

## Burden of Typhoid in

# Laos

Laos is a typhoid-endemic country. The Global Burden of Disease study estimated that, in 2019, there were at least:

**11,477** typhoid cases (106 cases per 100,000)

**132** typhoid deaths

**9,499** disability-adjusted **life-years lost** to typhoid<sup>1</sup>

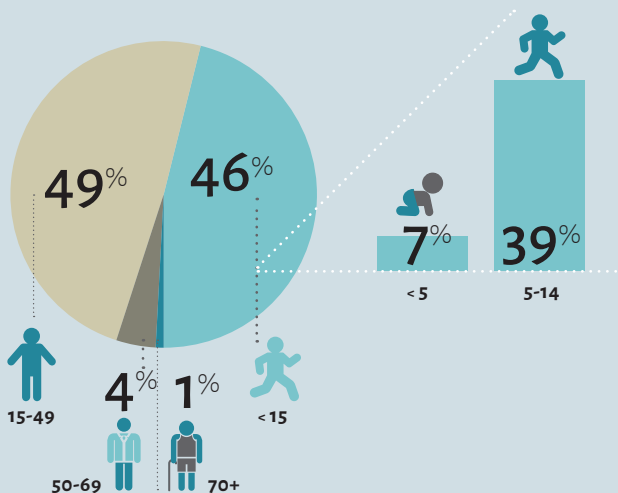
While typhoid is rarely fatal, the recovery is long and difficult. The disease takes time, money, and productivity from those infected and their families and is associated with numerous long-term complications.



Nearly half of the typhoid cases in Laos occur in children younger than 15 years old.



TYPHOID CASES IN LAOS BY AGE (2019)



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



Global data show that the multidrug-resistant (MDR) H58 typhoid strain prevalence has **increased dramatically since 1992**.<sup>2</sup>



Testing of typhoid isolates taken from patients in Vientiane, Laos, between 2000 and 2004 **found resistance and multi-drug resistance to ampicillin, co-trimoxazole, and chloramphenicol**.<sup>3</sup>



Additionally, a retrospective study of patient urine samples from 3 hospitals in Laos found a **high frequency of antibiotic use that is likely to engender worsening drug resistance** for several pathogens, including typhoid.<sup>4</sup>



As drug-resistant typhoid becomes more common, it will become more difficult to treat and **force the use of more expensive and less readily-available** treatment options.

# Typhoid conjugate vaccines in Laos

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. Gavi, the Vaccine Alliance support for introduction 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;<sup>5,6</sup>



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



Can be **co-administered with measles-rubella** vaccine.<sup>7</sup>

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 Laos.<sup>8</sup>



## Let's Take on Typhoid in Laos

- ✓ Typhoid is endemic in Laos, with more than **11,000** cases per year.
- ✓ Laos has a high burden of typhoid in children **younger than 15** years old.
- ✓ Data show an increase in **drug-resistant typhoid** in Laos and globally.
- ✓ **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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