

Vaccines Work!

CDC statistics demonstrate dramatic declines in vaccine-preventable diseases when compared with the pre-vaccine era

DISEASE	PRE-VACCINE ERA ESTIMATED ANNUAL MORBIDITY	MOST RECENT REPORTS OR ESTIMATES OF U.S. CASES	PERCENT DECREASE
Diphtheria	21,053 ¹	1 ²	>99%
<i>H. influenzae</i> serotype B (invasive, <5 years of age)	20,000 ¹	17 ²	>99%
Hepatitis A	117,333 ¹	(est) 3,300 ³	97%
Hepatitis B (acute)	66,232 ¹	(est) 14,400 ³	78%
Measles	530,217 ¹	121 ^{2,*}	>99%
Meningococcal disease (all serotypes)	2,886 ⁴	312 ²	89%
Mumps	162,344 ¹	386 ²	>99%
Pertussis	200,752 ¹	3,044 ²	98%
Pneumococcal disease (invasive, <5 years of age)	16,069 ¹	1,117 ²	93%
Polio (paralytic)	16,316 ¹	1 ²	100%
Rotavirus (hospitalizations, <5 years of age)	60,000 ^{5,**}	(est) 12,000 ^{6,**}	80%**
Rubella	47,745 ¹	7 ²	>99%
Congenital Rubella Syndrome	152 ¹	0 ²	>99%
Smallpox	29,005 ¹	0 ²	100%
Tetanus	580 ¹	26 ²	96%
Varicella	4,085,120 ¹	4,348 ²	>99%

*Measles cases reported to CDC in 2025 were 1,618 as of October 21, 2025 (www.cdc.gov/measles/data-research/index.html)

**CDC estimate of annual rotavirus hospitalizations in U.S. <5 years: 55,000–70,000/year in prevaccination era; median 80% estimated reduction of rotavirus hospitalizations in U.S. children <5 years.

1. CDC. JAMA November 14, 2007; 298(18): 2155–63.
2. CDC. Reported Cases of Notifiable Diseases and Rates, United States, 2022: Annual Reported Cases of Notifiable Diseases, by Region and Reporting Area. United States, U.S. Territories, and Non-U.S. Residents, 2022. <https://stacks.cdc.gov/view/cdc/175682>. Accessed June 24, 2025.
3. CDC. 2023 Viral Hepatitis Surveillance Report. www.cdc.gov/hepatitis-surveillance-2023/about/index.html. Accessed June 24, 2025.
4. CDC. MMWR October 6, 1995; 43(53):1–98.
5. TK Fischer, et al. Hospitalizations and deaths from diarrhea and rotavirus among children <5 years of age in the United States, 1993–2003. *Journal of Infectious Diseases*, Apr 15;195(8) 1117–25. doi.org/10.1086/512863
6. CDC. Manual for the Surveillance of Vaccine-Preventable Diseases. Chapter 13: Rotavirus. www.cdc.gov/surv-manual/php/table-of-contents/chapter-13-rotavirus.html

