

**H1N1 Swine Influenza Surveillance Update
for Local Health Jurisdiction Disease Investigators
Last Updated: April 28, 2009**

Early investigations of influenza cases due to a novel H1N1 swine influenza virus strongly suggest that this illness is indistinguishable from influenza due to the current human influenza viruses circulating annually. As a result, laboratory testing is a critical part of surveillance.

Persons returning from areas affected by an outbreak of this novel H1N1 swine influenza with respiratory symptoms should not be specifically instructed to seek medical care solely for testing for influenza. As with seasonal influenza, medical care and the decision to treat persons with this novel H1N1 swine influenza virus should be sought based on severity of illness. Persons who are asymptomatic should not be tested.

Recommendations for Testing

LHJ and DOH staff should recommend influenza testing in the following situations:

- 1) Persons hospitalized with severe respiratory illness (i.e., fever >37.8 [100°F] **plus** shortness of breath, hypoxia, or radiographic evidence of pneumonia) that may be due to influenza;
- 2) Unexplained deaths in people less than 50 years of age that appear due to severe respiratory illness, respiratory failure, or pneumonia;
- 3) Persons seen in emergency departments or outpatient settings with influenza-like illness (i.e., fever >37.8 [100°F] **plus** cough and/or sore throat) **and** one of the following risk factors:
 - a. Travel in Mexico in the 7 days prior to illness onset
 - b. Contact with a person influenza-like illness who had traveled to Mexico in the 7 days prior to their illness
 - c. Contact with a confirmed or probable case of swine influenza.

As affected regions within the United States are better defined, these risk factors may be modified in the future.

It should be noted that this surveillance strategy is specifying surveillance for “influenza-like illness” and is different from that suggested by CDC. CDC has previously recommended testing all persons with acute respiratory illness, a much less specific case definition. That strategy could rapidly overwhelm PHL’s ability to provide timely polymerase chain reaction (PCR) test results. We will periodically re-evaluate the lab’s available capacity to do additional testing and may revise the case definition used for this enhanced surveillance accordingly.

If a person is in one of these three groups, we recommend the following testing strategy. LHJ staff will likely be asked about testing by providers, clinics, or hospitals but may also be in a situation where they do testing if suspect cases are not seeking healthcare. These are the recommended steps:

- Determine if the patient is within 7 days of illness onset. If onset within 7 days, testing should be done. Establish appropriate infection control precautions before obtaining specimens.
- For hospitalized patients with severe respiratory illness:
 - Perform a rapid test for influenza at their hospital lab under BSL2 conditions (i.e., using a biosafety cabinet)
 - If the patient tests positive for influenza A, obtain a second nasopharyngeal specimen using a synthetic (not cotton or calcium alginate) swab, place in viral transport medium and refrigerate
 - If the rapid test is positive, healthcare providers should notify the LHJ that they have a hospitalized case of severe respiratory illness due to influenza A and that they are shipping the sample to PHL.

[For hospitalized cases that meet the case definition **AND** have travel exposure **BUT** their rapid test is negative, healthcare providers should contact the LHJs to specifically discuss whether a sample should still be sent to PHL. LHJs should contact DOH CD EPI to discuss these cases on a case-by-case basis.]

- For patients with risk factors seen in outpatient settings or emergency departments:
 - Collect a single nasopharyngeal specimen using a synthetic (not cotton or calcium alginate) swab, place in viral transport medium and refrigerate. Healthcare providers should contact the LHJ to notify them that they have a suspected case of swine influenza and the healthcare provider should ship the sample directly to PHL.

[Note: This is a change from previous recommendations. For test validity, PHL can only perform influenza PCR testing on nasopharyngeal swabs that have **NOT** been in contact with reagents that are used for other tests. As a result, PHL will only test swabs that have not been previously used for other testing. In places where rapid influenza testing is already the standard of care for persons seen in outpatient clinics or emergency departments, you may consider collecting two nasopharyngeal swabs and using one for rapid testing and forwarding the other to PHL regardless of the rapid test result.]

- For persons with unexplained deaths:
 - Collect nasopharyngeal and if possible tracheal specimens using synthetic (not cotton or calcium alginate) swabs. Place in viral transport medium, refrigerate and ship directly to PHL for rapid flu testing.

Nasal lavage and broncho-alveolar lavage samples will be handled differently and guidance for handling these samples will be given separately. LHJs should facilitate transport of specimens which test positive for influenza A to PHL for subtyping. Laboratories that do influenza testing have already been asked to submit all influenza-positive samples to PHL. PHL testing will continue on weekends.

Specimens should be shipped cold (not frozen) and must arrive at PHL within 72 hours of collection. Please inform CD Epi when a specimen is being shipped (206-418-5500). A virology form found at <http://www.doh.wa.gov/EHSPHL/PHL/Forms/SerVirHIV.pdf> should accompany the specimen. Specimens should be shipped:

Attn: PHL Virology Laboratory
1610 NE 150th Street
Shoreline, WA 98155

LHJ staff also have the option to request submitting specimens to PHL for the following patients:

- 1) Persons with influenza-like illness who were in Mexico during the seven days prior to illness, but who are not ill enough to seek medical care.
- 2) Other persons with influenza-like illness or febrile respiratory illness who have epidemiologic reasons to be at increased risk for swine influenza (e.g., travel to an area in the United States with an outbreak).

This is intended to give LHJs discretion to submit samples from persons who may have risk factors but may not be seeking medical care. Please use the shipping instructions above.

Tribal Health Centers and Indian Health Service facilities will be advised to contact the LHJ and follow the above recommendations for testing, which can be done at PHL.

Case definitions for infection with swine influenza A (H1N1) virus can be found at:
http://www.cdc.gov/swineflu/casedef_swineflu.htm