
Prevention and Control of Malaria in Urban Slum Communities of Makoko and Iwaya in Lagos, Nigeria

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ABSTRACT

This qualitative study examines the perception of residents of Makoko and Iwaya, two urban slum communities in Lagos on the nature, prevention and control of malaria. In-depth interviews were conducted with community leaders and other stakeholders, two key informant interviews were conducted with health officers and one focus group discussion was conducted with women drawn from the two communities. The result shows that knowledge of the nature of malaria was tainted with myths and misconceptions, even when the respondents were of the opinion that malaria was a critical concern that should be addressed in the communities. Malaria prevention practices among the communities were very low, with underutilization of the available health centres and resort to self-help. The study recommends that malaria health education should be strengthened in the Makoko and Iwaya communities, and not limited to health centres; environmental sanitation should be prioritized to avoid breeding of mosquitoes, and partnering with government and non-governmental organizations for free distribution of insecticide-treated nets.

Keywords: Malaria health education, malaria prevention, Makoko, malaria, urban slums.

INTRODUCTION

Malaria remains one of the most persistent public health problems in Nigeria. It is responsible for high outpatient consultations, maternal and child morbidity, and preventable deaths (WHO, 2024; WHO Regional Office for Africa, 2022; Oguche et al., 2024). In 2023, Nigeria accounted for approximately 30.9% of global malaria deaths and 66.7 million cases, making it a leading malaria-endemic country worldwide (WHO, 2024). Although Lagos State is highly urbanised, informal settlements such as Makoko and Iwaya still experience disproportionately high malaria prevalence. Overcrowding, inadequate drainage, stagnant water, and poor sanitation in these areas contribute to this situation (Bello, 2021; Alao, 2025; Merga et al., 2025).

These environmental and social conditions create ideal breeding grounds for mosquitoes, while socioeconomic inequalities further heighten vulnerability. Women in these communities face the dual burden of household caregiving and financial dependence. They are

often the primary agents for health management within households. However, gender-based decision-making hierarchies, low income, and limited mobility restrict their ability to adopt preventive practices effectively (Global Fund, 2022; Alao, 2025).

Health education plays a central role in the National Malaria Elimination Programme (NMEP) (2017) and the Lagos State Primary Healthcare framework. Its goal is to promote community awareness, encourage behavioural change, and increase the adoption of preventive measures such as insecticide-treated nets (ITNs) use, environmental sanitation, and early diagnosis (NMEP, 2021; Ellis, 2017). Through targeted campaigns, antenatal talks, and community outreach, health education empowers and mobilises communities (Onyinyechi et al., 2023; WHO, 2024). This study, therefore, explores the basis for malaria prevention education within Makoko and Iwaya communities. Malaria in Nigeria, especially in urban slums, seems to be the most dangerous disease. People see it otherwise due to misconceptions, religious and cultural belief systems and socio-economic reasons. Available literature pays attention to formal structures of preventing and controlling malaria, but with little knowledge base for understanding the practices in urban slums that may encourage and sustain the spread of malaria. It is therefore that necessitates formative research on the prevention and control of malaria in urban slum communities of Makoko and Iwaya in Lagos. The primary objective of the study was to examine the knowledge of malaria and malaria prevention practices within Makoko and Iwaya urban slum communities.

METHOD

A qualitative descriptive design was adopted to capture the experiences, perceptions, and behaviours of community members regarding knowledge of malaria and malaria prevention practices. This approach allows an in-depth understanding of complex socio-cultural and environmental factors influencing health decisions in low-resource settings. The study was conducted in Makoko and Iwaya, two densely populated communities on Lagos Mainland. Both communities typify urban slum conditions, with limited sanitation infrastructure, poor drainage, and makeshift housing situated near water bodies and some others built on water. The Iwaya Primary Health Care centre serves the two communities. Some Makoko residents also visit the Ayetoro Primary Health Centre as a convenience.

Participants were selected through purposive sampling to ensure representation of varied social and gender perspectives. The study included:

- Ten (10) individual in-depth interviews (IDIs) with adult men and women from both communities.
- Two (2) key informant interviews (KIIs) with community health officers – one from Iwaya and one from Makoko.
- One (1) focus group discussion (FGD) comprising 10 women aged 20–55 years from Makoko and Iwaya.

Participants were residents of their communities for at least one year and had given informed consent. All participants were engaged in informal economic activities, including petty trading,

fishing, and artisanal work. Data collection involved semi-structured interviews and discussion guides covering nine thematic domains:

1. Sociodemographic context,
2. Perceptions of malaria,
3. Knowledge and recognition of symptoms,
4. Treatment-seeking behaviour,
5. Access to healthcare,
6. Prevention practices,
7. Government and institutional roles,
8. Household and Community roles, and
9. Recommendations for improvement.

Interviews were conducted in English, Yoruba, and Pidgin English, based on participants' preferences, and were audio-recorded with consent. Each session lasted between 17 and 60 minutes. Verbatim transcription was completed immediately after interviews, and transcripts were cross-checked for accuracy.

A thematic analysis framework guided the analytic process. Manual coding was employed to identify recurring ideas and patterns across participant categories (IDI, FGD, and health officer interviews). Data triangulation strengthened validity by comparing perspectives from different participant types and communities. The findings were synthesised under nine major thematic areas.

Ethical approval was obtained from the relevant Lagos Mainland health authority. Participation was voluntary, and confidentiality was assured. All personal identifiers were replaced with coded references to ensure anonymity. The researcher maintained reflexive awareness of positionality, ensuring that participants' authentic voices shaped the findings.

The findings are organised under nine major themes. Each combines analytical interpretation with verbatim excerpts from participants, capturing community perspectives, gender dynamics, and health system realities surrounding knowledge of malaria and malaria prevention practices.

RESULTS AND DISCUSSION

5.1 Socio-demographic Profile of Respondents

The table below presents a summary of the demographic and socio-economic characteristics of all respondents who participated in the study, including ten in-depth interview (IDI) participants, ten focus group discussion (FGD) participants, and two health officers (from Iwaya PHC and Makoko community).

Variable	Category / Range	Participants (n)	Remarks / Description
Gender	Female (majority), Male (minority)	10 IDIs (6F, 4M); 10 FGD (10F); 2 Health Officers (2F)	Women were primary caregivers and main respondents in FGDs.

Age Range	20-60 years	All respondents	The majority aged between 20-45 years; active in economic and caregiving roles.
Marital Status	Married/Cohabiting/ Single	Most married or cohabiting	Reflects a family-oriented structure with women managing household health decisions.
Occupation	Petty trading, fishing, tailoring, carpentry, TBA, community health worker	All respondents	Informal economy predominates small-scale livelihood activities.
Education Level	None - Secondary school	All respondents	Most completed primary or junior secondary education; literacy aided understanding of health messages.
Religion	Christianity and Islam	All respondents	Religious groups play key roles in supporting health sensitisation programmes.
Community of Residence	Makoko and Iwaya	22 total participants	Densely populated urban slums on Lagos Mainland.
Household Size	4-8 persons per household	All respondents	High household density increases the risk of malaria transmission.
Duration of Residence	≥1 year	All respondents	Ensured familiarity with community health practices and challenges.

Table 1 shows the sociodemographic Profile of Respondents

Perceptions of Health and Malaria

Across all IDI and FGD responses, malaria was perceived as the most common and serious health problem in the communities. Participants described it as a recurrent illness that affects nearly every household. According to them:

“Malaria is very serious here; almost every family suffers it monthly.” - Female participant, Iwaya FGD).

“When malaria starts, I can’t go to market, and my children will not go to school.” - Female participant, Makoko (IDI).

“We see malaria every time, especially when rain starts.” - Male participant, Iwaya (IDI).

“We treat malaria almost every month in this house.” - Female participant, Makoko (FGD).

While most respondents identified mosquitoes as the cause, a few associated Malaria with environmental or dietary factors.

“Some people still think it’s the sun or oily food that causes it.” - Health Officer, Iwaya PHC

“Many people believe when you eat bad food or don’t rest, it is malaria.” - Female participant, Makoko (IDI).

The Health Officer from Makoko reinforced this observation, describing malaria as a persistent, life-threatening challenge:

“Malaria is a very dangerous and killer disease in our community. Lack of diagnostic tests was a significant issue, often due to the perception that there was no money to run them. This led to many individuals self-medicating for symptoms like fever without a proper malaria diagnosis.” - Health Officer, Makoko.

Participants also linked malaria to household poverty. They emphasise that:

“When malaria comes, we spend all our money on drugs.” - Female participant, Iwaya (IDI).

“Sometimes we borrow money to treat malaria, and before you recover, another one starts.” - Male participant, Makoko (IDI).

This section highlights malaria’s dual nature as both a health and economic burden, embedded in poverty and limited access to care.

Knowledge and Recognition of Malaria

Awareness of malaria symptoms was nearly universal. Respondents across both communities mentioned fever, headache, weakness, loss of appetite, and joint pain as common signs. Specifically, they said that:

“When the body is hot and weak, we know it’s malaria.” - Female participant, Makoko (FGD).

“When my child has fever and no appetite, I know it’s malaria.” - Female participant, Iwaya (IDI).

“We also see yellow eyes or vomiting, that one is serious malaria.” - Male participant, Iwaya (IDI).

Although knowledge of basic symptoms was high, participants had difficulty identifying severe warning signs that required urgent medical care.

“We know it’s malaria, but we don’t know when it becomes dangerous.” - Female participant, Makoko (FGD)

Health education during antenatal and child welfare clinics was frequently cited as a main source of malaria information. As indicated by some of them:

“During clinic, the nurse teaches us how to use the net and how to recognise malaria early.”

-Female participant, Iwaya (IDI)

“When they come to our church to talk about malaria, we listen and learn.” - Female participant, Makoko (FGD)

The Iwaya health officer affirmed that:

“During clinic we teach mothers how to use the net and recognise symptoms early.”

Similarly, the Makoko health officer credited sustained community dialogue:

“Due to the health worker's adequate mobilisation, sensitisation, and community dialogue, our people in Makoko community are now aware of the root cause of malaria and how it can be prevented.”

Nevertheless, several participants admitted occasional confusion between malaria and typhoid.

“People confuse malaria with typhoid; they buy both drugs together.” - Female participant, Iwaya (IDI)

“We call any fever malaria even when it is not.” - Male participant, Makoko (IDI)

This theme underscores the effectiveness of health education in improving awareness but also reveals persistent misconceptions and overlaps in disease perception.

Treatment-Seeking Behaviour

Most participants agreed that malaria is curable but described varied treatment-seeking behaviours influenced by cost, accessibility, and belief systems.

According to them, common initial responses included:

- Self-medication using over-the-counter drugs,
- Herbal remedies (*agbo*),
- Visits to chemists, and
- Prayers or spiritual healing before seeking formal healthcare.

“When malaria starts, I first take agbo; if it doesn't go, I go to the chemist.” - Male participant, Iwaya (IDI)

“Some people go to church first to pray before going to hospital.” - Female participant, Makoko (FGD).

“If I have money, I go for test, but when I don't, I just buy medicine from shop.” - Female participant, Iwaya (IDI).

The Health Officer in Iwaya noted that many patients present late:

“Most patients have taken several drugs before coming; sometimes no fever left to test.” - Health Officer, Iwaya PHC.

Similarly, the Makoko officer observed:

*“They should reduce their addiction to local herbs (*agbo*) and self-medication.”*

Gender roles also shaped healthcare decisions. Women's access to treatment often depended on male approval.

“If my husband says no, I cannot go to the clinic.” - Female participant, Iwaya (IDI)

“Men decide when to use money for hospital.” - Female participant, Makoko (FGD)

Thus, economic hardship and gendered authority combined to delay professional treatment, despite growing awareness.

Healthcare Access and Quality

All participants acknowledged the presence of nearby primary health centres, but many complained about cost, staff shortages, and drug unavailability. They explained that:

“Sometimes the test is free, but we buy the drugs ourselves.” - Female participant, Iwaya (FGD)

“If you don't have money, they tell you to come back.” - Female participant, Makoko (IDI)

“There is queue and no doctor sometimes.” - Male participant, Iwaya (IDI)

“We go early to avoid waiting all day.” - Female participant, Makoko (FGD)

The Iwaya officer corroborated this, explaining:

“RDT kits and ACTs are not always available. We do what we can.” - Health Officer, Iwaya PHC.

The Makoko officer added that:

“Government share free mosquito nets and refer people for free test and drugs, but sometimes the supply is not enough.”

Despite these challenges, participants appreciated the attitudes of healthcare staff.

“The nurse that attended to me was patient and explained everything.” -Female participant, Iwaya (IDI)

“They treat us well at the clinic, but sometimes drugs finish.” - Female participant, Makoko (FGD)

Healthcare access thus remains limited by structural and economic constraints, yet the community’s trust in health workers serves as a foundation for effective health education.

Malaria Prevention Practices

All participants demonstrated awareness of malaria prevention methods, including the use of ITNs, insecticide sprays, mosquito coils, and environmental sanitation. However, practices varied widely and were often inconsistent due to cost, discomfort, or negligence. According to them:

“We use spray every night, but the smell is too strong.”- Female participant, Makoko (FGD)

“We have nets, but it’s too hot to sleep under them.” - Female participant, Iwaya (IDI)

“Children sleep under the net, but my husband says it’s uncomfortable.” - Female participant, Iwaya (FGD)

“We put net on the baby’s bed only when mosquito plenty.” - Female participant, Makoko (IDI)

Several participants admitted that although they owned nets, they did not use them regularly.

“We were given nets last year, but I only use mine sometimes.” - Female participant, Makoko (FGD)

“When government share net, many people collect, but some use it to cover fish or goods.” - Male participant, Iwaya (IDI)

The Iwaya health officer confirmed this inconsistency:

“People use nets more when there are campaigns, but after some months they stop. Some even use the nets for fishing.” - Health Officer, Iwaya PHC

Similarly, the Makoko officer noted that while many have nets, others rely on alternatives:

“Although not everyone in Makoko community have mosquito nets, those that do not have make use of mosquito coil and repellent. Those that have mosquito nets use it very well, because they understand the importance of sleeping under the net to avoid mosquito bite that can lead to malaria.”- Health Officer, Makoko.

Participants also described environmental cleaning as part of preventive practice.

“We clear gutter and remove dirty water every Saturday.” - Female participant, Makoko (FGD).

“We clean the house and pour oil on dirty water so mosquito no go breed.” - Male participant, Iwaya (IDI).

Despite these efforts, challenges persist due to the poor waste management infrastructure.

“Even when we clean, people throw dirt inside gutter again.” - Female participant, Makoko (IDI).

“No place to dump refuse; that is why mosquitoes plenty.” - Male participant, Iwaya (IDI).

Overall, health education has raised awareness of preventive behaviours, but consistent adherence is limited by environmental conditions, poverty, and urban infrastructure failures.

Government and Institutional Role

Perceptions of government and institutional roles in malaria control were mixed. Participants appreciated government-led health campaigns, net distribution, and testing drives, yet they criticised irregular outreach and poor follow-up. They affirmed that:

“They fumigate sometimes, but not all areas.” Female participant, Iwaya (FGD).

“Government should visit our community more often, not only during malaria day.” - Female participant, Makoko (IDI)

“They share nets, but not everyone get. Some people miss out.” - Male participant, Makoko (IDI)

“Government came last year for malaria awareness; since then, nothing again.” - Female participant, Iwaya (IDI)

The Health Officer at Iwaya PHC confirmed that limited funding affects regular education and outreach:

“We don’t have a separate budget for health education; we improvise with the little we have.”

The Makoko officer acknowledged periodic interventions:

“Government organise community outreach and public awareness for the members of Makoko community. They do share free mosquito nets and also refer the community members to the health centre for free test and drugs for the treatment of malaria.”

However, the Health Officer at Makoko also appealed for sustained government attention and welfare improvement. In her words:

“I want to appeal for the assistance of the government toward the people of Makoko community that government should look into the wellbeing of the people in Makoko community.”

FGD participants shared similar sentiments:

“They should come to the real slum areas, not just talk on radio.” - Female participant, Makoko (FGD).

“Government should clean our drainage and stop dirty water from gathering.” - Female participant, Iwaya (FGD).

Overall, government engagement is seen as essential but insufficiently consistent. Participants called for continuous presence, improved sanitation services, and equitable distribution of preventive materials.

Household and Community Roles

Community and household structures play a central role in malaria prevention. Most participants identified women as the primary actors responsible for maintaining clean surroundings, caring for children, and ensuring medicine or net use. Corroborating this, some maintained that:

“It’s the woman that cleans the house and buys medicine when a child is sick.” - Female participant, Iwaya (IDI)

“We women take care of the house; men only bring money when they want.” - Female participant, Makoko (FGD)

Men’s roles were often financial and decision-based:

“The man decides if his wife or child should go for treatment.” - Health Officer, Iwaya PHC

“My husband gives money when he can, but most times, I manage by myself.” - Female participant, Makoko (IDI)

Community mobilisation was highlighted by the Makoko health officer, who described ongoing sensitisation efforts:

“We mobilise the members of Makoko community by sensitising them on the causes of malaria such as mosquito bite, stagnant water, dirty environment, poor sanitation, drinking dirty water and eating bad food, and how they can start preventing it.” - Health Officer, Makoko.

Participants acknowledged that community leaders, religious figures, and women’s groups often contribute to awareness campaigns.

“Our pastor always announce when health people are coming.” - Female participant, Iwaya (FGD)

“We have women groups that clean gutters together.” - Female participant, Makoko (FGD)

“Sometimes men join us when we do community sanitation.” - Male participant, Iwaya (IDI)

Despite these efforts, male involvement remains minimal and largely reactive. Women remain the frontline implementers of preventive actions, while men retain financial decision-making power.

Suggestions and Closing Reflections

Participants across IDIs and FGDs made several recommendations for improving malaria prevention practices. The recurring suggestions emphasised continuous health education, improved sanitation, free treatment, and male engagement. They expressed this concern by appealing that:

“Government should clean our gutters and give free nets.” - Female participant, Makoko (FGD).

“If health workers keep coming to talk to us, we will remember to use the nets.” - Female participant, Iwaya (IDI).

“They should involve men too, because men control the money.” - Female participant, Iwaya (FGD).

“Provide free drugs and test; that will help us.” - Male participant, Makoko (IDI).

“We need more awareness; some people still don’t take it serious.” - Female participant, Iwaya (IDI).

“They should fumigate every three months and clear all dirty places.” - Female participant, Makoko (FGD).

Both health officers offered programmatic recommendations:

“We need household follow-ups and male-targeted campaigns.” - Health Officer, Iwaya PHC

“Government should support community health workers and Traditional Birth Attendants (TBAs), to continue sensitising people.” - Health Officer, Makoko.

These suggestions reflect community readiness for engagement and underscore the importance of inclusive, consistent, and adequately funded health education initiatives.

The findings from Makoko and Iwaya reveal a complex interplay of awareness, socio-economic realities, and cultural practices that shape malaria prevention behaviour. Health education, as delivered through primary healthcare facilities, outreach campaigns, and religious or women’s groups, has significantly increased awareness about malaria transmission, symptoms, and prevention. However, awareness does not always lead to consistent behavioural practice.

Knowledge-Practice Gap

Most participants could identify the causes and symptoms of malaria, yet misconceptions persisted, such as beliefs that malaria results from heat or oily food. This shows that while information has reached communities, its internalization into daily habits remains incomplete. The two health officers emphasized this gap: the Iwaya PHC officer noted that some people *“still think it’s the sun that causes malaria.”*

While the Makoko TBA observed that:

“Many individuals self-medicate without proper diagnosis.”

Both perspectives highlight a need for ongoing reinforcement and practical demonstrations of preventive methods.

Economic and Structural Constraints

Poverty, unemployment, and irregular income streams were consistently cited as barriers to malaria prevention. The inability to afford diagnostic tests, purchase quality drugs, or maintain clean surroundings hampers adherence to health messages. A female participant summarized this reality succinctly:

“Education helps us understand, but when you have no money, knowledge is not enough.” - Female participant, Makoko (FGD).

The Makoko health officer added that even when diagnostic kits and drugs are available, many community members still avoid testing because they cannot pay the associated costs. This supports broader evidence that economic inequality significantly limits the impact of health education in low-income urban areas.

Cultural and Gender Dynamics

Gendered decision-making remains a key determinant of treatment-seeking and preventive behaviour. Women are responsible for household cleaning, caregiving, and managing malaria

treatment, yet they depend financially and socially on male partners who often determine when and how healthcare resources are used.

“If my husband says no, I cannot go to the clinic.” - Female participant, Iwaya (IDI).

This gender imbalance not only delays treatment but also diminishes women’s autonomy in health-related decisions. Both health officers and FGD participants recommended that men be actively engaged in malaria prevention education to balance these dynamics.

Community and Institutional Linkages

The study highlights that community structures, including women’s associations, religious groups, and TBAs, play a crucial role in promoting health. The dual role of the Makoko officer as both a Traditional Birth Attendant and a health committee member exemplifies the importance of trusted community figures in sustaining health education initiatives.

“We mobilise the members of Makoko community by sensitising them on the causes of malaria... and how they can start preventing it.” - Health Officer, Makoko

Institutionally, both health officers acknowledged that insufficient funding hinders consistent health education and outreach.

“We don’t have a separate budget for health education; we improvise.” - Health Officer, Iwaya PHC.

Limited government involvement, intermittent fumigation, and inadequate sanitation infrastructure perpetuate environmental conditions favourable for malaria transmission. Thus, while health education is effective in building awareness, structural deficiencies undermine its long-term effectiveness.

Integrated Perspective

The findings confirm that health education has had a positive but uneven effect. Behavioural change is most sustained when educational messages are reinforced by tangible support like free mosquito nets, accessible testing, affordable drugs, and visible environmental management. The role of gender, poverty, and institutional continuity cannot be overstated: each acts as both a barrier and an opportunity for deepening the success of malaria prevention in urban slums.

CONCLUSION

Health education has been shown to significantly improve community awareness and spur some behavioural changes regarding malaria prevention in the urban slums of Lagos. However, the positive effects of this awareness are limited by factors such as poverty, social inequality, and limited government responsiveness. Insights from health officers suggest that, while the healthcare system effectively promotes education, its impact is weakened by inadequate funding, inconsistent outreach, and household economic vulnerability. For health education to be truly transformative rather than just informative, it must be supported by structural interventions that address issues of affordability, environmental management, and gender inequalities. In summary, health education remains the most sustainable approach to malaria

control in urban slums, but only when paired with empowerment, infrastructure, and institutional commitment.

RECOMMENDATIONS

- 1. Strengthen Community-Based Health Education**
 - i. Organise regular interactive education sessions outside clinical settings using local influencers, TBAs, and women's groups.
 - ii. Integrate malaria education into church, mosque, and market gatherings for wider reach.
- 2. Enhance Male Participation**
 - i. Design programmes that specifically target men's roles in healthcare decision-making and resource allocation.
 - ii. Encourage joint household participation in health campaigns.
- 3. Ensure Accessibility and Affordability**
 - i. Expand free malaria testing at community clinics.
 - ii. Maintain a consistent supply of ACT drugs and ITNs.
 - iii. Provide subsidies or vouchers for low-income households.
- 4. Improve Environmental Sanitation**
 - i. Partner with local councils to establish community waste management and regular drainage cleaning.
 - ii. Institutionalise monthly community sanitation days with support from NGOs.
- 5. Institutional Support and Funding**
 - i. Allocate dedicated budgets for community health education and outreach under the National Malaria Elimination Programme (NMEP).
 - ii. Improve coordination between the government, NGOs, and community leaders for continuous intervention.
- 6. Empowerment and Livelihood Integration**
 - i. Combine health education with microcredit or skill-development initiatives to improve household income and resilience.
 - ii. Support female-led community initiatives that link livelihood improvement with disease prevention.
- 7. Monitoring and Evaluation**
 - i. Implement localised tracking systems for ITN use, malaria incidence, and treatment patterns.
 - ii. Use community-based volunteers for data collection and feedback loops to improve programme design.

REFERENCES

- Alao, J. O. (2025). Socioeconomic and educational influences on malaria prevention knowledge, net use, and treatment-seeking behaviours: An analysis of the 2021 Nigeria Malaria Indicator Survey. *PLOS Global Public Health*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC12462100/>
- Bello, A. (2021). Risk status of malaria based on socio-demographic and environmental risk factors in two communities in Lagos, Nigeria. <https://doi.org/10.21203/rs.3.rs-488751/v1>
- Ellis, A. (2017). HC3 strengthens the social and behaviour change communication capacity of the Nigerian National Malaria Elimination Programme [Case study]. *Health Communication Capacity Collaborative*. https://healthcommcapacity.org/wp-content/uploads/2017/01/Nigeria_CS-Case-Study.pdf
- Global Fund. (2022). Technical brief: Equity, human rights, gender equality and malaria. Allocation period 2023–2025. https://resources.theglobalfund.org/media/14360/cr_malaria-gender-human-rights_technical-briefing-note_en.pdf
- Merga, H., Degefa, T., Birhanu, Z., et al. (2025). Urban malaria in sub-Saharan Africa: A scoping review of epidemiologic studies. *Malaria Journal*, 24, 131. <https://doi.org/10.1186/s12936-025-05368-9>
- National Malaria Elimination Programme (NMEP). (2017). National advocacy, communication and social mobilisation (ACSM) implementation plan for malaria control in Nigeria. Federal Ministry of Health. <https://www.afro.who.int/sites/default/files/2017-06/nigeria-national-acsm-implementation-plan.pdf>
- National Malaria Elimination Programme (NMEP). (2021). Nigeria National Malaria Strategic Plan 2021–2025. Federal Ministry of Health. <https://mesamalaria.org/wp-content/uploads/2024/07/NATIONAL-MALARIA-STRATEGIC-PLAN-Nigeria-2021-2025-Final.pdf>
- Oguche, S., Oladipo, E. K., Afolabi, B. B., & others. (2024). Severe malaria intervention status in Nigeria: Workshop meeting report. *Malaria Journal*, 23, Article 50. <https://malariajournal.biomedcentral.com/articles/10.1186/s12936-024-05001-1>
- Onyinyechi, O. M., Mohd Nazan, A. I. N., & Ismail, S. (2023). Effectiveness of health education interventions to improve malaria knowledge and insecticide-treated nets usage among populations of sub-Saharan Africa: Systematic review and meta-analysis. *Frontiers in Public Health*, 11, 1217052. <https://doi.org/10.3389/fpubh.2023.1217052>
- World Health Organisation (WHO). (2024). World Malaria Report 2024. World Health Organisation. <https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2024>
- World Health Organisation Regional Office for Africa. (2022). Report on malaria in Nigeria 2022. World Health Organisation, <https://www.afro.who.int/countries/nigeria/publication/report-malaria-nigeria-2022-0>

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Appendixes:

Theme	Representative Quotes	Source
Perception of Malaria	“Malaria is very serious here; almost every family suffers it monthly.”	Female participant, Iwaya (FGD)
Perception of Malaria	“Malaria is a very dangerous and killer disease in our community.”	Health Officer, Makoko
Knowledge and Awareness	“During clinic we teach mothers how to use the net and recognise symptoms early.”	Health Officer, Iwaya PHC
Knowledge and Awareness	“Our people in Makoko community are now aware of the root cause of malaria and how it can be prevented.”	Health Officer, Makoko
Treatment-Seeking Behaviour	“When malaria starts, I first take agbo; if it doesn't go, I go to the chemist.”	Male participant, Iwaya (IDI)
Treatment-Seeking Behaviour	“They should reduce their addiction to local herbs (agbo) and self-medication.”	Health Officer, Makoko
Healthcare Access and Quality	“Sometimes the test is free, but we buy the drugs ourselves.”	Female participant, Iwaya (FGD)
Healthcare Access and Quality	“RDT kits and ACTs are not always available. We do what we can.”	Health Officer, Iwaya PHC
Malaria Prevention Practices	“We have nets, but it's too hot to sleep under them.”	Female participant, Iwaya (IDI)
Malaria Prevention Practices	“Those who have mosquito nets use it very well, because they understand the importance of sleeping under the net.”	Health Officer, Makoko
Government and Institutional Role	“The government should visit our community more often, not only during malaria day.”	Female participant, Makoko (IDI)
Government and Institutional Role	“We don't have a separate budget for health education; we improvise.”	Health Officer, Iwaya PHC
Community and Household Roles	“It's the woman who cleans the house and buys medicine when a child is sick.”	Female participant, Iwaya (IDI)
Community and Household Roles	“We mobilise the members of Makoko community by sensitising them on the causes of malaria.”	Health Officer, Makoko
Recommendations and Reflections	“If health workers keep coming to talk to us, we will remember to use the nets.”	Female participant, Iwaya (IDI)
Recommendations and Reflections	“They should involve men too, because men control the money.”	Female participant, Iwaya (FGD)

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Table 2 above shows the Illustrative Participants' Quotes



Pictorial evidence of Makoko and Iwaya Communities in Lagos State.