

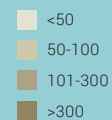
Burden of Typhoid in **Ghana**

Ghana is a typhoid-endemic country. The Global Burden of Disease study estimated that, in 2017, there were at least:

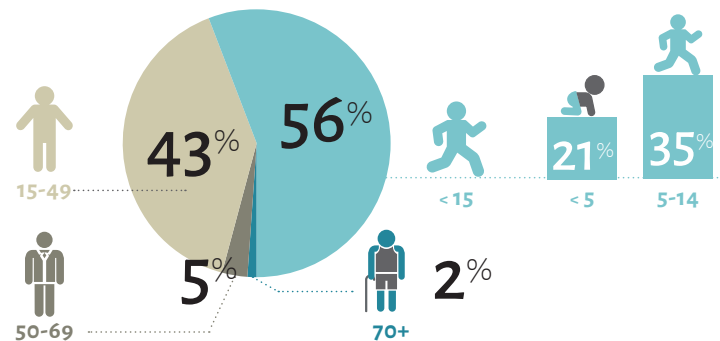
69,506 typhoid cases (230 cases per 100,000)
973 typhoid deaths
88,981 disability-adjusted **life-years lost** to typhoid¹



Typhoid incidence per 100,000 – 2017



TYPHOID CASES IN GHANA BY AGE (2017)

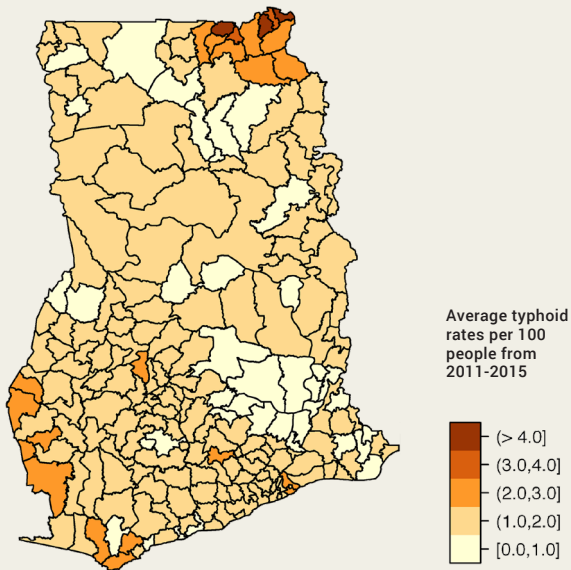


Blood culture-confirmed surveillance conducted by the Typhoid Fever Surveillance in Africa Program (TSAP) found typhoid incidence rates among children under 15 in Asante Akim North, Ghana, were **two times higher for rural children than for urban children** (636 versus 297 cases per 100,000, respectively).²



Clinical rates vary by district in Ghana

Reported clinical rates for typhoid differ by district, with a large burden concentrated in northeast and southwest Ghana.³



Significant WASH barriers in Ghana exacerbate the risk of fecally transmitted diseases such as typhoid.

- » A SaniPath analysis found that, for children under 5 years of age in Accra, food—a frequent vehicle for typhoid outbreaks—is the most common and influential pathway for childhood fecal contamination.⁴
- » Another analysis in Accra found that fecal contamination and exposure is widespread across public and private domains, exacerbated by open defecation, poor sanitation services, environmental conditions, and employment activities.⁵ The pervasiveness of the contamination creates persistent, repeated risk of exposure for Accra residents, regardless of individual latrine use and hygiene practices, suggesting the need for multi-sectoral approaches.



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.

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



A study in 2001-2002 found 89% of typhoid isolates were resistant to chloramphenicol, the first-line treatment for typhoid at the time, with high resistance to second-line drugs co-trimoxazole and ampicillin as well. This finding spurred national guidelines to replace chloramphenicol with ciprofloxacin in 2004.⁶



Additionally, an analysis of typhoid isolates collected by TSAP from children under 15 in Asanta Akim North, Ghana, from 2010-2014 found 80% resistance to co-trimoxazole, 77% resistance to chloramphenicol, 67% resistance to ampicillin, with 63% resistant to all three of these drugs.⁷



Another analysis using TSAP typhoid isolates found that young children aged 2-4 years had the highest incidence of multidrug-resistant typhoid in Ghana.⁸



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

Typhoid conjugate vaccines in Ghana

Typbar-TCV® is a newly licensed and World Health Organization (WHO)-prequalified and recommended tool for typhoid prevention in endemic areas. **Gavi, the Vaccine Alliance support for introduction is available now.**

Typbar-TCV is highly effective and safe for children as young as 6 months of age⁹.



Only **one dose** is required;



May be **more effective and longer-lasting** than other previous typhoid vaccines; and



Can be **co-administered with measles-containing** vaccine.

A recent modeling analysis shows that in Ghana, a catch-up campaign up to 15 years of age followed by routine immunization is the preferred strategy and likely cost-effective with support from Gavi.*¹⁰

* At a willingness to pay threshold of US\$100 or more to avert one disability-adjusted life-year.

Let's Take on Typhoid in Ghana

- ✓ Typhoid is endemic in Ghana, with more than **69,000** cases per year.
- ✓ More than half of Ghana's typhoid burden is borne by children **younger than 15** years of age.
- ✓ Data show an increase in **drug-resistant typhoid** in Ghana, regionally, and globally.
- ✓ **A new TCV** is 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**.





Photo: PATH/Duane Porter

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