

Tanzania



Malaria Atlas

The 2011-12 Tanzania HIV/AIDS and Malaria Indicator Survey

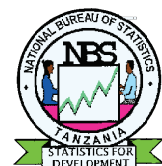
2012



The United Republic of Tanzania

Malaria Atlas

The 2011-12 Tanzania HIV/AIDS and Malaria Indicator Survey



National Bureau of Statistics, Dar es Salaam, Tanzania

MEASURE DHS, ICF Macro Calverton, Maryland USA

October, 2012

TABLE OF CONTENTS

Introduction	2
Ownership of Mosquito Net: At least any net	3
Ownership of Mosquito Net: At least one Insecticide Treated Net (ITN)	4
Ownership of Mosquito Net: At least one Long Lasting Insecticide Net (LLIN).....	5
Percent of Households with IRS in the 12 months preceding the Survey	6
Use of Mosquito Net by Children: Slept under an ITN.....	7
Use of Mosquito net by Children: Slept under an ITN or in a dwelling sprayed with IRS.....	8
Percent of Children age 6-59 months with fever in the two weeks preceding the survey	9
Percent of Children age 6-59 months with Malaria (according to Rapid Diagnostic Test (RDT))	10
Percent of Children age 6-59 months with Malaria (according to microscopy).....	11
Percent of Children age 6-59 months with anaemia (haemoglobin <8.0 g/dl)	12

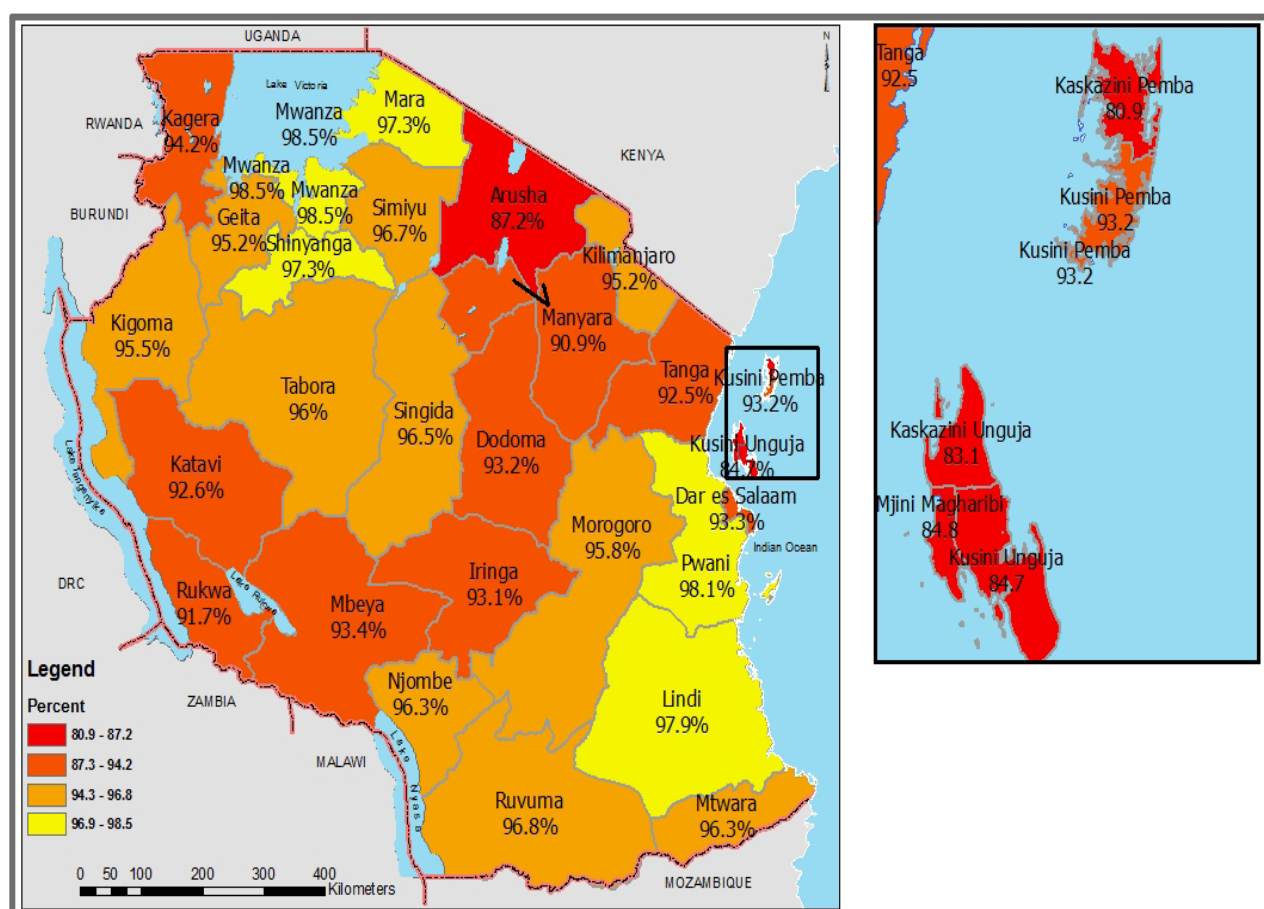
Introduction

The 2011-12 Tanzania HIV/AIDS and Malaria Indicator Survey (2011-12 THMIS) was implemented by the National Bureau of Statistics (NBS) and the Office of the Chief Government Statistician Zanzibar (OCGS) in collaboration with the Ministry of Health and Social Welfare (MOHSW). Data collection on the Mainland took place from 16 December 2011 to 24 May 2012. In Zanzibar, data collection was from 16 December 2011 to mid-April 2012. The survey was commissioned by the Tanzania Commission for AIDS (TACAIDS) and the Zanzibar AIDS Commission (ZAC). ICF International provided technical assistance through the USAID-funded MEASURE DHS project, which provides support and technical assistance for the implementation of population and health surveys in countries worldwide. Other agencies and organizations that facilitated the successful implementation of the survey through technical or financial support were the National AIDS Control Programme (NACP), the National Malaria Control Programme (NMCP), the Ministry of Health and Social Welfare (MOHSW), the Zanzibar AIDS Control Programme, the Zanzibar Malaria Control Programme (ZMCP), the Muhimbili University of Health and Allied Sciences (MUHAS), and the Ifakara Health Institute (IHI)-Bagamoyo Site.

This Atlas presents a first look at selected Malaria findings from the 2011-12 THMIS. A comprehensive analysis of the data will be presented in a final report to be published in 2013. While considered provisional, the results presented here are not expected to differ significantly from those in the final report.

Ownership of Mosquito Net: At least any net

Percent of households with at least any mosquito net



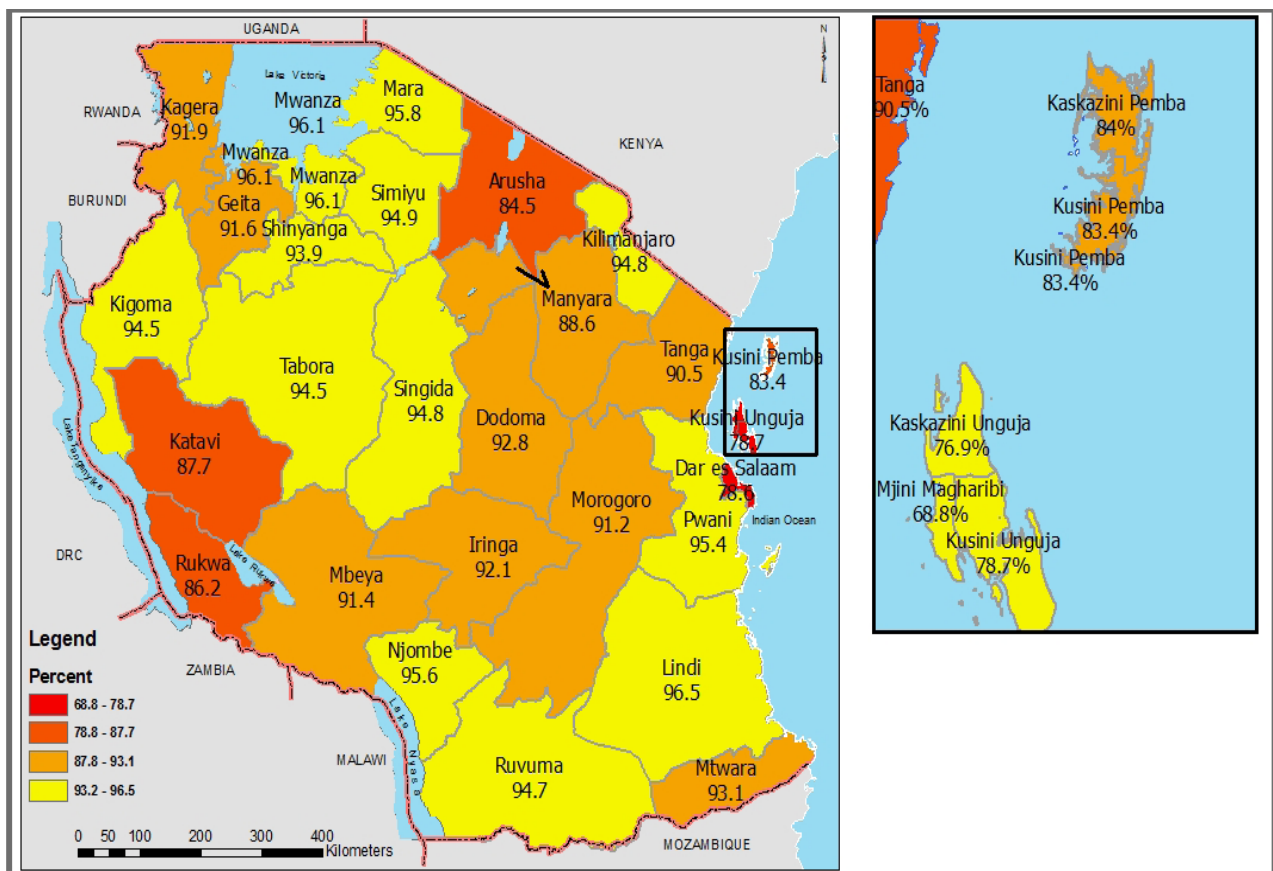
The 2011-12 THMIS included questions on bed net ownership, use and type of net. Overall, 95 percent of households owned any type of mosquito net. Ownership of mosquito nets did not differ markedly by urban-rural residence.

Ownership of mosquito nets did not vary widely across regions in Mainland Tanzania. Mwanza had the highest percentage of households with bed nets (99 percent) while Arusha had the lowest (87 percent). The percentage of households in Zanzibar that owned any mosquito net ranged from 83 to 93 percent.

Ownership of any type of mosquito net has increased from 75 percent in the 2010 Tanzania Demographic and Health Survey (TDHS) to 95 percent in the 2011-12 THMIS.

Ownership of Mosquito Net: At least one Insecticide Treated Net (ITN)

Percent of households with at least one ITN



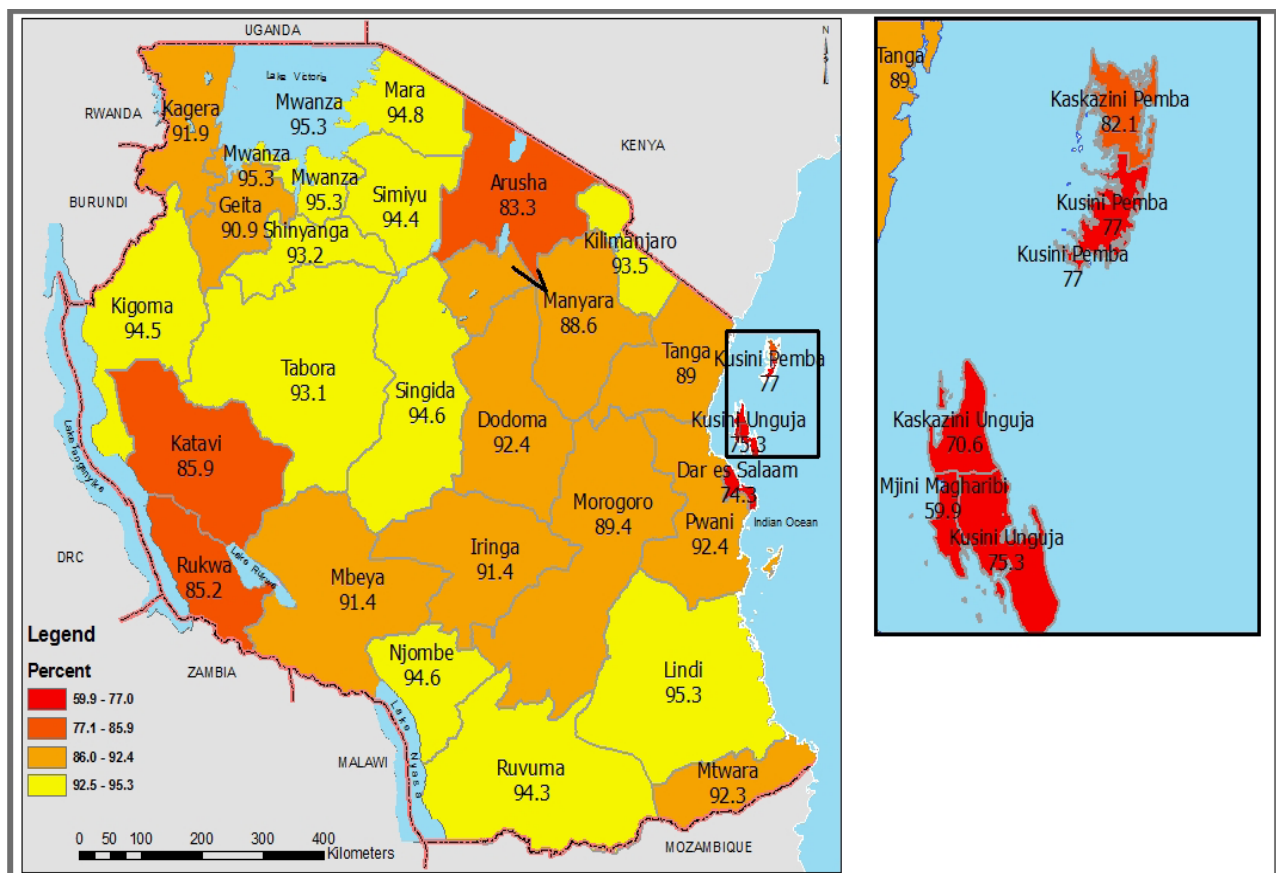
Significant advances have been made in the prevention of malaria through the use of Insecticide Treated mosquito Nets (ITN), including Long Lasting Insecticidal Nets (LLIN). Use of treated mosquito nets has been found to significantly reduce malaria transmission.

Ninety-one percent of households had at least one ITN. Households in rural areas are more likely to own an ITN than households in urban areas (93% and 87%, respectively).

More than five in ten households in Tanzania (57 percent) owned an ITN for every two persons who slept in the household the night before the survey, indicating that over fifty percent of households in Tanzania had sufficient nets for its occupants if each net is used by up to two persons.

Ownership of Mosquito Net: At least one Long Lasting Insecticide Net (LLIN)

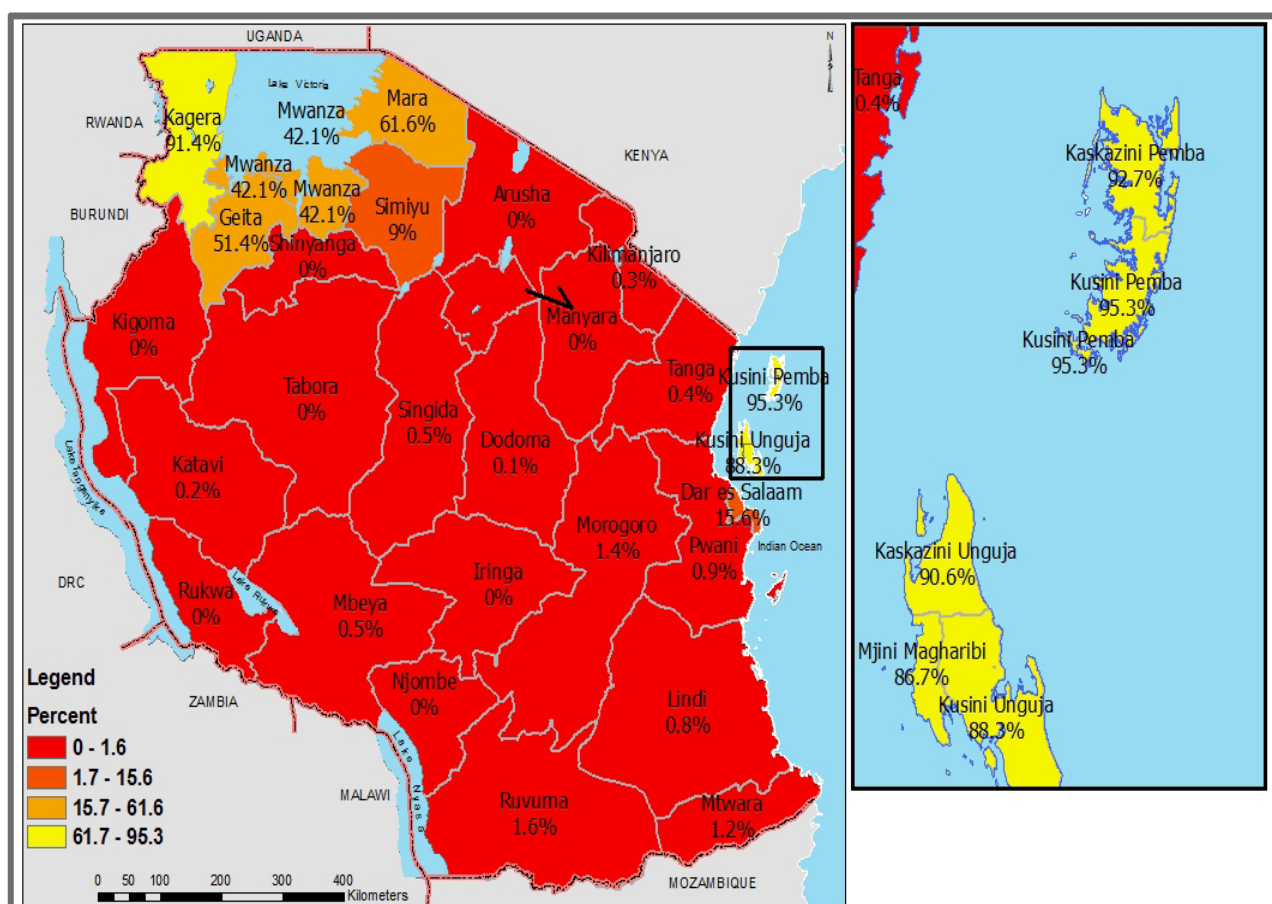
Percent of households with at least one LLIN



Nine in ten households in Tanzania had at least one LLIN. Ownership of LLIN differs markedly by Urban-rural residence, the survey results show that households in rural areas are more likely to own LLIN compared to their counterparts in urban areas (92% and 84%, respectively). Ownership of LLIN was higher in Mainland Tanzania than in Zanzibar (90 and 71 percent, respectively).

Indoor Residual Spraying (IRS) against Mosquitoes

Percent of households with IRS in the 12 months preceding the survey

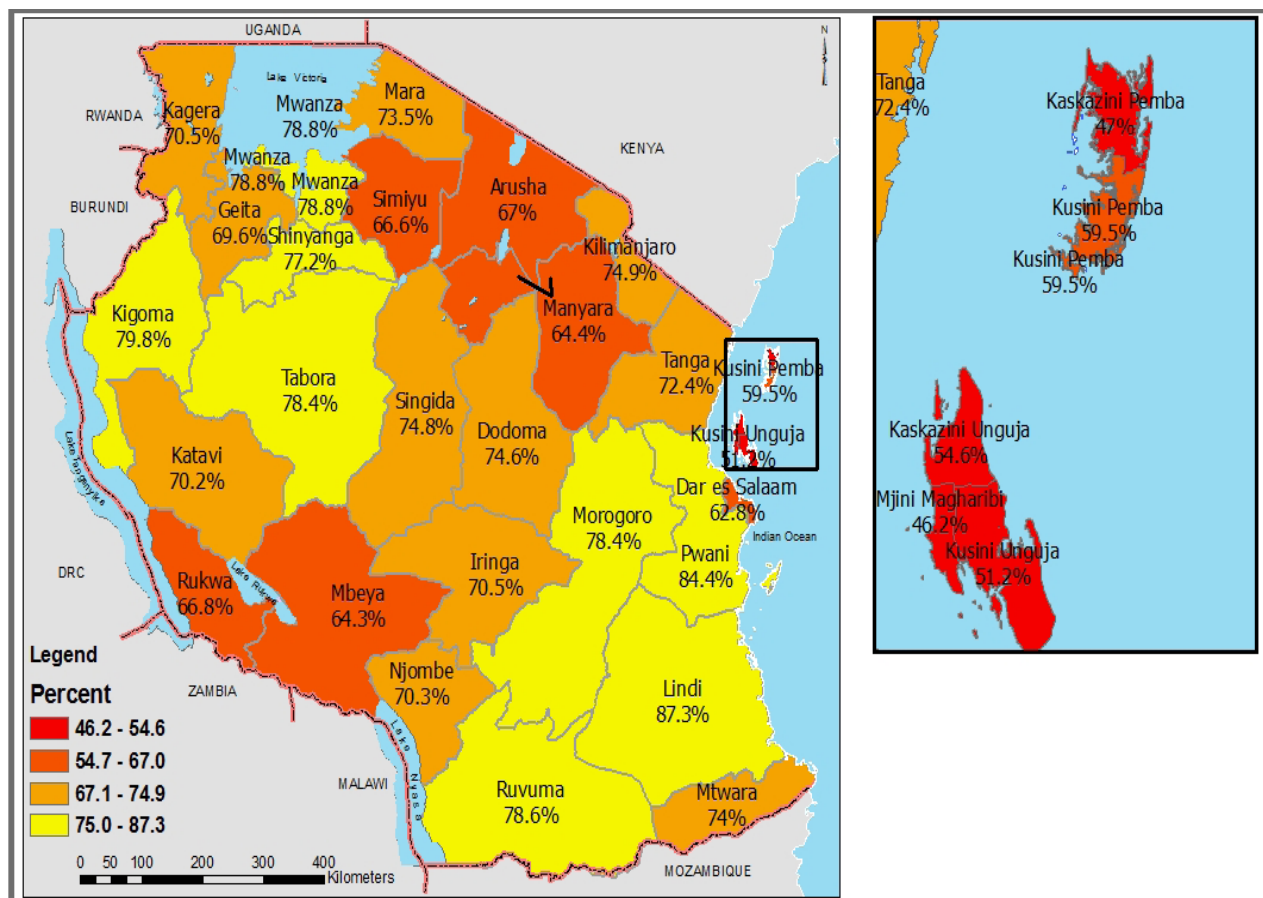


Indoor Residual Spraying (IRS) is the spraying of the interior walls and ceilings of a dwelling with long-lasting insecticide. It reduces the transmission of malaria by killing adult female mosquitoes when they rest on the walls of the dwelling after feeding.

Overall, 13 percent of households reported having received IRS in the 12 months prior to the survey. Regions on the Mainland that report wide-scale IRS include Kagera (91 percent), Mara (62 percent), Geita (51 percent) and Mwanza (42 percent). For regions in Zanzibar, the percentage of households that have received IRS ranged from 87 to 95 percent.

Use of Mosquito net by Children: Slept under an ITN

Percent of children age 6-59 months who slept under an ITN the night before the survey

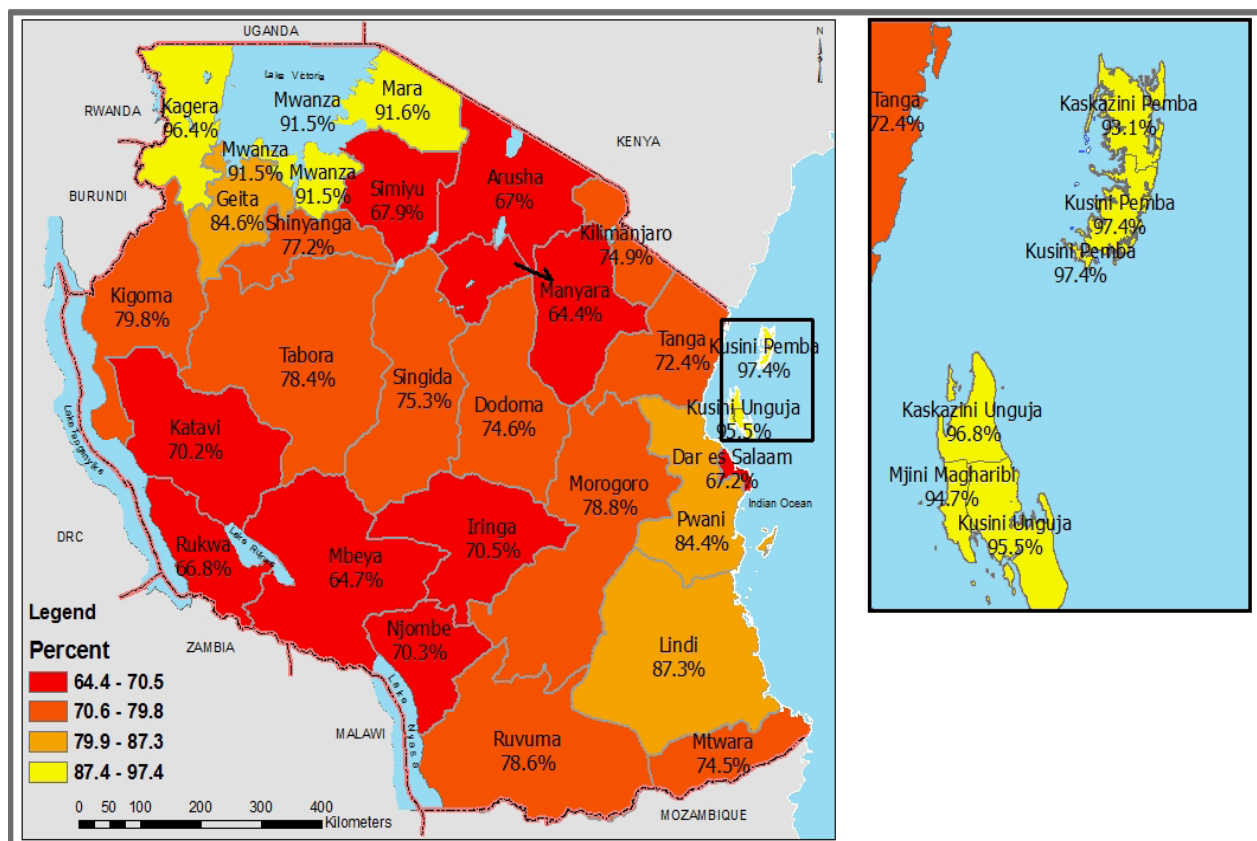


In the 2011-12 THMIS, questions were asked to determine the persons who slept under the net the night preceding the survey. Seven in ten children age 6 - 59 months slept under an ITN.

The percentage of children under age 5 who slept under an ITN the night before the survey in the 2011-12 THMIS is higher than that reported in the 2010 TDHS (72 and 64 percent, respectively).

Use of Mosquito Net by Children: Slept under an ITN or in a Dwelling Sprayed with IRS

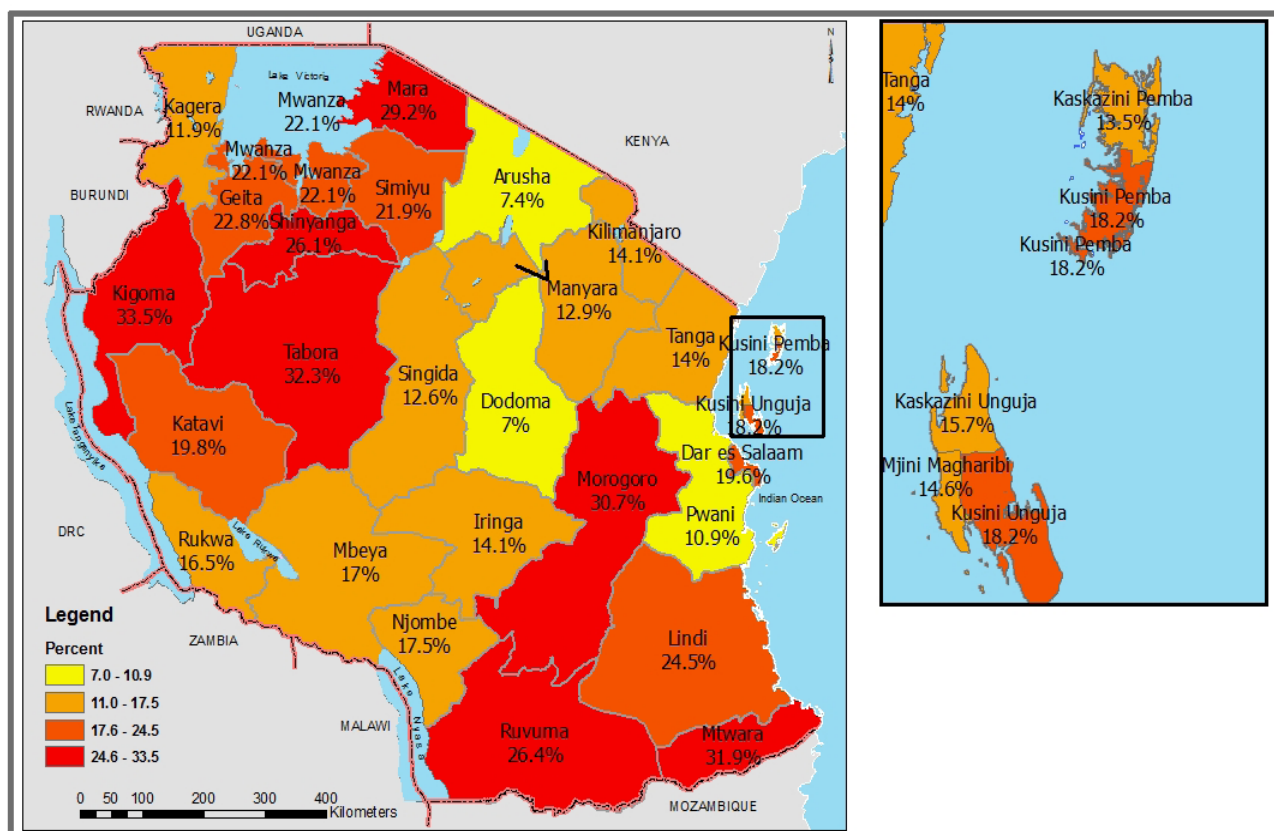
Percent of children age 6-59 months who slept under an ITN last night before the survey or in a dwelling sprayed with IRS in the 12 months before the survey



Overall, 77 percent of children under age 5 slept under ITNs or in a dwelling that received IRS in the 12 months preceding the survey. Kagera region has the highest proportion of children that slept under ITNs the night before the survey or in a dwelling sprayed with IRS in the 12 months preceding the survey (96 percent) whereas Manyara has the lowest (64 percent).

Fever in Children

Percent of children age 6-59 months with fever in the two weeks preceding the survey

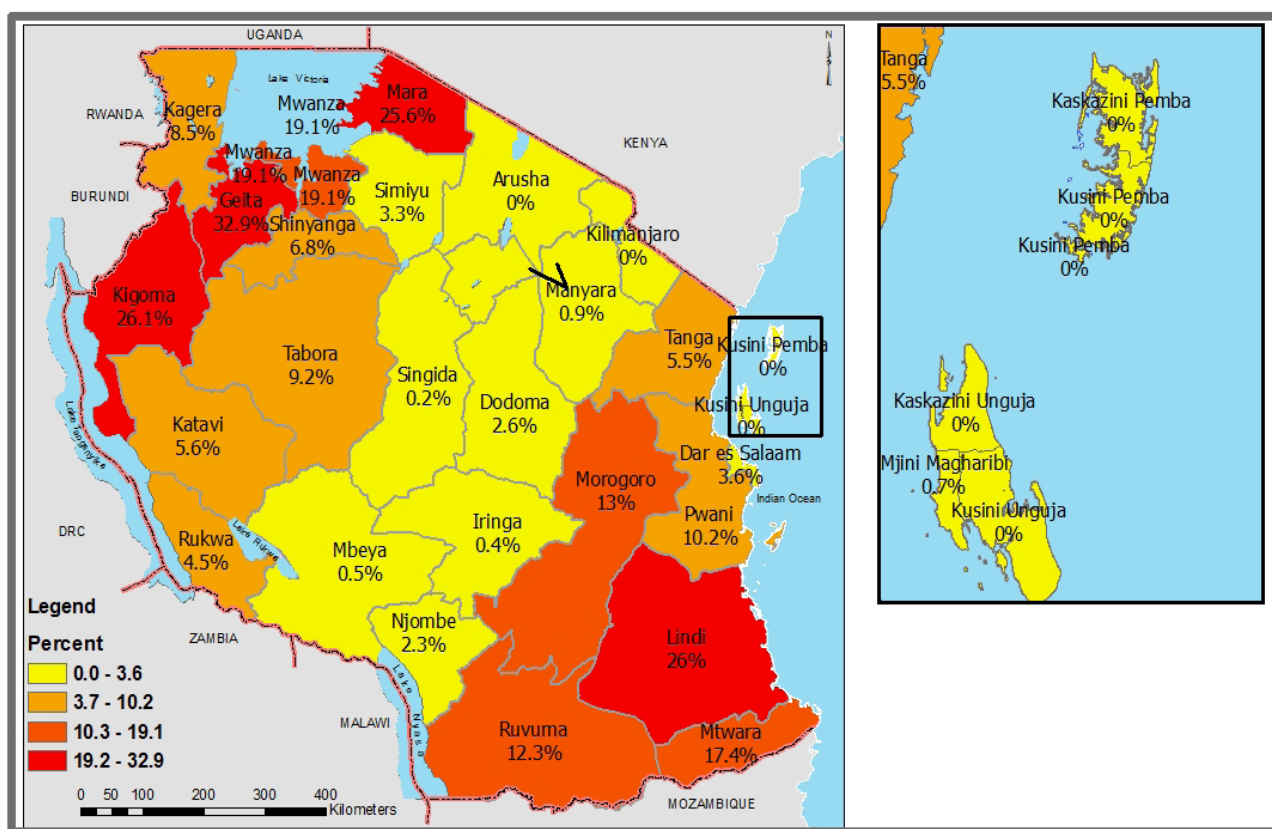


Fever is a major symptom of malaria in young children. In the 2011-12 THMIS, mothers were asked whether any of their children under age 5 has had fever in the two weeks preceding the survey and if so, whether treatment or advice was sought and whether blood testing was performed. Information was also collected about the type and timing of the treatment given.

Overall, 20 percent of children under age 5 had fever in the two weeks preceding the survey. Among children with fever, advice or treatment was sought for 77 percent and one child in four had blood taken from a finger or a heel for testing. Among children with fever, 54 percent were given anti-malarial drugs, and 34 percent were treated with the anti-malarial drugs on the day the fever was detected or next day.

Malaria in Children

Percent of children age 6-59 months with malaria (according to Rapid Diagnostic Test (RDT))



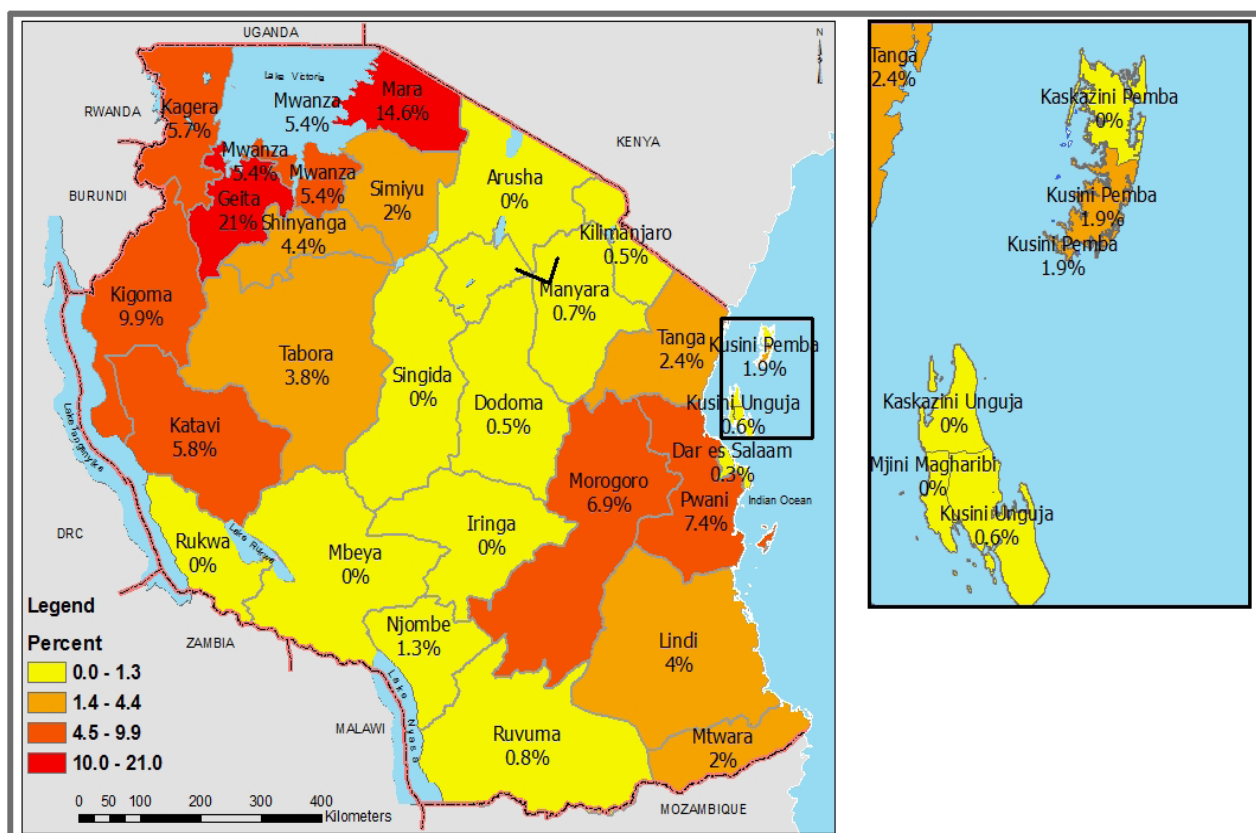
The overall prevalence of malaria in young children in Tanzania as measured by RDT is 10 percent. Malaria prevalence as measured by RDT increases with age (4 percent among children age 6-11 months and 12 percent among children age 48-59 months). Rural children are more likely than urban children to test positive for malaria by RDT (11 percent in rural areas compared with 3 percent in urban areas).

Ten percent of children age 6-59 months in Mainland Tanzania tested malaria positive compared to less than 1 percent of children in Zanzibar. There are large variations in malaria prevalence among children across regions in Mainland Tanzania. The highest malaria prevalence among children is found in Geita region (33 percent), followed by Lindi, Kigoma and Mara (26 percent each). The regions with the lowest malaria prevalence among children are Arusha, Kilimanjaro, Singida and Iringa (Less than 1 percent each).

The percentage of children under age 5 with malaria in the 2011-12 THMIS as measured by RDT is significantly lower than that reported in the 2007-08 THMIS (10 and 18 percent, respectively).

Malaria in Children

Percent of children age 6-59 months with malaria (according to microscopy)

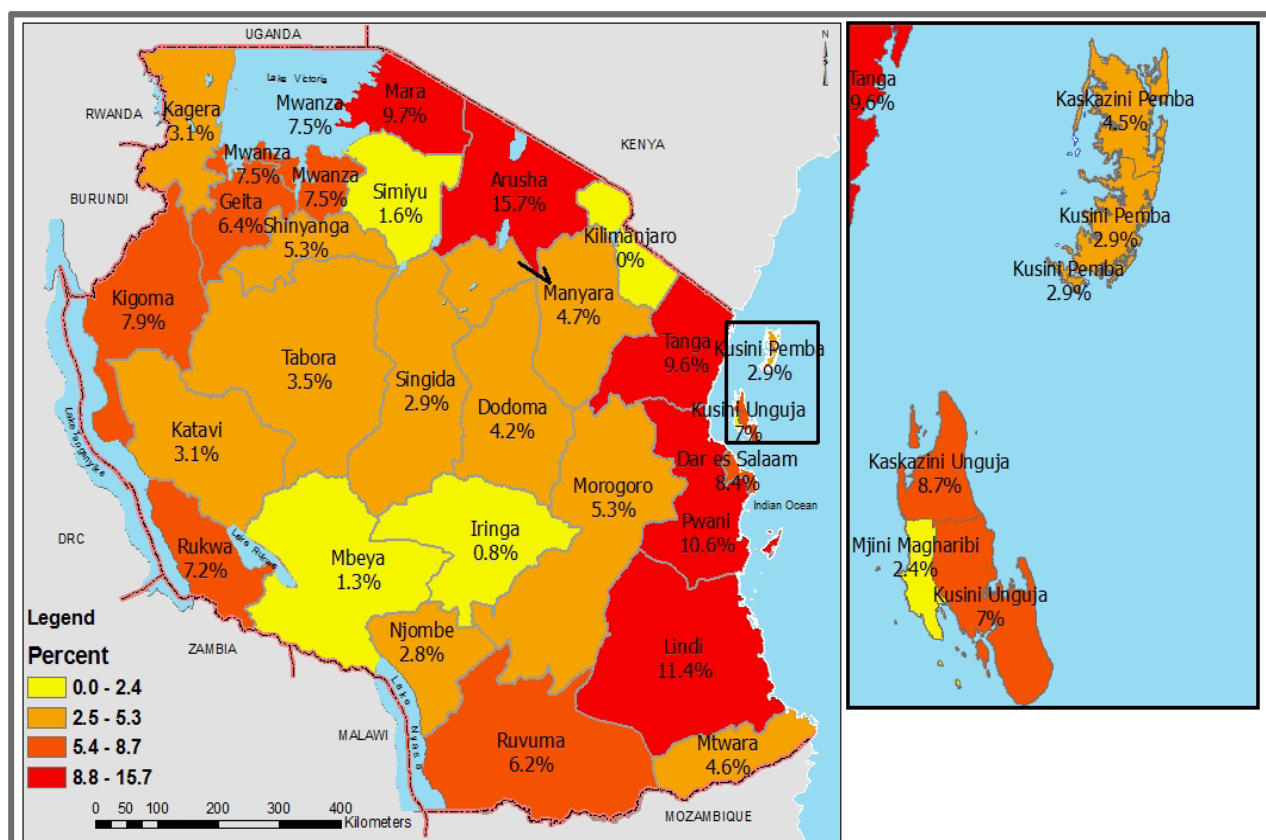


The overall prevalence of malaria in young children in Tanzania as measured by microscopy is 4 percent. As was the case with the RDT testing, malaria prevalence as measured by microscopy increases with age (2 percent among children age 6-11 months and 5 percent among children age 48-59 months), and rural children are more likely than urban children to test positive for malaria (5 percent compared with 1 percent).

Malaria prevalence among children using the microscopy test follows almost the same pattern as that using RDT. However, the highest malaria prevalence among children is found in Geita region (21 percent), followed by Mara (15 percent), whereas regions with the lowest malaria prevalence among children are found in Arusha, Mbeya, Singida and Iringa (Less than 1 percent each).

Anaemia in Children

Percent of children age 6-59 months with anaemia (haemoglobin <8.0 g/dl)



The 2011-12 THMIS tested children's haemoglobin levels using the HemoCue system to determine anaemia prevalence. About 6 percent of Tanzania children aged 6-59 months were found to be severely anaemic (Hb concentration levels is less than 8g/dl). Anaemia prevalence decreases with age (8 percent among children age 6-11 months and 3 percent among children age 48-59 months).

Severe anaemia among children age 6-59 months did not differ markedly by urban-rural residence. Severity of anaemia among children varies across the 30 regions of Tanzania with Arusha region having the highest percentage (16 percent). Kilimanjaro and Iringa have the lowest prevalence of anaemia among children (less than 1 percent).

The percentage of severely anaemic children under age 5 in the 2011-12 THMIS is less than that reported in the 2007-08 THMIS (6 and 8 percent, respectively).

