



# Respiratory Outbreaks Overview

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Handbook  
section VII

# What is a Respiratory Outbreak?

- o Outbreak
  - o A sudden increase in of AFRI cases over the normal back ground rate in a given time period.
  
- o Helps to break it down by setting

# Hospital / Clinic Outbreaks

- A sudden increase in cases over the normal background rate
- 3 or more HAI of AFRI or ILI among patients or healthcare workers on the same unit within 72 hours
- 1 or more HAI of confirmed influenza

# LTC Outbreaks

- o A sudden increase in cases over the normal background rate
- o 3 or more of AFRI or ILI among residents or healthcare workers who are in close proximity with each other (e.g. same area of the facility) within 72 hours
- o 2 or more cases of AFRI or ILI among residents when there is at least 1 confirmed influenza case in the facility

# School / Childcare Outbreaks

- o A sudden increase in cases over the normal background rate
- o 5 or more cases of AFRI in one week among students or staff in an epidemiologically linked group
  - o Single class
  - o Sports team
  - o After-school program

# What are Common Causes?

- Influenza
- Respiratory syncytial virus
- parainfluenza virus
- adenovirus
- human metapneumovirus
- Enterovirus
- Rhinovirus
- *Mycoplasma pneumoniae*
- *Bordetella pertussis*
- *Legionella*
- *Streptococcus pneumoniae*
- *Chlamydophila pneumoniae*

# How Many Outbreaks Occur?

Category	2010	2011	2012 YTD
Flu and ILI	3	12	6
Unknown respiratory	4	4	3
Legionella	1	0	4
Meningococcal	4	0	1
Other	1	2	3
Setting			
School / childcare	2	1	3
LTC / hospital	2	14	7
Correctional	3	1	1
Community	6	0	5
Other	0	2	1
Total	<b>13</b>	<b>18</b>	<b>17</b>

# Responding to an Outbreak!

- o Receive the report
- o Assess the situation
- o Conduct the investigation
- o Expand the investigation (if needed)
- o Communicate findings



# Receiving the Report

- o Get some basic information
  - o Who, what, when, where
- o Review general infection control measures

Caller:

“We have had an unusual number of people diagnosed with pneumonia recently”

“We are using our panflu response plan”

# Assess the Situation

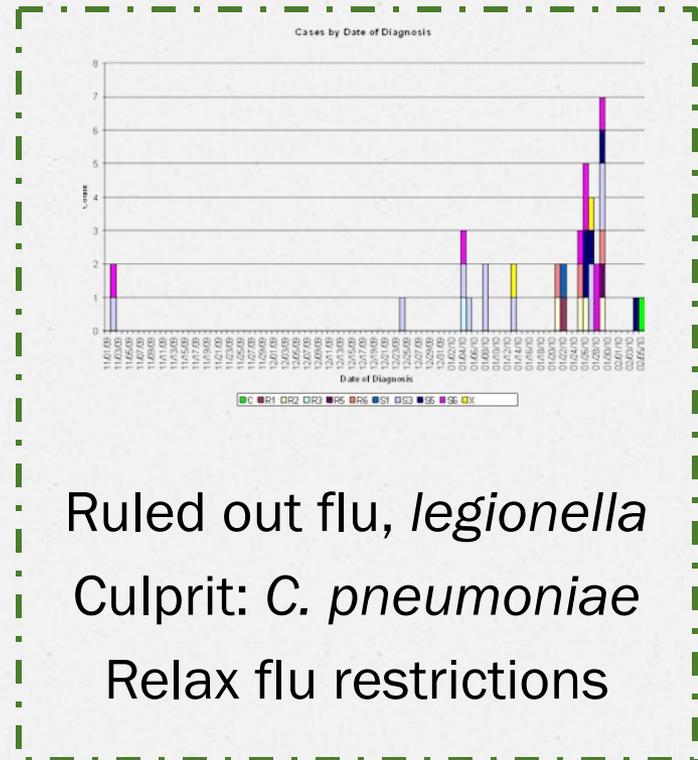
- o Does this sound like an outbreak?
- o Can the health department stop the outbreak or help prevent future ones?

0 cases last year; 12 in one month.

“We need assistance determining the cause and stopping the spread”

# Conduct the Investigation

- Send out notifications
- Use tools:
  - Case definitions
  - Linelists
  - Epicurves
- Look for cases
- Review / recommend testing
- Identify risk factors
- Refine control measures



# Expand the Investigation

- o How much time and resources are needed?
  - o Need help?
- o How many jurisdictions are involved?

How wide spread is it?

Site visit

Case and cohort  
interviews

Extensive testing

# Communicate the Findings

- o Recommendations to facility
- o Internal reports
- o Epi-X
- o Presentations and publications
- o Outbreak report

Lots of paperwork!

Site team letter

CDC report

DSHS report

Draft publication

# Respiratory Ruses

- o Can't it all be ILI?
- o Fever in the elderly
- o Outbreaks in immunized populations
- o Don't forget the staff (or the staph)



# Reporting Outbreaks

- o Required to be reported to you
- o Heads up call (ASAF)
- o PHEP outbreak tracking form (monthly)
- o Final report (as completed)

# Available Resources

- o DSHS Flu Handbook
  - o [www.dshs.state.tx.us/idcu/disease/influenza/Texas-Influenza-Surveillance-Handbook/](http://www.dshs.state.tx.us/idcu/disease/influenza/Texas-Influenza-Surveillance-Handbook/)
- o CDC URDO website
  - o <http://emergency.cdc.gov/urdo/>
- o Field Epidemiology (3<sup>rd</sup> Ed)
  - o Editor: Gregg

# Questions?

## Epidemiologists



What my friends think I do



What my parents think I do



What society thinks I do



What grandma thinks I do



What I think I do



What I really do