



CHILD HEALTH ENVIRONMENTAL AND SAFETY TRUST



CHILD HEALTH ENVIRONMENTAL AND SAFETY TRUST
Presents
A HEALTH ADVOCACY PROGRAM

Theme:
**Malaria Vector
Reduction for
child survival**

Featuring:

- **Environmental Surveillance.**
- **Community Advocacy**
- **Malaria Screening**

 Yemetu community, Ibadan.

18th | 10AM
Nov

For Sponsorship: 0623150947 GTB

Program Theme: Malaria Vector Reduction for Child Survival.

Date: 18th of November, 2023.

Venue: Yemetu Community, Ibadan, Oyo State.

BACKGROUND

Vector-borne diseases contribute substantially to the global burden of diseases and disproportionately affect the poor and under-served populations living in a country like Nigeria. These diseases are human illnesses caused by parasites, viruses and bacteria (pathogens) that are transmitted by a wide variety of organism, including mosquitoes, sandflies, ticks, triatomine bugs, and snails known as vectors.

Malaria is one of the vector-borne diseases endemic to Nigeria. It is transmitted by the female anopheles mosquito throughout the country with more than 90% of the population at risk. According to the World Malaria report, Nigeria has the highest number of global malaria cases (68 million cases) and high number of malaria deaths (194,000) especially amongst pregnant women and children under the age of 5, accounting for nearly 27% of global burden of malaria. (WHO, 2022). Hence, the aim of this program was to increase awareness in necessitating preventive approaches to control the incidence of malaria by diverse mosquito control methods, especially the source reduction approach.

The program took place on 18th of November, 2023, at Yemetu community in Ibadan, Oyo state with specific objectives which were to:

1. assess knowledge, attitude and practices associated with source reduction of malaria vector among participants.
2. assess current practices employed in malaria vector control in selected study location.
3. identify the risk factors contributing to malaria incidence in the community.
4. document the pattern of malaria prevalence amongst vulnerable groups in the community especially children under the age of 5.
5. expose the community members to innovative approaches of source reduction of malaria vectors.

TARGET POPULATION

The target population for this program are households with pregnant women, mothers of under 5 children and the elderly.

APPROACH ADOPTED FOR THE PROGRAMME

The following strategies were employed to achieve the objectives of the programme:

- i. **Community entry:** This was done by approaching and meeting with the head of community (Mogaji) and relevant stakeholders.
- ii. **Surveillance:** This was carried out through an interviewer administered questionnaire method where socio-demographic characteristics of participants, knowledge, attitude and practices associated with source reduction of malaria vector among participants were assessed.
- iii. **Training:** A sensitization was carried out by Mrs Huswah Fakeye, Mrs Ana and Prof. G.R.E.E Ana, via an advocacy session.
- iv. **Interventions:**
 - Pregnant women and mothers of under 5 children were provided with Long-Lasting Insecticide Treated Nets.
 - Free malaria screening using the rapid test kits, genotype and blood group testing and provision of antimalaria drugs to all participants which serves as a means of incentive.

HIGHLIGHTS OF THE EVENT

The program started with the surveillance part wherein participants were interviewed in the local language (Yoruba) using the prepared instrument. Furthermore, the quality of the community's environment was appraised by documenting the availability and non-availability of specific environmental parameters and amenities.

The sensitization session of the program took place in front of the Mogaji's palace in the community, starting at 11:00am with a welcome address from the Programme Manager, Mrs Huswah Sideeq-Fakeye, who gave a brief profile of the organisation, focusing on its vision, mission and its work activities. She went further to introduce the executives of the organisation in person of Prof G.R.E.E. Ana who is the President/Founder and the Mrs Margret Ana, the Executive Director.

The training session started with a presentation on the topic “Malaria Vector Reduction for Child Survival” by Mrs Huswah Sideeq-Fakeye where she gave an illustration on what vector is and how efforts have been made to control the spread of vector-borne diseases, concentrating on malaria as it remains a public health concern in Nigeria and sub-Saharan Africa as a whole. She expressed concerns about how huge sums of investment is made on malaria annually causing the reduction of country’s gross domestic product (GDP) making references to the Federal Ministry of Health in Nigeria.

She went further to discuss malaria as a vector-borne disease, its predisposing factors and ways to control the proliferation of the malaria vector. She also acquainted on ways in which malaria parasite can be diagnosed and how it is treated using the artemisinin-based combination therapy (ACTs) as the drug mostly used to treat all confirmed malaria cases. She ended by advising the participants to avoid self-medication, as it might result to drug-resistance and always consult health personnel for effective diagnosis and treatment when indisposed.

The Executive Director, Mrs Margaret Ana also contributed by giving an insight about the severity of malaria and impelled the participants to avoid exposure of their body to malaria vector as prevention is better than cure.

The president, prof. G.R.E.E Ana also highlighted some techniques to prevent the infestation of malaria vector such as waste management, environmental sanitation, housing structure strategy, use of Long-Lasting Insecticide Treated Nets and use of mosquito creams or every other form of repellents. He also talked about the dangers of anti-malaria drug resistance and encourage the participants to imbibe with the control interventions to reduce mortality among under 5 children and pregnant women especially.

At the end of the sensitization sessions, malaria screening was conducted for all the participants using Rapid Diagnosis Test kits as well as genotype and blood group testing. Mosquito repellent creams, insecticide-treated nets and drugs (analgesic and multivitamins) were given out to the participants who appreciated the organizers of the outreach and affirm to heed to the lessons in their best capability.

The closing remark was made and the programme came to an end by 2.30pm with group photograph and refreshment.

IMPACT

At the ending of the program, the following impacts were made:

- An increased awareness on the management of the proliferation of the malaria vector.
- An improvement in knowledge and practices of malaria control interventions.

CHALLENGES

- **Partnership/Sponsorship:** Inability to secure adequate funding support and partner organizations for the programme.

RECOMMENDATION

- ❖ The participants were encouraged on consistence use of bed nets, regular screening and treatment.
- ❖ The importance of community-wide environmental measure to reduce mosquito breeding site was emphasized and recommended.

Survey Findings

Social-demographics characteristics

The socio-demographic characteristics of the respondents who participated in the survey are presented in Table 1 below. The findings showed that majority of the participants were female with the percentage of 91.3%, age of the participants ranged between 10-99 years with the participants in their 10s-40s dominating the highest percentage of 86.9%. About 60.87% of the respondents reported having secondary school education, 17.39% had obtained primary education, 17.39% had tertiary education while 4.35% of the respondents had non-formal education.

Majority of the respondents were single, 34.78% of them were married, 8.69% widowed while 4.35% had been divorced. Based on Religion, 78.26% are Muslims while 21.74% are Christians. Majority of the participants were Yoruba speaking with a percentage of 95.65% and 52.18% being students, 34.78% self-employed, 8.69% civil servants while 4.35% was unemployed having monthly income ranging between ₦5,000 - ₦50,000 and family size ranging between 1-8.

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency	Percentage (%)
<i>Sex</i>		
Male	2	8.69
Female	21	91.3
<i>Age (years)</i>		
10-49	20	86.9
50-99	3	13.04
<i>Level of Education</i>		
Non-Formal	1	4.35
Primary	4	17.39
Secondary	14	60.87
Tertiary	4	17.39
<i>Marital Status</i>		
Married	8	34.78
Single	12	52.17
Widowed	2	8.69
Divorced	1	4.35
<i>Religion</i>		
Christianity	5	21.74
Islam	18	78.26
Traditional	0	0

Table 1b: Socio-demographic characteristics of respondents

Variable	Frequency	Percentage (%)
<i>Ethnicity</i>		
Yoruba	22	95.65
Hausa	0	0
Igbo	1	4.35
<i>Occupation</i>		
Student	12	52.18
Self-employed	8	34.78
Civil-servant	2	8.69
Unemployed	1	4.35
<i>Income per month</i>		
₦5,000 - ₦10,000	6	26.1
₦11,000- ₦20,000	1	4.35
₦21,000- ₦30,000	3	13.04
₦31,000-₦40,000	2	8.69
₦41,000- ₦50, 000	1	4.35
None	10	43.48
<i>Family size</i>		
1-2	2	8.69
3-4	4	17.39
5-6	5	21.74
7-8	8	34.78
No idea	4	17.39

Knowledge and practices of the respondents on the management of malaria.

The survey findings showed that 100% of the respondents are aware of malaria being a vector-borne disease caused by mosquito with specific percentage of the respondents believing that environmental factors such as the availability of stagnant water (43.48%), bushy environment (86.96%) and uncovered water (39.13%) predispose humans to the proliferation of mosquitoes.

Majority of the respondents reported that children were more vulnerable to malaria followed by pregnant women and the elderly and stated the most obvious symptoms of malaria to be headache, fever and appetite loss. About 35% reported to have been treated for malaria in the past 3 months.

More than 50% respondents reported not sleeping under the Insecticide Treated Net at night with the reasons of unavailability, discomfort and negligence. All of the respondents agreed that environmental sanitation is the major key to control and prevent mosquito infestation.

Table 2: Knowledge and practices of the respondents on the management of malaria

Variable	Frequency	Percentage (%)
<i>Are you aware that malaria is caused by a vector?</i>		
Yes	23	100
No	0	0
<i>If yes, what vector causes this disease?</i>		
Cockroach	0	0
Rat	0	0
Mosquito	23	100
Spider	0	0
<i>What are the predisposing factors of this malaria vector?</i>		
Stagnant water	10	43.48
Bushy environment	20	86.96
Uncovered water	9	39.13
Others(specify)	4	17.39
<i>Who is most affected by malaria illness?</i>		
Pregnant women	9	39.13
Children	20	86.96
The elderly	6	26.09

Table 2b: Knowledge and practices of the respondents on the management of malaria

Variable	Frequency	Percentage (%)
<i>What symptoms of malaria are you aware of?</i>		
	13	56.52
Fever	17	73.91
Headache	12	52.17
Loss of appetite	11	47.83
Cold	5	21.74
Cough		
<i>When last did you fall sick as a result of malaria?</i>		
	4	17.39
This Month	2	8.69
Last Month	8	34.78
Last 3 Month	3	13.04
Last 6 Month	3	13.04
Others	3	13.04
No idea		
<i>Do you normally sleep under Insecticide Treated Net at night?</i>		
Yes	11	47.83
No	12	52.18

Table 2c: Knowledge and practices of the respondents on the management of malaria

Variable	Frequency	Percentage (%)
<i>If yes, how often do you sleep under it?</i>		
Sometimes	7	30.43
Regularly	7	30.43
<i>If No, why?</i>		
Unavailability	7	30.43
Not conducive	3	13.04
No idea	13	56.52
<i>Do you agree that environmental sanitation is the major key to control and prevent mosquito infestation?</i>		
Yes	22	95.65
No	0	0
Maybe	1	4.35

Attitude of respondents to the management of malaria vector and illness.

The survey findings showed that majority of the respondents (52.17%) strongly agree that environment exposes them to the breeding of malaria vector and almost all the respondents (86.96%) strongly agree that visiting the hospital for malaria diagnosis and treatment is better than self-medicating.

73.91% of the respondents strongly agreed that malaria is an illness that can be cured, while undecided was 4.35%. About 82.61% of the respondents strongly agreed that sleeping under Insecticide-Treated Net is one of the ways to prevent malaria and a large percentage of them believe that malaria can be transmitted from one person to another.

Table 3: Attitude of respondents to the management of malaria vector and illness

Variable	Frequency	Percentage (%)
<i>My environment exposes me to the proliferation of the malaria vector?</i>		
Strongly agree	12	52.17
Agree	8	34.78
Undecided	1	4.35
Disagree	2	8.69
Strongly disagree	0	0
<i>Visiting the hospital for malaria diagnosis and treatment is better than self-medicating.</i>		
Strongly agree	20	86.96
Agree	3	13.04
Undecided	0	0
Disagree	0	0
Strongly disagree	0	0
<i>Malaria is a curable illness?</i>		
Strongly agree	17	73.91
Agree	5	21.74
Undecided	1	4.35
Disagree	0	0
Strongly disagree	0	0

Table 3b: Attitude of respondents to the management of malaria vector and illness

Variable	Frequency	Percentage (%)
<i>Sleeping under Insecticide-Treated Net is one of the ways to prevent malaria?</i>		
Strongly agree	19	82.61
Agree	4	17.39
Undecided	0	0
Disagree	0	0
Strongly disagree	0	0
<i>Malaria can be transmitted from one person to another?</i>		
Strongly agree	13	56.52
Agree	4	17.39
Undecided	1	4.35
Disagree	5	21.74
Strongly disagree	0	0

APPENDICES

CHILD HEALTH ENVIRONMENT AND SAFETY TRUST (CHEST) HEALTH PROGRAM

THEME: MALARIA VECTOR REDUCTION FOR CHILD SURVIVAL.

Dear Respondents,

We are Child Health Environment and Safety Trust (CHEST), a non-profit and non-governmental organization that builds the capacity of children on sound and sustainable environmental health and safety issues. We need your assistance in providing honest responses to the questions in this survey. We assure you that your responses will be kept confidential. The interview will last for appropriately 20 minutes. Please Kindly tick (√) your desired responses and fill in answers in the space provided. Thank you.

Section A: Socio-demographic characteristics of the Respondents

1. Sex: Male () Female ()
2. Age in years
3. Level of Education: non-Formal () Primary () Secondary () Tertiary ()
4. Marital Status: Married () Single () Divorced () Widowed ()
5. Religion: Christianity () Islam () Traditional ()
6. Ethnicity: Yoruba () Hausa () Igbo () Others.....
7. Occupation:
8. Income per month:
9. Family size:

Section B: Knowledge and practices of the respondents on the management of malaria

1. Are you aware that malaria is caused by a vector? Yes () No ()
2. If yes, what vector causes this disease? i. Cockroach () ii. Rat () iii. Mosquito () iv. Spider ()
3. What are the predisposing factors of this malaria vector? (Select all that apply). i Stagnant water () ii. Bushy environment () iii. Uncovered water () iv. Others (specify)
4. Who is most affected by the malaria illness? (Select all that apply) i. Pregnant women () ii. Children () iii. The elderly ()
5. What symptoms of malaria are you aware of? (Select all that apply) i. Fever () ii. Headache () iii. Loss of appetite () iv. Cold () v. Cough
6. When last did you fall sick as a result of malaria? i. This Month () ii. Last Month () iii. Last 3 Months () iv. Last 6 Months () v. Others (specify)

7. Do you normally sleep under Insecticide Treated Net at night? i. Yes () ii. No ()
8. If yes, how often do you sleep under it? i. Sometimes ()ii. Regularly ()
9. If No, why? i. Unavailability () ii. Not conducive () iii. No idea ()
10. Do you agree that environmental sanitation is the major key to control and prevent mosquito infestation? i. Yes () ii. No () ii. Maybe ()

Section C: Attitude of respondent to the management of malaria vector and illness (Kindly tick your desired choice). Key: SA- Strongly agree; A- Agree; UD- Undecided; D- Disagree; SD- Strongly disagree

S/N	Statement	SA	A	UD	D	SD
1	My environment exposes me to the proliferation of the malaria vector.					
2	Visiting the hospital for malaria diagnosis and treatment is better than self-medicating.					
3	Malaria is a curable illness.					
4	Sleeping under the Insecticide-Treated Net is one of the ways to prevent malaria.					
5	Malaria can be transmitted from one person to another.					

CHILD HEALTH ENVIRONMENT AND SAFETY TRUST (CHEST) HEALTH PROGRAMME.

THEME: MALARIA VECTOR REDUCTION FOR CHILD SURVIVAL.

Environmental Quality Appraisal Observational Checklist for Residents in Yemetu Community of, Ibadan.

BUILDING STRUCTURES

	Features	Present			Absent
		Highly(+++)	Moderately(++)	Minimally(+)	(×)
A	Face- to- Face				
B	Flat				
C	Bungalow				
D	Duplex				
E	Others				

WATER SOURCES

	Features	Present			Absent
		Highly(+++)	Moderately(++)	Minimally(+)	(×)
A	Bore hole				
B	Tap water				
C	Well				
D	River/stream				
E	Others (specify)				

SANITARY FACILITIES

	Features	Present			Absent
		Highly(+++)	Moderately(++)	Minimally(+)	(×)
A	Open defecation				
B	Pit Latrine				
C	Water Closet				
D	Others (specify)				

SANITARY CONDITIONS

	Features	Present			Absent
		Highly(+++)	Moderately(++)	Minimally(+)	(×)
A	Overgrown weed				
B	Drainage				
C	Stagnant water				
D	Sewage				
E	Others (specify)				

WASTE MANAGEMENT

	Features	Present			Absent
		Highly(+++)	Moderately(++)	Minimally(+)	(×)
A	Open dumping				
B	Burning				
C	Landfill				
D	Riverbanks				
E	Waste bins				
F	Clogged drainage				

PICTURE GALLERY



A cross section of participants during the surveillance session



The President/Founder, Prof Ana addressing the participants during the sensitization session



The Programme Manager addressing the participants



The Executive Director, Mrs Ana addressing the participants



A cross-section of participants during the sensitisation session.



A cross-section of participants during the medical screening session.





A cross-section of the medical team with the Founder and the Executive Director



Distribution of materials



Distribution of materials



Participants with CHEST officials



Participants with CHEST officials



CHEST officials



CHEST officials with the medical team



CHEST officials with the community head (The Mogaji)