



FEDERAL MINISTRY OF HEALTH

NATIONAL MALARIA ELIMINATION PROGRAMME (NMEP)



2019 ANNUAL REPORT

MARCH 2020

FOREWORD

The National Malaria Elimination Programme (NMEP) Annual Report encompasses the assessment of various planned and implemented activities of all thematic areas of malaria programme in Nigeria. The report also includes challenges, recommendations as well as success stories and important pictorials/events that happened in 2019.

The essence of the annual report cannot be over emphasized as it forms the basis for further planning and execution of activities and serves as a reference document for stakeholders and the general public to know the status of National Malaria Elimination Programme (NMEP). This document presents well-articulated and conceptualized activities undertaken by NMEP and its partners, including development and implementing partners as well as sub national governments towards achieving a malaria free Nigeria.

I therefore urge you all to use this report as a reference document for malaria programming in Nigeria.

ACKNOWLEDGEMENTS

The NMEP appreciates the immense contribution and support of Ministries, Departments and Agencies (MDAs), Partners in its efforts to eliminate malaria in Nigeria. Our gratitude goes especially to WHO, Global Fund, PMI, DFID, Malaria Consortium (MC), HJFMRI, NIMR, SuNMaP 2, MSH, Vector Works, Vectorlinks, AFENET, JHPEIGO, CHAI, HC3/BA, GHSC-PSM, UNICEF, CRS, Chemonics and SFH.

The Honorable Minister of Health, the Permanent Secretary, and the Director Public Health are highly appreciated for their unflinching leadership roles in the implementation of malaria control interventions in Nigeria and for the successful development of this document.

The contributions and commitment of NMEP staff towards finalization of this document is greatly acknowledged.

Dr. Audu Bala Mohammed

National Coordinator

National Malaria Elimination Programme

ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ACSM	Advocacy, Communication and Social Mobilization
AFENET	African Field Epidemiology Network
ACT	Artemisinin-based Combination Therapy
ACTs	Artemisinin-based Combination Therapy's
AA	Arthemether- Amodiaquine
AL	Arthemether Lumefantrine
ANC	Ante-Natal Care
AOP	Annual Operational Plan
ALMA	African Leaders Malaria Alliance
ATM	Aids, Tuberculosis and Malaria
BA-N	Breakthrough Action Nigeria
BHCPF	Basic Health Care Provision Funds
CAMA	Corporate Alliance on Malaria in Africa
CAT	Cash and Asset Transfer
CCM	Country Coordination Mechanism
CDC	Centre for Disease Control
CFBL	Community Feedback Loops
CHAI	Clinton Health Access Initiative
CM	Case Management
CMSC	Case Management Subcommittee
CORPs	Community Oriented Resource Persons
Co-PIs	Co-Principal Investigators
CRS	Catholic Relief Services
DHIS	District Health Information System
DHPRS	Department of Health Planning Research and Statistics
DoD	Department of Defence
DPH	Department of Public Health
DMEG	Data Management Expert Group
DRM	Domestic Resource Mobilization
DQA	Data Quality Assessment
EOI	Expression of Interest
EPI	Expanded Programme on Immunization
EQA	External Quality Assurance
EUV	End Use Verification
FCT	Federal Capital Territory
Fig	Figure
FMOH	Federal Ministry of Health
FOMWAN	Federation of Muslims Women Association in Nigeria
GF	Global Fund to fight ADIS Tuberculosis and Malaria
GHSC-PSM	Global Health Supply Chain-Procurement and Supply Management Project
GoN	Government of Nigeria
Hb	Haemoglobin
HF's	Health Facilities
HJFMRI	Henry Jackson Foundation for Medical Research International

HISP	
HMIS	Health Management Information System
iCCM	integrated Community Case Management
ICT4D	Information Communication and Technology 4 Development
IDP	Internally Displaced Person
iMSV	integrated Monitoring and Supervisory Visits
IPC	Inter-personal Communication
IPT	Intermittent Preventive Treatment
IPT3	Intermittent Preventive Treatment in Pregnancy (third dose)
IPTp	Intermittent Preventive Treatment in Pregnancy
IRS	Indoor Residual Spraying
IRS/VS	Indoor Residual Spraying Vector Surveillance
IRM	Insecticide Resistant Management
ITN	Insecticide Treated Net
IVM	Integrated Vector Management
JAPR	Joint Annual Programme Review
LGAs	Local Government Areas
LLIN	Long Lasting Insecticidal Net
LLINs	Long Lasting Insecticidal Nets
LMIS	Logistics Management Information System
LSM	Larval Source Management
Mal-RMNCAH+N	Malaria-Reproductive, Maternal & Neonatal Child Health and Nutrition
MAUTECH	Modibo Adama University of Science and Technology
MC	Malaria Consortium
MCLS	Malaria Commodity Logistics System
MHPLMS	Malaria Health Product Logistics Management System
MNCHW	Maternal Newborn and Child Health Week
MNHQOC	Maternal New Health Quality of Child
MDAs	Ministries, Departments and Agencies
MiP	Malaria in Pregnancy
MIS	Malaria Indicator Survey
MOH	Ministry of Health
MOREG	Malaria Operations Research Expert Group
mRDT	Malaria Rapid Diagnostic Test
MTR	Mid-Team Review
MPR	Malaria Programme Review
MSF	Monthly Summary Form
MSH	Management Science for Health
mTWG	malaria Technical Working Group
NAFDAC	National Agency for Food and Drugs Administration and Control
NCWS	National Council of Women Societies
NDHS	National Demographic Health Survey
NHIS	National Health Insurance Scheme
NHMIS	National Health Management Information System
NHREC	National Health Research Ethical Council
NHLMIS	National Health Logistics Management Information System

NFELTP	Nigeria Field Epidemiology and Laboratory Training Programme (NFLTP)
NIMR	Nigerian Institute of Medical Research
NMA	Nigerian Medical Association
NMDR	Nigeria Malaria Data Repository
NMIS	Nigeria Malaria Indicator Survey
NMORA	National Malaria Operations Research Agenda
NMEP	National Malaria Elimination Programme
NMSP	National Malaria Strategic Plan
NPSCMP	National Product Supply Chain Management Programme
NSSR	National stock status report
NPHCDA	National Primary Health Care Development Agency
NPSCMP	National Product Supply Chain Management Programme
NSCIP	Nigeria Supply Chain Integration Project
NSSR	National Stock Status Report
NPI	National Programme on Immunization
OCA	Organizational Capacity Assessment
OR	Operations Research
PHC	Primary Health Care
PIs	Principal Investigators
PM	Programme Management
PMI	President's Malaria Initiative (US)
PPP	Public Private Partnership
PSC	Pyrethrum Spray Catch
PSM	Procurement Supply Chain Management
QA	Quality Assurance
QC	Quality Control
QoC	Quality of Care
RBM	Roll Back Malaria
RDT	Rapid Diagnostic Test
RDTs	Rapid Diagnostic Tests
RIA	Rapid Impact Assessment
SBC	Social Behavioural Change
SBCC	Social Behavioural Change Communication
SC	Subcommittee
SCMS	State Central Medical Store
SFH	Society for Family Health
SHIS	State Health Insurance Scheme
SHMB	States Hospital Management Board
SIC	Survey Implementation Committee
SLMCUs	State Logistics Management Coordinating Units
SMC	Seasonal Malaria Chemoprevention
SMEP	State Malaria Elimination Programme
SMEOR	Surveillance, Monitoring and Evaluation Operational Research
SMOH	State Ministry of Health
SOML	Save One Million Lives
SOH	Stock On Hand
SOPs	Standard Operating Procedures

SP	Sulphadoxine /Pyriminamine
SP+AQ	Sulphadoxine /Pyriminamine Plus Amodiaquine
TES	Therapeutic Efficacy Study
TO2	Tax Other Two
TOT	Training of Trainer
TPRs	Total Prevalence Rates
TWG	Technical Working Group
UNICEF	United Nation Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WMD	World Malaria Day
3PLs	Third Party Logistic Agents

EXECUTIVE SUMMARY

The vision of the National Malaria programme is to have a malaria-free Nigeria while the goal of the Malaria Strategic Plan has been to reduce malaria burden to pre-elimination levels and malaria-related deaths to zero by 2020. In 2019 NMEP and partners committedly pursued the achievement of the goal through the distribution of LLINs using replacement campaigns and routine distribution. It supported the implementation of Intermittent Preventive Treatment in Pregnancy; Seasonal Malaria Chemoprevention, malaria diagnosis, treatment with ACTs for uncomplicated Malaria and Injection artesunate for severe malaria. Other cross-cutting interventions included Surveillance, Monitoring, Evaluation and Operations Research (SMEOR), Programme Management (PM) and Advocacy, Communication and Social Mobilisation (ACSM).

Key Activities Undertaken During the Year 2019

NMEP in collaboration with partners conducted high-level advocacies to Delta, Gombe, Taraba, Kaduna, Niger, and Kano State. The advocacy resulted in the provision of storage facilities for LLINs, the airing of jingles, support for the flag-off of LLINs distribution and monitoring of campaign activities by the State Government. The advocacy to tertiary Institutions on the resulted in the Vice-Chancellors of the two institutions visited donating entomology laboratories which enhanced insecticide resistance monitoring activities for the two States.

Severe Malaria Chemoprevention (SMC) was conducted in 6 out of the 9 eligible states (Zamfara, Sokoto, Katsina, Jigawa, Borno, Yobe) of the Sahel region in the country. This activity brought about a reduce the malaria burden among children under five. A total of 4,171,495 children 3-59 months were reached with the intervention across the states where the implementation occurred

To ensure an accurate and reliable diagnosis of malaria, the laboratories were strengthened through the training of laboratory personnel, External Quality Assurance (EQA) rollout, provision of quality reagents and materials among others.

To improve the quality of care, NMEP undertook a retrospective study covering from July 2015 to June 2019 in 6 geopolitical zones of Nigeria. A total of 5,159 cases of severe malaria were treated in the 18 tertiary health facilities. This study found children aged more than five years to suffer from the disease. There was a slight male preponderance with 2856 males (55.4%) and 2302 (44.6%) female cases. Several other findings were recorded

Commented [E11]: Can I suggest that this year we move the report a bit higher by categorizing these activities in line with our core functions e.g. 1) Strengthening Planning and Coordination through AoP, financial planning, MPR and meetings 2) Strengthening Stewardship through all the activities we facilitate or provide direction in the states. 3) Promote resources mobilization and increase funding through DRM road, advocacy meeting to NASS and NGF . 4) Promote uptake of malaria services through targeted advocacy and mass mobilization. 6) Strengthen CM and diagnosis.....through provision of standards and direction 7) Improve Data, reporting and OR through RIA, MIS etc..... 8) promote commodities available and access through quantification etc..... 9) Strengthened organizational capacity and staff through OCA, IP, CB Plan etc.

Let me know what you think. In summary let's move from 'what' to 'why' in the executive summary as this is the section most people will read

NMEP and partners have continued to make concerted efforts towards the achievement of universal coverage and improved household ownership of LLINs in the country. The programme conducted Mass distribution of LLINs in eight States (Delta, Yobe, Cross River, Kaduna, Taraba, Kano, Ebonyi and Niger). A total of Twenty-eight Million Two Hundred and sixty-five Thousand, seven Hundred and twenty-four (**28,265,724**) LLINs were distributed across the eight States. To improve efficiency and accountability, Information and Communication Technology for Development (ICT4D) termed Cash and Asset Transfer Strategy (CAT Strategy) was deployed in five States (Delta, Kaduna, Taraba, Kano, and Niger).

In order to improve entomological surveillance, two additional insecticide resistance monitoring sites were established in 2019 in Adamawa and Kwara States. It has engaged and trained the Principal Investigators (PIs) and their entomology technicians. To mitigate insecticide resistance the programme has introduced Piperonyl Butoxide (PBO) nets. The category of nets was deployed in Ebonyi State mass Campaign. To ensure availability of malaria commodities, the 2018- 2020 forecast/quantification was reviewed.

In addition to this, the programme and partners reviewed the Malaria Commodity Logistics System (MCLS) SOP which was developed in 2010. The review led to a change in name to Malaria Health Product Logistics Management System (MHPLMS).

To improve programme performance and coordination, NMEP embarked on the review of the malaria programme in the 2019 Malaria Programme Review (MPR). The review showed the need to scale up on interventions to achieve set targets. The organizational capacity assessment (OCA) was carried out and an improvement plan developed to address identified human resource and organizational gaps. To improve financial management and elicit increased funding to the programme, a financial plan was developed.

NMEP made a significant effort to improve data quality and availability. It conducted the 2019 Rapid Impact Assessment (RIA) that showed the North East and North West to have the highest all-age malaria outpatient incidence rates ; the North West had the highest number and incidence of under-five malaria inpatient admissions and deaths while South East and North East zones had the highest Malaria TPRs. The programme is continuing in her effort to institutionalise Nigeria Malaria Data Repository (NMDR). Also, the programme participated in the implementation of the 2018 Nigeria Demographic and Health Survey (NDHS). The result showed increase in national average in ITN use among children less than five from 37% (NMIS 2015) to 43% (NDHS 2018). Conversely, malaria prevalence declined from 27% (NMIS 2015) to 23% (2018 NDHS). The use of LLINs among States ranges between 21% in

Lagos and 94% in Kebbi while malaria prevalence ranges between 2% in Lagos and 52% in Kebbi.

Several advocacy visits were conducted in the year under review in collaboration with partners to state governments to enhance political will and increase domestic financing for malaria control in the states. There was also engagement with the private sector through advocacy to ensure improved collaboration. media chat activities, sensitization of relevant women group and the use of Interpersonal Communication and other behavioural change communication-related activities were conducted to improve the uptake of malaria interventions.

The procurement and supply chain management team conducted a national quantification exercise aimed at ensuring there are adequate health commodities at the subnational level and to make sure forecast are reviewed 6 months. There was also at the introduction of the National Health Logistics Management Information System (NHLMIS) which collects real-time data and aids in decision making and this was followed by capacity building for relevant staff on how to access the platform and interpret key PSM data elements. There was also the conduct of Monitoring and Supportive visits on PSM related activities to the states and health facilities at the subnational level. The warehousing and distribution of malaria commodities for the GF and PMI was integrated to ensure there are no vertical driven supply chain systems and there was also conduct of activities aimed at removing sub-standard and adulterated anti-malaria medicines from the local market in Nigeria and public health sector supply

Surveillance, Monitoring, and evaluation activities were conducted across all the thematic areas to improve data collection, collation, analysis, feedback, and use. Data quality assessment,

Nigeria Malaria Surveillance, Monitoring, and Evaluation training workshop, zonal data review workshop for staff at the SMOH/SMEP, analysis of data from the DHISV2 platform and provision of feedback, operations research, 2018 Demographic and Health Survey (DHS) and coordination activities.

TABLE OF CONTENT

Table of Contents

FOREWORD	1
ACKNOWLEDGEMENTS	2
ACRONYMS AND ABBREVIATIONS	3
EXECUTIVE SUMMARY	7
TABLE OF CONTENT	10
CHAPTER ONE	12
1.0. INTRODUCTION	12
CHAPTER TWO	14
2.0. METHODOLOGY	14
CHAPTER THREE	15
3.0. PLANNED AND IMPLEMENTED ACTIVITIES.....	15
3.1. ADVOCACY, COMMUNICATION AND SOCIAL MOBILIZATION.....	15
3.1.1. Advocacy	15
3.1.2. Communication.....	20
3.1.3. Social Mobilization.....	21
3.1.4. Coordination and Capacity Strengthening	27
3.2. CASE MANAGEMENT (CM).....	30
3.2.1. Coordination	30
3.2.2 Therapeutic Efficacy Study (TES).....	31
3.2.4 Integrated Monitoring and Supervisory Visits (iMSV)	33
3.2.5 Severe malaria clinical audit.....	37
3.2.6 Severe Malaria Retrospective study.....	38
3.2.7 Malaria Quality of Care	41
3.2.8 Diagnosis.....	41
3.3. INTEGRATED VECTOR MANAGEMENT.....	43
3.3.1 Coordination	43
3.3.2 Long Lasting Insecticidal Nets (LLINs) Distribution.....	44
3.3.3 Vector Surveillance and Insecticide Resistance Monitoring	47
3.3.3.3 Monitoring and Supervision.....	50
3.3.4. Larva Source Management (LSM)	51
3.4. PROCUREMENT AND SUPPLY CHAIN MANAGEMENT	51
3.4.1 Coordination	51
3.4.2 Forecasting and Quantification	52
3.4.3. Inventory Management	53

3.4.4	Warehousing and Distribution	54
3.5.	PROGRAMME MANAGEMENT	55
3.5.1	Coordination Meetings.....	55
3.5.2	Domestic Resource Mobilization (DRM).....	57
3.5.3	Development of NMEP Financial Plan.....	57
3.5.4	Organizational Capacity Assessment (OCA).....	58
3.5.5	2019 World Malaria Day (WMD)	58
3.5.6	Malaria Programme Review (MPR)	60
3.6.	SURVEILLANCE, MONITORING, EVALUATION AND OPERATIONS RESEARCH (SMEOR)	60
3.6.2	Coordination Meetings.....	61
3.6.3	Developed malaria specific Monthly Summary Form (MSF) for reporting from secondary and tertiary health facilities towards improved reporting.....	61
3.6.2	Trend Analysis of Malaria Data.....	62
3.6.2	Rapid Impact Assessment (RIA)	65
3.6.3	Institutionalization of the Nigeria Malaria Data Repository (NMDR).....	66
3.6.4	Nigeria Demographic and Health Survey (NDHS) 2018	67
3.6.5.	Bi-annual Data Quality Assessment (DQA) visits.....	68
CHAPTER FOUR.....		71
CHALLENGES, RECOMMENDATIONS AND CONCLUSION		71
4.1.	CHALLENGES	71
4.1.1.	ACSM	71
4.1.2.	CM	71
4.1.3.	IVM.....	71
4.1.4	PSM.....	71
4.1.5	PM.....	71
4.1.6	SMEOR.....	71
4.2.	RECOMMENDATIONS	72
4.2.1.	ACSM	72
4.2.2.	CM	72
4.2.3.	IVM.....	72
4.2.4.	PSM.....	72
4.2.5.	PM.....	72
4.2.6.	SMEOR.....	73
4.3.	CONCLUSION	73

CHAPTER ONE

1.0. INTRODUCTION

Malaria continues to be a major public health issue although there was a significant reduction in malaria burden from 2015 to 2018. In 2018, an estimated 228 million cases of malaria occurred worldwide. In 2018 World Health Organization (WHO) reported that nineteen countries in sub-Saharan Africa and India carried almost 85% of the global malaria burden and Nigeria contributed 25% of world malaria burden. *Plasmodium falciparum* is the most prevalent malaria parasite in Nigeria accounting for 95 to 98% of malaria cases.

Most malaria cases in 2017 were in the WHO African Region (200 million or 92%), followed by the WHO South-East Asia Region with 5% of the cases and the WHO Eastern Mediterranean Region with 2%. In the WHO African Region, the malaria incidence rate remained at 219 cases per 1000 population at risk for the second year in a row.

According to WHO (2018), nearly 80% of global malaria deaths in 2017 were concentrated in 17 countries in the WHO African Region and India; seven of these countries accounted for 53% of all global malaria deaths with Nigeria accounting for 19%.

Although Malaria case incidence has fallen globally, since 2010, the rate of decline has stalled and even inverted in some regions since 2014 and mortality rates have followed a similar rate. More than 54% of people at risk of malaria in South- Saharan Africa were sleeping inside insecticide-treated mosquito net which is the primary prevention method. This coverage level shows a considerable increase since 2010 but is not imminence to the universal access goal.

The NMEP being a division in the Department of Public Health (DPH), Federal Ministry of Health (FMOH) is responsible for development of policies, guidelines, plans and coordinate all malaria control activities in Nigeria. Inline, with the mandate, the division is divided into six (6) thematic areas which include Program management (PM), Integrated Vector Management (IVM), Case Management (CM), Procurement and Supply-Chain Management (PSM), Advocacy Communication and Social Mobilization (ACSM) and Surveillance, Monitoring, Evaluation and Operations Research (SMEOR).

The report of Therapeutic Efficacy Study (TES) conducted in 2018 shows that antimalarial medicines (ACTs) are still efficacious against *Plasmodium falciparum*. While Artesunate Amodiaquine (AA) was 99.5% efficacious, Artemether –Lumefantrine (AL) was 99.0% efficacy and Dihydroartemisinin - piperaquine (DHP) was 100%.

Nigeria Demographic and Health Survey (NDHS) result showed increase in national average in ITN use among children less than five from 37% (NMIS 2015) to 43% (NDHS 2018). Conversely, malaria prevalence declined from 27% (NMIS 2015) to 23% (2018 NDHS). The use of LLINs among States ranges between 21% in Lagos and 94% in Kebbi while malaria prevalence ranges between 2% in Lagos and 52% in Kebbi

This 2019 Annual Report showcases the activities implemented by NMEP and progress made in various thematic areas such as diagnosis, treatment, prevention, programme management, advocacy, communication and social mobilization

In the reporting year, NMEP distributed over 19 million Long Lasting Insecticidal Nets (LLINs) through replacement campaign and Therapeutic Efficacy Study to monitor the efficacy of antimalarial medicines, additional two entomology laboratories donated by tertiary institutions, vector surveillance and insecticide resistance monitoring in sixteen 16 States for vector surveillance in the country.

Media Chat to sensitize media organizations/journalists, training of health workers on microscopy and training of supervisors and data collectors on Rapid Impact Assessment.

CHAPTER TWO

2.0. METHODOLOGY

Numerous intervention activities were designed and conducted across different thematic areas including Integrated Vector Management (IVM); Case Management; Advocacy, Communication and Social Mobilization (ACSM); Procurement and Supply Chain Management (PSM); Surveillance, Monitoring, Evaluation and Operational Research in NMEP and among partners to enhance the achievement of national objectives and targets for malaria elimination as set forth in the National Malaria Strategic Plan (NMSP) 2014-2020

Consequently, narrative approach was adopted in writing the report of these activities. This was carried out by the team comprising of officers from different health professional background within NMEP where all reports of activities implemented in 2019 were collated, reviewed and finalized.

CHAPTER THREE

3.0. PLANNED AND IMPLEMENTED ACTIVITIES

In the continuous effort towards malaria elimination in Nigeria, several activities were planned and implemented across different thematic areas comprising Advocacy, Communication and Social Mobilization (ACSM); Case Management (CM); Integrated Vector Management (IVM); Procurement and Supply Chain Management (PSM); Programme Management (PM); and Surveillance, Monitoring, Evaluation and Operational Research (SME) in 2019.

3.1. ADVOCACY, COMMUNICATION AND SOCIAL MOBILIZATION

The Advocacy, Communication and Social Mobilization (ACSM) involves developing, managing, coordinating and monitoring Social Behavioral Change (SBC) interventions that contributes towards the achievement of national objectives and targets for malaria elimination in Nigeria. It aims at ensuring increase in political will, leadership and support for malaria control commodities and services; awareness and knowledge on malaria and the benefits of its prevention and treatment; sustained promotion of positive attitudes, desirable norms, values and behavior change regarding malaria and the recommended measures for its prevention and treatment; and strengthening coordination mechanisms.

The activities carried out in 2019 includes advocacy, media chat, sensitization of relevant women groups on malaria, monitoring of interpersonal communication (IPC), capacity strengthening at State level, and ACSM coordination in the country.

3.1.1. Advocacy

Advocacy strategy enhances political will and enabling environment for malaria activities at all levels. NMEP's advocacy strategy improves domestic funding for malaria interventions through public and private sector as well as resources mobilization.

3.1.1.1. Advocacy Visits to State Governments

NMEP in collaboration with partners conducted high-level advocacies to Delta (fFig. 1), Gombe, Taraba, Kaduna, Niger and Kano State and secured support for the LLINs campaigns conducted and the States' commitments to improving support for malaria activities. The advocacy was designed to enhance political will and mobilize resources for malaria control. The overall objective was to solicit for State Government's support for malaria elimination interventions especially for LLINs campaigns, continuous procurement and distribution of malaria commodities (LLNs, RDTs and ACT etc.); SBCC activities and ensuring increase uptake of malaria interventions. The targeted persons were the Executive Governors of the State and their top officers as well as the Commissioner for Health. Talking points specific to

each State's area of need cutting across the major thematic areas were developed to guide discussion during the visits. All the policy makers seen reiterated support for malaria control activities and made commitments to provide varying degrees of funding and logistic support for the LLIN campaigns. The outcome of the advocacy resulted in the provision of storage facilities for LLINs, airing of jingles, and monitoring of campaign activities by the State Government.

Fig. 1: Advocacy team with the Delta State Governor and his team at Government House in Asaba



3.1.1.2. Advocacy Visits to Private Sector Organizations

The NMEP held engagement meetings with Dangote Foundation and the Corporate Alliance on Malaria in Africa (CAMA). The meetings were focused on:

- To solicit for more private sector support for malaria elimination interventions and subsequently ensure increased uptake of malaria interventions
- To explore ways of improving coverage of malaria interventions by private sector organizations already active in the malaria landscape
- Increase the amount of private sector finance available for investments and initiatives with a positive development impact

In the meeting with the Aliko Dangote Foundation the following were raised/agreed on:

- There is need to review the update sent to the foundation to capture reduction in malaria cases in Nigeria as well progress made based on key impact indicators
- The programme should be considering looking at the meeting with the ambassador as an avenue to seek his assistance to get other CEOs to support malaria elimination in the country. This may likely be in the form of a round table meeting.
- Importantly, FMOH/NMEP should be clear as to the key requests it wants to make from the Malaria Ambassador including pulling key private sector players into the malaria initiative
- The Foundation is making efforts to facilitate the engagement of the private sector desk officer and ensure s/he starts work by the first quarter of 2020
- More interactions between the Foundation and NMEP are needed to ensure improved collaboration

3.1.1.3. Advocacy Visits to Tertiary Institutions for Establishment of Sentinel Sites.

NMEP Based on the need to scale up vector surveillance activities in the country, NMEP in collaboration with Partners carried out advocacy visits to the States Ministry of Health, and the Vice Chancellors of the host institutions (Modibo Adama University of Science and Technology (MAUTECH) Yola, and University of Ilorin) respectively on the establishment of Malaria vector sentinel sites (Fig. 2). 6 LGAs/communities were selected for insecticide resistance monitoring based on set criteria which include epidemiological factors; agricultural activities driven by agrochemicals; previous and current use of insecticide-based interventions; accessibility of the sites and acceptability of the host communities. It was important that the selected locations met at least three of the criteria outlined. As a result of the advocacy visits, the Vice Chancellors of the two institutions donated entomology laboratories which enhanced insecticide resistance monitoring activities for the two States.

Fig. 2: Advocacy team with the incoming VCs of MAUTECH Prof. K. Mohammed during the visit.



3.1.1.4. Advocacy visits to States for Laboratory Strengthening.

Based The NMEP, with support from GF and in collaboration with Army Military Research Directorate-Africa/Nigeria (USAMRD-A/N), planned laboratory strengthening to improve quality of malaria diagnosis in secondary and tertiary health facilities. Consequently, an engagement visit was planned and conducted targeting the 13 GF-assisted States to kick-start this initiative and to get a buy-in from relevant stakeholders at the State level. Itineraries for the visits were developed and agreed on with the States. Talking points were also developed for the visits with a shortened version for those that would be seen at the Hospital Management Board (HMB) level of the State. In each State key policy makers at the State Ministry of Health (SMoH) and the Hospital Management Board (HMB) were given an overview of the essence of the visit - which is to commence an initiative towards strengthening laboratory services for an improved diagnosis of malaria. The necessity for counterpart funding for the GF-support was also highlighted in interactions with the State MoH officials. Policy makers seen welcomed the initiative to strengthen laboratory services and emphasized that this will improve malaria diagnosis in the facilities targeted. Most policy makers highlighted insufficiency of quality personnel to run the lab services. The team collected lists of health facilities, names with contact details of key policy makers that will have something to do with the exercise as well as names and contact details of selected secondary and health facilities. (fig. 2).

Fig. 3: Meeting with Adamawa State MoH Permanent Secretary with his team



3.1.1.5. Key Achievements from All Advocacy Visits

The following achievements and outcomes were realized:

- Commenced mapping of relevant private sector organizations for advocacy visits
- Developed concept note and shared with Dangote Foundation on the setting up of a private sector desk within NMEP
- Produced and shared the first quarterly update for the national malaria ambassador (Alhaji Aliko Dangote) with a cover letter from the Honourable Minister of Health
- Advocated for improved support for uptake of malaria interventions at CAMA partners' 2019 end-of-year meeting
- Reached out to Abuja Chamber of Commerce to facilitate meetings with identified private sector organizations
- The States Government where LLINs replacement campaigns were implemented made commitments and they provided storage facilities for LLINs, aired jingles, and monitored campaign activities
- The Vice Chancellors of the ModiboAdama University of Science and Technology (MAUTECH) Yola and University of Ilorin donated entomology laboratories which enhanced insecticide resistance monitoring activities for the two States.
- Policy makers made commitments to support efforts to strengthen laboratories for improved malaria case management

3.1.2. Communication

3.1.2.1. Media Chats

The National Malaria Elimination Programme (NMEP) with support from the Global Fund (GF) held only one (Fig. 4) of two media chats for the year. The theme of the media chat was: Bridging the resources gap for malaria elimination in Nigeria. The media chat was attended by representatives of the following media organizations: Sun newspaper, TVC News, News Agency of Nigeria, FRCN, Vision FM, Daily Trust Newspaper, Voice of Nigeria, the Nigerian Voice, Love FM, and Radio Nigeria. Others were from Leadership newspaper, Daily Asset newspaper, CAN NEWS, The Authority newspaper, kapital FM, Triumph newspaper, LTV, Newdairy newspaper, Plateaus News, KISS FM, Armed Forces Radio, The Nigeria Voice, TNV, Vission FM, and Legent Africa media. Still there were representatives from Punch newspaper, Dev. Africa network, ITV, Daily Independent newspaper, NEW DAY, Wazobia FM, Silverbird TV, Nation newspaper, and Nigeria Pilot newspaper. There were also participants from NMEP and some RBM partners such as SLNI, ACOMIN and CCSI. There was a total of 37 media personnel, 21 staff from NMEP, and 7 partner-organization representatives. Key issues from the media chat raised by media representatives and partners were as follows:

- There is need to update funds released by governments at all levels for 2018 for malaria
- There is limit on tracking expenditure at lower levels given that health is on the concurrent list. It is important to improve collaboration with NAFDAC that is responsible for the control malaria drugs in the country
- Improving awareness on environmental management including sanitation is important to reduce breeding of the vectors.
- Strengthening advocacy with the private sector is necessary for bridging resource gaps. Such organizations such as Mobil, Total etc. should be approached.

Fig. 4: HPM's representative, Tim Obot, making the presentation during the media chat



3.1.2.2. Review of Selected Materials

The NMEP was part of the stakeholders that participated in various meetings to prioritise, review, adapt existing Malaria and RMNCAH+N SBC materials for key Mal-RMNCAH+N message integration and develop new ones where necessary. The branch also sent representation in various meetings to finalise the NIRMNCAH+N SBC Strategy to reflect current trends, emerging and re-emerging health issues of public health importance in line with the recently reviewed IRMNCAH+N Strategy as well as global and national health agenda. All these meetings were coordinated by the health promotion division in the department of Family Health.

Additionally, NMEP supported Breakthrough Action Nigeria in the review and roll out of integrated RMNCH+N and malaria community SBC strategies as developed in the dialogue framework.

3.1.2.3. Newsletter

In 2019 NMEP commenced the production and distribution of e-copies of a quarterly newsletter. The newsletter highlighted success stories and current activities on malaria at the national level. Three editions of the newsletter were produced for 2019.

3.1.3. Social Mobilization

3.1.3.1. Sensitization of Relevant Women Groups

The National Malaria Elimination Programme in collaboration with partners carried out sensitization outreaches in six States (Jigawa, Yobe, Kaduna, Katsina, Kwara and Gombe). The activity was designed to leverage on the existing structures of women group/organization

at their normal scheduled monthly or bi-monthly or quarterly meetings to sensitize them on malaria related issues including prevention, diagnosis and treatment. The women groups reached in each State included National Council of Women Societies (NCWS), Federation of Muslims Women Association in Nigeria (FOMWAN), and Women Wing of the Christian Association of Nigeria (Fig. 5).

Fig. 5: Sensitization of a women group on malaria



3.1.3.2. *Interpersonal Communication (IPC)*

Partners with support from NMEP implemented interpersonal communication (IPC) sessions in both GF-supported and some PMI-assisted States, NMEP's role was mainly in building capacity of IPC implementers and monitoring. Monitoring of the IPC activity was conducted in the GF-assisted states to ensure consistency in delivery of the right messages. The IPC spot check was organized targeting all the 13 GF-supported States, to ensure that IPC activities are being conducted appropriately in the intervention LGAs as well as monitor outcomes. Using a combination of random and purposive sampling methods 6 settlements implementing IPC were sampled in 6 LGAs in each State (Fig. 6). A total of 7413 persons in 2529 households (Fig. 7) were seen in the IPC exposed settlements. About 60% of those interviewed were females. 2148 (85%) of the 2529 households were reported to have been visited by the IPCAs in the 13States within the LGAs implementing IPC sessions sampled. Length of IPC sessions lasted from 5 to 60 minutes with outliers of 80 to 90 minutes. A mean session length of 27.69 minutes in the 13States was calculated. Three variables were used to assess quality of IPC sessions: explanation in language respondents understood, use of materials for explanation, and encouragement to ask questions or make comments. Nearly all respondents that acknowledged

visits by IPCAs affirmed these. However, in Taraba the situation was less than optimal with just a little above half reflecting good quality of sessions.

Those that **heard messages** on malaria prevention and interventions were: Sleep inside the net (85%), maintain clean environment (24%), attend ANC (19%), Take SP (10%), free test and treatment (10%), take children without delay to health facility when having fever (10%), use RDT (9%), availability of free nets (8%), and use protective clothing when outdoors (8%).

Sources (apart from the IPCAs) of messages heard on malaria prevention and interventions were: Radio (50%), Health workers (32%), TV (14%), LLIN Campaign (8%), Family (8%), Town Crier (4%), Work place (3%), and religious place (3%). The other sources were each reported by 2% of respondents (table 18). Family is a source of information for 24% and the religious place for 15% in Taraba. Over a tenth of respondents in Adamawa, Delta and Kwara stated the town announcer as a source of information. **Perceived severity of malaria** was measured by three indicators. Practically all respondents perceived malaria as a key personal health issue as they think it is something to worry about, it can potentially lead to death and that recovery from the disease is not possible without being treated.

The **preventive measures undertaken** by respondents were sleeping inside the net (80%), ensured clean environment (38%), use of repellent (14%), use of insecticide (13%), taking of SP (8%), wearing of protective clothing (8%), and screening of windows (6%). The **treatment behaviours** were: going to the health facility to seek treatment when feeling feverish (74%), taking feverish children without delay to the health facility (23%), taking other medicines other than ACT (17%), taking ACT (12%), doing RDT (12%), taking herbal medicines (7%), and taking ACT without testing (4%). 2% reported doing nothing. About a quarter in Ogun and Delta highlighted the use of herbal/traditional medicines/options.

Challenges tracked and reported were: distance to health facilities (10%), lack of transport (12%), waiting time (11%), charges (19%), health workers attitude (5%), LLIN causing heat (6%), LLIN causing rashes (3%), and unavailability of commodities (11%). 34% said they had no challenges accessing malaria interventions/commodities.

Based on the outcomes of the survey and lessons learnt, the following general recommendations were made:

- a. Strategies need to be developed/devised to reach and sustain men's interest in the IPCAs' messages. One such way will be to collaborate with ACOMIN to do advocacy targeting religious leaders who could use their preaching sessions to pass on messages on malaria or make announcements in connection with these.

- b. Strategies need to be developed/devised to address issues of refusals by household members or where members are unable to understand the languages spoken and understood by the IPCAs.
- c. SFH may need to do some checks that the phone numbers collected by IPCAs have been integrated in the mailing list for the bulk sms on malaria and do occasional checks that owners of those phones are getting the messages.
- d. The key messages that are hardly mentioned by respondents especially use of RDT and uptake of SP should be emphasized by IPCAs. Another key message that should be emphasized is the availability of FREE malaria commodities in government health facilities.
- e. SMEPs should follow up with LGA HEs to ensure they have, update and share comprehensive lists of wards and settlements so far covered by IPCAs.
- f. SMEPs through the IPCAs should reinforce the messages on testing and use of ACTs as the only drug of choice for malaria treatment once a positive diagnosis is confirmed.
- g. NMEP and SMEPs should explore ways to improve coverage of IPC sessions significantly in the States for it to have a meaningful impact.
- h. The National, State, LGA and Ward team should seek to address the issues of unavailability of malaria commodities and wrong perception of people on malaria in some areas where they are challenges as well as the low net utilization
- i. SMEPs and the State Health Educators should reappraise times and schedules of visit of the IPCAs to ascertain best visiting times that are convenient to both community members and the IPCAs. Additionally, SMEP ACSM Focal Points, SFH SBCC Specialists and the State Health Educators should reassess the quality of delivery (in terms of content, length of sessions, and language utilized) of the IPCAs in order to improve their efficiency where necessary.
- j. Establishment of helplines by State Ministry of Health in collaboration with the State Orientation Agency/Ministry of Information where people can call in to report what they believe are sharp practices at the health facilities may bring very positive changes
- k. SMEPs should support an increase in airing of appropriate jingles in radio and television informing community members of their rights to get information on why they are paying for anti-malarias. More importantly activities that will focus on improving provider behaviour should be undertaken.
- l. Health workers should be strengthened through SBCC training so that they serve as another option to re-enforce malaria messages
- m. Developing strategies on how best to reduce time spent by patients in health facilities should be looked into by States Ministries of Health

Key lessons from the post IPC spot checks include:

- IPC is working even though progress appears slow
- While IPC is working it needs to be complemented by (or it could be a supplement to) other SBC strategies
- Health workers remain veritable channels of communication on malaria messages

- Length of IPC sessions is determined by a number of factors – from both the IPCAs as well as the community members
- The limited number of visits, the timing of visits, may have impacted on message recall by community members
- IPCAs do not have much of the luxury of repeat visits to households because they have large areas to cover within a limited time.
- There is still a huge disconnect between knowledge/risk perception and uptake of interventions
- There is also a huge disconnect between those that reported going to the health facility to seek treatment when feeling feverish and malaria case management
- The outcomes of the spot-checks provide additional insight on sources that can further be utilized not only on a State basis but also by LGA to disseminate malaria messages
- The post IPC spot check also give insight on deficient behaviours by State in the uptake of malaria interventions that need to be targeted without neglecting the others.

Fig. 6: A training and planning session



Fig. 7: Data collection at households



3.1.3.3. Community Feedback Loop

SuNMAP2 with support from NMEP facilitated the operationalization of Community Feedback Loops (CFBL) in five programme supported states as part of its SBC strategy across all supported states. The exercise was conducted between the 30th September – 11th October 2019 with actual CFBL FGD/KII session activities carried out in 3 communities/wards/LGAs. With the purpose of the CFBL being to obtain feedback, and responses from key audiences in SuNMAP 2 supported states on possible solutions to barriers in adopting desired malaria control behaviors promoted in malaria messages - as a mechanism for promoting citizen's voice, community self-ownership and monitoring of malaria programming. Some of the main findings of the inaugural CFBL FGD/KII Assessment with regard to malaria messages included: awareness of malaria issues is increasing among target beneficiaries in terms of prevention, treatment and care; participants demonstrated some level of behaviour change as a result of their exposure to various malaria messages on radio which remains the widely accessed and trusted channel of health information dissemination and this must be sustained; also, actions taken with regard to exposure to malaria messages need to be reinforced through interpersonal communication channels, and by making services and commodities available in designated health facilities.

With regard to social accountability issues, the CFBL sessions revealed that participants' general knowledge of social accountability issues is still very low occasioning inactivity on the part of citizens' engagement of supply side actors including government and service providers at various levels; majority of the participants still see government as being responsible for their health; budgeting and funding for malaria programmes is still at a low ebb with majority of the current funding for the sector coming from donor and development partners; also, citizens' knowledge of the existence of health insurance scheme is still very low. Based on the findings of the inaugural CFBL FGD/KII sessions, the following were recommended:

- SuNMAP2 should facilitate the dissemination of the findings at various platforms and fora to amplify citizen voice and promote improved accountability and responsiveness on the part of government and malaria service providers at all levels
- Citizens' engagement is critical in ensuring accountability in governance and promotion of quality service delivery to the citizenry as such the CFBL process should be intensified in scope and scale at all levels

- To achieve the SDGs related malaria target in Nigeria by 2030, SuNMAP2 needs to work with relevant agencies in focal states and at national to remove all bottlenecks militating against improved malaria service provision in Nigeria
- SuNMAP2 should engage with relevant partnerships, linkages and structures that will ensure the institutionalization and sustainability of CFBL mechanism in all the state for improved service delivery for the citizenry, especially at the grass-root, and the marginalized and under-served communities.

3.1.4. Coordination and Capacity Strengthening

3.1.4.1. ACSM Subcommittee Meeting

The ACSM held ten subcommittee meetings. The meetings provided opportunity to review what had been done and strategic guidance for ACSM issues in the country. A total of 53 recommendations were given from these meetings of which 74% (39) were implemented fully or partially.

3.1.4.2. Capacity Building for State Health Educators and ACSM Focal Persons

As part of the ACSM annual plan, the NMEP in collaborations with SFH with funding from Global fund organized a 3 three-day workshop for State Health Educators and ACSM Officers from the 13 GF supported States (Kwara, Adamawa, Yobe, Katsina, Osun, Ogun, Jigawa, Gombe, Niger, Kaduna, Taraba, Delta and Kano). The workshop specifically aimed to share experiences and lessons learnt on implementing 2019 ACSM plans with a view to improving the implementation process in 2020, provide feedback on outcomes from the Post- IPC spot checks conducted in 2019, build participants knowledge and skills on improving provider behavior through the application of the emerging concept of behavior economics, strengthen participants' capacity on proposal development for resource mobilization for the implementation of planned ACSM activities and initiate development/refinement of 2020 state ACSM plans. Total participants for the workshop were 36 which included representatives from NMEP, SFH, CRS, Sunmap2, states Health Educator and ACSM focal persons. A similar 2-day planning/review meeting in collaboration with Breakthrough Action Nigeria was held for State ACSM officers/Health Educators from the PMI supported States. Key recommendations from the training sessions were:

- States should start thinking strategically of how to mobilize resources for SBCC interventions. They are encouraged to develop lists of organizations, individuals and agencies to approach for support for implementation of planned activities. Such lists are to be shared with NMEP and SFH for their inputs.

- States should finalize Y2020 ACSM work plans and ensure that partners' activities are harmonized into the work plan
- State Health Educators, ACSM officers and core group members should start thinking and planning beyond existing interventions (e.g. conduct of IPC sessions) to other SBC activities that will be complementary or supplementary based on the malaria interventions mix being planned for each locality.
- NMEP and other partners at the national level should utilize visits to States to advocate on specific issues targeted at various levels or categories of policy makers
- States are encouraged to arrange for high-level advocacies targeting the State Governors and provide a feedback to NMEP. SFH has indicated its willingness to support high-level advocacies in 4 States which is in addition to the high-level advocacy visits targeting the 2020 LLIN Campaign States that is being planned.
- States to explore existing platforms to leverage on and integrate Malaria messages e.g. school health clubs, having regular health talks in schools, and provide feedback to NMEP & BA-N on identified plans and integration plan

Fig. 8: Training of State ACSM officers and Health Educators



3.1.4.3. Strengthening of State ACSM Core Groups

Core groups have been or are being established to serve as a technical think tank to provide needed advisory function and support in the coordination of ACSM/SBCC programs by the RBM partnership in the State. To strengthen the capacity of these core groups training sessions were organized at the State level for the 13 Global Funds-assisted States. The Core Group training was supported through the Society for Family Health (SFH) with funding from GF.

Key objectives were to: improve knowledge and skills of members based on recent developments in SBC; share experiences on factors facilitating and limiting the effective functioning of state ACSM core group; provide feedback on outcomes from the post-IPC spot checks conducted in 2018; explore opportunities for integrating malaria SBCC with other platforms and community-based programmes at all levels; and refine the 2019 state ACSM plan. Pre-prepared and standardized presentations were utilized and presented in plenary. Group work sessions were organized and presentations made in plenary. An average of 20 participants per State made of the members of the State ACSM core group and the national facilitators together with other staff of the health education unit attended the meeting cum training in each State. Key recommendations from the meetings were:

- SMEP should monitor provider behaviour using the necessary tools (e.g. exit interviews) to ensure that right things are done.
- The group to pay advocacy visits to key identified groups such as the Christian Association of Nigeria (CAN), Ministry of Environment (MoEv) to promote integration of malaria SBCC using their platforms.
- SMOH should provide a policy framework that will promote compliance with certain health actions e.g. that all TBAs must ensure their clients (pregnant women) receive SP from health facilities or that all U5 under their care are fully immunized.
- SFH should, in subsequent selection of media channels to use for malaria messaging, target radio as a preferred option due to its several advantages in listenership and coverage
- Implementers should keep exploring opportunities to leverage on other platforms.

Fig. 9: Group work during Delta's Core group meeting



Having strengthened the capacity of these core groups they were expected to hold periodic but regular meetings based on what they had agreed on. It became needful that national officers participate in one of these meetings to observe, learn lessons and make inputs. About States were visited. Attendance at these meetings were observed to be fair and quality of discussions was enhanced by the presence and active participation of partners. Meeting logistics (refreshments mainly) were mainly funded from personal pockets of the conveners,

3.2. CASE MANAGEMENT (CM)

Case Management is one of the vital components of the malaria control strategies. It involves drug based preventive measures such as Intermittent Preventive Treatment (IPT) through the use of Sulphadoxine pyrimethamine (SP) for Malaria in Pregnancy (MIP) and Seasonal Malaria Chemoprevention (SMC) as well as ensuring early diagnosis (microscopy and RDT), prompt treatment of uncomplicated malaria with ACT, management of severe malaria at different levels of health care delivery in the country.

3.2.1. Coordination

3.2.1.1. Case Management Subcommittee Meeting (CMSC)

CMSC meetings held ten (10) times in 2019. Case Management Subcommittee is a body that meets monthly to effectively coordinate programmes and activities related to malaria case management in collaboration with partners to deliberate on emerging issues and making decisions that can influence policy change. It is also a platform where NMEP and partners discuss activities implemented, achievements and challenges. Within the subcommittee, there

are working groups which are Mal-RMNCAH+N, Severe malaria, Diagnostic and SMC. These working groups met quarterly in 2019.

3.2.2 Therapeutic Efficacy Study (TES)

Therapeutic Efficacy Study was planned in 2019 for Lagos, Sokoto, Cross River and Adamawa States. However, the study was not carried out due to delays in harmonizing budgets and contracts, though the research protocol was finalized, and training of PI and co-PIs was done.

3.2.3 Seasonal Malaria Chemoprevention (SMC)

SMC was conducted in 6 out of the 9 eligible states (Zamfara, Sokoto, Katsina, Jigawa, Borno, Yobe) of the Sahel region in the country (Fig.10). This activity was to reduce the malaria burden among children under five. A total of 4,171,495 children 3-59 months were reached with the intervention across the states that implemented the intervention (table 1). Four cycles of SMC were carried out in each of the States implemented (fig. 11 and 12).

Fig. 10: Map of showing eligible states for SMC

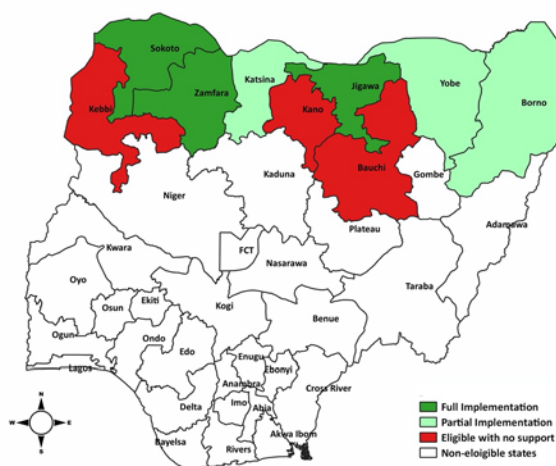


Table 1: Planned and Implementation SMC

S/N	State	Eligible children	Planned children	Gap	LGAs
1	Bauchi	1,363,684	0	1,363,684	0 of 25
2	Borno	1,234,788	0	1,234,788	0 of 27
3	Jigawa	1,204,584	1,204,584	0	27 of 27
4	Kano	2,744,881	0	2,744,881	0 of 44
5	Katsina	1,625,550	394,398	1,231,152	8 of 34
6	Kebbi	928,335	0	928,335	0 of 22
7	Sokoto	1,037,475	1,037,475	0	23 of 23
8	Yobe	695,254	188,245	507,009	6 of 17
9	Zamfara	938,895	938,895	0	14/14
Total		11,773,446	3,763,597	8,009,849	78/222

Fig. 11: Number of Children Reached Per SMC Cycle

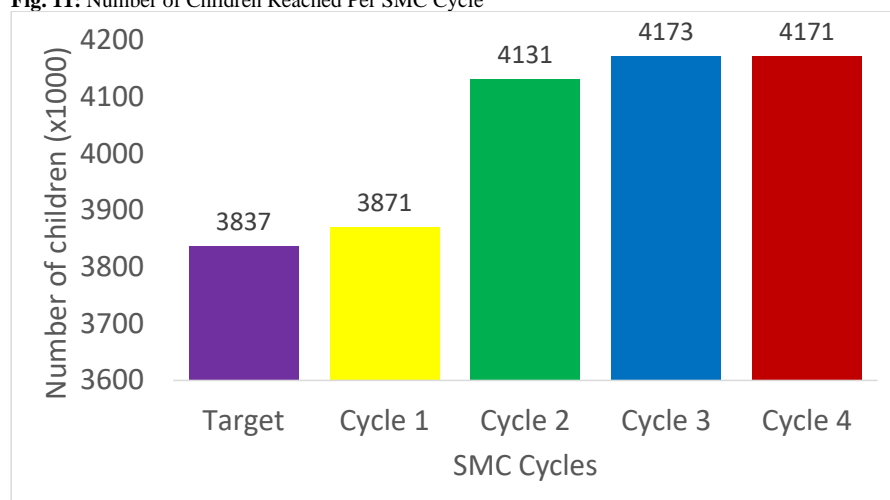
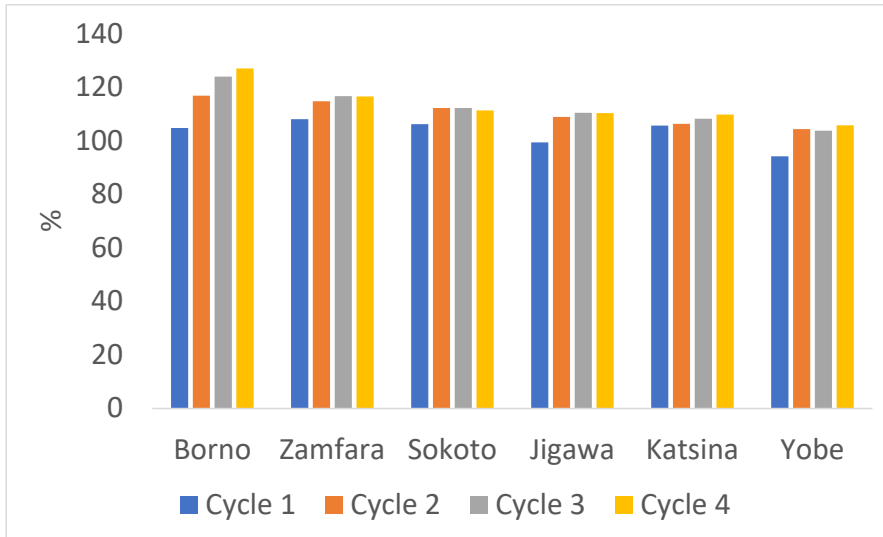


Fig.12: Coverage in Each SMC Cycle by States



3.2.4 Integrated Monitoring and Supervisory Visits (iMSV)

National Malaria Elimination Programme (NMEP) in collaboration with partners as well as State Malaria Elimination Program (SMEP) conducted biannual Integrated Monitoring and Supervisory Visits (iMSV). This activity was carried out to assess the level of malaria prevention, diagnosis and treatment practices at secondary and Primary Health Care (PHC) facilities, provide on-site hands-on mentorship and coaching to health care providers where necessary. During the exercise several findings were recorded (Fig. 13-22)

Fig.13: Facilities by Category per State

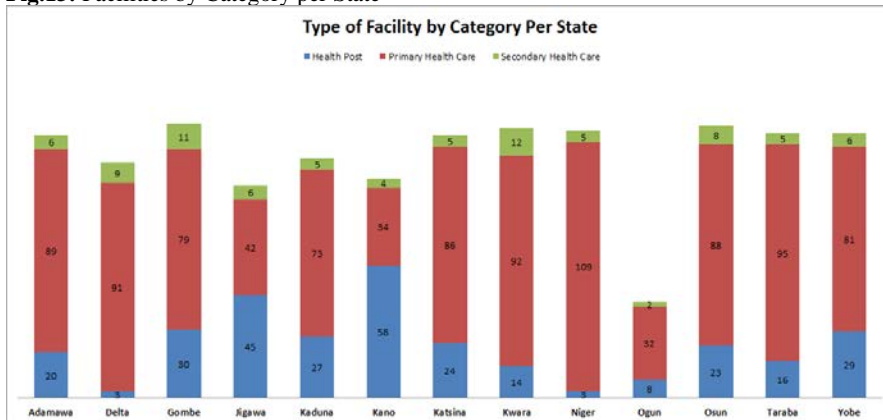


Fig.14: Types of malaria Reported

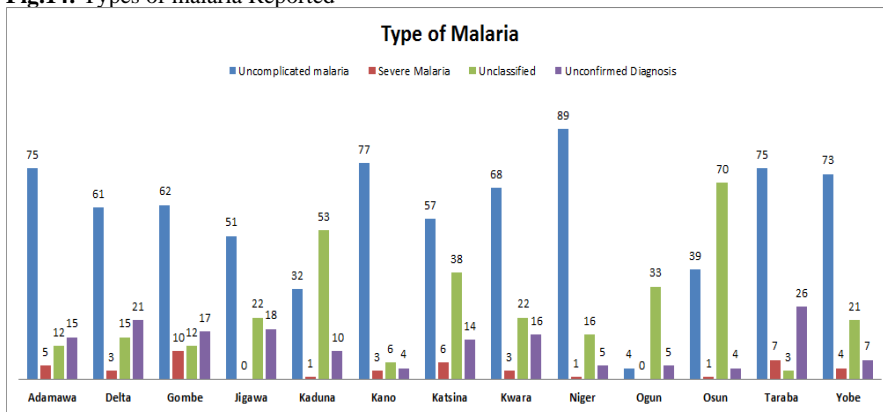


Fig. 15: Comparison of Provider's Diagnosis using RDTs

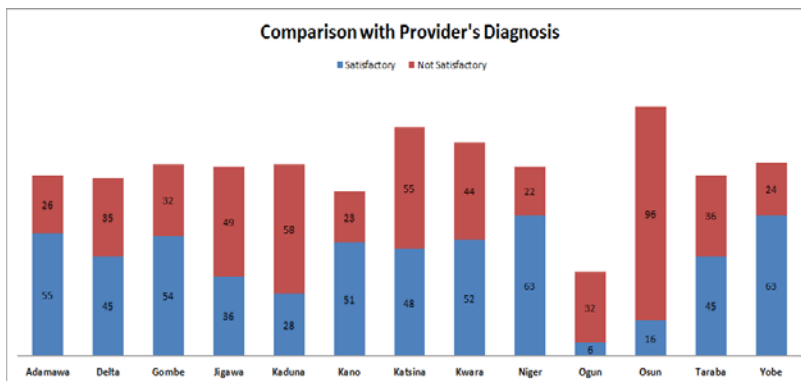


Fig.16: Knowledge on IPTp per State

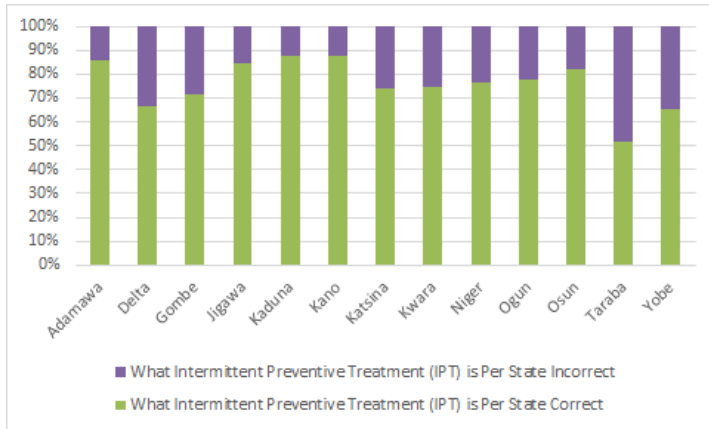


Fig. 17: Knowledge on Treatment of Malaria in Pregnancy

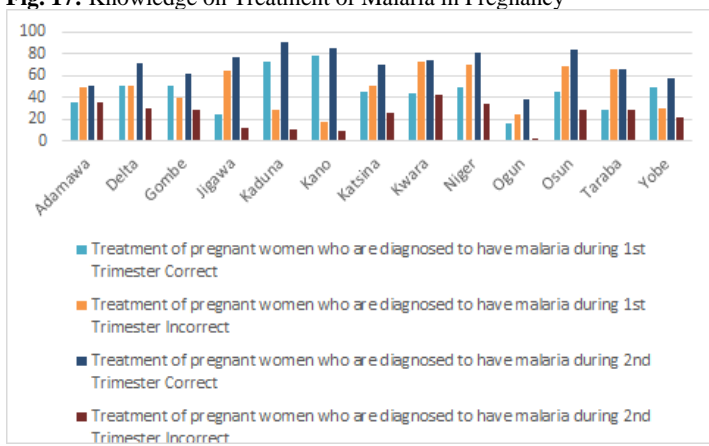


Fig. 18: Utilization of RDT in the Facilities

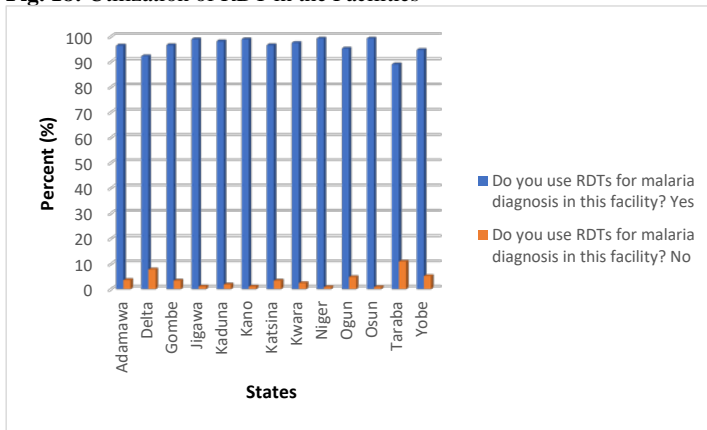


Fig.19: Availability of RDTs in the facilities

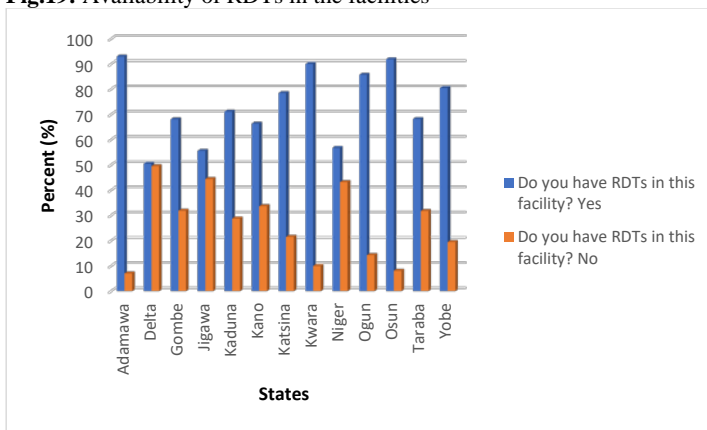


Fig.20: Accuracy in RDT Procedure

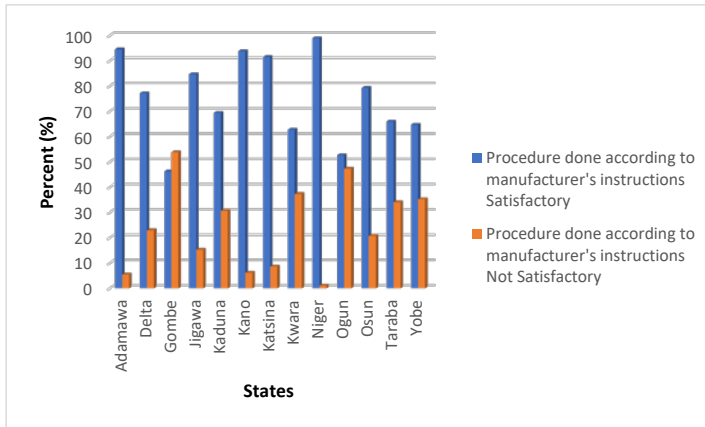


Fig.21: MSV micro planning meeting



Fig.22: Demonstration of RDT for Health Facility staff



3.2.5 Severe malaria clinical audit

The NMEP in collaboration with partners undertook the clinical audits in six states (Kano, Kaduna, Yobe, Jigawa, Katsina and Lagos). The baseline assessment was undertaken in with the aim of understanding hospital and health worker readiness for the inpatient malaria management and health worker practices for admitted patients with suspected malaria. The approach to the large-scale cross-sectional evaluations was followed.

The key objectives of the baseline assessment evaluating health systems readiness and the quality of malaria case-management practices were as follows:

- To assess availability of hospital commodities and services necessary for the care of patients with severe malaria.
- To assess coverage of inpatient health workers with supportive interventions targeting malaria management.

- To assess knowledge of inpatient health workers on the management of severe malaria in accordance with national guidelines.
- To assess health workers' compliance with malaria case-management guidelines for patients admitted with suspected malaria in the paediatric and medical wards.

A total of 62 government hospitals were assessed, 515 nurses and clinicians were interviewed, and data were extracted from case files for 5,502 suspected malaria patients admitted to the pediatrics and medical wards. The main findings revealed that hospital readiness was compromised by suboptimal availability of artesunate, especially in Lagos, lack of artesunate job aids, non-universal availability of malaria diagnostics, especially in Kano (77%), non-recommended malaria microscopy practices (e.g. lack of thin smear preparation, use of Field stain, no parasite quantification), except in Lagos. Health worker readiness, comprised of the coverage with support interventions and knowledge about severe malaria, was suboptimal with less than a third of health workers exposed to the severe malaria training, malaria guidelines and supportive supervision. The knowledge of severe malaria features, testing indications, treatment policies, artesunate dosing, and ACT follow on treatment was also deficient. With respect to the case-management, low malaria testing on admission, lack of repeated test, suboptimal use of artesunate for severe malaria and especially for adults, high non-compliance with test negative results, and irrational use of parenteral antimalarials for non-severe malaria patients resulted in less than one in five suspected malaria admissions managed in accordance with the policy promoting universal testing of suspected malaria patients, compliance with test results and recommended antimalarial treatment based on the severity criteria. While use of quinine was correctly discontinued for all categories of patients, the artemether and artemether treatments have been commonly observed, especially among adults, non-severe, and test negative patients. Finally, when artesunate was prescribed health workers complied with minimum number of recommended doses but often without prescribing ACT follow on treatment and without dosing based on measured weight. Only in Lagos most paediatric patients were weighed and vital signs taken on admission.

3.2.6 Severe Malaria Retrospective study

The burden, case management practices and reporting processes of severe malaria across the tertiary health institutions in the country necessitated the NMEP to undertake the retrospective study covering July 2015 to June 2019 in order to learn what the numbers of children who suffered from the disease looks like and to determine how they were managed. Further to this, the NMEP also wanted to know if severe malaria was ever reported to the National or local

health authorities or to any other databases in the world. Findings from the study would help to design a suitable platform for reporting severe malaria cases and strengthen the management of cases of severe malaria along best practices line for operable quality data.

The study was conducted in all the 6 geopolitical zones of Nigeria namely north west, north central, north east, south west, south east, and south-south zones (fig 23). Eighteen tertiary health facilities were selected for the study. A total of 5,159 cases of severe malaria were treated in the 18 tertiary health facilities during the five-year period considered. This study found children aged more than five years to suffer from the disease. There was a slight male preponderance with 2856 males (55.4%) and 2302 (44.6%) female cases. Several other findings were recorded (Fig.24 -26).

Fig. 23: Documented severe malaria cases by zones

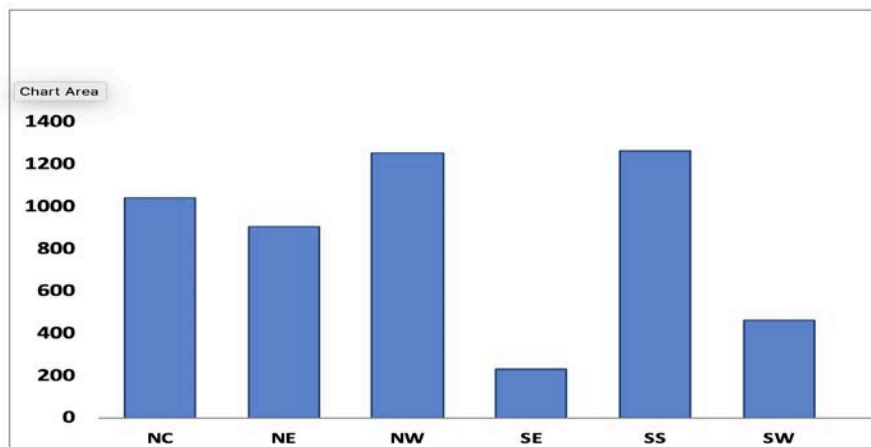


Fig. 24: symptoms of severe malaria reported

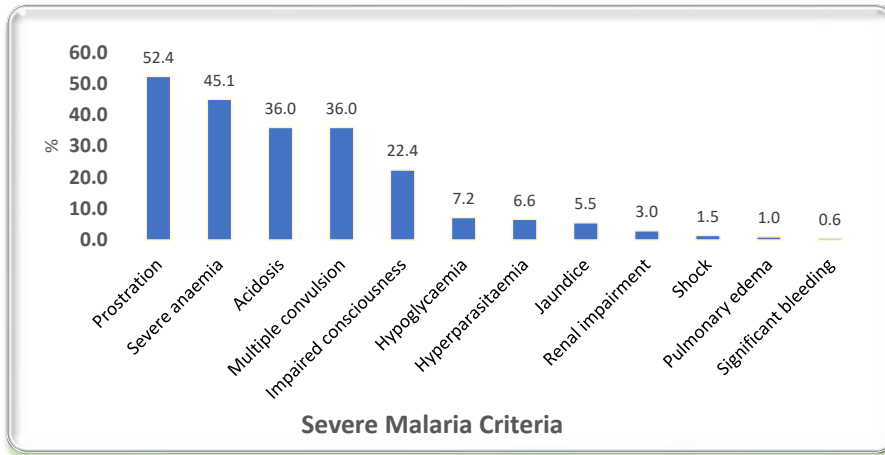


Fig. 25: Outcome of treatment by zone

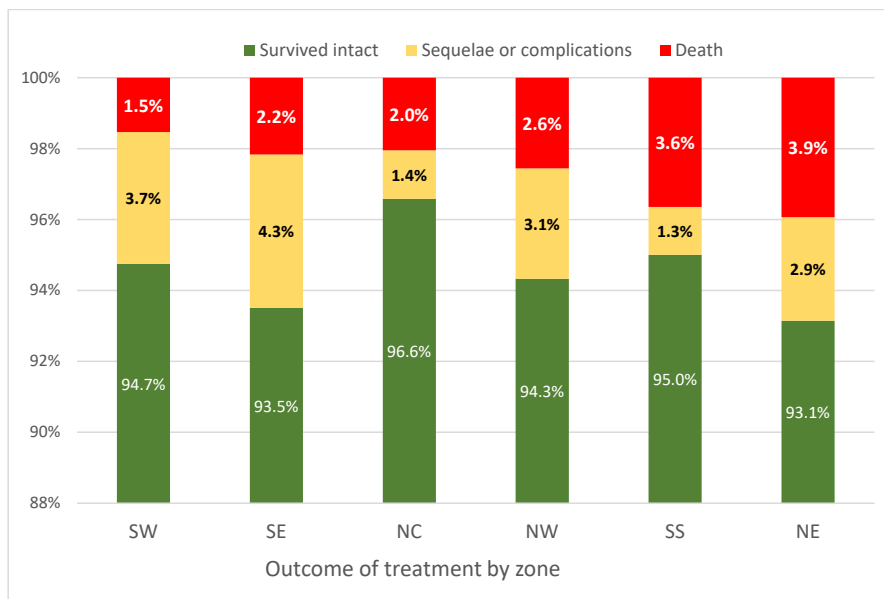
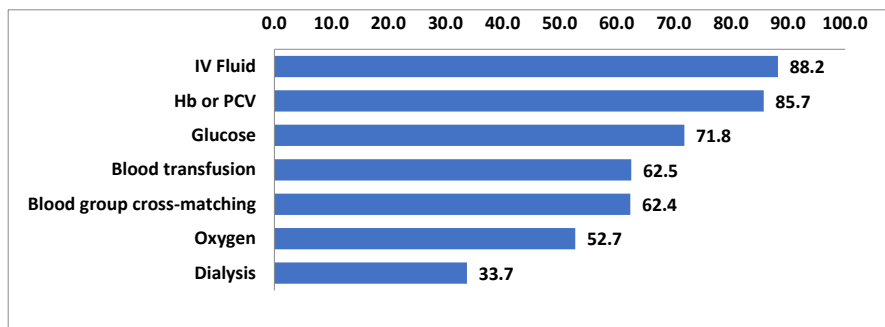


Fig. 26: Other treatment related services



3.2.7 Malaria Quality of Care

The National Malaria Elimination Programme (NMEP) collaborated with Partners and relevant government organizations to achieve the goal of assessing, improving and sustaining an acceptable quality of care across different levels of service delivery. The NMEP is desirous of ensuring continuous implementation of the Quality of Care (QoC) assessment, as well as set in motion, mechanisms to improve quality of care in malaria case management. Internal review was conducted to identify existing government's structures which are carrying out quality of care assessments and services at health facilities across the country.

One of the key proposed activities towards the development of the national guidelines on malaria Quality of Care is consensus building meeting with stakeholders to review guidelines on quality of care. This was done with stakeholders both from state and National level to review Guidelines on Quality of Care (QoC) and Governance structure and Network for QoC at National, State and LGA/Ward level.

Training of National Level Staff on implementation of QoC National Guideline involving key officers from NMEP, FMOH, CRS, MSH and MC was carried out.

3.2.8 Diagnosis

The National Guideline on malaria diagnosis and treatment stipulates parasite-based diagnosis of malaria. This can be achieved by doing a microscopic examination of a thin and thick blood film stained by Giemsa or using malaria rapid diagnostic test kit. Until recently, malaria diagnosis was mainly based on the reported presence of fever with a tendency to over-diagnose.

The adoption of parasite-based diagnosis in all age groups further strengthened the country's resolve to align with the World Health Organization's 3Ts strategy of Test, Treat and Track. Accurate diagnosis and prompt treatment of malaria will further drive down the burden of the disease and make the goal of achieving the National Malaria Strategic Plan a reality.

The generation of laboratory test results that are accurate, reliable and reproducible is chiefly dependent on strengthened laboratory (quality reagents, qualified and trained personnel and documentation). The past years has witnessed a significant scale-up in the efforts to control malaria in Nigeria with the deployment of various strategies which focused on proper case management among others. With the success being recorded, there is a need to intensify efforts to eliminate the disease from Nigeria.

To ensure the accurate and reliable diagnosis of malaria, the laboratories must be strengthened. This involves training of laboratory personnel, EQA roll out, provision of quality reagents and materials among others.

To this end NMEP in collaboration with partners embarked on state engagement visit to the 13 states with the view of discussing modalities for capacity building and strengthening of laboratories in secondary and tertiary health facilities in the states. Each state visited was elated about the planned activities and pledged full support (fig. 27).

Consequently, a base line assessment of the laboratories in each of the states has been done with the view to collect and interpret available data and identify health facilities providing malaria diagnostic services in the 13 states and determine their existing malaria diagnostic capacity gaps with aim of designing a strategy for improving on their services. A total of 195 secondary health facilities were assessed

Fig. 27: State engagement visit to Kano state for laboratory strengthening



3.3. INTEGRATED VECTOR MANAGEMENT

Integrated Vector Management (IVM) is a decision-making process to optimize the use of resources for vector control. IVM is based on the promotion and use of a range of interventions alone or in combination selected on the basis of local knowledge of the vectors, diseases and the many factors that affect transmission.

3.3.1 Coordination

3.3.1.1 IVM Subcommittee Meeting

This meeting holds monthly to effectively strengthen harmonization and coordination of programmes and activities related to IVM at National and State levels. NMEP in collaboration with partners deliberate on emerging issues and make decisions that can influence policy making as well as discuss activities implemented, achievements and challenges. A total of eleven meetings were held in 2019.

3.3.1.2 Expert Group Meetings

There are three Expert Groups - ITN, LSM and IRS/VS Expert Groups. The Expert ITN Group meet monthly while LSM and IRS/VS Expert Groups meet quarterly or as the need arise. These groups meet monthly/quarterly to deliberate on technical issues, successes/achievements, challenges and way forward as well as provide feedback to the IVM Subcommittee general meeting.

3.3.1.3 Annual Malaria Entomology Review Meeting

The NMEP in collaboration with partners carried out annual malaria entomology review meeting. The meeting was held at the Nigerian Institute of Medical Research (NIMR), Lagos (fig. 28 and 29). The aim was to review reports from the various sentinel sites and make appropriate recommendations on malaria vector control in Nigeria.

Figure 28: Opening ceremony during the annual entomology review meeting



Figure 29: Group Photograph during the Annual Entomology Review Meeting.



3.3.2 Long Lasting Insecticidal Nets (LLINs) Distribution

The LLINs as a major intervention for vector control is distributed through mass campaigns and routine channels.

3.3.2.1 LLINs Mass Campaigns

The mass campaigns were carried out with concerted efforts to achieve universal coverage and household ownership of LLINs in the country. The effort is to achieve the objective of the National Malaria Strategic Plan (NMSP) 2014-2020 to ensure 80% of targeted population utilizes appropriate preventive measures by 2020. The mass distribution of LLINs would achieve household coverage of 100% and at least ensure 80% utilization and to contribute to the reduction of malaria burden in the country.

The NMEP in collaboration with partners carried out LLINs replacement campaigns in eight States (Delta, Yobe, Cross River, Kaduna, Taraba, Kano, Ebonyi and Niger) in 2019 (fig. 30-32).

Information and Communication Technology 4 Development (ICT4D) termed Cash and Asset Transfer Strategy (CAT Strategy) was deployed in five States (Delta, Kaduna, Taraba, Kano and Niger). The use of innovative technology is to improve efficiency, accountability and fraud

mitigation in the campaigns. The Government of the States also provided enabling environment and some level of support for implementation of activities.

A total of Twenty-eight Million Two Hundred and sixty-five Thousand, seven Hundred and twenty-four (**28,265,724**) LLINs were distributed across the eight States (table 2).

Table 2: 2019 LLIN Replacement Campaign Distribution

S / N	States	Target population	Total LLIN Delivered	No of LLINs Distributed	LLINs Redemtion Rate	Funding/Implementing Partners
1	Delta	6,385,552	3,732,900	3,186,120	89.7%	GF/CRS
2	Yobe	3,630,866	2,352,150	2,332,814	98%	GF/MC
3	Cross River	4,189,320	2,376,991	2,349,727	98.8%	PMI/GHSC-PSM
4	Kaduna	9,289,016	5,285,785	5,094,512	97.0%	GF/SFH
5	Taraba	3,422,658	2,038,857	1,859,862	97.34%	GF/CRS
6	Kano	14,319,941	8,466,372	8,231,283	97.95%	GF/SFH
7	Ebonyi	3,112,290	1,729,200	1,705,609	98.6%	PMI/GHSC-PSM
8	Niger	6,261,861	3,605,713	3,507,840	97.69%	GF/SFH
		50,611,504	29,587,968	28,267,767		

Fig. 30: Radio Sensitization Programme on LLIN Replacement Campaign



Fig. 31: Training of LLIN Campaign Personnel.



Fig. 32: Advocacy visit/ Investiture of Net Ambassador for LLIN Campaign in Kaduna State.



3.3.2.2 Routine and Continuous LLINs Distribution

NMEP in collaboration with partners implemented LLIN routine distribution in 24 States (table 2) through the health facilities in accordance with WHO recommendation of Continuous Distribution of LLINs. Pregnant women attending/registering (first visit) for Antenatal Care (ANC) were given free LLINs. Infants finishing measles immunization at 9 months through the Expanded Programme on Immunization (EPI) Services also receive nets. A total of Two Million, sixty-nine thousand, Two Hundred and Eighty-five (2,069,285) LLINs were distributed from January-September 2019. Distribution of LLIN was integrated with the annual Maternal New-born Child Health Week (MNCHW) in some States in the country as a channel of Continuous Distribution.

Table 3: Routine Distribution of LLINs

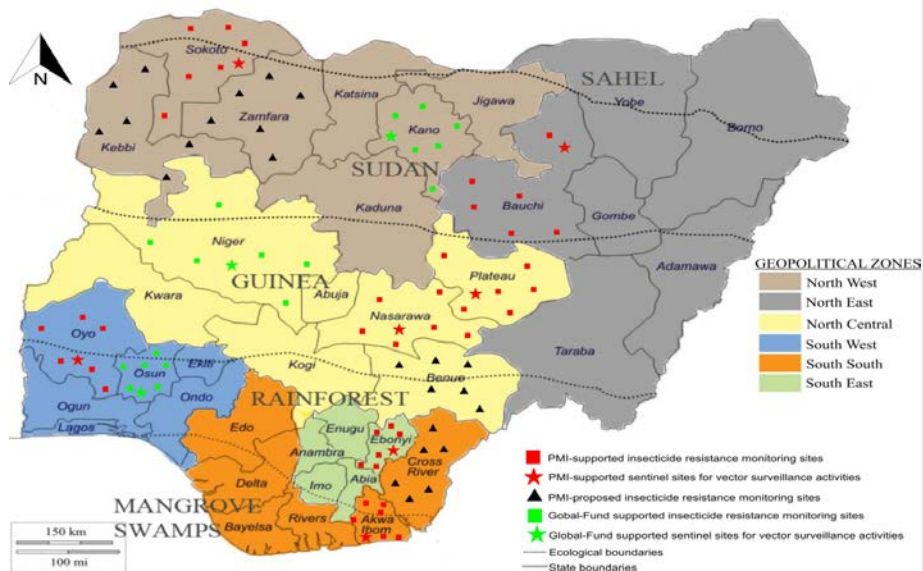
S/N	State	LLIN Distributed	Supporting Partner(s)
	Akwa Ibom	19055	PMI/GHSC-P

	Bauchi	49291	PMI/GHSC-PSM
	Benue	91698	PMI/GHSC-PSM
	Cross River	112920	PMI/GHSC-PSM
	Ebonyi	46405	PMI/GHSC-PSM
	Kebbi	149539	PMI/GHSC-PSM
	Nasarawa	133517	PMI/GHSC-PSM
	Oyo	81767	PMI/GHSC-PSM
	Plateau	35615	PMI/GHSC-PSM
	Sokoto	130028	PMI/GHSC-PSM
	Zamfara	110565	PMI/GHSC-PSM
	Adamawa	121400	GF/CRS
	Delta	36789	GF/CRS
	Gombe	73613	GF/CRS
	Jigawa	133143	GF/CRS
	Kaduna	113606	GF/CRS
	Kano	116861	GF/CRS
	Katsina	167595	GF/CRS
	Kwara	52640	GF/CRS
	Niger	107291	GF/CRS
	Ogun	26950	GF/CRS
	Osun	39377	GF/CRS
	Taraba	66515	GF/CRS
	Yobe	51486	GF/CRS
Total			2,069,285

3.3.3 Vector Surveillance and Insecticide Resistance Monitoring

NMEP in collaboration with Nigerian Institute of Medical Research (NIMR) are working on Malaria Vector Surveillance project in sixteen 16 States (Adamawa, Kano, Kwara, Niger and Osun, supported by the Global Fund; Sokoto, Kebbi, Zamfara, Bauchi, Plateau, Benue, Ebonyi, Akwa-Ibom, Cross River, Oyo, and Nasarawa). The activities at these sentinel sites are routine malaria vector surveillance and insecticide resistance monitoring. NMEP with support from partners implemented vector surveillance activities and insecticide resistance monitoring activities as well as provide technical support, collating all vector surveillance related data, molecular analysis of samples from sites, facilitating technical trainings and sessions as need arises and monitoring of vector sentinel sites across the country (fig. 33).

Fig. 33: Map of Nigeria Showing all the Sentinel Sites in the Country



3.3.3.1 Training of Principal Investigators (PIs), Entomology Technicians and Mosquito Collectors.

In addition to the three existing sentinel sites, two insecticide resistance monitoring sites were established in 2019 (Adamawa and Kwara). The NMEP in collaboration with Nigerian Institute for Medical Research (NIMR) organized a training workshop for the newly engaged PIs and their entomology technicians in order to be able to operate with the harmonized protocol and standard operating procedures (SOPs) for entomology surveillance adopted by the country (fig. 34 and 35). The objective was to train the PIs on the protocol of the studies at the sentinel. Two PIs and six entomology technicians were successfully trained. The NMEP in collaboration with NIMR monitored the trainings for the entomology technicians and the mosquito collectors who worked at the sentinel sites which was facilitated by PIs. The training was cascaded to the State level where other ad-hoc staffs for the field work were orientated on the task they will be performing at the sentinel sites.

Fig. 34: Kwara team demonstrating the CDC Bottle Bioassay



Fig. 35: The Facilitator demonstrating CDC Bottle Bioassay procedure



3.3.3.2 Entomology Report writing workshop

Surveillance and insecticide resistance studies were carried out in five sites (Niger, Kano, Osun, Adamawa and Kwara). In order to have uniformity, share lessons learnt and suggestions for best practices to improve the vector surveillance activities, IVM/NMEP in collaboration with partners organized a technical report writing workshop for the 2018/2019 surveillance

activities in the five sites to enable the National Programme document the findings from these sites. Participants included the Principal Investigators (PIs), entomology technicians for the sentinel sites, NMEP, NIMR and a consultant (fig. 36).

Fig. 36: Participants for the Entomology Technical Report Writing workshop



3.3.3.3 Monitoring and Supervision

NMEP as part of its oversight function conducted quarterly monitoring and supervisory visits to the different sentinel sites the objective of the monitoring and supervision was to ensure compliance to protocol and SoPs during field activities and laboratory work, timely response to needs and challenges faced by the PIs during their field and laboratory work (fig. 37-40).

Fig. 37: Quarter supervisory visit to Niger Sentinel Site.



Fig. 38: Sorting and Counting of mosquitoes knocked down after Pyrethrum Spray Catch (PSC)



Fig. 39: Setting up of CDC Light Trap

Fig. 40: Morphological identification in the Laboratory



3.3.4. Larva Source Management (LSM)

In 2019, LSM framework was developed for the expert group to facilitate the implementation.

3.4. PROCUREMENT AND SUPPLY CHAIN MANAGEMENT

Procurement and Supply Chain Management (**PSM**) activities cut across malaria prevention and treatment activities undertaken to achieve the mission of the National Malaria Elimination Programme; Procurement and Supply Chain Management is required for commodity security and is an essential component of National Malaria Elimination programme (NMEP) provided through the seven rights of supply chain management, (Right products, supplied to the right place, at the right cost, right quantity, right time, right condition and to the right clients).

3.4.1 Coordination

The procurement and Supply chain management have two meeting platforms which includes Sub-committee meetings and quarterly meeting with National Product Supply Chain

Management Programme (NPSCMP) where key decisions were made. The platforms helped to ensure timely availability of appropriate malaria commodities required for prevention and treatment of malaria in Nigeria wherever they are needed and strengthen other related activities (warehousing, distribution and data management).

3.4. 1.1 Subcommittee meeting

The subcommittee meetings held nine times and some of the key decisions made included redistribution of near-to-expire Artesunate + Amodiaquine tablets (AA) based on the National Stock Status Report and sanctions placed on some of the erring Third Party Logistics (3PLs) on proxy deliveries

3.4.1.2 Quarterly coordination meeting with National Product Supply Chain Management Programme (NPSCMP)

NPSCMP was established to drive supply chain integration for AIDS, TB and Malaria (ATM), Reproductive Health and vaccines in Nigeria. NMEP in collaboration with NPSCMP held training/meeting on quality control and pharmacovigilance and as well prepared the National stock status report (NSSR) for malaria health products.

3.4.2 Forecasting and Quantification

To ensure availability of malaria commodities, 2018- 2020 forecast and quantification was reviewed based on service data in 13 States with support from GF because LMIS and HMIS data triangulation at selected health facilities in the 13 States showed discrepancies between service data and LMIS.

Table 4: Malaria health products forecast versus procured for 2019

S/N	Health product	Forecast	GF Quantity Procured	PMI Quantity Procured
1	ACTs	39,145,249	15,925,146	13,373,220
2	RDTs	35,849,363	10,623,028	4,633,875
3	Routine LLINs	12,857,114	3,775,063	-
4	Artesunate Inj	3,546,114	716,718	-
5	SP	16,047,797	-	4,102, 700
6	SPAQ	37,404,603	1,474,350	

3.4.3. Inventory Management

3.4.3.1 National Health Logistics Management Information System (NHLMIS) platform

The National Health Logistics Management Information System (NHLMIS) platform for real time data collection was activated and fully operational in which Malaria reports can now be viewed real-time for informed decision at all levels of the supply chain.

3.4.3.2. Quarterly physical inventory count of routine malaria health products

The NMEP in collaboration with CRS conduct quarterly physical inventory count of routine malaria health products to validate all malaria commodities (ACTs, SPs, Artesunate Injections, RDTs, Gloves and Sharp containers) received in each Axial zonal warehouses and issued out to health facilities in 13 States . All inbound, dispatched and Stock on Hand (SOH) were reconciled based on delivery/dispatched note and physical count carried out for all useable and expired malaria commodities

3.4.3.3. Quarterly Monitoring and supportive supervision

Quarterly Monitoring and supportive supervision of health facilities was carried out in 13 States by NMEP in conjunction with Management Science for Health (MSH) and the National supply chain Management Programme (NSCMP). A total of one hundred and fifty-six (156) health facilities were visited per quarter.

3.4.3.4. End Use Verification (EUV)

NMEP in collaboration with Global Health Supply Chain-PSM (GHSC-PSM) carried out end Use Verification bi-annually in 11 States. This exercise was designed to assess the availability of malaria commodities at the end-use level, as well as provide a snapshot of malaria case management by visiting some selected health facilities across 11 states.

Actions taken in 2019 to address issues related to 2018 EUV include:

- An intervention Matrix was developed from the previous EUV survey findings. This was communicated to the eleven State Logistics Management Coordinating Units (SLMCUs) to guide support and actions to address identified gaps.
- The project mobilized functionaries of the State Logistics Management Coordinating Units (SLMCUs), earlier prepared as master trainers, to conceptualize accountability frameworks in order to facilitate and sustain performance of timely supply chain actions in their respective health systems.
- GHSC-PSM Nigeria TO2 team developed training videos on the Malaria Commodity Logistics System (MCLS) as Job aids to provide and sustain

access to relevant technical information for health workers and other stakeholders.

3.4.3.5. Review of the national Malaria Commodity Logistics System (MCLS) SOP

NMEP/ PSM with support from GF coordinated the review of the national Malaria Commodity Logistics System (MCLS) SOP which was developed in 2010 to Malaria Health Product Logistics Management System (MHPLMS). The review led change of the name from MCLS to Malaria Health Product Logistics System (MHPLMS) where all stakeholders (WHO, PMI, CRS, SMOH, Logistics Management Coordinating Unit coordinators) actively participated in the review while NMEP facilitated the entire process, and developed training materials to speak to the reviewed MHPLMS SOP. Consequently, Malaria Health Product Logistics System (MHPLMS) Training of Trainers (TOT) was conducted, cascaded to States and Stepped down to all HFs in 13 States. The MHPLMS tools were printed and disseminated to 13 States.

3.4.4 Warehousing and Distribution

NMEP provided oversight on the distribution of malaria commodities through GHSC-PSM (Chemonics) for both long haul to zonal warehouses and Last Mile distribution of Malaria commodities across the supply chain, with the aim to promote timely accessibility of safe, effective and quality malaria commodities at all levels of health care delivery. The closing balance for malaria commodities was recorded in December 2019 (Table5)

Table 5: National Stock Status as at the end of December

S/N	Product Name	USAID/PMI	Global Fund	Total National Stock	Average Monthly consumption	Month of Stock
1	AL1	1,217,040	968,850	2,185,890	701,325	3.1
2	AL2	1,132,230	1,300,380	2,432,610	732,003	3.3
3	AL3	942,900	581,910	1,524,810	487,484	3.1
4	AL4	2,085,570	1,158,810	3,244,380	958,346	3.4
5	AA1	54,775	7,1675	126,450	109,146	1.2
6	AA2	53,650	6,255	59,905	91,416	0.7
7	AA3	106,725	502,469	609,194	99,712	6.1
8	AA4	129,075	61,595	190,670	116,299	1.6
9	RDT	2,288,300	3,690,550	5,978,850	2709,216	2.2
10	SP	3,062,600	180	3,062,780	333,580	9.2
11	LLIN	0	171,063	171,063	346,725.5	0.5
12	ART INJ	39,916	610,556	650,472	51,921	12.5

3.5. PROGRAMME MANAGEMENT

The branch is responsible for coordination, oversight and information sharing within and outside NMEP. It articulates the critical steps and approaches expected of different stakeholders to take responsibility for planning, supervision, resource mobilization, Public Private Partnership, capacity development and other management arrangements for efficient utilization of resources for effective programming.

3.5.1 Coordination Meetings

3.5.1.1 Subcommittee Meeting

Seven subcommittee meetings were held and attended by representatives from NMEP thematic units and Partners. At the meetings issues on Malaria Programme Review, capacity assessment and domestic resource mobilization were discussed. Some of the outcomes from these meetings is the commencement on training of NMEP staff on knowledge management, Annual Operational Plan (AOP) development, Malaria Programme Review (MPR) and World Malaria Day (WMD).

3.5.1.2 Technical Working Group Meeting

The TWG is the highest constituted coordination platform for malaria control in the country. Two Technical Working Group meetings (TWG-Malaria) were held, which provided a platform for NMEP and partners to discuss issues relating to programme implementation, resource mobilization and capacity building. The recommendations made from the meetings were implemented. Some of the issues discussed were outcome of Midterm Review (MTR) of the Strategic Plan, Plans for the Malaria Programme Review (MPR), approval of Annual Operational Plan (AOP) and High burden high impact as a strategy for malaria response in the country.

3.5.1.3. Quarterly Review Meetings

NMEP held two quarterly review meetings to appraise the activities in the AOP. The meetings provide evidence status of malaria activities in the country on a quarterly basis and feedback from NMEP branches and partners on activities implemented at both the national and state levels.

In the first quarter of 2019, implementation performance from the last quarter of 2018 to the first quarter of 2019 was found to be 69%. The highest performance level was observed in the ACSM (93%), followed respectively by prevention (89%), PSM (77%), SMEOR (71%), PM (67%) and CM (62%). These are broken down into the different objective areas (Table 6).

Table 6: Summary of activities implemented in Q4

SN	Objective area	Total no of activities planned in the AOP	No unplanned, implemented & reported	Total no of activities performed	% Performance (inclusive of unplanned activities)
1	Prevention	9	0	9	89
2	Case management	30	12	42	62
3	ACSM	4	1	5	93
4	PSM	10	0	10	77
5	SMEOR	17	4	21	71
6	PM	7	0	7	67
	Total	77	17	94	
	Overall percentage performance (inclusive of unplanned activities)				69

In the review, a summary of the status of implementation of activities across the objective areas was taken into consideration and the performance implementation rate was assessed based on only the planned activities within the 2018 AOP (Table 7).

Table 7: Summary of activities as reported by objective areas

SN	Objective area	Total no of activities planned in the AOP	No planned, completely implemented & reported	No planned, >50% implemented & reported	No planned, <50% implemented & reported	No not commented & reported	No not planned, implemented & reported	% Performance (based on activities planned in the AOP)
1	Prevention	9	6	0	3	0	0	89
2	Case management	30	14	0	0	16	12	47
3	ACSM	4	3	1	0	0	1	92
4	PSM	10	7	1	0	2	0	77
5	SMEOR	17	11	0	0	6	4	65
6	PM	7	4	0	2	1	0	67
	Overall	77	45	2	5	25	17	62

3.5.1.4 National Joint Annual Programme Review Meeting for HIV/AIDS, TB and Malaria (ATM) Programmes

A Joint Annual Programme Review (JAPR) Meeting for HIV/AIDS, TB and Malaria Programmes was held in June 2019 to review the performance of HIV, TB and malaria programs in 2018 both at the national and state levels. The objectives of the meeting included to: identify priority areas of action for 2019 building on success areas observed; address main challenges experienced and assess ATM funding landscape and explore opportunities for improving domestic resourcing; ownership and accountability. The meeting had about 250 representatives from the health MDAs, donor agencies and partners.

Some of the key issues raised during the sessions of the meeting included: Poor political will; poor adherence to treatment guidelines; inadequate capacity of staff and LGA officers for programme management; late availability of antimalarial commodities in the States and health facilities; poor routine distribution of LLINs through ANC/EPI clinics and low uptake of LLINs among targeted risk groups and private sector involvement in the national malaria response.

Based on the issues identified, the meeting recommended that the NMEP should:

- Revise its advocacy strategy to state actors to improve political will to increase domestic funding for malaria control at the state level.
- Improve the quality of diagnostics, technical capacity of personnel, regular supervision, enforcing adherence to treatment guidelines and sensitizing people to believe test results.
- Develop an innovative framework for engaging the private sector based on best practice.

3.5.2 Domestic Resource Mobilization (DRM)

A workshop on Domestic Resource Mobilization was convened by NMEP in collaboration with a partner to further supplement national efforts towards improved domestic financing, planning and delivery of sustainable malaria programmes in light of dwindling external financing for malaria elimination. The capacity of programme officers were also built to support states to conduct similar activities. In addition, final National Roadmap for Malaria DRM was developed and will be implemented from 2020.

3.5.3 Development of NMEP Financial Plan

NMEP in collaboration with a partner developed a Financial Plan for the programme and 6 States (Yobe, Jigawa, Katsina, Kano, Lagos and Kaduna). The plan was developed to increase funding, timely release of funds by government and increased support from partners.

3.5.4 Organizational Capacity Assessment (OCA)

OCA was designed to establish a baseline on the capacity and capability of NMEP and SMEPs to deliver on its core functions, identify gaps and develop an improvement plan for the gaps. In September, a structured OCA was conducted on NMEP management and officers to assess the organizational capacity and capability of the programme. The findings showed that NMEP capacity assessment stood at 46% which indicated a need to revise the improvement Plans developed at the July OCA.

Fourteen NMEP officers were trained to administer OCA and provide the required support to the States' Malaria Programme.

3.5.5 2019 World Malaria Day (WMD)

The World Malaria Day provides an opportunity to sensitize all Nigerians on the burden of malaria in the country in line with the spirit of the Abuja Summit 2000 which mandated member countries to set aside 25th of April annually for the commemoration of the day. The theme for WMD 2019 was: "**Zero Malaria Starts with Me**" and the accompanying slogan was: "**Join Me**".

Some of the activities of the commemoration included: Pre - WMD Press Briefing, visit to internally Displaced Person (IDP) Camp, advocacy Visits to Places of Worship (United Evangelical Church and the National Mosque), and WMD Grand Finale/ Ministerial Press-Briefing (fig. 41-44).

Fig. 41: A cross section of participants at the Pre-Press-briefing by WMD Committee Chairman



Fig. 42: Free Malaria Test and Treatment during WMD commemoration at Wassa IDP camp.



Fig. 43: The Hon. Minister for Health during the WMD Ministerial Press Briefing.



Fig. 44: The Director Public Health (DPH), National Coordinator (NC) NMEP, Chairman WMD during the WMD rally



3.5.6 Malaria Programme Review (MPR)

NMEP with support from the malaria partnership commenced the implementation of the Malaria Programme Review. The MPR is a Periodic, collaborative evaluation of National Control Programmes which occurs every 3-5 years. It is aimed at improving operational performance and refining or re-defining the strategic direction and focus of the programme. The MPR is implemented in four phases.

NMEP implemented three phases of the review including the planning, desk review, and field validation. Under the planning phase, the review coordinator was appointed, the concept note for the review was developed, funding was mobilised from the malaria partnership and the internal and external teams were identified.

In the second phase, national consultants were engaged to develop thematic reports across all intervention areas under the guidance of the thematic area subcommittees. While in the third phase, field visits were carried out to 18 states to validate the desk reports and collect other confirmatory data for the review. Consequently, a workshop was held to develop the zero draft of the 2019 Malaria Programme Review.

PM branch facilitated a meeting of NMEP management team with National Assembly health committees as part of strategic advocacy for malaria, resources mobilization and increased budgetary allocation. The management team also met with legislative network on health and the Nigeria Governors forum all in attempt to mobilize resources for malaria at national and states levels.

3.6. SURVEILLANCE, MONITORING, EVALUATION AND OPERATIONS RESEARCH (SMEOR)

SMEOR is critical to achieving the goal of the NMEP and tracking progress to ensure improvement in the efficiency, effectiveness and equity of programmes. It involves collection, collation and analyses of malaria data from the routine Health Management Information System (HMIS), surveys and other sources as well as development of new knowledge through Operations Research (OR) to generate evidence upon which policy decisions are made in relation to options for programme implementation.

SMEOR activities that were planned for 2019 included: strengthening routine data generation, collection, collation and harmonization at State, LGA and community levels (NHMIS & DHIS), strengthening supervision at all reporting levels across the 36 states and FCT, and

increase human resource capacity for SMEOR; implement a National Operations Research (OR) agenda for the malaria Programme.

3.6.2 Coordination Meetings

3.6.2.1 SMEOR Subcommittee Meeting:

In the year under review, 9 out of 12 meetings (75%) were conducted. Members of the subcommittee discussed technical issues on SMEOR, including the design for the 2020 Nigeria Malaria Indicator Survey (NMIS), and dissemination of results of activities carried out by partners including monthly data analysis by SMEOR branch as reported in the DHIS2

3.6.2.2 Management Expert Group Meetings

The Data Management Expert Group is a subgroup under SMEOR subcommittee with oversight functions of reviewing and interrogating critical malaria data and providing guidance to the subcommittee. The DMEG met four times (100%) in 2019.

The Malaria Operations Research Expert Group (MOREG) coordinated one National Malaria Operations Research Agenda (NMORA) from 23rd – 24th July 2019 to review/update MOR questions and discussed funding support for implementation of MOR questions.

The branch also coordinated SMEOR Technical Review Meeting in the year under review to train/update participants on emerging issues on SMEOR. Participants were Malaria Programme Managers, M&E officers; HMIS officers from GF supported States and staff of SMEOR

3.6.2.3. NMIS Planning Meetings:

Three planning meetings with key stakeholders on the implementation of 2020 Nigeria Malaria Indicator Survey (NMIS), inauguration of Survey Implementation Committee (SIC) and survey management committee (SMC) were conducted in the year under review.

World Health Organization (WHO) supported SMEOR Branch in the collation and analysis of data for the Nigeria Malaria Stratification mix.

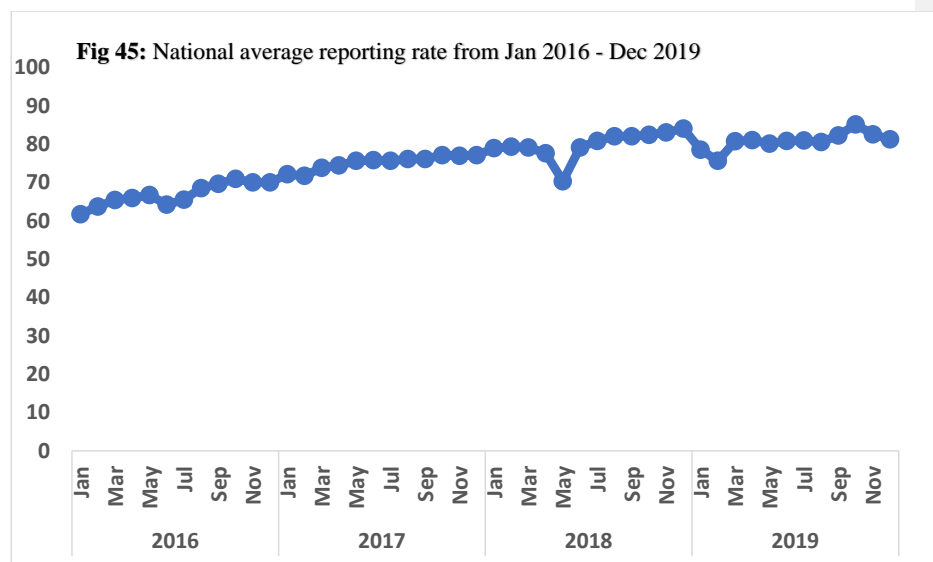
3.6.3 Developed malaria specific Monthly Summary Form (MSF) for reporting from secondary and tertiary health facilities towards improved reporting

The SMEOR branch in collaboration with Department of Health Planning Research and Statistics (DHPRS) and other partners developed a draft malaria specific MSF. The draft MSF was finalized through a stakeholders' meeting. Participants included representatives from States Hospital Management Board (SHMB) and tertiary health facilities. The MSF was discussed/cleared by Malaria TWG M&E Subcommittee. Furthermore, commitment from the management of tertiary health facilities on reporting of data using the MSF was assured. This was followed with the configuration of the malaria specific MSF on the DHIS by DHPRS. The

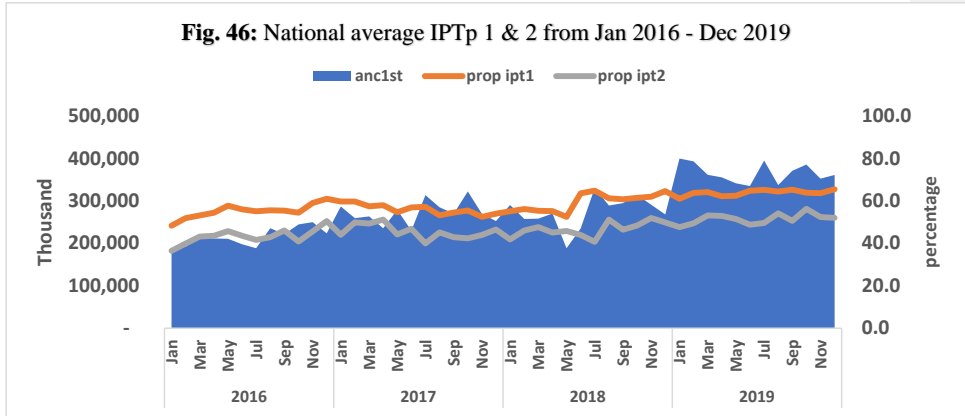
branch coordinated advocacy visit to the leadership of Hospital Management Boards and Tertiary hospitals on the establishment of malaria core team across all General and Tertiary Hospitals in the 13 GF supported states. With support from the Global Fund, Management Sciences for Health (MSH) procured tablets for Records Officers for these health facilities for reporting. This was followed by a coordinated training on direct reporting from all secondary and tertiary hospitals in the GF supported states into the DHIS platform.

3.6.2 Trend Analysis of Malaria Data

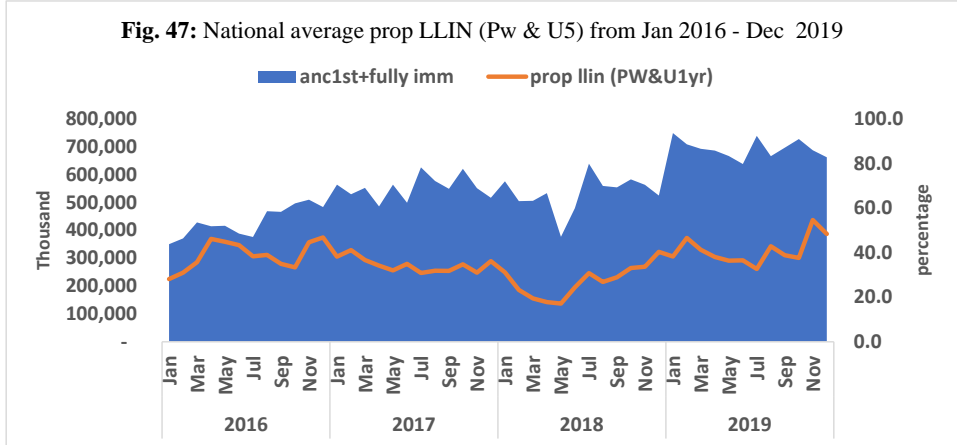
The analysis of the malaria data reported on the DHIS shows improved reporting from 62% in January 2016 to 81% in December 2019 (fig. 45). This exceeded the target of 80% in the 2014 – 2020 National Malaria Strategic Plan.



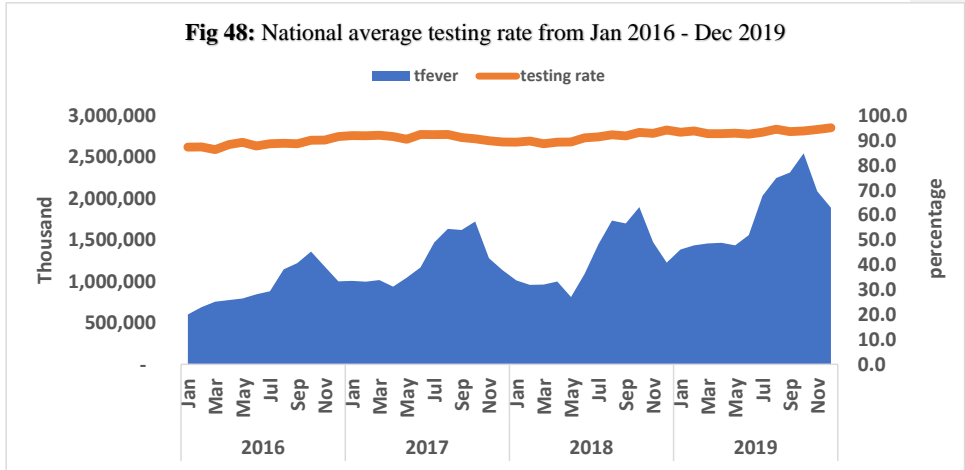
The analysis showed low uptake of IPTp 1 & 2; however, there was increase from 48% to 65% and 36% to 52% for IPTp 1 & 2 respectively between January 2016 and December 2019 (fig. 46). There were missed opportunities observed in IPTp uptake with ANC first visits of between 57% in 2016 and 74% in 2019.



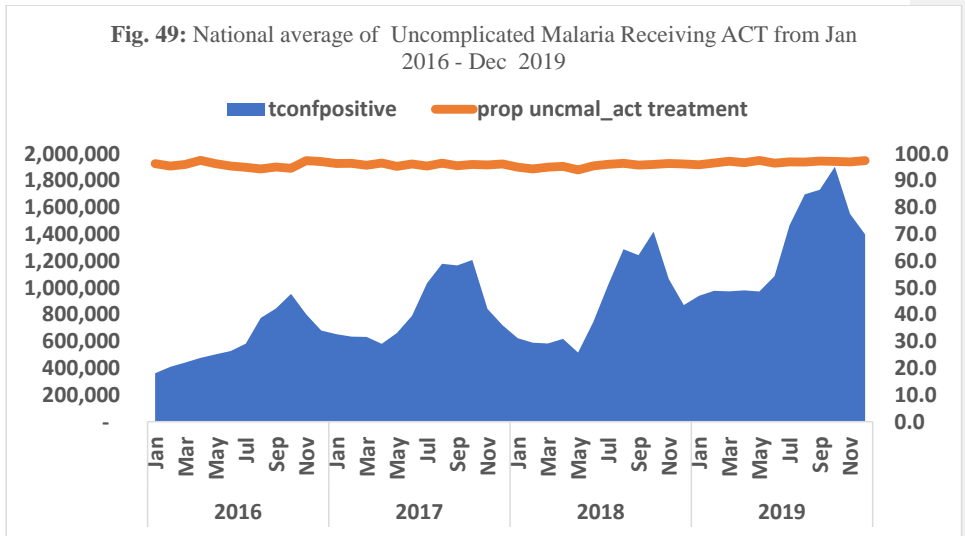
Pregnant women at first contact with the health facility and children who have completed their immunization are expected to receive LLIN. However, missed opportunities were observed among pregnant women and children fully immunized to receiving LLINs from January 2016 to December 2019, possibly due to stockout or other reasons (fig. 47)



Every suspected malaria case should be tested with either mRDT or microscopy. The analysis of malaria data showed that testing rate remained around 90% across the period, despite increase in number of fever cases (fig. 48)



On the average, 97% of confirmed uncomplicated malaria cases were treated with ACT between January 2016 and December 2019 (figure 49). This is close to the National target of 100%



3.6.2 Rapid Impact Assessment (RIA)

A consensus building meeting between NMEP and its partners was reached on the conduct and scope of Rapid Impact Assessment (RIA). RIA was conducted primarily to among other things assess the effect of scale-up of malaria control interventions on the trend in malaria morbidity and mortality in order to determine success of implementation and provide justification for resource mobilization between 2014 and 2018. Data were collected in all public tertiary, secondary health facilities and cottage hospitals, where parasitological diagnoses are carried out. Prior to field data collection, a survey protocol was developed, and ethical approval received from NHREC for the assessment. Kobo Collect application on Android electronic device was used for data collection during field work. Data collectors, team supervisors and state coordinators were trained at different times before commencing field work.

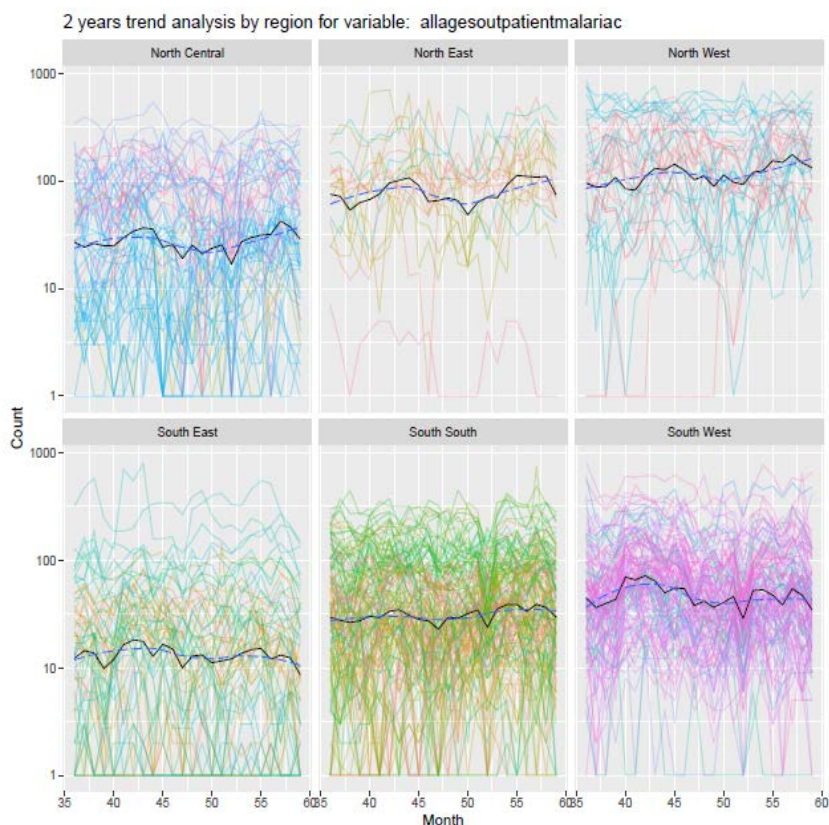
Data cleaning and analysis were done with technical support from WHO. The result showed variations in malaria disease burden by ecological zones as follows:

- The highest all-age malaria outpatient incidence rates are observed in the North East and North West.
- North West has the highest incidence of under-five malaria outpatients
- All-age and under-five malaria outpatient incidence seasonality is evident in the North East and North West zones.
- The North East has the highest incidence of malaria admissions and deaths.
- The highest number and incidence of under-five malaria inpatient admissions and deaths were observed in the North West.
- The highest all-age malaria hospital mortality rates are observed in the North East while the highest under-five malaria hospital mortality is observed in South South
- Malaria TPRs are highest in South East and North East zones.
- Overall, no differences in trends were observed in the number of outpatients or inpatients with malaria or anemia between 2014 and 2018.

The highest all-age malaria outpatient incidence rates are observed in the North East and North West zones (fig. 50)

Fig. 50: All ages outpatient malaria cases.

All ages outpatient malaria cases



3.6.3 Institutionalization of the Nigeria Malaria Data Repository (NMDR)

SMEOR in collaboration with partners prepared a Concept Note for the development of malaria data repository including timelines. A meeting between HISP, Ehealth4everyone and MSH to discuss and agree on the scope of work for all entities on the Nigeria Malaria Dashboard and Data Repository was facilitated by the branch. Through a national stakeholders' meeting, a buy-in of all stakeholders to the MDR and partners commitment on funding of the MDR were received. Uganda and Ghana experiences on MDR were shared by WHO. Technical guidance on all malaria modules and all data sets to be built on the NMDR were provided to Ehealth4everyone and HISP, and implementation of Phase 1 - 3 activities were coordinated by the branch.

3.6.4 Nigeria Demographic and Health Survey (NDHS) 2018

The SMEOR branch provided oversight function in the implementation of biomarker component of Nigeria Demographic and Health Survey (NDHS) from planning through to the dissemination of the result. The result showed increase in national average in ITN use among children less than five from 37% (NMIS 2015) to 43% (NDHS 2018). Conversely, malaria prevalence declined from 27% (NMIS 2015) to 23% (2018 NDHS). The use of LLINs among States ranges between 21% in Lagos and 94% in Kebbi (Fig. 51) while malaria prevalence ranges between 2% in Lagos and 52% in Kebbi (Fig. 52)

Figure 46: ITN Use among Children by State

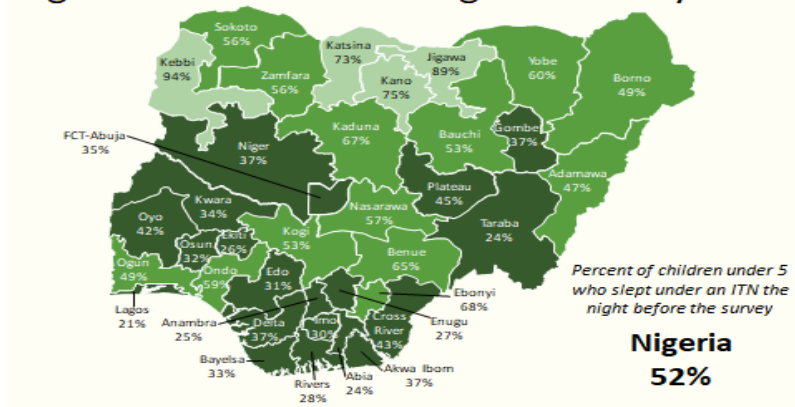
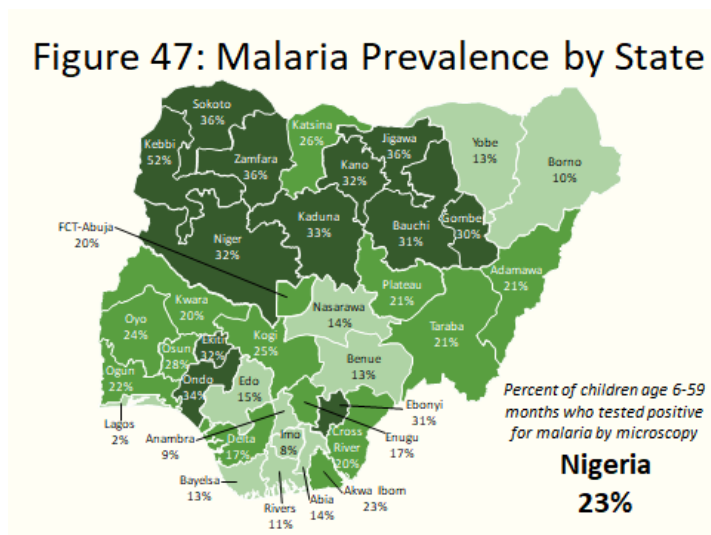


Figure 47: Malaria Prevalence by State



3.6.5. Bi-annual Data Quality Assessment (DQA) visits

The DQA activity was conducted over one week for the period July to September 2019 in each State and was jointly implemented by the National and LGA M&E Officers. National technical officers and partners (CRS, MSH & MC) provided technical oversight to further build capacity of sub-national level officers on conducting result-driven DQA. The DQA which was carried out in 13 GF supported States was aimed primarily to verify data uploaded onto the DHIS platform and resolve data quality issues identified for the selected health facilities.

The findings showed poor data availability across all the States with no State reporting up to 90% for the period assessed. The consistency of MSF and DHIS data from Kwara State (100%), Niger State (99%), Ogun State (97%), Yobe State (91%) and Osun State (90%) was impressive (Figure 53). Conversely, majority of the GF supported States have poor data consistencies. Furthermore, the validity of data across all the 13 project States showed that large gap remained in malaria data elements. Additionally, health facility-level results showed poor data availability, consistency and validity across all health facilities in Delta, Taraba, Kano, Kaduna, and Jigawa States. Conversely, data consistency from Charanchi Comprehensive Health Centre, Dayi Primary Health Centre, Malumfashi Primary Health Centre in Katsina State had plausible performance. Similar results were recorded in data

consistency for selected health facilities in Kwara State (Shonga Comprehensive Health Centre, Amayo Basic Health Centre, Ero Omo Basic Health Clinic, Lamodi Basic Health Clinic, Afon District Health Unit Clinic). In Ogun State, Adedero Health Clinic, Obada Primary Health Centre, Iberekodo General Hospital also reported improved data consistency. Few facilities reported improved data consistency in Osun and Niger States. Albeit worse results were noted in data availability and validity across all health facilities.

Cross cutting issues identified included discrepancies between the NHMIS registers, MSF and DHIS2. This was observed across the states and health facilities visited. The reasons provided amongst others were errors due to omission, transmission errors in DHIS2 platform, inadequate staff strength, lack of technical know-how. However, data qualities issues identified were resolved and correction effected on the DHIS2 platform as much as possible (fig. 54-55).

Fig. 53: Percentage distribution of data availability, consistency, and validity across 13 GF Supported States

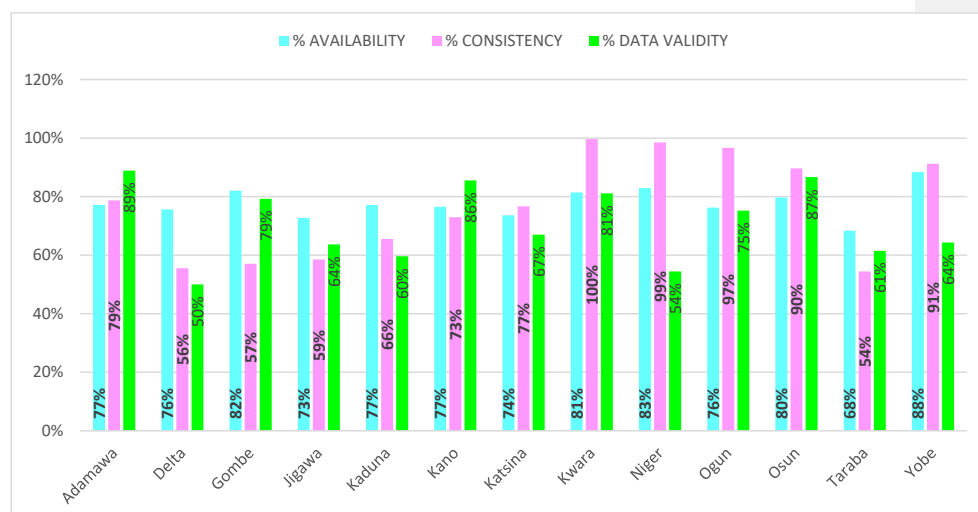


Fig. 54: Data verification from NHMIS Register, MSF & DHIS in one of the HFs in Delta State during DQA visit.



Fig. 55: Data verification from NHMIS Register, MSF & DHIS in one of the HFs in Delta State during DQA visit.



CHAPTER FOUR

CHALLENGES, RECOMMENDATIONS AND CONCLUSION

4.1. CHALLENGES

4.1.1. ACSM

- Poor follow up on advocacies to States to track commitments made
- Inadequate funding of malaria SBC and advocacies
- Limited focus on provider behaviour change issues that are critical to improved uptake of malaria commodities (mRDT and ACTs)

4.1.2. CM

- Inadequate funding to implement necessary activities
- Conflict of activities with other branches and partners

4.1.3. IVM

- Inadequate sentinel and insecticide resistance monitoring sites in the country.
- Inadequate support for LSM, procurement of LLINs for continuous distribution and replacement campaign.

4.1.4 PSM

- Inadequate report of consumption data from states and health facilities for quantification, and other supply chain decisions
- Staff attrition in the logistic team.
- Inadequate information sharing from partners in warehousing and distribution
- Inadequate supply of malaria commodities especially in the 12 States (including FCT) without partners support thereby leading to widespread stock out

4.1.5 PM

- Inadequate support to carry out some key activities.
- Weak institutional capacity
- Sub-optimal internal coordination

4.1.6 SMEOR

- Inadequate Support to carry out all planned DQA/Supervisory visits to all the States
- Inadequate reporting of malaria data particularly severe malaria data from secondary and tertiary health facilities (HFs) and the private sector malaria data unto the DHIS
- Inadequate data capturing tools and poor data quality in the health facilities
- Delay in the finalization of the revised 2019 NHMIS data collection tools

4.2. RECOMMENDATIONS

4.2.1. ACSM

- Get regional ambassadors and utilize national malaria ambassador to improve advocacy and follow up
- Collaborate with partners to track commitments made during high-level advocacies
- Improve advocacy with private sector and accelerate efforts to establish private sector desk in NMEP
- Stratify and deploy SBC interventions based on malaria epidemiological profiles

4.2.2. CM

- Increased funding to implement necessary activities
- Improved coordination of activities within NMEP and partners

4.2.3. IVM

- Scaling up of vector surveillance sentinel and insecticides resistance monitoring sites.
- Government support for LSM, procurement of LLINs for continuous distribution and replacement campaign.

4.2.4. PSM

- Engagement with State leadership to improve reporting of consumption data from health facilities
- Adequate information sharing from partners in warehousing and distribution
- Improvement in coordination of PSM activities
- Government of Nigeria to cover States without partners support to avoid stock out

4.2.5. PM

- Improved domestic funding and better ownership as well as engage the new funding reforms including Basic Health Care Provision Funds (BHCPF), National Health Insurance Scheme (NHIS) and State Health Insurance Scheme (SSHIS)
- High level engagement of National and State assemblies, relevant Ministries, Departments and Agencies (MDAs) for better prioritization of Malaria, allocation of more funds and timely release of allocated funds
- Strengthening staff capacity in line with NMEP Capacity Improvement Plan

4.2.6. SMEOR

- Need to increase domestic funding to fill the existing gaps
- Support for regular DQA/Supervisory visits to the States to improve data quality.
- Need for a refresher training on use of DHIS for M&E officers at the sub-national level
- Need to support malaria OR implementation especially for Answer to OR Questions

4.3. CONCLUSION

Intervention activities across different thematic areas including Integrated Vector Management (IVM); Case Management; Advocacy, Communication and Social Mobilization (ACSM); Procurement and Supply Chain Management (PSM); Programme management; and Surveillance, Monitoring Evaluation and Operation Research in NMEP planned for 2019 were carried out to enhance the achievement of national objectives and targets for malaria elimination as set forth in the National Malaria Strategic Plan (NMSP) 2014-2020. Based on the report, there is need for increased domestic funding to enable improved implementation of activities in all thematic areas and priority should be given to capacity building of NMEP staff. In addition, improved quality of data through the completion of malaria data repository is crucial. Consequently, this report will support the development of the new malaria strategic plan.