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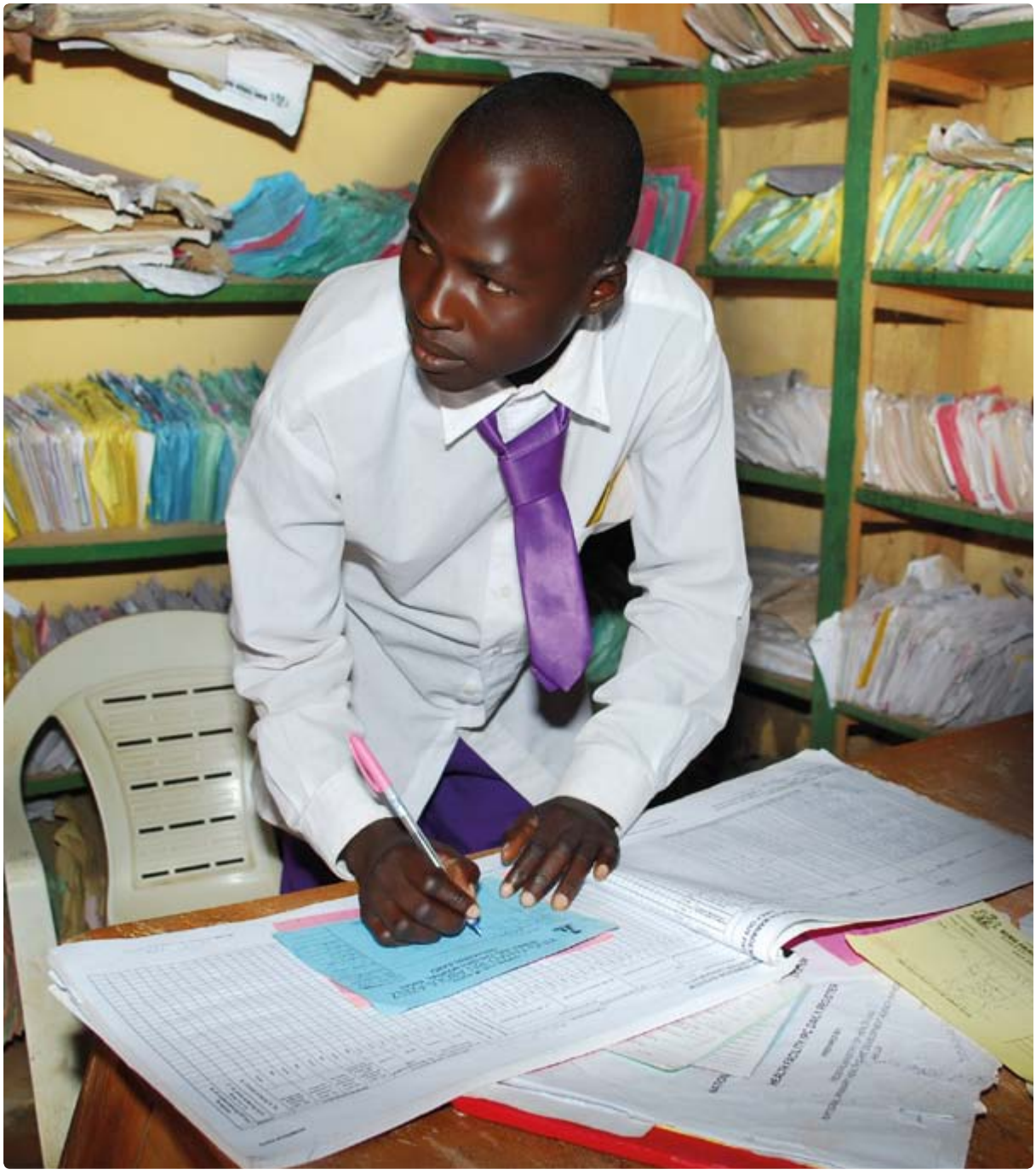
U.S. President's Malaria Initiative

MAPS
Malaria Action Program for States

The role of MAPS in the fight to eliminate malaria in Nigeria

Short Report



Acronyms used in this report

AOPs = Annual Operational Plans

DHIS = District Health Information System

FFA = Force Field Analysis

HSS = Health System Strengthening

IPTp = Intermittent Preventive Treatment in Pregnancy

IPT2 = Intermittent Preventive Treatment

ISS = Integrated Supportive Supervision

LGA = Local Government Area

LLINs = Long Lasting Insecticidal Nets

MAPS = Malaria Action Program in States

MCM = Malaria Case Management

MDAs = Ministries, Departments and Agencies

M&E = Monitoring and Evaluation

MMC = Management Of Malaria Control

MoH = Ministry of Health

mTWGs = malaria Technical Working Groups

NMEP = National Malaria Elimination Programme

NMSP = National Malaria Strategic Plan

OJCB = On-the-job capacity building

PHC = Primary health care

PIT = Proxy Indicator Tool

PMT = Performance Measurement Tool

PMI = Presidents Malaria Initiative

SDSS = Sustainable drug supply system

SMART = Specific, Measurable, Attainable, Relevant, Time-bound

SMEP = State Malaria Elimination Programme

SMoH = State Ministry of Health

ToT = Training of Trainers

The Malaria Action Program for States (MAPS) is implemented by a consortium of three partners: FHI360 (the prime agency), Malaria Consortium and Health Partners International.

Health Partners International was responsible for 'strengthening management capacity at State and Local Government Area levels to implement malaria control'. The MAPS program operated at national level and in nine states from 2010 to 2016.

Our approach

Health Partners International developed a comprehensive capacity building and systems strengthening strategy based on the findings of a rapid situational analysis in each state. It covered six broad intervention areas, which were interlinked and mutually supportive:

1. Institutional strengthening activities
2. Support for coordination and harmonization
3. Training with follow-up support on management of malaria control
4. Planning, budgeting and review
5. Integrated supportive supervision (ISS)
6. Strengthening the sustainable drug supply system

Strengthening teams

Building individual and team capabilities was an important part of our strategy and we focused efforts on identifying champions and key stakeholders in each state to lead interventions and take on a high level of responsibility within the program. Approaches included:

- Experiential / adult learning and sharing
- In-depth training events
- Coaching and mentoring
- Use of job aids and readily available guidelines
- Hands-on support through ISS
- On-the-job capacity building

This required prolonged periods of engagement and ran the risk of not achieving quick wins by just 'getting the job done'. However, it led to a strong sense of ownership and accountability within the state system and ensured that a critical mass of more knowledgeable and skilled people could work together to achieve common goals and overcome obstacles.

Strengthening systems

To improve key elements of the health system, we focused on coordination, planning and budgeting, integrated supportive supervision, monitoring and evaluation, and supply chain systems. These were all included in the program management training modules and in specific interventions which were woven together to promote synergy. For example, monitoring and evaluation (M&E) was integrated across all interventions so that having good data became a strong focus of the annual operational plan development and review processes, and was highlighted at coordination platforms. This drove better data collection during ISS visits which then fed into the planning and coordination systems.

Interventions

Institutional strengthening

The situation analysis identified gaps in program management of malaria across the state, so an institutional strengthening plan, with clearly defined indicators and milestones for measuring progress, was developed for the State Malaria Elimination Programme (SMEP). Activities centered on institutional arrangements and human resources for health. Other capacity building activities such as annual operational planning and supervision complemented these institutional strengthening activities.

Human resources for health at both the state and Local Government Area (LGA) was a challenge across the states. Human resource capacity (numbers and skill mix) was weak. The staff strength and composition of the SMEP in all the states fell below the national minimum requirement of six officers (program manager, case management, behaviour change communication, monitoring and evaluation, integrated vector management and logistics). There were also no organograms or job descriptions for State Ministry of Health personnel in any of the states.

There has since been an improvement in the mix and number of personnel in the SMEP, with Benue, Ebonyi, Oyo and Zamfara increasing from two to six officers, Nasarawa from three to six, and Kebbi from two to seven. Cross River and Akwa Ibom had adequate staffing: Akwa Ibom had support for malaria from the World Bank for the previous four years; and the department in Cross River was directly under the office of the state governor. MAPS advocated continuously for a better gender balance and increased female recruitment into the SMEP; this eventually resulted in more gender-focused state recruitment drives and an average increase in the female to male ratio to 1:3 from almost no female representation.

All SMEPs have now adopted the national coordination

framework, have the full complement of staff and standardized organograms as recommended by the national framework for malaria control.

Coordination and harmonization mechanisms for malaria control

The initial rapid assessment revealed generally weak coordination and oversight mechanisms for malaria control at state and LGA levels, including activities supported by development partners. For example, of the three agreed co-ordination structures there were no state malaria technical working groups (mTWGs), state-LGA coordination meetings were generally moribund in the few states where they existed, and partners forums did not exist in most of the states. Where the platforms existed, the meetings were irregular and did not achieve the objectives for which they were established. This resulted in the inability of the SMoH/SMEP to have a clear picture of the malaria control interventions being implemented by different actors. Consequently, there was poor coverage and duplication of malaria control activities, weak supervision and inefficient use of limited resources. Stock outs of commodities such as malaria rapid diagnostic tests (mRDTs), antimalarials and long-lasting insecticide nets (LLINs) were rampant.

Through a consultative process, MAPS engaged with all the states and provided technical assistance to establish or reactivate several key coordination platforms (mTWG, state-LGA coordination meeting and partners' forum). The project also built the capacity of the SMoH/SMEP to run the regular meetings.

i) Malaria Technical Working Group (mTWG)

This is the highest decision-making body for malaria control in the state and comprises key malaria stakeholders in the ministries, departments and agencies (MDAs) as well as non-governmental organizations, implementing partners and donor agencies. Quarterly meetings are now held regularly in all nine states. The Advocacy, Communication and Social Mobilization and Procurement and Supply Management core groups in the states were subsequently aligned with the mTWG as subcommittees. The mTWG in all states is now actively involved in the planning for malaria control activities, through the development of costed Annual Operational Plans (AOPs) for malaria control, regular AOP review processes and the development of ISS. The mTWG also participates in elaborating strategies for routine distribution of LLINs in all states and has been key in advocating for the inclusion of malaria budgets into state health budgets.

ii) State-LGA meetings

To plan and evaluate malaria control activities and also to enhance the state's capacity to assume a leadership role in the internal coordination of malaria control activities, MAPS supported the establishment or reactivation of regular state-LGA coordination meetings in eight supported states[1]. These monthly meetings provide a platform for both the state and various partners to coordinate multiple activities including disseminating information, tracking progress, building capacity, identifying and addressing challenges, providing feedback on findings during monitoring and supervision, and distributing malaria commodities.

1 This process was not supported by MAPS in Akwa Ibom State as it had World Bank support

Table 1. National Malaria Elimination Programme capacity building package

Service Delivery – Facility	Service Delivery – Community	Programme management
Case Management hospitals (Module 1)	**Community care givers** (Module 7)	**Records and accounts** (Module 9)
Case Management PHC (Module 2)	**Patent Medicine Vendors** (Module 8)	**Procurement and supply** (Module 10)
Diagnosis (Module 3)		**Programme planning** (Module 11)
Prevention (Module 4)		**General management** (Module 12)
Prevention in pregnancy (Module 5)		**Supervision and training** (Module 13)
		Monitoring and evaluation (Module 14)
Communication skills		

iii) Partners' forum

MAPS supported the SMEP in various states to hold quarterly meetings for all partners implementing malaria control activities. MAPS has been at the forefront of leadership for the meetings while funding for the meetings is rotated among partners. The partners' forum has provided an avenue for integration, coordination and harmonization of partners' activities, enabling the state to take up a leadership role, share updates and leverage resources.

Training on management of malaria control

MAPS supported the development of state-specific training plans for malaria control, aligned with the existing National Malaria Elimination Programme (NMEP) capacity building training package (see Table 1). These were rolling plans with targets expected to be achieved within three to four years.

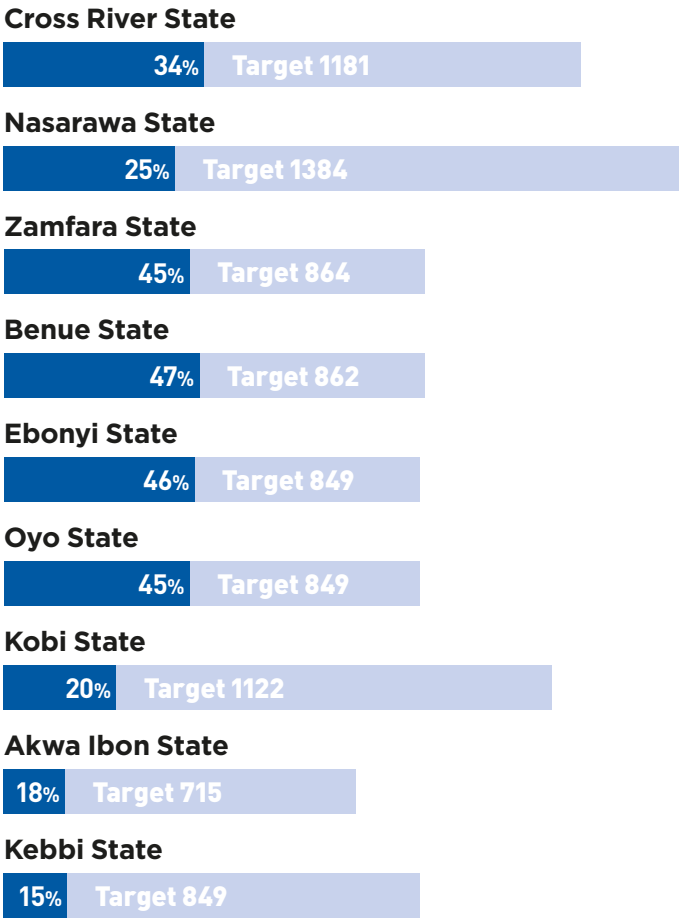
The SMEP training plans focused on two broad capacity building areas: management of malaria control (MMC) and malaria case management (MCM). The MMC training plan targets health managers at the state and LGA levels, whereas the MCM plan focuses on health care providers at service delivery points, patent medicine vendors and community care givers.

The costed training plan development process was used as an avenue to identify and involve potential key players and stakeholders that could support malaria control training efforts. These included stakeholders from the public and private sectors such as MDAs, donor agencies, civil society, implementing partners and professional associations.

In 2012, MAPS supported a national training of trainers (ToT) and subsequently state training of trainers (SToT) in all nine states. This focused on management of malaria control to provide a standardized and consistent approach to the roll-out process, as well as to produce a team of national and state-based facilitators (state personnel) to support the roll-out process at the state level and below. These modules covered general management, planning and budgeting, integrated supportive supervision/on-the-job capacity building (ISS/OJCB), and monitoring and evaluation (M&E).

Through a process of cluster trainings, senior executive officers in SMoH and other relevant state MDAs (commissioners for health, permanent secretaries, executive secretaries, directors, deputy directors, board chairmen and Program managers) in all nine states were oriented on the program management modules. Similar trainings were conducted for selected heads of primary and secondary health facilities as well as relevant institutions, and aimed to introduce the ISS and OJCB system

Figure 1. Progress towards achieving Training Plan by state



processes, highlighting the roles and responsibilities of these health managers in the system. The training cascade commenced in Cross River, Nasarawa, Zamfara, Ebonyi, Oyo and Benue in 2012, Kogi in 2013, and Akwa Ibom and Kebbi in 2014.

A total of 2,897 health managers across the state and LGA levels were trained in malaria program management across the nine states over a period of three years against a MAPS target of 2,890 (100% achievement).

The project has contributed immensely to building a critical mass of healthcare workers (primary, secondary and tertiary). In spite of the project's accomplishments, there are still many personnel that require training. However, as MAPS is only one contributor among others, not all the targets in the state training plan have been achieved (see Figure 1).

Planning and budgeting for malaria control at state and LGA level

At the beginning of MAPS there was a generally weak capacity for planning and budgeting at both state and LGA level. Support for planning focused on two key activity areas at both state and LGA levels:

- Development of costed plans
- Regular review of plan implementation

i) Development of AOPs for malaria control

MAPS implemented a series of activities to support all nine states to institutionalize the process of developing evidence-based, costed, state AOPs for malaria control. This support was provided to the initial six supported states in 2012, seven states in 2013, and all nine states by 2014. Similar support was provided in 2014 to 94 selected LGAs in seven states to develop their first ever LGA activity plans.

MAPS facilitated the process of incorporating all malaria control activities across the six thematic areas and, subsequently, seven objectives of the two National Malaria Strategic Plans (NMSPs, 2009-2013 and 2014-2020) into a state AOP for malaria control. In the first year the development process of each state AOP was facilitated externally. Later, SMoH provided the principal personnel along with other relevant MDAs including the mTWG planning focal person.

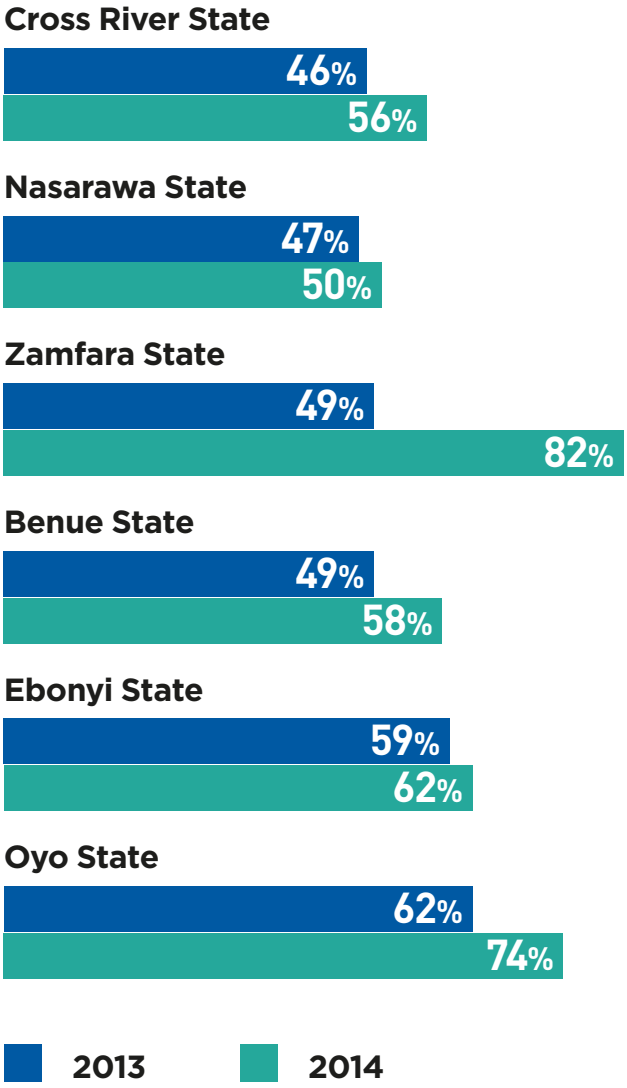
The process was divided into phases (situation analysis, target and objective setting, activity development and costing, finalisation and adoption). Working groups were formed to address the NMSP's objectives:

- Malaria prevention
- Diagnosis, treatment
- Advocacy and social mobilization
- Monitoring and evaluation
- Program management
- Procurement and supply chain management (from 2014)

In the first year, the situation analysis was conducted with information drawn from existing reports (assessments, state malaria control activities, partners' activities and monitoring and evaluation data), as the Health Management Information System (HMIS) in the states was weak and the data available through this system largely unreliable. In subsequent years, the review reports of the previous year's AOP and data from the District Health Information System (DHIS) became essential sources of routine information for planning.

To further achieve the objectives of the NMSP, each LGA followed the state example by developing,

Figure 2. Performance Measurement Tool: Overall activity performance for 2013 and 2014 AOP



implementing and monitoring its own plans. Like the state plans, these needed to include evidence-based work plans which had priorities in line with the new NMSP. These plans were designed to be the basis for funding malaria control activities in the LGAs and enhance the scale-up of interventions to achieve the targets for malaria control in the LGAs. LGA work plan development involved working with the malaria focal person, the Primary Health Care Coordinator (PHCC) and planning focal person in each of the LGAs through a process similar to AOP development.

Additional highlights include:

- In Ebonyi, following the participation of the State HIV/AIDs Control Agency (SACA) in the malaria AOP development process, they now use a similar process for developing an annual operational plan for control of HIV/AIDs.
- In Oyo State, LGA work plans were developed for all 33 LGAs even though MAPS had planned to

support this in only ten LGAs. By leveraging the state facilitators whose capacity for planning had already been built, the state provided most of the resources to extend this support to the remaining 23 LGAs.

- MAPS supported the SMEPs to include malaria budgets in state health budgets. As a result, Benue, Kebbi and Zamfara States now have newly created budget lines for malaria.

ii) Review of the state and LGA malaria plans

MAPS supported the states to conduct periodic reviews of the implementation of planned activities by their mTWG and key stakeholders. The initial AOP reviews were facilitated by external consultants and over time, mainly by state facilitators who are state personnel.

The teams worked in groups corresponding to the areas in the NMSP from which the AOPs were developed and, in the case of LGA workplan review, by LGA groups. Three tools were used:

- Proxy Indicator Tool (PIT)
- Performance Measurement Tool (PMT)
- Force Field Analysis (FFA)
- Causal Analysis was a fourth tool used for the LGA reviews

The PIT uses proxy indicators, using routine data from the DHIS, to monitor progress towards objectives. The PMT assesses the extent of implementation of planned activities ie more than 50% implemented, less than 50% or not commenced. These are counted and expressed as percentages of the total number of activities for each area. The FFA is used to identify and analyze forces affecting a situation or program that may influence changes planned. This is followed by a causal analysis of issues across the thematic groups and identification of recommendations.

The performance reviews revealed that there was a better overall performance in 2014 than 2013 in all supported states. Further analysis of the proxy indicators revealed that in 2014, the states that released the most amounts from the state allotted AOP costs, Ebonyi and Zamfara, performed better than states that released a lower amount or no funds (Benue and Nasarawa). This showed that greater government commitment is associated with better implementation.

The major factors which enhanced performance across the states were:

- Support from partners in areas such as training, commodity distribution and provision of HMIS tools
- Increased Government commitment to funding malaria control activities
- Greater involvement of the various SMEP sub-committees
- Better trained work force
- Increased supervision of health workers by the state supervisory team

The major inhibitors of performance were:

- Inadequate funding by some state governments and untimely writing of fund release memos
- Stock out of malaria commodities in some supported facilities
- Poor attitude of health workers resulting in low quality of service delivery
- High attrition rate of health workers and arbitrary posting of trained health care workers
- Frequent protracted industrial action by health workers in all supported states
- Inadequate data reporting by private facilities

Integrated Supportive Supervision

One of the critical findings of the rapid assessment was weak or absent supervisory systems. Problems with the existing supervisory systems were use of different checklists by the various programs, uncoordinated supervisory visits, weak mechanisms for feedback to supervisees and management and inability to follow up to provide support at facility level.

ISS is a harmonized state supervisory system. Supervisory teams are comprised exclusively of state and LGA personnel who use a common tool and reporting format. The purpose is to ensure that managers are in the field on a regular basis to check the performance of subordinates and help them to improve on their competencies and output. Both parties agree on a plan of action to improve health care delivery which can be used to measure progress on subsequent visits.

The approach adopted was to first support the SMoH and SMEP to take a lead role in undertaking an in-depth review of the supervisory situation. This was followed by a review of the existing approaches outlined in the NMSP and working with the states to adapt these to suit the needs of the states. The SMoH/SMEPs were assisted to constitute state and LGA-level teams with members drawn from various health institutions and LGA primary health care (PHC) departments to serve as the nucleus of supportive supervision in the states.

Another critical approach was to work with the teams to develop supervisory tools, including the checklist which covered all the interventions. The tools' development considered critical indicators to focus on during

supervision. Focusing on these indicators during supportive supervision helped the supervisors to measure the level of staff knowledge and skills in the application of guidelines and procedures. The indicators also provided a good measure on the quality of services delivered. Team members were then trained to do ISS.

Over time, the project has successfully established and strengthened the supervisory system in these seven states (Akwa Ibom and Kebbi were not included in ISS activities as they joined MAPS later). During the program, MAPS has supported the establishment and conduct of regular supportive supervisory visits to a total of 70 secondary health facilities, 70 PHC departments and 352 primary health facilities across 52% of the total number of LGAs in the seven states.

ISS in action

The effect of the supportive supervision initiative is summarized by the Principal Medical officer in charge of the Anka general hospital, Zamfara:

"I've been in this hospital for a very long time, and when the ISS team started visiting, I assumed it would be the usual nine-day wonder. But they kept coming and as a result, I had to ensure my house was in order before the next visit. For example, I never used to keep minutes of management meetings. But because they asked for the minutes as evidence, I started keeping those minutes.

We didn't always diagnose before malaria treatment but now I have RDTs and a microscope and because the team is always asking if we do diagnosis, we're using the diagnostic kits. I know my staff in the various departments get support from the ISS teams and this has helped to change their attitudes. I believe the process should be continued because it points to problems we would normally overlook."

It was important to combine on-the-job training with support. But even more critical was the consistency of visits and improved capacity to work with facility staff to address skills gaps. The end result was positive changes in the attitudes of facility staff. Punctuality to work improved, quality of information improved and there was adherence to existing protocols and guidelines in the delivery of services. In some of the local governments, the PHC departments have used the information generated for advocacy. Such efforts resulted in increased availability of basic drugs and equipment and renovation of structures.

Support to strengthen the Sustainable Drug Supply System

The sustainable drug supply system (SDSS) is a model that emphasizes system strengthening, community buy-in and ownership. MAPS' effort to strengthen SDSS in its supported states was aimed at building systems to ensure the availability of malaria commodities and maternal and child-health illness commodities.

In 2013, the project provided external technical assistance to work with state officials and supported an appraisal of the health commodities supply systems in six states (Benue, Ebonyi, Nasarawa, Kogi, Oyo and Zamfara). Weaknesses in several of the models existing across the states were highlighted and strategies were outlined to address them using a more holistic approach:

- Stakeholders in Benue and Nasarawa states prioritized addressing institutionalization issues such as laws, guidelines, legal and institutional framework
- Zamfara State adopted a decision to review guidelines and be more inclusive in running the state system
- Ebonyi State's priority was to recapitalize the Drug Revolving Fund, review the guidelines and adopt the current federal directives on Centralized Drugs Distribution Systems.
- Oyo State's preference was to introduce a Drug Revolving Fund to back up its Free Essential Medicines Services (FEMS) at both state and LGA levels of care

Results included the updating of the Essential Drug List to manage commodities in all the six states. A Central Medical Store was built and equipped in Nasarawa State while that in Ebonyi State was also equipped. The National Drug Policy and Guidelines were adopted by Zamfara State and a Standard Operating Procedure was developed. In addition, a bill was passed in Oyo State for the procurement and distribution of all commodities across all health programs to be under the leadership and control of the Procurement and Supply Management unit.

Results

HMIS data on key malaria control indicators show that MAPS-supported states outperformed other states in the coverage and use of key services, such as pregnant women receiving bed nets and malaria preventive treatment during pregnancy, and more appropriate diagnosis and treatment of malaria.

States supported by MAPS received more support in both AOP and other aspects of health systems strengthening than others. They are compared here with states that received similar levels of support in medical supplies and other commodities, but less support in systems strengthening and none in AOP. The following graphs show the results achieved in these two groups of states between July 2013 and June 2015[2]. This allows us to follow the progress of the first six states supported by MAPS (which started implementing AOPs in Jan 2014), and to compare them with the progress of states with less health systems strengthening and no AOP support. Also included are three states with no support at all, and all 37 Nigerian states.

States supported by MAPS show a more consistent and sustained improvement for pregnant women in provision of LLINs (see Figure 3). For example in Figure 3 the percentage of pregnant women receiving LLINs in states supported by MAPS increased steadily from 10% to 28% within 15 months of receiving technical assistance in health systems strengthening. This level was sustained into the following year. Whereas states with reduced health systems support showed an increase from 2% to a high of 23%, this was followed by a decline by half within the same period. Although MAPS only supports services for a limited number of LGAs, more pregnant women benefit across the state as illustrated by comparing data from all states against unsupported states. This suggests that strengthening systems for health provides state-wide improvements.

Figure 3. Pregnant women receiving LLINs

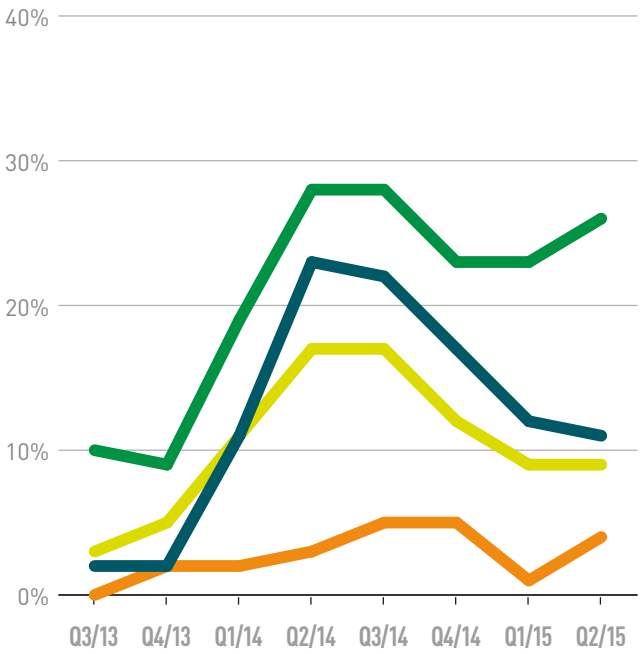
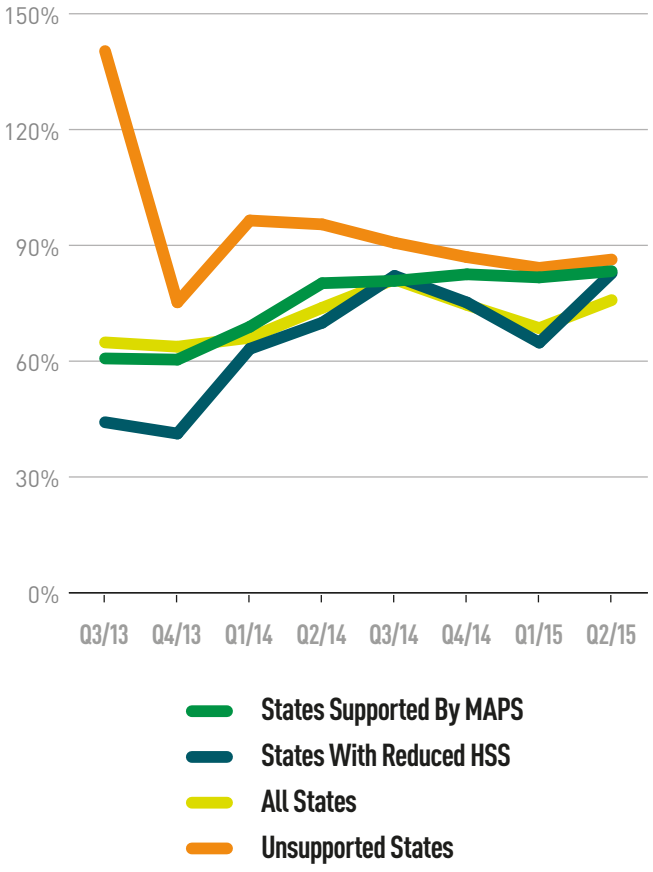
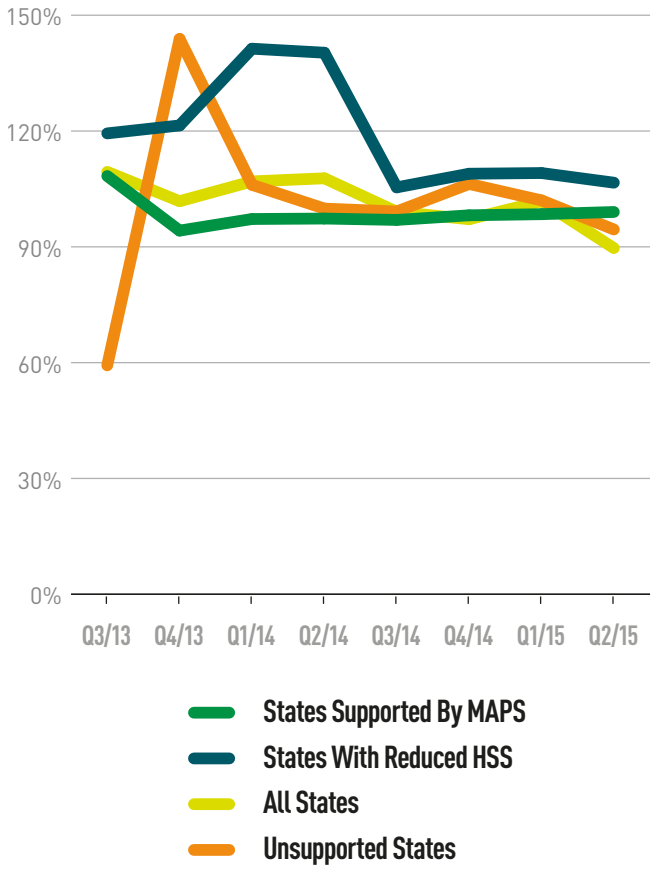


Figure 4. Fever cases tested for malaria by RDT or microspcopy



2. Data extracted from Nigeria's District Health Information System July 2015 by MAPS

Figure 5. Confirmed uncomplicated malaria cases treated with ACT



There was widespread over and under-diagnosis, and over and under-treatment, at the start of the period. This suggests poor training and use of diagnostics. All states made strong improvements in these areas as depicted in Figures 4 and 5. MAPS states show consistent improvement. There is still a tendency to under-diagnose, but treatment of confirmed cases has been sustained close to 100% for over a year.

Conclusion

After five years, increased capacity for malaria program management was evident in the states supported. Indicators include:

- The timely development, implementation and review of Annual Operational Plans and LGA Work Plans for malaria control and elimination in nine states and 70 LGAs
- The implementation and embedding of an Integrated Supportive Supervision system in seven states
- A substantial group of more than 1,400 policy makers, managers and service providers trained in program management
- Core teams of state-based program management facilitators made up of senior and mid-level managers in the health sector of each state

Over the past five years, MAPS has achieved substantial progress. The approach was multi-pronged and used an integrated, cross-cutting and facilitative methodology that has succeeded in developing knowledge, skills and better practice among managers and health care providers responsible for malaria prevention and control and in strengthening key systems.

The large body of more skilled individuals and teams that has been built up over the years will help to sustain and expand improved management of malaria control in the states and LGAs. This will ultimately contribute to a reduction in the burden of malaria, lead the country towards pre-elimination status and to better health outcomes.

MAPS is funded by the USAID through the President's Malaria Initiative (PMI), implemented in nine states (Benue, Cross River, Ebonyi, Kogi, Nasarawa, Oyo, Kebbi, Akwa Ibom and Zamfara) across Nigeria between 2010 and 2016. FHI 360 is collaborating with Health Partners International and Malaria Consortium to support the implementation of the National Malaria Strategic Plans (2014–2020).

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Cooperative Agreement Holder:

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Implementing Partners:

Health Partners INTERNATIONAL

malaria consortium
disease control, better health

Supporting:

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