

Burden of Typhoid in Senegal

Senegal is a typhoid-endemic country. The Global Burden of Disease 2019 study estimated that Senegal experienced at least:

- 15,603** typhoid cases (103 cases per 100,000)
- 281** typhoid deaths
- 21,590** disability-adjusted **life-years lost** to typhoid¹

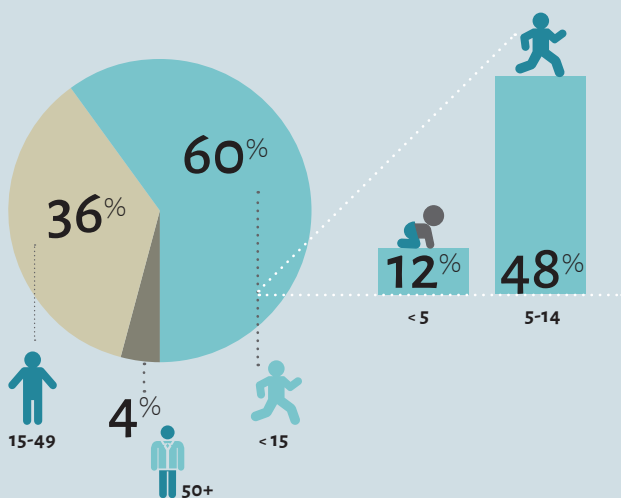
While typhoid is rarely fatal, the recovery is long and difficult. The disease steals time, money, and productivity from those infected and their families and is associated with numerous long-term complications.



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



TYPHOID CASES IN SENEGAL BY AGE (2019)



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



While drug-resistant typhoid has not been isolated in Senegal,³ it has been **found in other West African countries**, including Ghana.²



Diseases such as typhoid can easily cross borders, and as drug-resistant typhoid becomes more common, **it has the potential to spread to Senegal.**



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

Typhoid conjugate vaccines (TCVs) in Senegal

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;³



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



Can be **co-administered** with measles-rubella and yellow fever vaccines.^{4,5}

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 Senegal.⁶

Let's Take on Typhoid in Senegal

- ✓ Typhoid is endemic in Senegal, with more than **15,000** cases per year.
- ✓ Senegal'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 Senegal.
- ✓ **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**.

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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. 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.
5. 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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