



## **WHY IMMUNIZE?**

DISEASE	WHAT IT DOES	WHY IMMUNIZE
Haemophilus Influenza Type b (Hib)	Most common cause of bacterial meningitis in the U.S. before the vaccine. Led to deafness, seizures, or mental retardation in those who survived the disease.	Before the vaccination, Hib meningitis killed 600 children a year and infected 20,000. If we were to stop immunizing, we would likely return to the pre-vaccine numbers of infections and deaths.
Hepatitis A	Causes a liver disease resulting in jaundice, fever, fatigue, abdominal pain, and diarrhea. About 15% of infected people will have prolonged or relapsing symptoms over a 6-9 month period.	Before the vaccination, the number of reported cases reached 35,000 per year. One-third of Americans have evidence of past infection (immunity).
Hepatitis B	Infants and children who become infected with Hepatitis B are at the highest risk of developing life-long infection which often leads to death from liver disease and liver cancer.	Approximately 25% of children who become infected with life-long hepatitis are expected to die of a related disease as adults. In addition to the 12,000 infants infected by their mother during birth, approximately 33,000 children under the age of 10 were infected before the vaccination.
Human Papilloma Virus (HPV)	Most common sexually transmitted infection in the U.S. with about 20 million people currently infected. Some types can cause genital warts in males and females. Other types can cause cervical cancer in women and other types of cancer in both men and women.	The American Cancer Society estimates that in 2007, more than 11,000 women will be diagnosed with cervical cancer and approximately 3,600 will die from it in the U.S.
Diphtheria	A serious disease caused by poison produced from the bacteria. It frequently causes heart and nerve problems.	The death rate before vaccination was up to 20% in the young and elderly. Although Diphtheria is primarily in other countries, international travels make it easy to contract. In 1921, a diphtheria outbreak caused 12,230 deaths in the U.S. As a result of vaccinations, only one case was reported in 1998.
Influenza (Flu)	A contagious respiratory illness that can cause mild to severe illness and, at times, can lead to death. Complications of flu can include bacterial pneumonia, ear infections, sinus infections, dehydration, and worsening of chronic medical conditions such as congestive heart failure, asthma, or diabetes.	Each year in the U.S., on average, 5-20% of the population gets the flu, more than 200,000 people are hospitalized from flu complications, and about 36,000 people die from flu.
Measles	Rash that can cause complications such as pneumonia, diarrhea, or ear infections in 9% of those infected. Some develop encephalitis which results in brain damage.	Measles is one of the most infectious diseases in the world and is frequently imported into the U.S. If vaccinations were stopped, 2.7 million measles deaths worldwide would be expected.

(continued on next page)

# WHY IMMUNIZE?

(page 2)

DISEASE	WHAT IT DOES	WHY IMMUNIZE
Meningococcal Disease	Can cause meningitis and bloodstream infection leading to loss of a limb, permanent neurologic impairment, joint infection, pneumonia, organ system failure, shock, and death.	There are approximately 2,000-3,000 cases of meningococcal disease each year in the U.S. An estimated 125 deaths from meningococcal disease occurred in the U.S. in 2004.
Mumps	Once a major cause of deafness in children, occurring in approximately 1 of every 20,000 cases reported. Can cause swelling of the brain, nerves, and spinal cord that can lead to paralysis, seizures, and fluid in the brain.	Before the vaccination was developed in 1967, an estimated 212,000 cases occurred in the U.S. annually. In 1986 and 1987, there was a resurgence of mumps with 12,848 cases reported. Since 1989, the incidence has declined with a total of 323 cases last yr.
Pertussis (Whooping Cough)	Can lead to pneumonia, seizures, brain disease, and death in infants. Results in prolonged coughing that lasts for many weeks causing vomiting and dehydration.	Before immunization, up to 260,000 cases were reported in the U.S. each year with up to 9,000 deaths. Pertussis still occurs worldwide.
Pneumococcal diseases	The most common cause of invasive bacterial infection in American children. Can cause middle ear and sinus infections, pneumonia, meningitis, blood infections, and death.	Pneumococcal disease causes an estimated 175,000 hospitalized cases of pneumonia, 34,500 cases of blood infection, and 2,200 cases of meningitis each year in the U.S. Invasive pneumococcal disease causes about 4,800 deaths annually.
Polio	Causes acute paralysis that can lead to permanent physical disability and even death.	Before Polio vaccination was available, 13,000 to 20,000 cases were reported each year in the U.S. No cases were reported in 2000.
Rotavirus	The leading cause of severe acute gastroenteritis (vomiting and diarrhea) among children worldwide, often resulting in dehydration.	Results in the hospitalization of approximately 55,000 children each year in the U.S. and the death of over 600,000 children annually worldwide.
Rubella (German Measles)	Usually mild in children and adults, up to 90% of infants born to infected mothers will develop congenital rubella syndrome resulting in heart defects, cataracts, mental retardation, and deafness.	Before the 1965 vaccination was used routinely in the U.S., rubella resulted in an estimated 20,000 infants born with congenital rubella syndrome, 2,100 neonatal deaths, and 11,250 miscarriages in a two-year time span.
Tetanus (Lock Jaw)	A severe, often fatal disease. Leads to stiffness and spasms of the muscles. Can cause the throat to close, and spasms can cause fractures.	Approximately 30% of reported cases of tetanus end in death. Tetanus kills 300,000 newborns and 30,000 birth mothers worldwide from lack of immunization. Tetanus is not contagious and can only be prevented by immunization. People of all ages can be infected.
Varicella (Chickenpox)	Always present in the community and highly contagious. Can be severe in some, leading to complications such as bacterial skin infection, swelling of the brain, pneumonia, and shingles. Adolescents and adults are more at risk for severe disease.	Chickenpox was responsible for an estimated 4 million cases, 11,000 hospitalizations, and 100 deaths each year before the licensing of the chicken pox vaccine in 1995.