Togo Malaria Behaviors

Situation Analysis

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FOR SOCIAL & BEHAVIOR CHANGE

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Acronyms

ACT	Artemisinin-based combination therapy
ANC	Antenatal care
CCP	Johns Hopkins Center for Communication Programs
DCH	Department for Community Health
IPTp	Intermittent preventive treatment in pregnancy
IRB	Institutional Review Board
ITN	Insecticide treated net
NMP	National Malaria Program
MBS	Malaria Behavior Survey
PMI	United States President's Malaria Initiative
RDT	Rapid diagnostic test
SBC	Social and behavior change
SMC	Seasonal malaria chemoprevention
USAID	United States Agency for International Development

Introduction

Purpose: This situation analysis was requested by USAID as a means of assessing malaria behaviors in Togo in the lead up to the development of a new national malaria social and behavior change (SBC) strategy. In line with both PMI technical guidance[1] and SBC best practices,[2] this situation analysis summarizes both structural and behavioral factors that influence priority malaria behaviors[3] in Togo. This summary describes the following themes: insecticide treated nets, malaria case management, malaria in pregnancy, and seasonal malaria chemoprevention.

Methods: This situation analysis examines all available data and documents produced by the Togo Ministry of Health. It also includes household survey data, quantitative, and qualitative research on malaria behaviors and determinants of behavior in Togo between 2010 and present day. Each theme is explored in terms of historical peer-reviewed research, and then in terms of nationally representative data collected in the last ten years. While the former provides valuable context, SBC recommendations are based on the latter.

Malaria in Togo

Malaria is endemic in all health regions in Togo, with stable transmission year-round and increased transmission in the two rainy seasons. The country is divided into two climates, the Guinean tropical climate in the south and the Sudanian tropical climate in the center and north. According to the United States President's Malaria Initiative (PMI) 2023–2024 Malaria Operational Plan, malaria incidence declines between 2015 and 2021 by 34%. Mortality fell by 38% in the same time period. However, according to the 2020 Malaria Indicator Survey, malaria prevalence remains high at 36% among children aged 6–59 months. A 2022 National Malaria Program (NMP) report found a 65% malaria case

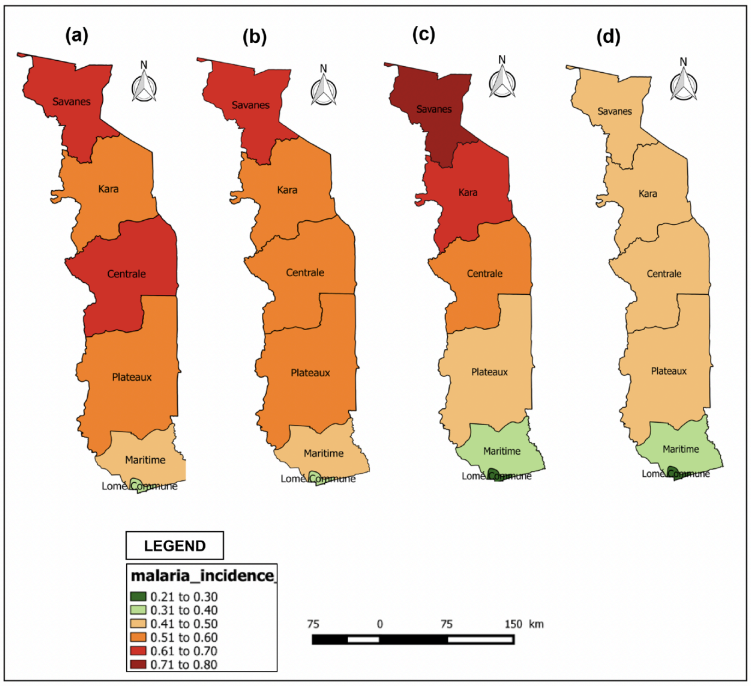


Figure 2. Spatio-temporal variation of malaria incidence in children under 5 years old in Togo: (**a**) Malaria incidence in 2000, (**b**) Malaria incidence in 2005, (**c**) Malaria incidence in 2010, (**d**) Malaria incidence in 2015. (Source: Region level country shapefiles obtained from spatial reference; https://spatialreference.org/).

[1] U.S. President's Malaria Initiative Techinal Guidance, FY 2024.
https://d1u4sg1s9ptc4z.cloudfront.net/uploads/2023/02/PMI-FY-2024-Technical-Guidance.pdf
[2] How to conduct a situation analysis. The Health Compass for SBC.
https://thecompassforsbc.org/how-to-guide/how-conduct-situation-analysis
[3] Plan stratégique national de lutte contre le paludisme 2023–2026. Togo. 2018.

confirmation rate among children under five and 44% among pregnant women, with a national average of 63%. Malaria incidence is spatially clustered in Togo, and is associated with climatic and environmental factors. While the Savanes and Central health regions historically had a higher average malaria incidence than the Plateaux and Kara regions, more recent data indicates the Savanes, Kara, Centrale, and Plateaux regions have an incidence of .41-.50 (among children under five), while the Maritime and Lome commune have lower levels at .31-.40 and .21-.30 respectively.[4]

The current 2023–2026 National Malaria Strategic Plan prioritizes the following objectives:

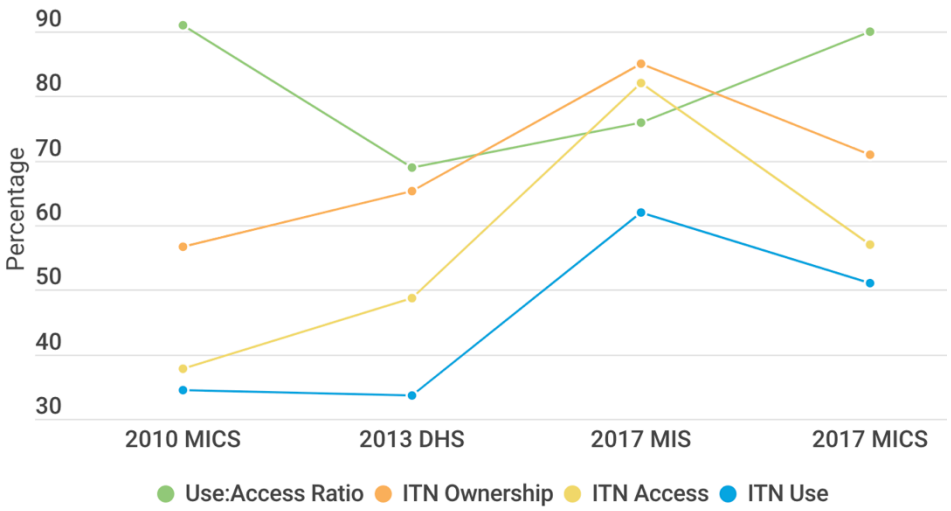
1. Reduce malaria mortality by 65 percent from 2022 levels
2. Reduce malaria morbidity by 65 percent from 2022 levels
3. Reinforce the capacity and management of malaria at all levels

PMI support to the NMP, as articulated in PMI's global strategy,[5] will be accomplished by reaching the unreached, strengthening community health systems, keeping malaria services resilient, investing locally, and innovating to lead.

Insecticide treated nets

Structural factors

The majority of insecticide treated nets (ITNs) in Togo are obtained from mass distributions, which take place every three years. Togo conducted mass distributions in 2004 (the first country to conduct a nationwide free ITN distribution as part of its National Integrated Child Health Campaign)[6], 2008, 2011, 2014, and 2017. The last mass distribution was in 2020, just before the malaria indicator survey was conducted. As the

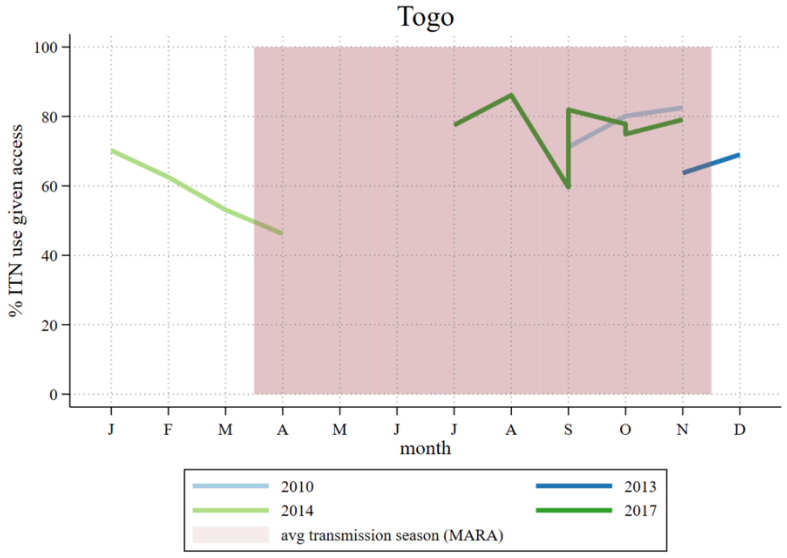


[4] Kombate G, Kone I, Douti B, Soubeiga KAM, Grobbee DE, van der Sande MAB. Malaria risk mapping among children under five in Togo. Sci Rep. 2024;14(1):8213.
[5] End Malaria Faster: U.S. President's Malaria Initiative Strategy 2021–2-26
[6] Sodahlon YK, Slutsker L, Wolkon A, et al. Rapid scale-up of long-lasting insecticide-treated bed nets through integration into the national immunization program during child health week in togo, 2004. The American Journal of Tropical Medicine and Hygiene. 2010;83(5):1014-1019.

graph above shows,[7] ownership, access, and use among those with access to ITNs has grown since 2010.

Behavioral factors

As the graph in the previous section shows, ITN use (in blue) is tightly correlated with access (in yellow). The use:access ratio[8] was high in 2010, dropped sharply by 2013, and has then shown an increase in both 2017 surveys and in 2020 (in most countries, the use:access ratio is highly correlated with ITN use and access rates). This may be explained by the fact that the 2013 DHS survey took place in the dry season, while the previous and succeeding surveys took place in the rainy season. If this is the case, there is reason to believe ITN use is seasonal in Togo. In fact, further examination of the data supports this. In the graph above, historical data describing the proportion of people using an ITN the previous night among those with access (shown across months of the year) for all four household survey years, indicates there are seasonal fluctuations (not shown in this seasonality graph but included in the use:access graph above, is the 2017 Multiple Indicator Cluster Survey, which indicates lower use in the dry season). In yet another study, conducted shortly after the 2011 universal coverage ITN distribution, found that use declined between the dry season (January) and the rainy season (June).[9] This study was notable for finding that among communities that received an SBC intervention after the distribution, ITN use was stable or increased slightly (compared with non-intervention communities where use declined), providing historical evidence that SBC has played a role in maintaining ITN use in dry months.



[7] Koenker, H., Olapeju, B., Toso, M., Millward, J., & Ricotta, E. Insecticide-Treated Nets (ITN) Access and Use Report. Breakthrough ACTION and PMI VectorWorks projects, Johns Hopkins Center for Communication Programs. Retrieved from https://itnuse.org

[8] Mosquito net ownership, access, and use: using SBC to bridge the gaps. The Health Compass for SBC. https://thecompassforsbc.org/trending-topics/mosquito-net-ownership-access-and-use-using-sbc-bridge-gaps

[9] Desrochers RE, Siekmans K, Berti PR, et al. Effectiveness of post-campaign, door-to-door, hang-up, and communication interventions to increase long-lasting, insecticidal bed net utilization in Togo (2011–2012): a cluster randomized, control trial. Malaria Journal. 2014;13(1):260.

Despite seasonal fluctuations in ITN use among those with sufficient access, ITN use:access has been maintained at or above .69+ odds ratio since 2010, indicating *access* to nets, not *use* among those with nets, is a key constraint in Togo. However, as the map to the right indicates, use among those with access to nets varies from north to south, and there is room for improvement in central and southern regions[10].

Rural households had slightly lower ITN use:access ratios than those in urban areas between 2010–202017. In 2010, the poorest and middle wealth quintiles had the highest use:access ratios. This changed in 2013 and 2017 with the poorest and poor wealth quintiles improving to become the two highest quintiles in terms of use:access. The richest quintile of Togo residents has had the lowest use:access ratio across three of the four surveys.

Finally, for the most recent DHS, MICS, and MIS surveys, children under five and pregnant women were prioritized for ITNs in households that have some but not enough ITNs (so were women of reproductive age), indicating that those most vulnerable to malaria in Togo are being protected. Children of school-age have the lowest ITN use when households have insufficient ITNs, though these differences level out in households that do have enough ITNs.

SBC recommendations

- As access to a net is the key constraint to ITN use in Togo, it will be important to encourage heads of household to replace ITNs (through routine channels or the private sector) between mass distributions
- Recent multi-country data suggests ITNs can last for two years or less,[11] leaving at least a year gap between deteriorated nets and mass distributions in Togo. Encourage families to hang or fold their nets up when not in use to extend the period of each net's protection.
- Increase the proportion of people with access to ITNs who use them *consistently* (consistent net use means sleeping under nets every night, all night, in all seasons: measured as the proportion of household members who had access to a net who slept under one every night the night before the survey)
- Maintain the prioritization of children under five and pregnant women for ITN use in households with some but insufficient ITNs and increase the proportion of school-age children who are prioritized if there are sufficient nets for children under five and pregnant women.
- Increase ITN use among urban residents in the wealthiest quintile while maintaining high use:access rates among rural residents in the poor and poorest quintiles.

Malaria case management

Structural factors

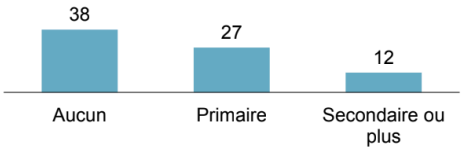
[10] 2017 MICS data is shown here because while the full report of the 2020 MIS is available, the dataset is not, so secondary analysis could not be performed for this document.
[11] Kilian A, Obi E, Mansiangi P, et al. Variation of physical durability between LLIN products and net use environments: summary of findings from four African countries. Malar J. 2021;20(1):26.

Children under five years of age are particularly vulnerable to malaria. In Togo, there is dated evidence of a high prevalence of childhood anemia among children in the Northern region. Malaria in children and maternal anemia were negatively associated with the age of children and high levels (secondary or higher) of maternal education.[12] As recently as 2017 28% of children 6-59 months old tested positive for malaria (with microscopy). The proportion of children in the same age group considered to have anemia increased from 70% in 2014 to 74% in 2017. Prevelance of malaria in the same age group has, however, declined from 36% in 2014 to 28% in 2017. As the following data suggests, accessibility to care is a significant factor in care seeking for fever for this vulnerable group.

Access

Malaria treatment has been free for uncomplicated cases since 2013, and in 2019 this was extended to cover severe malaria, but providers can charge consultation fees. According to a recent program review, 32% of all uncomplicated cases were treated by community health workers. Nationally representative data from 2013–2014 indicates that just 39% of caregivers of children under five years of age with fever in the two weeks prior to the interview sought advice or treatment in a public medical area, private medical area, store, market, or from itinerant medicine seller. Independent risk factors examined included accessibility to the nearest health center, a mother's education level (secondary and above), mothers who identified as animist or having traditional religions, mothers who belonged to a formal religion (catholic and Protestant), and Maritime region compared to Lomé commune (education data in this dated survey is confirmed in the more recent MIS data, see graph, right). In terms of access,it is noteworthy that distance to the nearest health facility was strongly associated with formal advice or care-seeking. Mothers perceived easy access to the health center were 1.52 times (1.18–1.95) more likely to access care compared to mothers who perceived difficult access. 2017 MIS data (graph, right) further underscores the role access plays, showing those children at highest risk are more likely to be anemic in poorer wealth quintiles.

Pourcentage d'enfants de 6-59 mois dont le résultat du test de parasitémie palustre est positif selon l'examen microscopique



Availability and provision of quality services and commodities

Community-level provider behavior: Service provider behaviors also play an important role in whether or not febrile patients receive diagnosis and treatment according to national guidelines. Integrated community case management, which provides access to basic diagnosis and treatment of simple cases of malaria, is the means with many Togelese are diagnosed and treated (for those living 5 kilometers beyond a health facility). A 2022 study on the quality of community-level malaria case management in Togo found just over 10% of community health providers received no training at all before they started offering malaria services.[13] 37% had not received training in the past 5 years. While almost all community-level health workers performed diagnostic tests and provided treatment as recommended

[12] Nambiema A, Robert A, Yaya I. Prevalence and risk factors of anemia in children aged from 6 to 59 months in Togo: analysis from Togo demographic and health survey data, 2013–2014. BMC Public Health. 2019;19(1):215.
[13] Étude sur la qualité de la prise en charge du paludisme au niveau communautaire. Rapport Final. Septembre, 2022.

(95% and 93% respectively), over a third of health workers assessed had rapid diagnostic test or artemisinin combination therapy stock-outs in the last six months. Only 78% of health workers assessed had filled out their activity registers, and 64% had checked their stock of medicine. Just 53% verified they had complied with malaria case management guidelines. 86% of community-level health workers felt that their financial remuneration was sufficient. 66% of the patients of community-level health workers assessed reported their health worker was regularly stocked out of tests or treatment. On the day of the assessment 10% of health workers were stocked our of rapid diagnostic tests and 35% were stocked out of artemisinin combination therapy.

Facility-level provider behavior: A mixed-methods intervention evaluation of the quality of malaria case management in 36 health facilities in Togo sheds light on facility service provider behaviors that shape febrile patients' diagnosis and treatment.[14] Providers and patients at peripheral care units (public and private), health district referral hospitals, regional hospitals, and university hospital centers provided the study's data. In this study, only 40% of public health facility providers that provided management of malaria cases were trained in diagnosis. This was slightly higher in the private sector at 54% of providers.

The same data source shows that 84% of clients at health facilities included in the study said they were satisfied with their reception and 81% were satisfied with the attitudes of their health providers. Only 61% of patients surveyed were aware of the gratuity of antimalarial drugs for simple cases of malaria.

In terms of the quality of diagnostic and treatment services provided at larger facilities, as measured by the proportion of simple malaria cases correctly managed (according to national diagnosis and treatment guidelines), 90% of the 599 files examined in this study followed protocol. In smaller facilities this was slightly lower, at 84%. The quality of case management for severe malaria was 96% at University Hospitals, CHR, and CHP facilities. However, it is noteworthy that the data from facility registers differs from responses provided by providers themselves. For example, just 14.3% of providers interviewed provided correct answers (very good knowledge) regarding diagnosis and treatment of simple malaria compared with those that had only good knowledge (56%) or only fair knowledge (29.8%).

On the whole, the picture of the quality of services provided at various health facility levels in the Togo health system is mixed. While patients express overall high levels of satisfaction with the reception and attitudes of providers, and more than a majority knew simple malaria cases should be free of charge, there were gaps in provider training and knowledge of diagnosis and treatment guidelines. These are all factors that shape the experiences and health outcomes of febrile patients in Togo.

Behavioral factors

In the 2013–2014 study cited above, survey data found higher rates of care seeking for fever for febrile children under five among caregivers living in urban areas (47%) compared to those living in rural areas (35%), indicating low rates in all areas and a particular need for improvement in rural areas. This pattern held true in the difference between the Maritime region (29%) compared with the Lome commune

[14] Initiatives Conseil International Santé. Évaluation de la qualité de la prise en charge des cas de paludisme dans les formations sanitaires du Togo en 2021.Rapport final. 2023.

region (49%). Women with secondary and higher education sought care more often than those with primary or no education (there was a clear dose-response curve for each increase in the mother's education level and the likelihood of seeking advice or care for her child), indicating a need to address social determinants of care-seeking. A more recent study found that household wealth quintile (wealthiest quintile compared to poorest quintiles) is an important risk factor, with the poorest (and rural) populations at higher risk of malaria.[15] Mothers who identified as belonging to animist/traditionalist religions were less likely to use care compared to mothers identifying as Catholic or Protestant.

In a qualitative study (conducted around the same time period as the study above), *Willingness to seek malaria treatment among Togolese people*, examined determinants of care seeking in Lomé.[16] Factors influencing malaria treatment seeking examined and compared included perceived severity of symptoms, cost of treatment, caregivers' attitudes, availability of traditional treatment, and family's attitude about use of formal health services. While all factors studied had significant effects, perceived severity had the strongest effect. However, overall willingness to consult a healthcare center was low, even when the costs of treatment were deemed affordable, symptoms were perceived severe, caregivers' attitudes were positive, and family's attitudes were favorable. While these results are specific to Lomé, and should not be extrapolated to inform other areas, they may explain differences (previously noted) between the Maritime region and Lomé region in terms of care seeking.

The 2017 MIS found 56% of children with a fever in the last two weeks preceding the survey had treatment sought for them, among these only 39% had treatment sought the same or next day. The Multiple Cluster Indicator Survey (MICS) conducted later that same year found 54% of caregivers sought treatment for their febrile children from public health facilities, 19.6% from other sources, and 39.6% did not seek care at all. It is clear that community care seeking remains very low.

2017 MIS data shows that among those children for whom care for fever was sought, only 29% received a blood test. Among children in the same age group with fever for whom an antimalarial was prescribed, just three-fourths (76%) received artemisinin combination therapy. MICS data from later that year is similar with 27% of children under five with fever in the last two weeks having received a blood test. Just 5% received an ACT, with far fewer receiving an ACT the same of next day (3.4%). This data suggests that adherence to diagnosis and treatment protocol among service providers is very low as well.

SBC recommendations

- Given the evidence that distance to health facilities and a mother's education level are so strongly correlated with care-seeking for children under five, structural interventions to address the geographic variation in access to care should be explored, as well as interventions to improve literacy and provide health education. As there are significant differences in malaria prevalence

[15] Kombate G, Gmakouba W, Scott S, Azianu KA, Ekouevi DK, van der Sande MAB. Regional heterogeneity of malaria prevalence and associated risk factors among children under five in Togo: evidence from a national malaria indicators survey. Malaria Journal. 2022;21(1):168.
[16] Kpanake L, Dassa SK, Mullet É. Willingness to seek malaria treatment among Togolese people. Psychol Health Med. 2013;18(1):30-36.

and associated risk factors in this age group, careful attention should be paid to which interventions are deployed to specific regions and for specific age groups.

- As it appears rural community health workers' knowledge of diagnosis and treatment guidelines is almost universal but there is a wide gap in adherence to protocol, future efforts should shift from knowledge-based trainings to interventions that focus on health worker perceptions of test efficacy or misperceptions related to treatment (the perceived need to treat patients with negative test results, for example)**.** Formative research on determinants of community health worker adherence to protocol is warranted.
- There is evidence that there is room to improve knowledge of diagnosis and treatment protocol among facility-based health workers. As not all facility-based health workers in charge of malaria have received malaria-specific training, it maybe beneficial to ensure adequate training is provided.
- As caregivers of children under five do not tend to seek fever the same or next day, formative research on the determinants of prompt and appropriate care seeking is clearly warranted.

Malaria in pregnancy

Structural factors

According to the 2017 MIS, among women 15–49 who had a live birth in the last two years before the survey, 42% had received at least three doses of sulphadoxine-pyrimethamine. Among urban women of reproductive age 55% had received at least three doses. Rural women received significantly fewer with 35%. Likewise, women in the wealthiest quintile received at least three doses at higher rates (60%) than those in the poorest quintile 30%. The 2020 Malaria Indicator Survey found the proportion of pregnant women who received at least three doses of intermittent preventive treatment of malaria in pregnancy (IPTp) saw a modest increase from 42% to 53%. Taken together this data suggests social determinants of health play a role in receipt of intermittent preventive treatment of malaria in pregnancy (IPTp).

Behavioral factors

The Multiple Cluster Indicator Survey, conducted in 2017, shows that antenatal care attendance closely mirrored receipt of IPTp. For example, among women of reproductive age with a live birth in the last two years before the survey, 41.5% had made at least three visits (almost the same proportion as had received at least three doses in the MIS survey). 54.8% had made four or more ANC visits, closely tracking the 55% who had received three or more doses of IPTp. Unfortunately, 2020 MIS data shows a gap has formed between ANC attendance (70% had four consultations) and receipt of three or more doses of IPTp (53% with at least three doses of SP), indicating that since 2017 provision of IPTp has not kept pace with ANC attendance, indicating service provider behavior is a key constraint.

An operational research study on behaviors related to antenatal care and receipt of sulphadoxine pyrimethamine conducted in 2022 provides additional detail into behaviors related to malaria in

Pregnancy in Togo.[17] This mixed methods study summarized interviews with 618 women of reproductive health who had given birth in the last year, as well as 126 individual interviews with 12 groups of women who had and had not attended antenatal care.

In terms of general malaria knowledge, almost all pregnant women (96%) had heard of malaria and knew it was caused by mosquito bites (95%). 74% named fever as a symptom of malaria, 72% named high temperature, 50% named headache, and 28% named chills. Almost all women (96%) knew malaria can be prevented by sleeping under a mosquito net but fewer (66%) knew about intermittent preventive treatment of malaria in pregnancy (IPTp). Just over half (60%) could describe three benefits of antenatal care (to detect malaria early, to receive IPTp, and to prevent risk of complications). While most women (74%) preferred health centers for malaria treatment, a significant proportion (36%) preferred traditional self-medication (teas made from roots), self-medication with pharmaceuticals (27%), or from traditional healers (6%), community health workers (3%), religious leaders (0.4%), or pastors (0.2%).

In terms of insecticide-treated mosquito nets (ITNs), almost all women in the survey (95%) had least one ITN. Most women (69%) received their net from health facilities and mass distributions (60%) and very few (2.5%) purchased their nets. In terms of ITN knowledge, almost all women (90%) knew that sleeping under a net helps avoiding being bitten by a mosquito, that sleeping under a net prevents malaria (92%), and that sleeping under a nets keeps them in good health during their pregnancy (72%). Fewer women knew that sleeping under a net keeps their fetus healthy (50%). Very few pregnant women were not sleeping under a net (13%), of those, heat (58%) and the feeling of suffocation (52%) were listed as reasons.

In terms of IPTp, this data showed that knowledge among pregnant women was high (93%). 84% named IPTp as the treatment of malaria during pregnancy and 87% knew it protects a pregnant mother and her fetus (roughly the same percentage knew dangers of not taking IPTp).

In terms of antenatal care (ANC), almost all women (97%) interviewed had attended at least once. 89% knew it allows for the early detection and treatment of all complications linked to pregnancy. However, far fewer (54%) knew that it is best to attend ANC early in their pregnancy. This was due to lack of awareness of the importance of early presentation at ANC (41%), the perception that the baby should be well formed first (36%), or the unawareness of pregnancy status (22%). Barriers to early ANC attendance described during interviews included inexperience (young age), embarrassment caused by touching (perceived as an opportunity for male providers to touch other people's wives), and shame at having little or no spacing between pregnancies. Women also reported lack of spousal support to attend ANC as a barrier, as well as the economic costs (53% of women who had attended ANC three or more times in their last pregnancy considered the costs they incurred to be too expensive). Of women who felt ANC was expensive 35% expensive and 18% said it was very expensive. The majority of women (54%) reported distance to the health center as a barrier. Yet other women cited the deterioration of health facilities, a lack of confidentiality, and demoralizing attitudes of midwives as barriers.

[17] AK Kwassi. Recherche opérationnelle sur les comportements des femmes enceintes face aux CPN et la prise de la SP. Rapport final. 2022.

Pregnant women in this very recent, comprehensive mixed-methods study were almost universally aware of malaria, malaria in pregnancy, the importance of ANC, and the correct means with which to prevent malaria in pregnancy. Preventive behaviors (ITN use) were very high, and ANC attendance was also high. However, early and frequent ANC attendance was lower and there are a number of concerning individual, social, and structural barriers to early ANC attendance.

SBC Recommendations

- Increase the proportion of pregnant women of reproductive age, particularly in rural areas, who intend to attend ANC early and frequently in their next pregnancy. Given national data on the widening gap between ANC visits and doses of IPTp received, it is likely that service provider behavior behaviors (avoiding SP stock-outs, consistently providing SP when it is available, explaining the benefits of SP to clients) will need to be addressed before or during any attempt to change household behaviors (such as encouraging male heads of household to encourage their spouses to attend ANC early and frequently).
- Data suggests there are a number of social and structural barriers to early and regular ANC attendance. While this data is qualitative in nature, and it is not clear the extent to which or in which geographic areas these barriers exist, intervention-control research in different areas might be a cost-effective means of addressing and better understanding these barriers in different contexts.

Seasonal malaria chemoprevention

Seasonal malaria chemoprevention (SMC) has been a World Health Organization recommended intervention in areas of high seasonal transmission since 2012. In Togo, SMC has been implemented since 2013. Routine data collected from 2013–2020 mass campaigns in three regions of Togo describes coverage, reasons for non-treatment, and SMC-attributable adverse reactions.[18] This data found near universal coverage in intervention areas (98%). Contraindication as the main reason for non-administration. SMC in Togo was found to be very effective, with cases decreasing from 11, 269 in 2016 to 1,395 in 2020. Adverse reactions were rare.[19]

Structural factors

Routine data collected from 2013–2020 mass campaigns in three regions of Togo describes coverage, reasons for non-treatment, and SMC-attributable adverse reactions.[20] This data found near universal coverage in intervention areas (98%). Contraindication as the main reason for non-administration. SMC

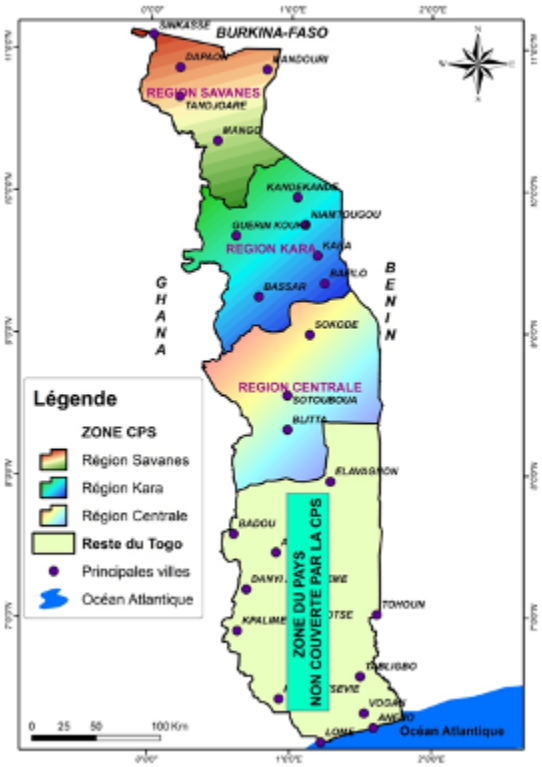
[18] Bakai TA, Thomas A, Iwaz J, et al. Effectiveness of seasonal malaria chemoprevention in three regions of Togo: a population-based longitudinal study from 2013 to 2020. Malar J. 2022;21(1):400.

[19] Togo's national strategic plan also includes the roll out of Perennial Malaria Chemoprevention in all 16 moderate to high health districts. There is no publically available data regarding acceptability or adherence. PMI does not currently support this intervention.

[20]Bakai TA, Thomas A, Iwaz J, et al. Effectiveness of seasonal malaria chemoprevention in three regions of Togo: a population-based longitudinal study from 2013 to 2020. Malaria Journal. 2022;21(1):400.

in Togo was found to be very effective, with cases decreasing from 11, 269 in 2016 to 1,395 in 2020. Adverse reactions were rare. On the whole, there isn't a great deal of research on SMC but what is available strongly suggests that access (coverage) is high, and refusals are virtually non-existent, meaning that structural factors are not a key constraint to delivery or receipt of SMC in Togo.

Behavioral factors



While access and receipt of SMC do not appear key constraints in Togo, non-adherence to SMC has been documented.[21] In Togo, as in most countries that administer SMC, in each cycle, children are given sulphadoxine-pyrimethamine (SP) with amodiaquine (AQ) on the first day by community distributors, and then on the second and third day caregivers are instructed to give their eligible children AQ.
Non-adherence to SMC is often measured as not only acceptance of the first dose of SP and AQ, but parents' giving their children their second and third doses. A study on predictors of caregivers' adherence to administration of AQ during SMC in Nigeria, Burkina Faso, Chad, and Togo, predictors of non-adherence included a previous adverse reaction to SMC, awareness of the importance of giving the second and third doses, caregivers' age, and home visits paid to caregivers by a Lead Mothers intervention (in Nigeria). This data suggests that non-adherence to SMC is low, and very often due to previous adverse reactions. While SBC interventions might improve caregiver awareness of the giving eligible children their second and third doses, the prevalence of non-adherence is low and scarce resources might be better spent elsewhere. There is no peer-reviewed literature describing perceptions of health workers that distribute SMC, where people get their information about SMC, or knowledge and beliefs related to SMC.

A quantitative study assessing the coverage of SMC produced in 2021 provides more additional insight into determinants of SMC behaviors..[22] Data for this study was derived from 2,015 households in 200 clusters in the Centrale, Kara, and Savanes regions among families with eligible children. A total of 6,764 caregivers of eligible children were interviewed. Caregiver confidence in the efficacy of SMC was almost universal (95%), as was acceptance of doses provided by distributors (99.7%). Knowledge of the importance of the age of eligible children was lower (71%). Knowledge about the importance ot taking the second and third doses at home was 86%.

[21] Ibinaiye T, Oresanya O, Oguoma C, et al. Predictors of caregiver adherence to administration of amodiaquine during delivery of seasonal malaria chemoprevention in Nigeria, Burkina Faso, Chad, and Togo. Malar J. 2023;22(1):148.

[22] CERA Group. Enquête de couverture de la campagne de chimioprévention du paludisme saisonnier au Togo. Rapport final. 2021.

SBC recommendations:

There is no data to suggest that structural or behavioral factors significantly negatively influence delivery or acceptance of SMC in Togo. While anecdotal reports from other countries suggest caregivers may not always give the second and third doses at home as instructed, no Togo-specific data supports this. Likewise there are no data suggesting that a significant proportion of parents do not take their children to health centers in the advent of adverse reactions.