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Orange County Health Care Agency, Epidemiology & Assessment, 1719 W. 17th St. Santa Ana, CA 92706, (714) 834-8180

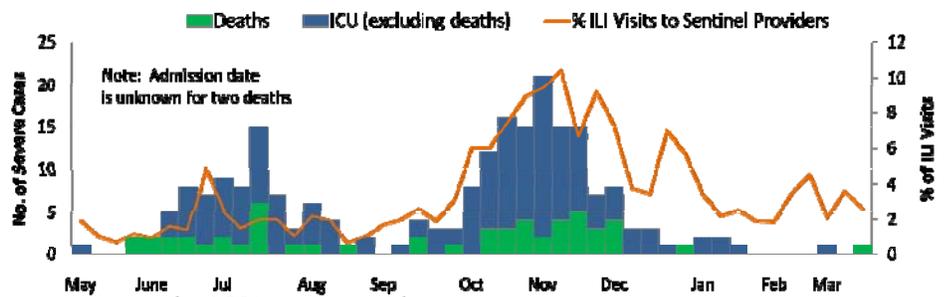
Now is the time to start vaccinating against influenza!

In the past several weeks, Orange County and surrounding areas have had sporadic reports of influenza A/H3. Although influenza activity is currently low, now is the time to start vaccinating. **Influenza vaccine is recommended annually for all persons 6 months of age and older.** This year's seasonal influenza vaccine includes the 2009 H1N1 strain as well as an A/H3N2 and B strain. Influenza vaccine is readily available in the community. For publicly funded vaccine clinics, see www.ochealthinfo.com/flu. For retail locations, see www.flu.gov.

Friday, October 29, 2010: Annual Free Flu Shot Clinic and Mass Vaccination Exercise. Three locations this year; 5000 vaccine doses available. See <http://healthdisasteroc.org/events/freeflushot>.

- Pandemic in Review – Orange County (4/24/09-5/22/2010):** Orange County Epidemiology received over 5500 reports of suspect influenza during the pandemic. Approximately 4,000 respiratory specimens were tested by the Public Health Laboratory (OCPHL) and 49% were positive for influenza, of which 95% were pandemic H1N1 (pH1N1). Five children (<18 years) and 52 adults died with laboratory-confirmed pH1N1 and 226 (136 adults/90 children) pH1N1 cases required intensive care (ICU) treatment. Reported cases of severe (ICU/deaths) pH1N1 peaked in mid July and again in early November. Outpatient sentinel physician visits for influenza-like illness (ILI) showed a similar trend; on average, 3% of visits were for ILI during the pandemic, peaking at approximately 10% in November.

Reported Cases of Severe (ICU/Deaths) pH1N1 by Week of Admission, Outpatient Visits for Influenza Like Illness - Orange County, CA 2009/2010



- Diagnostic Testing.** Indirect immunofluorescence antibody (IFA) and rapid influenza diagnostic tests performed in the clinical setting or reference laboratories had low sensitivity and were falsely negative in over 30% of specimens confirmed as pH1N1 by polymerase chain reaction (PCR) at OCPHL.
- Severe pH1N1 Influenza:** The overall rate of severe pH1N1 influenza was 7.08/100,000 persons. The median length of hospitalization was 8 days (range: 0 to 126 days) for the 217 cases for whom length of stay could be calculated. Among 55 fatal cases for whom date of onset was known, the median number of days from illness onset to death was 16 (range: 1 to 77). The highest rate (22.3/100,000 persons) of severe cases occurred in the youngest age group (0 to 4 years), while the risk of death increased with increasing age. The highest death rate (4.89/100,000 persons) was in 50-64 year olds and the highest case fatality ratio (65%) was in severe cases aged 65 years and older. Hispanics had the highest age-adjusted rate of severe cases (8.48/100,000) and mortality rate (3.34/100,000).

Complications: Of the 226 severe cases, 114 (52%) required intubation. Among the 57 fatalities, the most frequent clinical complications were pneumonia (91%) and sepsis/multi-organ failure (60%).

Risk Factors: The majority (84%) of pH1N1-associated deaths had at least one underlying known risk factor for complications of influenza (not including obesity). Among the most common were metabolic disorders (including diabetes mellitus and renal disorders), chronic pulmonary disorders (especially asthma), and cardiac disease. The case fatality ratio was higher among severe pH1N1 cases who were pregnant (38%) compared to non-pregnant women (17%) of reproductive age. Of the 117 severe adult cases for whom body mass index (BMI) was available, 39% were obese (BMI≥30) and 10% were morbidly obese (BMI≥40).

*****Special thanks to the sentinel providers, infection preventionists and laboratory staff who worked tirelessly during the pandemic to submit clinical data and specimens to Public Health.*****

If you have any comments about this flyer, contact Michele Cheung, MD, MPH at (714) 834-8180. To receive this newsletter by email, please contact us at epi@ochca.com.



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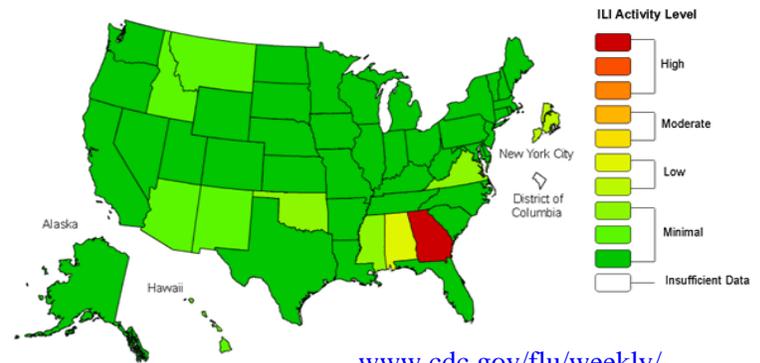
It's not too late to vaccinate!

With the holiday parties and gatherings approaching, now is the time to ensure you, your patients, staff, and families are all protected. **Influenza vaccine is recommended annually for all persons 6 months of age and older.** For locations see www.ochealthinfo.com/public/flu and the Flu Vaccine Finder at www.flu.gov.

- **Influenza Update—International:** Globally, influenza activity is low. In several areas of the world, the majority of isolates reported are influenza A/H3N2, including in Canada, China, Mexico, Chile, and Cambodia. For more information see www.cdc.gov/flu/international/activity.htm.

- **Influenza Update – U.S. and Orange County:** Influenza activity is still low in Orange County and the U.S. but appears to be increasing in the Southeast. Approximately 50% of the isolates typed through the CDC network have been flu A and 50% B. The majority of subtyped A isolates are A/H3 although A/2009 H1N1 has also been detected. Strains circulating appear to be a good match to the 2010-11 seasonal vaccine. In Orange County, influenza A/H3, A/2009 H1N1 and B have all been reported. Several cases of parainfluenza, especially type 2, have been confirmed through our sentinel provider network. No severe cases (resulting in admission to intensive care unit or death) of influenza have been reported in persons < 65 years of age.

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILInet
2010-11 Influenza Season Week 47 ending Nov 27, 2010



www.cdc.gov/flu/weekly/

- **CDC 2010-11 Updated Guidance for Use of Antivirals.** The antiviral medications recommended for treatment and chemoprophylaxis of influenza this season are oseltamivir (Tamiflu®) and zanamivir (Relenza®). The adamantanes (amantadine and rimantadine) are currently not recommended because of resistance to these antivirals in circulating influenza strains.
 - Treatment should be started as soon as possible after symptom onset, ideally within 48 hours, when clinically indicated. Treatment should not wait for laboratory confirmation of influenza.
 - Treatment is recommended for any patient with confirmed or suspected influenza who has severe, complicated, or progressive illness; OR is hospitalized; OR is at higher risk for influenza complications (see reference below for list of conditions).
 - Treatment can also be considered for any previously healthy, non-high risk, symptomatic outpatient with confirmed or suspected influenza based upon clinical judgment, if treatment can be started within 48 hours of symptom onset.
 - See www.cdc.gov/flu/professionals/antivirals/index.htm for the complete recommendations, including dosages for adults and children, information about treatment/prophylaxis of infants, and situations in which chemoprophylaxis may be considered.
- **“Real Talk about Influenza Vaccine – Be Informed and Prepared”.** This ongoing free continuing education (CME and CE) activity is offered by the CDC through Medscape for clinicians. Vaccine experts discuss safety profiles of licensed influenza vaccines, safe administration, screening for contraindications and precautions, reporting to the Vaccine Adverse Event Reporting System (VAERS), and available resources. See: <http://cme.medscape.com/viewarticle/732969>.
- **Influenza Vaccination Coverage Among Pregnant Women Increased in the U.S. in 2009-10 Season.** Based on data from 10 states from the Pregnancy Risk Assessment Monitoring System (PRAMS), influenza vaccination coverage for pregnant women was 50.7% for seasonal influenza and 46.6% for 2009 H1N1 in 2009-10, compared to 24.2% in 2007-8 and 11.3% in 2008-9 (National Health Interview Survey data). PRAMS data also suggested coverage was much higher among pregnant women to whom influenza vaccine was offered or recommended by their health care provider. For full report see 12/3/10 MMWR at www.cdc.gov/MMWR.

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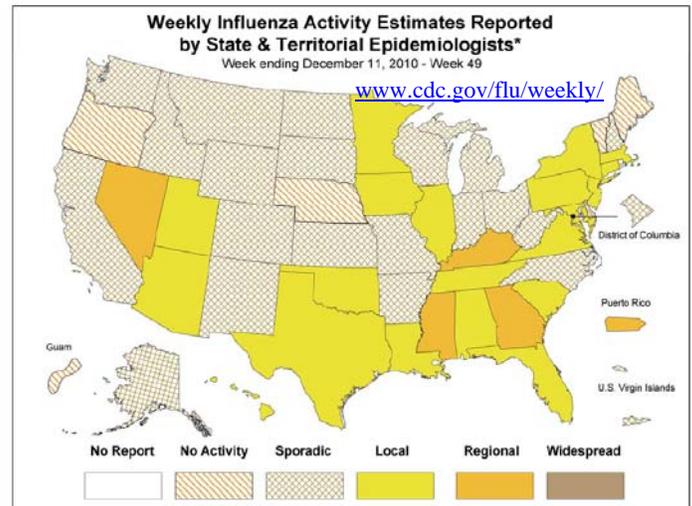
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Influenza activity is increasing in the U.S.

Influenza activity appears to be increasing in the U.S. with circulating strains a good match for the 2010-2011 seasonal influenza vaccine. **Influenza vaccine is recommended annually for all persons 6 months of age and older.** For vaccination locations see www.ochealthinfo.com/public/flu or www.flu.gov.

- **Influenza Update—International:** Globally, influenza activity is low. However, some areas have reported increases. In the United Kingdom, severe cases of influenza have been reported in the past several weeks. For more information see www.cdc.gov/flu/international/activity.htm.
- **Influenza Update – Orange County and California:** Influenza activity is still low in OC but appears to be on the rise. Although the percent of outpatient visits for influenza-like illness reported from sentinel providers continues to fluctuate, the percent of respiratory specimens positive for influenza has increased. One severe case (resulting in admission to intensive care unit) of influenza A was reported in an adult < 65 years of age in OC this week. In CA, activity remains sporadic, but reported detections of influenza and RSV are increasing.
- **Human infection with swine influenza reported in Minnesota.** The virus was confirmed by CDC as a swine-origin triple-reassortant H3N2—a virus that normally infects pigs. The case reported contact with pigs the week prior to symptom onset. There is no evidence of human-human or community transmission at this time. Including this case, 19 human infections with swine-origin viruses have been reported to CDC since 2005. For more information, see www.cdc.gov/flu/swineflu/soiv_cases.htm.
- **CDC Updates Guidance for Use of Rapid Influenza Diagnostic Tests (RIDT) in 2010-11 Season.** Document summarizes use of RIDTs in clinical decision-making, factors influencing RIDT results and their interpretation (with algorithms), and tables of influenza testing methods and available RIDTs. See www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm. Advantages of RIDTs include quick results in 15 minutes or less, simple methods, and approval of some kits for office/bedside use. Disadvantages include sub-optimal test sensitivity with high false negative rate, occurrence of false-positives especially during periods of low influenza activity, inability of some kits to distinguish between influenza A and B, and lack of strain or subtype information. **During periods when influenza viruses are circulating in the community:**
 - A positive RIDT test suggests influenza virus infection is likely.
 - Initiate antiviral treatment for influenza if clinically indicated. See CDC guidance for use of antivirals www.cdc.gov/flu/professionals/antivirals/index.htm.
 - Consider additional influenza virus testing [polymerase chain reaction (PCR) or viral culture] to confirm RIDT results, distinguish between A or B, and provide subtype and strain information. This is especially important early and late in the season, in severe cases, and in patients who were vaccinated this influenza season, who had recent close exposure to pigs, poultry, or other animals, OR who traveled outside of the U.S.
 - Consider additional diagnostic testing for other pathogens and/or empiric antibiotic therapy for bacterial co-infection, if indicated.
 - A negative RIDT does not rule out influenza virus infection.
 - Consider antiviral treatment if clinical signs, symptoms, history, and examination warrant. See CDC guidance for use of antivirals www.cdc.gov/flu/professionals/antivirals/index.htm.
 - Do not rely on negative RIDT results for clinical or infection control decision-making.
 - Consider additional influenza testing (PCR or viral culture) and other diagnostic testing as indicated.



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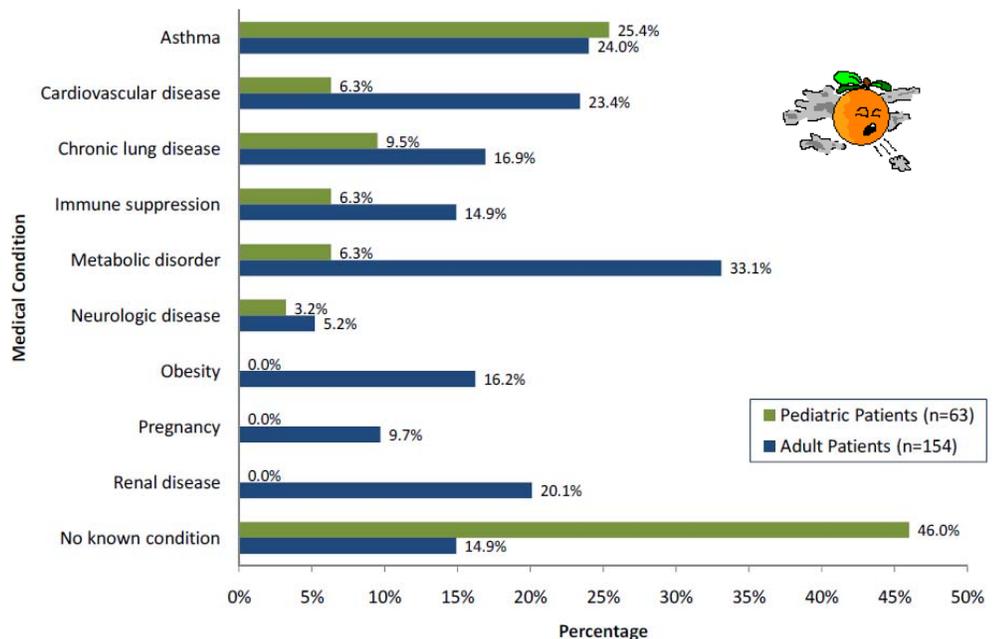
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Influenza activity is increasing in Orange County. It's not too late to vaccinate!

Four severe cases (resulting in admission to intensive care) of influenza in persons <65 years of age, including three children, have been reported in Orange County (OC) in the past few weeks. None of these severe cases were vaccinated against influenza this season. It's not too late to vaccinate! Reports of influenza and influenza-like illness in OC have increased in the past month and influenza activity usually peaks here between December and March. Influenza vaccine is readily available in the community and is a good match for the influenza strains currently circulating in the U.S. For vaccination locations see www.ochealthinfo.com/public/flu or www.flu.gov.

- **Influenza Update—International:** Increases in influenza activity have been reported in Europe, with the 2009 H1N1 and B strains being predominant. In Canada, influenza continues to increase with influenza A H3 being the predominant subtype. For more information see www.cdc.gov/flu/international/activity.htm.
- **Influenza Update – U.S. and California:** Nationally, influenza activity is now widespread in eight states (AL, AZ, GA, KY, LA, NY, NC, VA). Pneumonia and influenza deaths remain below the epidemic threshold. In California, influenza activity remains sporadic. RSV activity continues to increase.
- **46% of children and 14.9% of adults hospitalized with influenza this season have no known underlying medical condition.** See graph to right. Data is from FluSurv-NET, which conducts population-based surveillance for laboratory-confirmed influenza-associated hospitalizations in over 80 counties in 16 states. See www.cdc.gov/flu/weekly for more information and for footnotes of how underlying medical conditions are classified. **Influenza vaccine is recommended annually for all persons 6 months of age and older.**

Selected underlying medical conditions¹ in patients hospitalized with influenza, FluSurv-NET 2010-2011²



- **Updated CDC Recommendations on Use of Antivirals in the Treatment and Prevention of Influenza in Pregnant Women for the 2010-11 Season.** CDC convened a meeting of experts in August 2010 to review the evidence and provide input on treatment and prevention of influenza during pregnancy. Experts in the fields of influenza, obstetrics, pediatrics, pharmacy, teratology, maternal-fetal medicine, preventive medicine, public health, emergency response, and others participated in the meeting. Data from the 2009-2010 influenza season showed that pregnant women who were treated early with antiviral medications were less likely to be admitted to an intensive care unit and to die. In addition, available data suggest that neuraminidase inhibitors (oseltamivir and zanamavir) are not teratogenic. See www.cdc.gov/flu/professionals/antivirals/avrec_ob2011.htm for recommendations.
- **“Teaching Children about the Flu – Lesson Plans and Activities for Child Care and Early Childhood Programs”.** This CDC toolkit includes games, handouts and colorful posters to use with children 3-10 years of age. See www.cdc.gov/flu/whatsnew.htm for link to document.

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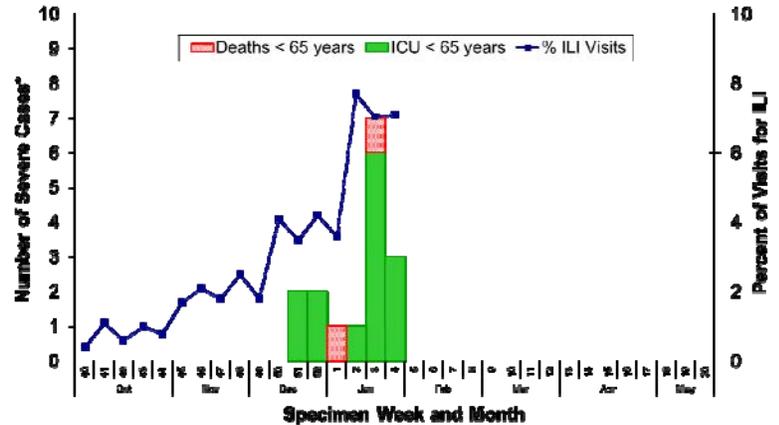
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Influenza activity is on the rise in Orange County. It's not too late to vaccinate!

Sixteen severe cases (resulting in admission to intensive care or death) of influenza in persons <65 years of age, including two deaths, have been reported in Orange County (OC) this season. Influenza activity often does not peak here until February or March and strains are expected to be circulating for several months. It's not too late to vaccinate! See www.ochealthinfo.com/public/flu or www.flu.gov.

- **Influenza Update – Orange County:** Of the 16 severe cases, eight were children. The majority of the severe cases were not vaccinated. The two deaths occurred in adults with underlying risk factors putting them at increased risk for complications of influenza. Circulating types/subtypes in OC have included influenza A H3, A 2009 H1N1 and B. The number of influenza-positive results reported by hospital laboratories continues to increase and the percent of outpatient visits for influenza-like illness (ILI) seen by sentinel providers remains elevated. Several schools have reported increases in absenteeism due to ILI.

Number of Severe Influenza Cases (ICU/Deaths < 65 Years) and Percent of Outpatient Visits Due to Influenza-Like Illness (ILI), Orange County, 2010-2011 Influenza Season



* Due to delays in reporting, some severe cases during this time period may not have been reported yet. Data as of 2/4/2011

- **Influenza Update – U.S. and California:**

Nationally, influenza activity is widespread in 30 states, regional in 15 (including CA), and local in D.C. and one state. Based on CDC data for viruses that have been strain-typed, circulating strains still appear to be a good match for the 2010-11 vaccine with 100% of A's and about 93% of B's matching. For the first week this season, the percent of deaths attributed to pneumonia or influenza exceeded the epidemic threshold at the end of January.

- **Influenza Update—International:** Increases in influenza activity continue to be reported in some areas of Europe, although activity is decreasing in the United Kingdom and in Canada. In many areas of North Africa and the Middle East, except for Tunisia, Morocco, and Pakistan, influenza activity has peaked. Activity has also peaked in temperate areas of Asia but has increased in China, Singapore and Hong Kong, where the predominant strain is 2009 H1N1.

- **Human Infection with Novel Influenza A Virus Reported in Pennsylvania.** The patient had onset of symptoms in September 2010 and infection with a swine-origin influenza A (H3N2) virus has been confirmed by CDC. The patient had contact with pigs prior to onset and no human-human transmission has been identified. For more information, see www.cdc.gov/flu/weekly.

- **The Association for Professionals in Infection Control and Epidemiology (APIC) recommends mandatory influenza vaccination for healthcare personnel (HCP).** Annual influenza vaccination for HCP has been recommended by CDC since 1981, however vaccination coverage was still only 61.9% in 2010, based on national survey data. Vaccination of HCP helps to prevent transmission of influenza to high-risk patients and decrease patient mortality. APIC recommends that acute care hospitals, long term care, and other facilities that employ healthcare personnel require annual influenza immunization as a condition of employment unless there are compelling medical contraindications. The APIC position statement is available at www.apic.org.

- **Researchers study role of aerosolized viruses in influenza transmission.** Study assessed the concentration of influenza viruses in different sized aerosolized particles from air samples from the waiting room of a health center, a daycare facility, and airplanes. Influenza was detected in about half of the air samples, however presence of the virus genetic material does not imply viability or the ability to cause infection. Larger respiratory droplets have traditionally been thought to be the major driver in influenza transmission. Additional studies are needed to further delineate the role of airborne particles in influenza transmission. See www.cidrap.umn.edu 2/3/11 news article.

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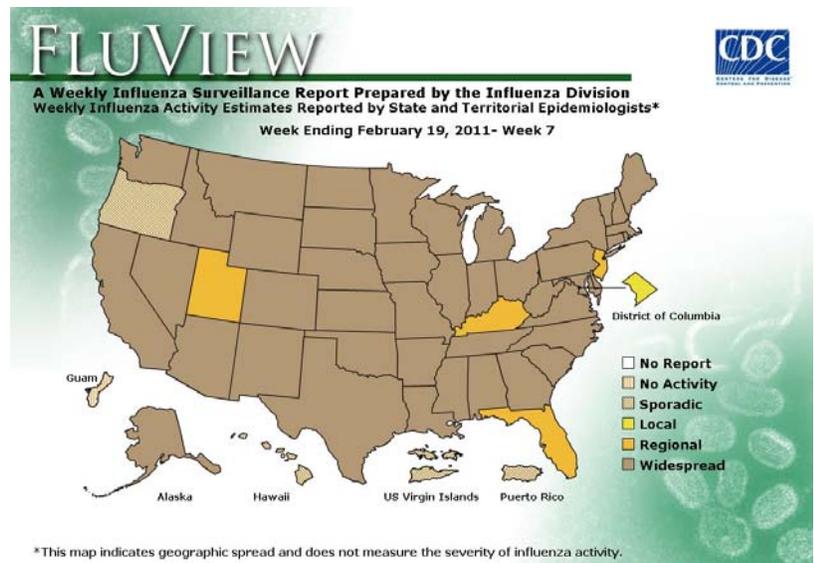
Influenza activity has increased to widespread in California and is expected to continue for at least several more weeks. It's not too late to vaccinate. Vaccine is recommended for all persons six months of age and older.

Influenza Update – Orange County (OC):

- **Severe case surveillance:** Since the last update 2/4/2011, 20 new severe cases (resulting in admission to intensive care or death) of influenza in persons <65 years of age were reported through last week. A total of 34 severe cases, including five deaths, have been reported this season. The median age of the 34 cases was 21 years, and 17 were children. Influenza A was detected in specimens from 25 and influenza B from 9 severe cases. Of the flu A specimens that were subtyped, 65% were A/2009 H1N1 and 35% were A/H3. Four deaths occurred in adults and one death occurred in a child. All five deaths had underlying risk factors putting them at increased risk for complications of influenza. The majority of the severe cases were not vaccinated.
- **Virologic surveillance:** Circulating types/subtypes in OC have included influenza A H3, A/2009 H1N1 and B. Sixty-two percent (62%) of reports have been flu A, 36% flu B, and 2% A/B unspecified. Of the flu A specimens that were further subtyped, 60% were A/2009 H1N1 and 40% were A/H3. Outbreaks of influenza-like illness (ILI) in schools, long term care facilities, and other closed facilities have been reported.

Influenza Update – US & California:

- Nationally the proportion of outpatient visits to sentinel providers for ILI has increased to 4.9%, which is above the baseline of 2.5%. The geographic spread of influenza in 44 states including California was reported as widespread (see figure). Approximately 99% of flu A/2009 H1N1 strains, 99% of A/H3, and 95% of B viruses tested by CDC were a good match for the 2010-11 vaccine. 100% of A/H3 and B viruses and 99.3% of A/2009 H1N1 viruses tested were susceptible to oseltamivir (Tamiflu®); 100% of all flu viruses tested were susceptible to zanamivir (Relenza®).
- California reported widespread influenza activity and high levels of ILI reported by sentinel providers.



Other News:

- **Results from cell-based flu vaccine trial showed favorable results when compared to egg-based vaccine.** A study of more than 7000 adults aged 18 to 49 years showed vaccine efficacy of 71% against confirmed influenza, similar to that of published reports on traditional egg-based vaccine. No serious adverse events were reported. The findings were published in the current issue of *The Lancet*.
- **US Food and Drug Administration (FDA) follows World Health Organization (WHO) recommendation that 2011-12 Northern Hemisphere's influenza vaccine strains remain the same.** The vaccine strains include:
 - For the H1N1 component, a strain similar to A/California/7/2009
 - For the H3N2 component, a strain similar to A/Perth/16/2009
 - For the B component, a strain similar to B/Brisbane/60/2008-like virus.



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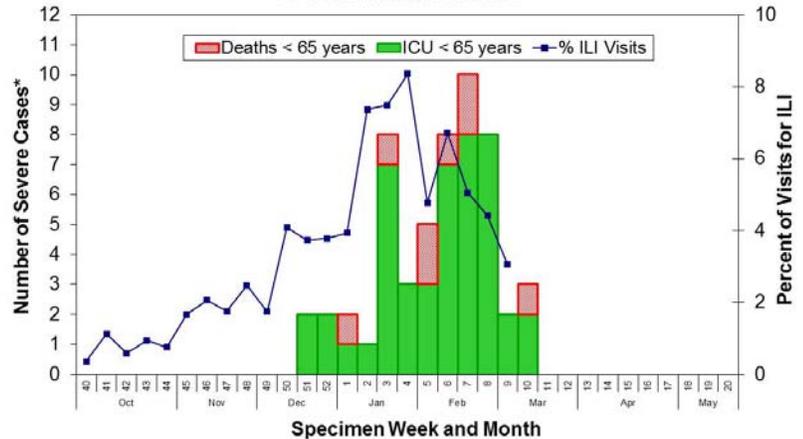
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Influenza activity has decreased in Orange County over the past several weeks but remains elevated. Influenza viruses are expected to continue to circulate in the community for at least several more weeks. It's not too late to vaccinate. Vaccine is recommended for all persons six months of age and older.

Influenza Update – Orange County (OC):

- Since the last update 2/25/2011, 12 new severe cases (resulting in admission to intensive care or death) of influenza in persons <65 years of age were reported. A total of 46 severe cases, including eight deaths, have been reported this season. Twenty-one (46%) of the severe cases were children, including one of the deaths. Influenza A was detected in specimens from 36 (78%) and influenza B from 10 (22%) severe cases. Reports of influenza and influenza-like illness (ILI) have decreased over the past several weeks.

Number of Severe Influenza Cases (ICU/Deaths < 65 Years) and Percent of Outpatient Visits Due to Influenza-Like Illness (ILI), Orange County, 2010-2011 Influenza Season



* Due to delays in reporting, some severe cases during this time period may not have been reported yet. Data as of 3/9/2011

Influenza Update – US and International:

- Nationally the proportion of outpatient visits to sentinel providers for ILI has decreased but is still above baseline. The proportion of deaths attributed to pneumonia and influenza remains above the epidemic threshold for the sixth consecutive week. Approximately 99% of flu A/2009 H1N1 strains, 99% of A/H3, and 95% of B viruses tested by CDC were a good match for the 2010-11 vaccine. 100% of A/H3 and B viruses and 99.8% of A/2009 H1N1 viruses tested were susceptible to oseltamivir (Tamiflu®); 100% of all flu viruses tested were susceptible to zanamivir (Relenza®).
- Influenza activity is decreasing in Europe, Canada, North Africa, the Middle East, and Asia.

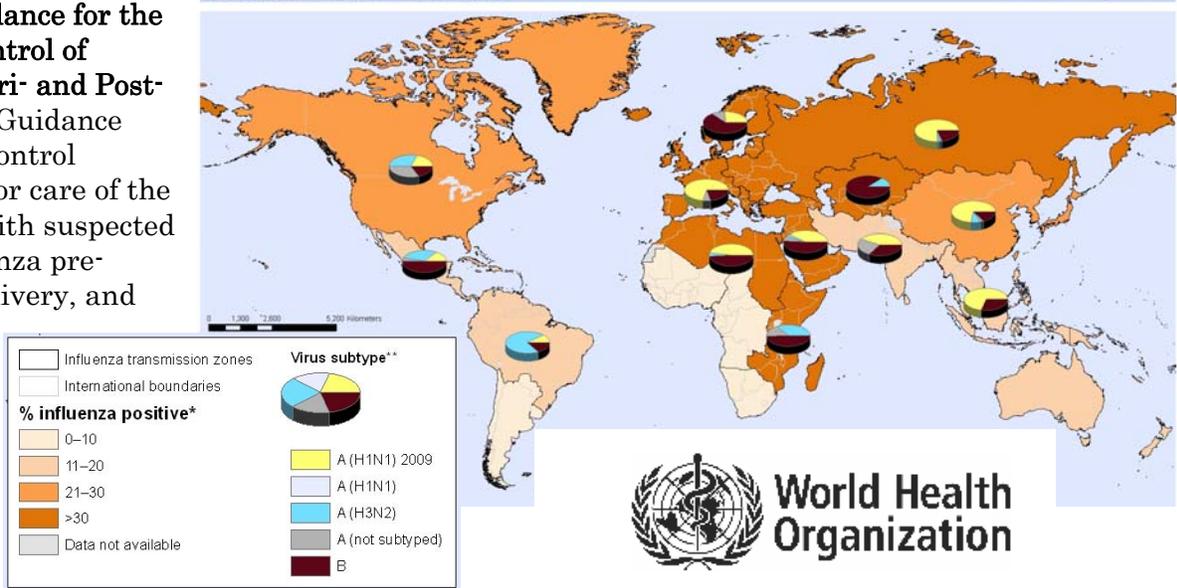


Other News:

- CDC updates “Guidance for the Prevention and Control of Influenza in the Peri- and Post-partum Settings.” Guidance includes infection control recommendations for care of the pregnant woman with suspected or confirmed influenza pre-delivery, during delivery, and after delivery, and for care of the newborn. A toolkit on “Responding to Influenza” is also available for prenatal care providers. For guidance: <http://www.cdc.gov/flu/professionals/infectioncontrol/peri-post-settings.htm>. For toolkit: http://www.cdc.gov/flu/pdf/freeresources/pregnant/2011_influenza_prenatal_toolkit.pdf.

Percentage of respiratory specimens that tested positive for influenza By influenza transmission zones

Status as of week 06 06-12 February 2011



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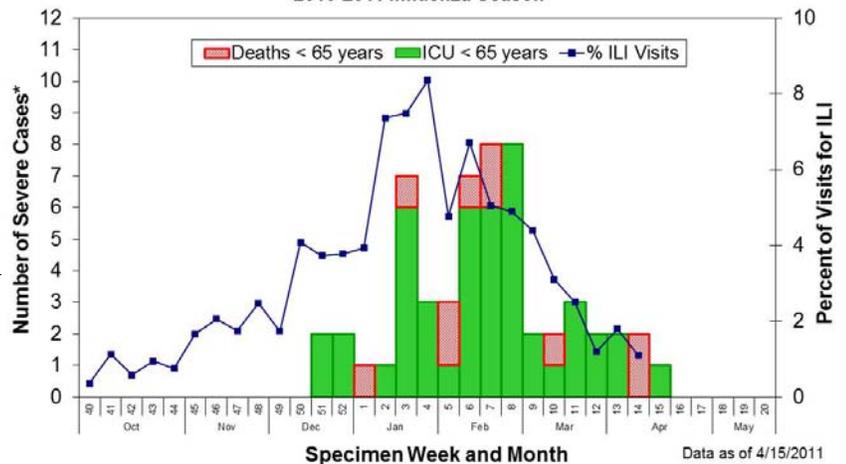
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Influenza activity has decreased in Orange County over the past several weeks.

Influenza Update – Orange County (OC):

- Since the last update 3/11/2011, 10 new severe cases (resulting in admission to intensive care or death) of influenza in persons <65 years of age were reported. A total of 56 severe cases, including 10 deaths, have been reported this season. The median age of the severe cases was 24 years (range <1 to 62); twenty-six (46%) of the severe cases were children, including one of the deaths. Influenza A was detected in specimens from 44 (79%), influenza B from 10 (18%), A/B unspecified from 2 severe cases. Reports of influenza and influenza-like illness (ILI) have decreased over the past several weeks and ILI currently accounts for 1% of visits to sentinel providers.

Number of Severe Influenza Cases (ICU/Deaths < 65 Years) and Percent of Outpatient Visits Due to Influenza-Like Illness (ILI), Orange County, 2010-2011 Influenza Season

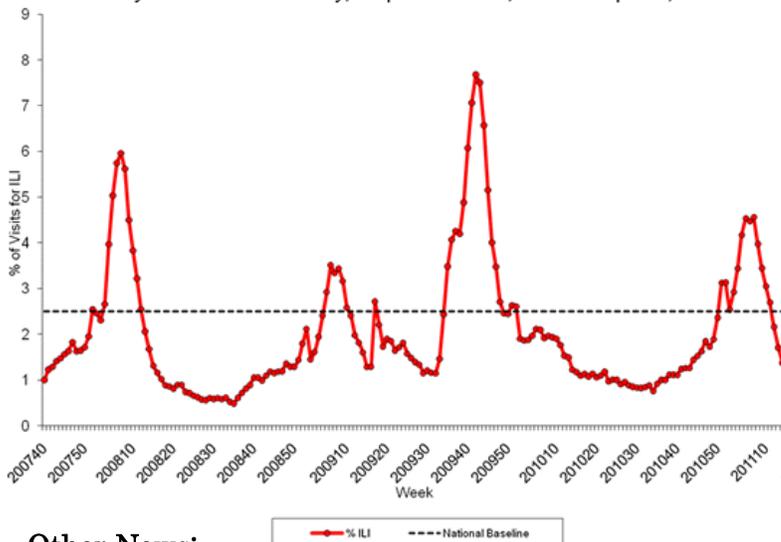


* Due to delays in reporting, some severe cases during this time period may not have been reported yet

Influenza surveillance partners

Thank you for your participation thus far this season. Please continue to report so we can monitor for any changes in circulating viruses or late season activity.

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, September 30, 2007 – April 9, 2011



Influenza Update – United States:

- Nationally influenza activity continues to decrease and was reported as widespread in only two states. ILI activity is below the national baseline. However, the proportion of deaths attributed to pneumonia and influenza remains above the epidemic threshold for the 11th consecutive week. 99.8% of flu A/2009 H1N1 strains, 96.6% of A/H3N2, and 94.5% of B viruses tested by CDC were a good match for the 2010-11 vaccine. 99.3% of A/H3, 99.8% of A/2009 H1N1, and 100% of B viruses tested were susceptible to oseltamivir (Tamiflu®); 100% of all flu viruses tested were susceptible to zanamivir (Relenza®).
- Activity in California is now local.



Other News:

- **“A Review of Adult Mortality Due to 2009 Pandemic (H1N1) Influenza A in California”:** Among the 541 adults (≥20 years of age) who died with 2009 H1N1 between 4/3/09 and 8/10/10, fatality rates were highest in persons 50-59 years (3.5 per 100,000 population; annualized rate 2.6) and 60-69 years (2.3; annualized 1.7). ICU admissions were also highest in adults 50-59 years of age (8.6 per 100,000 population). The ICU case fatality ratios ranged from 24-42% with the highest being in the 70-79 year old group (42%), followed by the 60-69 year olds (38%). 80% of the deaths had co-morbid conditions that were known risk factors for severe influenza infection. See www.plosone.org, April 2011, e18221.

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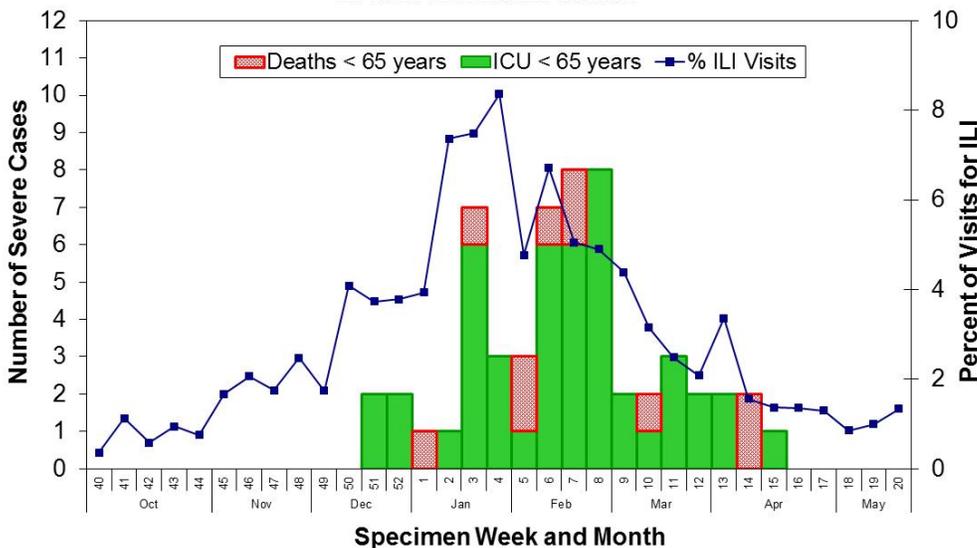
This is the final routine *Eye on Influenza* issue of the 2010-11 influenza season, which is officially over. We encourage surveillance partners to continue to monitor for influenza-like illness year-round to detect any novel viruses or other outbreaks.



Influenza Update – Orange County (OC):

- **Severe influenza cases (resulting in admission to intensive care or death) in persons <65 years of age:** Between week 40 (week ending 10/9/10) and week 20 (week ending 5/21/11), a total of 56 severe cases were reported, including 10 deaths. Forty-two (75%) of the severe cases were male. The median age of the severe cases was 24 years (range <1 to 62); twenty-six (46%) of the severe cases were children, including one of the deaths. Influenza A was detected in specimens from 44 (79%) of severe cases, influenza B from 10 (18%), and A/B unspecified from two severe cases. Nine (90%) of the influenza B severe cases were in children. Of the 36 influenza A viruses from severe cases that were subtyped, 26 (72%) were H1 and 10 (28%) were H3.
- **Outpatient visits for influenza-like illness (ILI) from sentinel providers:** During the 2010-2011 season the percentage of outpatients seen by sentinel providers for ILI remained under 3% until week 50 (12/12-12/18/10) and increased to a peak of 8.4% in week 4 (1/23-1/29/11). The percent of ILI remained above 3% until mid-March.

Number of Severe Influenza Cases (ICU/Deaths < 65 Years) and Percent of Outpatient Visits Due to Influenza-Like Illness (ILI), Orange County, 2010-2011 Influenza Season



Data as of 6/6/2011

Influenza surveillance partners

Thank you for your participation this past season. Year-round surveillance is important to detect ILI outbreaks and importation of any novel viruses.

Hospitals/laboratories:

Please continue to submit positive influenza specimens throughout the summer.

ILI sentinel providers:

Please continue to report weekly on ILI throughout the summer.

Other Influenza News:

- **Influenza Update – United States and International:** Nationally, influenza activity is at low levels and all surveillance parameters except pneumonia and influenza deaths are at or below baseline for this time of year. Globally, influenza activity also appears to be low.
- **Intradermal Influenza Vaccine Licensed in the U.S.** Fluzone[®] Intradermal Vaccine (Sanofi Pasteur) was licensed by the FDA in May 2011. This vaccine uses a microinjection system to deliver antigen into the dermal layer of the skin instead of muscle. The vaccine will be available for use in adults 18-64 years of age for the 2011-12 season and will protect against the same three strains as the other seasonal influenza vaccines. In adults, the immune response to intradermal vaccine was similar to inactivated vaccine given in the muscle. Advantages of the vaccine are that it uses a smaller needle and less antigen than traditional flu shots; disadvantages include higher incidence of local (injection site) side effects, such as itching, redness, and swelling. For more information, see http://www.cdc.gov/flu/protect/vaccine/qa_intradermal-vaccine.htm.

If you have any comments about this flyer, contact Michele Cheung, MD, MPH at (714) 834-8180. To receive this newsletter by email, please contact us at epi@ochca.com.