World Health Organization

The Malaria Vaccine Implementation Programme is a collaboration of the Ministries of Health in Ghana, Kenya and Malawi, WHO, PATH, GSK, UNICEF and partners.

The RTS,S Malaria Vaccine

The RTS,S/AS01 (RTS,S) malaria vaccine is one of two safe and effective vaccines recommended by WHO to prevent malaria in children. If implemented widely, malaria vaccines could save tens of thousands of lives each year. Demand for malaria vaccines is high. At least 28 countries in Africa plan to introduce a malaria vaccine, with wider implementation starting in early 2024.

MALARIA: An enduring health challenge

Malaria remains a primary cause of childhood illness and death in Africa

600K+ DEATHS per year

African children are at highest risk

450K+ CHILD DEATHS PER YEAR

Malaria has a negative impact on economies and holds back prosperity

USD **$12** BILLION **in lost productivity annually worldwide**

70% LOWER per capita income levels in endemic countries

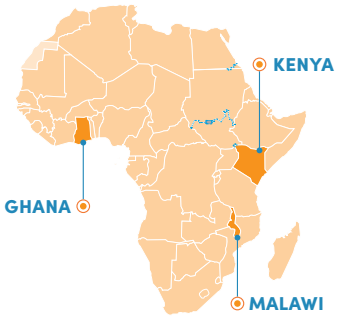
UP TO **40%** of public health budget of some African countries goes to treating malaria

The malaria vaccine is a WHO-recommended intervention to prevent malaria in children. By using a tailored mix of interventions countries can achieve optimal impact in reducing malaria illness and deaths.

Updated: November 2023

The Malaria Vaccine Implementation Programme

Since 2019, RTS,S vaccine was delivered in Ghana, Kenya and Malawi through national childhood immunization programmes as part of the WHO-coordinated Malaria Vaccine Implementation Programme (MVIP). The MVIP was completed at the end of 2023 and the 3 countries will continue and expand vaccination for the longer-term.



IN **4+** YEARS
6 Million DOSES

OVER **2 Million** CHILDREN VACCINATED

What we know about the RTS,S malaria vaccine

IMPACT AND EVIDENCE

- Pilot introductions resulted in a 13% drop in mortality among children age-eligible for vaccination and substantial reduction in severe malaria.
- Estimated 1 life saved for every 200 children vaccinated
- Phase 3 trial (2009-2014) of vaccine showed malaria cases dropped by over half in the first year after vaccination and a 40% reduction in malaria episodes over 4 years of follow up.[1]
- Phase 3 trial (2017-2020) of vaccine provided just prior to peak malaria season in areas with highly seasonal malaria found vaccine efficacy similar to efficacy of Seasonal Malaria Chemoprevention (SMC), shown to prevent around 75% of malaria cases.[2]

GOOD SAFETY PROFILE

- Safety demonstrated after more than 6 million vaccine doses given to more than 2 million children

FEASIBILITY

- High, equitable vaccine coverage achieved during pilot introductions showed high community demand, health worker acceptability, and capacity of countries to effectively deliver the vaccine.
- Vaccine introduction resulted in no reduction in insecticide-treated bednet (ITN) use, uptake of other childhood vaccines, or care-seeking behaviour for fever.

EQUITY

- Increased equity in access to malaria prevention tools: in pilot introductions, the vaccine reached more than two-thirds of children who are not sleeping under an ITN
- Layering the tools resulted in over 90% of children benefitting from at least one preventive intervention (ITN or the malaria vaccine)

COST-EFFECTIVE

- Estimated to be cost-effective in areas of moderate to high malaria transmission

The RTS,S vaccine is prequalified by WHO. R21/Matrix-M is the second malaria vaccine that is recommended and prequalified by WHO. Gavi is investing an initial nearly $USD 160 million for broader vaccine roll-out of malaria vaccines in endemic countries (2022-2025).

1 www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(15)60721-8.pdf
2 www.nejm.org/doi/full/10.1056/NEJMoa2026330

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