



## State of New Jersey

### DEPARTMENT OF HEALTH AND SENIOR SERVICES DIVISION OF EPIDEMIOLOGY, ENVIRONMENTAL AND OCCUPATIONAL HEALTH

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Acting Commissioner

To: Health Officers, Regional Epidemiologists, State and County Medical Examiners, Hospital Infection Control Practitioners, Pediatric Practitioners

From: Lisa McHugh, MPH  
Influenza Surveillance Coordinator

Date: November 14, 2011

Subject: NJDHSS Pediatric Influenza Surveillance

Surveillance for pediatric cases of influenza was initiated during the 2003-2004 influenza season when several influenza deaths were reported in children. These reports generated concern that children were disproportionately affected by influenza during that season. In response, CDC requested that states increase their efforts to collect and report information on pediatric influenza cases. Influenza-associated pediatric mortality was added to New Jersey's reportable disease list in 2009. To further assess the burden of influenza-associated severe illness and death in the pediatric population and to gather data that might influence influenza-related policy, the New Jersey Department of Health and Senior Services (NJDHSS) is requesting reports of cases of severe or fatal influenza in hospitalized pediatric patients. Health care providers and facilities should report cases of:

- Pediatric patients (i.e., less than 18 years of age) with laboratory confirmed influenza\* **AND**
- Influenza-related deaths (in which there is no period of complete recovery between illness and death); **OR**
- Influenza encephalopathy (defined as altered mental status or personality changes in patients lasting more than 24 hours and occurring within 5 days of the onset of an acute febrile respiratory illness); **OR**
- Severe illness defined as admission to an intensive care unit for influenza-related illness (in previously healthy children).

NJDHSS requests patients meeting the above criteria be entered into the Communicable Disease Reporting and Surveillance System (CDRSS) within 24 hours of the case-patients' discharge or death by the acute care facility or local health department where the patient resides. A supplemental survey form is requested on all cases reported to CDRSS. This survey can be accessed directly from CDRSS by selecting "PED\_FLU\_11\_12" or "PED-FLU-11-12" from the "Outbreak #" drop down list located in the "Outbreak/Investigation Information" section on the epidemiology tab. Directions and screen shots of the reporting process can be found in the attached document.

Reporters are reminded that pediatric influenza reporting is a *year-round initiative* and should be reported even when influenza virus is not actively circulating. Arrangements can be made for additional testing on specimens from cases meeting the above definition. NJDHSS appreciates your cooperation in this surveillance activity. If you have any additional questions about reporting cases, please contact Lisa McHugh at 609-826-5964. Thank you for your assistance.

\*Laboratory testing for influenza virus infection may be done on pre- or post-mortem clinical specimens, and includes identification of influenza A or B virus infections by a positive result by at least one of the following methods:

- Influenza virus isolation in tissue cell culture from respiratory specimens
- Reverse-transcriptase polymerase chain reaction (RT-PCR) testing of respiratory specimens
- Immunofluorescent antibody staining (direct or indirect) of respiratory specimens
- Rapid influenza diagnostic testing of respiratory specimens
- Immunohistochemical (IHC) staining for influenza viral antigens in respiratory tract tissue from autopsy specimens
- Four-fold rise in influenza hemagglutination inhibition (HI) antibody titer in paired acute and convalescent sera (single serum samples are not interpretable)

**Reporting of Severe and Fatal Pediatric Influenza**  
**New Jersey Department of Health and Senior Services**  
**2011-2012 Influenza Season**

Patients meeting the below criteria should be entered into the Communicable Disease Reporting and Surveillance System (CDRSS) within 24 hours of the case-patients' discharge or death. A supplemental questionnaire has been created as a survey in the Hippocrates system and is now linked to CDRSS. This replaces the previous web based questionnaire and should be completed on all patients meeting the reporting criteria. Once the survey is submitted, it becomes part of the CDRSS record and is available for viewing and editing in the case patients CDRSS record. A Hippocrates account is not required to complete the survey. Instructions on what information should be recorded in CDRSS and how to submit the supplemental survey can be found below.

**Reporting Criteria**

The New Jersey Department of Health and Senior Services (NJDHSS) is requesting reports of cases of severe or fatal influenza in hospitalized pediatric patients. Health care providers and facilities should report cases meeting the following clinical and laboratory criteria.

**Clinical**

- Pediatric patients (i.e., less than 18 years of age) with laboratory confirmed influenza **AND**
- Influenza-related deaths (in which there is no period of complete recovery between illness and death); **OR**
- Influenza encephalopathy (defined as altered mental status or personality changes in patients lasting more than 24 hours and occurring within 5 days of the onset of an acute febrile respiratory illness); **OR**
- Severe illness defined as admission to an intensive care unit for influenza-related illness (in previously healthy children).

**Laboratory**

Laboratory confirmation for influenza virus infection may be done on pre- or post-mortem clinical specimens, and includes identification of influenza A or B virus infections by a positive result by at least one of the following methods:

- Influenza virus isolation in tissue cell culture from respiratory specimens
- Reverse-transcriptase polymerase chain reaction (RT-PCR) testing of respiratory specimens
- Immunofluorescent antibody staining (direct or indirect) of respiratory specimens

- Rapid influenza diagnostic testing of respiratory specimens
- Immunohistochemical (IHC) staining for influenza viral antigens in respiratory tract tissue from autopsy specimens
- Four-fold rise in influenza hemagglutination inhibition (HI) antibody titer in paired acute and convalescent sera (single serum samples are not interpretable)

## **CDRSS Entry**

All cases meeting the above criteria should be entered into CDRSS by the acute care facility or by the local health department where the patient resides. At a minimum, the following information should be entered in CDRSS.

### 1. Patient information Tab

- Disease – The following disease names should be selected based on test results.

- Influenza, Human Isolate

#### ► Patient Information

The screenshot shows a web form titled "Disease Information:". The "Disease:" field is a dropdown menu currently showing "INFLUENZA, HUMAN ISOLATES". Below it, the "Subgroup:" field is also a dropdown menu, which is open to show a list of options: "Select Subgroup", "Pending", "TYPE A (SUBTYPING NOT DONE)", "TYPE A H1", "TYPE A H3", and "TYPE B". To the right of the "Subgroup" dropdown is a field for "Illness Onset Date:". Below the "Disease" and "Subgroup" fields, there are fields for "Date Reported to State/Local Health Department" and "Patient Reported To:".

- Pending – Select pending if the test has been conducted but the result of the test remains unknown.
- Influenza, Human Isolate- Type A (Subtyping not done)
  - Select this from the drop down list if an influenza A virus has been identified but an influenza subtype has not been identified. (NOTE: This is not the same as A Unsubtypeable) This includes test conducted by rapid antigen test which are positive for influenza A.
- Influenza, Human Isolate – Type AH1
  - Select this from the drop down list if an influenza AH1 virus has been identified.
- Influenza, Human Isolate- Type AH3
  - Select this from the drop down list if an influenza AH3 virus has been identified.
- Influenza, Human Isolate- Type B
  - Select this from the drop down list if an influenza B virus has been identified.

**Disease Information:**

Disease:\* INFLUENZA, NOVEL INFLUENZA A

Subgroup: Select Subgroup

ii. Influenza, Novel Influenza A

1. Select this from the drop down list if a 2009 H1N1 influenza virus has been identified or another virus which is not able to be subtyped by standard laboratory methods (i.e., unsubtypeable).
  - b. Onset Date – Enter the date which signs and symptoms first began.
  - c. First and Last Name- Enter the first and last name of the case patient.
  - d. Current address information – Enter the address where the patient currently resides.
  - e. Gender, Race, Ethnicity – Enter the gender, race and ethnicity of the case patient.
2. Clinical Status Tab
  - a. Medical Facilities – Ensure both admission and discharge dates are included.
  - b. Physicians – Enter all physicians associated with the case.
  - c. Pre-existing conditions – Enter any pre-existing conditions the patient had prior to illness onset.
  - d. Treatment - Enter any treatment the patient had prior to or during illness.
  - e. Mortality - Select yes if the patient died and enter any death specific information (i.e., date of death, autopsy information) available.
3. Signs/symptoms Tab
  - a. Select the signs/symptoms that were associated with the case patients illness.
4. Laboratory Evaluation Tab
  - a. Include any influenza laboratories that were conducted including rapid influenza diagnostics tests.
5. Case Comments Tab– Enter any relevant comments associated with the investigation of the illness.
6. Epidemiology Tab – The supplemental survey can be accessed from this tab. Please see instructions below for using the Hippocrates survey for additional case reporting.
7. Case Classification Tab – Assign the correct case and report status for the case.
  - a. Confirmed - A clinically compatible case that is laboratory confirmed (see clinical and laboratory criteria above).
  - b. Not a case – A case not meeting the confirmed case definition.

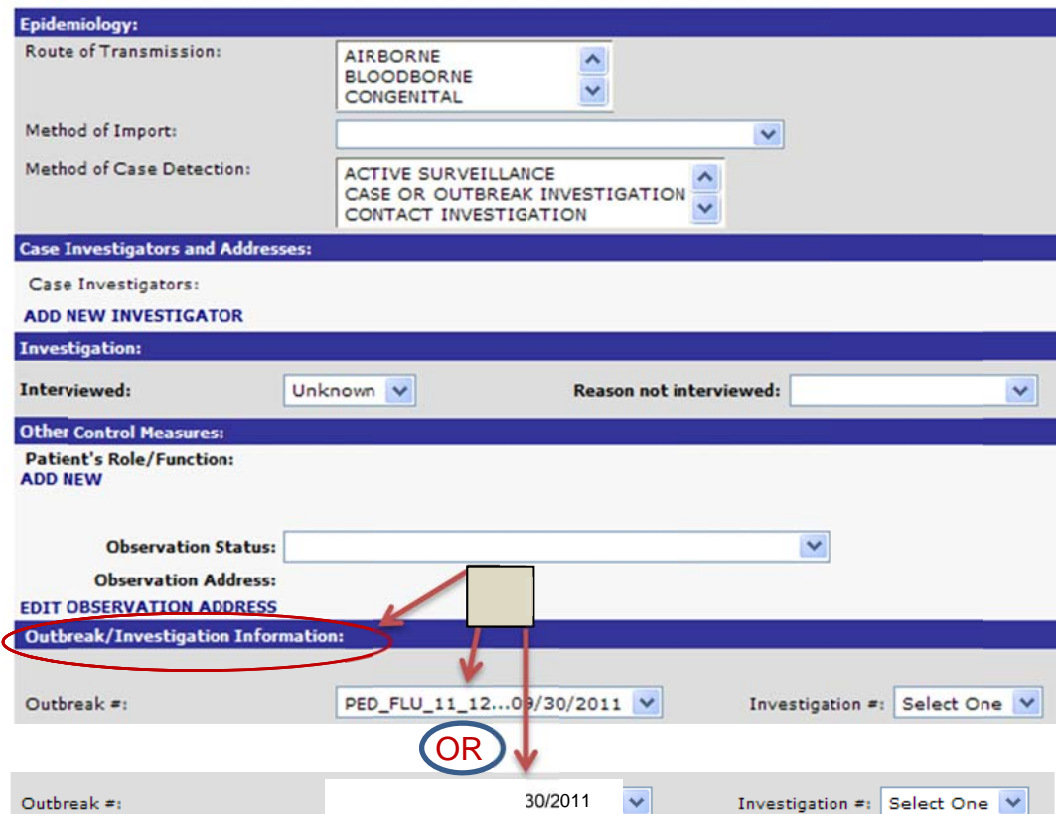
## Supplemental Hippocrates Survey from CDRSS

Providers reporting a patient meeting the above reporting criteria should follow the directions below and also complete the Hippocrates survey in addition to the CDRSS fields requested above. The survey can be completed by following the step by step instructions provided below.

1. Go to the Epidemiology Tab



2. Under the “Outbreak/Investigation Information” section, select the drop down arrow for “Outbreak #”
  - a. Select PED\_FLU\_11\_12 if you are reporting a death associated with a seasonal influenza virus.
  - b. Select PED-FLU-11-12 if you are reporting a death associated with 2009 H1N1 virus.



**Epidemiology:**

Route of Transmission: AIRBORNE, BLOODBORNE, CONGENITAL

Method of Import:

Method of Case Detection: ACTIVE SURVEILLANCE, CASE OR OUTBREAK INVESTIGATION, CONTACT INVESTIGATION

**Case Investigators and Addresses:**

Case Investigators:  
**ADD NEW INVESTIGATOR**

**Investigation:**

Interviewed: Unknown Reason not interviewed:

**Other Control Measures:**

Patient's Role/Function:  
**ADD NEW**

Observation Status:

Observation Address:  
**EDIT OBSERVATION ADDRESS**

**Outbreak/Investigation Information:**

Outbreak #: PED\_FLU\_11\_12...09/30/2011 Investigation #: Select One

**OR**

Outbreak #: 30/2011 Investigation #: Select One

- Once you select the correct “Outbreak #”, a description of the outbreak will appear along with a new field called “ADD/MODIFY QUESTIONNAIRE RESPONSE”. Select this new field.

Number: **PED\_FLU\_11\_12**

Start Date: **09/30/2011** End Date:

Location Name:

Street: Apartment:

City: State: **NJ**

County: **UNKNOWN** Municipality: **OTHER/UNKNOWN**

Zip:

Description: **This E# will capture severe and fatal pediatric cases occurring in the 2011-12 influenza season. This applies to seasonal viruses only. A separate E# is created for 2009 H1N1 cases (PED-FLU-11-12).**

Associated Questionnaire: ~~PED-FLU~~  
**ADD/MODIFY QUESTIONNAIRE RESPONSE**

- The Hippocrates survey will appear in a new window.

**Hippocrates** PED-FLU 10/31/2011 4:06

PRINT

The following survey should be completed on any laboratory confirmed cases of pediatric influenza that were admitted to the ICU, developed encephalopathy or died. Information provided on the survey can be modified at a later date by selecting the survey in the epidemiology tab of patients case report in CDRSS.

For questions about this survey, please email amy.fink@doh.state.nj.us or call 609-826-5964

Questions preceded by \* are mandatory.

**DEATH INFORMATION**

1 Did the patient die?  
 Yes  No

**CULTURE CONFIRMATION OF BACTERIAL PATHOGENS FROM STERILE (INVASIVE) SITES**

1 Was a specimen collected for bacterial culture from a normally STERILE SITE(e.g. blood, cerebrospinal fluid [CSF], tissue, or pleural fluid)? Specimens collected greater than 24 hours after death are not sterile.  
 Yes  No

**CULTURE CONFIRMATION OF BACTERIAL PATHOGENS FROM NON-STERILE SITES**

1 Were other respiratory specimens collected for bacterial culture (e.g., sputum, ET tube aspirate) from a NON-STERILE site?  
 Yes  No

**PATHOLOGY CONFIRMATION OF BACTERIAL PATHOGENS**

1 Was a specimen (e.g., fixed lung tissue) collected from an autopsy for testing of bacterial pathogens by a local or state pathologist?  
 Yes  No

**CLINICAL DIAGNOSES AND COMPLICATIONS**

1 Did complications occur during the acute illness?  
 Yes  No

5. Respond to each question requested in the survey. This is a conditional survey which means that your responses define which additional questions will appear on the remainder of the survey. NOTE: Some conditional questions may take a moment or two to load. Please be patient and allow the questions to load before responding.

**DEATH INFORMATION**

1 Did the patient die?  
 Yes  No

If the death occurred in the hospital, what was the date of ADMISSION?  
 [clear](#)


Location of death:  
 Outside the Hospital (e.g. home or in transit to hospital)  
 Emergency Dept (ED)  
 Inpatient ward  
 ICU  
 Other

If other, please specify:  
 (Alpha-numeric)

Did cardiac/respiratory arrest occur outside of the hospital?  
 Yes  
 No  
 Unknown

Was an autopsy performed?  
 Yes  
 No  
 Unknown

Date of Death:  
 [clear](#)



6. At the end of the survey, please indicate who is submitting the survey and who we may follow up with if additional questions arise. After all questions have been responded to click submit at the end of the survey.

**CONTACT INFORMATION**

1 Submitted By:  
 (Alpha-numeric)

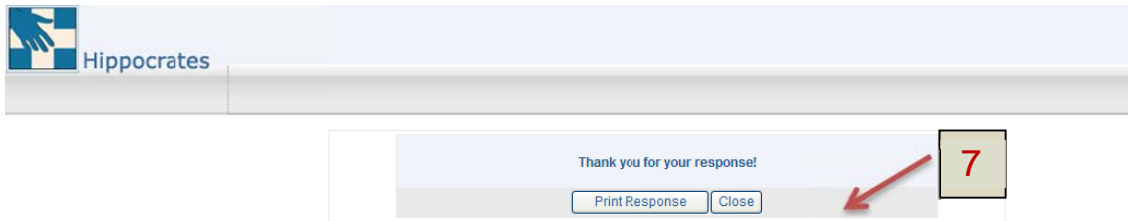
2 Date:  
 [clear](#) (D/T-EST)

3 Phone Number:  
 (Alpha-numeric)

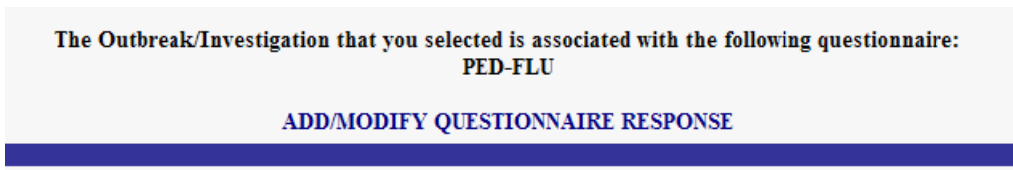
4 Email Address:  
 (Alpha-numeric)



7. After you submit the record you can either print your responses or simply close the record.



8. You will now return back to the CDRSS record. Please remember to continue to the case classification tab and submit the CDRSS record.
9. After the record is submitted you will again be given an opportunity to respond to or modify survey responses. You can follow the instructions provided above with regard to survey response.



## Modifying Survey Responses

1. After the CDRSS record has been submitted, you can access the survey responses by opening the CDRSS record and clicking on the epidemiology tab. Select "ADD/MODIFY QUESTIONNAIRE RESPONSE" to view or modify any survey response.

