Humanitarian emergencies case study: South Sudan

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This case study is part of the Alliance for Malaria Prevention (AMP) Innovation and Evaluation Working Group (IEWG)/United Nations Foundation (UNF)'s work on Malaria in Humanitarian Emergencies, highlighting challenges and adaptations to malaria campaign operational activities within humanitarian settings to inform future planning and service delivery.

South Sudan

Driven by a volatile political and security situation, high malnutrition rates, food insecurity and fragile health infrastructure, South Sudan is currently facing the largest displacement crisis on the African continent. In 2020, violent conflict and unprecedented flooding caused mass displacement, loss of livelihoods and even higher rates of food insecurity than in previous years. According to the UN Office for the Coordination of Humanitarian Affairs (OCHA) and the UN Refugee Agency (UNHCR), by the end of 2021, over two million internally displaced persons (IDPs) and 337,997 refugees from neighbouring countries were residing in South Sudan. While there are large population movements within South Sudan, UNHCR notes that as of 2022, 2.3 million people have also fled to neighbouring countries.

Of the many health challenges faced by IDPs, refugees and host communities in South Sudan, malaria is a leading cause of illness and death. Malaria is endemic throughout the country, accounting for 49 per cent of outpatient visits to health facilities and 30 per cent of inpatient admissions. IDPs and refugees, 83 per cent of whom are women and children, are more likely to be affected due to increased risk of exposure to malaria-transmitting mosquitoes and decreased access to malaria prevention, diagnosis and treatment interventions. According to WHO's 2021 World Malaria Report, the country had more than three million cases of malaria and over 7,000 deaths in 2020. The COVID-19 pandemic further limited access to health care in South Sudan, where 56 per cent of the population lives five kilometres or more from a health facility.

"What the children are dying from is malaria, diarrhoeal diseases, respiratory infections. We have one child out of 10 that dies before the age of five, and they don't die from COVID-19"[1].

Adaptations to ITN distribution campaigns during the COVID-19 pandemic: Lessons learned from the Northern Bahr el Ghazal State campaign

Location in South Sudan.

As standard practice, South Sudan National Malaria Control Programme (NMCP) undertakes Insecticide-treated net (ITN) campaigns every three years, covering several states each year in a rolling campaign until the entire population has been reached with nets to protect against malaria. To ensure reaching those at highest biological risk with malaria prevention, the NMCP also provides ITNs targeting pregnant women during routine ANC visits and implements small-scale indoor residual spraying (IRS) and larviciding in IDP camps and host communities to reduce malaria morbidity and mortality.

Although the mass campaign in Northern Bahr el Ghazal State (NBeG) was planned for early 2019, it was postponed to early 2020 due to extensive flooding, which left over 245,000 IDPs in affected areas at the end of 2019[2]. Planning and implementation of the campaign in NBeG, shown on the

[1] Yves Willemot, UNICEF

[2] https://www.internal-displacement.org/sites/default/files/inline-files/GRID-2019-Disasters-Figure-Analysis-SouthSudan.pdf

map, was under way when COVID-19 was first reported. The campaign implementation protocol, risk assessment and mitigation plan, timeline, budget and training of trainers were completed prior to the pandemic disruptions. With the pandemic onset, mass public gatherings and ITN campaign activities were suspended while ITN distribution guidance with adaptations for safe ITN distribution was developed and validated.

The NMCP, in collaboration with technical, international and local partners, adjusted the ITN campaign timeline and distribution strategy using global and national COVID-19 guidance to minimize the risk of transmission of COVID-19 during activities. The strategy, timeline and budget were revised into a modified fixed-point distribution, which led to more registration days and distribution sites. Original timelines were generally observed except for a pause between activities due to the need to revise the strategy and obtain approval from national leadership, in addition to receiving funding partner approvals for budget increases linked to strategy adaptations.

The timeframe in which activities needed to take place – prior to the rainy season – did not allow time for the procurement of personal protective equipment (PPE). Thus, implementation had to rely on handwashing and promoting physical distancing as the primary COVID-19 precautions. Given the pandemic and South Sudan's complex operating environment, the NMCP opted to maintain the existing paper-based data collection system rather than piloting electronic data collection using tablets.

During the 2020 ITN campaign in NBeG alone, the NMCP distributed 983,704 ITNs to 300,901 households, protecting over 1.77 million people. The campaign also provided an opportunity to improve the NBeG National Bureau of Statistics population figures, with the registration leading to a count of 1,824,293 people – 30 per cent higher than official estimates.

Modified training prepared campaign workers for ITN distribution during COVID-19

Trainings were held over a period of several weeks from mid-March to early April 2020 for a total of 1,003 participants. To mitigate COVID-19 transmission, trainings were reduced from three days to one. In addition to malaria, the content of the training included information on COVID-19 infection prevention[3]. Many of the training sites used were well-ventilated classrooms in schools and/or open-air areas with a reduced number of trainees per group – no more than 20 participants – while maintaining two metres of physical distancing. Megaphones were used in some instances to communicate training messages, while avoiding close contact between people.

Adapted communication strategy integrated messaging on malaria and COVID-19 among community members

Community mobilization before, during and after the ITN distribution included interpersonal communication, mass media and print media with key messages that were developed by the National Information, Education and Communication (IEC) Technical Working Group with experts from partner non-governmental organizations (NGOs) and the NMCP. Comprehensive IEC packages were developed for radio stations in addition to leaflets, brochures and fliers to provide information on the mass campaign, solicit community participation and inform on the need for sustained use of ITNs. Information on COVID-19 signs and symptoms and prevention measures were integrated into the radio jingles, and posters about COVID-19 were printed and distributed during training and registration of households.

Leveraging local community leaders and social mobilizers for social and behaviour change (SBC) before and during the distribution permitted the translation of the messages into the local Dinka language and successfully contributed to community engagement, thus reducing rumours at the community level. Door-to-door registration teams collected data and communicated SBC messages on malaria and COVID-19, as well as

[3] COVID-19 infection prevention included regular handwashing, physical distancing, not presenting for work if sick, and avoiding crowding at fixed point distribution sites

the need to ensure adherence to and accountability for the new COVID-19 prevention recommended procedures at the distribution points.

Revised fixed-site distribution reduced large gatherings and minimized risks of COVID-19 transmission

The NMCP increased the number of distribution points and/or increased the duration of the distribution from five to seven days to reduce large gatherings. Changes to the budget were made quickly in line with the new COVID-19 adaptations for a modified fixed-point distribution strategy in NBeG, considering South Sudan's specific geographic and logistical context and the available human resources.

Distribution teams arrived early to set up and deliver ITNs and make chalk markings on the ground to encourage physical distancing and denote clear entry and exit points with handwashing stations. Household recipients were assigned to distribution points by unique voucher serial numbers. To minimize surface transmission at the distribution point, standard operating procedures included the household representative placing the voucher on the table in front of the distributor so it could be read and registered by the distributor without touching. Similarly, ITNs were placed on the table for the household representative to collect, after which she/he was asked to tear the voucher in half and dispose of it in front of the distributors. At the end of each day, distribution areas were cleaned up, including disinfection of surfaces/furniture used and correct disposal of all waste, as per national guidelines.

Supervision and monitoring activities were adapted to address new challenges and ensure effective collaboration across all levels

Planned national and state field-based monitoring and supervisory activities were reduced in scale and some travel between states was restricted due to COVID-19. The NMCP implemented use of standard monitoring and supervision forms at all levels for the first time in a mass campaign. County (sub-state)-level teams were established to supervise and monitor the entire process of registration and distribution under COVID-19 guidelines, identifying challenges and providing advice and solutions. These teams also participated in county COVID-19 Task Force meetings, providing updates to local authorities. Post-distribution monitoring visits, implemented as part of verification exercises, were undertaken in randomly selected households and showed data consistent with information collected during registration. This was largely due to the fact that teams worked closely with local leaders who helped verify and correct household information to avoid inflating the numbers.

Lessons learned

There are a number of lessons learned from the ITN distribution in NBeG that might be applicable to other country programmes in complex operating environments planning campaigns that experience unknown or high number of COVID-19 cases.

1. Early and enhanced coordination and communication between stakeholders at all levels is key to adapt trainings and implementation activities to minimize the risk of COVID-19 exposure among campaign staff and personnel.
2. An increase in the number of distribution points with fewer people to be served over the distribution period limits crowding and can help reduce potential COVID-19 exposure.
3. Campaigns provide an opportunity to integrate other health messaging such as COVID-19 knowledge and prevention into targeted communities.
4. Registration and distribution supervision and post-distribution monitoring can be adapted to limit COVID-19 exposure to these staff.

Despite these challenges, over 3.2 million ITNs were distributed since the beginning of the COVID-19 pandemic in April 2020 in NBeG, South Sudan.