

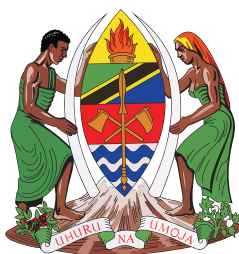


# Tanzania

## 2015-16 Demographic and Health Survey and Malaria Indicator Survey

### Key Findings





**United Republic of Tanzania**

This report presents Key Findings of the 2015-16 Tanzania Demographic and Health Survey and Malaria Indicator Survey (2015-16 TDHS-MIS), which was implemented by the National Bureau of Statistics (NBS) and Office of the Chief Government Statistician (OCGS), Zanzibar, in collaboration with the Ministry of Health, Community Development, Gender, Elderly and Children, Mainland and the Ministry of Health, Zanzibar from August 22, 2015 through February 14, 2016. ICF provided technical assistance. The 2015-16 TDHS-MIS is part of the worldwide DHS Program, which assists countries in the collection of data to monitor and evaluate population, health and nutrition programmes. The survey was funded by the Government of Tanzania, United States Agency for International Development (USAID), Global Affairs Canada, Irish Aid, United Nations Children's Fund (Unicef), and the United Nations Population Fund (UNFPA).

Additional information about the 2015-16 TDHS-MIS may be obtained from the National Bureau of Statistics, Head Office 18 Kivukoni Road, P.O. Box 796, 11992 Dar es Salaam, Tanzania. Telephone: 255-22-212-2722/3; Fax: 255-22-213-0852; Email: dg@nbs.go.tz; Internet: www.nbs.go.tz.

Additional information about The DHS Program may be obtained from ICF, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA. Telephone: 301-407-6500; Fax: 301-407-6501; E-mail: info@DHSprogram.com; Internet: www.DHSprogram.com.

Recommended citation:

Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC), [Tanzania Mainland, Ministry of Health (MoH) [Zanzibar], National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS) and ICF. 2016. *2015-16 TDHS-MIS Key Findings*. Rockville, Maryland, USA: MoHCDGEC, MoH, NBS, OCGS, and ICF.

*Cover photograph citation: © 2016 Riccardo Gangale/VectorWorks, Courtesy of Photoshare*



Global Affairs  
Canada



# ABOUT THE 2015-16 TDHS-MIS

The 2015-16 Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS) is designed to provide data for monitoring the population and health situation in Tanzania. The 2015-16 TDHS-MIS is the sixth Demographic and Health Survey conducted in Tanzania since 1991-92 and the third Malaria Indicator Survey since 2007-08. The primary objective of the survey is to provide reliable estimates of fertility levels, marriage, sexual activity, fertility preferences, awareness and use of family planning methods, breastfeeding practices, nutrition, childhood and maternal mortality, maternal and child health, malaria and other health related issues, as well as prevalence of anaemia among women age 15-49 and malaria infection and anaemia among children under 5. This information is intended for use by programme managers and policymakers to evaluate and improve existing programmes.

## Who Participated in the Survey?

A nationally representative sample of 13,266 women age 15-49 in all selected households and 3,514 men age 15-49 in one-third of the selected households were interviewed. This represents a response rate of 97% of women and 92% of men. The sample design for the 2015-16 TDHS-MIS provides estimates at the national and zonal levels, for urban and rural areas, Mainland Tanzania and Zanzibar and for some, but not all indicators, estimates at the regional level.



# CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

## Household Composition

The average Tanzanian household has 4.9 members. One in four households are headed by women. Nearly half (46%) of the Tanzanian population is under age 15.

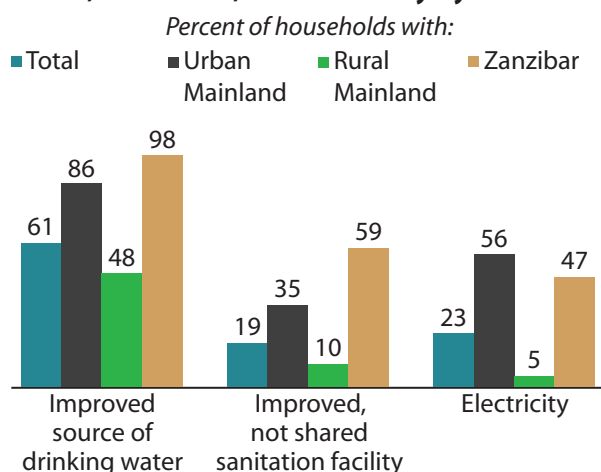
## Water, Sanitation and Electricity

In Tanzania, 6 in 10 (61%) households have access to an improved water source. Among urban Mainland households, 86% have access to an improved water source, compared to 48% of rural Mainland households. In Zanzibar, 98% of households have access to an improved water source. In 40% of Tanzanian households, it takes 30 minutes or longer to obtain drinking water.

Almost 2 in 10 households (19%) in Tanzania have an improved, not shared sanitation facility. In rural areas on the Mainland, the majority (86%) of households have unimproved sanitation facilities, while in urban Mainland areas, only 23% of households have unimproved facilities. In Zanzibar, improved, not shared facilities (59%) are most common, however 17% of Zanzibari households have no facility, which is the highest in Tanzania.

Overall, almost 1 in 4 Tanzanian households have electricity.

### Water, Sanitation, and Electricity by Residence



©2012 Micah Albert, Courtesy of Photoshare

## Ownership of Goods

In Tanzania, 3 in 4 households have a mobile phone, half have a radio, about 4 in 10 have a bicycle, 2 in 10 have a television and 4% have a car or truck. Households in urban Mainland areas are more likely than rural Mainland households to own these goods. In contrast, rural Mainland households are more likely to own agricultural land or farm animals than urban Mainland. In Zanzibar, households are more likely to own goods like a mobile phone (93%), radio (62%) or bicycle (52%) than agricultural land (29%).

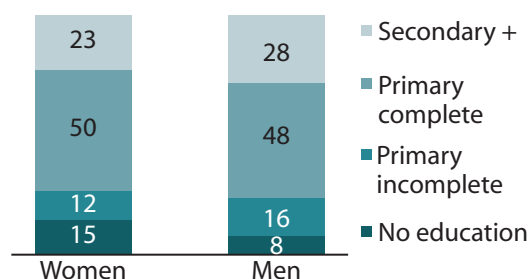
## Education

Fifteen percent of women and 8% of men age 15-49 have no education. Half of women and men have completed primary education, while 23% of women and 28% men have secondary or higher education.

Seventy-seven percent of women and 83% of men age 15-49 are literate.

### Education

Percent distribution of women and men age 15-49 by highest level of education attended



# FERTILITY AND ITS DETERMINANTS

## Total Fertility Rate

Currently, women in Tanzania have an average of 5.2 children. Since the first TDHS survey in 1991-92, fertility has decreased from 6.2 children per woman to 5.2 in 2015-16.

Fertility varies by residence and region. Women living in rural Mainland areas have an average of 6.0 children, compared to 3.8 children among women in urban Mainland areas. Women in Zanzibar have an average of 5.1 children.

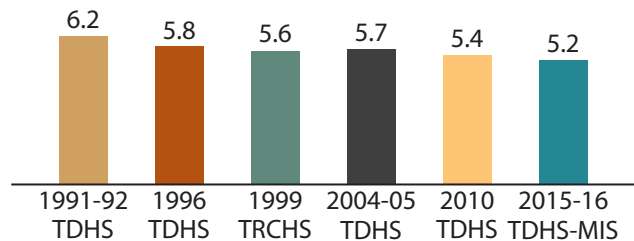
Fertility also varies with education and economic status. Women with no education have 3.3 more children than women with secondary education (6.9 versus 3.6 children). Fertility decreases as the wealth of the respondent's household\* increases. Women living in the poorest households have an average of 7.5 children, compared to 3.1 children among women living in the wealthiest households.



©2014 Megan Ivakovich WI-HER LLC, Courtesy of Photoshare

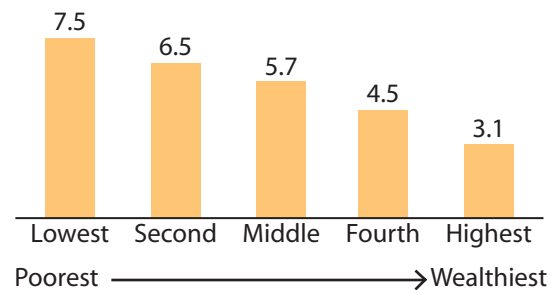
## Trends in Fertility

*Births per woman for the three-year period before the survey*



## Total Fertility Rate by Household Wealth

*Births per woman for the three-year period before the survey*



\*Wealth of families is calculated through household assets collected from DHS surveys – i.e., type of flooring; source of drinking water; availability of electricity; possession of durable consumer goods. These are combined into a single wealth index. They are then divided into five groups of equal size, or quintiles, based on their relative standing on the household wealth index.

## Age at First Sexual Intercourse, Marriage and Birth

Tanzanian women begin sexual activity one year before Tanzanian men. The median age at first sexual intercourse for women age 25-49 is 17.2 years, compared to 18.2 years for men age 25-49. Women with secondary or higher education initiate sex more than three years later than women with no education (19.5 years versus 16.1 years). Fourteen percent of women and 9% of men age 25-49 initiate sex before age 15, and 61% of women and 47% of men do so before age 18.

Women marry two years after sexual initiation at a median age of 19.2 years. Women from the wealthiest households marry about three years later than women in the poorest households (21.4 years and 18.3 years, respectively). Tanzanian men marry approximately five years later than women at a median age of 24.3 years. Thirty-six percent of women age 25-49 are married by age 18, compared to only 5% of men. Currently, 62% of women and 52% of men age 15-49 are in union (married or living together).

Women in Tanzania tend to give birth shortly after marriage at a median age of 19.7 years. Women with no education have their first birth much earlier than women with secondary or higher education (18.7 years versus 24.0 years).



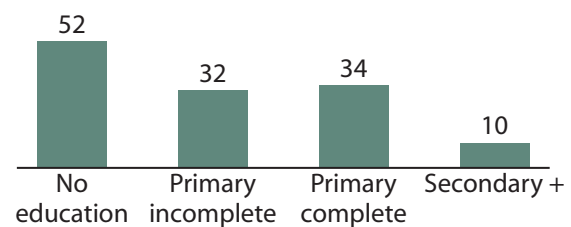
©2016 Riccardo Gangale/VectorWorks, Courtesy of Photoshare

## Teenage Fertility

Overall, 27% of adolescent women age 15-19 are already mothers or are pregnant with their first child. Adolescent women with no education are five times more likely as those with secondary or higher education to have begun childbearing (52% versus 10%). Teenage childbearing also varies by economic status, ranging from 13% among adolescent women in the wealthiest households to 42% among those in the poorest households. By region, teenage childbearing ranges from 5% in Mjini Magharibi to 45% in Katavi.

### Teenage Childbearing by Education

*Percent of women age 15-19 who have begun childbearing*



## Polygyny

Eighteen percent of Tanzanian women are in a polygynous union and have at least one co-wife. Polygyny is most common among women with no education (31%), in the poorest households (29%) and in rural areas (21%). Nine percent of men have more than one wife. Polygynous unions among men are also most common among men in the poorest households (13%).

# FAMILY PLANNING

## Current Use of Family Planning

Nearly 4 in 10 (38%) married women age 15-49 currently use any method of family planning – 32% use a modern method and 6% use a traditional method. Injectables are the most popular modern method (13%), followed by implants (7%) and the pill (6%).

Among sexually active, unmarried women age 15-49, use of family planning is higher. More than half (54%) of these women use any method of family planning; 46% use a modern method and 8% use a traditional method. The male condom and injectables are the most popular methods among this group (15% each), followed by implants (8%) and the pill (6%).

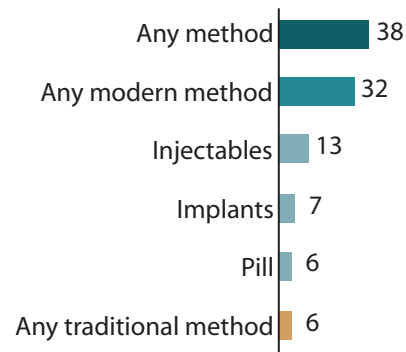
Use of modern methods of family planning by married women increases with economic status. While 35% of married women in the wealthiest households use a modern method, only 20% of married women in the poorest households do. Modern method use is also higher in urban areas (35%) than in rural areas (31%). Use of modern methods is highest in Lindi (52%) and lowest in Kusini Pemba (7%). Use of traditional methods is highest in Dar es Salaam (18%) compared to other regions.

The use of modern family planning methods has more than quadrupled since the first TDHS survey, from 7% in 1991-92 to 32% in 2015-16. Much of this growth occurred in the last decade – use of modern methods among married women was 20% in the 2004-05 TDHS.

## Source of Family Planning Methods

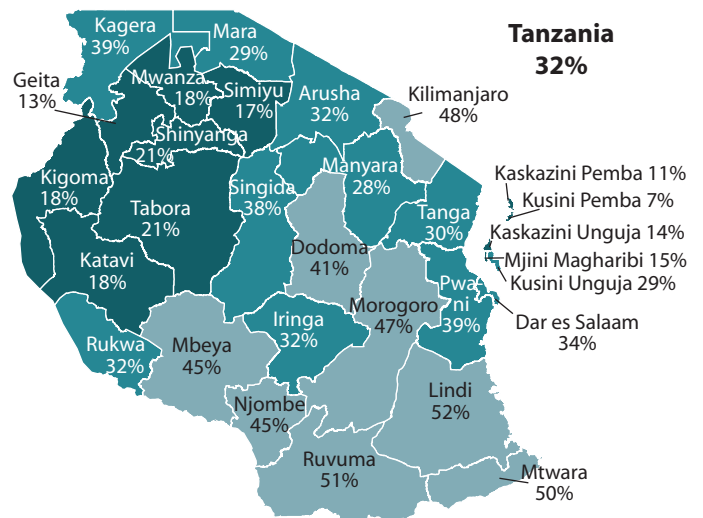
Overall, 61% of family planning methods are obtained through government sources. However, the source of family planning varies by method. While government sources provide 67% of injectables, the most popular method, other sources (including pharmacies, accredited drug dispensing outlets and shops/kiosks) provide 87% of male condoms.

**Family Planning**  
Percent of married women age 15-49 using family planning



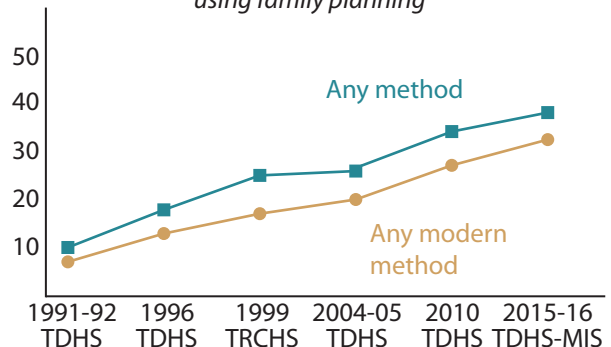
## Current Use of Modern Methods by Region

Percent of married women age 15-49 using a modern method of family planning



## Trends in Family Planning Use

Percent of married women age 15-49 using family planning



## Demand for Family Planning

Nearly 4 in 10 (39%) married women age 15-49 want to delay childbearing (delay a first birth or space another birth) for at least two years. Additionally, 22% of married women do not want any more children. Women who want to delay or stop childbearing are said to have a demand for family planning. The total demand for family planning among married women in Tanzania is 61%.

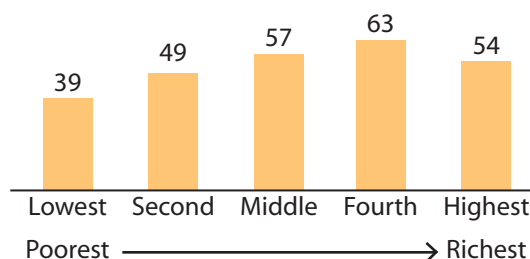
## Demand for Family Planning Satisfied by Modern Methods

The total demand for family planning includes both met and unmet need. Met need is the percent of married women who are currently using family planning. In Tanzania, 38% of married women are using family planning—32% use modern methods and 6% use traditional methods. Unmet need for family planning is defined as the proportion of married women who want to delay or stop childbearing but are not using family planning. More than 1 in 5 married women in Tanzania have an unmet need for family planning: 16% want to delay childbearing, while 7% want to stop childbearing.

Demand satisfied by modern methods measures the extent to which women who want to delay or stop childbearing are actually using modern family planning methods. Just over half (53%) of the demand for family planning in Tanzania is satisfied by modern methods. Demand satisfied by modern methods generally increases with wealth; 39% of the demand for family planning among women from the poorest households is satisfied by modern methods, compared to 54% in the wealthiest households and 63% in the fourth wealth quintile.

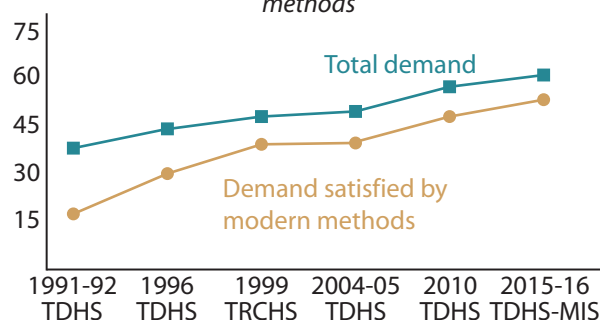
Both demand for family planning and demand satisfied by modern methods have increased over the past 25 years. This indicates that even as more women have a demand for family planning, the gap between total demand and demand satisfied is getting narrower—more women need family planning and are using modern methods.

**Demand for Family Planning Satisfied by Modern Methods by Household Wealth**  
Among married women age 15-49, percent of demand for family planning satisfied by modern methods



## Trends in Demand for Family Planning

Among married women age 15-49, percent with demand for family planning and demand satisfied by modern methods



## Informed Choice

Family planning clients should be informed about the side effects of the method used, what to do if they experience side effects and told about other available family planning methods. Almost two-thirds (62%) of women age 15-49 using modern methods were informed about side effects, 56% were informed about what to do if they experience side effects and 82% were informed about other available family planning methods.



# CHILDHOOD MORTALITY

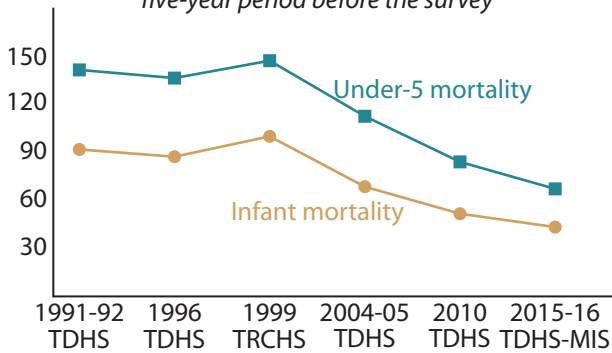
## Rates and Trends

Tanzania's neonatal and infant mortality rate for the five-year period before the survey are 25 and 43 deaths per 1,000 live births, respectively. The under-5 mortality rate is 67 deaths per 1,000 live births.

Childhood mortality rates have greatly diminished over the last 25 years. Infant mortality has decreased from 92 deaths per 1,000 live births in 1991-92 to 43 deaths per 1,000 live births in 2015-16. During the same period, under-5 mortality has declined from 141 to 67 deaths per 1,000 live births.

### Trends in Childhood Mortality

Deaths per 1,000 live births for the five-year period before the survey



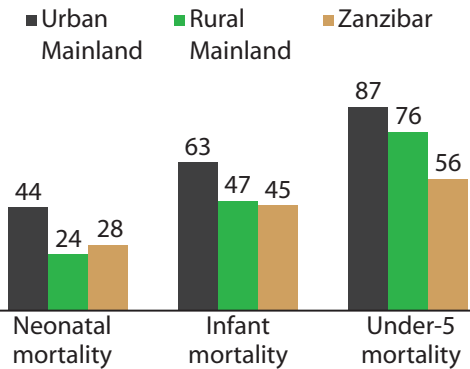
## Mortality Rates by Background Characteristics

Mortality rates differ by residence for the ten-year period before the survey. Children in urban Mainland areas are more likely to die before their fifth birthday (87 deaths per 1,000 live births) than children in rural Mainland (76 deaths per 1,000 live births, respectively). In Zanzibar, 56 children per 1,000 live births die before their fifth birthday.

Children born to mothers with no education are more likely to die before their fifth birthday than children whose mothers have secondary or higher education (83 versus 60 deaths per 1,000 live births). Under-5 mortality is highest in the second wealth quintile (86 deaths per 1,000 live births) and lowest in the wealthiest households (73 deaths per 1,000 live births).

## Childhood Mortality by Residence

Deaths per 1,000 live births for the ten-year period before the survey

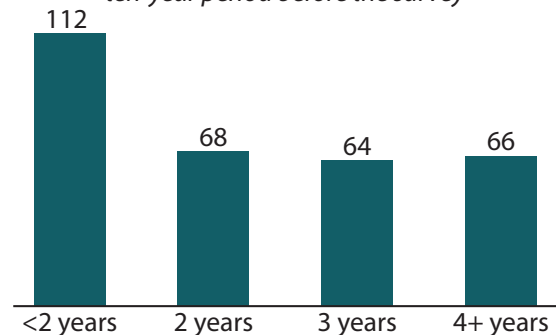


## Birth Intervals

Spacing children at least 36 months apart reduces the risk of infant death. The median birth interval in Tanzania is 35.0 months. Infants born less than two years after a previous birth have high under-5 mortality rates. Under-5 mortality is dramatically higher among children born less than two years after a previous birth (112 deaths per 1,000 births). For children born two or more years after a previous birth, the under-5 mortality rate is less than 70 deaths per 1,000 live births for each interval. Overall, 19% of children are born less than two years after their siblings.

## Under-5 Mortality by Previous Birth Interval

Deaths per 1,000 live births for the ten-year period before the survey



# MATERNAL HEALTH CARE

## Antenatal Care

Nearly all (98%) women age 15-49 receive antenatal care (ANC) from a skilled provider (doctor/AMO, clinical officer, assistant clinical officer, nurse/midwife, assistant nurse, or MCH aide). The timing and quality of ANC are also important. Despite high coverage of ANC, only 1 in 4 women had their first ANC visit in the first trimester, as recommended, and half (51%) of women made 4+ ANC visits. Women attending 4+ ANC visits has increased from 43% to 51% since 2010.

Eight in ten women took iron tablets or syrup during pregnancy. Eighty-eight percent of women's most recent births were protected against tetanus. Among women who attended ANC for their most recent birth, 71% had their blood pressure measured, 60% had a urine sample and 87% had a blood sample taken to check for anaemia, urine protein, sugar, blood and signs of infection.

## Delivery and Postnatal Care

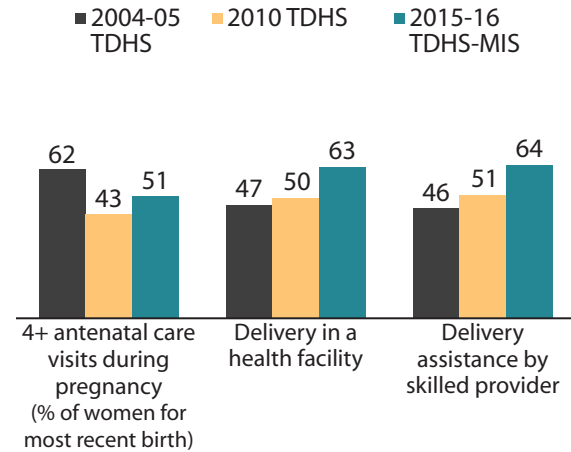
Almost two-thirds (63%) of births occur in a health facility, primarily in public sector facilities. However, 36% of births occur at home. Women with no education, those living in rural areas, and those in the poorest households are the most likely to deliver at home. Nearly half of births in 2004-05 were delivered at a health facility, compared to 63% in 2015-16.

Overall, 64% of births are assisted by a skilled provider. Women who have attended 4+ ANC visits, those living in urban areas and the wealthiest households, and those with secondary or higher education are most likely to receive delivery assistance by a skilled provider.

Postnatal care helps prevent complications after childbirth. One-third (34%) of women received a postnatal checkup within two days of delivery, while 63% did not receive a postnatal checkup within 41 days of delivery. Forty-two percent of newborns received a postnatal check within two days of birth.

## Trends in Maternal Health Care

Percent of live births in the five years before the survey



©2013 Jennifer Applegate, Courtesy of Photoshare

## Maternal Mortality

The 2015-16 TDHS-MIS asked women about deaths of their sisters to determine maternal mortality – deaths associated with pregnancy and childbearing. The maternal mortality ratio (MMR) for Tanzania is 556 deaths per 100,000 live births. The confidence interval for the 2015-16 TDHS-MIS ranges from 446 to 666 deaths per 100,000 live births.

# CHILD HEALTH

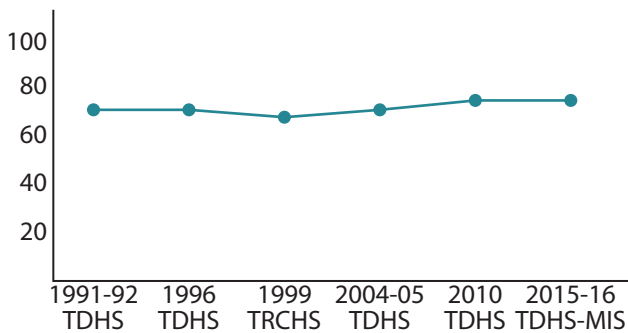
## Basic Vaccination Coverage

Three-quarters (75%) of children age 12-23 months received all basic vaccinations – one dose each of BCG and measles and three doses each of DPT/ pentavalent and polio. Overall, 2% of children age 12-23 months received no vaccines.

Basic vaccination coverage increases with household wealth, from 65% among children from the poorest households to 83% among children from the wealthiest households. Basic vaccination coverage also increases with mother’s education. Children in urban areas are more likely than children in rural areas to have received all basic vaccinations. Coverage is lowest in Katavi and highest in the Kilimanjaro (54% versus 93%). Basic vaccination coverage has increased slightly from 71% in 1991-92 to 75% in 2015-16.

### Trends in Basic Vaccination Coverage

Percent of children age 12-23 months who received all basic vaccinations

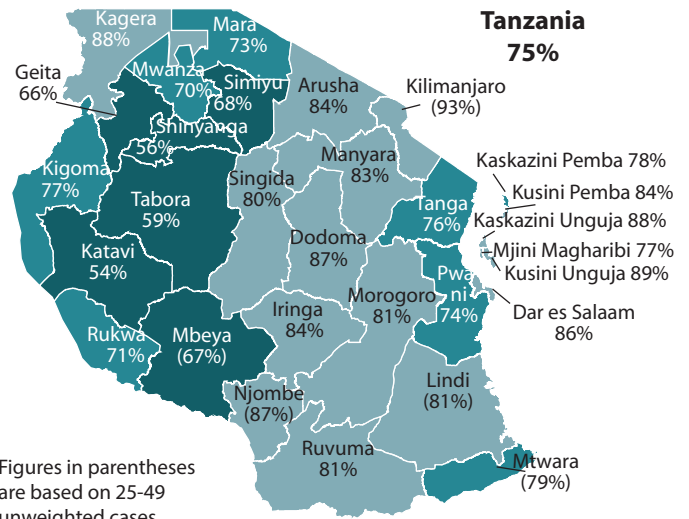


### Age Appropriate Vaccination Coverage

According to the 2015-16 TDHS-MIS, half of children age 12-23 months have received all age appropriate vaccinations – eight basic vaccinations plus two doses of rotavirus vaccine and three doses of pneumococcal vaccine. Coverage varies by economic status, ranging from 35% among children in the poorest households to 76% among children in the wealthiest households.

## Vaccination Coverage by Region

Percent of children age 12-23 months who received all basic vaccines



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

## Childhood Illnesses

In the two weeks before the survey, 4% of children under age five were ill with cough and rapid breathing, symptoms of acute respiratory infection (ARI). Of these children, 55% were taken to a health facility or provider, and 40% were given antibiotics.

Twelve percent of children under five had diarrhoea in the two weeks before the survey. Diarrhoea was most common among children age 6-11 months (22%). Less than half (43%) of children under five with diarrhoea were taken to a health facility or provider.

Children with diarrhoea should drink more fluids, particularly through oral rehydration therapy (ORT). Fifty-six percent of children under five with diarrhoea received ORT or increased fluids, while 18% received no treatment.

# FEEDING PRACTICES AND SUPPLEMENTATION

## Breastfeeding and the Introduction of Complementary Foods

Breastfeeding is very common in Tanzania with 98% of children breastfed at some point. Half (51%) of children were breastfed within the first hour of life. Fourteen percent of ever-breastfed children received a prelacteal feed before initiating breastfeeding, contrary to recommendations.

WHO recommends that children receive nothing but breastmilk (exclusive breastfeeding) for the first six months of life. Fifty-nine percent of children under six months are exclusively breastfed. Children age <3 years are exclusively breastfed for an average of 3.9 months and breastfed for 20.1 months.

Complementary foods should be introduced when a child is six months old to reduce the risk of malnutrition. Nine in ten children age 6-8 months are breastfed and receive complementary foods.



©2016 Riccardo Gangale/VectorWorks, Courtesy of Photoshare

## Use of Iodised Salt

Iodine is an important micronutrient for physical and mental development. Fortification of salt with iodine is the most common method of preventing iodine deficiency. Eight in ten households have iodised salt.

Presence of iodised salt is higher in urban households (94%) than in rural households (75%). The presence of iodised salt in the household increases with wealth, ranging from 69% in the poorest households to 96% in the wealthiest households.

## Vitamin A and Iron Supplementation

Micronutrients are essential vitamins and minerals required for good health. Vitamin A, which prevents blindness and infection, is particularly important for children. In the 24 hours before the survey, three-quarters of children age 6-23 months ate foods rich in vitamin A. Four in ten children age 6-59 months received a vitamin A supplement in the six months before the survey.

Iron is essential for cognitive development in children, and low iron intake can contribute to anaemia. Just over one-third of children age 6-23 months ate foods rich in iron the day before the survey, and only 2% of children age 6-59 months received an iron supplement in the week before the survey.

Pregnant women should take iron tablets for at least 90 days during pregnancy to prevent anaemia and other complications. Two in ten women age 15-49 took iron tablets or syrup for at least 90 days during their last pregnancy.

# NUTRITIONAL STATUS

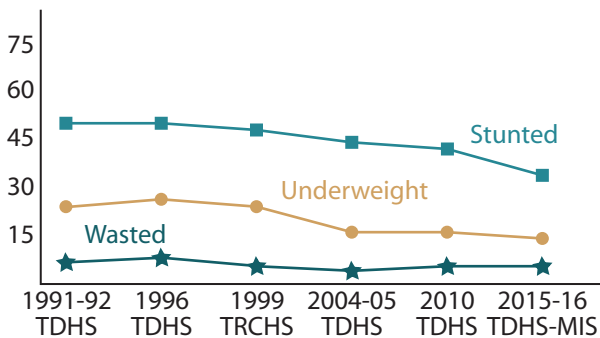
## Children's Nutritional Status

The 2015-16 TDHS-MIS measured children's nutritional status by comparing height and weight measurements against an international reference standard. One in three children under five are stunted, or too short for their age. Stunting is an indication of chronic undernutrition. Stunting is more common among children who were very small at birth (51%), those with a thin mother (40%) and those from the poorest households (40%). By region, stunting ranges from 15% in Dar es Salaam to 56% in Rukwa.

Wasting (too thin for height), which is a sign of acute malnutrition, is far less common (5%). In addition, 14% of children are underweight, or too thin for their age. The nutritional status of children in Tanzania has improved since 1991-92, when half of children were stunted, compared to 34% in 2015-16.

### Trends in Children's Nutritional Status

Percent of children under 5, based on 2006 WHO Child Growth Standards



## Women's Nutritional Status

The 2015-16 TDHS-MIS also took weight and height measurements of women age 15-49. One in ten of women in Tanzania are thin (BMI <18.5). Comparatively, 28% of women are overweight or obese (BMI ≥25.0). Overweight and obesity increases with education and household wealth. Women in urban areas (42%) are twice as likely to be overweight or obese than women in rural areas (21%). Overweight and obesity among Tanzanian women has more than doubled in the past 25 years, from 11% in 1991-92 to 28% in 2015-16.

## Anaemia

The 2015-16 TDHS-MIS tested children age 6-59 months and women age 15-49 for anaemia. Overall, 58% of children are anaemic. Moderate anaemia is the most common form of anaemia among Tanzanian children (30%). Anaemia is highest in children age 9-11 months and those whose mothers have no education. At least 70% of children are anaemic in Shinyanga and Kaskazini Pemba. Anaemia among children has decreased in the past decade, from 72% in 2004-05 to 58% in 2015-16.

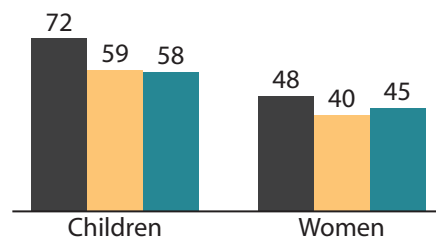
Almost half (45%) of Tanzanian women are anaemic. Mild anaemia is the most common (33% of women). Anaemia in women decreases as education and household wealth increase. Anaemia prevalence is highest in Zanzibar (60%), especially in the Kaskazini Pemba region (72%).

Anaemia among women has remained essentially unchanged since 2004-05 when 48% of women were anaemic.

### Trends in Anaemia in Children and Women

Percent of children age 6-59 months and women age 15-49 with anaemia

■ 2004-05 TDHS ■ 2010 TDHS ■ 2015-16 TDHS-MIS



# MALARIA PREVENTION AND TREATMENT

## Mosquito Nets

Two-thirds of households in Tanzania own at least one insecticide-treated net (ITN). However, only 39% of households have enough ITNs to cover each household member, assuming one ITN is used by two people. ITN ownership of at least one ITN has increased from 23% in 2004-05. Ownership has decreased, however, since 2011-12, when 91% of households had at least one ITN.

Among the household population, 56% have access to an ITN, but only 49% of the population slept under an ITN the night before the survey. ITN use varies widely by region, ranging from 13% in Manyara to 86% in Geita.

Children and pregnant women are most vulnerable to malaria. Fifty-four percent of both children under five and pregnant women slept under an ITN the night before the survey. Use of ITNs by vulnerable populations has increased from 2004-05 when 16% of both children and pregnant women slept under an ITN the night before the survey. ITN use by children and pregnant women has decreased since 2011-12, when over 70% of both vulnerable groups slept under an ITN the night before the survey.

## Indoor Residual Spraying (IRS)

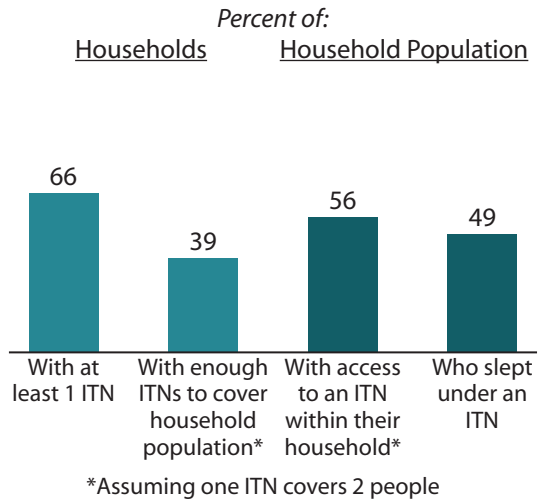
Six percent of households received indoor residual spraying (IRS) in the year before the survey. IRS coverage is highest in areas where IRS campaigns were focused, including Zanzibar, where 35% of households were sprayed. In Tanzania Mainland, IRS coverage is highest in Lake Zone (15%) especially in Kagera Region (25%).

## Intermittent Preventive Treatment of Pregnant Women (IPTp)

Malaria during pregnancy contributes to low birth weight, infant mortality, and other complications. To prevent malaria, pregnant women should receive IPTp (SP/Fansidar during ANC visits). Thirty-five percent of pregnant women took 2+ doses of IPTp, while only 8% of pregnant women took 3+ doses.

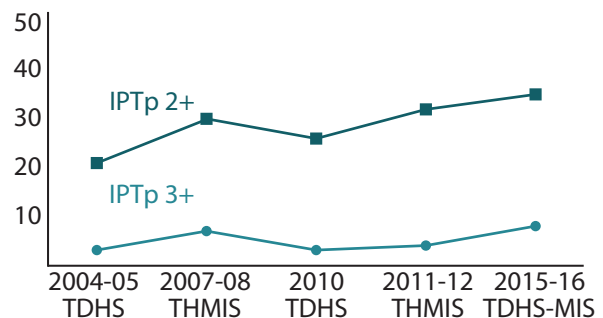
The likelihood of pregnant women to have received 3+ doses increases with education and wealth. Urban women are more likely to have taken 3+ doses of IPTp than their rural counterparts. Women receiving IPTp has increased in the last decade.

## Ownership of, Access to, and Use of ITNs



## Trends in IPTp

Percent of women age 15-49 with a live birth in the two years before the survey who took 2+ or 3+ doses of SP/Fansidar and received at least one during ANC



## Management of Malaria in Children

In the two weeks before the survey, 18% of children had fever, the primary symptom of malaria. Treatment or advice was sought for 80% of these children, and 36% had blood taken from a finger or heel stick for malaria testing.

Artemisinin-based combination therapy (ACT) is the recommended drug for treating malaria in children in Tanzania. Among children under five with fever in the two weeks before the survey who received an antimalarial, 85% received any ACT.

# PREVALENCE OF MALARIA AND LOW HAEMOGLOBIN

## Malaria Prevalence

All children age 6-59 months in selected households were eligible for malaria testing. While malaria testing was conducted by both rapid diagnostic test (RDT) and blood smear microscopy, this report presents malaria prevalence estimates based only on RDT results. Of the 9,409 eligible children, 97% provided blood for RDT.

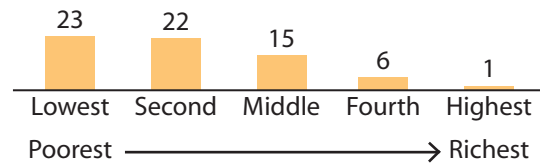
In Tanzania, 14% of children age 6-59 months tested positive for malaria by RDT. Malaria prevalence decreases greatly with wealth, from 23% of children in the poorest households to 1% of children in the wealthiest households. Malaria prevalence is higher among rural children (18%) than urban children (4%). Less than 1% of children in Zanzibar tested positive for malaria by RDT. The regions of Kagera (41%), Kigoma and Geita (38% each) have the highest prevalence of malaria.

## Low Haemoglobin Prevalence

Low haemoglobin (less than 8 g/dl) is a common symptom of malaria in children. In Tanzania, 5% of children age 6-59 months have low haemoglobin. Prevalence of low haemoglobin generally declines with age, after peaking among children age 9-11 months (11%). Prevalence of low haemoglobin is highest among children from the poorest households and those whose mothers have no education (8% each). Low haemoglobin ranges from <1% of children in Njombe to 11% in Geita.

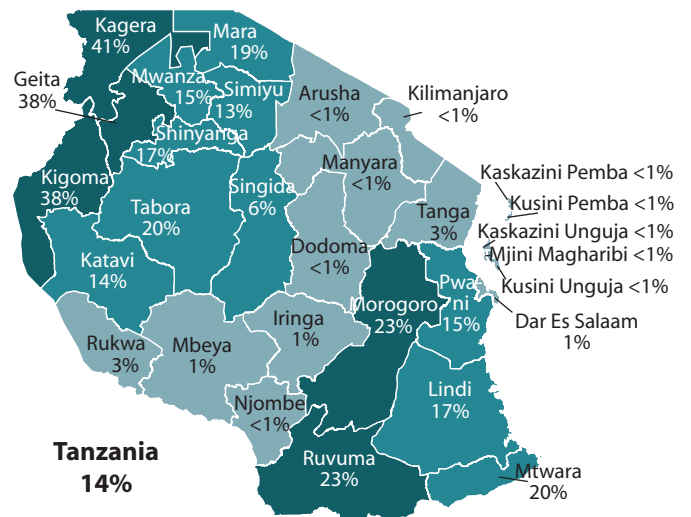
## Malaria Prevalence by Household Wealth

Percent of children age 6-59 months who tested positive for malaria by RDT



## Malaria Prevalence among Children by Region

Percent of children age 6-59 months who tested positive for malaria by RDT



©2016 Ricacardo Gangale/Vector Works, Courtesy of Photoshare

# MALARIA KNOWLEDGE AND COMMUNICATION

## Knowledge of Malaria

Fifty-seven percent of women and 64% of men say that malaria is the most serious health problem in their community. The 2015-16 TDHS-MIS asked women and men about their knowledge of and attitudes regarding malaria.

Approximately 3 in 4 women and men know that fever is a sign of malaria. More than 9 in 10 women and men believe that malaria can be avoided. Of these, almost all (98% of both women and men) believe that malaria can be avoided by sleeping under a net, but only 2% identified IPTp as a way of preventing malaria. Overall, 9 in 10 women and 8 in 10 men know that ACTs can be obtained at the nearest health facility or pharmacy.

## Exposure to Media Messages

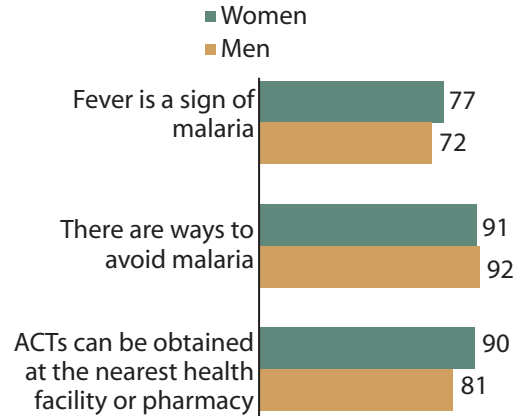
Nearly 9 in 10 women and men have seen or heard the malaria messages “Malaria Haikubaliki” or “Maliza Malaria” in the past year. Radio is the predominant channel by which the messages are heard (85% of women and 91% of men).

## Attitudes towards Malaria

Women who gave birth in the last five years were asked whether they agree with statements regarding desired malaria prevention practices. Eighty-five percent of women agree with the statement, “I can protect my children from malaria”. Agreement with each of the six statements increases with economic status. Urban women are more likely to agree with the six statements than rural women.

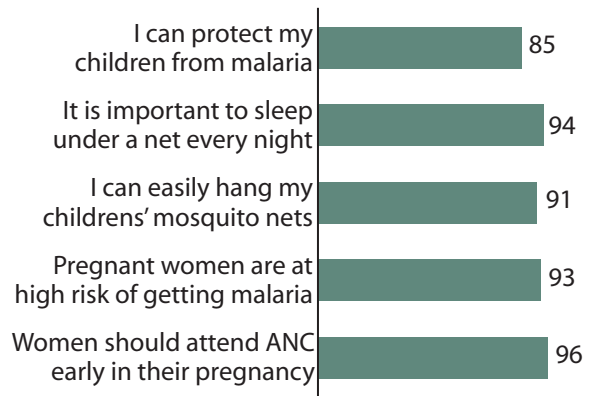
## Malaria Knowledge

Percent of women and men age 15-49 who know that:



## Women’s Attitude Towards Malaria

Among women age 15-49 with one or more births in the past 5 years, percent who agree with the following statements:



©2015 Mark Bashagi/ Vector Works, Courtesy of Photoshare



# WOMEN'S EMPOWERMENT

## Employment

Eighty-four percent of married women and more than 99% of married men age 15-49 were employed at any time in the 12 months prior to the survey. Employed women and men are each most likely to be paid in cash (48% and 76%, respectively). However, 42% of women and 10% of men are not paid for their work.

Over half of married women who are employed and earn cash make joint decisions with their husbands on how to spend their earnings, while 36% make these decisions on their own. Two-thirds of women report earning less than their husbands.

## Ownership of Assets

Thirty-eight percent of women and 41% of men own a home alone or jointly. Similarly, 34% of women and 37% of men own land alone or jointly.

Twenty-eight percent of women and 43% of men use a bank account. However, 52% of women and 69% of men own a mobile phone. Among mobile phone owners, 71% of women and 77% of men use the phone for financial transactions.

## Problems in Accessing Health Care

Two-thirds of women in Tanzania report at least one problem in accessing health care. The most common problems are getting money for advice or treatment (50%) and distance to the health facility (42%).

## Participation in Household Decisions

The 2015-16 TDHS-MIS asked currently married women about their participation in three types of household decisions: her own health care, making major household purchases, and visits to family or relatives.

Married women in Tanzania are most likely to have sole or joint decision making power with regard to their own health care (72%) and less likely to make decisions about visiting family or relatives (58%) or major household purchases (46%). Overall, 35% of married women participate in all three decisions. Eighteen percent do not participate in any of the three decisions.

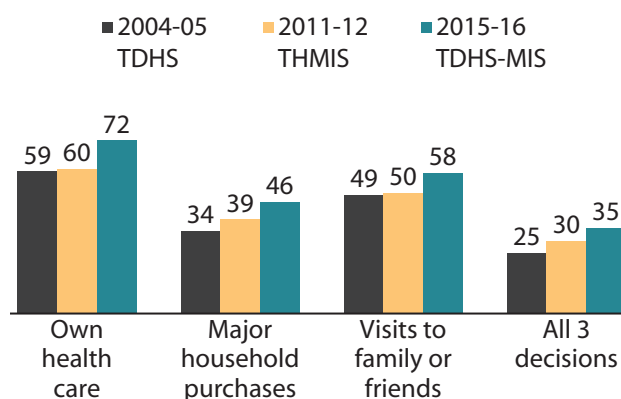
Participation in each of the decisions has increased in the last decade. In 2004-05, 25% of women participated in all three decisions, compared to 35% in 2015-16.



©2014 Ueli Litscher, Courtesy of Photoshare

## Trends in Women's Participation in Decision-making

Percent of women age 15-49 who usually make specific decisions by themselves or jointly with their husband



# FEMALE GENITAL CIRCUMCISION

## Female Genital Circumcision (FGC)

Eighty-six percent of women age 15-49 have heard of FGC. Knowledge of FGC increases steadily with women's level of education, from 71% of women with no education to 97% of women with secondary or higher education.

One in ten women in Tanzania has been circumcised. The most common type of FGC involves the cutting and removal of flesh (81%).

FGC varies widely by region, ranging from <1% in many regions to 58% in Manyara. Prevalence of FGC increases with age – 19% of women age 45-49 are circumcised, compared to only 5% of women age 15-19.

In Tanzania, FGC is performed throughout childhood. However, women are most likely to report they were circumcised when they were age <1 year (35%) or age 13 or older (28%).

The 2015-16 TDHS-MIS is the fourth survey to ask respondents about FGC. Prevalence of FGC has decreased since 1996, when 18% of women were circumcised. The decline is particularly notable among younger women age 15-29.

## FGC among Girls

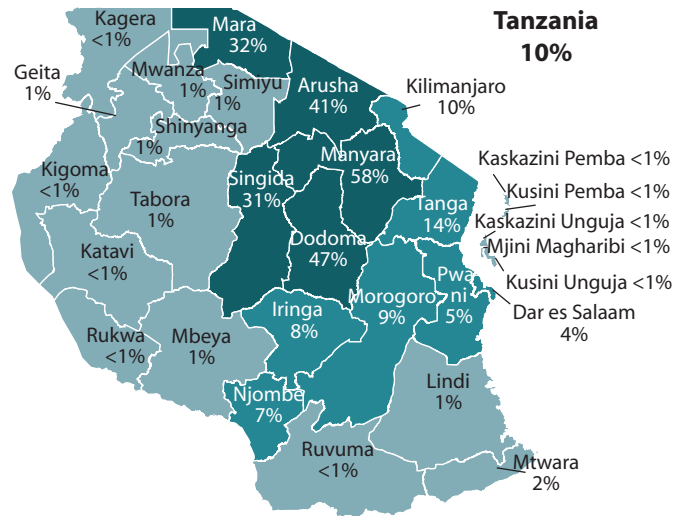
To obtain insights into the extent to which young girls are continuing to be circumcised, women interviewed in the 2015-16 TDHS-MIS who had daughters under age 15 were asked if their daughters had been circumcised. Overall, less than 1% of girls are currently circumcised, however, since more than one-quarter of women age 15-49 were circumcised at age 13 or older, it is still possible that girls in this age group may be circumcised in the future.

## Attitudes toward FGC

Almost all (95%) women believe that FGC is not required by their religion and that the practice should not be continued.

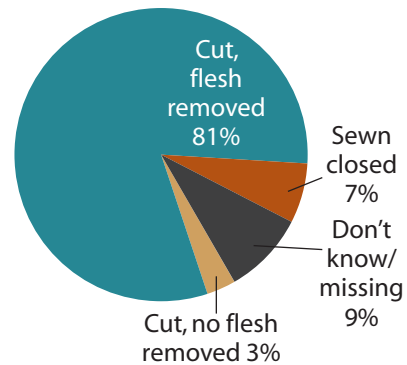
## Female Genital Circumcision by Region

Percent of women age 15-49 who are circumcised



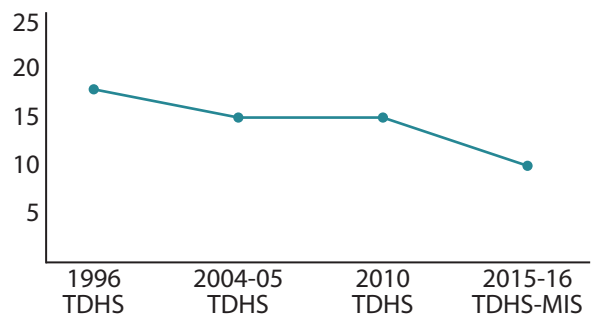
## Female Genital Circumcision

Percent distribution of women age 15-49 who have been circumcised, by type of circumcision



## Trends in Female Genital Circumcision

Percent of women age 15-49 who are circumcised



# DOMESTIC VIOLENCE

## Attitudes toward Wife Beating

Fifty-eight percent of women and 40% of men agree that a husband is justified in beating his wife for at least one of the following reasons: if she burns the food, argues with him, goes out without telling him, neglects the children, or refuses to have sex with him. The most common reason for both women and men to agree that wife beating is justified is a wife neglecting the children (48% and 31%, respectively).

## Experience of Physical Violence

Four in ten women have experienced physical violence since age 15. In the past year, 2 in 10 have experienced physical violence. Experience of violence increases with age; 22% of women age 15-19 have experienced physical violence, compared to 48% of women age 40-49. Regionally, experience of physical violence ranges from 6% in Kusini Pemba to 61% in Mara.

Experience of physical violence is higher among women who are divorced, separated or widowed (63%) than married (44%) or never-married women (16%). The most common perpetrator of physical violence among ever-married women is a current husband or partner (63%). Among never-married women, the perpetrator is most likely a teacher (23%).

## Experience of Sexual Violence

Seventeen percent of women have ever experienced sexual violence, and 9% have experienced sexual violence in the past year. Experience of sexual violence increases with age, from 11% of women age 15-19 to 18% of women age 40-49. Sexual violence is highest in Shinyanga (33%).

## Violence during Pregnancy

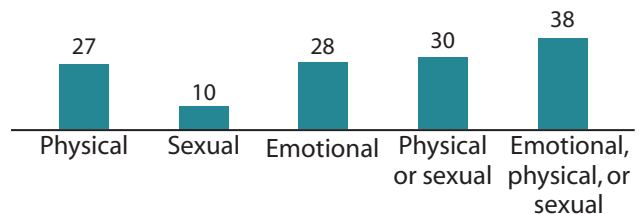
Violence during pregnancy may threaten not only a woman's well-being but also her unborn child. Eight percent of women age 15-49 who have ever been pregnant have experienced violence during pregnancy.

## Spousal Violence

Forty-two percent of ever-married women have experienced spousal violence, whether physical or sexual. Three in ten ever-married women report having experienced spousal violence within the past year. Spousal violence is higher among women whose husband or partner has no education (53%) or gets drunk very often (74%), and whose father had beaten her mother (54%).

### Recent Spousal Violence

*Percent of ever-married women who have experienced the following types of spousal violence in the past 12 months*



## Help-seeking Behaviour

More than half of women who have experienced physical or sexual violence sought help to stop the violence. The most common sources of help for these women are the woman's own family (56%) and her husband or partner's family (42%).

## ADULT HEALTH ISSUES

### Tobacco Smoking

Tobacco use is more common among men than women. Only 1% of women use tobacco, compared to 14% of men. Among men, cigarettes are the most commonly used tobacco product. One in ten men smoke daily. Among men who smoke daily, 41% smoke <5 cigarettes per day, and 30% smoke 5-9 cigarettes.

### Health Insurance Coverage

One in ten women and men have some type of health insurance coverage. The most common type of insurance is Mutual Health Organization/ community based insurance (4% of women and 5% of men).

### Urinary Iodine Concentration

The 2015-16 TDHS-MIS also collected data on urinary iodine concentrations in women age 15-49 in the subsample of households selected for interviews with men. Only 23% of women have optimal iodine concentrations in their urine, while 45% have less than optimal concentrations. One-third of women have excessive concentrations of iodine in their urine.

## HEALTH EXPENDITURES

### Health Expenditures

The 2015-16 TDHS-MIS collected data on inpatient health care expenditures in the six months before the survey, outpatient expenditures in the four weeks before the survey, as well as any expenses on health-related items (vitamins or bandages, for example) they incurred during the four weeks before the survey.

Based on those inputs, the estimated total annual health-related expenditure per household in Tanzania is 48,332 TZS. Health-related expenditures are higher for households in Zanzibar (68,702 TZS) and urban Mainland areas (62,861 TZS) than in rural Mainland areas (40,362 TZS). The wealthiest households spend more on health-related expenditures than the poorest households (80,620 TZS versus 38,342 TZS). Regionally, health-related expenditures are highest in Rukwa (119,519 TZS) and lowest in Dodoma (13,451 TZS).



©2016 Riccardo Gangale/VectorWorks, Courtesy of Photoshare



©2012 Bremen Leak/Johns Hopkins University, Courtesy of Photoshare



©2013 Jennifer Applegate, Courtesy of Photoshare

# INDICATORS

	Residence		
	Tanzania	Urban	Rural
<b>Fertility</b>			
Total fertility rate (number of children per woman)	5.2	3.8	6.0
Median age at first marriage for women age 25-49 (years)	19.2	20.4	18.7
Women age 15-19 who are mothers or currently pregnant (%)	27	19	32
<b>Family Planning (among married women age 15-49)</b>			
Current use of any method of family planning (%)	38	46	35
Current use of a modern method of family planning (%)	32	35	31
Total demand for family planning <sup>1</sup> (%)	61	66	58
Demand satisfied by modern methods (%)	53	54	53
<b>Maternal and Child Health</b>			
Births delivered in a health facility (%)	63	86	54
Births assisted by a skilled provider <sup>2</sup> (%)	64	87	55
Children age 12-23 months who have received all basic vaccinations <sup>3</sup>	75	82	73
<b>Nutrition</b>			
Children under five who are stunted (moderate or severe) (%)	34	25	38
Women age 15-49 who are overweight or obese (%)	28	42	21
Children age 6-59 months who are anaemic (%)	58	54	59
Women age 15-49 who are anaemic (%)	45	45	45
<b>Childhood Mortality (deaths per 1,000 live births)<sup>4</sup></b>			
Neonatal mortality	25	43	24
Infant mortality	43	63	47
Under-5 mortality	67	86	75
<b>Malaria</b>			
Households with at least one insecticide-treated net (ITN) (%)	66	67	65
Children under five who slept under an ITN the night before the survey (%)	55	61	52
Pregnant women age 15-49 who slept under an ITN the night before the survey (%)	54	56	53
Pregnant women age 15-49 who received 2+ doses of SP/Fansidar, at least one during an ANC visit (%)	35	44	31
Children under five with fever for whom advice or treatment was sought (%)	80	84	79
Malaria prevalence by RDT among children age 6-59 months (%)	14	4	18
<b>FGC/Domestic Violence (among women age 15-49)</b>			
Women who are circumcised (%)	10	5	13
Women who have ever experienced spousal violence (%)	42	38	43

<sup>1</sup>Total demand is the sum of met need (current use) and unmet need (married women who do not want any more children or want to wait at least two years before their next birth but are not currently using a method of family planning). <sup>2</sup>Skilled provider includes doctor/AMO, clinical officer, assistant clinical officer, nurse, midwife, or assistant nurse, and MCH aide. <sup>3</sup>Fully vaccinated includes BCG, measles, three doses each of DPT and polio vaccine (excluding polio vaccine given at birth). <sup>4</sup>Figures are for the ten-year period before the survey except for the national rate, in italics, which represents the five-year period before the survey. <sup>5</sup>Figures in parentheses are based on 25-49 unweighted cases and should be treated with caution.

Zone								
Western	Northern	Central	Southern Highlands	Southern	South West Highlands	Lake	Eastern	Zanzibar
6.7	4.2	5.7	4.3	3.8	5.2	6.4	3.9	5.1
18.4	20.5	19.1	19.9	18.4	18.8	18.4	20.4	20.3
38	16	32	26	27	34	29	20	8
23	40	42	53	53	46	26	52	23
19	34	36	44	51	39	23	38	14
47	61	62	70	63	65	56	69	51
41	56	58	63	80	59	42	55	27
50	67	60	88	81	62	50	87	66
51	69	60	88	81	63	51	88	69
66	82	83	83	80	67	71	83	81
32	36	34	45	37	43	36	23	24
22	36	22	25	28	30	18	43	39
64	51	46	44	59	54	62	61	65
54	36	31	34	48	29	52	51	60
25	23	29	30	47	40	24	35	28
41	38	44	46	69	70	52	60	45
69	56	66	65	79	95	88	85	56
92	53	36	55	65	49	90	63	74
68	37	24	38	51	34	74	55	56
66	31	31	36	(47) <sup>5</sup>	41	70	55	52
21	42	38	39	40	29	33	46	13
74	75	76	74	82	81	82	85	79
28	1	2	10	19	3	24	11	<1
1	22	46	4	1	1	5	6	<1
52	28	42	40	28	42	55	33	11

