Case study

Nationwide success: How Bangladesh reached 42 million children with typhoid conjugate vaccines



Lessons learned and insights from Bangladesh's TCV rollout

October 2026

Background

Typhoid is endemic in Bangladesh, which has among the highest estimated typhoid rates in the world. The Global Burden of Disease study estimated that in 2023, there were more than 600,000 typhoid cases and more than 8,300 typhoid deaths annually in the country. The disease disproportionately affects children, with the majority of typhoid cases and deaths occurring in children younger than 15 years of age. Drug-resistant typhoid is also a challenge in Bangladesh, with more than 90 percent of Salmonella *Typhi* isolates showing resistance to ciprofloxacin according to a 2024 study.

Recovery from typhoid can take weeks, keeping children out of school and placing a heavy financial burden on caregivers and families in the form of missed wages and expensive treatment. Children typically miss 15 days of school per case of typhoid in Bangladesh. A cost-of-illness study published in 2020 showed that typhoid typically costs a patient or caregiver in Bangladesh US$64.69, 152% of the country's average annual health expenditure per capita. Inpatient cases are even more expensive, costing US$260.90 per case on average.

Although typhoid is treatable, the appropriate antibiotics are not always readily accessible in resource-constrained environments like health facilities in Bangladesh. Improvements in water, sanitation, and hygiene (WASH) are critical to prevent typhoid in the long term, but they are expensive and require sustained investments in infrastructure. Typhoid conjugate vaccines (TCVs), first prequalified by the World Health Organization (WHO) in 2017, provide strong protection against typhoid and are safe and effective for children 6 months of age and older, allowing them to be added into routine immunization schedules. Bangladesh's high burden of typhoid and regional concerns about drug-resistant typhoid, along with the high costs of the disease, made it a strong candidate for TCV introduction.

In 2018, WHO recommended TCVs for introduction in typhoid-endemic countries, and nine Gavi-eligible countries, including Bangladesh, have introduced TCVs into their routine immunization schedules.

Executive summary

Bangladesh introduced typhoid conjugate vaccines (TCV) nationwide in 2025 with an introduction campaign that reached more than 42.4 million children and achieved 97 percent coverage. Bangladesh's experience demonstrates how evidence-based decision-making, tailored activities to reach underserved populations, and proactive communications strategies can support successful introduction of a new vaccine at national scale while strengthening immunization systems for the future.



A vaccinator administers TCV during Bangladesh's introduction campaign in fall 2025.

Introducing TCVs in Bangladesh

Bangladesh has historically been a strong adopter of new vaccines. The introduction of TCVs in 2025 was the culmination of nearly a decade of evidence generation, planning, and strong support for immunization in the country. Several local studies provided surveillance data on typhoid burden in Bangladesh and the TCV effectiveness study in Dhaka provided direct evidence on the possible effect of TCV in the country. As the Bangladesh Expanded Programme on Immunization (EPI) considered several new vaccine introductions, national stakeholders assessed disease burden and reviewed evidence on the safety and effectiveness of TCV.

Bangladesh's National Immunization Technical Advisory Group (NITAG) recommended the introduction of TCVs into the routine immunization schedule in 2021 and the Inter-Agency Coordinating Committee (ICC) subsequently approved in 2022. Following the approval of an application for support from Gavi, the Vaccine Alliance in 2024, the EPI and partners worked together to develop introduction plans and prepare for one of the largest vaccine campaigns conducted in the country.

The nationwide TCV introduction campaign took place from October 12 to November 13, 2025. The campaign occurred in two phases, beginning with a two-week campaign to reach school-aged children, and followed by a two-week community-based campaign to reach out-of-school children. The campaign reached more than 42.4 million children aged 9 months to 15 years, achieving 97 percent coverage of the national target. Following the conclusion of the campaign, TCV became available as part of the routine immunization schedule for children at 15 months of age.

Data to inform TCV introduction

Several local studies in Bangladesh provided evidence on typhoid burden and TCV effectiveness that helped support the introduction of TCV.

- The Strategic Typhoid alliance across Africa and Asia (STRATAA), which conducted a prospective typhoid surveillance study in three densely populated urban sites in Bangladesh, Malawi, and Nepal, estimated a typhoid incidence of 1,135 cases per 100,000 people in Dhaka, Bangladesh, underscoring the high burden of the disease.
- The Surveillance for Enteric Fever in Asia Project (SEAP), which aims to estimate the burden of enteric fever in Bangladesh, Nepal, and Pakistan, found a high burden of typhoid among young children in Dhaka. Nearly 30 percent of blood culture confirmed typhoid cases are hospitalized, most of which are in children younger than 5 years of age.
- A 2021 effectiveness study conducted in Dhaka, Bangladesh found that TCV was safe, immunogenic, and highly protective against typhoid in children aged 9 months to less than 16 years. The TyVOID study, which measured the effectiveness of a single dose of TCV in Bangladeshi children during a five-year period, confirmed the high vaccine protection (80-96 percent) within two years of vaccination in all children.



A vaccinator delivers TCV to a child during Bangladesh's TCV introduction campaign in fall 2025.

Success factors and lessons learned

Effective partner coordination

The scale of Bangladesh's TCV introduction campaign required close coordination between the EPI, the Ministry of Health and Family Welfare, the Ministry of Education, WHO, UNICEF, local government authorities, and implementing partners, including PATH, a core partner of the Typhoid Vaccine Acceleration Consortium.

Clear division of responsibilities, as outlined from the national level to the upazila level, plus regular coordination through ICC meetings allowed partners to rapidly address challenges and align activities across the country. The centralized decision-making and information flow kept partners moving forward together. The EPI and partners also remained flexible and adaptable in response to a nationwide health worker strike weeks before the TCV campaign was set to begin. Although the strike delayed the start of the campaign, it also provided more time to develop training materials and refine operational plans, ultimately ensuring a smooth rollout.

Strengthening systems for a large-scale campaign

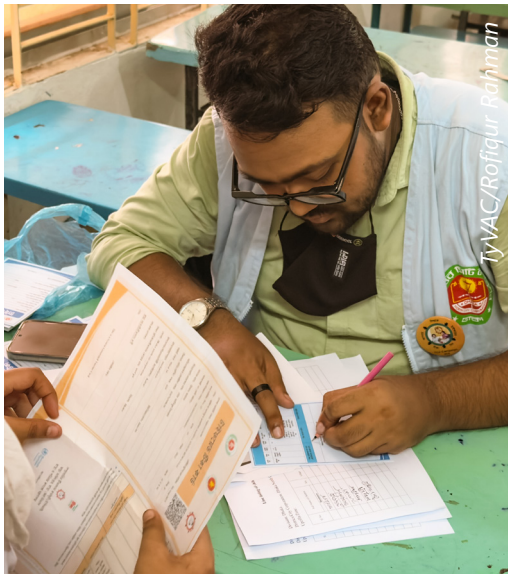
To prepare for a vaccination campaign aiming to reach a large population cohort, the EPI focused on expanding cold-storage capacity and workforce readiness. Many of Bangladesh's cold storage facilities were upgraded during the COVID-19 vaccination rollout; to prepare for the TCV campaign, the EPI assessed vaccine storage needs and acquired additional cold boxes, vaccine carriers, ice packs, and other equipment where necessary. The EPI closely monitored vaccine distribution and storage during the campaign to ensure that vaccines were maintained at the recommended temperature, and that adequate cold-chain capacity was available at all facility levels.

The EPI also recruited additional vaccinators to meet the increased workload during the campaign. These vaccinators were identified mainly from existing health workers and other trained personnel available through government health facilities and partner-supported programs. Before deployment, they received campaign-specific orientation and refresher training covering vaccination procedures, vaccine handling and safety, infection prevention and control, documentation and reporting, and monitoring of adverse events following immunization. This ensured that the additional staff were adequately prepared to support the campaign safely and effectively.

Robust microplanning and registration system

The campaign utilized a pre-campaign registration system in which caregivers registered children in advance for vaccination. Registration data helped define the target population, estimate vaccine stock needs, identify hard-to-reach or underserved communities, and inform local outreach strategies. The EPI developed detailed microplans down to the local level, identifying areas with lower vaccination coverage and locations requiring additional resources or support.

In addition to robust planning, the campaign also highlighted the importance of flexibility during implementation. In some communities, caregivers faced barriers to registration because they lacked access to smartphones or did not have the required documentation. Local partners such as ideSHi worked with the EPI and local authorities to help families register, and on-the-spot (day of) registration for TCV was adopted as needed to ensure children were not missed.



A health worker fills out vaccination cards during Bangladesh's TCV introduction campaign in fall 2025.

Innovative outreach strategies to reach all children

Bangladesh adopted a two-phase approach that included a school-based campaign phase followed by a community-based phase. This approach built on experience gained from previous measles-rubella and HPV vaccination campaigns, helping to reach a large age cohort. The school-based phase enabled efficient vaccination of large numbers of older children, while the community-based phase ensured that out-of-school children—especially those in urban informal settlements and hard-to-reach areas—were not left behind.

Additionally, local microplans included targeted planning and outreach efforts for refugee populations and other underserved communities. Tailoring outreach to meet communities' needs was essential: in some communities in Dhaka, for example, partners conducted outreach and awareness activities in the evening to accommodate caregivers who were away at work during the day. Additionally, private religious schools received direct outreach and engagement to ensure school administrators and directors supported the TCV campaign and would allow vaccination activities at their institution.

The TCV campaign also included a dedicated phase in Cox's Bazar, one of the world's largest refugee settlements, to reach Rohingya refugee children. Conducted from November 2 to 25 in Ukhiya and Teknaf upazilas, this phase of the campaign reached 410,345 Rohingya children with TCV. Ahead of the campaign, the EPI and partners held meetings with majhis and imams in these settlements to help drive acceptance and demand for TCV in their communities.

Comprehensive communications strategy

A broad communications strategy spanning many different communication channels helped generate demand and address misinformation before and during the TCV campaign. At the national level, activities included television programming, newspaper coverage, media briefings, advocacy meetings, and social media engagement. At the local level, partners and stakeholders conducted meetings with teachers, religious leaders, parents, caregivers, and other members of the community. The EPI and partners shared information in Bangla as well as local languages to reach linguistically and culturally diverse audiences across the country.

Outreach in densely populated areas of Dhaka played a particularly important role in reaching underserved populations. Partners such as ideSHi worked alongside EPI, the Dhaka North City Corporation, and the Dhaka South City Corporation to conduct door-to-door outreach, assist families with registration, engage religious and community leaders, and provide support to caregivers. Working with local organizations helped tailor messages and identify trusted messengers as effective communication channels to reach communities.



A community awareness meeting held during Bangladesh's TCV introduction campaign in fall 2025.

Advocacy, communication, and social mobilization in Dhaka

In Dhaka's densely populated areas, local partner Institute for developing science and health initiatives (ideSHi) complemented vaccination activities with targeted advocacy, communication, and social mobilization (ACSM) efforts to reach children who otherwise might have been missed. Working with the EPI, WHO, UNICEF, and Dhaka's North and South City Corporations in four neighborhoods, ideSHi trained and supervised local volunteers who conducted door-to-door outreach, distributed posters and leaflets, and provided registration support to families and caregivers, especially those without access to smartphones.

Recognizing that trusted voices influence families' health decisions, ideSHi held meetings with religious imams, madrasa leaders, and teachers to answer their questions, address their concerns, and equip them with accurate information about typhoid and TCV. Many Qawmi madrasa leaders were initially resistant to TCV, as they feared facing liability for side effects and lacked foundational knowledge about the benefits of immunization. Engaging with these leaders directly helped overcome their hesitations before the campaign began.

In addition, ideSHi shared public announcements through mobile loudspeakers that announced vaccination sessions and locations. Staff even developed and recorded an original jingle to raise awareness about the campaign.

Outreach efforts also focused on helping overcome practical barriers to vaccination. The ideSHi team printed thousands of registration cards, helped caregivers complete the registration process, and provided volunteer support in areas with staffing shortages. Addressing both information gaps and logistical barriers to vaccination helped register more than 55,000 children and ensure vaccination for more than 32,000 children in the four neighborhoods in Dhaka during the campaign.



IdeSHi volunteers and employees distribute awareness materials in Dhaka during Bangladesh's TCV introduction campaign.

Addressing misinformation

Countering misinformation about TCV was a major challenge during the campaign. Although there is widespread awareness of typhoid in Bangladesh given the high burden, previous surveillance and TCV studies, many caregivers—especially those in underserved communities—were unaware of the benefits of TCV and other routine immunizations.

Addressing the lack of information alongside misconceptions about typhoid and vaccines required engagement on multiple channels. The EPI and partners tracked rumors and misinformation on social media, and worked with the media to share accurate and corrective information. TV spots also helped to reach a wide audience and address concerns. At the local level, direct engagement with religious leaders, teachers, and caregivers helped build trust and awareness. Training field officers and campaign workers on what questions to expect, and how to address them, enabled these trusted messengers to engage one-on-one with community members alongside mass communication efforts.

Laying the groundwork for a robust measles response

Bangladesh's TCV campaign catalyzed new connections and systems that have helped the country respond to an ongoing measles outbreak that emerged in March 2026.

As part of the TCV campaign, the EPI and partners identified under-immunized children and connected with communities about the value of TCV and other vaccines. As the measles outbreak magnified, local partners already had touchpoints in many vulnerable communities, and they understood the most effective strategies to reach families and caregivers.

Bangladesh began a nationwide measles-rubella vaccination campaign in April 2026, which reached more than 18 million children in less than 2 months. As the EPI and partners continue to respond to the outbreak, lessons and experience from the country's TCV campaign have proven valuable.

Conclusion

Reaching more than 42 million children through the largest nationwide TCV introduction campaign to date, Bangladesh demonstrated how strong partnerships and nuanced planning can enable the successful rollout of a new vaccine at scale. The campaign required detailed microplanning, coordinated action among government ministries and partners, and sustained engagement with communities. The campaign also highlighted the importance of flexibility, whether adapting to operational challenges or responding to misinformation in real time.

The systems and partnerships formed during the TCV campaign have already supported broader immunization efforts in Bangladesh, including the country's response to the measles outbreak. As other countries consider introducing TCV, whether through a campaign approach or other delivery strategies, Bangladesh's experience underscores the value of community engagement, dedicated outreach to underserved groups, and collaboration across government and partners. With TCV now a part of Bangladesh's routine immunization schedule, the country is well positioned to protect children from typhoid and reduce the burden of this preventable disease.



A vaccinator delivers TCV during the school-based phase of Bangladesh's TCV introduction campaign in fall 2025.