Burden of Typhoid in

Burkina Faso

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

97,523 typhoid cases (428 cases per 100,000)

1,507 typhoid deaths

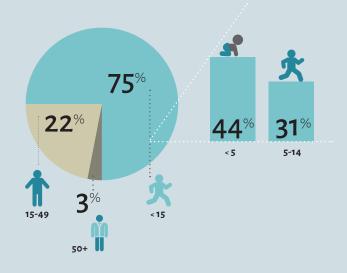
122,939 disability-adjusted **life-years lost** to typhoid¹

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.



Most typhoid cases in Burkina Faso occur in children younger than 15 years old.

TYPHOID CASES IN BURKINA FASO BY AGE (2021)



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



Global data show that multidrug-resistant (MDR) typhoid prevalence has **increased dramatically since 1992**.²

>200



While drug-resistant typhoid has not been isolated in Burkina Faso³, it has been found in other West African countries, including Ghana⁴. Additionally, Burkina Faso has documented MDR for other *Salmonella* infections that are treated with the same antibiotics as typhoid⁵, **raising the concern that drug-resistant typhoid could evolve**.



Diseases such as typhoid do not respect borders, and as drug-resistant typhoid becomes more common, it will likely spread to Burkina Faso.



Drug-resistant typhoid is more difficult to treat and forces the use of more expensive and less readily-available treatment options.

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;⁶



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



Can be **co-administered** with measles-rubella, yellow fever, and meningococcal A vaccines.^{7,8}



Let's Take on Typhoid in Burkina Faso

- Typhoid is endemic in Burkina Faso, with more than **97,000** cases per year.
- Burkina Faso's burden of typhoid is most heavily borne by children younger than 15 years of age.
- Data show a global increase in drug-resistant typhoid, which could spread to Burkina Faso.
- TCVs are safe, effective, and WHO-recommended for routine immunization as part of a costeffective, integrated approach to typhoid prevention and control alongside safe water, sanitation, and hygiene interventions.
- The Government of Burkina Faso has made the decision to *introduce TCV*.
- 1. Institute for Health Metrics and Evaluation. Global Burden of Disease. 2021. Accessed via: ghdx.healthdata.org/gbd-results-tool.
- 2. 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.
- 3. Al-Emran HM, Eibach D, Krumkamp R, et al. A multicountry molecular analysis of Salmonella enterica Serovar Typhi with reduced susceptibility to ciprofloxacin in sub-Saharan Africa. Clinical Infectious Diseases. 2016;62(Suppl 1):S42-S46.
- 4. Park SE, Pham DT, Boinett C, et al. The phylogeography and incidence of multi-drug resistant typhoid fever in sub-Saharan Africa. Nature Communications. 2018;9(1):5094.
- 5. Dembele R, Konate A, Soulama I, et al. Prevalence of multidrug-resistant Salmonella enterica and associated factors among under five children with diarrhea in rural Burkina Faso. Clinical Biotechnology and Microbiology. 2018;3(1):566-576.
- 6. 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.
- 7. 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.
- 8. 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.
- 9. 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

