

## **NOVEL INFLUENZA A (H1N1)**

Novel influenza A (H1N1), also called “swine flu,” is a new strain of influenza that emerged in the United States in the spring of 2009. This new strain of influenza causes the same illness that is seen with the usual, seasonal flu strains. Symptoms are fever, cough, sore throat, headache, and muscle aches. The illness usually lasts 5-7 days but bacterial complications (e.g., bronchitis, pneumonia, ear infections) are common following infection with influenza. Influenza viruses are highly contagious; close contacts to cases often develop infection. The infection is spread via respiratory droplets that are spread through coughing, sneezing, or contamination of objects and other frequently touched surfaces. The incubation period is generally 1-5 days. Adults with influenza will shed virus in respiratory secretions for up to 5 days after symptom onset; children will shed influenza virus for up to 10 days.

In a typical winter season, up to 20% or more of a community can be affected by influenza. In closed settings such as nursing homes or schools, up to 50% of persons may become ill, especially when there are young children involved. Shelter settings are thus at high risk for influenza outbreaks. This new strain of flu is expected to cause even more illness because there is no vaccine at this point, and there is no immunity in the population. A prior flu shot or previous infection with the flu will not protect against this strain.

The Division of Disease Control, Philadelphia Department of Public Health (PDPH) should be notified for outbreaks of influenza (or suspected influenza) occurring in shelters, particularly shelters with young children, and/or immunocompromised persons who might be at increased risk for influenza complications. Three or more cases of influenza-like illness (fever to 100° F, and cough or sore throat, without other explanation for illness) suggest an outbreak of influenza; symptomatic persons should be tested for influenza.

The Division of Disease Control (DDC) telephone number is 215-685-6740, Monday through Friday, 8:30 AM-5 PM; after hours, please call 215-686-1776 and ask for the person on call for Disease Control. Division staff will provide specific recommendations for disease management and guidance to interrupt the spread of disease in the shelter, and access to diagnostic testing for influenza, if needed. The shelter operator or a designated person should be available to communicate information about new cases and assist with efforts to control an outbreak.

### **General Recommendations to Prevent Spread of Influenza**

Seasonal influenza can be prevented with yearly vaccination and through promotion of respiratory hygiene and hand washing. In the absence of a vaccine for novel H1N1, disease prevention will rely on the following infection control measures:

- Persons who are ill with influenza-like symptoms should be considered contagious, and they should be confined to their rooms, with limited interaction with the general shelter population for up to 1 week after the onset of their symptoms.
- Respiratory hygiene and cough etiquette should be encouraged, and shelters should make supplies available:
  - Everyone should be encouraged to cover the mouth and nose with tissues when coughing or sneezing
  - Tissues should be available and disposed in no-touch waste containers
  - Hands should be washed with soap and water or hand sanitizer after soiling hands with respiratory secretions

- Handwashing in general should be promoted throughout the shelter:
  - Staff and residents should wash their hands with soap and water frequently.
  - Children should be assisted in washing their hands with soap and water frequently.
  - Alcohol hand gels are an effective addition to hand washing, and a reasonable temporary substitute when soap and clean water are not readily available.

### **Management of Cases with Influenza**

Residents with respiratory illness that appears to be influenza should be managed as follows:

1. Any resident with influenza or suspected influenza who is at high risk for complications (e.g., persons with chronic medical problems, pregnancy, immune suppression, advanced age, and children under the age of 5 years) should be referred for medical evaluation early in the course of illness, ideally within 48 hours of symptom onset. Antiviral medications may shorten illness and prevent severe complications if given early.
2. If possible, residents with influenza and their families should be housed separately from other residents, with dedicated living space (and bathrooms if possible) and meals eaten in room, or separated from the general population. Resident with influenza should try to remain in the shelter, and not participate in work, school or childcare until 7 days after the onset of symptoms.
3. If three or more residents (unrelated to each other) have influenza-like illness, the shelter may be experiencing an outbreak of influenza. The initial patients should be referred to healthcare providers for diagnostic testing, although once the presence of an outbreak in the shelter is established, others with influenza-like illness can be presumed to have influenza and will probably not require testing unless there are special circumstances. Shelter staff should report this to the OSH Operations Supervisor (phone 215-686-7183) and the PHMC Infection Control Coordinator (215-985-2562 or beeper # 215-308-8316).
4. Limit congregate activities when there are multiple cases of influenza in a shelter, including use of playrooms. Structure mealtimes so that ill persons and their close family contacts eat together, at a time separate from the general shelter population.
5. DDC should be contacted to assist with access correct diagnostic tests, and to provide outbreak control recommendations. Patients who have no primary health care provider can receive medical care at any PDPH District Health Care Center.

### **Management of Contacts of Influenza**

When there are cases of influenza (confirmed or suspected) among shelter residents, the shelter staff should work with the PHMC Infection Control Coordinator to identify new cases through active symptom screening, if possible. Newly identified persons who are at high risk for complications should be managed as outlined above.

The priority should be to prevent illness in those most susceptible to complications of influenza, including persons who are immunosuppressed (e.g., living with HIV infection, undergoing treatment for cancer), very young children and the elderly.

1. Close contacts in a shelter situation will need to be identified on a case-by-case basis, in conjunction with DDC staff, but will likely include family members, others who share the same sleeping and living quarters, and bathrooms. In shelters where everyone shares communal eating areas, all residents and staff may be considered to be at risk for influenza.
2. High risk contacts are candidates for prophylaxis with antiviral medications, and should be referred to medical providers for that purpose. In selected situations (e.g., shelters with immunosuppressed residents, or others at high risk for influenza-related complications), DDC may recommend that some or all residents take antiviral medication as long as there is influenza in the shelter, until one week after the outbreak is over.

### **Admission/Transfer Recommendations for Shelters with Influenza**

1. If there is a case of influenza in the shelter, persons who are at high risk for influenza-related complications (e.g., pregnant women, persons with underlying medical problems, children < 1 year old who are too young for antiviral therapy) should not be admitted to the shelter, if at all possible. This restriction should continue for 7 days after the onset of symptoms in the last case.
2. If an outbreak is recognized in the shelter, there should be no new admissions to the shelter or transfers from the shelter to another shelter until at least one week has elapsed with no new cases and after the onset of symptoms in the most recent case.
3. During periods of widespread influenza transmission in the community, new residents entering the shelter system should be asked if they have influenza-like illness, and referred for medical evaluation if they are at high-risk for medical complications. If possible, they should be admitted to a shelter where they may have their own living space and bathroom facilities.
4. Families/residents with active flu symptoms should not transfer to other shelters until at least 1 week after symptoms have resolved. Family members who have shared sleeping quarters are at high risk for infection themselves, and ideally should not transfer to other shelters while they might be incubating influenza.