



Influenza Outbreaks in Long-term Care Facilities: Toolkit for Facilities

2016/17 Influenza Season

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Image courtesy of Centers for Disease Control and Prevention

Introduction

This document contains resources to aid long-term care facilities (LTCFs) experiencing an influenza outbreak and is intended to expand upon the Centers for Disease Control and Prevention (CDC) "Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities."

For the purposes of influenza outbreak investigation, control and surveillance, a "long-term care facility" can be defined as several types of facilities, including but not limited to: skilled nursing, rehabilitation, assisted living, personal care homes and intermediate care facilities.

This document is intended only to elaborate upon currently accepted guidance and regulations. For further information, please contact your local health jurisdiction to report suspected or confirmed influenza outbreaks and discuss outbreak control recommendations and surveillance (1-877-PA HEALTH [1-877-724-3258]).



Background

Influenza is a contagious respiratory illness caused by influenza viruses and spread through respiratory droplets. According to the CDC, "In the United States, on average 5% to 20% of the population gets the flu and more than 200,000 people are hospitalized from seasonal flu-related complications. Flu seasons are unpredictable and can be severe. Over a period of 30 years, between 1976 and 2006, estimates of flu-associated deaths in the United States range from a low of about 3,000 to a high of about 49,000 people. Some people, such as older people, young children, pregnant women, and people with certain health conditions, are at high risk for serious flu complications." (<http://www.cdc.gov/flu/about/qa/disease.htm>)

Because people who live in long-term care facilities often have health conditions that put them at higher risk for serious flu complications (including death), prevention and control of influenza outbreaks in long-term care facilities is critical.

Influenza can be introduced into long-term care facilities by staff, volunteers or visitors who were exposed to influenza in the community. Once introduced into the facility, influenza can spread among residents very quickly, and residents of long-term care facilities, especially those with chronic health conditions, are at higher risk for serious flu complications.

The best way to prevent influenza is vaccination. All residents and staff of Pennsylvania long-term care facilities should be offered influenza vaccine annually. For more resources, please visit CDC at <http://www.cdc.gov/flu/healthcareworkers.htm>.

Recommendations for Influenza Outbreak Control in Long-Term Care Facilities

CDC Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities:

<http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

CDC Guidelines on controlling influenza in health care facilities:

<http://www.cdc.gov/flu/professionals/infectioncontrol/>

CDC Recommendations for antivirals:

<http://www.cdc.gov/flu/professionals/antivirals/index.htm>

CDC Antiviral summary:

<http://www.cdc.gov/flu/professionals/antivirals/antiviral-agents-flu.htm>

Please note, these links are current as of September, 2016.



Outbreak Control Interventions Long-Term Care Facilities Experiencing an Influenza Outbreak Should Implement

These interventions are recommended for outbreak control in long-term care facilities. These recommendations are excerpted from the CDC's "Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities."

For more information and detail, please visit

<http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

or speak to your local health jurisdiction by calling 1-877-PA HEALTH (1-877-724-3258).



Checklist of Outbreak Control Interventions Long-Term Care Facilities Experiencing an Influenza Outbreak Should Implement

OUTBREAK CONTROL INTERVENTIONS THE FACILITY SHOULD IMPLEMENT	
Initial Outbreak Steps	
	Contact the appropriate regulatory agency and report the event. Submit the initial outbreak reporting form to the local health office in your jurisdiction.
	Test residents with respiratory illness for influenza and submit specimens to the Bureau of Laboratories (BOL) through the local health office in your jurisdiction.
	Implement daily active surveillance for respiratory illness among residents and staff, using Pennsylvania Department of Health (PA DOH) sample line listing if no similar tool is already in use by your facility.
Infection Control	
	Implement standard and droplet precautions for all residents with suspected/confirmed influenza.
Transfers and Admissions	
	Avoid new admissions or transfers to wards with symptomatic residents.
	When transferring ill patients, notify receiving facility to ensure continuation of droplet precautions.
	When transferring well patients, notify receiving facility of the presence of an influenza outbreak.
Treatment and Prophylaxis	
	Administer antiviral treatment to residents who have suspected or confirmed influenza (do not wait for lab confirmation to begin treatment).
	Be aware of the possibility of drug-resistant virus and notify your local health jurisdiction immediately if suspected (generally occurs when patients either do not respond to a course of treatment or patients who were given prophylaxis and later became ill).
	Administer antiviral chemoprophylaxis to all residents in the entire facility (not just currently affected wards).
	Consider or offer antiviral chemoprophylaxis for unvaccinated personnel who provide care to persons at high risk of complications.
Influenza Vaccination	
	Administer influenza vaccination to all unvaccinated residents and staff.
Cohorting and Social Distancing	
	Cohort ill residents to a single unit or area if possible.
	Have symptomatic residents remain in their rooms (i.e., restriction from activities and group meals).
	Limit large group activities; consider serving all meals in resident rooms.
	Limit visitation and exclude ill persons from visiting the facility via posted notices.
Recommendations for Staff	
	Exclude staff with respiratory symptoms from work until at least 24 hours after they no longer have a fever (without the use of antipyretics).
	Monitor staff absenteeism due to respiratory illness.
	Restrict staff movement between affected and unaffected areas of the facility.

Red Flags: Indications That Further Resources or Recommendations Are Needed for Outbreak Control

- 1. Ill patients are not being treated with antivirals.** Antiviral treatment should be administered to all residents who have suspected or confirmed influenza (do not wait for lab confirmation to begin treatment). This is true even for residents whose primary care doctors are not on staff at the long-term care facility.
- 2. Many patients have been hospitalized or have died during the outbreak.** Antiviral treatment should be administered to all residents who have suspected or confirmed influenza (do not wait for lab confirmation to begin treatment). When transferring patients between facilities, please notify the receiving facility so that infection control precautions may be continued upon transfer.
- 3. The facility continues to see an increasing number of cases, and/or the outbreak does not seem to be ending after implementation of outbreak control interventions.** Once patients are treated and prophylaxis is administered, the outbreak should wane after a few days. If this is not the case, your facility should review the outbreak control interventions to make sure they are being properly implemented. Additionally, further recommendations may be needed for outbreak control, please contact your local health jurisdiction for further guidance (1-877-PA HEALTH [1-877-724-3258]).
- 4. Patients are not responding to treatment.** This may indicate the presence of antiviral-resistant virus, secondary bacterial infection or multiple circulating respiratory pathogens. Please contact your local health jurisdiction immediately for further guidance (1-877-PA HEALTH [1-877-724-3258]). Your local health jurisdiction may choose to offer testing of respiratory specimens for anti-viral resistance at our state public health laboratory.
- 5. The facility reports previously well people who received prophylaxis are now ill with respiratory illness.** This may indicate the presence of antiviral-resistant virus, secondary bacterial infection or multiple circulating respiratory pathogens. Please contact your local health jurisdiction immediately for further guidance (1-877-PA HEALTH [1-877-724-3258]). Your local health jurisdiction may choose to offer testing of respiratory specimens for anti-viral resistance at our state public health laboratory.
- 6. Facility staff requests further information or back-up.** Local health jurisdiction (1-877-PA HEALTH [1-877-724-3258]) is available to answer any questions or provide guidance if your facility requires it.

If you believe that one or more of these scenarios are occurring in your facility, please immediately contact your local health jurisdiction (1-877-PA HEALTH [1-877-724-3258]) for further guidance and recommendations for outbreak control.

Frequently Asked Questions for Long-Term Care Facilities Experiencing an Influenza Outbreak

1. **Where can I find guidance and recommendations for control of influenza in long-term care facilities? (Links current as of September 2016)**

Centers for Disease Control and Prevention (CDC)

- a. Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities:

<http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

- b. Seasonal Influenza -- Infection Control in Health Care Facilities:

<http://www.cdc.gov/flu/professionals/infectioncontrol/>

- c. Influenza Antiviral Medications: Summary for Clinicians:

<http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>

- d. Seasonal Influenza -- Antiviral Drugs:

<http://www.cdc.gov/flu/professionals/antivirals/index.htm>

Infectious Diseases Society of America

- a. Seasonal Influenza in Adults and Children — Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management: Clinical Practice Guidelines of the Infectious Diseases Society of America:

http://www.idsociety.org/uploadedFiles/IDSA/Guidelines-Patient_Care/PDF_Library/Infuenza.pdf

2. **What is the CDC's definition of an influenza outbreak in a long-term care facility?**

- a. If there is either 1) one laboratory-confirmed influenza positive case along with other cases of respiratory infection in a unit of a long-term care facility, or 2) two cases of respiratory infection or influenza-like-illness within 72 hours, an influenza outbreak might be occurring.

(<http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>)

- b. If one patient is positive for influenza A and another patient is positive for influenza B at the same time, these are considered two separate outbreaks because they are caused by two separate viruses.

Frequently Asked Questions for Long-Term Care Facilities Experiencing an Influenza Outbreak

3. What is considered a long-term care facility?

- a. For influenza outbreaks in Pennsylvania long-term care facilities, we include facilities regulated by both the Pennsylvania Department of Health and the Department of Human Services (DHS). These include skilled nursing, rehabilitation, assisted living and personal care homes.
- b. We can also help to provide guidance for other types of facilities and group settings if influenza outbreaks are identified.

4. How is a "case" of influenza or influenza-like-illness in an LTCF influenza outbreak defined?

- c. Influenza case (lab-confirmed case) -- a patient/staff member with clinically compatible illness AND laboratory confirmation
- d. Influenza-like-illness (probable case) -- a patient/staff member experiencing influenza-like illness (ILI), fever ($\geq 100^{\circ}\text{F}$) plus cough or sore throat

5. What should my facility do if we believe we have an influenza outbreak?

Please call your local health jurisdiction at 1-877-PA HEALTH (1-877-724-3258) to discuss recommendations for outbreak control.

6. Who is our facility's local health jurisdiction?

- a. The Pennsylvania Department of Health Bureau of Community Health Systems, through the six health districts, operates a network of district offices and state health centers and acts as the implementation arm for the department's public health programs. The bureau oversees the coordination of similar programs with six county and four municipal health departments, other state and community agencies, professional groups, and community organizations.

- b. For more information, please visit:

<http://www.health.pa.gov/Your-Department-of-Health/Offices%20and%20Bureaus/Bureaus/Pages/Bureau-of-Community-Health-Systems.aspx#.WFBX2zco6cw> .

- c. To reach your local health jurisdiction, please call 1-877-PA HEALTH (1-877-724-3258).

7. How soon after an outbreak is identified should the local health jurisdiction be notified?

All outbreaks in Pennsylvania should be reported within 24 hours. Many outbreak control measures (including antiviral treatment) are most effective when administered very soon after illness begins.

Frequently Asked Questions for Long-Term Care Facilities Experiencing an Influenza Outbreak

8. When should my facility consider testing for influenza?

- a. Long-term care facilities should use a low threshold for influenza testing, especially during influenza season.
- b. During a known outbreak, facilities should also test anyone with new ILI in an area of the facility previously unknown to have cases of influenza.
- c. The Infectious Diseases Society of America (IDSA) recommends: "Elderly persons ... with suspected sepsis or fever of unknown origin, irrespective of time from illness onset" should be considered for influenza testing
(http://www.idsociety.org/uploadedFiles/IDSA/Guidelines-Patient_Care/PDF_Library/Influenza.pdf).

9. Is influenza reportable in Pennsylvania?

- a. Yes, laboratory positive cases of influenza (including cases identified by rapid influenza testing done inside the long-term care facility) are reportable in Pennsylvania.
- b. Additionally, outbreaks of any kind are also reportable in Pennsylvania.
- c. For a complete list of reportable diseases, visit:
<http://www.health.pa.gov/Your-Department-of-Health/Offices%20and%20Bureaus/epidemiology/Pages/Reportable-Diseases.aspx#.WFBZ5jco6cw>

10. Our facility sends influenza specimens for testing at another hospital or commercial lab, who then reports results to PADOH. Do we still need to report the possibility of an influenza outbreak at our facility?

Yes, please report suspected or confirmed outbreaks of influenza to your local health jurisdiction at 1-877-PA HEALTH (1-877-724-3258) to discuss recommendations for outbreak control.

11. How do I know when the outbreak is over?

- a. For surveillance purposes, the outbreak can be considered to be "over" when 14 days have elapsed since the last patient became ill. This is calculated using two incubation periods (seven days for influenza) since the last patient became ill.
- b. If a new case is identified ≥ 14 days since the last case, it is considered to be a new outbreak (and the outbreak control recommendations should be implemented again).

Frequently Asked Questions for Long-Term Care Facilities Experiencing an Influenza Outbreak

12. What if residents are experiencing GI symptoms (i.e., vomiting, diarrhea)?

Though influenza can sometimes cause GI illness, it is also possible that GI symptoms are caused by a different agent (e.g., norovirus, Salmonella, or E. coli). Please call the PADOH or your local health jurisdiction to discuss recommendations for control of an outbreak of GI illness.

13. Is it possible to have multiple respiratory viruses or bacteria circulating in a facility concurrently?

Yes, outbreaks where both influenza A and influenza B were laboratory-confirmed have been reported.

14. What information will help your facility and the local health jurisdiction to manage the outbreak?

- a. When an outbreak is first identified, the PADOH or your local health jurisdiction will be available to provide resources and recommendations for outbreak control.
- b. The best way to understand how an outbreak is progressing and evaluate outbreak control is to create and maintain a patient and staff line listing.
 - i. A line listing is simply a list of all affected patients and staff and selected information related to their illnesses.
 - ii. A template, instructions and example are included in this toolkit. If your facility would prefer to use its own template, that is acceptable, as long as it collects the same information listed in the PADOH line listing template.
- c. Your local health jurisdiction may request additional information about the outbreak. Using the outbreak line listing template will help provide most of the information they may need.



Tracking Influenza Outbreaks in Long-term Care Facilities: Outbreak Case-Patient Line Listing

A case-patient line listing is designed to collect information about all ill cases (residents and staff) during an outbreak of influenza in a long-term care facility. A line listing can also help the facility to track the outbreak and monitor case counts until the outbreak has finished and can help your local health jurisdiction with required information that will be collected when the outbreak has finished.

Instructions

Upon identification of an outbreak, use this template to collect and organize information on cases. During an outbreak, collect key information to assist with controlling the outbreak and to inform your local health jurisdiction about outbreak details.

Each ill resident or staff member's information should be entered in a unique row on the line listing. Please use resident or staff identifier as well as their initials. Information should be updated periodically (e.g., daily) during the outbreak for all cases. The data fields contained in this template are explained below.



Data fields included in the Outbreak Case-Patient Line Listing:

Data Field	Description
Demographic Information	
Resident/staff identifier	Identifier for each ill person (Please keep separate list of which identifier matches up with which person, but PADOH does not need this list.)
Initials	Resident or staff member initials
Resident (R) or staff (S)	Is the case-patient a resident or a staff member?
Patient Room Number	Patient's room number
Staff role*	Staff role codes: P (Patient care) F (Food service) H (Housekeeping) M (Maintenance) A (Administrative/clerical) O (Other)
Age (years)	Age in years
Sex (M/F)	Sex, M (male) or F (female)
Signs and Symptoms	
Onset date (MM/DD/YYYY)	Date when symptoms first started (MM/DD/YYYY)
Duration (days)	Number of days the patient was ill (until the first symptom-free day)
Fever (Y/N/Unk)	Did the patient have fever? List Y (Yes), N (No), or Unk (Unknown)
Highest temp (°F)	Highest recorded temperature, in °F
Cough (Y/N/Unk)	Did the patient have cough? List Y (Yes), N (No), or Unk (Unknown)
Sore throat (Y/N/Unk)	Did the patient have sore throat? List Y (Yes), N (No), or Unk (Unknown)
Pneumonia (Y/N/Unk)	Did the patient have pneumonia? List Y (Yes), N (No), or Unk (Unknown)
Other: (Y/N/Unk)	Did the patient have other symptoms? Please define the other symptoms. List Y (Yes), N (No), or Unk (Unknown)

Data fields included in the Outbreak Case-Patient Line Listing:

Data Field	Description
Testing	
Rapid influenza test (+A, +B, - or n/a)	Was a rapid influenza test done? If positive, list "+A" or "+B" for influenza A or B positive, respectively. If negative, list "-." If not done, list "n/a."
Non-rapid influenza test (+A, +B, - or n/a)	Was a non-rapid influenza test done? If positive, list "+A" or "+B" for influenza A or B positive, respectively. If negative, list "-." If not done, list "n/a."
Chest X-ray (+, -, or n/a)	Was a chest X-ray showing pneumonia done? If positive for pneumonia, list "+." If negative for pneumonia, list "-." If not done, list "n/a."
Vaccination and Treatment	
Influenza vaccination (Y/N/Unk)	Was the patient vaccinated against influenza in the current season? List Y (Yes), N (No), or Unk (Unknown)
Anti-viral treatment (Tamiflu (T)/Relenza (R)/Unk)	Did the patient receive anti-viral treatment? If yes, list T (Tamiflu or oseltamivir), or R (Relenza or zanamivir) or Unk (Unknown)
Date of antiviral start (MM/DD/YYYY)	If the patient received antiviral treatment, what date was it first given? (MM/DD/YYYY)
Outcomes	
Hospitalized (Y/N/Unk)	Was the patient hospitalized? List Y (Yes), N (No), or Unk (Unknown)
Died (Y/N/Unk)	Did the patient die? List Y (Yes), N (No), or Unk (Unknown)
Resolved (Y/N/Unk)	Did the patient's illness resolve? List Y (Yes), N (No), or Unk (Unknown)

Tracking Influenza Outbreaks in Long-term Care Facilities: Outbreak Epidemic Curve

An epidemic curve (or epi curve) is used to display the onset of illness among cases associated with an outbreak of disease. This simple tool can help to show many things about the outbreak: time trends, pattern of spread, likely period of exposure and the outbreak's magnitude. The epi curve can help a facility to track the outbreak and monitor cases until the outbreak has finished.

The epi curve is a graph with two axes. The horizontal axis shows the date of illness onset for all ill cases. The vertical axis shows the number of cases. Cases are represented by an "X" in a box on the graph based on the date of their earliest symptom onset. If more than one case's symptoms began on the same day, these are stacked on the graph.

For more information on creating an Epidemic Curve, please visit <http://www.cdc.gov/training/QuickLearns/sCreateEpiCurve/index.html>.

Instructions

Upon identification of an outbreak, use this template to collect and organize information on cases. During an outbreak, record each case as an "X" based on the date of the earliest symptoms. Both ill residents and ill staff members should be included on the graph.



Sample Outbreak Scenario

The following describes an outbreak scenario similar to those typically reported. This is a fictional scenario and is not based on any previous outbreak; any similarities to previous outbreaks are strictly coincidental. This scenario is for instructional purposes only, to demonstrate how to complete and outbreak line listing and epidemic curve.

The Initial Report

On January 3, 2014, a skilled nursing and rehabilitation facility calls its county state health center to report a possible influenza outbreak occurring in its facility and also to submit the initial outbreak reporting form. The facility has identified three ill residents and two ill staff who have symptoms of influenza-like illness (fever [$\geq 100^{\circ}\text{F}$] plus cough or sore throat).

This is a 60-bed facility with three units and 100 staff members, and the facility is at full capacity. Unit A, the primary affected unit, has 20 residents and 30 staff members.

- Resident 1: A 75-year-old female resides in room 101, on Unit A. Her onset was 1/1/2014; she has had a fever (101°F), cough and chest radiograph-confirmed pneumonia and was hospitalized. She was vaccinated in October 2013 against influenza. Rapid influenza test was positive for influenza A. Antiviral treatment (oseltamivir) was started on 1/3/2014. She is still ill at the time of outbreak identification (1/3/2014).
- Resident 2: A 78-year-old female, the roommate of resident 1, also resides in room 101, on Unit A. Her onset was 1/3/2014, and she presented with a fever (101°F) and cough. She was vaccinated in October 2013 against influenza. Rapid influenza test was positive for influenza A. Antiviral treatment (oseltamivir) was started on 1/3/2014.
- Resident 3: A 73-year-old female resides in room 104, on Unit A. Her onset was 1/3/2014, and she presented with fever (100°F), cough and sore throat. She was vaccinated in October 2013 against influenza. Rapid influenza test was negative. Antiviral treatment (oseltamivir) was started on 1/3/2014.

Sample Outbreak Scenario

- Staff member 1: A 34-year-old female provides patient care on Unit A but in no other areas of the facility. Her onset was 12/30/2014, and she presented with fever (102°F) and cough. She was vaccinated in October 2013 against influenza. Rapid influenza test was positive for influenza A. She began treatment on 1/1/2014 and will be excluded from work until 24 hours after she is fever free without the use of fever-reducing medications.
- Staff member 2: A 25-year-old female works in housekeeping on Unit A, as well as other units in the facility. Her onset was 1/3/2014, and she presented with fever (101°F), cough and sore throat. She was not vaccinated against influenza during the current influenza season. She will begin treatment on 1/4/2014 and will be excluded from work until 24 hours after she is fever free without the use of fever-reducing medications.

Follow-Up Report

On January 5, 2014, the nursing home calls to report two additional cases who are ill with influenza-like illness.

- Resident 4: An 81-year-old female resides in room 105, on the same unit as residents 1, 2 and 3. Her onset was on 1/4/2014. She did not have a fever but did have a sore throat. She was vaccinated in October 2013 against influenza. Rapid influenza test was negative. Antiviral treatment (oseltamivir) was started on 1/4/2014.
- Resident 5: An 86-year-old female residing in room 106, on the same unit as residents 1-4. Her onset was 1/5/2014, and she presented with a fever (102°F) and cough. She was not vaccinated against influenza during the current influenza season. Rapid influenza test was positive for influenza A. Antiviral treatment (oseltamivir) was started on 1/5/2014.

Sample Outbreak Summary

Resident 5 was the final resident to become ill, and no further respiratory illness was seen among residents or staff of this facility for 14 days after January 5, 2014 (the most recent patient's onset date).

In total, five resident and two employee cases were identified; all residents lived on the same unit in the facility, the only affected unit, Unit A. Twenty patients and 30 staff members who live or work on Unit A were exposed during the outbreak. This outbreak was laboratory confirmed and caused by influenza A virus. The first case onset was 12/30/2013, and the last was 01/05/2014. Only one case was hospitalized and none died, all cases recovered from their illness. The outbreak reporting forms, Case-Patient Line Listing and Outbreak Epidemic Curve were completed (see below) and submitted to the county state health center nurse when the outbreak was over (on 1/17/2014, 14 days after the last case's onset).

All ill residents were treated promptly with oseltamivir, and all cases responded quickly to treatment. Exposed residents of the entire facility were given prophylactic oseltamivir beginning on 01/04/2014. Forty-eight hours after prophylaxis began, no further cases were identified, and no one given prophylaxis developed symptoms.

This facility followed all guidelines for Influenza Outbreak Management in Long-Term Care Facilities. Available from CDC at:

<http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>.

All unvaccinated residents and staff were offered influenza vaccination when the outbreak was identified. See example of completed outbreak report form, line listing and epidemic curve in the following pages.

Sample outbreak Report Form

Long Term Care Facility Influenza Outbreak Report Form

For influenza outbreaks in Pennsylvania (Pa.) long-term care facilities (LTCFs), 2016/17 Influenza Season

Initial Outbreak Information: Instructions for Long-term Care Facilities

When a new outbreak is identified, please complete and submit **Initial Outbreak Information (page 1) within one workday (typed preferred)**.

When submitting the Initial Outbreak Information, the Final Outbreak Information (page 2) can be left blank. Please do not wait until the outbreak is over to submit the Initial Outbreak Information page.

IMPORTANT DEFINITIONS

Influenza-like-illness (ILI) Fever ($\geq 100^{\circ}\text{F}$) **plus** new cough or sore throat

LTCF Influenza Outbreak One resident with laboratory-confirmed influenza plus at least one additional resident with ILI **OR** Two or more residents with ILI within 72 hours of each other

LTCF Outbreak is "over" When no new cases have occurred for 7 days

CDC interim guidelines for Influenza Outbreak Management in Long-Term Care Facilities:
<http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

FACILITY INFORMATION

Facility name: **Facility A** County **County B**

Address (street, city, state, zip): **C Street, D City, PA, 99999**

Name of reporter: **John Smith** Title: **RN**

Phone: **999-999-9999** Fax: **888-888-8888**

Email: **John.Smith@abcfacility.net**

Type of facility (check all that apply)

- Skilled nursing Rehabilitation Assisted living Personal care home
 Other (explain): _____

License Numbers: Pa. Dept. of Health **99999** Pa. Dept. of Human Services _____

INITIAL OUTBREAK INFORMATION AT TIME OF INITIAL REPORT

Date **initial outbreak information** completed: **1/3/214**

Dates of symptom onset: First case: **1/1/2014** Most recent case: **1/3/2014**

Current number of **residents** in facility: **60** Current number of **staff** in facility: **100**

Number of residents with symptom(s)*: **3** **Number of staff** with symptom(s)*: **2**

Number of residents hospitalized*: **1** Number of staff hospitalized*: **0**

Number of resident deaths**: **0** Number of staff deaths**: **0**

Where do residents with symptom(s) reside? Where do staff with symptom(s) work?
 Single unit Multiple units Single unit Multiple units

Facility identifies any shortage(s) of: antivirals Yes No **OR** influenza vaccine Yes No

*Symptoms including fever, cough, sore throat, pneumonia, regardless of testing or results
**Record only hospitalizations and deaths related to influenza

LABORATORY TESTING AT TIME OF INITIAL REPORT

Influenza type: A B Unknown Other (explain): _____

Number of **residents tested**: **3** Number of **staff tested**: **1**

Number of residents with **positive tests**: **2** Number of staff with **positive tests**: **1**

DOH USE ONLY: INVESTIGATOR AND OUTBREAK INFO

Investigator Name _____ DOH office/jurisdiction _____

Phone _____ Fax _____ Email _____

How was outbreak reported to DOH?
 Review of NEDSS
 Notification by licensing agency (e.g., QA/nursing care facilities)
 Notification by facility/provider
 Other (explain): _____

Date and time of outbreak notification Date: _____ at _____ AM PM

Will specimens be sent to BOL for testing? Yes No BOL FI # (if assigned): _____

Sample outbreak Report Form

Long Term Care Facility Influenza Outbreak Report Form (page 2)

For influenza outbreaks in Pennsylvania (Pa.) long-term care facilities (LTCFs), 2016/17 Influenza Season

Final Outbreak Information: Instructions for Long-term Care Facilities

Please submit this form **after the outbreak is over, (no new cases for seven days)**. Typed forms are preferred.

When submitting the Final Outbreak Information, you do not need to update the Initial Outbreak Information (page 1). Please enter the final outbreak totals on page 2 below and submit page 1 with page 2.

FACILITY INFORMATION	
Facility name: <u>Facility A</u>	County <u>County B</u>

FINAL OUTBREAK INFORMATION AT TIME OF FINAL REPORT	
Date final form completed: <u>1/17/2014</u>	
Dates of symptom onset: First case: <u>12/30/2013</u>	Most recent case: <u>1/5/2014</u>
Current number of residents in facility: <u>60</u>	Current number of staff in facility: <u>100</u>
Number of residents with symptom(s)*: <u>5</u>	Number of staff with symptom(s)*: <u>2</u>
Number of residents hospitalized*: <u>1</u>	Number of staff hospitalized*: <u>0</u>
Number of resident deaths**: <u>0</u>	Number of staff deaths**: <u>0</u>
Where do residents with symptom(s) reside? <input checked="" type="checkbox"/> Single unit <input type="checkbox"/> Multiple units	Where do staff with symptom(s) work? <input type="checkbox"/> Single unit <input type="checkbox"/> Multiple units
Outbreak line listing submitted with outbreak <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<small>*Symptoms including fever, cough, sore throat, pneumonia, regardless of testing or results **Record only hospitalizations and deaths related to influenza</small>	

LABORATORY TESTING AT TIME OF FINAL REPORT	
Influenza type: <input checked="" type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> Unknown <input type="checkbox"/> Other (explain): _____	
Number of residents tested: <u>5</u>	Number of staff tested: <u>1</u>
Number of residents with positive tests: <u>3</u>	Number of staff with positive tests: <u>1</u>

ANTIVIRAL PROPHYLAXIS OF WELL BUT EXPOSED RESIDENTS/STAFF	
Was prophylaxis given to residents? <input checked="" type="checkbox"/> Yes, residents in the entire facility <input type="checkbox"/> Yes, residents in selected units only <input type="checkbox"/> Yes, roommates of ill residents only <input type="checkbox"/> No prophylaxis of residents <input type="checkbox"/> Other (explain): _____	Was prophylaxis given to staff? <input type="checkbox"/> Yes, staff in the entire facility <input type="checkbox"/> Yes, unvaccinated staff only <input type="checkbox"/> No prophylaxis of staff <input type="checkbox"/> Other (explain): _____

INFLUENZA VACCINATION DURING OCTOBER 2016 TO OCTOBER 2017	
Number* of residents vaccinated: <u>60</u>	Number* of staff vaccinated: <u>100</u>
Type of vaccine used: <input type="checkbox"/> Traditional trivalent <input checked="" type="checkbox"/> High-dose trivalent <input checked="" type="checkbox"/> Quadrivalent <input type="checkbox"/> Other (explain): _____	
<small>*Number vaccinated should not exceed the current number of residents or staff.</small>	

DOH USE ONLY: FINAL OUTBREAK INFO	
PA NEDSS Investigation ID(s): <input type="checkbox"/> No reports found in NEDSS inbox or NOFUN	PA NEDSS Outbreak ID: <input type="text"/>

Sample Outbreak Case-Patient Line Listing

Influenza Outbreaks in Long-term Care Facilities Outbreak Case-Patient Line Listing

Reporting Facility Name: Sample Facility		Sample Facility Number			Estimated number of exposed patients: 20		Estimated number of exposed staff: 30																			
Reporting Facility License Number: Sample Facility Number		Unit A																								
Affected Unit(s): Unit A		1/3/2014																								
Date Outbreak Identified: 1/3/2014																										
Demographic Information		Signs and Symptoms										Testing			Vaccination and Treatment				Outcomes							
Name	Resident (R) or Staff (S)	Patent Room Number	Unit	Staff Role*	Age (Years)	Sex (M/F)	Onset Date (MM/DD/YYYY)	Duration (Days)	Fever (Y/N/Unk)	Highest Temp (°F)	Cough (Y/N/Unk)	Sore Throat (Y/N/Unk)	Pneumonia (Y/N/Unk)	Other: (Y/N/Unk)	Other: (Y/N/Unk)	Rapid Influenza test? (A+, B+, - or n/a)	Non-Rapid Influenza test?	Chest X-ray? (+, -, or n/a)	Influenza Vaccination? (Y/N/Unk)	Anti-viral treatment? (Tamiflu (T)/Relenza)	Date of Antviral Start (MM/DD/YYYY)	Hospitalized? (Y/N/Unk)	Died? (Y/N/Unk)	Resolved? (Y/N/Unk)		
Resident 1	R	101 A	A		75	F	1/1/2014	5	y	101	y	n	y			A+	n/a	+	y	y		1/1/2014	y	n	y	
Resident 2	R	101 A	A		78	F	1/3/2014	6	y	101	y	n	n			A+	n/a	n/a	y	y		1/3/2014	n	n	y	
Resident 3	R	104 A	A		73	F	1/3/2014	4	y	100	y	y	n			-	n/a	n/a	y	y		1/3/2014	n	n	y	
Resident 4	R	105 A	A		81	F	1/4/2014	5	u	u	y	n	n			-	n/a	n/a	y	y		1/4/2014	n	n	y	
Resident 5	R	106 A	A		86	M	1/5/2014	6	y	102	y	y	n			A+	n/a	n/a	n	y	y	1/5/2014	n	n	y	
Staff Member 1	S	A	A, B, C	P	34	F	12/30/2013	6	y	102	y	n	n			A+	n/a	n/a	y	y		1/1/2014	n	n	y	
Staff Member 2	S	A	A, B, C	H	25	F	1/3/2014	4	y	101	y	y	n			n/a	n/a	n/a	n	y	y	1/4/2014	n	n	y	

*Staff role codes: P (Patient Care) F (Food Service) H (Housekeeping)
M (Maintenance) A (Administrative/Clinical) O (Other)

Sample Outbreak Epidemic Curve

Influenza Outbreaks in Long-term Care Facilities Outbreak Epidemic Curve

Reporting Facility Name:		Sample Facility		
Reporting Facility License Number:		Sample Facility Number		
Affected Unit(s):		Unit A		
Date Outbreak Identified: 1/3/2014				
Number of Cases	10			
	9			
	8			
	7			
	6			
	5			
	4			
	3			
	2	X		
	1	X	X	X
	1	1	2	3
Day of Week	Su	M	Tu	
Date	12/29/2014	12/30/2014	12/31/2014	
Number of New Cases	0	1	0	
	1/1/2015	1/2/2015	1/3/2015	
	1/4/2015	1/5/2015	1/6/2015	
	1/7/2015	1/8/2015	1/9/2015	
	1/10/2015	1/11/2015	1/12/2015	
	1/13/2015	1/14/2015	1/15/2015	
	1/16/2015	1/17/2015	1/18/2015	
	1/19/2015	1/20/2015	1/21/2015	
	1/22/2015	1/23/2015	1/24/2015	
	1/25/2015	1/26/2015	1/27/2015	
	1/28/2015	1/29/2015	1/30/2015	

Influenza Outbreaks in Long-term Care Facilities Outbreak Case-Patient Line Listing

Reporting facility name:					
Reporting facility license number:					
Affected unit(s):					
Date outbreak identified:		Estimated number of exposed patients:		Estimated number of exposed staff:	

Demographic Information							Signs and Symptoms							Testing			Vaccination and Treatment		Outcomes								
Patient/staff identifier	Initials	Resident (R) or staff (S)	Patient Room Number	Unit	Staff role*	Age (years)	Sex (M/F)	Onset date (MM/DD/YYYY)	Duration (days)	Fever (Y/N/Unk)	Highest temp (°F)	Cough (Y/N/Unk)	Sore throat (Y/N/Unk)	Pneumonia (Y/N/Unk)	Other: (Y/N/Unk)	Other: (Y/N/Unk)	Rapid influenza test (A+, B+, - or n/a)	Non-rapid influenza test (A+, B+, - or n/a)	Chest X-ray (+, -, or n/a)	Influenza vaccination (Y/N/Unk)	Anti-viral treatment (Tamiflu (T)/Relenza)	Date of antiviral start (MM/DD/YYYY)	Hospitalized (Y/N/Unk)	Died (Y/N/Unk)	Resolved (Y/N/Unk)		

Long Term Care Facility Influenza Outbreak Report Form

For influenza outbreaks in Pennsylvania (Pa.) long-term care facilities (LTCFs), 2016/17 influenza season

Initial Outbreak Information: Instructions for long-term care facilities

When a new outbreak is identified, please complete and submit Initial Outbreak Information (page 1) within one workday (typed preferred).

When submitting the Initial Outbreak Information, the Final Outbreak Information (page 2) can be left blank. Please do not wait until the outbreak is over to submit the Initial Outbreak Information page.

IMPORTANT DEFINITIONS

Influenza-like-illness (ILI)	Fever ($\geq 100^{\circ}\text{F}$) plus new cough or sore throat
LTCF Influenza Outbreak	One resident with laboratory-confirmed influenza plus at least one additional resident with ILI OR Two or more residents with ILI within 72 hours of each other
LTCF Outbreak is "over"	When no new cases have occurred for seven days
CDC interim guidelines for Influenza Outbreak Management in Long-Term Care Facilities: http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm	

FACILITY INFORMATION

Facility name: _____ County _____
 Address (street, city, state, zip): _____
 Name of reporter: _____ Title: _____
 Phone: _____ Fax: _____
 Email: _____

Type of facility (check all that apply)

Skilled nursing Rehabilitation Assisted living Personal care home
 Other (explain): _____

License numbers: Pa. Dept. of Health _____ Pa. Dept. of Human Services _____

INITIAL OUTBREAK INFORMATION AT TIME OF INITIAL REPORT

Date **initial outbreak information** completed: _____
 Dates of symptom onset: First case: _____ Most recent case: _____
 Current number of **residents** in facility: _____ Current number of **staff** in facility: _____
Number of residents with symptom(s)*: _____ **Number of staff** with symptom(s)*: _____
 Number of residents hospitalized*: _____ Number of staff hospitalized*: _____
 Number of resident deaths**: _____ Number of staff deaths**: _____

Where do residents with symptom(s) reside? Where do staff with symptom(s) work?
 Single unit Multiple units Single unit Multiple units

Facility identifies any shortage(s) of: antivirals Yes No **OR** influenza vaccine Yes No

*Symptoms including fever, cough, sore throat, pneumonia, regardless of testing or results
 **Record only hospitalizations and deaths related to influenza.

LABORATORY TESTING AT TIME OF INITIAL REPORT

Influenza type: A B Unknown Other (explain): _____
 Number of **residents tested**: _____ Number of **staff tested**: _____
 Number of residents with **positive tests**: _____ Number of staff with **positive tests**: _____

DOH USE ONLY: INVESTIGATOR AND OUTBREAK INFO

Investigator name _____ DOH office/jurisdiction _____
 Phone _____ Fax _____ Email _____

How was outbreak reported to DOH?
 Review of NEDSS
 Notification by licensing agency (e.g., QA/nursing care facilities)
 Notification by facility/provider
 Other (explain): _____

Date and time of outbreak notification Date: _____ at _____ AM PM
 Will specimens be sent to BOL for testing? Yes No BOL FI # (if assigned): _____

Long Term Care Facility Influenza Outbreak Report Form (page 2)

For influenza outbreaks in Pennsylvania (Pa.) long-term care facilities (LTCFs), 2016/17 influenza season

Final Outbreak Information: Instructions for long-term care facilities

Please submit this form **after the outbreak is over, (no new cases for seven days)**. Typed forms are preferred.

When submitting the Final Outbreak Information, you do not need to update the Initial Outbreak Information (page 1). Please enter the final outbreak totals on page 2 below and submit page 1 with page 2.

FACILITY INFORMATION

Facility name: _____ County _____

FINAL OUTBREAK INFORMATION AT TIME OF FINAL REPORT

Date **final** form completed: _____
 Dates of symptom onset: First case: _____ Most recent case: _____
 Current number of **residents** in facility: _____ Current number of **staff** in facility: _____
Number of residents with symptom(s)*: _____ **Number of staff** with symptom(s)*: _____
 Number of residents hospitalized*: _____ Number of staff hospitalized*: _____
 Number of resident deaths**: _____ Number of staff deaths**: _____

Where do residents with symptom(s) reside? Where do staff with symptom(s) work?
 Single unit Multiple units Single unit Multiple units

Outbreak line listing submitted with outbreak Yes No

*Symptoms including fever, cough, sore throat, pneumonia, regardless of testing or results
 **Record only hospitalizations and deaths related to influenza.

LABORATORY TESTING AT TIME OF FINAL REPORT

Influenza type: A B Unknown Other (explain): _____
 Number of **residents tested**: _____ Number of **staff tested**: _____
 Number of residents with **positive** tests: _____ Number of staff with **positive** tests: _____

ANTIVIRAL PROPHYLAXIS OF WELL BUT EXPOSED RESIDENTS/STAFF

Was prophylaxis given to **residents**? Was prophylaxis given to **staff**?
 Yes, residents in the entire facility Yes, staff in the entire facility
 Yes, residents in selected units only Yes, unvaccinated staff only
 Yes, roommates of ill residents only No prophylaxis of staff
 No prophylaxis of residents Other (explain): _____
 Other (explain): _____

INFLUENZA VACCINATION DURING OCTOBER 2016 TO OCTOBER 2017

Number* of residents vaccinated: _____ Number* of staff vaccinated: _____
 Type of vaccine used: Traditional trivalent
 High-dose trivalent
 Quadrivalent
 Other (explain): _____

*Number vaccinated should not exceed the current number of residents or staff.

DOH USE ONLY: FINAL OUTBREAK INFO

PA NEDSS Investigation ID(s): _____ PA NEDSS Outbreak ID: _____
 No reports found in NEDSS inbox or NOFUN