHER ☐ (SKIP TO 313)		
312	Did you get the SP during an antenatal care visit, during another visit to a health facility or from another source?	ANTENATAL VISIT . . 1 ANOTHER FACILITY VISIT . . . . . 2 OTHER SOURCE . . . 6		
312A	CHECK 304: ANC RECEIVED?	ANC RECEIVED ☐ NO ANC ☐ (SKIP TO 313)		
312B	Do you have an ANC card for the time you were pregnant with (NAME)? IF YES: May I please see it?	YES, SEEN . . . . . 1 YES, NOT SEEN . . . 2 SKIP TO 313 NO CARD 3		
312C	CHECK ANC CARD AND RECORD NUMBER OF DOSES OF SP/FANSIDAR GIVEN.	DOSES . . . . . ☐ NONE 0		
313	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	**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 TBA/TBA G RELATIVE/FRIEND H OTHER _____ X (SPECIFY) NO ONE ASSISTED Y		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
314	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** YOUR HOME . . . 11 OTHER HOME . . . 12 **GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL . . . 21 REGIONAL HOSP. 22 DISTRICT HOSP. 23 HEALTH CENTRE 24 DISPENSARY . . . 25 VILLAGE HEALTH POST . . . . . 26 CBD WORKER . . . 27 OTHER PUBLIC SECTOR _____ 28 (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . 31 DISTRICT HOSP. 32 HEALTH CENTRE 33 DISPENSARY . . . 34 **PRIVATE MED. SECTOR** SPECIALISED HOSPITAL . . . 41 HEALTH CENT . . . 42 DISPENSARY . . . 43 OTHER PRIVATE MED. SECTOR _____ 44 (SPECIFY) OTHER _____ 96 (SPECIFY)		
315	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO 2		
315A	CHECK 303: IS CHILD LIVING?	LIVING DEAD ☐ ☐ (SKIP TO 316)		
315B	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		
317	CHECK 303: IS CHILD LIVING?	LIVING DEAD ☐ ☐ (GO BACK TO 303 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 401.)		
318	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 355) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 355) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 355) DON'T KNOW 8
318A	How many days ago did the fever start?	DAYS . . . . . ☐☐ DON'T KNOW 98	DAYS . . . . . ☐☐ DON'T KNOW 98	DAYS . . . . . ☐☐ DON'T KNOW 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
321	Did you seek advice or treatment for the illness from any source?	YES . . . . 1 NO . . . . 2 (SKIP TO 325)	YES . . . . 1 NO . . . . 2 (SKIP TO 325)	YES . . . . 1 NO . . . . 2 (SKIP TO 325)
322	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND RECORD ALL MENTIONED. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. ________ (NAME OF PLACE(S))	**GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL . . . A REGIONAL HOSP. B DISTRICT HOSP. C HEALTH CENTRE D DISPENSARY . . . E VILLAGE HEALTH POST . . . . F OTHER PUBLIC SECTOR ________ G (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . H DISTRICT HOSP. I HEALTH CENTRE J DISPENSARY . . . K **PRIVATE MED. SECTOR** SPECIALISED HOSPITAL . . . L HEALTH CENTRE M DISPENSARY . N OTHER PRIVATE MED. SECTOR ________ O (SPECIFY) **OTHER** PHARMACY . . . . . P NGO . . . . Q OTHER ________ X (SPECIFY)	**GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL . . . A REGIONAL HOSP. B DISTRICT HOSP. C HEALTH CENTRE D DISPENSARY . . . E VILLAGE HEALTH POST . . . . F OTHER PUBLIC SECTOR ________ G (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . H DISTRICT HOSP. I HEALTH CENTRE J DISPENSARY . . . K **PRIVATE MED. SECTOR** SPECIALISED HOSPITAL . . . L HEALTH CENTRE M DISPENSARY . N OTHER PRIVATE MED. SECTOR ________ O (SPECIFY) **OTHER** PHARMACY . . . . . P NGO . . . . Q OTHER ________ X (SPECIFY)	**GOV. PARASTATAL** REFERAL/SPEC. HOSPITAL . . . A REGIONAL HOSP. B DISTRICT HOSP. C HEALTH CENTRE D DISPENSARY . . . E VILLAGE HEALTH POST . . . . F OTHER PUBLIC SECTOR ________ G (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC. HOSPITAL . . . H DISTRICT HOSP. I HEALTH CENTRE J DISPENSARY . . . K **PRIVATE MED. SECTOR** SPECIALISED HOSPITAL . . . L HEALTH CENTRE M DISPENSARY . N OTHER PRIVATE MED. SECTOR ________ O (SPECIFY) **OTHER** PHARMACY . . . . . P NGO . . . . Q 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	At any time during the illness did (NAME) have blood taken from his/her finger or heel for testing?	YES . . . . 1 NO . . . . 2 (SKIP TO 327) DON'T KNOW . . . 8	YES . . . . 1 NO . . . . 2 (SKIP TO 327) DON'T KNOW . . . 8	YES . . . . 1 NO . . . . 2 (SKIP TO 327) DON'T KNOW . . . 8
325A	Were you told the results of the test?	YES . . . . 1 NO . . . . 2 (SKIP TO 327)	YES . . . . 1 NO . . . . 2 (SKIP TO 327)	YES . . . . 1 NO . . . . 2 (SKIP TO 327)
325B	Were you told (NAME) had malaria?	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 fever?	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

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
328	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED. ASK TO SEE DRUG(S) IF TYPE OF DRUG IS NOT KNOWN. IF TYPE OF DRUG IS STILL NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT. IF RESPONDENT SAYS "DAWA MSETO" RECORD CODE F (ZANZIBAR) OR CODE G (MAINLAND TANZANIA).	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE B AMODIAQUINE C QUININE . . . . D ARTESUNATE . . . E ARTESUNATE AND AMODIAQUINE F ALU/COARTEM G OTHER ANTI-MALARIAL ________ H (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . I INJECTION . . . . . J **OTHER DRUGS** ASPIRIN . . . . K PANADOL/PARA-CETAMOL . . . L IBUPROFEN . . . . . M OTHER ________ X (SPECIFY) DON'T KNOW . . . . . Z	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE B AMODIAQUINE C QUININE . . . . D ARTESUNATE . . . E ARTESUNATE AND AMODIAQUINE F ALU/COARTEM G OTHER ANTI-MALARIAL ________ H (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . I INJECTION . . . . . J **OTHER DRUGS** ASPIRIN . . . . K PANADOL/PARA-CETAMOL . . . L IBUPROFEN . . . . . M OTHER ________ X (SPECIFY) DON'T KNOW . . . . . Z	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . A CHLOROQUINE B AMODIAQUINE C QUININE . . . . D ARTESUNATE . . . E ARTESUNATE AND AMODIAQUINE F ALU/COARTEM G OTHER ANTI-MALARIAL ________ H (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . I INJECTION . . . . . J **OTHER DRUGS** ASPIRIN . . . . K PANADOL/PARA-CETAMOL . . . L IBUPROFEN . . . . . M OTHER ________ X (SPECIFY) DON'T KNOW . . . . . Z
329	CHECK 328: ANY CODE A-H CIRCLED?	YES ☐ NO ☐ (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401)	YES ☐ NO ☐ (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401)	YES ☐ NO ☐ (GO TO 303 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 401)
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
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

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
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
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)
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
343	CHECK 328: ARTESUNATE ('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 artesunate?	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
346	CHECK 328: ARTESUNATE AND AMODIAQUINE ('F') GIVEN	CODE 'F' CIRCLED ☐ CODE 'F' NOT CIRCLED ☐ (SKIP TO 349)	CODE 'F' CIRCLED ☐ CODE 'F' NOT CIRCLED ☐ (SKIP TO 349)	CODE 'F' CIRCLED ☐ CODE 'F' NOT CIRCLED ☐ (SKIP TO 349)
347	How long after the fever started did (NAME) first take artesunate and 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

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME ________	NEXT-TO-LAST BIRTH NAME ________	SECOND-FROM-LAST BIRTH NAME ________
349	CHECK 328: ALU/COARTEM ('G') GIVEN	CODE 'G' CIRCLED ☐ / CODE 'G' NOT CIRCLED ☐ (SKIP TO 352)	CODE 'G' CIRCLED ☐ / CODE 'G' NOT CIRCLED ☐ (SKIP TO 352)	CODE 'G' CIRCLED ☐ / CODE 'G' NOT CIRCLED ☐ (SKIP TO 352)
350	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
351	Did you purchase the (ALu/Coartem)?	YES . . . . 1 NO . . . . 2 (SKIP TO 352)	YES . . . . 1 NO . . . . 2 (SKIP TO 352)	YES . . . . 1 NO . . . . 2 (SKIP TO 352)
351A	How much did you pay for the (ALu/Coartem)? RECORD IN TSH.	☐☐☐☐☐ INSURANCE PAID 99995	☐☐☐☐☐ INSURANCE PAID 99995	☐☐☐☐☐ INSURANCE PAID 99995
352	CHECK 328: OTHER ANTIMALARIAL ('H') GIVEN	CODE 'H' CIRCLED ☐ / CODE 'H' NOT CIRCLED ☐ (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401)	CODE 'H' CIRCLED ☐ / CODE 'H' NOT CIRCLED ☐ (GO BACK TO 303 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 401)	CODE 'H' CIRCLED ☐ / CODE 'H' NOT CIRCLED ☐ (GO TO 303 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 401)
353	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
355		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. MALARIA

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	In your opinion, what is the most serious health problem in your community?	HIV/AIDS . . . . . 01 TUBERCULOSIS . . . . . 02 MALARIA . . . . . 03 MALNUTRITION . . . . . 04 DIABETES . . . . . 05 CANCER . . . . . 06 FLU . . . . . 07 ROAD TRAFFIC ACCIDENTS . . . . . 08 DIARRHEA . . . . . 09 HEART DISEASE . . . . . 10 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
402	Can you tell me the signs or symptoms of malaria in a young child? RECORD ALL MENTIONED.	FEVER . . . . . A FEELING COLD . . . . . B CHILLS . . . . . C PERSPIRATION/SWEATING . . . . . D HEADACHE . . . . . E BODY ACHES . . . . . F POOR APPETITE . . . . . G VOMITING . . . . . H DIARRHEA . . . . . I WEAKNESS . . . . . J COUGHING . . . . . K CONVULSIONS . . . . . L OTHER _____ X (SPECIFY) DOES NOT KNOW ANY . . . . . Z	
403	Are there ways to avoid getting malaria?	YES . . . . . 1 NO 2	→ 405
404	What are the ways to avoid getting malaria? RECORD ALL MENTIONED.	SLEEP UNDER MOSQUITO NET . . . . . A USE MOSQUITO COILS . . . . . B USE INSECTICIDE SPRAY . . . . . C INDOOR RESIDUAL SPRAYING (IRS) D KEEP DOORS/WINDOWS CLOSED . . . E USE INSECT REPELLANT . . . . . F KEEP SURROUNDINGS CLEAN . . . . . G CUT THE GRASS . . . . . H REMOVE STANDING WATER . . . . . I INTERMITTENT PREVENTIVE TREATMENT (IPTP) . . . . . J HOUSE SCREENING . . . . . K OTHER _____ X (SPECIFY) DOES NOT KNOW ANY . . . . . Z	
405	Can ACTs be obtained at your nearest health facility or pharmacy (duka la dawa)?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
406A	In the past year, have you seen or heard any messages about malaria **prevention**?	YES . . . . . 1 NO 2	
406B	In the past year, have you seen or heard any messages about malaria **treatment**?	YES . . . . . 1 NO 2	
407	LOCATION OF INTERVIEW: MAINLAND TANZANIA ☐ ↓ ZANZIBAR ☐		→ 408B
408A	In the past year, have you ever heard or seen the phrase "Malaria Haikubaliki"?	YES . . . . . 1 NO 2	→ 409 → 410

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
408B	In the past year, have you ever heard or seen the phrase "Maliza Malaria"?	YES . . . . . 1 NO 2	→ 410
409	Where did you hear or see this phrase? RECORD ALL MENTIONED.	RADIO . . . . . A BILLBOARD . . . . . B POSTER . . . . . C T-SHIRT . . . . . D LEAFLET/FACT SHEET/ BROCHURE E TELEVISION . . . . . F MOBILE VIDEO UNIT . . . . . G SCHOOL . . . . . H HEALTH CARE WORKER . . . . . I COMMUNITY EVENT/PRESENTATION J FRIEND/NEIGHBOR/FAMILY MEMBER K OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
410	In the past six months, were you visited by a health worker or volunteer who talked to you about malaria?	YES . . . . . 1 NO 2	
411	LOCATION OF INTERVIEW: MAINLAND TANZANIA ☐ ↓ ZANZIBAR ☐		→ 414
412	Have you heard of Hati Punguzo, the voucher programme for buying mosquito nets at a discount?	YES . . . . . 1 NO 2	→ 414
413	Where did you hear about Hati Punguzo? RECORD ALL MENTIONED.	RADIO . . . . . A POSTER/BROCHURE . . . . . B NEWSPAPER . . . . . C TELEVISION . . . . . D MOBILE VIDEO UNIT . . . . . E COMMUNITY VOLUNTEER . . . . . F VILLAGE GOVERNMENT . . . . . G SHOP . . . . . H RCH/HEALTH FACILITY . . . . . I FRIEND/NEIGHBOR/FAMILY MEMBER J OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
414	MALE ☐ FEMALE ☐ ↓		→ 501
415	CHECK 224: ONE OR MORE BIRTH SINCE 2006 ☐ ↓ NO BIRTHS SINCE 2006 OR BLANK ☐		→ 501
416	LOCATION OF INTERVIEW: MAINLAND TANZANIA ☐ ↓ ZANZIBAR ☐		→ 420
417	CHECK 304: ANC RECEIVED 304 = 1 ☐ ↓ NO ANC 304 = 2 ☐		→ 420

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
418	When you received antenatal care for the pregnancy of (NAME OF YOUNGEST CHILD), did a health care provider give you a Hati Punguzo voucher for buying a mosquito net?	YES . . . . . 1 NO 2	→ 420
419	Did you get the Hati Punguzo for this pregancy at your first antenatal care visit or a later visit?	FIRST VISIT . . . . . 1 SECOND VISIT OR LATER . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
420	Now I am going to read some statements and I would like you to tell me how much you agree or disagree with them. After I read each statement, please tell me whether you strongly agree with it, somewhat agree with it, somewhat disagree with it or strongly disagree with it.		
421	I can easily protect myself and my children from malaria. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree?	STRONGLY AGREE . . . . . 1 SOMEWHAT AGREE . . . . . 2 SOMEWHAT DISAGREE . . . . . 3 STRONGLY DISAGREE 4	
422	I can ensure that my children sleep under a treated net every single night of the year. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree?	STRONGLY AGREE . . . . . 1 SOMEWHAT AGREE . . . . . 2 SOMEWHAT DISAGREE . . . . . 3 STRONGLY DISAGREE . . . . . 4 CHILDREN HAVE NO NETS 5	
423	I can easily hang my children's mosquito nets. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree?	STRONGLY AGREE . . . . . 1 SOMEWHAT AGREE . . . . . 2 SOMEWHAT DISAGREE . . . . . 3 STRONGLY DISAGREE . . . . . 4 CHILDREN HAVE NO NETS 5	
424	It is important to sleep under a net every single night. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree?	STRONGLY AGREE . . . . . 1 SOMEWHAT AGREE . . . . . 2 SOMEWHAT DISAGREE . . . . . 3 STRONGLY DISAGREE 4	
425	Pregnant women are at high risk of getting malaria. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree?	STRONGLY AGREE . . . . . 1 SOMEWHAT AGREE . . . . . 2 SOMEWHAT DISAGREE . . . . . 3 STRONGLY DISAGREE 4	
426	Women should attend antenatal care early in their pregnancy. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree?	STRONGLY AGREE . . . . . 1 SOMEWHAT AGREE . . . . . 2 SOMEWHAT DISAGREE . . . . . 3 STRONGLY DISAGREE 4	

SECTION 5. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	SKIP
501	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	→ 504
502	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	→ 513
503	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	→ 510
504	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	
505	Do you have other wives or do you live with other women as if married?	Does your (husband/partner) have other wives or does he live with other women as if married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 507
506	Altogether, how many wives or live-in partners do you have?	Including yourself, in total, how many wives or live-in partners does he have?	NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . [ ][ ] DON'T KNOW 98	
507	MALE CHECK 505: 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 wives or each woman you are living with as if married. RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH SPOUSE AND LIVE-IN PARTNER. IF THE PERSON IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	FEMALE Please tell me the name of (your husband/the man you are living together with as if married).	NAME / LINE NUMBER _____ [ ][ ] _____ [ ][ ] _____ [ ][ ] _____ [ ][ ]	508 How old was (NAME) on (her/his) last birthday? AGE [ ][ ] [ ][ ] [ ][ ] [ ][ ]
508	ASK 508 FOR EACH PERSON.			
509	CHECK 507: MALE ONE WIFE	FEMALE	MALE MORE THAN ONE WIFE	→ 511A
510	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	→ 511A

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES	SKIP
511	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	
511A	Now I would like to ask about your first (wife/partner). In what month and year did you start living with her?	Now I would like to ask about your first (husband/partner). In what month and year did you start living with him?	YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→ 513
512	How old were you when you first started living with her?	How old were you when you first started living with him?	AGE . . . . . ☐☐	
513	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.			
514	Now I would like to ask 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) WIFE/HUSBAND/PARTNER 95	→ 537
515	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.			
516	When was the <u>last</u> 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 ☐☐	→ 519
517	MALE ☐			→ 532
	FEMALE ☐			→ 536

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
518	When was the last time you had sexual intercourse with this person?		DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3
519	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . 1 NO . . . . 2 (SKIP TO 521)	YES . . . . 1 NO . . . . 2 (SKIP TO 521)	YES . . . . 1 NO . . . . 2 (SKIP TO 521)
520	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
521	What was your relationship to this person with whom you had sexual intercourse? IF GIRLFRIEND/BOYFRIEND: Were you living together as if married? IF YES, CIRCLE '2' IF NO, CIRCLE '3'	WIFE/HUSBAND . . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND/BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . 4 PROSTITUTE/CLIENT 5 OTHER ____________ 6 (SPECIFY) (SKIP TO 524)	WIFE/HUSBAND . . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND/BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . 4 PROSTITUTE/CLIENT 5 OTHER ____________ 6 (SPECIFY) (SKIP TO 524)	WIFE/HUSBAND . . . . . . 1 LIVE-IN PARTNER . . . . 2 GIRLFRIEND/BOYFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . 4 PROSTITUTE/CLIENT 5 OTHER ____________ 6 (SPECIFY) (SKIP TO 524)
522	CHECK 510:	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (SKIP TO 524)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (SKIP TO 524)	MARRIED ONLY ONCE MARRIED MORE THAN ONCE OR BLANK (SKIP TO 524)
523	CHECK 514:	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE/HUSBAND (SKIP TO 525) OTHER	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE/HUSBAND (SKIP TO 525) OTHER	FIRST TIME WHEN STARTED LIVING WITH FIRST WIFE/HUSBAND (SKIP TO 525) OTHER
524	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO 3 YEARS AGO 4
525	How many times during the last 12 months did you have sexual intercourse with this person? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES

INDIV-20

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
526	How old is this person?	AGE OF PARTNER ☐☐ DON'T KNOW 98	AGE OF PARTNER ☐☐ DON'T KNOW 98	AGE OF PARTNER ☐☐ DON'T KNOW 98
527	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 518 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 529)	YES . . . . . 1 (GO BACK TO 518 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 529)	
528	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 95 OR MORE, WRITE ' 95'.			NUMBER OF PARTNERS LAST 12 MONTHS . . . ☐☐ DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
529	MALE ☐ FEMALE ☐		→ 536
530	CHECK 521 (ALL COLUMNS): AT LEAST ONE PARTNER IS PROSTITUTE ☐ NO PARTNERS ARE PROSTITUTES ☐		→ 532
531	CHECK 521 AND 519 (ALL COLUMNS): CONDOM USED WITH EVERY PROSTITUTE ☐ OTHER ☐		→ 535 → 536
532	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 534
533	Have you ever paid anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 536
534	The last time you paid someone in exchange for sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 536
535	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	
536	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 95 OR MORE, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
537	PRESENCE OF OTHERS DURING THIS SECTION	YES NO CHILDREN <10 . . . . . 1 2 MALE ADULTS . . . . . 1 2 FEMALE ADULTS 1 2	
538	Do you know of a place where a person can get male condoms?	YES . . . . . 1 NO 2	→ 541

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
539	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**GOVERNMENT/PARASTATAL** REFERAL/SPECIAL HOSPITAL ..... A REGIONAL HOSPITAL ..... B DISTRICT HOSPITAL ..... C HEALTH CENTRE ..... D DISPENSARY ..... E VILLAGE HEALTH POST (WORKER) F CBD WORKER ..... G OTHER PUBLIC SECTOR _____ H (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC IAL HOSPITAL ..... I DISTRICT HOSPITAL ..... J HEALTH CENTRE ..... K DISPENSARY ..... L **PRIVATE MED. SECTOR** SPECIALISED HOSPITAL ..... M HEALTH CENTRE ..... N DISPENSARY ..... O OTHER PRIVATE SECTOR _____ P (SPECIFY) **OTHER SOURCE** PHARMACY ..... Q NGO ..... R VCT CENTRE ..... S SHOP/KIOSK ..... T BAR ..... U GUEST HOUSE/HOTEL ..... V FRIENDS/RELATIVES/NEIGHBOURS W OTHER _____ X (SPECIFY)	
540	If you wanted to, could you yourself get a male condom?	YES ..... 1 NO ..... 2 DON'T KNOW/UNSURE 8	
541	MALE ☐ → 601 FEMALE ☐		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
542	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 601
543	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**GOVERNMENT/PARASTATAL** REFERAL/SPECIAL HOSPITAL . . . . . A REGIONAL HOSPITAL . . . . . B DISTRICT HOSPITAL . . . . . C HEALTH CENTRE . . . . . D DISPENSARY . . . . . E VILLAGE HEALTH POST (WORKER) F CBD WORKER . . . . . G OTHER PUBLIC SECTOR _____ H (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC IAL HOSPITAL . . . . . I DISTRICT HOSPITAL . . . . . J HEALTH CENTRE . . . . . K DISPENSARY . . . . . L **PRIVATE MED. SECTOR** SPECIALISED HOSPITAL . . . . . M HEALTH CENTRE . . . . . N DISPENSARY . . . . . O OTHER PRIVATE SECTOR _____ P (SPECIFY) **OTHER SOURCE** PHARMACY . . . . . Q NGO . . . . . R VCT CENTRE . . . . . S SHOP/KIOSK . . . . . T BAR . . . . . U GUEST HOUSE/HOTEL . . . . . V FRIENDS/RELATIVES/NEIGHBOURS W OTHER _____ X (SPECIFY)	
544	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 6. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 637
602	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
603	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
604	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	
605	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
606	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
607	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
607A	Do you think AIDS can be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
608	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	
609	CHECK 608: AT LEAST ONE 'YES' ☐ OTHER ☐		→ 611
610	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	
611	FEMALE ☐ MALE ☐		→ 626
611A	CHECK 208 AND 215: NO BIRTHS ☐ LAST BIRTH SINCE JANUARY 2009 ☐ LAST BIRTH BEFORE JANUARY 2009 ☐		→ 626 → 626
612	CHECK 304: HAD ANTENATAL CARE ☐ NO ANTENATAL CARE ☐		→ 620
613	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
614	During any of the antenatal visits for your last birth, were you given any information 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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
615	Were you offered a test for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	
616	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	→ 620
617	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**GOVERNMENT/PARASTATAL** REFERAL/SPECIAL HOSPITAL . . . 11 REGIONAL HOSPITAL . . . . . 12 DISTRICT HOSPITAL . . . . . 13 HEALTH CENTRE . . . . . 14 DISPENSARY . . . . . 15 VILLAGE HEALTH POST (WORKER) 16 CBD WORKER . . . . . 17 OTHER PUBLIC SECTOR _____ 18 (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC IAL HOSPITAL . . . 21 DISTRICT HOSPITAL . . . . . 22 HEALTH CENTRE . . . . . 23 DISPENSARY . . . . . 24 **PRIVATE MEDICAL SECTOR** SPECIALISED HOSPITAL . . . . . 25 HEALTH CENTRE . . . . . 26 DISPENSARY . . . . . 27 OTHER PRIVATE SECTOR _____ 28 (SPECIFY) **OTHER** PRIVATE PHARMACY . . . . . 31 NGO . . . . . 32 VCT CENTRE . . . . . 33 HOME . . . . . 34 CORRECTIONAL FACILITY . . . . . 35 OTHER _____ 96 (SPECIFY)	
618	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	→ 624
619	All women are supposed to receive counseling after being tested. After you were tested, did you receive counseling?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 624
620	CHECK 314 FOR LAST BIRTH: ANY CODE 21-44 CIRCLED ☐ ↓ OTHER ☐		→ 626
621	Between the time you went for delivery but before the baby was born, were you offered a test for the AIDS virus?	YES . . . . . 1 NO 2	
622	I don't want to know the results, but were you tested for the AIDS virus at that time?	YES . . . . . 1 NO 2	→ 626
623	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
624	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 627

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
625	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . ☐☐ TWO OR MORE YEARS 95	→ 632
626	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	→ 630
627	How many months ago was your most recent HIV test?	MONTHS AGO . . . . . ☐☐ TWO OR MORE YEARS 95	
628	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
629	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**GOVERNMENT/PARASTATAL** REFERAL/SPECIAL HOSPITAL . . . 11 REGIONAL HOSPITAL . . . . . 12 DISTRICT HOSPITAL . . . . . 13 HEALTH CENTRE . . . . . 14 DISPENSARY . . . . . 15 VILLAGE HEALTH POST (WORKER) 16 CBD WORKER . . . . . 17 OTHER PUBLIC SECTOR _____ 18 (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC IAL HOSPITAL . . . 21 DISTRICT HOSPITAL . . . . . 22 HEALTH CENTRE . . . . . 23 DISPENSARY . . . . . 24 **PRIVATE MEDICAL SECTOR** SPECIALISED HOSPITAL . . . . . 25 HEALTH CENTRE . . . . . 26 DISPENSARY . . . . . 27 OTHER PRIVATE SECTOR _____ 28 (SPECIFY) **OTHER SOURCE** PRIVATE PHARMACY . . . . . 31 NGO . . . . . 32 VCT CENTRE . . . . . 33 HOME . . . . . 34 CORRECTIONAL FACILITY . . . . . 35 OTHER _____ 96 (SPECIFY)	→ 632
630	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 632

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
631	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**GOVERNMENT/PARASTATAL** REFERAL/SPECIAL HOSPITAL . . . A REGIONAL HOSPITAL . . . . . B DISTRICT HOSPITAL . . . . . C HEALTH CENTRE . . . . . D DISPENSARY . . . . . E VILLAGE HEALTH POST (WORKER) F CBD WORKER . . . . . G OTHER PUBLIC SECTOR _____ H (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC IAL HOSPITAL . . . I DISTRICT HOSPITAL . . . . . J HEALTH CENTRE . . . . . K DISPENSARY . . . . . L **PRIVATE MEDICAL SECTOR** SPECIALISED HOSPITAL . . . . . M HEALTH CENTRE . . . . . N DISPENSARY . . . . . O OTHER PRIVATE SECTOR _____ P (SPECIFY) **OTHER SOURCE** PRIVATE PHARMACY . . . . . Q NGO . . . . . R VCT CENTRE . . . . . S OTHER _____ (SPECIFY) X	
632	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
633	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	
634	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	
635	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	
635A	In your opinion, if a male teacher has the AIDS virus but is not sick, should he be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
636	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
636A	In the past 12 months, did you see or hear an HIV education programme on television, the radio, or in a magazine?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 637
636B	What is the name of the programme? Any others? RECORD ALL MENTIONED.	FEMINA/FEMA . . . . . A SI MCHEZO . . . . . B OTHER _____ X SPECIFY DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
637	CHECK 601: ☐ 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	
638	CHECK 514: HAS HAD SEXUAL INTERCOURSE ☐ NEVER HAD SEXUAL INTERCOURSE ☐ → 701		
639	CHECK 637: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ NO ☐ → 641		
640	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	
641	MALE ☐ Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	FEMALE ☐ Sometimes women experience a bad-smelling abnormal genital discharge. During the last 12 months, have you had a bad-smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
642	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?	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
643	CHECK 640, 641, AND 642: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ →		701
644	The last time you had (PROBLEM FROM 640/641/642), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 701
645	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**GOVERNMENT/PARASTATAL** REFERAL/SPECIAL HOSPITAL . . . A REGIONAL HOSPITAL . . . . . B DISTRICT HOSPITAL . . . . . C HEALTH CENTRE . . . . . D DISPENSARY . . . . . E VILLAGE HEALTH POST (WORKER) F CBD WORKER . . . . . G OTHER PUBLIC SECTOR _____ H (SPECIFY) **RELIGIOUS/VOLUNTARY** REFERAL/SPEC IAL HOSPITAL . . . I DISTRICT HOSPITAL . . . . . J HEALTH CENTRE . . . . . K DISPENSARY . . . . . L **PRIVATE MEDICAL SECTOR** SPECIALISED HOSPITAL . . . . . M HEALTH CENTRE . . . . . N DISPENSARY . . . . . O OTHER PRIVATE SECTOR _____ P (SPECIFY) **OTHER SOURCE** PRIVATE PHARMACY . . . . . Q NGO . . . . . R VCT CENTRE . . . . . S OTHER _____ (SPECIFY) X	

SECTION 7. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	FEMALE ☐ → 705A MALE ☐ ↓		
702	Some men are circumcised, that is, the foreskin is completely removed from the penis. Are you circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 706
703	How old were you when you got circumcised?	AGE IN COMPLETED YEARS . . . . . ☐☐ DURING CHILDHOOD (<5 YEARS) . . . 95 DON'T KNOW 98	
704	Who did the circumcision?	TRADITIONAL PRACTITIONER/ FAMILY/FRIEND . . . . . 1 HEALTH WORKER/PROFESSIONAL 2 OTHER . . . . . 3 DON'T KNOW 8	
705	Where was it done?	HEALTH FACILITY . . . . . 1 HOME OF A HEALTH WORKER/ PROFESSIONAL . . . . . 2 CIRCUMCISION DONE AT HOME . . . 3 RITUAL SITE . . . . . 4 OTHER HOME/PLACE . . . . . 5 DON'T KNOW 8	→ 706
705A	Cervical cancer is a disease that is characterized by an uncontrolled growth of cells and tissues in and around the opening of the womb, the cervix. Have you ever heard about a disease called cervical cancer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 706
705B	During any of your visits to a health facility during the past six months, did anyone talk to you about cervical cancer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
706	Now I would like to ask you some other questions related to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 709
707	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . ☐☐ NONE 00	→ 709
708	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DK 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
709	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	
710	Is a wife justified in refusing to have sex with her husband when she knows he has sex with women other than his wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
711	CHECK 501: FEMALE, CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓	FEMALE, NOT IN UNION ☐ → 714 MALE ☐ → 714	
712	Can you say no to your (husband/partner) if you do not want to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DEPENDS/UNSURE 8	
713	Could you ask your (husband/partner) to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/UNSURE 8	
714	Are you covered by any health insurance?	YES . . . . . 1 NO . . . . . 2 → 716	
715	What type of health insurance are you covered by? RECORD ALL MENTIONED.	MUTUAL HEALTH ORGANIZATION/ COMMUNITY-BASED HEALTH INSURANCE . . . . . A HEALTH INSURANCE THROUGH EMPLOYER . . . . . B SOCIAL SECURITY . . . . . C OTHER PRIVATELY PURCHASED COMMERCIAL HEALTH INSURANCE D OTHER _____ X (SPECIFY)	
716	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐ MORNING . . . . . 1 AFTERNOON . . . . . 2 EVENING/NIGHT 3	

SECTION 8. HIV TESTING

THIS PAGE TO BE DESTROYED BEFORE MERGING

801	AGE: CHECK 103.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 806) ↵
802	MARITAL STATUS: CHECK 501 AND 502.	CODE 1 OR 2 (YES) . . . . . 1 (GO TO 806) ↵ OTHER 2
803	RECORD LINE NUMBER FROM HOUSEHOLD SCHEDULE OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT ☐☐
804	ASK CONSENT FOR DBS COLLECTION FROM PARENT/ OTHER ADULT IDENTIFIED IN 803 AS RESPONSIBLE FOR NEVER IN UNION MAN/ WOMAN AGE 15-17.	As part of the survey we also are asking people all over the country 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 used to take 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 else will be able to know (NAME OF ADOLESCENT)'s test results either. If (NAME OF ADOLESCENT) wants to know (his/her) HIV status, I can provide a list of [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?
805	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ ← (SIGN) PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER . . . . . 6 (IF REFUSED, GO TO 816)
806	ASK CONSENT FOR DBS COLLECTION FROM RESPONDENT.	As part of the survey we also are asking people all over the country 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 used to take 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 else 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 [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 take the HIV test?
807	CIRCLE THE APPROPRIATE CODE, SIGN YOUR NAME, AND ENTER YOUR INTERVIEWER NUMBER.	GRANTED . . . . . 1 _____ ← (SIGN) RESPONDENT REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER . . . . . 6 ☐☐☐ (IF REFUSED, GO TO 816)

808	AGE: CHECK 103.	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 (GO TO 812) ↵
809	MARITAL STATUS: CHECK 501 AND 502.	CODE 1 OR 2 (YES) . . . . . 1 (GO TO 812) ↵ OTHER 2
810	ASK CONSENT FOR ADDITIONAL TESTING FROM PARENT/ OTHER ADULT IDENTIFIED IN 803 AS RESPONSIBLE FOR NEVER IN UNION MAN/ WOMAN AGE 15-17.	We ask you to allow Muhimbili University of Health and Allied Sciences to store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify (NAME OF ADOLESCENT). You do not have to agree. If you do not want the blood sample stored for additional testing (NAME OF ADOLESCENT) can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?
811	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ ← (SIGN) PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER . . . . . 6 (IF REFUSED, GO TO 814)
812	ASK CONSENT FOR ADDITIONAL TESTING FROM RESPONDENT.	We ask you to allow Muhimbili University of Health and Allied Sciencesto store part of the blood sample at the laboratory for additional tests or research. We are not certain about what additional tests might be done. The blood sample will not have any name or other data attached that could identify you. You do not have to agree. If you do not want the blood sample stored for additional testing, you can still participate in the HIV testing in this survey. Will you allow us to keep the blood sample stored for additional testing?
813	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED . . . . . 1 _____ ← (SIGN) RESPONDENT REFUSED . . . . . 2 NOT PRESENT . . . . . 5 OTHER 6
814	ADDITIONAL TESTS	CHECK 811 AND 813: IF CONSENT HAS NOT BEEN GRANTED, WRITE "NO ADDITIONAL TESTS" ON THE FILTER PAPER.
815	PREPARE EQUIPMENT AND SUPPLIES ONLY FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S).	
816	BAR CODE LABEL PUT THE 2ND BAR CODE LABEL ON THE RESPONDENT'S FILTER PAPER AND THE 3RD ON THE TRANSMITTAL FORM.	PUT THE 1ST BAR CODE LABEL HERE. NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996

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: _____