



Burden of Typhoid in **Malawi**

Malawi is a typhoid-endemic country, with a high burden of typhoid.

A large typhoid surveillance study called Strategic Typhoid Alliance across Africa and Asia (STRATAA) was conducted in Blantyre and estimated a rate of **444 typhoid cases per 100,000 people** per year.

The bacteria that causes typhoid, *S. Typhi*, was the primary cause of bloodstream infection in people with fever in the surveillance study.

Additionally, **children 5-9 years old had the highest typhoid incidence rate** of all age groups included in the study.¹

While typhoid is rarely fatal, the recovery is long and difficult. The disease steals time, money, and productivity from those infected and their families and is associated with numerous long-term complications.

Drug resistance has likely caused typhoid cases in Malawi to increase rapidly over the past years.^{2,3}



Data from Blantyre show that **multidrug-resistant (MDR) typhoid** strains became prominent in 2011.



Following the introduction of MDR strains in 2011, **typhoid became the predominant bloodstream infection among adults and children in Malawi**, with a 21% incidence of complications among children.²⁻⁴



The recent STRATAA study found **high rates of MDR typhoid in Malawi**. 92% of isolates were MDR.¹



All isolates from typhoid cases identified in a large Phase 3 typhoid conjugate vaccine efficacy study conducted in Malawi were MDR.⁴

Most typhoid cases in Malawi occur in children **younger than 15 years old.**

In the cases identified through the STRATAA surveillance study, incidence rates were highest among children younger than 15 years old.¹



Photo: Sabin Vaccine Institute/Thoko Chikondi

Typhoid conjugate vaccines (TCVs) in Malawi

The World Health Organization (WHO) recommends the introduction of prequalified TCVs be prioritized in countries with a high burden of typhoid disease or a high burden of drug-resistant typhoid. Gavi, the Vaccine Alliance support for introduction is **available now**.

Prequalified TCVs are highly effective and safe for children as young as 6 months of age. Recent data from a large Phase 3 study in Malawi show that TCV is safe and 84% effective in preventing typhoid.⁴ TCVs:



Require **one dose**;



Are **more effective and may be longer-lasting** than other typhoid vaccines; and



Can be **co-administered with measles-rubella vaccine**.⁵



The Government of Malawi has **prioritized typhoid prevention** and control and plans to introduce TCV into its routine childhood immunization program in 2022.

Findings from an economic analysis predict that, even in the absence of a Gavi subsidy, a catch-up campaign with TCV could be cost-effective in Malawi.⁶



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3. Feasey NA, Masesa C, Jassi C, et al. Three epidemics of invasive multidrug-resistant *Salmonella* bloodstream infection in Blantyre, Malawi, 1998-2014. *Clinical Infectious Diseases*. 2015;61(Suppl 4):S363-S371.
4. Patel PD, Patel P, Liang Y, et al. Safety and efficacy of a typhoid conjugate vaccine in Malawian children. *New England Journal of Medicine*. 2021;385(12):1104-1115.
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Let's Take on Typhoid in Malawi

- ✓ Typhoid is endemic in Malawi, with a **high rate** of typhoid cases per year.
- ✓ Malawi's burden of typhoid is most heavily borne by children **younger than 15** years of age.
- ✓ Data show **increasing rates of drug-resistant typhoid**, making cases more difficult to treat.
- ✓ **TCVs** are safe, effective, and WHO-recommended for routine immunization as part of a cost-effective, integrated approach to typhoid prevention and control alongside safe water, sanitation, and hygiene interventions.
- ✓ Malawi plans to introduce TCV into its **routine immunization program** with support from Gavi.