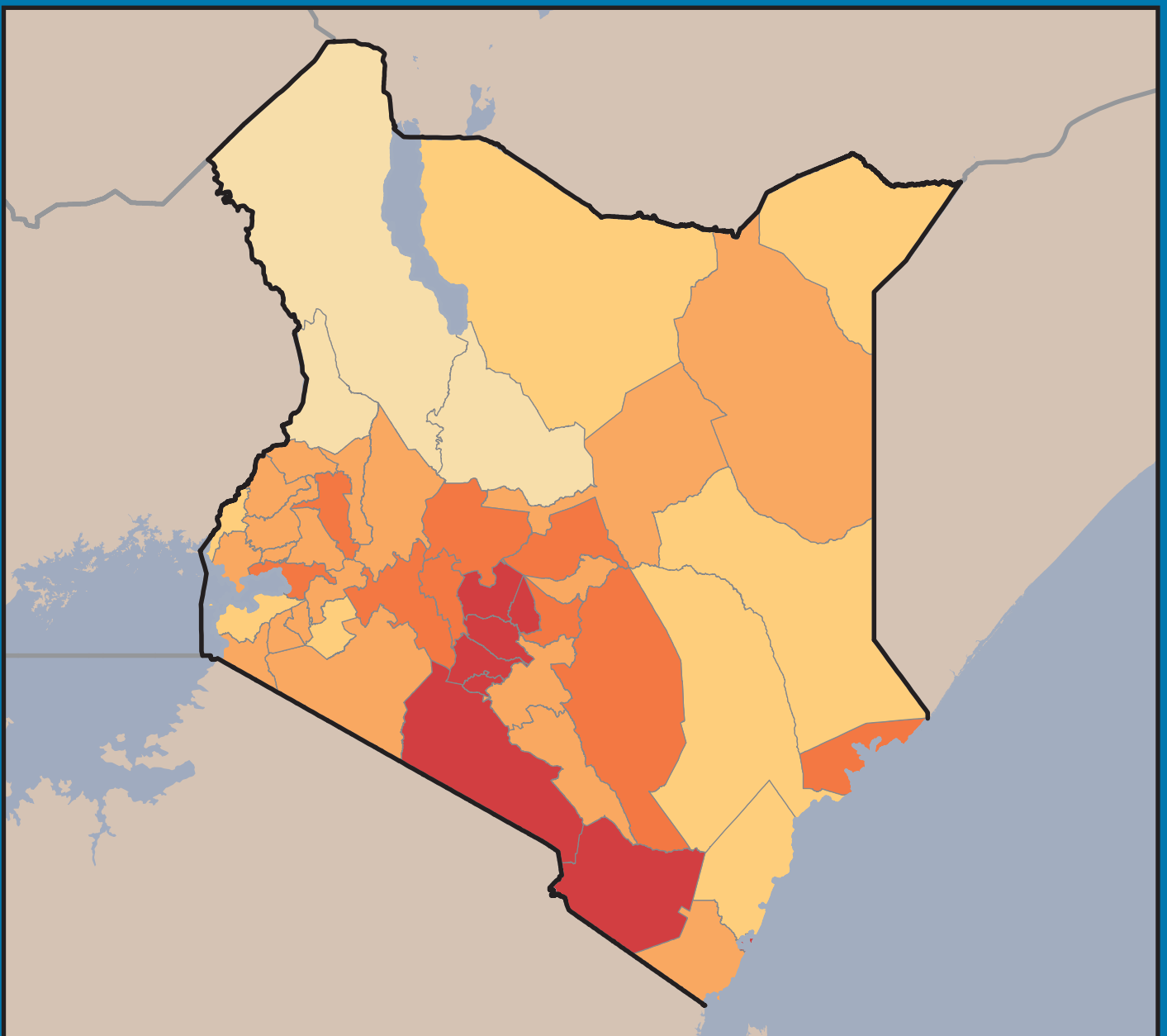


# Kenya

## 2014 Demographic and Health Survey Atlas of County-level Health Indicators





The 2014 Kenya Demographic and Health Survey (2014 KDHS) was implemented by the Kenya National Bureau of Statistics from May 2014 to October 2014 in partnership with the Ministry of Health, the National AIDS Control Council (NACC), the National Council for Population and Development (NCPD), and the Kenya Medical Research Institute (KEMRI). Funding for the KDHS was provided by the Government of Kenya with support from the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the United Kingdom Department for International Development (DfID), the World Bank, the Danish International Development Agency (DANIDA), the United Nations Children's Fund (UNICEF), the German Development Bank (KfW), the Clinton Health Access Initiative (CHAI), the World Food Programme (WFP), and the Micronutrient Initiative (MI). ICF International provided technical assistance for the survey through The DHS Program, a USAID-funded project that helps implement population and health surveys in countries worldwide.

Additional information about the 2014 KDHS may be obtained from the Kenya National Bureau of Statistics (KNBS), P.O. Box 30266-00100 GPO Nairobi, Kenya; telephone (Nairobi): 3317586/8, 3317612/22, 3317623, 3317651; fax: 3315977; e-mail: [directorgeneral@knbs.or.ke](mailto:directorgeneral@knbs.or.ke), [info@knbs.or.ke](mailto:info@knbs.or.ke); website: [www.knbs.or.ke](http://www.knbs.or.ke).

Additional information about The DHS Program may be obtained from ICF International, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA (telephone: 301-407-6500; fax: 301-407-6501; e-mail: [info@DHSprogram.com](mailto:info@DHSprogram.com); Internet: [www.DHSprogram.com](http://www.DHSprogram.com)).

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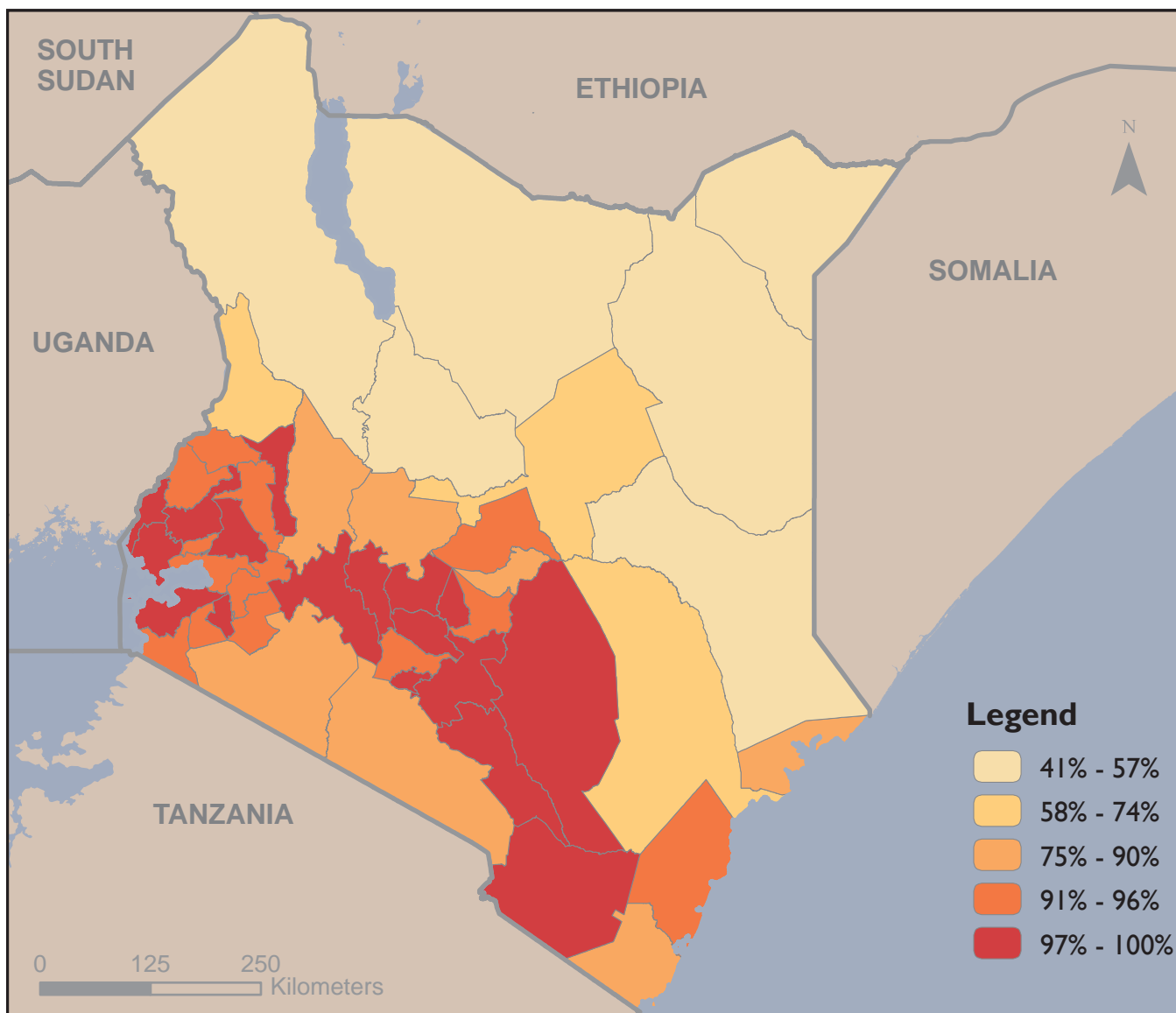
# 2014 KENYA DEMOGRAPHIC AND HEALTH SURVEY (KDHS)

The 2014 Kenya Demographic and Health Survey (KDHS) is designed to provide data for monitoring the population and health situation in Kenya. A nationally representative sample of 31,079 women age 15-49 and 12,819 men age 15-54 in selected households were interviewed. The sample design for the 2014 KDHS provides estimates at the national and regional (formerly provincial) levels, for urban and rural areas, and for select indicators, the county level. This is the first KDHS that includes county-level data for each of the 47 counties throughout Kenya. Short household and woman's questionnaires contained a subset of questions from the full questionnaires to measure the priority indicators at the county level. A total of 19,021 households and 16,338 women age 15-49 were interviewed with the short questionnaires.



# LITERACY AMONG YOUNG WOMEN

Percent of women age 15-24 who are literate

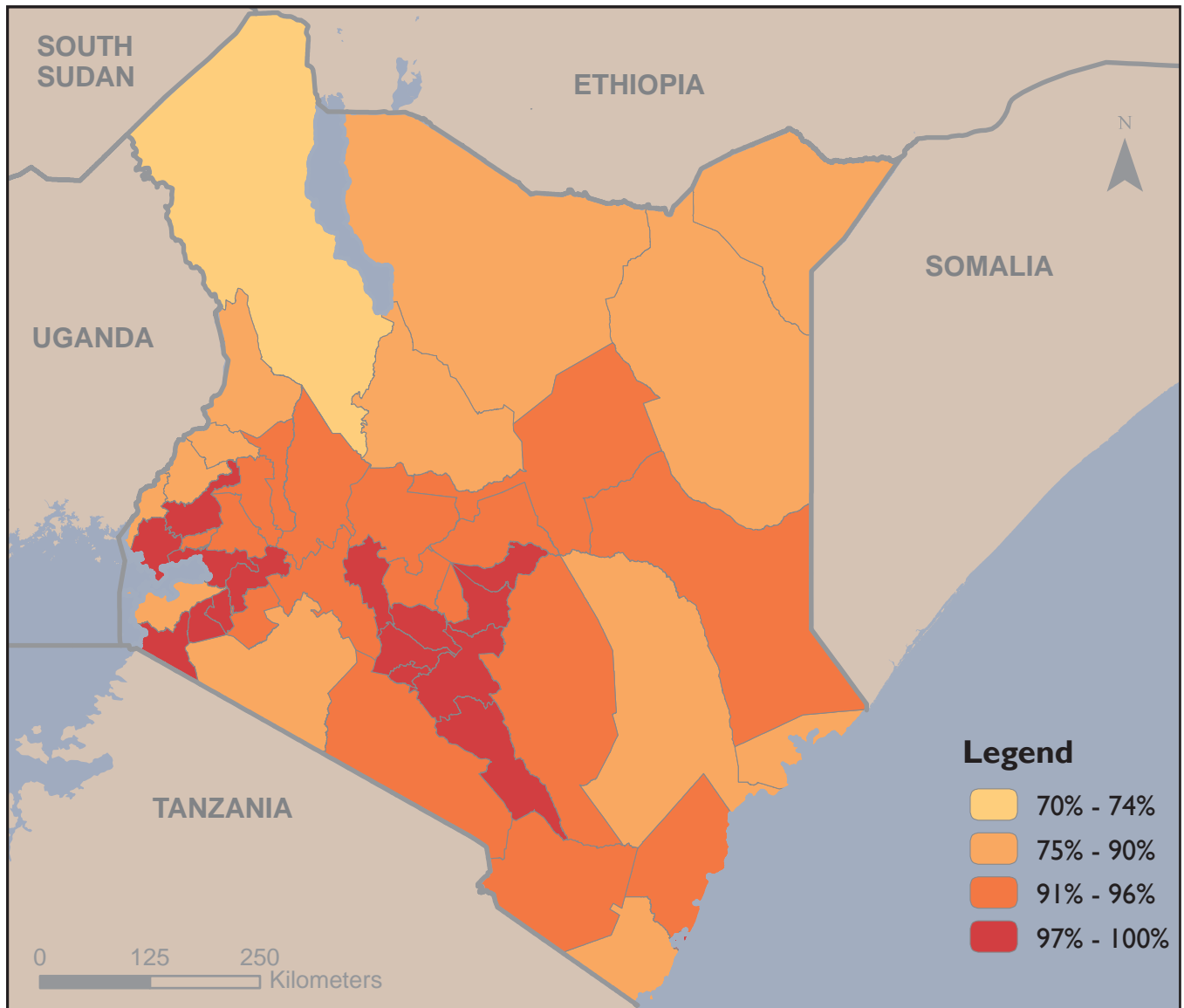


The ability to read and write gives individuals increased opportunities in life. The KDHS defined literacy as being able to read all or part of a sentence. Those who had never been to school and those who had only a primary education were asked to read a card in one of 17 of Kenya's languages they were most likely able to read. Those who attended secondary school or higher education were assumed to be literate.

In Kenya, 88% of women age 15-49 are literate. Among young women age 15-24, 93% are literate. The majority of Kenyan counties, a total of 29, have literacy rates greater than 90% among young women. Less than half of young women age 15-24 are literate in Turkana (41%), Garissa (43%), Wajir (47%), and Mandera (49%).

# LITERACY AMONG YOUNG MEN

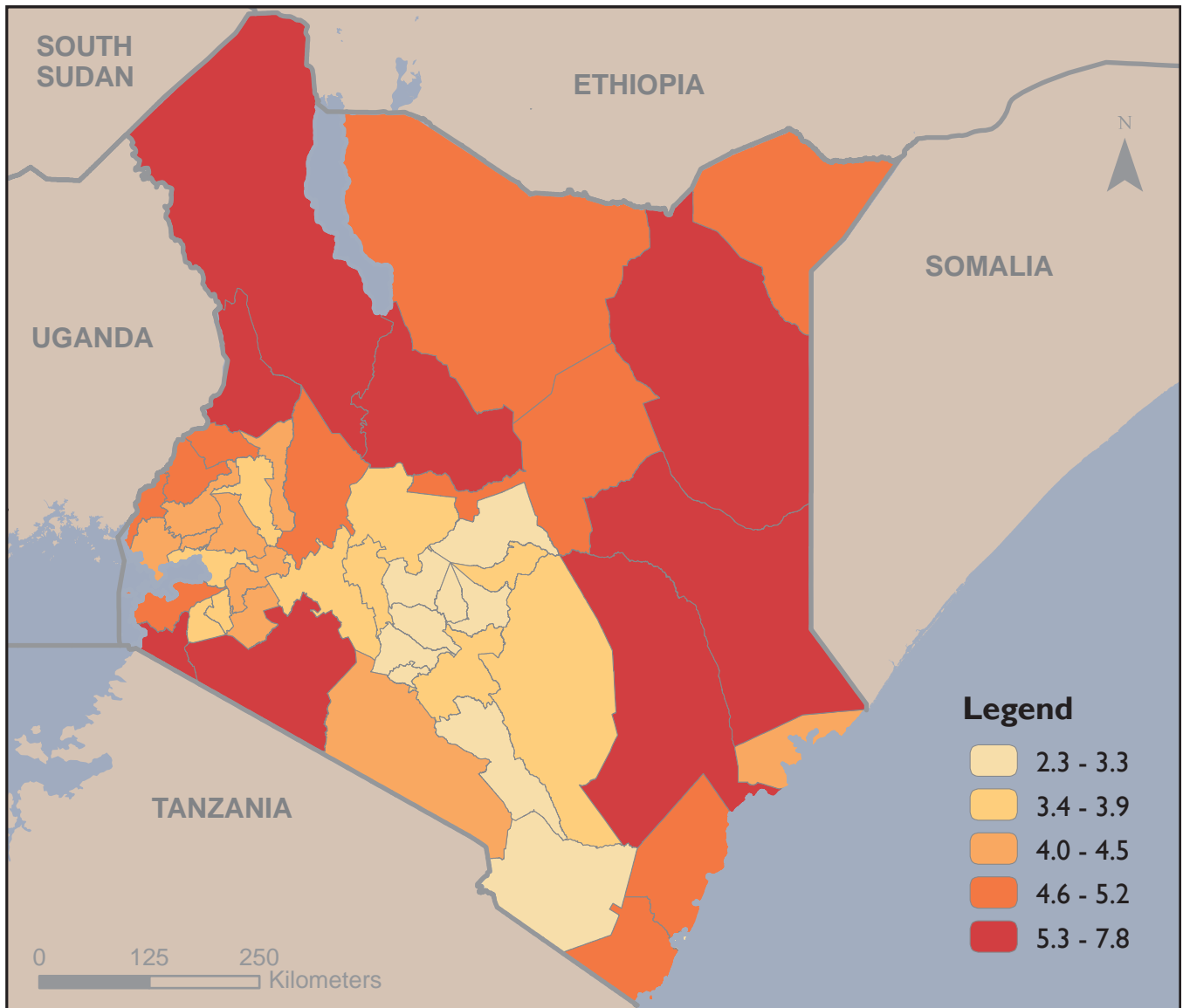
Percent of men age 15-24 who are literate



More men age 15-49 are literate compared to women in Kenya. Almost all men (97%) age 15-49 are literate. Among young men age 15-24, 95% are literate. The majority of Kenyan counties, a total of 33, have literacy rates greater than 90% among young men. Literacy among young men is lowest in Marsabit (78%) and Turkana (70%). However, the Turkana estimate is based on 25-49 unweighted cases, so use caution when interpreting this value.

# TOTAL FERTILITY RATE

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

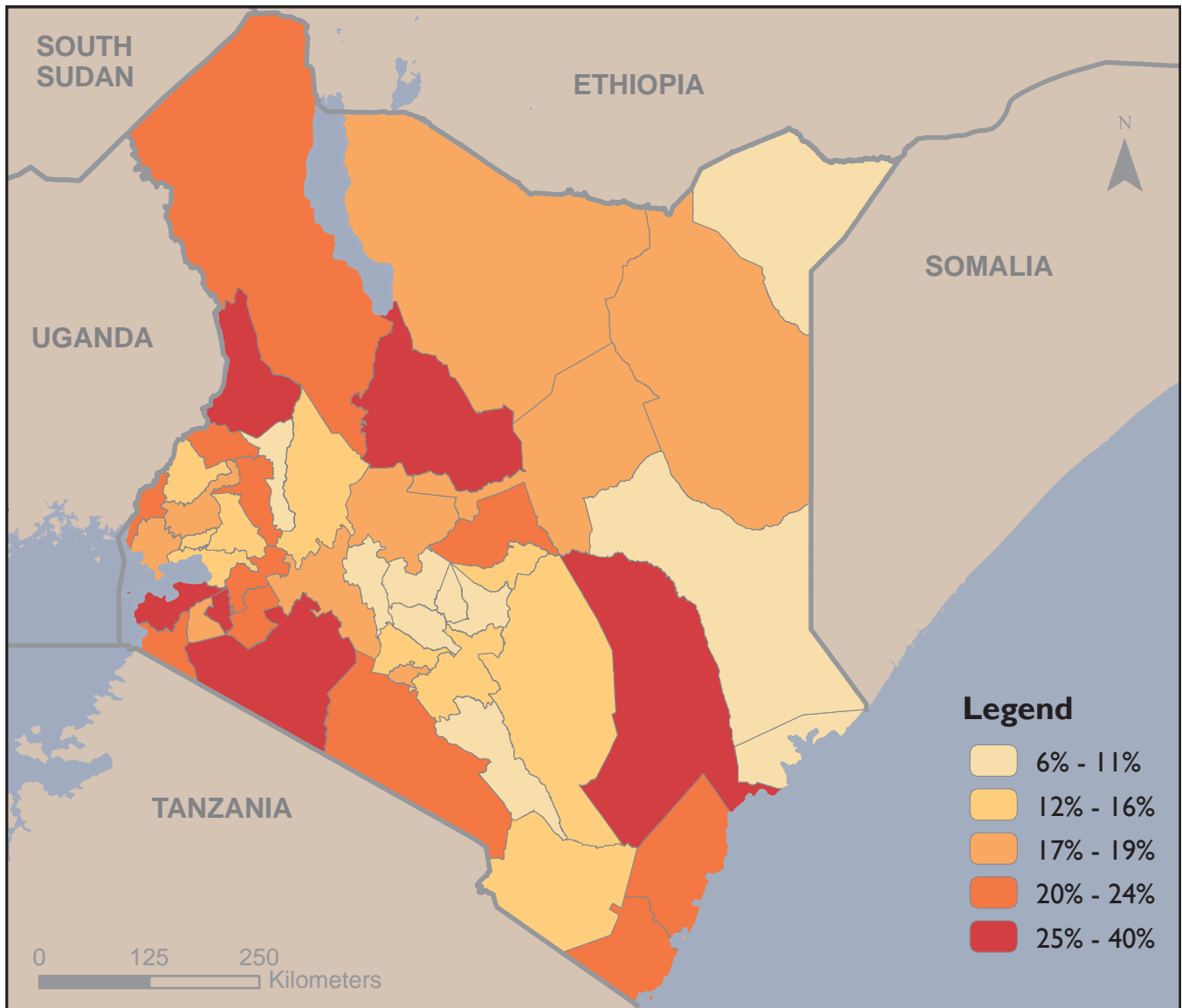


Fertility is a principal component of population change that contributes to the size, structure, and composition of the population in a country. Women in Kenya currently have an average of 3.9 births. Women in rural areas have almost 1.5 more children, on average, than women in urban areas (4.5 versus 3.1).

Fertility varies dramatically by county, from a low of 2.3 births per woman in Kirinyaga followed by Nyeri, Kaimbu, and Nairobi (2.7 each). Ten counties have a total fertility rate between 2.3 and 3.3. Eight counties have fertility rates between 5.3 and 7.8 births per woman. Fertility is highest in Wajir (7.8), West Pokot (7.2), Turkana (6.9), and Samburu (6.3). Counties with higher fertility tend to be in northern Kenya.

# TEENAGE PREGNANCY AND MOTHERHOOD

Percent of women age 15-19 who have had a live birth or are pregnant with their first child

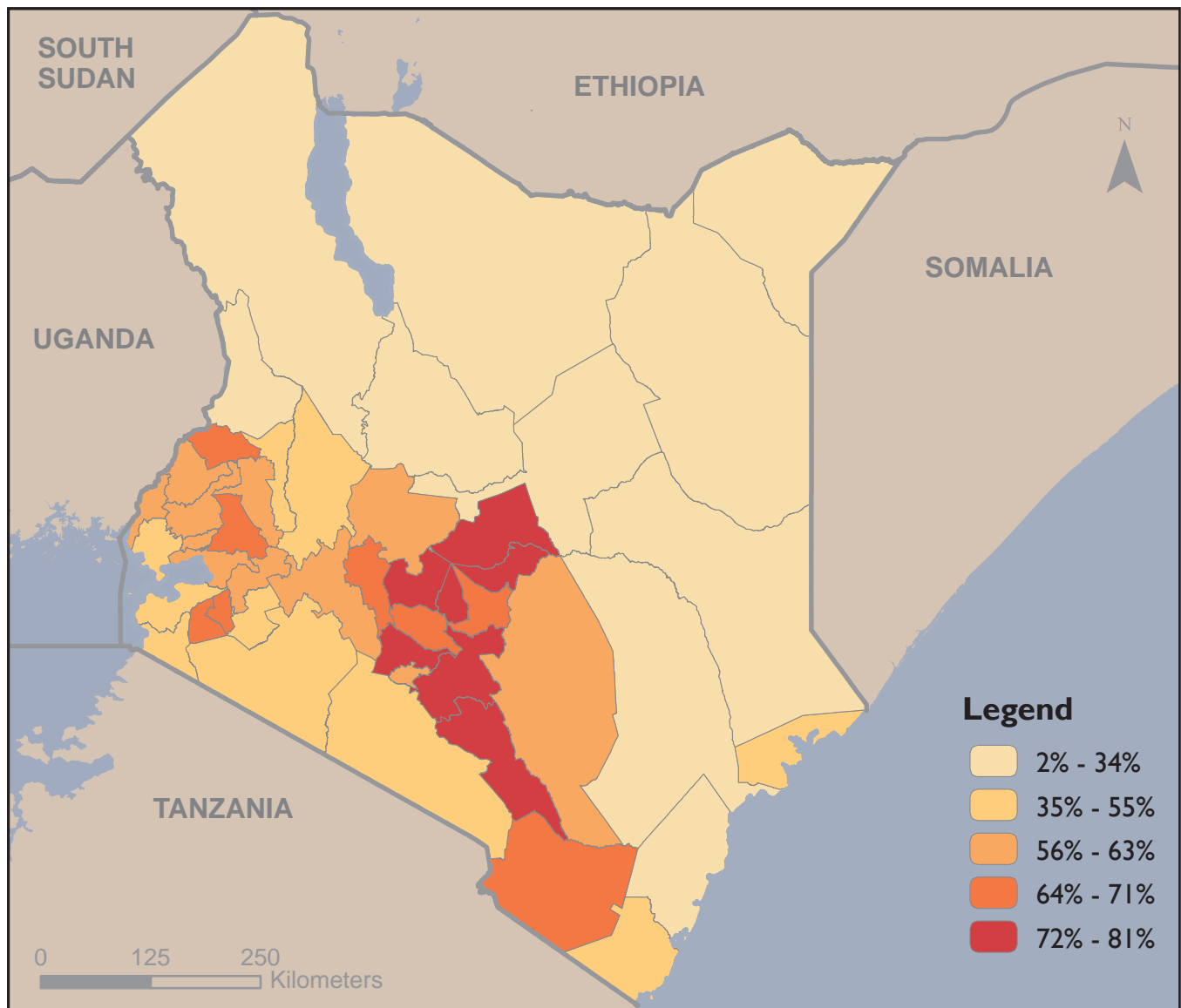


Adolescent childbearing has many negative health, social, and demographic consequences. Children born to women age 15-19 are more likely to die in infancy and early childhood than children born to older mothers. Women who start having children young often do not complete secondary school, limiting their future employment possibilities and other life choices.

Nationwide, 18% of young women age 15-19 have begun childbearing: 15% have already had a live birth and an additional 3% are pregnant with their first child. Teenage childbearing varies widely by county, from a low of 6% in Murang'a to a high of 40% in Narok. Teenage childbearing is 11% and below in 10 counties: Kirinyaga (11%), Makueni (11%), Garissa (10%), Mandera (10%), Lau (10%), Nyandarua (10%), Elgeyo Marakwet (9%), Embu (8%), Nyeri (7%), and Murang'a (6%). Teenage pregnancy and motherhood is greater than 25% in five counties: Samburu (26%), Tana River (28%), West Pokot (29%), Homa Bay (33%), and Narok (40%).

# CURRENT USE OF FAMILY PLANNING

Percent of married women currently using any method of family planning

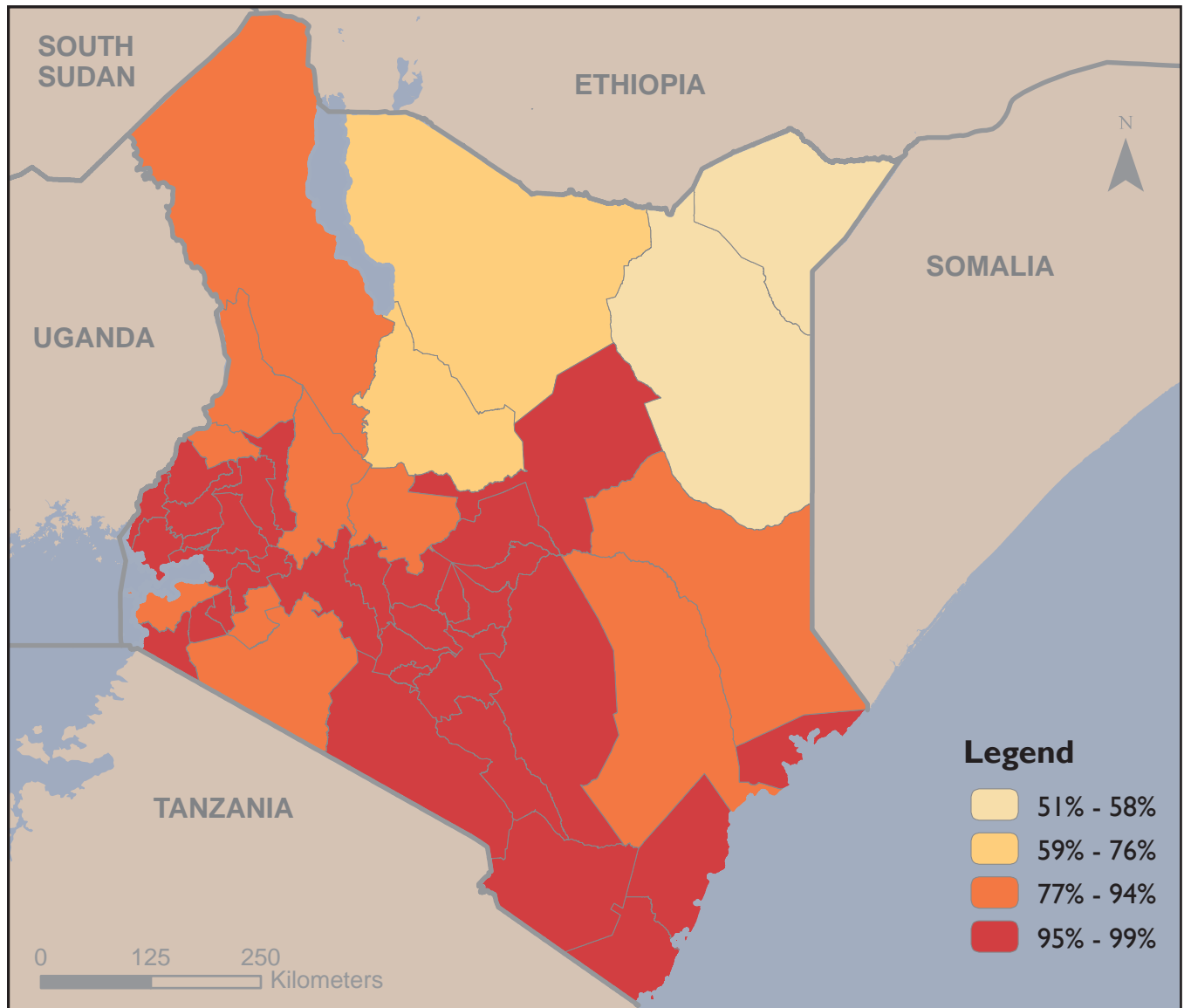


More than half (58%) of married women age 15-49 are currently using any method of family planning in Kenya. Injectables are the most common method, used by 26% of married women, followed by implants (10%) and the pill (8%). Method use also varies by county. Twenty-two counties have a contraceptive prevalence rate (CPR) above the national average. The seven counties with the highest CPR include Kirinyaga (81%), Makeni (80%), Meru (78%), Machakos (76%), Tharaka-Nithi and Kiambu (74% each), and Nyeri (73%). The ten counties with the lowest CPR include Mandera and Wajir (2% each), Garissa (6%), Turkana (10%), Marsabit (12%), West Pokot (14%), Samburu (23%), Isiolo (27%), Tana River (29%), and Kilifi (34%).



# ANTENATAL CARE FROM A SKILLED PROVIDER

Percent of women age 15-49 with a live birth in the five years before the survey who received antenatal care from a skilled provider for the most recent birth

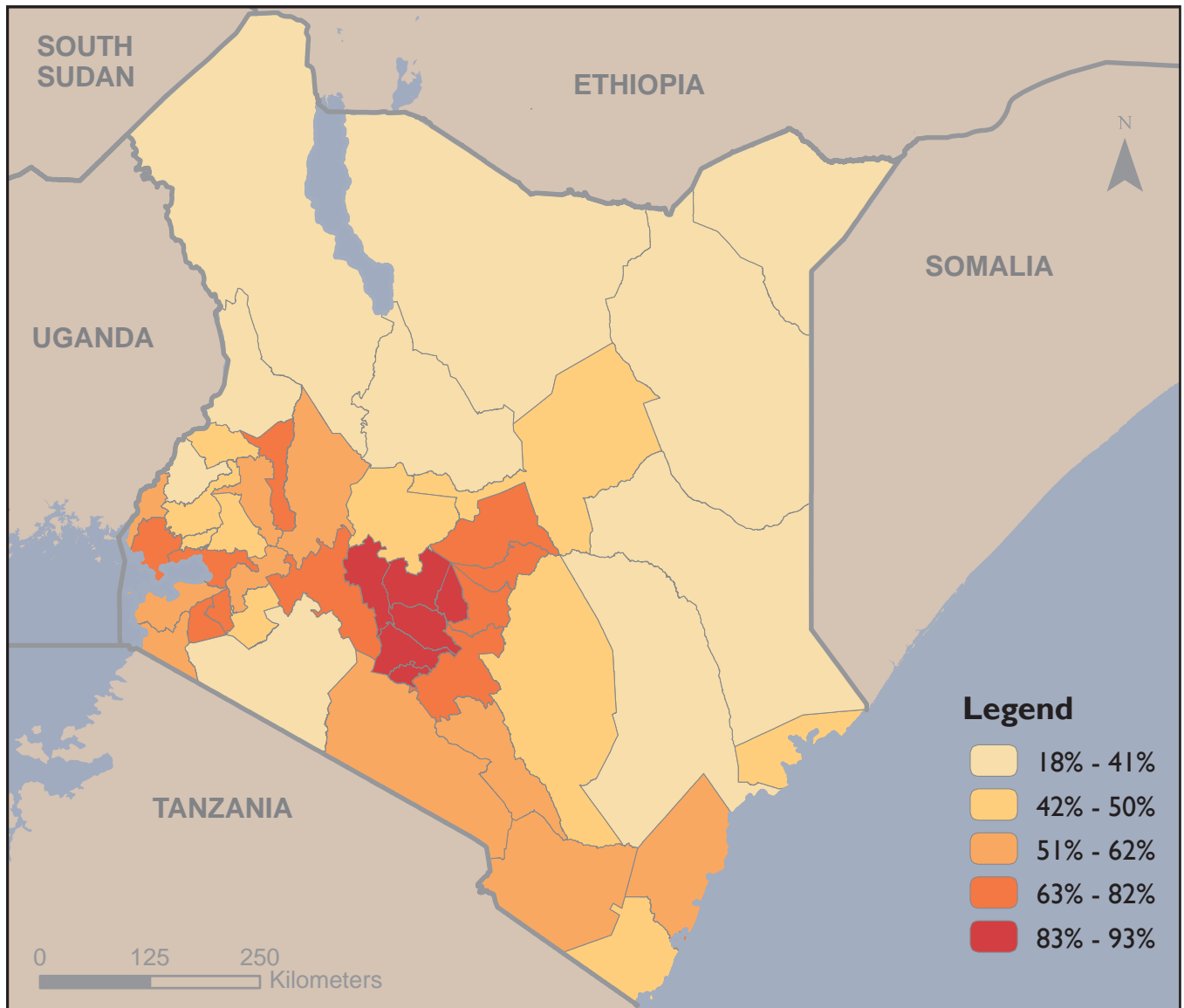


Antenatal care (ANC) from a skilled provider (doctor, nurse, or midwife) is important to monitor pregnancy and reduce the risk of morbidity for mother and baby during pregnancy and delivery. Almost all women (96%) age 15-49 who had a live birth in the five years before the survey received any ANC from a skilled provider. Only 4% of Kenyan women received no antenatal care.

ANC from a skilled provider is nearly universal in Mombasa, Embu, Machakos, and Nandi (99%). Less than 90% of women in Garissa, Marsabit, West Pokot, and Samburu and less than 60% in Mandera and Wajir received ANC from a skilled provider. Nearly half of women in Mandera received no ANC at all.

# DELIVERY IN A HEALTH FACILITY

Percent of live births in the five years before the survey delivered in a health facility

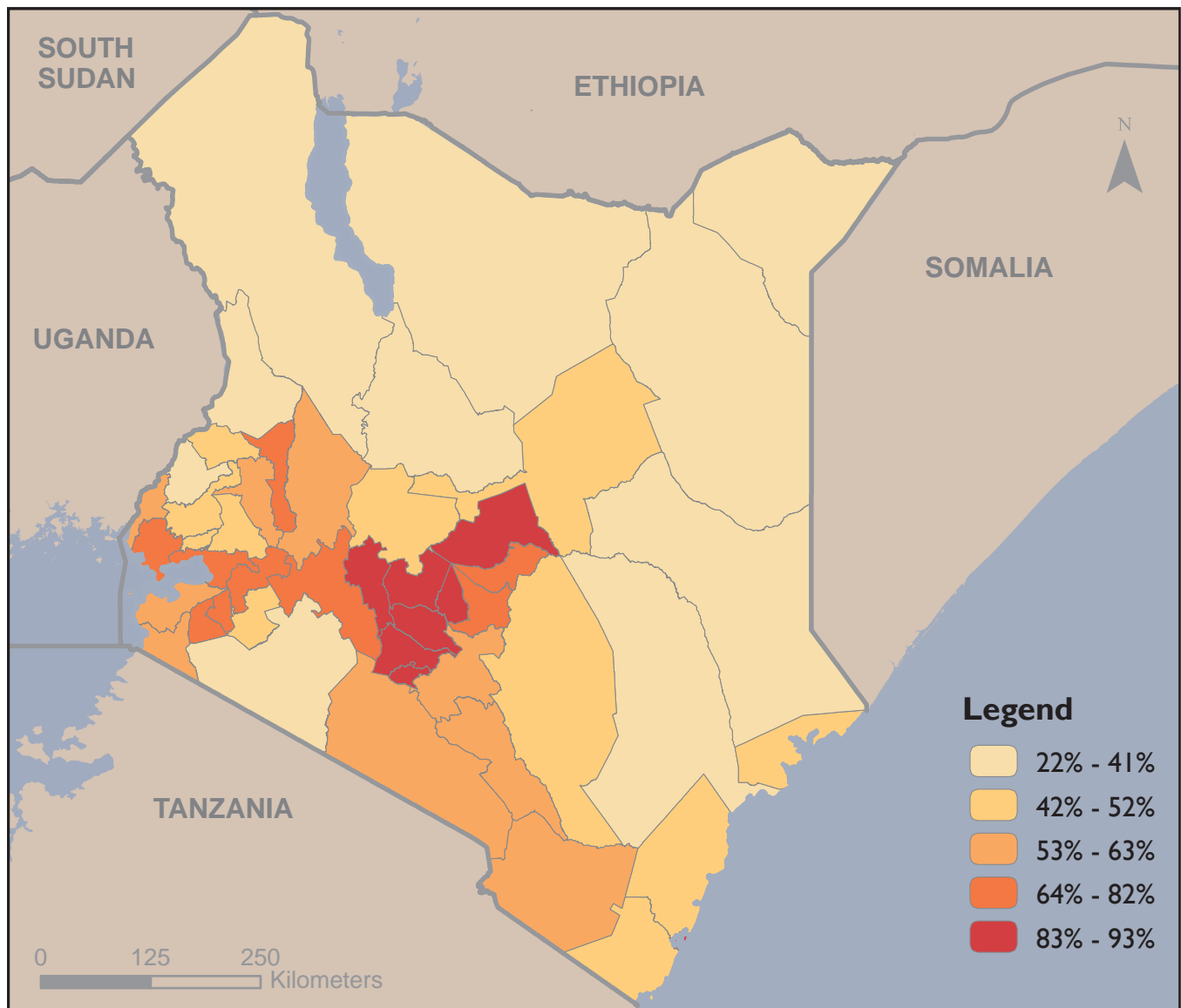


Six in ten live births were delivered in a health facility, 46% in the public sector and 15% in the private sector. Still, more than one-third of births (37%) were delivered at home. Health facility births are most common in urban areas (82%).

More than 90% of births in Kirinyaga and Kiambu counties are delivered in a health facility, while facility births are also high in Nyeri (89%), Nairobi (89%), Nyandarua (86%), and Murang'a (85%) counties. Wajir has the lowest rate of facility deliveries at 18%.

# ASSISTANCE DURING DELIVERY

Percent of live births in the five years before the survey delivered by a skilled provider

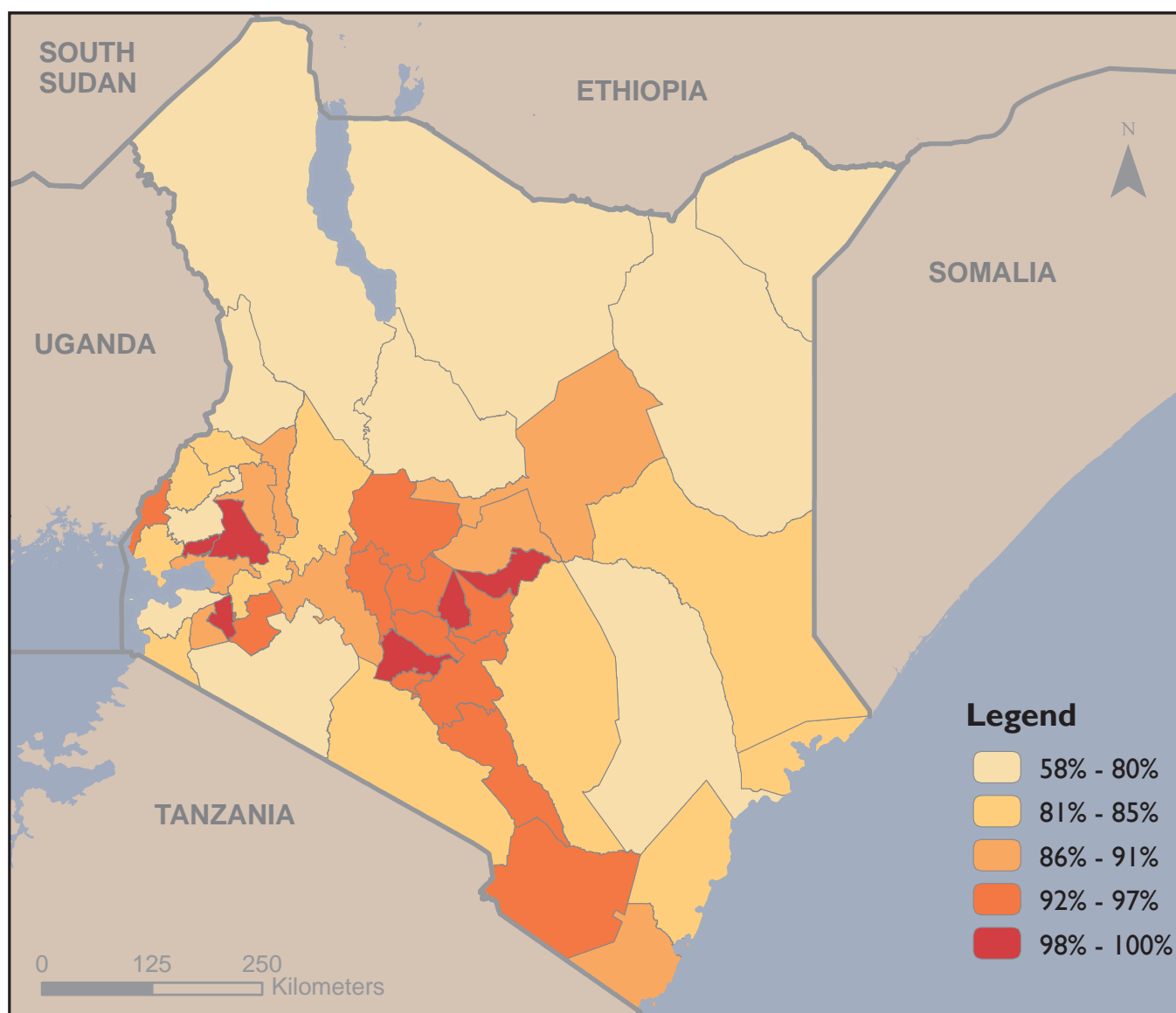


Obstetric care from a health professional during delivery is recognised as critical in reducing maternal and neonatal mortality. Just over 60% of births in Kenya are delivered with the assistance of a skilled provider (doctor, nurse, or midwife) – 36% by midwives and 26% by doctors. Five percent of live births were delivered alone.

The proportion of births assisted by a skilled provider ranges from 22% in Wajir to 93% in Kiambu. Skilled assistance during delivery is 83% and greater in eight counties: Mombasa (83%), Meru (83%), Nyandarua (85%), Murang’a (86%), Nyeri (88%), Nairobi (89%), Kirinyaga (92%), and Kiambu (93%). Eleven counties have the lowest proportion of delivery assistance between 22% and 41%. Assistance during delivery estimates are similar to county level estimates for deliveries in a health facility.

# MEASLES VACCINATION

Percent of children age 12-23 months who received the measles vaccination

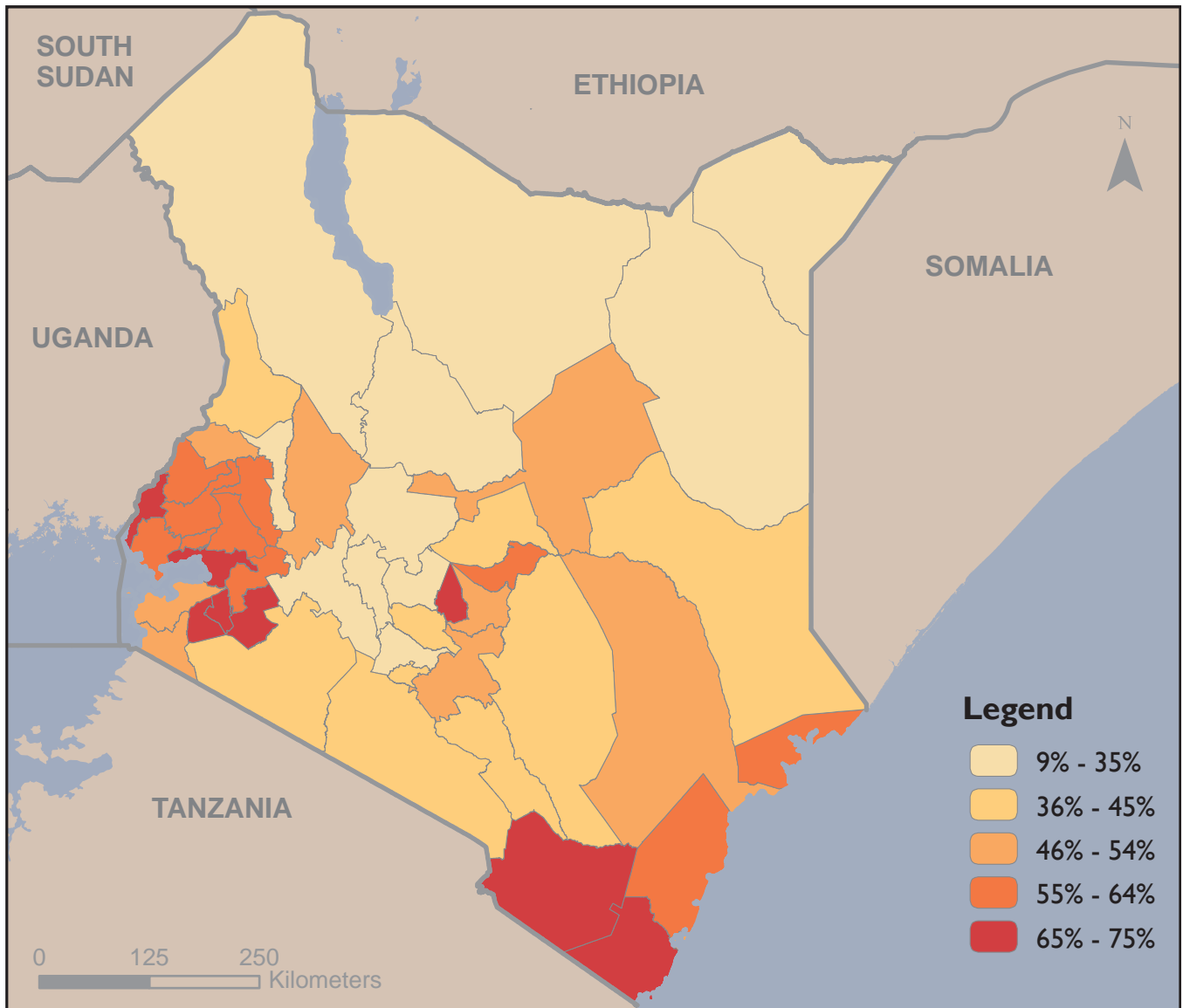


Almost 8 in 10 children (79%) age 12-23 months have received all basic vaccinations (BCG, measles, and three doses each of DPT and polio vaccine, excluding polio vaccine given at birth). Two percent of children have received no vaccines. Overall, 87% of children have received the measles vaccination.

Twenty-one counties have a measles vaccination rate of 90% or greater. Nearly all children are vaccinated against measles in six counties – Kirinyaga (>99%), Tharaka-Nithi (99%), Kiambu (99%), Nandi (98%), Vihiga (98%), and Nyamira (98%). However, the Kirinyaga estimate is based on 25-49 unweighted cases, so use caution when interpreting this value. Measles vaccination rates are lowest in West Pokot (58%), Mandera (62%), and Wajir (65%).

# ACCESS TO INSECTICIDE-TREATED NETS

Percent of household population with access to an ITN within their household

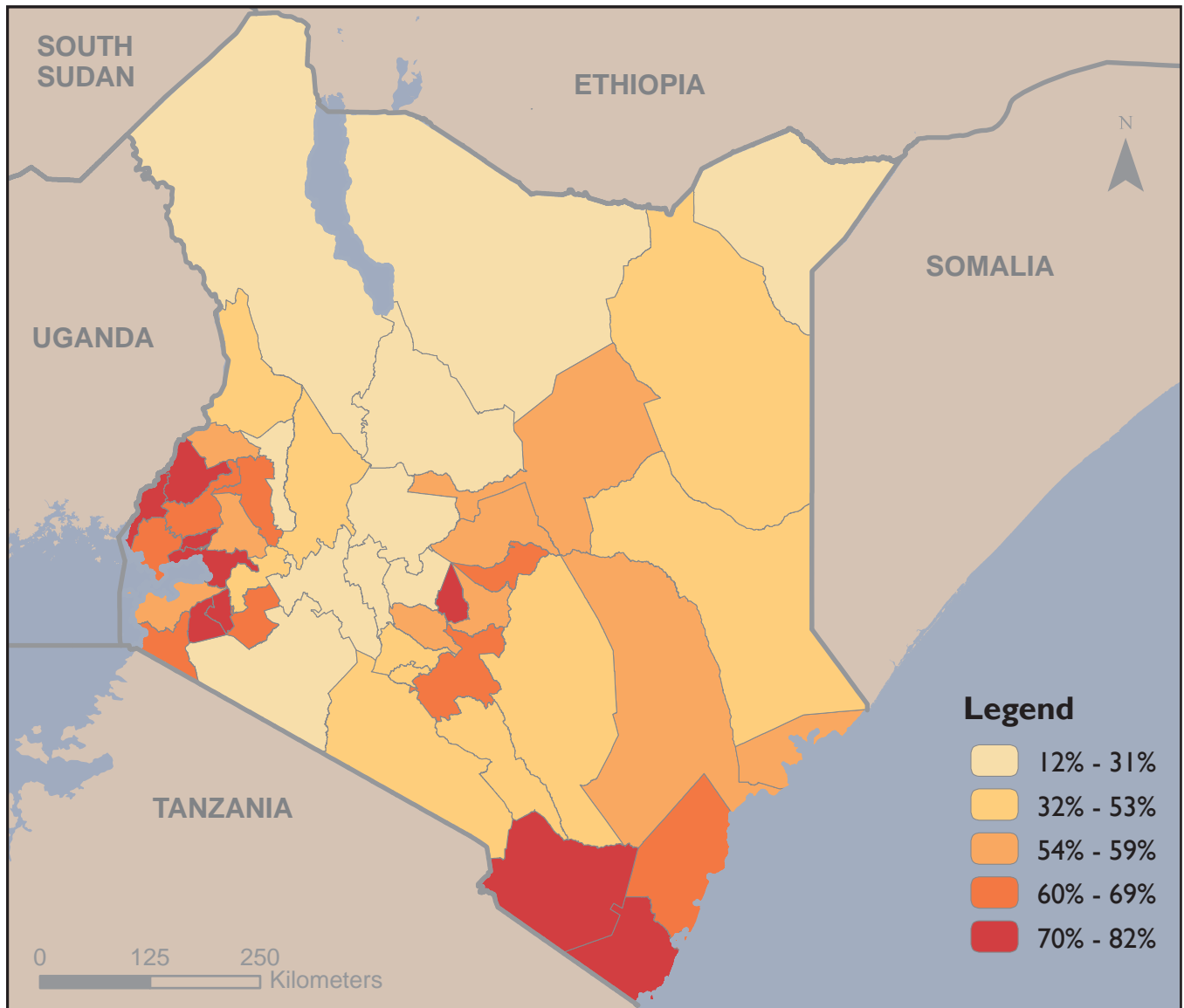


In Kenya, 59% of households own at least one insecticide-treated net (ITN); almost all of these (57%) are long-lasting insecticidal nets (LLINs). Almost half of the household population in Kenya has access to an ITN, assuming that each ITN in the household was used by up to two people.

Access to an ITN varies by county, ranging from 9% of household population in Nyandarua to 75% in Taita Taveta. ITN access is less than 35% in 11 counties, of which seven are less than 20% including Mandera (17%), Nyeri (17%), Elgeyo Marakwet (15%), Marsabit (14%), Laikipia (12%), Samburu (12%), and Nyandarua (9%). ITN access is greater than 65% in eight counties including Bomet (66%), Kirinyaga (66%), Kwale (66%), Busia (67%), Kisumu (69%), Nyamira (69%), Kisii (73%), and Taita Taveta (75%).

# INSECTICIDE-TREATED NET USE AMONG CHILDREN

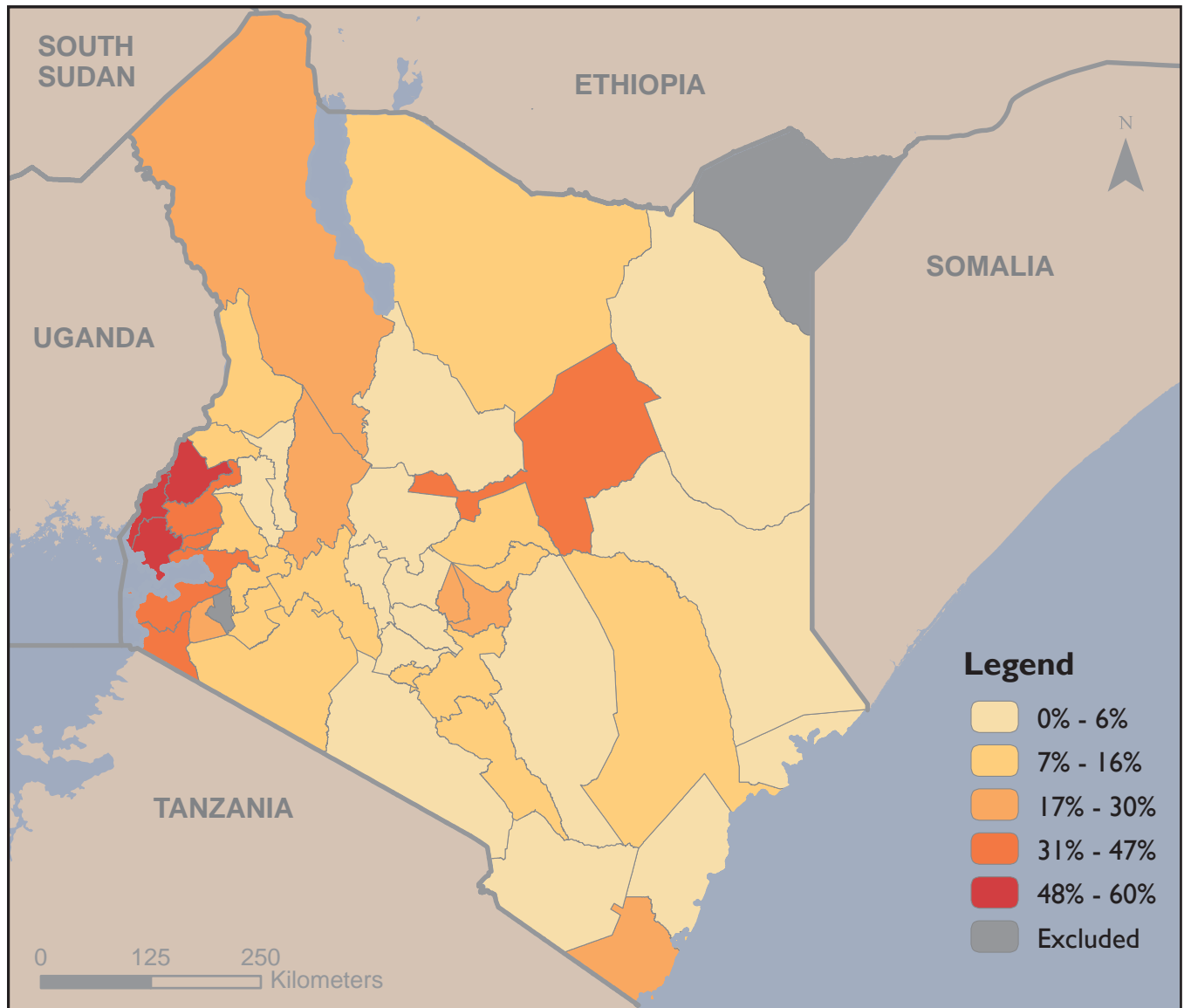
Percent of children under five who slept under an ITN the night before the survey



Young children are at particular risk of malaria infection. Use of mosquito nets by vulnerable groups such as children under five in highly endemic communities is one of the major malaria control and prevention strategies adopted under the National Malaria Strategy. Just over half of children under five (54%) slept under an ITN the night before the survey. As expected, more children slept under an ITN in counties in the lakeside and coastal endemic zones. Use of ITNs by children under five ranges from 12% in Marsabit and Nyandarau to 82% in Taita Taveta and Kisumu. ITN use by children is 70% and above in nine counties, and 31% and below in ten counties.

# TREATMENT OF FEVER AMONG CHILDREN

Among children under five with fever in the two weeks before the survey who took any antimalarial medication, percent who took any ACT

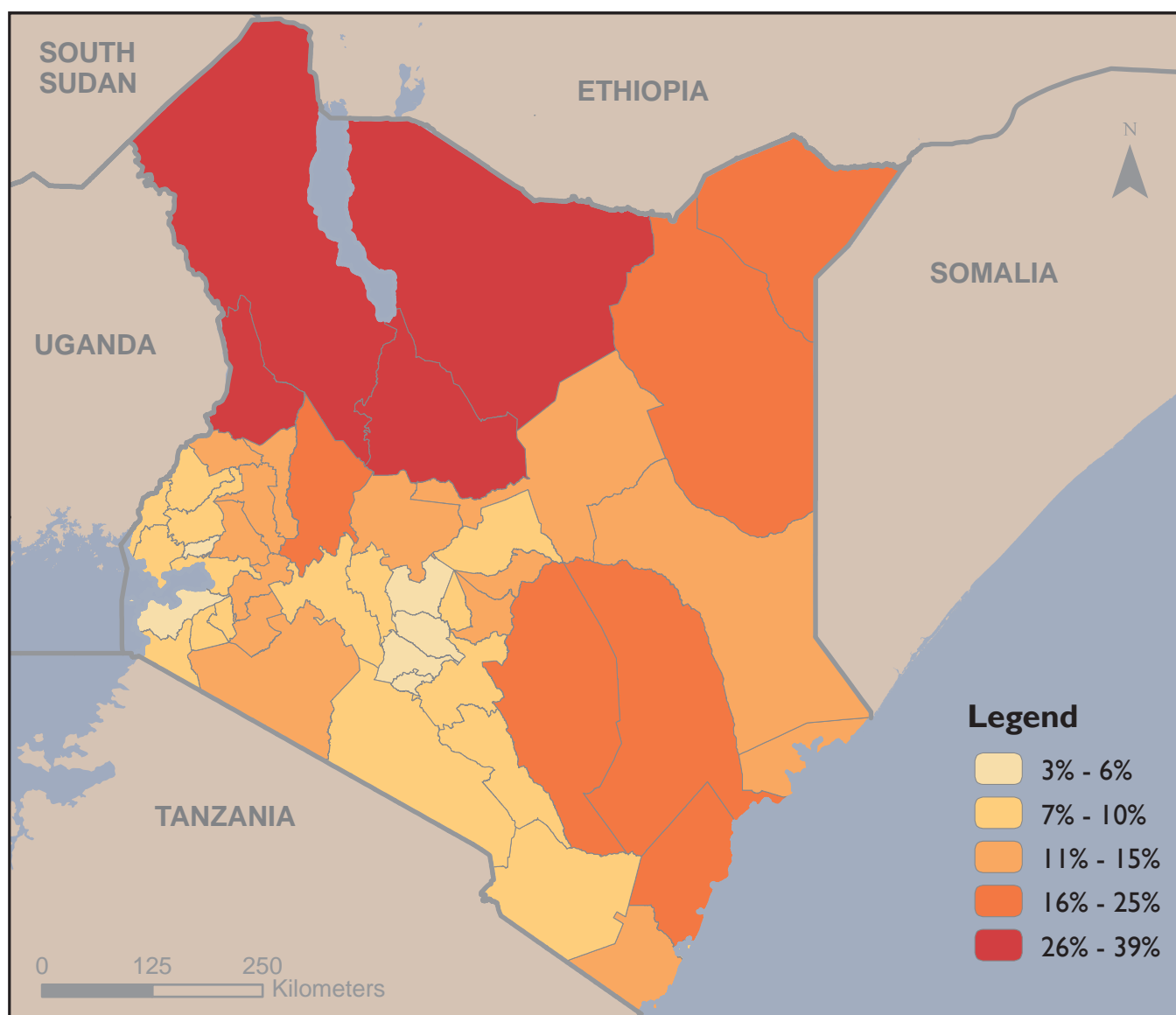


One-quarter (24%) of children under five had a fever in the two weeks before the survey. Among these children 72% sought advice or treatment. Just 35% had blood taken from a finger or heel for malaria testing. Just under one-quarter of children with fever took any Artemisinin combination therapy (ACT), the recommended drug for treating malaria in children.

More than half of children under five with fever in the past two weeks were treated with ACT in Bungoma (55%), Siaya (59%), and Busia (60%). Estimates for Mandera and Nyamira counties are excluded because they are based on less than 25 unweighted cases. Estimates for Embu, Garissa, Kirinyaga, Machakos, Murang'a, and Nyeria are based on 25-49 unweighted cases and should be used with caution.

# UNDERWEIGHT CHILDREN

Percent of children under five who are underweight or too thin for their age



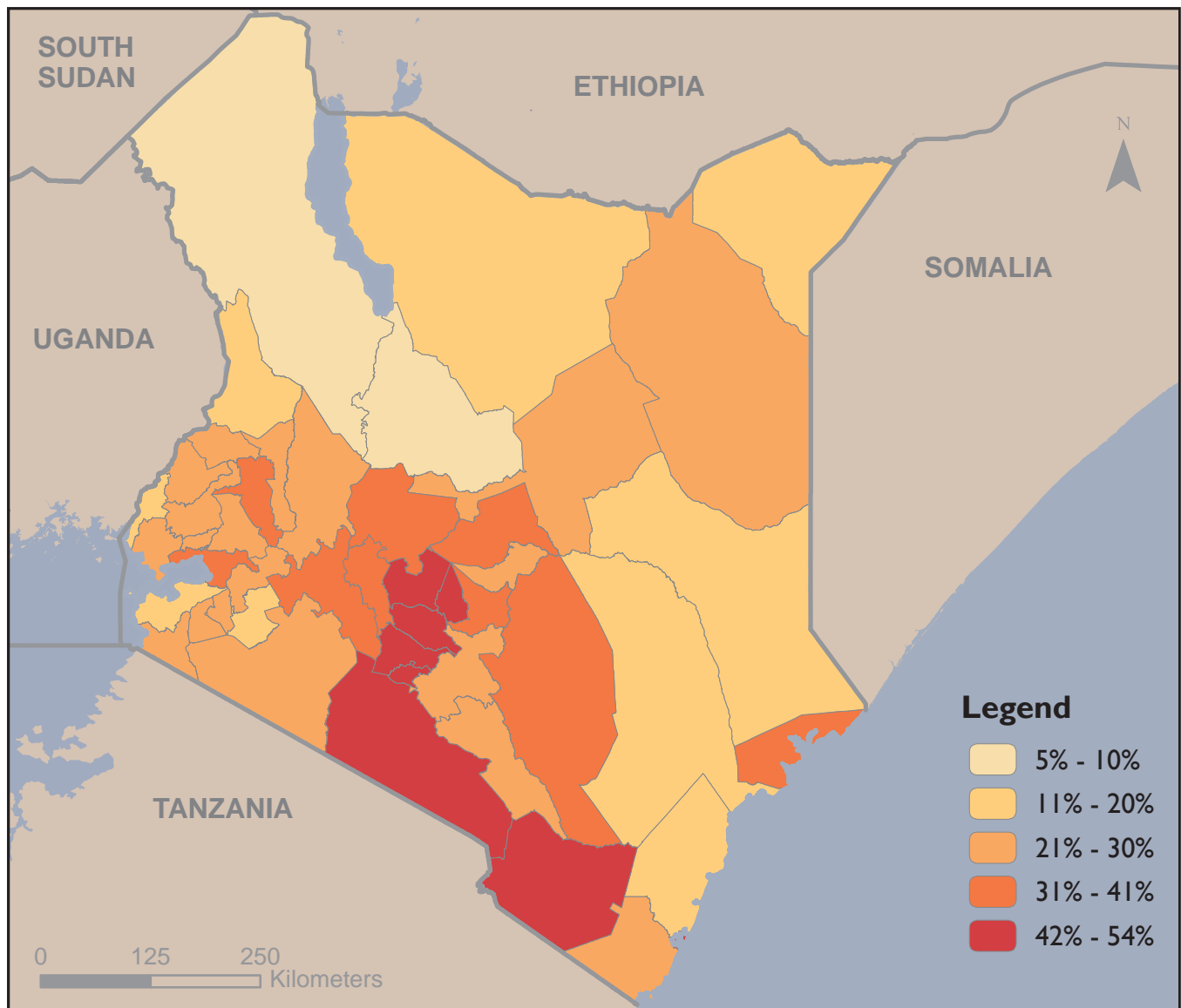
The 2014 KDHS measures children's nutritional status by comparing height and weight measurements against an international reference standard. Underweight or too thin for age is a composite indicator of nutritional status that takes into account both acute and chronic malnutrition. Overall, 11% of Kenyan children are underweight.

One-quarter or more of children are underweight in five counties: Mandera (25%), Samburu (29%), Marsabit (30%), Turkana (34%), and West Pokot (39%). Only 6% or less of children in Murang'a (6%), Kiambu (5%), Nairobi (4%), and Nyeri (3%) are underweight.



# WOMEN OVERWEIGHT OR OBESE

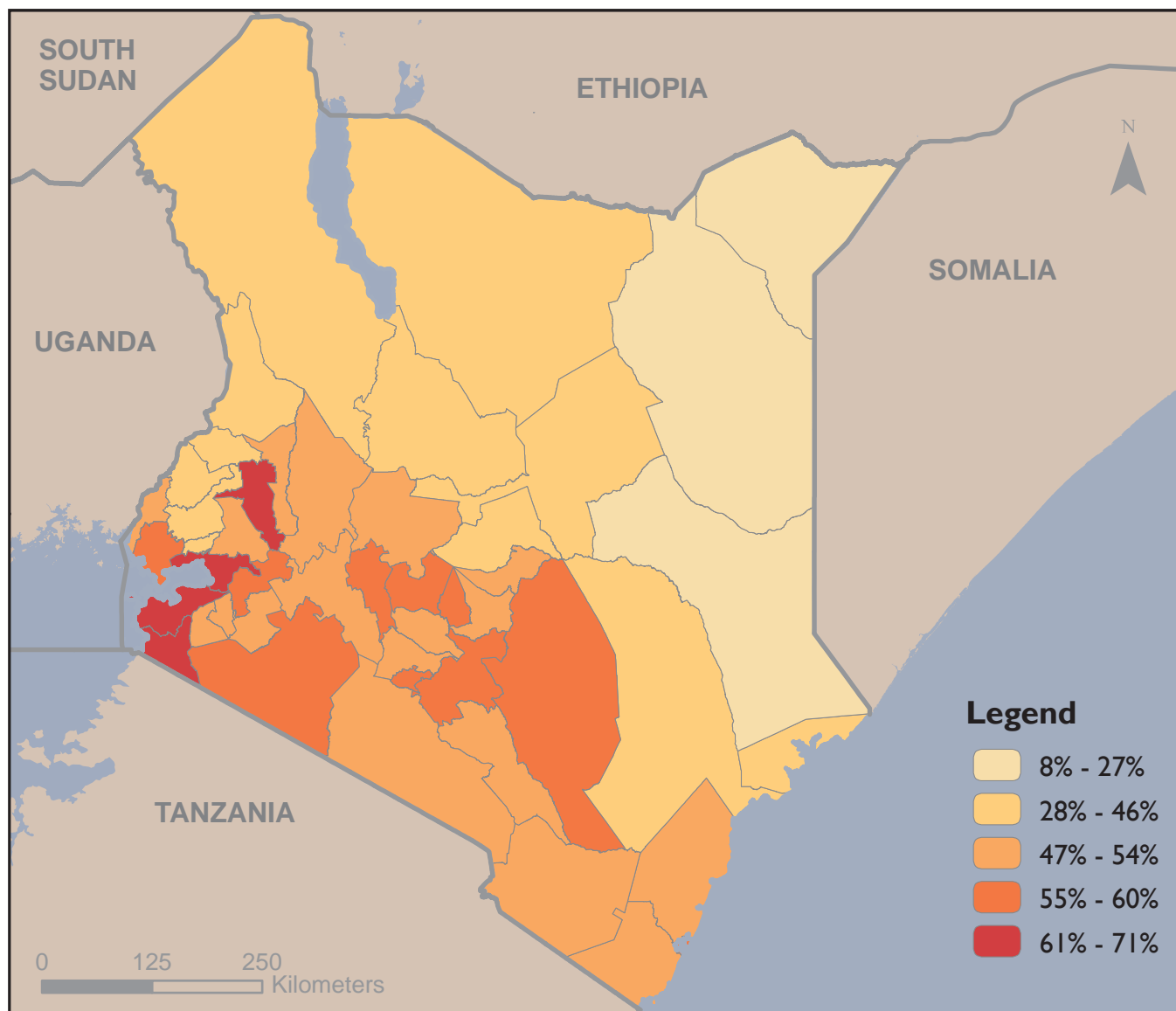
Percent of women age 15-49 who are overweight or obese



The 2014 KDHS also took weight and height measurements of women age 15–49. The survey results indicate that one-third of Kenyan women (33%) are overweight or obese. More than 42% of women are overweight or obese in eight counties. Almost half of women living in Nairobi (48%), Mombasa (48%), Nyeri (49%), and Kirinyaga (55%) are overweight or obese. Less than 1 in 10 of women in Samburu and Turkana are overweight or obese.

# RECENT HIV TESTING AMONG WOMEN

Percent of women age 15-49 who were tested for HIV and received results in the last year

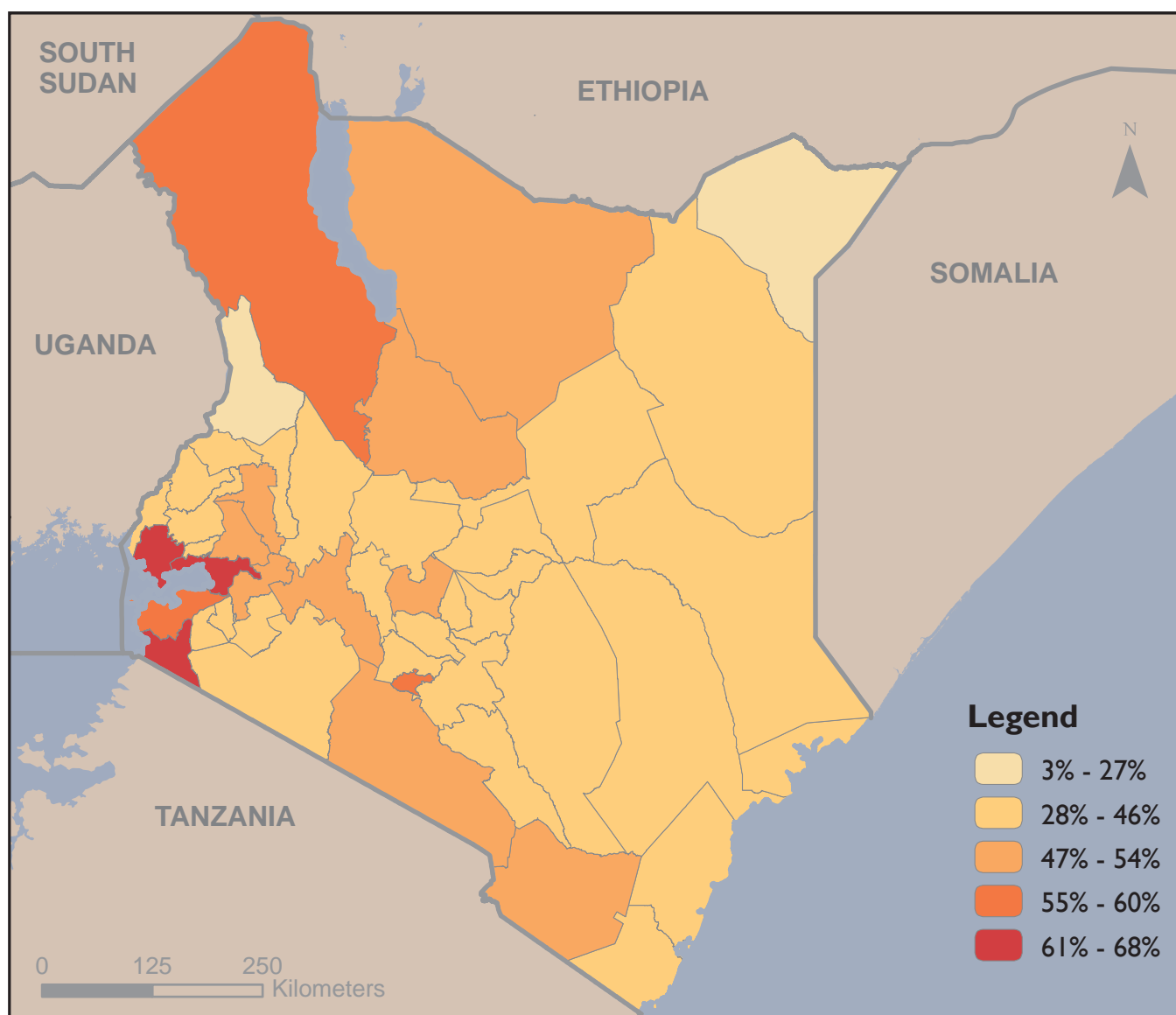


HIV counselling and testing is the entry point to HIV prevention, care, and support and treatment services. Knowledge of HIV status helps HIV-negative individuals make decisions that can reduce their risk. For those who are HIV-positive, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future. More than 8 in 10 Kenyan women age 15-49 have ever been tested for HIV and received the results, and 53% were tested in the year before the survey.

Recent testing among women ranges from 8% in Mandera to 65% in Migori. Women in Garissa (27%), Wajir (21%) and Mandera (8%) are least likely to have been tested in the past 12 months and received their results. Women are more likely to have recent HIV testing in Homa Bay (71%), Uasin Gishu (64%), Migori (65%), and Kisumu (62%).

# RECENT HIV TESTING AMONG MEN

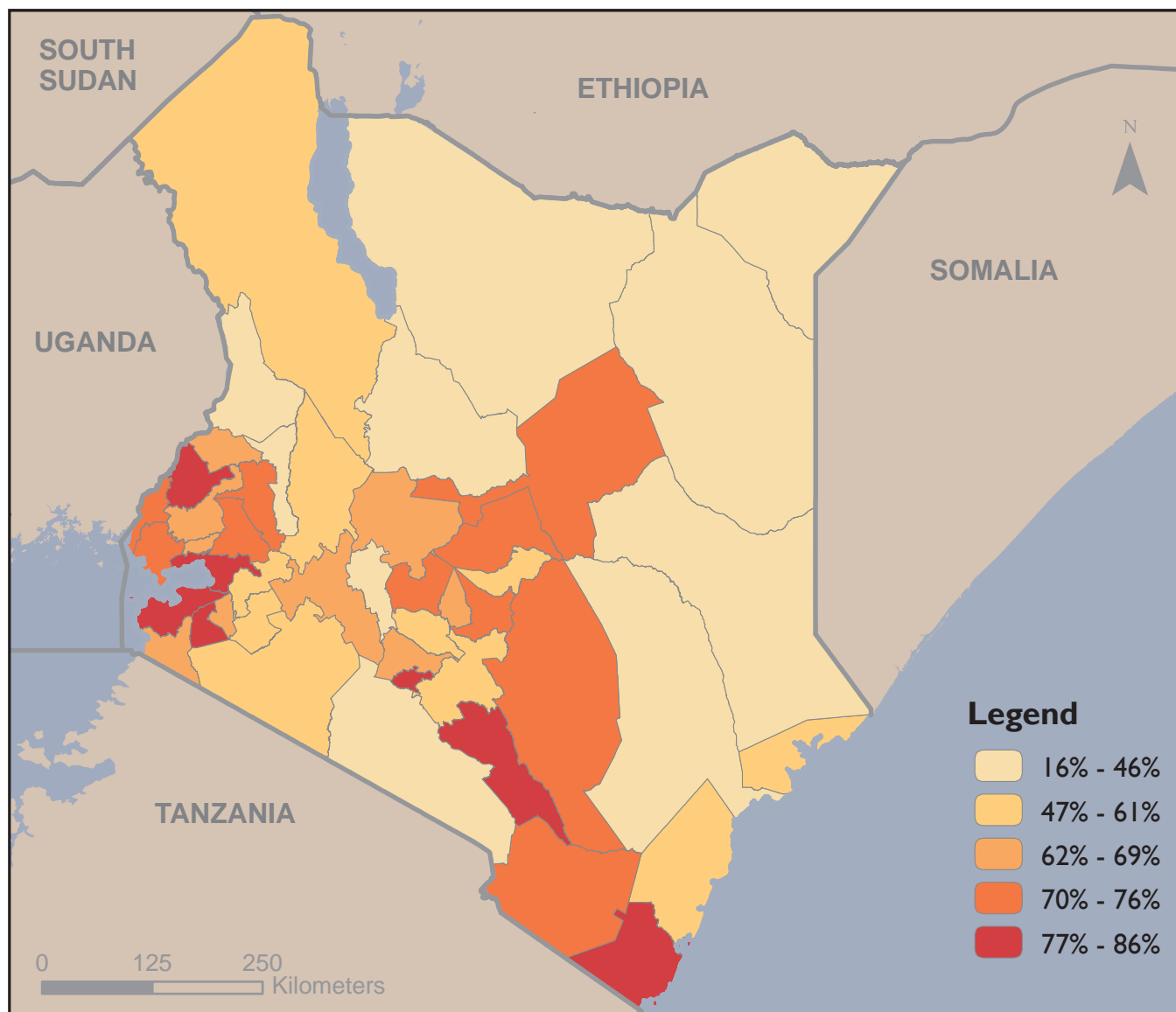
Percent of men age 15-49 who were tested for HIV and received results in the last year



HIV testing is also common among men: 71% have ever been tested and received results, and 46% were tested in the year before the survey and received the results. Men in West Pokot (20%) and Mandera (2%) are least likely to have been tested and received the results in the past 12 months. The counties with the highest levels of recent HIV testing among men include Migori (62%), Kisumu (65%), and Siaya (68%).

# PREGNANT WOMEN COUNSELLED AND TESTED FOR HIV

Among women age 15-49 with a live birth in the two years before the survey, percent who received counselling on HIV, had an HIV test during ANC, and received the results

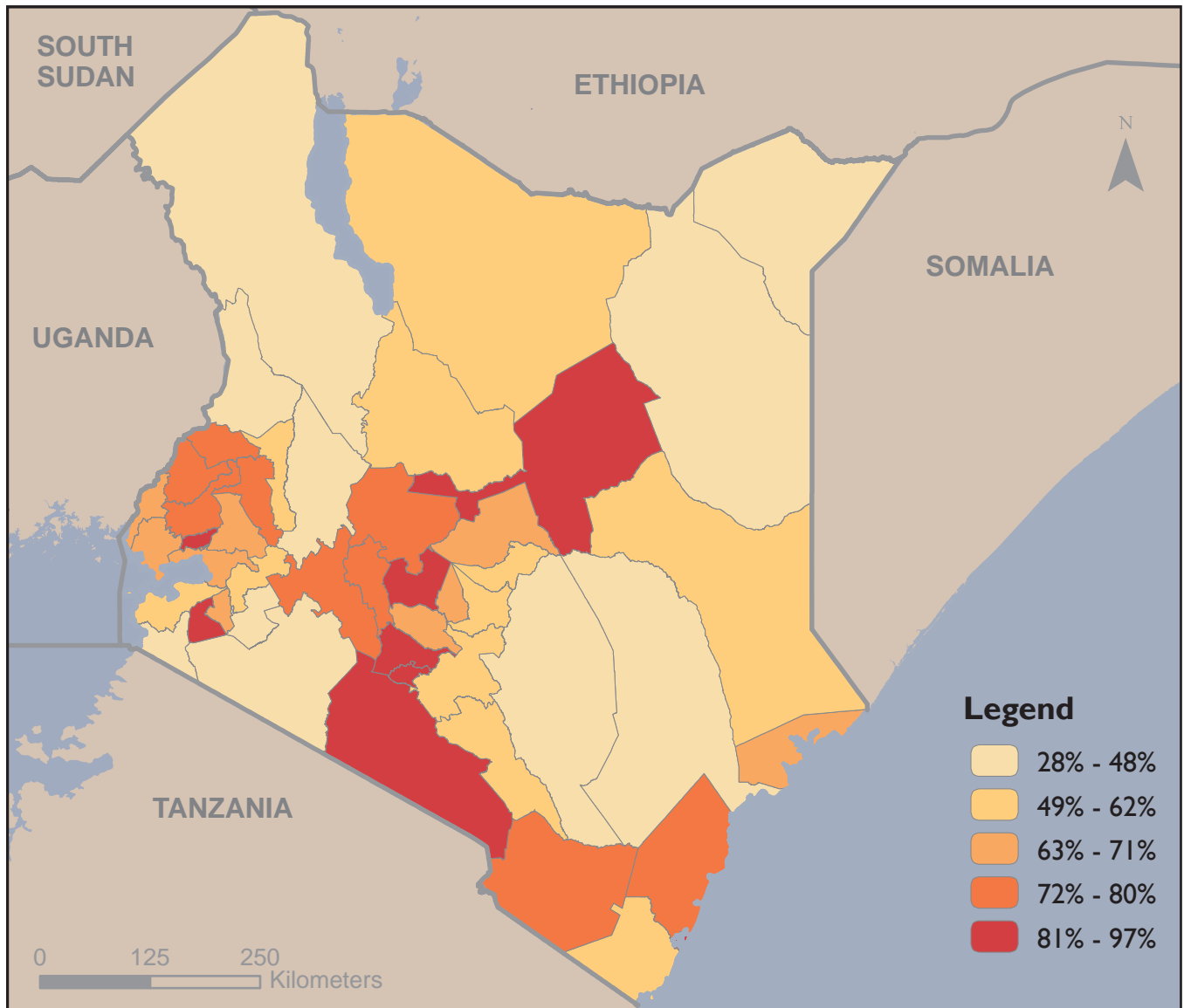


Screening pregnant women for HIV is an important step in preventing mother-to-child transmission of HIV. Two-thirds of Kenyan women age 15-49 who gave birth in the two years before the survey received counselling on HIV, an HIV test during antenatal care, and the results of the test.

By county, 77% or more of women in Kwale (77%), Kisumu (77%), Makueni (82%), Bungoma (82%), Nairobi (85%), Mombasa (85%), Kisii (86%), and Homa Bay (86%) were counselled about HIV during ANC, tested, and received the results. Comparatively, less than 46% of women in Marsabit (16%), Wajir (18%), Mandera (18%), Samburu (35%), West Pokot (36%), Kajiado (41%), Garissa (43%), Tana River (45%), Elgeyo Marakwet (45%), and Nyandarau (46%) were counselled about HIV during ANC, tested, and received the results.

# IMPROVED DRINKING WATER

Percent of households with an improved source of drinking water

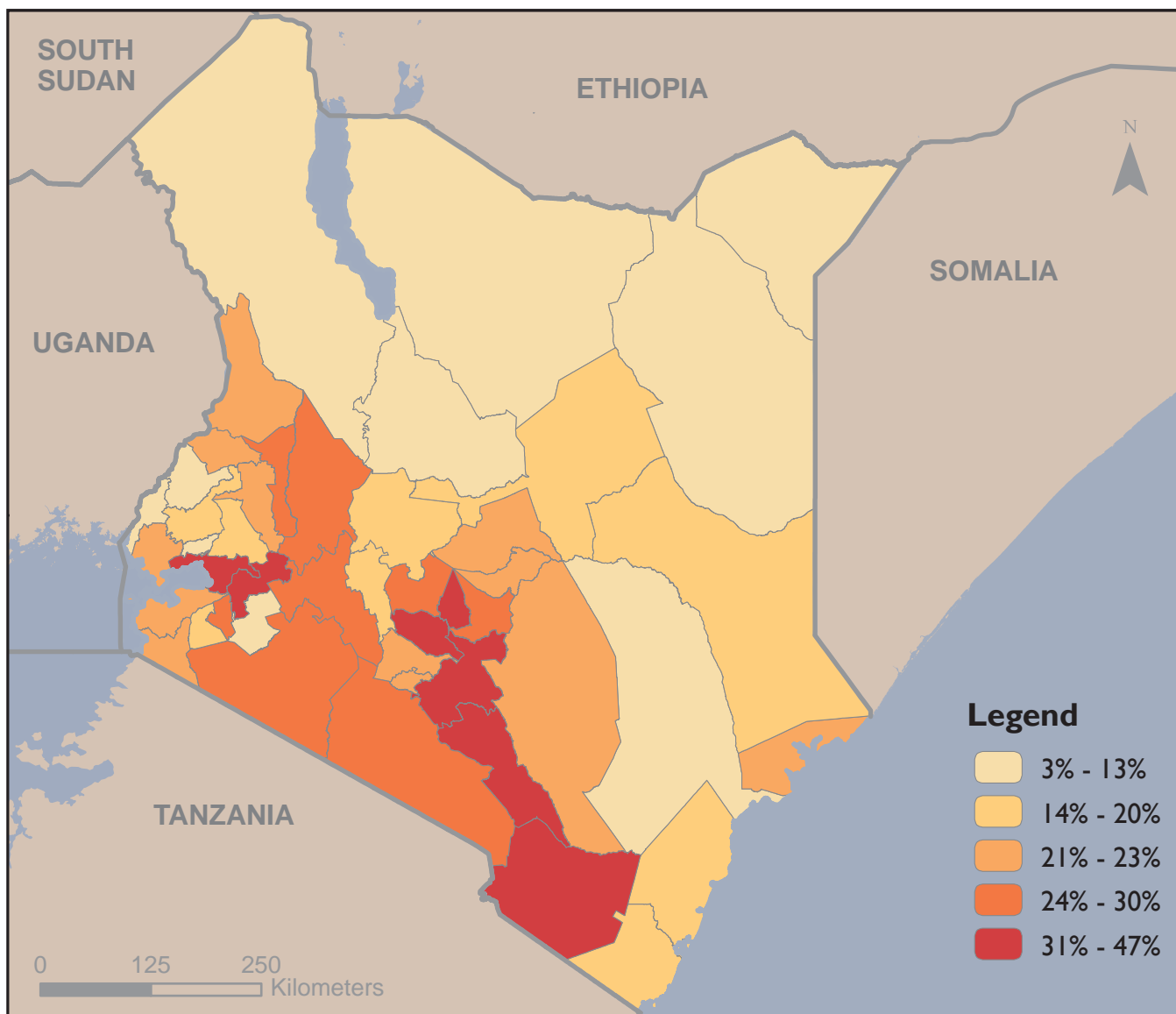


Improved water sources include piped water into the dwelling, yard, or plot; a public tap/standpipe or borehole; a protected well or protected spring water; rainwater; and bottled water. Lack of easy access to an improved water source may limit the quantity of suitable drinking water that is available to a household as well as increase the risk of illness. Seven in ten households have an improved source of drinking water. Almost 9 in 10 households in urban areas have improved drinking water compared to 59% of households in rural areas.

More than 8 in 10 households in eight counties have access to an improved water source. These counties include Isiolo (82%), Nyeri (82%), Mombasa (83%), Vihiga (85%), Kijiado (90%), Kisii (91%), Kiambu (93%), and Nairobi (97%). Less than half of households in eleven counties have access to an improved water source; Migori (28%), West Pokot (33%), Narok (36%), Turkana (37%), Baringo (39%), Kitui (41%), Tana River (43%), Bomet (45%), Mandera (47%), Wajir (48%), and Tharaka-Nithi (49%).

# IMPROVED SANITATION FACILITY

Percent of households with an improved, not shared sanitation facility



Less than one-quarter of Kenyan households have an improved, not shared toilet facility. An additional 30% have a shared toilet facility, while almost half (47%) have a non-improved facility or no facility at all. Households in urban areas are more likely to have shared facilities (50%), while households in rural areas are more likely to have an unimproved facility (64%). Sixteen percent of households in rural areas have no toilet at all.

Improved sanitation varies by county. Overall, 13% or less of households in ten counties have access to an improved, not shared sanitation facility. These counties include Samburu (3%), Turkana (4%), Tana River (5%), Bomet (9%), Bungoma (9%), Busia (10%), Wajir (10%), Marsabit (12%), Mandera (13%), and Vihiga (13%). Improved sanitation is highest and more than 30% in Kirinyaga (32%), Machakos (32%), Kisumu (33%), Makueni (34%), Murang'a (38%), Taita Taveta (45%) and Kericho (47%).



