



Best practices in mitigating the effect of COVID-19 on malaria

January 2021





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Acronyms

ACTs	Artemisinin-based Combination Therapies
ALMA	African Leaders Malaria Alliance
AMC	Anti-Malarial Campaign
AMP	Alliance for Malaria Prevention
ANC	Antenatal Care
APIs	Active Pharmaceutical Ingredients
CAMEG	La centrale d'achat des médicaments essentiels génériques et des consommables médicaux
CHWs	Community Health Workers
CHAI	Clinton Health Access Initiative
CRSPC	Country/Regional Support Partner Committee
DFID	Department for International Development
E8	Elimination 8
EMC	End Malaria Council
GF	The Global Fund to Fight AIDS, Tuberculosis and Malaria
HBHI	High Burden High Impact
iCCM	Integrated Community Case Management
IRS	Indoor Residual Spraying
IPTp	Intermittent Preventive Treatment in pregnancy
ITN	Insecticide Treated Nets
NMCD	National Malaria Control Division
NMCP	National Malaria Control Programme
PMI	US President's Malaria Initiative
PPE	Personal Protective Equipment
RBM	RBM Partnership to End Malaria
RDTs	Rapid Diagnostic Tests
RMNCAH	Reproductive, Maternal, Newborn, Child and Adolescent Health
SBC	Social Behavior Change
SP	sulphadoxine-pyrimethamine
SMC	Seasonal Malaria Chemoprevention
TA	Technical Assistance
TRP	Technical Review Panel
UNICEF	United Nations Children's Fund
UNOPS	United Nations Office for Project Services
USAID	United States Agency for International Development
WHO	World Health Organization

Executive summary

In 2020, the COVID-19 pandemic has overwhelmed health systems, disrupted disease prevention and treatment programmes, diverted resources and threatened to reverse the extraordinary gains made in the fight against malaria. Modelling predictions by WHO and partners suggested the annual death toll from malaria in sub-Saharan Africa could double as a result of the COVID-19 pandemic, with a return to malaria mortality levels last seen in the year 2000.

Global malaria leaders, experts, partners, and malaria endemic countries came together to act decisively to mitigate the risk that COVID-19 poses to malaria elimination and control programmes. The RBM Partnership to End Malaria urged countries to keep up the fight against malaria and is continuing to work with its partners to ensure that efforts to limit the spread of COVID-19 do not compromise access to malaria prevention, diagnosis and treatment services.

While the COVID-19 pandemic persists, and continues to take a toll on health systems worldwide, it is important to recognize the remarkable efforts made at country and international level to mitigate its impact on malaria. Extensive advocacy, extraordinary collaboration and,

timely technical guidance and technical assistance by malaria partners including the RBM Partnership to End Malaria including the Country Regional Support Partner Committee (CRSPC), World Health Organization (WHO) and the U.S President's Malaria Initiative (PMI) and implementing partners at all levels has been key in ensuring countries were supported to sustain malaria prevention and treatment services. Technical implementation guidelines were developed and adapted by malaria endemic countries enabling them to maintain safe delivery of malaria control services in the context of the COVID-19 pandemic. In addition, resource mobilization supported countries to adapt their programmes and strengthen their health systems.



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In overcoming the challenges and restrictions resulting from the COVID-19 pandemic in 2020, by end of December 2020, 34 countries had initiated or successfully completed their Indoor Residual Spraying (IRS) campaigns; 85% of countries with planned Insecticide Treated Nets (ITN) campaigns have either completed or initiated their campaigns; many countries have managed to mitigate delays in procurement and shipping of malaria commodities and overcame the initial challenges in continuation of malaria diagnosis and treatment services; More than 20 million children have received Seasonal Malaria Chemoprevention (SMC) in the targeted Sahel countries with expert technical support from the CRSP, 49 countries have successfully secured about USD 3 billion from the The Global Fund to Fight AIDS, Tuberculosis and Malaria (GF) towards the reduction of the malaria burden in 2021-2023 and 18 countries were supported to either review the performance of their malaria programme or develop national malaria strategic plans.

Overall lessons learned

- Strong leadership at national level enabled timely decision making, a key enabling factor for implementation.
- Engagement and coordination with the national and subnational COVID-19 taskforce was key to ensuring support in preventing postponement or delays in implementation.

- Coordination and collaboration between the national malaria programme, implementing partners, international partners and funders was essential to ensure appropriate, adequate and timely support towards implementation.
- Flexibility, open communication and timely response of national leadership, partners, funders and, suppliers were essential factors for success.
- Timely development of guidance documents by WHO, GF and the RBM partnership through the Alliance for Malaria Prevention (AMP) and the provision of technical assistance enables efficient country adaptation to ITN campaigns within acceptable reduced COVID-19 infection risks.
- Use of online platforms including zoom, google meet, skype, twitter, WhatsApp etc., for virtual coordination meetings, trainings, advocacy, SBC, feedback meetings, etc. ensures safer yet effective and timely implementation of activities in the context of a COVID-19 pandemic.
- Synergies, and not always disruptions may be found between seemingly competing health programmes such as, in this case, COVID-19 and malaria.

The Country Regional Support Partner Committee of the RBM Partnership to End Malaria shares country experiences and lessons learned in this document. Just as countries confronted the Ebola virus, so it is hoped that malaria endemic countries will respond and continue to bounce back from the deadly COVID-19 pandemic.

Overview on COVID-19 and its potential effect on malaria interventions

The COVID-19 pandemic has had far-reaching consequences on health systems globally. The risk of the COVID-19 pandemic disrupting health care services and the resulting impact on the burden of malaria, as well as other essential health services including for HIV and TB, and reproductive, maternal, neonatal, child and adolescent health (RMNCAH) was and continues to be of great concern.

In 2019, there were an estimated 229 million cases of malaria and 409,000 deaths worldwide¹. Sub-Saharan Africa accounted for approximately 94% of all cases and deaths, with more than two-thirds of deaths occurring among children below the age of five. Significant progress has been made over the last two decades in tackling malaria with both cases and deaths due to malaria having declined by about 50% since 2000 (WHO). However, the COVID-19 pandemic has created a high risk of potentially reversing the gains made².

In an attempt to contain the spread of the virus, the immediate response in many countries ranged from curfews and restrictions on movement to total lockdowns of towns, regions or countries allowing only “essential” services to continue. Many health related activities that were considered either non-essential or high risk for COVID-19 transmission were put on hold to help curb the spread of the COVID-19 virus. Restricted access to health facilities by both the health workers and the population due to travel restrictions, lack of Personal Protective Equipment (PPE), unavailability of health workers due to COVID-19 infection, death of health workers following COVID-19 infections, and

communities’ fear of contracting COVID-19 from health facilities all threatened access to malaria prevention and treatment services.

COVID-19 infection and malaria share similar symptoms including fever, headache, body aches, and weakness. A key strategy to prevent the progression of malaria infection to severe disease is prompt diagnosis and effective treatment within 24 hours of the onset of symptoms by qualified health care providers at health facilities or in the community. By contrast, patients with similar symptoms suspected as having COVID-19 illness are advised to stay at home if symptoms are mild and contact their healthcare provider prior to going to the health facility to reduce the risks of transmission. This creates a potential delay in seeking care for patients with malaria increasing the risk of developing severe malaria and death. In addition, the confirmation of COVID-19 infection does not rule out the possibility that a patient might also be suffering from malaria infection and vice-versa increasing the risk of missing diagnosis of one or the other if a patient has co-infection.

The COVID-19 pandemic has also disrupted the production and supply of many products, including malaria commodities, manufactured in various countries around the world. China and India are the primary sources of many malaria commodities, including the active pharmaceutical ingredient for artemisinin-based combination therapies (ACTs), the first-line

1 World Malaria Report 2019 (WHO 2020).

2 The potential impact of health service disruptions on the burden of malaria: a modelling analysis for countries in sub-Saharan Africa. Geneva: World Health Organization; 2020. License: CC BY-NC-SA 3.0 IGO.

treatment for malaria. China's lockdown, which included closure of factories in a bid to contain the coronavirus, created shortages of pharmaceutical products and of active pharmaceutical ingredients (APIs) for drug manufacturers. India, which imports over 70% of its pharma ingredients from China experienced shortages of drugs and drug ingredients and as a result, made a decision to limit drug exports, thereby creating a risk of compromising access to antimalarials in other countries. In addition, companies in India, which supply 20% of medicines to Africa, were closed or had reduced production following the lock down and this resulted in disruptions to the supply chains for some essential malaria commodities, including antimalarials and rapid diagnostic tests (RDTs). Price increases and supply disruptions due to logistics and shipping issues, increased the costs of procuring commodities and the situation was exacerbated by shortages of shipping containers. Even in malaria endemic countries where adequate stocks were available centrally, movement restrictions in response to the pandemic created a risk of delays in the supply chain from national to subnational levels for key antimalarials, malaria diagnostic tests and PPE for health workers.

In April 2020, a modelling analysis by WHO and partners including PATH, the Malaria Atlas Project and the Bill & Melinda Gates Foundation, considered different scenarios for potential disruptions in access to core malaria control tools during the pandemic and the resulting increases in cases and deaths. Under the worst-case scenario, in which all insecticide-treated net campaigns were suspended and with a 75% reduction in access to effective antimalarial medicines, the estimated tally of malaria deaths in sub-Saharan Africa in 2020 was predicted to reach 769,000, which is twice the number of deaths reported in the region in 2018 and represents a return to malaria mortality levels last seen in the year 2000.

In 2015, during the Ebola outbreak in West Africa, Ebola cases threatened to overwhelm health-care infrastructure. Insufficient access to malaria case management in Ebola-affected regions led to increased malaria mortality and morbidity. Overall the numbers of additional deaths due to malaria were greater than those caused by the Ebola outbreak itself. The malaria partnership recognized that the Ebola experience provided valuable lessons that could be applied to the COVID-19 pandemic.

“I am very concerned that the shift of focus to be able to respond to the COVID-19 pandemic could provoke an upsurge in deaths caused by other infectious diseases, first and foremost malaria. Please pay attention to malaria! It kills. It needs the financial support, it needs the technical support, it needs the vaccine, it needs eradication. Please. Let's fight the virus COVID-19. Let's also fight malaria,”

Former Liberian president HE Ellen Johnson Sirleaf (who was president during the Ebola outbreak of 2014).

WHO quickly alerted countries on the urgent need to aggressively tackle the coronavirus, whilst at the same time ensuring that other killer diseases, such as malaria, were not neglected. All countries were advised to ensure that core malaria control services including IRS, SMC and ITN campaigns coupled with case management, are maintained while ensuring protection against COVID -19 transmission.

Global malaria experts and leaders united to provide a coordinated response to the COVID-19 pandemic in malaria endemic countries providing expert advice and action in response to challenges and risks. The malaria endemic countries also responded in a collaborative effort with key stakeholders including the RBM Partnership to End Malaria, WHO, GF, the African Leaders Malaria Alliance (ALMA), United Nations Children's Fund (UNICEF), US President's Malaria Initiative (PMI), and many others to mitigate the negative impact of COVID-19 on malaria.

Country and partner efforts to mitigate the effects of COVID-19 on malaria interventions have yielded many several best practices and lessons learnt on implementing and adapting malaria interventions and mobilizing resources. This report by the CRSPC documents these best practices, highlighting the progress and successes made during the pandemic at country and sub regional level.

Methodology

Data were obtained through reviews of RBM/CRSPC reports, implementation reports, webinars and other online resources, personal communication, and key informant interviews with National Malaria Programme managers, in-country implementing partners (including Malaria Consortium, and Vector Link), the RBM

Partnership (CRSPC), ALMA, WHO, AMP and case studies of selected countries including Benin, Rwanda, Uganda, Namibia, South Sudan, Kenya, Mozambique, Democratic Republic of Congo (DRC), Guinea, The Gambia, and Ghana. Data was collected from August 2020 to September 2020.



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Achievements in mitigating the impact of COVID-19 pandemic on malaria

I. International level achievements

I. Development of guidelines and modification of implementation guidelines

WHO urged malaria endemic countries³ to move fast and distribute malaria prevention and treatment tools early in the COVID-19 pandemic and to do their utmost to safely maintain essential malaria control services. On 09 April 2020, the WHO Global Malaria Programme in close collaboration with partners issued technical guidance on how to safely maintain malaria control services in the context of the COVID-19 pandemic. Tailoring malaria interventions within the COVID-19 response⁴ includes guidance on the prevention of infection through vector control and chemoprevention, testing, treatment of cases, SMC, intermittent preventive treatment in pregnancy (IPTp), supply

chain, laboratory activities, programme management, information systems, and communication and community engagement. To complement the guidance from WHO Global Malaria Programme, the RBM SBC Working Group developed interim guidance for malaria SBC in the context of the COVID-19 pandemic. Partner organizations also developed specific modified implementation guidance documents including modified ITN campaign operations⁵ developed by the AMP, guidance on case management, IRS and SMC delivery, community mobilizers and on Integrated Community Case Management (iCCM). Additional guidance was also provided by WHO in collaboration with UNICEF and the International Federation of the Red Cross (IFRC) on the role of community-based health care in the pandemic context⁶. These guidelines were effectively adapted by countries with support and regular follow-up from the CRSPC to address specific country situations.



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- 3 <https://www.who.int/news/item/23-04-2020-who-urges-countries-to-move-quickly-to-save-lives-from-malaria-in-sub-saharan-africa>
- 4 <https://www.who.int/publications/m/item/tailoring-malaria-interventions-in-the-covid-19-response>
- 5 <https://allianceformalariaprevention.com/wp-content/uploads/2020/10/Key-guidance-EN.pdf>
- 6 https://www.who.int/publications/i/item/WHO-2019-nCoV-Comm_health_care-2020.1

II. Advocacy

Extensive advocacy by partners including WHO, the RBM Partnership, ALMA, PMI, GF and implementing partners at global and country level has been key in ensuring countries sustain malaria prevention and treatment services. The RBM Partnership called on all countries and partners to sustain progress and commitments made in the global fight to end malaria.

The ALMA chair, His Excellency President Uhuru Kenyatta, President of the Republic of Kenya, wrote to all Heads of State and Government of Africa urging them to continue to prioritize malaria interventions. HE President Uhuru Kenyatta also wrote to the Presidents of the World Bank, African Development Bank and Islamic Development Bank urging that resources are allocated to sustaining essential interventions, not just to COVID-19 testing, training and PPE. He additionally urged that the resources made available should be in the form of grants, not loans, in order to avoid further increasing debt during the pandemic. [President Kenyatta continues to urge governments and leaders to apply information sharing and pooling of resources as seen during the continental COVID-19 response to the fight against malaria](#)⁷.

The RBM Partnership, ALMA, GF and WHO sent a joint letter to every Minister of Health of malaria endemic countries in the Africa region, informing them of the potential impact in terms of increased malaria cases and deaths if malaria interventions were halted or delayed and followed up with telephone conversations with selected Ministers.

Three of the ALMA Chairs, His Excellency Uhuru Kenyatta, President of Kenya and current Chair of ALMA, Her Excellency Ellen Johnson Sirleaf former President of Liberia and former ALMA Chair and His Excellency Jakaya Mrisho Kikwete of the United Republic of Tanzania, founding chair of ALMA, also issued a statement on behalf of the End Malaria Council calling for continued essential health services including malaria prevention and control, while responding to the COVID-19 global pandemic. In addition, due to mounting concerns around the impact of COVID-19 on malaria elimination efforts across the African continent, the African members of the End Malaria Council released a joint statement and a four-pronged action

plan calling on African and global leaders to act quickly to: protect the decades of gains against malaria; boost African purchasing power and local manufacturing of critical medical supplies; continue investments in building an essential health workforce; and, use data to maximize limited resources to save lives.

The COVID-19 lockdowns critically impacted the supply chain of malaria commodities including production and transportation of ITN, insecticides, RDTs, ACTs and SMC drugs. The manufacturers and suppliers in China and India experienced reduced production, restricted transportation and exportation of commodities. At the same time, several malaria endemic countries were experiencing limited stocks of malaria commodities or were in the process of procuring ACTs and RDTs. HE President Uhuru Kenyatta pro-actively reached out to the Prime Minister of India to secure India's commitment to fast track health commodities to Africa.

'This year, under the worst of circumstances, countries have proven they don't need to choose between protecting populations from COVID-19 or malaria; they can – and should – do both. Despite the unprecedented challenges faced, it is a remarkable achievement that countries and their partners around the world have successfully sustained planned malaria efforts – including distributing record numbers of insecticide-treated nets and continuing the march to zero malaria – ensuring that communities remain protected from the deadly mosquito bite.'

Dr Abdourahmane Diallo, CEO of the RBM Partnership to End Malaria.

⁷ http://www.xinhuanet.com/english/2020-10/20/c_139454710.htm

III. Collaboration

Since the onset of the COVID-19 pandemic, the RBM (CRSPC) has worked in partnership with countries, as well as key partners including GF, US PMI, WHO, ALMA and others, to closely monitor the situation to help to address possible disruptions in the supply chains of essential malaria commodities resulting from the lockdowns and restrictions on the importation and exportation of goods in response to COVID-19.

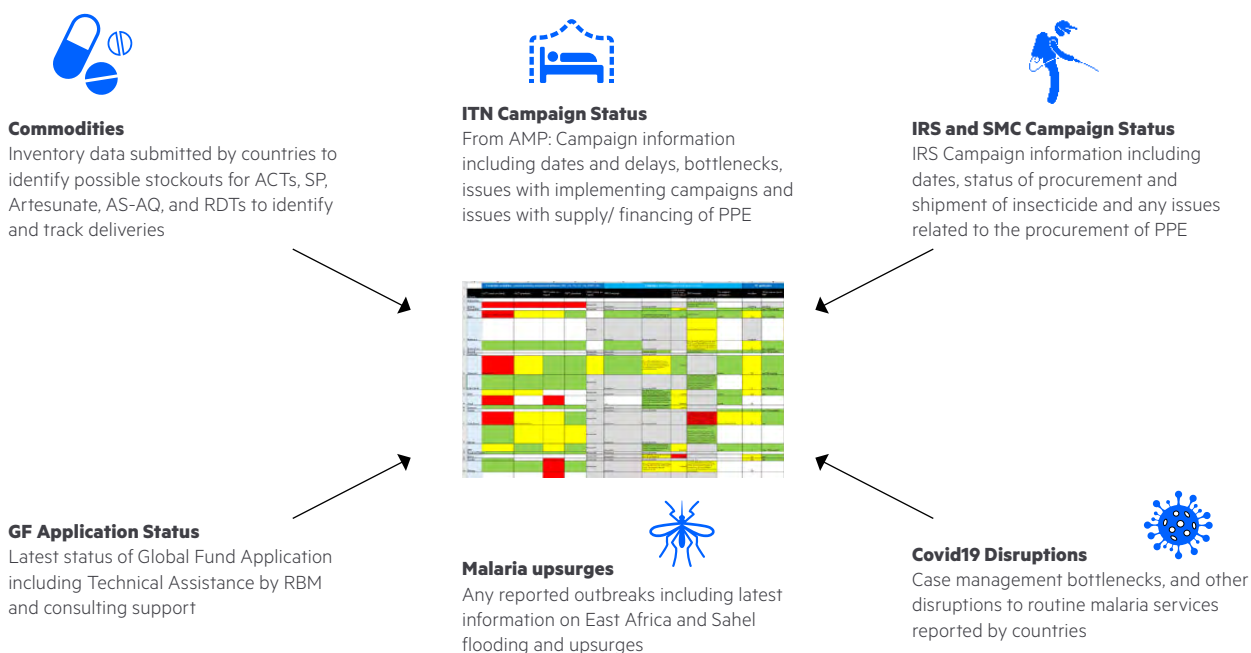
Global procurers of malaria commodities including PMI, GF and UNICEF have been in continuous dialogue, and in collaboration to mitigate the risks. The GF also negotiated with suppliers to increase their volumes and accelerate shipments of commodities urging countries to front load their requests and procure in bulk. In some cases, reallocating procurement from suppliers still under lock-down to alternative suppliers has helped avoid further delays.

The CRSPC has organized regular check-in calls with country National Malaria Control Programmes (NMCPs) to provide status updates and ensure continued support to countries enabling timely bottleneck identification and joint problem solving. The development of the CRPSC tracker which compiles data received from countries and triangulates this with

Bottlenecks and solutions identified through the use of the CRSPC dashboard

- Political level discussions with ministers to allow continuation of malaria programming during the COVID-19 pandemic where malaria programming was put on hold
- Problem solving to address commodity stock outs including advocacy and resource mobilisation for airlifting commodities and fast-tracking orders
- Identification of upsurges and support to address them including case investigation, resources and, accelerated commodity delivery
- ITN campaign delays – intensified AMP remote support for reprogramming
- SMC campaign – Synchronization of the planning and implementation as well as reprogramming to suit the COVID-19 pandemic
- Resource gaps and solutions – filled including through reprogramming of GF resources
- Webinars and information notes to enhance understanding

The CRSPC tracker to identify bottlenecks and reduce impact of COVID-19 on malaria





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partner data has been very useful in providing a timely alert system on potential risks and challenges. The information collected includes the availability of malaria commodities, status of ITN campaigns, IRS campaigns, SMC campaigns, GF funding applications, development technical assistance and any malaria upsurges. The CRSPC uses this tracker to support countries to reach out to partners for solutions and to ensure challenges and risks do not go unidentified. As a result, country challenges received increased visibility among partners and funders and negotiations with funders, procurers, manufacturers, suppliers and shipping companies were facilitated. The tracker has been updated on a weekly

basis and made available to the public to ensure wider engagement of partners.

WHO established a virtual coordination mechanism to promote collaboration between partners and ensure a coordinated response. Malaria experts and leaders from nearly 20 organizations are lending their time and expertise across seven work streams. Through regular calls convened by WHO, partners share updates on malaria product development, the supply chain of key malaria commodities, the malaria response, surveillance and clinical epidemiology, communication, resource mobilization and, coordination.

IV. Resource mobilization

The GF responded decisively to the COVID-19 pandemic quickly making available US\$ 1 billion to support countries to adapt their programmes and strengthen their health systems. This included increased grant flexibilities allowing countries to utilize grant savings and re-programme their existing funds to enable them to respond to COVID-19 whilst addressing threats to sustaining malaria, HIV and TB programmes. By December 2020, the GF had approved a total of US\$ 1 billion to support the COVID-19 response across 106 countries and 12 multi-country programmes⁸. This support includes providing funding to countries to purchase personal protective equipment such as

masks, gloves and gowns critical for the continuation of non-COVID-19 health care services including malaria. Additional specific resource mobilization has been supported by the ALMA, RBM, US PMI, UNICEF and many in-country implementing partners.

On 16 June 2020, United Nations agencies, international partners and 12 manufacturers of RDTs convened for the RDT Suppliers Forum to mitigate the supply risks for malaria diagnostics created by the COVID-19 pandemic. Considering the 2020 forecasts, which indicated an immediate need for an additional 105 million malaria RDTs and in order, to avoid risks of stock-outs, the three largest public procurers of RDTs (PMI, GF and UNICEF) agreed to float tenders which filled the needs for 2020 and 2021.

⁸ Global Fund Situation report #30 25 September – 8 October 2020. https://www.theglobalfund.org/media/10180/covid19_2020-10-09-situation_report_en.pdf?u=637378575914330000



Lessons learned

- Strong Leadership from Malaria Endemic Countries, regional and global leaders led to the continued prioritization of malaria control and elimination during the COVID-19 pandemic.
- Collaborative and coordinated efforts by global malaria experts and leaders ensured timely response to risks and challenges mitigating the negative impact of COVID-19 in malaria-affected countries.
- Strategic advocacy and engagement with national stakeholders ensured high level commitment, involvement and support reducing implementation delays.
- The modeling of the potential impact of the COVID-19 pandemic on malaria by WHO provided countries with the essential evidence on the need to ensure malaria services are maintained.
- Resource mobilization efforts through the RBM partnership, GF, US PMI, implementing partners, regional partnerships and governments enabled rapid modifications that ensured continued implementation of interventions within COVID-19 safe conditions.
- Partner and donor engagement with suppliers and manufacturers enabled timely identification and mitigation of potential supply chain risks.
- Inter partner/organization collaboration and coordination enabled adequate resource mobilization and efficient utilization of resources.
- Approval by the GF on requests for funding has been rapid. The majority of countries reported receiving approval within 5-10 days.

II. Action taken at national and subregional levels

A. Implementation of ITN campaigns

Since 2000, ITN have played a key role in reducing the burden of malaria globally and have prevented 68% of more than 7 million malaria deaths in sub-Saharan Africa⁹. They remain the core prevention tool and, in 2020, many sub-Saharan countries were scheduled to conduct ITN mass campaigns. In March 2020 with the onset of the COVID-19 pandemic some countries like Rwanda were in the middle of their ITN campaigns, others such as Benin, Senegal and South Sudan were about to start and others were at the planning stage awaiting delivery of ITNs (including Togo, Uganda, Nigeria, Zambia and Kenya). Overall, there were plans in place to distribute around 200 million ITNs through mass campaigns in over 30 countries in 2020.

With the onset of the COVID-19 pandemic, the WHO and RBM/AMP guidance was for countries to continue with ITN campaigns as planned but modified based on lessons learnt by Liberia during the Ebola crisis, where ITN were distributed through a door-to-door distribution mechanism, rather than the usual fixed

'...with the determination of Benin's Minister of Health to ensure a resilient health system, we made the bold decision to continue the distribution phase of ITN to households.'

Professor Aurore Ogouyemi-Hounto, National Malaria Control Programme Coordinator, Benin

⁹ Achieving the malaria MDG target: reversing the incidence of malaria 2000-2015. World Health Organization and UNICEF publication 2015.

site mass campaign. RBM/AMP worked closely with countries to provide detailed guidance on adaptation of the recommended ITN campaign strategy. Through regular discussions and remote consultant support, more than 85 %¹⁰ of countries with planned campaigns in 2020 have successfully completed or initiated their ITN campaigns by November¹¹. CRSPC/AMP consultant support increased in 2020 during the COVID-19 pandemic. A total of 63 missions/ deployments for ITN campaign implementation support in 22 countries were provided. Remote technical support from the CRSPC/AMP consultants assisted country adaptation and modification of guidelines and subsequent guidance during implementation of the mass campaigns.

Successful modification of the ITN Campaign strategy

Benin

Benin was one of the first countries to take a significant step forward, deciding to go ahead with the ITN campaign and lead **the way, acting as a ‘proof of concept’ by implementing a ‘door to door’ ITN campaign strategy**. Benin recorded its first cases of COVID-19 early in the ITN campaign planning process, between the ITN enumeration phase and that of the distribution itself. On 29th March 2020, Benin’s President, HE Patrice Talon announced a sanitary cordon prohibiting all movement into and out of 12 towns. However, on the basis of the WHO recommendation to continue with the implementation of malaria control interventions, the Ministry of Health received authorization from the Government of Benin to continue with the implementation of the ITN campaign. Thus, in April 2020, Benin successfully conducted a safe and effective ITN mass campaign in the midst of the COVID-19 pandemic providing evidence that malaria interventions can be prioritized and sustained despite the disruptions caused by the pandemic.

Working closely with the RBM partnership through the AMP, who provided technical assistance, the NMCP reviewed and revised the distribution strategy, in an

10 [https://endmalaria.org/sites/default/files/CRSPC Country Tracker to Mitigate the Effect of COVID-19 on Malaria -12 November 2020.pdf](https://endmalaria.org/sites/default/files/CRSPC%20Country%20Tracker%20to%20Mitigate%20the%20Effect%20of%20COVID-19%20on%20Malaria%20-12%20November%202020.pdf)

11 [CRSPC Country Tracker to Mitigate the Effect of COVID on Malaria 12 November 2020](https://endmalaria.org/sites/default/files/CRSPC%20Country%20Tracker%20to%20Mitigate%20the%20Effect%20of%20COVID%20on%20Malaria%2012%20November%202020.pdf)

12 <https://allianceformalariaprevention.com/wp-content/uploads/2020/10/Key-guidance-EN.pdf>



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effort to mitigate the risks of COVID-19 transmission during the campaign. The AMP [guidance for distribution of insecticide-treated nets during COVID-19 transmission](#)¹² enabled a quick adaptation of the strategy to the country context. The key change in implementation was switching the distribution approach from a fixed point of distribution to an individual ‘door-to-door distribution’ strategy. Other key changes to the strategy included the necessary increase in the number of days needed for community mobilization, modified briefings, training, supervision and purchase of personal protective equipment which also resulted in budget increases. Given the urgency of the COVID-19 situation GF rapidly approved budget amendments to the existing grant to address the increased budget needs.

Another major challenge was the urgent need for COVID-19 personal protection materials. Large quantities of face coverings/masks had to be procured and delivered in time for the ITN mass campaign to be conducted. Effective coordination between the country, international partners (including the GF, WHO, RBM,

IFRC, ALMA, AMP, US PMI and the Bill and Melinda Gates Foundation), implementing partners Catholic Relief Services (CRS) and, the suppliers enabled timely delivery of the protection materials. Flexibility by suppliers and the Government of Benin, in modifying procurement procedures minimized any further delays in implementation of the campaign. With support from CRS, the ITN campaign had been digitized enabling household registration, tracking the nets, validating the distribution of the ITN and payments to be conducted electronically, hence enabling implementation of a 'no-touch' approach.

The strong leadership from the Government of Benin, the Ministry of Health and the NMCP enhanced by effective collaboration with international and implementing partners enabled the distribution of 7,638,192 nets in advance of the high malaria transmission season ensuring protection of Benin's 14 million population. For the first time, about 5,500 community workers were mobilized and they went door-to-door to distribute all the mosquito nets across the country in just 20 days.

Following Benin's successful implementation, other countries across Africa adopted the door-to-door approach to ensure distribution of mosquito nets continued, despite the COVID-19 pandemic. Some countries including Mozambique, Kenya, Uganda, Zambia and, Ethiopia experienced initial delays due to transportation and manufacturing restrictions as a result of the COVID-19 pandemic; however, many countries managed to mitigate these factors and campaigns were started and are ongoing.

More requests were received from the countries for Technical Assistance than were originally planned for the period due to the need to re-plan ITN campaigns in the context of the current COVID-19 pandemic¹³.

Successful ITN mass distribution in Challenging Operating Environments (in the context of COVID-19)

In countries with challenging operating environments (COE), the COVID-19 pandemic brought additional complexity to already existing crises and fragile health systems. Remarkably in spite of this, a large number of COE countries including South Sudan, Mali, Democratic

Republic of Congo and Central African Republic successfully mitigated the impact of COVID-19 and its associated restriction on key malaria prevention and treatment interventions and they have completed or are in the process of implementing their ITN mass campaigns.

South Sudan

In South Sudan, strong leadership at national level all the way down to community level, timely decision making and support from the GF and the RBM partnership, in addition to collaborative efforts by implementing partners enabled the successful distribution of 980,000 ITN reaching more than 1.8 million people in Northern Bahr el Ghazel state setting the pace for distribution of a total of 6 million ITNs by the end of 2020. South Sudan recorded its first COVID-19 case on 13 March 2020. The ITN campaign started in March, but was halted midway through due to the Government of South Sudan imposing a nationwide lockdown, restricting movement and gathering of large groups. In order to ensure the ITN campaign resumed, Northern Bahr el Ghazel State obtained political support from state ministries, county authorities and community leaders for continuing the ITN campaign. In line with the guidance from WHO and partners to ensure no malaria services are halted, the Ministry of Health and the High level Task force for COVID-19 approved continuation of the campaign on condition that the stringent COVID-19 preventive measures were adopted. The national COVID-19 task force members joined the ITN campaign coordinating team and provided oversight to ensure that the distribution teams adhered to the COVID-19 prevention measures.

With timely collaborative support from implementing partners (Population Services International and the Malaria Consortium), the country was able to quickly incorporate new measures into the ITN distribution plan to ensure adherence to the COVID-19 safety guidelines. The availability of technical guidelines from WHO and AMP enabled the NMCP and partners to rapidly adapt them to South Sudan's context and obtain government approval. The modifications included: training of the distribution volunteers in

¹³ Progress report of the RBM Country and Regional Support Partner Committee. January-June 2020 <https://endmalaria.org/sites/default/files/Progress%20report%20of%20the%20RBM%20Country%20and%20Regional%20Support%20Partner%20Committee%20January-June%202020.pdf>



Photo by Hugues Ahounou/Catholic Relief Services

smaller groups for shorter periods and in open spaces; setting up handwashing stations at all fixed distribution points with support from UNICEF; establishing physical distancing measures at distribution points by placing chalk marks on the ground; ensuring adequate support measures were in place to control crowds during the distribution and; integrating malaria prevention messages with COVID-19 messages. All the above modifications resulted in an increase in the implementation budget, which was met through the rapid response of GF. A request to reprogramme the GF grant to enable procurement of PPE was approved in record time and the campaign was successfully implemented.

Mali

By July 2020, and before the rainy season, Mali distributed 7.8 million ITN despite the security situation and the COVID-19 pandemic. Instead of conducting a phased region by region ITN distribution as originally planned the country accelerated the campaign to ensure all regions received ITN between June and July. A mix of a door-to-door distribution in urban areas and fixed distribution points in rural areas was implemented. Fixed points were open for multiple days

to avoid large crowds. Mali also adapted its approach to give a fixed number of nets to every household, rather than conducting household registration to determine the number of nets based on household size. This reduced the number of interactions between distributors and the community and thereby reduced COVID-19 infection risk. The campaign also switched from cash payments to mobile money payment for health workers and net distributors, in collaboration with the telecom companies.

Chad

Similarly, Chad also adapted its distribution by supplying three nets per household rather than using detailed microplanning data and prioritized high malaria burden provinces. The distribution of 8.3 million ITN in the 13 highest burden provinces is ongoing and is on track for completion by the end of 2020.

Democratic Republic of the Congo

The Democratic Republic of the Congo was determined to minimize the potential impact of the COVID-19 pandemic. The NMCP ensured that the messages from WHO and the RBM Partnership guiding member countries and NMCPs to ensure that they



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continue the fight against malaria were relayed to all health coordination bodies and structures, from the highest level down to the lowest level of the health pyramid. With special dispensation, joint COVID-Malaria advocacy meetings were conducted with the Presidency's COVID Task Force in targeted provinces. With the help of partners, the net distribution campaign implementation manual was reviewed and updated ensuring COVID non-touch practices were included. All key stakeholders in the provinces organizing the campaigns were briefed. Physical coordination meetings with partners were switched to online platforms and phone calls and thus ensuring efficient oversight and coordination of the ITN campaign. All trainings were adapted to include COVID-19 safety measures. In May 2020 in the middle of the COVID-19 pandemic, the ITN campaign commenced. The distribution of 1.9 million ITNs to 550,000 households in Sud-Ubangi province and 4 million ITNs in Haut Katanga province was completed by November with the other campaigns on going.

Successful ITN campaigns in HBHI countries during the COVID-19 pandemic

In High Burden High Impact (HBHI) countries, continuation of malaria services was essential. With determination and collaboration HBHI countries including Uganda and Nigeria, successfully initiated their ITN campaigns.

Uganda

In June 2020 Uganda started its 'COVID-19 smart' ITN mass campaign after a two-month delay. Malaria prevention through mass distribution of ITN conducted every 3 years is a key strategy in Uganda contributing significantly to the reduction in malaria prevalence over the last decade from 42% in 2009 to 9.2%, (MIS 2018/2019). The ITN mass campaign was scheduled to start in April 2020 but with the onset of the COVID-19 pandemic its start was halted. In March 2020, the government of Uganda announced a nationwide lock down in a bid to halt the spread of the coronavirus. Uganda sealed its borders, restricting gatherings of people and movement of persons and vehicles, allowing only essential services to be continued. In the wake of the rainy season and flooding in the country a delay in the ITN mass campaign created the risk of an upsurge of malaria cases and possible malaria epidemic which needed to be averted. The ITN mass campaign which aimed to distribute 27.5m ITN in Uganda, was delayed for two months due to the lockdown and the need to ensure adequate COVID-19 prevention methods were in place. The National Malaria Control Division (NMCD) and partners resolved to ensure malaria interventions were maintained and considered as essential services to prevent the projected increase in deaths and cases should malaria prevention activities not proceed (WHO 2020). The campaign was eventually initiated in June and the first and second of six waves have been completed with the remaining waves scheduled to end by January 2021.

In addition to focusing on malaria prevention, net use, repurposing and reusing nets this campaign branded 'Under the Net' included COVID-19 prevention measures and a focus on the relationship between COVID-19 and malaria. The Government, with support from GF and US PMI procured personal protective equipment worth US\$ 3m for the distribution teams. The campaign used door-to-door distribution, rather than the usual fixed point strategy. In previous ITN distribution campaigns, the Village Health teams would first conduct household mapping and registration over about three days, then compile the registration data and subsequently return to distribute the ITN. However, to reduce interactions with the communities and hence reduce risk of COVID-19 infection, the registration of the households and distribution of the ITN was conducted simultaneously and the distribution exercise per wave

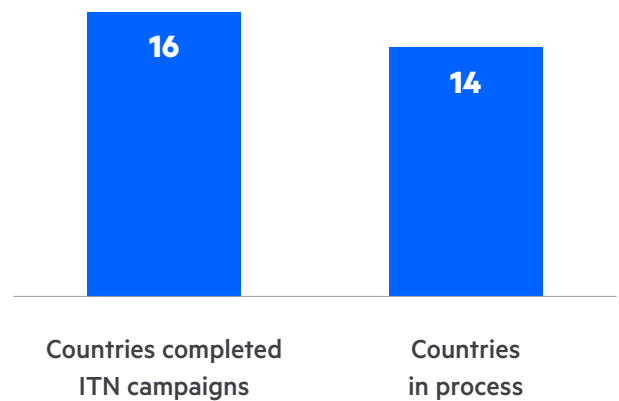
lasted only five days. Central training was done using the zoom internet platform. PPEs were provided to protect the distribution teams and, data were collected in a digital form to reduce contact with paper which could pose a risk for COVID spread.

Innovative adaptation of ITN distribution strategies

Uganda distributed ITN in marketplaces. Following the nation-wide lock down due to the COVID-19 pandemic, the President of Uganda directed that to avoid spread of the coronavirus to their families and communities, market vendors would be required not to travel home but remain at the markets throughout. Recognizing the need to advocate and mobilize resources to ensure all market vendors were adequately protected from malaria, the Government of Uganda through a concerted effort by GF, the private sector and implementing partners mobilized resources to distribute over 5,000 insecticide treated mosquito nets in all major markets throughout the country in order to protect all traders who spent nights in the markets following the Presidential directive.

By the end of November, Benin, Central Africa Republic, Guinea Bissau, Mali, Niger, Rwanda, Comoros, and Sierra Leone completed their campaigns and another 16 countries are currently implementing their ITN campaigns, whilst successfully mitigating the risks of COVID-19 infection.

ITN campaigns



Estimated 170 million nets distributed through campaigns



Lessons learned

- Countries prioritized highest-burden and more insecure areas at the start of the campaigns to ensure the most vulnerable are reached.
- COE countries have adapted well to modifying approaches such as switching to door to door distributions.
- Digitalization of campaigns including electronic data collection and payment significantly reduces contact with paper, reducing the risks for COVID spread.
- Establishing a set number of nets per household reduce person contact during registration hence the frequency of COVID-19 exposure.
- SBC in the context of a COVID-19 pandemic is essential to avoid rumors and improve acceptability of the intervention in the context of the COVID-19 pandemic.
- The change of the fixed strategy of free distribution of ITN to households to a mobile strategy (door-to-door) not only makes it possible to maintain the activity, but also to limit the risks of contamination of the COVID-19 to stakeholders (supervisors, distribution agents and populations).

B. IRS implementation

The scaling up of IRS in Africa has been a major driver behind the significant reduction of malaria burden over the last 10 years, especially in southern Africa¹⁴. However, the advent of the COVID-19 pandemic created new challenges to IRS due to mobility restrictions, physical distancing requirements, reallocation of resources, omission of IRS from lists of essential services, government decisions to delay or halt IRS to curb COVID-19 infection spread, additional operational costs required to ensure COVID-19 implementation safety, rumors and limited community acceptance due to fear of viral infection from sprayers, etc. Following the WHO modelling of the potential increase in malaria cases and deaths, there were collaborative efforts to ensure countries did not halt or delay their IRS campaigns. By early October, more than 11 countries had successfully completed IRS rounds, and spray campaigns are ongoing or close to completion in 13 countries. The successful implementation of IRS by these countries during the COVID-19 pandemic provided evidence and lessons learned for other countries to develop plans and implement their IRS campaigns before the end of 2020. Benin, Burkina Faso, Uganda, Tanzania, Ghana, Senegal and Ethiopia were among the countries that successfully implemented IRS campaigns during the COVID-19 lockdown with support from PMI Vector-Link, a USAID/PMI funded project. Eswatini, Mozambique and South Africa with support from Goodbye Malaria under public-private partnerships also successfully completed IRS campaigns in 2020.

Mozambique

In Mozambique IRS was successfully conducted in 18 districts during the pandemic. With technical support from partners, IRS plans were reviewed and realigned to the WHO and national COVID-19 guidelines. To ensure continuity of malaria prevention measures, the NMCP worked closely with Vector-Link, the Ministry of Health (MOH), and stakeholders to receive clearance from government leadership to implement IRS during the COVID-19 pandemic. Planning meetings were revised and converted to remote meetings (using zoom and WhatsApp) and



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where face to face meetings/trainings were conducted it was in well ventilated meeting venues, with adequate sanitization, handwashing facilities, social distancing, and PPE including face masks and face visors. The number of spray operators trained per session was reduced and as opposed to the larger training centers used in the past, smaller venues accommodating fewer persons were used. In addition, spray operators with previous experience were preferred in order to reduce the number of training days. As a consequence of restrictions on movement in Mozambique, an innovative solution to enable spray operator training at district level involved the construction of mobile wall units (waterproof wood frames with marine ply sheets) that allowed the sprayers to master the practicalities of insecticide application without entering buildings.

Transport arrangements were changed to reduce the numbers of sprayers per vehicle and motorcycles or bicycles were used for 'last mile activities'. To increase community acceptance and confidence that sprayers were not infected, sprayers from the local community

¹⁴ Tangena, J.A.A., Hendriks, C.M., Devine, M. *et al.* Indoor residual spraying for malaria control in sub-Saharan Africa 1997 to 2017: an adjusted retrospective analysis. *Malar J* 19, 150 (2020). <https://doi.org/10.1186/s12936-020-03216-6>

were selected where feasible. This also created much-needed employment. During implementation, team sizes of spray operators were reduced, social distancing was enforced, face masks were used, and personal sanitizers provided. Daily temperature recording of spray operators and spraying of vehicles were conducted. Full PPE was worn in vehicles, and to mitigate the risk of crowding at the end of each day staggered arrival of spray teams was introduced. Prioritized protection of spray operators and home occupants was key.

Ghana

In Obuasi district in Ghana, IRS was initially halted for three weeks due to the onset of the COVID-19 pandemic. The country, with support from partners, was able to adapt its IRS strategy and align it to the WHO and national guidelines on infection prevention and to the COVID-19 guidelines. In line with the new guidelines several steps were taken including: procurement of additional PPE; provision of disinfecting buckets at strategic points, including all district offices, to encourage hand washing; conducting temperature checks every morning to quickly identify any sprayers with high temperatures; provision of soap for hand washing and sanitizers to each worker in addition to nose (face) masks. Each sprayer was given a disinfecting solution to disinfect cover sheets before using them to cover householders' personal items during spraying. The disinfectants were also used to clean door handles and gates before entering a house/structure and when leaving the house/structure. The recruitment procedure for spray operators gave preference to those with previous experience so as to reduce the number of training days required. Age and health status were also taken into consideration during this process.

Community gathering was suspended and information sharing approaches with the community were modified to mobile vans and radio announcements. Adequate community sensitization and advocacy was conducted to allay fears and address rumors. In one village the chief did not want to allow strangers into the community due to the pandemic. However, after adequate sensitization on the importance of malaria control and the measures being taken to protect against COVID-19, the village chief allowed the community to be sprayed. He understood that ensuring important malaria prevention activities like IRS

could continue safely would protect his village and save many lives¹⁵.

Due to the limitation on social gathering IRS coordination meetings moved and Information, Education and Communication community meetings were limited to invited leaders and evening video shows were canceled. A senior team member was assigned as a focal person to oversee adherence to COVID-19 protocols and Ghana also developed a contingency plan in case an IRS seasonal worker got infected with COVID-19. Active engagement of stakeholders during off-spraying seasons provided leverage in reaching out to community members virtually/remotely. During the spray campaign, weekly team meetings were conducted online. Daily safety briefings were helpful in providing a platform for sharing health information and boosting confidence in workers. All M&E actors were provided face masks when carrying out supervision and data verification in the field.

All these adaptations to the IRS campaign strategy to ensure alignment to COVID-19 safety measures resulted in increased budget requirements. In addition, more structures were sprayed than in the past due to the return of migrants in the IRS districts as a result of a slowdown of work in the urban areas with the onset of COVID. In collaboration with PMI the GF provided extra financial support.

Namibia

IRS remains the primary vector control intervention in Namibia, implemented annually in malaria regions before the beginning of the malaria transmission season. However, in 2020 all focus shifted to the COVID-19 pandemic and Namibia experienced a delay in procurement of the insecticide ahead of the spraying season. With support from ALMA, the Government of Namibia was able to fast-track the procurement of a total of 90,532 sachets of SumiShield for IRS. However, due to initial administrative delays in the procurement process, the increased time needed for sea freight due to COVID-19 travel and shipping restrictions, created a risk of delayed arrival of the insecticide. Recognizing this, the Government of Namibia and the manufacturer –Sumitomo Chemical of Japan looked at various options of getting the insecticide into the country

¹⁵ <https://www.pmi.gov/news/stories-from-the-field/stories-from-the-field---detail/key-malaria-spray-campaigns-continue-with-adaptations-during-covid-19>

before the beginning of the spraying season at the end of September. Namibia, with support from ALMA, was able to negotiate with Sumitomo to air lift 4,640 sachets from Malawi which arrived in Windhoek during the first week of September with no additional cost to the Government of Namibia. They also airlifted 60,409 sachets from Japan which arrived in Windhoek on the fourth week of September, albeit at an additional cost of US\$ 150,000. The remaining 24,951 sachets were sent by sea and arrived in Windhoek as scheduled.

Benin

Benin successfully conducted IRS in Alibori and Donga departments during the COVID-19 pandemic spraying a total of 350,349 structures. It took a collaborative effort to implement IRS despite the challenges created by the COVID-19 pandemic and the change in the start date of the IRS campaign which resulted in Benin simultaneously implementing its ITN distribution and IRS campaign. With support from partners, the NMCP updated the IRS strategy and the training curriculum to include COVID-19 prevention measures. Additional protection measures were established including increasing the number of handwashing stations for frontline workers. This created a greater need for water supply and bleach and sanitizer for disinfecting vehicles and doorknobs. The number of spray personnel per vehicle had to be adjusted to comply with the national recommendation for travel to the field and this required an increase in the number of vehicles. In order to avoid congestion in washing areas, spray operators no longer clean their own equipment and gear at the end of the day but instead leave the task to designated washers. The NMCP and the implementing partner kept regular contact with the district representatives to ensure early identification and resolution of bottlenecks. Measures were put in place for testing and management in the event that a sprayer developed symptoms suggesting COVID-19 infection and for workers to be paid for missed days of work.

Due to the closure of airports and restricted in country movement, there was a delay in arrival of smartphones for IRS data collection however, Vector-Link was able to support the country and coordinate with the transporters ensuring the equipment eventually arrived in country in time for the campaign.

Benin also introduced the use of satellite imagery which identified an additional 301 structures which were



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previously unknown to the national and departmental services.

Uganda

In May 2020, Uganda successfully started its second phase of IRS and by June they had sprayed approximately 1.4 million structures over the two spray phases, protecting a population of about 5 million people including 132,089 pregnant mothers and 950,163 children under five years. The NMCD collaborated with the in country implementing partner (PMI/Vector-Link), the MOH, partners and stakeholders to ensure continued IRS implementation amid the lockdown with strict protocols in place. Working closely with local government leaders through the District COVID-19 taskforce and District IRS taskforce to develop a COVID safe IRS strategy the NMCD received clearance from government leadership to continue the IRS campaign. The programme leveraged the coordination and structures of the COVID-19 taskforces, including community mobilization platforms already in

place for COVID-19 at district, sub county and village levels. The Local Council Chairpersons served as key IRS mobilizers while holding security / coordination responsibilities as the COVID-19 focal points at the village level. In addition to the standard personal protective equipment provided to spray operators, face masks for all training participants and facilitators, portable handwashing facilities at entrances to all training rooms, and hand sanitizers at operational sites were provided. The IRS training was modified to include COVID-19 mitigation strategies and was conducted in small teams of 10 participants in large

halls or classrooms to reduce risk of COVID-19 infection. Community BCC integrated malaria and COVID-19 messages. Posters and flyers included signs, symptoms and prevention measures for COVID-19.

Other countries that were successful in completing IRS included Rwanda, South Africa, Burkina Faso, Mali, Ghana, Ethiopia, Senegal and Tanzania. The Elimination 8 countries are all on track to complete their IRS campaigns before the end of 2020, and notably, are collectively more on track than in previous, non-COVID-19 impacted years.



Lessons learned

- Implementation of the IRS campaign in the context of the COVID-19 pandemic is feasible through dedicated commitment, leadership, oversight and support by governments, manufactures and implementing partners.
- Collaboration between the private sector (manufacturers), governments, donors and implementing partners was key in ensuring timely delivery of insecticide for IRS campaigns
- Advance planning and early procurement of IRS supplies (insecticide, spraying equipment, PPE) helps overcome challenges of delays or shortages resulting from the COVID-19 pandemic and determines success of the campaign.
- Programmes should consider increasing their buffer stocks to mitigate future procurement delays.
- IRS training during the COVID-19 pandemic is feasible and requires adaptation to different approaches and innovative methods. Decentralization of IRS training is feasible.
- Conducting virtual meetings (TOTs, microplanning, advocacy meetings etc.) overcomes the travel and social distancing restrictions through the use of online platforms including Zoom, WebEx, Google Hangouts, Google meet and WhatsApp.
- Intercountry coordination and engagement of partners and donors with suppliers and manufacturers enabled timely procurement and transportation of PPE and insecticide.
- Adaptation of training and supervision strategies including the introduction of safety measures such as, the use of PPE at all times even in vehicles, social distancing, reduction of team sizes, etc. minimizes the risks of infection of COVID-19 and increases acceptability in the community.
- Conducting IRS during a pandemic like COVID-19 is much more expensive. However, partner and donor support in rapid mobilization of financial resources to address the increased costs associated with adaptation to the COVID-19 pandemic enabled countries to ensure IRS was implemented before the rainy seasons and thus achieve the desired impact.
- Rapid response by donors to the pandemic enabled timely adaptation by countries to include COVID-19 prevention measures in implementation of IRS.
- Community education and sensitization on COVID-19 and malaria prevention messaging together is a strategic measure to increase community awareness and acceptability.
- Adaptation of all IRS information, education and communications messages/materials to include COVID-19 information is important.
- The development and use of mobile training walls was a successful innovation in adjustment to the COVID-19 restrictions.

C. SMC campaigns

In West Africa, during the rainy season (between July and October) malaria cases and deaths peak with children under five years being the most vulnerable. Seasonal malaria chemoprevention (SMC) is a high impact intervention that prevents malaria infection during this peak transmission period. It is the intermittent administration of full treatment courses of an antimalarial medicine amodiaquine plus sulfadoxine-pyrimethamine (SP), during the malaria season. When given effectively at monthly intervals during this period it has been shown to be 75% protective against uncomplicated and severe malaria in children under 5 years of age. With the onset of the COVID-19 pandemic as with other malaria commodities, the supply of SMC products was also disrupted globally due to shipping delays following the lockdown of manufacturing countries. There were delays in drugs departing from China and even after arrival at the ports of destination including Togo, Nigeria, Mali, Niger and Burkina Faso, the restrictions affecting in-country and inter-country transportation and clearance aimed at controlling COVID-19 transmission caused additional delays. Bearing in mind the risk of a substantial increase in malaria cases and deaths among those most vulnerable if the SMC campaigns were postponed or cancelled, and the additional potential strain an increase in malaria cases would put on health systems that are already stretched by the COVID pandemic countries worked tirelessly with implementing partners including Malaria Consortium, Catholic Relief Services, PMI Impact Malaria and international malaria stakeholders to ensure SMC campaigns could go ahead on time. In 2020 despite the pandemic, by the time of this report a record high of 20 million children had received seasonal malaria chemoprevention across implementing countries in sub-Saharan Africa.

Nigeria

In July 2020 during the COVID-19 pandemic Borno State government, in collaboration with the Federal Ministry of Health in Nigeria successfully delivered SMC to about two million children aged 3-59 months to protect them from malaria. In a state where malaria accounts for more than 50% of sicknesses and deaths in children under 5 and where malaria increases during the peak transmission season, the government was committed to ensuring that essential malaria prevention interventions, including SMC



©Xwe Lay Village

implementation, continued. With support from the GF, adequate PPE were procured to ensure the 8,000 community health care workers who were deployed safely delivered the SMC in line with the COVID-19 guidelines. With technical support from WHO, a door to door SMC campaign strategy was implemented, ensuring that all children between 3 months and 59 months received amodiaquine plus sulfadoxine-pyrimethamine. The door to door campaign, which is the first of the four cycles for 2020, was implemented in 201 political wards across 25 accessible local government areas of Borno state and focused not only on antimalarial drug distribution but also on both malaria and COVID-19 community sensitization and awareness creation, social mobilization as well as referral of sick people for facility care.

The Shehu of Borno, launched the campaign by administering the anti-malaria drug to a number of eligible children. He urged, *“The government and partners to ensure that internally displaced persons are not left out of the campaign since they are the most exposed, living in make-shift tents and unprotected from mosquito bites”*¹⁶.

The Gambia

The Ministry of Health in the Gambia, recognizing the potential disruption of services due to the COVID-19 pandemic and its possible resulting impact on SMC

¹⁶ <https://www.thenigerianvoice.com/news/289643/orno-state-deputy-gov-shehu-of-orno-flag-off-who-2020-smc.html>

coverage among other interventions, immediately set up a continuation of health care services committee that included NMCP representation. Social Mobilization and Behavior Change Communication was done through Radio, TV, Videos and local newspapers with additional messaging on COVID-19 to avoid fear/rumor, misunderstandings and negative perceptions on SMC. Specific messages about safe delivery in the context of COVID-19 were also developed aimed at reducing the fear of contracting COVID-19 infection during delivery of SMC and increasing the acceptability of SMC. Despite these efforts, the country still faced some refusals due to misinformation and rumors that were spread through WhatsApp and was able to counter these rumors using radio and social media platforms.

Benin

Benin successfully distributed SP-based chemoprevention for children aged 3 months to 5 years in four health zones in the departments of Atacora and Alibori during the COVID-19 pandemic. With effective support from SMC partners the malaria control programme adapted the SMC strategy to include COVID-19 prevention measures and ensured safe implementation of SMC including limiting the number of participants in meetings and trainings. Sensitization and compliance with the general protective measures against COVID-19 defined by the government (wearing a mask, using hydro-alcoholic gels and physical distancing) during implementation of activities helped build confidence in the community that their risks of getting COVID-19 infection due to SMC implementation was minimized. Having several smaller group trainings or the use of large rooms in order to observe the distance of at least 1 meter made it possible to maintain capacity building activities while minimizing the risks of COVID-19 infection. Benin integrated COVID-19 prevention messaging into the SMC campaign increasing acceptability at all levels and successfully initiated the SMC campaign on the planned dates. Benin had previously conducted a nationwide digital ITN data collection campaign and obtained a robust population data set which was used to identify eligible children under 5 years for implementation of the SMC campaign.

Guinea

In Guinea, the National Malaria Control Programme launched the SMC campaign on 3 July in 17 health districts targeting 1,077,467 children from 3 months to

5 years old. Adopting a door-to-door drug distribution strategy the SMC was successfully completed despite the COVID-19 pandemic and heavy rains in 2020 with support from CRS. NMCP in collaboration with partners developed a risk mitigation plan for the COVID-19 pandemic to ensure implementation of malaria activities was maintained. The implementation of this plan was subject to regular monitoring by all partners under the leadership of the NMCP. Regular virtual coordination meetings were conducted between the NMCP and partners to assess the level of implementation of activities with financial support from Global Fund including the SMC campaign. Community sensitization combined SMC and COVID-19 prevention messaging using radio, community dialogues, community leaders and, Information, Education and Communications materials. Close monitoring of activity implementation made it possible to address bottlenecks in a timely manner increasing the uptake of SMC. Key to the success of the SMC was the collaborative efforts of partners providing technical and financial support to ensure increased budget needs were met and COVID-19 safety guidelines were implemented including provision of PPE, social distancing and conducting virtual meetings.

Other countries that have successfully initiated SMC campaigns during the COVID-19 pandemic include Togo, Senegal, Niger, Mali, Guinea Bissau, Ghana, Chad, Cameroon and Burkina Faso.

Mali-Niger- Burkina Faso regional collaboration

A regional project under the West African Health Organization through the World Bank, supports Mali, Niger and Burkina Faso in the implementation of SMC. The antimalarials are procured by the Centrale d'Achat des Médicaments Essentiels Génériques et des Consommables médicaux (CAMEG) based in Burkina Faso. This year, due to the COVID-19 related movement restrictions, the CAMEG faced a delay in availing SMC drugs to Niger and Mali. As a part of the existing regional collaboration, Burkina Faso, which had enough stock, supported Niger and Mali with sufficient SMC drugs for them to be able to implement the third cycle of the campaign.



Lessons learned

- With support from partners countries were able to adapt the SMC implementation guidelines and ensure the distribution campaigns went ahead on time and at an increased scale.
- Intercountry collaboration was effective in providing adequate stock of antimalarials for timely SMC implementation.
- Strategic partnerships with government, partners and donors enabled sourcing procurement of adequate PPE thus ensuring the teams involved in SMC distribution (community distributors and beneficiaries in the communities) were not put at greater risk of COVID-19 transmission.
- Training of SMC implementers on COVID-19 prevention enabled SMC support the COVID-19 response.
- SMC can be safely delivered amid the COVID-19 pandemic.

D. Malaria case management implementation

Regional coordination

Practical approaches to mitigate the impact of the COVID-19 pandemic on malaria were illustrated by regional responses across Africa and Asia.

Namibia

Namibia for example, had an unexpected malaria upsurge just as COVID-19 hit. With the introduction of restricted movement and transportation it became increasingly difficult to deliver malaria commodities into the country and with limited ACT stocks available in country, this led to a high risk of stock outs. The programme immediately took action to identify health facilities that were completely stocked out and a re-distribution of ACTs among health facilities was conducted as an immediate interim measure. In addition, the Government of Namibia together with partners worked tirelessly to identify an emergency supplier in South Africa. The Southern Africa **Elimination 8 initiative** (E8), in line with its key objective to provide regional coordination, reprogrammed existing regional resources and with support from WHO and the CRSPC, worked with the South Africa malaria control programme to facilitate the release of the supplies. In addition, GF, CRSPC and ALMA also helped to identify a stock of ACTs in Uganda and these were delivered to Namibia. This multi-partner sub-regional co-ordination effort significantly reduced the time without ACT stocks. Reprogramming of existing grants and sourcing

emergency funds with support from partners, also ensured that the health workers have sufficient PPEs and are adhering to COVID-19 guidelines.

The Gambia

The Gambia was stocking out of RDTs during the peak of the COVID-19 pandemic, due to delays in a planned delivery of RDTs caused by the COVID-19 pandemic. With the potential stock out of RDTs looming, Gambia reached out to neighboring countries to explore the possibility of borrowing RDTs until their expected delivery in August 2020. Building on a close cross-border collaboration that the two countries rolled out in 2019, Senegal's Programme Nationale de Lutte contre le Paludisme NMCP immediately volunteered to lend The Gambia 15,000 RDTs, which were sufficient to prevent a stock out. This quick response was facilitated by the existing cross border agreement.

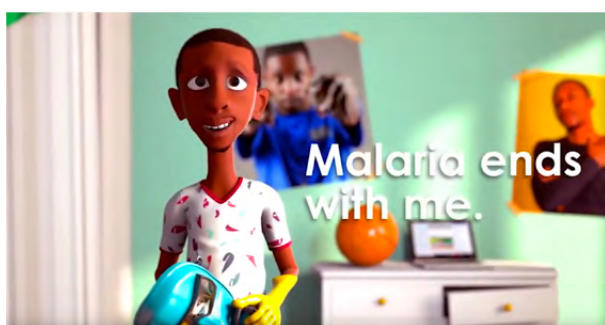
Collaborative efforts

Zambia

With the onset of the COVID-19 pandemic malaria diagnosis and treatment in Zambia was impacted on several fronts. Reduced care seeking was reported as some people were scared to go to the facilities for fear of contracting COVID-19 infection. Equally, there was increased apprehension among health workers augmented by the slow receipt of commodities including PPE; increased reduction in health workers (clinical and

laboratory) especially in the epicenter of the outbreak as some health workers were redeployed to the COVID response and; interruption of services when staff tested positive for COVID-19. Health centers that were chosen to be COVID isolation centers stopped offering routine maternal and child health activities. Clients were told to seek services at other centers which in some cases would prove too far to travel, with the result that some pregnant women in affected centers stopped going for Antenatal Care (ANC) and so did not receive IPTp. The risk of product security including stock-outs, was high due to long turn-around time for orders placed just before or during the pandemic due to limited manufacturing capacity and unpredictable delivery dates for commodities, following disruption of shipments. Commodities arriving in small consignments and outside the agreed delivery schedule led to stock outs of malaria commodities in some parts of the country.

A timely response to these challenges with support from partners was sufficient to mitigate their impact. Zambia coordinated with implementing partners, Zambian ambassadors and embassies in other countries where malaria commodities were delayed in order to mitigate stock outs. The national malaria programme emphasized rational use of malaria commodities including increased utilization of microscopy at hospital level to ensure adequate RDTs at health facility and community level. The country further prioritized the use of malaria RDTs and chose to put on hold the reactive case detection in high malaria burden areas that was implemented to maintain the skills of the community health workers (CHWs). Monitoring stocks is key and is being supported by implementing partners including USAID to ensure early notification of potential stock outs and timely responses. Weekly supply chain review meetings are conducted with implementation partners.



End Malaria Council Zambia, <https://www.youtube.com/watch?v=8gk9D735qc0&feature=youtu.be>

The Zambia End Malaria Council proactively advocated for malaria to remain a priority, despite the COVID-19 pandemic and its impact on health systems. A strong advocacy strategy by the malaria partners was key in ensuring sustained implementation of malaria interventions through newspapers, adverts on National TV and radio.

Lao PDR

Lao People's Democratic Republic has made great strides towards eliminating malaria by 2030 with a significant reduction in malaria cases to only 6,600 and no deaths in 2019. In order to maintain progress, it is essential that early testing and treatment of malaria are sustained. In April 2020, this was threatened when a consignment of malaria testing kits procured by Lao PDR with support from GF was interrupted by a suspension of all commercial flights and the imposition of international travel restrictions across South East Asia. As a result, the consignment of malaria RDTs was trapped in South Korea. With many communities in Lao PDR potentially exposed to increased malaria risks during the upcoming rainy season, this raised significant concerns with the country and partners. Fortunately, when the National programme reached out to development partners for support, quick action was taken by the partners. The healthcare partners and the United Nations were alerted that a special Lao Airlines flight was scheduled to repatriate international travelers from Lao PDR to Seoul. In a well-coordinated response, multiple partners, including UNOPS and WHO, the Government (Lao Ministry of Health, Ministry of Foreign Affairs and Ministry of Public Works & Transport), development partners (the Embassy of the Republic of Korea in Lao PDR), private sector (Lao Airlines) and NGOs (Clinton Health Access Initiative), worked together led by the UN Resident Coordinators Office to take advantage of the small window available. The combined efforts facilitated timely delivery of 2,500 kg of life-saving malaria test kits ahead of the rainy malaria season.

Uganda

Uganda a change in country procurement policies led to the early realization that the country had only two months stocks of RDTs at the onset of the COVID 19 pandemic and ahead of the rainy season. The NMCP, with support from the MOH waived existing restrictions and hastened the procurement process by submitting a tender to the supplier ABBOT. Unfortunately, with

the advent of the COVID-19 pandemic, in April 2020, a number of diagnostic companies, including ABBOT, switched production from malaria RDTs to production of COVID-19 RDTs.

The National Malaria Control Division (NMCD) with support from the MOH immediately notified key strategic partners, including ALMA, the CRSPC, GF, PMI and requested support to mitigate the risks of RDT stock outs. Following collaborative advocacy by the partners, ABBOT was able to supply Uganda with a third of its malaria RDT requirements and the GF identified alternative suppliers, thereby averting disruption of malaria testing services. Subsequently sufficient global supplies of RDTs have been secured through combined efforts of GF, RBM and UNICEF for 2020-2021.

To mitigate risk of ACT stock-outs, the GF adjusted its procurement requirements and allowed Uganda to procure ACTs in bulk quantities, in advance. Engagement with WHO ensured malaria was included on the list of essential services. With support from partners including UNICEF the NMCD successfully advocated for formation of a pillar for continuity of health services within the COVID-19 National taskforce.

An initiative to establish a 'MALARIA AND COVID' WhatsApp group which included key strategic holders including NMCD members, implementing partners, international partners including RBM partnership/CRSPC, ALMA and, WHO proved useful for coordination and timely action.

To celebrate World Malaria Day, Uganda chose the slogan, "Why survive COVID-19 and die of malaria? – Sleep under a treated mosquito net". Despite the lockdown, the NMCD was determined to maintain malaria high on the agenda, so moved advocacy to online platforms, with messages such as "Always seek treatment for malaria when you notice signs and symptoms" and "I'm staying home safe to keep free from COVID-19 and sleeping under a mosquito net to prevent malaria".

Advocacy

Kenya

In the number of cases tested and diagnosed reduced by half compared to the same period in previous years

and this is attributed to the indirect impact of the COVID-19 pandemic and response. Across all levels efforts have been put in place to mitigate the reduction in care-seeking. On 25 August, the Cabinet Secretary for Health during the National COVID-19 briefing focused on malaria and emphasized the need to seek malaria diagnosis and treatment at health facilities. The National Malaria programme committed to ensuring access to malaria prevention and treatment services is maintained and developed and disseminated messages to counties, advocating for people to continue to seek healthcare from health facilities. The Director General for Health sent a letter to all county health executives to ensure continuity of malaria health services at all levels and a county engagement forum was initiated, to discuss how to ensure that patients visit health facilities despite the pandemic.

Country adaptation and initiative

Ghana

With the onset of COVID-19, Ghana immediately implemented online meetings for workshops and training to ensure continuation of case management. The stock status at the start of COVID-19 was reviewed and follow-ups made to ensure adequate availability of commodities at service delivery sites. This included frequent communication with central and regional medical stores. Following restrictions on movement and meetings, commodity stock checks and assessments continued through emails and calls to ensure the availability of RDTs, ACTs and sulphadoxine-pyrimethamine (SP) at national level, and sub-national delivery of commodities while maintaining the COVID-19 safety measures.

Health facilities conducted triaging of COVID suspected and non-COVID suspected cases and separated treatment areas for each category. The NMCP advocated for testing all suspected COVID-19 cases for malaria, given that fever is a symptom for both malaria and COVID-19. Ghana maintained these testing and treatment protocols to ensure strict adherence to testing before malaria treatment. Lab staff are continuously encouraged to ensure adherence to testing protocols.

Onsite training and supportive supervision of lab staff was replaced with continued follow-up through phone

calls, online meetings and WhatsApp video calls to ensure facility adherence to protocols. The malaria control programme continued monthly data review meetings to ensure problem areas were identified early and followed up by phone.

A key initial challenge was the lack of PPE. However, the country sourced local fabric for PPE in accordance with the recommended standards and received approval to use resources from global partners to locally produce PPE, including for personnel participating in the malaria IRS campaign.

A reduction in ANC attendance has been reported in Ghana as a result of restrictions in movement and the fear of contracting COVID-19 during health centre visits, especially with reports of health workers affected and even some deaths. Low attendance by pregnant women to access services including ANC for fear of contracting the disease, as well as shortage of SP due to procurement challenges resulting from a focus on COVID-19 related commodities was reported. The Ghana Health Service, Ministry of Information and the National Commission for Civic Education, embarked on ensuring safety protocols were in place at all health facilities including checking of temperatures, provision

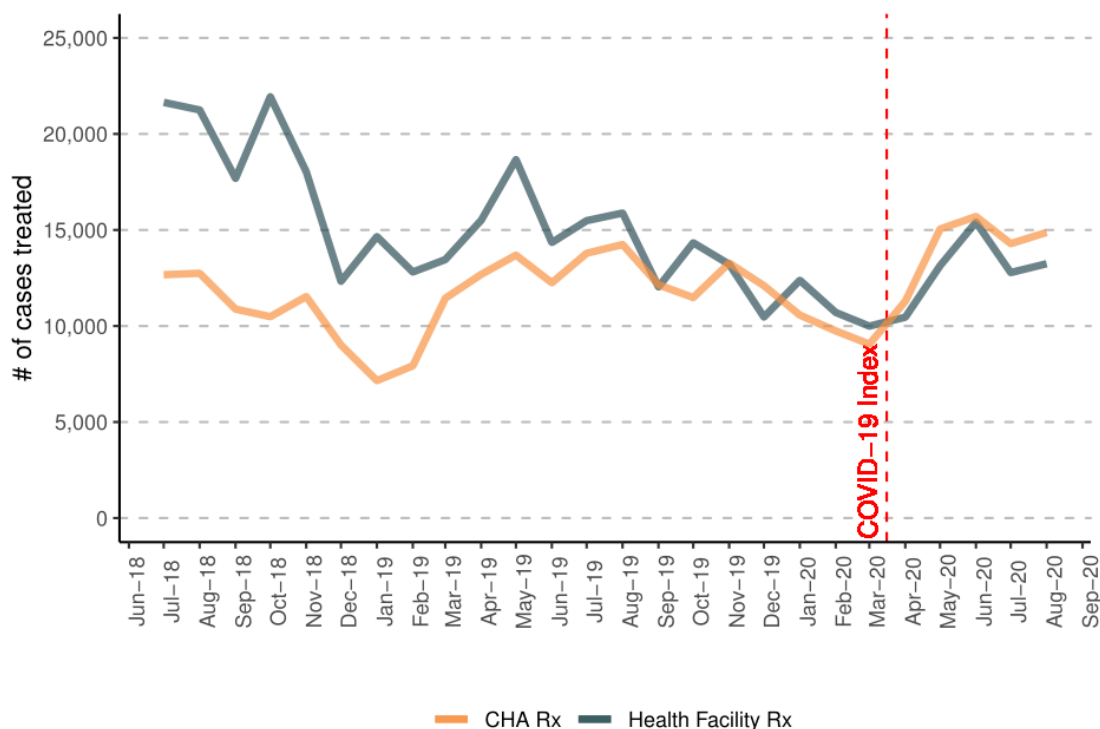
of veronica buckets for hand washing and hand sanitizers as well as continuous education of the health workers.

The service has also embarked on an SBC campaign to assure the community that there is continuity of care for diseases other than COVID and it is safe to visit the health facilities. With the easing of restrictions on movement, the NMCP, with support from partners, also began its preplanned trainings and supportive supervision to districts and facilities with existing low IPTp coverage to identify and address bottlenecks.

Liberia

Liberia responded to the COVID19 pandemic by implementing lockdown measures and travel restrictions. Capitalizing on lessons learned from the past Ebola epidemic, Liberia was able to ensure continued access to both COVID -19 and malaria health services through Community Health Volunteers and Health Assistants (CHAs). CHAs were reminded that, in spite of the COVID- 19 pandemic malaria must remain on the priority list, because patients were still at risk of developing malaria and its complications. The CHAs continue providing quality community health services while maintaining COVID-19 prevention measures

Figure 1: Malaria treatment sustained during the COVID-19 pandemic in Liberia





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including the use of PPE, social distancing and use of the 'no-touch' policy. Approximately 54% of all children with confirmed malaria across rural Liberia, are tested and treated by community health workers – and this has been sustained during the COVID-19 pandemic (Fig 1)¹⁷. The existence of a National Community Health Assistant Program established in Liberia following the Ebola pandemic, provided a strong community health structure for the response to COVID-19 and helped maintain malaria services at the community level.

Mozambique

Mozambique responded swiftly at the onset of the COVID-19 pandemic to WHO's call to ensure malaria prevention and treatment services were maintained. Leveraging the guidelines provided by WHO and the RBM partnership to advocate for continued malaria prevention and treatment services, the NMCP focused on ensuring availability of adequate stocks of ACTs and RDTs at all district and facility levels. The MOH mandated that all suspected COVID cases received a malaria RDT alongside each COVID test to ensure no malaria cases were missed. Contrary to recommended COVID-19 messaging which advised suspected COVID-19 cases to stay at home, Mozambique recognized the overlap of malaria and COVID-19 symptoms and developed different messaging encouraging all persons with fever to go to the health facility.

Recognizing that the population were afraid to go to health facilities to get health services, the Ministry

17 National Malaria Control Program (NMCP) [Liberia], Ministry of Health (MOH) LI of S, and Geo-Information Services (LISGIS) and I. Liberia: malaria indicator survey 2016.

of Health focused on strengthening the community to provide services, including malaria diagnosis and treatment.

During the first six months of the COVID19 pandemic, Mozambique did not document any increase in malaria cases or deaths. Although malaria cases were noted to have decreased at health facility level an increase in community diagnosed cases has been observed and is attributed to increased health care seeking at community level. This shift created an increased need for malaria commodities at the community level and PPE for the community health workers, to mitigate the risk of COVID-19 infection for both the patients and the health workers. The government guaranteed adequate stocks of ACTs and RDTs were provided to the community health workers.

Mozambique applauded the Global Fund for its quick action to support the country's response to the COVID19 pandemic. With funding from the GF COVID-19 Response Mechanism, procurement of PPE for CHWs in Mozambique enabled community and facility health workers maintain provision of health care services including malaria case management and to conduct the ITN mass campaign and IRS while adhering to the COVID-19 guidelines.

To reduce risk of COVID-19 infection, frequency of ANC visits was initially reduced to every three months. However, following an observed overall reduction in the uptake of IPTp, the Malaria programme restored monthly ANC visits. SBC messaging with support from partners was adapted and increased to encourage visits to health facilities. Implementing partners were instrumental in supporting the development of SOPs to ensure that malaria prevention and treatment services were COVID-19 safe for both health workers and patients.

“When someone has fever, he has to be tested for malaria, this is part of Mozambique’s protocol, all individuals with fever, suspected of COVID-19 or not, should be tested for malaria”

Dr. Baltazar Candrinho, NMCP Programme manager

Preventing the re-establishment of malaria amidst the COVID-19 pandemic

The COVID-19 pandemic has the potential to cause major interruptions not only in malaria endemic countries but also in countries that have recently eliminated malaria and are implementing programmes to prevent its re-establishment as they remain highly

receptive and vulnerable to malaria. In response to lockdowns and border closures in neighboring countries, many Sri Lankan nationals returned home. Many of the Sri Lankan returnees from overseas were from malaria endemic countries—Africa, the Middle East and India, which placed the country at high risk of importing malaria infections. To mitigate this risk, the Sri Lanka Anti-Malarial Campaign (AMC) responded



Lessons learned

- Advance planning and early procurement of ACTs, RDTs, and increasing buffer stocks helps overcome challenges relating to delays or shortages resulting from the COVID-19 pandemic mitigates delays in procurement and shipping.
- Advocacy- focusing on defeating malaria and COVID-19 pandemic together was a successful advocacy strategy that enabled malaria to be maintained high on the agenda as an essential service which must continue,
- Building on past experiences – Lessons learned from the Ebola epidemic including the impact on malaria provided evidence and alerted the malaria community to act early. Some countries already had the skills and response systems in place established during the Ebola epidemics which was beneficial.
- Leveraging on partners' strengths and reprogramming resources created a louder voice to be listened to and resulted in faster and more efficient resolutions of bottlenecks.
- Digitalization enabled training, enabled continuation of technical assistance, communication nationally and internationally, sharing of bottlenecks, and action in a timely manner due to continued regular communication, with national programs, partners and donors.
- Shifting focus from health facilities to community level and ensuring community health workers had adequate PPE, and adequate supplies of malaria commodities ensured uninterrupted access to health care services including malaria treatment.
- During this period when maintaining the health system was essential, community health workers played a critical role in the pandemic response and in ensuring malaria services were sustained. The value of community health workers as a cornerstone to the health workforce was underscored.
- The Sri Lankan example highlights the importance of a highly coordinated programme between multiple sectors and departments that were involved in the COVID-19 response and the malaria POR programme. It also demonstrates the importance of a sound public health infrastructure.
- Reduction in malaria testing rates from March-July and beyond were observed in many countries. Malaria SBC stakeholders should encourage COVID-19 SBC efforts to work to dispel myths and stigma around COVID-19 which can lead to increases in malaria testing rates. Also, countries who do not allow CHWs to administer RDTs may want to reconsider this during emergency times such as the COVID-19 crisis.
- Malaria SBC efforts should, indicate the changes patients may see at the health facilities to keep them safe from COVID-19 and underline the safety aspect of going for malaria testing and treatment.
- There are a number, of COVID-19 international Knowledge, Attitude and Practice and SBC surveys that have been done in the past nine months which malaria SBC practitioners can use to inform their own programming for those indicators which are relevant to malaria.



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immediately working closely with the Departments of Airports and Aviation, the Ministry of Defense (the Army, Air force and Navy), Ministries of Foreign Affairs, and of Health. Sri Lankan nationals flying into the country had to provide details of which countries they were arriving from and quarantine arrangements prior to arrival. The AMC and the Regional Malaria Officers ensured that those coming from malaria endemic countries were screened for malaria regardless of symptoms, by microscopic blood examination, once while in quarantine at around day 10 when blood is being taken for COVID-19 testing. In the post-quarantine period, once they have returned to their homes, they are followed-up with blood screening for malaria by microscopy at 3, 6 and 12 months and are advised to report for malaria testing if they develop fever. If and when a patient developed fever whilst in quarantine they were tested promptly for malaria.

Furthermore, if the quarantine centre was located in a previously malaria endemic area, where there is a risk of malaria being transmitted, an entomological survey was conducted around the quarantine centre, and if malaria vectors were found, a pre-emptive vector control programme was implemented promptly. The AMC established close working relationships with the military and the Police Departments in the past because their members were at a high risk of acquiring malaria, either in Sri Lanka during the civil war, or later while overseas on United Nations peacekeeping missions. These collaborations served well during the COVID-19 epidemic in which the military and the Police have been playing a major role¹⁸.

18 Ranaweera, P., Wickremasinghe, R. & Mendis, K. Preventing the re-establishment of malaria in Sri Lanka amidst the COVID-19 pandemic. *Malar J* 19, 386 (2020). <https://doi.org/10.1186/s12936-020-03465-5>

E. GF applications (application writing, peer review through mock technical review panels and grant making)

The CRSPC supports countries in their Global Fund malaria application processes to ensure they submit high-quality applications so as to secure Global Fund funding for their malaria programmes. The support provided includes orientations on the application tools, Technical Assistance (TA) towards application writing through local and international consultants, local meeting costs for country dialogue, mock TRPs for peer review of proposals, and final expert review of applications.

In 2020, a total of 49 countries received support from RBM/CRSPC in their GF malaria application process to secure Global Fund funding for malaria programmes in the 2021–2023 implementation period. The first round of countries applying for Global fund malaria grants in Window 1 were close to completing their applications when COVID-19 was declared a pandemic and countries started closing their borders with some going into total lockdown. Although the consultants provided to countries to support their global fund applications had to return to their home countries as a result of the COVID-19 travel restrictions, the countries were able to finalize their applications with continued remote support and successfully submit their applications.

However, the countries that subsequently required support during the total or partial lockdowns

including all those in the 2nd and 3rd GF application windows and those requiring TA for ITN campaigns, and programme reviews faced the challenge of the consultants being unable to travel.

In response to this the RBM partnership swiftly adapted the support provided to a remote support model. Providing skilled consultants, many of whom had previously provided TA to the countries, facilitated adaptation by the countries to the new mode of remote support.

Online platforms were established including zoom, google meet, WhatsApp, google drive, drop-box, and where additional costs were required for these, implementing partners in collaboration provided support to maintain the platforms. Regular feedback meetings were established with the RBM/CRSPC consultant and although this support had its limitations as face to face discussions are more effective, and enable quick one on discussions and faster resolutions of challenges, the countries acknowledged that given the circumstances the remote TA was very beneficial in ensuring development of their malaria GF applications including the budgeting components in line with the GF requirements. Working with in-country partners where feasible provided additional technical assistance and strengthened the proposal writing teams.



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Lessons learned

- With support from RBM/CRSPC countries were able to receive remote TA and regular feedback which facilitated and enhanced the writing process.
- Regular communication with key stakeholders (national programs, partners and donors) enabled timely sharing of bottlenecks and action taken in a timely manner.
- Regular communication enabled early identification of applications that required additional support or extension of their submission dates.
- Conducting a virtual mock TRP, although far from ideal, was successful in preparing countries for final GF malaria application submission
- Leadership was key in ensuring teamwork and commitment to the course by the writing teams including both internal and external consultants.
- The ability of country writing teams and consultants to adapt to different working arrangements, including use of electronic communication platforms, and remote support modalities is commendable.
- The one-on-one consultation between countries and technical experts during in-country writing workshops and mock TRP sessions are essential and similar cannot be replicated through virtual meetings.
- Due to the nature of virtual meetings an increased need for multiple reviews and iterations of proposals was experienced before submission to the Global Fund.

The CRSPC in addition to supporting an international consultant also supported national consultants in countries like Rwanda who worked closely with the international consultant and this was reported to have increased the efficiency of the support. The CRSPC also held regular calls with countries to track progress and solve bottlenecks.

When the COVID-19 pandemic occurred the RBM-supported mock Technical Review Panel (TRP) was cancelled for countries applying in Windows 2 and 3. The mock TRP, in which country proposals are subject to peer review and expert feedback is recognized as a best practice in enabling countries to develop successful malaria applications. In March 2020, the CRSPC successfully conducted a face-to-face mock TRP for 21 countries before the onset of national and international travel restrictions and lockdowns. In an effort to ensure that the countries did not miss this opportunity in spite of the limitations, the CRSPC was able to modify the mock TRP and conduct virtual mock review meetings between applicant countries, in-country partners and international expert reviewers for another 27 countries. Countries reported that this

opportunity was extremely useful including Tanzania, Democratic Republic of Congo, Cameroun and Guinea who appreciated the iterative process which enabled several reviews of the draft GF malaria applications.

Several countries including South Sudan, Mozambique, Kenya, Namibia, Benin, Burkina, Cabo Verde, Cameroon, Chad, CAR, Congo, Cote d'Ivoire, DRC, Gambia, Ghana, Guinea Bissau, Guinea, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone and Togo reported benefitting from the regular phone calls with the CRPSC which created an opportunity to brainstorm bottlenecks early on in the process and identify solutions.

Overcoming the challenges and restrictions resulting from the COVID-19 pandemic, so far 42 countries have successfully proceeded to grant making and secured about US\$ 3 billion towards the reduction of the malaria burden in 2021-2023.

Conclusion

In 2020, the COVID-19 pandemic brought with it a new threat to global, regional and national malaria control and elimination efforts. Countries, donors and partners came together in an unprecedented manner to not only contain the virus but also mitigate its impact on other diseases including malaria. As a result, several important lessons have been learned. Leadership, coordination and, collaboration across nations has reduced the projected impact of the COVID-19 pandemic on the malaria burden. The role of the malaria partnerships and the close impactful relationships with countries has been highlighted and is invaluable. Faced with the threat of emerging and re-

emerging infectious diseases a well-coordinated multi-sectoral approach is important. The lessons learned underscore the importance of malaria diagnosis and treatment in community, and the need to strengthen community health systems and supply chain systems.

In spite of the documented success stories the COVID-19 pandemic persists and continues to threaten vulnerable populations at most risk from malaria. The momentum and immediate action taken in response to the COVID-19 pandemic is commendable but needs to be sustained.



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