



Archived Document

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The official start of the influenza season this year is less than two weeks away (10/4/2015). Flu activity is low across the US now, but usually begins to increase in October.

Providers are encouraged to begin vaccination efforts as soon as vaccine is available.

• **Now is a good time to get vaccinated. To find a flu shot:**

- For retail locations that offer vaccine, see the Flu Vaccine Finder: <http://flushot.healthmap.org/>.
- The Health Care Agency will be providing free flu shots on October 16, 2015 at two locations (see www1.ochca.com/ochcahealthinfo.com/freeflushot/).
- For publicly funded influenza vaccine clinics: <http://ochcahealthinfo.com/phs/about/family/flu>.

• **Influenza Vaccination Updates: 2015-2016 Season.** See “Prevention and Control of Influenza with Vaccines; Recommendations of the Advisory Committee on Immunization Practices (ACIP) – United States, 2015-16 Influenza Season” available in the 8/7/2015 *MMWR* at www.cdc.gov/mmwr.

- **Annual flu vaccination continues to be recommended for all persons aged ≥ 6 months** who do not have contraindications.
- **There is no preference for giving live attenuated influenza vaccine (LAIV) or inactivated influenza vaccine (IIV) for any persons aged 2 years through 49 years** who have no contraindications or precautions. Influenza vaccination should not be delayed to procure a specific vaccine preparation if an appropriate one is already available.
- **Vaccine dose considerations for children 6 months through 8 years of age.** Children in this age group require two doses of influenza vaccine (administered a minimum of 4 weeks apart) during their first season of vaccination to optimize immune response. See diagram at right.



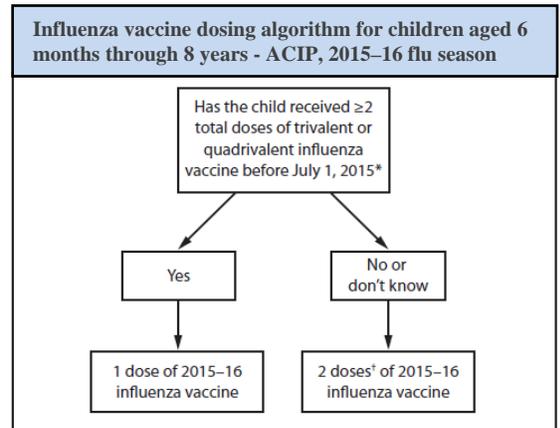
• **2015-16 Influenza Vaccine Information Statements (VIS):**
<http://www.cdc.gov/vaccines/hcp/vis/vis-statements/flu-live.html>
<http://www.cdc.gov/vaccines/hcp/vis/vis-statements/flu.html>

• **Special Considerations for Institutional Settings:**

- See www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm for details.
- Flu vaccine should be provided routinely to all residents and health care personnel in long-term care facilities.
- When at least two residents develop respiratory illness within 72 hours, and at least one has laboratory confirmed influenza, use of antiviral medications for chemoprophylaxis is recommended for residents (regardless of whether they have received influenza vaccination) and should be considered for unvaccinated health care personnel.
- Antiviral chemoprophylaxis should be administered for a minimum of two weeks, and continue for at least seven days after the last known case was identified.

Resources for Increasing Influenza Vaccination among Healthcare Personnel in Long-term Settings can be found at: <http://www.cdc.gov/flu/toolkit/long-term-care/resources.htm>.

- **2014-15 Influenza Season Overview:** The 2014-15 influenza season was moderately severe, with overall high levels of outpatient illness and flu-associated hospitalizations, especially for adults ≥65 years. The season peaked nationally in late December with influenza A (H3N2) viruses predominating. The majority of circulating influenza A (H3N2) viruses were different from the A (H3N2) component of the 2014-15 Northern Hemisphere seasonal vaccines, and the predominance of these drifted viruses resulted in reduced vaccine effectiveness. Among adults hospitalized with influenza, the most frequent underlying medical conditions were cardiovascular disease (51%), metabolic disorders (46%), and obesity (33%). In children hospitalized with influenza, 43% did not have any known underlying medical conditions, but 26% of children had underlying asthma or reactive airway disease. For more information, visit: <http://www.cdc.gov/flu/weekly/>



* The two doses need not have been received during the same season or consecutive seasons.

† Doses should be administered ≥4 weeks apart.



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Orange County received its first reports of flu this season! Flu activity is expected to increase in the coming weeks. People who have not already gotten a flu vaccine this season should do so now.

- **Orange County reports its first influenza cases of the season.**

Thus far, two cases of influenza have been confirmed. One case tested positive for influenza A/H3, and the second case tested positive for both influenza A/H3 and B. Neither of the cases were hospitalized or were known to recently travel outside the United States.

- **Now is the time to get your influenza vaccine!**

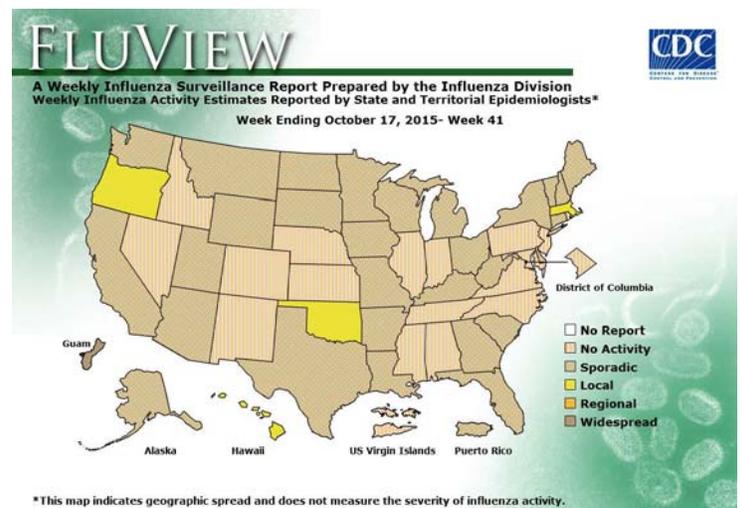
Influenza vaccine is available throughout the County. For publicly funded vaccine clinics, see www.ochealthinfo.com/flu. For retail locations, see the Flu Vaccine Finder at <http://flushot.healthmap.org/>. Currently, there is a delay in distribution of thimerosal-free influenza vaccines containing levels of mercury below California's state-mandated limits. California has granted a temporary exemption, through December 31st, 2015, to this restriction when administering this season's influenza vaccine to children younger than 3 years old. During this exemption period, physicians should prioritize any remaining supplies of thimerosal-free vaccine to young children when feasible. For more information, visit <http://www.getimmunizedCA.org>.

- **Influenza in California**

- During Week 41, overall influenza activity in California remained sporadic.
- The percentage of visits for influenza-like illness (ILI) in Week 41 (1.5%) was within expected baseline levels for this time of year.
- No laboratory-confirmed deaths (among patients 0-64) or outbreaks were reported during Week 41.
- To date, influenza A has been the primary strain in circulation.

- **Influenza in United States**

- According to the CDC, more than 113 million doses of 2015-16 flu vaccine have been distributed so far.
- Flu activity is low in the United States, but CDC has received reports of early outbreaks in institutions across the country.
- Influenza A viruses were the most frequently identified influenza virus type reported in Week 41, with influenza A/H3 predominating.
- The proportion of outpatient visits for ILI was 1.4%, which is below the national baseline of 2.1%.



- **How to prevent and control pediatric influenza.**

Hosted by the CDC, this webcast with slides reviews strategies providers can use to improve influenza prevention and control in children at highest risk. *Link:*

http://emergency.cdc.gov/coca/calls/2015/callinfo_100115.asp

- **Flu vaccine coverage in younger adults might aid older adults.**

According to a nationwide study recently published in *Clinical Infectious Diseases* (2015; Vol. 61, Issue 10), increased flu vaccination coverage in adults 18-64 was associated with lower influenza rates in adults greater than 65.



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Influenza activity in Orange County is increasing. Flu activity is expected to significantly increase in the coming weeks. People who have not already gotten a flu vaccine this season should do so now.

- **Now is the time to get vaccinated against influenza!**

Influenza vaccine is available throughout the County. For publicly funded vaccine clinics, see www.ochealthinfo.com/flu. For retail locations, see <http://flushot.healthmap.org/>. Even in a season with a poor match to circulating strains, such as in 2014-2015, vaccination has significant benefits.

- **Influenza in Orange County**

- As of Week 49 (week ending 12/12/15), influenza activity has been slowly increasing compared to previous weeks.
- To date, influenza A has been the primary type in circulation, although influenza B has also been detected.
- No severe influenza cases (hospitalized in intensive care or deaths in persons ≤ 65 years of age) have been reported thus far.

- **Influenza in California** (as of Week 48, week ending 12/5)

- Overall influenza activity in California remained low and within expected activity levels.
- The percentage of outpatient visits for influenza-like illness (ILI) in Week 48 (1.9%) was within expected baseline levels for this time of year.
- To date, influenza A has been more prevalent but influenza B detections are also increasing.
- There have been two reports of laboratory-confirmed influenza-associated deaths in persons ≤ 65 years of age in California; one of these was an infant under the age of one.

- **Influenza in the United States** (as of Week 48, week ending 12/5)

- Influenza A/H3 has been the predominant subtype, but A(H1N1)pdm09 is being reported more than last season. The majority of strains circulating are a good match to this season's vaccine.
- According to CDC, more than 142 million doses of 2015-16 flu vaccine have been distributed so far.

- **Influenza may result in more missed work hours and productivity loss than non-influenza illnesses.**

- A study recently published in *Clinical Infectious Diseases* (2015; Vol. 61, Issue 12) found that lab-confirmed influenza illnesses were subjectively assessed as more severe compared to other acute respiratory illnesses not caused by influenza.
- Influenza illnesses resulted in 45% more missed work hours and subjective loss of work productivity when compared to non-influenza illnesses. Illness severity in vaccinated influenza cases was modestly reduced.

- **Annual seasonal influenza vaccination for ALL healthcare personnel (HCP) is critical.**

- Influenza among HCP can result in lost work days and the potential to spread flu to other HCP and to patients who may be at higher risk of serious complications.
- As of mid-November 2015, an estimated 67% of HCP have been vaccinated, with the lowest coverage among HCP working in long-term care settings (52%). Vaccination coverage is highest among HCP with an employer requirement for vaccination.

the benefits of flu vaccination 2014-2015

The estimated number of influenza-associated **illnesses prevented** by flu vaccination during the 2014-2015 season: **1.9 million**
greater than the population of the city of Philadelphia

The estimated number of flu-associated **medical visits prevented** by vaccination during the 2014-2015 season: **966,000**
as many people as can fit in Manhattan's Times Square

The estimated number of flu **hospitalizations prevented** during the 2014-2015 season: **67,000**
as many people as Seattle's Seahawks stadium can seat

get vaccinated
www.cdc.gov/flu

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
DATA: www.cdc.gov/flu/about/diseases/2014-15.htm
Morbidity and Mortality Weekly Report (MMWR), October 4-November 20, 2015; Vol. 64, No. 48
NCHSR091512_10.2015

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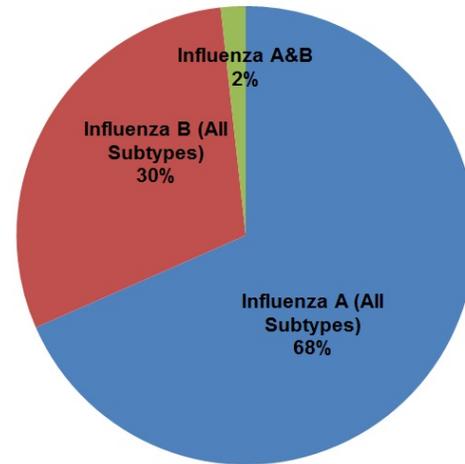
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Reports of Influenza B are Increasing in Orange County.

- **Orange County has received its first severe case reports of the 2015-16 influenza season.**

- At the end of Week 50 (week ending 12/19/15), Orange County received two reports of severe influenza cases, one a child and one an adult.
- Both were hospitalized and admitted to the intensive care unit. The adult had underlying medical conditions.
- No influenza-associated deaths have been reported to date this season.
- Reports of influenza-like illness from sentinel providers in the community remains below the epidemic threshold.
- It is not too late to get the flu vaccine this season. But with influenza rates increasing, for those who have not received it, the time to get vaccinated is now.

Reported Seasonal Influenza Detections by Type, County of Orange, 2015 - 2016 Influenza Season



Data Source:

OC Health Care Agency, Epidemiology & Assessment

Note:

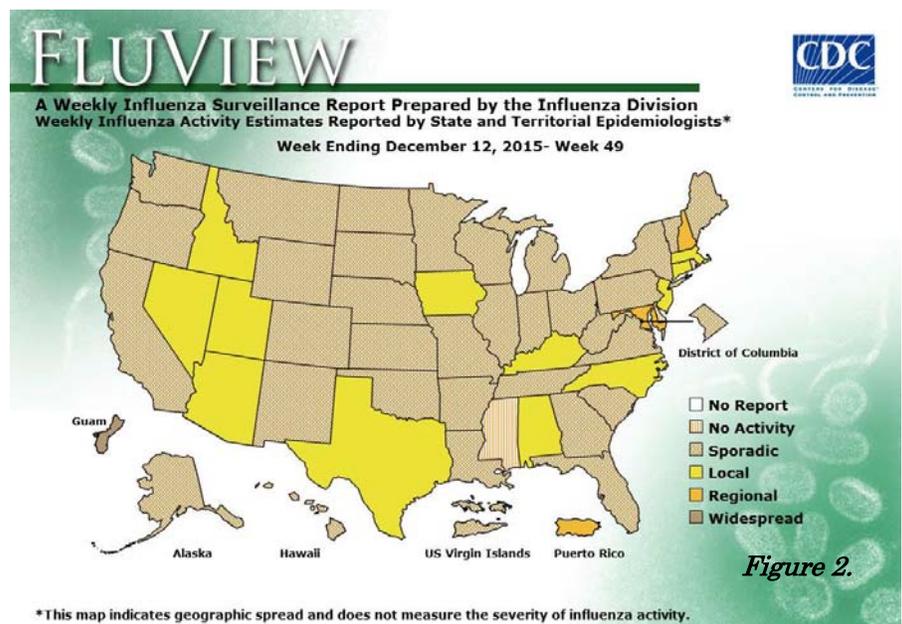
Except for severe cases, influenza is voluntarily reported in Orange County. While the trends represented here are likely reflective of the seasonal activity, the numbers do not represent all cases that have occurred in any season.

- **Approximately 42% of influenza reports in Orange County for the past three weeks have been influenza B.**

- Based on reports available from California Department of Public Health, influenza B detections significantly increased statewide between weeks 45 and 48.
- In week 49, more than half of influenza detections statewide were influenza B.
- Most states around the country continue to report sporadic influenza activity for week 49 (see Figure 2). The majority of influenza A isolates subtyped nationally in week 49 were influenza A/(H1N1)pdm09.

- **One human infection with a novel influenza A virus was reported by the state of Minnesota for week 49.**

- The person was infected with an influenza A (H1N1) variant (H1N1v) virus. The person lived and worked near an area where swine were housed, but no direct contact with swine was reported in the week prior to illness onset. No ongoing human-to-human transmission has been identified.
- The Orange County Health Care Agency appreciates the assistance of healthcare facilities and laboratories who submit specimens from influenza cases to allow for the early identification of novel influenza strains.



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Influenza is rapidly increasing in Orange County and the U.S. Several severe influenza cases have been reported this season. Now is the time to get vaccinated!

• Influenza in Orange County.

- As of week 1 (ending 1/9/16), influenza activity has significantly increased compared to previous weeks.
- Both influenza A H3 and A H1 subtypes are being identified in Orange County. The proportion of influenza reports that are flu B has increased for the last several weeks and is about 36%.

• Several severe cases of influenza (persons under the age of 65 who were hospitalized in ICU or died) have been reported in Orange County this season.

- To date Orange County has received seven reports of severe influenza cases.
 - Three ICU cases have been reported in children under the age of 18.
 - Four ICU cases have been reported in adults under the age of 65.
- As of week 1 (ending 1/9/2016), no deaths from influenza have been reported.

• Influenza in California.

- Lab data indicate that influenza activity in California has increased during week 1.
- The percentage of outpatient visits for influenza-like illness (ILI) in week 1 (1.3%) was lower than was seen in week 52 and did not exceed the expected baseline level for this time of year. Influenza B accounted for more than 42% of the positive specimens tested during week 1.
- To date, there have been two reports of laboratory-confirmed influenza-associated deaths among patients under the age of 65 during the 2015–16 influenza season.

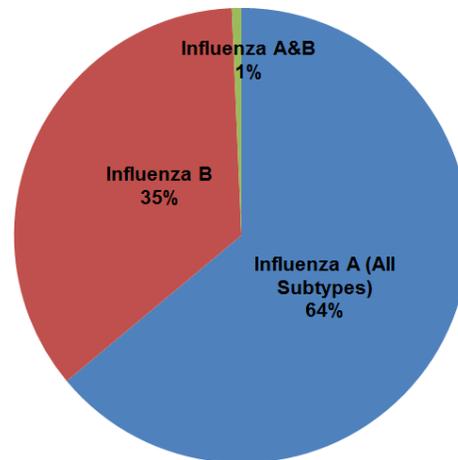
• Influenza virus strain characterization.

- According to California Department of Public Health (CDPH), all influenza A/(H1N1)pdm09 and A/H3 antigenically characterized viruses have matched the influenza A/(H1N1)pdm09 and A/H3 components included in the 2015-16 trivalent and quadrivalent influenza vaccines.
- Influenza B antigenically characterized viruses in California continue to match the influenza B Yamagata lineage virus included in the 2015-16 trivalent and quadrivalent influenza vaccines.

• National early season flu vaccination coverage through November 2015.

- According to the Centers for Disease Control and Prevention (CDC), early 2015–16 influenza season vaccination coverage was similar to coverage at the same time last influenza season for children, adults, and all persons 6 months and older.
- As of early November 2015, only two out of every five persons (40%) aged six months and older in the United States had received an influenza vaccine, leaving most persons without the protection afforded by flu vaccination.

Reported Seasonal Influenza Detections by Type, County of Orange, 2015 - 2016 Influenza Season



Data Source:

OC Health Care Agency, Epidemiology & Assessment

Note:

Except for severe cases, influenza is voluntarily reported in Orange County. While the trends represented here are likely reflective of the seasonal activity, the numbers do not represent all cases that have occurred in any season.



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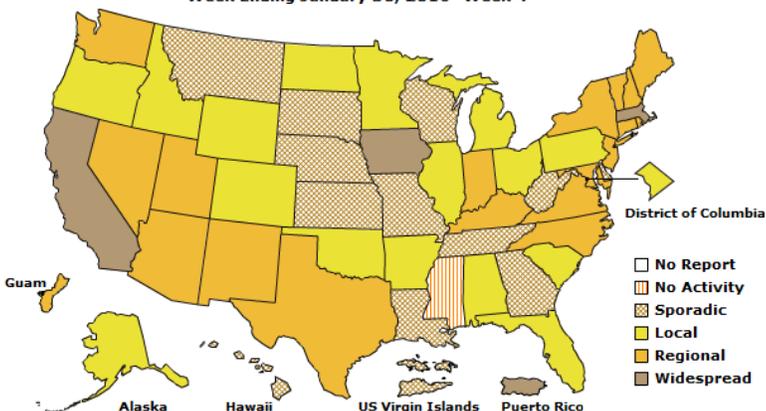
Orange County reports its first influenza-related death this season in a person less than 65 years of age. Flu activity is widespread in California and continues to be elevated in Orange County.



Influenza in Orange County and California.

- As of week 4, influenza activity continues to be elevated in Orange County.
- Since October 2015, Orange County Public Health Laboratory (OCPHL) has detected influenza A/H3N2, A(H1N1)pdm09, and influenza B viruses among specimens sent for influenza testing. However, A(H1N1)pdm09 viruses have predominated in recent weeks.
- In Orange County, the proportion of influenza B reports continues to increase and is approximately 38%. Of the influenza B specimens tested, B/Yamagata is the predominant B lineage in circulation. B/Yamagata is the lineage included in the seasonal trivalent and quadrivalent vaccines.
- California has been reporting widespread influenza activity since week 3 (week ending 1/30/16).

A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*
Week Ending January 30, 2016 - Week 4



Reports of severe influenza cases (persons under the age of 65 admitted to the intensive care unit (ICU) or who died) continue to be reported in Orange County.

- To date, Orange County has received 12 reports of severe influenza cases, including one death.
 - Three ICU cases have been reported in children under the age of 18 years.
 - The one influenza-related death reported thus far was in a 50 year-old male who tested positive for influenza B.

Influenza activity most often peaks in February but can last into May. It is not too late to vaccinate!

- According to the Centers for Disease Control and Prevention (CDC), the winter season is the time for influenza, but the exact timing and duration of influenza seasons vary.
- While seasonal influenza infections can happen as early as October, influenza activity normally peaks between January and February. However, activity can last as late as May and second peaks of activity may be seen in the Spring.

CDC issues health advisory on severe influenza illnesses.

- CDC has received several reports of severe respiratory illness among children and middle-aged adults with A(H1N1)pdm09 virus infection.
- Some of these patients reportedly tested negative for influenza via rapid influenza testing but later tested positive with molecular assays. Most of these patients were reportedly unvaccinated.
- Clinicians should continue efforts to vaccinate patients this season for as long as influenza viruses are circulating, and promptly start antiviral treatment of severely ill and high-risk patients if influenza is suspected or confirmed without waiting for test results.
- For more information regarding the advisory and clinician recommendations, please visit <http://emergency.cdc.gov/han/han00387.asp>.

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Influenza activity in Orange County continues to be widespread. Reports of influenza-related deaths and ICU admissions continue to be reported. We have also received several reports of respiratory illness outbreaks in schools and nursing homes.

It is not too late to get the flu vaccine!



- **Influenza in Orange County and California.**

- As of week 7 (week ending 2/20/16), influenza activity continues to be elevated in Orange County.
- Orange County Public Health Laboratory (OCPHL) is currently detecting influenza A/H3N2, A/(H1N1)pdm09, and influenza B in co-circulation. Of all influenza A isolates, A/(H1N1)pdm09 viruses have predominated in recent weeks.
- The proportion of influenza B reports continues to increase and is approximately 47% for the season. Of the influenza B specimens tested, B/Yamagata is the predominant B lineage in circulation. B/Yamagata is the lineage included in both trivalent and quadrivalent vaccines.
- California has been reporting widespread influenza activity since week 3 (week ending 1/30/16).

- **Reports of severe influenza cases (persons under the age of 65 admitted to the intensive care unit (ICU) or who died) continue to be reported in Orange County.**

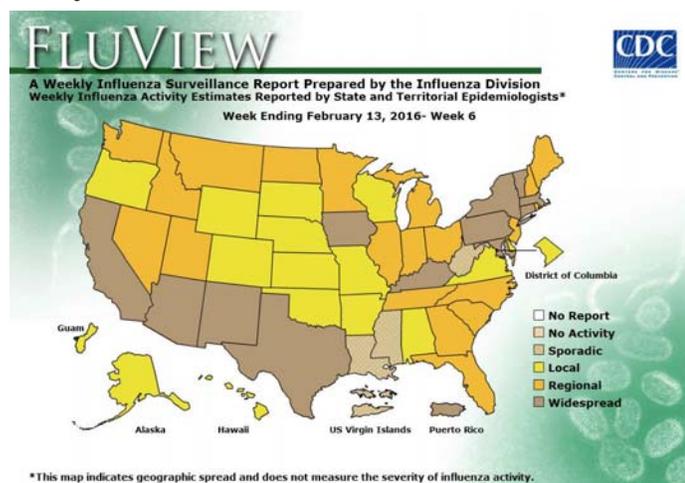
- To date, Orange County has received 30 reports of severe influenza cases, including six deaths.
- Four severe cases have been reported in children.
- Of the deaths, three cases had flu A and three had flu B. All six deaths were in adults.

- **Seasonal 2015-16 influenza vaccine nearly 60% effective according to preliminary data from the Centers for Disease Control and Prevention (CDC).**

- On February 24, 2016, CDC reported a preliminary overall influenza vaccine effectiveness (VE) of 59% this season, based on data collected from the U.S. Flu Vaccine Effectiveness Network from 11/12/15 through 2/12/16.
- The vaccine has been 51% effective thus far against influenza A/(H1N1)pdm2009 and 76% effective against all flu B viruses. Vaccine effectiveness estimates may change as the season continues.

- **High poverty rates associated with higher rates of hospitalization for influenza.**

- A recent study published in *Morbidity and Mortality Weekly Report* (2016, Vol. 65, No. 5) observed a strong correlation between influenza-related hospitalization rates and high poverty levels.
- The age-adjusted incidence rate of influenza-related hospitalizations in high poverty neighborhoods was nearly twice the incidence rate in low poverty neighborhoods (21.5 per 100,000 and 10.9 per 100,000, respectively).
- The overall percentage of hospitalized influenza patients who were vaccinated was inversely associated with census tract poverty levels, from a high of 48% vaccinated in low poverty areas to a low of 35% in high poverty areas. Efforts to increase vaccination rates in higher poverty neighborhoods should be increased.



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Influenza activity in Orange County continues to be elevated and is expected to last several more weeks. Vaccination is recommended as long as influenza viruses are still circulating.

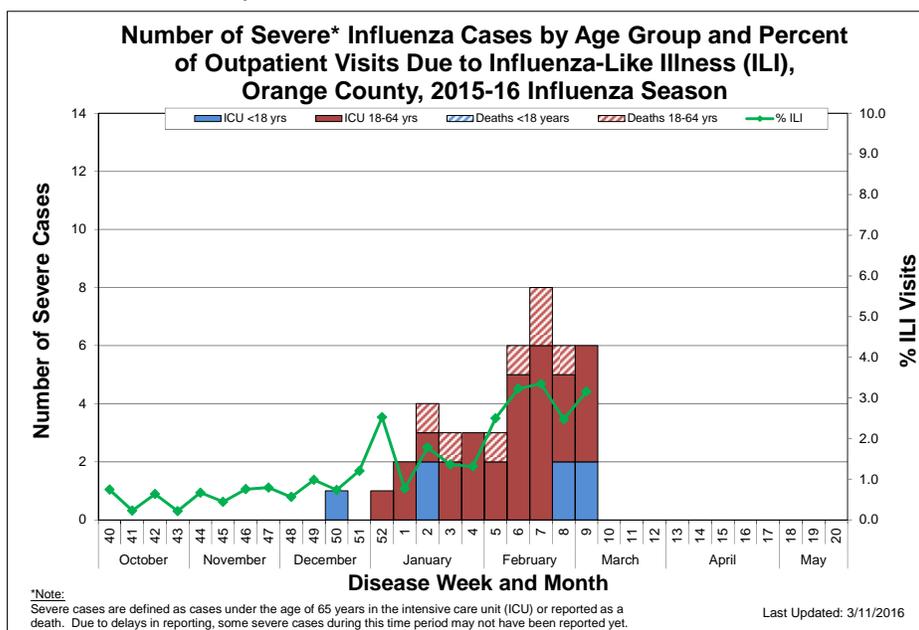


- Influenza Activity.**

- As of week 9 (week ending 3/5/16), influenza activity continues to be elevated in Orange County.
- Orange County Public Health Laboratory (OCPHL) is currently detecting influenza A/H3N2, A/(H1N1)pdm09, and influenza B in co-circulation. Of all influenza A isolates, A/(H1N1)pdm09 viruses have predominated in recent weeks.
- The proportion of influenza B reports continues to increase and is approximately 48% for the season.
- Since week 3 (week ending 1/23/216), California has been reporting widespread influenza activity. According to the Centers for Disease Control and Prevention (CDC), the number of states reporting widespread influenza activity has increased from 33 to 37.

- Reports of severe influenza cases in persons under the age of 65 (admitted to the intensive care unit (ICU) or who died) continue to be reported in Orange County.**

- To date, Orange County has received 39 reports of severe influenza cases, including seven deaths.
- Nine severe cases have been reported in children under 18.
- Of the deaths, four cases had flu A and three had flu B. All seven deaths were in adults.
- Clinicians should start antivirals as soon as possible in all persons with suspected or confirmed influenza who:
 - require hospitalization, or
 - have progressive, severe or complicated illness regardless of previous health or vaccination status, or
 - are at high risk for serious complications of influenza.



*Note: Severe cases are defined as cases under the age of 65 years in the intensive care unit (ICU) or reported as a death. Due to delays in reporting, some severe cases during this time period may not have been reported yet.

Last Updated: 3/11/2016

See www.cdc.gov/flu/professionals/antivirals for more information.

- Cumulative hospitalization rates thus far for 2015-16 influenza season (www.cdc.gov/flu/weekly/).**

- According to the CDC, the current U.S. cumulative hospitalization rate for influenza (10.4 hospitalizations per 100,000) is significantly lower than the hospitalization rate at this time last season (57.2 hospitalizations per 100,000).
- Adults over the age of 65 and children less than 5 have the highest hospitalization rates (27.6 per 100,000 and 15.8 per 100,000, respectively) this season.

- Global influenza update from World Health Organization (www.who.int/influenza/).**

- Influenza A/(H1N1)pdm09 viruses are predominating in United States and Canada, while influenza A/H3N2 predominates in Mexico. The proportion of influenza B viruses is also increasing throughout North America.

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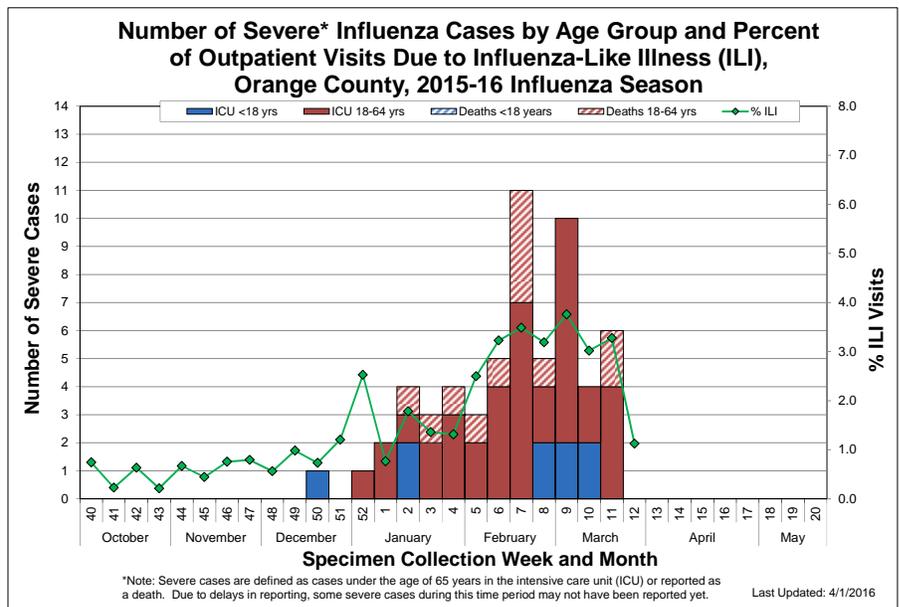


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Influenza activity has decreased, but activity is expected to last several more weeks. Vaccination is recommended as long as influenza viruses are still circulating.

- Influenza activity in Orange County.**

- Influenza activity in Orange County has steadily decreased since week 7 (week ending 2/20/16) through week 12 (week ending 3/26/16). While it is possible that activity might have peaked for the season, influenza activity is expected to continue for several more weeks.
- Influenza A/(H1N1)pdm09 and B/Yamagata viruses continue to be the predominating virus types detected by the Orange County Public Health Laboratory.
- Centers for Disease Control and Prevention recommends a yearly flu vaccine for everyone six months and older.
- Vaccination can reduce flu illnesses, doctors' visits, and missed work and school due to flu illness, as well as prevent flu-related hospitalizations.



- Cases of severe influenza (persons under the age of 65 admitted to the intensive care unit (ICU) or who died) continue to be reported in Orange County.**

- To date, Orange County has received 51 reports of severe influenza cases, including 12 deaths.
 - Of the reportable deaths, eight cases had influenza A and four had influenza B. All 12 deaths were in adults.
- Nine severe cases have been reported in children.

- World Health Organization (WHO) makes recommendation for composition of flu vaccines for the 2016-17 influenza season (http://www.who.int/influenza/vaccines/virus/recommendations/2016_17_north/en).**

- In February 2016, WHO announced formal recommendations for the composition of the 2016-17 influenza vaccine for the northern hemisphere.

2015-16 Influenza Vaccine	2016-17 Influenza Vaccine
A/California/7/2009(H1N1)pdm09-like virus	A/California/7/2009(H1N1)pdm09-like virus
A/Switzerland/9715293/2013 (H3N2)-like virus	A/Hong Kong/4801/2014(H3N2)-like virus
B/Phuket/3073/2013-like virus	B/Brisbane/60/2008-like virus
B/Brisbane/60/2008-like virus*	B/Phuket/3073/2013-like virus*

*Virus type is only included in the quadrivalent vaccine. Other virus types listed above are included in the trivalent vaccine.