

# VACCINES: SAFE, EFFECTIVE AND NECESSARY

Today, as the world fights against the spread of COVID-19 hope is focused on a vaccine.

Vaccines are among the top medical achievements of the last century. For generations they have maintained public health and stopped the spread of serious, contagious, preventable diseases. Vaccines work by stimulating immunity to a specific disease such as the measles, hepatitis, influenza and many more. They have led to the near elimination of some diseases that once sickened or killed millions.

Unfortunately not everyone can be vaccinated, including infants, pregnant women, the elderly and those with compromised immune systems. These populations rely on others to get vaccinated, thus creating herd immunity. Without broad vaccinations, herd immunity is put at risk and diseases can spread quickly, even in regions where a disease was thought to be eradicated.

## HERE ARE THE FACTS



**1796**

The world's first vaccination, for smallpox, was performed<sup>1</sup>



**2-3 MILLION**

deaths are prevented by vaccines each year<sup>2</sup>



Most childhood vaccines are

**90-99%  
EFFECTIVE**

in preventing disease<sup>3</sup>



**8 IN 10**

Americans favor school-based vaccination requirements<sup>4</sup>



Vaccines rarely cause serious side effects, for example, if 1 million doses are given,

**1 TO 2 PEOPLE**

may have a severe allergic reaction<sup>5</sup>

### Sources:

- 1 Minna Stern A, Markel H, "The History of Vaccines and Immunization: Familiar Patterns, New Challenges" Health Affairs
- 2 The World Health Organization, <https://www.who.int/news-room/facts-in-pictures/detail/immunization>
- 3 "Vaccine Safety: The Facts" Healthychildren.org, the American Academy of Pediatrics <https://www.healthychildren.org/English/safety-prevention/immunizations/Pages/Vaccine-Safety-The-Facts.aspx>
- 4 Villa V, "Five Facts About Vaccines in the U.S." Pew Research Center, <https://www.pewresearch.org/fact-tank/2019/03/19/5-facts-about-vaccines-in-the-u-s/>
- 5 Vaccine Side Effects, Vaccines.gov, [https://www.vaccines.gov/basics/safety/side\\_effects](https://www.vaccines.gov/basics/safety/side_effects)