



## Vaccines, bringing us closer to fighting today's diseases and tomorrow's threats

Vaccines protect people of all ages against disease. Immunization saves millions of lives every year and vaccines are widely recognized as one of the most successful health interventions. Yet, there are still over 20 million children in the world today who do not have access to the vaccines they need. Furthermore, later in life when they are adolescents, adults, or elderly, there are many more that miss essential vaccinations.

Every year, the World Immunization Week intends to raise awareness on how immunization saves lives and on the importance of new improved vaccines to protect people everywhere against deadly diseases like Tuberculosis (TB) and malaria.

On this year's World Immunization Week, [European Vaccine Initiative \(EVI\)](#) and the [Tuberculosis Vaccine Initiative \(TBVI\)](#) want to raise awareness about two major diseases that are still affecting millions of people around the world: Malaria and Tuberculosis.

Both diseases, even though they can be effectively controlled, carry significant social and economic burdens. Malaria and TB disproportionately affect vulnerable people mainly in low- and middle- income countries (LMICs). They worsen and reinforce poverty and inequality, persisting in populations with limited access to basic health services that are in turn contributory factors for the persistence of disease and low life expectancy.

- **Tuberculosis**

Tuberculosis (TB) is one of the top 10 causes of death globally and the leading cause of death from a single infectious agent (pre -Covid). In 2019 1.4 million people died from TB while in the same year, an estimated 10 million people fell ill with TB. The vaccine against TB, BCG, exists for 100 years and is one of the most widely used of all current vaccines. Worldwide the vaccine is given to about 100 million children per year. Unfortunately, this vaccine does not prevent primary infection and does not prevent reactivation of latent pulmonary infection, which is the main source of bacillary spread. the impact of BCG vaccination on transmission of Mtb (Mycobacterium tuberculosis) is therefore limited and new vaccines for all people are desperately needed. To achieve this we need to both accelerate the development of current very promising vaccine candidates and continue our efforts as we innovate and diversify the pipeline for second generation TB vaccine candidates.

- **Malaria**

The development of a safe and effective malaria vaccine has also faced several obstacles, not only due to biological complexity of the malaria parasite but also the lack of a traditional market and engagement of few commercial developers. Both pregnant women and children under five are at high risk. In 2019 children under 5 accounted for 67% (274 000) of all malaria deaths worldwide. Moreover, exposure to malaria parasites does not confer lifelong protection and acquired immunity only partially protects against future infection and disease. Currently, there is one promising malaria vaccine, RTS,S, in pilot implementation in three African countries, which may pave the way for future innovation in this area.

While the world rightly focuses on the development of vaccines to protect against COVID-19, we must ensure that lessons learned from COVID-19 vaccine development (*e.g.* fast global mobilization, unprecedented private-public partnerships, accelerated vaccine development, regulatory flexibilization, among many others) are transitioned to vaccine R&D for other diseases of importance for global health, including TB and malaria.

**TBVI and EVI work to strengthen Global and European cooperation and coordination and to identify gaps to move the vaccine field forward** - to fight today's diseases and tomorrow's threats and brings us one step closer to a healthier future for all.

#### **About TBVI**

As a non-profit foundation, TBVI creates an enabling environment for TB vaccine research and innovation (R&I) and product development. It supports its R&D partners in the development of the most promising TB vaccines and biomarker candidates through the pipeline, while adding value through providing services of technical advice for product development; project identification, development and management; and resource mobilisation.



#### **About EVI**

The European Vaccine Initiative (EVI) is a leading European non-profit Product Development Partnership (PDP) that is supporting global efforts to develop effective and affordable vaccines against diseases of poverty and emerging infectious diseases.

