

# Burden of Typhoid in Chad

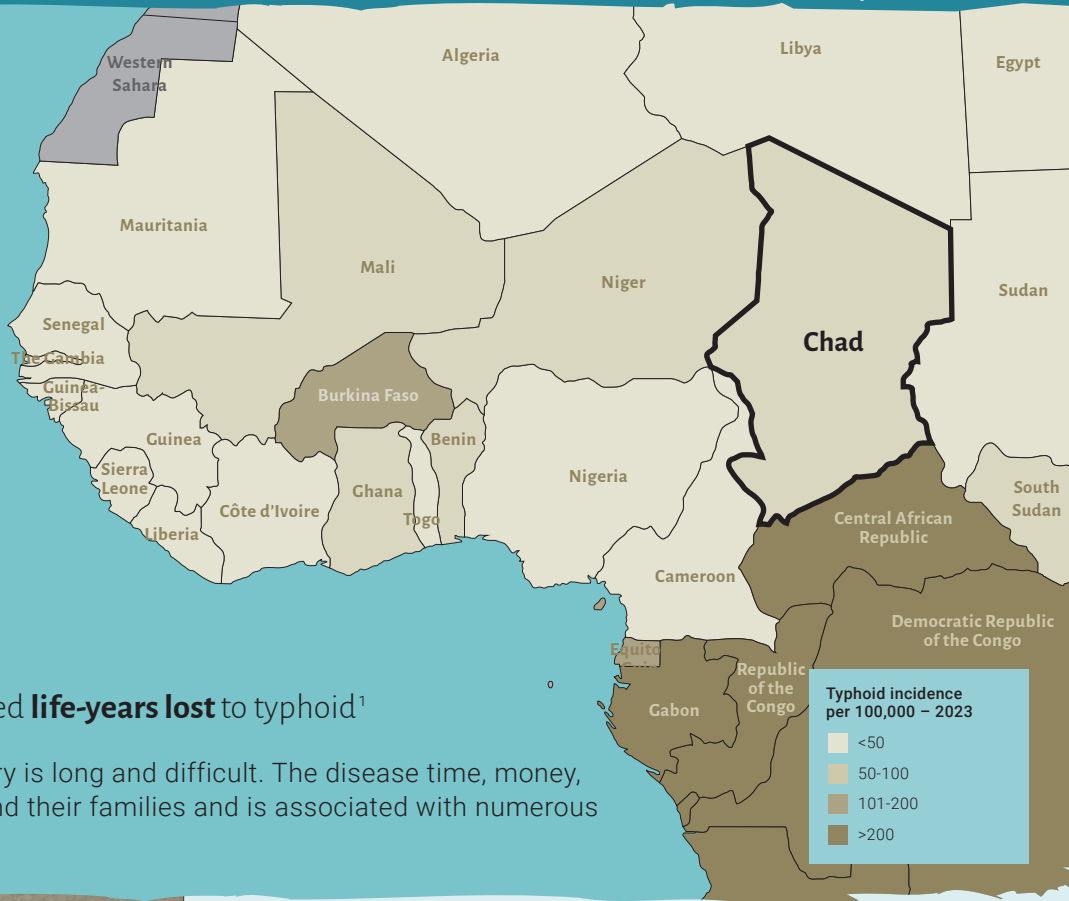
Chad is a typhoid-endemic country. The Global Burden of Disease 2023 study estimated that Chad experienced at least:

**11,196** typhoid cases  
(58 cases per 100,000)

**162** typhoid deaths

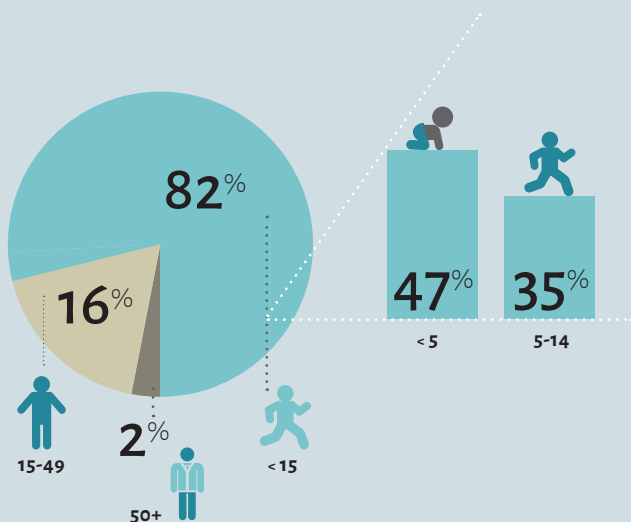
**13,230** disability-adjusted **life-years lost** to typhoid<sup>1</sup>

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



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

TYPHOID CASES IN CHAD BY AGE (2023)



## The risk of typhoid may be increasing in Chad.



Typhoid is spread through contaminated food and water. **In Chad, nearly half of the population does not have access to basic water services and 87% do not have access to basic sanitation services.**<sup>2</sup> This raises typhoid risks.



**More than 80%** of the urban population live in slums,<sup>2</sup> which are typically overcrowded and lack access to safe water and sanitation. These conditions can facilitate the spread of typhoid.



Global data show that multidrug-resistant (MDR) typhoid prevalence has increased dramatically since 1992.<sup>3</sup> **While drug-resistant typhoid has not been identified in Chad, it has been found regionally.** As pathogens cross borders and as drug-resistant typhoid becomes more common, it will likely spread to Chad.



**Chad is Africa's largest refugee host** per capita with more than 1 million forcibly displaced people (FDP) in the country.<sup>4</sup> FDPs often seek shelter in camps, urban areas, and informal dwellings, which are typically subject to overcrowding, poor infrastructure, and limited resources, conditions where typhoid can proliferate rapidly.

# Typhoid conjugate vaccines (TCVs) in Chad

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. Support for introduction from Gavi, the Vaccine Alliance 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;<sup>5</sup>



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



Can be **co-administered** with measles, yellow fever, and meningococcal A vaccines.<sup>6,7</sup>

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 Chad.<sup>8</sup>

## Let's Take on Typhoid in Chad

- ✓ Typhoid is endemic in Chad, with *more than 11,000* cases per year.
- ✓ Chad's burden of typhoid is most heavily borne by children *younger than 15* years of age.
- ✓ *Climate change, urbanization, and increasing refugee populations* are poised to add additional strains on water, sanitation, and hygiene infrastructure, thereby *increasing the populations susceptible to typhoid*.
- ✓ 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. 2023. Accessed via: [ghdx.healthdata.org/gbd-results-tool](https://ghdx.healthdata.org/gbd-results-tool).
2. Sustainable Development Report. Chad. 2022. Available at: <https://dashboards.sdgindex.org/profiles/chad/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. UNHCR. Chad. 2025. Available at: <https://reporting.unhcr.org/operational/operations/chad>.
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. Sirima SB, Ouedraogo A, Barry N, et al. Safety and immunogenicity of Vi-typhoid conjugate vaccine co-administration with routine 9-month vaccination in Burkina Faso: A randomized controlled phase 2 trial. *International Journal of Infectious Diseases*. 2021;108:465-472.
8. Bilcke J, Antillón M, Pieters Z, et al. Cost-effectiveness of routine and campaign use of typhoid Vi-conjugate vaccine in Gavi-eligible countries: A modelling study. *Lancet Infectious Disease*. 2019;19(7):728-739