



Burden of Typhoid in Mozambique

Mozambique is a typhoid-endemic country. The Global Burden of Disease study estimated that, in 2019, there were at least:

31,651 typhoid cases (107 cases per 100,000)
590 typhoid deaths
45,432 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.

The risk of typhoid may be increasing in Mozambique.



Typhoid is spread through contaminated food and water. **More than a third of the population does not have access to basic drinking water services and more than 60% do not have access to improved sanitation services**, increasing typhoid risks.²



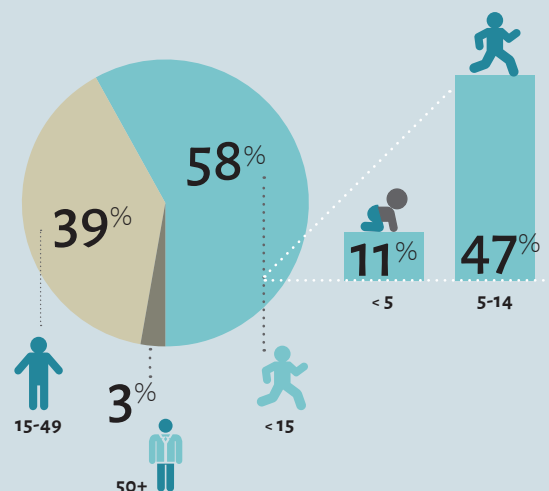
Global data show that multidrug-resistant (MDR) typhoid prevalence has increased dramatically since 1992.³ While local data from Mozambique are not readily available, drug-resistant typhoid has been extensively found in other East African countries, including Malawi.⁴ **Diseases such as typhoid can easily cross borders, and as drug-resistant typhoid becomes more common, it has the potential to spread to Mozambique**, forcing the use of more expensive and less readily-available treatment options.



Extreme weather events such as cyclones have become more frequent and intense in Southern Africa due to climate change, risking displacement, **further disruption to water and sanitation infrastructure**, and increased infections, including typhoid. Recent storms such as Cyclone Ana, which landed in Mozambique, have highlighted the impact climate change can have on water and sanitation infrastructure and health.

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

TYPHOID CASES IN MOZAMBIQUE BY AGE (2019)



Typhoid conjugate vaccines (TCVs) in Mozambique

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**. TCVs:



Are highly effective and safe for children as young as **6 months** of age;



Require a **single dose** to prevent 79-85% of typhoid cases in children;⁷



Offer strong protection for **at least 4 years**; and



Can be **co-administered with measles-rubella vaccine**.⁸

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 Mozambique**.⁷

Let's Take on Typhoid in Mozambique

- ✓ Typhoid is endemic in Mozambique, with more than **31,000** cases per year.
- ✓ Mozambique's burden of typhoid is most heavily borne by children **younger than 15** years of age.
- ✓ Data show an increase in **drug-resistant typhoid** in Mozambique, regionally, and globally.
- ✓ **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.
- ✓ **Gavi support** for TCV introduction is available **now**.

1. Institute for Health Metrics and Evaluation. Global Burden of Disease. 2019. Accessed via: ghdx.healthdata.org/gbd-results-tool.
2. Sustainable Development Report. Mozambique. 2020. Available at: <https://dashboards.sdgindex.org/profiles/mozambique/indicators>.
3. 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(6):632-639.
4. Meiring JE, Shakya M, Khanam F, et al. Burden of enteric fever at three urban sites in Africa and Asia: A multicentre population-based study. *The Lancet Global Health*. 2021;9(12):E1688-1696.
5. 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.
6. Sirima SB, Ouedraogo A, Barry N, et al. Safety and immunogenicity of co-administration of meningococcal type A and measles-rubella vaccines with typhoid conjugate vaccine in children aged 15-23 months in Burkina Faso. *International Journal of Infectious Diseases*. 2021;102:517-526.
7. Blicke J, Antillon M, Pieters Z, et al. Cost-effectiveness of routine and campaign use of typhoid Vi-conjugate vaccine in Gavi-eligible countries: A modelling study. *The Lancet Infectious Diseases*. *Lancet Infectious Disease*. 2019;19(7):728-739.