Indonesia

Drug-resistant typhoid strains are a growing problem in Vietnam, regionally, and across the globe. More than a third of typhoid cases in Vietnam occur in children younger than 15 years old.

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

- **109,568** typhoid cases (114 cases per 100,000)
- **1,291** typhoid deaths
- **87,143** disability-adjusted life-years lost to typhoid

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.

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Global data show that the multidrug-resistant (MDR) H58 typhoid strain prevalence has increased dramatically since 1992.

There is a significant burden of typhoid in the Mekong River delta region. Data show that 91% of isolates analyzed from this region in 2001-2005 were the H58 strain. Further, 98% of the isolates in the study were resistant to 4 classes of antibiotics, placing great pressure on the effective use of fluoroquinolones.

Another study conducted in 2008 showed that 84% of the isolates from Vietnam were MDR.

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 (TCVs) in Vietnam

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;\(^6\)
- Offer strong protection for at least 4 years; and
- Can be co-administered with measles-rubella vaccine.\(^7\)

An analysis that modeled the cost-effectiveness of TCV introduction in five Asian countries predicts that routine vaccination would be cost-saving in Vietnam.\(^8\)