

## Potential of typhoid conjugate vaccines in Fiji

Typhoid, a serious enteric fever spread through contaminated food and water, is a substantial public health issue that disproportionately impacts children and marginalized populations in Asia and sub-Saharan Africa. The Global Burden of Disease (GBD) study estimates that, in 2023, there were more than 6 million typhoid cases and more than 71,000 typhoid deaths worldwide.<sup>1</sup> Additionally, strains of drug-resistant typhoid are spreading, causing global concern.<sup>2</sup>

### TYPHOID CONJUGATE VACCINES

Typhoid vaccination can reduce the need for antibiotics, slow expansion of drug-resistant strains, and save lives. Typhoid conjugate vaccines (TCVs) are licensed, prequalified by the World Health Organization (WHO), and have advantages over earlier typhoid vaccines. TCVs provide strong protection for at least 4 years, require only one dose, and are safe and effective for children older than 6 months of age.

Three large Phase 3 efficacy studies conducted in Bangladesh, Malawi, and Nepal showed that TCV prevented 79-85 percent of typhoid cases in children 9 months to 16 years of age. These results demonstrate that TCV is protective across diverse settings in Africa and Asia.

### WHO RECOMMENDATION

In March 2018, WHO recommended TCVs as the preferred typhoid vaccine because of its improved performance and suitability for younger children. WHO recommends the introduction of TCV be prioritized in countries with the highest burden of typhoid disease or a high burden of drug-resistant typhoid. WHO encourages routine administration to be accompanied by catch-up vaccination campaigns for children up to 15 years of age, where feasible and supported by data. Several countries have already introduced TCV into their routine immunization programs including Bangladesh, Burkina Faso, Kenya, Liberia, Malawi, Nepal, Niger, Pakistan, Samoa, and Zimbabwe. Nearly 150 million children have been vaccinated with TCV.



### AN OPPORTUNITY FOR FIJI

TCVs could have a benefit in Fiji, where typhoid inflicts a public health burden. The GBD study estimates that, in 2023, Fiji had:

- **179 typhoid cases or 19 cases per 100,000 population**, 53 percent of which were among children under 15 years of age; and
- **2 typhoid deaths**, 64 percent of which were among children under 15 years of age.<sup>1</sup>

The Ministry of Health and Medical Services of Fiji implemented a TCV vaccination campaign in the Northern Division of the country in July 2023 for individuals aged between 9 months and 65 years. TCV is currently not available in routine immunization.

Typhoid likely imposes an economic burden in Fiji. Analyses from other settings in the region found that families often bear a significant cost, especially for cases in young children.<sup>3</sup> Available global modeling data predict that routine TCV vaccination plus catch-up would be more cost-effective compared with routine vaccination only. Routine TCV vaccination alone is predicted to be cost-effective compared with no vaccination in many countries.

### References

1. Institute for Health Metrics and Evaluation. Global Burden of Disease. 2023. Accessed via: [ghdx.healthdata.org/gbd-results-tool](https://ghdx.healthdata.org/gbd-results-tool).
2. Wong VK, Baker S, Pickard DJ, et al. Phylogeographical analysis of the dominant multidrug-resistant H58 clade of *Salmonella* Typhi identifies inter- and intracontinental transmission events. *Nature Genetics*. 2015;47:632-639.

Learn more and join the effort at [www.takeontyphoid.org](http://www.takeontyphoid.org).

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