

Typhoid in

Angola

Typhoid is a public health challenge in Angola. Disease burden estimates vary due to diagnostic challenges and range from **more than 77,000 cases¹ to 703,000 suspected cases²** per year. Typhoid incidence is commonly **considered high** by the Angolan health system.²

Typhoid intestinal perforations (TIP) are a severe and life-threatening complication of typhoid that require surgery.

- Typhoid perforations were the **most frequent cause of peritonitis** in a study in Luanda of 34 patients.³
- Another study from Huambo of 230 patients with peritonitis found that **nearly 40% were due to typhoid perforations.**⁴

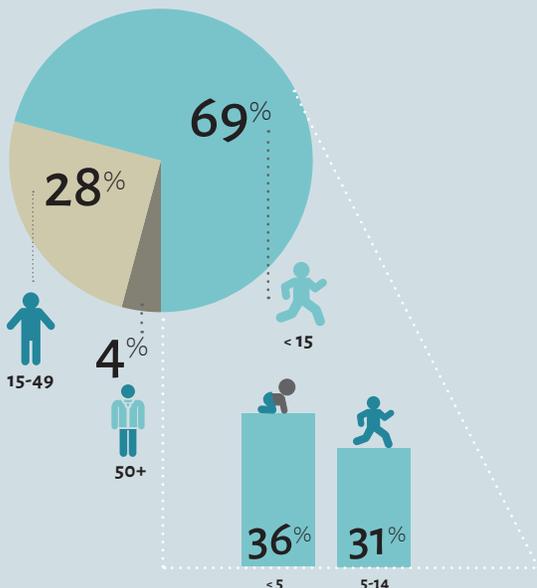
The high rates of TIP may indicate a higher typhoid burden in Angola since only severe cases result in TIP.

Typhoid recovery is long and difficult, especially for TIP cases. The disease takes time, money, and productivity from those infected and their families.



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

TYPHOID CASES IN ANGOLA BY AGE (2023)¹



The risk of typhoid may be increasing in Angola.



Typhoid is spread through contaminated food and water. In Angola, **42% of the population** does not have access to basic water services and nearly half do not have access to basic sanitation services.⁵ This raises typhoid risks.



Angola experiences frequent periods of **severe drought and flooding**. Conditions during droughts and floods both increase the risk of contamination of water sources with typhoid bacteria.



Globally, multidrug-resistant typhoid prevalence is increasing.⁶ A study found several isolates with resistance to first-line antibiotics and reduced susceptibility to ciprofloxacin, a common antibiotic treatment for typhoid.² Drug-resistant typhoid is more difficult to treat and **forces the use of more expensive and less readily-available** treatment options.



High rates of drug-resistant typhoid have also been found regionally in the Democratic Republic of the Congo and Zambia, both of which share borders with Angola. Diseases such as typhoid can easily cross borders. As drug-resistant typhoid becomes more common, it could spread further in Angola.

Typhoid conjugate vaccines (TCVs) in Angola

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. 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** and yellow fever vaccines.⁸

Researchers report that a TCV campaign for children up to 15 years old plus routine immunization is likely cost effective in Angola. Their modeling analysis projects that a TCV campaign plus routine immunization could avert 287,000 cases and 1,156 deaths over 10 years in Angola.⁹

Let's Take on Typhoid in Angola

- ✓ Typhoid incidence is commonly *considered to be high* by the Angolan health system.
- ✓ Angola's burden of typhoid is most heavily borne by children *younger than 15* years of age.
- ✓ Data show a high number of typhoid intestinal perforations as well as *increasing drug resistance*. These cases are more difficult to treat.
- ✓ *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.

1. Institute for Health Metrics and Evaluation. Global Burden of Disease. 2023. Accessed via: ghdx.healthdata.org/gbd-results-tool.
2. Francisco M, Santos Costa S, Belas A, et al. First report on antimicrobial resistance and molecular characterisation of *Salmonella enterica* serotype Typhi isolated from human specimens in Luanda, Angola. *Journal of Global Antimicrobial Resistance*. 2018;13:246-249.
3. Ramirez CRR. Causes, treatment and complications of diffuse peritonitis in a hospital on the outskirts of Luanda. *Medisan*. 2010;14(8).
4. Ortiz JAS, Di Makai N, Suarez LC, Perez PA. Characterization of patients operated on due to secondary peritonitis caused by typhoid fever. Huambo Central Hospital, Angola. *Correo Científico Médico*. 2019;23(4).
5. Sustainable Development Report. Angola. 2025. Available at: <https://dashboards.sdgindex.org/profiles/angola/indicators>.
6. 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.
7. 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.
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, 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*. 2019;19(7):P728-739.