

How data drive decision-making: Reflections from TCV introductions in Pakistan and Malawi and the role of data moving forward

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7 December 2023



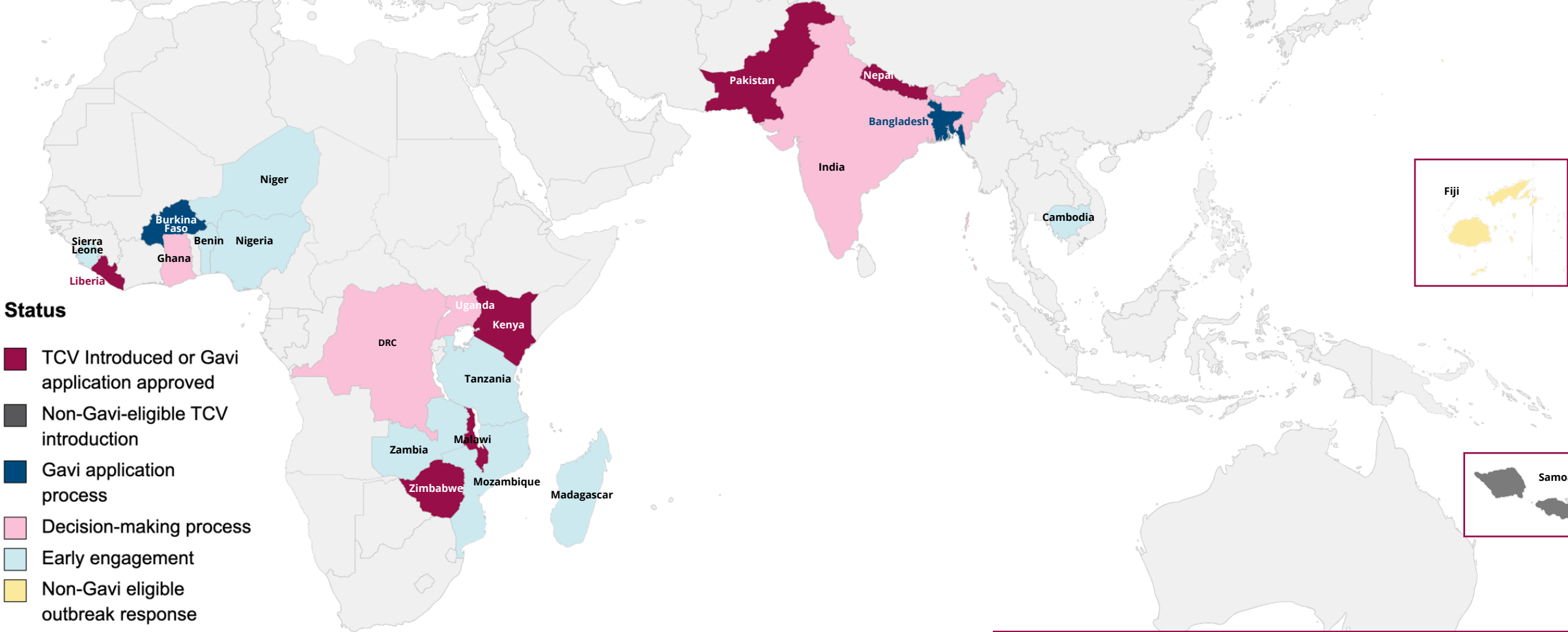


The Typhoid Vaccine Acceleration Consortium (TyVAC) is led by the Center for Vaccine Development and Global Health at the University of Maryland School of Medicine, the Oxford Vaccine Group at the University of Oxford, and PATH. TyVAC is funded by the Bill & Melinda Gates Foundation.

TyVAC works closely with global partners



The ultimate goal: Get typhoid conjugate vaccines (TCV) to kids who need it, regardless of where they live



Status

- TCV Introduced or Gavi application approved
- Non-Gavi-eligible TCV introduction
- Gavi application process
- Decision-making process
- Early engagement
- Non-Gavi eligible outbreak response

Data can be difficult to identify yet drive decision-making

- Typhoid burden is difficult to measure and often underestimated due to diagnostic and surveillance challenges.
- Yet, typhoid and drug resistance burden data are crucial to identify prevention interventions, especially typhoid conjugate vaccines (TCVs).
- Six countries have successfully integrated TCV into their routine immunization program.
- Three countries have successfully applied to Gavi for support and will introduce in 2024.
- Many additional countries in various stages of decision-making and planning.

TCV introductions to date



Country	Introduction Strategy	Age	Decision-making considerations
Pakistan	Nationwide (phased) campaign; transition to routine immunization (RI) following campaign.	Campaign: 9 months to younger-than-15 years RI: 9 months	National epidemiological data, including high burden of drug resistant typhoid; ecological conditions that promote typhoid transmission.
Liberia	Nationwide campaign; transition to RI following campaign.	Campaign: 9 months to younger-than-15 years RI: 9 months	Neighboring country, regional, and global data to project local burden and risk; ecological conditions; seasonal peaks in typhoid burden
Zimbabwe	Nationwide campaign (integrated with HPV & IPV); transition to RI following campaign.	Campaign: 9 months to younger-than-15 years RI: 9 months	Prone to typhoid outbreaks and ecological conditions prime for typhoid transmission; drug resistant typhoid burden; high disease burden nationwide, esp. in younger age groups.
Nepal	Nationwide campaign; transition to RI following campaign.	Campaign: 15 months to younger-than-15 years RI: 15 months	National burden data; vaccine coverage/acceptance data; increase uptake of TCV + MCV2.
Malawi	Nationwide campaign (integrated with bOPV, MR, and Vitamin A); transition to RI following campaign	Campaign: 9 months to younger-than-15- years RI: 15 months	National burden data, including data from surveillance study sites; high rates of drug-resistant typhoid; propensity for outbreaks;

Today's decision-making and data deep dive

- Using data in Pakistan and Malawi introduce and strategically implement TCV campaigns
- Ongoing data gathering efforts in the Eastern Mediterranean region that support future country decision-making



Photo: TyVAC/Asad Zaidi



Photo: TyVAC/Madalitso Mvula

Learn more at:
<http://takeontyphoid.org>



TCV introductions to date

- Pakistan became the first country to introduce TCV into its routine childhood immunization program through a phased campaign that began in November 2019.
- Liberia, Zimbabwe, and Samoa introduced TCV in 2021, followed by Nepal in 2022. Malawi introduced TCV in 2023.
- More than 56 million children have been vaccinated with TCV through introduction campaigns.
- Other countries are in various stages of preparing applications and/or planning for TCV introduction into their routine immunization programs.
- TCV has also been used safely and effectively as part of outbreak response efforts, both in Pakistan and in Zimbabwe.



Photo: TyVAC/Madalitso Mvula

Ensure widespread and sustainable TCV introductions

- Support the use and application of new surveillance tools/assessment methods for TCV introduction decision-making.
- Ensure countries have the latest vaccine performance and health economics data to enable an information-based decision for TCV introduction.
- Provide technical support as needed for countries to submit strong Gavi applications and conduct quality TCV introductions.
- Ensure TCV program sustainability.



Photo: PATH/Kundzai Tinago

TyVAC support for TCV introduction

Phase 1



Decision-making and application

- Provide resources and support for regional and national level stakeholder forums on typhoid and TCVs.
- Assist with collating and reviewing typhoid burden data.
- Develop advocacy and communications materials to support decision-making.
- Help with Gavi application and facilitate post-application responses from Gavi.
- Assess country-specific cost-effectiveness analyses and estimate prospective vaccine program costs.

Phase 2



Post-application

- Support microplanning activities.
- Collaborate with Gavi & UNICEF to develop training and information, education, and communication materials.
- Support AEFI surveillance training.
- Share lessons learned to inform EPI programming and improve policies, coverage, delivery, and equity.