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SuNMaP
SUPPORT TO NATIONAL MALARIA PROGRAMME

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# Working together to combat malaria

## Support to National Malaria Programme (SuNMaP)

## Contributions to Malaria Elimination Efforts

## 2008 - 2016

SuNMaP partners:

Health Partners INTERNATIONAL

GRiD CONSULTING

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### About SuNMaP

Support to National Malaria Programme (SuNMaP) is an £89 million UK aid funded project that works with the government and people of Nigeria to strengthen the national effort to control malaria. The programme began in April 2008 and ends in March 2016.
Led by Malaria Consortium, SuNMaP was jointly managed by a consortium, including lead partners Health Partners International and GRID Consulting, with nine other implementing partners. SuNMaP was implemented in 10 states across Nigeria, including Anambra, Kano, Niger, Katsina, Ogun, Lagos, Jigawa, Enugu, Kaduna and Yobe.

SuNMaP worked with the Nigerian government's National Malaria Elimination Programme (NMEP) to harmonise donor efforts and funding agencies around national policies and plans for malaria control. Project targets were aligned with the National Malaria Strategic Plan and Global Malaria Action Plan. The project aimed to improve national, state and local government level capacity for the prevention and treatment of malaria.

**www.malariaconsortium.org/sunmap**


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# Working together to combat malaria

## A synopsis of Support to National Malaria Programme (SuNMaP) Contributions to Malaria Elimination Efforts in Anambra State 2008-2016

# Contents

# Abbreviations and acronyms

| | |
|---|---|
| ACOMIN | Association of Civil Society/Organisation for Malaria, Immunisation and Nutrition |
| ACSM | advocacy communication and social Mobilisation |
| ACTs | artemisinin-based combination therapy |
| AL | artemisinin lumefantrine |
| ANC | antenatal care |
| AOP | Annual Operational Plan |
| BCC | behaviour change communication |
| DFID | Department for International Development |
| DHIS | District Health Information System |
| FGD | focus group discussion |
| IPAs | inter personal-communication agents |
| IPTp | intermittent preventive treatment for pregnancy |
| ISS | integrated supportive supervision |
| KII | key informant interview |
| LGA | Local Government Area |
| LMIS | logistics management information system |
| LLIN | long lasting insecticidal-treated net |
| M&E | monitoring and evaluation |
| MYP | multi-year plan |
| NHMIS | National Health Management Information System |
| NMEP | National Malaria Elimination Programme |
| NMSP | National Malaria Strategic Plan |
| OJCB | on-the-job capacity building |
| PHC | primary health care |
| PMV | patent medicine vendor |
| PSM | procurement and supply-chain management |
| RCA | rapid capacity appraisal |
| mRDT | Malaria rapid diagnostic test |
| SMEP | State Malaria Elimination Programme |
| SMOH | State Ministry of Health |
| SFH | Society for Family Health |
| SP | sulphadoxine pyrimethamine |
| SuNMaP | Support to National Malaria Programme |
| TMM | Technical Malaria Manager |
| UNICEF | United Nations Children's Fund |
| VFM | value for money |
| WHO | World Health Organization |

# Acknowledgements

SuNMaP is grateful to the Anambra State Commissioner of Health, Permanent Secretary, Director of Public Health and the State Malaria Elimination Programme Manager for their time and contribution towards the production of the sustainability and exit reports. SuNMaP's journey in the state has been enriching and it was a pleasure to work with all involved. This document serves as the legacy of the programme in Anambra state. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in the state.

**Dr Femi Owoeye**

**SuNMaP Programme Director**

# 1. Background and introduction

Support to National Malaria Programme (SuNMaP), is an eight-year (2008-2016) £89 million programme funded by the UK Department for International Development (DfID). With a mandate to support Nigeria to achieve an ambitious scale up of malaria results, SuNMaP started supporting the National Malaria Control Programme, now the National Malaria Elimination Programme (NMEP) in 10 states: Anambra, Kano and Lagos (since September 2008), Katsina, Niger and Ogun States (since June 2009). Others are Jigawa, Enugu and Kaduna (since early 2012) and Yobe, since 2013.

At the national level and in each state, the programme's support commenced with a rapid baseline capacity needs assessment[1] for malaria control. The findings informed the development of strategies to address the identified weaknesses in capacity, resources and systems through the provision of long and short-term technical assistance. In addition, a health facility assessments (HFA) and a laboratory assessments were conducted in 2009 and 2013 respectively, which informed the programme strategic directions to strengthen integration of malaria interventions (preventive and curative) into routine service delivery. Early in 2014, a rapid capacity re-assessment of nine of the 10 focal states (excluding Yobe State) was commissioned to inform the programme's pre-closure work-plan and ultimately, its exit and sustainability plan.

SuNMaP provided a full range of support across its outputs, each of which focused on one element of comprehensive malaria control and elimination, these were:

1. Capacity building for policy development, planning and coordination
2. Harmonising cross-agency support for the malaria control
3. Increasing coverage of effective measures for malaria prevention
4. Improving the population's access to effective malaria treatment
5. Enhancing community awareness and demand for effective malaria treatment and prevention
6. Operational research to gather evidence and its use in programme implementation.

It also provided additional support to data management strengthening of National Health Management Information System (NHMIS).

In addition to its work in the public sector, it was evident that SuNMaP had to support the commercial sector, particularly given the fact that Anambra State is one of the three commercial hubs in the country. Before commencement of this support, the programme conducted formative research that led to the design of our approach. This involved supporting the commercial sector to improve access to parasitological-based diagnosis, effective treatment and prevention, which entailed the use of a total-market model that harnessed the resources of the commercial sector to

[1] The baseline assessment data was collected through appraisal and discussion visits to Federal/State/LGA Agencies; service delivery points; partners, public, private and commercial sector managers; focus group discussions (FGDs). Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DfID. The appraisal tool was adapted from the SuNMaP basic information collection tool; PPRHAA (peer, participatory rapid health appraisal and action) tools for appraising management boards and the Roll Back Malaria Needs Assessment and Planning tool by the World Health Organization and Malaria Consortium, August 2003

build and sustain the market for quality assured long lasting insecticidal nets (LLINs), malaria rapid diagnostic tests (mRDTs) and artemisinin combination therapy (ACT).

As SuNMaP closes this year, this is an summary[2] of eight years of engagement in Lagos State. It reviews the situation at the inception of the programme and provides a snapshot of the current situation, including SuNMaP contributions. This document also contains some of the lessons learnt while employing overarching best practices to deliver the programme's six core outputs of capacity building, harmonisation, prevention of malaria, treatment of malaria, awareness building and demand creation, and operational research. There are recommendations to help the state sustain the gains and contribute to the achievement of targets envisaged in the National Malaria Strategic Plan (2014-2020).

## 2. Malaria situation in Anambra State at SuNMaP inception

Anambra State is located in South Eastern Nigeria, with Awka as its capital city. The state is divided into Anambra North, Central and South Senatorial Zones and the major language is Igbo. There are 21 local government areas (LGAs), 327 political wards and 177 communities. Anambra State Ministry of Health, through its Directorate of Primary Health Care, supervises all programmes including malaria. However, the implementation of malaria control activities is carried out by the State Malaria Elimination Programme (SMEP), formerly the State Malaria Control Programme). The SMEP staff comprised of the following personnel: Programme Manager, Training, Logistics, Monitoring and Evaluation (M&E), Integrated Vector Management and Advocacy Communication & Social Mobilisation (ACSM) officers. Other partners involved in malaria programme in the state were World Bank (WB), World Health Organisation (WHO) and United Nations Children's Fund (UNICEF).

The baseline assessment for malaria control in Anambra State took place at the end of 2008. The key findings were:

- An increase in malaria prevalence among children under-five from 23,120 in 2003 to 36,415 in 2006
- No annual state operational plan; failure to effectively harmonise partners effort; inadequate programme management skills; lack of job description/aids for SMEP staff
- The state Health Education Unit (HEU) was responsible for malaria; the ACSM had few staff, no official vehicle for mobilisation and lacked the means to stock and distribute behaviour change communication (BCC) materials. There was a state social mobilisation committee, with members drawn from relevant line ministries and donor agencies. The ACSM worked in support of health and other social development programmes. There are three radio stations and two TV stations, owned by state and federal government, yet there was no conscious engagement with the media. There were a few BCC materials available at the SMOH but not at the health facilities. The media agencies were ready to work with SMOH on malaria programmes and offered volume discounts of up to 20 percent. However, the state had no

[2] Data for this summary was collected, analysed and written up by a national consultant. The methodology included FGDs and Key Informant Interviews of Government officials, Partners and SuNMaP staff. The field work was preceded by a desk review of secondary data & SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 & 2015.

malaria communication work plan, which made the BCC activities dependant on the dictates of the donor agencies.

- No training plan for the state, consequently capacity development was haphazard.
- Capacity for implementation of prevention intervention existed. However, technical knowledge on correct diagnosis and treatment was low, with some private facilities still treating with chloroquine and sulphadoxine pyrimethamine (SP).
- Limited availability of commodities - LLINs and ACTs; and erratic supply of ACTs resulting in regular stock-out at all levels of health facilities. However, 205,000 doses of SP had been distributed by the state and the World Bank was expecting millions of LLINs.
- Budgetary allocation to malaria control efforts was Naira 30 million

## 3. Current situation

Nigeria recently changed policy direction, with a shift from malaria control to targeted pre-elimination by 2020. This strategy has been backed by the National Malaria Strategic Plan 2014 – 2020 (NMSP). The NMSP highlights seven objectives, each with their own strategies and indicators, as key to the attainment of a malaria pre-elimination status in the country. These objective areas are: prevention; diagnosis; treatment; advocacy, communication and social mobilisation ; procurement and supply-chain management (PSM); monitoring and evaluation ; and programme management. Anambra State, in collaboration with SuNMaP, has developed annual operation plans (AOPs) for 2014, 2015 and 2016 based on the 2014 – 2020 NMSP.

The major gaps observed during the baseline assessment were lack of coordination and harmonisation as well as inadequate programme management skills. SuNMaP implemented several interventions to address this gap (see Table 1). The most recent review of the 2015 AOP showed remarkable progress in the performance of programme management compared to other objective areas (Figure 1). This can be largely attributed to SuNMaP's interventions.

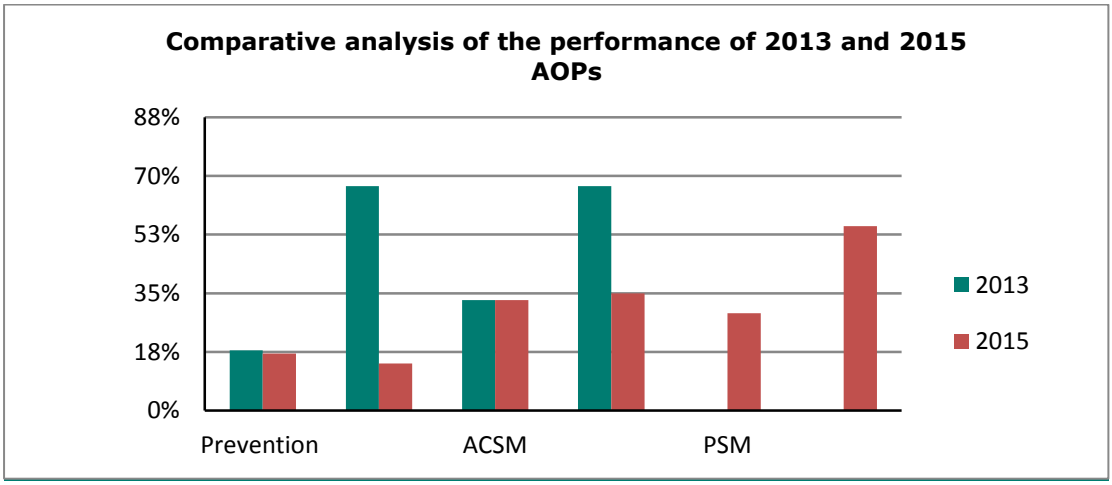



**Figure 1: Trend in percentage performance of each thematic area from AOP reviews in 2013 and 2015.**

The malaria prevalence in the state is 59 percent[3]. Indicators derived at health facility level are used to measure programme performance as a proxy for population-based indicators. The current measures for Anambra State are based on the NMSP seven objective areas.

## Malaria prevention

In line with the NMSP, Anambra State has continued to implement high-impact integrated vector control interventions. These mainly include indoor residual spraying , distribution of LLINs and the use of SPSP for intermittent preventive treatment of pregnant women (IPTp).

The programme supported the first-ever LLIN campaign in the state in 2009, with a distribution of 1,787,994 nets (SuNMaP contributed 680,000 of the nets), resulting in an increase in net ownership from 2 percent to 64.8 percent. Net retention after the campaign was high, at 98.4 percent six months after distribution. In 2014, in collaboration with the World Bank, a second LLIN mass campaign was conducted, with over 2,818,815 LLINs distributed (SuNMaP contributed 1,936,100 of the nets), targeting 5.4 million households, with a net card redemption rate of 94 percent.

In addition to the LLIN mass campaign, the programme has supported the distribution of 636,070 LLINs at antenatal clinics and routine childhood immunisation channels in both public and faith-based facilities.

With this support, the proportion of pregnant women and children under five who received LLINs during antenatal care (ANC) and immunisation in health facilities was 38.2 percent and 34.7 percent respectively. While 35.2 percent of pregnant women have received two doses of SP for (IPTp) based on the state NHMIS 2015.

## Malaria case management

### Malaria diagnosis

As part of the National Malaria Strategic Plan 2014 - 2020, Anambra State continues to implement parasitological-based diagnosis of malaria. To this end, the majority of state health facilities are equipped with laboratories or mRDTs for malaria diagnosis, significantly reducing clinical diagnosis of malaria.

SuNMaP supported the state to develop the capacity of 45 laboratory scientists, who have benefited from the programme-supported training in malaria laboratory microscopy, and 757 health workers in the use of malaria mRDTs. In addition, the programme supplied 20 binocular microscopes and 10,000 mRDT kits.

To improve quality of malaria diagnosis in the state, the programme supported the state to develop and implement the Anambra State-specific Quality Assurance Framework and Diagnostic Standard Operation Procedure.

[3] M & E unit SMEP

## Malaria treatment

Anambra State implements strategies that ensure that all people with confirmed malaria (uncomplicated or severe) seen in health facilities receive prompt treatment with ACTs – provided free of charge – at all public health facilities. This has resulted in an improvement, with currently 91.4 percent of positive malaria cases in public facilities receiving treatment according to the national guideline (NHMIS 2015).

## Malaria prevention and treatment through the commercial sector

The strategic vision for the interventions implemented by SuNMaP is to "build private and public capacity for transition from a supply-driven market to a demand-driven market and harmonisation in health care services so that consumers seek parasitological diagnosis and ACTs for effective malaria case management." To achieve this, the programme has to be able to effectively reach communities, households, caregivers and service providers to bring about sustainable changes in behaviour so that they (individually and collectively) adopt 'best response, best action' in the prevention, care and treatment of malaria.

SuNMaP commercial sector intervention strategies are designed and implemented based on the ethos of 'making markets work for the poor (M4P)'. The approach is based on facilitating market system change, which in turn can lead to a vibrant commercial ACT, RDT and LLIN sector by creating demand, use and sales.

The strategic intervention areas in the commercial sector are (table 1):

- Develop market capacity for deeper penetration of untapped rural markets
- Leverage the *Affordable Medicines Facility – malaria* (*AMFm*) scheme to strengthen and increase access to ACTs in rural markets
- RDT subsidy pilot
- Harmonisation in healthcare services for diagnosis through RDTs and sales of ACTs at the same retail/health service point

**Table 1: Commercial sector strategic intervention areas**

| Intervention Area | Intervention |
|---|---|
| Stimulating supply and distribution of quality assured (QA) ACTs and RDTs through partnership with professional associations | Partnership with Association of Medical Laboratory Scientists of Nigeria (AMLSN) for increased penetration of mRDTs through laboratory outlets with Association of Community Pharmacists of Nigeria (ACPN) for increased penetration through pharmacy network. The AMLSN had the incorrect perception that mRDTs were replacing microscopy and thus displacing their role in healthcare. An mRDT intervention was difficult to initiate with the association. The ACPN was more accommodating, with their capacity and distribution channels was strengthened. Selected pharmacies were branded as quick test centres |
| Develop market capacity for deeper penetration of quality assured ACTs in rural markets<br>Strengthening distribution and promotion of ACTs and mRDTs through co-bundling | mRDT demand creation in non-UNITAID states through promotional offer |
| | Partnership with AMFm first line buyers to establish rural supply chain |
| | Strengthen supply of quality assured mRDTs through mobile authentication system (MAS) |
| Strengthening quality assurance of ACTs and mRDTs through deployment of mobile authentication system of National Agency for Food and Drug Administration and Control(NAFDAC) | Reducing proliferation of mRDT brands through mobile authentication for RDTs. The mobile authentication system is yet to be endorsed by the regulator, but based on the successful adoption of this system with the ACTs, it is a promising method for product authentication. |
| | |
| Stimulating demand for mRDTs through provider-driven communication and product detailing | Support to private sector to train professionals and healthcare providers on case management. |
| Increasing consumer awareness through a generic and branded campaign | Branded and non-branded generic campaign in UNITAID states. The non-branded generic campaign was deployed, while the branded campaign was difficult to initiate because of partners' reluctance to commit resources to campaigns for products for which they have no exclusivity. |

Using the M4P approach, the programme through its commercial sector partners sold 1,021,814 LLINs and 2,515,502 ACTs. In addition, the programme has:

- Finalised support to partners on QA ACT and mRDT awareness and demand creation campaigns in SuNMaP focal states
- Reached over 2,097 patent and proprietary medicine vendors (PPMVs) for ACT distribution
- Partnership with professional associations on distribution of ACTs and mRDTs – Association of General and Private Medical Practitioners of Nigeria (AGPMPN), ACPN
- Supported the NMEP in the development of a case management strategy for the private sector
- Facilitated linkages between AMFm first-line buyers and PPMVs on direct supply of subsidised ACTs
- Facilitated business linkages between commercial sector partners to leverage on inherent strengths and to minimise weaknesses in establishing distribution channels for RDTs

## Advocacy, communication and social mobilisation

SuNMaP supported the SMOH to set up the malaria ACSM committee in Anambra. The HEU and ACSM committee members and programme implementing partners (PIPs) were trained in basic strategic communication skills and were supported to adapt the national ACSM strategic framework and implementation plan to the state context. Malaria social and behaviour change communication materials and job aids were developed, produced and supplied to the health facilities. Messages on malaria prevention and treatment on radio stations reached an estimated 1.2 million residents – including women, men and community leaders. About 50 percent of women aged 15-49 have been reached with mass media messages on malaria prevention and control. An estimated 75 percent of the same age group has knowledge of preventive measures for malaria. The SMOH was supported in implementing activities in annual commemoration of World Malaria Day.The state Communication Action Plan was developed and reviewed annually as part of the state AOP.The PIPs – Health Reform Foundation of Nigeria (HERFON) and Christian Health Association of Nigeria (CHAN), as well as other non-governmental organisations – were supported to conduct community activities and mobilisation activities. The community level activities to increase demand for malaria services through community mobilisation included dialogues, annual state meetings attended by all women including those in the diaspora. SuNMaP has also broadcast 1,000 slots for radio jingles and radio dramas on four radio stations, informing the populace on malaria prevention, treatment and other key health messages.

## Procurement and supply-chain management

Less than 20 percent of public health facilities experienced stock-outs for all commodities in 2015. All product batches tested in 2014 met national and international standards. The World Bank provided ACTs and mRDTs for the state while SuNMaP provided 69 percent of the SPs for IPTp needs in 2015.

The graph below shows the commodities procured and distributed by SuNMaP in Anambra over the life of the programme (2008 – 2015) – costing a total of £8,064,865.

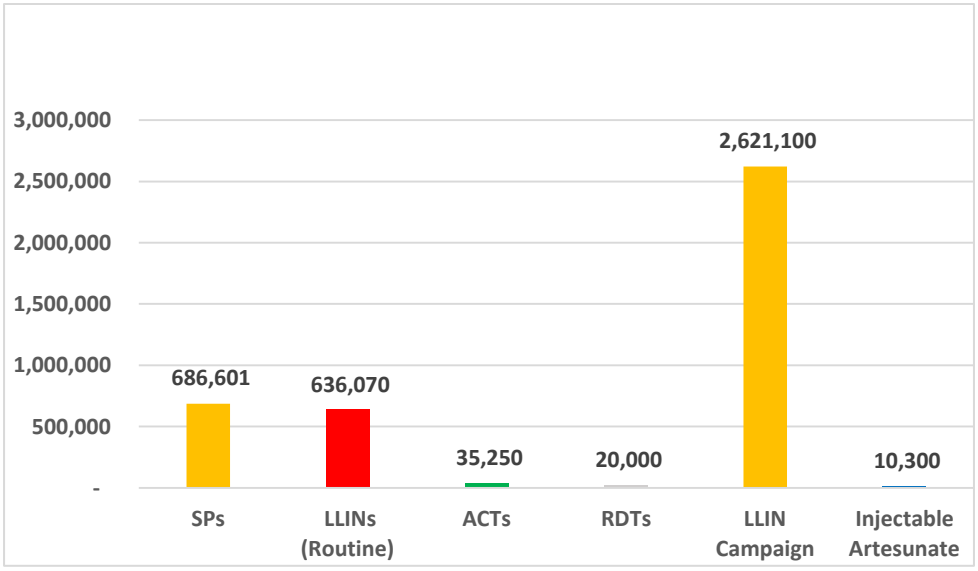



**Figure 2: Commodities distributed in Anambra from 2008 to 2015**

## Monitoring and evaluation

The state has a functional Health Management Information System (HMIS) unit that coordinates data reporting at all levels and facilities reporting on the District Health Information System (DHIS) 2.0 platform and all public and 88 private health facilities are using the harmonised NHMIS data tools.

SuNMaP supported data quality review meetings as well as the printing of HMIS forms to ensure adequate data capture at facilities. In addition, there are nine sentinel sites and health facilities for data collection and monitoring of records of malaria indicators. With this support, the timeliness of reporting has improved to a 69.7 rate, and completeness of the reports to 80.6 percent.

A monitoring survey was carried out in the two state LGAs of Nibo and Omor to provide standard indicator estimates at more frequent intervals than national surveys. Results from these surveys showed a reduction in malaria prevalence in the two LGAs and more markedly in Omor LGA, with a reduction from 20 percent in 2010 to less than two percent in 2014 (Figure 3). In addition, in these two monitoring survey areas, the proportion of households owning at least one LLIN has remained high over the years of programme implementation (Figure 4).

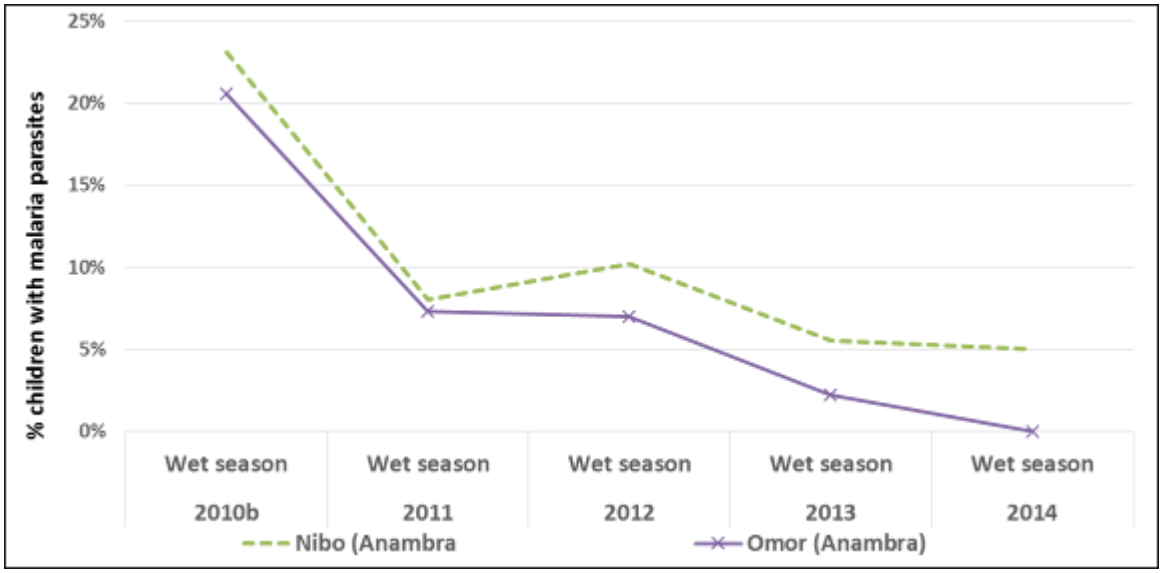



**Figure 3: Declining trends in the proportion of children with malaria parasites**

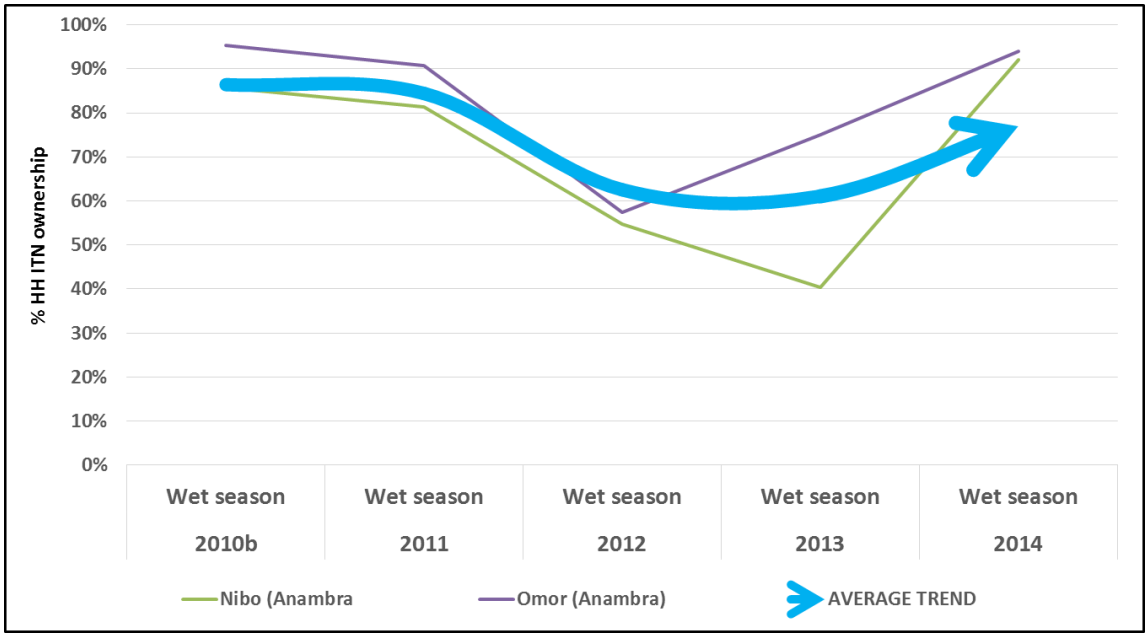



**Figure 4: Trends in household LLIN ownership**

## Programme management

Over the course of programme implementation in Anambra, SuNMaP has enhanced the capacity of the State Malaria Elimination Programme for policy development, planning and coordination of malaria programmes. It has supported the development of key state-driven documents, including policy, guidelines, frameworks and plans (annual and multi-year). These include state multi-year training plans, state ACSM frameworks, integrated supportive supervision and on-the-job capacity building implementation frameworks, malaria diagnostic external quality assurance framework, costed AOPs and costed annual LGA malaria control work plans.

Building on the capacity that had been built, the state has developed costed AOPs for malaria control for each year between 2010 and 2016 as well as state malaria multiyear plans for 2017-2018 and periodic reviews of the implementation of plans. In an attempt to improve planning for, and implementation of, malaria control interventions at the LGA level, the programme supported the development of LGA-specific costed malaria work plans for 2014 and 2015 building on the state malaria control AOPs.

The SMEP team capacity has also changed significantly, since now all staff members have bachelor degrees in various healthcare disciplines, and four have master's degrees in public health. However, two-thirds of them have worked in the programme for less than six months. Consequently, there is lack of tacit knowledge and institutional memory of best practices adhered to by SuNMaP.

## 4. Additional achievements

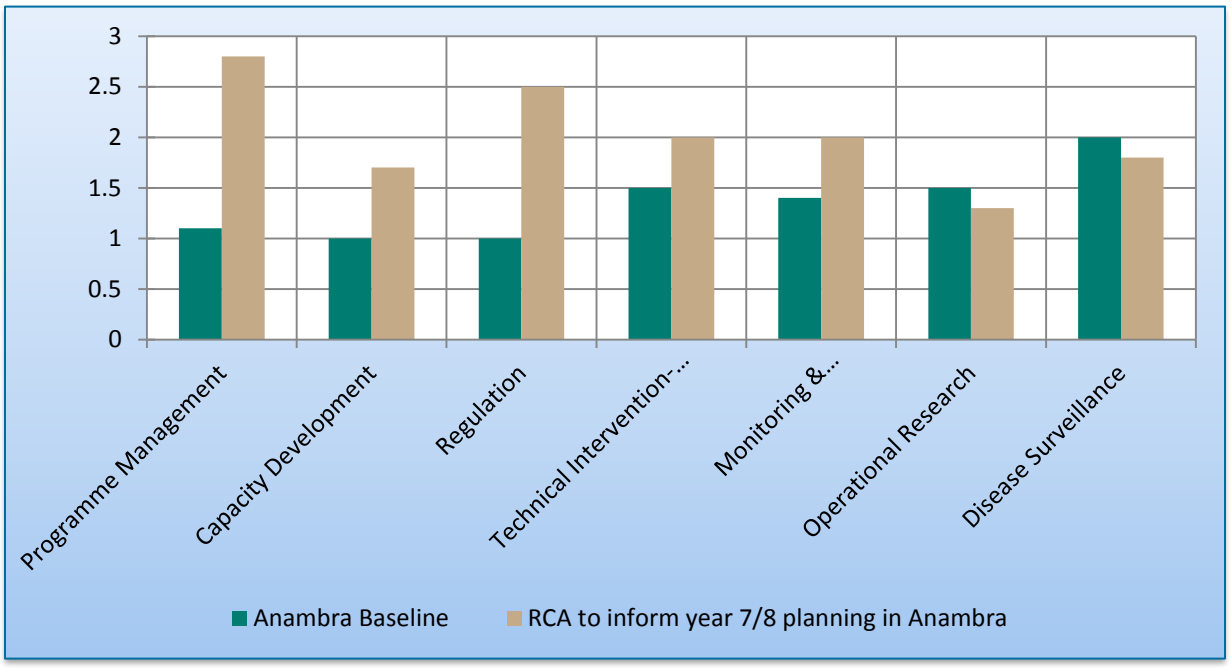
SuNMaP identified six outputs, mainstreamed through interventions, as key to strengthening Nigeria's national malaria control efforts. These outputs and interventions targeted the focus of the former NMSP and now the objective areas in the NMSP 2014 – 2020. The key achievements resulting from these interventions were determined through mixed methods: desk review and key informant interviews (KII) of SMEP and SMOH staff and other malaria partners, LGA malaria focal persons and programme implementation partners. The findings from the desk review are summarised in Table 1 and Figure 2 below.

**Table 1: SuNMaP interventions and key achievements for each *NMSP* objective area**

| SuNMaP Interventions | Key Achievements | *NMSP* Objective Areas |
|---|---|---|
| Training and capacity building for net distribution | Net distribution training for six LGAs<br>Sensitisation meetings for officers-in- charge for primary healthcare centres (PHCs) and 582 Patent Medicine Vendors (PMVs) | Objective 1 – prevention |
| Training of health workers on microscopy and mRDTs for diagnosis | Trained 42 laboratory scientists in microscopy and757 healthcare workers in the use of mRDTs for malaria diagnosis | Objective 2 – diagnosis |
| Service delivery trainings (e.g. case management of uncomplicated and severe malaria, malaria in pregnancy, and training of PMVs | Trained 2,151 healthcare workers and 582 PMVs in malaria service delivery, and 120 nurses and doctors in management of severe malaria | Objective 3 – treatment |
| Development of ACSM framework and plan | Four radio stations aired 11 jingles three times daily in Igbo and English<br>Developed a Communication Action Plan | Objective 4 – ACSM |
| Procurement and distribution of LLINs and SPs<br>Logistic Management Information System training | 815,447 doses of SPs (sole supplier); 404,928 of LLINs; 20,000 vials of injectable artesunate; 20,000 mRDT kits; 522 packets of gloves, ACTs – 35,100 doses<br>Trained 418 pharmacists and pharmacy technicians in LMIS | Objective 5 – PSM |
| NMHIS and DHIS 2.0 training | Trained 30 people in the use of NHMIS tools and 28 people in the use of DHIS 2.0 | Objective 6 – M&E |
| Programme management trainings<br>AOP development and review<br>Establishment of integrated supportive supervision (ISS) system<br>LGA Activity Plan<br>Developed training plan for healthcare workers | Developed five-year training plan for health workers in the state<br>Trained 1,616 persons in programme management<br>Supported the state to develop and review 2010, 2011, 2012, 2013, 2014, 2015 and 2016 AOPs and 2017 – 2018 multi-year plan<br>Supported monthly RBM meetings<br>Set up ISS system and supported supervisory | Objective 7 – programme management |

| | | |
|---|---|---|
| Monthly Roll Back Malaria (RBM) partners meeting | visits to 30 secondary health facilities, 129 PHCs and 21 LGA PHC departments 2013 – 2014 | |

After six years of intervention, SuNMaP conducted a rapid capacity appraisal (RCA) of the SMOH in-house capacity for malaria control in February 2014. The purpose of this appraisal was to determine programme progress and review the implementation strategy towards the achievement of malaria elimination. The data for this activity was collected through desk review and focus group discussions with SMOH and SMEP staff. The findings from this assessment were analysed and compared with the 2008 baseline assessment. The results showed improvement in the various components of capacity for malaria control in the state; the blue bars represent findings at baseline while the brown bars highlight findings of RCA (Figure 3).




**Scoring Key:** 1 = Inadequate, 2 = Marginal, 3 = Adequate

**Figure 3: Anambra State Ministry of Health in-house capacity for malaria control**

An analysis of the KIIs showed all interviewees mentioned AOPs, ISS and capacity building trainings as being attributable to the achievements made by SuNMaP. The provision of commodities and ACSM activities also featured as key in the achievement of malaria efforts, with SuNMaP as the only provider of SPs for the state. The role of the state and other partners were mentioned. However, the achievements mentioned by most interviewees were those that could only have resulted from SuNMaP's innovative interventions: harmonised effort, coordination through monthly meetings, and a focused plan with more efficient use of resources. A major gap observed was the lack of knowledge of SMOH policies that contribute towards malaria control efforts among SMEP and LGA staff. This has implications for implementation of activities that align with state policies.

Other agencies such as WB, WHO, UNICEF, and SFH provide services that also contribute to malaria control efforts. WB provided significant funding for malaria which was used for: procurement of commodities and office supplies and equipment; M&E technical assistance and trainings; capacity building; accounting and financial management; and work plan development. SFH provides commodities for private health facilities and gathers data for malaria-specific indicators. However, the efforts of these agencies were disconnected and lacked unified leadership from the state.

## 5. Best practices

SuNMaP interventions were designed based on best practices. In addition, they upheld ideologies such as: value for money (VFM); contextualisation; coordination and harmonisation; and stakeholder engagement. Some examples include:

**Capacity Building**: A training plan was developed with stakeholders, including malaria partners, to address the knowledge gap in the system. The involvement of a diverse audience may appear expensive but the process engendered stakeholder engagement, contextualisation, coordination and harmonisation.

**Planning**: AOPs and LGA activity plans were developed using evidence of the current malaria disease burden for planning. Participants were representative of key players in malaria control thereby producing top quality plans.

**Integrated supportive supervision and on-the-job capacity building**: Situation analysis, followed by stakeholder consultation and framework development, assured the adherence to ideologies such as: stakeholder engagement, contextualisation and coordination and harmonisation. The tools developed for ISS captured all programme and service delivery areas, further fostering coordination and harmonisation as well as VFM, by reducing vertical visits and time wasted by health workers during such visits.

## 6. Recommendations: going forward

- SFH is currently implementing ACSM activities in Anambra State until December 2016. They plan to work in 11 LGAs and train Inter Personal-communication Agents (IPAs) who will be responsible for sustaining malaria messages in the community. The SMEP Programme Manager should liaise with the SFH ACSM coordinator regarding the possibility of training as IPA in the remaining 10 LGAs.
- ACOMIN is a sub-recipient of NMEP for the Global Fund to Fight AIDS, Tuberculosis and Malaria and is implementing activities aimed at achieving ACSM targets. Their strategy is to use interpersonal communication for house-to- house and school-based dissemination of malaria messages. These plans are clearly documented in 2016 AOP. The SMEP manager should discuss with ACOMIN the possibility of inviting participants from all LGAs in order to enhance state-wide coverage. In addition, they will engage the community through community dialogues.

- Christian Aid is implementing activities aimed at improving prevention, diagnosis, treatment, PSM, M&E and Programme Management indices in Anambra State. They can help fill in the gap for most of the already existing interventions. These include:
    - Capacity building of health workers in case management, malaria in pregnancy, malaria commodities logistic system, data management and use of mRDT. However, it is recommended that Christian Aid conduct a needs assessment training first before developing a training plan that will respond to the knowledge gaps existent in the state.
    - Christian Aid plans to provide commodities for 357 health facilities (16 PHCs and one secondary health facility per LGA). Nevertheless, the facilities selected should be widely dispersed to enhance coverage of LGAs.
    - For M&E technical support, it is recommended that Christian Aid leverage and possibly sustain/improve on the achievements of SuNMaP
    - An ISS system has been set up by SuNMaP. However, the process of implementation is costly. In the most recent AOP document, majority of the State's funds was allocated to Programme Management, including ISS. Christian Aid also has budgetary allocation for supervision and has agreed to combine efforts with the state in the implementation of ISS. Nevertheless, the state will need to share the ISS framework to Christian Aid who can identify how their plans and funds can fit in and collaborate with the state to look at exit and sustainability plans from the onset.
    - AOPs have played a major role in coordination and harmonisation of malaria control efforts. SuNMaP has already supported the development a 2016 AOP and 2017-2018 multi-year plan. Christian Aid has indicated interest in organising subsequent AOP development and review process.
    - Christian Aid has an office located in the SMEP building. This is an opportunity for the organisation to use this proximity to the SMEP to mentor and coach the SMEP team.

# Annex

## Anambra State budget for malaria elimination activities (2016 - 2018)

The estimated total cost of malaria control activities in Anambra between 2016 and 2018 is ₦ 2,319,187,532 (2016 - ₦699,832,164; 2017 - ₦769,815,380 and 2018 - ₦849,539,988). The estimated commitment from partners to malaria control activities in 2016 is 85 percent. However, there is no partner commitment beyond 2016.

| Objective area | 2016 (amount) | | | 2017 (amount) | | | 2018 (amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| Malaria prevention | ₦ 3,484,400 | ₦ 16,931,000 | ₦ 20,415,400 | ₦ 22,456,940 | ₦ - | ₦ 22,456,940 | ₦ 24,702,634 | ₦ - | ₦ 24,702,634 |
| Malaria diagnosis | ₦ 2,483,500 | ₦ 336,000 | ₦ 2,819,500 | ₦ 3,101,450 | ₦ - | ₦ 3,101,450 | ₦ 3,411,595 | ₦ - | ₦ 3,411,595 |
| Treatment | ₦ 1,048,500 | ₦ 53,037,200 | ₦ 54,085,700 | ₦ 59,494,270 | ₦ - | ₦ 59,494,270 | ₦ 65,443,697 | ₦ - | ₦ 65,443,697 |
| ACSM | ₦ 6,473,800 | ₦ 1,593,900 | ₦ 8,067,700 | ₦ 8,874,470 | ₦ - | ₦ 8,874,470 | ₦ 9,761,917 | ₦ - | ₦ 9,761,917 |
| PSM | ₦ 8,268,800 | ₦ 513,650,764 | ₦ 521,919,564 | ₦ 574,111,520 | ₦ - | ₦ 574,111,520 | ₦ 631,522,672 | ₦ - | ₦ 631,522,672 |
| M&E | ₦ 30,666,900 | ₦ 2,612,300 | ₦ 33,279,200 | ₦ 39,100,820 | ₦ - | ₦ 39,100,820 | ₦ 43,010,902 | ₦ - | ₦ 43,010,902 |
| Programme management | ₦ 52,428,000 | ₦ 6,817,100 | ₦ 59,245,100 | ₦ 62,675,910 | ₦ - | ₦ 62,675,910 | ₦ 71,686,571 | ₦ - | ₦ 71,686,571 |
| Total | ₦ 104,853,900 | ₦ 594,978,264 | ₦ 699,832,164 | ₦ 769,815,380 | ₦ - | ₦ 769,815,380 | ₦ 849,539,988 | ₦ - | ₦ 849,539,988 |

## Anambra State budget for malaria elimination activities (2016 - 2018) - percentage contribution from government and partners

| Objective area | 2016 ( percent) | | 2017 ( percent) | | 2018 ( percent) | | 2016 - 2018 ( percent) | |
|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Government | Partners | Government | Partners | Government | Partners |
| Malaria prevention | 17 percent | 83 percent | 100 percent | 0 percent | 100 percent | 0 percent | 75 percent | 25 percent |
| Malaria Diagnosis | 88 percent | 12 percent | 100 percent | 0 percent | 100 percent | 0 percent | 96 percent | 4 percent |
| Treatment | 2 percent | 98 percent | 100 percent | 0 percent | 100 percent | 0 percent | 70 percent | 30 percent |
| ACSM | 80 percen | 20 percent | 100 percent | 0 percent | 100 percent | 0 percent | 94 percent | 6 percent |
| PSM | 2 percent | 98 percent | 100 percent | 0 percent | 100 percent | 0 percent | 70 percent | 30 percent |
| M&E | 92 percent | 8 percent | 100 percent | 0 percent | 100 percent | 0 percent | 98 percent | 2 percent |
| PM | 88 percent | 12 percent | 100 percent | 0 percent | 100 percent | 0 percent | 96 percent | 4 percent |
| Total | 15 percent | 85 percent | 100 percent | 0 percent | 100 percent | 0 percent | 74 percent | 26 percent |

While recognising that government funding of malaria in the state has increased over the years. To sustain and possibly increase the current level of malaria control efforts, the government will need to further increase its funding of malaria and advocacy for resource mobilisation from partners and private sector.

# Working together to combat malaria

## A synopsis of Support to National Malaria Programme (SuNMaP)

## Contributions to Malaria Elimination Efforts in Enugu State

## 2012-2016

# Table of contents

## Abbreviations and acronyms

| | |
|---|---|
| ACSM | advocacy, communication and social mobilisation |
| ACT | artemisinin-based combination therapy |
| ANC | antenatal clinic |
| AOP | annual operational plan |
| CHAN | Christian Health Association of Nigeria |
| CSO | civil society organisation |
| DfiD | Department for International Development |
| DHIS | District Health Information System |
| DQA | data quality \ssurance |
| DRF | Drug Revolving Fund |
| FBO | faith based organisation |
| GF | Global Fund |
| HERFON | Health Reform Foundation of Nigeria |
| IPT | intermittent preventive treatment |
| IRS | indoor residual spraying |
| ISS | integrated supportive supervision |
| LGA | Local Government Area |
| LLIN | long lasting insecticidal net |
| LMIS | Logistics Management Information System |
| M&E | monitoring and evaluation |
| MNCH | maternal, new born and child health |
| mTWG | Malaria Technical Working Group |
| mRDT | malaria rapid diagnostic test |
| NMEP | National Malaria Elimination Programme |
| NMSP | National Malaria Strategic Plan |
| PSM | procurement and supply management |
| QA | quality assurance |
| QC | quality control |
| RBM | Roll Back Malaria |
| SFH | Society for Family Health |
| SMEP | State Malaria Elimination Program |
| SMoH | State Ministry of Health |
| SP | sulphadoxine pyrimethamine |
| SuNMaP | Support to National Malaria Programme |
| UNICEF | United Nations International Children Education Fund |
| WHO | World Health Organization |

# Acknowledgement

SuNMaP is grateful to the Enugu State Commissioner of Health, Permanent Secretary, Director of Public Health and the State Malaria Elimination Programme (SMEP) Manager for their time and contribution towards the production of the sustainability and exit reports. SuNMaP's journey in the state has been enriching and it was a pleasure to work with all involved. This document serves as the legacy of the programme in Enugu state. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in the state.

**Dr Femi Owoeye**

**SuNMaP Programme Director**

# 1. Background and introduction

Support to National Malaria Programme (SuNMaP), is an eight-year (2008-016) £89 million Programme funded by the UK Department for International Development (DfID). With a mandate to support Nigeria to achieve an ambitious scale up of malaria results, SuNMaP started supporting the National Malaria Elimination Programme (NMEP) in the 10 States of Anambra, Kano & Lagos (since September 2008); Katsina, Niger and Ogun States (since June 2009), Jigawa, Enugu and Kaduna (since early 2012) and Yobe (since 2013).

At the national level and in each state, SuNMaP support commenced with a rapid baseline capacity needs assessment[1] for malaria control. The findings informed the development of strategies to address identified weaknesses in capacity, resources and systems through the provision of long and short-term technical assistance. Health facility assessments (HFA) and laboratory assessments conducted in 2009 and 2013 respectively, informed the programme's strategic direction to strengthen integration of malaria interventions (preventive and curative) into routine service delivery. Early in 2014, a rapid capacity re-assessment of nine of the 10 focal states (excluding Yobe State) was undertaken to inform SuNMaP's final workplan and ultimately, an exit and sustainability plan.

SuNMaP provided a full range of support across its six outputs, each of which focusing on one element of comprehensive malaria control and elimination. These were:

1. Building capacity building for policy development, planning and coordination
2. Harmonising cross-agency support for the malaria control
3. Increasing coverage of effective measures for malaria prevention
4. Improving the population's access to effective malaria treatment
5. Enhancing community awareness and demand for effective malaria treatment and prevention
6. Operational research to gather evidence and its use in programme implementation. It also provided additional support to data management strengthening of National Health Management Information System (NHMIS)

As SuNMaP comes to a close, this report provides a summary[2] of five years of engagement in Enugu State. It reviews the situation at the inception of the programme and provides a snapshot of the current situation in the state, including SuNMaP's contributions. This report also presents some of the lessons learnt while employing best practices to deliver the programme's six core outputs of capacity building,

1 The baseline assessment data was collected through appraisal and discussion visits to federal/state/LGA agencies; service delivery points; partners, public, private and commercial sector managers; focus group discussions (FGDs). Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DfID. The appraisal tool was adapted from the SuNMaP basic information collection tool; PPRHAA (peer, participatory rapid health appraisal and action) tools for appraising Management Boards and the Roll Back Malaria Needs Assessment and Planning tool by the World Health Organisation and Malaria Consortium, August 2003

2 Data for this Executive Summary was collected, analysed and written up by a national consultant. The methodology included FGDs and Key Informant Interviews of Government officials, Partners and SuNMaP staff. The field work was preceded by a desk review of secondary data & SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 & 2015.

harmonisation, prevention of malaria, treatment of malaria, awareness and demand creation and operations research. There are recommendations to help the state sustain the gains and contribute to the achievement of targets envisaged in the National Malaria Strategic Plan (2014-2020).

# 2. Malaria situation in Enugu State at the inception of SuNMaP support

## Malaria prevention

Prior to SuNMaP, malaria prevention in the state was mainly through a long lasting insecticidal nets (LLINs) mass campaign but no routine LLIN distribution. Intermittent preventive treatment in pregnancy (IPTp) with sulphadoxine-pyrimethamine (SP) delivery was challenged by SP stockout in public health facilities and poor adherence to the policy in private facilities.

## Malaria case management

Diagnosis of malaria in the state was based on presumptive clinical diagnosis without laboratory confirmation. This was attributed to the non-availability of malaria rapid diagnostic test (mRDT) kits and at the time, inadequate skills of relevant staff in microscopy, non-availability of standard operating procedures (SOPs) for malaria tests and the lack of an external quality assurance system.

Artemisinin combination therapy (ACT) was the first line of treatment for all suspected malaria cases, however, chloroquine was still being stocked and there was sufficient evidence that some service providers were prescribing it to patients

The national guidelines for malaria treatment were not readily available in health both public and private health facilities. Malaria treatment without diagnosis was, thus, a common approach for treatment.

## Advocacy communication and social mobilisation

The State Health Education Unit (HEU) under the Director of Public Health is responsible for all advocacy, communication and social mobilization (ACSM) activities in the State. There were four designated health educators without job description. Most materials were produced and supplied by the development partners, according to their priorities. There were no schedules for monitoring of ACSM activities. Often times, ACSM activities of SMCP were carried out independently of the HEU. The SHU staff were not awere of the National Malaria ACSM strategic framework and implementation. The few SBCC materials available at service delivery points were not with the national malaria logo or the pay-off line – 'A malaria-free Nigeria … play your part'.

The State Health Team Advocacy Committee for ACSM activities existed as the coordination (working) group. Members of the group were drawn from developing partner organisations and other partners, with the Director of Public Health as the chairman. There was no in-depth knowledge of interaction with any organization's engagement in malaria prevention and treatment advocacy and communication

work. Few organisation including UNICEF, World Bank, PATHS2, ARFH and SHI, in ACSM working group had mandate on malaria. At the LGA level, social mobilisation was conducted by different groups of people, including health facility mobilisers and volunteers, who never had any form of communication or mobilisation training. There were two radio stations, the FRCN and Sunrise FM 96.1 (State Government owned). In addition there were two TV stations, the NTA (federal owned) and the State owned TV. The media houses were ready to work with the SMOH, and had different media formats to communicate on health matters. The State owned Media houses (ESBS) had designated representation with the SMOH through the HEU. Airing of health program attracted up to 10% discount.

In summary the strength of the SMOH and SHEU for ACSM at the state and LGA level were the commitment of the staff and political will. The weaknesses included a) the weak malaria ACSM coordination limited capacity for malaria ACSM, b) no trained health education/promotion staff at the SMCP, c) lack of involvement feeble involvement of civil society, d) weak organisation of social mobilisation committee at both state and LGA levels, e) limited materials and infrastructure for ACSM interventions, and f) the National Malaria ACSM framework was not adapted for the state.

### Procurement and supply-chain management

Procurement and supply-chain Management involved a Drug Revolving Fund (DRF) driving commodity use at the public health facilities, under the state operated and free maternal and child health (MCH) programme for pregnant clients and under-five children. Malaria management was part of this free package. Reimbursement of funds expended in the MCH programme to facilities by the State Health Board (SHB), however, was usually late and in arrears. Drugs replenishment were also often delayed. The drug chloroquine was in stock at health facilities and was listed among the essential drugs by the State Ministry of Health (SMoH).

### Monitoring and evaluation

Monitoring, evaluation and operational research assessment revealed that general health data collection was irregular across levels of care. Malaria focal persons were appointed in public health facilities to collect and collate malaria specific data using the National Malaria Control Programme forms. However, the data quality was problematic as private health facilities were not contributing malaria data to the SMoH. The supervision of health services system was in place, however, this was not well organised, not linked to state management processes, and was not part of the Health Management Information System (HMIS) nor used for planning and service improvement. In addition, there was no capacity for operations research.

### Programme management

The SMoH had a Roll Back Malaria (RBM) office, some staff capacity, including a roving health educator from another unit of the SMoH. However, the SMoH had no case management officer. There was limited access to key malaria policy documents on treatment and prevention at SMCP, local government health departments and health facilities. Programme management capacity and local government staff were generally limited and activities between the state, the LGAs and other players were not well

coordinated. There was no systematic nor a consistent funding for malaria control at the state and local government levels. A training plan identified the need for 557 training events in the state for 21,676 individuals. This plan was agreed to be driven and led by the SMCP.

# 3. Current situation, SuNMaP interventions and achievements

## Malaria prevention

Integrated vector management (IVM) activities have gained momentum, especially with LLIN distributions, while implementation of larval source management and indoor residual spraying have remained low in the state. The state moved from the use of insecticide treated nets (ITNs) to LLINs with the implementation of the first-ever LLIN mass campaign in 2011 with over 1,367,506 nets distributed.

The programme has contributed to the strengthening of malaria prevention interventions through the routine distribution of 340,426 doses of sulphadoxine pyrimethamine (SP). This has resulted in a gradual increase in the proportion of women who took adequate IPTp, from 1.2 percent in 2008 to 15 percent in 2013 (NDHS 2008 & 2013). However, available data from the NHMIS monthly submission shows a significant incremental uptake of IPTp 2+ among pregnant women accessing antenatal care (ANC) services across the state. A comparative review of the data for quarterly ANC visits for the peak period for malaria transmission (April – June) over a four-year period (2011 – 2015) showed a steady increase in attendance, from 13,558 in 2011 to 23,373 in 2015. Similarly, the percentage of IPTp2+ uptake increased from 8.4 percent in 2011 to 26.7 percent in 2015. As a result of the increased IPTp uptake, there has been a corresponding reduction in the reported cases of malaria among pregnant women accessing antenatal care in the state.

In addition to IPTp, the programme has supported the distribution of 146,450 LLINs at antenatal clinics and routine childhood immunisation channels. Assessment of the 2008 and 2013 NDHS show an increase in net ownership from 5.5 to 46 percent, with a similar trend observed in net usage among children under five years of age (from eight to 41 percent).

According to NHMIS analysis of the state, prevention interventions have resulted in an increase in the number of pregnant women receiving at least two doses of SP to above 25 percent in 2015, and a significant reduction in malaria cases among pregnant women in the state to below three percent for the last three years from 2013 (Figure 1).

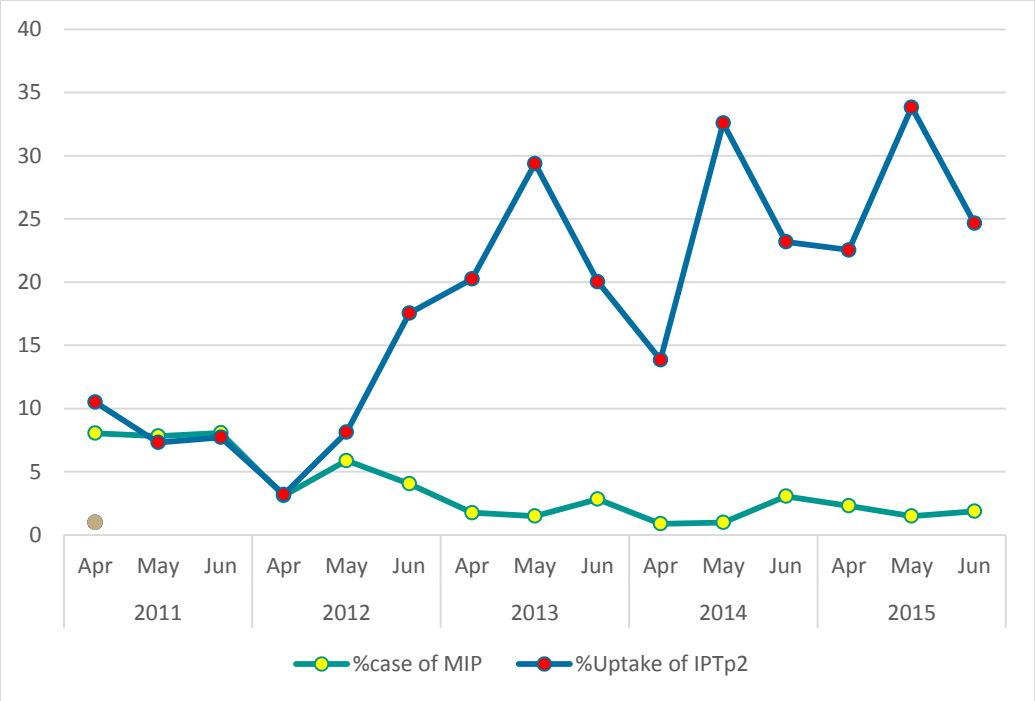



***Figure 1: Decline in proportion of malaria cases in pregnant women (NHMIS 2015)***

Capacity has been enhanced for health workers to manage malaria in pregnancy. To this end, the programme has trained 44 nurse tutors and 50 nurses from faith-based organisations (FBOs) on quality prevention of malaria in pregnancy using the harmonised training modules.

## Malaria case management

### Malaria diagnosis

As part of the National Malaria Strategic Plan 2014 - 2020, Enugu State continues to implement parasitological-based diagnosis of malaria. All health facilities (513 public and 338 private) are equipped with microscopes or mRDTs for malaria diagnosis, significantly reducing clinical diagnosis of malaria. However, malaria diagnosis in the state still suffers from mRDT stock-outs and regular transfers of trained health workers.

SuNMaP supported the state to develop the capacity of 27 laboratory scientists in microscopy and also trained 271 health workers on the use of mRDTs for malaria diagnosis.

With these capacity building initiatives, the programme supported the state to distribute 327,472 mRDT kits and 20 binocular microscopes.

To maintain high quality malaria diagnosis, the programme supported the state to develop and adopt a diagnosis quality assurance framework. It is currently being implemented with the establishment of external quality assurance centres and teams across the state

**Malaria treatment**

Confirmation of malaria cases in the state has greatly improved due to the availability and use of both national and state malaria diagnosis and treatment policies as well as continuous capacity building efforts over the years.

As an active member of the Roll Back Malaria partnership in the state, SuNMaP has supplied 325,974 doses of ACTs to all public health facilities.

Evidence available from sentinel sites set up by the programme to monitor malaria-related morbidity in the state, shows a decline in the number of out-patient cases reported to be malaria (among children under five years of age) from 80 percent in 2012 to below 40 percent in 2015 (Figure 2)

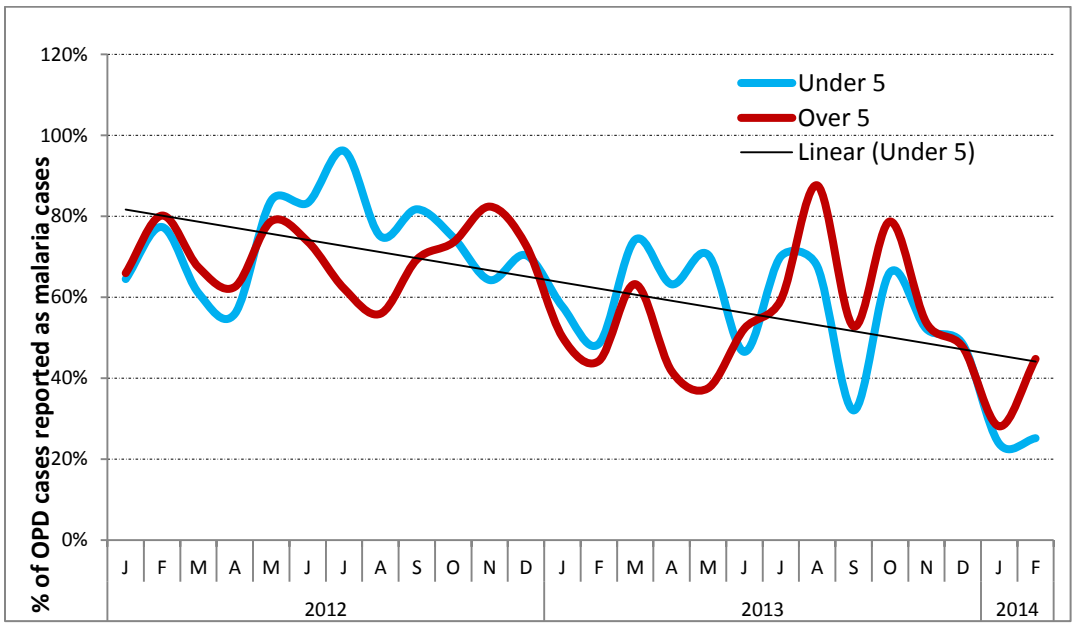



**Figure 2: Percent of outpatient department cases reported as malaria (source – SuNMaP Enugu sentinel sites data)**

To maintain a high quality of care, the programme used the harmonised national training modules and supported the state to conduct participatory trainings of different groups in the state. Malaria case management was improved in accordance with the national guidelines through the training of 670 healthcare staff and 373 proprietary patent medical vendors. Figure 1 below details the various groups of people trained by the programme over the years.

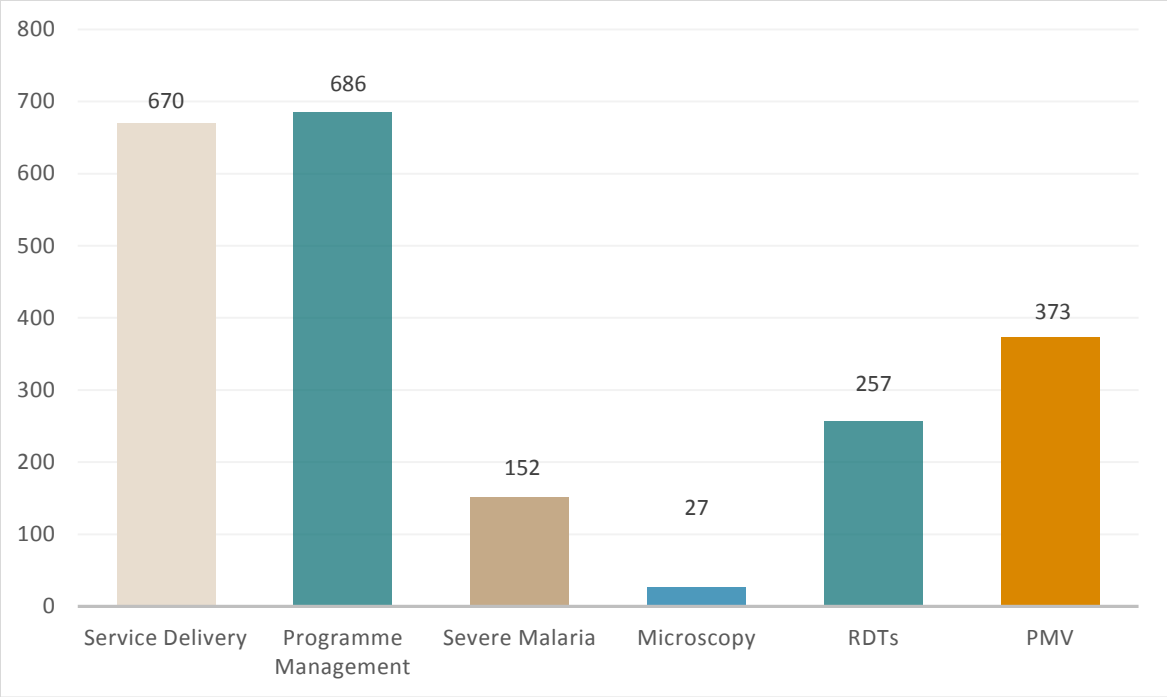



*Figure 3: Number of people trained in the different categories by the programme over the years in Enugu*

The SuNMaP model of using evidence to guide implementation is further exemplified by the change in policy surrounding the treatment of severe malaria with the use of injectable artesunate from injectable quinine. Using evidence from the AQUAMAT study that found that injectable artesunate led to reduced malaria mortality, the programme trained 182 national trainers on its use – two of whom were from Enugu State. The trainers have cascaded the training to all secondary health facilities, with over 152 health workers trained and supervised. This work in severe malaria has been supported by SuNMaP as well as our 'improving severe malaria outcomes' (ISMO) project, funded by UNATAID (who supplies all doses of injectable artesunate in the state).

## Advocacy, communication and social mobilisation:

The 2008 NDHS indicated low utilisation of LLIN and other malaria control commodities in Nigeria. Specifically, LLIN use among children under 5years was 10.5% and 6.4% % among pregnant women; just as the average use of 2 doses of Sulphadozine Pyremethamine for prevention of MiP was 7.2% in the Southeast region where the Enugu state is located (NDHS, 2008). Since 2012, when SuNMaP commenced support to malaria programme in Enugu state, the ACSM activities were planned and delivered in response to the findings of the baseline and formative research supported by SuNMaP. Series of communication and learning activities were planned and implemented in collaboration with partners. The highlights of the key ACSM interventions in Enugu State were as follows

- In 2012, a formative research and baseline assessment were conducted to identify the resources needed and assess the knowledge attitude and perception of community members, in relation to malaria
- The state malaria Advocacy Communication and Social Mobilization (ACSM) committee was formed as the core group to serve as the structure for the design and review of the demand creation activities in the state. Members of the committee were drawn from state Ministry of Health and NGOs, and other Community Based Organizations (CBOs). Seventy six percent (76%) of wards have functional ward development committees with one trained ACSM focal person in each LGA.
- ACSM committee members were trained in strategic communication and mobilized to create awareness and engage with community stakeholders in order to improve acceptance, utilization and demand for malaria interventions.
- The ACSM committee worked with other partners to adapt the national ACSM Strategic Framework and Implementation Plan (ACSM-SF & IP) to state specific needs.
- The Programme Implementation Partners (PIPS) namely Health Reform Foundation of Nigeria (HERFON) and the Christian Health Association of Nigeria (CHAN) were supported to work ACSM core group to conduct advocacy community mobilisation activities to improve acceptance, utilization and demand for malaria interventions. Routine advocacy and demand creation activities at clinic and community levels were conducted in the focal LGAs where clinic based health workers have been trained in malaria service delivery.
- SBCC materials were developed, produced and distributed to health facilities and other popular location in the state. The SBCC materials were produced in various print and electronic formats, and in Igbo, the local language, to address the need of the priority audiences.
- As part of SuNMaP support to the SBCC component of the LLIN replacement campaign, the demand creation work stream team was selected and trained to provide pre and post campaign demand creation support.
- The messages for routine malaria prevention and treatment were disseminated in different formats of print materials, on radio and television. Print materials include poster leaflets and charts, while radio messages were delivered as radio and TV spots, magazine and drama
- SuNMaP supported the broadcast over 9,400 spots of radio jingles and radio dramas on three radio stations (ESBS, Radio Nigeria, and Dream FM) informing the populace on malaria prevention, treatment and other key health messages. The radio messages in English and Igbo languages reached over1.2 million residents across the state on daily basis.
- SuNMaP also supported the SMOH to implement activities in commemorate the World Malaria Day celebration (WMD)

## Procurement and supply chain management

Procurement and supply chain management still involves a DRF driving commodity use at public health facilities, under the state-operated free maternal and child health (MCH) programme for pregnant clients and under-five children.

Antimalarial commodity (AMC) procurement remains possible due to support to the state from partners like SuNMaP, reaching 62 percent of public health facilities. This dubious availability of malaria commodities persists despite an efficient procurement and supply-chain management structure. Health facilities still expect to be funded by donors to 'visit' the state Central Medical Store (CMS) to replenish stock.

Since 2012, SuNMaP has supported the state to procure and distribute 325,974 ACTs, 327,472 mRDT kits, 20 binocular microscopes, 340,426 doses of SP and 146,450 LLINs (through routine distribution – both at antenatal care checkups and routine immunisations (Figure 2). In 2015 alone, the programme was able to meet 17, 52 and 16 percent of the needs for ACTs, SPs and RDTs, respectively (Figure 3).

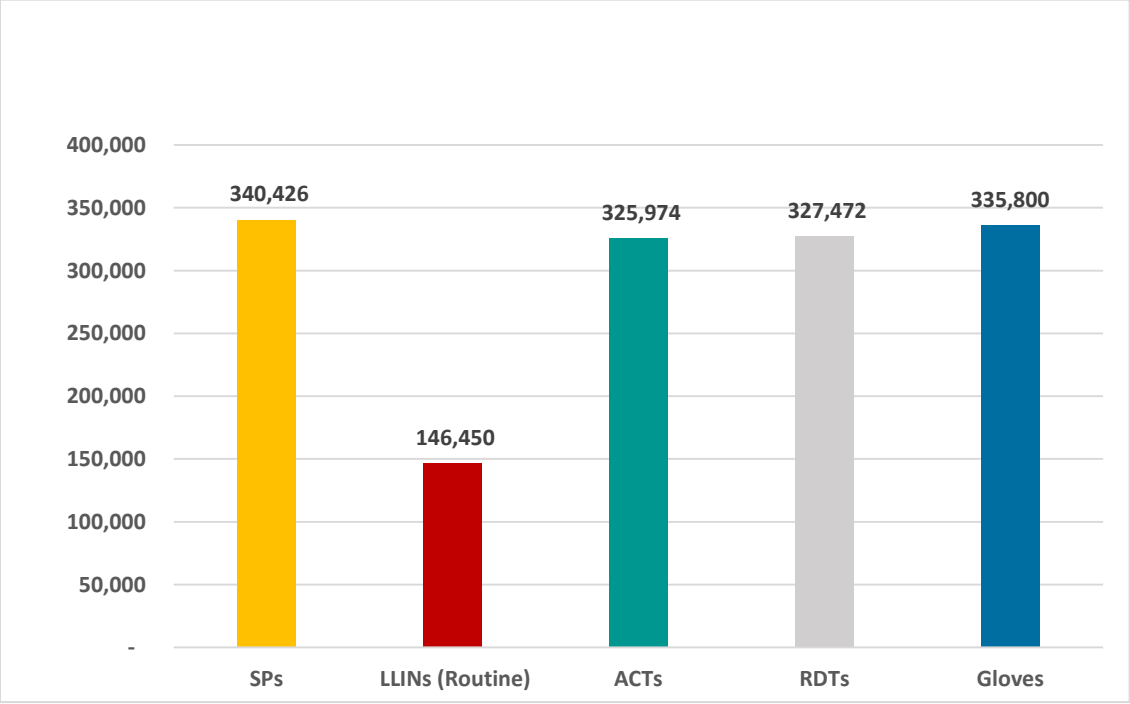



**Figure 4: Commodities distributed in Enugu from 2012 to December 2015**

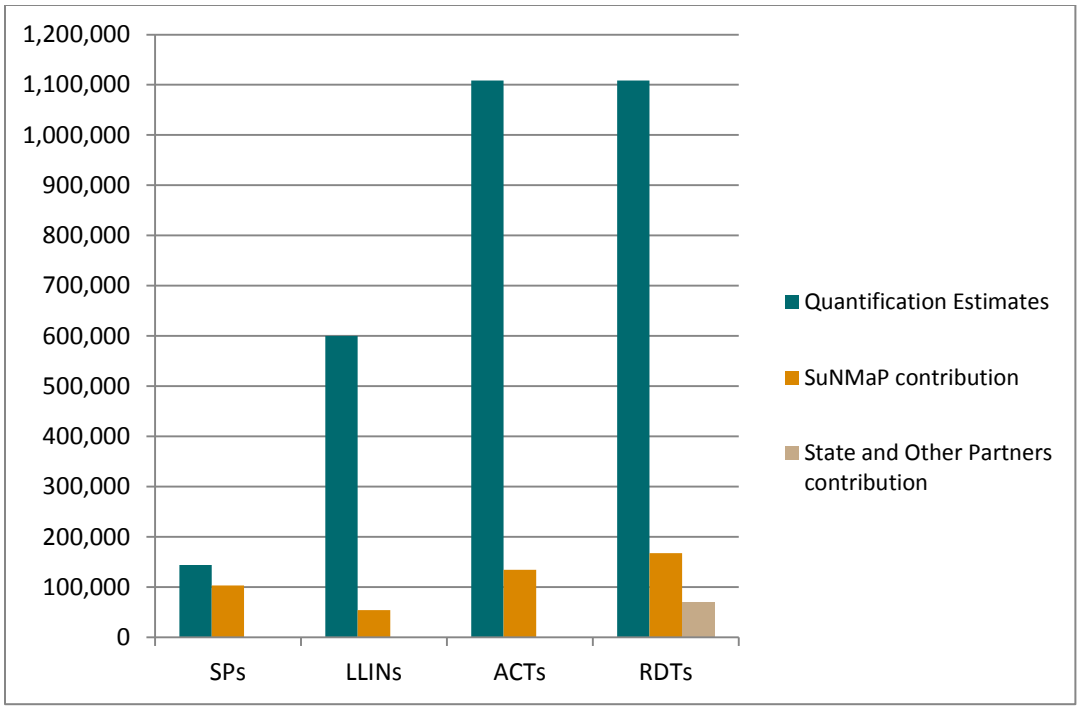



**Figure 5: SuNMaP and partner contributions for AMCs, against the state needs for 2015**

To monitor the correct use of AMCs supplied by the programme, monthly AMC monitoring was conducted, with results showing high compliance to the set standards. In addition to the monthly monitoring visit, the programme conducted an AMC commodity audit on all the AMCs distributed in the state. In addition, capacity has been built for 1,004 health workers on the Malaria Commodity Logistics System.

## Monitoring and evaluation and operations research

The state has a functional HMIS unit that coordinates data reporting at all levels and facilities reporting on the District Health Information System (DHIS) 2.0 platform.

SuNMaP has strengthened the HMIS and routine data reporting by state and LGAs through capacity development, provision of tools to 255 health facilities and facilitation of monthly and quarterly data quality assurance meetings in the state. There has been an improvement in the reporting rate to over 80 percent in the last two years.

In collaboration with the University of Enugu, SuNMaP conducted an operational research study in southwest Nigeria that looked into differences between children who had received a positive mRDT result and were given ACTs, and children who had received a negative result and did not receive ACTs. Preliminary results showed that restricting ACTs for cases of positive mRDT results prevented the development of malaria and anaemia.

## Programme management

The state has adapted the national malaria framework to the local context. National policy guidelines on malaria interventions are more readily available than at the state level, and health managers are more familiar with these documents. State Roll Back Malaria partners have all been profiled and an active state Malaria Technical Working Group (mTWG) exists, though it lacks resource mobilisation subcommittee. Staffing of the SMEP has improved. Annual operational plans (AOPs) for the malaria programme have become recognised as important – however, they need to be urgently drafted in order to precede state budget processes.

SuNMaP has enhanced the capacity of the State Malaria Elimination Programme for policy development, planning and coordination of malaria programmes. It has supported the development of key state-driven documents including policy, guidelines, frameworks and plans (annual and multi-year). These include state multi-year training plans;, the state Advocacy, Communication and Social Mobilisation Framework; the Integrated Supportive Supervision and On-the-Job Capacity Building (ISS/OJCB) Implementation Framework; the Donor Coordination Framework; and the Malaria Diagnostic External Quality Assurance Framework and costed AOPs.

This has led to the development of costed AOPs for 2013, 2014 2015 and 2016 and Enugu State malaria multiyear plans for 2017 – 2018, as well as periodic reviews of their implementation. Having supported the state to develop the ISS/OJCB Implementation Framework, the programme went on to support the introduction, institutionalisation and implementation of ISS and OJCB to improve performance of health workers for service delivery, and advocated at senior levels for state resource moblisation to implement them.

## 4. Interventions

SuNMaP interventions in Enugu were in line with its seven output areas. These fed into the six thematic areas of the National Malaria Strategic Plan (NMSP) 2009 – 2013, and later the seven objective areas of the NMSP 2014 - 2020 as shown below.

| SuNMaP output | Strategy utilised | Interventions in Enugu | Thematic area NMSP 2009 - 2013 | Objectives NMSP 2014 - 2020 |
|---|---|---|---|---|
| 1. Improved capacity for planning, management and coordination | Capacity building harmonisation | In-depth training<br>AOP processes<br>OJCB to SMEP/mTWG | Health system strengthening | Objective 7 Programme Management |
| 2. Harmonisation of all agencies' support for the malaria sub-sector | Capacity building Harmonisation | In-depth training<br>ISS / OJCB system<br>Adaptation of ACSM CAP/SF&IP | | |
| 3. Improved coverage of effective measures for the prevention of malaria | Capacity building ACT & mRDT strategy | In-depth training<br>Massive procurement of commodities<br>Support to commodity logistics | Integrated vector management | Objective 1 & 5 Prevention and PSM |
| | | | Malaria In pregnancy | |
| 4. Improved access to effective treatment for malaria | Capacity Building ACT and RDT strategy | In-depth training<br>Massive procurement of commodities<br>Support to commodity logistics<br>Strengthening of diagnostics | Case management (malaria diagnosis and treatment) | Objective 2. 3 & 5 Diagnosis. Treatment and PSM |
| **5.** Increased awareness and demand for effective malaria treatment and prevention | Capacity Building Demand Creation | In-depth training<br>Advocacy<br>Social mobilisation<br>BCC: jingles, adverts, programmes, IEC materials | Advocacy communication and social mobilisation | Objective 4 ACSM |
| **6.** Monitoring and evaluation / operational research | Capacity Building Evidence for Malaria Control | In-depth training<br>Advocacy to policy makers on M&E<br>Support to state M&E structures<br>ISS / OJCB System | Monitoring and evaluation | Objective 6 M&E |

## 5. Cost implications

Malaria programme expenditure in Enugu state has generally been donor-driven (Global Fund, World Bank, SuNMaP etc.) for the period covered by this report. Persistent advocacy and community engagement through social mobilisation supported by SuNMaP has facilitated greater state commitment to malaria funding. Budget release was at 100 percent of the state allocation for the malaria control programme in 2013, one year into SuNMaP's activities in the state (Annex 3). There is a clear appreciation of the need to spend money on the malaria programme.

## 6. Best practices

Value for money was evident in the successful implementation of the participants' cluster approach in delivery of the training modules. Implementation progressed from training of trainers (ToTs) to cascade trainings. Participant selection ensured relevance for the participant. Participant segregation focused on a mix of health workers for appropriate experiential learning. Use of state-based facilitators was meant to ensure a sustainable pool of trainers in the state health system. An innovative collaboration occurred with the Nursing and Midwifery Council, whose members were trained to provide a pool of trainers to be used by the council to cascade training to nurses and midwives through their mandatory professional development programme. The programme also got the state and local governments to take up some logistical components of training exercises.

Adaptation to local context was evident in the communication plan to the local context in Enugu State. It was also apparent in the use of local vendors and local resources (human and material). Local vendors were motivated to match the quality of service delivery promoted by global standards.

Coordination was evident in the improvement of the internal workings of the SMEP and mTWG, enhanced through the state executive management orientation – an entry activity that catalysed in-depth understanding of SuNMaP's outputs.

Harmonisation was evident in SuNMaP's participation in partner coordination meetings from the outset, as well as its support to setting up the mTWG and subcommittees, monthly SMEP coordination meetings and bimonthly LGA health facility coordination meetings in five focal LGAs. SuNMaP sustained efforts to encourage the formation of a malaria partners' forum, which unfortunately did not materialise.

Stakeholder engagement was strengthened by the involvement of local social mobilisation groups - Christian Health Association of Nigeria (CHAN) and Health Reform Foundation of Nigeria (HERFON) – established key players in the Enugu State health sector. Engagement with policymakers, managers and health staff helped to encourage state ownership of malaria data management processes. ACSM activities targeted at communities and the entire population via the media improved public demand and delivery of malaria diagnosis before treatment. Active involvement of the State ISS Desk Officer in institutionalising ISS/OJCB clearly indicated increasing ownership of the ISS/OJCB process by the state.

## 7. Lessons learnt

A one-size-fits-all approach to programme support does not apply to Enugu State. Thus the baseline needs assessment, rapid capacity assessment, stakeholder engagement and consensus were all useful in contextualising and achieving the SuNMaP outputs in Enugu State.

## 8. Recommendations

The mTWG should expedite action towards constituting an effective resource mobilisation subcommittee, tasked with the responsibility of developing a resource mobilisation strategy.

This resource mobilisation committee of the mTWG can, among other things, take advantage of the Enugu State desire for public-private partnerships in healthcare delivery to promote malaria elimination efforts.

Collaboration between the SMoH and tertiary health institutions within the state should be sought to develop, implement and sustain an operational research agenda focused on Enugu State malaria elimination.

Timely and sustained AOP development and review that predates state budget processes can focus state and donor resources more realistically.

Future donor programmes in the state will deliver on desirable outcomes more effectively and efficiently by upholding the best practice of collaborative baseline assessments and periodic reviews with state stakeholders.

## 9. Going forward

The Governor and his predecessor have been excellent hosts to SuNMaP in Enugu State and it is hoped that this report and recommendations will be given appropriate consideration. This is also suitable background reading material in preparation for any future engagement with partners for malaria elimination efforts.

The state should identify specific steps for going forward and sustaining these gains beyond SuNMaP's exit.

# Annexes

## Annex 1: Enugu State malaria control training summary

### Programme management

| S/N | Type of training | Number of participants and their institutions | | | | | | | | | Total | Estimated no. of events |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | National ToT | State-based trainer | National trainer | | | | | | | | | |
| | | 1 | 4 | | | | | | | | 5 | 1 |
| 2 | Executive management orientation | Executive management orientation 1 | Executive management orientation 2 | Management orientation (technical) | | | | | | | | |
| | | 37 | 40 | 38 | | | | | | | 115 | 3 |
| 3 | State ToT (management) | SMOH | SMCP | SHB | Other state programme managers | School of Health Technology | School of Nursing | School of Midwifery | | | | |
| | | 10 | 4 | 38 | 10 | 2 | 2 | 2 | | | 38 | 1 |
| 4 | State-level management training | Heads of public health facilities | Heads of institutional health facilities | CEOs of district health boards | CEOs of private, for-profit facilities | CEOs of private, not-for-profit facilities | LGA PHC coordinators | | | | | |
| | | 57 | 23 | 7 | 747 | 32 | 17 | | | | 883 | 23 |
| 5 | Focused M&E training | SMOH | SMCP | SHB | LGA | Public health facilities | Institutional health facilities | District health boards | Private for-profit facilities | Private, not-for profit facilities | | |
| | | 8 | 1 | 5 | 17 | 491 | 23 | 7 | 747 | 32 | 1331 | 34 |
| 6 | LGA-level management training | LGA MCP team | LGA programme officers | Local health authority secretaries | Officers in charge of PHCs | | | | | | | |
| | | 68 | 204 | 39 | 434 | | | | | | 745 | 19 |
| Sub-total | | | | | | | | | | | 3117 | 91 |

**Service delivery**

| S/NO | Type of training | Number of participants and their institutions | | | | | | | | | | Total | Estimated no. of events |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | National ToT | State-based trainer | | National trainer | | | | | | | | | |
| | | 1 | | 4 | | | | | | | | 5 | 1 |
| 2 | State-level case management ToT | Doctors | | Pharmacists | | Nurses/ midwives | Laboratory scientists | CHOs | | | | | |
| | | Public | Private | Public | Private | Public | Public | Public | | | | | |
| | | 12 | 3 | 4 | 1 | 10 | 5 | 5 | | | | 40 | 1 |
| 3 | Secondary/ tertiary HF case management training | Doctors | | Pharmacists | | Nurses / mid-wives | | Laboratory scientists | | CHOs | | | |
| | | Public | Private | Public | Private | Public | Private | Public | Private | Public | | | |
| | | 984 | 769 | 162 | 193 | 1606 | 2061 | 250 | 234 | 70 | | 6329 | 159 |
| 4 | PHC facility case management training | Doctors | | Pharmacy technicians | | Nurses / mid-wives | | Laboratory technicians /assistants | | CHOs | CHEWs | Malaria focal persons | |
| | | Public | Private | Public | Private | Public | Private | Public | Private | Public | Public | Public | |
| | | 32 | | 25 | | 259 | | 18 | | 133 | 1275 | 487 | 2229 | 56 |
| 5 | Community caregivers case management training | Role model caregivers | Community directed distributors | TBAs | | | | | | | | | |
| | | 442 | 6777 | 737 | | | | | | | | 7956 | 199 |
| 6 | PMVs case management training | Licensed | Unlicensed | | | | | | | | | | |
| | | 200 | 1800 | | | | | | | | | 2000 | 50 |
| Sub-Total | | | | | | | | | | | | 18559 | 466 |

## Annex 2: Budget allocation, releases plus AOP value by year SMoH/SMEP Enugu State

| Years | Allocation to SMoH | % Budgetary allocation to health | Actual release to SMoH | % actual release to SMoH | Allocation to malaria programme | % of SMoH budget allocated to malaria programme | Actual release to malaria programme | % actual release to malaria programme | Total value of AOP | Proportion allocated to the Ministry | Source of information |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2008 | | | | | | | | | | | Enugu State of Nigeria approved budgetary estimates and AOPs. |
| 2009 | 4,105,887,000 | 6.8 | | | | | | | | | |
| 2010 | 5,491,666,510 | 8 | | | | | | | | | |
| 2011 | 7,522,842,510 | 11.3 | | | | | | | | | |
| 2012 | 7,570,053,282 | 9.9 | | | 5,000,000 | 0.07 | | | | | |
| 2013 | 4,061,456,688 | 4.9 | | | 5,000,000 | 0.12 | 5,000,000 | 100.0 | 369,719,045 | | |
| 2014 | 4,179,974,780 | 4.5 | | | 5,000,000 | 0.12 | 2,522,500 | 50.5 | 1,696,472,900 | | |
| 2015 | 4,900,847,249 | 5.1 | | | 5,000,000 | 0.10 | 0 | 0.0 | 4,489,116,470 | | |

All amounts are in Naira

₦

## Annex 3: Enugu State budget for malaria elimination activities (2016-2018)

The estimated total cost of malaria control activities in Enugu between 2016 and 2018 is ₦ 7,962,034,614 (2016 - ₦1,078,062,190; 2017 - ₦3,160,926,031 and 2018 - ₦3,723,046,393). There is no commitment from partners for malaria control activities estimated from 2016 - 2018.

| Objective area | 2016 (amount) | | | 2017 (amount) | | | 2018 (amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| Malaria prevention | ₦ 664,878,650 | ₦ - | ₦ 664,878,650 | ₦ 80,543,250 | ₦ - | ₦ 80,543,250 | ₦ 283,319,150 | ₦ - | ₦ 283,319,150 |
| Malaria diagnosis | ₦ 2,824,500 | ₦ - | ₦ 2,824,500 | ₦ 2,121,000 | ₦ - | ₦ 2,121,000 | ₦ 2,121,000 | ₦ - | ₦ 2,121,000 |
| Treatment | ₦ 1,618,000 | ₦ - | ₦ 1,618,000 | ₦ 256,477,000 | ₦ - | ₦ 256,477,000 | ₦ 256,477,000 | ₦ - | ₦ 256,477,000 |
| ACSM | ₦ 1,470,500 | ₦ - | ₦ 1,470,500 | ₦ 12,407,991 | ₦ - | ₦ 12,407,991 | ₦ 15,116,953 | ₦ - | ₦ 15,116,953 |
| PSM | ₦ 398,981,500 | ₦ - | ₦ 398,981,500 | ₦ 2,795,435,250 | ₦ - | ₦ 2,795,435,250 | ₦ 3,152,070,750 | ₦ - | ₦ 3,152,070,750 |
| M&E | ₦ 4,215,540 | ₦ - | ₦ 4,215,540 | ₦ 8,553,340 | ₦ - | ₦ 8,553,340 | ₦ 8,553,340 | ₦ - | ₦ 8,553,340 |
| PM | ₦ 4,073,500 | ₦ - | ₦ 4,073,500 | ₦ 5,388,200 | ₦ - | ₦ 5,388,200 | ₦ 5,388,200 | ₦ - | ₦ 5,388,200 |
| Total | ₦ 1,078,062,190 | ₦ - | ₦ 1,078,062,190 | ₦ 3,160,926,031 | ₦ - | ₦ 3,160,926,031 | ₦ 3,723,046,393 | ₦ - | ₦ 3,723,046,393 |

**Annex 4: Enugu State budget for malaria elimination activities (2016-2018): percentage contribution from government and partners**

| Objective area | 2016 (%) | | 2017 (%) | | 2018 (%) | | 2016 - 2018 (%) | |
|---|---|---|---|---|---|---|---|---|
| | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** |
| Malaria prevention | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| Malaria diagnosis | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| Treatment | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| ACSM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| PSM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| M&E | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| PM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| **Total** | **100%** | **0%** | **100%** | **0%** | **100%** | **0%** | **100%** | **0%** |

While recognising that government funding of malaria in the state has increased over the years, in order to sustain and possibly increase the current level of malaria control efforts the government will need to further increase its funding of malaria and advocacy for resource mobilisation from partners and the private sector.

# Working together to combat malaria

**A synopsis of Support to National Malaria Programme (SuNMaP)**

**Contributions to Malaria Elimination Efforts in Jigawa State**

**2012-2016**

# Contents

## Abbreviations and acronyms

| | |
|---|---|
| ACSM | Advocacy, communication and social mobilisation |
| ACT | Artemisinin-based combination therapy |
| AOP | Annual operational plan |
| CBOs | Community-based organisation |
| CHEWs | Community health extension workers |
| CSO's | Civil society organisations |
| DQA | Data quality assurance |
| DRF | Drug revolving fund scheme |
| GHSB | Gunduma Health System Board |
| GHSC | Gunduma Health System Council |
| HMIS | Health Management Information System |
| IPT | Intermittent preventive treatment |
| IRS | Indoor residual spraying |
| ISS | Integrated supportive supervision |
| IVM | Integrated vector management |
| LGAs | Local Government Areas |
| LLIN | Long lasting insecticide-treated nets |
| LMCU | Logistics Management Coordinating Unit |
| MDGs | Millennium Development Goals |
| M&E | Monitoring and evaluation |
| NMCP | National Malaria Control Programme |
| NMEP | National Malaria Elimination Programme |
| NMSP | National Malaria Strategic Plan |
| PHC | Primary healthcare centre |
| PSM | Procurement and supply management |
| RDT | Rapid diagnostic test |
| SDSS | Sustainable drug supply system |
| SMEP | State Malaria Elimination Programme |
| SMC | Seasonal malaria chemoprevention |
| SMoH | State Ministry of Health |
| SP | Sulphadoxine-pyrimethamine |
| SuNMaP | Support to National Malaria Programme |
| TMM | Technical Malaria Manager |
| TWG | Technical Working Committee |

## Acknowledgements

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**Dr Femi Owoeye**
**SuNMaP Programme Director**

# Background and introduction

The Support to National Malaria Programme (SuNMaP) is an eight-year programme (2008-2016) funded by UK Department for International Development (DfID) to help strengthen the delivery of malaria elimination interventions at national, state and local government area (LGA) levels. SuNMaP started supporting the National Malaria Elimination Programme (NMEP) in the 10 States of Anambra, Kano and Lagos (since September 2008); Katsina, Niger and Ogun states (since June 2009), Jigawa, Enugu and Kaduna (since early 2012) and Yobe (since 2013).

At the national level and in each state, the SuNMaP support commenced with a rapid baseline capacity needs assessment[1] for malaria control. The findings informed the development of strategies to address identified weaknesses in capacity, resources and systems through the provision of long and short-term technical assistance. Health facility assessments (HFA) and laboratory assessments conducted in 2009 and 2013 respectively, informed the programme's strategic direction to strengthen integration of malaria interventions (preventive and curative) into routine service delivery. Early in 2014, a rapid capacity re-assessment of nine of the 10 focal states (excluding Yobe State) was undertaken to inform SuNMaP's final workplan and ultimately, an exit and sustainability plan.

SuNMaP provided a full range of support across its six outputs, each of which focusing on one element of comprehensive malaria control and elimination. These were:

1. Building capacity building for policy development, planning and coordination
2. Harmonising cross-agency support for the malaria control
3. Increasing coverage of effective measures for malaria prevention
4. Improving the population's access to effective malaria treatment
5. Enhancing community awareness and demand for effective malaria treatment and prevention
6. Operational research to gather evidence and its use in programme implementation. It also provided additional support to data management strengthening of National Health Management Information System (NHMIS)

As the SuNMaP programme comes to a close, this report provides a summary[2] of seven years of engagement and support in Ogun State. Reflecting on the baseline assessment, the report summarises the malaria situation at the inception of SuNMaP. The report then provides a panoramic view of the current situation and an outline of SuNMaP, while acknowledging other key players. This report also contains some of the lessons learnt while employing best practices to deliver the

[1] The baseline assessment data was collected through appraisal and discussion visits to federal/state/LGA agencies; service delivery points; partners, public, private and commercial sector managers; focus group discussions (FGDs). Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DfID. The appraisal tool was adapted from the SuNMaP basic information collection tool; PPRHAA (peer, participatory rapid health appraisal and action) tools for appraising Management Boards and the Roll Back Malaria Needs Assessment and Planning tool by the World Health Organisation and Malaria Consortium, August 2003

[2] Data for this report was collected, analysed and written by a national consultant. The methodology included FGDs and key informant interviews of government officials, partners and SuNMaP staff. The field work was preceded by a desk review of secondary data and SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 and 2015.

programme's six core outputs of capacity building, harmonisation, prevention of malaria, treatment of malaria, awareness and demand creation and operations research. There are recommendations to help the state sustain the gains of the project and help Nigeria to achieve pre-elimination status and reduction of malaria-related deaths to near zero in 2020 as envisaged in the National Malaria Strategic Plan (NMSP 2014-2020).

## Malaria situation in Jigawa State at the inception of SuNMaP support

The Partnership for Transforming Health Systems (PATHS1), funded by UK aid from the UK government, supported the establishment of the Jigawa State Gunduma Health System (GHS) between 2002 and 2007. GHS, managed by the Gunduma Health System Board (GHSB), integrated primary and secondary healthcare facilities under one administrative unit and decentralised administrative power to the nine council units. The State Ministry of Health was responsible for oversight, policy planning, and resource mobilisation and monitoring.

At baseline in July 2012, malaria control in Jigawa State was managed by a 13-member Project Implementation Unit of the Jigawa State Malaria Control Booster Project (JSMCBP) – a World Bank-assisted programme (2008 to 2013). As of 2012, it was not clear what the state had planned to do to ensure a sustainable state-driven malaria control programme, and so SuNMaP was a welcome development.

### Prevention of malaria

Malaria prevention interventions at the inception of SuNMaP mainly involved intermittent preventive treatment (IPT) in pregnancy (IPTp) with sulphadoxine pyrimethamine (SP), as well as long lasting insecticidal nets (LLINs) supported by JSMCBP. Between 2011 and 2012, around 100,000 doses of SP and 3,834 LLINs were distributed to pregnant women by JSMCBP. Other integrated vector control interventions existed on a limited scale in the state. In 2010, the state held the first ever mass LLIN campaign, targeting mainly households with children under five and pregnant women. A total of 1,859,662 nets were distributed in the state, reaching 98 percent coverage.

### Malaria case management (diagnosis and treatment)

Diagnosis of malaria in the state was based on presumptive clinical diagnosis without laboratory confirmation. This was attributed to the non-availability of malaria rapid diagnostic test (mRDT) kits at the time, weak microscopy and a lack of a laboratory quality control system.

Artemisinin combination therapy (ACT) was the first line of treatment for all suspected malaria cases. Although chloroquine was not found to be stocked in any of the facilities visited during the baseline, there was sufficient evidence that some service providers were prescribing chloroquine to patients. Between 2008 and 2012, the major providers of ACTs in the state were JSMCBP, Jigawa Medicare Supply Organization (JIMSO) and the Global Fund through Family Health International, Sustainable Health Initiative, Society for Family Health and Planned Parenthood Federation of Nigeria.

The baseline showed low knowledge of policies and treatment guidelines, with few (only five out of 74 interviewed) health workers having received any training in malaria case management.

## Advocacy, communication and social mobilisation

At the onset of SuNMaP in Jigawa State, the national Advocacy, Communication and Social Mobilization (ACSM) Strategic Framework had yet to be adapted for the state. Without the ACSM framework and the related communication work plan, there was no budget for ACSM activities in the State Ministry of Health (SMOH). There were multiple social mobilisation working groups in the health sector, driven by different donor objectives. The malaria booster programme funded by the World Bank provided funds for all malaria-related programming, including ACSM activities. However, a major detractor from malaria communication was the unavailability of behaviour change communication (BCC) material in most of the facilities. They were also often not adapted to the local languages of Hausa, Fulani or Kanuri.

Radio was the dominant platform used for health communication. ACSM activities were supported by different partners, including Partnership for Reviving Routine Immunization in Nigeria- Maternal Nutrition and Child Health ( PRRINN-MNCH), State Accountability and Voice Initiative (SAVI), Education Sector Support Programme in Nigeria( ESSPIN), State Partnership for Accountability, Responsiveness and Capability (SPARC), World Health Organisation (WHO), United Nations Children Fund (UNICEF), Coalition for Better Health, Nigeria Union of Journalist( NUJ) , Journalist Against Polio (JAP) and ACOMIN. The media outlets in the state included the Jigawa Broadcasting Corporation (JBC), Freedom Radio Jigawa, a privately owned station, Federal Radio Corporation of Nigeria (FRCN), Nigeria Television Authority (NTA) Dutse, Voice Of Nigeria (VON) and News Agency of Nigeria (NAN). The stations produce and air a number of popular, locally produced health programmes and jingles in local languages.

In sum, structures were already in place in Jigawa State that allowed for improved planning and implementation of malaria ACSM.

## Monitoring and evaluation

Eighty-eight percent (549) and 68 percent (402) of public health facilities in the state reported using the National Health Management Information System (NHMIS) and National Malaria Control Programme (NMCP) tools for data in 2011. Electronic retrieval of data at the state level was prompt and accurate. A data review of state, Local Government Area (LGA) and primary healthcare indicators for the last quarter of 2011 showed incomplete and inaccurate data.

## Procurement and supply management

Procurement and supply management (PSM) was centralised and coordinated through JIMSO, with the state operating a Sustainable Drug Supply System (SDSS).

## Programme management

Virtually all health service providers were employees of the GHSB, and the Jigawa State Malaria Control Booster Project was located in the SMOH. All LGA malaria focal persons were employees of the Ministry for Local Government.

There were unclear linkages between the three arms mentioned above, which sometimes created challenges for the management of malaria control.

The Booster Project was supported by the World Bank to develop annual operational plans for malaria control. In some instances, these were not initiated or finalised in the state, and sometimes did not reflect the malaria control activities that were funded by other partners, implementing agencies and LGAs.

## Current situation, SuNMaP interventions and achievements

### Prevention of malaria

Integrated vector management (IVM) interventions are currently under way in the state, with LLIN distribution at full scale and indoor residual spraying and larviciding being carried out to a limited degree. Prevention of malaria in pregnancy has also remained a priority and continues to receive support in the state. Following the 2010 mass campaign, the state distributed 1,638,038 LLINs in 2014, funded by World Bank Booster Project. With these distributions, there have been improvements based on the October 2014 World Bank-supported household survey that measured net usage among under-fives and women, from 34 percent and 24.9 percent, respectively, to 84 percent and 79 percent (NDHS 2013).

SuNMaP has strengthened the implementation of malaria prevention interventions through procurement and support to the state, and has helped to routinely distribute 382,765 doses of SP for IPTp across the state. This contribution has resulted in a gradual increase in the proportion of women who took an adequate dose of IPTp from 10.6 percent in 2008 to 27.2 percent in 2013 (NDHS 2008 & 2013).

In addition to the provision of technical support for the second LLIN mass campaign in 2014 funded by the World Bank, the programme supported the distribution of 178,950 LLINs at antenatal clinics and through routine childhood immunisation channels.

SuNMaP has demonstrated the effectiveness of using globally-proven evidence to inform implementation in the country and Jigawa in particular. This was especially useful when introducing and distributing seasonal malaria chemoprevention (SMC) for children from three to 59 months in Kazaure and Roni LGAs. The experience that had already been gained from SMC distributions in Katsina was invaluable in Kazaure and Roni LGAs. From 2014 to 2015, about 160,000 children benefited from SMC during peak transmission seasons, with a total of 287,556 doses of sulfadoxine-pyrimethamine plus amodiaquine (SP + AQ) distributed by role model caregivers during mass drug administration campaigns. Evidence from the pilot evaluations show a reduction of 50-60 percent in malaria cases in tLGAs where SMC was implemented, compared to those LGAs that did not have SMC.

SuNMap built the capacity of 1,920 personnel (health workers, role mode caregivers and supervisors) on SMC mass drug administration and pharmacovigilance.

## Malaria case management (diagnosis and treatment)

### Diagnosis

As part of the National Malaria Strategic Plan 2014 - 2020, Jigawa State continues to implement parasitological-based diagnosis of malaria. To this end, the majority of health facilities are equipped with microscopes or mRDTs for malaria diagnosis, significantly reducing clinical diagnosis of malaria.

The 2015 Annual Operation Plan (AOP) for the state showed that 75 percent of fever cases that presented at public health facilities were tested (by microscopy or mRDT), showing an increase in the testing rate in the state.

SuNMaP supported the state to develop the capacity of 32 laboratory scientists in microscopy. They then cascaded the training to 36 laboratory technicians and 24 medical laboratory assistants. In addition, 616 health workers were trained on the use of mRDTs for malaria diagnosis.

With these capacity building initiatives, the programme supported the state to distribute 362,300 mRDT kits and 20 microscopes.

To maintain high quality malaria diagnosis, the programme supported the state to develop and adopt a diagnosis quality assurance framework. It is currently being implemented with the establishment of external quality assurance centres and teams across the state.

### Treatment

Confirmation of malaria cases in the state has greatly improved due to the availability and use of both national and state malaria diagnosis and treatment policies as well as continuous capacity building efforts over the years.

As an active member of the Roll Back Malaria partnership in the state, SuNMaP has supplied 319,402 doses of ACTs to all public health facilities. According to the 2014 AOP, 81 percent of people who tested positive for malaria received antimalarial treatment according to the national treatment guidelines. Furthermore, increased availability and access to antimalarial commodities in the state has had a positive impact on malaria, as evidenced by a drop in the rate of outpatient department attendances classified as malaria – from an average of 40 percent in 2012 to 20 percent in 2015 (Figure 1).

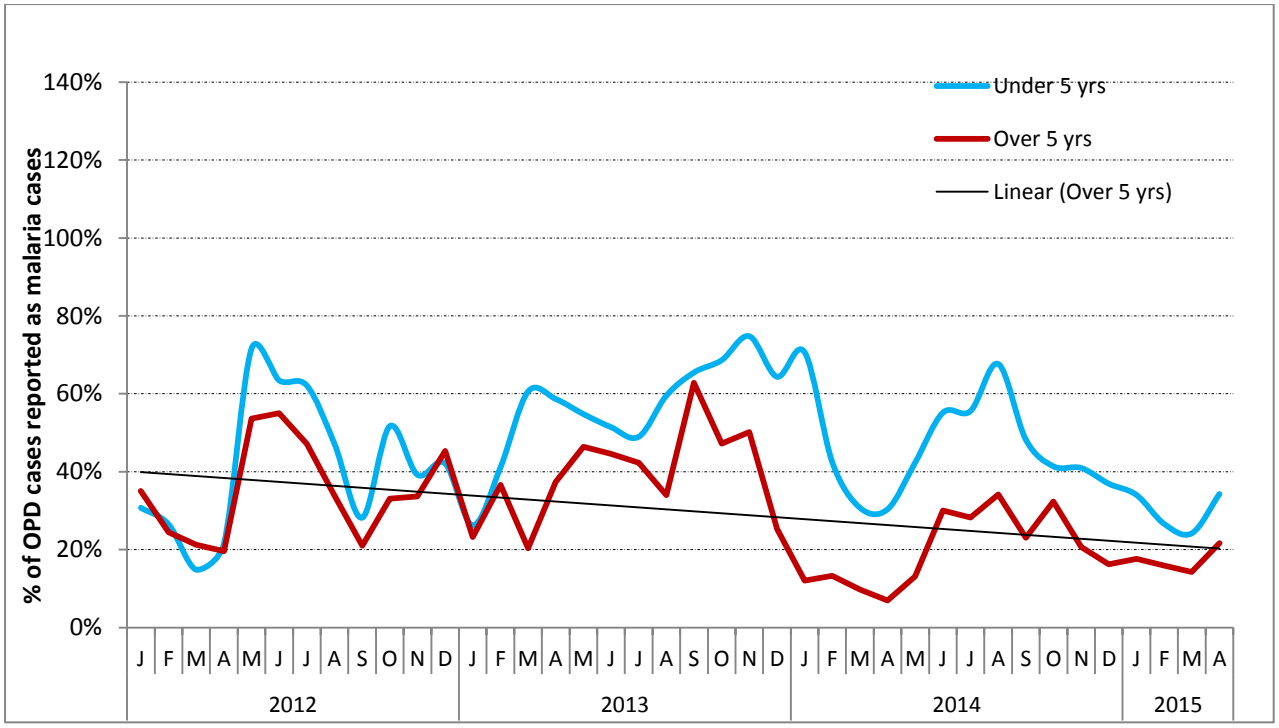



**Figure 1: Percent of outpatient department cases reported as malaria cases (source – SuNMaP Jigawa Sentinel Sites Data)**

To maintain a high quality of care, the programme used the harmonised national training modules and supported the state to conduct participatory trainings of different groups in the state. Malaria case management was improved in accordance with the national guidelines through the training of 469 healthcare staff, 120 Community Care Givers and 206 proprietary patent medical vendors. Figure 2 below details the various groups of people trained by the programme over the years.

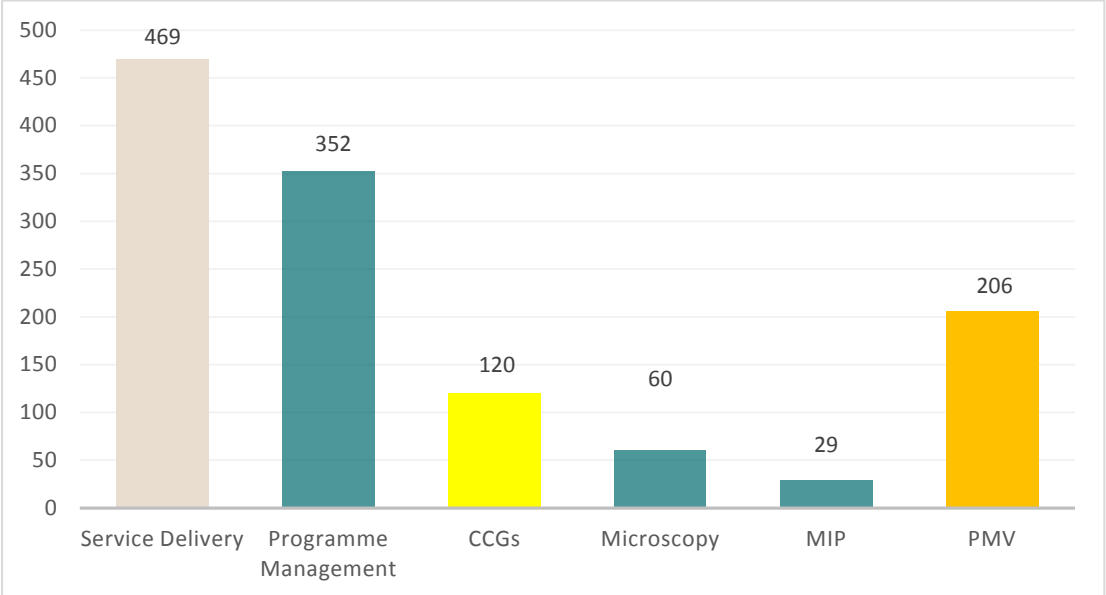



**Figure 2: Number of people trained in the different categories by the programme over the years**

## Advocacy communication and social mobilisation

The 2008 NDHS indicated low utilisation of LLINs and other malaria control commodities in Nigeria. LLIN use among children under five was 4.1 percent and 4.2 percent among pregnant women. Likewise, the average use of two doses of sulphadozine-pyremethamine for prevention of malaria in pregnancy was only 7.4 percent in the Northwest region where Jigawa State is located (NDHS, 2008). Since 2012, when SuNMaP started to support the malaria programme in Jigawa state, the advocacy communication and social mobilisation (ACSM) activities were planned and delivered in response to the findings of the baseline and formative research. Supported by SuNMaP, a series of communication and learning activities were planned and implemented in collaboration with partners. The highlights of the key ACSM interventions in Jigawa state were as follows:

- A formative research and baseline assessment were conducted to identify the resources needed and gauge community members' knowledge, attitude, perception and related factors regarding malaria
- The state malaria ACSM committee was formed to design and review the demand creation activities in the state. Members of the committee were drawn from the SMoH and NGOs including Association of Community-based Organizations on Malaria, Immunization and Nutrition (ACOMIN) and other community-based organisations (CBOs).
- ACSM committee members were trained in strategic communication and mobilised to create awareness and engage with community stakeholders to improve acceptance, use and demand for malaria interventions.
- The programme implementation partners (PIPS) were supported by SuNMaP to work with the ACSM committee to improve acceptance, use and demand for malaria interventions. In Jigawa state, the PIPs were Health Reform Foundation and the Federation of Muslim Women Association of Nigeria (FOMWAN).
- Social and behaviour change communication (SBCC) materials were designed, developed, produced and distributed. They were produced in various print and electronic formats, and translated into Hausa, the common language, to address the needs of the main audience. This was part of SuNMaP's support to the SBCC component of the LLIN replacement campaign.
- The demand creation work stream team was selected and trained to provide pre and post campaign demand creation support.
- The messages for routine malaria prevention and treatment were disseminated in different formats of print materials, on radio and television. Print materials included poster leaflets and charts, while radio messages were delivered as radio and TV spots, magazine and drama. Radio broadcast of key messages on malaria prevention, diagnosis and treatment in English and Hausa languages reached over 1.5 million residents across the state on daily basis.
- Routine advocacy and demand creation activities at clinic and community levels were conducted in the focal LGAs where clinic-based health workers have been trained in malaria service delivery.

- A malaria related schools quiz competition for secondary school students and drama presentations were carried out in 2012 and 2013 to sensitise students and more broadly the general public on the annual World Malaria Day celebration commemoration.

## Procurement and supply chain

Procurement and supply management was centralised and coordinated through the Jigawa Medicare Supply Organisation (JIMSO) and the state operated a sustainable drug supply system (SDSS).

SuNMaP assisted the state to improve the timely distribution of malaria commodities to health facilities through harmonisation. This was achieved by regular meetings of the partners' forum. Percentages of health facilities with stock-outs of ACTs, RDTs and LLINs lasting more than one week at any time during the past three months between January and October 2015 were 25 percent, 25 percent and 33 percent respectively. In 2015, SuNMaP provided the state with 15 percent, 39 percent and 13 percent of the state's needs for ACTs, SPs and RDTs respectively.

The graph below shows the commodities procured and distributed by SuNMaP in Jigawa over the life of the programme.

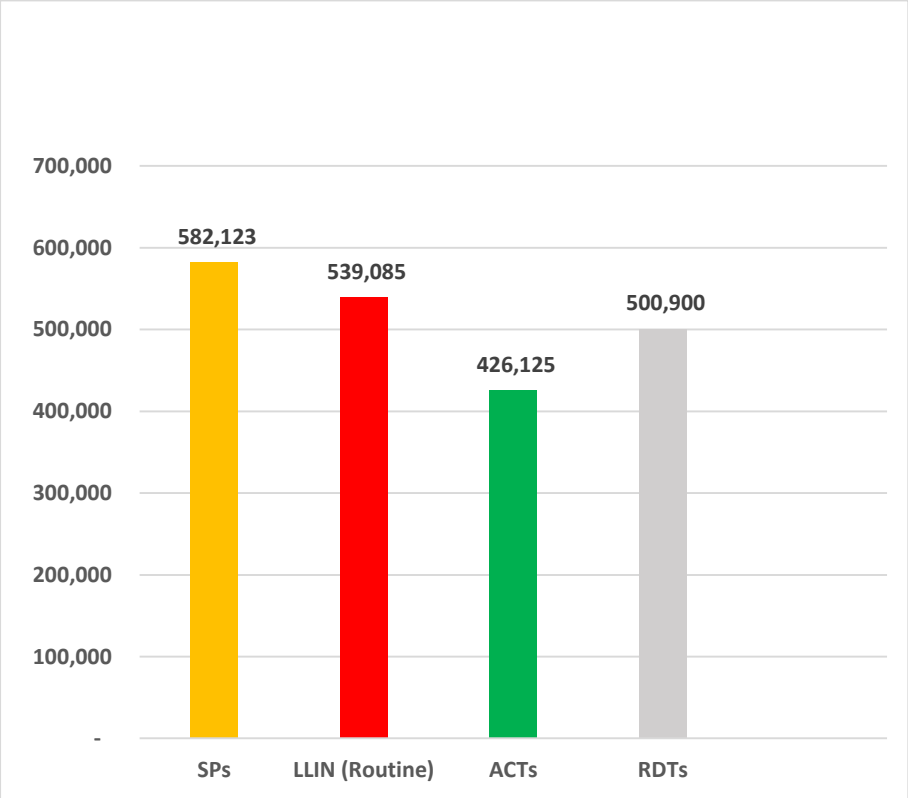



**Figure 3: Commodities distributed in Jigawa from start to December 2015**

## Monitoring and evaluation

The percentage of health facilities reporting complete data in a timely manner through the DHIS database in the state have remained above 80 percent.

SuNMaP supported processes such as data collection; training and feedback on data through the well-coordinated monthly LGA malaria focal persons meetings and quarterly health management information system (HMIS) officers' meeting.

## Programme management

The State Malaria Elimination Programme is currently staffed by a team of six: Programme Manager, Deputy Programme manager/Case management Officer, M&E Officer, IVM Officer, ACSM Officer and a PSM Officer. This is in line with the recommendation of the national malaria coordination frame work.

The Gunduma health system was dissolved by the state government in December 2015; with plans to replace it with a state primary health care board. Going forward, it will be vital for any new organisational arrangement to factor in the need to create an enabling governance landscape for Jigawa's contribution to the achievement of Nigeria's National Malaria Strategic Plan (2014 – 2020).

Jigawa's malaria technical working group (TWG) developed and reviewed the AOP for each year, between 2013 and 2016 in addition to developing the 2016 AOP and the 2017/2018 multi-year plan for malaria. Additionally, SuNMaP has supported the following:

- Coordination of all partners in the state
- 352 officials trained on programme management
- Review and revision of the integrated supportive supervision (ISS)/on-the job capacity building (OJCB) framework. SuNMaP was unable to proceed with the training of the various tiers of ISS/OJCB teams to enable them implement the revised framework and tools.

Other programmes currently supporting the health sector of Jigawa State include Maternal, New-born and Child Health Programme (MNCH2), Working to Improve Nutrition in Northern Nigeria (WINNN), Child Development Grants Programme (CDGP), Sanitation, Hygiene and Water Programme in Nigeria (SHAWN) and Women for Health (W4H).

## Cost implications

The state government, SuNMaP, MNCH2, WINNN, CDGP, SHAWN and W4H have contributed immensely to the delivery of malaria interventions in Jigawa. The state government's allocation of resources to malaria has improved over time as a result of increased advocacy to key stakeholders and the successful building of political will. However more funds for malaria are needed for the implementation of malaria control and elimination interventions in the state.

SuNMaP has spent a total of £728,379 over the course of four years in the state. This breaks down into £606,527 for activities and £121,852 for operational costs. Moreover, the programme spent over £665,455 on commodity procurement for the state.

## Best practices

Global best practices such as value for money, contextualisation, coordination and harmonisation as well as stakeholder engagement were adapted to local context and mainstreamed into all aspects of SuNMaP support in Jigawa State. Additionally, the proximity of Jigawa and Yobe States provided an opportunity for SuNMaP to implement the concept of surrogacy.

### Surrogacy

DFID approved the expansion of SuNMaP to Jigawa, Enugu, Kaduna and Yobe states at the same time. While support to the other three states started in early 2012, security challenges resulting from the Boko Haram insurgence in Yobe State stalled their own start until very late in 2013. Even then, the fragility of the implementing environment there led to the decision that Dutse in Jigawa State should serve as the surrogate base for SuNMaP's technical assistance personnel, offices and operations. Since January 2015, Technical Malaria Manager (TMM) for Jigawa State has also taken up the position of TMM for Yobe State.

### Value for Money (VfM)

Value for Money (VfM) ensured getting the desired quality at the lowest price to maximise the impact of every expenditure on poor people's lives. It meant operating systems that helped managers to make more informed, evidence-based choices in transparent and accountable ways. It mainstreamed efficiency and effectiveness into SuNMaP's operations and sought to influence Jigawa State to implement the same principles. For instance, in order to sustain a transparent procurement process, a precondition for engaging local vendors was ownership of corporate identity and official invoices and receipts.

### Contextualisation

SuNMaP's overarching principles of national and state level engagement with stakeholders were in most cases, tweaked in the context of local realities, e.g. the radio broadcast of key messages on malaria prevention, diagnosis and treatment in Hausa language.

## Coordination and harmonisation

The introduction of a state-led AOP process for malaria programme late 2012 in Jigawa State, which involved a wide range of stakeholders from partners, agencies, LGAs and the private sector, provided a platform for harmonisation of key stakeholders' efforts and proper coordination of partner's interventions, thereby curtailing previous overlap, wastages and duplication of efforts by stakeholders. This process is separate from the periodic coordination meetings at state and LGA levels, including the facilitation of a partners' forum.

## Stakeholder engagement

Working with primary and secondary stakeholders characterised all the interventions. Technical assistance to the baseline assessment of 2012 was provided by a team of five consultants. The process, which was essentially a stakeholder focused needs assessment, ensured that Jigawa State officials worked hand in hand with the team of consultants. Even the development and periodic review of the implementation of the AOPs remains a strategic stakeholder engagement process.

# Annexes

## Annex 1: Jigawa State budget for malaria elimination activities (2016-2018)

The estimated total cost of malaria control activities in Jigawa between 2016 and 2018 is ₦ 950,388,432 (2016 - ₦315,953,600; 2017 - ₦316,901,462 and 2018 - ₦317,533,370). The estimated commitment from partners to malaria control activities in 2016 is 59 percent, and this drops to zero percent in 2017 – 2018 multi-year plan.

| Objective Area | 2016 (Amount) | | | 2017 (Amount) | | | 2018 (Amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| Malaria prevention | ₦ 1,098,900 | ₦ 2,564,100 | ₦ 3,663,000 | ₦ 3,673,989 | ₦ - | ₦ 3,673,989 | ₦ 3,681,315 | ₦ - | ₦ 3,681,315 |
| Malaria diagnosis | ₦ 2,956,950 | ₦ 6,899,550 | ₦ 9,856,500 | ₦ 9,886,070 | ₦ - | ₦ 9,886,070 | ₦ 9,905,783 | ₦ - | ₦ 9,905,783 |
| Treatment | ₦ 14,210,500 | ₦ - | ₦ 14,210,500 | ₦ 14,253,132 | ₦ - | ₦ 14,253,132 | ₦ 14,281,553 | ₦ - | ₦ 14,281,553 |
| ACSM | ₦ 6,306,700 | ₦ - | ₦ 6,306,700 | ₦ 6,325,620 | ₦ - | ₦ 6,325,620 | ₦ 6,338,234 | ₦ - | ₦ 6,338,234 |
| PSM | ₦ 58,756,750 | ₦ 176,270,250 | ₦ 235,027,000 | ₦ 235,732,081 | ₦ - | ₦ 235,732,081 | ₦236,202,135 | ₦ - | ₦236,202,135 |
| M&E | ₦ 15,726,600 | ₦ 1,733,600 | ₦ 17,460,200 | ₦ 17,512,581 | ₦ - | ₦ 17,512,581 | ₦ 17,547,501 | ₦ - | ₦ 17,547,501 |
| PM | ₦ 29,429,700 | ₦ - | ₦ 29,429,700 | ₦ 29,517,989 | ₦ - | ₦ 29,517,989 | ₦ 29,576,849 | ₦ - | ₦ 29,576,849 |
| **Total** | **₦ 128,486,100** | **₦ 187,467,500** | **₦ 315,953,600** | **₦ 316,901,462** | **₦ -** | **₦ 316,901,462** | **₦ 317,533,370** | **₦ -** | **₦ 317,533,370** |

## Annex2: Jigawa State budget for malaria elimination activities (2016-2018) - Percentage contribution from government and partners

| Objective area | 2016 (%) | | 2017 (%) | | 2018 (%) | | 2016 - 2018 (%) | |
|---|---|---|---|---|---|---|---|---|
| | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** |
| Malaria prevention | 30% | 70% | 100% | 0% | 100% | 0% | 77% | 23% |
| Malaria diagnosis | 30% | 70% | 100% | 0% | 100% | 0% | 77% | 23% |
| Treatment | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| ACSM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| PSM | 25% | 75% | 100% | 0% | 100% | 0% | 75% | 25% |
| M&E | 90% | 10% | 100% | 0% | 100% | 0% | 97% | 3% |
| PM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| **Total** | **41%** | **59%** | **100%** | **0%** | **100%** | **0%** | **80%** | **20%** |

While recognising that government funding of malaria in the state has increased over the years, to sustain and possibly increase the current level of malaria control efforts, the government will need to further increase its funding of malaria and advocacy for resource mobilisation from partners and private sector.

# Working together to combat malaria

**A synopsis of Support to National Malaria Programme (SuNMaP) contributions to malaria elimination efforts in Kaduna State, Nigeria 2012-2016**

## Acknowledgements

SuNMaP is grateful to the Kaduna State Commissioner of Health, Permanent Secretary, Director of Public Health and the State Malaria Elimination Programme (SMEP) Manager for their time and contribution towards the production of the sustainability and exit reports. SuNMaP's journey in the state has been enriching and it was a pleasure to work with all involved. This document serves as the legacy of the programme in Kaduna state. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in the state.

**Dr Femi Owoeye**
**SuNMaP Programme Director**

# Contents

## Abbreviations and acronyms

| | |
|---|---|
| ACOMIN | Association of Community -based Organizations on Malaria, Immunization and Nutrition |
| ACT | artemisinin-based combination therapy |
| ACSM | advocacy, communication and social mobilisation |
| AOP | annual operational plan |
| CBOs | community based organisations |
| CHAI | Clinton Health Access Initiative |
| DfID | Department for International Development |
| DHIS | District Health Information System |
| DPH | Director Public Health |
| DPRS | Directorate of Planning Research and Statistics |
| DMA | Drug Management Agency |
| FHI | Family Health International |
| HMIS | Health Management Information System |
| IPT | intermittent preventive treatment |
| ISS | integrated supportive supervision |
| LGA | local government area |
| LLINs | long lasting insecticide treated nets |
| LMIS | Logistics Management Information Systems |
| MDA | Ministries, departments and agencies |
| M&E | monitoring and evaluation |
| MNCH | maternal, neonatal and child health |
| mRDT | malaria rapid diagnostic tests |
| NDHS | National Demographic Health Survey |
| NMSP | National Malaria Strategic Plan |
| NRHM | Nazarene Rural Health Ministry |
| OICs | officers-in-charge |
| OJCB | on-the- job capacity building |
| PATHS | Partnership for Transforming Health System |
| PHC | primary health care |
| SMCP | State Malaria Control Programme, |
| SMEP | State Malaria Control Elimination Programme, |
| SMoH | State Ministry of Health |
| SFH | Society for Family Health |
| SuNMaP | Support to National Malaria Control Programme |
| UNICEF | United Nations Children's Fund |

## Background and introduction

The Support to National Malaria Programme (SuNMaP) is an eight-year programme (2008-2016) funded by UK aid from the UK Government to help strengthen the delivery of malaria elimination interventions at national, state and Local Government Area (LGA) levels. SuNMaP's interventions were carried out at the national level and in ten states. The programme began its support to Kaduna State in 2012 along with Enugu, Jigawa and Yobe states as part of a scale up from an initial six States (Lagos, Anambra, Niger, Ogun, Katsina and Kano).


**Figure 1: SuNMaP focal states**

Other partners contributing to malaria elimination efforts in the state include the Society for Family Health (SFH), Clinton Health Access Initiative (CHAI) United Nations Children's Fund (UNICEF), Family Health International 360 (FHI360) and Nazarene Rural Health Ministry (NRHM). The state recently became a Global Fund sub-recipient.

As SuNMaP closes out, this report provides a summary of four years of engagement in Kaduna State. It reviews the situation at the inception of the programme and provides a snapshot of the current situation, including SuNMaP contributions. This brief also contains some of the lessons learnt while employing overarching best practices to deliver the programme's six core outputs of capacity building, harmonisation, prevention of malaria, treatment of malaria, awareness and demand creation and operational research. There are also recommendations to help the state sustain the gains and contribute to the achievement of targets envisaged in the National Malaria Strategic Plan (2014-2020).

## Programme management

At baseline, the Kaduna State Malaria Control Programme (now called the Kaduna State Malaria Elimination Programme, or SMEP) was made up of poorly defined units and had only four dedicated technical staff. Coordination of activities was weak and there were no clearly articulated plans. SuNMaP's support aimed to improve on the existing structures and build staff capacity for malaria programme management, policy development, planning and coordination at state and LGA levels.

To achieve this, the programme went beyond traditional training events and employed multiple approaches: coaching, mentoring, and hands-on-support. SuNMaP supported a series of programme management trainings for the State Ministry of Health (SMoH), SMEP, heads of hospitals and officers-in-charge (OICs) of Primary Health Care facilities (PHCs), building their capacity for planning, supervision, record keeping and programme monitoring. A total of 49 state level staff and 318 OICs were trained over a two-year period. The majority of the trainings were generic and could be applied to other contexts outside malaria.

### Key achievements

**In-state capacity for technical oversight:** Currently the SMEP has a total of 37 dedicated technical staff and units are better defined.

**Table 1: Kaduna State SMEP units and staffing**

| Year | 2012 | | 2015 | |
|---|---|---|---|---|
| Number of units | 4 | | 6 | |
| Description and staffing | Unit | No. of staff | Unit | No. of staff |
| | Case management | 1 | Programme management | 3 |
| | Intermittent preventive therapy | 1 | Case management | 7 |
| | Insecticide treated nets | 1 | Intermittent preventive therapy | 7 |
| | Rapid diagnosis and treatment | 1 | Integrated vector management | 5 |
| | Support | 18 | Advocacy, communication and social mobilisation | 5 |
| | | | Monitoring & evaluation | |
| | | | Logistics | 5 |
| | | | Support | 2 |
| Total No. of staff | 22 | | 40 | |
| Proportion of technical staff | 18 | | 93 | |

One of the programme's strategies for sustainability was the training of state-based facilitators and consultants who would provide technical support for continuous capacity building beyond the lifespan of the program.

**Table 2: List of state facilitators**

| No. | Name | Rank | Institution |
|---|---|---|---|
| 1 | Dr Nuhu Butawa | Director of Planning, Research and Statistics | SMoH |
| 2 | Lawal Abubakar | Deputy Director of Public Health | SMoH |
| 3 | Dr Lawal Haliru | Consultant Paediatrician | Barau Dikko Teaching Hospital/ SMoH |
| 4 | Stanley Shemasha | Deputy Director of Public Health | State Ministry of Local Government |
| 5 | Ibrahim Yusuf Mohammed | - | State Ministry of Finance |
| 6 | Dr Sanni Hammad | Medical Officer | SMoH |

The state has six such facilitators from the SMoH and related ministries, departments and agencies (MDAs) who have the skills to coordinate planning and other malaria programme management interventions.

**Annual Operational Plan (AOP):** At the state level, there has been a remarkable improvement in the capacity for operational planning. The SMEP has moved from just producing activity schedules as observed during the baseline assessment, to having comprehensive annual plans with detailed budgets that all partners can buy into. So far, the state has developed AOPs each year, from 2013 to 2016, as well as multi-year implementation frameworks for 2017 and 2018. These plans are reviewed biannually to assess progress in implementation and to identify and address challenges. A persistent challenge, however, has been the poor commitment of the State Government to fulfilling its obligations as outlined in the AOP; reportedly, in the last two years, the State Government did not release any funds for implementation of activities in the AOP.

**Integrated supportive supervision (ISS):** ISS is a harmonised supervisory system driven by a supervisory team from as many initiatives and programmes as possible, ensuring that managers are in the field on a regular basis to check the performance of subordinates and help them to improve where necessary. It is guided by a framework which defines the leadership and coordination of activities at the state, LGA and hospital levels, composition of supervisory teams, implementation and feedback mechanisms. At each level, supportive supervision is provided for both management teams and individual staff.

In the latter half of 2014, SuNMaP facilitated the review and update of the State Integrated Supportive Supervision / On-the-Job Capacity Building (ISS/OJCB) framework developed in 2008 with support from the Partnership for Transforming Health Systems (PATHS2). Tools were harmonised and capacity built for smooth implementation in collaboration with the Maternal, Neonatal and Child Health (MNCH2) programme. Table 4 summarises the State ISS coordination structure. Although implementation is yet to take off, the SMoH has secured a line for ISS in its 2016 budget.

**Table 3: Kaduna State ISS coordination structure**[1]

| S/N | ISS Coordinating Committee chaired by the Permanent Secretary (PS). | Seven-member Technical Working Group, chaired by the State ISS/OJCB Desk Officer |
|---|---|---|
| 1 | ISS/OJCB Coordinator | Desk Officer (most Senior Deputy Director in the Department of Planning, Research and Statistics) |
| 2 | All directors SMoH | Chairman PHC Coordinators' Forum |
| 3 | All directors | Representative of SPHCA |
| 4 | SPHCA and DMA | Representative of DMA |
| 5 | Director and Deputy Director PHC MLG | Deputy Director Public Health Disease Control |
| 6 | Director and DD PHC LGSC | Deputy Director Nursing Services |
| 7 | ISS/OJCB Desk Officer | Representative of Partners |
| 8 | Chair and Secretary PHC Coordinators' Forum | |
| 9 | Representative of Civil Society Organizations and Partners | |

## Malaria prevention, diagnosis and treatment

SuNMaP played a major role in the provision of malaria commodities such as artemisinin-based combination therapies (ACTs), malaria rapid diagnostic tests (mRDTs), Sulphadoxine Pyrimethamine (SPs) and long lasting insecticide-treated nets (LLINs). In addition to procuring commodities, the programme facilitated the distribution of the commodities to 510 health facilities, ensuring availability.

The Global Fund also played a significant role in this regard.

SuNMaP supported the establishment of the Malaria Commodities Logistics System in the Kaduna State Drug Management Agency (DMA) and conducted logistics management information systems (LMIS) trainings to ensure proper quantification and requisition at state and LGA levels.

A comprehensive training package on malaria case management, microscopy and the use of mRDTs was put in place to build the capacity of health care workers for effective delivery of malaria prevention, diagnostic and treatment services.

[1] Kaduna State Ministry of Health; Implementation framework for ISS/OJCB of Public Sector Health Workers in Kaduna State

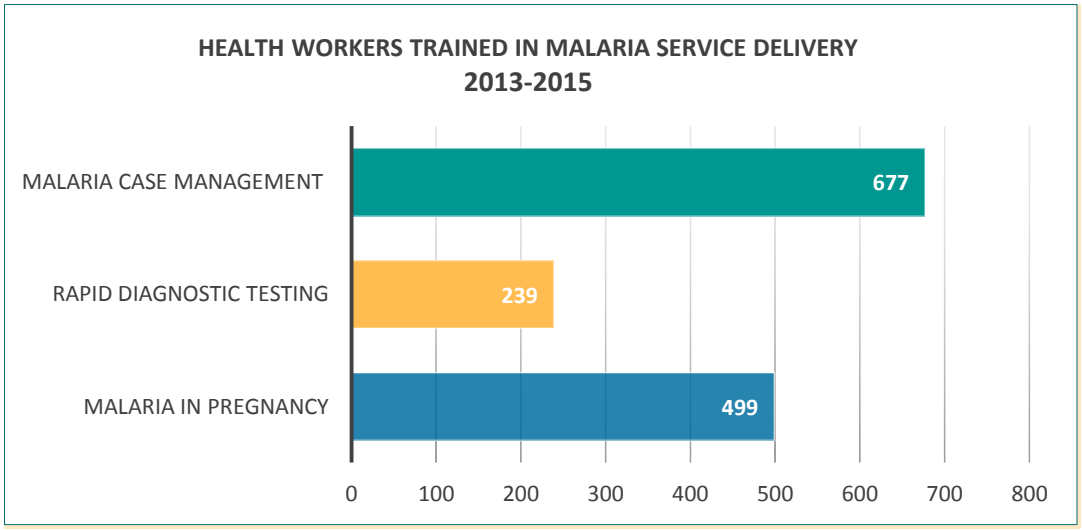



**Figure 2: Health workers trained by SuNMap on malaria service delivery**

In 2015, the programme supported the state to put in place a diagnostic quality assurance mechanism in order to maintain quality of malaria parasite testing.

**Key achievements**

Between 2012 and 2013, the programme has distributed a total of 557,500 mRDTs, 554,094 ACTs, 427,223 doses of SPs and 450,000 LLINs. Parasitological diagnosis before treatment has also improved significantly and the support for the provision of ACTs has contributed to increased access to appropriate treatment for malaria in Kaduna State.

| Indicator (DHIS) | 2013* | 2014* |
|---|---|---|
| Percentage of pregnant women who receive LLINs during antenatal care visits | 23 | 46 |
| Percentage of persons presenting at health facility with fever who received a diagnostic test (mRDT or microscopy) for malaria | 29 | 69 |
| Percentage of persons that tested positive for malaria at health facility (uncomplicated or severe) that received antimalarial treatment according to national treatment guidelines | 33 | 100 |

**Table 4: Utilisation of malaria preventive, diagnostic and treatment services.** [2]

> *"Distribution of ACTs make them available at the facilities, and this encourages the community to seek treatment from the facilities instead of going to chemists"* - ***Hajara Usman Ahmed, malaria focal person, Chikun.***

[2] Kaduna State Ministry of Health; DHIS 2013, 2014

## Advocacy, communication and social mobilisation

The 2008 National Demographic Health Survey (NDHS) indicated low use of LLIN and other malaria control commodities in Nigeria. Specifically, LLIN use among children under five years was 4.1 percent and 4.2 percent among pregnant women; just as the average use of two doses of SPs for prevention of malaria in pregnancy was 7.4 percent in the Northwest region, where Kaduna State is located (NDHS, 2008). Since 2012, when SuNMaP commenced support to malaria programme in Kaduna state, a series of communication and learning activities were planned and implemented in collaboration with partners. The highlights of the key interventions in Lagos state were as follows:

- Formative research was conducted to gauge the knowledge, attitudes and perceptions of community members, and the related factors regarding malaria prevention and control in the state. The findings of the formative research provided explanations of the findings of the NDHS 2008 for the Northwest region
- The state Malaria Advocacy, Communication and Social Mobilisation (ACSM) Committee was formed to serve as the structure for the design and review of demand creation activities in the state. Members of the committee were drawn from the state Ministry of Health and non-governmental organisations (NGOs) including the Association of Community-based Organizations on Malaria, Immunization and Nutrition (ACOMIN) and other community based organisations (CBOs).
- ACSM committee members were trained in strategic communication and mobilised to create awareness and engage with community stakeholders in order to improve acceptance, use and demand for malaria interventions.
- The community level ACSM activities to improve acceptance, use and demand for malaria interventions were planned and delivered by the ACSM committee of the SMEP, and the programme implementing partners (PIPs) in SuNMaP. In Kaduna state, the PIPs consisted of the Health Reform Foundation and Christian Health Association of Nigeria (CHAN) and the Federation of Muslim Women Association of Nigeria (FOMWAN)
- Role model caregivers selected from within target communities were also trained to provide support for management of malaria at community level.
- Social and behaviour change communication (SBCC) materials were designed, developed, produced and distributed. They were produced in various print and electronic formats, and in Hausa, the popular language, to address the needs of priority audiences.
- SuNMaP supported the SBCC component of the LLIN replacement campaign. In 2015, the demand creation work stream team was selected and trained to provide pre- and post-campaign demand creation support.
- The messages for routine malaria prevention and treatment were disseminated in different formats of print materials, on radio and television. Print materials include poster leaflets and charts, while radio messages were delivered as radio and TV spots, magazines and dramas. The messages on radio and television reached an estimated annual coverage of over eight million.
- Routine advocacy and demand creation activities at clinic and community levels were conducted in the focal LGAs where clinic-based health workers have been trained in malaria

service delivery. These activities and the related referral of caregivers and other community members to the health facilities was one of the means of linking the prevention and treatment aspects of SuNMaP.

- The annual commemoration of World Malaria Day-, supported by SuNMaP, provided an opportunity to work with other partners to conduct advocacy and mobilisation activities, especially at the community level.
- Feedback on the ACSM interventions were obtained through community level assessments (CLAs).

**Key achievements**

Knowledge of intermittent preventive treatment (IPT) and uptake of preventive measures is gradually increasing compared to previous years. This, in addition to support for the provision of SPs in antenatal clinics has contributed to increased IPT uptake in pregnancy in Kaduna State – from under 10 percent in 2012[3] to 34.2 percent in 2014.[4] The use of LLINs has also shown some improvement – the post-campaign survey showed a net retention and ownership rate of 53.3 percent,[5] an increase from the 2013 value of 24.4 percent.

[3] Kaduna State Baseline Report, 2012

[4] Kaduna State Ministry of Health; DHIS 2014

[5] Post LLIN Campaign report 2015

## Monitoring and evaluation

One of the key gaps identified at the onset of programme implementation was the weakness in routine reporting systems in the state. At baseline in 2012, only 36 percent of the 961 facilities in the state were reporting with the NMCP data collection tools and there was no designated Monitoring and Evaluation (M&E) Officer in the then-RBM unit. Coordination of M&E efforts amongst partners was weak and fragmented. To build capacity and facilitate harmonisation of M&E activities, SuNMaP supported monthly meetings of malaria focal persons from the 23 LGAs. These meetings provided opportunities for supportive supervision, training, data collection and harmonisation.

In collaboration with the Maternal and Child Health II (MNCH II) programme, SuNMaP provided logistical support for the quarterly meetings of the LGA M&E Officer. SuNMaP also supported data quality assessment exercise across all LGAs in the State.

### Key achievements

The SMEP now has six designated M&E officers and the state has recorded a marked improvement in reporting malaria data with 92 percent of facilities in the state reporting by 2014. Completeness of reports has also improved (57 percent). The results of the Data Quality Assurance exercise conducted in the last quarter of 2014 showed an impressive level of data availability and consistency.

**Figure 3: Monthly meeting of RBM focal persons**

The monthly meetings have helped develop the computing skills of RBM focal persons. This will greatly facilitate transition to an electronic reporting system as with the DHIS.

> *"We can now prepare and send data and reports by email"* – ***Ibrahim Balarabe, RBM Focal Person, Giwa.***

## Best practices

***Active stakeholder engagement***

Consultation with state policymakers and other implementers was a critical step in all SuNMaP's activities in Kaduna State. This was achieved through well-planned entry meetings before activities and validation meetings with decision makers to achieve consensus on delivery of interventions and implementation strategies. Documenting dissemination events created awareness amongst key players and encouraged buy-in.


**Figure 4: 2015 AOP dissemination meeting**

***Contextualisation***

All SuNMaP interventions and methods are people-centered and customised to respond to the context, divergences, peculiarities and priorities of the intended beneficiaries. This facilitates ownership and commitment. The state ISS framework is a good example.

***Inclusive planning***

The annual operational planning and review process goes beyond the SMoH to all other related MDAs whose actions have a direct or indirect influence on malaria elimination efforts, e.g. the DMA and Ministry of Economic Planning. Representatives of such MDAs are incorporated into technical working groups and trained as facilitators.

***Harmonisation***

SuNMaP sponsored partner coordination meetings, provided a platform for partners to synergise activities, complementing and supplementing funds where necessary. Harmonisation of partner efforts towards malaria elimination reduced duplication and enabled wider coverage of services. For example, in 2014, SuNMaP collaborated with Health System Reform Organization of Nigeria (HERFON) and the Global Fund to carry out community sensitisation in 20 LGAs on malaria related issues – far beyond the programme's target of six LGAs. Trainings on ISS were co-funded by the MNCH II programme who plan to leverage the ISS structures to improve delivery of their interventions.

## Lessons learnt

Two key lessons learnt from the implementation of programme interventions in Kaduna State are:

1. The impact of health system strengthening interventions such as capacity building and supportive supervision are difficult to evaluate, especially in the short-term, but they add a lot of value and create an enabling environment for service delivery. In addition, they should be applied globally were possible. SuNMaP's capacity building interventions were restricted to 25 percent of the LGAs in the state – a rather small proportion for it to make significant state-wide impact.
2. Government funding of health programmes can come through multiple mechanisms, which may or may not be domiciled in the Ministry of Health. This should be taken into consideration when assessing State Government spending or planning supportive interventions. In Kaduna State, for instance, the government's commitment to malaria elimination is through its War Against Malaria Programme, which resides in the state DMA. Malaria commodities are also provided through the state maternal and child health programme.

## Recommendations

The State's commitment to the procurement of malaria commodities for combating malaria is commendable, but more effort has to be put into ensuring that the Government's priorities are holistic and align with global best practices. The AOP contains current, scientifically proven, priority global and national strategies for malaria elimination and should therefore serve as a reference for planned malaria-related interventions.

While the SMEP appears to be adequately staffed, 93 percent of the 'technical staff' have only a diploma and approximately 60 percent of these obtained their qualifications over eight years ago. Over 80 percent of the staff are community or environmental health technicians. There are no medical doctors or pharmacists. Much has to be done to ensure continuous capacity building and that appropriately qualified staff are assigned to roles in the different units if the state is to win its fight against malaria. It is also recommended that the state organise the programme units to suit the recommendations of the National Coordination Framework once this has been finalised at the national level.

# Annex

## Kaduna state budget for malaria elimination activities (2016 - 2018)

The estimated total cost of malaria control activities in Kaduna between 2016 and 2018 is ₦1,143,394,107 (2016 - ₦6,402,650; 2017 - ₦12,706,260 and 2018 - ₦6,722,783). The estimated commitment from partners to malaria control activities in 2016 is 42 percent. However, there is no partner commitment beyond 2016.

| Objective area | 2016 (amount) | | | 2017 (amount) | | | 2018 (amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| **Malaria prevention** | **Government** | **Partners** | **Total** | **Government** | **Partners** | **Total** | **Government** | **Partners** | **Total** |
| **Malaria diagnosis** | ₦ 5,136,500 | ₦ 5,192,000 | **₦ 10,328,500** | ₦ 6,722,783 | ₦ - | **₦ 6,722,783** | ₦ 12,190,080 | ₦ - | **₦ 12,190,080** |
| **Treatment** | ₦ 4,818,200 | ₦ 4,325,050 | **₦ 9,143,250** | ₦ 44,910,201 | ₦ - | **₦ 44,910,201** | ₦ 9,600,413 | ₦ - | **₦ 9,600,413** |
| **ACSM** | ₦ 21,248,050 | ₦ - | **₦ 21,248,050** | ₦ 271,182,240 | ₦ - | **₦ 271,182,240** | ₦ 8,568,000 | ₦ - | **₦ 8,568,000** |
| **PSM** | ₦ 6,769,050 | ₦ - | **₦ 6,769,050** | ₦ 11,519,613 | ₦ - | **₦ 11,519,613** | ₦ 7,929,453 | ₦ - | **₦ 7,929,453** |
| **M&E** | ₦ 154,730,000 | ₦ 103,538,800 | **₦ 258,268,800** | ₦ 17,291,925 | ₦ - | **₦ 17,291,925** | ₦ 291,567,570 | ₦ - | **₦ 291,567,570** |
| **Programme management** | ₦ 22,892,700 | ₦ 37,021,160 | **₦ 59,913,860** | ₦ 9,600,413 | ₦ - | **₦ 9,600,413** | ₦ 60,808,213 | ₦ - | **₦ 60,808,213** |
| **Total** | ₦ 1,665,000 | ₦ 4,737,650 | **₦ 6,402,650** | ₦ 12,706,260 | ₦ - | **₦ 12,706,260** | ₦ 6,722,783 | ₦ - | **₦ 6,722,783** |

## Kaduna State budget for malaria elimination activities (2016 - 2018) - percentage contribution from Government and partners

| Objective area | 2016 (%) | | 2017 (%) | | 2018 (%) | | 2016 - 2018 (%) | |
|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Government | Partners | Government | Partners | Government | Partners |
| Malaria prevention | 50% | 50% | 100% | 0% | 100% | 0% | 82% | 18% |
| Malaria diagnosis | 53% | 47% | 100% | 0% | 100% | 0% | 93% | 7% |
| Treatment | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| ACSM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| PSM | 60% | 40% | 100% | 0% | 100% | 0% | 82% | 18% |
| M&E | 38% | 62% | 100% | 0% | 100% | 0% | 72% | 28% |
| PM | 26% | 74% | 100% | 0% | 100% | 0% | 82% | 18% |
| **Total** | **58%** | **42%** | **100%** | **0%** | **100%** | **0%** | **86%** | **14%** |

While recognising that government funding of malaria in the state has increased over the years, there will need to be a further increase of funding for malaria as well as advocacy for resource mobilisation from partners and the private sector.

# Working together to combat malaria

**A Synopsis of SuNMaP (Support to National Malaria Programme)**

**Contributions to Malaria Elimination Efforts in Kano State**

**2008-2016**

## Contents

## Abbreviations and acronyms

| | |
|---|---|
| **AA** | Artesunate-amodiaquine (ACT) |
| **ACSM** | Advocacy, communication and social mobilisation |
| **ACT** | Artemisinin based combination therapy |
| **AL** | Artemether-lumefantrine (ACT) |
| **ANC** | Ante-natal clinics/centres |
| **AOP** | Annual Operational Plan |
| **CHAI** | Clinton Health Access Initiative |
| **DFID** | Department for International Development / UK aid |
| **DHIS** | Health Management Information System (DHIS 2.0) |
| **GFATM** | Global Fund to Fight AIDS, Tuberculosis and Malaria |
| **IPTp** | Intermittent preventive treatment in pregnancy |
| **ISS** | Integrated supportive supervision |
| **LGA** | Local government area |
| **LLINs** | Long lasting insecticidal nets |
| **MNCH-2** | Maternal neonatal child health-2 |
| **mRDT** | Rapid diagnostic test for malaria |
| **NDHS** | Nigeria Demographic Health Survey |
| **NHMIS** | National Health Management Information System |
| **NMEP** | National Malaria Elimination Programme |
| **NMSP** | National Malaria Strategic Plan |
| **OJCB** | On the job capacity building |
| **PATHS 2** | Partnership for Transforming Health Systems (DFID funded programme) |
| **PHC** | Primary health care |
| **PIU** | Project Implementation Unit |
| **PPMV** | Patent and proprietry medicine vendor |
| **SBCC** | Social behaviour change communication |
| **SFH** | Society for Family Health |
| **SMCP** | State Malaria Control Programme |
| **SMEP** | State Malaria Elimination Programme |
| **SMoH** | State Ministry of Health |
| **SP** | Sulphadoxine Pyrimethamine |
| **SuNMaP** | Support to National Malaria Programme |

## Acknowledgements

SuNMaP is grateful to the Kano State Commissioner of Health, Permanent Secretary, Director Public Health and the SMEP Manager for their time and contribution towards the production of the sustainability and exit report. SuNMaP's journey in the state has been enriching and it was a pleasure to work with all involved. This document serves as the legacy of the programme in Kano state. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in the state.

**Dr Femi Owoeye**
**SuNMaP Programme Director**

# Background

Nigeria accounts for 25 percent of the world's disease burden for malaria with an estimated 60 percent of outpatient visits, 30 percent of hospital stays and a death of 300,000 Nigerians annually, of which 250,000 are children.

Support to National Malaria Programme (SuNMaP), is an eight-year (2008- 2016) £89 million programme funded by the Department for International Development (DFID) / UK aid. With a mandate to support Nigeria achieve an ambitious scale up of malaria results, SuNMaP started supporting the National Malaria Control Programme (NMCP), now National Malaria Elimination Programme (NMEP), across 10 states. These included Anambra, Kano and Lagos (since September 2008); Katsina, Niger and Ogun States (since June 2009). Others are Jigawa, Enugu and Kaduna (since early 2012) and Yobe, since 2013.

At the national level and in each state, the programme's support commenced with a rapid baseline capacity needs assessment[1] for malaria control. The findings informed the development of strategies to address the identified weaknesses in capacity, resources and systems through the provision of long and short-term technical assistance. In addition, two health facility assessments and laboratory assessments were conducted in 2009, 2012 and 2013 respectively; these further informed the strategic direction of the programme, strengthening integration of malaria interventions (preventive and curative) into routine service delivery. Early in 2014, a rapid capacity re-assessment of nine of the 10 focal states (excluding Yobe) was commissioned to inform the programme's pre-closure work-plan and, ultimately, its exit and sustainability plan.

SuNMaP provided a full range of support across its core outputs, each of which focused on one element of comprehensive malaria control and elimination, these were:

1. Capacity building for policy development, planning and coordination
2. Harmonise cross-agency support for the malaria control
3. Increase coverage of effective measures for malaria prevention
4. Improve the population's access to effective malaria treatment
5. Enhance community awareness and demand for effective malaria treatment and prevention
6. Operational research to gather evidence and its use in programme implementation.

It also provided additional support to data management strengthening of National Health Management Information System (NHMIS).

SuNMaP support cut across the whole state. The health system strengthening activities, such as Annual Operational Planning (AOP), Integrated Supportive Supervision (ISS) and On the Job Capacity Building (OJCB), as well as demand creation and commodity distribution, affected the entire state health sector. However, some specific interventions roll out were restricted to 11 (25 percent) out of the 44 local government areas (LGAs) of Kano State. These focal LGAs were Bichi, Kiru, Gwale,

[1] The baseline assessment data was collected through appraisal and discussion visits to Federal/State/LGA agencies; Service delivery points; partners, public, private and commercial sector managers; focus group discussions. Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DFID. The appraisal tool was adapted from the SuNMaP basic information collection tool; PPRHAA (peer, participatory rapid health appraisal and action) tools for appraising management boards and the RBM (Roll Back Malaria) needs assessment and planning tool by the World Health Organization and Malaria Consortium, August 2003.

Kunchi, Makoda, Nassarawa, Tsanyawa, Dogowa, Rogo, Tarauni and Tudun Wada. At the start of the programme, it was envisaged that the state and other partners supporting the state would close the gap in the remaining 33 LGAs.

As SuNMaP closes out, this is an executive summary[2] of eight years of engagement in Kano State. It reviews the situation at the inception of the programme and provides a snapshot of the current situation, including SuNMaP contributions. This brief also contains some of the lessons learnt while employing overarching best practices to deliver the programme's six core outputs. There are recommendations to help the state sustain the gains and contribute to the achievement of targets envisaged in the National Malaria Strategic Plan (2014-2020).

[2] Data for this Executive Summary was collected, analysed and written up by a national consultant. The methodology included FGDs and key informant interviews of government officials, partners and SuNMaP staff. The field work was preceded by a desk review of secondary data and SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 and 2015.

## Malaria situation in Kano State at the start of SuNMaP

At baseline, Kano State had made considerable efforts to streamline the multiplicity of plans and increase efficiency in the application of resources for the good of the citizenry. Three major policy documents were in place (1) The Kano State Roadmap for Quality[3] (2) The 2009 – 2019 Kano State Health Sector Strategic Plan (HSSP)[4] and (3) Kano State 2011 Operational health plan which had been supported by the Federal Ministry of Health and other partners. Additionally, there was a Booster Project draft work plan for 2011[5]. To avoid duplication, encourage synergy, harmonisation, efficiency and value for money, the first Annual Operational Plan for malaria control in Kano, was harmonised with the booster plan.

Kano State was a recipient of the World Bank funded Malaria Control Booster project of US$17.5m from August 2007 to 2012. However, the project was terminated by the state government a year before its scheduled exit date. This resulted in poor transition from the project to the new State Malaria Control Programme (SMCP) with a resultant loss of capacities that were built over the years as the implementation team was replaced with new SMCP team members.

The State government adopted the NMEP (formally called NMCP) policies and guidelines to inform their state policies on malaria. However, the SMCP capacity for policy development was inadequate. Although a donor coordination forum chaired by the Commissioner for Health was in place, coordination and harmonisation of activities was weak. The State also received support from partners such as the World Health Organization (WHO), UNICEF, EU-SRIK, USAID/COMPASS, Society for Family Health (SFH) and DFID on malaria control. The SMEP had nine personnel with no clearly defined job descriptions.

There was no clear statement of the role of the unit beyond the objectives of the World Bank booster project. Nevertheless, there was a five year World Bank generic work plan with no state developed AOP to inform implementation of activities. The 44 LGAs of the state each had a malaria focal person who reported to the Booster Project Implementation Unit (PIU).

Malaria activities were vertically implemented. The distribution of long lasting insecticidal nets (LLINs) was routinely carried out and campaigns and provision of intermittent preventive treatment with Sulphadoxine Pyrimethamine (SP) to pregnant women attending ante-natal clinics (ANC) in primary health care (PHC) facilities was of top priority and free. The State protocol for treatment was artemisinin-based combination therapy (ACT: artesunate-amodiaquine (AA) and artemether-lumefantrine(AL)), even though chloroquine was still in use. Laboratory personnel did not benefit from any systematic skills enhancement activities or regular supervision. Malaria rapid diagnostic tests (mRDTs) were not available.

Monitoring and evaluation (M&E) processes were unclear as various data collection tools were often unavailable. Malaria information appeared to be collected on separate reporting forms. There was

[3] ***Roadmap for Quality, Version 4.2, 14 May 2009; Kano State Government:*** A policy framework which gives clarity across the full portfolio of government programmes and projects.
[4] Kano State Government, the 2009 – 2019 Kano State Health Sector Strategic Plan (HSSP)
5 Kano State Ministry of Health, Kano State work plan for malaria control Booster Project (Jan-Dec 2010)

no active procurement unit. Although the health education unit of the State Ministry of Health (SMoH - also known as HECTIC) was very active in the fields of immunisation and maternal and child health, advocacy, communication and social mobilisation (ACSM) for malaria control was not one of their priorities. ISS and OJCB were not institutionalised. The state capital budget for malaria in 2007 was 7.5 million naira, while in 2008 it was three million. Actual release figures were not available. Although some members of the PIU had valuable experience in operational research, this was not true for all PIU members. Capacity building across thematic areas was at a minimal level.

Health care was provided in 958 public health facilities which included one tertiary hospital, 36 secondary hospitals, one comprehensive health centre, 120 primary health centres and 683 lower level health facilities (dispensaries and health posts). There were very few diagnostic services in the public or private sector outside the tertiary hospital and the general hospitals.

# Current situation and SuNMaP interventions

## Prevention of malaria

In line with the National Malaria Strategic Plan (NMSP), Kano State has continued to implement high impact integrated vector control interventions and prevention of malaria in pregnant women. Over the years, the state, with support from SuNMaP and the World Bank, distributed a total of 4,016,614 LLINs in 2009- 2010 (through two phases), of which 1,315,000 were procured by SuNMaP. In 2015, a total of 6,555,671 LLINs were distributed through a mass campaign to achieve universal coverage. Of these SuNMaP contributed 30 percent of the total, covering operational costs and providing technical support. Results from the end processes showed a 99 percent net card redemption rate and 99 percent net retention six months after the campaign[6].

In addition to LLIN distributions through mass campaigns, the programme also supported the state to implement continuous net distribution through ANC and Nigeria's Expanded Programme on Immunisation with a total of 984,216 LLINs distributed across the state to pregnant women and children under five years of age during antenatal and immunisation visits respectively. In total, over the years, the programme has supported the state with 4,279,966 LLINs and this has translated into an increase in net coverage in the state of over 91 percent (Kano Net Retention and Use Survey).

In the fight against malaria during pregnancy, the programme has procured and distributed 1,465,807 doses of SP and as result, there has been an increase in the number of women who took adequate intermittent preventive treatment in pregnancy (IPTp) from nine percent in 2008 to 48 percent in 2013 (NDHS 2008 and 2013). This evidence is further confirmed by results from NHMIS that shows great improvement in proportion of pregnant women who received IPTp on their first visit from below 10 percent in 2012 to above 35 percent in 2015 (figure 1).

[6] Kano Net Retention and Use Survey 2015

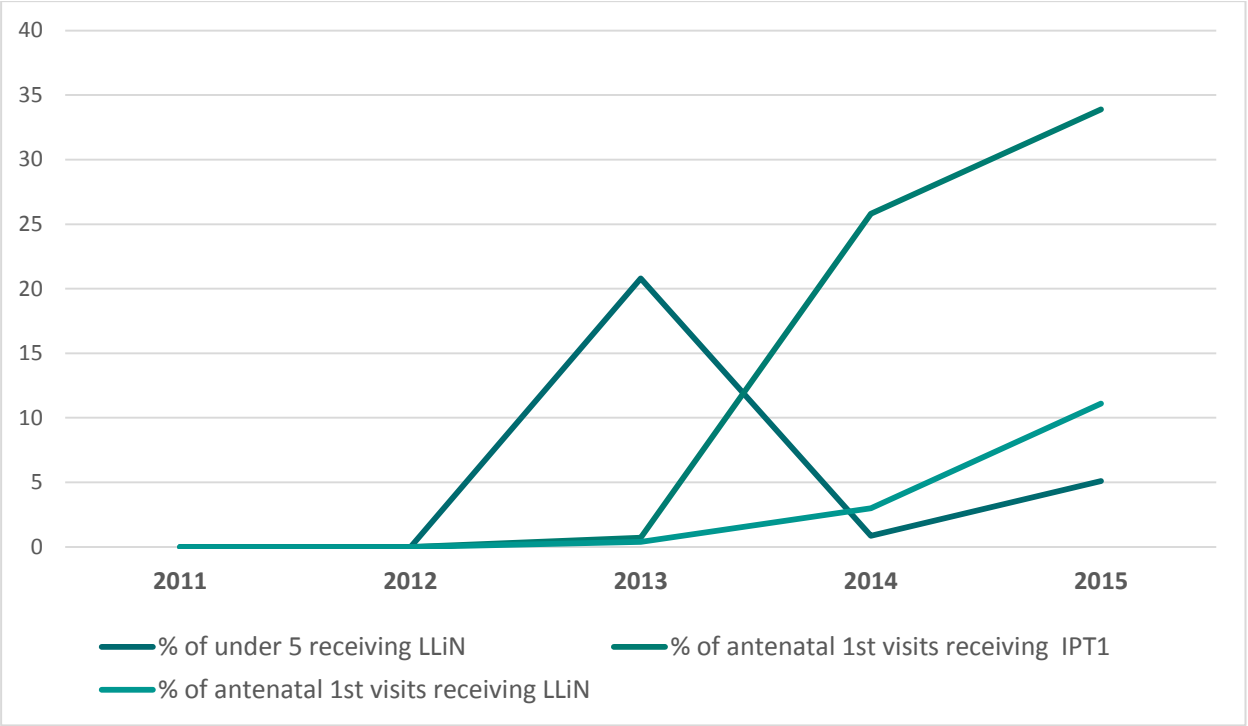



*Figure 1: Reported use of IPT1 and LLINs among pregnant women and children under five years*

## Malaria case management

As part of the NMSP, Kano State continued to implement parasitological based diagnosis of malaria. To this end, all state health facilities and a few primary health care centres are equipped laboratories or RDTs for malaria diagnosis. SuNMaP has provided technical assistance during state-funded training for 1,320 health workers on the use of mRDT kits and supported the training of 31 health workers on microscopy for the correct diagnosis of malaria. This has resulted in an increase in the proportion of fever cases being tested from less than five percent in 2012 to 57 percent in 2015 (NHMIS). In addition, 20 microscopes were donated to public facilities for malaria diagnosis and a cumulative total of 1,561, 600 mRDTs kits have been distributed to facilitate parasitological based diagnosis of malaria in the state.

In terms of confirmed malaria case treatment, ACTs are the main line of treatment. Available records indicate that of the 5.4 million doses of ACTs required in 2015, only 931,834 representing 17.3 percent, were supplied and only 659,280 doses were distributed to facilities. SFH was able to supply 1,449,220 doses of subsidised ACTs to patent and proprietry medicine vendors (PPMVs) and private facilities across the state. Similarly, the projected requirement for injectable artesunate for 2015 was 1.25 million vials but only 54,000 vials were made available at facilities. There are a total of 1,270 health facilities in the state comprising of 1,157 primary healthcare, 36 secondary (general hospital), two tertiary and 313 registered private health centres.

SuNMaP supported public health facilities with ACTs (1-4) amounting to 968,398 doses across the state. This support has resulted in an increase in the number of confirmed cases of malaria receiving ACTs from 55 percent in 2012 to 94 percent in 2015 (NHMIS).

Evidence from sentinel sites set-up by the programme to monitor malaria related morbidity in the state, shows a decline in the number of out-patient cases reported to be malaria cases (among children under five years of age) from 35 percent in 2012 to below 10 percent in 2015 (figure 2).

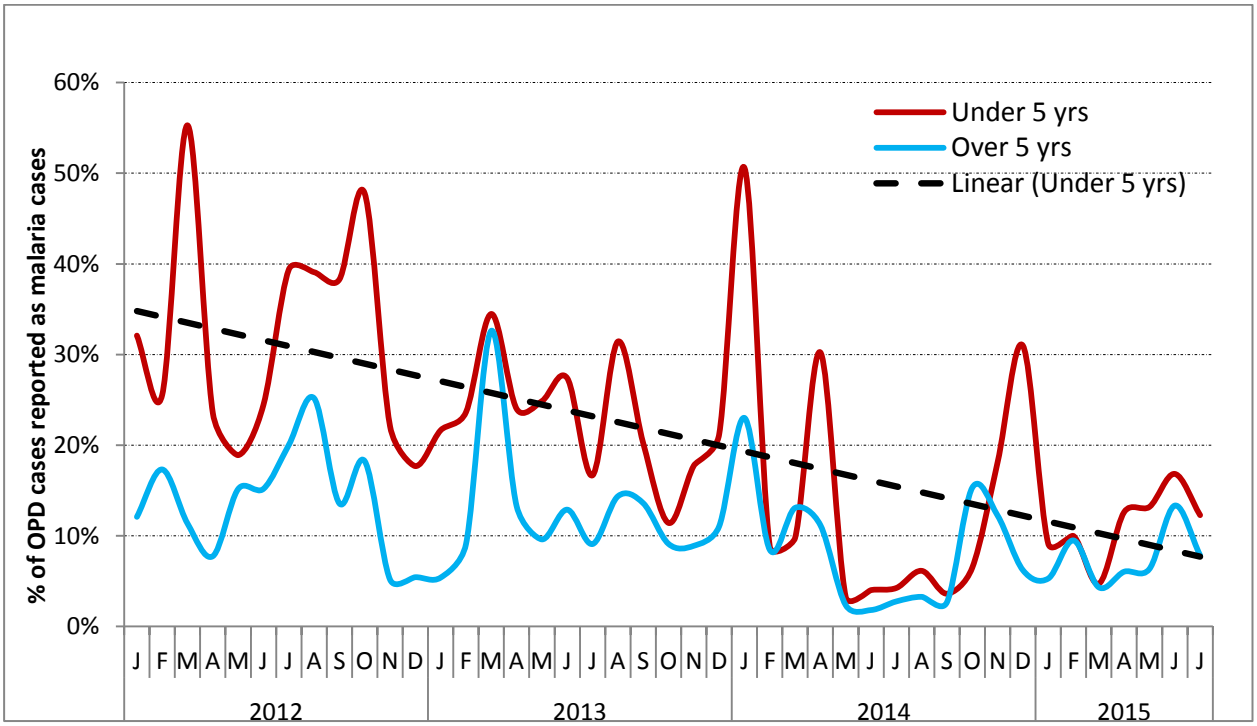



*Figure 2: Percent of out-patient department cases reported as malaria cases (source – SuNMaP Kano Sentinel Sites Data)*

To improve the knowledge and skills of the health workers to manage malaria better, a total of 48 doctors from public health facilities, six health care providers from private facilities and over 3,000 health workers were trained on malaria case management, contributing to above 80 percent coverage in the state. Thirty health workers (including 10 doctors and 20 nurses) from Aminu Kano teaching hospital were trained on severe malaria case management. OJCB on severe malaria case management was also carried out across 21 secondary health facilities.

## Malaria prevention and treatment using the commercial sector

With Kano State being a commercial hub for the northern region of the country, it was evident that a programme like SuNMaP had to support the commercial sector. Before commencement of this support, the programme conducted formative research that led to the design of our approach. This involved supporting the commercial sector to improve access to parasitological-based diagnosis, effective treatment and prevention, which entailed the use of a total-market model that harnessed the resources of the commercial sector to build and sustain the market for quality assured LLINs, RDTs and ACTs. The following interventions were undertaken by the programme in Kano:

- promoting LLIN through medical practitioners' associations (Nigerian Medical Association, National Association of Resident Doctors, Association of General and Private Medical Practitioners of Nigeria (AGPMPN)
- strengthening capacity for institutional sales and direct marketing

- strengthening distribution to urban, peri-urban and rural areas through ANCs and retail outlets (pharmacies and departmental stores)
- supporting the recruitment of in-store merchandisers for increased sales through supermarkets/ departmental stores
- strengthening rural distribution through PPMV association
- supporting market research
- supporting retail outlet expansion through the distribution and retail channel for mattresses.

Using this approach (making the market work for the poor model – M4P), the programme through its commercial sector partners sold 1,159,826 LLINs and 1,132,749 ACTs.

## Advocacy, communication and social mobilisation

The entry to malaria prevention and control in Kano state, was the LLIN distribution campaign, aimed at addressing the problem of very low ownership and use of LLINs. As at 2008, LLIN use among children under five years and pregnant women was 4.1 percent and 4.2 percent respectively. Similarly, IPTp uptake of two doses of Sulphadiazine Pyremethamine among pregnant women was 4.9 percent in the North West region where the state is located (NDHS, 2008). The need for effective strategies to create demand for these services was therefore urgent. The strategies and key interventions employed by the programme to address these gaps are highlighted below.

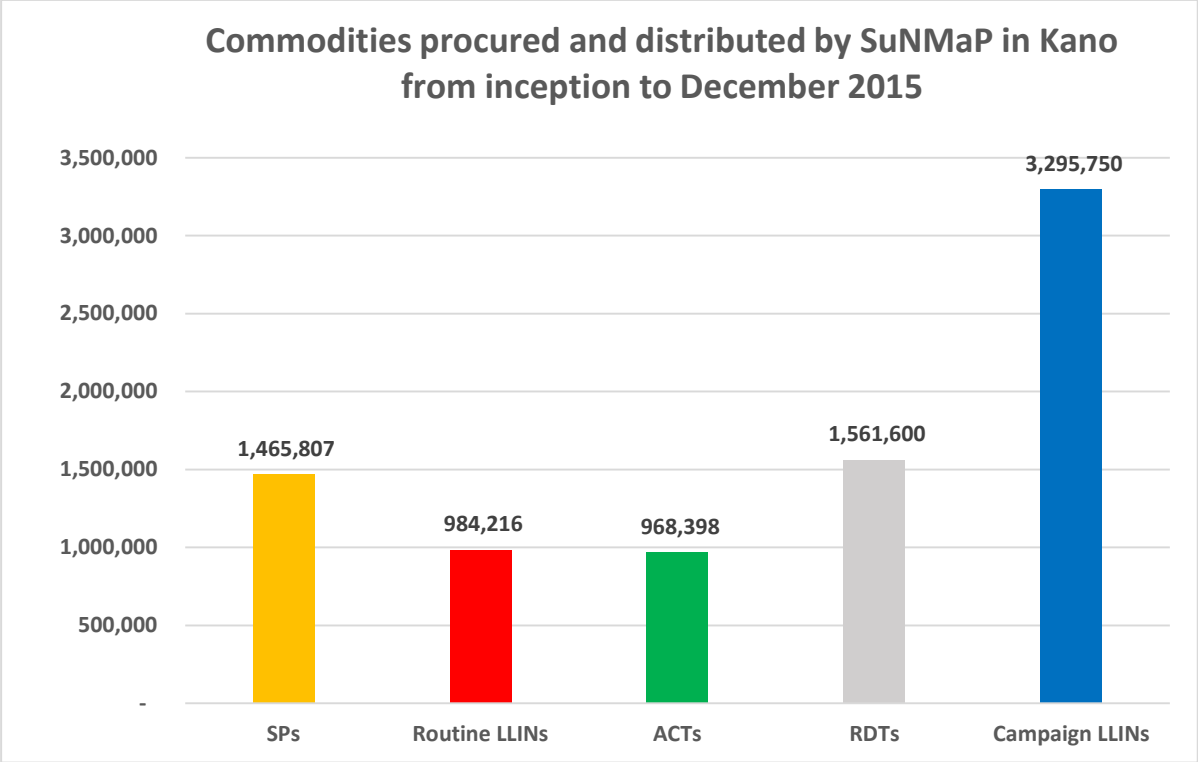
- Capacity building for ACSM: As part of SuNMaP's support to the social behaviour change communication (SBCC) component of the LLIN campaign in the state, the demand creation team was selected and trained on basic skills in communication. SBCC materials were designed mainly in Hausa, produced and distributed.
- Coordination of ACSM activities: SuNMaP ensured that the National ACSM Strategic Framework/ Implementation Plan is operational in the state. The programme initiated a quarterly ACSM sub-committee meeting, which unfortunately does not take place regularly.
- Community level interventions: Community dialogues were conducted in the focal LGAs, especially in communities where clinic-based health workers have been trained in malaria service delivery. These community dialogues were enriched by the results from SuNMaP's community level assessment and often led to referral of care givers and other community members to the health facilities. Interventions at the community level were planned and delivered, in collaboration with the ACSM committee of the SMEP, Health Reform Foundation of Nigeria (HEFRON) and Federation of Muslim Women Association of Nigeria (FOMWAN).
- The annual commemoration of World Malaria Day supported by SuNMaP provided a regular opportunity to work with other partners to conduct advocacy and mobilisation activities, especially at the community level.
- Demand creation using the media: Media messages to promote prevention and effective treatment of malaria were disseminated in different formats, including print materials, radio and television shows (Kanny Wood). Print materials included poster leaflets and charts, while radio messages were delivered as radio spots, and within magazine and drama programmes.
- Demand creation in the commercial sector: A major boost to the demand creation activities for the malaria programme in Kano state was the support provided by SuNMaP to the commercial sector sales promotion of malaria commodities in the state. The behaviour

change communication activities, messages and materials were delivered on radio, television and at the community level.

## Procurement and supply chain

The procurement and logistics processes are in operation in the state. Based on available data from NMEP, the total projected number of malaria commodities for 2015 was 6.75 million doses of ACT (AA and AL); artesunate injection is 1.25 million vials, mRDT kits is 27.56 million and SP is 1.36 million doses respectively. However, only 1,004,952 ACTs (AA and AL) doses, 54 artesunate injection vials, 1,361,566 mRDT kits and 329,970 doses of SPs were supplied.

SuNMaP and GFATM supported the distribution of 6,435,250 LLINs across the state during the 2015 LLIN replacement campaign. Additionally, SuNMaP supplied to health facilities 18 percent of ACTs, 29 percent of mRDTs, and 48 percent of SP doses of the total quantified for the state and ensured logistic management information system (LMICs) training for 1,401 officers




## Monitoring and evaluation:

Data capturing tools are available in all facilities. The health management information system DHIS 2.0 data platform is fully operational in Kano State. The 44 LGA monitoring and evaluation (M&E) officers have been trained and are reporting to the platform. A total of 478 officers in charge of PHC facilities have also received training on M&E as well as malaria focal persons. Similarly, data officers of the 36 secondary health facilities in the state have been trained on M&E. These trainings were conducted jointly by the SMoH and partners (Partnership for Transforming Health Systems (another DFID funded programme) and SuNMaP) at different times. Consequently, the percentage of health facilities reporting through the DHIS tool/database is 87.1 percent, while the percentage of health facilities reporting complete data in a timely manner is 86.1 percent. The proportion of registered

private-for-profit health facilities submitting timely and complete reports to the LGA M&E unit using prescribed forms is 35 percent. Although the State Operational Research Advisory Committee (ORAC) has been inaugurated, no concrete operational research has been embarked upon. The percentage performance of M&E with the level of activities implemented in 2015 was 44.4 percent.

SuNMaP supported processes such as data collection, training and feedback on data through the well-coordinated monthly LGA malaria focal persons and quarterly Health Management Information System officers meeting. The programme also collaborated with NMEP to operationalise three sentinel sites, namely Nassarawa, Tarauni and Bichi, each with three health facilities. These nine facilities are model sites for service delivery and collection of data for surveillance. With programme support, Kano State's reporting rate has greatly improved from below 10 percent in 2010 to over 80 percent in 2015 (figure 3).

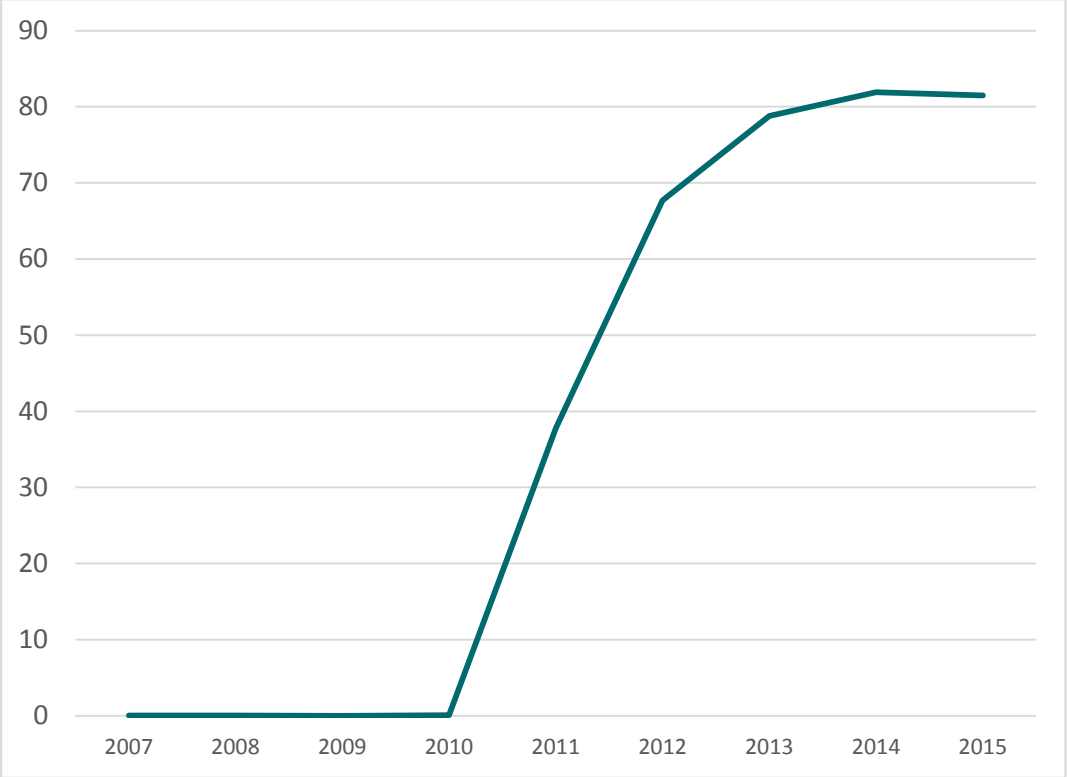



*Figure 3: Kano State NHMIS Reporting rate*

A monitoring area survey was carried out in the two state LGAs of Doguwa and Makoda, which represent different malaria epidemiology, to provide standard indicator estimates at more frequent intervals than national surveys. The data collection at baseline was timed annually at off-peak transmission season and thereafter at peak transmission season. Results from these surveys show improvement in the proportion of households with any insecticide treated nets in the two LGAs, at over 80 percent over the six year period (figure 4). Similarly, there have been reductions in malaria prevalence in the two LGAs and more markedly in Doguwa LGA with a reduction from 20 percent in 2010 to less than five percent 2014 (figure 5).

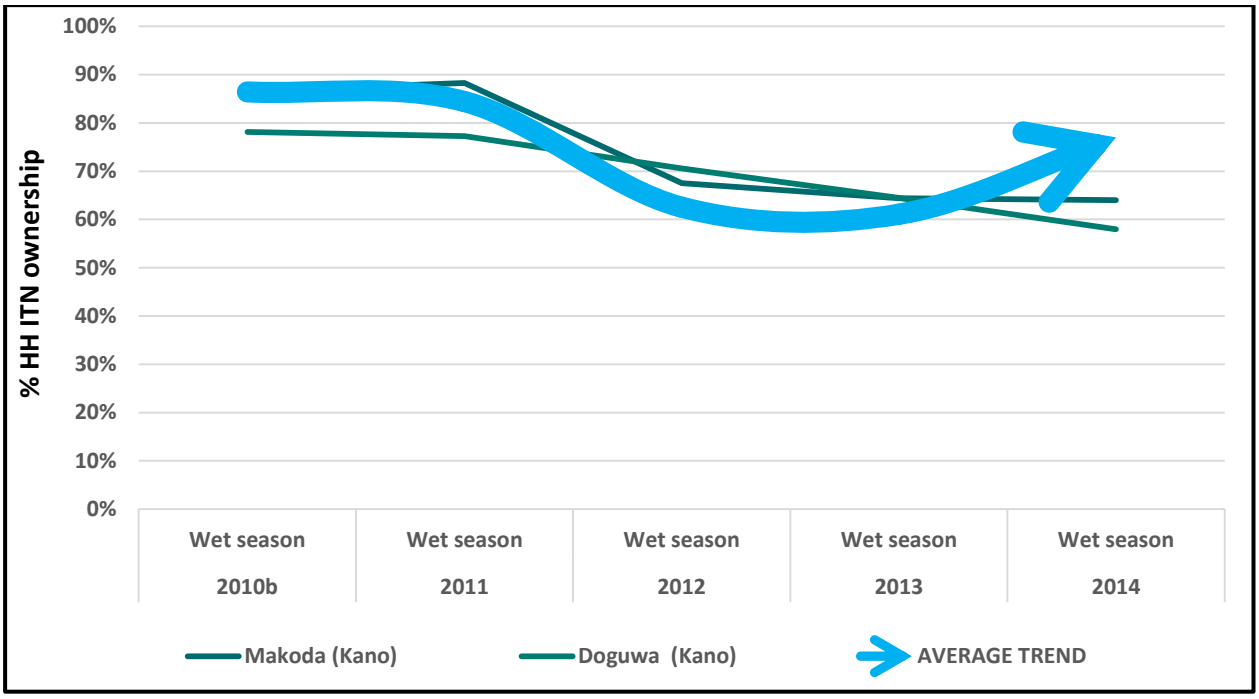



*Figure 4: Proportion of households with any insecticide treated nets*

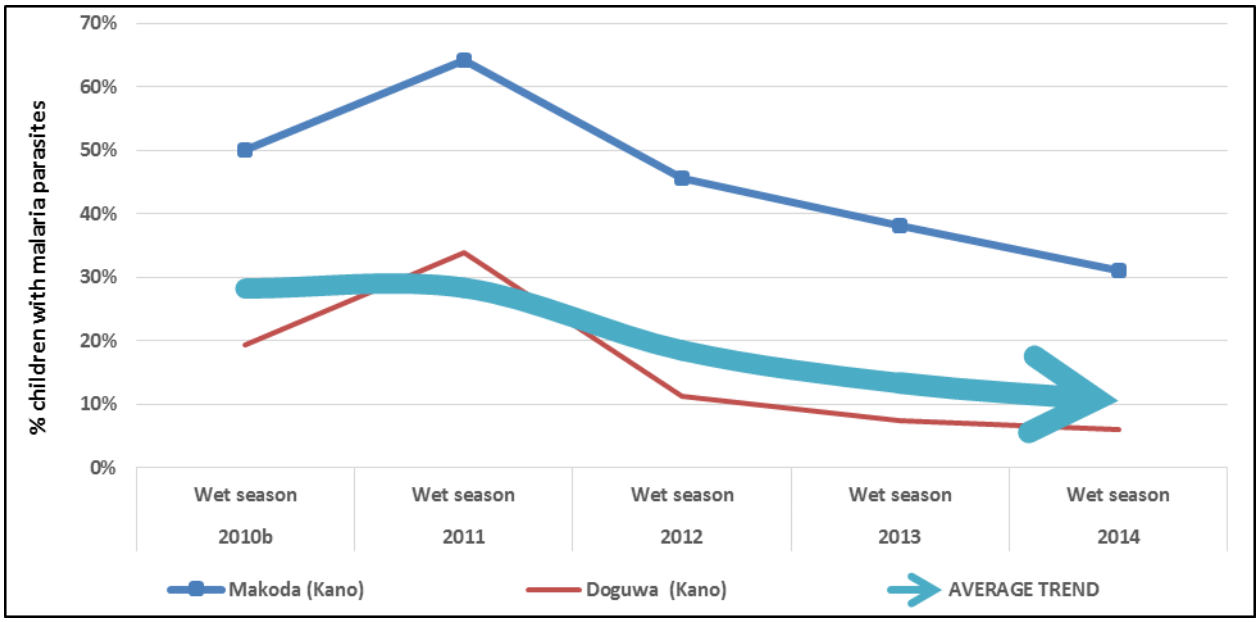



*Figure 5: percent children 6-59 months with any malaria parasites*

## Programme management

The SMCP comprises a team of six persons (Programme Manager, Deputy Programme Manager/Case Management Officer, M&E Officer, Integrated Vector Management Officer, Health Educator/ACSM Officer and a PSM Data Officer) in line with the recommendations of the national malaria coordination frame work. Frequent changes in the SMEP team since the State Government terminated the World Bank funded Malaria Control Booster project in 2011 has resulted in capacity

gaps requiring urgent attention. However, the Technical Working Group meetings have not been regular and LGA work plans were not instituted in the state.

SuNMaP was responsible for the training of 728 health workers on programme management. Operational plans for malaria have been developed and reviewed yearly for the past six years. The Programme collaborated with PATHS 2 to strengthen ISS/OJCB.

SuNMaP is solely credited with supporting the institutionalisation of operational planning and review for malaria control in Kano State. Each year, from 2009 to 2016, six AOPs and a multi-year (2017-2018) have been developed. In this process, the capacity of SMEP and SMoH on AOP development and review has been built.

SuNMaP's role in building the capacity of key government officials has also led to improved resource mobilisation and release from government sources. The state has had a budget line for malaria programming since 2011.

Lastly, SMEP now has a full complement of staff and supports staff in line with the recommendations of NMEP coordination frame work. All coordination and harmonisation platforms are in place and meetings are held regularly.

It is all this positive change that has led the SMEP manager to say:

*''SuNMaP's exit will create a big vacuum''*

## Cost implications

SuNMaP and the state government have contributed immensely to the delivery of interventions in Kano. The state government allocation of resources to malaria has improved over time as a result of increased advocacy to key stakeholders and the successful building of political will. From 2010, when 15 million naira was allocated to malaria activities but nothing released, the state has now allocated 600 million of which 270 million has been released (45 percent).

SuNMaP has spent a total of £2,401,532 over the course of eight years in the state. This breaks down into £2,122,968 for activities and £278,564 for operational costs. This excludes the cost of commodities, but the programme spent over £27,799,526 on commodity procurement nationwide.

## Best practices

Best practices were mainstreamed into the implementation of all SuNMaP outputs across the board, including: value for money, contextualisation, coordination, harmonisation and stakeholder engagement. Some of these are illustrated below.

| **A mass distribution campaign of over 10 million LLINs benefited from the support and commitment of World Bank Booster programme, SuNMaP and GFATM** |
|---|
| • Anti-malaria commodities distributed by the programme have been used to lobby for government commitment to prioritise buying commodities for malaria control<br>• Partnership with the Clinton Health Access Initiative (CHAI) on the roll out of the logistics management information system – SuNMaP provided logistical support for the primary health care and state level trainings, while CHAI covered the secondary health facilities. |
| • Production of three episodes of a drama series in partnership with the Motion Picture Producers Association of Nigeria at a minimal cost<br>• Continuous advocacy that resulted in a 65 percent discount on radio jingles<br>• Demand creation considered the cultural differences of the location and was successful in communities through the inscription of malaria messages on locally acceptable materials such as hijabs for women<br>• Recruitment and engagement of resident household mobilisers ensured acceptability of community activities |
| • SuNMaP has continually build the capacity of state facilitators in order to deliver processes beyond the programme's life span<br>• State annual planning - MNCH2[7] and SuNMaP co-funding LGA operational plan development |
| • SuNMaP leveraged its partnership with SFH, the National Primary Health Care Development Agency and the SMoH to share responsibilities in delivering activities<br>• The Partners Coordination Forum in the state has, over the years, achieved more coordination and harmonisation of various donor activities due primarily to support from PATHS 2 and SuNMaP<br>• Procurement of services, such as a venue for delivery of outputs, enjoys transparency and efficiency<br>• Cordial harmonisation among malaria focal partners such CHAI, Evidence for Action, MNCH-2, Sustainable Health Initiative, SFH and Achieving Health Nigeria initiative has provided a platform for change in delivery of activities |

[7] http://www.mnch2.com/

## Recommendations

- There is need for further strengthening of SMEP's capacity to fully lead the coordination and harmonisation efforts and achieve universal coverage of all malaria interventions across the state.

- The SMoH should ensure continued mobilisation and resource allocation for malaria control as this will position the SMEP better in negotiations with partners. One key source of funding is the Saving One Million Lives Initiative Program-for-Results (PforR) project. Since this is a performance based project, striving for this funding will also improve the percentage of children sleeping under mosquito nets (the programme indicator) thereby reducing malaria morbidity.

- Kano is one of the main commercial centres of the country. The SMEP should work with relevant organisations to continue to develop the commercial sector as a sustainable approach for access to anti-malaria commodities

- The SMoH/SMEP should develop more interest and capacity in documentation and knowledge management of donor programme inputs, processes and results since, after all, they stand to gain the most.

## Kano State Budget for Malaria Elimination Activities (2016 - 2018)

The estimated total cost of malaria control activities in Kano between 2016 and 2018 is ₦6,120,128,053 (2016 - ₦1,972,444,053; 2017 - ₦2,032,000,000 and 2018 - ₦2,115,684,000). The estimated commitment from partners to malaria control activities in 2016 is 64%. This will however, drop sharply in 2017 and 2018 as the partner contribution will reduce to 5% and 0% respectively according to the 2016 – 2018 multiyear plan.

| Objective Area | 2016 (Amount) | | | 2017 (Amount) | | | 2018 (Amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| **Malaria Prevention** | ₦62,299,678 | ₦50,157,829 | ₦112,457,507 | ₦104,500,000 | ₦100,500,000 | ₦205,000,000 | ₦126,000,000 | ₦- | ₦126,000,000 |
| **Malaria Diagnosis** | ₦11,458,020 | ₦44,286,630 | ₦55,744,650 | ₦67,000,000 | ₦- | ₦67,000,000 | ₦55,000,000 | ₦- | ₦55,000,000 |
| **Treatment** | ₦653,000 | ₦25,677,600 | ₦26,330,600 | ₦55,000,000 | ₦- | ₦55,000,000 | ₦45,000,000 | ₦- | ₦45,000,000 |
| **ACSM** | ₦22,302,500 | ₦2,550,400 | ₦24,852,900 | ₦23,500,000 | ₦- | ₦23,500,000 | ₦29,000,000 | ₦- | ₦29,000,000 |
| **PSM** | ₦576,292,156 | ₦1,064,323,920 | ₦1,640,616,076 | ₦1,605,500,000 | ₦- | ₦1,605,500,000 | ₦1,806,684,000 | ₦- | ₦1,806,684,000 |
| **M&E** | ₦4,706,694 | ₦40,500,226 | ₦45,206,920 | ₦23,500,000 | ₦- | ₦23,500,000 | ₦19,000,000 | ₦- | ₦19,000,000 |
| **Programme Management** | ₦38,443,400 | ₦28,792,000 | ₦67,235,400 | ₦52,500,000 | ₦- | ₦52,500,000 | ₦35,000,000 | ₦- | ₦35,000,000 |
| **Total** | **₦716,155,448** | **₦1,256,288,605** | **1,972,444,053** | **₦1,931,500,000** | **₦100,500,000** | **₦2,032,000,000** | **₦2,115,684,000** | **₦- 0** | **₦2,115,684,000** |

Kano State Budget for Malaria Elimination Activities (2016 - 2018) - Percentage Contribution from Government and Partners

| Objective Area | 2016 (%) | | 2017 (%) | | 2018 (%) | | 2016 - 2018 (%) | |
|---|---|---|---|---|---|---|---|---|
| | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** |
| Malaria Prevention | 55% | 45% | 51% | 49% | 100% | 0% | 66% | 34% |
| Malaria Diagnosis | 21% | 79% | 100% | 0% | 100% | 0% | 75% | 25% |
| Treatment | 2% | 98% | 100% | 0% | 100% | 0% | 80% | 20% |
| ACSM | 90% | 10% | 100% | 0% | 100% | 0% | 97% | 3% |
| PSM | 35% | 65% | 100% | 0% | 100% | 0% | 79% | 21% |
| M&E | 10% | 90% | 100% | 0% | 100% | 0% | 54% | 46% |
| PM | 57% | 43% | 100% | 0% | 100% | 0% | 81% | 19% |
| **Total** | **36%** | **64%** | **95%** | **5%** | **100%** | **0%** | **78%** | **22%** |

While recognising that government funding of malaria in the state has increased over the years. To sustain and possibly increase the current level of malaria control efforts, the government will need to further increase its funding of malaria and advocacy for resource mobilisation from partners and private sector.

# Working together to combat malaria

## A synopsis of SuNMaP (Support to National Malaria Programme) contributions to malaria elimination efforts in Katsina State

## 2009-2016

# Contents

# Acronyms and abbreviations

| | |
|---|---|
| ACT | artemisinin combination therapy |
| ACSM | advocacy, communication & social mobilisation |
| AOP(s) | annual operational plan(s) |
| CBO | community based organisation |
| DfID | Department for International Development |
| DHIS 2.0 | District Health Information System Version 2.0 |
| FBO | faith based organisation |
| FP | focal person |
| HMIS | Health Management Information System |
| HPI | Health Partners International |
| HSMB | Hospital Services Management Board |
| IHVN | Institute for Human Virology Nigeria |
| IPT | intermittent preventive treatment |
| ISS | integrated supportive supervision |
| LGA(s) | local government area(s) |
| LLIN(s) | long lasting insecticidal net(s) |
| M&E | monitoring and evaluation |
| MNCH | maternal, neonatal and child health |
| mTWG | Malaria Technical Working Group |
| NMEP | National Malaria Elimination/Control Programme |
| NMSP | National Malaria Strategic Plan |
| PSM | procurement and supply chain management |
| RDT | rapid diagnostic test |
| RBM | Roll Back Malaria |
| SEPA | State Environmental Protection Agency |
| SMC | seasonal malaria chemoprevention |
| SMEP | State Malaria Elimination Programme |
| SMoH | State Ministry of Health |
| SPHCDA | State Primary Health Care Development Agency |
| SuNMaP | Support to the National Malaria Programme |
| TMM | Technical Malaria Manager |
| UK aid | United Kingdom Agency for International Development |

## Acknowledgements

SuNMaP is grateful to the Katsina State Commissioner of Health, Permanent Secretary, Director of Public Health and the SMEP manager for their time and contribution towards the production of the sustainability and exit reports. The journey of SuNMaP in the state has been enriching and it was a pleasure to work with you all. This document serves as the legacy of the programme to Katsina state. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in your state.

Dr Femi Owoeye
SuNMaP Programme Director

## Section 1: Background and introduction

Support to National Malaria Programme (SuNMaP) is an eight-year (2008 – 2016) £89 million Programme funded by the UK Department for International Development (DfID). With a mandate to support Nigeria achieve an ambitious scale-up of malaria results, SuNMaP started supporting the National Malaria Elimination Programme (NMEP) and the ten states of Anambra, Kano and Lagos (since September 2008); Katsina, Niger and Ogun States (since June 2009). Others state include Jigawa, Enugu & Kaduna (since early 2012) and Yobe, since 2013.

At the national level and in each state, the programme's support commenced with a rapid baseline capacity needs assessment[1] for malaria control. The findings informed the development of strategies to address the identified weaknesses in capacity, resources and systems through the provision of long- and short-term technical assistance. In addition, two health facility assessments (HFA) and laboratory assessments were conducted in 2009, 2012 and 2013 respectively. These further informed the programme strategic direction, strengthening integration of malaria interventions (preventive and curative) into routine service delivery. Early in 2014, a rapid capacity re-assessment of nine of the ten focal states (excluding Yobe State) was commissioned to inform the programme's pre-closure work-plan and ultimately, its exit and sustainability plan.

As SuNMaP closes out, this is an executive summary[2] of six years of engagement in Katsina State. It reviews the environment at the inception of the programme and provides a snapshot of the current situation, including SuNMaP contributions. This brief also contains some of the lessons learnt while employing overarching best practices to deliver the programme's six core outputs of capacity building, harmonisation, prevention of malaria, treatment of malaria, awareness and demand creation and operational research. There are recommendations to help the state sustain the gains and contribute to the achievement of targets envisaged in the National Malaria Strategic Plan (2014 – 2020).

1 The baseline assessment data was collected through appraisal and discussion visits to Federal/State/LGA Agencies; Service Delivery Points; Partners, Public, Private and Commercial sector managers; Focus Group Discussions FGDs. Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DfID. The appraisal tool was adapted from the SuNMaP Basic Information collection tool; PPRHAA (Peer, Participatory Rapid Health Appraisal and Action) tools for appraising Management Boards and the RBM (Roll Back Malaria) Needs Assessment & Planning tool by WHO (World Health Organisation) & MC (Malaria Consortium), August 2003

2 Data for this Executive Summary was collected, analysed and written up by a national consultant. The methodology included FGDs and Key Informant Interviews of Government officials, Partners and SuNMaP staff. The field work was preceded by a desk review of secondary data & SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 & 2015.

# Section 2: Malaria situation before SuNMaP

## Malaria prevention

In 2009, malaria prevention was not well coordinated in the state. There were no long lasting insecticide treated nets (LLINs) for mass campaigns but, pockets of insecticide treated nets (ITNs) targeted distributions to pregnant women during antenatal care (ANC) and under-five children (U5s) who completed their routine immunisation. The state had initiated plans for a state-wide LLIN campaign in 2010 with a total of 2,656,251 LLINs distributed, targeting households with pregnant women and children under five years of age. The campaign achieved 99 percent target coverage[3]. Indoor Residual Spraying (IRS) activities did not commence. Local government area (LGA) level prevention activities were coordinated by the Water and Sanitation department (WATSAN). In terms of malaria prevention in pregnant women, there was a low proportion of women who took adequate intermittent preventive treatment in pregnancy (IPTp) in the state, at 1.4 percent and similarly low proportion of pregnant women who slept under an ITN the previous night before the survey at 1.1 percent in 2008 (NDHS 2008).

## Malaria diagnosis and treatment

Laboratory services in the state were generally inadequate. The state was in the process of setting up a public health laboratory. Rapid diagnostic tests kits (RDTs) were not used for malaria diagnosis. The systems for quality assurance and control were weak.

State Primary Health Care Development Agency (SPHCDA) and partners conducted trainings on malaria Standard Operating Procedures (SOPs), national treatment guidelines and policies and adopted these documents – but they were not available at health facilities. Malaria treatment was provided free to pregnant women and children under five through the Free Medicare scheme. Artemisinin-based combination therapies (ACTs), chloroquine and sulphadoxine pyrimethamine (SP) were used for malaria treatment. The health services referral system was weak.

## Advocacy, communication and social mobilisation (ACSM)

The State Health Promotion Unit (SHPU) of SPHCDA handled ACSM of all disease programmes, including malaria. There was poor coordination between SHPU and the designated LGA health educators. Media stations (television and radio) with coverage of the entire state existed. Highly respected traditional and religious leaders showed support for health matters.

## Procurement and supply chain management (PSM)

The State operated a Drug Revolving Fund (DRF). There was a policy – Free Medicare for free treatment in public health facilities in Katsina of all ages covering malaria, ANC and deliveries, U5s, tuberculosis, Vesicovaginal Fistula (VVF), dialysis, psychiatric cases and cccidents and emergencies for the first 48 hours. Multiple arrangements for PSM existed in the state – State Ministry of Health

[3] Nigeria National Replacement Campaigns 2013 – 2015 for distribution of Long Lasting Insecticidal Net (LLIN) Report 2015

(SMoH), SPHCDA and a few LGAs. The state was in the process of establishing a drug procurement agency.

## Monitoring and evaluation (M&E) and research

The state was in the process of harmonising routine reports and data from the LGA M&E officers to the State Health Management Information System (HMIS) Officer. SPHCDA supported monthly meetings of M&E officers from the 34 LGAs with state officials. The state captured training and retraining of M&E officers on HMIS/data management in the State Health Development plan. Partnership for Reviving Routine Immunization in Northern Nigeria – Maternal Newborn and Child Health (PRRINN-MNCH) initiative and other partners supported the state to formalise a system of planning, implementing, monitoring and evaluation, and operational research activities. An ethical research review committee existed in the State with a clear Terms of Reference (ToR) and costed work plan. The state had an operational research Technical Working Group (TWG) supported by partners.

## Programme management (PM)

There was a state Integrated Supportive Supervision (ISS) plan in existence with the team members drawn from many health sector stakeholders. There were monthly supervisory visits to health facilities. The State Malaria Control Programme (SMCP) was not properly organised. It was manned by a single staff – the State Roll Back Malaria (RBM) Manager. A state-integrated Social Mobilisation Committee existed but did not prominently feature malaria on its agenda. Some LGAs had designated malaria focal persons. A malaria control budget line existed in the state but was not properly used. A functional donor coordination forum existed but there was no state malaria control operational plan. However, there was a 2010 costed state health plan.

# Section 3: Current situation, key interventions and achievements

## Malaria prevention

The state progressed from the use of ITNs to LLINs with the implementation of the first-ever LLIN mass campaign in 2010. A net retention and use survey conducted six months after the campaign showed that the 2010 LLIN distribution in Katsina was successful in that it dramatically increased the coverage of ITN ownership compared to the pre-campaign status – from 1.7 percent to 73.8 percent and that the delivery of LLIN at the distribution points was very effective and equitable, with 79.4 percent of households registered; a higher proportion of households with children under five years were registered (84.6 percent) suggesting a slight imbalance towards households with children under five years so that the LLIN delivery was more targeted rather than "universal." It also demonstrated that integration of child health interventions with universal LLIN campaigns had a positive effect on the polio vaccine coverage, as LLIN distribution helped overcome barriers to immunisations. However, the focus of the LLIN campaign shifted to households with children under five rather than giving equal access to the total population, although overall results for the integrated campaign did otherwise not differ dramatically from similar stand-alone LLIN campaigns.

In line with WHO and RBM recommendation, the state, with support from SuNMaP and the Global Fund, supported the distribution of 3,897,400 LLINs (25 percent SuNMaP contribution) with an aim of universal coverage. Results from the end process showed high retention rates of 98.8 percent and net hanging rate of 71 percent (NMEP Report 2015).

For LLIN routine distribution through ANCs, U5s routine immunisation, schools and community, 466,436 LLINs have so far been distributed in the state to maintain high LLIN coverage after the main LLIN mass campaigns. IPTp is one of the core interventions for malaria prevention during pregnancy. SuNMaP supported the state in 2014 to train 12 state-level trainers on delivery of malaria in pregnancy services during ANC, which was later cascaded to 181 ANC staff drawn from 164 ANC facilities. 765,223 doses of SP have been supplied by the programme in the state. For many years, SuNMaP was the only programme supporting the state with procurement of SPs for IPTp.

SuNMaP has demonstrated the use of globally-proven evidence based results into implementation in the country, and has used this in the case of Katsina forseasonal malaria chemoprevention (SMC) for children 3-59 months in Mashi, Mai'adua, Dutsi and Baure LGAs. The programme, with support from Malaria Consortium through the Bill & Melinda Gates Foundation, supported the introduction, implementation and evaluation of SMC - the first of its kind in Nigeria. Over the three years (2013 – 2015) during peak transmission seasons, a total of 500,000 children benefited from SMC with a total of 1,678,000 doses of SP + AQ.

SuNMap built capacity of 4,047 role mode caregivers as well as 387 health facility staff and supervisors on SMC mass drug administration (MDA) and pharmacovigilance. Evidence from the pilot evaluations show a reduction of 50 – 60 percent in the number of malaria cases in those LGAs where SMC was implemented compared to those LGAs that didn not have SMC (figure 1).

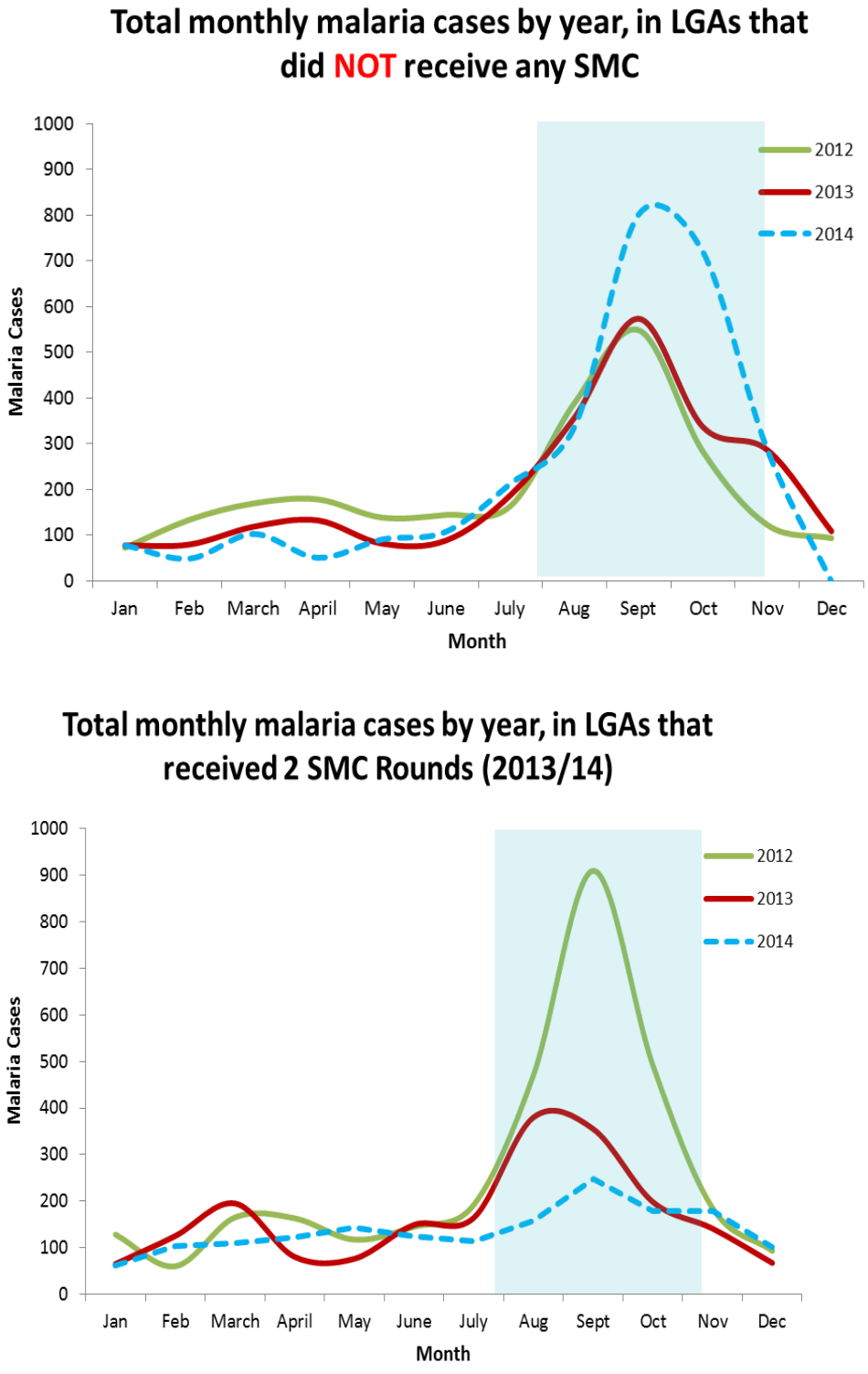



*Figure 1: Effect of SMC in Katsina - decline in number of malaria cases*

Coordination of malaria prevention activities has greatly improved with the State Environmental Protection Agency (SEPA) handling larviciding and environmental management activities (refuse disposal and monthly environmental sanitation) with the WATSAN department still functional at the LGA. This has led to 35 percent coverage of larviciding activities in the LGAs and about 80 percent of

households per LGA. It is important to note that larviciding is also done in all boarding secondary and higher institutions in 35 percent of LGAs on a quarterly basis.

## Malaria diagnosis and treatment

As part of the National Malaria Strategic Plan 2014 - 2020, Katsina State continues to implement parasitological based diagnosis of malaria. To this end, all the state health facilities are equipped with laboratories or mRDTs for malaria diagnosis. Efforts have been made over the years in building the capacity of health workers' parasitological based diagnosis. To date, 1,230 health workers have been trained in the use of mRDTs in the management of fever cases, 20 medical laboratory scientists and technicians trained and the programme supplied 20 microscopes to the state to boost parasitological based diagnosis. Laboratory services have also greatly improved as the number of laboratory infrastructures, instruments and equipment for malaria programme has increased. From the NHMIS, over 50 percent of people presenting with fever at health facilities receive a diagnostic test for malaria (NHMIS 2015). The state has still not set up a public health laboratory and quality assurance/quality control systems still require further strengthening. The programme has procured and distributed 776,775 mRDTs to all public health facilities, accounting for 11 percent programme contribution to the total Katsina State antimalarial commodity needs.

Confirmed malaria case treatment in the state has greatly improved due to the availability and use of both national and state malaria diagnosis and treatment policies and guidelines, and capacity building over the years in both public and private facilities. This support has been provided by SuNMaP and the Global Fund for AIDS, Malaria and Tuberculosis through Institute for Human Virology Nigeria (IHVN).

SuNMaP has cumulatively procured and distributed 592,821 doses of ACTs to public health facilities in the state, accounting for 11 percent programme contribution to the total Katsina state ACT needs. This has resulted in an increase in the proportion of confirmed cases who received ACTs according to national treatment guidelines at 83.6 percent in 2015 (NHMIS 2015).

To maintain a high quality of care, capacity has been built for several cadres in the state using the national harmonised capacity building modules. SuNMaP was instrumental in their development. 1,800 health workers across the state have benefited from these modes of capacity building.

The SuNMaP model of using evidence to guide implementation is further exemplified by the change in policy surrounding the treatment of severe malaria with the use of injectable artesunate from injectable quinine. Using evidence from the AQUAMAT study that found a greater reduction in malaria mortality when treated with injectable artesunate, the programme trained 182 national trainers on its use – two of whom were from Katsina state. The trainers have cascaded the training to all secondary health facilities in the state and over 100,000 vials of the medicine for use in the state.

## Advocacy, Communication and social mobilisation

In Katsina State, ACSM activities of all disease programmes, including malaria, are coordinated at the State Health Promotion Unit (SHPU) of the State Primary Health Care Development Agency. Other existing structures relevant for the malaria ACSM activities in the state include ward development committees in the 361 wards, community-based organisations (CBOs) and faith-based organisations (FBOs). In each of the 1,696 health facilities, health talks on malaria are conducted at the outpatient

and antenatal clinics. A total of 34 LGA malaria focal persons from 34 LGA health facilities have been trained on interpersonal communication (IPC) skills. Media stations (television and radio) with coverage of the entire state existed. At the community level there are highly respected traditional and religious leaders, who have shown support for health matters, including the malaria programme.

At the commencement of the SuNMaP programme in the state in 2010, a major programmatic challenge for ACSM was the very low level of use of malaria commodities, including LLINs, RDTs, and ACTs. This challenge existed side by side with other inadequacies and challenges such as a) small budget allocation to health and the malaria programme by the government, b) the unsatisfactory coordination between SHPU and the designated LGA health educators, and c) the low level of education among both urban and rural populations and numerous hard-to-reach communities.

In order to address the multiple programmatic and infrastructure challenges, SuNMaP supported the State Malaria Elimination Programme to develop and implement ACSM interventions at the state and LGA levels. SuNMaP, IHVN/GF and Society for Family Health (SFH)/GF supported ACSM subcommittee activities and worked with existing CBOs, FBOs and civil society organisations (CSOs) to cascade implementation up to ward level. In collaboration with government and partners, the key interventions and achievements of the ACSM component supported by SuNMaP are as follows:

- Planned and conducted community dialogues on malaria to reach an estimated 700 caregivers, pregnant women and household heads in the last four years
- Developed, reviewed, produced and aired a set of malaria prevention and case management messages in local languages, delivered as radio spots, magazines and dramas; This reached an estimated six million state residents daily, with high coverage and at low cost
- Developed, reviewed, produced and distributed over two million social and behaviour change communication materials on malaria prevention and case management messages in local languages – delivered as posters, leaflets and wall charts, with estimated two million state residents reached at low cost.

The partnership for the delivery of activities at the community included the programme implementing partners (PIPs) in SuNMaP. In Katsina State, the PIPs were Health Reform Foundation of Nigeria (HEFRON) and the Federation of Muslim Women Association of Nigeria. The annual commemoration of the World Malaria Day (WMD) supported by SuNMaP provided an opportunity to work with other partners to conduct advocacy and mobilisation activities especially at the community level

## Procurement and supply management

The State Central Medical Store (CMS) is adequate but stores in some LGAs are inadequate and unsafe for medical material storage. Consumption data for malaria commodities are provided by most public health facilities but none by the private facilities. The state has plans to establish a Drug Management Agency (DMA). Partners provide commodities to their focal health facilities to complement the state's quarterly procurement. Some LGAs do non-routine commodities procurement. Free Medicare and DRF (25 percent subsidy) schemes are still functional. Push method is used for commodity distribution to health facilities. In order to improve PSM systems in the state, the programme collaborated with IHVN to support the state to train 1,077 health facility workers from 510 health facilities across the 34 LGAs in logistics management information system.

Since SuNMaP inception in the state, the programme and procured and supported the state to distribute 606,158 ACTs (1 – 4), 776,775 mRDT kits, 765,223 doses of SPs and 1,432,286 LLINs (466,436 through routine distribution – ANC and EPI and 965,850 for mass campaigns in 2014 – 2015), figure 2 below.

In addition, the programme has procured and supported the state to distribute 91,880 injection artesunate vails for treatment of severe malaria and 596,900 hand gloves. To monitor the correct use of the AMCs supplied by the programme, monthly AMC monitoring were conducted and results from these shows high compliance to the set standards. In addition to the monthly monitoring visit, the programme conducted AMC commodity audit following the distribution of LLINs and evidence indicate that there were no losses.

Other partners, such as SFH/GF (for the private sector) and IHVN/GF also procure commodities. SuNMaP consistently supported the state in monthly anti-malaria commodities (AMC) monitoring visits

The graph below shows the commodities procured and distributed by SuNMaP in Katsina over the life of the programme.

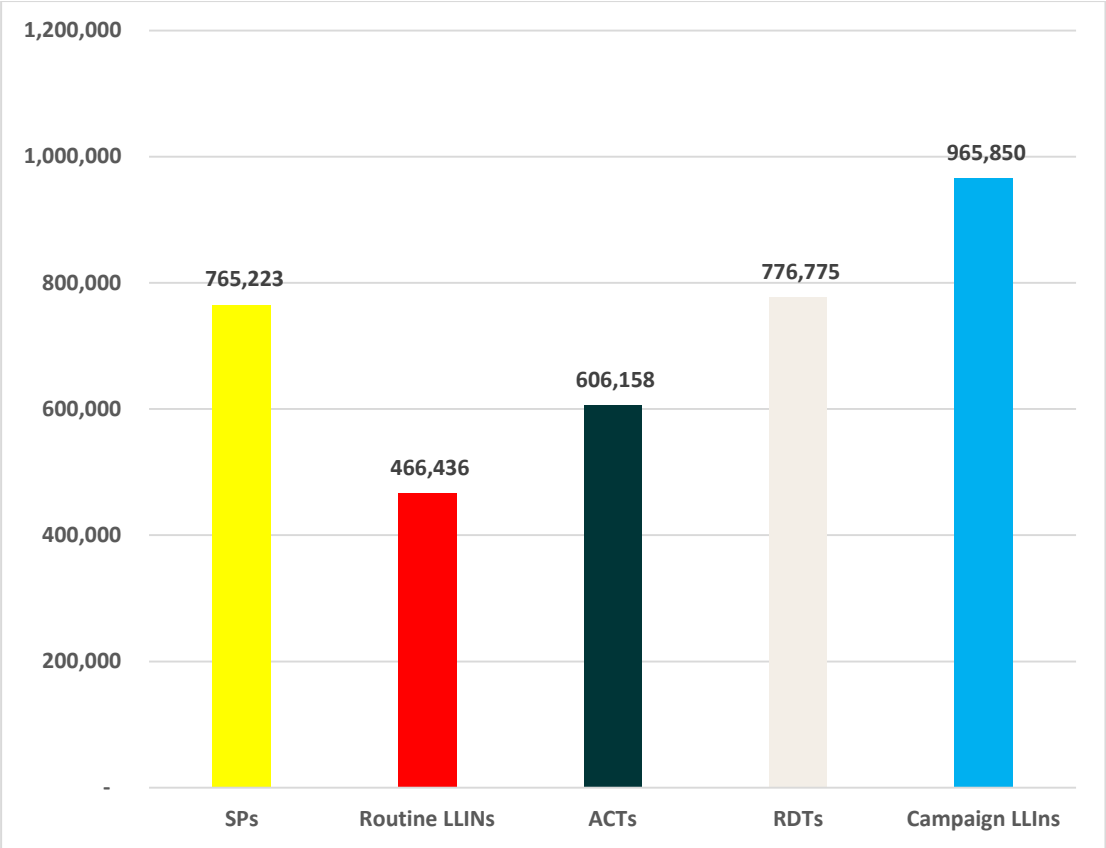



*Figure 2: Commodities distributed in Katsina from inception to December 2015*

## Monitoring and evaluation (M&E)

The state has a functional HMIS unit that coordinates data reporting at all levels. Over 86 percent (1,466) of the data managers (including LGA M&E and HMIS officers, record officers and in-charges of PHC facilities) have been trained on the revised NHMIS data tools and use. Monthly and quarterly data quality assurance (DQA) is being undertaken in selected health facilities to improve the quality of data captured on the DHIS 2 platform, including data from the private health facilities. The programme and other partner support has led to improvement in reporting rates from below 1 percent in 2011 to over 86 percent in 2015 with 76 percent of them reporting in a timely manner (figure 3).

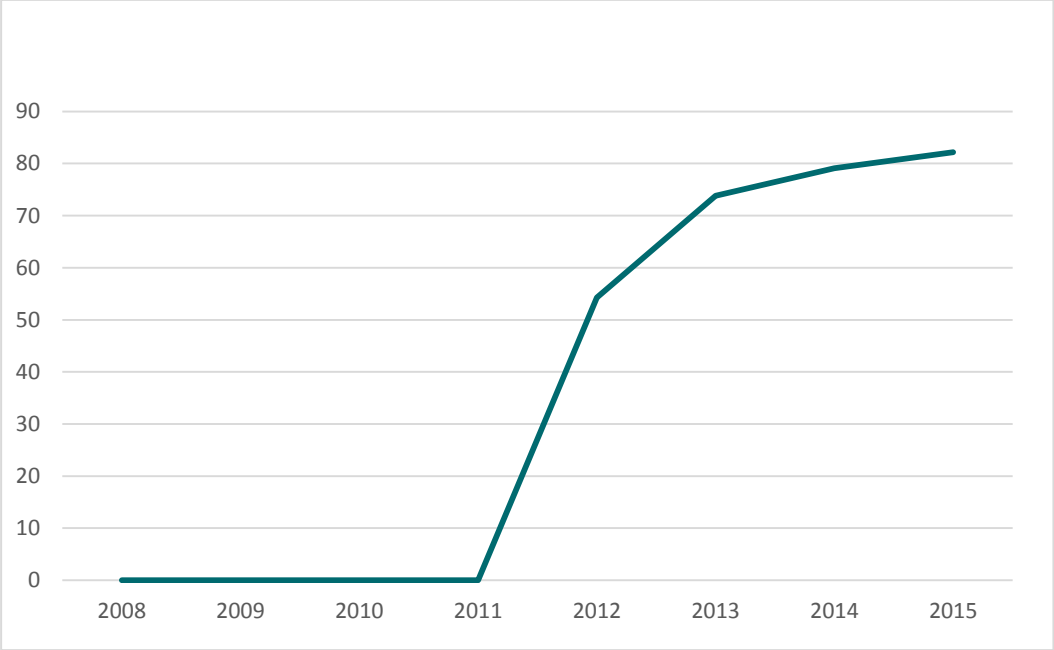



*Figure 3: Katsina state reporting rates (NHMIS 2015)*

## Programme management

SMEP has evolved from a one-man unit in 2008 to a Department in the State Ministry of Health - Department of Malaria & Sickle Cell in 2015, headed by a Director with two Assistant Directors (for malaria and sickle cell, respectively). The Assistant Director of Malaria doubles as the SMEP Manager and heads the State Malaria Elimination Programme unit, with three other full time staff – integrated vector management (IVM), case management (CM) and M&E officers. The Director and Assistant Director of SMEP have adequate educational qualifications but other members of the team do not, though they have undergone repeated trainings on the job. There is a need to pursue further studies and provide more on-the-job capacity building for them. There is no malaria partners' forum; rather, an active health partners' forum exists. The Malaria Technical Working Group, State Malaria Advisory and State Resource Mobilisation committees require strengthening. The proportion of AOP cost released by the state out of the total expected to be funded by the state could not be determined because there is no harmonised budget line for malaria in the state.

In total over 908 persons at state and LGA levels have benefitted from SuNMaP's Programme Management training roll-out. SuNMaP has trained four state-based consultants and trainers on the harmonized programme management (two trainers) and service delivery (two trainers) modules. 63 persons, including directors, deputy directors and programme officers of SMEP, SMoH, SPHCDA, local government service commissioner (LGSC), the Ministry of Local Government & Chieftaincy Affairs (MoLG & CA) and the Hospital Services Management Board (HSMB) participated in the state level focused 'Integrated Supportive Supervision and On-the-job Capacity Building' (ISS/OJCB) management training, while 83 persons (34 primary health care coordinators and their deputies) were trained at the LGA level.

SuNMaP has supported the development and periodic review of annual operational plans (AOPs) for malaria each year, from 2011 to 2016; and in addition, 2017 and 2018's broad plans. The 2016 AOP was done in collaboration with IHVN/GF. The programme developed capacity of 10 state-based facilitators on state and LGA malaria annual plan development and review processes. With this support, it led to the development of the maiden annual (2015) LGA specific malaria work plans. Other key mulit-years plans including training plans have been developed in the state by the programme support as part of its institutional strengthening modal.

The programme collaborated with PRINN-MNCH and IHVN to institutionalise ISS/OJCB, strengthen HMIS and harmonise other capacity building activities.

## Section 4: Cost implications

Katsina has made impressive financial commitments in the health sector and by extension, malaria control. However, it is difficult to state the actual amount expended solely on malaria control as there is no harmonised malaria budget line rather, SMoH and SPHCDA have allocations for health activities (in which malaria is included).

In the SMoH annual budget, the 'overhead cost' section has a budget line for malaria (meant for campaigns, meetings, mobilisation and logistics, etc.). From this, the yearly allocations and actual released funds are as follows: In 2008 and 2009, N763,535 and N832,586 respectively was released out of N1,000,000 malaria allocation. No data was readily available for 2010. For 2011 to 2014, the malaria allocation was N850,000 out of which N747,997; N800,000; N850,000; and N850,000 was released for the respective years. Malaria allocation for 2015 was N850,000 out of which N833,330 was released as at October, 2015.

The SMoH annual budget also has a budget line of 180 million naira only for the 'Bulk Purchase of Drugs' (including malaria commodities), out of which approximately 45 million naira is released quarterly for procurement of health commodities for public secondary health facilities in the state. The proportion of this amount spent solely on malaria commodities from this budget line is unknown.

SPHCDA's allocation for procurement of commodities is 15 million naira quarterly and approximately the same amount is usually released. About 35 percent of the 15 million naira is used for procuring malaria commodities used in primary and comprehensive health centres.

The LGAs also undertake the procurement of commodities from time to time.

## Section 6: Lessons learnt

A key lessons learnt by SMoH in the coordination and implementation of disease programmes and engagement with partners is that a 'one-size-fits-all' approach can't be applied due to the uniqueness of each entity. Each partner's organisational structure is parallel to that of the civil service. Ability to harmonise and synergise all key players' efforts and integrate their best practices into the health system is crucial to achieving great results.

## Section 7: Best practices

SuNMaP operations and programmatic support for the state aimed to deliver efficient, high quality, long term results, guided by evidence-based programming and global best practice. Some are outlined below:

**SuNMaP's operations**

- Efficient procurement and contracting procedures for staff, goods and services that trigger competition in order to achieve highest quality at a fair and reasonable cost. SuNMaP used local resources (human and material) and empowered local enterprises through engaging with local vendors who upgraded delivery of their goods and services to match global standards in order to meet SuNMaP's specifications.
- Engagement of more indigenous consultants (national and state-based) rather than international consultants; regulating short term technical assistance (STTA) rates and incorporating quality assurance processes for their engagement and management.

**SuNMaP's programmatic support for the state**

- SuNMaP focused on intervention areas with poor health indicators, for example vulnerable populations such as pregnant women and children under five for core treatment and prevention activities.
- SuNMaP's activity scope considered the highest impact. For example in capacity building, its interventions were limited to a proportion of LGA's to maximise quality by ensuring saturation, while using the results to leverage government commitments to expand to non-programme locations. Another example is the commodity support ensuring state-wide 'gap filling' by SuNMaP complementing (rather than competing with) the existing state supply chain.
- New interventions are piloted in selected LGAs and lessons learnt from implementation are applied while scaling up to other LGAs.
- SuNMaP supported health systems strengthening activities in various capacities in line with global best practices:
    - harmonisation and coordination of partner efforts and evidence-based planning
    - contextualisation of programme activities through capacity appraisal and needs assessment that inform programme design
    - annual operational planning for malaria control and periodical reviews of the AOP
    - development of ACSM framework and implementation plan and training plans
    - establishment and reactivation of coordination committees such as the malaria technical working group, ACSM committee and partner's forum
    - support for the monthly LGA malaria focal persons state-level coordination meetings
    - delivery of trainings in different intervention areas, etc

## Section 8: Recommendations

The state needs a comprehensive budget line for malaria in the health budget in order to measure the actual cost spent in the control of malaria in the entire state. This needs to be considered during the 2017 state budget development.

SuNMaP's end will create gaps in its areas of support to the state. The state should coordinate the activities of existing partners to bridge this gap.

The Global Fund to Fight AIDS, Tuberculosis and Malaria has recently engaged some malaria sub-recipients in the state through its new funding model: the Sustainable Health Initiative (supporting ACSM activities in all the wards of their 16 focal LGAs and ending in December 2016); the IHVN (supporting activities in all areas and closing the current grant in December 2016) and the Society for Family Health (supporting private sector activities). These could all be valuable state partners in its efforts to eliminate malaria.

Also, out of the one billion naira ''Save One Million Lives'' project funds expected in 2016, about 333 million naira will hopefully be allocated to malaria control. Its impact will increase if it is channeled to important AOP activities of the 2016 AOP and beyond.

## Section 9: Going forward

## Katsina State Budget for Malaria Elimination Activities (2016 - 2018)

The estimated total cost of malaria control activities in Katsina between 2016 and 2018 is ₦2,477,578,615 (2016 - ₦681,623,163; 2017 - ₦912,918,300 and 2018 - ₦883,037,153). The estimated commitment from partners to malaria control activities in 2016 is 22%, and this drops to zero percent in 2017 – 2018 multiyear plan.

| Objective Area | 2016 (Amount) | | | 2017 (Amount) | | | 2018 (Amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| Malaria Prevention | ₦74,151,000 | ₦9,028,200 | ₦83,179,200 | ₦ 133,140,000 | ₦ - | ₦ 133,140,000 | ₦ 65,000,000 | ₦ - | ₦ 65,000,000 |
| Malaria Diagnosis | ₦14,072,399 | ₦- | ₦14,072,399 | ₦ 8,327,400 | ₦ - | ₦ 8,327,400 | ₦ 9,843,750 | ₦ - | ₦ 9,843,750 |
| Treatment | ₦- | ₦43,473,100 | ₦43,473,100 | ₦ 10,946,400 | ₦ - | ₦ 10,946,400 | ₦ 51,040,160 | ₦ - | ₦ 51,040,160 |
| ACSM | ₦511,100 | ₦11,649,800 | ₦12,160,900 | ₦ 16,145,000 | ₦ - | ₦ 16,145,000 | ₦ 12,645,000 | ₦ - | ₦ 12,645,000 |
| PSM | ₦420,988,783 | ₦6,316,000 | ₦427,304,783 | ₦ 665,145,000 | ₦ - | ₦ 665,145,000 | ₦ 665,479,743 | ₦ - | ₦ 665,479,743 |
| M&E | ₦- | ₦57,840,880 | ₦57,840,880 | ₦ 39,163,200 | ₦ - | ₦ 39,163,200 | ₦ 39,163,200 | ₦ - | ₦ 39,163,200 |
| PM | ₦25,135,001 | ₦18,456,900 | ₦43,591,901 | ₦ 40,051,300 | ₦ - | ₦ 40,051,300 | ₦ 39,865,300 | ₦ - | ₦ 39,865,300 |
| Total | ₦534,858,283 | ₦146,764,880 | ₦681,623,163 | ₦ 912,918,300 | ₦ - | ₦ 912,918,300 | ₦ 883,037,153 | ₦ - | ₦ 883,037,153 |

**Katsina State Budget for Malaria Elimination Activities (2016 - 2018) - Percentage Contribution from Government and Partners**

| Objective Area | 2016 (%) | | 2017 (%) | | 2018 (%) | | 2016 - 2018 (%) | |
|---|---|---|---|---|---|---|---|---|
| | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** |
| Malaria Prevention | 89% | 11% | 100% | 0% | 100% | 0% | 97% | 3% |
| Malaria Diagnosis | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| Treatment | 0% | 100% | 100% | 0% | 100% | 0% | 59% | 41% |
| ACSM | 4% | 96% | 100% | 0% | 100% | 0% | 72% | 28% |
| PSM | 99% | 1% | 100% | 0% | 100% | 0% | 100% | 0% |
| M&E | 0% | 100% | 100% | 0% | 100% | 0% | 58% | 42% |
| PM | 58% | 42% | 100% | 0% | 100% | 0% | 85% | 15% |
| **Total** | 78% | 22% | 100% | 0% | 100% | 0% | 94% | 6% |

While recognising that government funding of malaria in the state has increased over the years. To sustain and possibly increase the current level of malaria control efforts, the government will need to further increase its funding of malaria and advocacy for resource mobilisation from partners and private sector.

# Working together to combat malaria

**A synopsis of SuNMaP (Support to National Malaria Programme) contributions to malaria elimination efforts in Lagos State, Nigeria**

## Acknowledgements

SuNMaP is grateful to the Lagos State Commissioner of Health, Permanent Secretary, Director Disease Control and the SMEP Manager for their time and contribution towards the production of the sustainability and exit report. SuNMaP's journey in the state has been enriching and it was a pleasure to work with all involved. This document serves as the legacy of the programme in Lagos state. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in the state.

**Dr Femi Owoeye**
**SuNMaP Programme Director**

# Contents

# Abbreviations and acronyms

| | |
|---|---|
| AOP | annual operational plan |
| ACSM | advocacy and social communication mobilisation |
| ACT | artemisinin combination therapy |
| BCC | behavioural change communication |
| BRT | bus rapid transit |
| CHAI | Clinton Health Access Initiative |
| CHAN | Christian Health Association of Nigeria |
| COMPASS | Community Participation for Action in the Social Sector |
| DDT | dichloro-diphenyl-trichloroethane |
| DfID | UK Department for International Development |
| DPRS | Directorate for Planning Research and Statistics |
| GF | Global Fund |
| IEC | information, education and communication |
| IPT | intermittent preventive treatment |
| ISS | integrated supportive supervision |
| LLIN | long lasting insecticidal nets |
| LMIS | logistic management information systems |
| LSMoH | Lagos State Ministry of Health |
| MCLS | malaria commodity logistics system |
| M&E | monitoring and evaluation |
| mTWG | Malaria Thematic Working Group |
| NHMIS | National Health Management Information System |
| mRDT | malaria rapid diagnostic test |
| NMCP | National Malaria Control Program |
| NMSP | National Malaria Strategic Plan |
| PATHS | Partnership for Transforming Health Systems |
| PHCMB | Primary Health Care Management Board |
| PM | programme management |
| PMV | patent medicine vendor |
| PSM | procurement and supply chain management |
| SD | service delivery |
| SFH | Society for Family Health |
| SMOH | State Ministry of Health |
| SMEP | State Malaria Elimination Program |
| SuNMaP | Support to National Malaria Control Programme |
| TA | technical assistance |
| TMM | Technical Malaria Manager |
| ToR | terms of reference |
| TWG | Technical Working Group |
| UNICEF | United Nations Children’s Fund |
| VFM | value for money |
| WB | World Bank |
| WHO | World Health Organisation |
| WMD | World Malaria Day |

# 1. Background and introduction

Support to National Malaria Programme (SuNMaP), is an eight-year (2008-2016) £89 million programme funded by the UK Department for International Development (DfID)/UK aid. With a mandate to support Nigeria to achieve an ambitious scale up of malaria results, SuNMaP started supporting the National Malaria Control Programme, now the National Malaria Elimination Programme (NMEP) in 10 states: Anambra, Kano and Lagos (since September 2008), Katsina, Niger and Ogun States (since June 2009). Others are Jigawa, Enugu and Kaduna (since early 2012) and Yobe, since 2013.

At the national level and in each state, the programme's support commenced with a rapid baseline capacity needs assessment[1] for malaria control. The findings informed the development of strategies to address the identified weaknesses in capacity, resources and systems through the provision of long and short-term technical assistance. In addition, a health facility assessments (HFA) and a laboratory assessments were conducted in 2009 and 2013 respectively, which informed the programme strategic directions to strengthen integration of malaria interventions (preventive and curative) into routine service delivery. Early in 2014, a rapid capacity re-assessment of nine of the 10 focal states (excluding Yobe State) was commissioned to inform the programme's pre-closure work-plan and ultimately, its exit and sustainability plan.

SuNMaP provided a full range of support across its outputs, each of which focused on one element of comprehensive malaria control and elimination, these were:

1. Capacity building for policy development, planning and coordination
2. Harmonising cross-agency support for the malaria control
3. Increasing coverage of effective measures for malaria prevention
4. Improving the population's access to effective malaria treatment
5. Enhancing community awareness and demand for effective malaria treatment and prevention
6. Operational research to gather evidence and its use in programme implementation. It also provided additional support to data management strengthening of National Health Management Information System (NHMIS).

In addition to its work in the public sector and the fact that Lagos State is a commercial hub for the south west region of the country, it was evident that SuNMaP had to support the commercial sector. Before commencement of this support, the programme conducted formative research that led to the design of our approach. This involved supporting the commercial sector to improve access to parasitological-based diagnosis, effective treatment and prevention, which entailed the use of a

[1] The baseline assessment data was collected through appraisal and discussion visits to Federal/State/LGA Agencies; service delivery points; partners, public, private and commercial sector managers; focus group discussions (FGDs). Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DfID. The appraisal tool was adapted from the SuNMaP basic information collection tool; PPRHAA (peer, participatory rapid health appraisal and action) tools for appraising Management Boards and the Roll Back Malaria Needs Assessment and Planning tool by the World Health Organisation and Malaria Consortium, August 2003

total-market model that harnessed the resources of the commercial sector to build and sustain the market for quality assured long lasting insecticidal nets (LLINs), malaria rapid diagnostic tests (mRDTs) and artemisinin combination therapy (ACTs).

As SuNMaP closes this year, this is an executive summary[2] of eight years of engagement in Lagos State. It reviews the situation at the inception of the Programme and provides a snapshot of the current situation including SuNMaP contributions. This paper also contains some of the lessons learnt while employing overarching best practices to deliver the programme's six core outputs of capacity building, harmonisation, prevention of malaria, treatment of malaria, awareness and demand creation and operations research. There are recommendations to help the state sustain the gains and contribute to the achievement of targets envisaged in the National Malaria Strategic Plan (2014-2020).

## 2. Malaria situation before SuNMaP

At baseline in December 2008, malaria was responsible for about 66 percent of clinic attendance with majority of people seeking initial health care from private providers in the state. In 2008, 427,625 uncomplicated malaria cases were reported, 48,603 cases of severe malaria, 12,586 cases of malaria in pregnancy and 80 malaria deaths. Diagnosis of malaria was mainly clinical except in some hospitals.

The state malaria control team was composed of five individuals, however, most did not have a defined job description against which performance could be assessed. The team operated from a cramped office which was shared with personnel involved with HIV control. The malaria programme had a separate budget line in the Ministry of Health (MoH) budget although yearly expenditure was lower than the budget estimate

Partners operating in Lagos at the time SuNMaP started working in the state included World Health Organisation (WHO), UNICEF, World Bank and UK Department for International Development (DfID) but malaria control activities were supported by the Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM), Community Participation for Action in the Social Sector (COMPASS), JICA and Society for Family Health (SFH). Coordination meetings were infrequent and partners were not reporting their action plans, budgets and activities regularly to the malaria control programme.

A State Strategic Health Plan and a malaria control work plan (2007 to 2010) existed, but there were no indications that they were conceptualised with the malaria control team. Hence, malaria control activities were described as 'impromptu' or mostly 'ad-hoc' and 'top-down' along the tiers of government.

There were indications of weak linkages between the Malaria Control staff and other members of the health team such as the Directorate of Pharmaceutical Services of the Lagos State Ministry of Health (LSMoH), monitoring and evaluation, disease surveillance and notification, safe motherhood/MCH and family planning.

[2] Data for this Executive Summary was collected, analysed and written up by a national consultant. The methodology included FGDs and Key Informant Interviews of Government officials, Partners and SuNMaP staff. The field work was preceded by a desk review of secondary data & SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 & 2015.

Some national documents guiding malaria control such as policies and plans were not available at the state and local government area (LGA) level at the time of baseline assessment. Implementation skills for carrying out various malaria control interventions were observed to be deficient despite adequate display of knowledge of such interventions.

A research group was in place to advice on the use of dichloro-diphenyl-trichloroethane (DDT). The mandate of the group did not include other malaria interventions in the state.

# 3. Current situation, interventions and key achievements

## Prevention of malaria

In line with the National Malaria Strategic Plan (NMSP), Lagos state has continued to implement high impact integrated vector control interventions. These mainly include larviciding, indoor residual spraying (IRS), distribution of long lasting insecticide-treated nets (LLINs) and the use of Sulphadoxine Pyrimethamine (SP) for intermittent preventive treatment of pregnant women (IPTp). In support of these interventions, the programme supported the state over the years with 979,259 doses of SP across centres that provide antenatal care (ANC) services and through Maternal Neonatal and Child Health Weeks. This contribution has resulted in a gradual increase in the proportion of women who took two or more doses of IPTp in pregnancy from 11.4 percent in 2008 to 41.3 percent in 2013 (NDHS 2008 & 2013) while 92 percent of pregnant women receive LLINs at antenatal booking clinics.

In addition to the IPTp intervention, the state has benefited from the first-ever mass LLIN campaign in Lagos with 4,194,464 LLINs distributed. The programme provided technical support during this campaign. To respond to the global evidence of use of routine distribution of LLIN to maintain high coverage (the “keep up” strategy), SuNMaP has supported the state to distribute 821,377 LLINs at antenatal clinics, routine childhood immunisation channels and public schools. LLIN distribution has resulted in an increase in net ownership from 9.3 percent in 2008 to 48 percent in 2015 (NDHS 2008 & SMART 2015).

School distributions in Lagos are an example of the use of evidence to inform programme implementation. The programme supported the state to develop the strategy on school-based LLIN distributions in Lagos State, a collaboration between state ministries of health and education. Using this strategy, the programme implemented the first-ever school LLIN distribution with over 30,000 LLINs. This channel was selected based on the NetCALC simulations that indicated that Lagos had a high school reach, allowing for a higher probability of achieving more coverage than community and other channels. The results from the model shown in Figure 1 below show that ANC-based distributions at 90 percent efficiency (i.e. 90 of women attending ANC for the first time in their pregnancy will receive an LLIN) will only be able to sustain a 19 percent household ownership coverage. But if schools are added at primary and secondary levels, the model predicts a sustained ownership coverage of around 70 percent. This implies that such a system would, indeed, have the potential to provide almost all the needed output to sustain universal coverage of LLINs in Lagos State with only 12 percent of households needing access to an LLIN from additional sources (e.g. the retail market) to reach the 80 percent target.

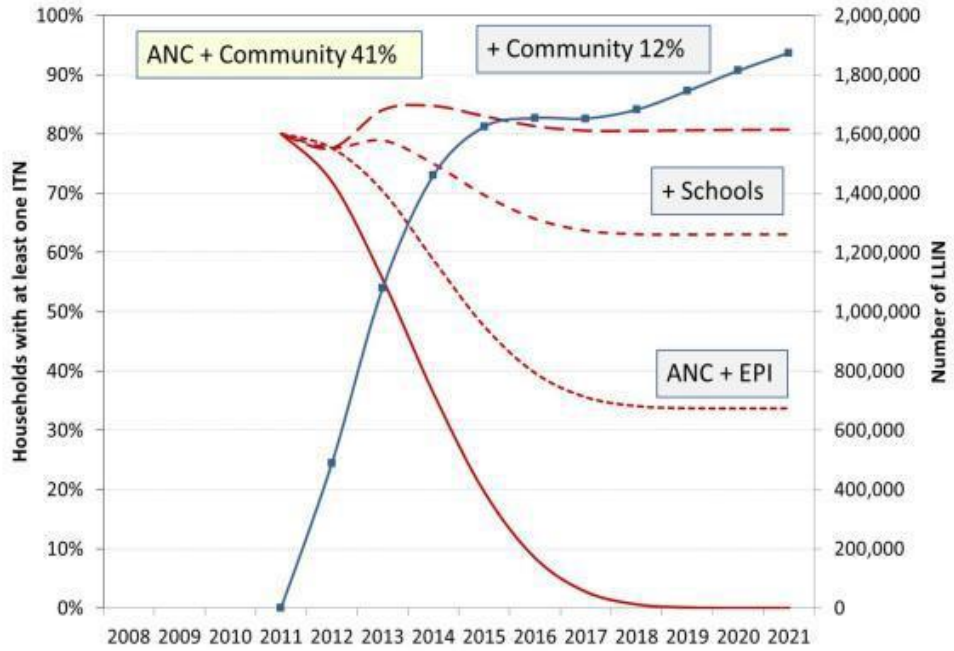



**Figure 1: NetCALC simulations for Lagos, assuming a three-year LLIN survival. The blue line represents the estimated annual number of LLINs needed to sustain the target of 80 percent coverage. The red solid line shows coverage without any continuous distributions. The red dotted line shows ANC and EPI only. The short-dashed line shows additional distributions through primary and secondary schools; and the long-dashed line shows additional needs from other sources such as commercial sector. Alternatively, ANC plus community distribution and sales reaching 41 percent of households per year would be needed**

Preliminary qualitative results show that the students have become advocates for net use in their communities.

## Malaria case management

### Diagnosis

As part of the National Malaria Strategic Plan 2014 - 2020, Lagos State continues to implement parasitological-based diagnosis of malaria. To this end, the majority of Lagos State health facilities are equipped with laboratories or mRDTs for malaria diagnosis, significantly reducing clinical diagnosis of malaria. Analysis of NHMIS for the state shows an upward trend in the number of suspected malaria cases receiving parasitological tests, from less than 10 percent in 2012 to 78 percent in 2015, with mRDT diagnosis making up the most significant proportion (figure 2).

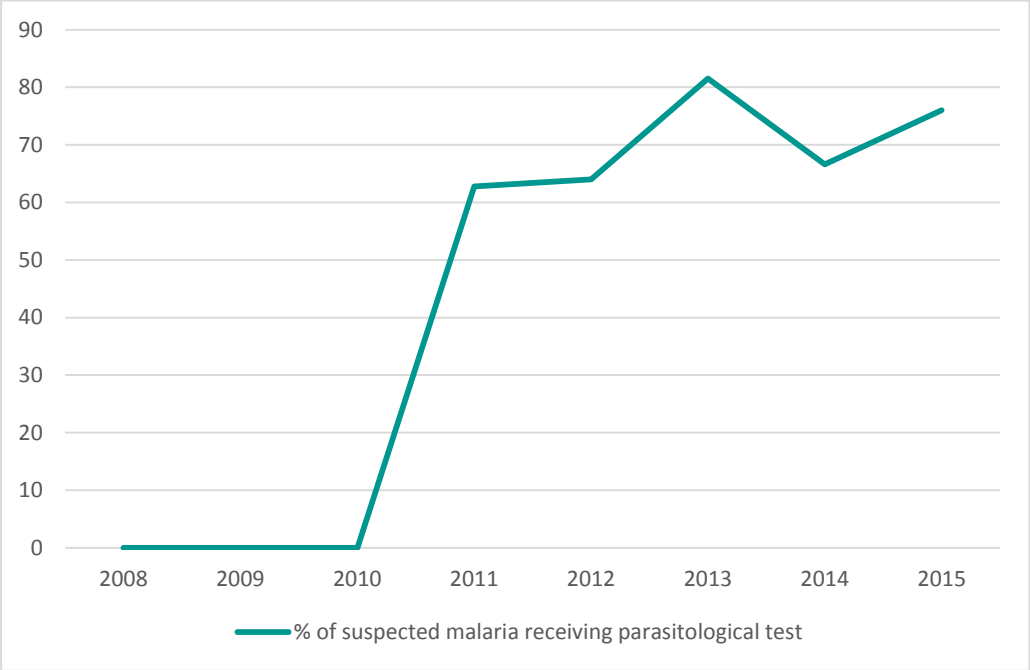



**Figure 2: Parasitological-based diagnosis (source NHMIS 2015)**

Lagos state implements strategies that ensure that all people with confirmed malaria (uncomplicated or severe) seen in private and public health facilities receive prompt treatment with an effective anti-malarial drug. Artemisinin Combination Therapy (ACT) are provided free of charge at all public health facilities. Injectable artesunate is also available for treatment of severe malaria free of charge at all secondary and tertiary facilities. Proxy indicators from the 2015 mid-year review revealed that 100 percent of people that tested positive for malaria at the health facility level received antimalarial treatment according to national treatment guidelines.

To support the above policy of diagnosis and treatment of confirmed cases, the programme has procured and supported the state to distribute 25 microscopes and 420,800 mRDTs. In addition to the commodities, the programme supported the training of microscopists and health workers on the use of mRDTs in fever management.

The programme provided 719,236 doses of ACTs to public facilities across the state using the state-supported supply chain system.

Increased availability and access to antimalarial commodities in the state have had an impact on malaria as evidenced by the falling mRDT positivity rates from over 75 percent in 2010 to below 55 percent in 2015. (NHMIS 2015)

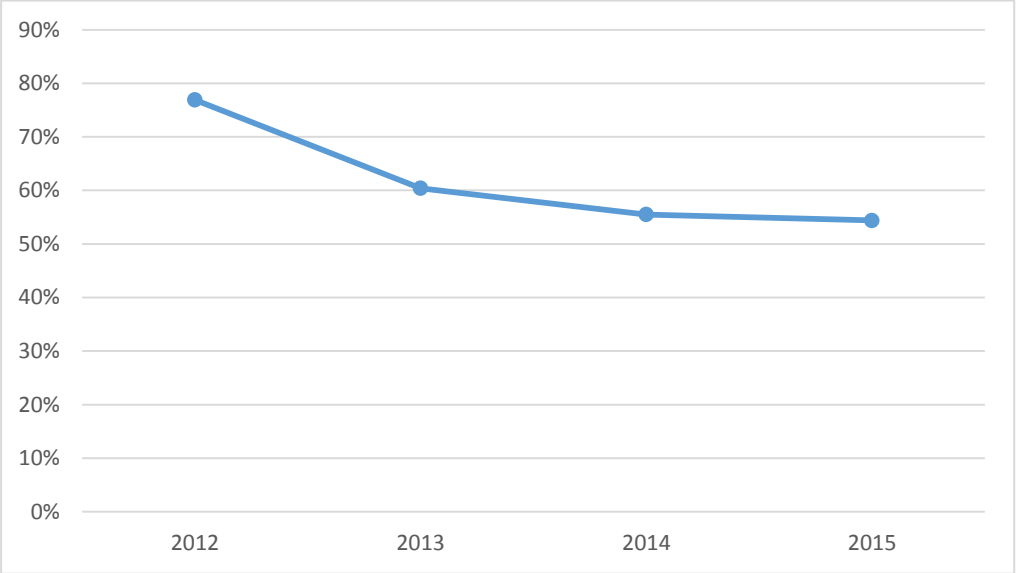



**Figure 3: Percentage of fever cases tested positive with mRDTs in Lagos State**

Further evidence available from sentinel sites set up by the programme to monitor malaria-related morbidity in the state, shows a decline in the number of out-patient cases reported to be malaria (among children under five years of age) from 55 percent in 2012 to below 30 percent in 2015.

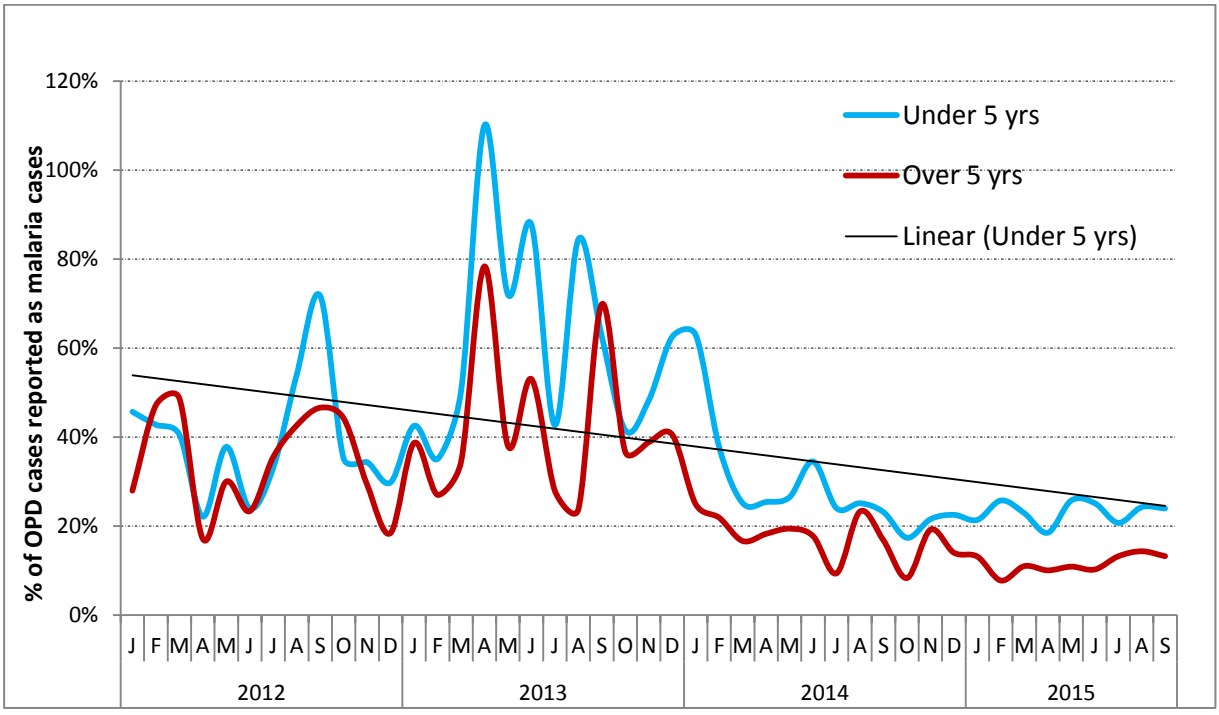



**Figure 4: Percent of OPD cases reported as malaria (source: SuNMaP Niger sentinel sites data)**

**Malaria prevention and treatment using the commercial sector**

The strategic vision for the interventions implemented by SuNMaP is to "build private and public capacity for transition from supply driven market to demand driven market and harmonization in health care services so that consumers seek for parasitological diagnosis and ACTs for effective malaria case management." To achieve this, the programme has to be able to effectively reach communities, households, caregivers and service providers to bring about sustainable changes in behaviour so they (individually and collectively) adopt 'best response, best action' in the prevention, care and treatment of malaria.

SuNMaP commercial sector intervention strategies are designed and implemented based on the ethos of 'making markets work for the poor (M4P)'. The approach is based on facilitating market systems change, which in turn can lead to a vibrant commercial ACT, RDT and LLIN sector by triggering demand, use and sales.

The strategic Intervention Areas in the Commercial Sector

- Develop market capacity for deeper penetration in untapped rural markets
- Leverage the AMFM scheme to strengthen and increase access to ACTs in rural markets
- RDT Subsidy pilot
- Harmonization in health care services for diagnosis through RDTs and sales of ACTs at the same retail/ health service point

| **Intervention Area** | **Intervention** |
|---|---|
| Stimulating supply and distribution of QA ACTs and RDTs through partnership with professional associations | Partnership with Association of Medical Laboratory Scientists of Nigeria (AMLSN) for increased penetration of RDT through laboratory outlets with ACPN for increased penetration through pharmacy network. The AMLSN had the wrong perception that RDT were being canvassed to replace microscopy and thus displace their role in healthcare. An RDT intervention was difficult to initiate with the association. The ACPN was more accommodating, their capacity and distribution channels was strengthen. Selected pharmacies were branded as quick test centers |
| Develop market capacity for deeper penetration of QA ACTs in rural markets | RDT demand creation in non-UNITAID states through promotional offer |
| Strengthening distribution and promotion of ACT & RDT through Co-bundling | Partnership with AMFm first line buyers to establish rural supply chain |
| | Strengthen supply of quality assured RDTs through MAS |
| Strengthening QA of ACT and RDTs through deployment of Mobile Authentication System of NAFDAC | Reducing proliferation of RDT brands through mobile authentication for RDTs. The mobile authentication system is yet to be endorsed by the regulator, but based on the successful adoption of this system with the ACTs, it is a certain pathway to product authentication. |
| | |
| Stimulating demand for RDTs through provider driven communication and product detailing | Support to private sector to train professionals/ health care providers on case management. |

| | |
|---|---|
| Increasing consumer awareness through generic and branded campaign | Branded and non-branded generic campaign in UNITAID states. The non-branded generic campaign was deployed, while the branded campaign was difficult to initiate because of partner's reluctance to commit resources to campaigns for products for which they have no exclusivity. |

Using this approach – known as the 'making the market work for the poor' model, or M4P – the programme through its commercial sector partners sold 1,021,814 LLINs and 2,515,502 ACTs. In addition, the programme has:

- Finalized support to partners on QA ACT/RDT awareness and demand creation campaigns in SuNMaP focal states
- Reached over 2,097 PPMVs for ACT distribution
- Partnership with professional associations on distribution of ACT/RDT – AGPMPN, ACPN
- Supported NMEP in the development of case management strategy for the private sector
- Facilitated linkages between AMFm first line buyers and PPMVs on direct supply of subsidized ACTs
- Facilitated business linkages between commercial sector partners to leverage on inherent strengths and to minimize weaknesses in establishing distribution channels for RDTs


**Advocacy communication and social Mobilisation**

There is an established and functional advocacy, communication and social mobilization (ACSM) committee, a sub-committee of the Lagos State Malaria Research Technical and Advisory Committee (LASTMARTAC) that oversees malaria activities in the state. At the community level, there are vibrant Local Government Area Social Mobilisation Committees (SMCs) and community-ased organisations (CBOs) that are involved in increasing awareness and mobilising the community members on malaria elimination in all the 376 wards of the state.

The entry point to malaria prevention and control in Lagos state, as it was for most of the SuNMaP supported states, was to organise and conduct the LLIN distribution campaign, aimed at addressing the problem of very low ownership and use of LLINs. As of 2008, LLIN use among children under five years was 3 percent and 3.4 percent among pregnant women; just as the average use of two doses of SP for prevention of malaria in pregnancy was 11.4 percent in the state (NDHS, 2008). The demand creation support by SuNMaP was for the public and private sector intervention, implemented in collaboration with partners. The highlights of the key interventions in Lagos state were as follows:

- As part of SuNMaP support to the social and behaviour change communication (SBCC) component of the LLIN campaign in the state, the demand creation team was selected and trained on basic skills in communication. SBCC materials were designed, developed, produced and distributed.
- SBCC materials were produced in various print and electronic formats, and in English and Yoruba, the local language, to address the need of the priority audiences.
- Community dialogues (CDs) were conducted in the focal LGAs, especially in 60 communities where clinic-based health workers were trained in malaria service delivery. The CDs and the related referral of caregivers and other community members to the health facilities was one of the methods to link the prevention and treatment aspects of SuNMaP.
- As a follow up to the LLIN campaign, the ASCM intervention extended to the routine distribution of commodities. The messages were also disseminated in different formats of print materials, as well as on radio and television. Print materials included poster leaflets and charts, while radio messages were delivered as radio and television spots, magazines and dramas. Prevention and treatment messages on radio and television reached and estimated ten million people. The use of technology was applied to the dissemination of the malaria prevention treatment messages. Bulk SMS messages on malaria prevention were sent to 100,000 residents.
- The interventions at the community level were planned and delivered, in collaboration with the ACSM committee of the SMEP, and the PIPs in SuNMaP. In Lagos state, SuNMaP partnered with the Health Reform Foundation and Christian Health Association of Nigeria (CHAN). The annual commemoration of World Malaria Day (WMD), supported by SuNMaP, provided an opportunity to work with other partners to conduct advocacy and mobilisation activities especially at the community level.
- A major boost to the demand creation activities for malaria programme in Lagos state was the support provided by SuNMaP to the private sector in the form of commercial sales promotion of malaria commodities. The behaviour change communication activities, messages and material were delivered on radio, television and at the community level, as an integral part of the commercial sector intervention of SuNMaP.
- Feedback regarding the ACSM interventions was obtained through community level assessments (CLAs).

**Procurement and supply management**

Procurement of anti-malarial commodities is conducted by Lagos State government and supported by implementing partners such as the Global Fund through the National Malaria Elimination

Programme (NMEP), SuNMaP and Clinton Health Access Initiative (CHAI). Commodities are stored at the State Central Medical Store (CMS), Oshodi, and distributed to facilities on a bi-monthly basis through third party logistics companies and the LGA logisticians.

Capacity building activities, which include Malaria Commodity Logistics System trainings and supportive supervisory visits, have been conducted across all 20 Local Government Areas (LGAs) in the State. Recent record of stock-out of ACTs, mRDT kits and LLINs lasting more than a week were reported in 59 percent, 29 percent and 99 percent of health facilities respectively.

SuNMaP has supported the state in procurement and supply chain management by providing training and refresher training for 312 health workers Logistic Management Information System (LMIS) and the provision of tools to capture LMIS related data. This has aided the quantification process of AMCs in the state from morbidity-based to consumption-based quantification, with the state fully implementing a pull system. In addition, the programme has put in place a system of supervisory visits to health facilities on the use of LMIS, bi-monthly stock reporting and also introduced malaria commodity monitoring and audit and this has led to a reduction in stock outs of essential medicines for malaria.

Figure 5 below shows the number of AMCs the programme has procured, supported the distributed.

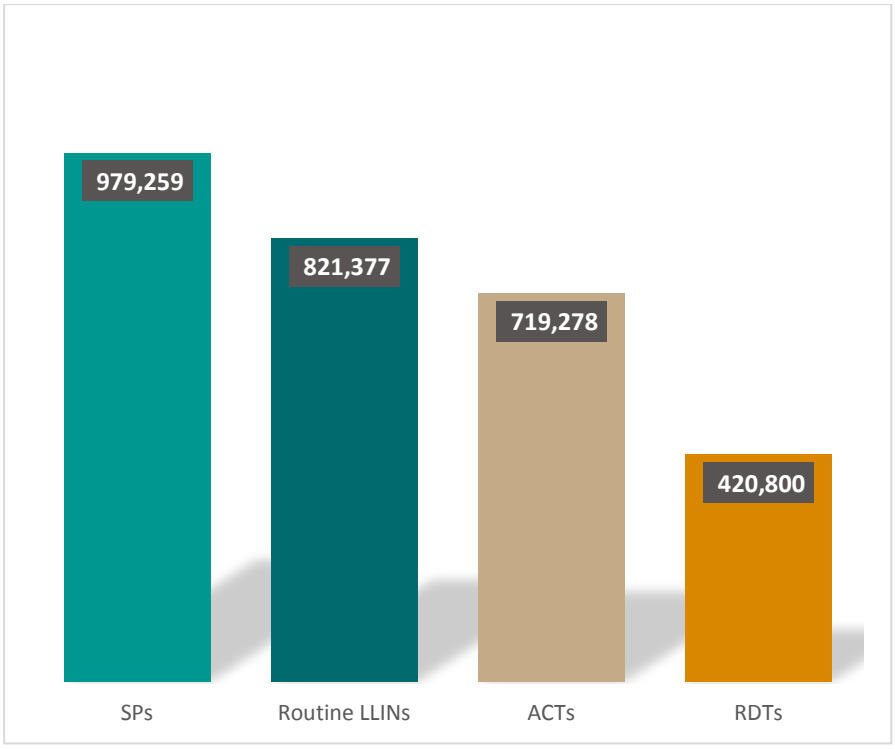



**Figure 5: Commodities distributed in Lagos from inception to December 2015**

**Monitoring and evaluation**

The state has a functional HMIS unit that coordinates data reporting at all levels in the state, regularly strengthening the capacity of the malaria focal persons on the NHMIS. Routine data quality assessment is also done in many health facilities.

SuNMaP supported data quality review meetings as well as the printing of HMIS forms to ensure adequate data capture at facilities. In addition, there are nine sentinel sites and health facilities for data collection and monitoring of records on malaria indicators. With this support, the number of health facilities reporting data through the District Health Information System (DHIS) has now reached 282 (92 percent) with 246 (80 percent) reporting promptly (Figure 6).

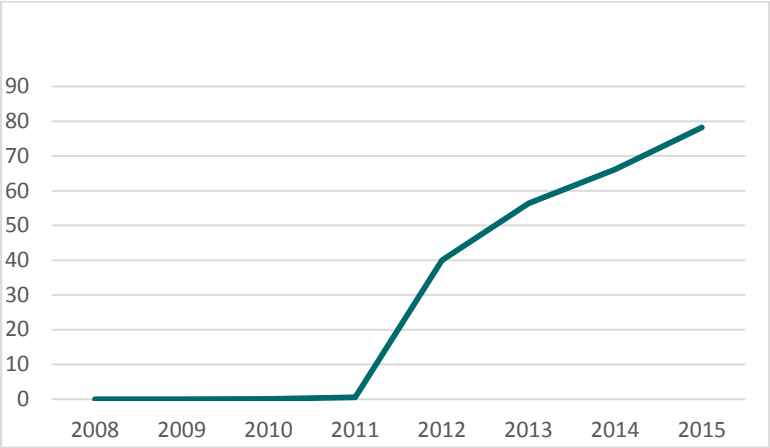



**Figure 6: Lagos state reporting rates (NHMIS 2015)**

**Programme management**

The organisational structure of the Lagos (SMEP) is in line with the national framework for state-level coordination of malaria control with the SMEP Manager, Assistant SMEP Manager/Case Management Officer, M&E officer, ACSM officer, PSM Officer, and other ad-hoc staff such as the Programme Accountant, Internal Auditor and Logistician. A recent transfer and replacement of the RBM manager and Director of Disease Control was observed. The SMEP Manager also doubles as State Coordinator for Diabetes and Hypertension Control. There is a budget line for malaria control in Lagos State, although the amount released for implementation of malaria control activities is usually less than the amount in the annual budget.

Malaria elimination annual operational plans are developed at state and LGA levels for unified planning and implementation of malaria elimination activities. There have been periodic reviews to assess the extent of implementation of planned activities. Lagos State Ministry of Health/SMEP provides leadership, coordinates and harmonises the efforts of all players and stakeholders through LASMARTAC, chaired by the Honourable Commissioner for Health. There also is the Malaria Technical Working Group (mTWG) chaired by the Director of Public Health. Coordination of malaria control activities at the state level is ensured through the monthly mTWG meetings, preventing duplication of efforts and wastage of resources. Health workers are trained and retrained on malaria case management, National Health Management Information System reporting and Logistics Management Information System reporting. Supportive supervision is also carried out at public health facilities.

Other partners providing support for malaria control in Lagos State include Society for Family Health (SFH), Global Fund and CHAI. CHAI commenced support in 2013 and is involved in the provision and quantification of injectable artesunate for severe malaria as well as training of health workers in the management of severe malaria in the public sector. The project is expected to run to June 2016. SFH, a recipient of the Global Fund, supports the state with provision of mRDTs and ACTs as well as

training of health workers, mainly in the private sector; support runs to 2017. The Lagos State Government has also been funding malaria control activities, especially in the area of IRS and larviciding.

SuNMaP support in the state has contributed to the strengthening of capacities of SMEP and SMoH through various service delivery and programme management trainings. ISS is an integral part of health system strengthening through capacity building. Patent medicine vendors (PMVs) and community caregivers (CCGs) also enjoyed various levels of capacity building with respect to malaria control. The programme supported the coordination meetings of partners during the monthly RBM meetings for adequate coordination and harmonisation of partner interventions.

SuNMaP also supported the SMEP in the development of seven annual operational plans (2010-2016), multi-year plans for 2017 and 2018 and LGA work plans for five LGAs – namely: Alimosho, Ifako-Ijaiye, Mushin, Somolu, and Surulere. These plans were reviewed periodically to document the extent of implementation of planned malaria control activities in the state.

Disaggregated numbers of health personnel trained in the state over the seven years of the programme are shown in the graph below.

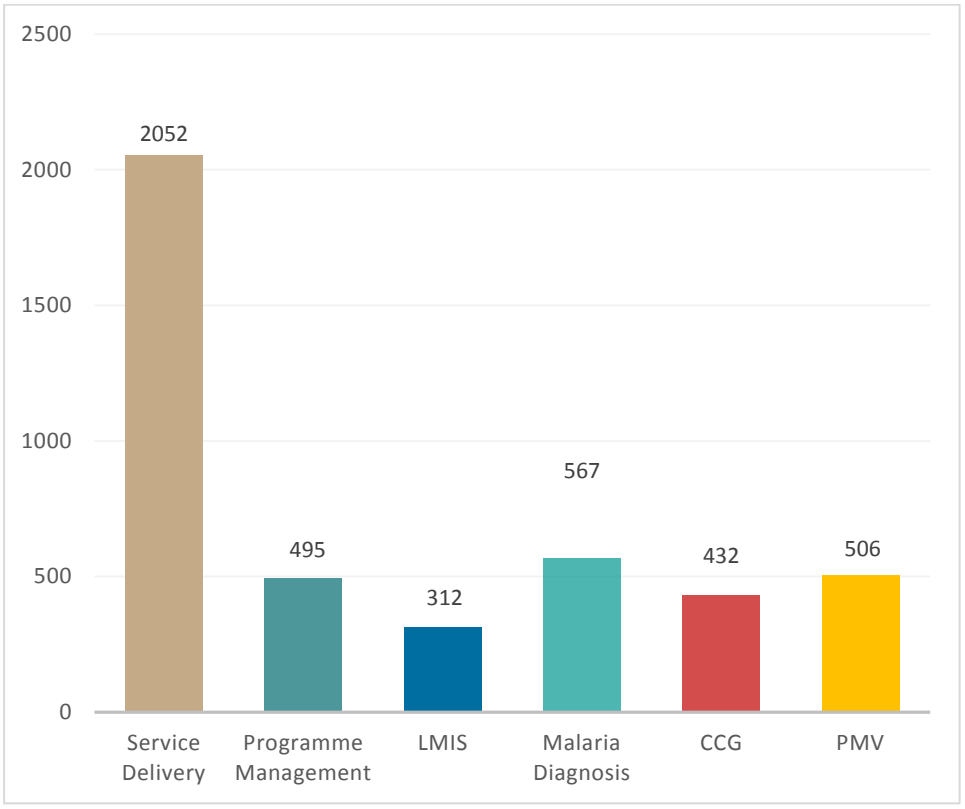



**Figure 7: Disaggregated numbers of health personnel trained in Lagos State, seven years**

SuNMaP participated and provided technical support where necessary at the LASMARTAC meetings. The committee provides a forum where activities relating to malaria prevention and control are discussed by all partners and stakeholders in the state and solutions are found.

In addition, the programme has led in the provision of support to the state in the development of key state-driven documents, including policy, guidelines, frameworks and plans (annual and multi-year). These include: costed AOPs (2010, 2011, 2012, 2013, 2014 2015 and 2016); Lagos State Malaria Multiyear Plans 2017 – 2018; multi-year training plans; state advocacy, communication and social mobilisation framework; State Integrated Supportive Supervision/On-the-Job Capacity Building (ISS/OJCB) Implementation Framework; and the Lagos State Strategy on Continuous Distribution of LLINs through Schools.

## 4. Best practices

**Value for money:** SuNMaP Lagos optimised the use of resources to achieve the intended outcomes by complying with programme procurement and financial policy to ensure quality inputs. The use of trained state facilitators in place of consultants has also been beneficial.

**Contextualisation:** Lagos State has 20 LGAs which were variously created by the Federal Government between 1976 and 1996. The State Government subsequently created 37 Local Council Development Areas (LCDAs) in addition to the 20 LGAs. Each of the LGAs/LCDAs has a primary healthcare department headed by a Medical Officer of Health, and a Malaria Control Focal Person. Allocated resources from the Federal Government are distributed among the 20 LGAs and 37 LCDAs. Apart from this peculiarity, LSMoH expressed discomfort with the idea of limiting interventions to selected focal LGAs.

In view of this, SuNMaP had to contextualise its engagement with the Lagos State Government and the 25 percent focal LGAs. On a number of occasions, both SuNMaP and LSMoH had to provide the extra resources required to accommodate all the 20 LGAs and 37 LCDAs.

**Coordination, harmonisation and stakeholder engagement**: The industrial and commercial nature of Lagos State, its political economy, diverse population and other factors has made it a preferred destination for donor support. Hence there is a well-populated landscape of multilateral and bilateral agencies. This backdrop and the typical strength of character which sets the average Lagosian apart, made it imperative for SuNMaP to mainstream the principles of coordination, harmonisation and stakeholder engagement as integral to planning and implementation of all its outputs and interventions in Lagos State.

## 5. Lessons learnt

The usual Lagos traffic congestion in most parts of the city increased travelling time and delayed the timing of activities. It is important to factoring in travel time when considering when planning activities that involve transportation.

## 6. Recommendations

Data quality, timeliness and accuracy need to be improved on by analysing factors affecting data quality in the state. Involvement of health facility staff in basic data analysis should be encouraged and there should be a continuous strengthening of the LMIS system.

## 7. Going forward

Lagos State Malaria Elimination Programme has put the following measures in place to ensure sustainability of SuNMaP support after the programme exit:

1. Ensure full involvement of SMEP personnel in planning and implementation of SuNMaP and other partner interventions
2. Operate personnel exit replacement policy to avoid vacuum
3. Support malaria control activities with over 50 percent of the fund allocated for disease control

# Annex

## Lagos State budget for malaria elimination activities (2016 - 2018)

The estimated total cost of malaria control activities in Lagos between 2016 and 2018 is ₦ 1,922,054,700 (2016 - ₦661,774,700; 2017 - ₦618,905,000 and 2018 - ₦641,375,000). The estimated commitment from partners to malaria control activities in 2016 is 19 percent. However, there is no partner commitment beyond 2016.

| Objective Area | 2016 (amount) | | | 2017 (amount) | | | 2018 (amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| **Malaria prevention** | ₦ 496,740,100 | ₦ 22,394,000 | **₦ 519,134,100** | ₦ 539,500,000 | ₦ - | **₦ 539,500,000** | ₦ 563,000,000 | ₦ - | **₦ 563,000,000** |
| **Malaria diagnosis** | ₦ 2,011,100 | ₦ - | **₦ 2,011,100** | ₦ 2,420,000 | ₦ - | **₦ 2,420,000** | ₦ 2,790,000 | ₦ - | **₦ 2,790,000** |
| **Treatment** | ₦ - | ₦ 22,056,400 | **₦ 22,056,400** | ₦ 7,010,000 | ₦ - | **₦ 7,010,000** | ₦ 2,010,000 | ₦ - | **₦ 2,010,000** |
| **ACSM** | ₦ 3,688,450 | ₦ 33,180,000 | **₦ 36,868,450** | ₦ 4,800,000 | ₦ - | **₦ 4,800,000** | ₦ 4,800,000 | ₦ - | **₦ 4,800,000** |
| **PSM** | ₦ 25,061,250 | ₦ 31,088,200 | **₦ 56,149,450** | ₦ 48,700,000 | ₦ - | **₦ 48,700,000** | ₦ 48,700,000 | ₦ - | **₦ 48,700,000** |
| **M&E** | ₦ 1,824,000 | ₦ 18,164,200 | **₦ 19,988,200** | ₦ 9,000,000 | ₦ - | **₦ 9,000,000** | ₦ 12,600,000 | ₦ - | **₦ 12,600,000** |
| **Programme management** | ₦ 5,567,000 | ₦ - | **₦ 5,567,000** | ₦ 7,475,000 | ₦ - | **₦ 7,475,000** | ₦ 7,475,000 | ₦ - | **₦ 7,475,000** |
| **Total** | **₦ 534,891,900** | **₦ 126,882,800** | **₦ 661,774,700** | **₦ 618,905,000** | **₦ -** | **₦ 618,905,000** | **₦ 641,375,000** | **₦ -** | **₦ 641,375,000** |

## Lagos State budget for malaria elimination activities (2016 - 2018) - percentage contribution from government and

## partners

| Objective Area | 2016 ( percent) | | 2017 ( percent) | | 2018 ( percent) | | 2016 - 2018 ( percent) | |
|---|---|---|---|---|---|---|---|---|
| | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** |
| Malaria prevention | 96 percent | 4 percent | 100 percent | 0 percent | 100 percent | 0 percent | 99 percent | 1 percent |
| Malaria Diagnosis | 100 percent | 0 percent | 100 percent | 0 percent | 100 percent | 0 percent | 100 percent | 0 percent |
| Treatment | 0 percent | 100 percent | 100 percent | 0 percent | 100 percent | 0 percent | 29 percent | 71 percent |
| ACSM | 10 percent | 90 percent | 100 percent | 0 percent | 100 percent | 0 percent | 29 percent | 71 percent |
| PSM | 45 percent | 55 percent | 100 percent | 0 percent | 100 percent | 0 percent | 80 percent | 20 percent |
| M&E | 9 percent | 91 percent | 100 percent | 0 percent | 100 percent | 0 percent | 56 percent | 44 percent |
| PM | 100 percent | 0 percent | 100 percent | 0 percent | 100 percent | 0 percent | 100 percent | 0 percent |
| **Total** | **81 percent** | **19 percent** | **100 percent** | **0 percent** | **100 percent** | **0 percent** | **93 percent** | **7 percent** |

While recognising that government funding of malaria in the state has increased over the years. To sustain and possibly increase the current level of malaria control efforts, the government will need to further increase its funding of malaria and advocacy for resource mobilisation from partners and private sector.

# Working together to combat malaria

**A synopsis of SuNMaP (Support to National Malaria Programme) contributions to malaria elimination efforts in Niger State, Nigeria 2009-2016**

# Contents

## Abbreviations and acronyms

| | |
|---|---|
| ACSM | Advocacy, communication and social mobilisation |
| ACT | Artemisinin-based combination therapy |
| ANC | Ante-natal care (centres) |
| AOP | Annual operational plan |
| CORPs | Community oriented resource persons |
| DRF | Drug Revolving Fund |
| DHIS | District health information system |
| DPH | Directorate of Public Health |
| DPRS | Directorate of Planning, Research and Statistics |
| GFATM | Global Fund to Fight AIDS, Tuberculosis and Malaria |
| HFs | Health facilities |
| IEC | Information, education and communication |
| HMIS | Health Management Information System |
| IPTp | Intermittent preventive treatment for pregnant women |
| ISS | Integrated supportive supervision |
| IVM | Integrated vector management |
| LGAs | Local government areas |
| LLINs | Long lasting insecticidal nets |
| M&E | Monitoring & evaluation |
| MFPs | Malaria focal persons |
| MoLG | Ministry of Local Government |
| mTWG | Malaria Technical Working Group |
| NDHS | National Demographic and Health Survey |
| NMEP | National Malaria Elimination Programme |
| OJCB | On-the-job capacity building |
| PHC | Primary health care (centres) |
| PMVs | Patent medicine vendors |
| PSM | Procurement and Supply Chain Management |
| RDT | Rapid diagnostic test |
| SFH | Society for Family Health |
| SHI | Sustainable Healthcare Initiative |
| SHF | Secondary health facility |
| SHMB | State Hospitals Management Board |
| SMEP | State Malaria Elimination Programme |
| SMoH | State Ministry of Health |
| SP | Sulphadoxine/pyrimethamine |
| SPHCDA | State Primary Health care Development Agency |
| SuNMaP | Support to National Malaria Programme |

## Acknowledgements

SuNMaP is grateful to the Niger State Commissioner of Health, Permanent Secretary, Director Public Health and the SMEP Manager for their time and contribution towards the production of the sustainability and exit report. SuNMaP's journey in the state has been enriching and it was a pleasure to work with all involved. This document serves as the legacy of the programme in Niger state. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in the state.

**Dr Femi Owoeye**
**SuNMaP Programme Director**

# Background

Support to National Malaria Programme (SuNMaP), is an eight-year (2008-2016) £89 million programme funded by the UK Department for International Development (DfID) / UK aid. With a mandate to support Nigeria achieve an ambitious scale up of malaria results, SuNMaP started supporting the National Malaria Control Programme, now the National Malaria Elimination Programme (NMEP) and the 10 States of Anambra, Kano and Lagos (since September 2008); Katsina, Niger and Ogun States (since June 2009). Others are Jigawa, Enugu and Kaduna (since early 2012) and Yobe, since 2013.

At the national level and in each state, the programme's support commenced with a rapid baseline capacity needs assessment[1] for malaria control. The findings informed the development of strategies to address the identified weaknesses in capacity, resources and systems through the provision of long and short-term technical assistance. In addition, two health facility assessments (HFA) and laboratory assessments were conducted in 2009, 2012 and 2013 respectively, these further informed the programme strategic directions strengthening integration of malaria interventions (preventive and curative) into routine service delivery. Early in 2014, a rapid capacity re-assessment of nine of the 10 focal states (excluding Yobe State) was commissioned to inform the Programme's pre-closure work-plan and ultimately, its exit and sustainability plan.

SuNMaP provided a full range of support across its outputs, each of which focused on one element of comprehensive malaria control and elimination, these were:

1. Capacity building for policy development, planning and coordination
2. Harmonise cross-agency support for the malaria control
3. Increase coverage of effective measures for malaria prevention
4. Improve the population's access to effective malaria treatment
5. Enhance community awareness and demand for effective malaria treatment and prevention
6. Operational research to gather evidence and its use in programme implementation.

It also provided additional support to data management strengthening of National Health Management Information System (NHMIS).

[1] The baseline assessment data was collected through appraisal and discussion visits to Federal/State/LGA Agencies; Service Delivery Points; Partners, Public, Private and Commercial sector managers; Focus Group Discussions FGDs. Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DfID. The appraisal tool was adapted from the SuNMaP Basic Information collection tool; PPRHAA (Peer, Participatory Rapid Health Appraisal and Action) tools for appraising Management Boards and the RBM (Roll Back Malaria) Needs Assessment and Planning tool by WHO (World Health Organisation) and MC (Malaria Consortium), August 2003

As SuNMaP closes out, this is an executive summary[2] of six years of engagement in Niger State. It reviews the situation at the inception of the programme and provides a snapshot of the current situation including SuNMaP contributions. This brief also contains some of the lessons learnt while employing overarching best practices to deliver the programme's six core outputs. There are recommendations to help the state sustain the gains and contribute to the achievement of targets envisaged in the National Malaria Strategic Plan (2014 – 2020).

# Malaria situation in Niger State at the start of SuNMaP

Malaria is endemic in Niger State and with seasonal transmission, the highest peak being in August to September and for riverine areas, it is high all year round. In 2010, two key partners supporting malaria implementation activities in Niger state, including Society for Family Health (SFH) – a Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) principal recipient in the private health sector since 2009 and Association for Reproductive and Family Health (ARFH) – a GFATM/ NMEP sub-recipient in the public health sector since 2010.

## Prevention of malaria

The first LLIN mass campaign was planned and implemented in the state in 2009, with over 1,741,476 Insecticide Treated Nets (ITNs) distributed. Before the campaign, the proportion of households owning at least one net in the state was low at 11.4 percent (5.2 percent were LLINs)[3]. Routine distribution of nets through antenatal centres (ANC), the Expanded Programme on Immunisation (EPI) and schools was not taking place and pharmacies or Patent Medicine Vendors (PMVs) were not stocking nets for sale. Although the state had adopted and was implementing the national policy on Sulphadoxine-Pyrimethamine (SP) for Intermittent Preventive Treatment for pregnant women (IPTp), the policy documents were not regularly available at Health Facilities (HFs). Facility records indicated low turnout for antenatal care (ANC) visits. According to the NDHS 2008, only 8.7 percent of women had taken at least two or more doses of SP.

## Malaria case management

### Diagnosis

Although microscopy services were available in Secondary Health Facilities (SHFs), malaria diagnosis was largely based on clinical presentation or symptoms. Clients were charged user fees to receive a diagnosis with reports taking two to four hours and Rapid Diagnostic Tests (RDTs) for malaria were not available in most of the facilities. As a result, parasitological based

[2] Data for this Executive Summary was collected, analysed and written up by a national consultant. The methodology included FGDs and Key Informant Interviews of Government officials, Partners and SuNMaP staff. The field work was preceded by a desk review of secondary data and SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 and 2015.

[3] NDHS 2008

diagnosis was seldom practised in the state with results from the NDHS 2008 showing less than one percent testing rate. Quality assurance (QA) and quality control (QC) systems were inadequate and Standard Operating Procedures (SOPs) and job aids were not readily available at HFs.

### Treatment

The State Government put in place a free medical treatment policy for pregnant women, women giving birth, up to 40 days' post-natal treatment, children under five years and patients aged over 70 years. Artemisinin-based Combination Therapies (ACTs) were in use for malaria treatment even though quite expensive at ₦600 to ₦1000 per regimen. Consequently, monotherapies were still used. In 2008 according to the NDHS, the number of children with a fever who took ACTs was five percent. Malaria treatment guidelines, policies and job aids were rarely seen at health facilities and Local Government Area (LGA) health departments. A treatment protocol developed and followed for severe malaria was also rare. The State Hospital in Minna had no Intensive Care Unit (ICU) and referral services were limited.

## Advocacy, communication and social mobilisation

The State Health Education Unit (SHEU) is located within the Department of Primary Health Care (PHC) centres and the head of unit reports to the (PHC) Director. Although the SHEU has statutory responsibility for demand creation for all PHC and disease control programmes including malaria, the unit was rarely involved in activities of the other components. Though the SHEU develops an annual work plan, implementation of the work plan depends mainly on funding from development partners. Monitoring, evaluation, and coordination between SHEU and the designated Health Education Officers at the LGA proved to be a challenge, with little opportunity for on the job training workshops for professional health education staff in the state. There was a social Mobilisation Committee (SMC) in the state with broad membership drawn from the commercial and many other relevant sectors. However, only a small number of NGOs had the potential to mobilise for malaria control activities.

There were electronic media stations in the state which broadcast weekly outputs including health programmes on both TV and radio channels. Community members reported that they occasionally heard jingles on malaria broadcast on the radio but some communities who were asked could not recall messages heard.

Some community members were knowledgeable about malaria. However, talks conducted at health facilities on healthy living featuring messaging on malaria prevention and treatment for ANC attendees and for out-patients were not backed by the necessary communication materials. Clinic staff had no training on community mobilisation and Interpersonal Communication. Some community members had ITNs and reported that they had slept under the net the night before being asked. Some people reported unpleasant physical reactions when sleeping under ITNs and stopped using them as a result.

### Procurement and supply chain

Malaria commodities were procured and distributed via the Drug Revolving Fund (DRF) Scheme and by implementing partners. The state mainly used a push system with partners delivering antimalaria commodities to the LGAs and HFs. There was no pharmacovigilance, drug efficacy monitoring and Quality Assurance/Control.

### Monitoring and evaluation

Various data capturing tools existed across health facilities and LGAs, most of which were not user friendly and data management systems in general were quite weak. The capacity for operational research, including generating, analysing, using and disseminate data was inadequate. Consequently, data quality was poor and unreliable.

### Programme management

Some supportive supervision and monitoring visits were taking place within the health sector in general. However, the visits were mostly irregular and unstructured. An outline of malaria activities planned by the State Malaria Control Programme (SMCP) existed but it contained very a limited number of basic activities for which funding was not guaranteed. The SMCP unit had four members of staff, of which two were senior. The arrangements for coordinating and harmonising malaria efforts were weak and unclear. Training programmes were irregular and unsystematic.

## Current situation, SuNMaP interventions and key achievements

### Prevention of malaria

In line with the National Malaria Strategic Plan (NMSP), Niger state has continued to implement high impact integrated vector control interventions and activities that support the prevention of malaria in pregnant women. Following a mass LLIN campaign in 2009, net coverage increased from less than 5.5 percent to 51.5 percent[4]. The decay rate of the commonly available LLIN, necessitated a second mass LLIN campaign in 2014. This was supported by the GFATM through Society for Family Health and the NMEP, with 2,561,628 nets distributed, achieving a 95 percent net card redemption rate. Results from the NDHS 2013 showed an improvement in access to LLIN (one LLIN per two persons) from 14 percent in 2008 to 35.8 percent in 2013.

As outlined in the National Malaria Strategic plan (NMSP) 2014 – 2020, to maintain high net coverage, continuous distribution through multiple proven channels is encouraged, therefore, SuNMaP supported the state with the design and implementation of a community based LLIN distribution through community drug distributors (CDDs). This channel was selected based on the NetCALC[5] simulations for Niger State which indicated that to achieve high coverage,

[4] Niger 2011 Net Retention and Use Survey

[5] NetCALC - Tool to predict long-lasting insecticidal net (LLIN) needs and coverage

community distribution was better than other channels. Accordingly, 20,000 LLINs were distributed in Rafi LGA using 459 CDDs. In addition to community distribution, the programme has supplied 481,100 LLINs, which were distributed through 555 health facilities offering ANC.

For many years, SuNMaP has been the only partner in the state supporting the procurement and distribution of SPs for IPTp with a total of 835,931 doses of Sulphadoxine-Pyrimethamine (SP) distributed since the programme started. This support has resulted in an increase in the number of women who took two or more doses of IPTp from 8.7 percent to 34.5 percent in 2008 and 2013 respectively

(NDHS 2008 and 2013). Further analysis of NHMIS also indicates an upward trend in the number of pregnant women who received IPTp on their first ANC visit from less than one percent in 2012 to 34 percent in 2015 (figure 1)

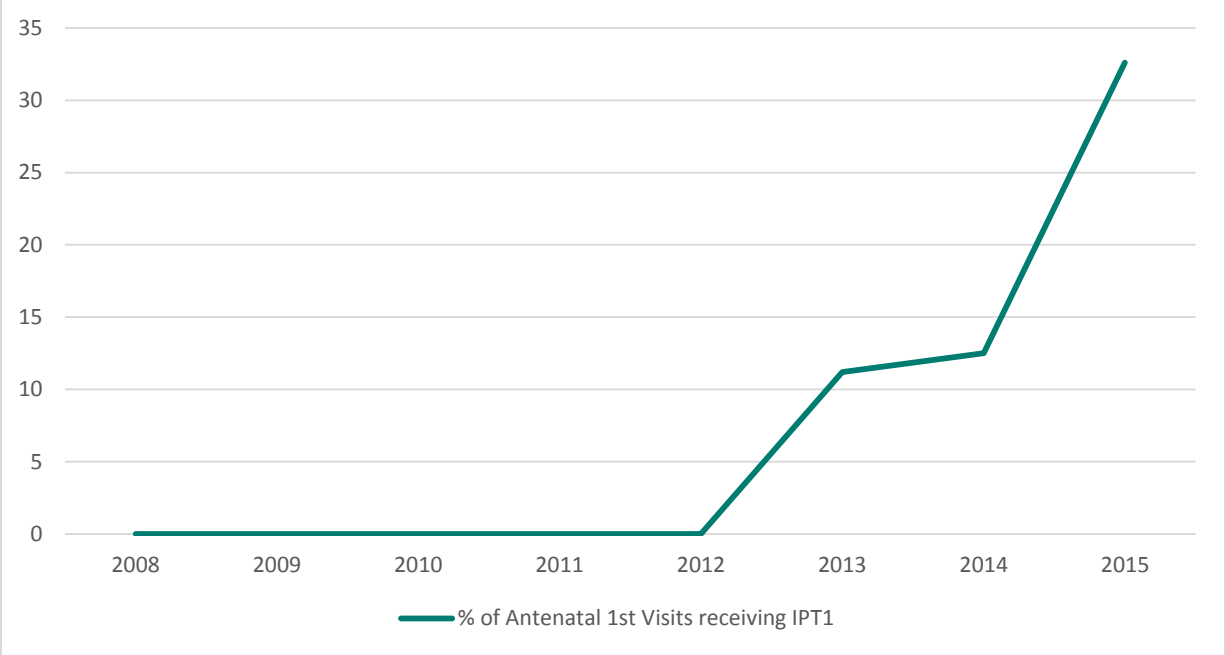



**Figure 1: Proportion who pregnant women who received IPTp1 on their first ANC visit**

## Malaria case management

### Diagnosis

As part of the National Malaria Strategic Plan 2014 - 2020, Niger State continues to implement parasitological-based diagnosis of malaria. To this end, the majority of Niger state health facilities are equipped with laboratories or mRDTs for malaria diagnosis, significantly reducing clinical diagnosis of malaria. Analysis of NHMIS for the state shows an upward trend in the number of suspected malaria cases receiving parasitological tests from less than 10 percent in 2012 to 81 percent in 2015, with diagnosis using mRDTs contributing the significant proportion (figure 2).

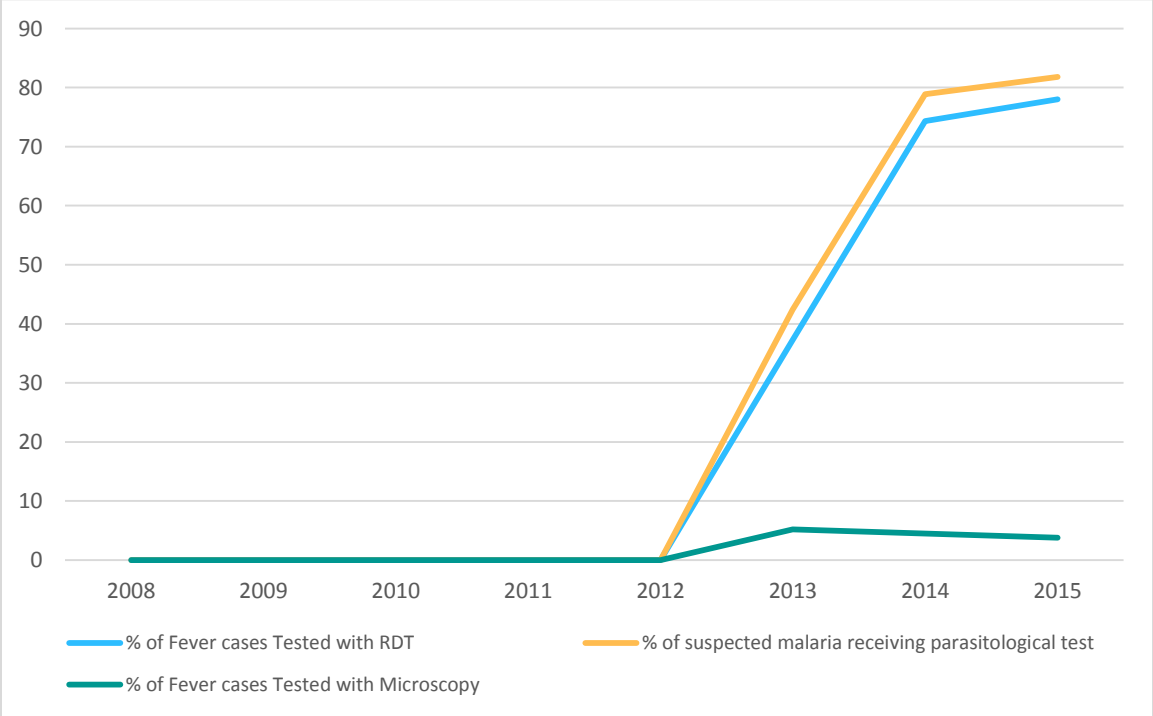



**Figure 2: Parasitological Based Diagnosis (source NHMIS 2015)**

Niger state has procured and distributed a significant number of mRDTs over time, with SuNMaP contributing over 555,400 mRDTs representing 13 percent of the total state needs for mRDTs.

To maintain a high quality of malaria diagnosis leading to improved confidence for both patients and health workers in the laboratory results, the programme supported Niger State to develop and adopt a diagnosis Quality Assurance framework. Its implementation is currently ongoing in the state with five people trained on standard microscopy and External Quality Assurance centres and teams set up.

**Treatment**

Confirmed malaria case treatment in the state has greatly improved due to the availability and use of both national and state malaria diagnosis and treatment policies and guidelines, and capacity building over seven years in both public and private facilities.

As the main source of the drug in Niger State, the programme has supplied 493,563 doses of artemisinin-based combination therapies (ACTs) for treatment. This has contributed to an increase in the number of children with fever who took ACTs from five percent in 2008 to 15 percent in 2013 (NDHS 2008 and 2013).

The SuNMaP model of using evidence to guide implementation is exemplified by the change in policy surrounding the treatment of severe malaria with the use of injectable artesunate from injectable quinine. Using evidence from the AQUAMAT study that found a greater reduction in malaria mortality when treated with injectable artesunate, the programme trained 18 national trainers on its use – two of whom were from Niger state. The trainers have since cascaded the training to all secondary health facilities in the state and over 152,660 vials of the medicine have been distributed by the programme in the state.

Evidence available from sentinel sites set-up by the programme to monitor malaria related morbidity in the state, shows a decline in the number of out-patient cases reported to be malaria cases (among children under 5 years of age) from 35percent in 2012 to below 10percent in 2015, figure 3.

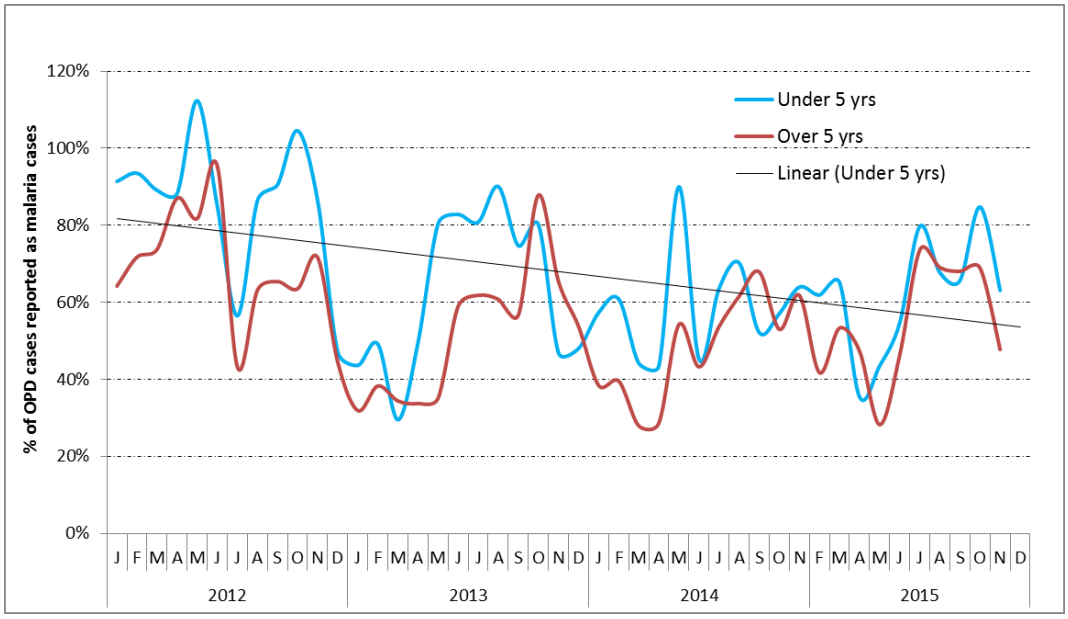



**Figure 3: Percent of OPD cases reported as malaria (source: SuNMaP Niger sentinel sites data)**

Service delivery trainings have also been undertaken by the programme in the state, including:

1. 1,541 health workers trained in service delivery (case management)
2. 102 health workers mainly from secondary facilities and private hospitals that manage severe malaria were trained in management of severe malaria using Injectable artesunate
3. 1,278 Community Care Givers (CCGs) trained on home based management of fever
4. 252 Patent Medicine Vendors (PMVs) trained on malaria case management

## Advocacy, communication and social mobilisation (ACSM)

SuNMaP facilitated the initial formation of the ACSM group in 2010, the reconstitution and orientation of the group in 2012 and the development and adoption of an ACSM framework. A state-based communication action plan was initially developed in 2010, and reviewed every year as part of the annual operation planning reviews. As of September 2015, 31 percent of the 274 political wards in the state had CBOs involved in malaria control. This figure rose from 23 percent in 2014 (at baseline, records were not available). Other key achievements supported in collaboration with SMEP and partners were:

- Produced pre-tested, and aired seven radio spots, produced at 84 slots per week in English, Hausa, Gbagyi and Nupe on two radio stations with state-wide coverage, and at heavy discount of up to 50 percent of regular rate.
- Developed, reviewed, and distributed over two million SBCC material on malaria prevention and case management messages in English and three local languages, delivered as posters, leaflets wall charts with estimated two million state residents reached, and at low cost.
- Conducted advocacy visits to high level stakeholders. The advocacy visit to the State Governor Babangida Aliyu in 2013, resulted in commitment obtained for deduction of five percent of LGA funds from source for malaria control.
- Conducted community mobilisation activities including community dialogues across the three senatorial districts in 68 wards of the six focal LGAs where service providers were trained in malaria service delivery. Community level mobilisation was conducted in collaboration with Health Reform Foundation of Nigeria (HERFON) and Federation of Muslim Women's Associations in Nigeria (FOMWAN).
- Trained 42 health workers in inter-personal communication (IPC) and advocacy.
- Trained of one Radio Producer/Presenter on the production of malaria materials in 2013.
- The ACSM group, supported by SuNMaP, assisted the LLIN distribution campaign and routine distribution of antimalarial commodities helped to increase net ownership and use, as well as the use of all other commodities.

## Procurement and supply-chain management (PSM)

A free medical treatment policy is still being implemented by the state and all facilities are encouraged to take their antimalaria commodities through the state managed systems. However, there are gaps in the quantities procured and distributed in the state compared to the annual quantification of the state.

SuNMaP has supported the state in procurement and supply chain management by training and refresher training of 843 health workers Logistic Management Information System (LMIS) and Malaria Commodity Logistic System (MCLS), and the provision of tools to capture LMIS related data. This has aided the quantification process of AMCs in the state from morbidity-based to consumption-based quantification. In addition, the programme has put in place a system of supervisory visits to HFs on the use of LMIS, bi-monthly stock reporting and also introduced malaria commodity monitoring and audit in at least 555 health facilities. This has led to a reduction in stock outs of essential medicines for malaria.

The figure 4 below shows the number of AMCs the programme has procured, supported the distributed.

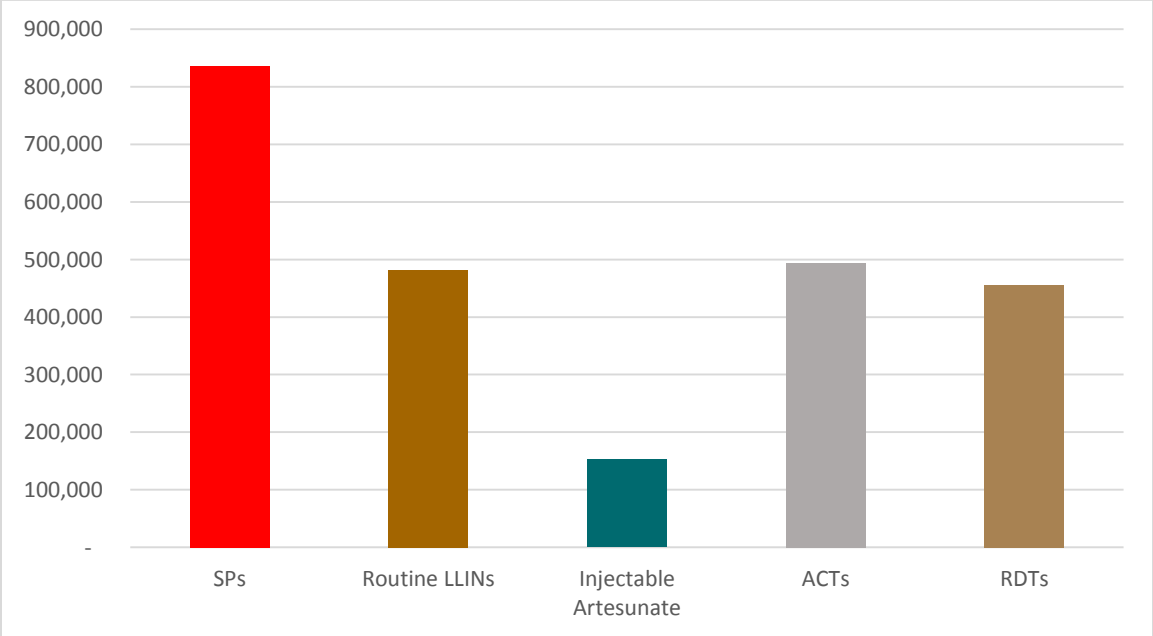



**Figure 4: Commodities distributed in Niger from inception to December 2015**

## Monitoring and evaluation, operational research

The state has a functional HMIS unit that coordinates data reporting at all levels and the District Health Information System (DHIS) have since replaced many of the registers and the non-user friendly data management tools reported in the 2009 capacity assessment. Capacity has been

built for data managers over the years (134) with refresher training taking place in 2015 where 54 LGA M&E officers, data clerks and M&E officers in SMoH where trained. This has resulted in most of the health facilities in the state reporting on the DHIS 2 and the reporting rate has gradually increase from less than five percent to 60 percent (figure 5).

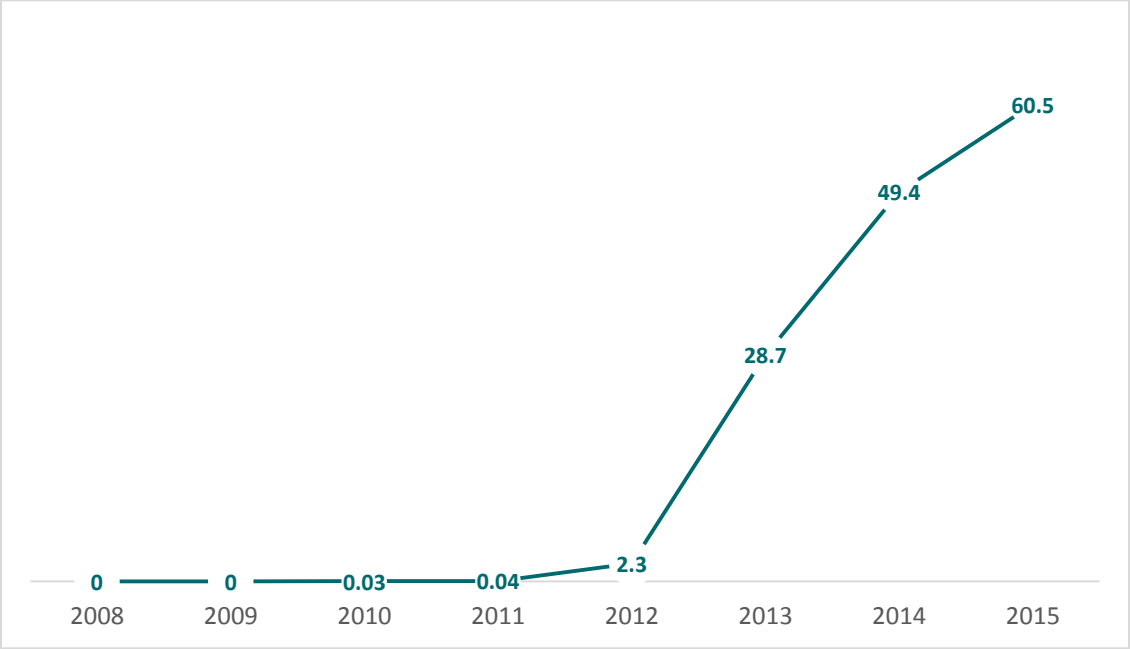



**Figure 5: Niger state reporting rates (NHMIS 2015)**

The programme conducted operational research in the state to assess the impact of capacity building activities implemented by the programme. Qualitative results from this study showed that at baseline;

1. History taking was often not carried out appropriately by the health workers
2. Treatment of malaria was not based on parasite-based diagnosis
3. Most of the health workers reported that they prescribed ACTs for treating presumed uncomplicated malaria
4. Prescription of ACTs as a first line of treatment for uncomplicated malaria without a parasite-based diagnosis was the standard case management practice. The evaluation showed a significant improvement in the prescription of ACTs and this has been attributed to the training that was conducted by the programme[6].

## Programme management (PM)

The Niger State health sector has progressed from the list of malaria activities seen at baseline by embedding an evidence-based planning approach. Between 2010 and 2015 the state

[6] Jegede et al. MWJ 2015, 6:7

developed a total of six Annual Operational Plans for malaria (AOP), one for each year. The implementation of each plan was reviewed at least once a year from 2012 to 2015. The percentage of AOP cost released by the State out of the total expected to be funded by the state during the period under review increased marginally from 0.4 percent (2013) to 1.7 percent (2014) to 2.7 percent in 2015.

As of December 2015, the number of staff in the State Malaria Elimination Programme (SMEP) had increased to six members (two males, four females) from the initial four. The two most senior staff are Community Health Officers with backgrounds in Nursing and Midwifery. The other four are Community Health Extension Workers. One of these staff members has now moved into Estate Management and two others have commenced further studies in Public Health. There are no laboratory scientists, pharmacists and medical doctors on the team.

Apart from SuNMaP, the under-listed IPs are active in all the 25 LGAs of the state with no overlaps. These include:

- Society for Family Health – GFATM principal recipient (support in the private health sector from 2009 till date).
- ARFH – a GFATM sub-recipient to the NMEP (support via provision of Antimalaria Commodity and M&E in the public sector from 2010 till date).
- Sustainable Healthcare Initiative (SHI) – a GFATM sub-recipient to NMEP (support via provision of RDTs and ACTs to five HFs per LGA and case management trainings in 2011-2013; to undertake ACSM activities in 12 LGAs from 2015-2016).
- Association of Civil Society Organisations for Malaria, Immunisation and Nutrition (ACOMIN) – GFATM sub-recipient to the NMEP (support to undertake ACSM activities in 13 LGAs from 2015-2016).
- Rapid Access Expansion (RAcE) project – managed by Malaria Consortium (support of community management of malaria, diarrhoea and pneumonia in six LGAs from 2014 till date).
- Planned Parenthood Federation of Nigeria (PPFN) - support in prevention with regards to Immunisation, ANC and Post-natal care from 2013 till date.
- Malaria Consortium-GFATM project – a new project (support in community management of malaria for 16 LGAs from 2015 - 2016).

SuNMaP also supported the following:

- Establishment of a Malaria Technical Working Group (mTWG)
- Development of a costed multi-year training plan in June 2010
- State-based trainers supported to cascade programme management skills
- PM Trainings done for 924 health workers
- Partners' Forum formed and quarterly meetings held since 2012

- Development of LGA Work Plans for 2015 facilitated in six focal LGAs
- Provision of a projector and projector stand for the SMEP
- State-LGA, HF Officer-In-Charge (OIC) meetings
- Development of a state framework and roll out of Integrated Supportive Supervision (ISS) and On-the-Job Capacity Building (OJCB) in all 25 LGAs, ISS/OJCB visits to staff members in 20 SHFs and 233 PHCs in August 2013 and June 2014

The Director of Public Health, Dr Mohammed Usman was particularly impressed, "*I am happy with SuNMaP coming in*", noting that the development of the ISS which is "*robust, with partners buying in*" was noteworthy. He also commended on the innovative idea of developing and reviewing AOPs as well as the focus on harmonisation and sustainability through the cascading of skills to a critical mass of health technical staff, particularly state-based trainers.

The Director, Planning, Research and Statistics (DPRS) Dr Kolo James, disclosed that the steady development and review of AOPs has resulted in a budget line for malaria since 2013. Nonetheless, the allocation and release of funds remains a challenge. He also highlighted the dramatic improvement of data observed after the training of LGA M&E officers and data clerks on data capture and reporting into the DHIS 2.0 in 2014 which resulted in improvement of state data quality and timely reporting.

## Overarching best practices

A few practices were employed by SuNMaP which might be beneficial to the State. These include the following.

**Value for Money** - a simple, continuous, iterative process of identifying and implementing efficiencies and cost savings that was applied consistently to the project via a number of ways, including:

- implementing a fundamental high-cost low-risk strategy with regards to security
- using lessons learnt from the project to refine and direct further implementation; having efficient procurement and contracting procedures for staff and services
- adopting a participants' clustering approach to trainings so that as many participants as possible were trained on basic malaria with a more focused, in-depth training targeted at the 6 supported LGAs and 555 HFs
- ensuring the involvement of communities during LGA level trainings which helped reduce costs as free halls were provided (cost sharing); enhancing the capacity of the mTWG so that no gaps would exist once the project is over – amongst others.

**Contextualisation** - SuNMaP recognised that states have different levels of capacity in SMEP level to coordinate activities, so there was a need to customise support offered to Niger State in such a way that it would respond to the context, divergences, peculiarities and

priorities of the state for maximum benefit. Ways by which this was done included:

- development of state-specific AOPs and frameworks
- use of state-based facilitators
- adapting jingles and advocacy kits to state-based realities and languages
- distribution of malaria commodities via the use of boats to riverine areas and cow sleds to hard-to-reach areas

**Coordination and harmonisation** - SuNMaP facilitated the strategic coordination and harmonisation of malaria efforts in Niger State. Coordination was achieved via a number of interventions, including the monthly MFP-coordination and HF OIC meetings, the AOP development and reviews and the ISS/OJCB exercises. Harmonisation was achieved via the mTWG set-up, the Partners' Forum, and Integrated Supportive Supervision/On the Job Training(ISS/OJCB) visits which necessitated and entailed the working together of different IPs, sometimes via different channels; the use of harmonised modules in trainings by all IPs; and designing of all media materials to contain similar facts and malaria prevention/treatment messages.

**Stakeholder engagement** - used to identify and map out IPs by objective areas with consensus being built around the development of systems, frameworks, tools, plans, strategies and approaches for effective implementation. This included the use of state-based facilitators in trainings; adopting frameworks for ACSM, diagnosis EQA, ISS/OJCB with key stakeholders involved; and development of state-specific AOPs through the mTWG

## Recommendations

1) Commitment by the State Government to funding has improved since 2011, with malaria now having a budget line in the SMoH under the Directorate of DPH. However, beyond the budget, mechanisms to ensure the timely release of funds are now required.

2) SuNMaP was the only Implementing Partner involved in free SP distribution to HFs in the State. It is recommended that the State would make it a priority to ensure that malaria commodities are budgeted for and procured for all HFs, with an emphasis on SPs for IPTp.

## Niger state budget for malaria elimination activities (2016)

The estimated total cost of malaria control activities in Niger for 2016 is ₦950,051,295[7] and the projected commitment from partners to malaria control activities in 2016 is 85 percent.

| Objective Area | 2016 (Amount) | | | 2017 (Amount) | | | 2018 (Amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| Malaria Prevention | ₦22,000 | ₦7,446,600 | ₦7,468,600 | ₦- | ₦- | ₦- | ₦- | ₦- | ₦- |
| Malaria Diagnosis | ₦- | ₦43,035,800 | ₦43,035,800 | ₦- | ₦- | ₦- | ₦- | ₦- | ₦- |
| Treatment | ₦1,740,000 | ₦78,306,000 | ₦80,046,000 | ₦- | ₦- | ₦- | ₦- | ₦- | ₦- |
| ACSM | ₦132,000 | ₦10,660,560 | ₦10,792,560 | ₦- | ₦- | ₦- | ₦- | ₦- | ₦- |
| PSM | ₦126,352,047 | ₦625,778,988 | ₦752,131,035 | ₦- | ₦- | ₦- | ₦- | ₦- | ₦- |
| M&E | ₦5,998,000 | ₦13,789,500 | ₦19,787,500 | ₦- | ₦- | ₦- | ₦- | ₦- | ₦- |
| PM | ₦4,122,750 | ₦32,667,050 | ₦36,789,800 | ₦- | ₦- | ₦- | ₦- | ₦- | ₦- |
| **Total** | **₦138,366,797** | **₦811,684,498** | **₦950,051,295** | **₦-** | **₦-** | **₦-** | **₦-** | **₦-** | **₦-** |

[7] Niger State officials preferred not to do costing for 2017 and 2018, because they feel it is sufficient to just get an idea of activities to implement and later cost these activities (which by then will give a figure closer to actual amount needed given inflation rate)

## Niger state budget for malaria elimination activities (2016) - percentage contribution from government and partners

| Objective Area | 2016 (%) | | 2017 (%) | | 2018 (%) | | 2016 - 2018 (%) | |
|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Government | Partners | Government | Partners | Government | Partners |
| Malaria Prevention | 0% | 100% | | | | | 0% | 100% |
| Malaria Diagnosis | 0% | 100% | | | | | 0% | 100% |
| Treatment | 2% | 98% | | | | | 2% | 98% |
| ACSM | 1% | 99% | | | | | 1% | 99% |
| PSM | 17% | 83% | | | | | 17% | 83% |
| M&E | 30% | 70% | | | | | 30% | 70% |
| PM | 11% | 89% | | | | | 11% | 89% |
| **Total** | 15% | 85% | | | | | 15% | 85% |

While recognising that government funding for malaria in the state has increased over the years, to sustain and increase the current level of malaria control efforts, the government will need to further increase its funding of malaria and advocacy for resource mobilisation from partners and the commercial sector.

# Working together to combat malaria

## A synopsis of Support to National Malaria Programme (SuNMaP)

## Contributions to Malaria Elimination Efforts in Ogun State

## 2009-2016

# Table of contents

## Abbreviations and acronyms

| | |
|---|---|
| ACT | Artemisinin combination therapy |
| ACSM | Advocacy, communication and social mobilisation |
| ANC | Antenatal care |
| AOP | Annual operational plan |
| CHAI | Clinton Health Access Initiative |
| CHAN | Christian Health Association of Nigeria |
| DHIS | District Health Information System |
| DQA | Data quality assurance |
| DRF | Drug Revolving Fund |
| GF | Global Fund |
| HMIS | Health Management Information System |
| IPT | Intermittent preventive treatment |
| LGA | Local Government Area |
| LLIN | long lasting insecticidal net |
| LGSC | Local Government Service Commission |
| MCP | Malaria Control Programme |
| mRDT | Malaria rapid diagnostic test |
| M&E | Monitoring and evaluation |
| NHMIS | National Health Management Information System |
| NMCP | National Malaria Control Programme |
| NMEP | National Malaria Elimination Programme |
| NMSP | National Malaria Strategic Plan |
| PHC | Primary health centre |
| SBCC | Social and Behaviour Change Communication |
| SFH | Society for Family Health |
| SMEP | State Malaria Elimination Programme |
| SMoH | State Ministry of Health |
| SP | Sulphadoxine-pyrimethamine |
| SPHCDB | State Primary Health Care Development Board |
| SuNMaP | Support to National Malaria Programme |
| UNICEF | United Nations Children's Fund |

## Acknowledgements

SuNMaP is grateful to the Ogun State Commissioner of Health, Permanent Secretary, Director of Public Health and the State Malaria Elimination Programme Manager for their time and contribution towards the production of the sustainability and exit reports. SuNMaP's journey in the state has been enriching and it was a pleasure to work with all involved. This document serves as the legacy of the programme in Ogun State. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in the state.

**Dr Femi Owoeye**
**SuNMaP Programme Director**

# 1. Background and introduction

The Support to National Malaria Programme (SuNMaP) is an eight-year programme (2008-2016) funded by UK Department for International Development (DfID) to help strengthen the delivery of malaria elimination interventions at national, state and Local Government Area (LGA) levels. SuNMaP started supporting the National Malaria Elimination Programme (NMEP) in the 10 States of Anambra, Kano and Lagos (since September 2008); Katsina, Niger and Ogun states (since June 2009), Jigawa, Enugu and Kaduna (since early 2012) and Yobe (since 2013).

At the national level and in each state, the SuNMaP support commenced with a rapid baseline capacity needs assessment[1] for malaria control. The findings informed the development of strategies to address identified weaknesses in capacity, resources and systems through the provision of long and short-term technical assistance. Health facility assessments (HFA) and laboratory assessments conducted in 2009 and 2013 respectively, informed the programme's strategic direction to strengthen integration of malaria interventions (preventive and curative) into routine service delivery. Early in 2014, a rapid capacity re-assessment of nine of the 10 focal states (excluding Yobe State) was undertaken to inform SuNMaP's final workplan and ultimately, an exit and sustainability plan.

SuNMaP provided a full range of support across its six outputs, each of which focusing on one element of comprehensive malaria control and elimination. These were:

1. Building capacity building for policy development, planning and coordination
2. Harmonising cross-agency support for the malaria control
3. Increasing coverage of effective measures for malaria prevention
4. Improving the population's access to effective malaria treatment
5. Enhancing community awareness and demand for effective malaria treatment and prevention
6. Operational research to gather evidence and its use in programme implementation. It also provided additional support to data management strengthening of National Health Management Information System (NHMIS)

As the SuNMaP programme comes to a close, this report provides a summary[2] of seven years of engagement and support in Ogun State. Reflecting on the baseline assessment, the report summarises the malaria situation at the inception of SuNMaP. The report then provides a panoramic view of the current situation and an outline of SuNMaP, while acknowledging other key players. This report also contains some of the lessons learnt while employing best practices to deliver the

[1] The baseline assessment data was collected through appraisal and discussion visits to federal/state/LGA agencies; service delivery points; partners, public, private and commercial sector managers; focus group discussions (FGDs). Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DfID. The appraisal tool was adapted from the SuNMaP basic information collection tool; PPRHAA (peer, participatory rapid health appraisal and action) tools for appraising Management Boards and the Roll Back Malaria Needs Assessment and Planning tool by the World Health Organisation and Malaria Consortium, August 2003

[2] Data for this reportummary was collected, analysed and written by a national consultant. The methodology included FGDs and key informant interviews of government officials, partners and SuNMaP staff. The field work was preceded by a desk review of secondary data and SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 and 2015.

programme's six core outputs of capacity building, harmonisation, prevention of malaria, treatment of malaria, awareness and demand creation and operations research. There are recommendations to help the state sustain the gains of the project and help Nigeria to achieve pre-elimination status and reduction of malaria-related deaths to near zero in 2020 as envisaged in the National Malaria Strategic Plan (NMSP 2014-2020).

# 2. Malaria situation in Ogun State at the inception of SuNMaP

## Prevention of malaria

In 2019, vector control measures were implemented in the state which mainly included distribution of long lasting insecticidal nets (LLINs), environmental management and in-door residual spraying at low scale. Limited knowledge and skills on intermittent preventive treatment (IPTp) interventions and other preventive strategies was reported among health service providers. The United Nations Children's Fund (UNICEF) and Society for Family Health (SFH) supported the state through provision of insecticide treated nets and sulphadoxine-pyrimethamine (SP). The proportion of women who took at least two or more doses of SP for IPTp was at 8.2 percent based on the 2008 National Demographic and Household Survey (NDHS), while net ownership was 5.5 percent.

## Malaria case management (diagnosis and treatment)

Diagnosis of malaria in the state was based on presumptive clinical diagnosis without laboratory confirmation. This was attributed to acute shortage of malaria rapid diagnostic test (mRDT) kits, weak microscopy and no laboratory quality control system.

The baseline showed low and marginal knowledge of policies and treatment guidelines including management of malaria in pregnancy. The non-equitable distribution of free artemisinin combination therapies (ACTs) and its high cost through the Drug Revolving Fund (DRF) were a deterrent to its utilisation. It resulted in the tendency to use less expensive monotherapy, hence, prescription of chloroquine was prevalent.

## Advocacy, communication and social mobilisation

At the onset of SuNMaP, community structures for demand creation in support of malaria programme were in place. The structure included advocacy, communication and mobilisation, which the State Health Education Unit (SHEU), which was responsible for. The SHEU unit performed mobilisation and education of community members in support of the LLIN distribution campaign in 2009. This included generic information, education and communication (IEC) materials, however, these were rarely culturally acceptable to the different ethnic groups in the state. The SHEU reported that it had capacity to adapt IEC materials to suit cultural relevance of the state, if supported with funds. There were three radio stations collaborating with government on awareness creation and other mobilisation activities. The media stations offered up to 25 percent discount to broadcast health jingles and programmes.

A social mobilisation committee (SMC) existed in the state with members drawn from all key/relevant social sectors. The SMC had potential to support malaria control initiatives in the state,

however, there were challenges. In terms of capacity, there were only two trained professional health promotion staff at the state level and one in each of the 20 LGAs. Media stations, including radio and television, were collaborating with government but were not adequately utilised for malaria demand creation. In primary health centres (PHCs), low utilisation of eservices was attributed to perceived high cost treatment, stock-out of drugs, lack of knowledge of benefits of malaria test before treatment, patients' financial constraints and patient's self-medication. For community members, some reported that they were afraid to go to health facilities for malaria treatment because of fear that their blood will be tested, not only for malaria but also for HIV.

### Procurement and supply management

The drug supply system was reported as inadequate and not well coordinated. Basic batch number checks was the only quality control measure utilised. Drugs bought by the state were accessed through the DRF.

### Monitoring and evaluation

Generally, the health information system was weak with no reliable and up-to-date data on malaria. There was a lack of capacity to analyse and disseminate collected information. In addition, data collected by LGA monitoring and evaluation (M&E) officers and malaria focal persons were not harmonised. The tools introduced by the National Malaria Control Programme (NMCP) were used to collect data but were not readily available at health facilities.

### Programme management

The State Malaria Control Programme (SMCP) was located at the Ogun State Primary Health Care Development Board. It was understaffed and the composition of the team did not meet the recommendations of NMCP as per the coordination framework. The unit lacked planned and systematic training programme for implementing staff. In addition, state funds were not readily available for malaria control activities.

## 3. Current situation, SuNMaP interventions and key achievements

### Malaria prevention

To ensure that the population of Ogun State utilised appropriate malaria preventive measures, SuNMaP and other Roll Back Malaria partners implemented high impact vector control interventions that focused on continuous distribution to achieve sustained and improved distribution of LLINs and SPs. SuNMaP supported the meetings for the development of a harmonised distribution plan among implementing partners. LLINs are distributed through routine and mass campaigns. The last mass LLIN-replacement campaign was conducted in 2014 by SFH through Global Fund support.

The programme procured and supported the state to routinely distribute 582,123 doses of SP, and this contribution has partly resulted in a gradual increase in the proportion of women who took at

least two doses of SP for IPTp in pregnancy from 8.2 percent in 2008 to 43.4 percent in 2013 (NDHS 2008 and 2013).

In addition to IPTp, the programme supported the distribution of 539,085 LLINs at antenatal clinics and routine childhood immunisation channels. SuNMaP provided technical support during the mass campaign of LLIN distribution (with a total of 2,551,725 LLINs distributed) spearheaded by SFH with Global Fund support in the state. These two channels have contributed to an increase in the number of households owning at least one LLIN at 49.8 percent (SMART 2015) while a significant increase in net usage among children under five from 5.5 percent in 2008 to 42.8 percent (NDHS 2008 and 2015 Ogun net retention survey). Further results from the net retention survey showed that 97 percent of nets received from the campaigns were still in the possession of receiving households; 82 percent of households who received nets from the LLIN distribution campaign hung the nets over sleeping places and 84.5 percent of the nets received from the distribution campaigns were used by a household member the night before the survey.

## Malaria case management (diagnosis and treatment)

As part of the National Malaria Strategic Plan 2014-2020, Ogun State continues to implement parasitological-based diagnosis of malaria. To this end, the majority of Ogun State health facilities are equipped with laboratories or mRDTs for malaria diagnosis, significantly reducing clinical diagnosis of malaria.

In the private sector, with funding from UNITAID under the DEFEAT project implemented by Malaria Consortium, 31 trainers or supervisors drawn from professional associations were trained on mRDT use.

SuNMaP supported the state to develop the capacity of 33 laboratory scientists in microscopy and 62 health workers on the use of mRDTs for malaria diagnosis. In addition, the programme procured and supported the state to distribute 509,900 mRDT kits and 20 microscopes. An analysis of NHMIS for the state shows an upward trend in the number of suspected malaria cases receiving parasitological tests from less than 10 percent in 2012 to 91.4 percent in 2015, with diagnosis using mRDTs contributing a significant proportion.

To maintain a high quality of malaria diagnosis that leads to improved confidence of both patients and health workers in the laboratory results, the programme supported the state to develop and adopt a diagnosis quality assurance framework. The implementation of the framework is currently ongoing in the state and a standard microscopy and external quality assurance centres and teams are being set up.

## Treatment

Confirmed malaria case treatment in the state has greatly improved due to the availability and use of both national and state malaria diagnosis and treatment policies and guidelines, and over seven years of capacity building in both public and private facilities.

In addition to state procurements of antimalarial medicines, Roll Back Malaria partners have continued to support the state with procurement and distribution of these medicines. In 2015, the Global Fund supplied 471,551 doses of ACTs, Clinton Health Access Initiative (CHAI) supplied 18,820

vials of injectable artesunate for treatment of severe malaria cases and SFH subsidised 13,200 doses of ACTs to 82 private health facilities.
As an active member of the Roll Back Malaria partnership in the state, SuNMaP has supplied 426,125 doses of ACTs to all public health facilities. Increasing the availability of ACTs in the state has resulted to a 96.8 percent of confirmed malaria cases receiving ACTs according to the national treatment guidelines.

Evidence from sentinel sites set-up by the programme to monitor malaria related morbidity in the state, shows a decline in the number of out-patient (OP) cases reported to be malaria cases (among children under five years) from 85 percent in 2012 to below 30 percent in 2015 (Figure 1).

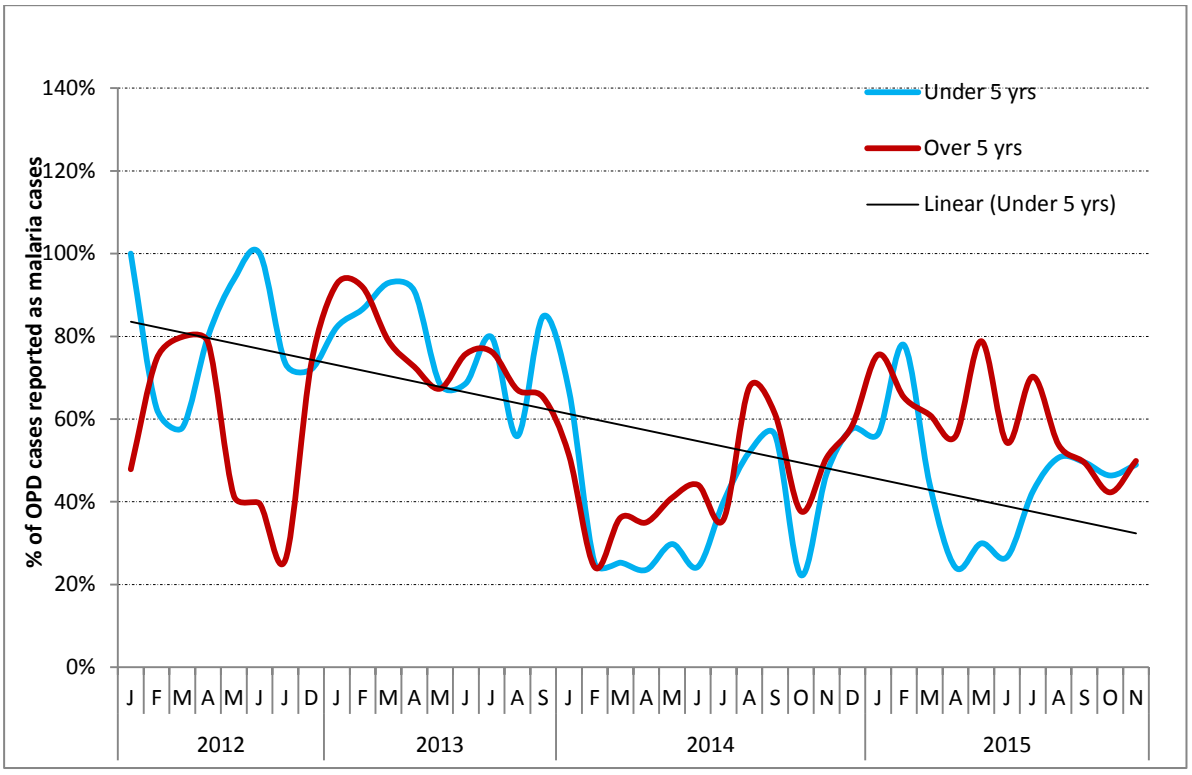



**Figure 1: Percent of out-patient department cases reported as malaria cases (source: SuNMaP Ogun sentinel sites data)**

## Advocacy, communication and social mobilisation

## Advocacy, communication and social mobilisation

SuNMaP'**s** entry into malaria prevention and control in Ogun State aimed to address the problem of very low ownership and use of LLINs, through organising and conducting the LLIN distribution campaign in 2009. In the southwest region where the state is located, LLIN use among children under five years was 3 percent and 3.4 percent among pregnant women,and the average use of two doses of SP for prevention of malaria in pregnancy was 7.4 percent (NDHS 2008). SuNMaP's demand creation support focused on the behavioural aspect of prevention and treatment. The emphasis was to promote knowledge of the benefits of LLINs, prompt testing before treatment of fever, and the use of IPT for prevention of malaria in pregnancy. The highlights of the key interventions in Ogun State were as follows:

As part of SuNMaP support to the social and behaviour change communication (SBCC) component of the LLIN campaign in the state, the demand creation team was selected and trained on basic skills in communication. SBCC materials were designed, developed, produced and distributed.

- The establishment of an advocacy, communication and social mobilisation (ACSM) committee was supported as the key structure for the development and review of communication action plan; and implementation of demand creation activities in support of the malaria programme.
- SBCC materials were produced in various print and electronic formats, and in English and Yoruba, the local language, to address the needs of the priority audiences, at service delivery community and household levels. All communication material had the national malaria logo and tagline of "For a Malaria Free Nigeria: Play Your Part". The tagline was adapted for the state and translated to Yoruba.
- Print communication materials included posters, leaflets and charts, while radio messages of malaria treatment and prevention were delivered through radio and TV spots, magazine and drama. Prevention and treatment messages aired on radio and television reached an estimated coverage of eight million.
- Aired radio jingles and spots and radio dramas on three radio stations aimed to create awareness and motivate behaviour change regarding malaria prevention and treatment.
- Commemoration of the annual World Malaria Day (WMD) provided an opportunity to work with other partners to conduct advocacy and mobilisation activities especially at the community level.
- Community dialogues (CDs) were conducted in the focal LGAs, especially in communities where clinic-based health workers have been trained in malaria service delivery. The CDs and the referral of caregivers and other community members to the health facilities, was one of the means for ensuring linkage between the prevention and treatment aspects of malaria control intervention.
- Other community mobilisation activities supported included road shows and bus branding across the state. Interventions at the community level were delivered in collaboration with the ACSM committee of the State Malaria Elimination Programme (SMEP), and the programme implementing partners of SuNMaP, Health Reform Foundation and Christian Health Association of Nigeria (CHAN). The programme implementing partners and other community-based organisations, civil society organisations and implementing partners were also involved in malaria activities across the state.
- A major boost to the demand creation activities for the malaria programme in Ogun State was the support provided by SuNMaP to the private sector's promotion of malaria commodities in the state. The behaviour change communication activities, messages and material were delivered on radio, television and at the community level, forming an integral part of SuNMaP's commercial sector intervention.
- Feedback regarding the ACSM interventions were obtained through community level assessment.

The major outcomes of SuNMaP support are:

- Advocacy during World Malaria Day 2010 to stop the use of chloroquine for the treatment of malaria in the state
- Advocacy visits supported by SuNMaP to four LGAs and the State House of Assembly resulted in the refurbishment of two health facilities, donation of mattresses and generators to designated PHCs.
- As a result of SuNMaP's partnership with the media, free slots and discounts were provided for malaria programme messages.
- Implementation of a media plan that covered 23,656 slots for radio jingles on malaria prevention and treatment. These were aired on Rock City FM, Paramount FM and OGBC radio stations.
- Community level assessment indicated that demand creation activities for campaign and routine distribution of commodities, both in the private and public sector, contributed significantly to the increase in the use of malaria commodities in the state.

## Procurement and supply management

Procured commodities are sent to the state's central medical store and distributed to facilities using a harmonised distribution plan. Inventory of antimalarial commodities are carried out monthly through supervisory visits to facilities to count stock of commodities.

SuNMaP supported biannual anti-malarial commodity monitoring in all public health facilities in the state to prevent stock-out and expiration of drugs.

Based on a 2015 assessment of the state's needs, the programme was able to fill this gap by 14, 33 and 13 percent for ACTs, SPs and mRDTs respectively.

The state operates the DRF system. Anti-malaria commodities supplied by Global Fund, SuNMaP, SFH and CHAI are being distributed using a harmonised distribution plan.

The proportion of health facilities with stock out of ACTs, mRDTs (PHCs) and LLINs lasting more than one week at any time during the past one month were one, six and two percent respectively. There is a functional malaria quantification sub-committee that looks at quality control measures, which include basic batch number checks and a mini laboratory suited at the Central Medical Store to detect fake and adulterated drugs.

Figure 2 below shows the number of antimalarial commodities the programme has procured. The state supported the distribution from inception to date in addition to overall programme support to strengthen procurement and supply management systems as well capacity building of personnel on the Malaria Commodity Logistics System (798 trained by the programme).

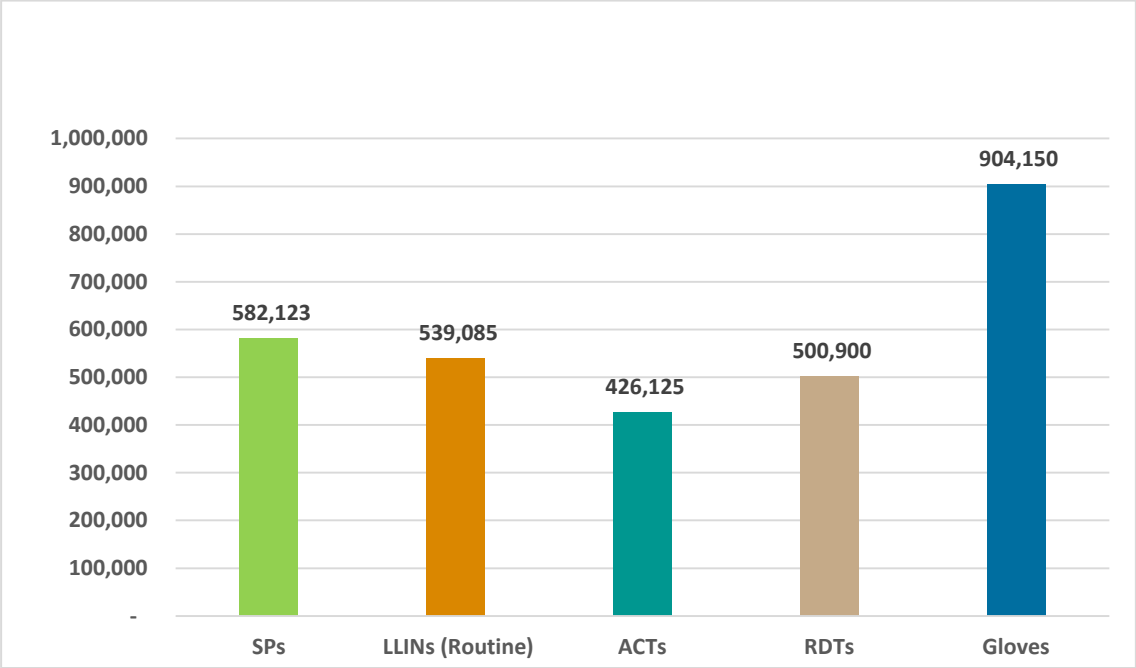



**Figure 2: Antimalarial commodities procured and distributed by SuNMaP in Ogun from 2010 to December 2015**

## Monitoring and evaluation

The state has a functional HMIS unit that coordinates data reporting at all levels including the private sector.

SuNMaP supported the state to develop the capacity of 47 trainers and data managers on NHMIS and data quality assurance. The programme contributed to operationalising the electronic database for malaria control using DHIS 2.0 by supporting a refresher orientation on DHIS for malaria officers across all LGAs.

The state, however, still has low reporting rates as only 675 facilities (535 public and 140 private health facilities) out of 1,594 facilities registered on DHIS are using NHMIS registers. About 64.5 percent of public facilities and five percent of private health facilities report data and 57.5 percent of public facilities and 1.4 percent of private health facilities report in a timely manner on the DHIS platform[3]. To improve data quality, all 20 LGAs conduct monthly a data verification exercise coordinated by Local Government M&E officers and four malaria focal persons. In addition, monthly monitoring visits and data quality assurance are carried out by the SMEP. The Global Fund contributed significantly in printing and distributing the harmonised NHMIS to public health facilities.

## Programme management

The SMEP is now situated at the State Ministry of Health (SMoH) and is a sub-recipient of the Global Fund. The organisational structure of the SMEP is informed by the national coordination framework. Currently, the SMEP has an office with basic equipment and a project vehicle. A State Malaria Technical Working Group is in place and since 2010 the group has reviewed the implementation of

[3] Ogun State Annual Review Report of 2014 & 2015 Annual Operational Plan

annual operation plans (AOPs) for malaria control in Ogun State. A 12-member resource mobilisation committee was set up to address the issue of non-release of funds. The SMEP has consistently organised malaria coordination meetings.

SuNMaP used multi-pronged techniques and approaches to enhance the capacity of the State Malaria Elimination Programme for policy development, planning and coordination of malaria programmes. It has supported the development of key state documents including policy, guidelines, frameworks and plans (annual and multi-year): these include, Ogun State multi-year training plans, State Advocacy, Communication and Social Mobilisation (ACSM) framework, integrated supportive supervision/on-the-job-training implementation framework, monitoring and evaluation plan and malaria microscopy quality assurance frameworks and costed AOPs.

SuNMaP provided technical support to the SMEP in the development of their AOPs, the quarterly review processes and in adapting various conceptual frameworks. The participatory nature of these processes provided an opportunity for SMEP staff to acquire the knowledge and skills to own and drive the process.

The programme has built capacity of the state in the development of costed AOPs, six Ogun Malaria Control AOPs (2011, 2012, 2013, 2014 2015 and 2016) and Ogun State Malaria Multiyear Plans 2017-2018. In an attempt to improve planning for and implementation of malaria control interventions in the LGAs, SuNMaP supported the development of LGA-specific malaria workplans for 2014 and 2015 building on the state malaria control AOPs. In addition, SuNMaP supported the state to implement these plans, resulting in an increase in performance rate from 30 percent in 2011 to 53.8 percent in 2014.

SuNMaP will be remembered for institutionalising integrated supportive supervision which has become a platform for capacity building and institutional strengthening in the health sector in Ogun State. In addition, SuNMaP was instrumental in advocating for the relocation of the SMEP to the SMoH.

## 4. Cost implications

The state government and SuNMaP have contributed immensely to the delivery of interventions in Ogun. The state government's allocation of resources to malaria has improved over time as a result of increased advocacy to key stakeholders with improving political commitments. More funds for malaria need to be released to implement malaria control and elimination interventions in the state.

SuNMaP has spent a total of £3,518,219 over the course of seven years in the Ogun State. This is broken down into £1,639,691 for activities, £244,606 for operational costs and £1,633,922 for antimalarial commodities.

## 5. Best practices

SuNMaP interventions were guided by evidence-based programming and global best practices including value for money, coordination and harmonisation, contextualisation and stakeholders' engagement. This is demonstrated through:

- Partnership with the Global Fund and SFH, resulting in sharing responsibilities for delivering NHMIS training for state M&E officers.
- The Global Fund and SuNMaP brought together resources in LLIN mass campaign distribution. SuNMaP covered 25 percent of the cost and the Global Fund was responsible for 75 percent.
- SuNMaP has helped to build the capacity of a pool of state-based facilitators. These facilitators have led the AOP development and review as well as training sessions to reduce the cost of consultancy and ensure sustainability.
- Monthly coordination meetings held for the distribution of commodities and drugs through malaria focal persons to facilities.
- Trained community caregivers to carry out social mobilisation and dialogue activities to encourage community members to use malaria services and products.
- Harmonisation of activities between Institute of Human Virology Nigeria and SuNMaP during integrated supportive supervision roll-out resulted in increased coverage of 15 facilities per LGA with reduced cost.
- SuNMaP strengthened the structure of the SMEP by advocating for its relocation from State Primary Health Care Development Board to SMoH.
- Capacity building of the health workforce strengthens the system, fosters government ownership, and engenders sustainability. However, re-deployment of staff after training limits the impact of capacity building efforts.

## 6. Recommendations

- The resource mobilisation committee should be linked to income generating schemes, trained on proposals for funding and effective management of grants so they are able to generate funds for malaria activities in the state.
- Other malaria partners in the state should advocate to the governor to solicit political interest to increase the budget line for malaria and for the release of funds.
- There should be periodic capacity building of staff to make up for attrition and re-deployment to maintain a skilled workforce. A focus should be placed on building the capacity of staff with at least 10 years of service to minimise the impact of attrition.

## 7. Going forward

SuNMaP has helped to provide the state with resources they could use when the programme ends. These include eight well-trained in-state facilitators/trainers, a 2015-2020 training plan, 2016-2018 multiyear plans and adapted frameworks. The state is keen on sustaining the efforts of SuNMaP, however, given the shortage of funds as a result of reduced state allocation, the state will focus on key primary healthcare facilities that will serve as models to others. The state is considering harnessing private companies to support malaria key activities as part of their corporate social responsibility, while concentrating on integration and leveraging on other programmes to deliver services.

## Ogun State budget for malaria elimination activities (2016-2018)

The estimated total cost of malaria control activities in Ogun between 2016 and 2018 is ₦4,860,189,186 (2016 - ₦654,114,130; 2017 - ₦449,185,057 and 2018 - ₦3,756,889,999). The estimated commitment from partners to malaria control activities in 2016 is 69 percent, and this drops to zero percent in 2017 – 2018 multi-year plan.

| Objective Area | 2016 (Amount) | | | 2017 (Amount) | | | 2018 (Amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| Malaria prevention | ₦ 1,011,265 | ₦ 2,329,285 | ₦ 3,340,550 | ₦ 3,531,217 | ₦ - | ₦ 3,531,217 | ₦ 3,332,066,528 | ₦ - | ₦ 3,332,066,528 |
| Malaria diagnosis | ₦ 4,188,250 | ₦ 8,588,000 | ₦ 12,776,250 | ₦ 9,410,595 | ₦ - | ₦ 9,410,595 | ₦ 9,593,325 | ₦ - | ₦ 9,593,325 |
| Treatment | ₦ 3,553,350 | ₦ 2,888,400 | ₦ 6,441,750 | ₦ 5,984,558 | ₦ - | ₦ 5,984,558 | ₦ 7,053,113 | ₦ - | ₦ 7,053,113 |
| ACSM | ₦ 1,783,670 | ₦ 3,471,850 | ₦ 5,255,520 | ₦ 4,063,093 | ₦ - | ₦ 4,063,093 | ₦ 3,537,188 | ₦ - | ₦ 3,537,188 |
| PSM | ₦ 159,369,317 | ₦ 332,125,143 | ₦ 491,494,460 | ₦ 378,193,422 | ₦ - | ₦ 378,193,422 | ₦ 359,149,190 | ₦ - | ₦ 359,149,190 |
| M&E | ₦ 5,633,940 | ₦ 24,013,460 | ₦ 29,647,400 | ₦ 29,712,513 | ₦ - | ₦ 29,712,513 | ₦ 30,681,455 | ₦ - | ₦ 30,681,455 |
| PM | ₦ 24,227,750 | ₦ 80,930,450 | ₦ 105,158,200 | ₦ 18,289,659 | ₦ - | ₦ 18,289,659 | ₦ 14,809,200 | ₦ - | ₦ 14,809,200 |
| **Total** | ₦ 199,767,542 | ₦ 454,346,588 | ₦ 654,114,130 | ₦ 449,185,057 | ₦ - | ₦ 449,185,057 | ₦ 3,756,889,999 | ₦ - | ₦ 3,756,889,999 |

## Ogun State budget for malaria elimination activities (2016-2018) - Percentage contribution from government and partners

| Objective area | 2016 (%) | | 2017 (%) | | 2018 (%) | | 2016 - 2018 (%) | |
|---|---|---|---|---|---|---|---|---|
| | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** |
| Malaria prevention | 30% | 70% | 100% | 0% | 100% | 0% | 100% | 0% |
| Malaria diagnosis | 33% | 67% | 100% | 0% | 100% | 0% | 73% | 27% |
| Treatment | 55% | 45% | 100% | 0% | 100% | 0% | 85% | 15% |
| ACSM | 34% | 66% | 100% | 0% | 100% | 0% | 73% | 27% |
| PSM | 32% | 68% | 100% | 0% | 100% | 0% | 73% | 27% |
| M&E | 19% | 81% | 100% | 0% | 100% | 0% | 73% | 27% |
| PM | 23% | 77% | 100% | 0% | 100% | 0% | 41% | 59% |
| **Total** | **31%** | **69%** | **100%** | **0%** | **100%** | **0%** | **91%** | **9%** |

While recognising that government funding of malaria in the state has increased over the years, to sustain and possibly increase the current level of malaria control efforts, the government will need to further increase its funding of malaria and advocacy for resource mobilisation from partners and private sector.

# Working together to combat malaria

**A synopsis of Support to National Malaria Programme (SuNMaP)**

**Contributions to Malaria Elimination Efforts in Yobe State**

**2013-2016**

# Contents

# Abbreviations and acronyms

| | |
|---|---|
| ACSM | advocacy, communication and social mobilisation |
| ACT | artemisinin-based combination therapy |
| ANC | antenatal clinic |
| AOP | annual operational plan |
| CBO | community based rganisation |
| CSO | civil society organisation |
| DfiD | Department for International Development |
| DHIS | District Health Information System |
| DQA | data quality assurance |
| FBO | faith-based organisation |
| GF | Global Fund |
| IPT | intermittent preventive treatment |
| IRS | indoor residual spraying |
| ISS | integrated supportive supervision |
| IVM | integrated vector management |
| LGA | Local Government Area |
| LLIN | long lasting insecticidal net |
| M&E | monitoring and evaluation |
| MNCH | maternal, new born and child health |
| mRDT | malaria rapid diagnostic test |
| mTWG | Malaria Technical Working Group |
| NMEP | National Malaria Elimination Programme |
| NMSP | National Malaria Strategic Plan |
| PSM | procurement and supply management |
| QA | quality assurance |
| QC | quality control |
| SFH | Society for Family Health |
| SMEP | State Malaria Elimination Program |
| SMoH | State Ministry of Health |
| SP | sulphadoxine pyrimethamine |
| SuNMaP | Support to National Malaria Programme |
| UNICEF | United Nations Children's Fund |

# Acknowledgements

SuNMaP is grateful to the Yobe State Commissioner of Health, Permanent Secretary, Director of Public Health and the State Malaria Elimination Programme (SMEP) Manager for their time and contribution towards the production of the sustainability and exit reports. SuNMaP's journey in the state has been enriching and it was a pleasure to work with all involved. This document serves as the legacy of the programme in Yobe state. It is our deepest hope that the contents will inform decisions and drive policies in the continuous fight against malaria in the state.

**Dr Femi Owoeye**

**SuNMaP Programme Director**

# 1. Background and introduction

Support to National Malaria Programme (SuNMaP), is an eight-year (2008--2016) £89 million Programme funded by the UK Department for International Development (DfID). With a mandate to support Nigeria achieve an ambitious scale up of malaria results, SuNMaP started supporting the National Malaria Elimination Programme (NMEP) and the six states of Anambra, Kano and Lagos (since September 2008); Katsina, Niger and Ogun States (since June 2009). In 2011, the UK Department for International Development approved the programme expansion to Jigawa, Enugu, Kaduna and Yobe (JEKY) states. Technical support to Jigawa, Enugu and Kaduna States commenced early in 2012. However, due to security challenges resulting from the *Boko Haram* insurgence in Yobe State, programme implementation in the state could not commence until late 2013.

At the national level and in each state, SuNMaP support commenced with a rapid baseline capacity needs assessment1 for malaria control. In Yobe, the rapid assessment took place in April to May 2014 and findings informed the development of strategies to address identified weaknesses in capacity, resources and systems through the provision of long and short-term technical assistance. These informed the programme's strategic direction to strengthen integration of malaria interventions (preventive and curative) into routine service delivery.

SuNMaP provided a full range of support across its six outputs, each of which focusing on one element of comprehensive malaria control and elimination. These were:

1. Building capacity building for policy development, planning and coordination
2. Harmonising cross-agency support for the malaria control
3. Increasing coverage of effective measures for malaria prevention
4. Improving the population's access to effective malaria treatment
5. Enhancing community awareness and demand for effective malaria treatment and prevention
6. Operational research to gather evidence and its use in programme implementation. It also provided additional support to data management strengthening of National Health Management Information System (NHMIS)

Before the baseline assessment, the programme supported the state mainly through collaborative work with Global Fund.

SuNMaP's support to Yobe State has been unique for two major reasons: (1) while other states benefitted from seven, six or four years of engagement, the programme had only two

[1] The baseline assessment data was collected through appraisal and discussion visits to federal/state/LGA agencies; service delivery points; partners, public, private and commercial sector managers; focus group discussions (FGDs). Information was also gathered through secondary sources and large consultative meeting events. A stand-alone report of the baseline assessment for each state is available at SuNMaP/DfID. The appraisal tool was adapted from the SuNMaP basic information collection tool; PPRHAA (peer, participatory rapid health appraisal and action) tools for appraising Management Boards and the Roll Back Malaria Needs Assessment and Planning tool by the World Health Organisation and Malaria Consortium, August 2003

years to support Yobe. The limited time span necessitated the implementation of a reduced but high impact package of interventions. Experiential learning from the nine other states meant that the Programme could hit the ground running. (2) Yobe's security situation resulted in a complex and fragile implementing environment. Consequently, the programme had to contextualise strategic approaches for rolling out the interventions there. One approache was satellite: engaging and equipping Yobe State officials and field workers outside the state, following which they went back into Yobe to function as required.

As SuNMaP comes to a close, this is provides a summary[2] of two years of engagement in Yobe State. It reviews the situation at the inception of the programme and provides a snapshot of the current situation including SuNMaP contributions. This brief also contains some of the lessons learnt while employing overarching best practices to deliver the programme's six core outputs of capacity building, harmonisation, prevention of malaria, treatment of malaria, awareness and demand creation and operations research. There are recommendations to help the state sustain the modest gains and contribute to the achievement of targets envisaged in the National Malaria Strategic Plan (2014-2020).

[2] Data for this summary was collected, analysed and written by a national consultant. The methodology included focus group discussions and key informant interviews of government officials, partners and SuNMaP staff. The field work was preceded by a desk review of secondary data and SuNMaP reports, including DHIS data and proxy indicator findings derived from the implementation review of state Annual Operational Plans for 2014 and 2015.

# 2. Malaria situation in Yobe State at the inception of SuNMaP

At the inception of SuNMaP, Yobe State was already a sub-recipient of the Global Fund Round 8, Phase 2 funding. Other players in the State's health/malaria programme landscape included the DfID/Norwegian Government-funded Partnership for Reviving Routine Immunisation in Northern Nigeria; Maternal, Newborn and Child Health (PRRINN-MNCH, 2006-2014) Initiative; United Nations Children Fund (UNICEF, Action Against Hunger (ACF), and the Society for Family Health (SFH).

## Malaria prevention

Integrated vector management (IVM) was being implemented in the State by the time SuNMaP began work in the state. The long lasting insecticidal net (LLIN) mass campaign was conducted from 2011 to 2012 and was co-funded by Yobe State Government and the Global Fund (GF) with a total of 1,199,548 nets (100,000 and 1,099,548 nets respectively) distributed to over 529,548 households based on the principle of two LLINs per household.

## Malaria case management

### Diagnosis

Parasite based diagnosis in Yobe was supported regularly by the GF who supplied malaria rapid diagnostic test (mRDT) kits to its 255 focal health facilities. All of Yobe's twelve secondary health facilities and the two tertiary health facilities had functional microscopes, but malaria microscopy quality assurance (QA)/quality control (QC) system was not in place. Pharmacy shops and Patent Medicine stores did not stock mRDT kits.

### Treatment

Artemisinin combination therapy (ACT) was the first line of treatment for all suspected malaria cases. Although chloroquine was not found to be stocked in any of the facilities visited during the baseline, there was sufficient evidence that some service providers were prescribing chloroquine to patients. Some Officers-in-Charge of Primary Health Care (PHC) facilities had benefited from GF supported training on case management of malaria organised by the State Ministry of Health (SMoH). Some Community Pharmacy Dispensers had similarly been trained by the Society for Family Health (SFH). Data on the treatment of severe malaria was not available. Artesunate suppository for pre-referral treatment of severe malaria was not available but at least, one staff in 15 percent of the PHCs were trained on pre-referral management of severe malaria.

## Advocacy, communication and social mobilisation (ACSM)

The State Health Promotion and Education (SHP&E) Unit is located in the State Primary Health Care Management Board (SPHCMB). The unit had no basic office and communication equipment. There were few generic Information, Education & Communication (IEC)

materials on malaria supplied by the NMEP. They were also in short supply at health facility and community levels. Although an ACSM core group was not in place, there was a State Social Mobilisation Committee (SSMC), responsible for planning and coordination of all mobilisation activities in support of all health programmes including malaria.

### Procurement and supply management (PSM)

Yobe State Government was found to operate a Free Drugs Programme (FDP) for pregnant women, children under five and victims of accident. This was operated alongside a Sustainable Drug Supply System (SDSS) facilitated by the PRRINN-MNCH.

### Monitoring and evaluation (M&E)

The state Health Management Information System (HMIS) was operating on the national DHIS 2.0 software. However, the in-house-capacity for monitoring and evaluation was marginal for SMoH. There were challenges with obtaining quality assured malaria data at the SMoH because SMEP is based in the SPHCMB outside the view of the SMoH and State HMIS. The proportion of health facilities reporting data was 49 percent, while the proportion reporting data in a timely manner was 30.1 percent. The World Health Organisation (WHO) supported the state to organise disease surveillance meetings every month focusing on the 40 priority diseases including malaria.

### Programme management

A health partners' forum existed and the malaria programme agenda was clearly partner driven. Contrary to the recommendations of the NMEP through the national coordination framework, the SMEP was (and still is) located at the SPHCMB (responsible for PHC Management) rather than the SMoH which has oversight for all levels of care. There was no state level Technical Working Group (TWG) on malaria and there were obvious gaps in secondary and tertiary level facility malaria programme implementation due to the location of SMEP in SPHCMB. The private sector was poorly regulated.

The composition of the State Malaria Coordination Programme was not consistent with the recommendation of the national coordination framework. There was no culture of a State-led systematic and well-planned implementation of malaria interventions. Neither was there an arrangement for systematic and well-planned capacity building for malaria programmes.

# 3. Current situation and SuNMaP interventions

## Malaria prevention

IVM interventions are currently under way in the state, with LLIN distribution at full scale and indoor residual spraying and larviciding being carried out to a limited degree. Prevention of malaria in pregnancy has also remained a priority and continues to receive support in the state.

SuNMaP has strengthened the implementation of malaria prevention interventions through procurement and support to the state to routinely distribute 206,427 doses of SP for IPTp across 236 health facilities in 15 Local Government Authorities (LGAs) in the State.

In addition to the provision of technical support for Malaria in Pregnancy, the programme supported the distribution of 94,450 LLINs at antenatal clinics and Maternal Neonatal and Child Health Week (MNCHW).

## Malaria case management

## Malaria diagnosis

As part of the National Malaria Strategic Plan 2014 - 2020, Yobe State has continued to implement parasitological-based diagnosis of malaria. To this end, the majority of health facilities are equipped with microscopes or mRDTs for malaria diagnosis, reducing clinical diagnosis of malaria as evidenced by the increase of proportion of persons presenting with fever in a public health facility who received mRDT or microscopy from 80.3 percent in 2014 to 84.1 percent in 2015.

SuNMaP supported the State to develop the capacity of 60 laboratory scientists in malaria microscopy and supplied 20 microscopes and 142,300 mRDT kits and 248,400 gloves to the State. With the programme support, Yobe developed State specific Quality Assurance Framework and its and implementation has commenced.

## Malaria treatment

Yobe State implements strategies which ensure all people with confirmed malaria (uncomplicated or severe) seen in health facilities receive prompt treatment with ACTs provided free of charge at all public health facilities. Injectable artesunate is also available for treatment of severe malaria free of charge at secondary and tertiary facilities.

The updated National Malaria Treatment Guidelines are now available in all the facilities. In the same vein, the proportion of persons with parasite-based diagnosis of uncomplicated malaria at a health facility who received antimalarial treatment according to national treatment guidelines improved from 69 percent at baseline to 75 percent in 2015. All secondary and tertiary health facilities had training on the management of severe malaria using injectable artesunate

SuNMaP has cumulatively procured and distributed 100,000 doses of ACTs to public health facilities in the state and 31,400 vails of injectable artesunate.

Using evidence from the AQUAMAT study that found a greater reduction in malaria mortality when treated with injectable artesunate, the programme trained 182 national trainers on its use – two of whom were from Yobe State. The trainers have cascaded the training to all secondary health facilities in the state with 51 health workers trained.

## Advocacy, communication and social mobilisation

The State Social Mobilisation Technical Committee has mainstreamed malaria communication in the state. State Primary Health Care Management Board (SPHCMB) handles demand creation as captured in the 2015 AOP. Malaria information education and communication materials are available in 15 LGAs, with 88 percent of wards having Community Based Organizations (CBOs), Civil Society Organizations (CSOs) and Implementation Partners (IPs) involved in malaria ACSM activities. As a strategy for integration and collaboration in malaria ACSM, activities are conducted within the framework of Maternal, New born and Child Health (MNCH2), UNICEF and Association of Civil Society Organizations in Malaria, Immunization and Nutrition (ACOMIN) in polio/immunization activities. Radio jingles in the two media stations are on-going.

SuNMaP supported the commemoration of 2015 World Malaria Day with social mobilisation events.

## Procurement and supply management

Yobe State Government continues to operate a Free Drugs Programme (FDP) for pregnant women, children under five and victims of accident. Antimalarial commodities are supplied by NMEP, State government, SuNMaP, and Action Against Hunger/UNICEF.

SuNMaP assisted the State to improve the timely distribution of malaria commodities to health facilities through harmonisation and also supported the state to conduct AMC quantification of the state needs. In addition, the programme in collaboration with GF supported the training of 135 health workers on logistic management information system.

The graph below shows the commodities procured and distributed by SuNMaP in Yobe over the life of the programme (2014-2015) costing £362,990.

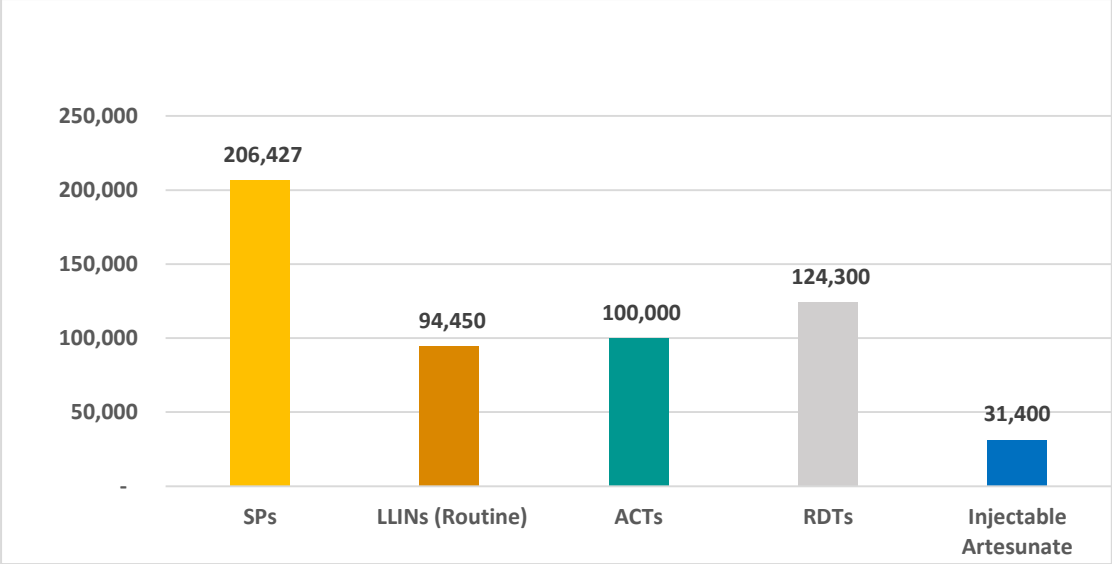



**Figure 1: Commodities distributed in Yobe State from 2014 to 2015**

## Monitoring and evaluation

The state has a functional HMIS unit that coordinates data reporting at all levels and facilities reporting on the DHIS 2.0 platform.

SuNMaP has strengthened the Health Management Information System and routine data reporting by state and LGAs through capacity development of 120 health workers and facilitation of data quality assurance meeting in the state in collaboration with MNCH2 and GF.

## Programme management

Malaria Technical Working Group (mTWG) has been constituted and inaugurated. Other technical sub committees as outlined in the national coordination framework were also formed, one of which is the State Social Mobilisation Technical Committee. Yobe State Malaria Programme is still under the Directorate of PHC of the SPHCMB, with a team of ten staff.

Other partners supporting the state include GF, UNICEF, MNCH2, WHO and Institute of Human Virology of Nigeria (IHVN). The two major malaria partners, GF (which ended in 2014) and SuNMaP (March 2016), have contributed significantly and their exit would create a significant gap in the fight against malaria in the State.

SuNMaP has enhanced the capacity of the SMEP for policy development, planning and coordination of malaria programmes. It has supported the development of key state driven documents including malaria diagnostic external quality assurance framework, costed state malaria annual operational plans (2015 and 2016) and multi-year plan 2016 – 2018. The programme has succeeded in embedding a planning culture in the state by establishing mechanisms for the process of developing costed annual operational plans for malaria elimination in the state. This has improved State official's capacity for strategy development, planning and coordination.

The programme has built capacity of 71 (47 state executives and 25 state/LGA level managers) health care staff on programme management to improve the planning and management of the malaria control/elimination. In addition, SuNMaP supported the state training of trainers (SToT) on programme management, these will cascade the trainings to the LGAs. Figure 2 below shows the number of health workers trained in the different categories from 2013 – 2015 in Yobe.

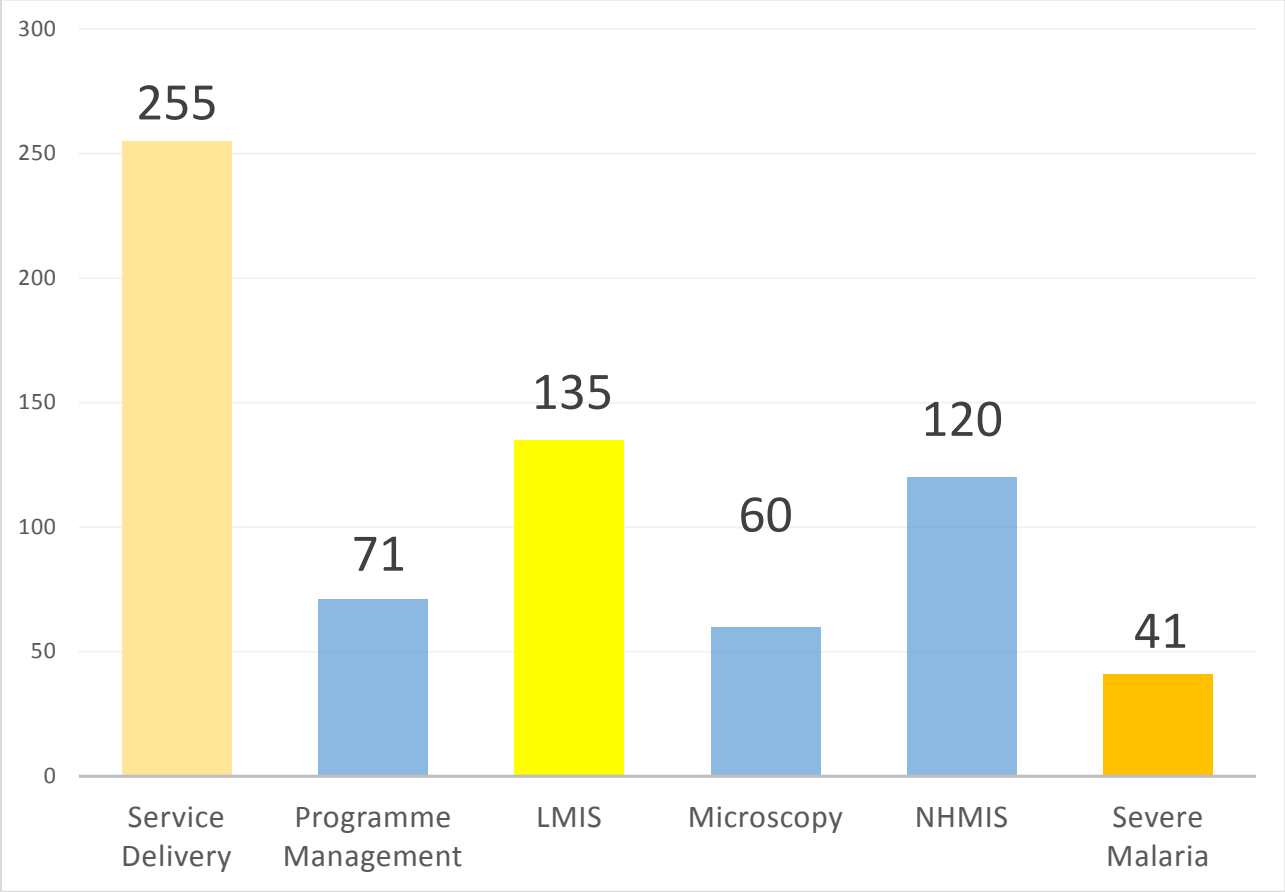



*Figure 2: number of persons trained in the different categories by the programme over the years*

## 4. Cost implications

The table below presents a worrying picture of Yobe's budget performance for 2014 & 2015 in relation to malaria.

| Years | Allocation to SMoH | Allocation to malaria programme | % of SMoH budget allocated to malaria programme | Actual release to malaria program | % actual release to malaria programme | Source of information |
|---|---|---|---|---|---|---|
| 2008 | 5,792,389,440 | 13,000,000 | 0.22% | 13,000,000 | 100% | SMOH |
| 2009 | 3,758,000.000 | 30,000,000 | 0.79% | 30,000,000 | 100% | SMOH |
| 2010 | 3,133,000,000 | 30,000,000 | 0.95% | 14,000,000 | 67% | SMOH |
| 2011 | 3,578,129,000 | 270,000,000 | 1.4% | 50,000,000 | 90% | YBPHCMB |
| 2012 | 1,900,000,000 | 270,000,000 | 14% | 142,500,000 | 53% | YBPHCMB |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2013 | 2,920,000,000 | 68,000,000 | 2.3% | 14,000,000 | 21% | YBPHCMB |
| 2014 | 7,298,000,000 | 68,000,000 | 0.9% | 0 | 0% | YBPHCMB |
| 2015 | 4,514,480,000 | 50,000,000 | 1.1% | 0 | 0% | YBPHCMB |

# 5. Overarching best practices

Global best practices such as value for money, contextualisation, coordination and harmonisation as well as stakeholder engagement were domesticated and mainstreamed into all aspects of SuNMaP support in Yobe State.

## Value for money (VFM)

Value for money (VfM) ensured getting the desired quality at the lowest price so as to maximise the impact of every expenditure on poor people's lives. It meant operating systems helped managers to make more informed, evidence-based choices in transparent and accountable ways. It mainstreamed efficiency and effectiveness into SuNMaP's operations and sought to influence Yobe State to take on the same principles. For instance, in order to sustain a transparent procurement process, a precondition for engaging local vendors was ownership of corporate identity and or official invoice/receipts.

## Contextualisation

SuNMaP's overarching principles of engagement nationally and with States and stakeholders are in most cases, tweaked in the context of local realities. In addition to the uniqueness of approaches illustrated in the background section (above), SuNMaP technical assistance personnel and offices operated from Jigawa and Kano States. In the same vein, the location of Yobe State Malaria Programme in the Directorate of PHC in the SPHCMB was flagged and rightly considered as unusual in the baseline assessment report because of its implications for malaria support at the level of Secondary Health Facilities. However, SuNMaP was able to work within the context.

## Coordination and harmonisation

The introduction of the Annual Operational Plan for the malaria programme late 2014 in Yobe State, which involved wide range of stakeholders cutting across partners, agencies, LGAs and the private sector, provided a platform for harmonisation of key stakeholders' efforts and proper coordination of partner's interventions. This curtailed previous overlap, wastage and duplication of efforts by stakeholders. This is apart from the periodic coordination meetings at State and LGA levels, including the establishment of a Partners' forum. Yobe State experience is best described as one that translates coordination and harmonisation into cost effectiveness and efficiency, a sure prelude to sustainability.

## Stakeholder engagement

Working with primary and secondary stakeholders characterised all the interventions. Technical Assistance to the baseline assessment of 2014 was provided by a team of five consultants. The process, which was essentially a stakeholder focused needs assessment, ensured that twelve Yobe-based field workers worked alongside the team of consultants. Soon after the baseline assessment, a well-attended Stakeholder validation, feedback and consensus meeting took place in Kano, early in May 2014. Even the development and periodic review of the implementation of the AOPs remains a strategic stakeholder engagement process.

SuNMaP's role as a supporter rather than the owner of the malaria project was instrumental to winning the confidence of the state officials who now see the malaria programme as their own against the previous perception that, inadvertently, ascribed ownership and leadership to international partners.

## 6. Recommendations

The State Government needs to maintain the mechanism for coordination of partners' activities by sustaining the planning and implementation review culture involving all stakeholders. Prompt release of a malaria budget will go a long way in ensuring that AOP targets are achieved within the specified timeframes. The state should relocate the SMEP to the SMoH as recommended in the National Coordination Framework for malaria programme. It is also recommended that partners that remain in the State after the final exit of SuNMaP, like MNCH, should initiate a process of widening its scope of coverage to accommodate supply of AMC in order to fill the gap that would be created by SuNMaP's exit.

# Annex

## Yobe State budget for malaria elimination activities (2016-2018)

The estimated total cost of malaria control activities in Yobe between 2016 and 2018 is ₦ 2,794,042,605 (2016 - ₦995,316,350; 2017 - ₦886,329,800 and 2018 - ₦912,396,455). The estimated commitment from partners to malaria control activities in 2016 is less than 1 percent, and this drops to zero percent in 2017 – 2018 multiyear plan with only M&E being supported by partners.

| Objective area | 2016 (Amount) | | | 2017 (Amount) | | | 2018 (Amount) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Government | Partners | Total | Government | Partners | Total | Government | Partners | Total |
| Malaria prevention | ₦ 162,507,100 | ₦ - | **₦ 162,507,100** | ₦ 167,000,000 | ₦ - | **₦ 167,000,000** | ₦ 132,000,000 | ₦ - | **₦ 132,000,000** |
| Malaria diagnosis | ₦ 3,875,750 | ₦ - | **₦ 3,875,750** | ₦ 9,100,000 | ₦ - | **₦ 9,100,000** | ₦ 5,300,000 | ₦ - | **₦ 5,300,000** |
| treatment | ₦ 65,612,500 | ₦ - | **₦ 65,612,500** | ₦ 13,700,000 | ₦ - | **₦ 13,700,000** | ₦ 15,800,000 | ₦ - | **₦ 15,800,000** |
| ACSM | ₦ 7,697,500 | ₦ - | **₦ 7,697,500** | ₦ 5,100,000 | ₦ - | **₦ 5,100,000** | ₦ 3,500,000 | ₦ - | **₦ 3,500,000** |
| PSM | ₦ 676,650,000 | ₦ - | **₦ 676,650,000** | ₦ 630,950,000 | ₦ - | **₦ 630,950,000** | ₦ 586,340,000 | ₦ - | **₦ 586,340,000** |
| M&E | ₦ 48,535,500 | ₦ 4,042,000 | **₦ 52,577,500** | ₦ 41,430,000 | ₦ - | **₦ 41,430,000** | ₦ 37,550,000 | ₦ - | **₦ 37,550,000** |
| PM | ₦ 26,396,000 | ₦ - | **₦ 26,396,000** | ₦ 19,049,800 | ₦ - | **₦ 19,049,800** | ₦ 131,906,455 | ₦ - | **₦ 131,906,455** |
| Total | **₦ 991,274,350** | **₦ 4,042,000** | **₦ 995,316,350** | **₦ 886,329,800** | **₦ -** | **₦ 886,329,800** | **₦ 912,396,455** | **₦ -** | **₦ 912,396,455** |

## Yobe State Budget for malaria elimination Activities (2016-2018) - Percentage contribution from government and partners

| Objective area | 2016 (%) | | 2017 (%) | | 2018 (%) | | 2016 - 2018 (%) | |
|---|---|---|---|---|---|---|---|---|
| | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** | **Government** | **Partners** |
| Malaria prevention | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| Malaria diagnosis | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| treatment | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| ACSM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| PSM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| M&E | 92% | 8% | 100% | 0% | 100% | 0% | 97% | 3% |
| PM | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| **Total** | **99.59%** | **0.41%** | **100.00%** | **0.00%** | **100.00%** | **0.00%** | **99.86%** | **0.14%** |