2009 H1N1 Influenza
Updated Key Points
February 12, 2010

What's New and Updated

- Activity Update
- Updated CDC Estimates on 2009 H1N1 Cases, Hospitalizations and Deaths from April 2009—January 16, 2010
- Updated Information about Flu-Related Hospitalizations and Deaths in the United States Reported to CDC from April 2009 – January 30, 2010
- 2009 H1N1 Influenza Vaccine

A Summary of CDC Key Public Health Messages this Season

- Flu activity is relatively low at this time, with most flu continuing to be caused by 2009 H1N1.
- Flu activity, caused by either 2009 H1N1 or seasonal flu viruses, may rise and fall, but it is expected to continue for several more months.
- CDC recommends a three-step approach to fighting the flu:
  - vaccination;
  - everyday preventive actions, including covering coughs and sneezes, frequent hand washing, and staying home when sick;
  - and the correct use of antiviral drugs if your doctor recommends them.
- CDC recommends influenza vaccination as the first and most important step in protecting against the flu. CDC is now encouraging everyone to get vaccinated against 2009 H1N1, including people 65 years and older.
- While less likely to get sick with 2009 H1N1 than younger people, people 65 and older are at high risk of serious complications if they do get sick.
- Vaccination of people with certain health conditions also is important because they also are at higher risk of serious flu-related complications.
- Health conditions that increase the risk of being hospitalized from 2009 H1N1 include lung disease like asthma or chronic obstructive pulmonary disease (COPD), diabetes, heart, or neurologic disease, and pregnancy.
- It's very important that antiviral drugs be used early to treat flu in people who are very sick (for example people who are in the hospital) and people who are sick with flu and have a greater chance of getting serious flu complications, like people with asthma or diabetes or women who are pregnant.

Activity Update

- Each week CDC analyzes information about influenza disease activity in the United States and publishes findings of key flu indicators in a report called FluView.

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- Information collected during the week of January 31- February 6, 2010 is being reported in FluView on February 12, 2010. Below is a summary of the most recent key indicators:
- Visits to doctors for influenza-like illness (ILI) nationally increased slightly over last week but remain low overall. The national increase in ILI was driven by elevated ILI in 3 of 10 U.S. regions. Regions 4, 7, and 9 reported ILI slightly higher than average for the United States. Region 4 is comprised of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee. Region 7 is comprised of Iowa, Kansas, Missouri and
- Very few 2009 H1N1 laboratory-confirmed hospitalizations were reported by states during the week ending February 6 for most age groups.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Report decreased over the previous week and is now lower than expected for this time of year.
- In addition, another three flu-related pediatric deaths were reported this week: two of these deaths were associated with laboratory confirmed 2009 H1N1, and one death was associated with an influenza A virus for which the subtype was undetermined.
- Since April 2009, CDC has received reports of 324 laboratory-confirmed pediatric deaths: 274 due to 2009 H1N1, 48 pediatric deaths that were laboratory confirmed as influenza, but the flu virus subtype was not determined, and two pediatric deaths that were associated with seasonal influenza viruses. (Laboratory-confirmed deaths are thought to represent an undercount of the actual number.
- A table showing reports of flu-related pediatric deaths (including a cumulative total of 2009 H1N1 pediatric deaths since April 2009) is available on the CDC website at http://www.cdc.gov/h1n1flu/updates/us/#pedh1n1cases .
- Since CDC began tracking pediatric flu-related deaths in 2003-2004, the number of pediatric deaths reported to CDC has ranged from 46 during the 2005-2006 season to the 260 deaths reported so far during the 2009-2010 season.
- No states reported widespread influenza activity. Six states reported regional influenza activity. They are: Alabama, Georgia, Maine, New Jersey, New Mexico, and South Carolina.
- Almost all of the influenza viruses identified so far continue to be 2009 H1N1 influenza A viruses.
- These viruses remain similar to the virus chosen for the 2009 H1N1 vaccine, and remain susceptible to the antiviral drugs oseltamivir and zanamivir with rare exception.

- CDC has reported a cumulative 60 cases of oseltamivir resistant 2009 H1N1 viruses in the United States since April 2009.

Updated CDC Estimates of 2009 H1N1 Influenza Cases, Hospitalizations and Deaths in the United States, April 2009 – January 16, 2010

- CDC developed a method to provide an estimated range of the total number of 2009 H1N1 cases, hospitalizations and deaths in the United States as well as a breakdown of these estimates by age groups during the pandemic.

- This method uses actual surveillance data on 2009 H1N1 hospitalizations collected through CDC's Emerging Infections Program (EIP), which conducts surveillance for laboratory-confirmed influenza-related hospitalizations in children and adults.

- This method corrects surveillance data for underreporting using previously-published multipliers.

- CDC provided its first set of estimates on these figures on November 12, 2009 for period from April through October 17, 2009.

- On December 10, 2009, CDC provided an update of these estimates for April through November 14, 2009.

- On January 15, 2010 CDC provided an update of these estimates for April through December 12, 2009.

- On February 12, CDC is providing an update of these estimates for April 2009 through January 16, 2010.

- The same methodology was applied to derive each set of estimates.

- These updated estimates are cumulative total estimates for all 2009 H1N1 activity from April 2009 through January 16, 2010.

- The latest estimates released on February 12, 2010 incorporate an additional 5 weeks of flu data (from December 13, 2009 through January 16, 2010) from the previous estimates released on January 15, 2009.

- Less than 5% of increases in the estimates from one reporting date to the next are the result of delayed reporting in cases, hospitalizations and deaths.

- It's important to note that these figures are **estimates**.

- CDC estimates that between 41 million and 84 million cases of 2009 H1N1 occurred between April 2009 and January 16, 2010. The mid-level in this range is about 57 million people infected with 2009 H1N1.

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- CDC estimates that between about 183,000 and 378,000 H1N1-related hospitalizations occurred between April 2009 and January 16, 2010. The mid-level in this range is about 257,000 2009 H1N1-related hospitalizations.

- CDC estimates that between about 8,330 and 17,160 2009 H1N1-related deaths occurred between April 2009 and January 16, 2010. The mid-level in this range is about 11,690 2009 H1N1-related deaths.

- The additional five weeks of flu activity data added to the get these updated estimates correlate with a five week period of generally low flu activity in the United States.

- The latest estimates through January 16, 2010 show a relatively small increase in the total number of 2009 H1N1 cases, hospitalizations and deaths since the previous estimates posted on January 15, 2010.

- Visits to doctors for influenza-like illness (ILI) in general were low between December 13, 2009 and January 16, 2010 and were either at or near the national baseline during all five weeks.

- Similarly, the number of states reporting widespread flu activity declined throughout this time from a high of 7 states reporting widespread activity during the week of December 13-19, 2009 to no states reporting widespread activity for the weeks of January 3-9 and January 10-16, 2010.

- The United States experienced its first wave of 2009 H1N1 pandemic activity in the spring of 2009, followed by a second wave of 2009 H1N1 activity in the fall.

- While activity so far this season peaked in October and then declined quickly to below baseline levels in January, there are still uncertainties surrounding the rest of this flu season, including the possibility of increases in circulation of seasonal influenza viruses and increases in circulation of 2009 H1N1 viruses.

- In past pandemics, flu activity has occurred in waves and it's possible that the United States could experience another wave of flu activity.

- In addition, sporadic cases of influenza may also be detected in the summer.

- The data by age provided in the updated estimates continues to confirm that people younger than 65 years of age are more severely affected by this disease relative to people 65 and older compared with seasonal flu.

- With seasonal influenza, about 60 percent of <u>seasonal flu-related hospitalizations</u> and 90 percent of <u>flu-related deaths</u> occur in people 65 years and older.

- With 2009 H1N1, approximately 90% of estimated hospitalizations and 87% of estimated deaths from April through January 16, 2009 occurred in people younger than 65 years old.

- CDC is continuing to recommend vaccination against 2009 H1N1 at this time for all people 6 months and older, including those people 65 years of age and older because severe illness and deaths *have* occurred in this age group.
- The estimates derived from this methodology provide the public, public health officials and policy makers a sense of the health impact of the 2009 H1N1 pandemic.
- While these numbers are an estimate, CDC feels that they present a fuller picture of the burden of 2009 H1N1 disease on the United States.
- CDC will continue to use weekly data from systems that comprise the National Influenza Surveillance System to monitor geographic, temporal and virologic trends in influenza in the nation.

Previous Estimates from April – December 12, 2009

- CDC estimates that between 39 million and 80 million cases of 2009 H1N1 occurred between April and December 12, 2009. The mid-level in this range is about 55 million people infected with 2009 H1N1.
- CDC estimates that between about 173,000 and 362,000 2009 H1N1-related hospitalizations occurred between April and December 12, 2009. The mid-level in this range is about 246,000 H1N1-related hospitalizations.
- CDC estimates that between about 7,880 and 16,460 2009 H1N1-related deaths occurred between April and December 12, 2009. The mid-level in this range is about 11,160 2009 H1N1-related deaths.

2009 H1N1 Influenza Vaccine

In this Section:

- Supply
- Recommendations

Supply

- There is no way to accurately predict the course of influenza epidemics. Right now is a window of opportunity for more people to get vaccinated for 2009 H1N1 flu, to provide protection should there be another wave of disease this year. Now that there is an adequate supply of vaccine, those who have been patiently waiting to receive the 2009 H1N1 vaccine are encouraged to get vaccinated.

Recommendations

- People should get a flu vaccine every year because after being vaccinated, your immunity declines over time and may be too low to provide protection after a year.

- Parents are encouraged to ensure that children younger than 10 years old get both doses of 2009 H1N1 vaccine. The recommended interval between the first and second dose is 28 days.

- The 2009 H1N1 flu has caused more deaths among adults with chronic medical conditions than in any other group. But most of these adults have not been vaccinated yet. If you have a chronic health condition and have not received your vaccine against 2009 H1N1 flu yet, get one now.

- Now that there is an adequate supply of vaccine, CDC encourages 2009 H1N1 influenza vaccination for anyone who wants protection against the disease, including people 65 years and older.

- CDC continues to encourage people to get vaccinated throughout the flu season, which can last as late as May. Flu seasons are unpredictable in a number of ways, including when they begin, how severe they are, how long they last and which viruses will spread. There were more uncertainties than usual going into this flu season (2009-2010), because of the emergence of the 2009 H1N1 influenza virus (previously called "novel H1N1" or "swine flu").

- Though flu activity has declined since late October, there are still uncertainties surrounding the rest of this flu season, including the possibility of the circulation of seasonal influenza viruses and ongoing circulation of 2009 H1N1 viruses. In past pandemics, flu activity has occurred in waves and it’s possible that the United States could experience another wave of flu activity in the winter or spring of 2010. In addition, sporadic cases of influenza may also be detected in the summer.