Typhoid, a serious enteric fever spread through contaminated food and water, is a substantial public health issue that disproportionately impacts children and marginalized populations in Asia and sub-Saharan Africa. The Global Burden of Disease (GBD) study estimates that, in 2017, there were nearly 11 million typhoid cases and more than 116,000 typhoid deaths worldwide.¹ Additionally, strains of drug-resistant typhoid are spreading, causing global concern.²

**TYPHOID CONJUGATE VACCINES**

Typhoid vaccination can reduce the need for antibiotics, slow expansion of drug-resistant strains, and save lives. Newly licensed and World Health Organization (WHO)-prequalified typhoid conjugate vaccines (TCVs) have several advantages over earlier typhoid vaccines. They:

- provide longer-lasting protection;
- require only one dose; and
- are suitable for young children over 6 months.

These qualities will allow better protection for younger children and expanded coverage through inclusion in routine childhood immunization programs.

**WHO RECOMMENDATION AND GAVI SUPPORT**

In March 2018, WHO recommended that typhoid-endemic countries introduce prequalified TCVs into routine childhood immunization programs as a single dose for infants and children over 6 months of age, accompanied by catch-up vaccination campaigns for children up to 15 years of age, where feasible. Additionally, WHO recommended prioritizing countries with a high burden of disease and/or a growing burden of drug-resistant typhoid, and in response to confirmed typhoid outbreaks. Gavi, the Vaccine Alliance has earmarked US$85 million to support the introduction of TCVs into routine immunization programs and is accepting applications for financial support, with introductions anticipated as soon as 2019.

**AN OPPORTUNITY FOR INDIA**

TCVs could have a substantial benefit in India, where typhoid is hyperendemic and inflicts a significant public health burden. The GBD estimates that, in 2017, India had:

- 5.8 million typhoid cases or 424 cases per 100,000 population, 58 percent of which were among children under 15 years of age; and
- 58,552 typhoid deaths, 58 percent of which were among children under 15 years of age.¹

Typhoid also imposes an economic burden in India. A study in Kolkata, India, found that the total treatment costs per blood culture-confirmed typhoid hospitalization averaged US$129, or 35 percent of average monthly household income.³ An economic analysis predicted that routine TCV infant vaccination would potentially be very cost-effective and cost-saving in Kolkata and Delhi, respectively.⁴

**References**