Current Activity

San Mateo County
- There has been a steady increase in influenza and RSV activity.
- Based on lab reports from seven reporting county and hospital laboratories*, there were 21 influenza and 12 RSV positive specimens within week 2 (Figure 1).
- To date, a total of 874 specimens have been tested for influenza, of which 57 (6.5%) are positive (Figure 2). Of the positive specimens, 49 (86%) were influenza A and eight (14%) were influenza B (Figure 4). A total of 186 specimens have been tested for RSV, of which 45 (24.2%) were positive (Figures 3).
- Influenza-like-illness (ILI) surveillance data from San Mateo Medical Center ED showed a decrease in week 2 (1.57%) compared to week 1 (1.16%), and has been steadily increasing over the past few weeks. To date, influenza-like illness visits made up 0.32% of total ED visits, still below the 2011-12 seasonal average of 0.59% (dashed line on graph) (Figure 5).

California
- Updated information available until week 2 (ending 1/12/13) indicates overall influenza activity in California increased and has been upgraded to “widespread”.
- In week 2, CDPH received one report of a lab-confirmed influenza-associated in an adult less than 65 years of age. To date, five deaths have been reported.
- The Respiratory Lab Network (RLN) tested 2,947 specimens for influenza during week 2, of which 639 (21.7%) were positive for influenza. Of these, 549 (85.9%) were influenza A and 90 (14.1%) were influenza B. Of the influenza A strains, 175 (31%) were subtyped as H3, 18 (3.2%) were subtyped as H1, and 358 (65.2%) were not subtyped.
- Sentinel reporting laboratories reported that RSV detections peaked during week 52 and have decreased to over 25% positive during week 2.
- Reports of ILI from sentinel providers have remained above the epidemic threshold during week 2.
- Neither the RLN nor CDPH-VRD have identified any influenza viruses by polymerase chain reaction (PCR) typing or subtyping that are suggestive of a novel influenza virus.
- CDPH has received three reports of laboratory-confirmed influenza outbreaks during the 2012-2013 season.

United States
- During week 2 (ending 1/12/13), influenza activity in the US remains elevated, but has decreased in some areas.
- Among 12,360 specimens tested, 3,638 (29.4%) specimens were positive for influenza; 3,003 specimens (82.5%) were flu A positive, of which 45 (1.5%) were 2009 influenza A (H1N1) and 1,603 (53.4%) were H3; and 635 (17.5%) of total flu positives were influenza B.
- Nine influenza-associated pediatric deaths were reported in week 2. To date, 29 pediatric deaths have been reported to the CDC.
- To date, 5,249 laboratory-confirmed influenza-associated hospitalizations were reported. This is a rate of 18.8 per 100,000 population. The most affected group is those ≥65 years.
- The proportion of outpatient visits for influenza-like-illness (ILI) was 4.6%. This percentage is higher than the national baseline of 2.2%.

*Our reported numbers do not represent all cases of influenza within SMC, but are intended to demonstrate trends in influenza activity. Sources: SMC, Kaiser, San Mateo Medical Center, Sequoia Hospital, Peninsula Hospital, San Mateo County Public Health Lab. CA: California Influenza Surveillance Project: http://www.cdph.ca.gov/programs/vrdl/Pages/
Influenza activity continues to increase in San Mateo County and flu activity in California is widespread. The increase in flu activity is earlier than in the previous regular influenza seasons. Fifty seven specimens (6.5%) have tested positive for influenza since the beginning of flu season.

- Since influenza is circulating in the community, healthcare providers should consider empiric treatment in patients with a high clinical suspicion for influenza.
- Continue to test hospitalized patients with suspected flu for the purposes of infection control and surveillance. Consider empiric treatment in severely ill hospitalized (ICU) cases with suspected influenza or in patients with progressive illness.
- Antivirals used for treatment: Oseltamivir or Zanamivir. So far, there is no evidence of resistance to neuraminidase inhibitors among the influenza A strains tested.

Infection Control Measures for Influenza in Healthcare Settings

At the current time, the CDC recommendations support the use of droplet precautions for patients with suspected or confirmed influenza for 7 days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer, while a patient is in a healthcare facility. Healthcare personnel should wear respiratory protection equivalent to a fitted N95 filtering facepiece respirator or equivalent N95 respirator (e.g., powered air purifying respirator, elastomeric) during aerosol-generating procedures, such as bronchoscopy, sputum induction, intubation and extubation, autopsies, cardiopulmonary resuscitation, and open suctioning of airways.

Aside from wearing the proper personal protective equipment, it is important to remember that preventing transmission of influenza virus and other infectious agents within healthcare settings requires a multi-faceted approach and includes other prevention strategies as follows:

- administration of influenza vaccine
- implementation of proper respiratory hygiene and cough etiquette
- appropriate management of ill healthcare personnel
- adherence to infection control precautions for all patient-care activities and aerosol-generating procedures
- implementing environmental and engineering infection control measures.

The CDC recommends that all healthcare providers receive annual influenza vaccination. Healthcare workers include (but are not limited to) physicians, nurses, nursing assistants, therapists, technicians, emergency medical service personnel, dental personnel, pharmacists, laboratory personnel, autopsy personnel, students and trainees, contractual staff not employed by the health-care facility, and persons (e.g., clerical, dietary, housekeeping, laundry, security, maintenance, administrative, billing, and volunteers) not directly involved in patient care but potentially exposed to infectious agents that can be transmitted to and from health care workers and patients. Influenza outbreaks in hospitals and long-term care facilities have been attributed to low influenza vaccination coverage among health care workers in those facilities. Higher influenza vaccination levels among health care workers can reduce influenza-related illness, and even deaths, in settings like nursing homes.

For a summary of available vaccine products, refer to the CDC webpage.

Stay Informed and Be Prepared!

- Sign up for California Health Alert Network (CAHAN): This system provides rapid notification to our partners. To sign up, contact Theresa Smith at (650)573-3782 or email THsmith@smcgov.org.
- Sign up to receive the Seasonal Flu Report by clicking here or by emailing epidemiology@smcgov.org.
**CDC 2012-2013 Antiviral Treatment Guidelines**

Note: On December 21, 2012, the U.S. Food and Drug Administration (FDA) approved the antiviral medication oseltamivir (trade name Tamiflu®) for the treatment of influenza in people aged 2 weeks and older.

Antiviral treatment is recommended **as early as possible** for any patient with confirmed or suspected influenza who
- is hospitalized;
- has severe, complicated, or progressive illness; or
- is at higher risk for influenza complications.

Persons at higher risk for influenza complications recommended for antiviral treatment include:
- children aged younger than 2 years;
- adults aged 65 years and older;
- persons with chronic pulmonary (including asthma), cardiovascular (except hypertension alone), renal, hepatic, hematological (including sickle cell disease), metabolic disorders (including diabetes mellitus), or neurologic and neurodevelopment conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury);
- persons with immunosuppression, including that caused by medications or by HIV infection;
- women who are pregnant or postpartum (within 2 weeks after delivery);
- persons aged younger than 19 years who are receiving long-term aspirin therapy;
- American Indians/Alaska Natives;
- persons who are morbidly obese (i.e., body-mass index is equal to or greater than 40); and
- residents of nursing homes and other chronic-care facilities.

When indicated, antiviral treatment should be started as soon as possible after illness onset, ideally within 48 hours of symptom onset. However, antiviral treatment might still be beneficial in patients with severe, complicated or progressive illness and in hospitalized patients when started after 48 hours of illness onset, as indicated by observational studies.

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### Recommended Dosage and Duration of Treatment or Chemoprophylaxis for Influenza Antiviral Medications, 2012-2013 Influenza Season

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<tr>
<th>Antiviral Agent</th>
<th>Use</th>
<th>Children</th>
<th>Adults</th>
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| Zanamivir (Relenza®)         | **Treatment**
|                              | (Duration of 5 days)†                              | 10 mg (2 inhalations) twice daily            | 10 mg (2 inhalations) twice daily          |
|                              | (Not FDA approved for use in children <7 yrs old) | (Not FDA approved for use in children <5 yrs old) | (Not FDA approved for use in children <5 yrs old) |
|                              | **Chemoprophylaxis**
|                              | (7 days after exposure)*                           | 10 mg (2 inhalations) once daily            | 10 mg (2 inhalations) once daily          |
|                              | (Not FDA approved for use in children <5 yrs old) | (Not FDA approved for use in children <5 yrs old) | (Not FDA approved for use in children <5 yrs old) |
| Zanamivir (Relenza®)         | **Treatment**
|                              | (Duration of 5 days)†                              | †Longer treatment courses for patients who remain severely ill after 5 days of treatment can be considered.
|                              | (Dose varies by child’s weight)
|                              | If <1 yr old, the dose is 3 mg/kg/dose daily     |                                               |
|                              | If ≥1 yr old and weigh 15 kg or less, the dose is 30 mg twice a day. |
|                              | If ≥1 yr old and weigh >15 to 23 kg, the dose is 45 mg twice a day. |
|                              | If ≥1 yr old and weigh >23 to 40 kg, the dose is 60 mg twice a day. |
|                              | If ≥1 yr old and weigh more than 40 kg, the dose is 75 mg twice a day. |
| Oselamivir (Tamiflu®)        | **Chemoprophylaxis**
|                              | (7 days after exposure)*                           | (Not FDA approved for use in children <1 yr old)
|                              | If child is <3 months old, chemoprophylactic use is not recommended unless situation is judged critical due to limited data on use in this age group.
|                              | (Not FDA approved for children <1 yr, but use in children ≥3 months and <1 yr old was approved under EUA during the 2009 H1N1 pandemic)
|                              | If child ≥3 months and <1 yr old, dose is 3 mg/kg/dose once per day. |
|                              | (Dose varies by child’s weight)
|                              | If ≥1 yr old, and weigh 15 kg or less, the dose is 30 mg once a day. |
|                              | If ≥1 yr old and weigh >15 to 23 kg, the dose is 45 mg once a day. |
|                              | If ≥1 yr old and weigh >23 to 40 kg, the dose is 60 mg once a day. |
|                              | If ≥1 yr old and weigh more than 40 kg, the dose is 75 mg once a day. |

*For outbreaks: minimum of 2 weeks, including in vaccinated persons, and up to 1 week after the last known case was identified.