

Potential of typhoid conjugate vaccines in Angola

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 2021, there were more than 7 million typhoid cases and more than 93,000 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. Typhoid conjugate vaccines (TCVs) are licensed, prequalified by the World Health Organization (WHO), and have advantages over earlier typhoid vaccines. TCVs provide strong protection for at least 4 years, require only one dose, and are safe and effective for children older than 6 months of age.

Three large Phase 3 efficacy studies conducted in Bangladesh, Malawi, and Nepal showed that TCV prevented 79-85 percent of typhoid cases in children 9 months to 16 years of age. These results demonstrate that TCV is protective across diverse settings in Africa and Asia.

WHO RECOMMENDATION

In March 2018, WHO recommended TCVs as the preferred typhoid vaccine because of its improved performance and suitability for younger children. WHO recommends the introduction of TCV be prioritized in countries with the highest burden of typhoid disease or a high burden of drug-resistant typhoid. WHO encourages routine administration to be accompanied by catch-up vaccination campaigns for children up to 15 years of age, where feasible and supported by data. Several countries have already introduced TCV into their routine immunization programs including Burkina Faso, Kenya, Liberia, Malawi, Nepal, Pakistan, Samoa, and Zimbabwe. More than 90 million children have been vaccinated with TCV.



Children queue in Malawi to receive TCV. Photo: TyVAC/Madalitso Mvula

AN OPPORTUNITY FOR ANGOLA

TCVs could have a substantial benefit in Angola, where typhoid inflicts a significant public health burden. Typhoid incidence is commonly considered high by the Angolan health system³ and disease burden estimates vary from more than 8,000 cases¹ to 703,000 suspected cases³ per year. Most typhoid cases and deaths occur in children younger than 15 years of age. Typhoid intestinal perforations, a severe and life-threatening complication that requires surgery, accounted for nearly 40% of peritonitis cases in a study in Huambo.⁴

Typhoid likely also imposes an economic burden in Angola. While costs of illness have not yet been evaluated for the Angola, analyses from other settings in Africa have found that families often bear a significant cost, especially for cases in young children.⁵ Existing data demonstrate that vaccination with TCV in a variety of strategies and settings is cost-effective.⁶

References

1. GBD Results Tool. Available at: <http://ghdx.healthdata.org/gbd-results-tool>.
2. Wong VK, Baker S, Pickard DJ, et al. Phylogeographical analysis of the dominant multidrug-resistant H58 clade of *Salmonella* Typhi identifies inter- and intracontinental transmission events. *Nature Genetics*. 2015;47:632-639.
3. Francisco M, Santos Costa S, Belas A, et al. First report on antimicrobial resistance and molecular characterization of *Salmonella enterica* serotype Typhi isolated from human specimens in Luanda, Angola. *Journal of Global Antimicrobial Resistance*. 2018;13:246-249.
4. Ortiz JAS, Di Makai N, Suarez LC, Perez PA. Characterization of patients operated on due to secondary peritonitis caused by typhoid fever. Huambo Central Hospital, Angola. *Correo Científico Médico*. 2019;23(4).
5. Limani F, Smith C, Wachepa R, et al. Estimating the economic burden of typhoid in children and adults in Blantyre, Malawi: A costing cohort study. *PLOS ONE*. 2022;17(11):e0277419.
6. WHO. Typhoid vaccines: WHO Position paper – March 2018. *Weekly Epidemiological Record*. 2018;13(93):153-172.

Learn more and join the effort at www.takeontyphoid.org.

#TakeOnTyphoid