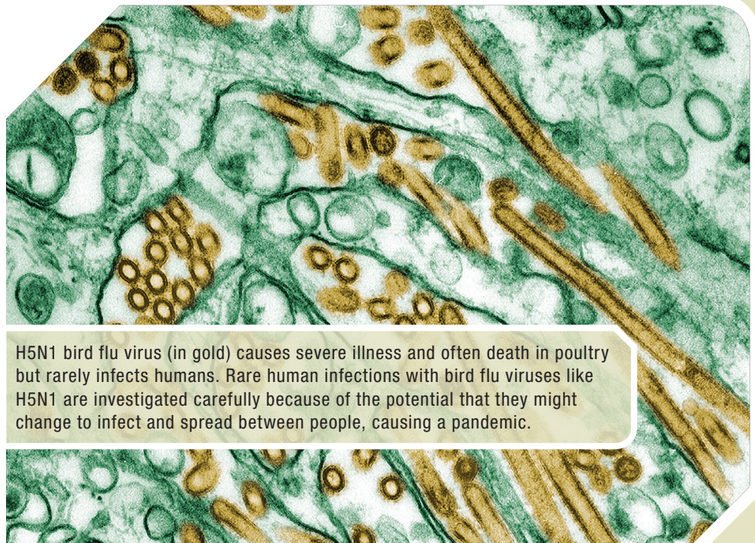
IMMUNIZATION & RESPIRATORY DISEASES

CDC protects all Americans from disease, disability, and death through immunization and by controlling respiratory and other preventable diseases. Vaccination is one of public health's most successful tools for saving lives and protecting people. CDC provides domestic and international leadership in seasonal and novel influenza control as well as laboratory and epidemiology expertise to respond to bacterial and viral disease threats.

250,000
Rotavirus vaccinations in children age 5 or younger prevented up to 250,000 hospitalizations during 2008–2012.

79,000
Flu vaccinations prevented 79,000 hospitalizations, 5.8 million doctor visits, and 13.6 million flu cases in the U.S.

$10 SAVED
For every $1 invested in vaccines, the U.S. saves an estimated $10 in societal costs.



H5N1 bird flu virus (in gold) causes severe illness and often death in poultry but rarely infects humans. Rare human infections with bird flu viruses like H5N1 are investigated carefully because of the potential that they might change to infect and spread between people, causing a pandemic.

KEY ACCOMPLISHMENTS

- Helped states and local communities protect people from public health threats, including whooping cough, hepatitis A, Legionnaires' disease, and measles outbreaks, while also handling an active influenza season.
- Helped partners respond to emerging global health threats, including H7N9 influenza A and Middle East Respiratory Syndrome (MERS CoV).
- Proved the effectiveness of the vaccine for pneumonia (PCV13), reducing the disease by 93% in children age 5 and younger and preventing 30,000 severe cases and 3,000 deaths between 2010 and 2013.
- Connected electronic health records and immunization information technologies for 34 states; Washington, D.C.; and two cities. This provided information for clinical and public health decisions so more children get only the vaccines they need, and get them on time.
- Established Vaccine-Preventable Diseases Centers to strengthen response to urgent health threats. These centers helped protect people by identifying, testing, and genotyping a 23-case outbreak of measles in North Carolina and a mumps outbreak at several colleges in Massachusetts.

90% Decrease
Most vaccine-preventable diseases are at historic lows.

PREPARING FOR A POSSIBLE H7N9 FLU PANDEMIC

In situations where people and birds are often in close contact, there are more opportunities for avian influenza viruses to jump species from birds to humans. This leap has happened several times in China, causing some human infections with both H5N1 and H7N9 strains.

CDC worked with China in the late 1980s to better identify and track human infections caused by bird flu viruses. China's response in 2013 to H7N9 demonstrated how well this partnership has worked. China detected the new H7N9 virus and fully mapped the gene within days. Working with CDC scientists, they conducted quick and effective outbreak field investigations and studies.

CDC not only supported China's response, but also worked domestically and with other international partners to prepare for the possibility that H7N9 might cause localized outbreaks and trigger a global pandemic based on genetic sequences of the new virus, which China made available promptly. CDC developed a potential vaccine virus to make the H7N9 vaccine, developed and distributed H7N9 diagnostic tests, and conducted studies to better understand how the virus spreads.