



TAKEDA'S COMMITMENT TO VACCINE DEVELOPMENT

The Value of Vaccination

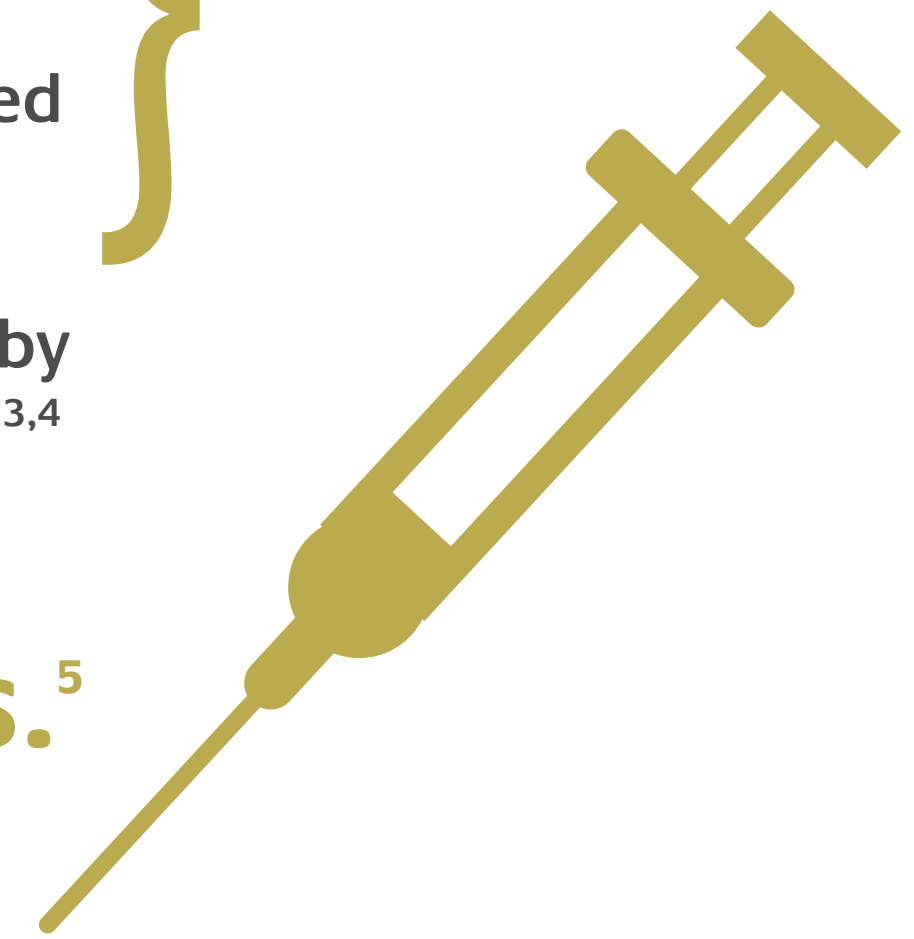


Vaccines prevent between **2-3 million** deaths per year¹ and have greatly reduced the burden of infectious diseases.²

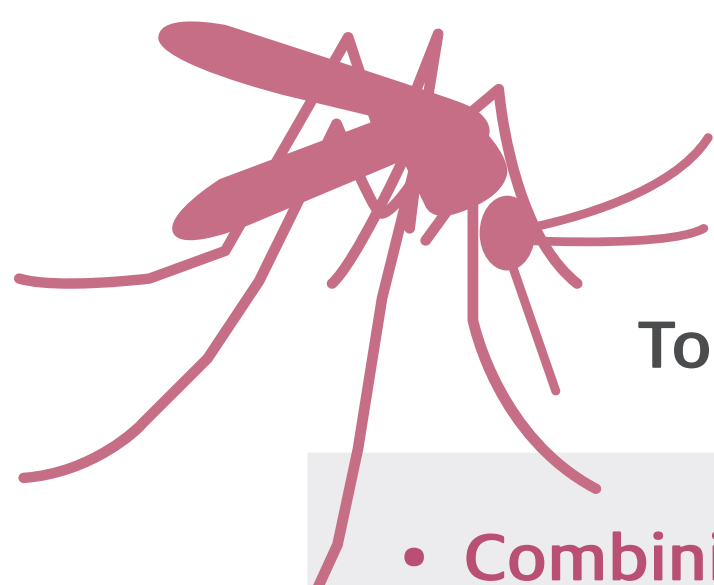
The global mortality rate for children has declined by half over the past 50 years, due in part to vaccines.^{3,4}

Vaccines are one of the most cost-effective ways to save lives.⁵

But many more people can be helped by vaccines.



Addressing Unmet Needs



Many people across the world are at risk of mosquito-borne illnesses such as dengue, chikungunya and Zika.⁶

To tackle some of these, and other challenging infectious diseases, Takeda is:

- Combining world class expertise with a commitment to investment in vaccine R&D to advance the development of vaccines such as Sabin inactivated polio vaccines and Zika vaccines
- Advancing global development of a tetravalent dengue vaccine candidate
- Investing in a first-in-class norovirus vaccine candidate



Our History and Expertise

For more than **70 years,** Takeda's world class vaccine team has produced vaccines in Japan to prevent infectious diseases in adults and children.

Takeda demonstrates leadership in vaccine development and delivery through creating a promising late-stage vaccine pipeline in the industry, with the potential to impact countless lives around the globe.



An Ongoing Priority

Infectious diseases remain a constant threat to public health, and as a consequence the world is paying increasing attention to infectious disease prevention.⁷



Takeda's portfolio of vaccines in development contributes to our vision of preventing infectious diseases worldwide.

Aiming to protect the world from infectious disease

References

¹ Unicef. (2013, April). Immunization Facts and Figures April 2013. Retrieved from https://www.unicef.org/immunization/files/UNICEF_Key_facts_and_figures_on_Immunization_April_2013%281%29.pdf

² Andre, F., Booy, R., HL Bock, H., Clemens, J., Datta, S., John, T., . . . Schmitt, H. (2008, February). Vaccination Greatly Reduces Disease, Disability, Death and Inequity Worldwide. Retrieved from <http://www.who.int/bulletin/volumes/86/2/07-040089/en/>

³ Unicef. (2016, April). Under-Five Mortality. Retrieved from <http://data.unicef.org/topic/child-survival/under-five-mortality/>

⁴ WHO Factsheet. (2016, September). Children: Reducing Mortality. Retrieved from <http://www.who.int/mediacentre/factsheets/fs178/en/>

⁵ Gavi. (2017). Cost-Effective. Retrieved from <http://www.gavi.org/about/value/cost-effective/>

⁶ Baylor College of Medicine. (n.d.). Emerging Infectious Diseases. Retrieved from <https://www.bcm.edu/departments/molecular-virology-and-microbiology/emerging-infections-and-biodefense/emerging-infectious-diseases>

⁷ Centers for Disease Control and Prevention. (2011, October). A CDC Framework for Preventing Infectious Diseases: Sustaining the Essentials and Innovating for the Future. Retrieved from <https://www.cdc.gov/oid/docs/ID-Framework.pdf>