

HEALTH CAMPAIGN
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Campaigns to Distribute Insecticide-Treated Nets and Conduct Seasonal Malaria Chemoprevention in Ghana

The Decision Process on Campaign
Integration in 2018 and 2021



Health Campaign Effectiveness Coalition at the
Task Force for Global Health

December 2022

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Key Messages

The Ghana National Malaria Control Programme (NMCP) has considered integrated approaches to malaria prevention, most recently through two key methods: distribution of insecticide-treated nets (ITNs) and seasonal malaria chemoprevention (SMC). Ghana's NMCP conducted an integrated ITN and SMC campaign in 2018. Based on that experience and changes in the implementation schedule, however, NMCP decided against repeating it in 2021. The Health Campaign Effectiveness (HCE) Coalition together with Ghana's NMCP documented the decision-making processes followed to explore such integration in 2018 and 2021.

Facilitators included some overlap in target populations and community volunteers engaged, and opportunities to distribute ITNs during multiple SMC household contacts. Barriers, largely encountered at the community versus higher levels, included inadequate planning and communication about integration modalities, the need to address some differences in target ages, volunteer complaints about workload, demotivated volunteers as funders rejected requests to double their compensation to match increased workload, and different data collection processes between programs. Given these factors, along with less flexible timing of SMC versus ITN distribution, the NMCP chose not to integrate campaigns in 2021.

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Promising Practices

Campaign managers can consider several promising practices and actions from these experiences:

- Ensure broad stakeholder engagement: The 2018 integration attempt highlighted the importance of securing broad stakeholder engagement. High-level decisions made without community-level engagement can negatively impact integration. Identifying the best ways to ensure community-level input to national-level campaign integration decision-making is critical to this process.
- Carefully assess the impact on community-level workload: The support of ground-level volunteers is essential to campaign success; thus, it is critical to consider the impact of integration on the workload of community-level volunteers and other campaign program implementers. Programs should adjust the number of volunteers needed to ensure quality service delivery and explore the feasibility of providing adequate compensation to cover any major additions to the workload.
- Establish early and clear consensus on the timing of campaigns: NMCP noted that establishing timelines clearly and early is key for activities with less flexible timings (i.e., SMC). Two campaigns with contrasting or rigid timelines will likely be more difficult to integrate.
- Consider partial integration in the decision process: Integrating select aspects of either program (such as training of volunteers) could help to reduce costs for both interventions, even if the two campaigns remain largely separate (C. Atta-Obeng et al., personal communication, March 25, 2022).

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Background

Malaria is endemic throughout Ghana, with seasonal variation in the northern regions and varying transmission across the country [1]. Malaria affects all ages, with the *Plasmodium falciparum* parasite accounting for over 90% of cases. The Ghana National Malaria Control Programme (NMCP) has considered integrated approaches to malaria prevention, most recently through two key methods: distribution of insecticide-treated nets (ITNs) and seasonal malaria chemoprevention (SMC). This interest in campaign integration is consistent with emerging global interest in such integrated approaches. The World Health Organization, the Global Polio Eradication Initiative, and UNICEF have all recently supported integrated approaches in their guidelines and programs [2]. Furthermore, the Health Campaign Effectiveness Coalition (HCE) is collaborating with a number of countries to explore the potential of campaign integration and to understand factors that enable or hinder its implementation. Ghana's NMCP conducted an integrated ITN and SMC campaign in 2018. Based on that experience and changes in the implementation schedule, however, NMCP decided against repeating it in 2021. Ghana's work with campaign integration presents an opportunity to further understand the facilitators and barriers related to campaign integration, and to document the decision-making processes it followed to explore such integration in 2018 and 2021.

In March 2022, staff of the HCE Coalition interviewed members of Ghana's NMCP involved in these decisions on integration and other stakeholders. The interviewees were: Christian Atta-Obeng from NMCP; Prince Owusu from the U.S. President's Malaria Initiative (PMI) VectorLink Project, Obed Asamoah from the PMI VectorLink Project; Kofi Adomako, coordinator for SMC for NMCP; Paul Boateng from NMCP; and Otubea Akrofi from NMCP. Observations from NMCP led to identifying promising practices for campaign integration and planned modifications on community worker aspects of the HCE Decision Tool on Health Campaign Integration [3].

Malaria Prevention Through ITN and SMC

Use of ITNs remain a key method to prevent malaria, with a 2018 Cochrane Review confirming that sleeping under ITNs (especially during the high transmission season) reduces the incidence of uncomplicated episodes of lethal *Plasmodium falciparum* malaria by almost half [4]. Thus far, Ghana has distributed ITNs through mass campaigns every three years to households in districts not receiving indoor residual spraying. Ghana has also utilized health facilities and schools to allow for near-continuous distribution of ITNs [5].

SMC specifically targets one of the groups most vulnerable to malaria—children under the age of 5—through a course of sulfadoxine-pyrimethamine plus amodiaquine (SPAQ) over four months during peak malaria transmission season [6]. Treating young children with SPAQ over a four-month period reportedly prevents roughly 75% of all malaria episodes and approximately 75% of severe malaria episodes. A key part of SMC delivery is having adequate numbers of well-trained staff for predosing, dosing, and supervision activities.

In Ghana, the peak season occurs from May through July and October through November in the south, and from July through November in the north [7]. According to the National Malaria Strategic Plan (2021–2025), “Ghana aims to protect at least 80 percent of the population at risk with effective malaria prevention interventions by 2025, which include implementation of SMC in targeted regions/districts of the country where malaria transmission is highly seasonal” [1]. Currently, Ghana implements SMC in 7 out of 16 regions (69 districts across the country); these regions (Upper West, Upper East, Savannah, Northern, North East, Bono East, and Oti) are all allocated seven days per round to implement SMC. Each household contact by a community volunteer requires 20 to 30 minutes to provide education, administer SPAQ, observe the child, and re-administer the dose if the child vomits (C. Atta-Obeng et al., personal communication, March 25, 2022).

The main funding partners for ITN distribution in the 2018 and 2021 mass campaigns include the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund); PMI; Against Malaria Foundation; and the government of Ghana, while those for SMC are the Global Fund, PMI, and the government of Ghana.

ITN and SMC Campaign Integration

For some years, global malaria players and country programs have explored the potential for integrating ITN campaigns with SMC or sharing tools used in separate interventions. Digital data collection tools used for an ITN campaign in Benin were adapted for use with SMC in Benin, The Gambia, and Nigeria [8]. Several Nigerian states have tested the integration of ITN and SMC campaigns since 2020, with some success. In Zamfara State the arrival of the COVID-19 pandemic caused authorities to delay the scheduled ITN campaign for a few months; because the new timing coincided with the first annual SMC round, the two activities were integrated [9]. The effort combined door-to-door ITN registration with the first round of SMC to children under 5, followed by distribution of ITNs mostly from fixed distribution points. Campaign organizers believed that integration could save both time and costs, as both ITN and SMC distribution had the same implementing partner (PMI); campaign organizers also believed that when household mobilizers registered households for ITN and SMC distribution, the interventions would “reinforce one another” [9]. An additional case study conducted in the Gombe and Jigawa states of Nigeria, supported by the HCE Coalition demonstrated that ITN and SMC campaign integration could be effective and successful [10].

Ghana’s Experience with ITN and SMC Campaign Integration

In 2018, Ghana’s NMCP conducted integrated ITN registration with SMC dosing but encountered key challenges that later influenced its decision not to integrate in 2021. As previously mentioned, the country’s overall decision-making process on campaign integration, including facilitators and barriers, is of special interest to the HCE Coalition. Although the HCE Decision Tool on Health Campaign Integration [3] had not yet been developed when NMCP chose to consider integration in 2018, NMCP applied many of the thought processes reflected in the tool.

The 2018 and the 2021 campaigns followed NMCP's usual decision-making process. Before the decision to integrate, discussions regarding funding and scope of involvement took place at the national planning level and involved NMCP and key partners. NMCP facilitated a meeting with national and regional stakeholders to discuss and build consensus on integration plan and modalities. All key malaria program stakeholders—including the Global Fund, the government of Ghana, and PMI—were involved at various points in the process.

Facilitating Factors and Barriers Identified in the 2018 Campaign

Ghana's NMCP decided to pursue ITN and SMC campaign integration in 2018 due to a number of **facilitating factors** (C. Atta-Obeng et al., personal communication, March 25, 2022). SMC and ITNs are two major interventions prioritized by NMCP. Campaign workers visit many of the same houses given some overlap in target populations. Volunteers could move from one house to another, combining registration for ITNs and providing a round of SMC preventive treatment to eligible children. Because SMC could require up to 12 contacts (three days per round for four months) with a household for the four rounds (i.e., cycles) of SPAQ, ITN registration could be provided during one of those same contacts. In addition, the integrated campaign planned to use the same volunteers for ITN distribution and SMC. Volunteers are selected from within the targeted community, so they are familiar with the inhabitants of each household, the number of nets that might be required, and whether a household includes children under 5 for SMC (C. Atta-Obeng et al., personal communication, March 25, 2022).

Barriers to integration were encountered largely at the community level rather than at the national, regional, or district levels. In 2018, community volunteers involved in both SMC and ITN registration were allocated an extra day with increased allowances to visit the same households. Inadequate planning and communications to district teams and community volunteers about the integration modalities impeded cooperation. According to NMCP, volunteers complained about the additional workload and requested to be paid double for supporting both SMC and ITN registration, even though the activities were integrated. Funding organizations could not support this additional expense, which demotivated volunteers. Work was completed with volunteers receiving an extra day's remuneration, but supervisory and coordination teams spent considerable time trying to motivate volunteers on the ground.

Other barriers included the need to address different target age ranges. Past integration services with SMC, such as vitamin A supplementation, were successful because the target group was the same: children under 5 years of age. In contrast, ITN campaigns target all household residents, making the target age ranges different for ITN and SMC efforts.

Another challenge in 2018 was that SMC used paper-based methods to collect data, whereas ITN data were captured electronically. As a result, volunteers had to carry paper-based registers to document SMC dosing while using an ITN application to register households. Electronic capture for SMC started in 2019.

Decision Not to Integrate ITN Distribution with SMC

In 2021, NMCP considered a second attempt at integrating SMC and ITN campaigns. NMCP reviewed the facilitators and barriers highlighted in feedback from community volunteers in 2018 as well as the planned implementation schedule. For the cluster of northern regions that largely conduct SMC, the original plan for 2021 was to complete ITN distribution concurrently by May before the high transmission months (between June and October) for implementing SMC. Both interventions incorporated the use of mobile tablets in 2021, unlike in 2018. The ITN campaign required mobile tablets to be kept at a particular region for at least a month. Data collection via electronic applications on mobile devices requires technically skilled volunteers, given the foreseen need to switch between SMC and ITN data applications. The number of volunteers requiring tablets for SMC could be nearly double the need for ITN data collection due to the difference in target population and in daily registration targets for the two interventions.

Another complication noted for 2021 was that the timing of SMC is less flexible than ITN distribution. SMC must be conducted in four monthly cycles during the rainy season, whereas ITN campaigns can also occur in the dry season. Regional stakeholders were engaged before implementation to finalize campaign schedules. However, competing activities caused schedule changes in some regions. The ITN distribution schedule was easier to adjust than SMC timelines, which were fixed after completing the first round.

Given these complications and the challenges encountered in 2018, regional and community stakeholders pushed back against integration in 2021 during the planning stage of the SMC and ITN campaigns. NMCP therefore decided against SMC and ITN integration. That said, NMCP staff who were interviewed remained open to considering other types of integration with these individual interventions. In fact, some regional health directors still integrated such measures as COVID-19 vaccination (C. Atta-Obeng et al., personal communication, March 25, 2022).

Conclusion

The experience in Ghana showed how the careful consideration of facilitators and barriers to integration along with past experience led to the decision to not integrate campaigns in 2021. Attention to the needs of campaign implementers (including volunteers) at the community level was critical in this process. Ghana's NMCP remained open to the idea of campaign integration but noted that full integration is not the only option. If only certain aspects of two campaigns are compatible (i.e., training), partial integration is viable and promising. Finally, if two campaigns are incompatible following a well-considered decision process, and if little can be done to mitigate additional costs or burdens on key campaign implementers such as community volunteers, not integrating is a well-informed decision.

Acknowledgements

We greatly appreciate the information, review, and insights provided by the following individuals.

Ghana National Malaria Control Program:

- Christian Atta-Obeng
- Kofi Adomako
- Paul Boateng
- Otubea Akrofi

U.S. President's Malaria Initiative (PMI) VectorLink Project, Ghana:

- Prince Owusu
- Obed Asamoah

Alliance for Malaria Prevention/International Federation of Red Cross and Red Crescent Societies:

- Robert Opoku

Health Campaign Effectiveness Coalition at the Task Force for Global Health:

- Lucia Wetherill
- Valentina Ballesteros
- Eva Bazant
- David Gittelman

Suggested Citation

Health Campaign Effectiveness Coalition. *Campaigns to distribute insecticide-treated nets and conduct seasonal malaria chemoprevention in Ghana: the decision process on campaign integration in 2018 and 2021.* (2022). Decatur, GA, USA: The Task Force for Global Health. Available from: <https://campaigneffectiveness.org>

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