

THE HISTORY OF VACCINES

Vaccines are one of the most crucial and impactful accomplishments in human history, protecting public health by giving our bodies the ability to fight diseases without contracting them. As pharma spearheads the search for a COVID-19 vaccine, our infographic reflects on the history of this practice, exploring the diseases and their respective vaccines.



THE FIRST VACCINE

In 1796 Europe, Dr Edward Jenner observed that milkmaids who contracted cowpox were immune to smallpox, and began inoculating subjects with cowpox to great success. Following worldwide vaccination campaigns, in 1980, WHO declared smallpox eradicated, making it the only human disease to have been eradicated by vaccination. The word 'vaccination' derives from the Latin noun vacca meaning 'cow' due to this first use of the cowpox virus against smallpox.

Source: History, 2020

THE VACCINE EFFECT

Vaccines are one of the most cost-effective and successful public health interventions, offering prevention against 26 diseases and preventing an average of 2-3 million deaths each year.

Source: WHO, 2019

Milestone — ●
Vaccine discovery or approval — ●

1700

Dr Edward Jenner develops the smallpox vaccine

1796

Louis Pasteur creates the first vaccine for anthrax

1881

Jaime Ferrán develops the first cholera vaccine

Louis Pasteur discovers the earliest vaccine against rabies

1885

The first US polio epidemic outbreak hits Vermont

Sir Almroth Wright discovers the typhoid vaccine

1894 1896

Emil Behring develops the first diphtheria vaccine

1913

Max Theiler discovers a vaccine for yellow fever

1937

INOCULATION IN HISTORY

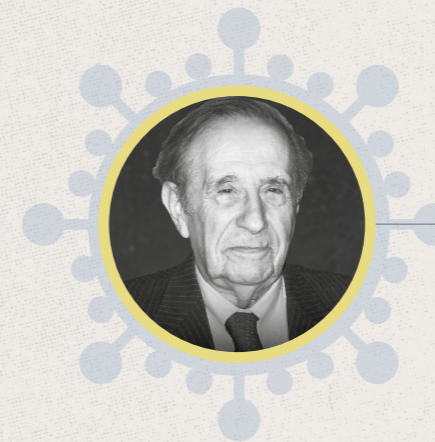
The first inoculations were recorded in China in the 1500s. This 'insufflation' technique for immunity involved collecting scabs from a patient with a mild case of a condition, letting them dry, crushing them into a powder, wrapping the powder in cotton wool, and then sniffing it up a pipe.

Source: Post Magazine, 2020

TOP FIVE VACCINE MANUFACTURERS IN THE WORLD

GSK
MERCK & CO.
SANOFI
PFIZER
NOVAVAX

Source: Statista, 2020



'THE GODFATHER OF VACCINES'

Dr Stanley Plotkin worked on vaccines for anthrax, polio, rabies, rotavirus, and is credited for eradicating rubella in the US. Dr Plotkin is currently consulting pharma companies as they attempt to develop a vaccine against COVID-19.

Source: Science Mag, 2020

A polio vaccine created by Jonas Salk is licensed in the US

1955

Ebola is discovered in the Democratic Republic of Congo

1971

Merck's Maurice Hilleman creates the MMR vaccine for measles, mumps and rubella

1976

The first vaccine for pneumonia is licensed in the US

1977

WHO declare smallpox eradicated

1980

FDA approves Merck's hepatitis B vaccine, Heptavax, for human use

1981

Varicella vaccine for chickenpox is licensed for use in the US

1995

Merck & Co.'s HPV vaccine, Gardasil, is licensed for use

2006

Merck & Co. gain FDA approval for their vaccine, RotaTeq, to combat rotavirus

The first Dengue vaccine, Dengvaxia, by Sanofi is approved in Mexico

2015

Merck & Co. discover a vaccine for Ebola

2019

2020