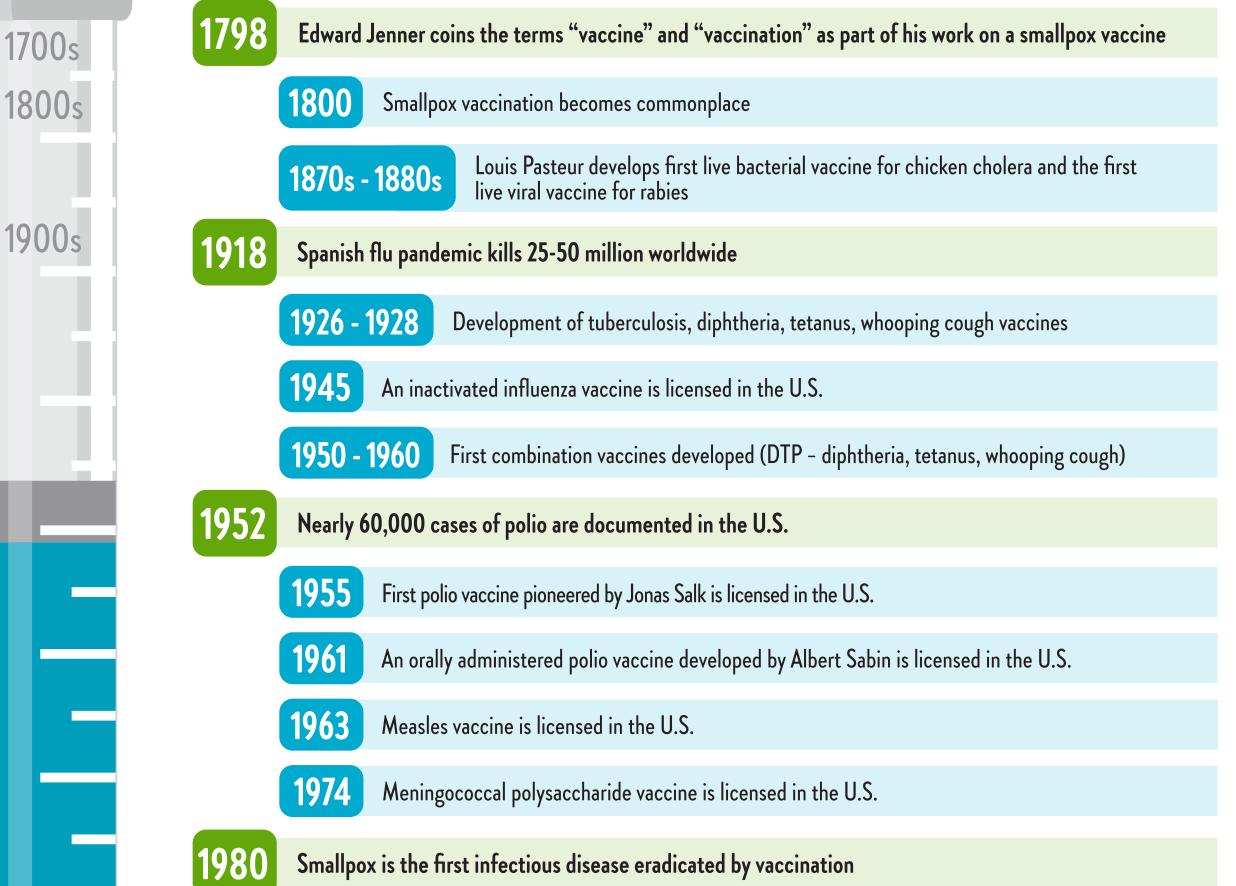
## A glance at **vaccine development** over the centuries





2000s

2000s

1986 First genetically engineered vaccine (hepatitis B) is developed

Measles and rubella are no longer endemic in the U.S.

2006 Human papillomavirus vaccine (HPV) is licensed in the U.S.

Vaccines against 2009 H1N1 pandemic strain and high-dose influenza vaccine are licensed 2009 in the U.S. More than 12,000 Americans died during the H1N1 pandemic.

2020

Several vaccines are in development stage for SARS-CoV-2, the coronavirus that causes COVID-19. As of November 23, 2020, nearly 1.4 million people worldwide have died during the pandemic and more than 58 million confirmed cases of COVID-19 have been reported.



Sources: National Foundation of Infectious Disease, World Health Organization, the Centers for Disease Control and Prevention