



*A child receives his dose of TCV in Phanga village, Lilongwe, Malawi. The campaign reached more than 7 million children across the country in May 2023.*

## An integrated typhoid conjugate vaccine campaign in Malawi: considerations for future campaigns

In May 2023, Malawi's Ministry of Health, alongside WHO, UNICEF, and several local partners conducted a nationwide integrated immunization campaign to introduce typhoid conjugate vaccine (TCV) alongside the delivery of bivalent oral polio vaccine (bOPV), measles-rubella (MR) vaccine, and vitamin A supplementation. Policymakers in Malawi identified the TCV campaign as an opportunity to reach children with additional antigens and interventions to respond to urgent health priorities while also delivering on TCV introduction. The need to stem multiple outbreak threats took on greater urgency after Cyclone Freddy, motivating partners to move forward with the scheduled campaign despite considerable structural damage in the Southern Region and health worker exhaustion.

Malawi is one of the first countries to use the opportunity of a TCV introduction campaign to reach children with additional routine antigens. The campaign reached more than 7 million children in ten days. As governments make decisions about accelerating and expanding coverage of routine immunizations and introducing new vaccines, Malawi's experience provides important considerations on the context in which integrated efforts can be impactful.

PATH, a core partner of the Typhoid Vaccine Acceleration Consortium (TyVAC), provided technical assistance and financial support for Malawi's integrated TCV campaign. Shortly after implementation, PATH worked with local stakeholders, including the Expanded Program on Immunization (EPI), to collect feedback on campaign successes and challenges. PATH compiled the reflections and distilled a list of considerations for national stakeholders and donors considering integrated TCV approaches.

## Building a foundation for integration

Gavi, the Vaccine Alliance supports a wide age cohort for TCV catch-up campaigns: children between six months and younger than 15 years of age. This makes TCV a natural starting point for a vaccination campaign integrating additional antigens. Strong political will and robust social mobilization efforts also proved equally critical to the campaign's success.

### Political will to address typhoid

A strong history of typhoid research in Malawi helped create an enabling environment for TCV and provided a foundation for local partnerships with the government. The longstanding Strategic Typhoid Alliance Across Africa and Asia (STRATAA) project included Malawi in a prospective typhoid surveillance study, building from a decade of previous surveillance activities. Malawi later became the African site for a pivotal Phase 3 study, led by TyVAC, that confirmed high TCV efficacy in children.

Government leadership in Malawi has historically been receptive to new vaccine introduction, including TCV. Given the scale of the integrated campaign, district level health workers also displayed remarkable perseverance through challenges, despite being understaffed, overworked, and in many cases, personally affected by Cyclone Freddy.

### Combining partner strengths

Integrating TCV and MR budgets aligned campaign activities during the early stages. Initial planning meetings among partners helped identify partner-specific activities and strengths. Ongoing check-ins and planning meetings ensured partners moved forward together. Each partner involved in the campaign planning brought important expertise and guidance for their respective intervention. For example, polio stakeholders could ensure polio-specific surveillance needs were met.

**"Integration was good because it enabled activities that we couldn't have done alone. It saved time and resources [and] provided a platform to work together as partners."** – CSO partner representative

## Critical investment in social mobilization

A key element of this campaign's success was the proactive, well-organized social mobilization and demand generation efforts. In Malawi's coverage survey, most community members identified radio as their primary source of information about the campaign. Ahead of the campaign, district-level briefings with press and local leadership and health worker trainings helped to ensure buy-in. It also equipped districts with messages and key information to continue to implement activities even as they faced funding delays and shortages of printed materials (further described below).

The Ministry of Education served as an important partner in the campaign planning and in reaching families with relevant campaign messages. School officials and teachers had information about typhoid and TCV to help message the importance of accepting the vaccine. Vaccination sites near schools served as easy access points for school children to receive their vaccines.

In this case, partners observed that the novelty of TCV may have increased interest, reenergizing communities fatigued by MR and bOPV messaging.

**"What helped efficiency was the provision of a new typhoid vaccine . . . and strong social mobilization around typhoid. Also ample time to brief the local leaders."** – Health Promotion Officer

**"In deciding whether to integrate, you need to consider health worker and community appetite/attitudes, current news/perceptions about the new vaccine, and the vaccines we want to integrate with it."** – CSO partner representative

### Partners observed efficiencies across the following functions of the integrated TCV campaign:

-  Advocacy, communication, and social mobilization (ACSM)
-  Health worker training
-  Microplanning
-  Support for Vitamin A supplementation, which had previously occurred on a biannual basis but had proven too resource-intensive to sustain

## A caution against “over-integration”

The scale of the nationwide campaign and the ambitious agenda of integrating four interventions, while ultimately successful, came with challenges. The most consequential was the administrative overload on the Program Implementation Unit (PIU), the mechanism through which the Ministry of Health accessed funds for campaign activities. This caused significant delays at each stage, from early campaign planning to implementation. Forward movement often hinged upon the ability of stakeholders to fill time-sensitive gaps even as they waited for funding.

### Administrative overload and funding delays

While partners felt that there were adequate funds available, multiple, simultaneous requests from across the country for the release of funds was more than the PIU could manage, despite hiring additional temporary staff. Successful implementation thus depended on the goodwill of district level staff working without funding and, in some cases, without supplies, dipping into their own budgets. Health workers, accustomed to immediate allowances to attend training, instead worked without pay, which created skepticism and limited meaningful engagement during training sessions. Some vendors refused to provide services because of a payment backlog, and training had to proceed without necessary materials.

**“It was not easy [for the PIU] to manage the flow of requests. This was made worse because of the scale of the campaign: multiple districts, all activities being done at the same time across the country.”**

– CSO partner representative

### Coordination takes careful planning

Although partnership allows for simultaneous delivery of multiple interventions, an underappreciated consideration is the additional time it takes to ensure coordination during the planning process. For example, as the Government of Malawi drafted a communications plan for the upcoming introduction of TCV in the routine immunization system, it was important for local partners involved in the integrated campaign to ensure alignment of TCV messaging in both the campaign and routine immunization communication strategies.



*Children ready their arms to receive their vaccines in Phanga Village, Lilongwe, Malawi.*

### Haphazard day-of logistics

Although the implementation plans for the integrated campaign were clear, the number of simultaneous interventions posed challenges due to limited, overworked staff on top of complex record-keeping requirements. Crowd management became an unexpected challenge; each intervention had its own tally sheet, which added to the vaccinator team’s data collection burden and time spent on each child.

### More interventions, more at stake

Done well, integration can streamline efforts, but it can also amplify errors. Simple miscalculations have bigger implications when there are more interventions at stake. In one example, a communication error with a printer meant several districts lacked tally sheets. Campaign partners pitched in budget at the last minute and, in certain cases, physically delivered the needed materials to the districts. Such partner resources are not always available, and these errors can have implications for campaign coverage. Additionally, multiple injections can become a source of hesitancy for caregivers and health workers, also potentially compromising coverage.

## Considerations for future integrated campaigns

In this instance, a combined approach served the campaign well, with partners observing efficiencies in ACSM, health worker training, microplanning, and Vitamin A supplementation as a result of integration. Yet Malawi's experience also reinforces that the decision to conduct an integrated campaign must be determined by local policymakers, in consultation with partners and donors. There are measures of preparedness for integrated campaigns that mirror those of traditional immunization campaigns, such as adequate funding, clear strategies, health worker capacity, and ample time for planning. However, the following themes emerged as especially critical for effective integrated campaigns:



**Aligned political will of national stakeholders and partners for immunization, including new introductions, to set the tone for campaign planning early on**



**Early, proactive, ongoing communication and community social mobilization to explain the interventions and rationale behind integration, reassure safety, and dispel rumors and misinformation**



**Consistent and reliable multilateral and national partner support to provide coordination, consistency, and critical stop-gap support to national governments**



**Campaign staff with ample resources and willingness to accommodate the demands of delivering simultaneous interventions**



**Sufficient capacity of the local financial unit to swiftly meet the complex financial demands of multiple partners working across antigens**



**Streamlined data collection tools, such as a single tally sheets, to ease the burden of campaign staff**



*A health surveillance assistant registers children at Phanga Village, Lilongwe, Malawi, during the integrated vaccination campaign.*