StopPalu: Advancing Community-focused Fight against Malaria in Guinea

"StopPalu's approach to disease control is from the bottom-up — to involve everyone in every step of the process."¹

- Timotheé Guilavogui, the NMCP's deputy coordinator, in 2017

"We are proud of the progress we have made under StopPalu, and are dedicated to continuing to work closely with USAID and the government of Guinea to improve health outcomes for the citizens of Guinea. StopPalu+ will continue to work towards the goal of elimination of malaria and ultimately contribute to a safer and healthier world."²

- E. Wayne Holden, President and CEO of RTI International, 2018

On June 25, 2021, ten lab technicians trained by the Guinea Malaria Bilateral project *StopPalu+* were recognized as World Health Organization (WHO) experts, who could disseminate their malaria microscopy expertise across the world for the next three years.³ Since 2017, *StopPalu+* had been organizing training sessions on the malaria elimination course – External Competency Assessment for Malaria Microscopists (ECAMM) – for 200 lab technicians to provide them with malaria microscopy skills in Guinea.⁴ *StopPalu+* was a five-year (2017-2022) follow-on project to the original *StopPalu* project that was launched in 2013. The US Agency for International Development (USAID) launched *StopPalu* as a malaria prevention program in Guinea, with

¹ "How Malaria Fighters are Shaping Guinea's Post-Ebola Health System," https://medium.com, January 26, 2017.

² "RTI International and USAID Continue Partnership to Fight Malaria in Guinea," www.rti.org, February 09, 2018.

³ "USAID Supports Training in Malaria Microscopy and WHO Accreditation Program for Effective Diagnosis and Early Treatment," www-origin.usaid.gov, August 10, 2021.

⁴ Ibid.

funding support from the US President's Malaria Initiative⁵ (PMI). *StopPalu* was designed to support the Government of Guinea's (GoG) National Malaria Control Program⁶ (NMCP) to reduce malaria morbidity and mortality in the country. Malaria was a major health burden in Guinea and was the primary cause for medical consultation, hospitalization, and death among the general population. Despite government initiatives to control malaria, it remained the most burdensome communicable disease in the country.

StopPalu was led by a US-based non-profit organization, Research Triangle Institute International (RTI International), which partnered with international non-profit organizations from diverse sectors and local non-governmental organizations (NGOs) to implement the project. The project provided capacity building support to the local people to prevent, diagnose, and treat malaria. It trained community health workers in community case management of malaria (CCMm) that included the use of rapid diagnostic tests to detect infection, use of anti-malarial medicines to treat diagnosed cases, referral of severe cases to health facilities, and raising community awareness about the use of long-lasting insecticidal nets⁷ (LLINs).

After the end of the *StopPalu* project in 2017, RTI International continued to support the GoG in its efforts to reduce the incidence of malaria in the country through its extended project *StopPalu+*.

Between 2016 and 2019, the malaria case burden in the country fell by 12.6% (from 340 to 297 per 1000 of the population at risk), while deaths fell by 12% (from 0.73 to 0.64 per 1000 of the

⁵ PMI focused on delivering life-saving malaria interventions as well as technical and operational assistance to enable and empower partner countries to end malaria

⁶ NMCP is the malaria control program of the Government of Guinea.

⁷ LLINs are mosquito nets treated with insecticides to protect against malaria.

population at risk).⁸ By 2020, the projects (*StopPalu and StopPalu+*) had distributed more than 9.3 million LLINs, trained over 2,000 community health workers on malaria diagnosis and treatment.

However, there were still some challenges that needed to be addressed. The main question was whether GoG would be able to continue the malaria control and prevention activities after the end of *StopPalu+ in 2022*. What could be done to ensure that the project trained staff continued to deliver services in the community without external support?

MALARIA IN GUINEA

Malaria, one of the most fatal infectious diseases in the world, is caused by *Plasmodium* parasites that is transmitted to the human body through the bite of an infected *Anopheles* mosquito vector. This disease is treatable and preventable, yet malaria has received worldwide recognition as a priority global health issue as it continues to have a devastating impact on people's health and livelihood across the world. In most countries where malaria is endemic,⁹ the disease adversely impacts the poor and disadvantaged people who have limited access to healthcare facilities and can barely afford the recommended treatment.

Malaria has an economic impact on several African countries. Every year, malaria costs Africa US\$12 billion in terms of loss of Gross Domestic Product (GDP).¹⁰ Guinea is one such country where malaria is endemic.

⁸ "Guinea: Malaria Facts and Situation," www.severemalaria.org.

⁹ Endemic means the disease is native to, confined to or widespread within a place or population of people.

¹⁰ "Malaria," www.malariafreefuture.org.

With a population of over 12 million, Guinea's economy is largely agrarian, with the agricultural sector providing subsistence livelihood to about 80% of the population.¹¹ Despite having a wealth of valuable minerals and agricultural resources, Guinea is among the poorest nations in West Africa with 35% of the population living below the poverty line as of 2018.¹²

The widespread poverty in Guinea highlights the vulnerability of a large portion of the population to diseases and high mortality. Poor families find it difficult to bear the cost of treatment. The country's health infrastructure mostly depends on foreign aid. USAID supported Guinea's national health policy, which focused on community participation, accountability, and transparency to improve access to quality health services. However, basic health care facilities are limited in both urban and rural areas, with only about half the population having access to public health services.¹³

In Guinea, the disease spreads rapidly after the rainy season (from June to October), according to USAID. The major vectors for malaria transmission in the country are members of the *Anopheles gambiae* complex.¹⁴ The country implemented vector control interventions, including through mass distribution of LLIN and indoor residual spraying (IRS).

The spread of malaria in Guinea was closely linked to temperature, rainfall, and the Anopheles mosquito populations. Depending on location, endemicity in Guinea was classified by transmission status into two types (*see Case Exhibit I*).

4

¹¹ "About Guinea," https://2012-2017.usaid.gov.

¹² "Briefing Note for Countries on the 2020 Human Development Report - Guinea," http://hdr.undp.org.

¹³ Maya Zhang, Stacy Attah-Poku, Noura Al-Jizawi, Jordan Imahori, Stanley Zlotkin, "Seasonal Malaria Chemoprevention in Guinea," https://reachalliance.org, April 2021.

¹⁴ Aissata Fofana, "StopPalu+ President's Malaria Initiative (PMI) Program Component: Quarterly Report," https://pdf.usaid.gov, April 30, 2018.

Earlier in 2003, the Government of Guinea created the NMCP with the objective of implementing policies to fight against malaria in the country. NMCP activities in the country focused on the distribution of LLIN, rapid diagnostic tests (RDTs), and artemisinin-based combination therapies (ACTs) for the treatment of malaria. In 2005, the US President launched PMI, a five-year program to fight malaria in 15 African countries with a high burden of malaria cases.¹⁵ PMI was a multi-agency initiative led by the USAID and implemented in association with the US public health agency Centers for Disease Control and Prevention (CDC). The initiative delivered cost-effective, lifesaving malaria interventions alongside catalytic technical and operational assistance to enable partner countries to end malaria.

The PMI took four malaria prevention and treatment measures – insecticide-treated mosquito nets (ITNs); indoor residual spraying (IRS); treatment with ACTs; and intermittent preventive treatment of malaria in pregnant women with sulfadoxine-pyrimethamine (IPTp-SP). In 2011, PMI added four new sub-Saharan African countries, including Guinea, to combat the high burden of malaria (*see Exhibit II*). Since then, the PMI had continued to support Guinea in its fight against malaria. The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), an international financing and partnership organization, supported 19 prefectures in middle Guinea, lower Guinea, and the forest areas, while PMI supported 14 prefectures in middle and upper Guinea and 5 communes of Conakry (*see Exhibit III*).

¹⁵ "Malaria Champions," www.thepeoplesportfolio.org.

According to the 2012 Demographic and Health Survey¹⁶ (DHS), malaria remained the major public health issue in Guinea and about 92% of malaria infections were caused by Plasmodium falciparum.¹⁷ In 2012, the Ministry of Health, Guinea, announced a community case management strategy for malaria to achieve universal coverage of malaria prevention and treatment intervention in line with the World Health Organization (WHO) recommendations.

THE STOPPALU PROJECT

In 2013, USAID launched a malaria prevention project called *StopPalu* – "palu" was short for "paludism," the French word for malaria. The main aim of the project was to support the Government of Guinea's NMCP to reduce malaria morbidity and mortality in the country. The *StopPalu* project (May 2013 to December 2017) was funded by the USAID and implemented by RTI International.¹⁸ RTI International had been working with the national governments in Africa, Asia, and Latin America for more than a decade to prevent and control malaria. *StopPalu*, implemented in 19 of Guinea's 38 prefectures, aimed to fight against malaria through multiple interventions including improving malaria diagnostic testing, treatment, and prevention. One of the key objectives of *StopPalu* was to build the capacity of the Ministry of Health (MOH) to collect, use, and manage malaria-related information for monitoring, evaluation, and surveillance.

In 2013, *StopPalu* distributed 3.3 million insecticide-treated bed nets to help reduce the spread of malaria cases in the country. In early 2014, *StopPalu* started implementing a project in

¹⁶ Democratic and Health Surveys program collects and disseminates nationally representative data on health and population in developing countries.

¹⁷ "Guinea,: Malaria Operational Plan FY 2018" https://d1u4sg1s9ptc4z.cloudfront.net.

¹⁸ "StopPalu President's Malaria Initiative (PMI) Program Component: FY 2017 Annual Report," https://pdf. usaid.gov, October 31, 2017.

collaboration with Alcoa, a Guinea-based aluminum mining company. Under the project, *StopPalu* organized 7 mobile clinics to provide services to 12 villages covered by the Alcoa activities.¹⁹ The project provided 1,304 persons with general information on malaria (causes, preventive measures, and treatment process), tested 343 persons with fever using RDTs. Forty two persons having positive results received ACTs.²⁰ These activities were organized by the *StopPalu*-trained community health workers (CHWs), field agents of the project's NGO partners, and project staff under the guidance of the prefecture health team.

In 2014, *StopPalu* trained more than 600 CHWs in 14 prefectures of Guinea on malaria prevention, use of RDT and ACT, and monitoring and evaluation.²¹ After completing the training, the health workers received a kit that consisted of medicines, gloves, a waste disposal box, case management book, storyboards for behavior change activities, home visit forms, and monthly reporting forms. Each health worker was assigned 24 home visits a month.²²

PROJECT PARTNERS

One of the major hindrances in NMCP's fight against malaria in Guinea was a lack of involvement of key partners in the planning, coordination, implementation, and monitoring of program activities. To address these challenges, RTI partnered with both external and local-based organizations to implement the *StopPalu* project. RTI partners for the project

¹⁹ "Guinea Malaria Operational Plan FY 2016," https://d1u4sg1s9ptc4z.cloudfront.net.

²⁰ Ibid.

²¹ "Community Health Worker in Guinea Stops Malaria in its Tracks," https://2012-2017.usaid.gov, October 2014.

²² "Community Health Worker in Guinea Stops Malaria in its Tracks," www.pmi.gov, October 05, 2014.

were Jhpiego²³, Centre African de Formation pour le Development²⁴ (CENAFOD), ASM and NGOs.

Jhpiego started its work in Guinea in 1993 with funding support from the USAID to integrate reproductive health in the curriculum of medical schools. As a sub-partner of RTI International under the *StopPalu* project, Jhpiego supported the clinical aspects of improving malaria prevention and treatment in Guinea. The clinical support provided by Jhpiego included maintaining up-to-date data on national policies and protocols and providing training to health care workers and community health workers on these policies and protocols. The technical assistance provided by Jhpiego included detection of malaria positive cases using RDTs, delivery of intermittent preventive treatment of malaria in pregnant women, and prevention of over-treatment/over-consumption of available medicines and thereby the development of resistance. Under *StopPalu*, Jhpiego worked to improve malaria outcomes by strengthening the service quality provided at community level health centers. The organization supported *StopPalu* in introducing modifications to treatment protocols that resulted from the Ebola virus disease²⁵ (EVD) epidemic. In addition, Jhpiego also provided training and support in Conakry and three prefectures of the 14 targeted by the *StopPalu* project.

ASM supported *StopPalu* in monitoring and evaluating laboratory practices and collaborative quality improvement, and country-owned solutions for enhanced performance. In addition, the

²³ Jhpiego is an international non-profit health organization.

²⁴ Centre Africa n de Formation pour le Development (CENAFOD) (African Training Center For Development), is a non-government organization.

²⁵ Ebola virus disease (EVD), formerly known as Ebola haemorrhagic fever, is a severe, often fatal illness in humans, caused by a virus.

organization assisted the project with evidence-based and context-appropriate approaches to consensus-based diagnostic training and capacity building.

CENAFOD supported *StopPalu* in integrating the governance aspects of the project activities. The governance aspects of the project included promoting better service delivery, transparency in service provision, and accountability of government partners to help civil society organizations play their roles more effectively.

Apart from the involvement of international organizations, some local NGOs partnered with RTI to support *StopPalu* activities in Guinea. Local partners included four Guinea-based NGOs. NGO facilitators conducted group discussions in public places to increase people's level of awareness and knowledge on malaria and promote healthy behavior practices related to malaria prevention and treatment.

IMPACT OF EBOLA

StopPalu's activities were progressing well in the country until the outbreak of the unprecedented Ebola epidemic in March 2014. Guinea was the first country to report Ebola cases in West Africa. The Ebola epidemic seriously disrupted community health activities in the 14 prefectures supported by *StopPalu*. By August 2014, at the start of the third wave of the epidemic, the NMCP reported falling attendance in health facilities and a reduction in CHW's malaria activities. The Ebola epidemic had a major impact on the delivery of health care in malaria activities because of the overlap of malaria and Ebola symptoms and the malaria control initiatives' dependence on case management delivered at health facilities. The number of home visits in *StopPalu*-supported prefectures fell from 36,956 (July to September 2014) to 19,481 (October to December 2014).²⁶ However, *StopPalu* continued to support the NMCP in adapting to this health crisis. The project helped the government to revise malaria case management protocol as recommended by the WHO and the CDC and trained 1,041 health facility workers on the new protocols. In the meantime, home visits to these prefectures rebounded quickly, increasing from 19,481 (October to December 2014) to 37,026 (July to September 2015).²⁷

After the end of the Ebola epidemic in December 2015, Guinea started overhauling its health system with a focus on strengthening services at the community level. With its strong network with local stakeholders and an established presence in communities, *StopPalu* offered a blueprint for carrying forward its anti-malaria program in the aftermath of the epidemic. In early 2016, *StopPalu* distributed more than 3.3 million insecticide-treated bed nets, reaching over 1 million households (about 90% of targeted households).²⁸

However, the resurgence of Ebola cases in March 2016 threatened to reverse the gains that Guinea had made against malaria. The Ebola cases had a direct impact on the health services provided by the CHWs. As a result, there were many untreated malaria cases, which further strained the country's health infrastructure that was already on the brink of collapse due to the Ebola epidemic.

²⁶ "Advancing the Community-Focused Fight against Malaria in Guinea," www.rti.org.

²⁷ Ibid.

²⁸ "How Malaria Fighters are Shaping Guinea's Post-Ebola Health System," https://medium.com, January 26, 2017.

In 2016, the Gamal Abdel Nasser University of Conakry (UGANC) supported *StopPalu* in establishing an entomology laboratory and insectary to conduct entomological surveillance and insecticide resistance tests.

COMMUNITY OUTREACH

The implementation of the *StopPalu* project made impressive progress in malaria control in Guinea. Technical assistance and training provided under the project resulted in a drastic fall in the national malaria prevalence to 15% in 2016 from 44% in 2012 (*see Exhibit IV*). In 2016, the percentage of households with at least one insecticide-treated bed net increased from 46% in 2012 to 84% in 2016 (*see Exhibit IV*).

StopPalu focused on increasing home visits and communication activities, especially community dialogues, to help people adopt malaria control activities and use health facilities. In Guinea, about 80.9% of pregnant women received antenatal care (ANC) from a trained service provider, while only 28.6% attended their first ANC visit in the first 4 months of pregnancy, and only 35.3% attended at least four ANC visits.²⁹ In January 2017, *StopPalu* organized a community dialogue to resolve a dispute between the Magnokhoun health post (health center) in the Dubréka Prefecture and the community regarding the use of the health post (*see Exhibit V*).

In early 2017, the *StopPalu* project implemented the SMS (Short Message Service) program to remind pregnant women of upcoming antenatal care visits and motivate them to receive periodic preventive treatment for malaria. From the very beginning, the project integrated an

²⁹ Stelmach et al (2021). An Integrated MERLA (Monitoring, Evaluation, Research, Learning, and Adapting) Framework for Evidence-based Program Improvement, https://journals.sagepub.com.

operations research protocol into the SMS program design. The project involved setting up an intervention SMS group and a non-SMS comparison group, collecting detailed programmatic costs, and setting up feedback loops to enable continuous program learning and adaptation. By September 2017, *StopPalu* had over 700 women registered in the intervention SMS group and about 500 women in the comparison group.³⁰ The project found that the SMS intervention group had 8% more follow-up antenatal care visits than the comparison group.³¹

As of September 2017, *StopPalu* had trained more than 1,400 CHWs in 14 prefectures on the skills of social and behavior change communication³² (SBCC), malaria prevention, diagnosing using RDTs, managing simple malaria cases using ACT, and monitoring and evaluation.³³ One such case was that of community health worker Alpha Gaman Sow (Sow), who was trained to provide malaria-related health services in faraway places like Kalan, Guinea. Sow began his career in 2005 as a volunteer in Guinea's malaria control program. Earlier, he had seen many malaria cases in the community, but he was unable to do anything about it due to the lack of support for diagnosis or treatment. *"Before StopPalu, we didn't have the tools we need,"*³⁴ Sow said. He only educated community members on the risks of the disease and urged people with a fever to visit healthcare facilities in the city. After receiving training from *StopPalu*, Sow administered RDTs to people with fever and explained to them the precautions to be taken to avoid infection.

³⁰ Rajeev Colaco, "Three SMS Program Learnings that will Surprise You," www.ictworks.org, October 23, 2017.

³¹ *Ibid.*

³² SBCC, previously known as behavior change communication (BCC), is a communication strategy that encourages individual/society/community to change their behavior and adopt healthy, beneficial, and positive behavioral practices.

³³ "StopPalu President's Malaria Initiative (PMI) Program Component: FY 2017 Annual Report," https://pdf. usaid.gov, October 31, 2017.

³⁴ "How Malaria Fighters are Shaping Guinea's Post-Ebola Health System," https://medium.com, January 26, 2017.

CHWs also played a key role in identifying and counting households (to provide bed nets) targeted by bed net campaigns. They assisted people in hanging the nets and checked to ensure that the nets were being correctly used. In Popodara, a village in the Labé district of north-central Guinea, a CHW, Marliatou, who joined *StopPalu* in 2013, helped elderly women in her locality to hang bed the nets in their homes and administered RDTs for malaria to young pregnant women complaining of fever and fatigue. Marliatou said people in Popodara were glad to have CHWs who provided the doorstep services of malaria testing and treatment, saving them the considerable cost of a journey to the town. Dr. Aissata Fofana (Fofana), Chief of Party for the *StopPalu* project, said CHWs contributed significantly toward *StopPalu*'s wide coverage. "*Not only do they help people hang up the nets, they also monitor uptake. When they do home visits, they make sure that the nets are being used correctly,"* she said. "*Everywhere they work, they have an impact.*"³⁵ In remote areas, the CHWs helped patients who could not travel to medical centers.

StopPalu, through its NGO partners, organized two social mobilization events targeted at youth in two communities - Kondéah in Dubréka and Sikhourou in Forécariah – to promote the correct and regular use of nets. In Conakry, the project organized six social mobilization events during soccer games and fairs. During the fourth quarter (July to September 2017), the project team organized social mobilization activities in the regions of Boké and Labé, reaching 569 and 800 people in the

³⁵ "How Malaria Fighters are Shaping Guinea's Post-Ebola Health System," https://medium.com, January 26, 2017.

regions, respectively.³⁶ In the financial year 2017, *StopPalu* broadcast 24,489 radio and 1,795 television spots to promote malaria prevention and treatment services among the people.³⁷

When *StopPalu* started its operations, only 30% of health facilities in the country were submitting their monthly malaria reports to the Prefectural Health Directorate (DPS),³⁸ and the data were rarely used or reviewed. To solve the issues related to reporting quality, *StopPalu* used the collaborating, learning, and adapting³⁹ (CLA) approach. *StopPalu* believed that the use of the CLA approach in collaborating with the NMCP would help build its capacity to identify the fundamental issues in health centers in the country and find a solution. This iterative CLA approach led to an increase in the percentage of health centers submitting monthly reports from less than 30% in 2013 to more than 95% in 2017.⁴⁰ *StopPalu* organized monthly meetings to compile and analyze data at each health center to improve the quality of the collected malaria data. After the success of increasing data management capacity, *StopPalu* used the CLA approach to improve the use of data for decision making at the health centers.

In the financial year 2017, *StopPalu* trained a total of 106 people, including the heads of health posts and their assistants at the 61 health posts (25 in Boké, 18 in Kindia, and 18 in Labé).⁴¹ The

³⁶ "StopPalu President's Malaria Initiative (PMI) Program Component: FY 2017 Annual Report," <u>https://pdf.usaid</u>. gov, October 31, 2017.

³⁷ Ibid.

³⁸ Aissata Fofana, "Using CLA to Improve Malaria Data Quality and Decision Making in Guinea," https:// usaidlearninglab.org, September 12, 2018.

³⁹ CLA is a framework and a set of practices for strengthening organizational learning and improve developmental effectiveness.

⁴⁰ Aissata Fofana, "Using CLA to Improve Malaria Data Quality and Decision Making in Guinea," https://usaidlearninglab.org, September 12, 2018.

⁴¹ "StopPalu President's Malaria Initiative (PMI) Program Component: FY 2017 Annual Report," https://pdf.usaid.gov, October 31, 2017.

project established a monthly data collection system to monitor routine LLIN distribution at the health posts. *StopPalu* also continued with the distribution of routine LLIN distribution vouchers and data collection tools at the health centers and communal medical centers (CMCs).

During the financial year 2017, *StopPalu*-trained CHWs conducted 314,770 home visits and reached 1,943,877 people in 15 prefectures.⁴² The trained CHWs conducted house visits to promote messages on healthy behaviors such as the proper and regular use of LLINs, ANC visits for pregnant women, and early care-seeking in case of fever. During the financial year 2017, the facilitators held 6,277 group discussions and reached 110,223 people to provide health facilities.⁴³ *StopPalu* used private careers to transport LLIN from Conakry to the prefectures and health facilities in Conakry. For the financial year 2017, about 154,062 LLINs were transported from Conakry to the prefectures.⁴⁴

THE STOPPALU+ PROJECT

After the end of the *StopPalu* project in 2017, RTI International continued to support the Government of Guinea in its efforts to reduce malaria prevalence in the country through its extended five-year project *StopPalu+* (December 2017 to December 2022). *StopPalu+*, funded by the PMI, continued the activities undertaken by the previous *StopPalu* project. It continued to offer SMC to children, support the distribution of LLIN, provide preventive therapy for pregnant women, and strengthen prompt care seeking and treatment. The goal of *StopPalu+* was to reduce the malaria burden in the country by improving the quality of malaria case management at both

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Ibid.

health facility and community levels (*see Exhibit VI*). *StopPalu+ was* implemented across 19 prefectures in Guinea. The five-year project had an estimated budget of about US\$28 million.

In collaboration with the NMCP, *StopPalu+* created a technical working group to facilitate the planning and execution of the malaria control program across the country. The project supported entomological activities to strengthen the country's entomological capacity and generate malaria vector data to help NMCP and stakeholders develop and implement Guinea's vector control strategy. *StopPalu+* aimed to strengthen national entomological capacity by supporting the operation of an entomology laboratory and insectary at UGANC to conduct entomological surveillance (*see Exhibit VII*).

COMMUNITY PARTICIPATION

The StopPalu+ project partners were involved in all aspects of the project management – from assisting CHWs in monitoring the proper use of LLINs, to disseminating messages on preventive treatments and malaria case management, to collecting data to make decisions. Through community interactions, the project partners regularly shared with the community the outcomes of household visits and recommended actions to further improve their health and well-being. These interactions helped immensely in gathering first-hand information from the community members about their major challenges in the fight against malaria. *StopPalu+* ensured the building of trust among the community and health officials in the project. It helped to increase the sustainability and self-reliance of the malaria control program.

16

Working with the Guinea NMCP, *StopPalu+* emphasized community participation as one of the interventions for the successful implementation of the malaria control program (*see Exhibit VI*). Much of the population in Guinea are Muslim, and Imams (religious leaders) are widely respected in their communities. *StopPalu+*, therefore, involved the religious and community leaders and trained them to disseminate malaria control information in their communities. It believed that religious and community leaders had a strong hold over the local communities, and they could play a key role in educating them about malaria by influencing their knowledge, attitudes, beliefs, and behaviors.

StopPalu+ supported the NMCP strategy of implementing "*Religious Leaders against Malaria*" that focused on training Muslim religious leaders for their involvement in controlling malaria at the community level. The project developed a guide "*Social Mobilization Guide: Islam and Malaria*."⁴⁵ The guide provided information about malaria case management and the role of religious leaders in communicating this information to their communities through different religious activities including religious ceremonies, religious lessons in educational institutions, and prayers and sermons in mosques. In addition, *StopPalu+* selected and trained more than 1,000 Imams of the largest mosques across 19 prefectures to share malaria control messages with the communities.⁴⁶ The project produced radio and television advertisements featuring religious leaders to raise awareness on the use of LLINs and information about distribution.

⁴⁵ "Working alongside Religious Leaders to Prevent and Treat Malaria in Guinea," www.rti.org.

⁴⁶ *Ibid*.

PROGRESS SO FAR...

Guinea made significant improvements in malaria control and prevention, reducing annual malaria incidence, malaria prevalence in children under five, and in-patient deaths. The progress in malaria control was attributed to the rapid scale-up of malaria prevention and control interventions under the NMCP, supported by the PMI and the Global Funds. The *StopPalu* project helped the NMCP program in controlling the rate of incidence of malaria in the country. During January to March 2018, CHWs conducted community case management in the 19 prefectures supported by the project, where they tested 27,705 people. Among them 13,142 were positive, and 13,142 people were treated with ACT.⁴⁷

During the third quarter of the financial year 2018 (April-June 2018), *StopPalu*+, in collaboration with the NMCP, trained 149 health providers from the prefectures of Boffa, Coyah, Dubréka, Forécariah, and Fria on malaria case management, as part of the capacity building of healthcare providers (*see Exhibit VIII*). In the third quarter, the project conducted a Train the Trainers program for 12 malaria diagnosis trainers, of whom 4 experts were identified to train 74 laboratory technicians on malaria diagnosis, including microscopy and the use of rapid diagnostic tests (RDTs). During the financial year 2018, *StopPalu+* supported the NMCP's Vector Control Unit in organizing eight meetings, wherein month/quarter-wise vector control activities were reviewed and activities for the forthcoming months/quarters were planned.

Involving religious leaders produced desired results as the percentage of households that received LLINs increased from 89% in 2016 to 95% in 2019, and the percentage of children that

⁴⁷ Aissata Fofana, "StopPalu+ President's Malaria Initiative (PMI) Program Component: Quarterly Report," https://pdf.usaid.gov, April 30, 2018.

received all four rounds of malarial drugs through SMC campaigns increased from 72% in 2017 to 89% in 2020.⁴⁸ In fiscal year 2020, *StopPalu+* improved access to malaria interventions in Guinea by conducting diagnostic tests to 98% of suspected malaria cases and providing antimalarial treatment to 97% of positive cases.⁴⁹

Amid the outbreak of the COVID-19 pandemic, *StopPalu+* faced challenges in the distribution of malaria medications in communities as some caregivers were reluctant to reach the communities and distribute the drugs due to the fear of the pandemic. To carry out the SMC campaign during the pandemic, *StopPalu+* followed the recommendations of the WHO and the PMI. Before starting the campaign, the project trained about 3,000 drug distributors and supervisors on COVID-19 prevention measures to be followed on the ground. During the campaign, the project ensured contactless delivery of malaria control products and services. As a result, *StopPalu+* successfully implemented all the four rounds of SMC (from July to October 2020), reaching 95% to 99% of children under five.⁵⁰ The projects significantly improved the completeness of malaria data from 30% in 2013 to 100% in 2020.⁵¹

As the pandemic continued, Fofana reflected on the progress against malaria in Guinea. She said *StopPalu+* adopted its SMC campaign during the pandemic and the project continued its malaria prevention, diagnosis, and treatment despite the pandemic. Fofana insisted on the continuity of essential services during the pandemic to lessen the incidence of deaths due to malaria. She felt it was necessary to involve influential people in the community to achieve the

⁴⁸ "Working Alongside Religious Leaders to Prevent and Treat Malaria in Guinea," www.rti.org.

⁴⁹ Aissata Fofana, "Continuing Work to End Malaria in Guinea During COVID-19: An Expert Interview with Dr. Aissata Fofana," www.rti.org, November 09, 2020.

⁵⁰ Ibid.

⁵¹ Ibid.

desired behavior changes in people in community that would lead to their acceptance of malaria prevention measures. The religious leaders continued their malaria-control activities even during the pandemic.

LOOKING AHEAD

In close collaboration with the Guinea National Malaria Strategic Plan (NMSP) 2018-2022, *StopPalu+* targeted reducing malaria-related morbidity and mortality in the country by 75% by 2022 compared to 2016 levels.⁵² To achieve this goal, *StopPalu+* planned to strengthen leadership, management, and system capacity at the regional, district, and community level, as well as the Guinea civil society (*see Exhibit IX*). The objective of the NMSP was also in line with the country's vision of a *"Guinea without malaria for a sustainable socioeconomic development."*⁵³ For the implementation of the NMSP, the Global Fund provided US\$50 million and PMI contributed US\$12 million per year.⁵⁴

However, the sustainability of malaria control activities in Guinea was expected to prevail beyond the *StopPalu+* project period, some observers said. Speaking on the sustainability of malaria prevention activities in Guinea, Fofana said "*My hope for the future rests on three pillars: the thousands of community health workers that are motivated and committed to increasing access to quality health services in their communities; the Guinean community that*

⁵² "RTI International and USAID Continue Partnership to Fight Malaria in Guinea," www.rti.org, February 09, 2018.

⁵³ "Guinea: Malaria Operational Plan FY2018," https://d1u4sg1s9ptc4z.cloudfront.net,.

⁵⁴ "StopPalu+ President's Malaria Initiative (PMI) Program Component: Quarterly Report," https://pdf.usaid.gov, July 31, 2018.

wants to be in charge of its health; and the partners and donors who continue to support Guinea on its journey to self-reliance."⁵⁵

In October 2021, the PMI launched a new strategy for 2021-2026, titled *"End Malaria Faster,"* aiming to reduce malaria deaths and illness, and eliminate malaria in PMI partner countries including Guinea. The strategy was designed to contribute to the global goal of averting over 1 billion malaria cases and saving more than 4 million lives by 2025.⁵⁶ The PMI's strategic objectives were to reduce malaria mortality (by 33%) and morbidity (by 40%) from 2015 levels in high-burden PMI partner countries.⁵⁷ To achieve these objectives, the PMI targeted maximizing program efficiency by addressing five strategic focus areas: (1) reach the unreached, (2) strengthen the community health system, (3) keep malaria services resilient, (4) invest locally, and (5) innovate and lead.⁵⁸

Observers believed that the PMI and MCDI initiatives would give a boost to the malaria control activities in Guinea being carried forward after *StopPalu+* came to an end. However, it remained to be seen whether *StopPalu+* would be able to achieve its goal by 2022 and ensure the sustainability of the malaria control program in Guinea beyond 2022.

⁵⁵ Aissata Fofana, "Continuing Work to End Malaria in Guinea During COVID-19: An Expert Interview with Dr. Aissata Fofana," www.rti.org, November 09, 2020.

⁵⁶ "End Malaria Faster: U.S. President's Malaria Initiative Strategy 2021-2026," https://reliefweb.int, October 06, 2021.

⁵⁷ Ibid.

⁵⁸ "PMI's Strategy: 2021-2026," www.pmi.gov.



Exhibit I: Areas of Different Malaria Endemicity

Source: https://pdf.usaid.gov/pdf_docs/PA00TWJG.pdf

Exhibit II: Key Milestones and Expansions of the US President's Malaria Initiative (2005-2020)

Year	Activity	Budget
2005	The PMI was launched by the US President George W. Bush	US\$4 million
2006	Focused on three countries – Uganda, Angola, and Tanzania	US\$66 million
2007	Added four new countries – Senegal, Rwanda, Malawi, and Mozambique	US\$197 million
2008	Added seven new countries – Mali, Liberia, Benin, Ethiopia, Kenya, Ghana, Zambia, and Madagascar (Under the Lantos/Hyde Global Leadership against HIV/AIDS, Tuberculosis, and Malaria Act)	US\$296 million
2009	The US Government Malaria Strategy (2009-2014) was launched with an objective to work with partners to halve the burden of malaria in 70% of the at-risk population in sub-Saharan Africa	US\$300 million
2011	Added four African countries – Guinea, Nigeria, DRC, and Zimbabwe and one regional program in the Greater Mekong Subregion of Southeast Asia	US\$578 million
2015	The White House launched the PMI Strategy (2015-2020) to work with PMI supported countries with a long-term goal of malaria elimination	US\$619 million
2017	Added five West African countries – Niger, Burkina Faso, Sierra Leone, Côte d'Ivoire, and Cameroon	US\$723 million
2020	The PMI received an increased budget to support the expansion of the new type of mosquito nets	US\$746 million

Source: https://reliefweb.int/sites/reliefweb.int/files/resources/10.04Final_USAID_PMI_Report_50851.pdf



Exhibit III: Distribution of PMI and Global Fund Target Zones in Guinea

Source: https://d1u4sg1s9ptc4z.cloudfront.net/uploads/2021/03/fy-2016-guinea-malaria-operational-plan.pdf

Exhibit IV: Impact of StopPalu Program in Guinea

- The national malaria prevalence decreased from 44% in 2012 to 15% in 2016
- The number of households with at least one insecticide-treated bed net increased from 46% in 2012 to 84% in 2016
- The percentage of fever cases tested for malaria was 100% in 2017, up from 89% in 2013.
- About 99% of health facilities submitted monthly malaria reports in 2017, compared to less than 30% in 2012.

Source: https://www.rti.org/impact/advancing-community-focused-fight-against-malaria-guinea

Exhibit V: Community Dialogue to Use Magnokhoun Health Post

In January 2017, the *StopPalu* project team visited the health post of Magnokhoun in the Dubréka Prefecture. The team noticed that the Magnokhoun community used their health post rather irregularly. While holding discussions with the village resource persons including religious leaders, representatives of women and youth associations, and members of the Health and Hygiene Committee associated with the health center, the team learned about a conflict between the head of the health post and the community.

To find a solution to the problem, *StopPalu* organized a community dialogue that brought together the representatives of the health post, religious leaders, and representatives from women's and youth groups. During the dialogue, the community complained about the high cost of the services offered by the health post and lack of provision of free service for the poor patients. As a result, villagers who were ill preferred to go a health center further away, rather than visit the nearby health post. The health post representatives remarked that they charged patients for some health services and products, but they had noticed that many patients declined to pay the bill and left the health post after they had recovered.

After listening to the two parties, the dialogue facilitator – a member of the Health and Hygiene Committee – asked the head of the health post to explain to patients in detail about the free and paid products (anti-malaria and other medicines) offered by the health post. The head of the health post then agreed to make the necessary changes to correct any errors that he had made in the past. The religious leaders used religious words to find a consensus and reconcile the parties with each other. Expressing satisfaction over *StopPalu's* community dialogue initiative, the village Imam said, *"I thank StopPalu and PMI; I am very happy with this mission because, first of all, you have managed to resolve this misunderstanding between the head of the health post and our community. Your arrival has also allowed us to learn clear and beneficial information about new malaria drugs and to know that the health post has antimalaria products that are offered for free to treat malaria in our village. We promise to do our best to bring the community back to the health post for treatment. We will definitively turn the page of this misunderstanding, and we will be privileged [to build] new bases of collaboration with the staff of the health post. During your next visit, you will notice a positive change."*

Source: https://pdf.usaid.gov/pdf_docs/PA00TWJG.pdf

Exhibit VI: Multiple Interventions of StopPalu+ in Guinea

- Improve the quality of malaria case management services at both health facility and community levels.
- Increase community involvement in malaria control activities.
- Increase the use of long-lasting insecticide-treated nets (LLINs) by households.
- Increase the use of intermittent preventive treatment of malaria in pregnancy during antenatal care visits.
- Increase malaria prevention measures among young children (3–59 months old) during the rainy season.

Source: https://www.rti.org/impact/stoppalu-malaria-control-guinea

Exhibit VII: Objectives of Entomological Activities Supported by StopPalu+

To strengthen national entomological capacity by:

- Maintaining a colony of An. gambiae (Kisumu strain)
- Training UGANC students and the NMCP interns in maintenance techniques for the insectary
- Supporting the Vector Control Technical Working Group meetings
- Supporting the operation of an entomology laboratory and insectary at the Gamal Abdel Nasser University of Conakry (UGANC)

To conduct entomological surveillance by:

- Collecting mosquitoes in selected sentinel sites
- Assessing vector biting behavior
- Assessing vector seasonality
- Assessing vector distribution and abundance
- Species identification and sporozoite indexing

To determine insecticide resistance of malaria vectors by:

- Carrying out intensity tests for deltamethrin, permethrin, and alpha-cypermethrin at different doses
- Carrying out susceptibility testing in sentinel sites
- Collecting semi-gravid mosquitoes for chromosomal analysis

Source: https://d1u4sg1s9ptc4z.cloudfront.net/uploads/2021/03/stoppalu-fy-2018-annual-report-of-entomological-monitoring_2018-1.pdf

Exhibit VIII: StopPalu+ Performance (3rd Quarter, Financial Year 2018)

- Established 41 community action groups (CAG)
- Trained 391 CAG members
- Development and validation of the questionnaire for the knowledge, attitudes and practices (KAP) survey
- Integration of routine LLIN distribution in 104 health posts
- Trained 177 health post providers in routine LLIN distribution
- Distributed 67,368 LLINs at health facilities
- Trained 12 national trainers on malaria diagnosis
- Trained 74 lab technicians on malaria diagnosis
- Trained 149 health providers on malaria case management
- Tested 25,522 people for malaria by community health workers (CHWs)
- Treated 11,481 people for malaria by CHWs
- Conducted 86,841 home visits by CHWs
- Supported 465 health center monthly monitoring meetings
- Supported 57 DPS monthly monitoring meetings

Source: https://pdf.usaid.gov/pdf_docs/PA00TF2F.pdf

Exhibit IX: StopPalu+ Focus in Guinea

- Increase community involvement in malaria control activities and sensitize them on the importance of malaria
- Implement multi-channel social behavior communication to expand the geographic reach and penetration of malaria interventions
- Strengthen capacity building including leadership, management, and system capacity at regional, district, and community levels of the government and civil society organizations
- Integrate the malaria control response into multi-sectoral service delivery
- Engage in continuous innovation to maximize programmatic effectiveness and efficiencies

Source: https://www.rti.org/announcements/rti-international-and-usaid-continue-partnership-fight-malaria-guinea