

Burden of Typhoid in Chad

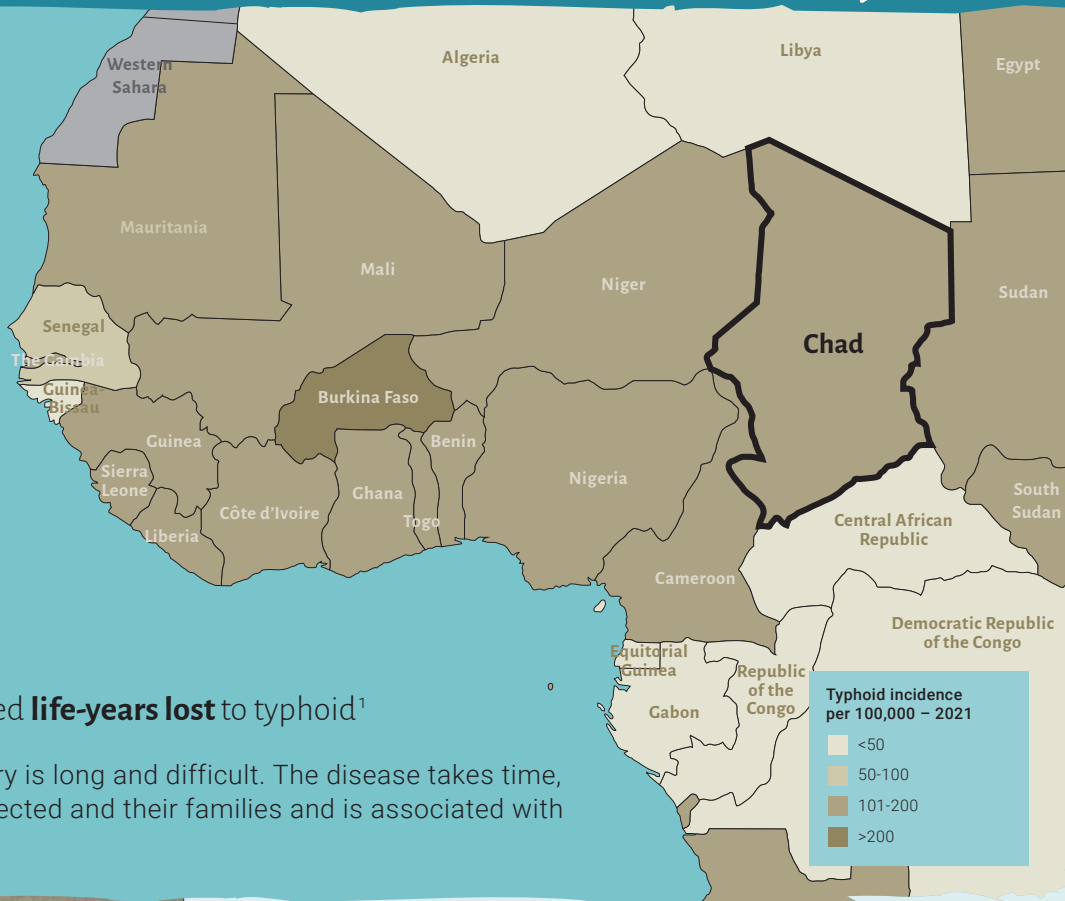
Chad is a typhoid-endemic country. The Global Burden of Disease 2021 study estimated that Chad experienced at least:

24,604 typhoid cases
(139 cases per 100,000)

377 typhoid deaths

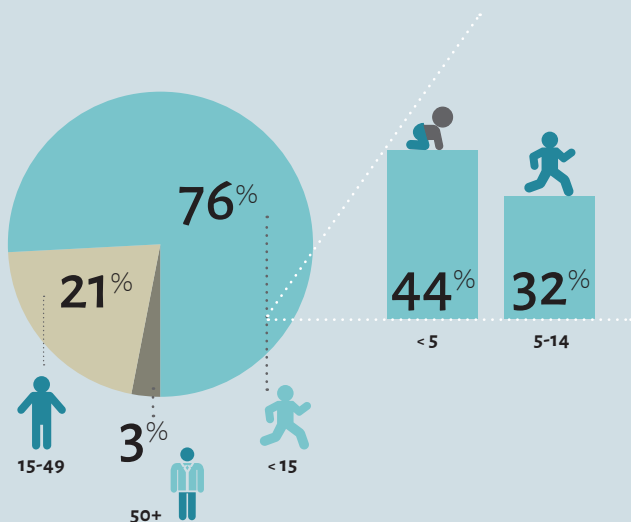
30,588 disability-adjusted **life-years lost** to typhoid¹

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.



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

TYPHOID CASES IN CHAD BY AGE (2021)



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.**² This raises typhoid risks.



More than 80% of the urban population live in slums,² 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 typhoid prevalence has increased dramatically since 1992.³ **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.⁴ 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;⁵



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



Can be **co-administered** with measles, yellow fever, and meningococcal A vaccines.^{6,7}

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.⁸

Let's Take on Typhoid in Chad

- ✓ Typhoid is endemic in Chad, with *more than 24,000* 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. 2021. Accessed via: 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.
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