

Burden of Typhoid in **Tanzania**

Tanzania is a typhoid-endemic country. The Global Burden of Disease study estimated that, in 2017, there were at least:

79,148 typhoid cases (147 cases per 100,000)
1,320 typhoid deaths
101,617 disability-adjusted **life-years lost** to typhoid¹

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

Drug-resistant typhoid strains are a growing problem in Tanzania, regionally, and across the globe.



Typhoid was the most commonly found invasive bacteria in two separate studies in Zanzibar and rural Korogwe District. In Korogwe, **88% of typhoid isolates were resistant to chloramphenicol**, which is a first-line treatment option.^{2,3}



An evaluation of blood culture-confirmed typhoid cases in Moshi, Tanzania, between 2011 and 2013 found that **89% of samples were multidrug-resistant (MDR)**.⁴



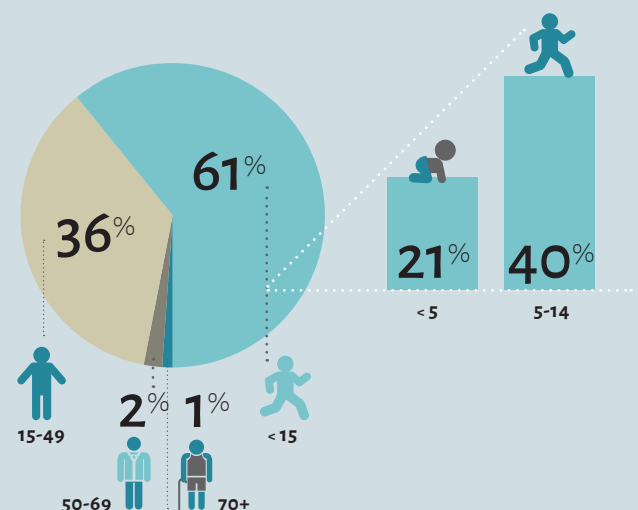
In another analysis using sites from both rural and urban Moshi, 36% of all blood culture-confirmed cases were MDR. **The urban site estimated a population incidence of MDR typhoid of 103 cases per 100,000.**⁵



Each typhoid case in Zanzibar costs families an average of US\$154.47, nearly two months of average family income.⁶ As drug-resistant typhoid becomes more common, it will become more difficult to treat and **force the use of more expensive and less readily-available treatment options.**

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

TYPHOID CASES IN TANZANIA BY AGE (2017)



Typhoid conjugate vaccines in Tanzania

Typhbar-TCV® is a newly licensed and World Health Organization (WHO)-prequalified and recommended tool for typhoid prevention in endemic areas. Gavi, the Vaccine Alliance support for introduction is **available now**.

Typhbar-TCV is highly effective and safe for children as young as 6 months of age,⁷ and:



Only requires **one dose**;



May be **more effective and longer-lasting** than other previous typhoid vaccines; and



Can be **co-administered with measles-containing** vaccine.

A recent modeling analysis shows that in Tanzania, a catch-up campaign up to 15 years of age followed by routine immunization is the preferred strategy and likely cost effective with support from Gavi, the Vaccine Alliance.*⁸

*At a willingness to pay threshold of \$100 or more to avert one disability-adjusted life-year.

Let's Take on Typhoid in Tanzania

- ✓ Typhoid is endemic in Tanzania, with more than **79,000** cases per year.
- ✓ Tanzania's burden of typhoid is most heavily borne by children **under 15** years of age.
- ✓ Data show an increase in **drug-resistant typhoid** in Tanzania and globally.
- ✓ **A new TCV** is 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.
- ✓ **Gavi support** for TCV introduction is available **now**.

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7. Jin C, Gibani MM, Moore M, et al. Efficacy and immunogenicity of a Vi-tetanus toxoid conjugate vaccine in the prevention of typhoid fever using a controlled human infection model of *Salmonella* Typhi: a randomized control, phase 2b trial. *The Lancet*. 2017;390(10111):2472-2480.
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