



# The Value of Vaccines

## Vaccines mean freedom from disease for millions of people worldwide

- Immunization is a critical weapon in the battle to control and eliminate infectious diseases
- High immunization rates often push disease rates to less than 1% or near eradication<sup>1</sup>
- Today 12 diseases are largely prevented by immunization, including polio, pertussis, and influenza<sup>1</sup>
- Immunization saves the lives of approximately 3 million children around the world annually<sup>2</sup>

## Vaccines protect society and improve personal health

- Immunization does more than just protect individuals, it prevents the spread of disease among entire populations
- Large-scale vaccination has helped eliminate diphtheria, tetanus, and polio from most of the developed world and has eradicated smallpox<sup>3</sup>
- Historic rates for diphtheria in the U.S. dropped from over 206,000 cases and 15,520 deaths in 1921 to only 1 case in 2000<sup>4</sup>
- 80 million doses of influenza vaccine were distributed in the U.S. in 2001, saving lives and reducing the burden of disease on society<sup>5</sup>

## Vaccines reduce human and economic costs

- Since the introduction of the first Hib vaccine in 1987, cases among children under five have fallen from 20,000 a year to an average of 68 cases annually.<sup>6</sup>
- For every dollar used to buy DTaP vaccine, approximately \$8.50 in direct medical costs and approximately \$15.50 in indirect social costs in the U.S. is saved.<sup>7</sup>

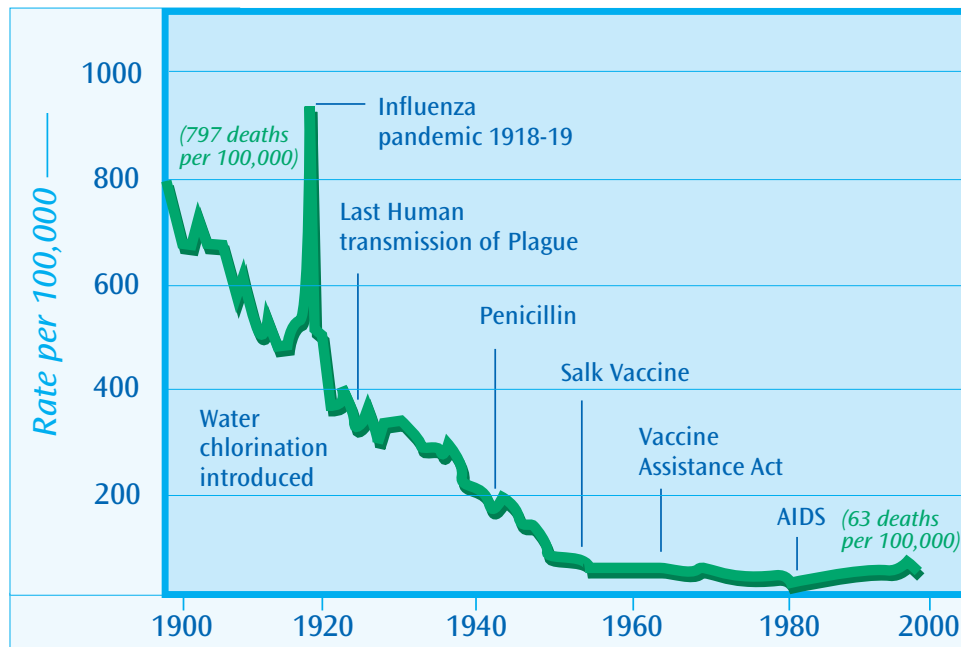
**References:** 1. Centers for Disease Control and Prevention (CDC). Ten great public health achievements—United States, 1900-1999. *MMWR Morb Mortal Wkly Rep.* 1999;48(12):241-264. 2. Kane M, Lasher H. The case for childhood immunization [Occasional Paper #5]. Children's Vaccine Program at PATH. 2002. 3. Centers for Disease Control and Prevention (CDC). Achievements in public health. *MMWR Morb Mortal Wkly Rep.* 1999;48(29):621-649. 4. Centers for Disease Control and Prevention (CDC). Epidemiology and Prevention of Vaccine Preventable Diseases, 7th Ed. Atlanta, GA: CDC; 2002:44. 5. Findings. *The Washington Post*. October 17, 2001. [Final Edition]. 6. Centers for Disease Control and Prevention (CDC). Epidemiology and Prevention of Vaccine Preventable Diseases, 7th Ed. Atlanta, GA: CDC; 2002:86. 7. National Immunization Program. AAP/ASTHO Congressional Briefing On Immunization. Available at: <http://www.cdc.gov/nip/prog/aap-astho.htm>. Accessed July 19, 2002. 8. Armstrong GL, Conn LA, Pinner RW. Trends in infectious disease mortality in the United States during the 20th century. *JAMA*. 1999;281(1):61-66.



# Vaccines: A Century of Progress in Protection

Immunization results in dramatic reductions in mortality

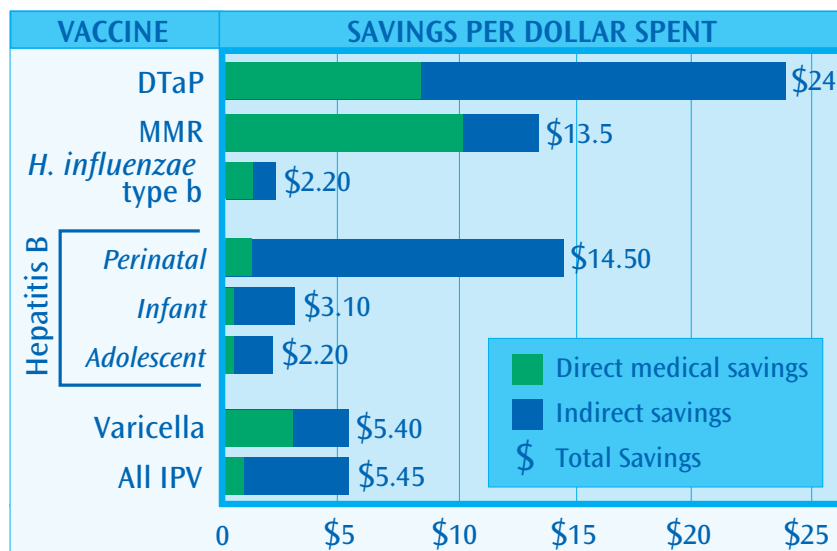
CRUDE DEATH RATES FROM INFECTIOUS DISEASE IN THE U.S.<sup>3,8</sup>



Adapted from MMWR 1999;48(29):621-629 and JAMA 1999;281(1):61-66.

## Vaccines demonstrate significant economic savings

COST BENEFIT ANALYSIS OF COMMONLY USED VACCINES IN THE U.S.<sup>7</sup>



Adapted from Centers for Disease Control & Prevention

