



ANNUAL SUMMARY OF  
**REPORTABLE  
DISEASES**  
2015

Columbus & Franklin County, Ohio



THE CITY OF  
**COLUMBUS**  
ANDREW J. GINTHER, MAYOR

**COLUMBUS  
PUBLIC HEALTH**



Franklin County  
**Public Health**

# ANNUAL SUMMARY OF REPORTABLE DISEASES 2015

Columbus & Franklin County, Ohio

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*Cover Image: Produced by the National Institute of Allergy and Infectious Diseases (NIAID), this digitally-colored scanning electron micrograph (SEM) depicts a grouping of red-colored, rod-shaped Mycobacterium tuberculosis bacteria, which cause tuberculosis (TB) in human beings. Image obtained from [phil.cdc.gov](http://phil.cdc.gov).*

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# INTRODUCTION

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Infectious diseases are illnesses caused by microorganisms such as bacteria, viruses and parasites, and transmitted from an infected person or animal to another person or animal. The route of transmission varies by disease and may include direct contact with contaminated body fluids or respiratory secretions, contact with contaminated objects, inhalation of contaminated airborne particles, ingestion of contaminated food or water, or the bite of an animal or vector (e.g., insect) carrying the microorganism.

According to Ohio Administrative Code 3701-3-02, cases and suspected cases of selected infectious diseases are required to be reported to state and local public health agencies. These “reportable diseases” or “reportable conditions” were determined to be of public health significance in Ohio. Many of these diseases must also be reported by state health departments to the Centers for Disease Control and Prevention (CDC) as part of national public health surveillance of infectious diseases.

For over 14 years, Columbus Public Health 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 centralized Infectious Disease Reporting System (IDRS). This system provides early identification of potential outbreaks and new trends in infectious diseases. Infectious disease staff ensure proper investigation, timely case follow-up of all reports and preventive interventions to reduce secondary cases.

The 2015 Annual Summary includes cases of reportable disease that were diagnosed among residents of Columbus and Franklin County, reported to public health, and found to meet the public health surveillance definition of a confirmed, probable or suspected case. These data do not represent all cases of reportable infectious disease that occurred in the community, as individuals may not seek medical care for mild or asymptomatic infections. Additionally, a reported case of disease may not meet the surveillance definition of a confirmed, probable or suspected case. Surveillance definitions are designed to standardize data collection and reporting across public health jurisdictions and may differ slightly from clinical definitions used in patient management. Outbreaks or media coverage of a particular disease can also influence testing and reporting rates. Data in this summary are considered provisional. Please note that data in Tables 5-10 are grouped by type of disease.

This summary is intended to be a resource for individuals and public health partners concerned about infectious diseases in Columbus and Franklin County. More information on infectious diseases and reporting procedures may be obtained by contacting Columbus Public Health or Franklin County Public Health or by visiting [www.IDRSinfo.org](http://www.IDRSinfo.org).

## KEY FINDINGS:

- In 2015, **2,495 cases of infectious disease\* were reported** among Columbus City and Franklin County residents, compared to 2,955 cases reported in 2014.
- Franklin County’s **total rate of infectious disease\* decreased** from 240.0 cases per 100,000 population in 2014 to 199.3 cases per 100,000 in 2015.
- The **rate of cryptosporidiosis has increased** annually since 2012, and the rate more than doubled from 2014 (3.0 cases per 100,000 population) to 2015 (8.5 cases per 100,000 population). In 2015, several cases were associated with an outbreak in a neighboring jurisdiction.
- The **rate of group B streptococcal disease in newborns** was steady during 2012-2014 (0.3-0.4 cases per 100,000 population), but the rate **more than doubled** in 2015 (0.9 cases per 100,000 population).
- **Rates of chlamydia and syphilis increased annually** from 2012 through 2015. The **rate of chronic hepatitis C increased annually** from 2013 through 2015.
- The **rates of varicella and new HIV/AIDS diagnoses decreased annually** from 2012 through 2015.

*\*Includes confirmed, probable and suspected cases of communicable disease, excluding sexually transmitted infections, hepatitis B and C, and HIV/AIDS.*

# DEMOGRAPHIC PROFILE OF FRANKLIN COUNTY

## FRANKLIN COUNTY POPULATION, 2015<sup>1</sup>

- The population of Franklin County increased 1.65% from 1.23 million in 2014 to over 1.25 million in 2015.
- In 2015, 51.3% of Franklin County residents were female, and 48.7% were male.
- In 2015, 69.3% of Franklin County residents were White; 22.5% were Black or African American; 4.8% were Asian; 0.3% were American Indian or Alaskan Native; 0.1% were Native Hawaiian or Other Pacific Islanders; and 3.0% identified as two or more races.
- In 2015, 5.2% of Franklin County residents were Hispanic or Latino.

TABLE 1: FRANKLIN COUNTY POPULATION BY GENDER, 2015

GENDER	2015	
	POPULATION	PERCENT
Female	642,133	51.3
Male	609,589	48.7
<b>Total</b>	<b>1,251,722</b>	<b>100</b>

TABLE 3: FRANKLIN COUNTY POPULATION BY ETHNICITY, 2015

ETHNICITY	2015	
	POPULATION	PERCENT
Hispanic or Latino	65,090	5.2
Non-Hispanic	1,186,632	94.8
<b>Total</b>	<b>1,251,722</b>	<b>100</b>

TABLE 2: FRANKLIN COUNTY POPULATION BY RACE, 2015

RACE	2015	
	POPULATION	PERCENT
White	867,443	69.3
Black or African American	281,637	22.5
Asian	60,083	4.8
American Indian and Alaska Native	3,755	0.3
Native Hawaiian and Other Pacific Islander	1,252	0.1
Two or more races	37,552	3.0
<b>Total</b>	<b>1,251,722</b>	<b>100</b>

TABLE 4: FRANKLIN COUNTY POPULATION BY AGE GROUP, 2015

AGE (YEARS)	2015	
	POPULATION	PERCENT
0-4	90,650	7.2
5-14	159,765	12.8
15-24	169,568	13.5
25-34	224,670	18.1
35-44	167,236	13.3
45-54	158,098	12.6
55-64	143,204	11.4
65-74	82,395	6.6
75-84	38,586	3.1
85+	17,550	1.4
<b>Total</b>	<b>1,251,722</b>	<b>100</b>

TABLE 5: ENTERIC REPORTABLE DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2012-2015

ENTERIC DISEASES																	
Year:		2012				2013				2014				2015			
Population:		1,195,537				1,212,263				1,231,393				1,251,722			
CLASS	DISEASE NAME	Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
		# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>
B	Amebiasis	7	0.6	7	0.6	2	0.2	2	0.2	2	0.2	2	0.2	3	0.2	3	0.2
B	Campylobacteriosis	93	7.7	95	7.7	130	10.7	138	11.4	78	6.3	89	7.2	113	9.0	113	9.0
A	Cholera	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Cryptosporidiosis	16	1.3	17	1.4	24	2.0	30	2.5	35	2.8	37	3.0	75	6.0	107	8.5
B	Cyclosporiasis	0	0.0	0	0.0	3	0.2	3	0.2	0	0.0	0	0.0	0	0.0	0	0.0
B	<i>Escherichia coli</i> O157:H7 and Shiga toxin-producing <i>E. coli</i> (STEC)	36	3.0	41	3.4	48	4.0	57	4.7	46	3.7	52	4.2	51	4.1	60	4.8
B	Giardiasis	110	9.2	111	9.3	65	5.4	65	5.4	46	3.7	46	3.7	69	5.5	71	5.7
B	Hemolytic uremic syndrome (HUS)	2	0.2	2	0.2	1	0.1	1	0.1	1	0.1	1	0.1	1	0.1	1	0.1
B	Listeriosis	5	0.4	5	0.4	2	0.2	2	0.2	4	0.3	4	0.3	2	0.2	3	0.2
B	Salmonellosis	130	10.9	133	11.1	147	12.1	149	12.3	148	12.0	158	12.8	150	12.0	156	12.5
B	Shigellosis	1,201	100.5	1,219	102.0	290	23.9	292	24.1	46	3.7	46	3.7	172	13.7	176	14.1
B	Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
B	Typhoid fever	6	0.5	6	0.5	0	0.0	3	0.2	2	0.2	3	0.2	3	0.2	4	0.3
B	Vibriosis	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0	1	0.1	1	0.1
B	Yersiniosis	6	0.5	6	0.5	6	0.5	6	0.5	6	0.5	6	0.5	4	0.3	4	0.3

† Rate per 100,000 population

TABLE 6: HEPATITIS AMONG FRANKLIN COUNTY RESIDENTS, 2012-2015

HEPATITIS																	
Year:		2012				2013				2014				2015			
Population:		1,195,537				1,212,263				1,231,393				1,251,722			
CLASS	DISEASE NAME	Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
		# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>
B	Hepatitis A	8	0.7	15	1.3	7	0.6	11	0.9	5	0.4	12	1.0	6	0.5	6	0.5
B	Hepatitis B, acute	*	*	*	*	*	*	*	*	*	*	*	*	72	5.8	72	5.8
B	Hepatitis B, chronic	*	*	*	*	*	*	*	*	*	*	*	*	533	42.6	533	42.6
B	Hepatitis B, perinatal**	2	--	19	--	1	--	23	--	0	--	42	--	0	--	95	--
B	Hepatitis C, acute	*	*	*	*	4	0.3	4	0.3	1	0.1	1	0.1	2	0.2	2	0.2
B	Hepatitis C, chronic	*	*	*	*	1,297	106.9	1,297	106.9	1,513	122.8	1,513	122.8	1,877	149.9	1,877	149.9
B	Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0

<sup>†</sup> Rate per 100,000 population

\* Data in the Ohio Disease Reporting System may not be accurate for this time period and are not included in this report.

\*\*Perinatal hepatitis B data are subject to a time lag because confirmation testing and follow-up are not complete until several months after birth.

-- Population data are not available for children 0-24 months old.

TABLE 7: SEXUALLY-TRANSMITTED DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2012-2015

SEXUALLY-TRANSMITTED DISEASES																	
Year:		2012				2013				2014				2015			
Population:		1,195,537				1,212,263				1,231,393				1,251,722			
CLASS	DISEASE NAME	Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
		# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>
^	HIV/AIDS*	246	20.6	246	20.6	227	18.7	227	18.7	215	17.5	215	17.5	197	15.7	197	15.7
B	Chancroid	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	<i>Chlamydia trachomatis</i> infections	7,089	593.0	7,089	593.0	8,110	669.0	8,110	669.0	8,352	678.3	8,352	678.3	9,441	754.2	9,441	754.2
B	Gonorrhea ( <i>Neisseria gonorrhoeae</i> )	2,600	217.5	2,600	217.5	2,991	247.0	2,991	247.0	2,897	235.3	2,897	235.3	3,265	260.8	3,265	260.8
B	Syphilis**	149	12.5	149	12.5	162	13.3	162	13.3	228	18.5	228	18.5	254	20.3	254	20.3

<sup>†</sup> Rate per 100,000 population. Chlamydia, gonorrhea, and syphilis data are preliminary for 2015.

\*Report on forms and in a manner prescribed by the director, described in Ohio Administrative Code Chapter 3701-3-12.

\*Case counts obtained from the Ohio Department of Health (see Technical Notes).

• HIV/AIDS data are provisional and subject to change. Cases of HIV infection include persons with HIV diagnosis (not AIDS), persons with HIV diagnosis and later AIDS diagnosis, and persons with concurrent HIV and AIDS diagnoses. Yearly HIV case counts include all reported cases diagnosed in a given year.

\*\*Syphilis data include primary and secondary cases only.

TABLE 8: VACCINE-PREVENTABLE DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2012-2015

VACCINE-PREVENTABLE DISEASES																	
Year:		2012				2013				2014				2015			
Population:		1,195,537				1,212,263				1,231,393				1,251,722			
CLASS	DISEASE NAME	Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
		# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>
A	Diphtheria	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	<i>Haemophilus influenzae</i> , invasive disease	10	0.8	10	0.8	10	0.8	10	0.8	14	1.1	15	1.2	12	1.0	12	1.0
A	Influenza A - novel virus	4	0.3	4	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Influenza-associated hospitalization	359	30.0	360	30.1	339	28.0	340	28.0	829	67.3	833	67.6	639	51.0	641	51.2
B	Influenza-associated pediatric mortality	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Measles	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	2	0.2	1	0.1	2	0.2
A	Meningococcal disease	2	0.2	2	0.2	2	0.2	2	0.2	1	0.1	1	0.1	4	0.3	4	0.3
B	Mumps	1	0.1	3	0.3	3	0.2	4	0.3	415	33.7	458	37.2	6	0.5	21	1.7
B	Pertussis	302	25.3	396	33.1	324	26.7	423	34.9	279	22.7	365	29.6	230	18.4	332	26.5
B	Poliomyelitis, including vaccine-associated cases	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Rubella, congenital	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Rubella, not congenital	0	0.0	2	0.2	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
B	Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Varicella	73	6.1	82	6.9	73	6.0	78	6.4	69	5.6	71	5.7	56	4.5	63	5.0

† Rate per 100,000 population

TABLE 9: VECTORBORNE AND ZONOTIC DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2012-2015

VECTORBORNE AND ZONOTIC DISEASES																	
Year:		2012				2013				2014				2015			
Population:		1,195,537				1,212,263				1,231,393				1,251,722			
CLASS	DISEASE NAME	Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
		# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>
B	Babesiosis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0.0	0	0.0	0	0.0	1	0.1
B	Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Chikungunya	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	0.3	4	0.3
B	Dengue	1	0.1	1	0.1	2	0.0	3	0.0	2	0.2	2	0.2	2	0.2	2	0.2
B	Eastern equine encephalitis virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Ehrlichiosis/Anaplasmosis	1	0.1	1	0.1	1	0.1	2	0.2	0	0.0	2	0.2	1	0.1	3	0.2
B	Hantavirus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	La Crosse virus disease	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	2	0.2	0	0.0	0	0.0
B	Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Lyme disease	9	0.8	24	2.0	22	1.8	53	4.4	19	1.5	43	3.5	21	1.7	44	3.5
B	Malaria	18	1.5	18	1.5	11	0.9	11	0.9	67	5.4	67	5.4	17	1.4	19	1.5
B	Other arthropod-borne disease*	0	0.0	0	0.0	0	0.0	1	0.1	4	0.3	5	0.4	0	0.0	0	0.0
A	Plague	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Powassan virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Psittacosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Q fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1
A	Rabies, human	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Spotted fever rickettsiosis, including Rocky Mountain spotted fever (RMSF)	5	0.4	7	0.6	5	0.4	10	0.8	1	0.1	7	0.6	1	0.1	4	0.3
B	St. Louis encephalitis virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Tularemia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Typhus fever	0	0.00	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Viral hemorrhagic fever (VHF)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	West Nile virus disease	6	0.5	6	0.5	2	0.2	2	0.2	0	0.0	0	0.0	7	0.6	7	0.6
B	Western equine encephalitis virus disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	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	0	0.0	0	0.0

<sup>†</sup> Rate per 100,000 population

N/A = not a reportable condition

\*Includes cases of arthropod-borne disease that did not belong to an individual disease category during the reporting period.

TABLE 10: OTHER REPORTABLE DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2012-2015

OTHER REPORTABLE DISEASES																	
Year:		2012				2013				2014				2015			
Population:		1,195,537				1,212,263				1,231,393				1,251,722			
		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
CLASS	DISEASE NAME	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>
A	Anthrax	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Botulism, foodborne	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Botulism, infant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Botulism, wound	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Coccidioidomycosis	11	0.9	11	0.9	1	0.1	4	0.3	3	0.2	3	0.2	4	0.3	9	0.7
B	Creutzfeldt-Jakob disease	1	0.1	3	0.3	1	0.1	2	0.2	2	0.2	4	0.3	0	0.0	1	0.1
B	Legionnaires' disease	54	4.5	54	4.5	149	12.3	170	14.0	120	9.7	123	10.0	97	7.7	97	7.7
B	Leprosy (Hansen's disease)	0	0.0	0	0.0	0	0.0	1	0.1	1	0.1	1	0.1	0	0.0	0	0.0
B	Meningitis, aseptic (viral)	86	7.2	86	7.2	165	13.6	165	13.6	67	5.4	67	5.4	83	6.6	86	6.9
B	Meningitis, bacterial (not <i>N. meningitidis</i> )	6	0.5	6	0.5	4	0.3	4	0.3	12	1.0	13	1.0	8	0.6	9	0.7
A	Middle East Respiratory Syndrome (MERS)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0.0	0	0.0
B	Mycobacterial disease other than tuberculosis (MOTT)	213	17.8	213	17.8	211	17.4	211	17.4	223	18.1	223	18.1	214	17.1	214	17.1
A	Severe acute respiratory syndrome (SARS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
A	Smallpox	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	<i>Staphylococcus aureus</i> , with resistance or intermediate resistance to vancomycin (VRSA, VISA)	0	0.0	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
B	Streptococcal disease, group A, invasive (IGAS)	41	3.4	41	3.4	57	4.7	57	4.7	36	3.0	36	3.0	47	3.8	47	3.8

Table continued on next page.

TABLE 10: OTHER REPORTABLE DISEASES AMONG FRANKLIN COUNTY RESIDENTS, 2012-2015, *continued*

OTHER REPORTABLE DISEASES																	
Year:		2012				2013				2014				2015			
Population:		1,195,537				1,212,263				1,231,393				1,251,722			
CLASS	DISEASE NAME	Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses		Confirmed & Probable		All Statuses	
		# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>	# of Cases	Case Rate <sup>†</sup>
B	Streptococcal disease, group B, in newborn*	8	0.4	8	0.4	5	0.3	5	0.3	8	0.4	8	0.4	17	0.9	17	0.9
B	Streptococcal toxic shock syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2	2	0.2	3	0.2	3	0.2
B	<i>Streptococcus pneumoniae</i> , invasive disease (ISP)	152	12.7	152	12.7	126	10.4	126	10.4	96	7.8	96	7.8	105	8.4	106	8.5
B	Toxic shock syndrome	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
B	Tuberculosis (TB), including multi-drug resistant TB (MDR-TB)	42	3.6	42	3.6	50	4.2	50	4.2	49	4.0	49	4.0	40	3.2	40	3.2

<sup>†</sup> Rate per 100,000 population for all diseases except "streptococcal disease, group B, in newborn," which is per 1,000 live births.<sup>2</sup>

N/A = not a reportable condition

**Additional Table Notes:**

Disease categories are not mutually exclusive (e.g., hepatitis A could be categorized as both "hepatitis" and "enteric disease"). For simplicity, each disease is listed in only one table.

For additional information about these disease counts and rates, please see Technical Notes.

For more information about a particular disease, please visit [www.idrsinfo.org](http://www.idrsinfo.org).

# DEATHS ASSOCIATED WITH DISEASE

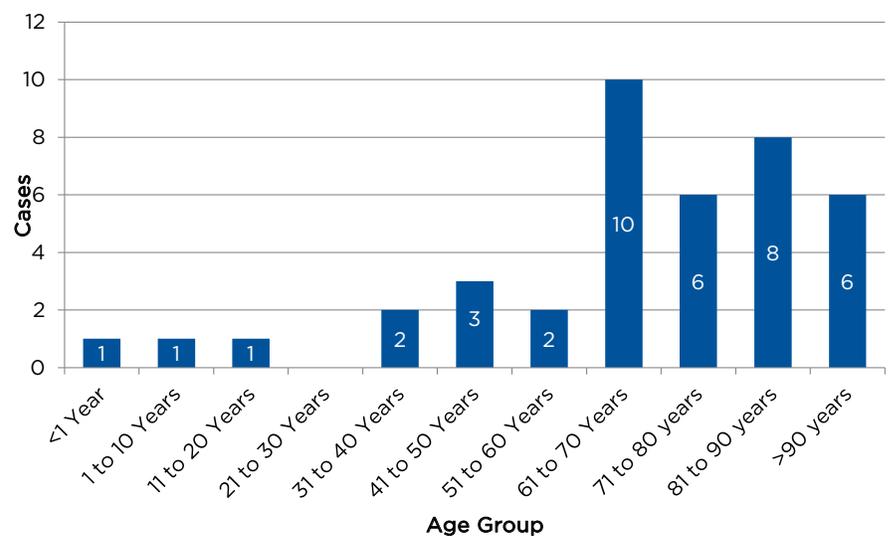
In 2015, 40 deaths occurred among confirmed and probable cases of reportable disease in Franklin County. Influenza-associated hospitalization was associated with the most deaths (n=16), followed by Legionnaires' disease (n=6) and invasive group A streptococcal disease (n=6). The greatest number of deaths occurred among individuals aged 61-70 years. Two deaths occurred among children under 18 years old, including one death in a child under one year of age.

Death data were obtained from the Ohio Disease Reporting System (ODRS) and are subject to several limitations. Deaths that are identified during case or outbreak investigation are entered in ODRS, but cases are not followed to determine if death occurred after the investigation ended. Therefore, the number of deaths reported in Table 11 may underestimate the true number of deaths that occurred among reportable disease cases. Furthermore, investigators do not determine whether a reportable disease contributed to an individual's death. It is not possible to determine the true cause(s) of death without additional information from death or medical records.

TABLE 11: NUMBER OF DEATHS AMONG CONFIRMED AND PROBABLE CASES OF REPORTABLE DISEASE, EXCLUDING SEXUALLY TRANSMITTED DISEASES, FRANKLIN COUNTY, 2015

DISEASE	TOTAL
<i>Haemophilus influenzae</i> , invasive disease	4
Hepatitis B, chronic	1
Influenza-associated hospitalization	16
Legionnaires' disease	6
Mycobacterial disease other than tuberculosis (MOTT)	1
Streptococcal disease, group A, invasive (IGAS)	6
Streptococcal disease, group B, in newborn	1
<i>Streptococcus pneumoniae</i> , invasive disease (ISP)	5
<b>Total</b>	<b>40</b>

AGE DISTRIBUTION OF DEATHS AMONG CONFIRMED AND PROBABLE CASES OF REPORTABLE DISEASE, 2015 (N=40)



# OUTBREAKS IN FRANKLIN COUNTY

TABLE 12: NUMBER OF CONFIRMED AND PROBABLE OUTBREAKS REPORTED BY YEAR, FRANKLIN COUNTY, 2012-2015

OUTBREAK TYPE	2012		2013		2014		2015	
	CONFIRMED	PROBABLE	CONFIRMED	PROBABLE	CONFIRMED	PROBABLE	CONFIRMED	PROBABLE
Community	12	5	11	0	17	7	7	6
Foodborne	7	8	8	2	6	4	2	2
Healthcare-Associated	6	1	3	3	10	3	24	1
Institutional	43	21	33	12	34	15	39	18
Unspecified (Class A)	1	0	0	0	0	0	1	0
Unusual Incidence	0	0	0	1	1	0	0	0
Waterborne	0	0	6	1	3	1	1	1
Zoonotic	0	0	1	0	0	1	1	1
<b>Total</b>	<b>69</b>	<b>35</b>	<b>62</b>	<b>19</b>	<b>71</b>	<b>31</b>	<b>75</b>	<b>29</b>

“Year” is the year that the outbreak record was created in the Ohio Disease Reporting System (ODRS).

## OUTBREAK DEFINITIONS<sup>3</sup>

*Outbreaks are Class C reportable conditions unless otherwise specified.*

**Community:** Two or more cases of similar illness with a common exposure in the community and not considered a foodborne, waterborne, zoonotic, healthcare-associated or institutional disease outbreak.

**Foodborne:** Two or more cases of similar illness resulting from the ingestion of a common food.

**Healthcare-Associated:** 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 or receiving healthcare-associated products or procedures. 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.

**Institutional:** 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.

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

**Unusual Incidence:** Two or more cases of infectious disease that can be connected by person, place and time, and do not meet the criteria for another type of outbreak.

**Waterborne:** Waterborne disease outbreaks are divided into two categories, depending on the type of water implicated in the outbreak. Outbreaks associated with drinking water, water not intended for drinking (excluding recreational water), or water of unknown intent must meet two criteria: 1) two or more persons are epidemiologically linked by location of water exposure, time and illness, and 2) epidemiologic evidence implicates water as the probable source of illness. Outbreaks associated with recreational water must meet two criteria: 1) two or more persons are epidemiologically linked by location of recreational water exposure, time and illness, and 2) epidemiologic evidence implicates water or volatilization of water-associated compounds into the air surrounding an aquatic facility as the probable source of illness.

**Zoonotic:** Two or more cases of similar illness with exposure to the same animal or the same or similar species of animals and with epidemiologic evidence implicating animals as the probable source of illness.

# CRYPTOSPORIDIOSIS

CRYPTOSPORIDIOSIS		2015
Number of Cases		107
Franklin County Rate (per 100,000 pop.)		8.5
Ages of Cases (in yrs.)	Mean	20
	Median	15
	Range	1-66
Female Rate (per 100,000 pop.)		8.4
Male Rate (per 100,000 pop.)		8.7

## FACTS:

- From 2012 to 2015, the number of cases and the rate of cryptosporidiosis increased in Franklin County.
- The number of cryptosporidiosis cases nearly tripled between 2014 and 2015. In 2014, there were 37 cases, and in 2015 there were 107 cases.
- The increase in Franklin County for the 2015 year could be attributed in part to an outbreak of cryptosporidiosis at a Central Ohio water park in mid-August.

## EPIDEMIOLOGY:

**Infectious agents:** *Cryptosporidium* species (including *C. hominis* and *C. parvum*), a unicellular protozoan parasite

**Case Definition:** A gastrointestinal illness characterized by one or more of the following symptoms: diarrhea duration of 72 hours or more, abdominal cramping, vomiting or anorexia.

**Mode of Transmission:** Fecal-oral route, including person-to-person, animal-to-person, waterborne and foodborne transmission

**Incubation Period:** 1-12 days, with an average of one week

**Symptoms:** The most common symptom is watery diarrhea, but symptoms can also include stomach cramps and pain, dehydration, nausea, vomiting, fever and weight loss. Immunosuppressed individuals may have more severe symptoms. *Cryptosporidium* may also affect the respiratory tract and other areas of the digestive tract besides the small intestine. Some cases may remain asymptomatic.

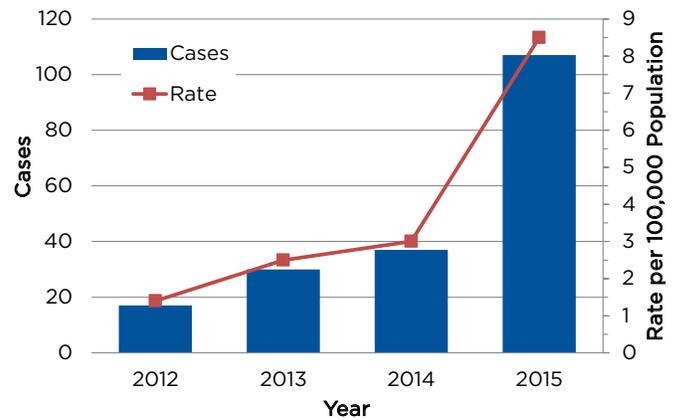
**Treatment:** Nitazoxanide is the FDA-approved treatment of diarrhea caused by this disease. Anti-diarrheal medicine may also be used to slow diarrhea. Many persons will recover without treatment and can manage diarrhea by drinking plenty of fluids to prevent dehydration.

**Prevention:** Person-to-person and animal-to-person transmission can be prevented through personal hygiene practices, particularly by thoroughly washing hands with soap and warm water before handling food and after using the bathroom, changing diapers, handling animals or working in soil. Foodborne transmission can be prevented by thoroughly washing and cooking food and by avoiding consumption of unpasteurized milk, dairy products, juice and cider. Waterborne transmission may be prevented by not drinking or swallowing water directly from rivers, lakes, streams, oceans, swimming pools and other recreational water sources. Water that may be contaminated with *Cryptosporidium* should be heated to a rolling boil for one minute before consumption. Persons with diarrhea should not swim until two weeks after diarrhea ceases.

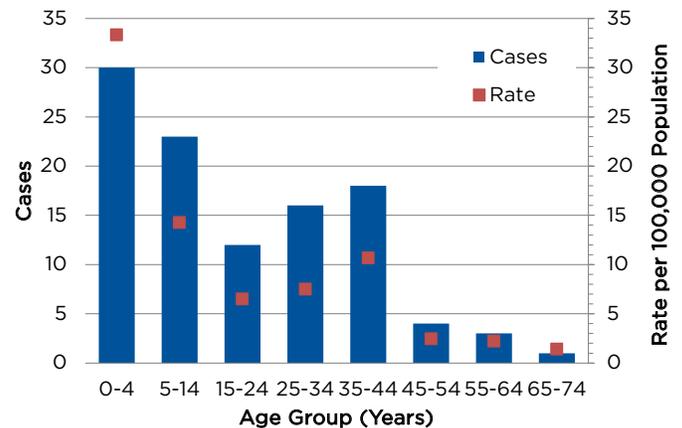
For more information, visit [www.idrsinfo.org](http://www.idrsinfo.org).

*Cases and rates include all statuses (confirmed, probable, and suspected)*

CRYPTOSPORIDIOSIS CASES AND RATES, FRANKLIN COUNTY 2012-2015



CRYPTOSPORIDIOSIS CASES AND RATES BY AGE, FRANKLIN COUNTY 2015



# SYPHILIS

SYPHILIS		2015
Number of Cases*		365
Franklin County Rate (per 100,000 pop.)		30.5
Ages of Cases (in yrs.)	Mean	37
	Median	34
	Range	16-68
Female Rate (per 100,000 pop.)		7.0
Male Rate (per 100,000 pop.)		55.2

## EPIDEMIOLOGY:

**Infectious agents:** *Treponema pallidum*, a spirochete-type bacterium

**Case Definition:** Syphilis is a complex sexually transmitted disease with a highly variable clinical course. Case definitions by stage of disease are available in Section 3 of the Ohio Infectious Disease Control Manual.<sup>3</sup>

**Mode of Transmission:** Via direct contact with a syphilitic chancre (sore) during vaginal, anal or oral sex, or from an infected pregnant woman to her baby during pregnancy or birth

**Incubation Period:** 10-90 days (average of 21 days) until appearance of the first chancre. Progression to severe disease may occur over weeks, months or years.

**Symptoms:** Symptoms vary by stage of disease. *Primary:* appearance of a chancre (often firm, round and painless) at the location where the organism entered the body. *Secondary:* appearance of skin rashes and/or mucous membrane lesions, plus fever, swollen lymph nodes, sore throat, patchy hair loss, headaches, weight loss, muscles aches and/or fatigue. *Latent:* no symptoms, can last for years. *Late:* lack of muscle coordination, paralysis, numbness, gradual blindness, dementia and possibly death. At any stage of infection, the organism can invade the nervous system (neurosyphilis), causing a wide range of neurological or ocular symptoms. Congenital syphilis (CS) occurs when a baby is infected prior to birth and can cause serious health problems and outcomes such as miscarriage, stillbirth or infant death.

**Treatment:** Consult the most recent CDC-published STD treatment guidelines at <http://www.cdc.gov/std/treatment>.

**Prevention:** The surest way to prevent syphilis is by abstaining from sex or being in a long-term mutually monogamous relationship with a partner who has been tested and is known to be uninfected. Correct and consistent use of latex condoms can reduce the risk of transmission; however, syphilis can be transmitted through sores that are not covered by a condom. Persons at risk for syphilis should be tested by a health care provider.

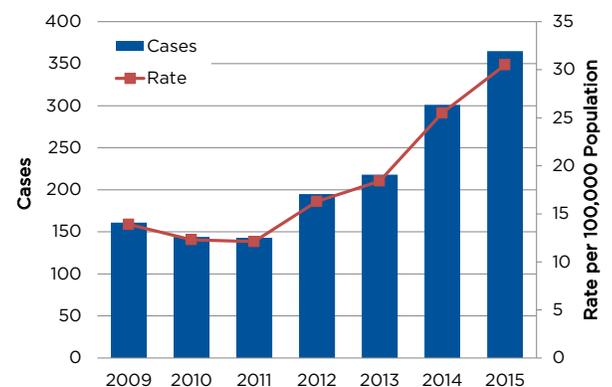
For more information, visit [www.idrsinfo.org](http://www.idrsinfo.org)

\*Case counts and rates are for early syphilis, which includes primary, secondary and early latent syphilis diagnoses. Data are current as of March 1, 2016.

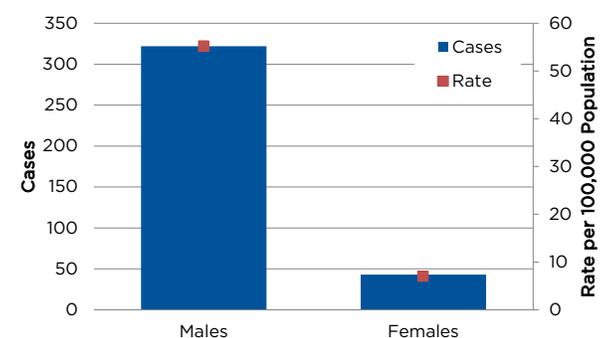
## FACTS:

- The number of syphilis cases increased between 2014 and 2015. In 2015, there were 365 cases of early syphilis disease in Franklin County compared to 301 cases in 2014.
- Over the past few years, cases of early syphilis have been on the increase in Franklin County, especially in 2014 and 2015 (195 cases in 2012, 218 cases in 2013, 301 cases in 2014 and 365 cases in 2015). An early syphilis outbreak was declared in 2014 and is currently ongoing in Franklin County. More information on this outbreak is available at <https://www.columbus.gov/publichealth/programs/Office-of-Epidemiology/Sexually-Transmitted-Infections/> The vast majority of cases in 2015 occurred among males (88%). Nearly 70% of males diagnosed with early syphilis reported being a man who has sex with men (MSM).
- Seven cases of congenital syphilis occurred in Franklin County in 2015.

## EARLY SYPHILIS CASES AND RATES, FRANKLIN COUNTY, 2009-2015



## EARLY SYPHILIS CASES AND RATES BY SEX, FRANKLIN COUNTY 2015



# TUBERCULOSIS (TB)

TUBERCULOSIS		2015
Number of Cases		40
Franklin County Rate (per 100,000 pop.)		3.2
Ages of Cases (in yrs.)	Mean	37
	Median	32
	Range	2-75
Rates by Country of Birth (per 100,000 pop.)		
U.S.-Born		0.3
Foreign-Born		30.4

## EPIDEMIOLOGY:

**Infectious agents:** *Mycobacterium tuberculosis* complex, which includes *M. tuberculosis*, *M. bovis*, *M. bovis BCG*, *M. africanum*, *M. microti*, *M. canetti*, and *M. pinnipedii*.

**Case Definition:** All suspected cases of active TB disease should be reported to public health, including 1) persons with signs or symptoms that are sufficient for the physician to suspect TB prior to completion of diagnostic studies and 2) persons with or without a positive tuberculin skin test or blood assay who meet any of the following criteria: a) specimen positive for acid-fast bacilli (AFB) on smear, b) has been prescribed  $\geq 2$  anti-tuberculosis medications for the treatment of active TB, c) has a radiologic finding consistent with active TB or d) has clinical symptoms or findings consistent with active TB. A case is counted as confirmed when it meets the clinical case definition or is laboratory-confirmed.

**Mode of Transmission:** Airborne, person-to-person

**Incubation Period:** In general, a person develops a measurable immune response 2-10 weeks after infection. Risk of active disease is greatest during the first 1-2 years after infection, but infection can remain latent for many years before causing disease.

**Symptoms:** TB bacteria can cause disease in any organ, and symptoms vary by site of disease. TB in the lungs may cause cough lasting  $\geq 3$  weeks, chest pain and coughing up blood or sputum. Other symptoms of TB disease include weakness, fatigue, weight loss, chills, loss of appetite, fever and night sweats.

**Treatment:** TB disease typically requires 6-12 months of treatment with  $\geq 3$  anti-TB drugs. Latent infection requires 3-9 months of treatment with  $\geq 1$  anti-TB drug.

**Prevention:** TB prevention includes identification and treatment of individuals with latent and active TB, isolation of infectious individuals and infection prevention measures in health care settings.

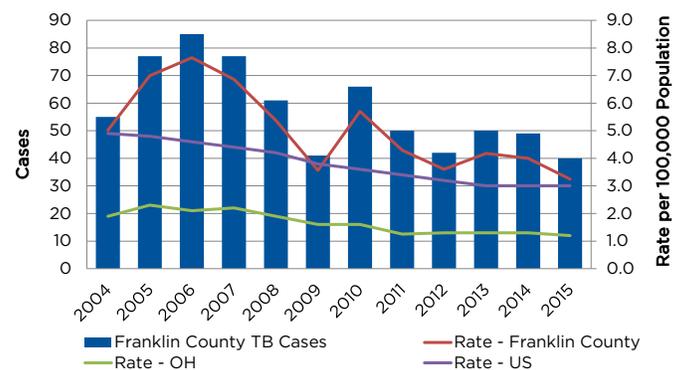
For more information, visit [www.idrsinfo.org](http://www.idrsinfo.org).

Case counts and rates include confirmed cases only.

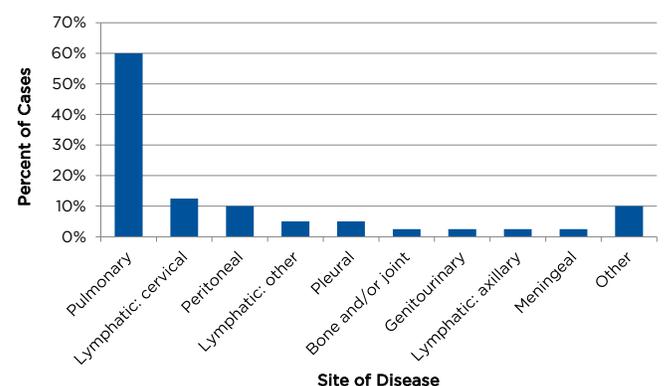
## FACTS:

- In 2015, the rate and number of cases of tuberculosis in Franklin County reached their lowest values since 1997. However, Franklin County continues to have the highest burden of TB among all Ohio counties and a higher rate of TB than Ohio overall (1.2 cases per 100,000) and the United States overall (3.0 cases per 100,000).
- In 2015, the proportion of Franklin County TB cases who are foreign-born reached an all-time high (93%). The rate of TB among the foreign-born population was over 100 times greater than the rate among the US-born population in Franklin County.
- Among TB cases with known HIV status in Franklin County, 11% were HIV-positive. People with HIV infection are more likely to develop TB disease.<sup>4</sup>

## TB CASES AND RATES IN FRANKLIN COUNTY, OHIO, AND THE US, 2004-2015



## SITES OF TB DISEASE, FRANKLIN COUNTY, 2015



Site categories are not mutually exclusive, as some cases had more than one site of disease

FEATURED OUTBREAK INVESTIGATION:

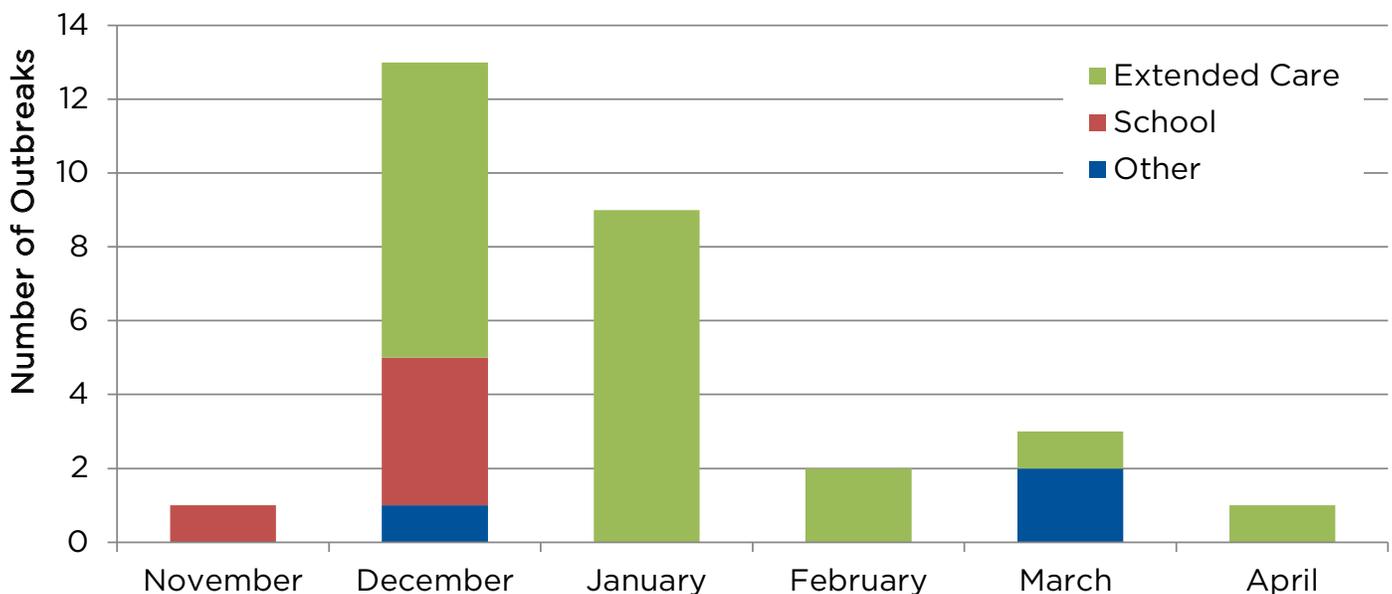
# INFLUENZA IN COLUMBUS AND WORTHINGTON, OHIO

From November 2014 through April 2015, Columbus Public Health (CPH) investigated 29 influenza outbreaks involving 391 confirmed, probable and suspected cases. Twenty-one outbreaks (72%) were identified in extended care facilities, five outbreaks (17%) were identified in schools, and three outbreaks (10%) were identified in other facilities. The highest number of influenza outbreaks occurred in December 2014 (13 outbreaks) and January 2015 (9 outbreaks). Twenty-five influenza outbreaks were caused by influenza A virus and four were identified as influenza B virus. All of the influenza A outbreaks occurred between November 2014 and February 2015 and all of the influenza B outbreaks occurred in March and April 2015. All of the school outbreaks occurred in November and December 2014. Of the 391 outbreak-associated influenza cases, 69 (18%) were hospitalized and 12 (3%) died.

Influenza (flu) is a contagious respiratory illness caused by influenza viruses. Illness can be mild or severe and is typically characterized by fever, cough, sore throat, runny or stuffy nose, muscle or body aches and fatigue. Populations such as young children, pregnant women, the elderly and people with certain health conditions are at high risk for serious complications of influenza. The Advisory Committee on Immunization Practices (ACIP) recommends yearly influenza vaccination for persons 6 months of age and older. While vaccine effectiveness varies from season to season, getting vaccinated is the best way to protect against influenza. Nationally during the 2014-2015 influenza season, most circulating influenza A (H3N2) viruses were different from the H3N2 virus strain included in the seasonal vaccine, contributing to lower vaccine effectiveness during the 2014-2015 season.<sup>5</sup>

Public health interventions undertaken to address the influenza outbreaks included education of facility staff about prevention of influenza cases through active surveillance, exclusion of staff with influenza-like illness, isolation of individuals with influenza-like illness and vaccination.

## NUMBER OF INFLUENZA OUTBREAKS\* BY MONTH AND FACILITY TYPE COLUMBUS AND WORTHINGTON, OHIO, NOVEMBER 2014-APRIL 2015



\*Includes confirmed, probable and suspected outbreaks. See Technical Notes for case and outbreak definitions.

FEATURED OUTBREAK INVESTIGATION:

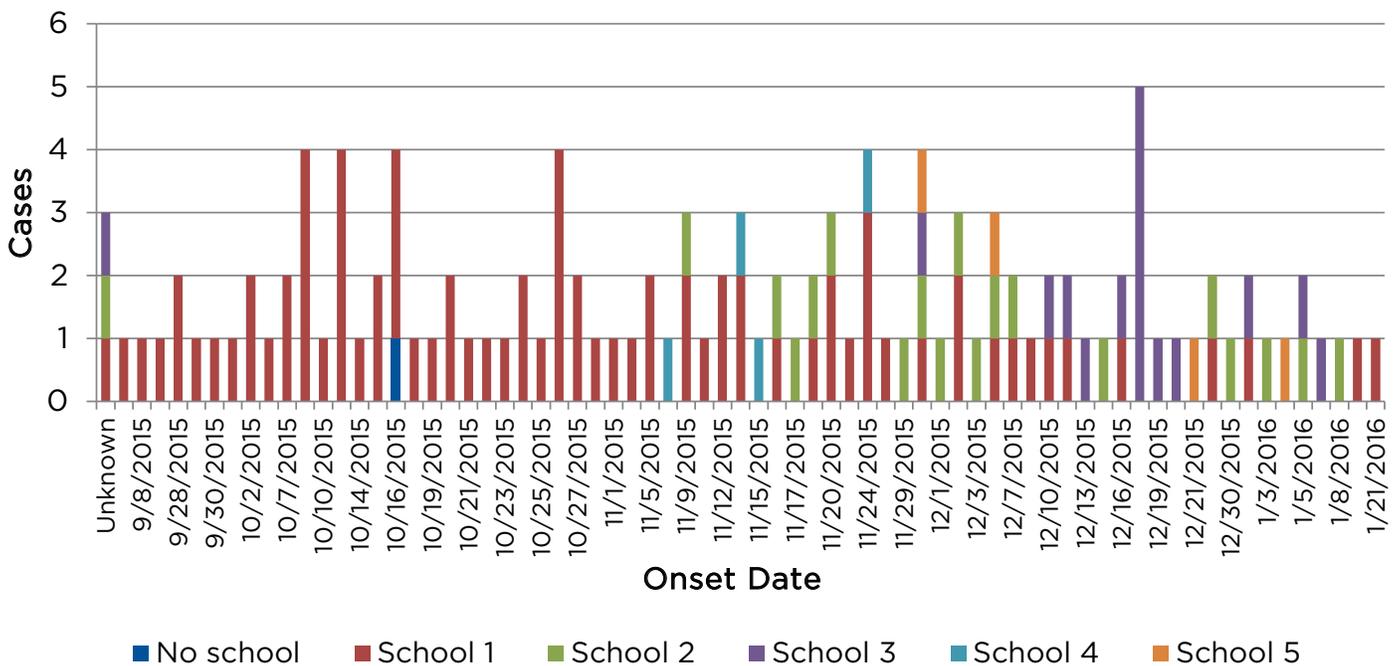
# PERTUSSIS IN A SCHOOL SYSTEM

Franklin County Public Health (FCPH) detected an outbreak of pertussis at a high school when several cases of pertussis were reported to FCPH between September 23 and October 8, 2015. A pertussis outbreak was declared on October 8, 2015. The outbreak spread into four other schools in the district. Several public health interventions were implemented to control the spread of disease, including isolation of cases, educational campaigns and guidance for local physicians, and recommendations for prophylactic treatment of close contacts in smaller clusters.

A total of 123 confirmed, probable and suspected pertussis cases were linked to this outbreak. Eighty nine (72%) were residents of Fairfield County and 34 (28%) were residents of Franklin County and Columbus jurisdictions. Cases ranged in age from 9 to 49 years old, with a mean age of 15 years and a median age of 16 years. Overall, 57% of cases were female, and 45% of cases reported participation in an extracurricular activity. Just over 74% of all cases reported receiving Tdap, the last dose of pertussis-containing vaccine in the series, prior to becoming infected. No cases reported complications from the illness. This was a confirmed outbreak of pertussis within five schools in one school district.

Pertussis, or “whooping cough,” is a contagious bacterial illness that spreads from person to person via respiratory droplets (e.g., coughs, sneezes). Symptoms usually appear 7-10 days after exposure. The illness can start with cold-like symptoms including a cough. Within 1-2 weeks an ill person may develop a more severe cough or have fits of numerous rapid coughs, which may be followed by a high-pitched “whoop.” Pertussis can cause severe illness and complications in young infants. A person infected with pertussis should receive an appropriate antibiotic to reduce their ability to spread the illness and should stay home from work, school and public areas for five days while being treated. Vaccines to help prevent pertussis are available for children and adults. An increase in pertussis outbreaks has occurred across the U.S. in the past few years. According to the Centers for Disease Control and Prevention (CDC), 2012 was the last peak year of reported cases of pertussis, including 20 pertussis-related deaths. The number of cases in 2012 was the highest reported since 1955. More information about pertussis is available at <http://www.cdc.gov/pertussis/index.html>.

## PERTUSSIS CASES BY ONSET DATE, SEPTEMBER 1, 2015-JANUARY 21, 2016



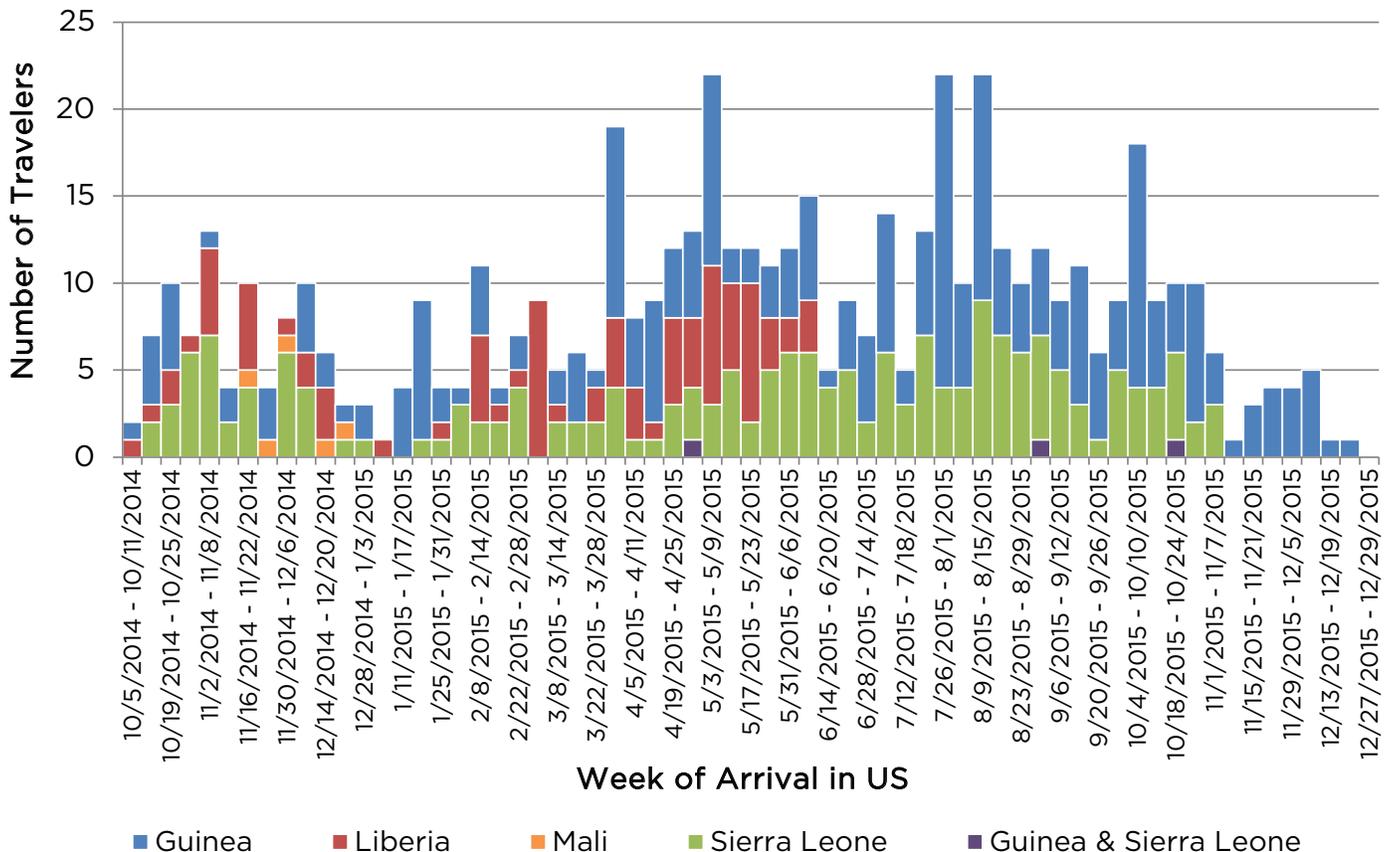
SPECIAL HIGHLIGHT:

# MONITORING TRAVELERS FROM EBOLA-AFFECTED COUNTRIES

In 2014, a large outbreak of Ebola virus disease (EVD) began in Liberia, Sierra Leone and Guinea. In October 2014, the Centers for Disease Control and Prevention (CDC) started a screening program called Check and Report Ebola (CARE) for all travelers arriving to the United States from Ebola-affected countries. On October 9, 2014, health departments in Ohio began monitoring travelers from Ebola-affected countries for potential signs and symptoms of EVD. This “active monitoring” required travelers to report their temperature and symptoms by phone twice a day for 21 days (the maximum incubation period of EVD) after arrival in the U.S. On October 31, 2014, health departments in Ohio began “direct active monitoring.” The Ohio guidelines for direct active monitoring required travelers to report their temperature and symptoms twice a day—once in person, and once by phone—for a total of 21 days after arrival in the U.S. Health departments continued to directly monitor incoming travelers from Ebola-affected countries until the countries were declared free from Ebola virus transmission. Guinea, the last country to receive this declaration, was declared Ebola-free on December 29, 2015.

A total of 549 travelers from Ebola-affected countries were monitored by Columbus Public Health and Franklin County Public Health during October 2014–March 2016. Of those travelers, 290 (53%) were male, and 259 (47%) were female. Travelers ranged in age from 5 months to 81 years, with an average age of 36 years. Most travelers were returning from Guinea (49%), followed by Sierra Leone (35%), Liberia (16%) and Mali (1%). Thirteen travelers (3%) were hospitalized for signs and symptoms possibly related to Ebola, but upon further evaluation, no travelers were found to have Ebola virus disease.

MONITORED TRAVELERS FROM EBOLA-AFFECTED COUNTRIES, BY COUNTRY & WEEK OF ARRIVAL IN U.S., 2014-2015, COLUMBUS PUBLIC HEALTH & FRANKLIN COUNTY PUBLIC HEALTH, N=549



# TIMELINESS OF DISEASE REPORTING

Timeliness of disease reporting is a key part of good public health practice.<sup>6</sup> In order to reduce the burden of disease in our community and to implement appropriate interventions, the public health system relies on health care 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 System (ODRS) application, it is possible to query the date when a health care provider diagnosed an illness and the date when the local health department received notification of the illness (i.e., the date the case was entered into ODRS).

Table 13 lists selected diseases and the corresponding median and mean number of days between health care provider diagnosis and reporting to the local health department. Only confirmed and probable cases were included in this analysis. As of 2015, Shiga toxin-producing *E. coli*, hepatitis A, listeriosis, mumps, pertussis and salmonellosis are Class B reportable conditions, which are required to be reported by the end of the next business day after a suspected case is identified. Measles, meningococcal disease and rubella are Class A reportable conditions due to their severity and potential for epidemic spread. Class A reportable conditions are required to be reported immediately via telephone upon recognition of a case, suspected case or positive laboratory result.

**TABLE 13: REPORTING LAG TIME\* FOR CONFIRMED AND PROBABLE CASES OF SELECTED REPORTABLE DISEASES, FRANKLIN COUNTY, 2015**

REPORTABLE CONDITION	REPORTING REQUIREMENT	2015			
		# OF CASES	MEDIAN (DAYS)	MEAN (DAYS)	% OF CASES MISSING DIAGNOSIS DATE
<i>E. coli</i> O157:H7 and Shiga toxin-producing <i>E. coli</i> (STEC)	By end of next business day	51	2.0	3.0	60.8%
Hepatitis A	By end of next business day	6	0.0	1.3	0.0%
Listeriosis	By end of next business day	2	1.0	1.0	50.0%
Measles	Immediately	1	0.0	0.0	0.0%
Meningococcal disease	Immediately	4	0.0	0.0	0.0%
Mumps	By end of next business day	6	2.0	2.0	16.7%
Pertussis	By end of next business day	230	1.0	2.2	6.5%
Rubella	Immediately	0	N/A	N/A	N/A
Salmonellosis	By end of next business day	150	2.0	2.9	58.0%

\*Reporting lag time = Difference between the date a case was reported to the local health department and the case's diagnosis date\*\*

\*\*"Diagnosis Date" in ODRS defaulted to the following date fields (in order) if blank: lab specimen collection date, lab result date, onset date, date reported to Ohio Department of Health, created date. If a diagnosis date occurred after the date reported to the local health department, then the diagnosis date defaulted to the next proxy.

Reporting lag is defined as the difference between the diagnosis date and the date that the case was reported to the local health department. For Class A diseases (immediately reportable), median and mean lag time values should be less than 1. In 2015, mean and median lag time were equal to zero for measles and meningococcal disease, thus meeting the goal. Lag time could not be calculated for rubella because no cases were reported in Franklin County in 2015. For Class B diseases (reportable by end of next business day), mean and median lag time values should be less than 2. The median lag time goal was met for hepatitis A, listeriosis and pertussis. The median values for *E. coli* O157:H7 and Shiga toxin-producing *E. coli* (2.0

*Timeliness of Disease Reporting continued on next page.*

## TIMELINESS OF DISEASE REPORTS, continued

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business days), mumps (2.0 business days) and salmonellosis (2.0 business days) did not meet the goal. The mean lag time goal was met for hepatitis A and listeriosis. The mean lag times for *E. coli* O157:H7 and Shiga toxin-producing *E. coli* (3.0 business days), mumps (2.0 business days), pertussis (2.2 business days) and salmonellosis (2.9 business days) did not meet the goal.

If the diagnosis date field was empty, a proxy date was used according to the order listed in the notes for Table 13. For the conditions listed in Table 13, a proxy date was needed for 30% of confirmed and probable cases in 2015. The need for a proxy varied substantially by disease, with *E. coli* and salmonellosis having the greatest proportion of cases missing diagnosis date (60.8% and 58.0%, respectively). Continued efforts are needed to identify and enter diagnosis date for these diseases in ODRS.

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

# TECHNICAL NOTES

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Ohio Administrative Code 3701-3-02, 3701-3-05 and 3701-3-12 require that communicable diseases be reported to local health departments.

## TABLES OF DISEASE COUNTS AND RATES

### Data:

Hepatitis B and C conditions . . . . . Data are current as of June 12, 2016  
Chlamydia, gonorrhea and syphilis . . . . . Data are current as of March 9, 2016  
HIV/AIDS data from the Ohio Department of Health. . . . . Data are current as of July 7, 2016  
All other reportable conditions . . . . . Data are current as of April 4, 2016

### Notes:

**“All Statuses”** includes confirmed, probable and suspected cases.

**“Year”** refers to: the case event date in the Ohio Disease Reporting System (ODRS) for sexually transmitted infections; the date the case was counted for hepatitis B (excluding perinatal), hepatitis C and tuberculosis; and the date the case record was created in ODRS for all other conditions.

**“Event Date”** is calculated automatically in ODRS. For sexually transmitted infections, event date is the earliest specimen collection date. If specimen collection date is blank, event date is the earliest of the following dates: illness onset date, diagnosis date, date reported to the local health department or date reported to the Ohio Department of Health.

**HIV/AIDS:** Counts of newly diagnosed HIV/AIDS cases were obtained from Ohio Department of Health HIV Infections Annual Surveillance Statistics. Diagnoses of HIV infection include persons with a diagnosis of HIV infection (not AIDS), a diagnosis of HIV infection and a later AIDS diagnosis, and concurrent diagnoses of HIV infection and AIDS.

## CASE AND OUTBREAK CLASSIFICATIONS

Case definitions for nationally notifiable diseases are determined by the Council of State and Territorial Epidemiologists (CSTE) in conjunction with the CDC. Definitions are published in the Morbidity and Mortality Weekly Report and posted to CDC’s National Notifiable Diseases Surveillance System (NNDSS) website.<sup>7</sup> In Ohio, case and outbreak definitions can be found in Section 3 of the Infectious Disease Control Manual.<sup>3</sup>

**Influenza case and outbreak definitions** employed in the Featured Outbreak Investigation: Influenza in Columbus and Worthington, Ohio, (page 14) are as follows:

Influenza Case Definition:

Laboratory Criteria for Diagnosis:

- Influenza virus isolation in tissue cell culture from respiratory specimens
- Positive reverse-transcriptase polymerase chain reaction (RT-PCR) test of respiratory specimens
- Direct or indirect immunofluorescent antibody staining of respiratory specimens
- Commercial rapid influenza diagnostic testing of respiratory specimens
- Immunohistochemical staining for influenza viral antigens in respiratory tract tissue from autopsy specimens
- Four-fold rise in influenza hemagglutination inhibition antibody titer in paired acute and convalescent sera

Confirmed: Fever  $\geq 100.0$  °F or 37.8 °C and either cough or sore throat, with laboratory confirmation of influenza virus

*Technical Notes continued on next page.*

Probable: Fever  $\geq 100.0$  °F or 37.8 °C and either cough or sore throat, in the absence of laboratory confirmation or a more likely diagnosis, and with epidemiologic linkage to a laboratory-confirmed case of influenza

Suspected: Cough or sore throat, in the absence of laboratory confirmation or a more likely diagnosis, and with epidemiologic linkage to a laboratory-confirmed case or a probable case of influenza

Influenza Outbreak Definition:

Confirmed: Two or more laboratory-confirmed influenza cases with illness onsets occurring within 72 hours of each other

Probable (not counted by the Ohio Department of Health): Two or more probable influenza cases with illness onsets occurring within 72 hours of each other; or one or more suspected influenza cases with illness onsets occurring within 72 hours of one or more laboratory-confirmed influenza cases

Suspected: Two or more suspected influenza cases with illness onsets occurring within 72 hours of each other

## REPORTABLE DISEASE CLASS DEFINITIONS<sup>3</sup>

Reportable diseases in Ohio are grouped by class. Class definitions 2015 were as follows:

**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:** 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.

*Prior to January 1, 2014, Class B conditions were divided into Class B (1), requiring report by the end of the next business day, and Class B (2), requiring report by the end of the work week.*

## REPORTABLE DISEASE CHANGES IN OHIO IN 2015

**Additions:** Middle East Respiratory Syndrome (MERS); chikungunya virus infection, under arboviral neuroinvasive and non-neuroinvasive diseases.

**Enumerations:** Viral hemorrhagic fevers (Ebola virus disease, Lassa fever, Marburg hemorrhagic fever and Crimean-Congo hemorrhagic fever).

In Table 5, “*Escherichia coli* O157:H7 and other Shiga toxin-producing *E. coli* (STEC)” combines the following categories from previous Annual Summaries: *E. coli* O157:H7; *E. coli*, unspecified; and *E. coli*, not O157.

## CASE DEFINITION CHANGES IN 2015 FOR NATIONALLY NOTIFIABLE DISEASES<sup>7</sup>

**Changes in 2015:** Arboviral neuroinvasive and non-neuroinvasive disease; campylobacter; dengue fever; *Haemophilus influenzae*, invasive disease; hantavirus; meningococcal disease.

## REPORTING SYSTEMS

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

*Technical Notes continued on next page.*

The Ohio Disease Reporting System (ODRS)<sup>8</sup> was developed as a web-based system to make disease reporting more timely and efficient for disease reporters (e.g., hospitals, laboratories and physicians) and to improve communication about infectious diseases between disease reporters, local health departments and ODH. Currently, ODH, local health departments and infection preventionists have the ability to enter and update case and laboratory reports in ODRS. The system uses patient address to determine the correct local health jurisdiction in which to electronically send the report for follow-up and investigation. In addition, some laboratories have the ability to electronically up-load batches of reports via Electronic Laboratory Reporting (ELR) from their databases into ODRS, minimizing paperwork and data re-entry. If a disease report is inadvertently assigned to an incorrect health jurisdiction, the health department receiving the report can re-direct it to the correct one. Updates to information can be made to the record in the database, and all fields in the ODH and CDC reporting forms are included in ODRS.

## JURISDICTION

Each case is reported based on the address of residence and each jurisdictional boundary is determined by tax district. Some Franklin County Public Health and Columbus Public Health jurisdictions have boundaries that expand into other counties such as Franklin, Delaware, Licking or Union counties. Cases represented in the tables may live in one of these neighboring counties. If a case lives in a different county but is served by Franklin County Public Health or Columbus Public Health, the case would not be represented in total population of Franklin County listed in the Demographic Profile on page 2. Listed below are jurisdictions that Franklin County Public Health or Columbus Public Health serve that may be located in part of another county:

- Canal Winchester (Fairfield)
- Columbus (Delaware, Fairfield)
- Dublin (Delaware, Union)
- Pickerington (Fairfield)
- Reynoldsburg (Fairfield, Licking)
- Westerville (Delaware)

# REFERENCES

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4. Centers for Disease Control and Prevention, Division of Tuberculosis Elimination. TB and HIV Coinfection. Last updated: 17 July 2012. Last accessed: 10 May 2016. <http://www.cdc.gov/tb/topic/basics/tbhivcoinfection.htm>.
5. Centers for Disease Control and Prevention. Update: Influenza Activity — United States, September 28, 2014–February 21, 2015. *Morbidity and Mortality Weekly Report*. 2015;64(08):206-212. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6408a2.htm>.
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7. Centers for Disease Control and Prevention, Division of Health Informatics and Surveillance. National Notifiable Diseases Surveillance System (NNDSS) – Search Results for All Conditions. Last accessed: 5 May 2016. <http://wwwn.cdc.gov/nndss/conditions/search/>.
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