CDC Influenza Division Key Points

December 4, 2015

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Summary Key Points

- The most recent FluView report indicates that flu activity remains low in the United States at this time.
- While there has been some activity, flu season has not yet started in the United States.
- National Influenza Vaccination Week (NIVW) is scheduled for next week, December 6-12, 2015.
- NIVW is a weeklong observance to promote ongoing vaccination after November.
- Next week (Thursday, December 10, 2015) CDC will publish preliminary estimates on vaccine uptake so far during 2015-2016 along with a seasonal flu activity update in the Morbidity and Mortality Weekly Report.
- Getting a flu vaccine now can protect you from illness during the upcoming season.
- Each flu season, flu causes millions of illnesses, hundreds of thousands of hospitalizations and thousands or sometimes tens of thousands of deaths.
- The Centers for Disease Control and Prevention (CDC) recommends annual flu vaccination for everyone 6 months and older.
- A flu vaccine is our best defense against getting the flu.
- While flu vaccine can vary in how well it works, vaccination can reduce flu illnesses, doctors' visits, and missed work and school due to flu, as well as prevent flu-related hospitalizations.
- The composition of this season’s vaccine has been updated to better match circulating viruses.
- The influenza A H3N2 and influenza B components were changed from last season.
- Laboratory data can give a general indication of how well the vaccine might work.
- Global laboratory data to date continues to indicate that most circulating influenza viruses are similar to the 2015-2016 influenza reference vaccine viruses.
- This suggests that vaccination with Northern Hemisphere influenza vaccine should offer protection against the majority of circulating viruses.

- CDC will continue to carefully look at the results of laboratory studies of currently circulating viruses to look for any evidence that viruses are changing.
- CDC also will conduct vaccine effectiveness studies to tell how well the vaccine is actually protecting against illness.
- Flu vaccine is designed to protect against three or four different flu viruses, depending on which vaccine you get.
- It takes about two weeks after vaccination for protection to set in. Now is a good time to get vaccinated.
- Manufacturers report having shipped more than 140.5 million doses of flu vaccine as of November 27, 2015.
- Go to http://vaccine.healthmap.org/ or www.cdc.gov/flu to find a location near you where you can get vaccinated.

FluView Activity Update

According to this week's FluView report, overall seasonal influenza activity increased slightly in the United States but remains low overall. CDC recommends an annual flu vaccine for everyone 6 months of age and older. If you have not been vaccinated yet this season, get vaccinated now. Below is a summary of the key flu indicators for the week ending November 28, 2015:

- For the week ending November 28, the proportion of people seeing their health care provider for influenza-like illness (ILI) increased from 1.6% to 1.9%, but remains below the national baseline (2.1%). Three of 10 regions (Regions 3, 4 and 6) reported ILI at or above their region-specific baseline levels.
- Puerto Rico and two states (Oklahoma and South Carolina) experienced moderate ILI activity. Four states (Arizona, Mississippi, New Jersey, and Virginia) experienced low ILI activity. New York City, Puerto Rico, and 44 states experienced minimal ILI activity. The District of Columbia did not have sufficient data to calculate an activity level. ILI activity data indicate the amount of flu-like illness that is occurring in each state.
- Guam reported widespread influenza activity. Puerto Rico reported regional activity. Seven states (Iowa, Maryland, Massachusetts, New Hampshire, North Carolina, Oregon, and Utah) reported local influenza activity. The District of Columbia, the U.S. Virgin Islands, and 38 states reported sporadic influenza

activity. No influenza activity was reported by five states (Alabama, Mississippi, Rhode Island, Tennessee, and Virginia). Geographic spread data show how many areas within a state or territory are seeing flu activity.

- Influenza-associated hospitalization data from the Influenza Hospitalization Surveillance Network (FluSurv-NET) for the 2015-2016 influenza season will be updated weekly starting later this season.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the NCHS Mortality Surveillance System and the 122 Cities Mortality Reporting System is below their system-specific epidemic threshold.
- No influenza-associated pediatric deaths were reported to CDC during the week ending November 28. Two influenza-associated pediatric deaths have been reported for the 2015-2016 season at this time.
- Nationally, the percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories during the week ending November 28 was 1.5%. For the most recent three weeks, the regional percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories ranged from 0.2% to 3.4%.
    - During the week ending November 28, 103 (60.2%) of the influenza-positive tests reported to CDC by clinical laboratories were influenza A viruses and 68 (39.8%) were influenza B viruses.
- The most frequently identified influenza virus type reported by public health laboratories during the week ending November 28 was influenza A viruses, with influenza A (H3) viruses predominating.
    - During the week ending November 28, 12 (92.3%) of the 13 influenza-positive tests reported to CDC by public health laboratories were influenza A viruses and 1 (7.7%) was an influenza B virus. Of the 12 influenza A viruses that were subtyped, 7 (58.3%) were H3 viruses and 5 (41.6%) were A (H1N1)pdm09 viruses.
    - Influenza A (H3) viruses were predominant in all age groups ranging from 41.9% (ages 0-4 years) to 84.1% (ages 65 years and older).

- CDC has antigenically characterized 62 specimens (18 influenza A (H1N1)pdm09, 43 influenza A (H3N2) and 1 influenza B virus) collected in the U.S. since October 1, 2015.

- All 18 (100%) influenza A (H1N1)pdm09 viruses were antigenically characterized as A/California/7/2009-like, the influenza A (H1N1) component of the 2015-2016 Northern Hemisphere vaccine.
- All 43 H3N2 viruses were genetically sequenced and all viruses belonged to genetic groups for which a majority of viruses antigenically characterized were similar to the cell-propagated A/Switzerland/9715293/2013, the influenza A (H3N2) component the 2015-2016 Northern Hemisphere vaccine.
  - A subset of 16 H3N2 viruses also were antigenically characterized; 15 of 16 (93.8%) H3N2 viruses were A/Switzerland/9715293/2013-like by HI testing or neutralization testing.

- The influenza B virus tested belonged to the B/Yamagata lineage and was antigenically similar to the B/Phuket/3073/2013 virus, the influenza B component for both the 2015–2016 Northern Hemisphere trivalent and quadrivalent vaccines. No B/Victoria-lineage viruses were antigenically characterized.
- CDC has characterized 359 U.S. flu viruses collected by U.S. laboratories during May 24–September 30, 2015, including 17 influenza A (H1N1)pdm09 viruses, 271 influenza A (H3N2) viruses, and 71 influenza B viruses.
  - The 271 H3N2 viruses collected from May 24-September 30, 2015 have been genetically sequenced and all viruses belonged to genetic groups for which a majority of viruses antigenically characterized were similar to the cell-propagated A/Switzerland/9715293/2013, the influenza A (H3N2) reference virus representing the 2015-2016 Northern Hemisphere vaccine.
  - 206 viruses (17 A (H1N1)pdm09, 118 A (H3N2), 44 B/Yamagata-lineage, and 27 B/Victoria-lineage) collected from May 24-September 30, 2015 have been antigenically characterized. All but one virus were similar to the reference viruses representing the 2015-2016 Northern Hemisphere influenza vaccine components.

- Since October 1, 2015, CDC has tested 11 A (H1N1) pdm09, 33 influenza A (H3N2), and 12 influenza B viruses for resistance to the neuraminidase inhibitors antiviral drugs. None of the tested viruses were found to be resistant to either oseltamivir, zanamivir, or peramivir.

FluView is available – and past issues are archived – on the CDC website.

Note: Delays in reporting may mean that data changes over time. The most up to date data for all weeks during the 2015-2016 season can be found on the current FluView.

Vaccine Supply

- Manufacturers projected that they would provide between 171 million and 179 million doses of influenza vaccine for the U.S. market during the 2015-2016 season. Early season supply projections can differ from the actual number of vaccine doses distributed at the end of the season based on a number of factors.
- Some manufacturers informed their customers about delays in shipments of certain vaccine formulations this season, however, overall there is no anticipated shortage of flu vaccine for the U.S. this season.
- Questions about supplies of specific formulations of vaccine should be referred to the individual manufacturers.
- As of **November 27, 2015, 140.5 million doses of seasonal influenza vaccine have already been distributed in the U.S**.
- The most doses of seasonal influenza vaccine ever distributed during one season was 155.1 million. Last season, 147.8 million doses were distributed.
- Information about vaccine supply during past seasons and weekly updates on distribution numbers for the current season are available on the CDC website at http://www.cdc.gov/flu/professionals/vaccination/vaccinesupply.htm .

National Influenza Vaccination Week (NIVW) Key Points

Overview

- CDC established National Influenza Vaccination Week (NIVW) in 2005 to highlight the importance of continuing flu vaccination through the holiday season and beyond. NIVW is scheduled for December 6-12, 2015.
    - Flu vaccination coverage estimates from past years have shown that influenza vaccination activity drops quickly after the end of November. CDC and its partners want to remind you that even though the holiday season has arrived, it is not too late to get your flu vaccine.

    - As long as flu viruses are spreading and causing illness, vaccination can provide protection against the flu and should continue.
    - Even if you haven't yet been vaccinated and have already gotten sick with one flu virus, you can still benefit from vaccination since the flu vaccine protects against three or four different flu viruses (depending on which flu vaccine you get).
- CDC recommends a yearly flu vaccine for everyone 6 months of age and older as the first and most important step in protecting against influenza disease.
- Another goal of NIVW is to communicate the importance of flu vaccination for people who are at high risk for developing flu-related complications.
    - People at high risk of serious flu complications include young children, pregnant women, people with certain chronic health conditions like asthma, diabetes, heart disease or lung disease, and people aged 65 years and older.
    - For people at high risk, getting the flu can mean developing serious flu-related complications, like pneumonia, or a worsening of existing health conditions, which can lead to hospitalization or death.
    - A full list of "People at High Risk of Developing Flu–Related Complications(http://www.cdc.gov/flu/about/disease/high_risk.htm)" is available.

Vaccination

- The flu vaccine is the best tool available to protect against this potentially serious disease.
- Flu vaccination can reduce flu illnesses, doctors' visits, missed work due to flu, as well as prevent flu-related hospitalizations.
- Despite the unpredictable nature of the flu, you should know:
    - You need the 2015-2016 flu vaccine for optimal protection against the flu this season.
    - Yearly vaccination is needed because:
        - Flu viruses are always changing, and the vaccine is updated each year to better match circulating influenza viruses, and
        - Immune protection from vaccination declines over time so vaccination is recommended every season for the best protection against the flu.

  - It takes about two weeks after vaccination for the immune system to build the antibodies your body needs in order to provide protection against the flu.
  - There has been little flu activity so far this season.
  - In the United States, flu activity is *usually* highest between December and February and can last as late as May.
  - Now is a good time to get vaccinated, but CDC recommends that vaccination efforts continue all season long, as long as flu viruses are circulating.
  - With family and friends gathering for the holidays, now is a great time to get a flu vaccine to protect yourself and your loved ones.
- We hope that NIVW will serve as a reminder to parents and caregivers of children about the importance of flu vaccination in general and the fact that some children may need two doses of flu vaccine this season to be fully protected.
  - Children 6 months through 8 years old who are getting vaccinated for the first time will need two doses of flu vaccine.
  - Some children in this age group who have received influenza vaccine previously also will need two doses of vaccine this season to be fully protected.
  - Your child's doctor or other health care professional can tell you if your child needs two doses.
- There are many choices available for flu vaccine, both in terms of where to get vaccinated and what vaccine to get.
  - Flu vaccines made to protect against three different flu viruses (called "trivalent" vaccines) are available this season. In addition, flu vaccines made to protect against four different flu viruses (called "quadrivalent" vaccines) also are available.
  - Flu vaccines are offered in many locations, including doctor's offices, clinics, health departments, retail stores and pharmacies, and health centers, as well as by many employers and schools.
  - Visit http://vaccine.healthmap.org, if you need help finding flu vaccine near you.
  - The most important thing is for everyone 6 months and older to get a flu vaccine every year, regardless of the vaccine option chosen. If you have questions about which vaccine is best for you, talk to your doctor or other health care professional.
- Millions of doses of influenza vaccine have been administered to people safely for decades.

- Once vaccinated, you can enjoy this holiday season knowing that you have taken the single best step to protect yourself and your loved ones against the flu.