Malaria control state fact sheets
Malaria control in Anambra State

Overview

Anambra State, called “Light of the Nation”, was created on 27 August 1991 and is located in southeast Nigeria. The state derived its name from the Anambra River which is a tributary of the Niger River. The estimated population for the state is 5,361,982 with annual growth rate is 2.8 percent.

The people of Anambra State are predominantly Igbos with a small group of Igala-speaking people in the Anambra West local government area (LGA). The state capital is Awka, while the state’s industrial centre is located in Nnewi and its commercial centre in Onitsha, home to one of the largest markets in West Africa. Anambra State comprises 21 LGAs and 177 communities.

Health system and key stakeholders

The Anambra State Ministry of Health (SMoH), 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). The SMEP branches mirror those of the National Malaria Elimination Programme (NMEP) and include programme management, integrated vector management, advocacy communication and social mobilisation (ACSM), monitoring and evaluation, and logistics. Through its branch officers, the SMEP works with the LGA health teams in collaboration with the Local Government Service Commission.

There are 1,739 health care facilities: 1,081 private and 658 public, of which 186 are health posts, 434 primary health care facilities, 26 secondary health care facilities and two tertiary hospitals. Public health partners currently or recently involved in the SMEP are the Support to the National Malaria Programme (SuNMaP), World Bank, the World Health Organization and UNICEF. Other implementing partners include the Society for Family Health, Christian Aid and ACOMIN, a sub-recipient of the NMEP for funding from the Global Fund to fight AIDS, Tuberculosis and Malaria.
**Approach**

In Anambra, SuNMaP implemented global best practices that are outlined in the National Malaria Strategic Plan 2014 - 2020. The interventions were implemented through the six programme outputs:

- Capacity building for policy development, planning and coordination at national, state and LGA levels
- Harmonise cross-agency support for the malaria control at national, state and LGA levels
- Increase coverage of effective measures for malaria prevention
- Improve the population’s access to effective malaria treatment
- Enhance community awareness and demand for effective malaria treatment and prevention
- Operational research to gather evidence and its use in programme implementation.

In addition to the above, SuNMaP supports data management strengthening of the National Health Management Information System (NHMIS).

The programme used a variety of capacity building methods (including coaching, mentoring, and supportive supervision) to improve and sustain competencies of staff in the state team and malaria technical working group.

SuNMaP’s approach to harmonisation in Anambra was issues-based, using planning processes to align the work of all funding sources towards collective strategic goals and objectives, resource leveraging, and identifying priority issues.

Central to its capacity building and harmonisation efforts in the state was SuNMaP’s objective to increase access to effective prevention and treatment of malaria. In addition to antimalarial commodity procurements, SuNMaP supported nationally recommended technical approaches to the distribution of these commodities, including long lasting insecticide treated nets (LLINs) through mass campaigns, through continuous distribution channels using routine maternal and child health clinics, sulphadoxine pyrimethamine (SP), microscopes, malaria rapid diagnostic tests (mRDTs), artemisinin based combination therapy (ACTs) and injectable artesunate. The programme also implemented broad-based behaviour change communication activities in order to drive demand for these commodities.

Underpinning these activities was SuNMaP’s drive towards gathering timely and quality data for programme improvement and evidence-based decision making. In addition to the routine national surveys, the programme set up two monitoring area sites to provide standard indicator estimates at more frequent intervals.
**Achievements**

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

- SuNMaP has built capacity of different personnel in the state using the harmonised national training modules supported by the programme, including:
  - 1,616 (state executives, state level managers, LGAs level managers and facility in-charges) health care staff on programme management to improve the planning, budgeting and management of the malaria control/elimination programme
  - 2,151 health care staff on service delivery aimed at improving malaria case management in the state
  - 49 health workers on malaria in pregnancy and
  - 582 private patent medicine vendors trained in malaria case management
  - 120 doctors (including 40 from private hospitals) trained the use of injectable artesunate in the management of severe malaria
  - 45 laboratory scientists on malaria laboratory microscopy and 757 health workers in the use of mRDTs in malaria diagnosis

- SuNMaP has built capacity of the state in development of costed AOPs and the actual development of seven malaria control AOPs (2010-2016) and Anambra State Malaria Multイヤ-Year Plans 2017-2018, including periodic review of the implementation of the plans. In an attempt to improve planning for and implementation of malaria control interventions at the LGAs level, the programme supported the development of LGA specific costed malaria workplans for 2014 and 2015, building on the state malaria control AOPs.

- The programme has strengthened the implementation of malaria prevention interventions through the routine distribution of 686,601 SP doses to support intermittent preventive treatment in pregnancy.

- To strengthen parasite-based diagnosis of malaria and ensure availability of ACTs for effective malaria case management, the programme procured and supported the state to distribute 20,000 mRDT kits, 20 microscopes and 35,250 doses of ACTs to all public health facilities.

- A monitoring area survey was carried out in two LGAs, 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 both LGAs, with the results from Omor more pronounced as prevalence dropped from 20 percent in 2010 to less than two percent 2014.
The programme supported the first ever LLIN campaign in the state in 2009 with the distribution of 1,787,994 nets. This resulted in net ownership rising to 64.8 percent compared with pre-distribution figures of 2.0 percent. Net retention was high at 98.4 percent six months after distribution. In 2014, in collaboration with the World Bank, SuNMaP conducted a second LLIN mass campaign with over 2,818,815 LLINs distributed to 5.4 million households. The net card redemption rate was 94 percent. In addition to the LLIN mass campaign, the programme supported the distribution of 636,070 LLINs at antenatal clinics and through routine childhood immunisation channels in both public and faith based-facilities.

The programme facilitated continuous advocacy by Health Reform Foundation of Nigeria (HERFON) to state policymakers and traditional leaders and for increased support for malaria programming. SuNMaP also supported the Christian Health Association of Nigeria (CHAN) to carry out community mobilisation activities in order to increase malaria awareness. In addition, the programme implemented and reviewed the State Communication Action Plan, inauguration and training of the state ACSM subcommittee.

SuNMaP supported the implementation of community level activities to increase demand for malaria services through community mobilisation, dialogue activities, annual state meetings (August) which were attended by all women including those in diaspora, and quiz competitions in secondary schools. SuNMaP broadcast thousands of radio spots and dramas across four radio stations informing the populace about malaria prevention, treatment and providing other key health messages.

Recommendations

Following implementation activities in Anambra State, SuNMaP is making the following recommendations:

- The SMEP should collaborate with partners to revive a functional malaria technical working group.
- Clearly defined job descriptions for SMEP staff, including educational, diagnostic and case management background, could increase programme staff’s potential.
- SMOH should address high staff turnover at the SMEP.
- Where possible, the SMEP should assign office space to new partners within its offices to enhance integration and opportunities for knowledge sharing.
Overview

Enugu State is an inland state in southeastern Nigeria and was created on August 27, 1991. It derives its name from the capital city, Enugu (which means ‘top of the hill’ in Igbo), which is regarded as the oldest urban area in the Igbo speaking area of Southeastern Nigeria. Enugu was the headquarters of the former East Central State and Eastern Nigeria and currently has 17 Local Government Areas (LGAs). It shares borders with Anambra to the west, Abia State to the south, Kogi to the northwest, Benue to the northeast and Ebonyi to the east. The people of Enugu are typically Ibos by tribe.


Health system and key stakeholders

The Enugu State Ministry of Health (SMoH) is responsible for developing overall state health policy and strategy, managing the state health budget, regulating the quality of health services in public and private facilities and coordinating health action. The Enugu Ministry of Health is headed by the Chief Executive and the Honourable Commissioner for Health and is organised into two sub-units:

1. The Policy Development and Planning Directorate is made up of seven directorates: public health; nursing services; medical services; finance; pharmacy; administration; and the directorate of planning, research and statistics. It is primarily concerned with overall strategic and operational policy development.
2. The Enugu State Health Management Board (SHB) is concerned with overall monitoring and evaluation of service delivery and coordination of the activities of the district health boards. The SHB is led by the

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.
Hospital Administrator and has seven health districts, each with a District Health Board (DHB) located at Uwani, Agbani, Isi-Uzo, Awgu, Enugu-Ezike, Nsukka and Udi. The seven DHBs are concerned with overall service delivery within their respective health districts.

Altogether, there are 438 public primary and 54 secondary health facilities in the state. There are four tertiary hospitals, three of which are owned by the Federal Government and one owned by the state. There are over 880 health facilities in the state, 492 public and 388 private and faith based facilities (source: SMOH DHIS database 2014).

Approach

The Support to National Malaria Programme (SuNMaP) in Enugu was implemented using evidence-based best practices anchored in state ownership and shareholder buy-in. The interventions were implemented through the six programme outputs:

- Capacity building for policy development, planning and coordination at national, state and LGA levels
- Harmonise cross-agency support for the malaria control at national, state and LGA levels
- Increase coverage of effective measures for malaria prevention
- Improve the population's access to effective malaria treatment
- Enhance community awareness and demand for effective malaria treatment and prevention
- Operational research to gather evidence and its use in programme implementation. In addition to the above, SuNMaP supports data management strengthening of National Health Management Information System (NHMIS).

The programme used a variety of capacity building methods (including coaching, mentoring, and supportive supervision) to improve and sustain competencies of staff in the state team and malaria Technical Working Group.

SuNMaP's approach to harmonisation in Enugu was issue-based, using planning processes to align the work of all funding sources towards collective strategic goals and objectives, resource leveraging, and identifying priority issues.

Central to capacity building and harmonisation efforts was SuNMaP’s objective to increase access of the Enugu people to effective prevention and treatment of malaria. In addition to commodity procurements, SuNMaP supported nationally recommended technical approaches to the distribution of antimalarial commodities, including long lasting insecticide treated nets (LLINs) through mass campaigns and continuous distribution channels using routine maternal and child health clinics, sulphadoxine pyrimethamine (SP), microscopes, malaria rapid diagnostic tests (mRDTs), and artemisinin based combination therapy (ACTs). The programme also implemented broad-based behaviour change communication activities in order to drive demand for these commodities.

Underpinning everything was SuNMaP’s drive towards gathering timely and quality data for programme improvement and evidence-based decision making. To this end, the programme adopted the approach of providing continuous capacity building of monitoring and evaluation officers in the state.
Achievements

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 policies, guidelines, frameworks and plans (annual and multi-year): these include state multi-year training plans, state advocacy, communication and social mobilisation framework, integrated supportive supervision (ISS) and on-the-job capacity building (OJCB) implementation framework, donor coordination framework, and malaria diagnostic external quality assurance framework, and costed annual operational plans (AOPs).

SuNMaP has built capacity of the state in the development of costed AOPs and the actual development of four Enugu Malaria Control AOPs (2013, 2014 2015 and 2016) and Enugu State Malaria Multiyear Plans 2017-2018 and periodic review of the implementation of the plans.

SuNMaP has built capacity of different personnel in the state using the harmonised national training modules supported by the programme, including:
- 686 (state executives, state level managers, LGAs level managers and facility in-charges) health care staff on programme management to improve the planning and management of the malaria control/elimination programme
- 670 health care staff have been trained on service delivery aimed at improving malaria case management
- 27 laboratory scientists have benefited from the programme supported training in malaria laboratory microscopy and 257 health workers in the use of mRDTs.

Having supported the state to develop the ISS/OJCB implementation framework, the programme continued with support for the introduction and implementation of ISS and OJCB to improve performance of health workers for service delivery, and advocated at senior levels for state resource mobilisation to implement OJCB and ISS.

The programmes has strengthened the implementation of malaria prevention interventions through the routine distribution of 340,426 SPs. This contribution has resulted in a gradual increase in the proportion of women who took adequate intermittent preventive treatment in pregnancy (IPTp) from 1.2 percent in 2008 to 15 percent in 2013 (NDHS 2008 & 2013). 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 increase in net ownership from 5.5 to 46 percent respectively, and a similar trend was observed in net usage among children under five years of age, from eight to 41 percent respectively.

To strengthen parasite-based diagnosis of malaria and ensure availability of ACTs for effective malaria case treatment, the programme procured and supported the state to distribute 327,472 mRDT kits, 20 microscopes and 325,974 doses of ACTs to all public health facilities. In 2015 only, based on the state quantification of antimalarials for the year, the programme was able to meet the 17, 52 and 16 percent needs of ACTs, SPs and RDTs respectively.

The programme facilitated continuous advocacy by Health Reform Foundation of Nigeria (HERFON) to state policymakers and traditional leaders and for increased support for malaria programming and supported the Christian Health Association of Nigeria (CHAN) to carry out community mobilisation activities in order to increase malaria awareness. In addition, the programme implemented and reviewed the state communication action plan, and the inauguration and training of the state Advocacy, Communication and Social Mobilisation subcommittee.

The programme supported the implementation of community level activities to increase demand for malaria services through community mobilisation and dialogue activities. In addition to the community activation, SuNMaP has broadcast over 9,400 radio spots and dramas on three radio stations (ESBS, Radio Nigeria, and Dream FM), informing the populace on malaria prevention, treatment and other key health messages.

SuNMaP also strengthened the Health Management Information System and routine data reporting by state and LGAs through capacity development, provision of tools and facilitation of monthly and quarterly data quality assurance meetings. There has been an improvement in reporting rates 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 to mRDT-positive children only didn’t result in significant adverse outcomes.

**Recommendations**

Following implementation activities in Enugu State, SuNMaP is making the following recommendations:

- The SMEP should develop a database of state-based master trainers with competencies in the delivery of malaria programme training modules, and should provide funds to cascade these trainings to health workers and policymakers in the state.

- There needs to be a timely and sustained approach to annual operation plan development and review that precedes state budget processes to allow appropriated resources (from the state and from donors) to be better and more realistically focused.

- Through collaboration with the Nursing and Midwifery Council of Nigeria, components of the malaria in pregnancy module were incorporated into the state training curriculum for nurses and midwives. Collaborations such as this are needed to enrich the contents of curricula and address the knowledge gaps identified among the health workforce.

- The inclusion of current gaps in the availability of antimalarial commodities in the Enugu State Council on the Health Summit Report would help to bring these issues to the fore in state health programming.

- The state should leverage the private sector for sustained commitment of resources to malaria programming byconcertedly sensitising companies on the roles they can play in state public health, highlighting the inherent gains for them.
Malaria control in Jigawa State

Overview

Jigawa State is one of the 36 states that makes up the Federal Republic of Nigeria. The state was created in 1991 with Dutse as its capital city. It is situated in the northwest geopolitical zone of the country and is bordered in the north by Niger Republic, in the east by Yobe State, in the south and southeast by Bauchi State and in the west by Katsina and Kano States.

The projected population for 2016 is 5,800,221, with over 85 percent of the population living in rural areas. Islam is the main religion in the state, making up about 98.9 percent of the population. The major ethnic groups include Hausa, Fulani and Kanuri, with some traces of Badawa mainly in the northeastern regions. The state has 27 Local Government Areas (LGAs) with 287 political wards. The main occupations are farming, animal grazing and trading.

Health system and key stakeholders

The goal of the health sector in Jigawa State is to have a healthy and productive population. Its mission is to:

- promote the health status of the people of Jigawa State through improved integrated and decentralised healthcare services
- build awareness of health and health-related issues
- ensure good resource mobilisation and practices, with increased public-private partnerships (PPP) and effective community participation and ownership to ensure that basic health services are made available, accessible, affordable and acceptable to the people of Jigawa State

The health system in Jigawa has undergone a series of reforms in recent years (2002-2014), which have repositioned the State Ministry of Health to provide effective oversight of policy direction, resource mobilisation and regulation of the health sector. The state operates a district health system called Gunduma Health System, which has responsibility for service delivery through nine Gunduma health system councils (three in each senatorial zone). The secondary and primary healthcare services are integrated under a single line of authority - the Gunduma Health System Board. There is an existing State Health Strategic Development Plan (2010-2015), which was reviewed during the 2012 Joint Annual Review.

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.
The state health sector has witnessed a progressive increase in its budget allocation since 2007. Between January and October 2014, the state spent a total of Naira 282,545,317 on malaria intervention activities. Drug supply and procurement in the state is also decentralised, under an agency called Jigawa Medicare Supply Organisation. The state has 678 health facilities including 11 private facilities. The facilities consist of 662 primary health care facilities (PHCs), 12 secondary health facilities, two tertiary hospitals (Federal Medical Centre and Rasheed Shekoni Specialist Hospital) and two specialised hospitals (Kazaure Psychiatric Hospital and Tuberculous and Leprosy Referral Hospital, Hadejia). Rasheed Shekoni Specialist Hospital and specialised hospitals operate under the State Ministry of Health, while the Federal Medical Centre operates under the Federal Ministry of Health. The PHCs and secondary health facilities are under the Gunduma councils.

**Approach**

The SuNMaP programme in Jigawa was implemented using evidence-based best practices that are rooted in state ownership and stakeholder buy-in. The interventions were implemented through the six programme outputs:

- Capacity building for policy development, planning and coordination at national, state and LGA levels
- Harmonise cross-agency support for the malaria control at national, state and LGA levels
- Increase coverage of effective measures for malaria prevention
- Improve the population’s access to effective malaria treatment
- Enhance community awareness and demand for effective malaria treatment
- Operational research to gather evidence and its use in programme implementation. In addition to the above, SuNMaP supports data management strengthening of National Health Management Information System (NHMIS).

Using a variety of methods, including coaching, mentoring, and supportive supervision, competencies of staff in the state team and malaria Technical Working Group (mTWG) were improved.

SuNMaP’s approach to harmonisation in Jigawa was issue-based, using planning processes to align the work of all funding sources towards collective strategic goals and objectives, resource leveraging and identifying priority issues.

Central to capacity building and harmonisation efforts was SuNMaP’s objective to increase access of the Jigawa people to effective prevention and treatment of malaria. In addition to commodity procurements, SuNMaP supported nationally recommended technical approaches to the distribution of antimalarial commodities, including long lasting insecticide treated nets (LLINs) through mass campaigns and continuous distribution channels using routine maternal and child health clinics, sulphadoxine pyrimethamine (SP), SP with Amodiaquine (SP+AQ), microscopes, malaria rapid diagnostic tests (mRDTs), and artemisinin based combination therapy (ACTs). The programme also implemented broad-based behaviour change communication activities in order to drive demand for these commodities.

Underpinning all these was SuNMaP’s drive towards gathering timely and quality data for programme improvement and evidence-based decision making. To this end, an approach towards the continuous capacity building of monitoring and evaluation officers in the District Health Information System (DHIS) was adopted.
Achievements

- 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 policies, guidelines, frameworks and plans (annual and multi-year). These include Jigawa State multi-year training plans, integrated supportive supervision and on-the-job capacity building implementation framework, advocacy, communication and social mobilisation framework, malaria microscopy quality assurance framework, monitoring and evaluation plan and costed annual operational plans (AOP).

- SuNMaP has built capacity of the state in the development of costed Annual Operational Plans (AOPs), four annual Jigawa Malaria Control AOPs (2013, 2014 2015 and 2016) and Multiyear Plans 2017 – 2018. In addition, the programme has supported the state to implement these plans, which has demonstrated a progressive increase in performance rate from 55.7 percent in 2013 to 67.2 percent in 2014.

- SuNMaP has built capacity of different personnel in the state using the harmonised national training modules supported by the programme. Below details the number of staff trained in the different categories.
  - 352 health care staff (state executives and state level senior managers, LGA level implementing team and facility in-charges) were trained on programme management to improve the planning, budgeting and management of the malaria control/elimination programme.
  - 828 health care staff have been trained on service delivery aimed at improving malaria case management in accordance with the national guideline.
  - 60 laboratory scientists have benefitted from the programme-supported training in malaria laboratory microscopy and 616 health workers in the use of mRDTs.
  - 1,920 people also trained on seasonal malaria chemoprevention (SMC) mass drug administration, logistics and pharmacovigilance.

- SuNMaP demonstrated the use of globally-proven, evidence-based results into implementation in the country and in Jigawa in particular, with the introduction and implementation of SMC for children aged 3-59 months in Kazaure and Roni LGAs. Using experience acquired from SMC implementation on Katsina, the programme scaled up distribution to Kazaure and Roni LGAs in Jigawa state. Over the two years of SMC implementation (2014-2015) during peak transmission seasons, a total of 287,556 doses of SP+AQ were distributed by role model caregivers during the mass drug administration cycles, benefitt about 160,000 children. Preliminary results on the number of children with confirmed malaria attending out-patient departments (OPD) based on data collected from sentinel sites show a drop of 50 percent in the implementation area (Kazaure) as opposed to the control LGA (Ringim) – figure 1.

- The programmes has strengthened the implementation of malaria prevention interventions through procurement and supporting the routine distribution of 382,765 doses of SP for intermittent preventive treatment in pregnancy (IPTp) across the state. This contribution has resulted in a gradual increase in the proportion of women who took adequate IPTp in pregnancy from 10.6 percent in 2008 to 27.2 percent in 2013 (NDHS 2008 & 2013).

![Figure 1: Preliminary results on the number of children with confirmed malaria attending out-patient departments (OPD) in the implementation area (Kazaure) and the control LGA (Ringim)](image)
In addition to IPTp, the programme has supported the distribution of 178,950 LLINs at antenatal clinics and through routine childhood immunisation channels. In addition, the programme provided technical support during the 2014 mass distribution of 2,914,513 LLINs funded by the World Bank, which achieved 98.8 percent net card redemption rate and 96.3 percent LLIN retention in the sampled households (source - End Process Monitoring). These two channels have contributed to increase in the number of households owning at least one mosquito net (any net) from 32 percent (2008), to 75 percent (2013) and up to 91.6 percent in 2015 (NDHS 2008 & 2013; SMART 2015). Recent figures on net usage among children under five years has increased to 86.3 percent based on the SMART survey 2015.

To support parasite-based diagnosis and ensure availability of ACTs for effective malaria case treatment in Jigawa state, the programme procured and supported the state to distribute 362,300 mRDT kits, 20 microscopes and 319,402 doses of ACTs to all public health facilities. The impact of increased availability and access to antimalarial commodities in the state is evident from the reduction in OPD attendances classified as malaria from an average of 40 percent in 2012 to 20 percent in 2015 (based on sentinel site data).

The programme facilitated continuous advocacy by Health Reform Foundation of Nigeria (HERFON) to state policymakers and traditional leaders and for increased support for malaria programming. SuNMaP also the Federations of Muslim Women’s Association (FOMWAN) to carry out community mobilisation activities in order to increase malaria awareness. In addition, the programme broadcasted radio messages to encourage behavioural change with respect to malaria prevention, diagnosis and treatment, reaching more than 1.5 million residents daily over the last two years of the programme.

**Recommendations**

Following implementation of activities in Jigawa State, SuNMaP is making the following recommendations:

- SMC has proven to be effective in reducing malaria morbidity by at least 50 percent. The programme therefore proposes that the state scales up SMC to more LGAs.
- Despite advocacy for the development of budgets and timely release of funds, these still need to be improved if Jigawa state is to achieve universal coverage of key malaria interventions and position itself for the elimination of malaria.
Malaria control in Kaduna State

Overview

Kaduna State was created in 1967 from an area previously known as the Northern Region of Nigeria. In 1987, Katsina State was carved out of Kaduna State. Its capital is Kaduna City and the major ethnic groups are Hausa, Gbagyi, Bajju and Jaba (Ham). The State has 23 Local Government Areas (LGAs) and 46 Development Areas, with 255 political wards. The major economic activities are farming and trading, with a small proportion of the population employed as civil servants.

The state shares borders with Zamfara, Katsina and Kano States in the north, with Bauchi and Plateau States in the east, with the Federal Capital Territory and Nasarawa State in the south and Niger State to the west. Kaduna State covers an area of around 45,567 square kilometres. According to 2015 data, the estimated population is 7,915,487, with the majority of the people (70 percent) living in rural areas and 30 percent living in urban areas.

Health system and key stakeholders

The Health System is divided into three tiers: primary, secondary and tertiary, with a total of 1,762 health facilities, 1,068 primary health centres (PHCs), 29 secondary health facilities (SHFs), two dental hospitals, seven tertiary hospitals, 651 registered private health facilities and eight faith based health facilities.

Partners who have contributed to malaria elimination efforts in the state include Support for National Malaria Programme (SuNMaP), Society for Family Health (SFH), Clinton Health Access Initiative (CHAI) and Nazarene Rural Health Ministry (NRHM), UNICEF, FHI 360 and the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). In Kaduna State, the government’s commitment to tackling the burden of malaria has been demonstrated through its ‘War Against Malaria’ program which has been managed by the state Drug Management Agency (DMA). The annual malaria budget sits within DMA, while the Malaria Elimination Unit works within the State Ministry of Health.

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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.
of Health (SMoH). The annual malaria budget through the DMA is predominantly mainly drug procurements with minimal funding going to malaria prevention, integrated vector management, monitoring and evaluation, advocacy communication and social mobilisation.

**Approach**

SuNMaP has applied best practices to deliver the programme’s six core outputs of capacity building, harmonisation, prevention of malaria, improved diagnosis and treatment, demand creation, and monitoring and evaluation and operational research. SuNMaP has contributed to malaria control in Kaduna state, using cost effective, evidence-based interventions, that have a strong level of state ownership and buy in from key stakeholders.

Thanks to a variety of capacity building techniques, the competencies of the state team and malaria technical working group have been improved, in particular in the area of planning, management, budgeting and monitoring and evaluation. Capacity building activities included coaching, mentoring and supportive supervision.

One of the strategies for sustainability involved the training of state-based facilitators and consultants who in turn went on to provide technical support for continuous capacity building beyond the lifespan of the programme. Furthermore, a collaborative approach was used to improve partner harmonisation, by working closely with communities, community-based organisations, governments, academic institutions, as well as local and international organisations.

**Achievements**

Over the course of SuNMaP’s implementation in Kaduna, the programme has:

- built state capacity to develop costed Annual Operational Plans (AOPs) and developed state-led Malaria Control AOPs (2013, 2014, 2015, and 2016) and Kaduna State Malaria Multiyear Plans 2017 – 2018.

- supported the adoption and development of a number of frameworks, multi-year plans and guidelines, including a national coordination framework aimed at improving
the coordination and harmonisation of malaria elimination efforts and resources, advocacy, communication and Social Mobilisation Framework, Integrated Supportive Supervision/On-the-Job Capacity Building (ISS/OJCB) Implementation Framework, multi-year training plan, Malaria diagnosis external assurance operational guidelines and private health provider’s engagement strategy aimed at increasing engagement of the private sector.

built capacity of different personnel in the state using harmonised national training modules supported by the programme at a national level, including 318 health care staff on programme management; 239 laboratory technicians and 30 laboratory scientists across 29 general hospitals have benefited from programme supported training; 677 health care staff have been trained on service delivery aimed at improving malaria case management; 683 trained on a logistics management information system and 499 healthcare providers trained on malaria in pregnancy resulting a total of 2707 (41 percent) health workers trained in the state.

supported the delivery and distribution of 220,150 long lasting insecticide treated nets (LLINs) and 427,223 doses of sulphadoxine-pyrimethamine (SPs) to 510 for intermittent preventive treatment in pregnancy (IPTp) to pregnant mothers through antenatal care (ANC). This resulted in an increase in the proportion of women who took at least two doses of SP from 2.8 percent in 2008 to 17.6 percent in 2015 (NDHS 2008 and SMART 2015 respectively). For at least one dose, the proportion was above 60 percent in 2015.

in collaboration with the Global Fund to Fight AIDS, Tuberculosis and Malaria, the National Malaria Elimination Programme and SMoH, who together conducted a mass net distribution campaign in March 2015, with 4,177,132 LLINs distributed to households in the state. This has resulted in increase in net ownership from 9.7 percent in 2013 to 78 percent in 2015 (SMART 2013 & 2015), with 73 percent net use among the children under years of age.

supported parasite-based diagnosis and ensured the availability of artemisinin based combination therapy (ACTs) for effective malaria case treatment; procured and supported the state to distribute 557,500 malaria Rapid Diagnostic Test (mRDT) and 554,094 doses of ACTs. Results from sentinel sites established by the programme show that there has been gradual decline in the percentage of out-patients reported to have malaria from 58 percent in 2012 to 19 percent in 2015 (SuNMaP Kaduna Sentinel Site Report). Further review of Integrated Disease surveillance & Response (IDSR) malaria specific data review from January 2011 to December 2014 showed a gradual decline in malaria cases reported over the years from 2011 to 2014.

facilitating continuous advocacy by the Health Reform Foundation of Nigeria (HERFON) to state policymakers and traditional leaders and for increased support for malaria programming. In addition, SuNMaP supported the Christian Health Association of Nigeria (CHAN) and Federations of Muslim Women’s Association (FOMWAN) to carry out community mobilisation activities in order to increase malaria awareness. In addition, SuNMaP broadcast key radio messages on malaria prevention, diagnosis and treatment reaching more than four million residents daily aimed at behavioural change towards malaria control and elimination.

Distribution of health care workers trained in Kaduna State from 2012-2015

Cases of malaria reported from 2011-2014 showing changes in malaria morbidity in Kaduna State
Recommendations

Following the implementation of activities in Kaduna State, SuNMaP makes the following recommendations:

- There is a need for timely and increased financial and human resources, commodities and infrastructural investments to achieve universal coverage of all malaria interventions across the state and adequately address malaria in Kaduna state.

- Cooperation between the SMoH stakeholders, multi-sectorial collaboration and community involvement in malaria elimination activities in Kaduna are opportunities for the state to explore.

- The State Malaria Elimination Programme (SMEP) needs more appropriately qualified staff, increasing the number of medical doctors or pharmacists in the unit, and continued capacity building needs to be ensured.
Overview

Kano State is one of 36 states in the Federal Republic of Nigeria. It was created on 27 May 1967, with its capital in Kano. The state is made up of 44 Local Government Areas (LGAs), the highest in Nigeria, with Kano city having eight metropolitan LGAs. Kano State borders Katsina State to the north-west, Jigawa State to the north-east, Bauchi State to the south-east and Kaduna State to the south-west.

According to 2006 state census figures, the population of Kano was 9,383,682. The city of Kano has a population of over two million. The projected population for 2016 is 12,945,338. Agriculture is key to Kano State’s economy, with around 75 percent of the total population engaged directly or indirectly in the sector. However, social indicators are poor, with low literacy rates, high child-adult dependency ratio; low levels of nutrition and poor access to quality, essential healthcare. Life expectancy at birth for males is 51.5 years and for females is 52.6 years (NDHS 2013).

Health system and key stakeholders

The State Malaria Elimination Programme (SMEP) functions under the following leadership, in line with the recommendation of the National Malaria Coordination Framework:

1. Programme Manager
2. Deputy Programme Manager/Case management Officer
3. Monitoring & Evaluation (M&E) Officer
4. Integrated Vector Management (IVM) Officer
5. Advocacy Communication Social Mobilisation (ACSM) Officer
6. Procurement and Supply Chain Management (PSM) Officer

Frequent changes in the SMEP team since the termination of the World Bank funded Malaria Control Booster project, by the state government in 2011, has resulted in some capacity gaps.
In addition, the malaria Technical Working Group meetings, where partners and stakeholders working together to tackle malaria joined forces, have not been regular and LGA work plans were not instituted in the state.

Partners include Partnership for Transforming Health Systems II (PATHS2), Maternal, Newborn, and Child Health Programme (MNCH2), the Clinton Health Access Initiative (CHAI) and Society for Family Health (SFH).

**Approach**

SuNMaP has been operational in Kano since 2009, and since then has been supporting Kano State to strengthen its malaria control efforts working harmoniously with Kano State Government, development partners, civil society organisations and other stakeholders with the aim of eliminating malaria in the state.

SuNMaP has been at the forefront of the harmonisation of partners’ policies, procedures and resources. It took a collaborative approach to secure broad sector engagement, achieving results through innovation and strategic planning. Furthermore, the programme adopted a wide variety of capacity building activities, targeting key personnel in the health workforce. Activities notably went beyond training events to incorporate continued mentoring, whilst hands-on opportunities were used to further develop a health care workers skills and understanding both in service delivery and programme management.

One of SuNMaP’s most ambitious initiatives was to support Kano State in the distribution of mosquito nets and other antimalarial commodities (AMC), which aimed to reach every household within the state. To ensure the success of the intervention, a strong behaviour change component was incorporated into the programme from its inception, using activities such as community mobilisations and broadcasting radio jingles to reach a wider population. In addition, SuNMaP ensured the National ACSM Strategic Framework and Implementation Plan was operational in the state.

Underpinning all activities were SuNMaP-driven efforts to capture timely and quality data for continued programme improvement and evidence-based decision making. To this end, continuous skills training for M&E officers in District Health Information Software (DHIS) was taken up.
**Achievements**

- SuNMaP supported the State Ministry of Health (SMoH) to develop the Malaria Annual Operational Plans from 2010 to 2016 and a multi-year plan to cover 2017-2018.
- Provided assistance to the SMoH in developing an Integrated Supportive Supervision (ISS) framework and roll-out plan.
- SuNMaP supported the development and implementation of the Advocacy, Communication and Social Mobilization Framework and Communication Action Plans from 2011-2014.
- Provided support for the development of a multi-year training plan (2010-2014) for the malaria sub-sector and the subsequent capacity building of 728 health care officials and other staff on programme management. Over 1,000 health workers on service delivery for improvement of malaria management and 148 antenatal care (ANC) health workers on management of malaria in pregnancy.
- SuNMaP provided technical assistance during state funded training for 1,320 health workers on the use of rapid diagnostic test kits and supported the training of 31 health workers on microscopy for the correct diagnosis of malaria which has resulted in increase in proportions of fever cases being tested from less than 5 percent in 2012 to 57 percent in 2015 (NHMIS).
- SuNMaP facilitated continuous advocacy by Health Reform Foundation of Nigeria (HERFON) to state policymakers and traditional leaders and for increased support for malaria programming and supported the Federations of Muslim Women’s Association (FOMWAN) to carry out community mobilization activities in order to increase malaria awareness.
- SuNMaP supported antimalarial commodity supply by providing 1,465,807 doses of SPs, 1,561,600 RDT kits, 968,398 doses of ACTs and 984,216 LLINs for distribution through routine antenatal clinics and maternal child neonatal and health (MNCH) week channels. As a result, there has been an increase in the number of women who took adequate intermittent preventive treatment in pregnancy (IPTp) from 9 percent in 2008 to 48 percent in 2013 (NDHS 2008 & 2013) and an increase in the number of confirmed malaria cases receiving ACTs from 55 percent in 2012 to 94 percent in 2015 (NHMIS).
- SuNMaP supported the first LLIN campaign in Kano State in 2010 through the provision of 1,315,000 LLINs.
- SuNMaP and the Global Fund to Fight AIDS, TB and Malaria supported the distribution of 6,435,250 LLIN across the state during 2015 LLINs replacement campaign, achieving 99 percent net card redemption rate and net retention after the campaign (Net Retention and Use Survey Kano 2015).
- SuNMaP supported the implementation of the ‘Making Markets Work for the Poor’ (M4P) approach through commercial sector partners in the state that led to the sale of 1,132,749 ACTs.
- 44 LGA M&E officers were trained and are reporting to the District Health Information System platform. A total of 478 officers in charge of primary health care facilities have also received training on M&E, as well as malaria focal persons.

As a result, the percentage of health care facilities reporting through the DHIS tool/database is 87.1 percent while the percentage of health care facilities reporting complete data in a timely manner is 86.1 percent.
Recommendations

Following implementation activities in Kano State, SuNMaP is making the following recommendations:

There is need for further strengthening of the SMEP’s capacity to fully lead 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 in order to better position the SMEP in discussions with partners.

One key source of funding is the ‘Saving One Millions Lives’ programme for result fund, which aims to increase utilisation and quality of high impact reproductive, child health and nutrition interventions. Seeking and securing this funding will also improve the percentage of children sleeping under mosquito nets (programme indicator), thereby reducing malaria morbidity.

Kano is a strategic commercial centre in Nigeria. The SMEP should work with relevant organisations to continue to develop the commercial sector as a sustainable approach for access to antimalarial commodities.
Capital: Katsina  
Local government areas: 34  
Ethnic groups: Hausa, Fulani  
Languages: Hausa, Fulani  
Net ownership: 67% 

Malaria control in Katsina State 

Overview 
Katsina State became independent from Kaduna State on 23rd September 1987. It covers 24,517 km² and has an estimated population of 7,558,001 (2015) with an annual growth rate of three percent. Katsina State is bordered by Zamfara State to the west, Kaduna State to the south, Kano and Jigawa States to the east, and Niger Republic to the north. 

Administratively, the state is divided into three senatorial zones made up of 34 Local Government Areas (LGAs), 362 political wards and seven health zones. Katsina State has two Emirate Councils which are Katsina and Daura. Katsina is inhabited by a population of predominantly Hausa/Fulani descent and the major religion practiced is Islam. Inhabitants are mainly peasant farmers, traders and cattle rearers. Katsina State lies between the Sudan and Sahel-savannah ecological zone and, as a result, the peak transmission season for malaria (during the wet months from May to September) in the state is shorter than that in the mangrove and rain forest belts of southern Nigeria.

Health system and key stakeholders 
There are a total of 1,511 public health facilities and 79 private clinics in the state. Of the 1,511 public health facilities there are 1,490 primary healthcare centres, 20 secondary health facilities and one tertiary health facility. The state malaria programme is in line with the National Malaria Strategic Plan 2014-2020. There is a State Malaria Elimination Programme (SMEP) structure which is responsible for coordinating all malaria control activities in the state.

The capacity of the SMEP has grown from a one-person unit in 2008 to a department at the State Ministry of Health of Malaria & Sickle Cell in 2015, headed by a director with two assistant directors (for malaria and sickle cell, respectively). The Assistant Director for Malaria also holds the role of the SMEP Manager and leads the State Malaria Elimination Programme (SMEP) unit, with three other full-time staff for integrated vector management, case management and monitoring and evaluation. 

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 ended 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.
The State Environmental Protection Agency (SEPA) handles larvicidal and environmental management activities (refuse disposal and monthly environmental sanitation). There is no malaria partners’ forum but an active health partners forum exists. The Malaria Technical Working Group (mTWG), State Malaria Advisory and State Resource Mobilisation committees require strengthening.

Alongside SuNMaP, there are two other key partners providing support for malaria control and elimination in the state: the Institute of Human Virology in Nigeria and the Society for Family Health. Collaboration among all partners has been successful and has yielded positive outcomes in the state.

**Approach**

SuNMaP used a participatory approach in the implementation of its activities. This involved state engagement, particularly through the SMEP, in all implementation aspects. The participatory approach aimed to increase state officials’ technical capacity building, thereby strengthening the project’s sustainability.

SuNMaP’s work in Katsina was divided into six different outputs, each of which focuses on one element of comprehensive malaria control and elimination:

- Capacity building for policy development, planning and coordination at national, state and LGA levels
- Harmonise cross-agency support for the malaria control at national, state and LGA levels
- Increase coverage of effective measures for malaria prevention
- Improve the population’s access to effective malaria treatment
- Enhance community awareness and demand for effective malaria treatment and prevention
- Operational research to gather evidence and its use in programme implementation. In addition to the above, SuNMaP supports data management strengthening of National Health Management Information System (NHMIS)

Activities under these outputs were evidence-based and implemented using global best practices. Examples include the use of proven approaches like long lasting insecticide-treated net (LLIN) mass campaigns, continuous distribution of LLINs, seasonal malaria chemoprevention (SMC) and capacity building activities such as coaching, mentoring and on-the-job training.
Achievements

SuNMaP supported programme management training of 562 staff covering modules on general management, monitoring and evaluation, budget and planning and integrated supportive supervision.

The programme collaborated with the Partnership for Reviving Routine Immunization in Northern Nigeria: Maternal Newborn and Child Health Initiative, as well as the Institute of Human Virology in Nigeria to institutionalise integrated supportive supervision and on-the-job capacity building, strengthen the health management information system and harmonise activities around capacity building and training.

Provided training for two state based consultants on programme management modules, ten state based facilitators for malaria annual operational plan development and two state based consultants on the management of severe malaria for the continued cascading of skills beyond the programme’s lifespan.

Provided training for 12 state level trainers on delivery of malaria in pregnancy services during antenatal care (ANC). This knowledge was cascaded down to 164 ANC staff drawn from 164 ANC facilities across the nine SuNMaP focal LGAs, achieving a 98 percent achievement against programme target.

Trained 20 lab scientists and 1,230 health facility workers in the use of rapid diagnostic tests (RDTs) for malaria diagnosis in 2013 (in collaboration with the Institute of Human Virology and the Global Fund to Fight AIDS, Tuberculosis and Malaria).

Malaria microscopy training for 26 state-based laboratory scientists. This included RDT training and an introduction to quality assurance and control of malaria diagnosis.

1,800 health workers were trained on malaria service delivery, equipping them with the skills to provide improved services for case management of malaria.

Support was provided to the state to develop robust, costed annual operational plans for malaria for 2011, 2012, 2013, 2014, 2015 and 2016 and multi-year malaria plans until 2018 and capacity building provided to the LGA teams to develop and review LGA annual plans for malaria.

Technical assistance was given to the 2014 net replacement campaign in collaboration with the Institute of Human Virology in Nigeria and supported the supervisory process to ensure that 3,950,000 LLINs were delivered to households.

SuNMaP supported the implementation of community level activities to increase demand for malaria services at ward levels. These community mobilisation and malaria dialogue activities are estimated to have reached over 700 caregivers, pregnant women and heads of households.

SuNMaP has broadcast radio messages on malaria prevention and treatment, reaching an estimated six million residents in the state daily – achieving high coverage at low cost. In addition, SuNMaP facilitated continuous advocacy by Health Reform Foundation of Nigeria (HERFON) to state policymakers and traditional leaders and for increased support for malaria programming and supported the Federations of Muslim Women’s Association (FOMWAN) to carry out community mobilisation activities in order to increase malaria awareness.

SMC: preliminary studies in Katsina state indicate a decline in number of malaria cases

Source: Report on effect of SMC, Support for the Nigerian Malaria Programme – Support for National Malaria Program (SuNMaP), Malaria Consortium, DFID 2014
The programme implemented seasonal malaria chemoprevention (SMC) in the state in 2013, 2014 and 2015 with a coverage of over 100 percent over the years, surpassing the target for children under five to be reached based on population figures. A total of 4,047 role model care givers as well as 387 health facility staff and supervisors were trained on SMC mass drug administration. Results from this implementation in the states shows a reduction in morbidity (malaria cases in children under five) of 50-60 percent in those LGAs were SMC was implemented as opposed to those without SMC.

Supported the state with the distribution of over 765,223 doses of sulfadoxine-pyrimethamine (SP) as directly observed treatment to pregnant mothers through 510 health facilities offering ANCs in all LGAs.

Other antimalarial commodities procured and distributed by the programme include: 606,158 artemisinin-based combination therapies (ACTs), 466,436 LLINs for routine distribution (965,850 during 2015 LLIN replacement campaign), 776,775 units of RDTs.

Recommendations
Following implementation activities in Katsina State, SuNMaP is making the following recommendations:

- SMEP should sustain and strengthen the harmonisation platform in the state. This would prevent duplication of activities by partners and optimise scarce resources.
- A key gap in current state planning is the absence of a comprehensive budget line for malaria in the health budget. The implication is that the actual cost spent in the control of malaria in the entire state cannot be measured. There is a need to consider this during the development of the 2017 state budget.
- Among the ten SuNMaP states, Katsina State had the highest percentage of under-five children sleeping under mosquito nets, at 39 percent (Demographic and Health Survey 2013). This is an indicator that was used in the “Saving One Million Lives” programme for result funds expected in 2016. The State Ministry of Health should leverage its strength by scaling up grassroots approaches to further increase the rate of LLIN use in order to access substantial funds from this project.
Malaria control in Lagos State

Overview

Lagos state is located in the southwest part of the country, on the narrow plain of the Bight of Benin. The state is bordered in the north and east by Ogun State, in the west by the Republic of Benin and in the south by the Atlantic Ocean.

Malaria is endemic in the state, posing a major challenge as it impedes human development. An average of 315,507 malaria cases are reported annually (Lagos Operational Plan for Malaria 2010). Morbidity trends show an increase from 257,266 cases in 2003 to 562,869 cases in 2009. In 2011 and 2012, 529,704 and 488,780 cases were reported, respectively. Lagos State has a net ownership of 48 percent (SMART Survey 2015), with a retention rate of 88.1 percent (Post-LLIN Campaign Report).

Health system and key stakeholders

The Lagos State Ministry of Health has overall responsibility of coordinating all health programmes in the state. It is responsible for developing state policies and strategies, managing state health budgets, and regulating the quality of health services in public and private health service delivery points. It is headed by the Honorable Commissioner of Health, who is supported by the Special Adviser on Health.

The Permanent Secretary also holds the role of Chief Accounting Officer, through whom all the directors report to the Hon. Commissioner of Health and Special Adviser on Health. The ministry has ten directorates: Health Care Planning, Research and Statistics; Disease Control; Family Health and Nutrition; Occupational Health Service; Pharmaceutical Services; Medical Administration and Training; Nursing Services; Accounts; Administration, Human Resources and Environmental Health Services.

The state's malaria elimination programme unit is based in the directorate of disease control and has oversight responsibility for all malaria related activities in the state. There is a functioning and well-coordinated Malaria Technical Working Group in Lagos that is chaired by the Honourable Commissioner for Health with the mandate of providing technical and advisory support for all malaria control activities. The Lagos State Malaria Research Technical and Advisory Committee (LASMARTAC) includes subcommittees drawn from the relevant state ministries, departments, agencies, developmental partners, malaria implementing agencies, civil society organisations and academic institutions.

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.
Health service delivery points

Altogether there are 278 public primary health facilities, 24 general hospitals, one state-owned tertiary hospital, over 3,000 private hospitals and 20 public institutional health facilities. Other health service delivery points include more than 3,000 licensed patent medicine vendor outlets, more than 1,000 community pharmacist shops and over 600 community caregivers.

Approach

The SuNMaP programme in Lagos State was implemented using evidence-based best practices anchored in state ownership and stakeholder buy-in. Using a variety of capacity building techniques, the programme improved state team and Malaria Technical Working Group competencies. Methodology included coaching, mentoring and supportive supervision.

The interventions were implemented through the six (6) programme outputs:

- Capacity building for policy development, planning and coordination at national, state and Local Government Area (LGA) levels
- Harmonise cross-agency support for the malaria control at national, state and LGA levels
- Increase coverage of effective measures for malaria prevention
- Improve the population’s access to effective malaria treatment
- Enhance community awareness and demand for effective malaria treatment and prevention
- Operational research to gather evidence and its use in programme implementation. In addition to the above, SuNMaP supports data management strengthening of National Health Management Information System (NHMIS).

Achievements

1. 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, guideline, frameworks and plans (annual and multi-year):

   - Built capacity of the state in development of costed Annual Operational Plans (AOPs) and the actual development of seven Lagos Malaria Control AOPs (2010, 2011, 2012, 2013, 2014, 2015 and 2016) and Lagos State Malaria Multiyear Plans 2017 – 2018. In an attempt to improve planning for and implementation of malaria control interventions in the LGAs, the programme supported the development of LGA specific Malaria Workplans for 2014 and 2015 building on the state Malaria Control AOPs.
Lagos State Training Plans for 2010 – 2013 and 2016 – 2020 aided the state to harmonise and coordinate all the malaria service and programme management trainings using the national harmonised modules.


Lagos State Integrated Supportive Supervision/On-the-Job Capacity Building (ISS/OJCB) Implementation Framework 2011. Using this framework, the programme supported the state to an introduction of OJCB to improve the performance of health workers and service delivery, and institutionalisation of ISS in the health system.

Lagos State Strategy on Continuous Distribution of LLINs through Schools 2015.

2. The programme supported the improvement of the quality of health service delivery on malaria case management through the training of 3,251 people across 1,169 health service delivery points in both the public and private sectors (achieving 95 percent coverage of public health facilities that have at least one trained health worker on malaria case management). In addition, the programme has supported the use of injectable artemesunate as first-line treatment for severe malaria (in collaboration with the Clinton Health Access Initiative).

3. To support improvement for a malaria commodity logistics system in the state, the programme trained 605 health workers on logistic management information system (LMIS) and supported the printing and supply of appropriate tools to 301 health facilities to enhance adequate malaria indicator data reporting.

4. Malaria planning in the state has been enhanced through building the capacity of 265 health workers (80 percent of targeted health workers) on programme management in the areas of general management, monitoring and evaluation, budget and planning and ISS.

5. Strengthened the implementation of malaria prevention interventions through the routine distribution of 979,259 sulphadoxine pyrithymamine. This contribution has resulted in a gradual increase in the proportion of women who took adequate IPTp in pregnancy from 11.4 percent in 2008 to 41.3 percent in 2013 (NDHS 2008 & 2013). In addition to IPTp, the programme has supported the distribution of 821,377 long lasting insecticidal treated nets (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). In addition, the programme provided technical support during the first mass LLIN campaign in the state in 2011.

6. Provided 719,236 doses of Artemisinin Combination Therapy (ACT) and 420,800 units of rapid diagnostic test kits (mRDTs) for distribution at health facilities across the state resulting in an increase in the proportion of suspected malaria cases receiving a parasitological test from less than 10 percent in 2010 to 78 percent in 2015 (NHMIS 2015).

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

8. The programme has supported the implementation of community level activities to increase demand for malaria services through community mobilisation, malaria dialogue activities, road shows and bus branding across the state. In addition, SuNMaP has broadcast over 5,000 radio messages on six local radio stations (Eko FM, Radio Lagos, Star FM, Wazobia FM, Bond FM and Inspiration FM) on malaria prevention and treatment, with an estimated audience reach of ten million daily listeners.

9. The programme facilitated continuous advocacy efforts by the Health Reform Foundation of Nigeria (HERFON) to state policymakers and traditional leaders for increased support for malaria programming and supported the Christian Health Association of Nigeria (CHAN) and Federation of Muslim Women’s Association (FOMWAN) to carry out community mobilisation activities in order to increase

![Percentage of fever cases tested positive with RDTs in Lagos State, showing a reduction in malaria cases over the years](Source: DHIS V2.0 Nigeria)
malaria awareness. Increased knowledge and awareness of malaria among the populace has partly contributed to an increase in the percentage of children under five years sleeping under insecticide treated mosquito nets from 6.5 percent to 31.5 percent (DHS 2008 versus 2013).

10. In collaboration with other RBM managers in the state, the programme provided technical support during routine monthly M & E meetings, mentoring and coaching at sentinel sites to improve data quality and use. This support has contributed to the improvement in the reporting rate of the state from 40 percent in 2012 to 78 percent in 2015 (NHMIS 2015).

11. With Lagos State being a commercial hub for the southwest 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 Lagos:

- 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
- supporting the recruitment of in-store merchandisers for increased sales through supermarkets/departmental stores and strengthening rural distribution through PPMV associations
- supporting market research

Using this approach (Making Markets Work for the Poor, M4P), the programme sold 1,021,814 LLINs and 2,515,502 ACTs, through commercial sector partners.

**Recommendations**

- Vertical programmes would benefit from undertaking system strengthening activities, which in turn can benefit other vertical programmes once they can find a route of entry. For SuNMaP, this was Integrated Supportive Supervision.

- The Ministry of Health should ensure full participation of all stakeholders during the development of behaviour change communication materials. Development and pre-testing should be carried out by the MoH to ensure ownership and acceptability of materials across all levels.

- The state should leverage the private sector for sustained commitment of resources for malaria programming by continuously sensitising companies on the roles they can play in state public health, including outlining the inherent gains.
Malaria control in Niger State

Overview

Niger State is located in mid-north Nigeria and is the country’s largest state. It borders Zamfara State to the north, Kebbi State to the northwest, Kogi State to the south, Kwara State to the southwest, and Kaduna State and the Federal Capital Territory to the northeast and southeast, respectively. Furthermore, the state shares its western border with the Republic of Benin. Niger State has an estimated population of 5,337,149 (2015 projection, based on the 2006 national census figures).

Niger State is a malaria endemic zone, with malaria one of the leading causes of childhood and maternal illness and death in communities. Malaria currently accounts for 65 percent of outpatient hospital attendance. According to the Nigeria Demographic and Health Survey (NDHS) 2013, the overall mortality rate among infants is 69 out of 1,000, the under-five mortality rate is 128 out of 1,000, while the maternal mortality rate accounts for 484 out of 100,000 (State Ministry of Health, 2011). With all age groups are affected, transmission of malaria occurs all year round with peaks from July to early November during the rainy season. The main malaria vectors are Anopheles gambiae (in the wet season) and Anopheles funestus (in the dry season).

Health system and key stakeholders

For a number of years, Niger State has been making a concerted effort to stem the tide of malaria morbidity and mortality. The Support to National Programme’s (SuNMaP’s) malaria control and elimination efforts have been complemented by the following key stakeholders and organisations:

- State Malaria Elimination Programme, funded by the Niger State Government
- Association for Reproductive and Family Health (ARFH), funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria
- Society for Family Health (SFH) funded, by the Global Fund to Fight AIDS, Tuberculosis and Malaria
- Planned Parenthood federation of Nigeria, funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria
- Rapid Access Expansion Project (RACE), funded by World Health Organization and the Canadian International Development Agency (WHO/CIDA)

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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.
Approach

Niger State has been providing continued leadership in malaria control and elimination efforts. It supports all partners with a mandate to implement malaria interventions. SuNMaP has stepped into this participatory approach in the implementation of its activities, involving state engagement in all aspects of its implementation, particularly through the State Malaria Elimination Programme. This participatory approach fosters state officials’ technical capacity and strengthens the programme’s sustainability.

SuNMaP’s work in Katsina was divided into six different outputs, each of which focuses on one element of comprehensive malaria control and elimination:

- Capacity building for policy development, planning and coordination at national, state and LGA levels
- Harmonise cross-agency support for the malaria control at national, state and LGA levels
- Increase coverage of effective measures for malaria prevention
- Improve the population’s access to effective malaria treatment
- Enhance community awareness and demand for effective malaria treatment and prevention
- Operational research to gather evidence and its use in programme implementation. In addition to the above, SuNMaP supports data management strengthening of National Health Management Information System (NHMIS)

A woman who has just received a net at Tunga maternal and child health centre

Mother and child at Kpakungu primary health care centre
Achievements

Over the course of the programme, SuNMaP:

- supported the development of key frameworks to guide partner coordination, including a multi-year training plan, the integrated supportive supervision framework and the laboratory quality assurance framework as well as formation of the malaria Technical Working Group (mTWG).
- supported the design and implementation of a continuous long lasting insecticidal net (LLIN) distribution through a routine system of antenatal care (ANC) at health facilities, and the design and implementation of LLIN community distribution working with community drug distributors (CDDs).
- procured 481,100 LLINs which were distributed through 555 health facilities offering ANC.
- in collaboration with the Global Fund to Fight AIDS, Tuberculosis and Malaria through the Society for Family Health (SFH), provided technical support for the distribution of 2,561,628 LLINs during the replacement campaign: a) achieving 95.6% net card redemption rate; b) increase in households with access to insecticide treated nets (ITNs) from 45 percent in 2008 to 97 percent in 2013 (NHDS 2008 & 2013); c) increase in households with sufficient access to ITNs (one LLIN for every two people) from 14 percent to 35.8 percent in 2008 and 2013 respectively (same data source as above).
- trained 2,365 health workers on malaria case management to improve service delivery in 375 health facilities within six LGAs.
- provided the state with 555,400 rapid diagnostic tests (RDTs) and 493,563 doses of artemisinin-based combination therapies (ACTs) for prompt malaria diagnosis and treatment, contributing 13 percent and 7 percent of the total state needs of ACTs and RDTs in 2015 respectively. This has resulted in an increase in testing rates from less than one percent in 2010 to 35 percent in 2013, and an increase in the number of children with fever who also took ACTs from 5 percent in 2008 to 18.3 percent in 2013 (NDHS 2008 & 2013, MIS 2010).
- supported the state with 152,660 doses of artesunate injection for the treatment of severe malaria.
- distributed 20 microscopes to 20 secondary health facilities in the state.
- supported the state to develop its malaria diagnosis quality assurance framework and tools to strengthen the state health workforce in diagnosing the disease.
- procured 835,931 doses of sulfadoxine-pyrimethamine (SP) for intermittent preventive treatment in pregnancy (IPTp) administered to pregnant mothers through 555 health facilities offering ANC. As a result, there has been an increase in the number of women who took adequate IPTp from 14 percent to 59.6 percent in 2008 and 2013 respectively (NDHS 2008 & 2013).
- facilitated community mobilisation and malaria dialogues estimated to have reached over 12,600 care givers, pregnant women and heads of households in the last three years.

Sources of antimalarial commodities in Niger State, source: Niger State central medical store
broadcasted radio messages on malaria prevention and
treatment reaching an estimated 2.5m Niger State residents
daily – achieving high coverage at low cost. In addition,
SuNMaP facilitated continuous advocacy by Health Reform
Foundation of Nigeria (HERFON) to state policymakers and
traditional leaders and for increased support for malaria
programming and supported the Federations of Muslim
Women’s Association (FOMWAN) to carry out community
mobilisation activities in order to increase malaria awareness.

supported the programme management training of 924 staff
covering modules on general management, monitoring and
evaluation, budget and planning and integrated supportive
supervision.

supported the state to develop robust, costed annual
operational plans for malaria from 2011 to 2016, multi-year
plans (2016-2018) and training plans and also supported the
biannual review of these plans.

supported the development of integrated supportive
supervision and on-the-job capacity building (ISS/OJCB)
across the state health sector and serial visits to all the
general hospitals, 25 primary healthcare departments and
over 240 health facilities.

supported the longitudinal study, “The effect of the SuNMaP
capacity building programmes on case management”.

gave technical support to the State to strengthen health
data collection training of 54 data entry officers and clerks
from the LGAs on the district health information system
(DHIS) 2.0 and as a result, the reporting rate as increased from
1.5 percent in 2013 to 67 percent 2015.

Recommendations

Following implementation of activities in Niger State, SuNMaP is
making the following recommendations:

More malaria control and elimination commitment is
needed through increased state funding of malaria
control and elimination activities, especially in the area of
procurement and distribution of commodities such as SP for
IPTp and injectable artesunate for the treatment of severe
malaria.

The SMEP requires a database of master trainers with
competencies in the delivery of malaria programme training
modules and should seek funds to cascade these trainings
to health workers and policy makers in the state.
Malaria control in Ogun State

Overview

Ogun State covers a total area of 16,409.26 sq. km and is located in the southwestern part of Nigeria. It is bordered in the north by Oyo and Osun States, in the east by Ondo State, in the south by Lagos and in the west by the Republic of Benin. Agriculture is the main occupation, providing employment for a large percentage of the population, although its proximity to Lagos is turning it into an emerging industrial state.

Health system and key stakeholders

Ogun State operates a three-tier healthcare delivery service – primary, secondary and tertiary – spread across urban and rural areas. There are a total of 1,584 health facilities disaggregated into 546 primary healthcare centres, 29 secondary facilities, three tertiary facilities (one state and two federal) and 1,006 registered private facilities. The state is also divided into five health zones: Abeokuta, Ijebu Ode, Ilaro, Ota and Remo health zones.

Development agencies are supporting and contributing to the control of malaria in collaboration with the state government. These agencies include: Malaria Consortium and partners, through the Support to the National Malaria Programme (SuNMaP), Society for Family Health (SFH), World Health Organization (WHO), Global Fund, and the Clinton Health Access Initiative (CHAI). SuNMaP’s Ogun activities cover all 20 LGAs in the state.

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.
Approach

The SuNMaP programme in Ogun State was implemented using evidence-based best practices that were rooted in state ownership and shareholder buy-in. Using a variety of capacity building techniques, the programme improved competencies of the state team as well as of the malaria technical working group. The methodology included coaching, mentoring and supportive supervision.

The interventions were implemented through the six programme outputs:

- Capacity building for policy development, planning and coordination at national, state and Local Government Area (LGA) levels
- Harmonise cross-agency support for the malaria control at national, state and LGA levels
- Increase coverage of effective measures for malaria prevention
- Improve the population’s access to effective malaria treatment
- Enhance community awareness and demand for effective malaria treatment and prevention
- Operational research to gather evidence and its use in programme implementation. In addition to the above, SuNMaP supports data management strengthening of National Health Management Information System (NHMIS)

Integrated supportive supervision (ISS) and on-the-job capacity building (OJCB) are multidisciplinary approaches that have assisted greatly in identifying issues and proffering solutions at both state and LGA levels.

A collaborative approach was also employed to bring about effective harmonisation of partners’ activities on malaria control in the state. As a result, there is now evidence of better coordination of malaria control activities in the state. These include the institutionalisation of a harmonised antimalarial commodities distribution plan; the use of SuNMaP-led training manuals and modules by partners; resource leveraging of partners on NHMIS training; and participation of partners in the development of all-encompassing State Malaria Elimination Programme (SMEP) annual operation plans.
Achievements

> 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 policy, guideline, frameworks and plans (annual and multi-year): these include, Ogun State multi-year training plans, state advocacy, communication and social mobilisation framework, ISS/OJCB implementation framework, monitoring and evaluation plan, and malaria microscopy quality assurance frameworks and costed annual operational plans (AOP).

> SuNMaP has built capacity of the state in the development of costed AOPs and the actual development of 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, the programme supported the development of LGA specific malaria workplans for 2014 and 2015 building on the state Malaria Control AOPs. In addition, the programme has assisted in the implementation of these plans, which has demonstrated a progressive increase in performance rate from 30 percent in 2011 to 53.8 percent in 2014 (figure 1).

> SuNMaP has built capacity of different personnel in the state using the harmonised national training modules supported by the programme at the national level, including:
- 500 health care staff (369 LGAs facility in-charges, 56 state executives and 75 state level managers) on programme management to improve the planning and management of the state malaria control/elimination programme
- 2130 health care staff (842 primary healthcare facility staff, 639 patent medicine vendors and 649 community caregivers) on service delivery aimed at improving malaria case management
- 33 laboratory scientists on malaria laboratory microscopy and 62 health workers in the use of malaria rapid diagnostic tests (mRDTs)
- 798 trained on logistics management information system
- 47 state programme officers on harmonised NHMIS tools.

> The programmes has strengthened the implementation of malaria prevention interventions through the routine distribution of 582,123 sulphadoxine pyrimethamine, this contribution has resulted in an gradual increase in proportion of women who took adequate intermittent preventive treatment in pregnancy (IPTp) from 8.2 percent in 2008 to 43.4 percent in 2013 (NDHS 2008 & 2013). In addition to IPTp, the programme has supported the distribution of 539,085 long lasting insecticidal treated nets (LLINs) at antenatal clinics and routine childhood immunisation channels. The programme provided technical support during the mass campaign of LLIN distribution (total LLINs distributed 2,551,725) spearheaded by SFH with Global Fund to Fight AIDS, Tuberculosis and Malaria support in the state. These two channels have contributed to 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 years 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:
- 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
- 84.5 percent of the nets received from the distribution campaigns were used by any household member the night before the survey.

> To support parasite-based diagnosis and ensure availability of artemisinin based combination therapy (ACTs) for effective malaria case treatment, the programme procured and assisted in the distribution of 509,900 mRDT kits, 20 microscopes and 426,125 doses of ACTs to all public health facilities.
Increased availability and access to antimalarial commodities in the state has had an impact on the malaria as evidenced by the reducing proportions of children under five years out patient department (OPD) attendances classified as malaria from an average of 72.5 percent in 2013 to 43.1 percent in 2014 (figure 2).

The programme facilitated continuous advocacy by Health Reform Foundation of Nigeria (HERFON) to state policymakers and traditional leaders and for increased support for malaria programming. SuNMaP also supported the Christian Health Association of Nigeria (CHAN) to carry out community mobilisation activities in order to increase malaria awareness.

SuNMaP supported the implementation of community level activities to increase demand for malaria services through community mobilisation, malaria dialogue activities, road shows and bus branding across the state. In addition to the community activation, SuNMaP broadcast 23,656 radio jingles spots and radio dramas on three radio stations informing the populace on malaria prevention and other key health messages between 2011-2015 on malaria prevention and treatment.

In collaboration with other Roll Back Malaria Partnership managers in the state, the programme provided technical support during the routine monthly monitoring and evaluation meetings, mentoring and coaching to improve data quality and use. Despite low reporting rates, there has been an improvement in the quality of available data (correctness, completeness and consistency) and this data is now being used in for the preparation and development of SMEP AOPs and state-wide quantifications of antimalaria commodities.

Recommendations
Following implementation of activities in Ogun State, SuNMaP is making the following recommendations:

- Continued high-level advocacy for policy and decision-makers in the state for:
  - Increased budget and release of funds for malaria
  - Increased funding to LGAs for malaria elimination activities at the grassroots level

- Continued mentoring and OJCB for state personnel on the objectives of malaria elimination

- Create a database of all personnel trained by partners and consult it before staff are deployed. This will avoid the deployment of trained staff to postings that do not optimise the skills that they have gained.

Figure 2: Children under five out patient department attendance rate classified as malaria (Ogun Sentinel site data)
Established: 1991
Capital: Damaturu
Local Government Areas: 17
Ethnic groups: Kanuri, Bade, Fulani, Ngizim, Bolawa, Kare, Ngamo, Babur/Maga, Hausa
Net ownership: 56.9 percent (NDHS 2013)

Malaria control in Yobe State

Overview

Yobe State was created on August 27, 1991. Its capital is Damaturu and the state’s total land area totals 47,153 square kilometers. It shares borders with Borno State to the east and southeast, Jigawa State to the northwest, and Bauchi and Gombe states to the southwest. It also shares an international border with the Republic of Niger. Yobe State has an estimated population of 3,164,090 (2015) with an under-five population of 632,818 (2015) based on a population census held in 2006.

The state is multi-ethnic with Kanuri, Bade, Fulani, Ngizim, Bolawa, Kare, Ngamo, Babur/Maga, Hausa and other Nigerian groups spread across the 17 local government areas (LGAs) of the state. Apart from smaller ethnic languages, Hausa is widely spoken in the state. The combination of all these features creates a state that is diverse in culture and ethnic composition.

The most colourful celebrations in the state are the annual fishing festival, popularly known as the Bade Fishing Festival, Machina annual cultural festival, Barakau festival, Durbars and installation ceremonies, which attract local and international tourists. Commercial fishing also makes a significant contribution to economic activities of the state.

Health system and key stakeholders

The health system, which is steered by the State Ministry of Health (SMoH), is divided into three tiers: primary, secondary and tertiary. The Hospitals Management Board (HMB) oversees the secondary health facilities while the primary health care (PHC) is overseen by the State Primary Health Care Management Board (SPHCMB). There are 517 health facilities in total, out of which 485 are functional public health facilities and 18 are private facilities. The two tertiary facilities include the Federal Medical Centre and the State Specialist Hospital. The Yobe State Malaria Programme has remained in the Directorate of PHC of the SPHCMB, with a team of 10 staff.

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, a, Kaduna and Yobe.

Partners supporting the state include Support to National Malaria Programme (SuNMaP); Global Fund to fight AIDS, Tuberculosis and Malaria; UNICEF; Nigerian Maternal, Newborn and Child Health (MNCH2); World Health Organization (WHO); and Institute of Human Virology of Nigeria (IHVN).
**Approach**

SuNMaP in Yobe started in 2013, later than in other project states due to security concerns. Programme activities were implemented using evidence-based best practices anchored in state ownership and shareholder buy-in. The interventions were implemented through the six programme outputs:

- Capacity building for policy development, planning and coordination at national, state, and LGA levels
- Harmonise cross-agency support for the malaria control at national, state, and LGA levels
- Increase coverage of effective measures for malaria prevention
- Improve the population's access to effective malaria treatment
- Enhance community awareness and demand for effective malaria treatment and prevention
- Operational research to gather evidence and its use in programme implementation. In addition to the above, SuNMaP supports data management strengthening of National Health Management Information System.

The programme used a variety of capacity building methods (including coaching, mentoring, and supportive supervision) to improve and sustain competencies of staff in the state team and malaria Technical Working Group (mTWG).

SuNMaP’s approach to harmonisation in Yobe was issue-based, using planning processes to align the work of all funding sources towards collective strategic goals and objectives. Resources were leveraged and optimised toward identified programme priorities.

Central to capacity building and harmonisation efforts was SuNMaP’s objective to increase access of the Yobe people to effective prevention and treatment of malaria. In addition to commodity procurements, SuNMaP supported nationally recommended technical approaches to the distribution of antimalarial commodities including long lasting insecticidal nets (LLINs) through continuous distribution channels using routine maternal and child health clinics, sulphadoxine pyrimethamine (SP), microscopes, malaria rapid diagnostic tests (mRDTs), and artemisinin based combination therapy (ACTs) and injectable artesunate.

Underpinning all of these activities was SuNMaP’s drive towards gathering timely and quality data for programme improvement and evidence-based decision making. To this end, the programme adopted the approach of providing continuous capacity building of monitoring and evaluation officers in the state.
SuNMaP implementation in Yobe started with a baseline assessment that was concluded in 2014. This identified approaches and strategies for the implementation in the state considering the security concerns at the time. Below are some of the achievements of the programme in Yobe:

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 malaria diagnostic external quality assurance framework, costed state malaria annual operational plans (2015 and 2016) and multi-year plan 2016-2018.

Following the baseline assessment that identified a gap in the coordination of malaria control/elimination activities in the state, the programme supported the formation and inauguration of the mTWG in the state. Other technical sub committees as outlined in the national coordination framework were also formed, one of which is the State Social Mobilisation Technical Committee.

SuNMaP has built the capacity of different personnel in the state using the harmonised national training modules supported by the programme. These include:
- 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 programme achieving 80 percent of the expected number in the state
- 255 state health workers trained in service delivery on improving malaria case management
- 60 laboratory scientists trained in malaria laboratory microscopy and malaria diagnostic external quality assurance.

The programme has strengthened the implementation of malaria prevention interventions through the routine distribution of 206,427 doses of SP for intermittent preventive treatment in pregnancy (IPTp) and 94,450 LLINs at antenatal clinics and through routine childhood immunisation channels.

To strengthen parasite-based diagnosis of malaria and ensure availability of ACTs for effective malaria case treatment, the programme procured and supported the distribution of 124,300 mRDT kits, 20 binocular microscopes and 100,000 doses of ACTs to all public health facilities. The proportion of people presenting with fever at a public health facility who received malaria testing (mRDT or microscopy) has increased from 80.3 percent in 2014 to 84.1 percent in 2015 (NHMS 2015), and those who received antimalarial treatment in accordance with national treatment guidelines improved from 69 percent at baseline to 75 percent in 2015. In addition to ACTs for uncomplicated malaria case treatment, the programme also supplied 31,400 vails of injectable artesunate to 236 facilities in the 15 LGAs following training of the health workers in the management of severe malaria (figure 1).

SuNMaP conducted logistic management information system training for 135 health facility workers drawn from nine LGAs, with 120 people trained in the use of the National Health Management Information System.
Recommendations

Following implementation activities in Yobe State, SuNMaP is making the following recommendations:

- The state government needs to maintain a mechanism for coordination of partner activities by sustaining the planning and implementation review culture involving all stakeholders.

- The prompt release of the malaria budget will go a long way toward ensuring that annual operational plan targets are achieved within the specified timeframes.

- The state should relocate the State Malaria Elimination Programme 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 conclusion of the SuNMaP programme should initiate a process of widening scope of coverage to accommodate supply of antimalarial commodities in order to fill the gap that would be created by the conclusion of SuNMaP.