



## EPIDEMIOLOGY SURVEILLANCE REPORT

### Northeast Region



Namitha Reddy  
Regional Coordinator  
North/Central West Region



This report is for use by Public Health Officials only and not for public distribution.

All data are provisional and are subject to change.

### Purpose/Objectives

**Purpose**

- To provide regional information and updates to public health partners on communicable disease activity and trends within their region

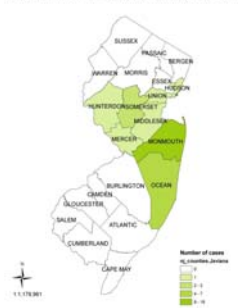
**Objectives**

- Provide an overview of communicable disease activity
- Describe quarterly trends in select communicable diseases
- Highlight interesting and/or notable outbreaks/clusters and/or investigations

### State and Regional Highlights- Foodborne Illness

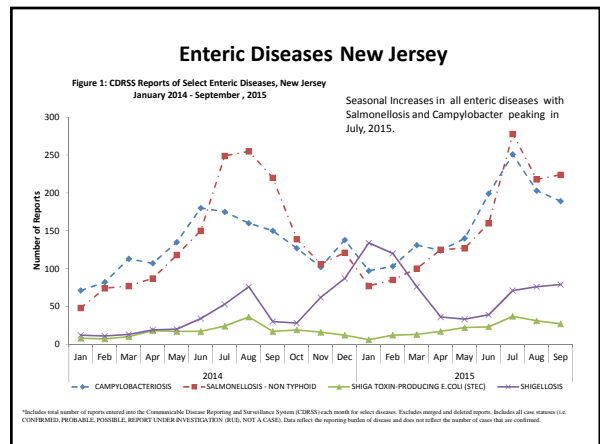
#### Salmonella Javiana Cluster

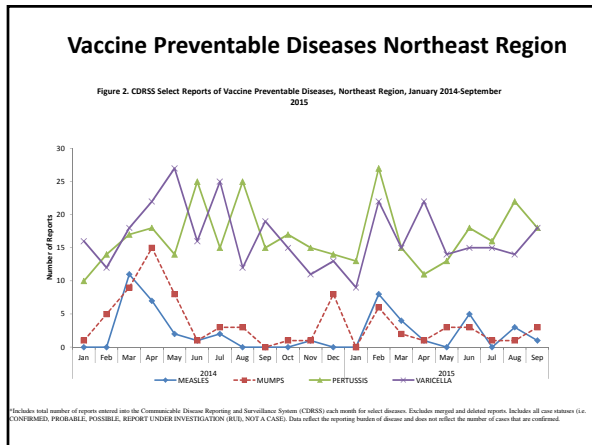
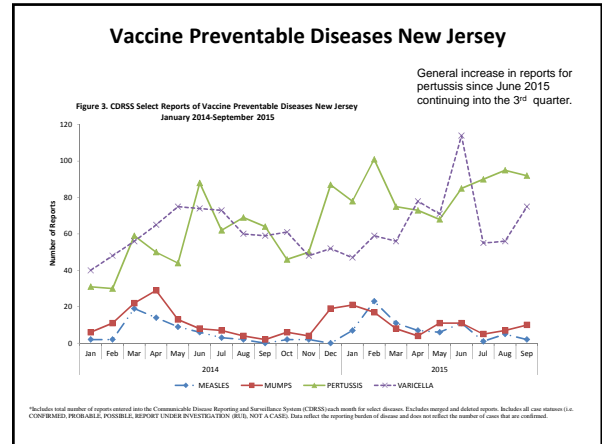
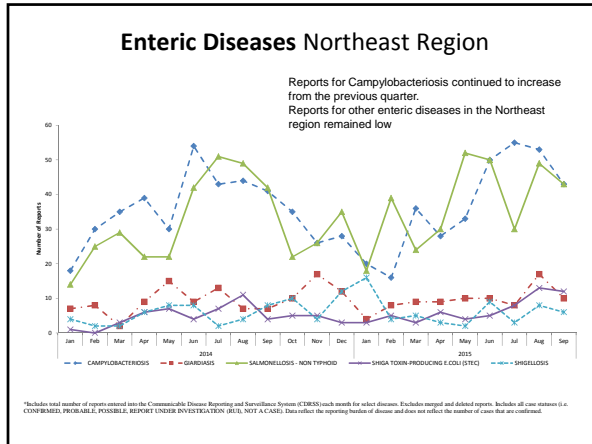
- 37 confirmed cases from 5 states: FL, KY, NJ (33), NYC, and PA.
- Majority of cases Monmouth and Ocean residents but six additional counties have at least one case associated with this cluster.
- Hudson county in the Northeast had at least one case.
- Onset dates range: July 9, 2015 to August 14, 2015.
- Age range: 1-72 years (median 24 years).



Distribution of S. Javiana Cases by County, NJ - 2015

## SELECT DISEASE TRENDS AND ACTIVITY





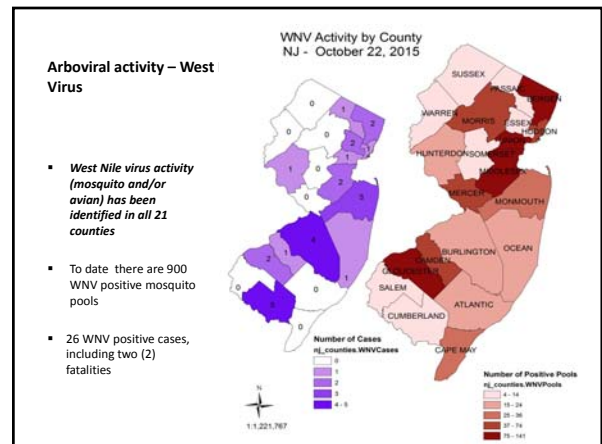
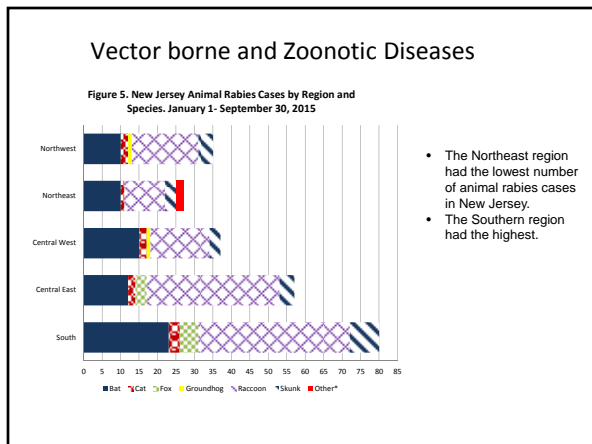
### Vectorborne and Zoonotic Diseases

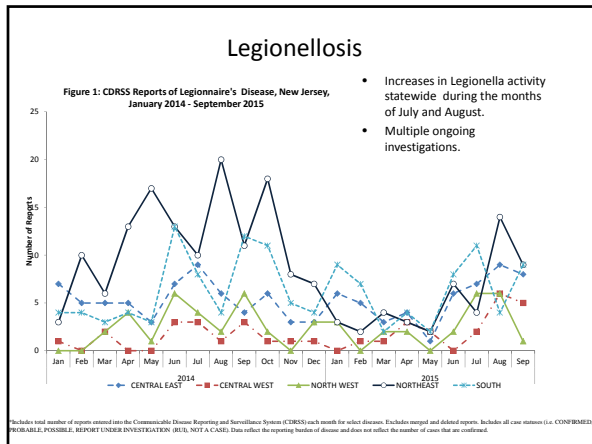
Table 1: New Jersey Animal Rabies Cases in the Northeast Region by Species, January 1 – September 30, 2015

Region	County	Bat	Cat	Raccoon	Skunk	Other*	Total
Northeast	Bergen	5		9	3	2	19
	Essex	4	1	2			7
	Hudson	1					1
Total Northeast Region		10	1	11	3	Other*	27

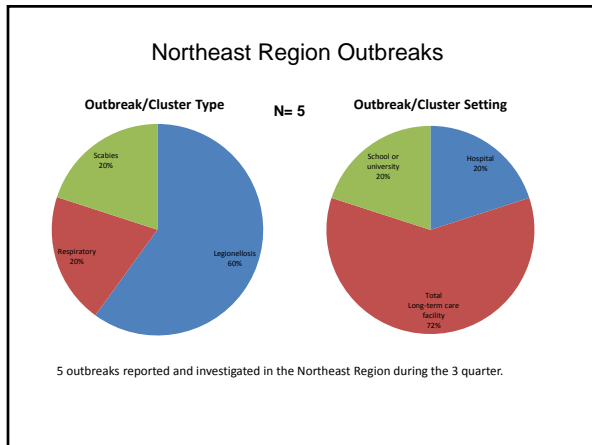
- Bergen County had the highest number of rabies cases in the Northeast region between January 1 and September 30, 2015.
- Compared to the same time period in 2014 in the Northeast region, there was an increase in overall rabies cases (27 vs. 16).

\*Two coyotes tested positive for rabies in 2015





## OUTBREAK/CLUSTER REPORTING

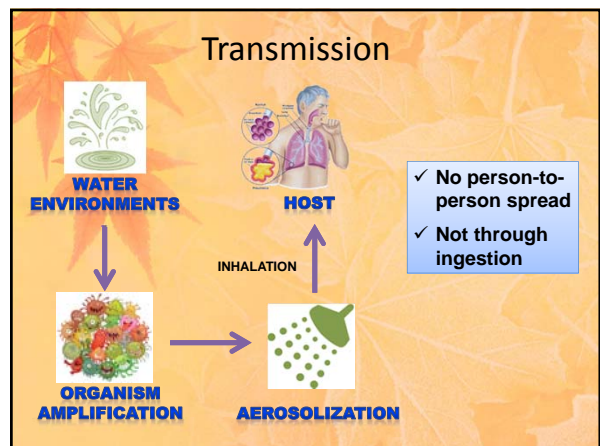


## Legionella in Northeast New Jersey

Diana Theriault, MPH  
Regional Epidemiologist  
New Jersey Department of Health

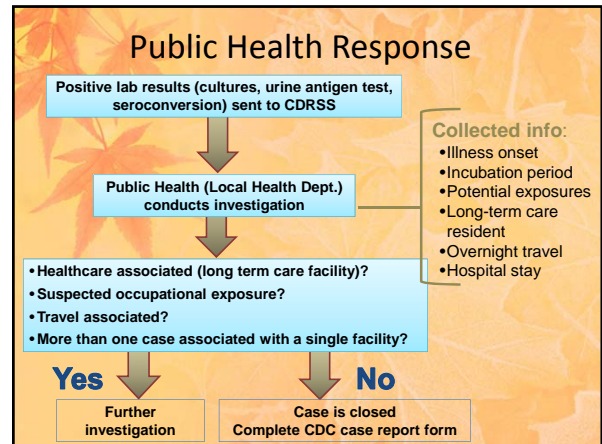
### Legionella Organisms

- *Legionella* are ubiquitous in natural and artificial fresh water environments
  - Hot tubs
  - Cooling towers
  - Hot water tanks
  - Large plumbing systems
  - Decorative fountains
- Grows best in warm temperatures, 77°-110°F
  - Dormant under 77°F and killed above 124°F
- *Legionella* multiplies inside free-living amoeba
- *Legionella pneumophila* serogroup 1 causes majority of human illness, but other serogroups do cause disease





### Case Definitions

- Confirmed Legionnaires' Disease:
  - Clinical: fever, myalgia, cough and clinical or radiographic pneumonia (Pontiac Fever- no pneumonia)
  - Laboratory:
    - By culture: isolation of any *Legionella* from respiratory, lung tissue, other sterile site
    - By urinary antigen: detection of *L. pneumophila* serogroup 1 in urine
    - By seroconversion: fourfold or greater rise in antibody titer to *L. pneumophila* serogroup 1
- Suspect (no Probable Case)



### Legionella Case Report Form



- Case Report Form- <http://www.cdc.gov/legionella/downloads/case-report-form.pdf>
- Hypothesis Generating Questionnaire- <http://www.cdc.gov/legionella/downloads/hypothesis-generating-questionnaire.pdf>

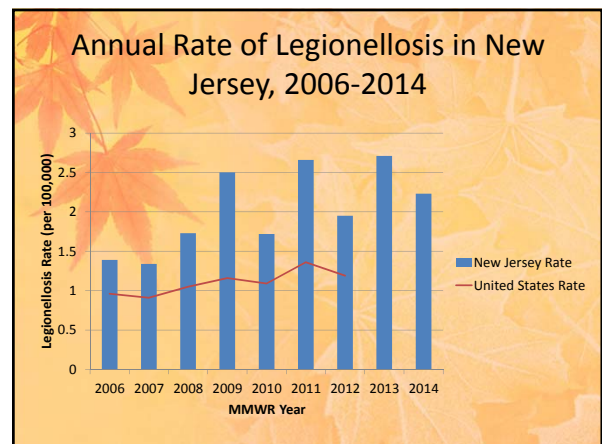
### Case Investigations

TAKE HOME POINTS:

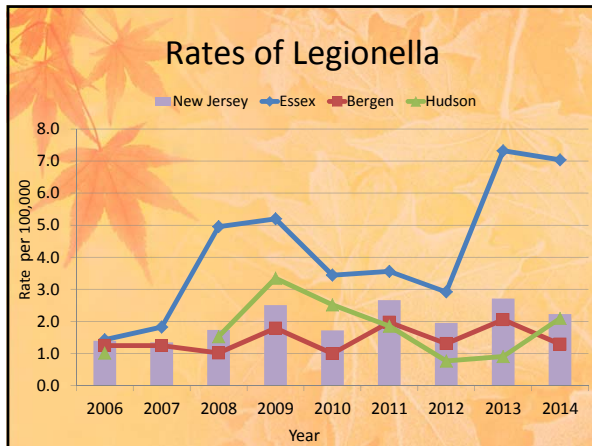
- Thoroughly investigate each and every case
- Complete a Legionellosis Case Report Form
- Report as soon as you suspect a healthcare or travel exposure has occurred.
- We are all in this together- Reach out to your Regional Epi for assistance.

### Northeast Region Data

Bergen, Essex, Hudson

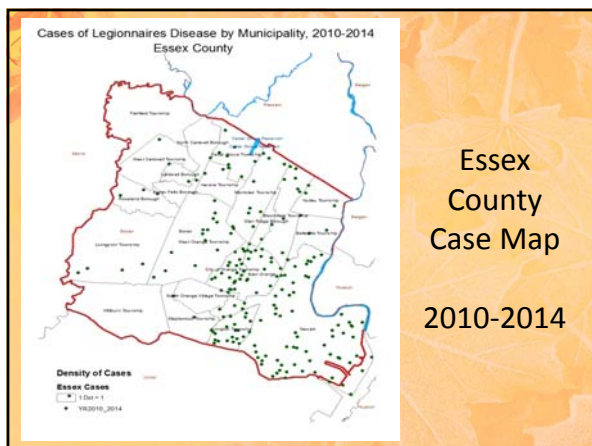
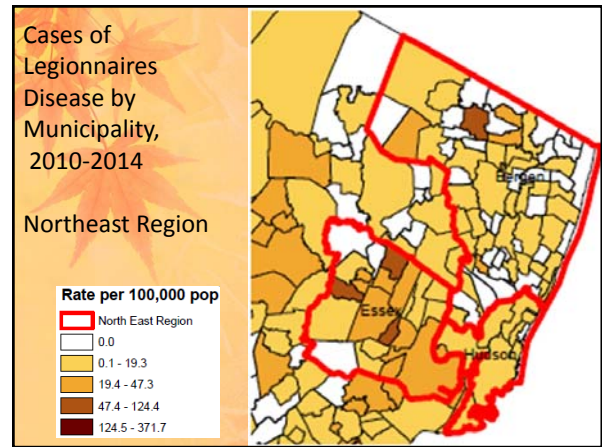
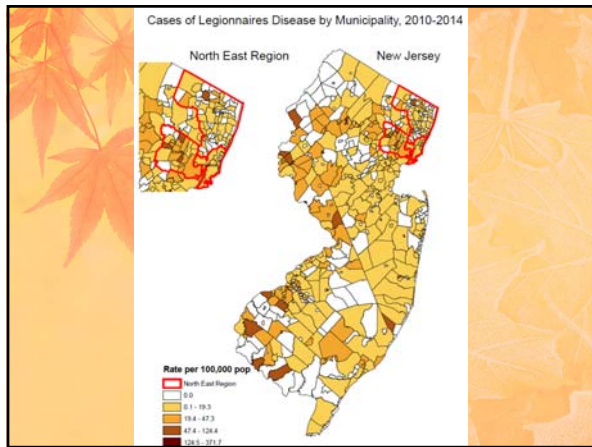






### Top 3 Municipalities by County and Case Count 2006-2014

County	Municipality	Case number	Percentage
Bergen	Bergen	117	
	Fort Lee	8	6.8%
	Hackensack	8	6.8%
	Teaneck / Englewood	7	6.0%
Essex	Essex	295	
	Newark	118	40%
	Irvington	28	9.5%
	East Orange	27	9.2%
Hudson	Hudson	89	
	Jersey City	30	33.7%
	Bayonne	18	20.2%
	North Bergen / West New York	8	9.0%



- ### What's Happening Now?
- Case investigations for 2015 are still ongoing.
    - Cases reported this year: 55
      - Bergen- 13
      - Essex- 33
      - Hudson- 9
  - Outbreaks reported in 2015: 4 (all Essex)
  - The cause of the increase in cases in Essex County is unknown.
  - Focused Trainings
  - Continuing to monitor the situation

## Thank You

Diana Theriault, MPH  
 Diana.theriault@doh.state.nj.us  
 609-826-5964

## PUBLIC HEALTH INVESTIGATIONS

### Healthcare-Associated Cases

- Notification from Infection Preventionist in healthcare setting (patients usually very ill)
  - Long term care facility, assisted living, nursing home
  - Acute care hospital
- Public health response differs depending on patient's exposures, extent of outbreak, capability of facility
- One case of healthcare-associated legionellosis leads to a full epidemiologic and environmental investigation if the case spend their entire incubation period in the facility

### Who is at risk for legionellosis?

- Most healthy individuals do not become infected with Legionella bacteria after exposure. People at higher risk of getting sick are:
  - Older people (usually 50 years of age or older)
  - Current or former smokers
  - Those with a chronic lung disease (like COPD or emphysema)
  - Those with a weak immune system from diseases like cancer, diabetes, kidney failure, or HIV/AIDS
  - People who take drugs that suppress (weaken) the immune system (like after a transplant operation or chemotherapy)

### Travel-Associated Cases

- Outbreaks of travel-associated legionellosis are infrequently identified, even though 20% of cases are associated with travel
- Public health ascertains if case patient spent at least one night away from home in 14 days before onset
- Report of all cases of legionellosis go to CDC
- CDC notifies states of travel-associated cases, location, dates of stay, illness onset date

### LHD and facilities

- NJDOH is notified by CDC of NJ hotels and facilities with travel-associated case(s)
- LHD (Health Officer) is notified by NJDOH of specific hotel in their jurisdiction
- If only one travel-associated case, HO to reach out to hotel, using CDC sample letter to hotel
- If more than one case associated with same hotel within 12 months, full investigation

<http://www.cdc.gov/legionella/downloads/sample-hotel-letter.pdf>

