



**The Republic of Uganda
Ministry of Health**

This atlas summarizes results from the 2018-19 Uganda Malaria Indicator Survey (2018-19 UMIS). The survey was implemented by the National Malaria Control Division (NMCD) and the Uganda Bureau of Statistics (UBOS). Financial support for the survey was provided by the United States Agency for International Development (USAID) through the President's Malaria Initiative (PMI), the United Kingdom Department for International Development (DFID), the Government of Uganda with Global Fund support, and the the World Health Organization (WHO). ICF provided technical assistance through The DHS Program, a USAID-funded project offering support and technical assistance in the implementation of population and health surveys in countries worldwide.

Additional information about the 2018-19 UMIS may be obtained from the National Malaria Control Division, Plot 6, Lourdes Rd., Wandegaya, P.O. Box 7272, Kampala, Uganda.

Information about The DHS Program may be obtained from ICF, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA; telephone: +1-301-407-6500; fax: +1-301-407-6501; email: info@DHSprogram.com; internet: www.DHSprogram.com.

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Cover map is an elevation map of Uganda.



ABOUT THE 2018-19 UMIS

The 2018-19 Uganda Malaria Indicator Survey (UMIS) is designed to provide up-to-date estimates of basic demographic and health indicators related to malaria. Specifically, the 2018-19 UMIS collected information on vector control interventions such as mosquito nets and indoor residual spraying of insecticides, on intermittent preventive treatment of malaria in pregnant women, on care seeking and treatment of fever in children, and malaria knowledge. Young children were tested for anaemia and for malaria infection.

The 2018-19 UMIS is the third Malaria Indicator Survey conducted in Uganda; the first was conducted in 2009 and the second in 2014-15. Malaria data have also been collected in the 2006, 2011, and 2016 Uganda Demographic and Health Surveys. Repeated surveys allow for an analysis of trends over time. The information collected through the 2018-19 UMIS is intended to assist policy makers and programme managers in evaluating and designing programmes and strategies for improving the health of the country's population.

Who participated in the survey?

The 2018-19 UMIS data collection was conducted between December 2018 and February 2019 at the peak of malaria season. A nationally representative sample of 8,231 women age 15–49 were interviewed in 8,351 households. This represents a response rate of 98% for women. More than 7,000 children under 5 were tested for malaria and anaemia as part of the 2018-19 UMIS. This sample provides indicators for the country as a whole, for urban and rural areas separately, for each of the country's 15 regions and for 14 current and 11 past indoor residual spraying (IRS) intervention districts. Refugee settlements in 9 northern and western districts were included as a separate sampling domain.

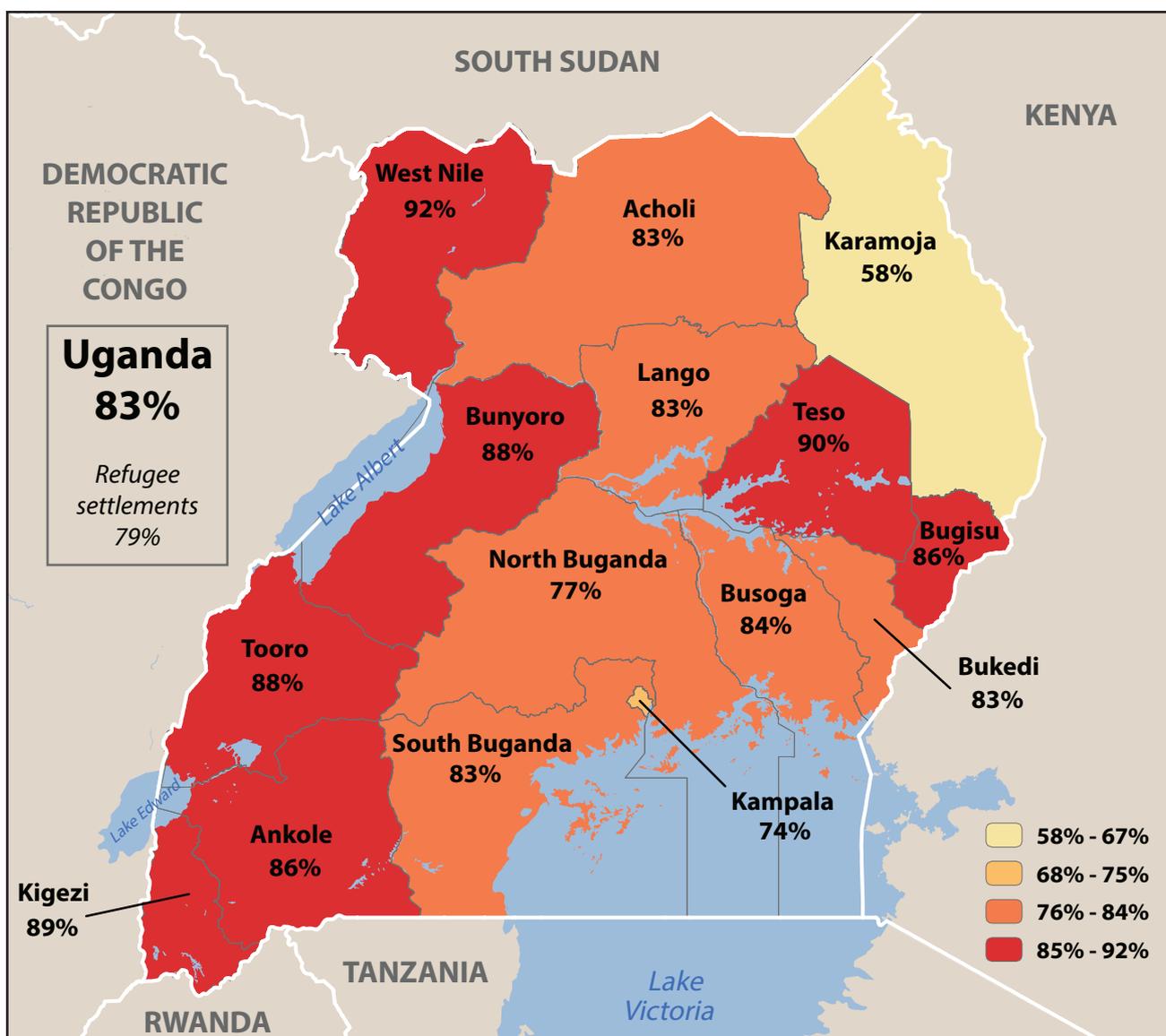
2018-19 UMIS Atlas

Maps allow for a visual interpretation of population and health indicators across regions. Malaria prevention, treatment, and prevalence are not consistent across all regions. Maps help to show where patterns exist, which regions are making good progress towards better health, and which regions require additional interventions.



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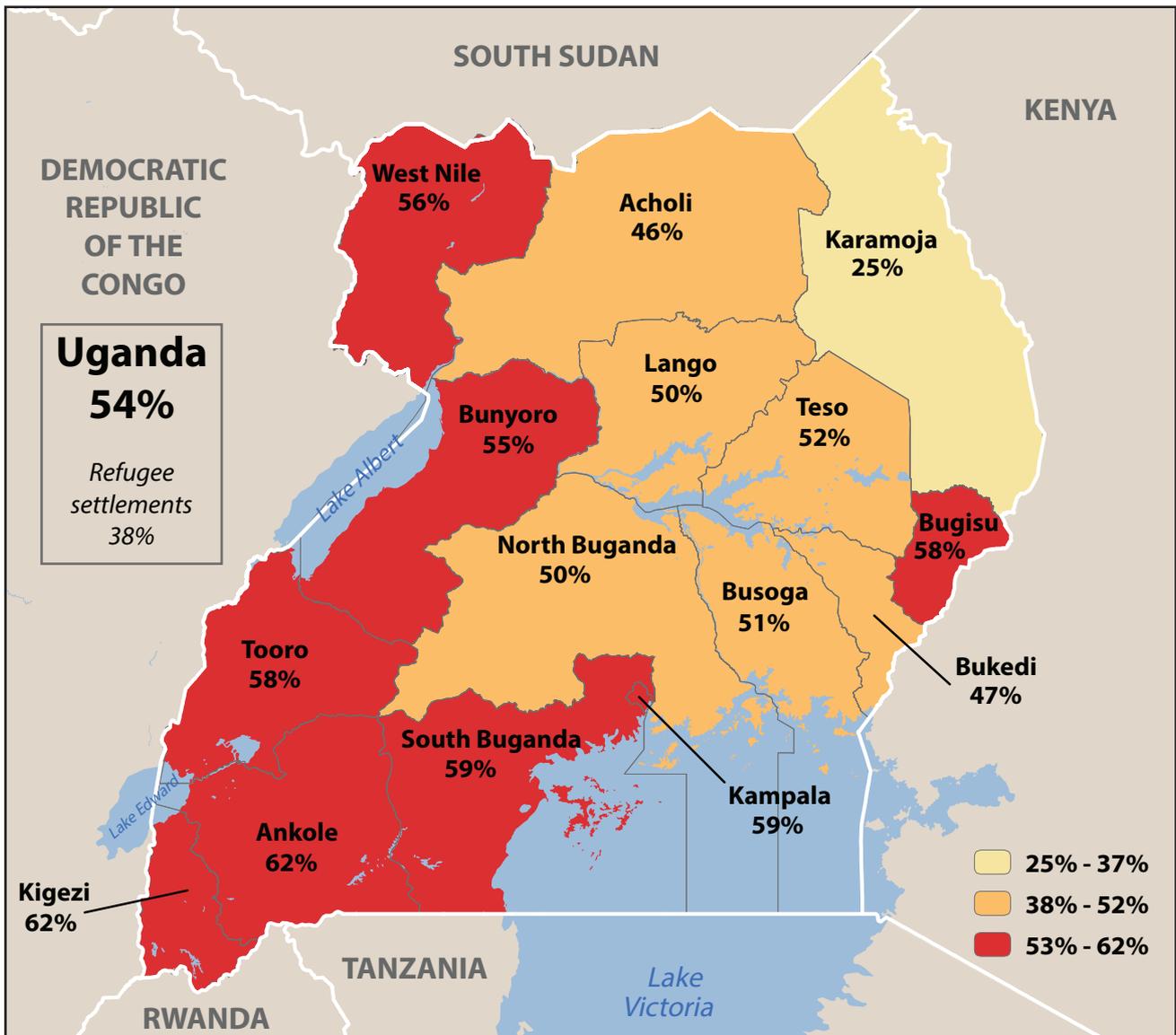
ITN OWNERSHIP



Household Ownership of Insecticide-treated Nets (ITNs)

More than 8 in 10 (83%) households in Uganda own at least one insecticide-treated net (ITN). ITN ownership is lowest in Karamoja, where 58% of households own at least one ITN and highest in West Nile, where 92% of households own at least one ITN. Among households in refugee settlements, 79% own at least one ITN.

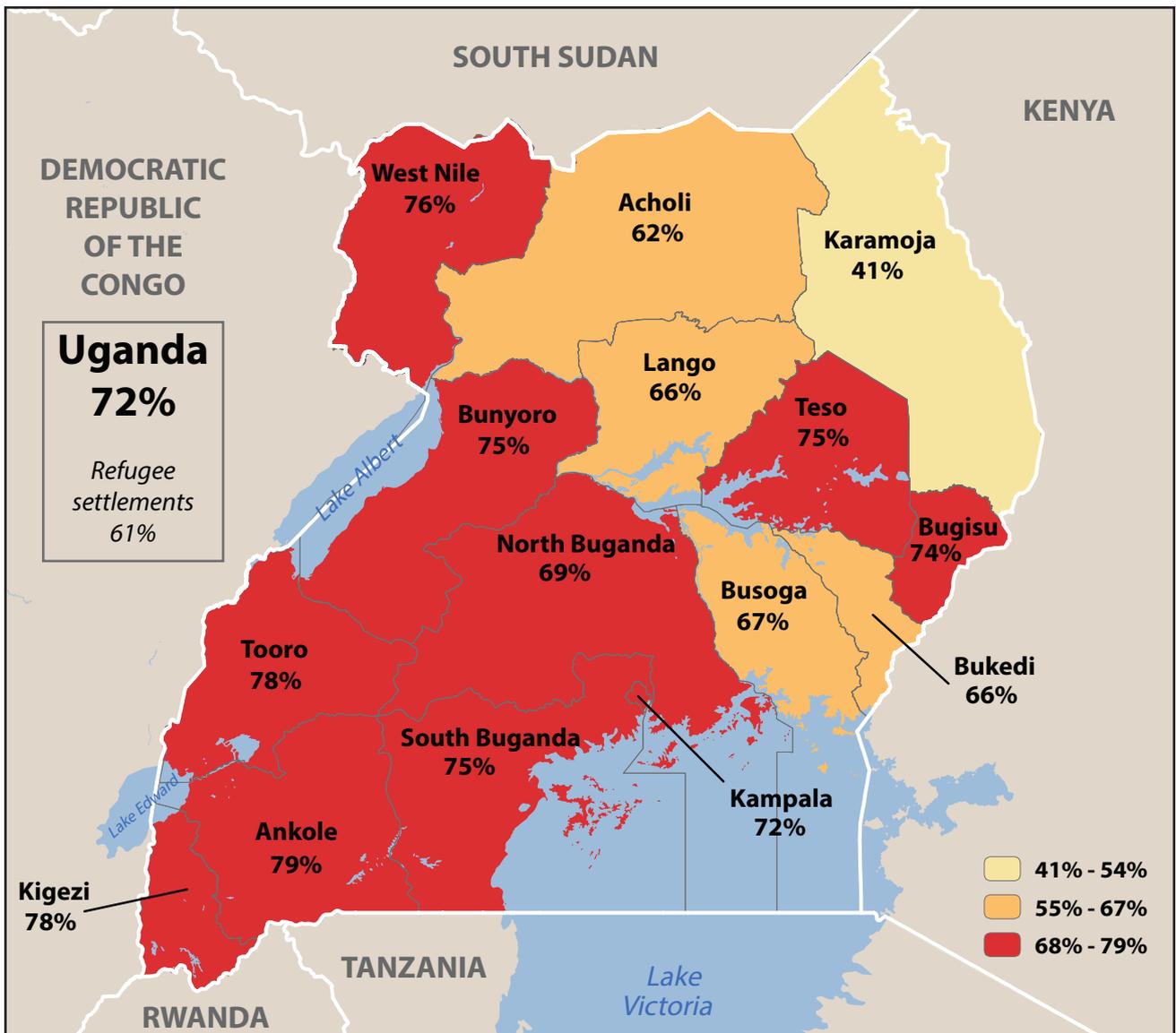
UNIVERSAL COVERAGE OF ITNs



Universal Coverage of Insecticide-treated Nets

Universal coverage is defined as the proportion of households with at least one ITN for every two people in the household. More than half (54%) of Ugandan households have at least one ITN for every two people in the household. Universal coverage of ITNs is lowest in Karamoja (25%) and highest in Ankole and Kigezi (62% each). Nearly 4 in 10 (38%) households in refugee settlements have at least one ITN for every two people in the household.

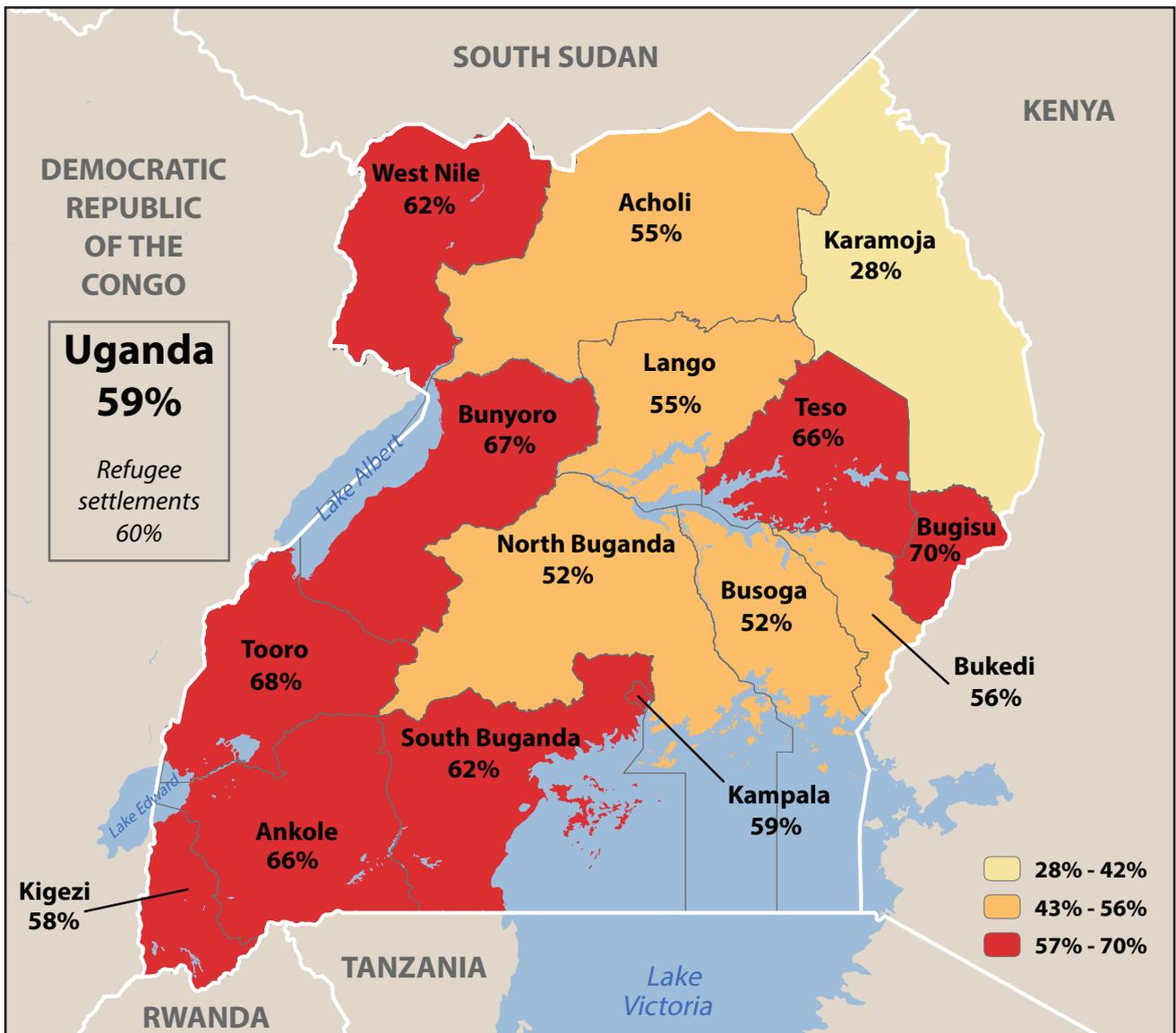
ITN ACCESS



Access to Insecticide-treated Nets by Household Members

Access to an ITN is measured by the proportion of the population that could sleep under an ITN if each ITN in the household were used by up to two people. Overall, nearly three-quarters (72%) of Ugandans have access to an ITN. Access to ITNs by household members is lowest in Karamoja (41%) and highest in three regions – Ankole (79%), Kigezi (78%), and Tooro (78%). Sixty-one percent of the refugee settlement household population has access to an ITN.

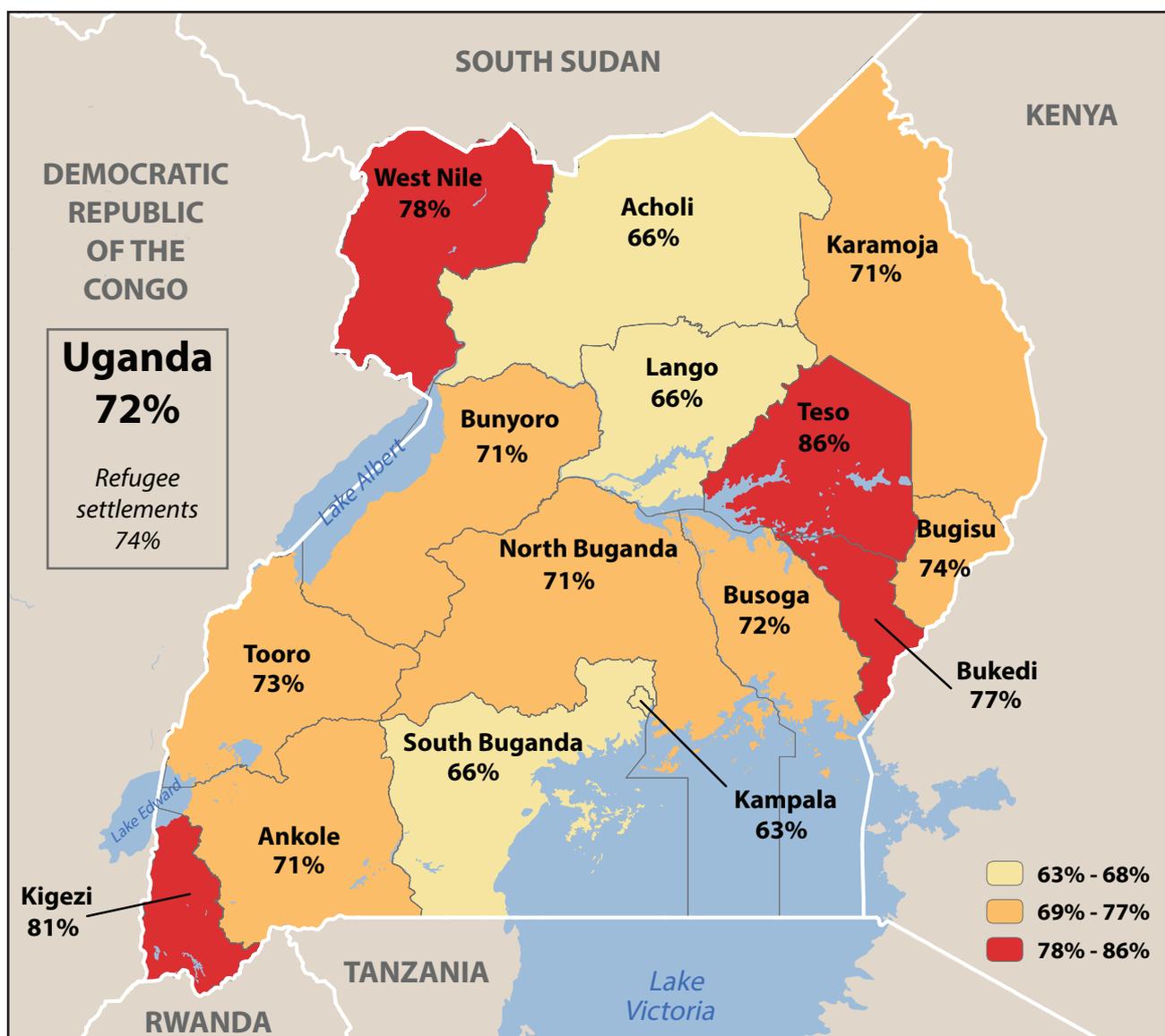
ITN Use by Household Members



Use of Insecticide-treated Nets by Household Members

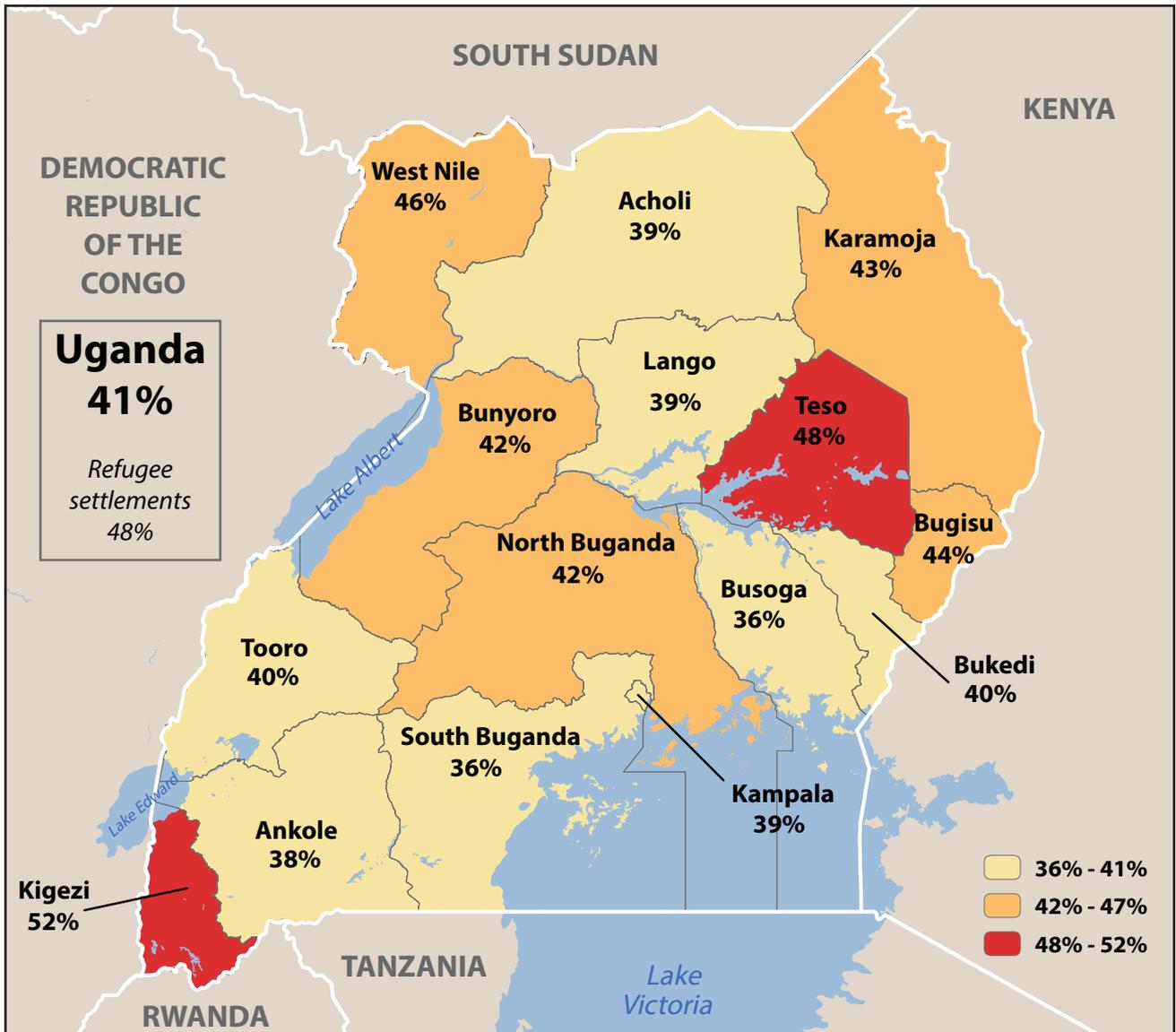
Overall, more than half (59%) of household members slept under an ITN the night before the survey. Use of ITNs by household members is lowest in Karamoja (28%) and highest in Bugisu (70%). Six in ten household members in refugee settlements slept under an ITN the night before the survey.

INTERMITTENT PREVENTIVE TREATMENT DURING PREGNANCY (IPTp)



IPTp2+

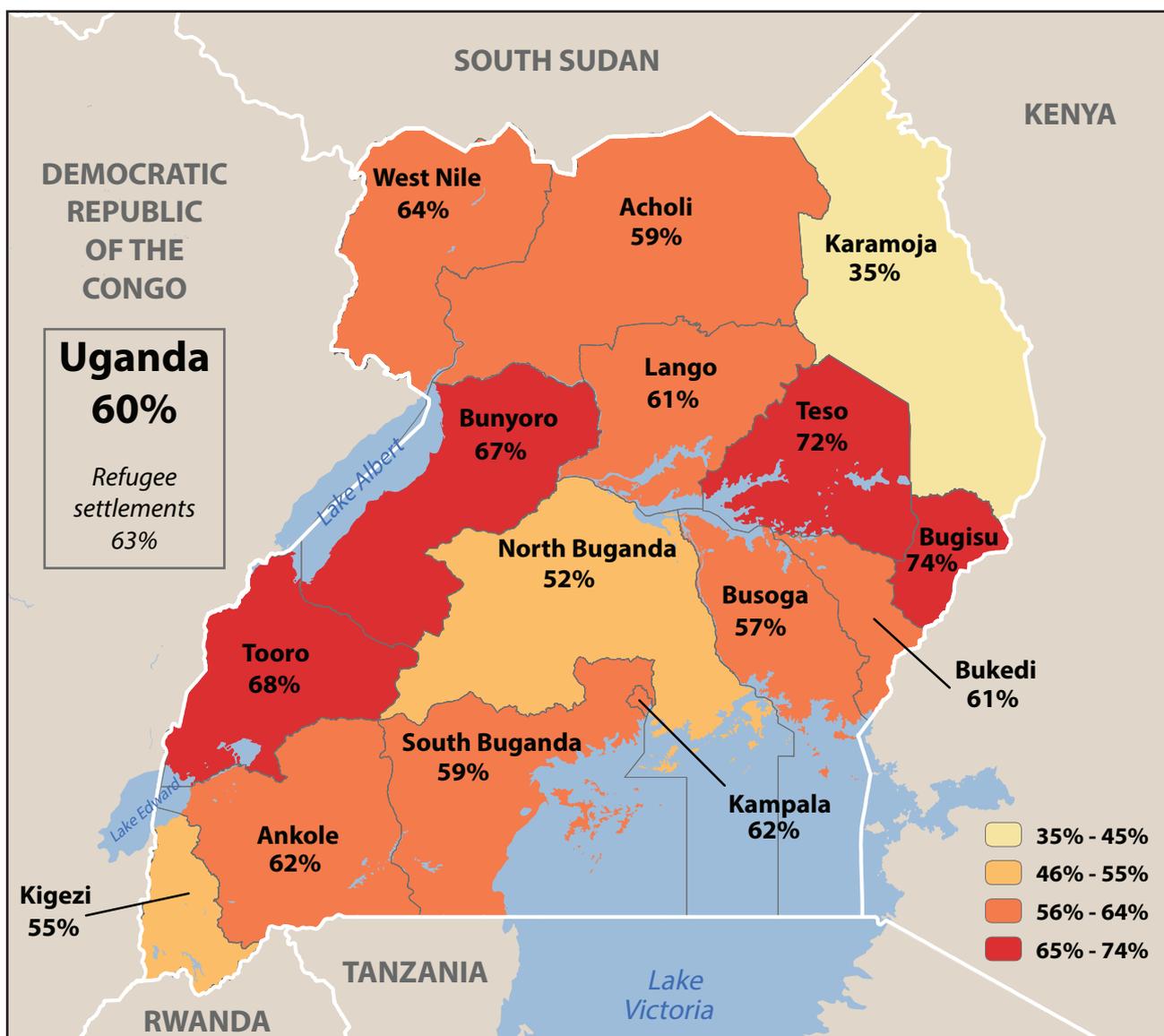
Pregnant women should receive two or more doses of SP/Fansidar to prevent malaria during pregnancy (IPTp2+). Nearly 3 in 4 (72%) Ugandan women age 15-49 with a birth in the two years before the survey received at least two doses of SP/Fansidar during their most recent pregnancy. Coverage of two or more doses of IPTp is lowest in Kampala (63%) and highest in Teso (86%). In refugee settlements, 74% of pregnant women received IPTp2+.



IPTp3+

Updated IPTp guidelines recommend that pregnant women receive at least three doses of SP/Fansidar during pregnancy (IPTp3+). Nationally, 2 in 5 (41%) women with a birth in the two years before the survey received three or more doses of SP/Fansidar during their most recent pregnancy. Coverage of three or more doses of IPTp is lowest in Busoga and South Buganda (both 36%) and highest in Teso (48%) and Kigezi (52%). Nearly half (48%) of women in refugee settlements received IPTp3+.

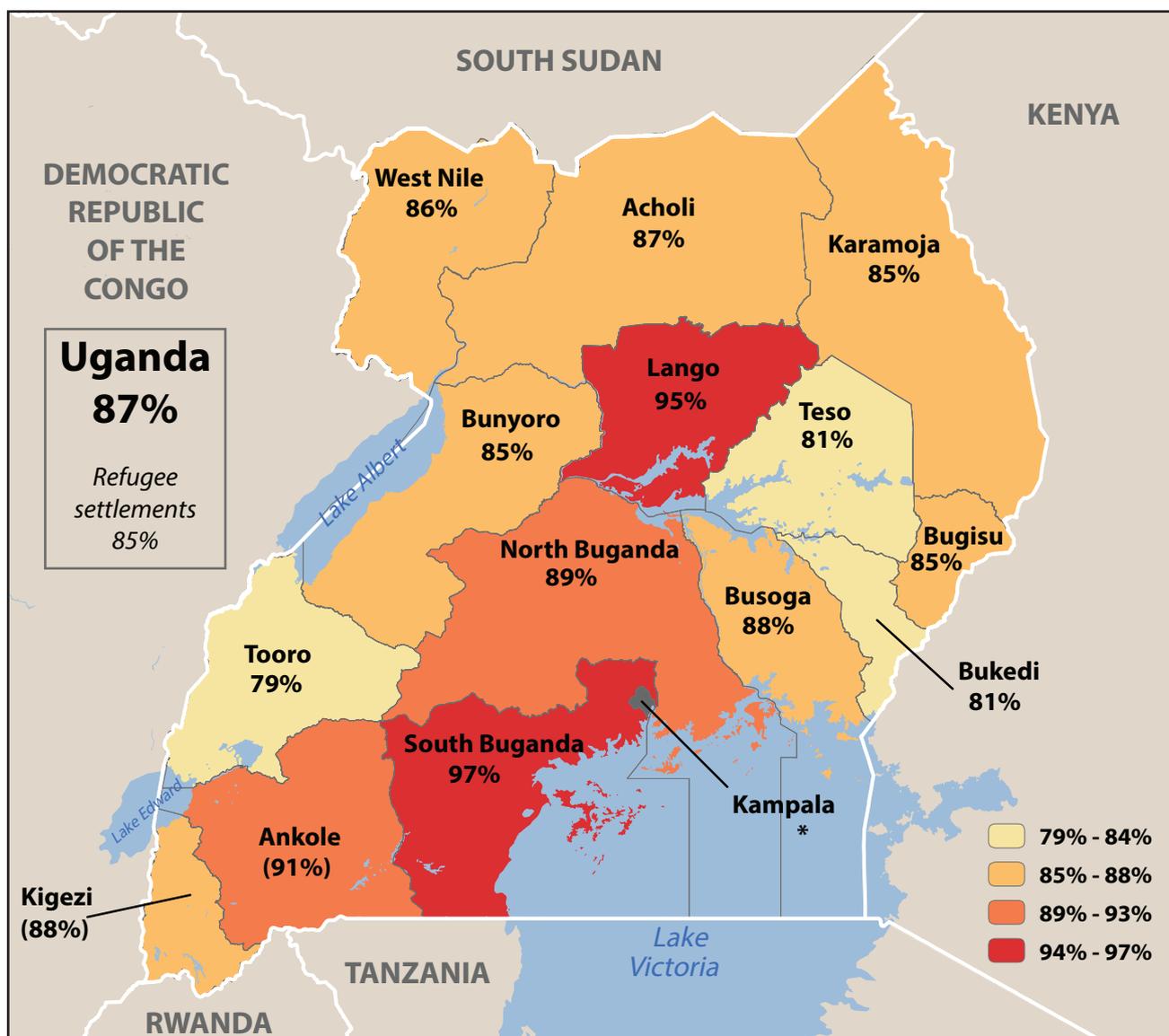
ITN Use by Children



ITN Use among Children under 5

Overall, 60% of children under 5 in Uganda slept under an ITN the night before the survey. ITN use by children under 5 ranges from 35% in Karamoja to 74% in Bugisu. In refugee settlements, 63% of children under 5 slept under an ITN the night before the survey.

CARE SEEKING FOR FEVER IN CHILDREN

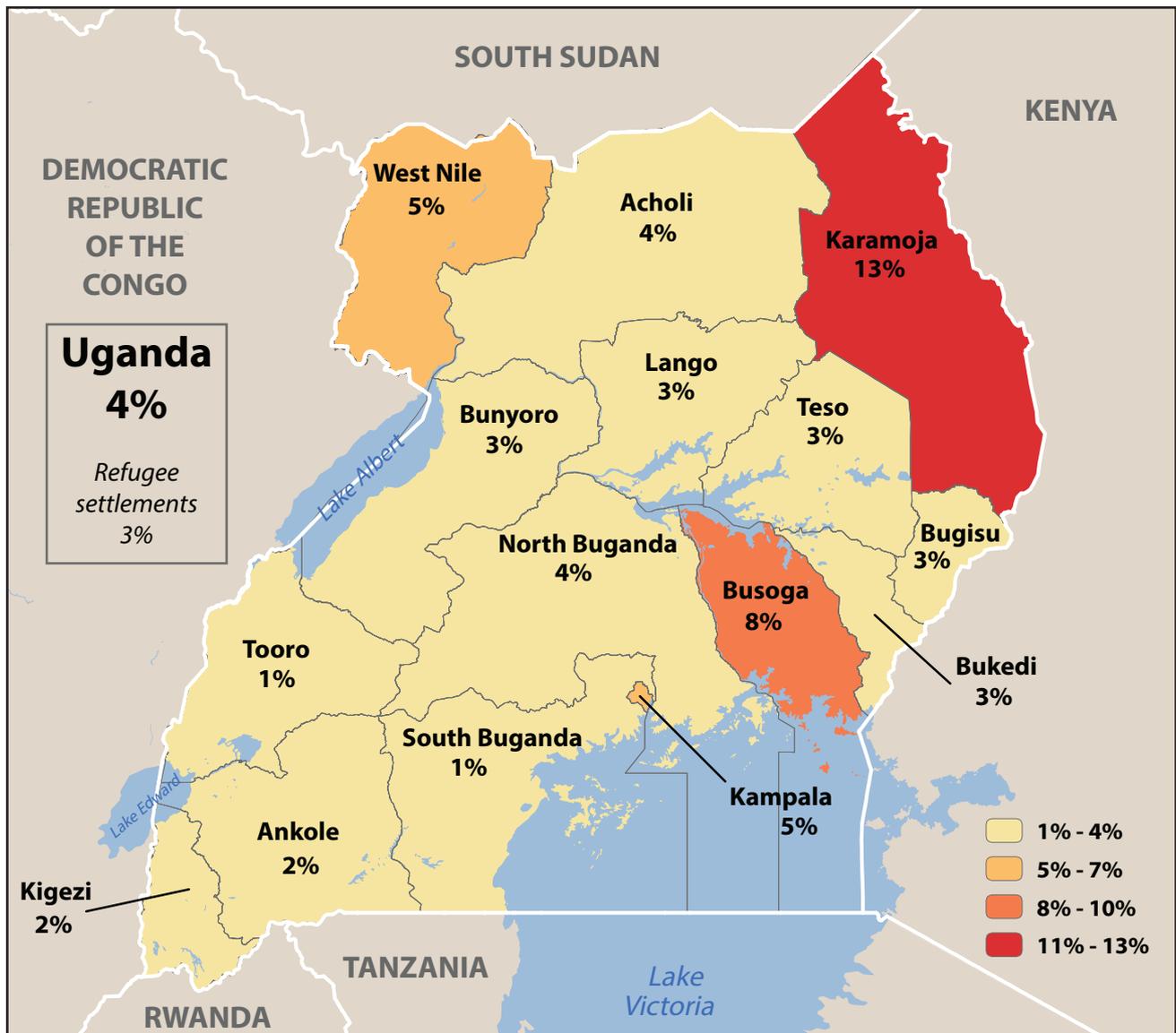


Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Advice or Treatment Sought for Children with Fever

Advice or treatment was sought for nearly 9 in 10 (87%) children under 5 with fever in the 2 weeks before the survey. Care seeking for children under 5 with recent fever ranges from a low of 79% in Tooro to a high of 97% in South Buganda. Among children under 5 with recent fever in refugee settlements, 85% had advice or treatment sought.

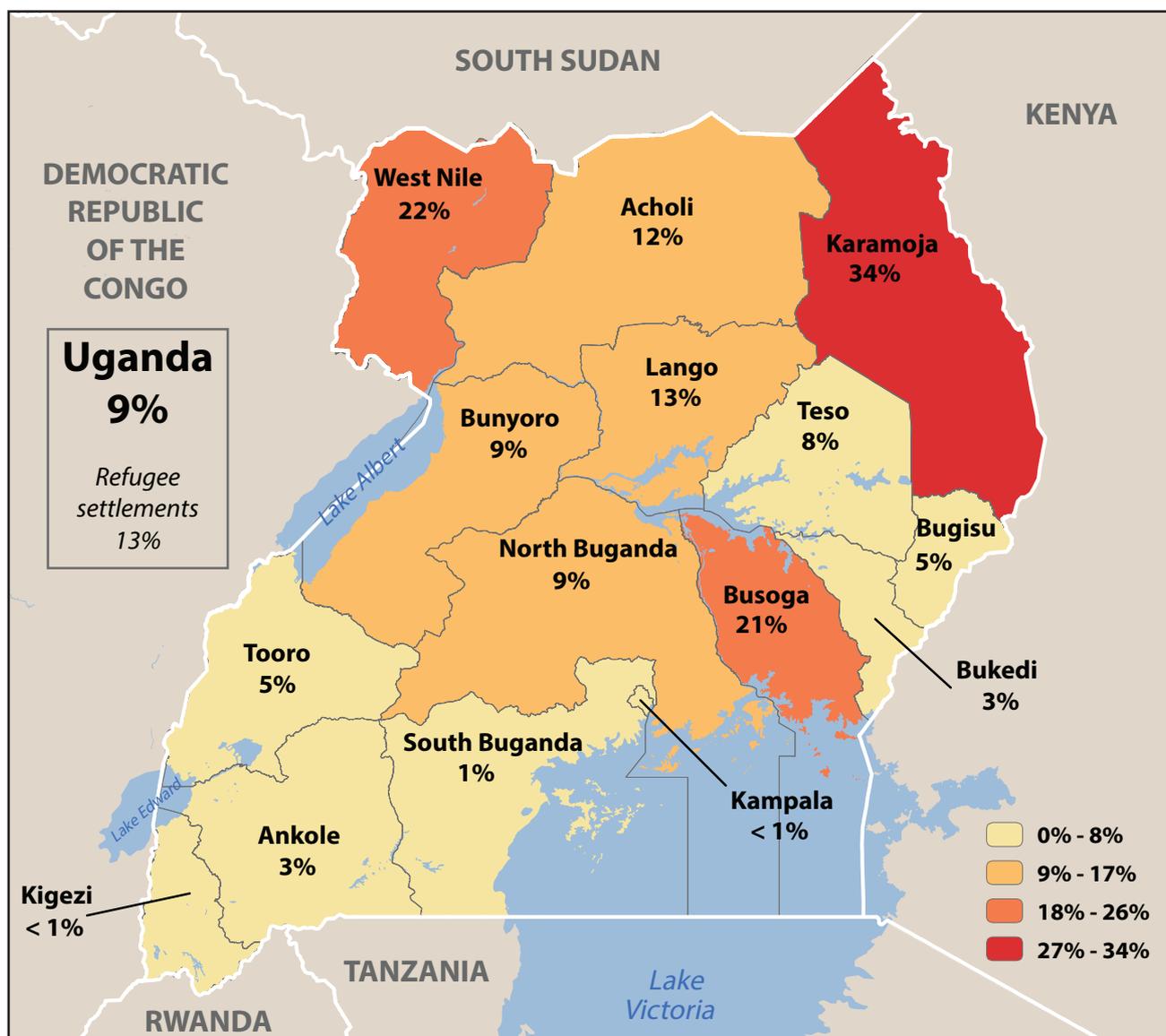
LOW HAEMOGLOBIN IN CHILDREN



Prevalence of Low Haemoglobin in Children

Nationally, only 4% of children under 5 have low haemoglobin (less than 8 g/dl). The prevalence of low haemoglobin in children is highest in Karamoja (13%) followed by Busoga (8%), and lowest in South Buganda and Tooro (1% each). Among children in refugee settlements, 3% have low haemoglobin.

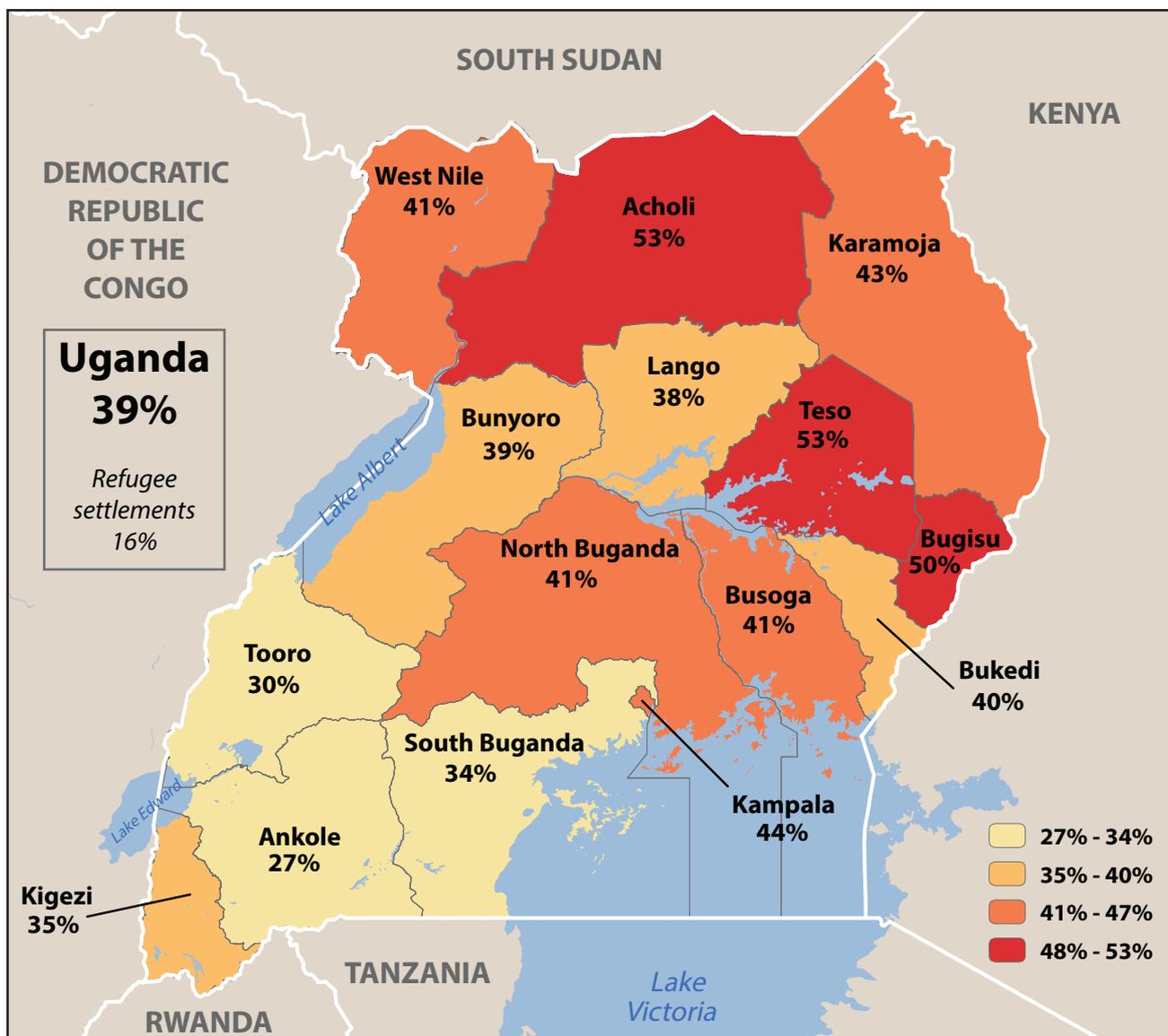
MALARIA PREVALENCE



Malaria Prevalence

Overall, 9% of children under 5 tested positive for malaria by microscopy in the 2018-19 UMIS. Malaria in children is most common in Karamoja, where 1 in 3 (34%) children tested positive for malaria, while less than 1% of children tested positive for malaria in Kampala and Kigezi. Among children under 5 in refugee settlements, 13% tested positive for malaria.

MALARIA PREVENTION MESSAGES



Exposure to Malaria Prevention Methods

Overall, 39% of women age 15-49 have seen or heard a message about malaria in the six months before the survey. Half of women in Acholi (53%), Teso (53%), and Bugisu (50%) report having heard or seen a malaria prevention message, while women in Ankole (27%) are least likely to have heard or seen a malaria prevention message. Only 16% of women in refugee settlements have seen or heard a message about malaria in the six months before the survey.

