



## Florida Department of Health

Novel Influenza A (H3N2 and H1N2) Guidance

Focus Area: Surveillance

Guidance document number 2011-1

### Novel Influenza A H3N2 and H1N2 Surveillance and Reporting Guidance for ILINet Super Sentinel Providers

Version 1.0

December 12, 2011

Note: This document may become outdated as situations change. Documents on this topic dated after December 12 supersede this one. This document will be posted on the Bureau of Epidemiology website <http://doh.state.fl.us/floridaflu>

#### Summary:

- CDC has confirmed human infection with two different novel influenza A viruses in different states: novel influenza A H3N2 and H1N2. **No infections due to these novel influenza strains have been reported in Florida to date.** In recent weeks, human infections with a novel strain of influenza A H3N2 have been identified in 11 people across five states: West Virginia (1) Indiana (2), Pennsylvania (3), Maine (2), and Iowa (3). Novel influenza A H1N2 infection has been identified from one child in Minnesota. At this time, these strains have not been shown to cause severe influenza illness. The epidemiology of the identified clusters is suggestive of person-to-person transmission. Documented illnesses have occurred in children, leading to concern that children, primarily those elementary age and younger, may have increased susceptibility to these influenza strains.
- **We are requesting the assistance of the participants in the Florida ILINet Influenza Surveillance Network to enhance Florida's influenza surveillance in an effort to detect activity of the novel H3N2 and H1N2 flu strains in Florida.**

#### Actions:

- **Between today and January 7, we ask that you submit two additional specimens each week from ILI patients** to the Florida Department of Health (FDOH) Bureau of Laboratories for testing; this is in addition to the up to seven specimens per week suggested by the current ILINet protocol. **At least two of the seven specimens should be from children under 15 years of age**, provided such patients present for treatment. Specimens should be collected only from those patients meeting the case definition for influenza-like-illness (ILI) who are within three (3) days of symptom onset.  
*Definition of ILI: Fever  $\geq 37.8^{\circ}\text{C}$  ( $100^{\circ}\text{F}$ ) and a cough and/or sore throat*
- **As a reminder, please continue to submit additional specimens if you see unusual or severe ILI presentations, or ILI outbreak-associated specimens**, even if you have already submitted seven specimens for the week. Submit specimens for those who (a) have repeat influenza infections, (b) develop influenza in spite of vaccination, (c) have infections that are highly suspected to be resistant to antiviral therapies and (d) are part of outbreaks. Outbreaks of particular interest are those occurring in settings with children or outbreaks that have unusual or severe presentations.
- **Report cases of influenza-associated pediatric mortalities** to your local county health department, per Florida Administrative Code Chapter 64D-3.
- **Report weekly ILI data through the CDC website by 12 p.m. every Tuesday.**

## Background:

CDC has confirmed human infection with *two different novel influenza A* viruses in different states; novel influenza A H3N2 and influenza A H1N2. In recent weeks, human infections with a novel strain of influenza A H3N2 have been identified in 11 people across five states: West Virginia (1), Indiana (2), Pennsylvania (3), Maine (2), and Iowa (3). Novel H3N2 originated in pigs, and combines genes from swine, avian, and human influenza viruses, including the 2009 H1N1 influenza A virus. The epidemiology of the identified novel H3N2 clusters suggests person-to-person transmission. There have been no severe illnesses, hospitalizations, or deaths reported due to novel H3N2. These novel influenza H3N2 viruses are substantially different from currently circulating seasonal (human) influenza A H3N2 viruses, but are distantly related to human influenza viruses that circulated among people in the 1990s. For that reason, **it appears that children elementary school age and younger may have a higher likelihood of contracting this strain** than older individuals who may have some existing partial immunity.

CDC has also confirmed influenza infection in a Minnesota child was caused by a different novel strain that circulates in pigs: influenza A H1N2. By some characteristics this novel H1N2 virus resembles a human strain that circulated in humans as recently as 2007. People exposed to this similar strain may have some existing partial immunity.

Laboratory testing at CDC has confirmed that both novel viruses are susceptible to the antiviral medications oseltamivir (Tamiflu®) and zanamivir (Relenza®). For more information on these novel influenza strains, please visit

[http://www.cdc.gov/media/haveyouheard/stories/novel\\_influenza.html](http://www.cdc.gov/media/haveyouheard/stories/novel_influenza.html)

The testing procedures used by the FDOH Bureau of Laboratories on all specimens submitted by ILINet sites has the capability to identify people infected with the new strains. In order to enhance surveillance in an effort to evaluate if these strains are present in Florida, we ask that **ILINet providers submit two additional specimens each week from ILI patients for the next four weeks** (through January 7, 2012), **for a total of up to seven specimens per week. At least two of the seven specimens should come from children under 15 years of age.**

**No documented illnesses from these novel influenza strains have occurred in Florida.**

Influenza subtypes known to be circulating in Florida are seasonal, vaccine susceptible strains: 2009 H1N1, seasonal influenza A H3, and influenza B. **Seasonal influenza strains are known to cause severe illness in some groups, such as people over 65 years of age. Please continue to submit specimens for patients of all ages.** For more detailed influenza surveillance information, please see the Florida Flu Review at:

<http://doh.state.fl.us/floridaflu/2012/index.html>

The increase in detected human infections due to swine-origin strains of influenza A could be occurring for a number of reasons, including improved laboratory methods, increased surveillance, or a true increase in cases. **As sentinel providers, your specimen submissions to FDOH are essential to understanding what subtypes of influenza are circulating in Florida. Thank you for your participation!**

## How to submit specimens for testing and report ILI patient visits:

### 1) Submit specimens to the FDOH Bureau of Laboratories for influenza testing.

- Collect specimens from **patients that meet the case definition for influenza or ILI** and ship these specimens to FDOH Bureau of Laboratories in Jacksonville or Tampa, as you customarily do as a part of ILINet. *Definition of ILI: Fever  $\geq 37.8^{\circ}\text{C}$  ( $100^{\circ}\text{F}$ ) and a cough and/or sore throat*
- **Specimens should be collected from patients who have been ill for less than 72 hours.**

- Each week, please collect specimens from up to seven patients per week. **At least two of these specimens should come from children younger than 15 years of age**, should such patients present for treatment.
- In addition, even if you have already sent seven specimens for the week, submit specimens for those who (a) have repeat influenza infections, (b) develop influenza in spite of vaccination, (c) have infections that are highly suspected to be resistant to antiviral therapies and (d) are part of outbreaks. Outbreaks of particular interest are those occurring in settings with children or outbreaks that have unusual or severe presentations.
- Please submit these specimens using your ILINet sentinel provider specimen submission forms.
- County health department sentinel providers that place orders through HMS electronic laboratory ordering (ELO) for Influenza A/B Rt-PCR must ALSO submit the sentinel laboratory specimen requisition with the specimens. Write the ELO number on the sentinel laboratory requisition form.

## 2) Report your influenza-like-illness patient visits.

We will continue to monitor this data throughout the summer. FDOH relies very heavily on these data.

- Report your weekly number of ILI patients by age-group every week. When reporting, also record the total number of patient visits (for all causes).
- **Reports should be made each week**, even if your practice did not see any patients with influenza-like-illness. Simply record “0” for this information. You will still need to record the total number of patients seen (for all causes) in your practice.
- **Reports should be received no later than 12 p.m. on Tuesdays.**
- The website for reporting your ILI data: <http://www2.ncid.cdc.gov/flu/>

## How to collect and ship specimens for testing:

### Specimen Collection:

- Collect nasopharyngeal or oropharyngeal (throat) specimens with a viral swab and place in viral transport medium (VTM) from those patients with acute ILI.  
*Definition of ILI: Fever  $\geq 37.8^{\circ}\text{C}$  ( $100^{\circ}\text{F}$ ) and a cough and/or sore throat*
- **Preferred specimen is a nasopharyngeal swab** (NOT nose swabs). There must be an adequate volume of the sample or the test will not be valid.
- These other routine respiratory specimens are also acceptable, but not recommended:
  - nasopharyngeal aspirates
  - bronchial wash
  - sputum (NOT saliva)
- Swabs **MUST** be placed in **2-3 ml of viral transport media immediately after collection.**
- Refrigerate immediately, do NOT freeze.
- Collect specimens from patients within three days of onset of illness.
- When influenza is detected in a clinical laboratory by RAPID TESTING methods, please send an aliquot (1-2 ml) of the original swab eluate in **viral transport media** (not exposed to test kit reagents); or if an additional original specimen is available, that is preferable. Do NOT send the rapid test reagent.
- If influenza is detected in a clinical laboratory by VIRAL CULTURE, please send the actively growing viral culture tube with 2 ml of **viral cell culture maintenance media**.

**Specimen shipping:**

- Ship to FDOH Bureau of Laboratories -Tampa or -Jacksonville (whichever is your servicing Laboratory), as usual.
- All specimens must be accompanied by a Sentinel Provider requisition form, which is available with pre-printed sentinel provider information from your servicing laboratory.
- Record **Sentinel Provider Number** on the specimen requisition form if not using one of the pre-printed forms. (Sentinel providers should receive specimen requisition forms from the Bureau of Laboratories.) This will help us rapidly track and process specimens submitted by practices participating in ILINet and assure appropriate specimen testing.
- ***Keep specimens refrigerated at 4°C (NOT frozen) and ship on gel ice no later than 48 hours post collection.***

Providers should use the specimen collection kits and shipping supplies provided from the Bureau of Laboratories for this project.

- Inventory specimen collection and testing kits and shipping supplies to ensure the necessary supplies, including swabs and viral transport medium, are on hand and available for use.
  - If the viral transport media is outdated, but still clear and pink, (i.e. not cloudy or yellow-orange), it can still be used if necessary until replacements are received.
  - The expiration date is the last day of the month printed on the wrapper.
- Contact the appropriate Bureau of Laboratories servicing laboratory facility if replacement materials are needed.
- Store the gel ice packs in freezer until needed so they will be ready for use.

If you have any questions, please do not hesitate to call your county health department for information or, if you are unable to reach your county health department, please contact the Bureau of Epidemiology 850-245-4401. You may also contact the Bureau of Laboratories directly through the contact number you received with the specimen collection kits to order replacement specimen collection and testing materials.

Thank you for participating in this important program!