

ANNUAL SUMMARY OF
**REPORTABLE
DISEASES**
2011

Columbus & Franklin County, Ohio



THE CITY OF
COLUMBUS
MICHAEL B. COLEMAN, MAYOR

COLUMBUS
PUBLIC HEALTH



Franklin County
Public Health

ANNUAL SUMMARY OF REPORTABLE DISEASES 2011

Columbus & Franklin County, Ohio

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INTRODUCTION

Infectious diseases are illnesses caused by microorganisms, such as bacteria, viruses and parasites, and are transmitted from an infected person/animal and/or contaminated food or water source to another person or animal. Most communicable diseases spread from direct contact with the bacteria or viruses that are carried in bodily fluids (e.g., blood) or expelled into the air (in the form of respiratory droplets) by an infected person. Some diseases can be spread only indirectly through contaminated food and water sources. Other diseases are introduced into the body by animals or insects carrying the infectious agent.

This annual summary represents the 2011 reportable diseases that were diagnosed among residents of Columbus City and Franklin County and were reported to Ohio and local public health agencies as required by Ohio Administrative Code 3701-3-02. Only selected infectious diseases determined to be of public health significance are reportable; therefore, the data presented here do not represent all cases of infectious disease that occur in Columbus and Franklin County. This report contains confirmed, probable and suspected cases statuses. The data are considered provisional, meaning the numbers could change slightly in future reports, but they provide insight at this time into the disease burden of this community.

The summary is intended to be a resource for individuals and our public health partners for whom infectious diseases are of concern. Further information on communicable disease may be obtained by contacting either Columbus Public Health or Franklin County Public Health.

For over twelve years, Columbus and Franklin County Public Health have joined forces to make the reporting, tracking and investigation of infectious disease cases easier and more convenient through the Infectious Disease Reporting System (IDRS). This provides early identification of potential outbreaks and new trends in infectious diseases. The Infectious Disease staff ensures proper investigation, timely case follow-up of all reports and preventive interventions to reduce secondary cases.

KEY FINDINGS ARE SUMMARIZED BELOW:

- In 2011, a total of 1,885 cases of communicable disease (excluding sexually transmitted infections and tuberculosis) were reported among Franklin County residents.
- Franklin County's total rate of confirmed communicable diseases decreased significantly to 134.1 cases per 100,000 in 2011 from 145.6 cases per 100,000 in 2010.
- The rate of counted Pertussis cases decreased from 53.2 cases per 100,000 in 2010 to 27.1 cases per 100,000 in 2011.
- The rate of confirmed Legionellosis cases increased from 5.2 cases per 100,000 in 2010 to 9.2 cases per 100,000 in 2011.

FRANKLIN COUNTY POPULATION PROFILE, 2011

FRANKLIN COUNTY POPULATION, 2011

- The population of Franklin County increased 2.4% from 1.15 million in 2009 to 1.18 million in 2011.
- 51.3% of the Franklin County population in 2011 was female and 48.7% was male.
- 71.2% of the Franklin County population in 2011 was white; 21.5% was African American; 4.0% Asian; and 0.3% was American Indian and Alaska Native.

TABLE 1: GENDER

	POPULATION	PERCENT
Male	574,075	48.7%
Female	604,724	51.3%

TABLE 2: RACE

	POPULATION	PERCENT
White	839,305	71.2%
Black or African American	253,442	21.5%
American Indian and Alaska Native	3,536	0.3%
Asian	47,153	4.0%
Native Hawaiian and Other Pacific Islander	1,179	0.1%
Other Races	34,185	2.9%

TABLE 3: AGE (YEARS)

	POPULATION	PERCENT
0-4	84,599	7.2%
5-14	151,920	12.9%
15-24	180,747	15.3%
25-34	196,702	16.7%
35-44	158,488	13.4%
45-54	159,345	13.5%
55-64	128,028	10.9%
65-74	65,605	5.6%
75-84	37,433	3.2%
85+	15,972	1.4%

Note: Franklin County Population data on this page and throughout the report were taken from the United States Census Bureau. Information about their methodology can be found on their website: www.census.gov.

REPORTABLE DISEASES

**TABLE 4: REPORTABLE DISEASES FOR FRANKLIN COUNTY, OHIO
ANNUAL COUNTS AND RATES, 2009-2011 (CONFIRMED, PROBABLE AND ALL STATUSES)**

<i>Year:</i>		2009				2010				2011			
<i>Population:</i>		1,150,122				1,163,414				1,178,799			
CLASS [†]	DISEASE NAME	Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
		# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]
B (2)	Amebiasis	5	0.4	6	0.5	6	0.5	6	0.5	4	0.3	5	0.4
B (2)	Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1
A	Anthrax	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Botulism (foodborne)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (2)	Botulism (infant)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (2)	Brucellosis	3	0.3	3	0.3	1	0.1	1	0.1	0	0.0	0	0.0
B (2)	Campylobacteriosis	95	8.3	95	8.3	90	7.7	90	7.7	109	9.2	110	9.3
A	Cholera	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (2)	Chlamydia*	7,775	676.0	7,775	676.0	8,194	704.3	8,194	704.3	7,416	629.1	7,416	629.1
B (1)	Coccidioidomycosis	2	0.2	5	0.4	6	0.5	6	0.5	2	0.2	2	0.2
B (2)	Creutzfeldt-Jakob disease	2	0.2	4	0.3	0	0.0	2	0.2	3	0.3	4	0.3
B (2)	Cryptosporidiosis	22	1.9	22	1.9	43	3.7	43	3.7	62	5.3	81	6.9
B (2)	Cytomegalovirus (congenital)	5	0.4	5	0.4	7	0.6	7	0.6	3	0.3	3	0.3
B (1)	Dengue	0	0.0	0	0.0	2	0.2	2	0.2	0	0.0	0	0.0
A	Diphtheria	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	E. coli O157:H7	14	1.2	14	1.2	8	0.7	9	0.8	10	0.8	10	0.8
B (1)	E. coli Not O157	3	0.3	3	0.3	19	1.6	19	1.6	16	1.4	16	1.4
B (1)	E. coli Unspecified	5	0.4	8	0.7	1	0.1	11	0.9	1	0.1	7	0.6
B (2)	Ehrlichiosis	1	0.9	1	0.1	0	0.0	0	0.0	1	0.1	1	0.1
B (2)	Giardiasis	182	15.8	182	15.8	191	16.4	191	16.4	140	11.9	141	12.0
B (2)	Gonorrhea*	2,938	255.5	2,938	255.5	3,158	271.4	3,158	271.4	2,836	240.6	2,836	240.6
B (1)	Haemophilus influenzae-invasive	10	0.9	11	1.0	6	0.5	6	0.5	10	0.8	10	0.8
B (1)	Hantavirus	0	0.0	0	0.0	0	0.0	0	0.0	0	0	0	0.0
B (1)	Hemolytic uremic syndrome (HUS)	2	0.2	2	0.2	0	0.0	0	0.0	2	0.2	2	0.2
B (1)	Hepatitis A	8	0.7	12	1.0	7	0.6	11	0.9	7	0.6	12	1.0
B (1)	Hepatitis B (perinatal infection)	0	0.0	0	0.0	0	0.0	2	0.2	0	0.0	249	21.1
B (2)	Hepatitis B (acute)*	29	2.5	22	1.9	37	3.2	62	5.3	33	2.8	61	5.2
B (2)	Hepatitis B (chronic,)*	284	24.7	319	27.7	320	27.5	525	45.1	492	41.7	665	56.4
B (2)	Hepatitis C (acute)*	2	0.2	2	0.2	1	0.1	3	0.3	4	0.3	5	0.4
B (2)	Hepatitis C (chronic)*	574	49.9	235	20.4	702	60.3	1026	88.2	868	73.6	1,238	105.0
B (2)	Hepatitis E	1	0.1	1	0.1	2	0.2	0	0.0	0	0.0	0	0.0
B (2)	Herpes (congenital)	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	1	0.1
B (1)	HIV/AIDS*	270	23.4	270	23.4	256	22.0	256	22.0	261	22.1	261	22.1

REPORTABLE DISEASES, continued

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		# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]
B (2)	Influenza-Associated Hospitalization	517	45.0	518	45.0	27	2.3	27	2.3	274	23.2	274	23.2
B (1)	Influenza-Associated Pediatric Mortality	2	0.2	2	0.2	0	0.0	0	0.0	0	0.0	0	0.0
A	Influenza A Novel Virus	37	3.2	37	3.2	0	0.0	0	0.0	0	0.0	0	0.0
**	Kawasaki Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	LaCrosse virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2
B (1)	Legionellosis	58	5.0	58	5.0	61	5.2	62	5.3	109	9.2	114	9.7
B (2)	Leprosy	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
B (2)	Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
B (1)	Listeriosis	1	0.1	1	0.1	4	0.3	4	0.3	3	0.3	3	0.3
B (2)	Lyme disease	7	0.6	7	0.6	5	0.4	6	0.5	8	0.7	19	1.6
B (1)	Malaria	14	1.2	14	1.2	19	1.6	19	1.6	18	1.5	18	1.5
A	Measles	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	Meningitis, aseptic (viral)	125	10.9	126	11.0	100	8.6	100	8.6	158	13.4	160	13.6
A	Meningococcal disease (N. meningitidis)	5	0.4	5	0.4	7	0.6	7	0.6	5	0.4	5	0.4
B (1)	Meningitis (other bacterial)	3	0.3	5	0.4	4	0.3	5	0.4	5	0.4	5	0.4
B (1)	Mumps	1	0.1	3	0.3	1	0.1	7	0.6	0	0.0	0	0.0
B (2)	Mycobacterial Disease, other than tuberculosis (MOTT)	214	18.6	214	18.6	207	17.8	207	17.8	203	17.2	203	17.2
B (1)	Pertussis	200	17.4	350	30.4	619	53.2	964	82.9	319	27.1	424	36.0
A	Plague	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	Other arthropod-borne disease	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	1	0.1
B (1)	Polio	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	Psittacosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Rabies, human	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (2)	Rocky Mountain Spotted Fever (RMSF)	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	1	0.1
A	Rubella	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
B (1)	Rubella (congenital)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	Salmonellosis	145	12.6	146	12.7	121	10.4	121	10.4	119	10.1	121	10.3
A	Severe Acute Respiratory Syndrome (SARS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	Shigellosis	261	22.7	262	22.8	15	1.3	15	1.3	13	1.1	13	1.1

REPORTABLE DISEASES, continued

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CLASS [‡]	DISEASE NAME	Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
		# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]	# of Cases	Case Rate [†]
A	Smallpox	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	Staphylococcal aureus - intermediate resistance to vancomycin (VISA)	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0
B (2)	Streptococcal disease-Group A, Invasive	31	2.7	32	2.8	35	3.0	35	3.0	41	3.5	41	3.5
B (2)	Streptococcal disease-Group B, in Newborn	2	0.2	2	0.2	6	0.5	6	0.5	12	1.0	12	1.0
B (2)	Streptococcal toxic shock syndrome (STSS)	1	0.1	1	0.1	0	0.0	0	0.0	1	0.1	1	0.1
B (2)	Streptococcus pneumoniae - invasive, antibiotic resistance unknown or non-resistant	133	11.6	134	11.7	105	9.0	106	9.1	123	10.4	124	10.5
B (2)	Streptococcus pneumoniae, invasive	48	4.2	48	4.2	63	5.4	63	5.4	46	3.9	46	3.9
B (1)	Syphilis*	110	9.6	110	9.6	109	9.4	109	9.4	116	9.8	116	9.8
B (1)	Tetanus	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0
B (1)	Tuberculosis (TB)*	45	3.9	45	3.9	67	5.8	67	5.8	50	4.2	52	4.4
A	Tularemia	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (1)	Typhoid Fever	5	0.4	5	0.4	2	0.2	2	0.2	0	0.0	0	0.0
B (2)	Typhus Fever	0	0.0	1	0.1	0	0.0	1	0.1	1	0.1	1	0.0
B (2)	Varicella	136	11.8	141	12.3	72	6.2	77	6.6	85	7.2	92	7.8
A	Viral hemorrhagic fever (VHF)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (2)	Vibrio parahaemolyticus infection	0	0.0	0	0.0	3	0.3	3	0.3	0	0.0	0	0.0
B (2)	Vibriosis - other (not cholera)	0	0.0	0	0.0	2	0.2	2	0.2	0	0.0	0	0.0
A	Yellow Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B (2)	Yersiniosis	4	0.3	4	0.3	7	0.6	7	0.6	8	0.7	9	0.8

*Notes on specific diseases and rates:

- STDs, TB and HIV/AIDS data are from separate Ohio Department of Health (ODH) sources. HIV/AIDS data are provisional and subject to change.
- Diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and a later AIDS diagnosis, and concurrent diagnoses of HIV and AIDS. Diagnoses of HIV infection by year (2009-2011) represent all reported cases diagnosed in each year.
- Syphilis numbers include primary and secondary cases only.

[†]Population estimates obtained from the United States Census Bureau for each year were used in annual rate calculations. Intercensal Estimates of the Resident Population for Counties of Ohio: April 1, 2000 to July 1, 2010 (CO-EST00INT-01-39). Source: U.S. Census Bureau, Population Division. Release Date: September 2011. 2010 is from decennial census. Case rate is per 100,000 people.

[‡] Class definitions - see Technical Notes

**These are not reportable conditions as of January 2012; however, the ODH receives frequent inquiries for information or they are of special interest.

CONFIRMED OUTBREAKS IN 2011

Definition of a Community Disease

Outbreak: Two or more cases of similar illness with a common exposure in the community and not considered a foodborne or waterborne disease outbreak.

Definition of a Foodborne Disease

Outbreak: The occurrence of 2 or more cases of a similar illness resulting from the ingestion of a common food.

Definition of a Healthcare-Associated

Disease Outbreak: The occurrence of cases of a disease (illness) above the expected or baseline level, usually over a given period of time, as a result of being in a healthcare facility. The number of cases indicating the presence of an outbreak will vary according to the disease agent, size and type of population exposed, previous exposure to the agent, and the time and place of occurrence.

Definition of an Institutional Outbreak: Two or more cases of similar illness with a common exposure at an institution (e.g. correctional facility, day care center, group home, school, assisted-living facility) and not considered a foodborne or waterborne disease outbreak.

Definition of a Waterborne Outbreak: Two or more persons that are epidemiologically linked by location of exposure to water, time and illness (including drinking water and water not intended for drinking, excluding recreational water) and epidemiologic evidence implicating water as the probable source of illness (e.g., beverages contaminated by plumbing failures in drink mix/soda machines). The definition of a waterborne disease outbreak from recreational water is two or more persons that are epidemiologically linked by location of exposure to recreational water (e.g., swimming pools, wading pools, spas, water slides, interactive fountains, wet decks, fresh and marine bodies of water), time and illness and epidemiologic evidence that implicates water or volatilization of water-associated compounds into the air surrounding an aquatic facility as the probable source of the illness.

Definition of a Zoonotic Disease Outbreak: Two or more cases of a similar illness with a common exposure to an animal source and not considered a foodborne or waterborne disease outbreak.

Unspecified (Class A): Any unexpected pattern of cases, suspected cases, deaths or increased incidence of any other disease of major public health concern, because of the severity of disease or potential for epidemic spread, which may indicate a newly recognized infectious agent, outbreak, epidemic, related public health hazard or act of bioterrorism.

Unusual Incidence: Two or more cases that can be connected by person, place and time of other infectious diseases from the following sources: Community Outbreaks, Foodborne Outbreaks, Healthcare-Associated Outbreaks, Institutional Outbreaks, Waterborne Outbreaks, Zoonotic Outbreaks.

TABLE 5: CONFIRMED OUTBREAKS IN FRANKLIN COUNTY, 2009-2011

	2009 (N)	2010 (N)	2011 (N)
Community	6	6	9
Foodborne	3	4	1
Healthcare-Associated	2	0	4
Institutional	17	19	17
Waterborne	1	0	2
Zoonotic	0	0	1
Unspecified (Class A)	2	0	0
Unusual Incidence	2	1	0

INFLUENZA-ASSOCIATED HOSPITALIZATION 2011

Number of cases*:
274

Franklin County rate:
23.2 per 100,000

Age of cases:
Mean: 38.8 yrs
Median: 43.5 yrs
Range: 1 week -91 yrs

Gender-specific Rate:
Female: 24.6 per 100,000
Male: 21.8 per 100,000

FACTS:

- Influenza-Associated Hospitalization (IAH) became reportable in Ohio on January 1, 2009.
- The number of IAH increased significantly between 2010 and 2011. In 2010, there were 27 cases of IAH in Franklin County. By the end of 2011, there were 274 cases of IAH in Franklin County.

EPIDEMIOLOGY:

Infectious agents: Influenza virus has two main types: A & B. Each type includes many different strains which tend to change each year.

Case Definition: An illness compatible with influenza virus infection that must result in hospitalization.

Mode of Transmission: Direct person-to-person contact through droplet spread or via articles recently contaminated with nasopharyngeal secretions.

Incubation Period: 1-4 days, with an average of 2 days.

Symptoms: Fever, chills, body aches, headache, weakness, feeling very tired, cough, sore throat, or runny nose.

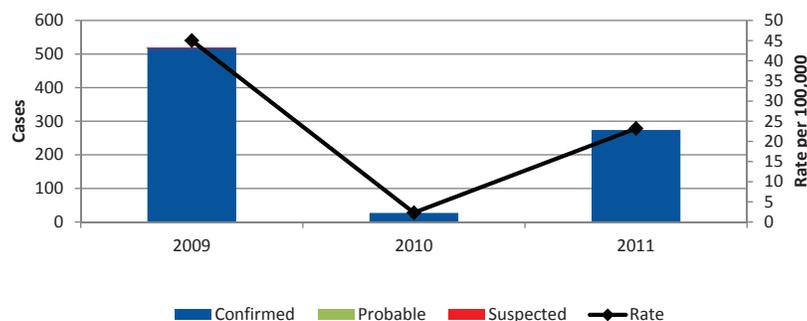
Treatment: Antiviral medication can be used if the illness is caught early. Most people who get influenza will recover in one to two weeks.

Prevention: The best way to prevent the flu is by getting a vaccine each year. Wash your hands after using tissue, sneezing, or coughing. Cough into your sleeve, not your hands.

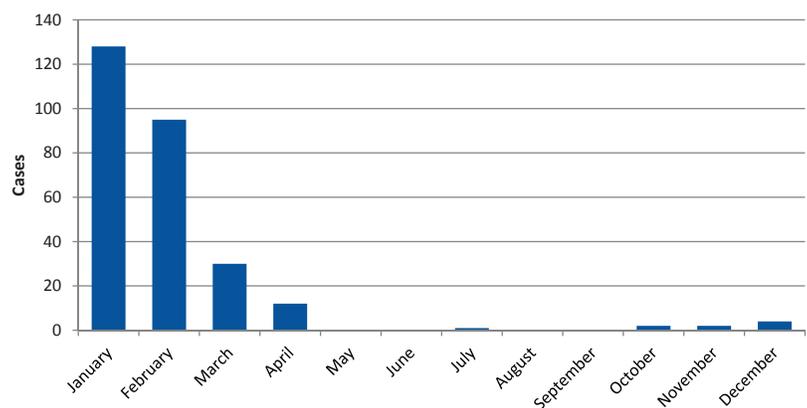
For more information: www.idrsinfo.org

*All statuses (confirmed, probable and suspected)

INFLUENZA-ASSOCIATED HOSPITALIZATION CASES AND RATES: FRANKLIN COUNTY, 2009 - 2011



INFLUENZA-ASSOCIATED HOSPITALIZATION CASES BY MONTH OF REPORTED DATE: FRANKLIN COUNTY, 2011



LEGIONELLOSIS 2011

Number of cases*: 114	Franklin County rate: 9.7 per 100,000	Age of cases: Mean: 60.5 yrs Median: 59.0 yrs Range: 24 - 95 yrs	Rate by sex: Female: 7.6 per 100,000 Male: 11.8 per 100,000
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FACTS:

- The number of legionellosis cases increased significantly between 2010 and 2011. In 2010, there were 62 cases of legionellosis in Franklin County. In 2011, there were 114 cases in Franklin County.
- In 2011, there was an outbreak of legionellosis in a long term care facility in Columbus. Refer to page 11 for a summary of the outbreak.

EPIDEMIOLOGY

Infectious agents: *Legionella* bacteria, most commonly *L. pneumophila*

Case Definition: Legionellosis is characterized by fever, myalgia, cough and clinical or radiographic pneumonia

Mode of Transmission: Inhalation of contaminated mist or vapor; bacteria thrive in warm water like that found in hot tubs, cooling towers, hot water tanks, large plumbing systems, air-conditioning systems of large buildings

Incubation Period: 2-14 days

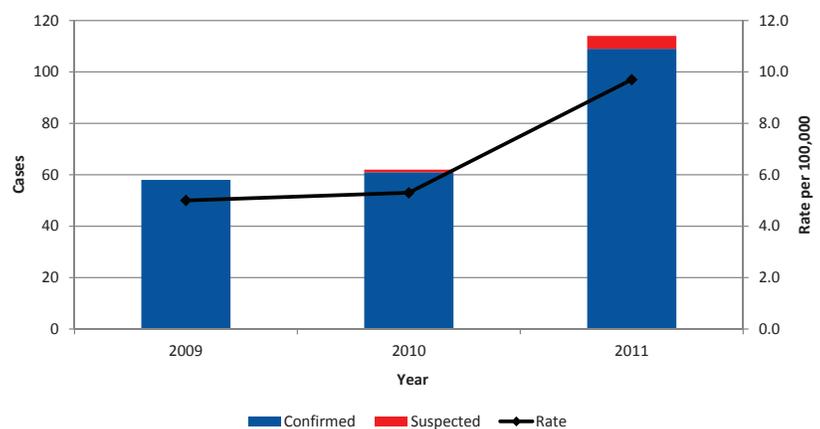
Symptoms: Pneumonia, high fever, cough, headaches, muscle aches, or as Pontiac Fever, a milder infection with similar symptoms but no pneumonia

Treatment: A respiratory fluoroquinolone (e.g., levofloxacin) or a newer macrolide (e.g., azithromycin).

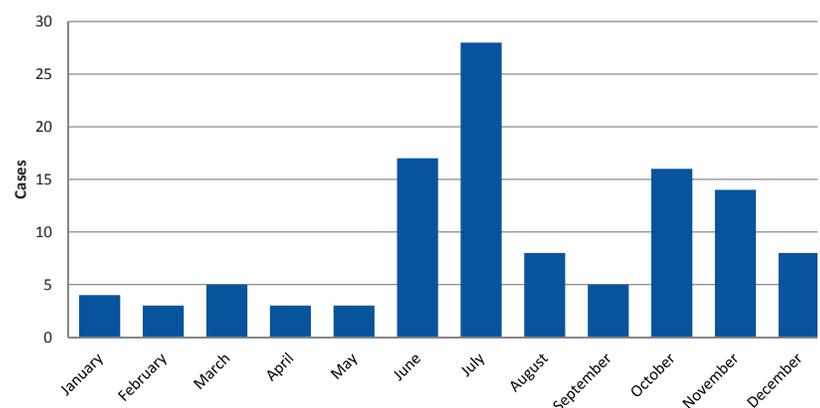
Prevention: Improvements in the design and maintenance of cooling towers and plumbing systems will help limit the growth of legionella organism and prevent them from being released into the air.

For more information: www.idrsinfo.org

LEGIONELLOSIS CASES AND RATES: FRANKLIN COUNTY, 2009 - 2011



LEGIONELLOSIS CASES BY MONTH OF REPORTED DATE: FRANKLIN COUNTY, 2011



*All statuses (confirmed, probable and suspected)

PERTUSSIS 2011

Number of cases*: 424	Franklin County rate: 36.0 per 100,000	Age of cases: Mean: 10.8 yrs Median: 9.0 yrs Range: 1 month - 80 yrs	Rate by sex: Female: 35.7 per 100,000 Male: 36.2 per 100,000
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FACTS:

- The number of pertussis cases decreased significantly between 2010 and 2011. In 2010, there were 964 cases of pertussis in Franklin County. In 2011, there were 424 cases of pertussis in Franklin County.
- In 2010, there was a community-wide outbreak of pertussis in Franklin County. The decreased number of pertussis cases in 2011 can be attributed to various public health interventions which helped stop the spread of the disease.

EPIDEMIOLOGY

Infectious agents: Pertussis, a respiratory illness commonly known as whooping cough, is a very contagious disease caused by a type of bacteria called *Bordetella pertussis*.

Mode of Transmission: People with pertussis usually spread the disease by coughing or sneezing while in close contact with others, who then breathe in the pertussis bacteria.

Incubation Period: Average 9-10 days (range 6-20 days).

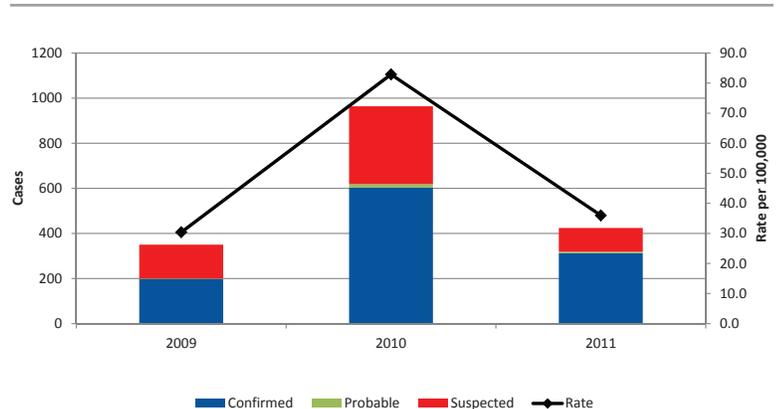
Symptoms: The disease usually starts with cold-like symptoms and maybe a mild cough or fever. After 1 to 2 weeks, severe coughing can begin. Unlike the common cold, pertussis can become a series of coughing fits that continues for weeks. Other symptoms include cough fits with a “whooping” sound, apnea and vomiting after coughing fits.

Treatment: Pertussis is generally treated with antibiotics and early treatment is very important.

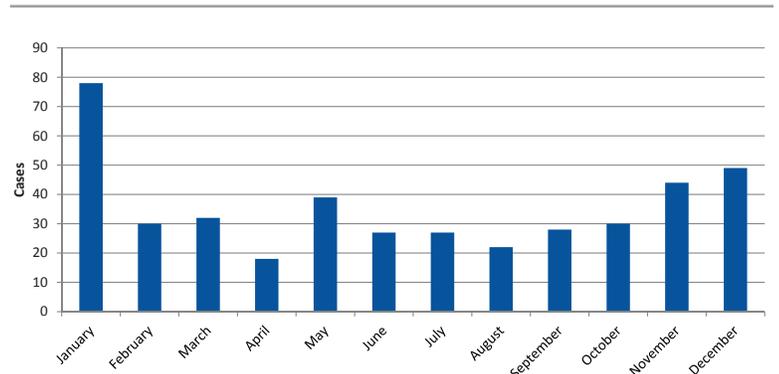
Prevention: The best way to prevent pertussis (whooping cough) among infants, children, teens, and adults is to get vaccinated. Also, keep infants and other people at high risk for pertussis complications away from infected people.

For more information: www.idrsinfo.org

PERTUSSIS CASES AND RATES: FRANKLIN COUNTY, 2009 - 2011



PERTUSSIS CASES BY MONTH OF REPORTED DATE: FRANKLIN COUNTY, 2011



*All statuses (confirmed, probable and suspected)

SHIGELLOSIS 2011

Number of cases*:
13

Franklin County rate:
1.1 per 100,000

Age of cases:
Mean: 17.9 yrs
Median: 9.0 yrs
Range: 2 yrs - 58 yrs

Rate by sex:
Female: 0.7 per 100,000
Male: 1.6 per 100,000

FACTS:

- The number of shigellosis cases remained low in 2011 with 13 reported cases.

EPIDEMIOLOGY

Infectious agents: Caused by a group of bacteria called Shigella; Shigella sonnei is the most common type in the United States; Shigella flexneri is the second most common type in the U.S.

Mode of Transmission: Most shigellosis infections are the result of the bacterium passing from stools or soiled fingers of one person to the mouth of another person. Also, shigellosis infections may be acquired from eating contaminated food or drinking contaminated water. Outbreaks of shigellosis have also occurred among men who have sex with men.

Incubation Period: Usually 1-3 days, but may range from 12 to 96 hours; up to 1 week for Shigella dysenteriae 1.

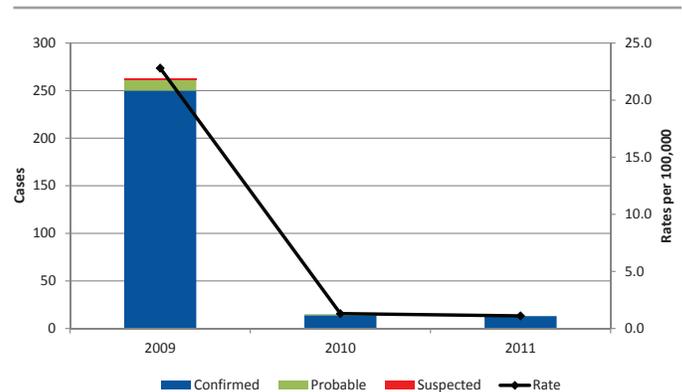
Symptoms: Most who are infected with shigellosis develop diarrhea, fever, and stomach cramps.

Treatment: Appropriate antibiotic treatment kills Shigella, and may shorten the illness by a few days. The antibiotics commonly used for treatment are ampicillin, trimethoprim/sulfamethoxazole (also known as Bactrim or Septra), ceftriaxone (Rocephin), or, among adults, ciprofloxacin.

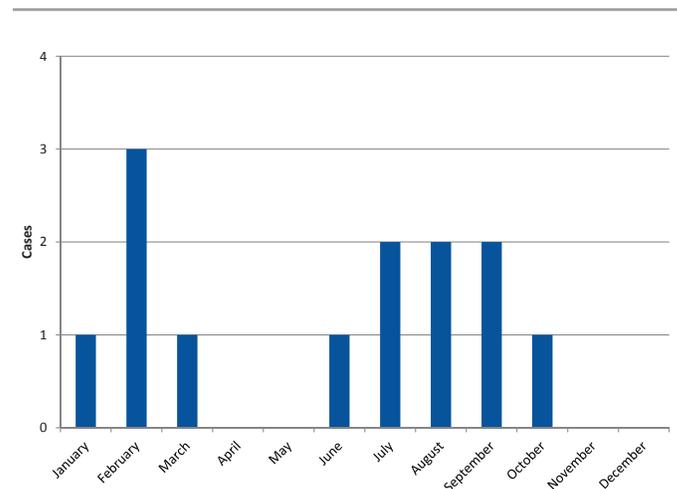
Prevention: Frequent and careful handwashing is important among all age groups. Handwashing among children should be frequent and supervised by an adult in daycare centers and homes with children who have not been fully toilet trained. Avoid swallowing water from ponds, lakes, or untreated pools.

For more information: www.idrsinfo.org

SHIGELLOSIS CASES AND RATES: FRANKLIN COUNTY, 2009 - 2011



SHIGELLOSIS CASES BY MONTH OF REPORTED DATE: FRANKLIN COUNTY, 2011



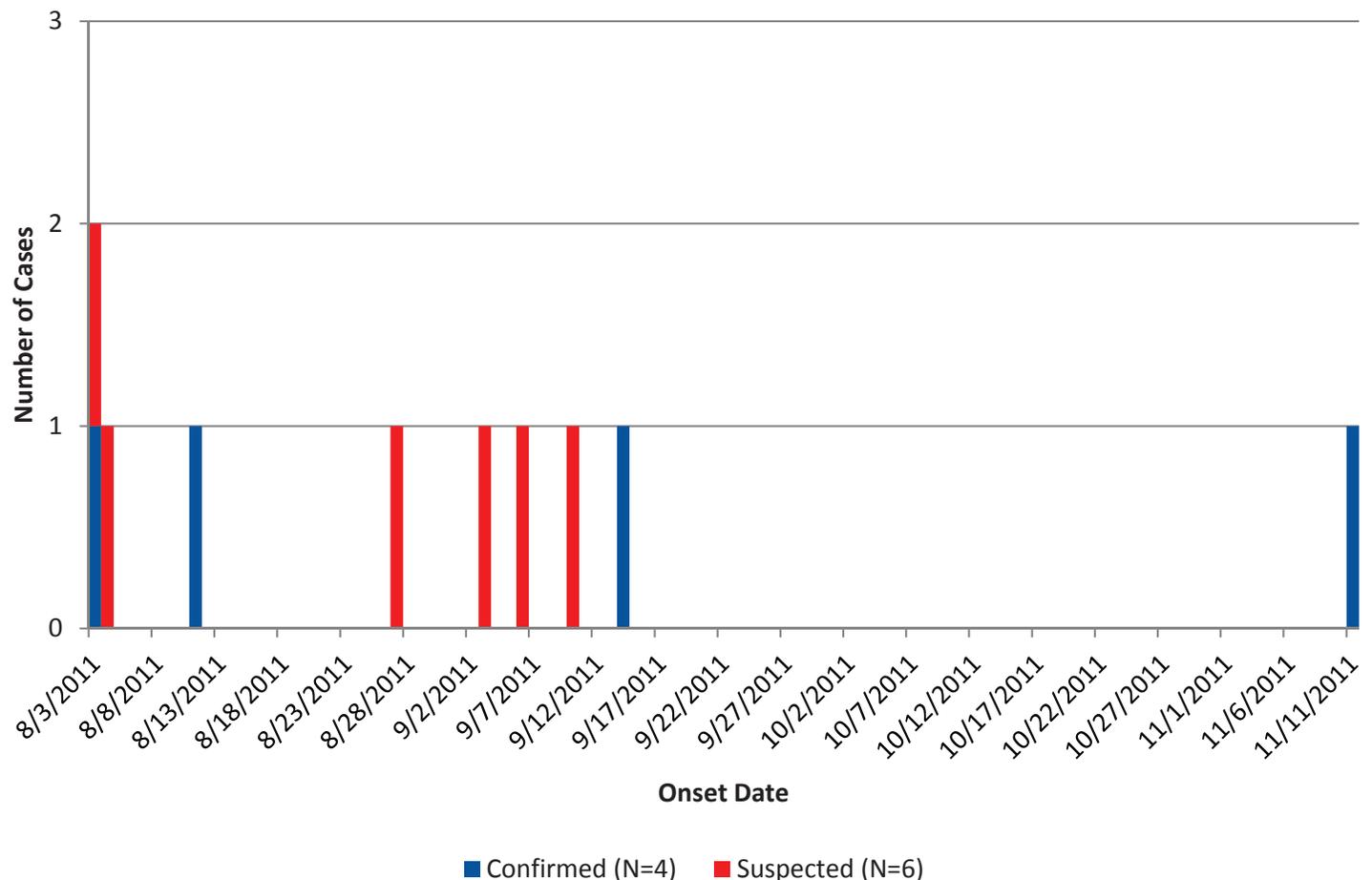
*All statuses (confirmed, probable and suspected)

LEGIONELLOSIS OUTBREAK

On September 7, 2011, Columbus Public Health (CPH) was notified of a potential outbreak of Legionellosis at a long-term care facility. Two residents were reported to have Legionnaires' disease, with onset of illness for the initial case on August 3, 2011. No staff members were ill. As the investigation progressed, CPH and the Ohio Department of Health (ODH) decided to request an Epi-Aid from the federal Centers for Disease Control and Prevention to assist in conducting an epidemiologic investigation of the outbreak. Steps taken to control the spread of disease included case confirmation, environmental assessment, screening and monitoring for additional cases and providing education and prevention resources for the staff. Water was sampled from different areas and water sources in the facility to test for the presence of the infectious agent.

The investigation resulted in detecting ten Legionnaires' disease cases, four confirmed and six suspected among the residents of the long-term care facility. Onsets of illness ranged from August 8th through November 11th, 2011.

LEGIONELLOSIS CASES BY ONSET DATE AND CLASSIFICATION STATUS, COLUMBUS LONG-TERM CARE FACILITY, 2011



TIMELINESS OF DISEASE REPORTS

Timeliness of disease reports is a key part of good public health practice. In order to reduce the burden of disease in our community and to implement appropriate interventions, the public health system relies on healthcare providers and laboratories for identification of infectious diseases. Timeliness requirements for each reportable disease vary based on the communicability and severity of the disease.

In the Ohio Disease Reporting Systems (ODRS) application, it is possible to query the date when a healthcare provider diagnosed an illness and when the local health department was able to receive notification of the illness, i.e., the date a case was entered into ODRS.

Table 6 lists selected diseases and how long it took (using median and mean number of days) for a disease to be reported to the local health department after a healthcare provider diagnosis. Starting in 2009, E. coli, Hepatitis A, Listeriosis, Mumps, Pertussis and Salmonellosis became Class B (1) reportable conditions required to be reported by the end of the next business day after the existence of a case is known. Measles, Meningococcal disease and Rubella are Class A reportable conditions, due to their severity and the potential for epidemic spread; therefore, they are required to be reported immediately via telephone upon recognition that a case, a suspected case, or a positive laboratory result exists.

Analyses of the reporting lag (i.e., time between the diagnosis date and the ODRS entry date) show that reporting

requirements were met for all of the selected diseases. From 2010 to 2011, it should be noted that the median and mean lags for Franklin County either improved or continued to meet the reporting requirement.

As shown in the notes for Table 6, the reporting lag is defined as the difference between the diagnosis date and when the case was reported to the local health department. If the diagnosis date field was empty, a proxy date was used. These fields were used (in this order) as the proxy: lab specimen collect date, lab result date, onset date, date

TABLE 6. FRANKLIN COUNTY REPORTABLE DISEASE LAG TIME BETWEEN THE HEALTHCARE PROVIDER DIAGNOSIS AND DATE ENTERED INTO ODRS FOR SELECTED DISEASES, 2011

REPORTABLE CONDITION	REPORTING REQUIREMENT	NUMBER OF CONFIRMED CASES	MEDIAN (DAYS)	MEAN (DAYS)	PROPORTION OF CASES WITH MISSING DIAGNOSIS DATE
E. coli O157:H7	By end of next business day	10	1.0	1.4	20%
Hepatitis A	By end of next business day	7	0	1.3	14%
Listeriosis	By end of next business day	3	0	0	0%
Measles	Immediately	0	n/a	n/a	n/a
Meningococcal disease	Immediately	5	1.0	0.8	60%
Mumps	By end of next business day	0	n/a	n/a	0%
Pertussis	By end of next business day	319	0	1.0	8%
Rubella	Immediately	0	n/a	n/a	n/a
Salmonellosis	By end of next business day	119	1.0	2.2	15%

Notes: Reporting Lag = Date reported to Local Health Department – Diagnosis Date*

***“Diagnosis Date” defaulted to the following date fields (in order) if blank: lab specimen collect date, lab result date, onset date, ODH report date, created date. Also, if a diagnosis date occurred after the date reported to the local health department then the diagnosis date defaulted to next proxy as listed above.*

Continued on next page...

reported to ODH and date the record was created by the local health department. For 9% of all the selected diseases, a proxy date was needed. The percentage of cases for the selected diseases missing a diagnosis date in 2011 has improved. In 2010, 23% of cases were missing the diagnosis date; only 9% of cases were missing a diagnosis date in 2011.

CPH and FCPH will periodically monitor the reporting lag times for these diseases. Regular monitoring will help with two key issues: late reporters and missing data. If specific reporters are found to be contributing to longer lags, this information will be shared with them, challenges to timely reporting will be identified and addressed, and closer monitoring of reports will follow. Additionally, filling in missing or incorrect dates will aid in better, timelier interventions and prevention efforts.

TECHNICAL NOTES

The Ohio Administrative Code 3701-3-02, 3701-5-05, and 3701-3-12 requires by law that communicable diseases be reported to local health departments.

CASE CRITERIA AND DEFINITIONS

For nationally reportable diseases, case definitions are determined by the Council of State and Territorial Epidemiologists (CSTE) in conjunction with the CDC and are published in the MMWR [1997; 46(RR-10)].

In Ohio, case definitions can be found in the Infectious Disease Control Manual (<http://www.odh.ohio.gov/healthResources/infectiousDiseaseManual.aspx>).

CLASS DEFINITIONS

Reportable diseases are grouped by class.

- **Class A:** Diseases of major public health concern because of the severity of disease or potential for epidemic spread. Report by telephone immediately upon recognition that a case, a suspected case, or a positive laboratory result exists.
- **Class B (1):** Diseases of public health concern needing timely response because of potential for epidemic spread. Report by the end of the next business day after the existence of a case, a suspected case, or a positive laboratory result is known.
- **Class B (2):** Diseases of significant public health concern. Report by the end of the work week after the existence of a case, a suspected case, or a positive laboratory result is known.
- **Class C:** Report an outbreak, unusual incidence, or epidemic (e.g., histoplasmosis, pediculosis, scabies, staphylococcal infections) by the end of the next business day.

CRYPTOSPORIDIOSIS CASE DEFINITION CHANGE IN 2011

Case definition change occurred due to change in laboratory criteria for diagnosis. See explanation below.

Laboratory Criteria for Diagnosis

- Probable: The detection of Cryptosporidium antigen by immunodiagnostic methods.*
- Confirmed: The detection of Cryptosporidium organisms or DNA in stool, intestinal fluid, tissue samples, biopsy specimens, or other biological sample.**

* *Test results known to be obtained with commercially-available immunochromatographic card tests are limited to meeting "probable" case criteria due to a recent report of unacceptably high rates of false-positive results (Clin Infect Dis. 2010 Apr 15;50(8):e53-55).*

** *The confirmed laboratory criteria include detection of Cryptosporidium by established laboratory methods (e.g., direct fluorescent antibody [DFA] test or polymerase chain reaction [PCR]).*

Continued on next page...

DISEASES NOT INCLUDED IN THE TABLE 4

There were no confirmed, probable or suspected cases in Franklin County of the following Class B (1) & (2) reportable diseases; therefore, they were not included in the table: Chancroid, Cyclosporiasis, Eastern equine encephalitis virus disease, Granuloma inguinale, Hepatitis D, Powassan virus disease, Q fever, St. Louis encephalitis, Toxic shock syndrome (TSS), Trichinosis, Western equine encephalitis virus disease and West Nile virus infection.

NOTES ON REPORTING SYSTEMS

Data are from the Ohio Department of Health and the Infectious Disease Reporting System (IDRS, a joint effort between Columbus Public Health Department and the Franklin County Public Health). Cases of sexually transmitted diseases, tuberculosis, AIDS, and HIV have separate reporting systems. Cases may have been excluded due to the reporting time, onset date, or when the supplemental information was received.

REFERENCES

Centers for Disease Control and Prevention, Disease Factsheets A-Z. <http://www.cdc.gov/az/a.html>

Centers for Disease Control and Prevention - National Center for Immunization and Respiratory Diseases, National Center for Emerging and Zoonotic Infectious Diseases, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. <http://www.cdc.gov/oid/centers.html>

Infectious Disease Reporting System, Disease Factsheets A-Z. <http://www.idrsinfo.org/disease.php>

Evaluation of Reporting Timeliness of Public Health Surveillance Systems for Infectious Diseases:

Ruth Ann Jajosky¹ and Samuel L Groseclose^{2,3}

Published online at BioMed Central, 2004 July 26. doi: 10.1186/1471-2458-4-29. PMCID: PMC50925

<http://www.biomedcentral.com/content/pdf/1471-2458-4-29.pdf>

The Ohio Department of Health Infectious Disease Control Manual:

<http://www.odh.ohio.gov/healthResources/infectiousDiseaseManual.aspx>