



# Low Use of Long-Lasting Insecticide-Impregnated Bednets in Malaria Prevention

The mosquito net is made only to protect people against mosquitoes!

Data Brief



## Summary

The use of mosquito nets is one of the strategies implemented in the fight against malaria. Low household net use exposes the population to a high risk of malaria, and consequently to a public health problem, since it is associated with increased transmission of the virus, and therefore high morbidity and mortality in the long term.

### Key insights on ITN access, usage, and malaria prevention (EIPC, 2022)

- **Progress in ITN accessibility:** Between 2004 and 2022, the percentage of the population with access to insecticide-treated nets (ITNs) increased significantly, from just 1% in 2004 to 64% in 2022.
- **Urban vs. Rural disparities:** Access and use of ITNs are slightly higher in rural areas (68%) compared to urban areas (65%).
- **Household ITN availability:** Nearly half of households have at least one ITN for every two people. However, 3 out of 10 households lack any ITNs.
- **Regional gaps in ITN access:** Access is lowest in Centre without Yaoundé (41%), Yaoundé (43%), West (43%), and South (52%).
- **Usage among vulnerable groups:** Almost 3 out of 5 children under 5 (58%) slept under an ITN the night before the survey. Similarly, nearly 2 out of 3 pregnant women (63%) used an ITN the night before the survey.
- **Malaria prevalence:** Regions with the highest percentages of children testing positive for malaria are Centre (49%), South (46%), and East (41%).

- **Sources of malaria awareness:** The most common sources of malaria messages include health workers (31%), parents and family (30%), and television (27%).

## Problem Statement

The percentage of children aged 6–59 months whose malaria test result was positive according to the rapid diagnostic test (RDT) is 26% according to the EIPC 2022. The use of insecticide-impregnated nets (ITNs) is a cost-effective method for preventing malaria. The introduction of ITNs in the fight against malaria was instituted within the framework of vector control, the long-term aim of which is to reduce morbidity and mortality. According to DHIS2, 87% of pregnant women received ITNs during prenatal consultations in 2021. The Cameroon Malaria Indicators Survey 2022 report shows that, despite the fact that more than seven out of ten households own at least one ITN, only 54% of the household population, 58% of children under 5 and 63% of pregnant women slept under an ITN the night before the interview [1]. This implies that sleeping under a mosquito net, even if you own one, is not yet an established practice. The data also show that it is the rural sector and the least privileged populations that are more inclined to use mosquito nets than the urban sector and the most privileged populations, as shown in the figure below:

Percentage of households that slept under a mosquito net last night, by area of residence

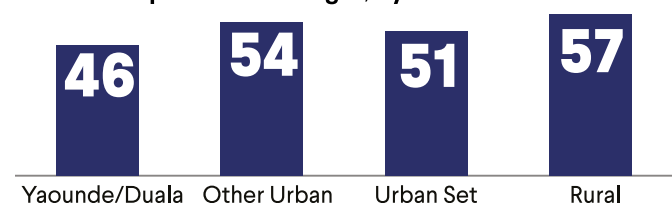
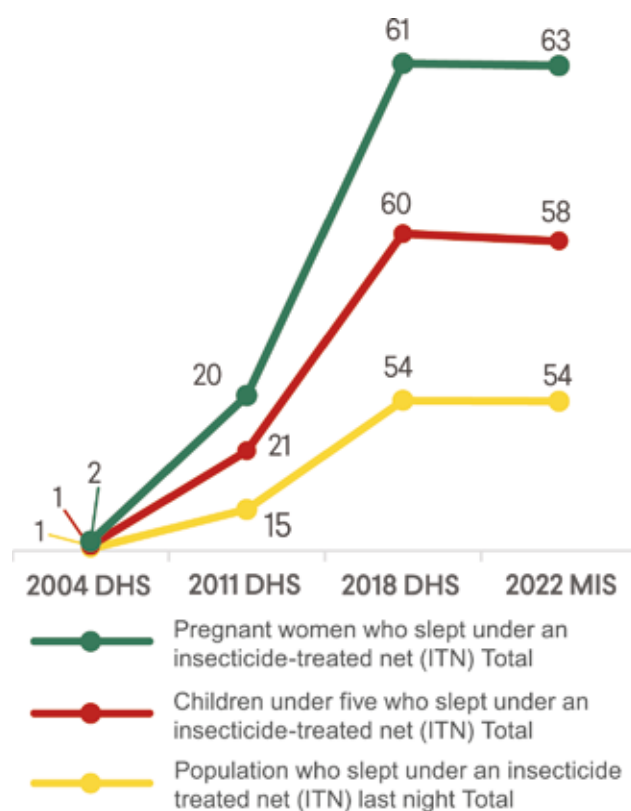


Figure 1: Distribution of net use by living environment  
Source: EIPC 2022

The proportion of people who have slept under an ITN is lower in urban than in rural areas. One person in two claims to have slept under an ITN in urban areas. In rural areas, nearly three out of five people had slept under an ITN the night before the interview.

This can have repercussions on public health, notably by increasing the transmission of the parasite responsible for malaria to humans, and consequently increasing the vector population. These repercussions will be felt particularly by at-risk groups such as children under 5 years of age, pregnant women and, in general, people living in areas of high malaria transmission.

According to the various Cameroon Demographic and Health Surveys (EDSC) carried out between 2000 and 2018, the percentage of people who slept under an ITN the night before the interview rose from 1% to 54% [2, 3, 4]. Similarly, since 2004, there has been an increase in the use of ITNs by pregnant women in the target populations (20% in 2011 to 61% in 2018), but this increase is still far from the target of 80%.

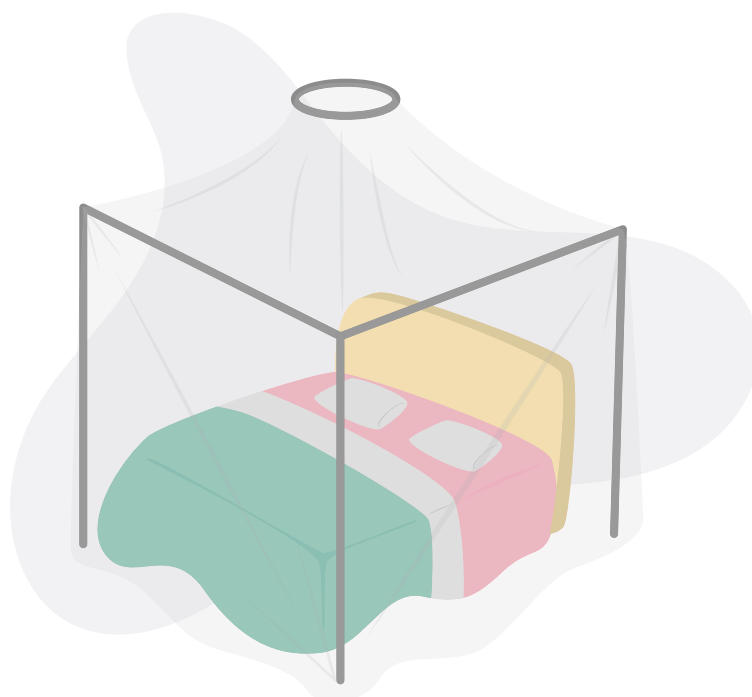


**Figure 2 Trends in the use of insecticide-treated nets over time**

- Between 2004 and 2018, the percentage of the total population who slept under an ITN the night before the interview increased significantly, from 1% in 2004 to 54% in 2022.
- Among children under 5, there is a slight drop from 60% in 2018 to 58% in 2022.
- Between the 2018 DHS and the 2022 Malaria Indicator Survey (MIS), this use remained almost stable among pregnant women and children under five.

This percentage is lower in the Centre and West Regions, where there has been a simultaneous increase in the number of confirmed malaria cases since 2018. In the general population, the number of confirmed malaria cases has risen from over 471,000 in the Centre Region in 2018 to over 606,000 in 2021. In the Western Region, we have gone from over 143,000 malaria cases in 2018 to over 223,000 cases in 2021 [5, 6].

In order to reduce transmission of the disease and thus encourage people to use ITNs, the following measures have been implemented: (i) capacity-building for those involved in mass distribution to raise awareness of ITN use; (ii) intensification of ITN distribution by organizing mass distribution campaigns every 3 years; (iii) routine distribution of ITNs to children under 2 years of age during immunization.





## What are the Root Causes?

Despite the efforts made, the percentage of ITN (insecticide-treated net) use remains low. One contributing factor is the limited accessibility of ITNs, meaning that many households cannot fully utilize their available nets—each ITN could have been used by a maximum of two people. Additionally, poor distribution of ITNs during mass campaigns and routine distribution further exacerbates low coverage across the country; for instance, only 43% of the target population received ITNs for the first two semesters of 2021. Frequent breakage of routine ITNs outside campaigns affects both women during antenatal care (ANC) and children aged 0-11 months during routine Expanded Program on Immunization (EPI) vaccinations. Inadequate logistics also delay the transport of ITNs to health facilities, particularly in regions like Central, North-West, and South-West. Poor implementation of the distribution strategy for ITNs to children is due to a lack of ownership by healthcare staff. There is also a shortage of training for some healthcare providers in immunization services. Concerns about potential intoxication from the product contained in long-lasting insecticidal nets (ITNs), non-adherence to ITN awareness campaigns, and discomfort when sleeping under a mosquito net contribute to low acceptance and usage rates (45% of respondents, [8]).ITN.

## What Strategic Options Should be Considered?

**Option 1:** Adopting a strategy for distributing insecticide-treated nets to children during vaccinations, coupled with capacity-building for healthcare providers.. This could increase the quantity of ITNITNs routinely distributed, as in semester 1 of 2023, 764,850 ITNITNs were acquired. However, only 3% of children receiving vaccinations received their nets, due to the timid implementation of the strategy by health facility staff.

**Option 2:** Organization of catch-up campaigns to run concurrently with other campaigns (e.g., Mother and Child Health and Nutrition Action Week (SASNIM)

and National Immunization Days (JNV)), particularly in regions where the 2022 campaign has not taken place.

**Option 3:** Raising awareness of the need to sleep under an ITN by organizing nationwide pre-campaign door-to-door campaigns, information, education and communication (IEC) sessions with neighborhood chiefs, skits, more placards, etc.

## Recommendations and Next Steps

The following recommendations are made to MINSANTE:

- Organize training workshops for healthcare providers to ensure that they understand the ITN distribution strategy during immunization;
- Organize catch-up campaigns for the distribution of ITNs and implement advanced strategies, particularly in the Centre and South regions;
- Increase household awareness by involving other sectoral administrations (MINCOM, MINEDUB, MINAS, MINJEC).
- Mobilize domestic and counterpart funding in good time for the acquisition of nets to be distributed to the population with a view to improving use.

**A night under an impregnated mosquito net is a life preserved!**



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