In findings that offer compelling evidence of the power of childhood vaccines, a new government report shows the routine shots have prevented hundreds of millions of illnesses, tens of millions of
hospitalizations and more than 1 million deaths among Americans born in the past 30 years.

The new data, published Thursday by the U.S. Centers for Disease Control and Prevention, analyzed the benefits of the CDC's Vaccines for Children Program, which was launched in 1994 to make childhood immunizations more affordable and accessible.

The results of the research are a "testament to the success" of vaccinations for preventing diseases, Dr. Sara Siddiqui, a pediatrician at Hassenfeld Children's Hospital at NYU Langone in New York, told CNN.

"These are vaccinations that are currently recommended in the childhood vaccination series and also are provided at reduced cost as part of the Vaccines For Children Program. I am very pleased and grateful to see this study being performed to report the health benefits of vaccinations as a way to prevent disease," Siddiqui added.

"My job as a pediatrician is to keep children healthy and out of the hospital. Vaccinations are a way to keep children healthy and prevent severity of disease," she added. "I encourage all parents to continually have a conversation and discussion with their pediatrician about each vaccine that their child is due for as well as the specific disease that it would help in preventing."

In the new CDC study, researchers from the National Center for Immunization and Respiratory Diseases quantified the health benefits and economic impact of routine immunizations among children in the United States born since 1994.

Nine vaccines were included in the analysis: diphtheria, tetanus and pertussis (DTaP); Haemophilus influenzae type b (Hib); poliovirus;
measles, mumps and rubella; hepatitis B; varicella; hepatitis A; pneumococcal conjugate and rotavirus. Some other common vaccines, including flu, COVID-19 and RSV immunizations, were not included in the analysis.

What did they discover? Among about 117 million children born from 1994 through 2023, routine vaccinations will have prevented some 508 million cases of illness, 32 million hospitalizations and just over 1 million deaths.

The number of illnesses prevented in the study ranged from about 5,000 cases for tetanus to around 100 million cases for measles and varicella.

The greatest estimated cumulative number of hospitalizations and deaths prevented was about 13.2 million hospitalizations for measles and about 752,800 deaths for diphtheria, the researchers wrote.

Their analysis also revealed that routine childhood vaccinations yielded a net savings of $540 billion in direct costs, such as the costs of treating an infection, and $2.7 trillion in societal costs, such as parents missing work to care for a sick child.

The Vaccines for Children (VFC) program was created to provide vaccines at no cost to eligible people 18 and younger. Last year, more than half—about 54%—of children were eligible to receive vaccines through the program, the report found.

"VFC plays an important role in maintaining high childhood vaccination coverage by reducing barriers to access, especially in geographic areas and among populations that have historically had lower vaccination coverage, such as children living in rural areas," the researchers, led by Fangjun Zhou, wrote in their report.
"Immunization programs might consider expanding their provider network by using nontraditional vaccine providers such as pharmacies in areas where access is deemed to be inadequate," they added. "Further, provider reminders, provider assessment and feedback, and client reminder-recall systems remain important methods to reduce missed opportunities for vaccination."

During the pandemic, routine childhood vaccination coverage dropped in the United States because of reduced access to primary health care and the spread of misinformation, prompting vaccine hesitancy.

But the United States wasn't the only country to experience backslides in vaccination rates during the pandemic: Data released in July by the World Health Organization and the United Nations International Children's Emergency Fund (UNICEF) showed the world has yet to recover.

For instance, worldwide coverage of the diphtheria, tetanus and pertussis (DTP3) vaccine was 84% in 2023, the same as in 2022 but below the 86% recorded in 2019.


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