OHIO DEPARTMENT OF HEALTH

ANNUAL SUMMARY OF INFECTIOUS DISEASES

OHIO

2016

REPORTED INCIDENCE OF SELECTED NOTIFIABLE DISEASES

PREPARED AND DISTRIBUTED BY:

BUREAU OF INFECTIOUS DISEASES

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INTRODUCTION

The *Annual Summary of Infectious Diseases, Ohio, 2016* provides an overview of the incidence of selected notifiable infectious diseases. The report includes tables of disease by year of onset, age group, sex, month of onset and county of residence and tables of Shiga toxin-producing *Escherichia coli* serogroups, invasive *Haemophilus influenzae* serotypes in children <5 years of age, meningococcal disease serogroups and *Salmonella* serotypes. In addition, there are graphs of selected disease incidence, profiles of selected diseases and outbreak summaries.

The sources of these data are individual case and laboratory reports submitted to the Ohio Department of Health (ODH) by infection preventionists, healthcare providers, laboratories and city, county and combined health districts throughout the state and entered into the Ohio Disease Reporting System (ODRS). Data reflect disease incidence for Ohio residents only, but include diseases acquired by Ohio residents while traveling out of state or overseas and diseases diagnosed in non-United States citizens while visiting Ohio.

This summary includes confirmed and probable cases. For all diseases, the case criteria used are those provided in:

- The ODH Infectious Disease Control Manual (IDCM)
- The Centers for Disease Control and Prevention (CDC) Division of Health Informatics and Surveillance's 2016 nationally notifiable infectious disease case definitions

HIV/AIDS, sexually transmitted diseases and tuberculosis surveillance data are not included in this report. Please refer to the ODH infectious disease statistics Web site for summary reports of these diseases as well as previous annual summaries.

Thanks to all Ohio infection preventionists, healthcare providers, laboratories and local health departments for their hard work and dedication to reporting infectious diseases in the most accurate, complete and timely manner. These efforts are essential in protecting and improving the health of all Ohioans.

Questions or comments regarding this annual summary may be directed to the ODH Bureau of Infectious Diseases at (614) 995-5599.

OHIO NOTIFIABLE DISEASES

Ohio Administrative Code (OAC) 3701-3, effective Sep. 16, 2016

A list of Ohio's notifiable diseases follows this introduction. While the effective date is shown as Sep. 16, 2016, the list is retroactive to Jan. 1, 2016. Zika virus infection was added as reportable diseases in 2016, and mycobacterial disease other than tuberculosis (MOTT) and typhus fever were removed as reportable conditions.

CLASS A

Diseases of major public health concern because of the severity of disease or potential for epidemic spread. Report immediately via telephone upon recognition that a case, a suspected case or a positive laboratory result exists.

- Anthrax
- Botulism, foodborne
- Cholera
- Diphtheria
- Influenza A, novel virus
- Measles
- Meningococcal disease
- Middle East respiratory syndrome
- Plague
- Rabies, human
- Rubella, not congenital
- Severe acute respiratory syndrome
- Smallpox
- Tularemia
- Viral hemorrhagic fever
  - Ebola virus disease
  - Lassa fever
  - Marburg hemorrhagic fever
  - Crimean-Congo hemorrhagic fever
- Yellow fever
- 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.

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.

- Amebiasis
- Arboviral neuroinvasive and non-neuroinvasive disease:
  - Chikungunya virus infection
  - Eastern equine encephalitis virus disease
  - La Crosse virus disease
  - Powassan virus disease
  - St. Louis encephalitis virus disease
  - West Nile virus infection
  - Western equine encephalitis virus disease
  - Zika virus infection
  - Other arthropod-borne disease
- Babesiosis
- Botulism, infant
- Botulism, wound
- Brucellosis
- Campylobacteriosis
- Chancroid
- *Chlamydia trachomatis* infection
- Coccidioidomycosis
- Creutzfeldt-Jakob disease
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- *Escherichia coli*, Shiga toxin-producing
- Ehrlichiosis/Anaplasmosis
- Giardiasis
- Gonorrhea
- *Haemophilus influenzae*, invasive disease

OHIO NOTIFIABLE DISEASES

Ohio Administrative Code (OAC) 3701-3, effective Sep. 16, 2016

CLASS B, CONTINUED

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.

- Hantavirus
- Hemolytic uremic syndrome
- Hepatitis A
- Hepatitis B, non-perinatal
- Hepatitis B, perinatal
- Hepatitis C
- Hepatitis D
- Hepatitis E
- Influenza-associated hospitalization
- Influenza-associated pediatric mortality
- Legionellosis
- Leprosy (Hansen disease)
- Leptospirosis
- Listeriosis
- Lyme disease
- Malaria
- Meningitis, aseptic
- Meningitis, other bacterial
- Mumps
- Pertussis
- Poliomyelitis
- Psittacosis
- Q fever
- Rubella, congenital
- Salmonellosis
- Shigellosis
- Spotted fever rickettsiosis
- *Staphylococcus aureus*, vancomycin resistant or intermediate resistant
- Streptococcal disease, group A, invasive
- Streptococcal disease, group B, in newborn
- Streptococcal toxic shock syndrome
- *Streptococcus pneumoniae*, invasive disease
- Syphilis
- Tetanus
- Toxic shock syndrome
- Trichinellosis
- Tuberculosis
- Typhoid fever
- Varicella
- Vibriosis
- Yersiniosis

CLASS C

Report an outbreak, unusual incidence or epidemic (e.g., histoplasmosis, pediculosis, scabies, staphylococcal infections) by the end of the next business day.

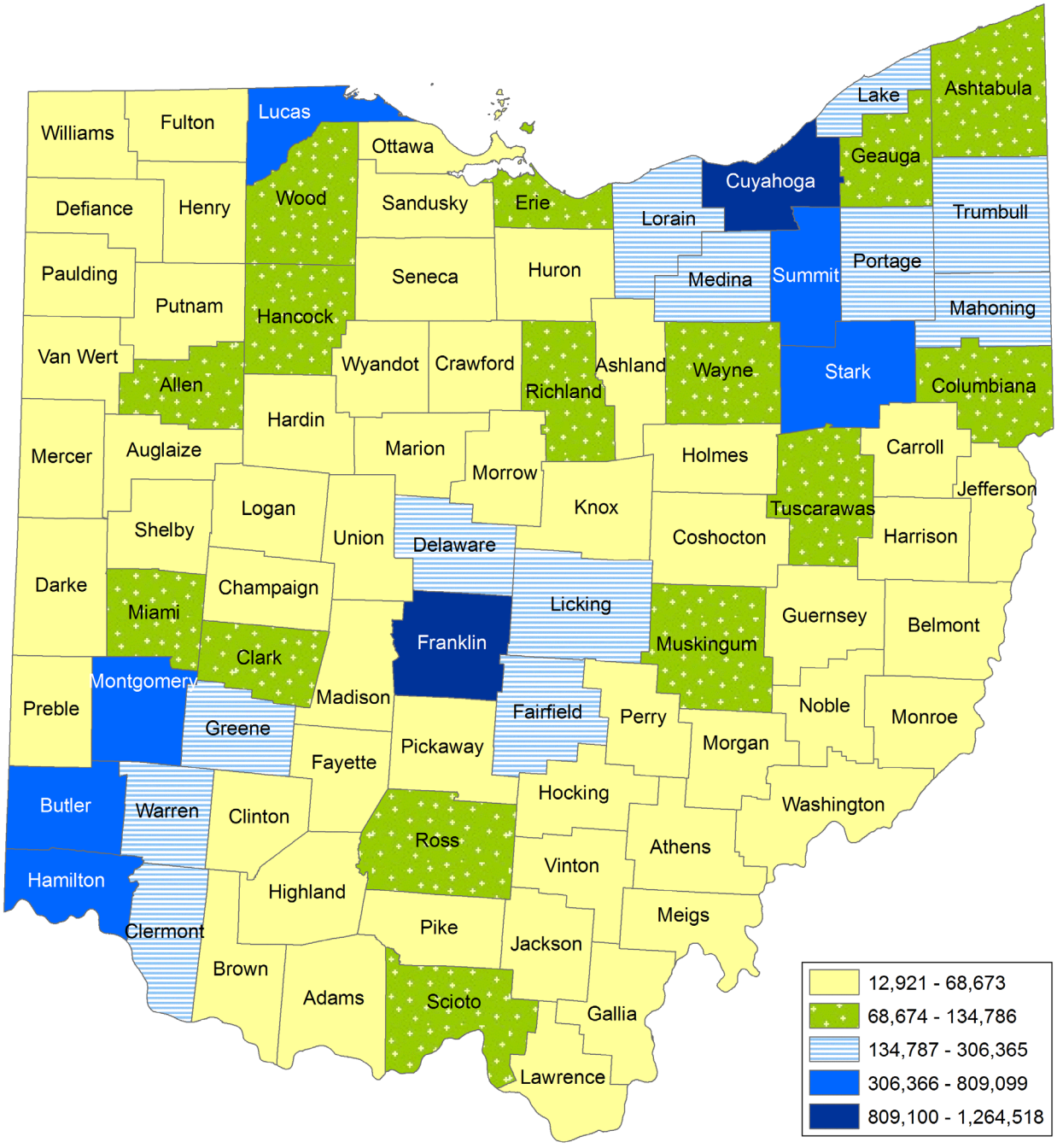
- Community
- Foodborne
- Healthcare-associated
- Institutional
- Waterborne
- Zoonotic

AIDS AND HIV REPORTING

Cases of AIDS (acquired immune deficiency syndrome), AIDS-related conditions, HIV (human immunodeficiency virus) infection, perinatal exposure to HIV, all CD4 T-lymphocyte counts and all tests used to diagnose HIV must be reported on forms and in a manner prescribed by the director.

For the current list of reportable diseases in Ohio, please see Ohio's reportable infectious diseases Web page or OAC 3701-3-02 and 3701-3-12.

OHIO COUNTY POPULATION MAP



Source of population data: 2016 U.S. Census estimates.

TABLES OF SELECTED NOTIFIABLE DISEASES

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY YEAR OF ONSET, OHIO, 2012-2016

GENERAL INFECTIOUS DISEASES	2012		2013		2014		2015		2016		MEDIAN		MEAN	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	11	0.1	7	0.1	9	0.1	16	0.1	19	0.2	11	0.1	12	0.1
Botulism	6	0.1	5	0.0	5	0.0	35	0.3	8	0.1	6	0.1	12	0.1
Foodborne	2	0.0	0	0.0	2	0.0	29	0.2	0	0.0	2	0.0	7	0.0
Infant*	4	*	5	*	3	*	5	*	8	*	5	*	5	*
Wound	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0
Campylobacteriosis	1,129	9.8	1,023	8.8	923	8.0	1,786	15.4	1,962	16.9	1,129	9.8	1,365	11.8
Coccidioidomycosis	17	0.1	10	0.1	15	0.1	13	0.1	23	0.2	15	0.1	16	0.1
Creutzfeldt-Jakob Disease (CJD)	13	0.1	8	0.1	12	0.1	8	0.1	4	0.0	8	0.1	9	0.1
Cryptosporidiosis	550	4.8	367	3.2	322	2.8	429	3.7	1,949	16.8	429	3.7	723	6.3
Cyclosporiasis	0	0.0	7	0.1	2	0.0	1	0.0	6	0.1	2	0.0	3	0.0
Cytomegalovirus (CMV), Congenital*	31	*	29	*	–	n/a	–	n/a	–	n/a	–	*	–	*
Escherichia coli , Shiga Toxin-Producing	240	2.1	223	1.9	203	1.8	265	2.3	263	2.3	240	2.1	239	2.1
O157:H7	122	1.1	76	0.7	92	0.8	105	0.9	77	0.7	92	0.8	94	0.8
Not O157:H7	105	0.9	138	1.2	105	0.9	135	1.2	159	1.4	135	1.2	128	1.1
Unknown Serotype	13	0.1	9	0.1	6	0.1	25	0.2	27	0.2	13	0.1	16	0.1
Giardiasis	571	4.9	505	4.4	380	3.3	376	3.2	395	3.4	395	3.4	445	3.8
Haemophilus influenzae , Invasive Disease	152	1.3	153	1.3	129	1.1	162	1.4	180	1.5	153	1.3	155	1.3
Hemolytic Uremic Syndrome (HUS)	10	0.1	10	0.1	8	0.1	3	0.0	7	0.1	8	0.1	8	0.1
Legionellosis	288	2.5	496	4.3	409	3.5	566	4.9	510	4.4	496	4.3	454	3.9
Leprosy (Hansen Disease)	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	1	0.0	1	0.0
Listeriosis	28	0.2	28	0.2	29	0.3	25	0.2	36	0.3	28	0.2	29	0.2
Meningitis, Aseptic	701	6.1	857	7.4	530	4.6	746	6.4	664	5.7	701	6.1	700	6.0
Meningitis, Other Bacterial*	95	0.8	83	0.7	91	0.8	81	0.7	134	1.2	91	0.8	97	0.8
Salmonellosis	1,270	11.0	1,190	10.3	1,188	10.2	1,373	11.8	1,528	13.2	1,270	11.0	1,310	11.3
Shigellosis	1,812	15.7	645	5.6	591	5.1	748	6.4	1,076	9.3	748	6.4	974	8.4
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	9	0.1	13	0.1	8	0.1	12	0.1	8	0.1	9	0.1	10	0.1
Streptococcal Disease, Group A, Invasive	286	2.5	305	2.6	319	2.8	310	2.7	419	3.6	310	2.7	328	2.8
Streptococcal Disease, Group B, in Newborn*	79	*	65	*	63	*	73	*	67	*	67	*	69	*
Streptococcal Toxic Shock Syndrome (STSS)	11	0.1	9	0.1	9	0.1	6	0.1	11	0.1	9	0.1	9	0.1
Streptococcus pneumoniae , Invasive Disease	1,188	10.3	1,112	9.6	924	8.0	965	8.3	977	8.4	977	8.4	1,033	8.9
Ages < 5 Years*	81	*	41	*	47	*	56	*	58	*	56	*	57	*
Drug Resistant, Ages 5+ Years*	321	*	277	*	216	*	269	*	249	*	269	*	266	*
Drug Susceptible, Ages 5+ Years*	786	*	794	*	661	*	640	*	670	*	670	*	710	*
Toxic Shock Syndrome (TSS)	2	0.0	2	0.0	9	0.1	1	0.0	3	0.0	2	0.0	3	0.0
Typhoid Fever	13	0.1	5	0.0	7	0.1	8	0.1	11	0.1	8	0.1	9	0.1
Vibriosis	11	0.1	11	0.1	12	0.1	15	0.1	13	0.1	12	0.1	12	0.1
Vibrio parahaemolyticus Infection	6	0.1	7	0.1	7	0.1	0	0.0	0	0.0	6	0.1	4	0.1
Vibrio vulnificus Infection	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	4	0.0	3	0.0	5	0.0	15	0.1	13	0.1	5	0.0	8	0.0
Yersiniosis	43	0.4	34	0.3	52	0.4	44	0.4	57	0.5	44	0.4	46	0.4
SUB-TOTAL	**8,590**	**74.4**	**7,213**	**62.3**	**6,250**	**53.9**	**8,068**	**69.5**	**10,330**	**88.9**	**8,068**	**69.5**	**8,090**	**69.8**

N = number of cases reported.
Rates use U.S. Census estimates for each year, and are per 100,000 population.
n/a = not applicable.
(-) indicates a condition not reportable at the time.
* Please see Technical Notes (pp.102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY YEAR OF ONSET, OHIO, 2012-2016

	2012		2013		2014		2015		2016		MEDIAN		MEAN	
HEPATITIS	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Hepatitis A	45	0.4	55	0.5	27	0.2	36	0.3	38	0.3	38	0.3	40	0.3
Hepatitis B*	*	*	*	*	*	*	2,926	25.2	2,788	24.0	*	*	*	*
Acute*	170	1.5	232	2.0	170	1.5	404	3.5	299	2.6	232	2.0	255	2.2
Chronic*	*	*	*	*	*	*	2,522	21.7	2,489	21.4	*	*	*	*
Perinatal Infection*	1	*	5	*	2	*	0	*	0	*	1	*	2	*
Hepatitis C*	*	*	*	*	15,878	136.9	19,301	166.2	23,691	204.0	*	*	*	*
Acute*	7	0.1	113	1.0	106	0.9	123	1.1	276	2.4	113	1.0	125	1.1
Chronic*	*	*	*	*	15,772	136.0	19,178	165.1	23,415	201.6	*	*	*	*
Hepatitis E	0	0.0	0	0.0	0	0.0	1	0.0	5	0.0	0	0.0	1	0.0
SUB-TOTAL	**223**	**1.9**	**405**	**3.5**	**16,077**	**138.7**	**22,264**	**191.7**	**26,522**	**228.4**	**16,077**	**138.7**	**13,098**	**112.8**
OUTBREAKS*														
Community*	55	n/a	40	n/a	72	n/a	49	n/a	46	n/a	49	n/a	52	n/a
Foodborne*	85	n/a	76	n/a	75	n/a	81	n/a	83	n/a	81	n/a	80	n/a
Healthcare-Associated*	94	n/a	84	n/a	70	n/a	97	n/a	79	n/a	84	n/a	85	n/a
Institutional*	170	n/a	153	n/a	202	n/a	163	n/a	292	n/a	170	n/a	196	n/a
Waterborne*	5	n/a	14	n/a	14	n/a	8	n/a	20	n/a	14	n/a	12	n/a
Zoonotic*	18	n/a	4	n/a	13	n/a	11	n/a	17	n/a	13	n/a	13	n/a
SUB-TOTAL	**427**	**n/a**	**371**	**n/a**	**446**	**n/a**	**409**	**n/a**	**537**	**n/a**	**427**	**n/a**	**438**	**n/a**
VACCINE-PREVENTABLE														
Diphtheria	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Influenza-Associated Hospitalization	2,961	25.6	4,197	36.3	8,247	71.1	3,799	32.7	4,130	35.6	4,130	35.6	4,667	40.3
Influenza-Associated Pediatric Mortality*	2	*	6	*	4	*	2	*	1	*	2	*	3	*
Influenza A Virus, Novel Human Infection*	107	0.9	1	0.0	2	0.0	1	0.0	6	0.1	2	0.0	23	0.2
Measles	1	0.0	0	0.0	382	3.3	1	0.0	0	0.0	1	0.0	77	0.7
Imported	1	0.0	0	0.0	3	0.0	1	0.0	0	0.0	1	0.0	1	0.0
Indigenous	0	0.0	0	0.0	379	3.3	0	0.0	0	0.0	0	0.0	76	0.7
Meningococcal Disease	24	0.2	10	0.1	12	0.1	18	0.2	8	0.1	12	0.1	14	0.1
Mumps	8	0.1	12	0.1	554	4.8	14	0.1	74	0.6	14	0.1	132	1.1
Pertussis	905	7.8	1,667	14.4	1,310	11.3	798	6.9	971	8.4	971	8.4	1,130	9.8
Rubella	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not Congenital	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tetanus	2	0.0	0	0.0	1	0.0	1	0.0	2	0.0	1	0.0	1	0.0
Varicella	811	7.0	648	5.6	513	4.4	494	4.3	450	3.9	513	4.4	583	5.0
SUB-TOTAL	**4,797**	**41.6**	**6,532**	**56.5**	**11,026**	**95.1**	**5,128**	**44.2**	**5,642**	**48.6**	**5,642**	**48.6**	**6,625**	**57.2**

N = number of cases reported.
Rates use U.S. Census estimates for each year, and are per 100,000 population.
n/a = not applicable.
(-) indicates a condition not reportable at the time.
* Please see Technical Notes (pp.102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY YEAR OF ONSET, OHIO, 2012-2016

ZOONOSES	2012		2013		2014		2015		2016		MEDIAN		MEAN	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Babesiosis*	–	n/a	–	n/a	0	0.0	1	0.0	0	0.0	–	0.0	–	0.0
Brucellosis	0	0.0	2	0.0	0	0.0	1	0.0	3	0.0	1	0.0	1	0.0
Chikungunya Virus Infection*	–	n/a	–	n/a	43	0.4	10	0.1	4	0.0	–	0.1	–	0.2
Dengue	6	0.1	9	0.1	9	0.1	11	0.1	6	0.1	9	0.1	8	0.1
Ehrlichiosis/Anaplasmosis	6	0.1	15	0.1	6	0.1	19	0.2	13	0.1	13	0.1	12	0.1
Anaplasma phagocytophilum *	1	0.0	4	0.0	1	0.0	1	0.0	5	0.0	1	0.0	2	0.0
Ehrlichia chaffeensis *	4	0.0	9	0.1	4	0.0	17	0.1	8	0.1	8	0.1	8	0.1
Unknown	1	0.0	2	0.0	1	0.0	1	0.0	0	0.0	1	0.0	1	0.0
La Crosse Virus Disease*	14	0.1	16	0.1	31	0.3	24	0.2	9	0.1	16	0.1	19	0.2
Leptospirosis	0	0.0	0	0.0	2	0.0	0	0.0	1	0.0	0	0.0	1	0.0
Lyme Disease	63	0.5	83	0.7	120	1.0	147	1.3	159	1.4	120	1.0	114	1.0
Malaria	40	0.3	33	0.3	39	0.3	36	0.3	63	0.5	39	0.3	42	0.3
Q Fever	3	0.0	5	0.0	2	0.0	4	0.0	3	0.0	3	0.0	3	0.0
Acute	3	0.0	2	0.0	1	0.0	4	0.0	2	0.0	2	0.0	2	0.0
Chronic	0	0.0	3	0.0	1	0.0	0	0.0	1	0.0	1	0.0	1	0.0
Rabies, Animal*	41	n/a	64	n/a	25	n/a	26	n/a	41	n/a	41	n/a	39	n/a
Spotted Fever Rickettsiosis*	23	0.2	23	0.2	10	0.1	13	0.1	23	0.2	23	0.2	18	0.2
Trichinellosis	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0
Tularemia	0	0.0	2	0.0	1	0.0	1	0.0	0	0.0	1	0.0	1	0.0
West Nile Virus Infection	122	1.1	24	0.2	11	0.1	35	0.3	17	0.1	24	0.2	42	0.4
Zika Virus Infection*	–	n/a	–	n/a	–	n/a	–	n/a	95	0.8	–	*	–	*
SUB-TOTAL	**318**	**2.4**	**277**	**1.8**	**299**	**2.4**	**328**	**2.6**	**438**	**3.4**	**318**	**2.4**	**332**	**2.5**
GRAND TOTAL	**14,355**	**120.3**	**14,798**	**124.1**	**34,098**	**290.0**	**36,197**	**307.9**	**43,469**	**369.3**	**34,098**	**290.0**	**28,583**	**242.3**
POPULATION	**11,544,225**		**11,570,808**		**11,594,163**		**11,613,423**		**11,614,373**		**11,594,163**		**11,587,398**	

N = number of cases reported.
Rates use U.S. Census estimates for each year, and are per 100,000 population.
n/a = not applicable.
(-) indicates a condition not reportable at the time.
* Please see Technical Notes (pp.102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY AGE IN YEARS, OHIO, 2016

GENERAL INFECTIOUS DISEASES	0–4		5–9		10–14		15–19		20–29		30–39	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	1	0.1	4	0.3	4	0.3
Botulism	8	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	8	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	207	29.7	98	13.8	46	6.2	101	13.2	229	14.7	191	13.4
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	0	0.0	4	0.3	2	0.1
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	423	60.6	293	41.1	179	24.3	113	14.7	272	17.5	314	22.0
Cyclosporiasis	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	2	0.1
Escherichia coli , Shiga Toxin-Producing	56	8.0	22	3.1	29	3.9	32	4.2	38	2.4	24	1.7
O157:H7	16	2.3	8	1.1	12	1.6	8	1.0	10	0.6	5	0.4
Not O157:H7	34	4.9	13	1.8	15	2.0	21	2.7	24	1.5	18	1.3
Unknown Serotype	6	0.9	1	0.1	2	0.3	3	0.4	4	0.3	1	0.1
Giardiasis	51	7.3	31	4.4	12	1.6	25	3.3	70	4.5	55	3.9
Haemophilus influenzae , Invasive Disease	20	2.9	5	0.7	0	0.0	1	0.1	5	0.3	7	0.5
Hemolytic Uremic Syndrome (HUS)	1	0.1	1	0.1	2	0.3	2	0.3	1	0.1	0	0.0
Legionellosis	0	0.0	0	0.0	0	0.0	1	0.1	11	0.7	35	2.5
Listeriosis	1	0.1	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0
Meningitis, Aseptic	243	34.8	22	3.1	27	3.7	47	6.1	80	5.2	69	4.8
Meningitis, Other Bacterial*	17	2.4	4	0.6	2	0.3	2	0.3	10	0.6	20	1.4
Salmonellosis	209	29.9	83	11.6	65	8.8	75	9.8	177	11.4	184	12.9
Shigellosis	433	62.0	251	35.2	69	9.3	22	2.9	90	5.8	84	5.9
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	20	2.9	17	2.4	7	0.9	6	0.8	47	3.0	44	3.1
Streptococcal Disease, Group B, in Newborn*	67	*	0	*	0	*	0	*	0	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	1	0.1	1	0.1	0	0.0	0	0.0	1	0.1	2	0.1
Streptococcus pneumoniae , Invasive Disease	58	8.3	24	3.4	7	0.9	5	0.7	26	1.7	56	3.9
Ages < 5 Years*	58	8.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Drug Resistant, Ages 5+ Years*	0	0.0	6	0.8	3	0.4	0	0.0	7	0.5	10	0.7
Drug Susceptible, Ages 5+ Years*	0	0.0	18	2.5	4	0.5	5	0.7	19	1.2	46	3.2
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	1	0.1	4	0.5	4	0.5	1	0.1	0	0.0
Vibriosis	0	0.0	0	0.0	1	0.1	2	0.3	1	0.1	4	0.3
Other (Not Cholera)	0	0.0	0	0.0	1	0.1	2	0.3	1	0.1	4	0.3
Yersiniosis	9	1.3	1	0.1	2	0.3	3	0.4	6	0.4	6	0.4
SUB-TOTAL	**1,824**	**261.3**	**855**	**120.0**	**453**	**61.4**	**442**	**57.5**	**1,074**	**69.1**	**1,103**	**77.2**
HEPATITIS												
Hepatitis A	0	0.0	2	0.3	0	0.0	4	0.5	7	0.5	2	0.1
Hepatitis B*	6	0.9	1	0.1	8	1.1	44	5.7	439	28.3	852	59.7
Acute*	0	0.0	0	0.0	0	0.0	2	0.3	31	2.0	109	7.6
Chronic*	6	0.9	1	0.1	8	1.1	42	5.5	408	26.3	743	52.0
Hepatitis C*	87	12.5	44	6.2	19	2.6	364	47.4	6,923	445.7	6,021	421.6
Acute*	0	0.0	0	0.0	0	0.0	8	1.0	81	5.2	96	6.7
Chronic*	87	12.5	44	6.2	19	2.6	356	46.4	6,842	440.5	5,925	414.9
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0
SUB-TOTAL	**93**	**13.3**	**47**	**6.6**	**27**	**3.7**	**412**	**53.6**	**7,370**	**474.5**	**6,875**	**481.4**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY AGE IN YEARS, OHIO, 2016

	0–4		5–9		10–14		15–19		20–29		30–39	
VACCINE-PREVENTABLE	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Influenza-Associated Hospitalization	377	54.0	120	16.8	31	4.2	59	7.7	219	14.1	251	17.6
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	1	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	2	0.3	1	0.1	1	0.1	2	0.3	0	0.0	0	0.0
Meningococcal Disease	2	0.3	0	0.0	0	0.0	2	0.3	0	0.0	1	0.1
Mumps	4	0.6	1	0.1	1	0.1	21	2.7	28	1.8	2	0.1
Pertussis	272	39.0	124	17.4	227	30.8	171	22.3	24	1.5	39	2.7
Tetanus	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	118	16.9	130	18.2	80	10.8	40	5.2	36	2.3	21	1.5
SUB-TOTAL	**775**	**111.0**	**377**	**52.9**	**340**	**46.1**	**296**	**38.5**	**307**	**19.8**	**314**	**22.0**
ZOONOSES												
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.2
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	1	0.1
Anaplasma phagocytophilum *	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichia chaffeensis *	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	1	0.1
La Crosse Virus Disease*	1	0.1	2	0.3	5	0.7	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	5	0.7	19	2.7	12	1.6	5	0.7	19	1.2	24	1.7
Malaria	5	0.7	4	0.6	3	0.4	3	0.4	13	0.8	9	0.6
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Rabies, Animal*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	2	0.3	1	0.1	1	0.1	2	0.3	3	0.2	1	0.1
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0
West Nile Virus Infection	1	0.1	0	0.0	1	0.1	0	0.0	1	0.1	0	0.0
Zika Virus Infection*	0	0.0	1	0.1	1	0.1	4	0.5	27	1.7	16	1.1
SUB-TOTAL	**14**	**2.0**	**28**	**3.9**	**24**	**3.3**	**15**	**2.0**	**64**	**4.1**	**55**	**3.9**
GRAND TOTAL	**2,706**	**387.7**	**1,307**	**183.5**	**844**	**114.4**	**1,165**	**151.7**	**8,815**	**567.5**	**8,347**	**584.5**
POPULATION	**697,923**		**712,455**		**738,023**		**768,057**		**1,553,179**		**1,428,143**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY AGE IN YEARS, OHIO, 2016

GENERAL INFECTIOUS DISEASES	40−49		50−59		60 +		Unknown		TOTAL	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	2	0.1	5	0.3	3	0.1	0	n/a	19	0.2
Botulism	0	0.0	0	0.0	0	0.0	0	n/a	8	0.1
Infant*	0	*	0	*	0	*	0	n/a	8	*
Campylobacteriosis	244	17.1	308	18.7	538	20.3	0	n/a	1,962	16.9
Coccidioidomycosis	3	0.2	5	0.3	9	0.3	0	n/a	23	0.2
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	4	0.2	0	n/a	4	0.0
Cryptosporidiosis	142	10.0	97	5.9	114	4.3	2	n/a	1,949	16.8
Cyclosporiasis	2	0.1	0	0.0	1	0.0	0	n/a	6	0.1
Escherichia coli , Shiga Toxin-Producing	11	0.8	18	1.1	33	1.2	0	n/a	263	2.3
O157:H7	2	0.1	2	0.1	14	0.5	0	n/a	77	0.7
Not O157:H7	5	0.4	14	0.9	15	0.6	0	n/a	159	1.4
Unknown Serotype	4	0.3	2	0.1	4	0.2	0	n/a	27	0.2
Giardiasis	37	2.6	58	3.5	56	2.1	0	n/a	395	3.4
Haemophilus influenzae , Invasive Disease	8	0.6	31	1.9	103	3.9	0	n/a	180	1.5
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	n/a	7	0.1
Legionellosis	65	4.6	121	7.4	277	10.5	0	n/a	510	4.4
Listeriosis	1	0.1	3	0.2	30	1.1	0	n/a	36	0.3
Meningitis, Aseptic	48	3.4	43	2.6	81	3.1	4	n/a	664	5.7
Meningitis, Other Bacterial*	23	1.6	19	1.2	37	1.4	0	n/a	134	1.2
Salmonellosis	174	12.2	206	12.5	355	13.4	0	n/a	1,528	13.2
Shigellosis	42	2.9	43	2.6	41	1.6	1	n/a	1,076	9.3
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	2	0.1	1	0.1	5	0.2	0	n/a	8	0.1
Streptococcal Disease, Group A, Invasive	37	2.6	68	4.1	173	6.5	0	n/a	419	3.6
Streptococcal Disease, Group B, in Newborn*	0	*	0	*	0	*	0	n/a	67	*
Streptococcal Toxic Shock Syndrome (STSS)	1	0.1	3	0.2	2	0.1	0	n/a	11	0.1
Streptococcus pneumoniae , Invasive Disease	77	5.4	207	12.6	516	19.5	1	n/a	977	8.4
Ages < 5 Years*	0	0.0	0	0.0	0	0.0	0	n/a	58	8.3
Drug Resistant, Ages 5+ Years*	17	1.2	53	3.2	153	5.8	0	n/a	249	2.3
Drug Susceptible, Ages 5+ Years*	60	4.2	154	9.4	363	13.7	1	n/a	670	6.1
Toxic Shock Syndrome (TSS)	2	0.1	0	0.0	0	0.0	0	n/a	3	0.0
Typhoid Fever	0	0.0	0	0.0	1	0.0	0	n/a	11	0.1
Vibriosis	2	0.1	1	0.1	2	0.1	0	n/a	13	0.1
Other (Not Cholera)	2	0.1	1	0.1	2	0.1	0	n/a	13	0.1
Yersiniosis	1	0.1	9	0.5	20	0.8	0	n/a	57	0.5
SUB-TOTAL	**924**	**64.8**	**1,246**	**75.7**	**2,401**	**90.8**	**8**	**n/a**	**10,330**	**88.9**
HEPATITIS										
Hepatitis A	4	0.3	5	0.3	14	0.5	0	n/a	38	0.3
Hepatitis B*	593	41.6	475	28.9	368	13.9	2	n/a	2,788	24.0
Acute*	82	5.8	52	3.2	23	0.9	0	n/a	299	2.6
Chronic*	511	35.8	423	25.7	345	13.0	2	n/a	2,489	21.4
Hepatitis C*	3,071	215.4	3,933	238.9	3,171	119.9	58	n/a	23,691	204.0
Acute*	52	3.6	25	1.5	14	0.5	0	n/a	276	2.4
Chronic*	3,019	211.7	3,908	237.4	3,157	119.4	58	n/a	23,415	201.6
Hepatitis E	1	0.1	0	0.0	3	0.1	0	n/a	5	0.0
SUB-TOTAL	**3,669**	**257.3**	**4,413**	**268.1**	**3,556**	**134.5**	**60**	**n/a**	**26,522**	**228.4**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY AGE IN YEARS, OHIO, 2016

	40−49		50−59		60 +		Unknown		TOTAL	
VACCINE-PREVENTABLE	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Influenza-Associated Hospitalization	407	28.5	739	44.9	1,923	72.7	4	n/a	4,130	35.6
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	n/a	1	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	n/a	6	0.1
Meningococcal Disease	0	0.0	2	0.1	1	0.0	0	n/a	8	0.1
Mumps	7	0.5	2	0.1	8	0.3	0	n/a	74	0.6
Pertussis	54	3.8	29	1.8	31	1.2	0	n/a	971	8.4
Tetanus	0	0.0	0	0.0	1	0.0	0	n/a	2	0.0
Varicella	11	0.8	7	0.4	7	0.3	0	n/a	450	3.9
SUB-TOTAL	**479**	**33.6**	**779**	**47.3**	**1,971**	**74.5**	**4**	**n/a**	**5,642**	**48.6**
ZOONOSES										
Brucellosis	0	0.0	1	0.1	2	0.1	0	n/a	3	0.0
Chikungunya Virus Infection*	1	0.1	0	0.0	1	0.0	0	n/a	4	0.0
Dengue	0	0.0	3	0.2	0	0.0	0	n/a	6	0.1
Ehrlichiosis/Anaplasmosis	1	0.1	3	0.2	7	0.3	0	n/a	13	0.1
Anaplasma phagocytophilum *	0	0.0	2	0.1	3	0.1	0	n/a	5	0.0
Ehrlichia chaffeensis *	1	0.1	1	0.1	4	0.2	0	n/a	8	0.1
La Crosse Virus Disease*	0	0.0	1	0.1	0	0.0	0	n/a	9	0.1
Leptospirosis	0	0.0	1	0.1	0	0.0	0	n/a	1	0.0
Lyme Disease	25	1.8	21	1.3	29	1.1	0	n/a	159	1.4
Malaria	9	0.6	9	0.5	8	0.3	0	n/a	63	0.5
Q Fever	0	0.0	0	0.0	2	0.1	0	n/a	3	0.0
Acute	0	0.0	0	0.0	2	0.1	0	n/a	2	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	n/a	1	0.0
Rabies, Animal*	0	n/a	0	n/a	0	n/a	41	n/a	41	n/a
Spotted Fever Rickettsiosis*	3	0.2	4	0.2	6	0.2	0	n/a	23	0.2
Trichinellosis	0	0.0	0	0.0	0	0.0	0	n/a	1	0.0
West Nile Virus Infection	1	0.1	4	0.2	9	0.3	0	n/a	17	0.1
Zika Virus Infection*	12	0.8	18	1.1	16	0.6	0	n/a	95	0.8
SUB-TOTAL	**52**	**3.6**	**65**	**3.9**	**80**	**3.0**	**41**	**n/a**	**438**	**3.4**
GRAND TOTAL	**5,124**	**359.3**	**6,503**	**395.1**	**8,008**	**302.8**	**113**	**n/a**	**42,932**	**369.3**
POPULATION	**1,425,998**		**1,646,032**		**2,644,563**		**0**		**11,614,373**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY SEX, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Female		Male		Unknown		TOTAL	
	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	4	0.1	15	0.3	0	n/a	19	0.2
Botulism	6	0.1	2	0.0	0	n/a	8	0.1
Infant*	6	*	2	*	0	n/a	8	*
Campylobacteriosis	1,000	16.9	959	16.8	3	n/a	1,962	16.9
Coccidioidomycosis	7	0.1	16	0.3	0	n/a	23	0.2
Creutzfeldt-Jakob Disease (CJD)	1	0.0	2	0.0	1	n/a	4	0.0
Cryptosporidiosis	1,022	17.3	923	16.2	4	n/a	1,949	16.8
Cyclosporiasis	2	0.0	4	0.1	0	n/a	6	0.1
Escherichia coli , Shiga Toxin-Producing	142	2.4	119	2.1	2	n/a	263	2.3
O157:H7	46	0.8	30	0.5	1	n/a	77	0.7
Not O157:H7	78	1.3	80	1.4	1	n/a	159	1.4
Unknown Serotype	18	0.3	9	0.2	0	n/a	27	0.2
Giardiasis	163	2.8	232	4.1	0	n/a	395	3.4
Haemophilus influenzae , Invasive Disease	90	1.5	90	1.6	0	n/a	180	1.5
Hemolytic Uremic Syndrome (HUS)	4	0.1	3	0.1	0	n/a	7	0.1
Legionellosis	215	3.6	295	5.2	0	n/a	510	4.4
Listeriosis	21	0.4	15	0.3	0	n/a	36	0.3
Meningitis, Aseptic	370	6.2	291	5.1	3	n/a	664	5.7
Meningitis, Other Bacterial*	61	1.0	71	1.2	2	n/a	134	1.2
Salmonellosis	847	14.3	681	12.0	0	n/a	1,528	13.2
Shigellosis	564	9.5	510	9.0	2	n/a	1,076	9.3
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	3	0.1	5	0.1	0	n/a	8	0.1
Streptococcal Disease, Group A, Invasive	213	3.6	202	3.5	4	n/a	419	3.6
Streptococcal Disease, Group B, in Newborn*	32	*	31	*	4	n/a	67	*
Streptococcal Toxic Shock Syndrome (STSS)	5	0.1	6	0.1	0	n/a	11	0.1
Streptococcus pneumoniae , Invasive Disease	477	8.1	492	8.6	8	n/a	977	8.4
Ages < 5 Years*	27	*	31	*	0	n/a	58	*
Drug Resistant, Ages 5+ Years*	111	*	136	*	2	n/a	249	*
Drug Susceptible, Ages 5+ Years*	339	*	325	*	6	n/a	670	*
Toxic Shock Syndrome (TSS)	3	0.1	0	0.0	0	n/a	3	0.0
Typhoid Fever	8	0.1	3	0.1	0	n/a	11	0.1
Vibriosis	6	0.1	7	0.1	0	n/a	13	0.1
Other (Not Cholera)	6	0.1	7	0.1	0	n/a	13	0.1
Yersiniosis	33	0.6	24	0.4	0	n/a	57	0.5
SUB-TOTAL	**5,299**	**89.5**	**4,998**	**87.8**	**33**	**n/a**	**10,330**	**88.9**
HEPATITIS								
Hepatitis A	19	0.3	19	0.3	0	n/a	38	0.3
Hepatitis B*	1,079	18.2	1,707	30.0	2	n/a	2,788	24.0
Acute*	130	2.2	169	3.0	0	n/a	299	2.6
Chronic*	949	16.0	1,538	27.0	2	n/a	2,489	21.4
Hepatitis C*	9,979	168.5	13,697	240.6	15	n/a	23,691	204.0
Acute*	130	2.2	146	2.6	0	n/a	276	2.4
Chronic*	9,849	166.3	13,551	238.1	15	n/a	23,415	201.6
Hepatitis E	2	0.0	3	0.1	0	n/a	5	0.0
SUB-TOTAL	**11,079**	**187.1**	**15,426**	**271.0**	**17**	**n/a**	**26,522**	**228.4**
VACCINE-PREVENTABLE								
Influenza-Associated Hospitalization	2,159	36.5	1,921	33.8	50	n/a	4,130	35.6
Influenza-Associated Pediatric Mortality*	0	*	1	*	0	n/a	1	*
Influenza A Virus, Novel Human Infection*	3	0.1	3	0.1	0	n/a	6	0.1
Meningococcal Disease	3	0.1	5	0.1	0	n/a	8	0.1
Mumps	26	0.4	48	0.8	0	n/a	74	0.6
Pertussis	548	9.3	423	7.4	0	n/a	971	8.4
Tetanus	1	0.0	1	0.0	0	n/a	2	0.0
Varicella	215	3.6	235	4.1	0	n/a	450	3.9
SUB-TOTAL	**2,955**	**49.9**	**2,637**	**46.3**	**50**	**n/a**	**5,642**	**48.6**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY SEX, OHIO, 2016

ZOONOSES	Female		Male		Unknown		TOTAL	
	N	Rate	N	Rate	N	Rate	N	Rate
Brucellosis	2	0.0	1	0.0	0	n/a	3	0.0
Chikungunya Virus Infection*	3	0.1	1	0.0	0	n/a	4	0.0
Dengue	5	0.1	1	0.0	0	n/a	6	0.1
Ehrlichiosis/Anaplasmosis	9	0.2	4	0.1	0	n/a	13	0.1
Anaplasma phagocytophilum *	4	0.1	1	0.0	0	n/a	5	0.0
Ehrlichia chaffeensis *	5	0.1	3	0.1	0	n/a	8	0.1
La Crosse Virus Disease*	3	0.1	6	0.1	0	n/a	9	0.1
Leptospirosis	0	0.0	1	0.0	0	n/a	1	0.0
Lyme Disease	74	1.2	85	1.5	0	n/a	159	1.4
Malaria	24	0.4	39	0.7	0	n/a	63	0.5
Q Fever	1	0.0	2	0.0	0	n/a	3	0.0
Acute	0	0.0	2	0.0	0	n/a	2	0.0
Chronic	1	0.0	0	0.0	0	n/a	1	0.0
Rabies, Animal*	0	n/a	0	n/a	41	n/a	41	n/a
Spotted Fever Rickettsiosis*	7	0.1	16	0.3	0	n/a	23	0.2
Trichinellosis	0	0.0	1	0.0	0	n/a	1	0.0
West Nile Virus Infection	6	0.1	11	0.2	0	n/a	17	0.1
Zika Virus Infection*	64	1.1	31	0.5	0	n/a	95	0.8
SUB-TOTAL	**198**	**3.3**	**199**	**3.5**	**41**	**n/a**	**438**	**3.4**
GRAND TOTAL	**19,531**	**329.8**	**23,260**	**408.7**	**141**	**n/a**	**42,932**	**369.3**
POPULATION	**5,922,679**		**5,691,694**		**0**		**11,614,373**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY MONTH OF ONSET, OHIO, 2016

GENERAL INFECTIOUS DISEASES	January		February		March		April		May		June		July	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Amebiasis	1	5%	3	16%	1	5%	3	16%	1	5%	2	11%	2	11%
Botulism	0	0%	0	0%	0	0%	0	0%	1	13%	0	0%	2	25%
Infant*	0	0%	0	0%	0	0%	0	0%	1	13%	0	0%	2	25%
Campylobacteriosis	137	7%	109	6%	123	6%	123	6%	166	8%	199	10%	235	12%
Coccidioidomycosis	4	17%	2	9%	4	17%	1	4%	1	4%	0	0%	1	4%
Creutzfeldt-Jakob Disease (CJD)	0	0%	1	25%	1	25%	0	0%	1	25%	0	0%	0	0%
Cryptosporidiosis	34	2%	28	1%	21	1%	21	1%	25	1%	56	3%	249	13%
Cyclosporiasis	0	0%	0	0%	0	0%	0	0%	1	17%	1	17%	3	50%
Escherichia coli , Shiga Toxin-Producing	4	2%	9	3%	13	5%	10	4%	19	7%	35	13%	43	16%
O157:H7	0	0%	2	3%	4	5%	2	3%	7	9%	8	10%	10	13%
Not O157:H7	4	3%	4	3%	9	6%	8	5%	11	7%	23	14%	28	18%
Unknown Serotype	0	0%	3	11%	0	0%	0	0%	1	4%	4	15%	5	19%
Giardiasis	36	9%	21	5%	18	5%	31	8%	30	8%	40	10%	53	13%
Haemophilus influenzae , Invasive Disease	22	12%	9	5%	21	12%	13	7%	15	8%	8	4%	9	5%
Hemolytic Uremic Syndrome (HUS)	0	0%	2	29%	0	0%	1	14%	0	0%	0	0%	0	0%
Legionellosis	23	5%	22	4%	16	3%	12	2%	30	6%	39	8%	56	11%
Listeriosis	3	8%	2	6%	3	8%	0	0%	2	6%	6	17%	5	14%
Meningitis, Aseptic	48	7%	40	6%	32	5%	43	6%	39	6%	62	9%	70	11%
Meningitis, Other Bacterial*	10	7%	12	9%	9	7%	16	12%	9	7%	10	7%	11	8%
Salmonellosis	67	4%	82	5%	99	6%	113	7%	153	10%	170	11%	196	13%
Shigellosis	153	14%	90	8%	76	7%	69	6%	82	8%	89	8%	102	9%
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	1	13%	1	13%	0	0%	2	25%	0	0%	0	0%	1	13%
Streptococcal Disease, Group A, Invasive	36	9%	35	8%	53	13%	55	13%	44	11%	36	9%	25	6%
Streptococcal Disease, Group B, in Newborn*	5	7%	7	10%	7	10%	3	4%	9	13%	4	6%	8	12%
Streptococcal Toxic Shock Syndrome (STSS)	1	9%	2	18%	1	9%	2	18%	1	9%	0	0%	1	9%
Streptococcus pneumoniae , Invasive Disease	118	12%	111	11%	129	13%	109	11%	91	9%	47	5%	30	3%
Ages < 5 Years*	10	17%	6	10%	5	9%	6	10%	6	10%	3	5%	2	3%
Drug Resistant, Ages 5+ Years*	32	13%	28	11%	36	14%	33	13%	20	8%	16	6%	8	3%
Drug Susceptible, Ages 5+ Years*	76	11%	77	11%	88	13%	70	10%	65	10%	28	4%	20	3%
Toxic Shock Syndrome (TSS)	0	0%	1	33%	0	0%	0	0%	1	33%	0	0%	0	0%
Typhoid Fever	3	27%	0	0%	0	0%	1	9%	0	0%	2	18%	2	18%
Vibriosis	0	0%	1	8%	0	0%	1	8%	0	0%	1	8%	2	15%
Other (Not Cholera)	0	0%	1	8%	0	0%	1	8%	0	0%	1	8%	2	15%
Yersiniosis	5	9%	2	4%	4	7%	5	9%	3	5%	8	14%	3	5%
SUB-TOTAL	**711**	**7%**	**592**	**6%**	**631**	**6%**	**634**	**6%**	**724**	**7%**	**815**	**8%**	**1,109**	**11%**
HEPATITIS														
Hepatitis A	0	0%	2	5%	3	8%	2	5%	6	16%	7	18%	2	5%
Hepatitis B*	191	7%	150	5%	251	9%	312	11%	180	6%	193	7%	294	11%
Acute*	27	9%	26	9%	28	9%	34	11%	20	7%	23	8%	29	10%
Chronic*	164	7%	124	5%	223	9%	278	11%	160	6%	170	7%	265	11%
Hepatitis C*	1,852	8%	1,818	8%	1,942	8%	2,562	11%	1,883	8%	1,758	7%	2,229	9%
Acute*	32	12%	17	6%	19	7%	33	12%	20	7%	20	7%	24	9%
Chronic*	1,820	8%	1,801	8%	1,923	8%	2,529	11%	1,863	8%	1,738	7%	2,205	9%
Hepatitis E	1	20%	0	0%	0	0%	0	0%	0	0%	1	20%	0	0%
SUB-TOTAL	**2,044**	**8%**	**1,970**	**7%**	**2,196**	**8%**	**2,876**	**11%**	**2,069**	**8%**	**1,959**	**7%**	**2,525**	**10%**

N = number of cases reported.
% = percentage of cases occurring in the month for the disease.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY MONTH OF ONSET, OHIO, 2016

	January		February		March		April		May		June		July	
OUTBREAKS*	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Community*	4	9%	5	11%	4	9%	6	13%	2	4%	3	7%	5	11%
Foodborne*	10	12%	9	11%	12	14%	4	5%	5	6%	7	8%	6	7%
Healthcare-Associated*	5	6%	7	9%	9	11%	9	11%	9	11%	4	5%	6	8%
Institutional*	23	8%	18	6%	18	6%	20	7%	25	9%	12	4%	21	7%
Waterborne*	0	0%	0	0%	0	0%	1	5%	0	0%	4	20%	4	20%
Zoonotic*	1	6%	1	6%	0	0%	5	29%	4	24%	2	12%	2	12%
SUB-TOTAL	**43**	**8%**	**40**	**7%**	**43**	**8%**	**45**	**8%**	**45**	**8%**	**32**	**6%**	**44**	**8%**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	129	3%	618	15%	1,798	44%	772	19%	189	5%	23	1%	8	0%
Influenza-Associated Pediatric Mortality*	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	0	0%
Influenza A Virus, Novel Human Infection*	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	33%
Meningococcal Disease	3	38%	0	0%	1	13%	0	0%	1	13%	0	0%	0	0%
Mumps	4	5%	3	4%	6	8%	26	35%	16	22%	2	3%	7	9%
Pertussis	83	9%	49	5%	68	7%	55	6%	79	8%	104	11%	83	9%
Tetanus	0	0%	0	0%	1	50%	0	0%	0	0%	0	0%	0	0%
Varicella	41	9%	49	11%	53	12%	32	7%	43	10%	24	5%	12	3%
SUB-TOTAL	**260**	**5%**	**719**	**13%**	**1,928**	**34%**	**885**	**16%**	**328**	**6%**	**153**	**3%**	**112**	**2%**
ZOONOSES														
Brucellosis	0	0%	0	0%	0	0%	0	0%	1	33%	0	0%	1	33%
Chikungunya Virus Infection*	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Dengue	1	17%	1	17%	1	17%	1	17%	0	0%	1	17%	0	0%
Ehrlichiosis/Anaplasmosis	0	0%	0	0%	0	0%	1	8%	1	8%	5	38%	4	31%
*Anaplasma phagocytophilum**	0	0%	0	0%	0	0%	0	0%	0	0%	2	40%	2	40%
*Ehrlichia chaffeensis**	0	0%	0	0%	0	0%	1	13%	1	13%	3	38%	2	25%
La Crosse Virus Disease*	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	22%
Leptospirosis	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Lyme Disease	3	2%	0	0%	6	4%	7	4%	16	10%	46	29%	29	18%
Malaria	2	3%	3	5%	2	3%	3	5%	6	10%	6	10%	8	13%
Q Fever	0	0%	0	0%	0	0%	1	33%	1	33%	1	33%	0	0%
Acute	0	0%	0	0%	0	0%	0	0%	1	50%	1	50%	0	0%
Chronic	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%
Rabies, Animal*	0	0%	1	2%	1	2%	1	2%	5	12%	5	12%	3	7%
Spotted Fever Rickettsiosis*	0	0%	0	0%	0	0%	3	13%	3	13%	6	26%	6	26%
Trichinellosis	1	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
West Nile Virus Infection	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	6%
Zika Virus Infection*	10	11%	5	5%	2	2%	3	3%	5	5%	15	16%	23	24%
SUB-TOTAL	**17**	**4%**	**10**	**2%**	**12**	**3%**	**20**	**5%**	**38**	**9%**	**85**	**19%**	**77**	**18%**

N = number of cases reported.
% = percentage of cases occurring in the month for the disease.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY MONTH OF ONSET, OHIO, 2016

GENERAL INFECTIOUS DISEASES	August		September		October		November		December		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Amebiasis	4	21%	1	5%	1	5%	0	0%	0	0%	19	100%
Botulism	0	0%	0	0%	1	13%	2	25%	2	25%	8	100%
Infant*	0	0%	0	0%	1	13%	2	25%	2	25%	8	100%
Campylobacteriosis	237	12%	168	9%	203	10%	136	7%	126	6%	1,962	100%
Coccidioidomycosis	2	9%	1	4%	2	9%	4	17%	1	4%	23	100%
Creutzfeldt-Jakob Disease (CJD)	1	25%	0	0%	0	0%	0	0%	0	0%	4	100%
Cryptosporidiosis	842	43%	422	22%	155	8%	62	3%	34	2%	1,949	100%
Cyclosporiasis	1	17%	0	0%	0	0%	0	0%	0	0%	6	100%
Escherichia coli , Shiga Toxin-Producing	49	19%	39	15%	20	8%	12	5%	10	4%	263	100%
O157:H7	23	30%	11	14%	5	6%	3	4%	2	3%	77	100%
Not O157:H7	24	15%	26	16%	9	6%	7	4%	6	4%	159	100%
Unknown Serotype	2	7%	2	7%	6	22%	2	7%	2	7%	27	100%
Giardiasis	47	12%	39	10%	29	7%	20	5%	31	8%	395	100%
Haemophilus influenzae , Invasive Disease	15	8%	11	6%	18	10%	14	8%	25	14%	180	100%
Hemolytic Uremic Syndrome (HUS)	3	43%	0	0%	1	14%	0	0%	0	0%	7	100%
Legionellosis	95	19%	52	10%	73	14%	53	10%	39	8%	510	100%
Listeriosis	4	11%	4	11%	3	8%	1	3%	3	8%	36	100%
Meningitis, Aseptic	95	14%	83	13%	87	13%	40	6%	25	4%	664	100%
Meningitis, Other Bacterial*	14	10%	4	3%	16	12%	10	7%	13	10%	134	100%
Salmonellosis	220	14%	175	11%	104	7%	93	6%	56	4%	1,528	100%
Shigellosis	105	10%	84	8%	72	7%	71	7%	83	8%	1,076	100%
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	2	25%	0	0%	0	0%	0	0%	1	13%	8	100%
Streptococcal Disease, Group A, Invasive	23	5%	19	5%	20	5%	28	7%	45	11%	419	100%
Streptococcal Disease, Group B, in Newborn*	5	7%	3	4%	8	12%	3	4%	5	7%	67	100%
Streptococcal Toxic Shock Syndrome (STSS)	2	18%	0	0%	0	0%	1	9%	0	0%	11	100%
Streptococcus pneumoniae , Invasive Disease	26	3%	50	5%	56	6%	91	9%	119	12%	977	100%
Ages < 5 Years*	3	5%	3	5%	1	2%	5	9%	8	14%	58	100%
Drug Resistant, Ages 5+ Years*	4	2%	11	4%	14	6%	20	8%	27	11%	249	100%
Drug Susceptible, Ages 5+ Years*	19	3%	36	5%	41	6%	66	10%	84	13%	670	100%
Toxic Shock Syndrome (TSS)	0	0%	0	0%	0	0%	1	33%	0	0%	3	100%
Typhoid Fever	1	9%	0	0%	2	18%	0	0%	0	0%	11	100%
Vibriosis	3	23%	3	23%	2	15%	0	0%	0	0%	13	100%
Other (Not Cholera)	3	23%	3	23%	2	15%	0	0%	0	0%	13	100%
Yersiniosis	6	11%	4	7%	5	9%	4	7%	8	14%	57	100%
SUB-TOTAL	**1,802**	**17%**	**1,162**	**11%**	**878**	**8%**	**646**	**6%**	**626**	**6%**	**10,330**	**100%**

HEPATITIS												
Hepatitis A	1	3%	4	11%	3	8%	4	11%	4	11%	38	100%
Hepatitis B*	232	8%	203	7%	244	9%	254	9%	284	10%	2,788	100%
Acute*	18	6%	18	6%	18	6%	23	8%	35	12%	299	100%
Chronic*	214	9%	185	7%	226	9%	231	9%	249	10%	2,489	100%
Hepatitis C*	1,761	7%	1,831	8%	2,128	9%	1,770	7%	2,157	9%	23,691	100%
Acute*	20	7%	21	8%	20	7%	21	8%	29	11%	276	100%
Chronic*	1,741	7%	1,810	8%	2,108	9%	1,749	7%	2,128	9%	23,415	100%
Hepatitis E	0	0%	1	20%	1	20%	0	0%	1	20%	5	100%
SUB-TOTAL	**1,994**	**8%**	**2,039**	**8%**	**2,376**	**9%**	**2,028**	**8%**	**2,446**	**9%**	**26,522**	**100%**

N = number of cases reported.
% = percentage of cases occurring in the month for the disease.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY MONTH OF ONSET, OHIO, 2016

OUTBREAKS*	August		September		October		November		December		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Community*	7	15%	4	9%	2	4%	1	2%	3	7%	46	100%
Foodborne*	2	2%	9	11%	5	6%	4	5%	10	12%	83	100%
Healthcare-Associated*	3	4%	3	4%	4	5%	5	6%	15	19%	79	100%
Institutional*	28	10%	36	12%	33	11%	26	9%	32	11%	292	100%
Waterborne*	6	30%	4	20%	1	5%	0	0%	0	0%	20	100%
Zoonotic*	1	6%	0	0%	0	0%	0	0%	1	6%	17	100%
SUB-TOTAL	**47**	**9%**	**56**	**10%**	**45**	**8%**	**36**	**7%**	**61**	**11%**	**537**	**100%**
VACCINE-PREVENTABLE												
Influenza-Associated Hospitalization	11	0%	22	1%	26	1%	59	1%	475	12%	4,130	100%
Influenza-Associated Pediatric Mortality*	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%
Influenza A Virus, Novel Human Infection*	4	67%	0	0%	0	0%	0	0%	0	0%	6	100%
Meningococcal Disease	1	13%	0	0%	1	13%	0	0%	1	13%	8	100%
Mumps	4	5%	2	3%	0	0%	2	3%	2	3%	74	100%
Pertussis	60	6%	63	6%	100	10%	131	13%	96	10%	971	100%
Tetanus	0	0%	1	50%	0	0%	0	0%	0	0%	2	100%
Varicella	34	8%	38	8%	49	11%	36	8%	39	9%	450	100%
SUB-TOTAL	**114**	**2%**	**126**	**2%**	**176**	**3%**	**228**	**4%**	**613**	**11%**	**5,642**	**100%**
ZOONOSES												
Brucellosis	0	0%	0	0%	0	0%	1	33%	0	0%	3	100%
Chikungunya Virus Infection*	1	25%	2	50%	0	0%	0	0%	1	25%	4	100%
Dengue	0	0%	1	17%	0	0%	0	0%	0	0%	6	100%
Ehrlichiosis/Anaplasmosis	1	8%	1	8%	0	0%	0	0%	0	0%	13	100%
Anaplasma phagocytophilum *	1	20%	0	0%	0	0%	0	0%	0	0%	5	100%
Ehrlichia chaffeensis *	0	0%	1	13%	0	0%	0	0%	0	0%	8	100%
La Crosse Virus Disease*	3	33%	1	11%	3	33%	0	0%	0	0%	9	100%
Leptospirosis	1	100%	0	0%	0	0%	0	0%	0	0%	1	100%
Lyme Disease	18	11%	15	9%	13	8%	3	2%	3	2%	159	100%
Malaria	11	17%	1	2%	9	14%	6	10%	6	10%	63	100%
Q Fever	0	0%	0	0%	0	0%	0	0%	0	0%	3	100%
Acute	0	0%	0	0%	0	0%	0	0%	0	0%	2	100%
Chronic	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%
Rabies, Animal*	9	22%	7	17%	5	12%	3	7%	1	2%	41	100%
Spotted Fever Rickettsiosis*	3	13%	2	9%	0	0%	0	0%	0	0%	23	100%
Trichinellosis	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%
West Nile Virus Infection	7	41%	8	47%	1	6%	0	0%	0	0%	17	100%
Zika Virus Infection*	11	12%	4	4%	4	4%	7	7%	6	6%	95	100%
SUB-TOTAL	**65**	**15%**	**42**	**10%**	**35**	**8%**	**20**	**5%**	**17**	**4%**	**438**	**100%**
GRAND TOTAL	**4,022**	**9%**	**3,425**	**8%**	**3,510**	**8%**	**2,958**	**7%**	**3,763**	**9%**	**43,469**	**100%**

N = number of cases reported.
% = percentage of cases occurring in the month for the disease.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Adams		Allen		Ashland		Ashtabula		Athens		Auglaize		Belmont	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	1	2.2	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	4	14.3	36	34.7	17	31.7	11	11.2	14	21.2	26	56.7	3	4.4
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.2	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	2	7.2	12	11.6	21	39.1	0	0.0	3	4.5	27	58.8	3	4.4
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	0	0.0	1	1.0	3	5.6	0	0.0	2	3.0	4	8.7	2	2.9
O157:H7	0	0.0	0	0.0	1	1.9	0	0.0	2	3.0	1	2.2	2	2.9
Not O157:H7	0	0.0	1	1.0	1	1.9	0	0.0	0	0.0	2	4.4	0	0.0
Unknown Serotype	0	0.0	0	0.0	1	1.9	0	0.0	0	0.0	1	2.2	0	0.0
Giardiasis	0	0.0	5	4.8	9	16.8	4	4.1	5	7.6	1	2.2	1	1.5
Haemophilus influenzae , Invasive Disease	0	0.0	0	0.0	1	1.9	2	2.0	0	0.0	1	2.2	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Legionellosis	0	0.0	7	6.7	0	0.0	3	3.1	1	1.5	1	2.2	5	7.3
Listeriosis	0	0.0	0	0.0	0	0.0	1	1.0	1	1.5	0	0.0	1	1.5
Meningitis, Aseptic	1	3.6	17	16.4	0	0.0	1	1.0	2	3.0	4	8.7	2	2.9
Meningitis, Other Bacterial*	1	3.6	1	1.0	0	0.0	0	0.0	0	0.0	2	4.4	2	2.9
Salmonellosis	4	14.3	9	8.7	6	11.2	18	18.3	7	10.6	9	19.6	9	13.1
Shigellosis	0	0.0	7	6.7	0	0.0	1	1.0	3	4.5	5	10.9	0	0.0
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	0	0.0	3	2.9	2	3.7	4	4.1	1	1.5	0	0.0	2	2.9
Streptococcal Disease, Group B, in Newborn*	1	*	0	*	0	*	0	*	0	*	1	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	0	0.0	4	3.9	5	9.3	7	7.1	4	6.0	1	2.2	11	16.0
Ages < 5 Years*	0	*	0	*	0	*	1	*	3	*	0	*	1	*
Drug Resistant, Ages 5+ Years*	0	*	1	*	1	*	2	*	0	*	0	*	3	*
Drug Susceptible, Ages 5+ Years*	0	*	3	*	4	*	4	*	1	*	1	*	7	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	0	0.0	1	1.0	1	1.9	0	0.0	0	0.0	0	0.0	2	2.9
SUB-TOTAL	**13**	**46.6**	**104**	**100.2**	**65**	**121.2**	**52**	**52.9**	**43**	**65.0**	**84**	**183.0**	**43**	**62.6**
HEPATITIS														
Hepatitis A	0	0.0	0	0.0	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0
Hepatitis B*	10	35.8	17	16.4	9	16.8	2	2.0	36	54.4	1	2.2	3	4.4
Acute*	0	0.0	3	2.9	2	3.7	0	0.0	4	6.0	0	0.0	0	0.0
Chronic*	10	35.8	14	13.5	7	13.0	2	2.0	32	48.3	1	2.2	3	4.4
Hepatitis C*	106	379.8	123	118.6	41	76.4	196	199.5	153	231.2	33	71.9	102	148.5
Acute*	0	0.0	5	4.8	2	3.7	3	3.1	9	13.6	0	0.0	0	0.0
Chronic*	106	379.8	118	113.7	39	72.7	193	196.5	144	217.6	33	71.9	102	148.5
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**116**	**415.7**	**140**	**135.0**	**50**	**93.2**	**199**	**202.6**	**189**	**285.6**	**34**	**74.1**	**105**	**152.9**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Adams		Allen		Ashland		Ashtabula		Athens		Auglaize		Belmont	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	0	n/a	1	n/a	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a
Foodborne*	0	n/a	1	n/a	2	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Healthcare-Associated*	1	n/a	1	n/a	2	n/a	0	n/a	0	n/a	2	n/a	0	n/a
Institutional*	0	n/a	7	n/a	1	n/a	1	n/a	0	n/a	1	n/a	0	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a
SUB-TOTAL	**1**	**n/a**	**10**	**n/a**	**5**	**n/a**	**2**	**n/a**	**0**	**n/a**	**4**	**n/a**	**0**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	2	7.2	96	92.5	21	39.1	33	33.6	7	10.6	25	54.5	4	5.8
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	2	2.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	1	3.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	2	4.4	0	0.0
Pertussis	1	3.6	2	1.9	17	31.7	4	4.1	2	3.0	1	2.2	0	0.0
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	0	0.0	0	0.0	1	1.9	4	4.1	1	1.5	2	4.4	3	4.4
SUB-TOTAL	**4**	**14.3**	**99**	**95.4**	**39**	**72.7**	**43**	**43.8**	**10**	**15.1**	**30**	**65.4**	**7**	**10.2**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Anaplasma phagocytophilum**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	0	0.0	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	0	0.0	1	1.0	0	0.0	3	3.1	0	0.0	0	0.0	4	5.8
Malaria	0	0.0	0	0.0	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	0	0.0	1	1.5	0	0.0	0	0.0
Zika Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	2	3.0	1	2.2	1	1.5
SUB-TOTAL	**0**	**0.0**	**1**	**1.0**	**0**	**0.0**	**6**	**5.1**	**3**	**4.5**	**1**	**2.2**	**5**	**7.3**
GRAND TOTAL	**134**	**476.6**	**354**	**331.6**	**159**	**287.0**	**302**	**304.4**	**245**	**370.2**	**153**	**324.7**	**160**	**233.0**
POPULATION	**27,907**		**103,742**		**53,652**		**98,231**		**66,186**		**45,894**		**68,673**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Brown		Butler		Carroll		Champaign		Clark		Clermont		Clinton	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	5	11.4	47	12.4	7	25.3	4	10.3	31	23.0	26	12.8	25	59.7
Coccidioidomycosis	0	0.0	1	0.3	0	0.0	0	0.0	2	1.5	1	0.5	1	2.4
Creutzfeldt-Jakob Disease (CJD)	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	0	0.0	11	2.9	4	14.5	2	5.2	16	11.9	8	3.9	4	9.5
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	1	2.3	13	3.4	2	7.2	0	0.0	3	2.2	13	6.4	0	0.0
O157:H7	0	0.0	4	1.1	0	0.0	0	0.0	0	0.0	5	2.5	0	0.0
Not O157:H7	1	2.3	7	1.9	1	3.6	0	0.0	3	2.2	8	3.9	0	0.0
Unknown Serotype	0	0.0	2	0.5	1	3.6	0	0.0	0	0.0	0	0.0	0	0.0
Giardiasis	0	0.0	7	1.9	0	0.0	2	5.2	8	5.9	5	2.5	0	0.0
Haemophilus influenzae , Invasive Disease	0	0.0	3	0.8	0	0.0	2	5.2	3	2.2	5	2.5	1	2.4
Hemolytic Uremic Syndrome (HUS)	0	0.0	2	0.5	0	0.0	0	0.0	0	0.0	2	1.0	0	0.0
Legionellosis	1	2.3	6	1.6	1	3.6	2	5.2	11	8.2	3	1.5	1	2.4
Listeriosis	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	1	0.5	0	0.0
Meningitis, Aseptic	0	0.0	27	7.2	0	0.0	0	0.0	4	3.0	14	6.9	3	7.2
Meningitis, Other Bacterial*	0	0.0	5	1.3	0	0.0	0	0.0	1	0.7	1	0.5	0	0.0
Salmonellosis	2	4.6	30	7.9	3	10.8	4	10.3	18	13.4	13	6.4	4	9.5
Shigellosis	3	6.9	45	11.9	0	0.0	0	0.0	5	3.7	6	3.0	1	2.4
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	1	0.5	0	0.0
Streptococcal Disease, Group A, Invasive	1	2.3	17	4.5	0	0.0	2	5.2	8	5.9	4	2.0	2	4.8
Streptococcal Disease, Group B, in Newborn*	0	*	1	*	0	*	0	*	3	*	1	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	3	6.9	46	12.2	6	21.7	7	18.1	11	8.2	19	9.4	7	16.7
Ages < 5 Years*	0	*	1	*	0	*	0	*	0	*	0	*	1	*
Drug Resistant, Ages 5+ Years*	2	*	11	*	1	*	0	*	4	*	5	*	2	*
Drug Susceptible, Ages 5+ Years*	1	*	34	*	5	*	7	*	7	*	14	*	4	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	1	0.7	0	0.0	0	0.0
Typhoid Fever	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	0	0.0	1	0.3	1	3.6	0	0.0	2	1.5	0	0.0	0	0.0
SUB-TOTAL	**16**	**36.6**	**267**	**70.7**	**24**	**86.7**	**25**	**64.5**	**127**	**94.2**	**123**	**60.6**	**49**	**116.9**
HEPATITIS														
Hepatitis A	0	0.0	2	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hepatitis B*	8	18.3	144	38.1	2	7.2	3	7.7	30	22.3	44	21.7	15	35.8
Acute*	0	0.0	19	5.0	1	3.6	0	0.0	4	3.0	3	1.5	3	7.2
Chronic*	8	18.3	125	33.1	1	3.6	3	7.7	26	19.3	41	20.2	12	28.6
Hepatitis C*	121	276.5	842	223.0	18	65.1	46	118.7	289	214.4	501	246.8	107	255.4
Acute*	0	0.0	7	1.9	1	3.6	0	0.0	2	1.5	2	1.0	2	4.8
Chronic*	121	276.5	835	221.2	17	61.4	46	118.7	287	212.9	499	245.8	105	250.6
Hepatitis E	0	0.0	0	0.0	0	0.0	1	2.6	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**129**	**294.8**	**988**	**261.7**	**20**	**72.3**	**50**	**129.0**	**319**	**236.7**	**545**	**268.4**	**122**	**291.2**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

OUTBREAKS*	Brown		Butler		Carroll		Champaign		Clark		Clermont		Clinton	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Community*	0	n/a	0	n/a	0	n/a	0	n/a	3	n/a	0	n/a	0	n/a
Foodborne*	0	n/a	2	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Healthcare-Associated*	0	n/a	2	n/a	0	n/a	0	n/a	3	n/a	0	n/a	0	n/a
Institutional*	0	n/a	15	n/a	0	n/a	1	n/a	13	n/a	3	n/a	0	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	1	n/a	1	n/a	0	n/a
SUB-TOTAL	**0**	**n/a**	**19**	**n/a**	**0**	**n/a**	**1**	**n/a**	**20**	**n/a**	**4**	**n/a**	**0**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	0	0.0	102	27.0	10	36.1	8	20.6	65	48.2	54	26.6	1	2.4
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	2	1.5	0	0.0	0	0.0
Meningococcal Disease	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	3	0.8	0	0.0	0	0.0	1	0.7	0	0.0	0	0.0
Pertussis	4	9.1	14	3.7	2	7.2	0	0.0	8	5.9	26	12.8	1	2.4
Tetanus	1	2.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	1	2.3	11	2.9	0	0.0	2	5.2	6	4.5	7	3.4	2	4.8
SUB-TOTAL	**6**	**13.7**	**131**	**34.7**	**12**	**43.4**	**10**	**25.8**	**82**	**60.8**	**87**	**42.9**	**4**	**9.5**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	1	0.7	0	0.0	0	0.0
Dengue	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Anaplasma phagocytophilum *	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichia chaffeensis *	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	1	3.6	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	4	2.0	0	0.0
Malaria	0	0.0	5	1.3	1	3.6	0	0.0	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	0	n/a	0	n/a	0	n/a	2	n/a	1	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	2	0.5	0	0.0	0	0.0	0	0.0	0	0.0	1	2.4
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	1.0	0	0.0
Zika Virus Infection*	0	0.0	5	1.3	0	0.0	1	2.6	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**0**	**0.0**	**14**	**3.7**	**2**	**7.2**	**1**	**2.6**	**3**	**0.7**	**7**	**3.0**	**1**	**2.4**
GRAND TOTAL	**151**	**345.1**	**1,419**	**370.8**	**58**	**209.6**	**87**	**222.0**	**551**	**392.5**	**766**	**374.8**	**176**	**420.0**
POPULATION	**43,759**		**377,537**		**27,669**		**38,747**		**134,786**		**203,022**		**41,902**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Columbiana		Coshocton		Crawford		Cuyahoga		Darke		Defiance		Delaware	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	4	0.3	0	0.0	0	0.0	1	0.5
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	16	15.4	12	32.8	3	7.1	221	17.7	28	54.1	9	23.6	36	18.3
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	1	0.5
Creutzfeldt-Jakob Disease (CJD)	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	4	3.9	2	5.5	5	11.9	34	2.7	9	17.4	4	10.5	132	67.2
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	1	1.0	0	0.0	0	0.0	11	0.9	2	3.9	2	5.2	3	1.5
O157:H7	1	1.0	0	0.0	0	0.0	4	0.3	0	0.0	1	2.6	1	0.5
Not O157:H7	0	0.0	0	0.0	0	0.0	6	0.5	1	1.9	0	0.0	2	1.0
Unknown Serotype	0	0.0	0	0.0	0	0.0	1	0.1	1	1.9	1	2.6	0	0.0
Giardiasis	3	2.9	0	0.0	0	0.0	41	3.3	1	1.9	1	2.6	11	5.6
Haemophilus influenzae , Invasive Disease	2	1.9	0	0.0	0	0.0	29	2.3	1	1.9	0	0.0	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.5
Legionellosis	10	9.6	0	0.0	2	4.8	77	6.2	2	3.9	0	0.0	5	2.5
Listeriosis	3	2.9	0	0.0	0	0.0	6	0.5	0	0.0	0	0.0	0	0.0
Meningitis, Aseptic	5	4.8	4	10.9	5	11.9	58	4.6	0	0.0	5	13.1	5	2.5
Meningitis, Other Bacterial*	0	0.0	0	0.0	0	0.0	17	1.4	2	3.9	2	5.2	1	0.5
Salmonellosis	19	18.3	7	19.1	9	21.4	152	12.2	9	17.4	6	15.7	26	13.2
Shigellosis	0	0.0	0	0.0	0	0.0	24	1.9	1	1.9	0	0.0	10	5.1
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	6	5.8	0	0.0	0	0.0	71	5.7	0	0.0	1	2.6	6	3.1
Streptococcal Disease, Group B, in Newborn*	0	*	1	*	0	*	15	*	0	*	0	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	8	7.7	7	19.1	1	2.4	90	7.2	2	3.9	3	7.9	12	6.1
Ages < 5 Years*	0	*	0	*	0	*	5	*	0	*	0	*	4	*
Drug Resistant, Ages 5+ Years*	0	*	2	*	0	*	35	*	1	*	1	*	3	*
Drug Susceptible, Ages 5+ Years*	8	*	5	*	1	*	50	*	1	*	2	*	5	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	3	0.2	0	0.0	0	0.0	1	0.5
Vibriosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	0	0.0	1	2.7	1	2.4	8	0.6	0	0.0	1	2.6	1	0.5
SUB-TOTAL	**78**	**75.2**	**34**	**92.9**	**26**	**61.8**	**865**	**69.2**	**57**	**110.1**	**34**	**89.1**	**252**	**128.3**
HEPATITIS														
Hepatitis A	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Hepatitis B*	6	5.8	2	5.5	11	26.1	245	19.6	10	19.3	2	5.2	29	14.8
Acute*	1	1.0	0	0.0	2	4.8	7	0.6	0	0.0	0	0.0	2	1.0
Chronic*	5	4.8	2	5.5	9	21.4	238	19.0	10	19.3	2	5.2	27	13.7
Hepatitis C*	157	151.4	40	109.3	93	221.0	2,149	172.0	44	85.0	42	110.1	115	58.5
Acute*	4	3.9	0	0.0	0	0.0	15	1.2	0	0.0	0	0.0	2	1.0
Chronic*	153	147.6	40	109.3	93	221.0	2,134	170.8	44	85.0	42	110.1	113	57.5
Hepatitis E	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**163**	**157.2**	**42**	**114.7**	**104**	**247.1**	**2,396**	**191.8**	**54**	**104.3**	**44**	**115.3**	**144**	**73.3**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Columbiana		Coshocton		Crawford		Cuyahoga		Darke		Defiance		Delaware	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	0	n/a	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a	1	n/a
Foodborne*	1	n/a	0	n/a	1	n/a	3	n/a	1	n/a	0	n/a	3	n/a
Healthcare-Associated*	0	n/a	0	n/a	0	n/a	9	n/a	0	n/a	0	n/a	0	n/a
Institutional*	0	n/a	0	n/a	0	n/a	22	n/a	0	n/a	0	n/a	3	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	1	n/a	2	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**1**	**n/a**	**0**	**n/a**	**1**	**n/a**	**34**	**n/a**	**2**	**n/a**	**1**	**n/a**	**9**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	34	32.8	9	24.6	7	16.6	688	55.1	16	30.9	19	49.8	25	12.7
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	1	1.0	0	0.0	0	0.0	4	0.3	0	0.0	1	2.6	0	0.0
Pertussis	4	3.9	0	0.0	1	2.4	16	1.3	1	1.9	1	2.6	43	21.9
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	3	2.9	4	10.9	0	0.0	32	2.6	13	25.1	2	5.2	17	8.7
SUB-TOTAL	**42**	**40.5**	**13**	**35.5**	**8**	**19.0**	**740**	**59.2**	**30**	**57.9**	**23**	**60.3**	**85**	**43.3**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	0	0.0
Anaplasma phagocytophilum *	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Ehrlichia chaffeensis *	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	0	0.0	1	2.4	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	6	5.8	3	8.2	0	0.0	13	1.0	0	0.0	1	2.6	1	0.5
Malaria	0	0.0	0	0.0	0	0.0	6	0.5	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Rabies, Animal*	4	n/a	0	n/a	0	n/a	2	n/a	1	n/a	0	n/a	1	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	5	0.4	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	0	0.0	0	0.0	0	0.0	16	1.3	1	1.9	1	2.6	1	0.5
SUB-TOTAL	**10**	**5.8**	**3**	**8.2**	**1**	**2.4**	**48**	**3.7**	**2**	**1.9**	**2**	**5.2**	**3**	**1.0**
GRAND TOTAL	**294**	**278.7**	**92**	**251.4**	**140**	**330.3**	**4,083**	**323.9**	**145**	**274.2**	**104**	**269.9**	**493**	**245.8**
POPULATION	**103,685**		**36,602**		**42,083**		**1,249,352**		**51,778**		**38,158**		**196,463**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Erie		Fairfield		Fayette		Franklin		Fulton		Gallia		Geauga	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	7	0.6	0	0.0	0	0.0	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	2	0.2	0	0.0	1	3.3	0	0.0
Infant*	0	*	0	*	0	*	2	*	0	*	1	*	0	*
Campylobacteriosis	16	21.3	16	10.5	13	45.3	148	11.7	24	56.5	13	43.3	18	19.1
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	3	0.2	0	0.0	0	0.0	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	4	5.3	69	45.2	1	3.5	897	70.9	6	14.1	0	0.0	3	3.2
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	0	0.0	7	4.6	0	0.0	48	3.8	1	2.4	1	3.3	2	2.1
O157:H7	0	0.0	1	0.7	0	0.0	9	0.7	0	0.0	1	3.3	1	1.1
Not O157:H7	0	0.0	6	3.9	0	0.0	33	2.6	1	2.4	0	0.0	1	1.1
Unknown Serotype	0	0.0	0	0.0	0	0.0	6	0.5	0	0.0	0	0.0	0	0.0
Giardiasis	2	2.7	5	3.3	0	0.0	85	6.7	2	4.7	0	0.0	3	3.2
Haemophilus influenzae , Invasive Disease	3	4.0	2	1.3	0	0.0	12	0.9	0	0.0	0	0.0	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Legionellosis	2	2.7	11	7.2	0	0.0	102	8.1	1	2.4	2	6.7	4	4.3
Listeriosis	0	0.0	0	0.0	0	0.0	3	0.2	1	2.4	0	0.0	2	2.1
Meningitis, Aseptic	0	0.0	9	5.9	0	0.0	80	6.3	7	16.5	1	3.3	0	0.0
Meningitis, Other Bacterial*	2	2.7	1	0.7	1	3.5	12	0.9	0	0.0	0	0.0	0	0.0
Salmonellosis	10	13.3	23	15.1	4	13.9	168	13.3	7	16.5	3	10.0	11	11.7
Shigellosis	1	1.3	20	13.1	2	7.0	375	29.7	2	4.7	0	0.0	1	1.1
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	5	6.7	5	3.3	1	3.5	52	4.1	2	4.7	0	0.0	4	4.3
Streptococcal Disease, Group B, in Newborn*	0	*	3	*	0	*	10	*	0	*	0	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	4	0.3	0	0.0	0	0.0	1	1.1
Streptococcus pneumoniae , Invasive Disease	7	9.3	13	8.5	0	0.0	107	8.5	7	16.5	4	13.3	7	7.4
Ages < 5 Years*	0	*	2	*	0	*	14	*	0	*	0	*	0	*
Drug Resistant, Ages 5+ Years*	5	*	1	*	0	*	22	*	4	*	0	*	2	*
Drug Susceptible, Ages 5+ Years*	2	*	10	*	0	*	71	*	3	*	4	*	5	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Yersiniosis	0	0.0	1	0.7	0	0.0	4	0.3	1	2.4	0	0.0	0	0.0
SUB-TOTAL	**52**	**69.2**	**186**	**121.9**	**22**	**76.7**	**2,123**	**167.9**	**61**	**143.5**	**25**	**83.3**	**56**	**59.5**
HEPATITIS														
Hepatitis A	1	1.3	0	0.0	0	0.0	13	1.0	0	0.0	0	0.0	0	0.0
Hepatitis B*	16	21.3	35	22.9	11	38.4	533	42.2	2	4.7	18	60.0	2	2.1
Acute*	3	4.0	8	5.2	0	0.0	75	5.9	1	2.4	6	20.0	0	0.0
Chronic*	13	17.3	27	17.7	11	38.4	458	36.2	1	2.4	12	40.0	2	2.1
Hepatitis C*	157	209.0	215	140.9	101	352.2	2,256	178.4	34	80.0	153	509.7	88	93.6
Acute*	0	0.0	2	1.3	1	3.5	50	4.0	0	0.0	7	23.3	0	0.0
Chronic*	157	209.0	213	139.6	100	348.7	2,206	174.5	34	80.0	146	486.4	88	93.6
Hepatitis E	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**174**	**231.7**	**250**	**163.8**	**112**	**390.6**	**2,803**	**221.7**	**36**	**84.7**	**171**	**569.7**	**90**	**95.7**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Erie		Fairfield		Fayette		Franklin		Fulton		Gallia		Geauga	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	2	n/a	2	n/a	0	n/a	15	n/a	1	n/a	0	n/a	0	n/a
Foodborne*	0	n/a	3	n/a	0	n/a	9	n/a	0	n/a	2	n/a	0	n/a
Healthcare-Associated*	1	n/a	0	n/a	0	n/a	14	n/a	0	n/a	0	n/a	0	n/a
Institutional*	2	n/a	6	n/a	0	n/a	105	n/a	2	n/a	1	n/a	1	n/a
Waterborne*	1	n/a	3	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	1	n/a	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**6**	**n/a**	**15**	**n/a**	**0**	**n/a**	**144**	**n/a**	**3**	**n/a**	**3**	**n/a**	**1**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	24	32.0	26	17.0	7	24.4	287	22.7	21	49.4	10	33.3	31	33.0
Influenza-Associated Pediatric Mortality*	1	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	0	0.0	3	0.2	0	0.0	0	0.0	0	0.0
Pertussis	0	0.0	52	34.1	0	0.0	348	27.5	2	4.7	1	3.3	0	0.0
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	3.3	0	0.0
Varicella	4	5.3	4	2.6	1	3.5	65	5.1	3	7.1	0	0.0	1	1.1
SUB-TOTAL	**29**	**38.6**	**82**	**53.7**	**8**	**27.9**	**704**	**55.7**	**26**	**61.2**	**12**	**40.0**	**32**	**34.0**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Anaplasma phagocytophilum**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	0	0.0	3	2.0	0	0.0	15	1.2	0	0.0	0	0.0	1	1.1
Malaria	0	0.0	3	2.0	1	3.5	28	2.2	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.1
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.1
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	1	n/a	0	n/a	3	n/a	0	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	1	0.7	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	0	0.0	2	1.3	1	3.5	14	1.1	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**0**	**0.0**	**10**	**5.9**	**2**	**7.0**	**68**	**5.1**	**0**	**0.0**	**0**	**0.0**	**2**	**2.1**
GRAND TOTAL	**261**	**339.5**	**543**	**345.4**	**144**	**502.2**	**5,842**	**450.4**	**126**	**289.3**	**211**	**693.0**	**181**	**191.4**
POPULATION	**75,107**		**152,597**		**28,676**		**1,264,518**		**42,514**		**30,015**		**94,060**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Greene		Guernsey		Hamilton		Hancock		Hardin		Harrison		Henry	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	1	3.2	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	1	*	0	*	0	*
Campylobacteriosis	27	16.4	8	20.5	89	11.0	3	4.0	5	15.9	2	13.1	8	29.0
Coccidioidomycosis	0	0.0	0	0.0	3	0.4	0	0.0	0	0.0	0	0.0	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	5	3.0	4	10.2	36	4.4	11	14.5	4	12.7	1	6.5	2	7.2
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	8	4.9	0	0.0	24	3.0	1	1.3	0	0.0	0	0.0	0	0.0
O157:H7	6	3.6	0	0.0	4	0.5	0	0.0	0	0.0	0	0.0	0	0.0
Not O157:H7	2	1.2	0	0.0	18	2.2	1	1.3	0	0.0	0	0.0	0	0.0
Unknown Serotype	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	0	0.0	0	0.0
Giardiasis	2	1.2	3	7.7	16	2.0	1	1.3	0	0.0	0	0.0	0	0.0
Haemophilus influenzae , Invasive Disease	3	1.8	3	7.7	12	1.5	0	0.0	1	3.2	0	0.0	1	3.6
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Legionellosis	12	7.3	0	0.0	13	1.6	1	1.3	0	0.0	0	0.0	1	3.6
Listeriosis	0	0.0	0	0.0	4	0.5	0	0.0	0	0.0	0	0.0	0	0.0
Meningitis, Aseptic	5	3.0	4	10.2	73	9.0	2	2.6	0	0.0	1	6.5	1	3.6
Meningitis, Other Bacterial*	4	2.4	0	0.0	12	1.5	1	1.3	0	0.0	0	0.0	1	3.6
Salmonellosis	31	18.8	10	25.6	101	12.5	9	11.9	9	28.6	4	26.1	3	10.9
Shigellosis	25	15.2	0	0.0	220	27.2	1	1.3	0	0.0	0	0.0	0	0.0
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	11	6.7	2	5.1	20	2.5	1	1.3	4	12.7	0	0.0	1	3.6
Streptococcal Disease, Group B, in Newborn*	0	*	0	*	3	*	1	*	0	*	0	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	11	6.7	9	23.0	66	8.2	7	9.2	1	3.2	1	6.5	1	3.6
Ages < 5 Years*	0	*	0	*	2	*	1	*	0	*	0	*	0	*
Drug Resistant, Ages 5+ Years*	1	*	2	*	20	*	1	*	0	*	1	*	1	*
Drug Susceptible, Ages 5+ Years*	10	*	7	*	44	*	5	*	1	*	0	*	0	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	2	0.2	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	1	0.6	0	0.0	2	0.2	0	0.0	1	3.2	0	0.0	0	0.0
SUB-TOTAL	**145**	**88.0**	**43**	**110.1**	**697**	**86.1**	**39**	**51.4**	**26**	**82.6**	**9**	**58.8**	**19**	**68.8**
HEPATITIS														
Hepatitis A	0	0.0	0	0.0	1	0.1	1	1.3	0	0.0	0	0.0	0	0.0
Hepatitis B*	32	19.4	17	43.5	242	29.9	10	13.2	10	31.8	2	13.1	2	7.2
Acute*	0	0.0	2	5.1	21	2.6	0	0.0	1	3.2	1	6.5	0	0.0
Chronic*	32	19.4	15	38.4	221	27.3	10	13.2	9	28.6	1	6.5	2	7.2
Hepatitis C*	205	124.4	100	256.0	1,858	229.6	87	114.7	75	238.3	18	117.6	23	83.2
Acute*	0	0.0	6	15.4	14	1.7	1	1.3	1	3.2	0	0.0	0	0.0
Chronic*	205	124.4	94	240.6	1,844	227.9	86	113.3	74	235.1	18	117.6	23	83.2
Hepatitis E	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**237**	**143.8**	**117**	**299.5**	**2,102**	**259.8**	**98**	**129.2**	**85**	**270.1**	**20**	**130.7**	**25**	**90.5**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Greene		Guernsey		Hamilton		Hancock		Hardin		Harrison		Henry	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	1	n/a	0	n/a	1	n/a	1	n/a	0	n/a	0	n/a	0	n/a
Foodborne*	0	n/a	0	n/a	5	n/a	1	n/a	0	n/a	0	n/a	1	n/a
Healthcare-Associated*	1	n/a	0	n/a	3	n/a	0	n/a	1	n/a	0	n/a	0	n/a
Institutional*	5	n/a	1	n/a	13	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**7**	**n/a**	**1**	**n/a**	**22**	**n/a**	**3**	**n/a**	**1**	**n/a**	**0**	**n/a**	**1**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	40	24.3	8	20.5	213	26.3	6	7.9	10	31.8	3	19.6	9	32.6
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	3	0.4	0	0.0	0	0.0	0	0.0	0	0.0
Pertussis	9	5.5	2	5.1	38	4.7	0	0.0	0	0.0	0	0.0	2	7.2
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	4	2.4	1	2.6	12	1.5	7	9.2	0	0.0	1	6.5	2	7.2
SUB-TOTAL	**53**	**32.2**	**11**	**28.2**	**266**	**32.9**	**13**	**17.1**	**10**	**31.8**	**4**	**26.1**	**13**	**47.1**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Anaplasma phagocytophilum**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	1	2.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	1	0.6	1	2.6	6	0.7	0	0.0	1	3.2	2	13.1	0	0.0
Malaria	0	0.0	0	0.0	4	0.5	1	1.3	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	0	n/a	9	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	0	0.0	0	0.0	9	1.1	2	2.6	0	0.0	0	0.0	1	3.6
SUB-TOTAL	**2**	**1.2**	**2**	**5.1**	**30**	**2.6**	**3**	**4.0**	**1**	**3.2**	**2**	**13.1**	**1**	**3.6**
GRAND TOTAL	**444**	**265.2**	**174**	**442.9**	**3,117**	**381.4**	**156**	**201.7**	**123**	**387.6**	**35**	**228.7**	**59**	**209.9**
POPULATION	**164,765**		**39,063**		**809,099**		**75,872**		**31,474**		**15,307**		**27,629**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Highland		Hocking		Holmes		Huron		Jackson		Jefferson		Knox	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	8	18.6	2	7.1	11	25.0	13	22.2	13	40.0	16	24.0	9	14.8
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	1	2.3	2	7.1	0	0.0	1	1.7	0	0.0	3	4.5	23	37.8
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	1	2.3	2	7.1	2	4.6	1	1.7	0	0.0	0	0.0	2	3.3
O157:H7	0	0.0	2	7.1	0	0.0	1	1.7	0	0.0	0	0.0	0	0.0
Not O157:H7	1	2.3	0	0.0	2	4.6	0	0.0	0	0.0	0	0.0	1	1.6
Unknown Serotype	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.6
Giardiasis	1	2.3	1	3.5	0	0.0	1	1.7	0	0.0	3	4.5	4	6.6
Haemophilus influenzae , Invasive Disease	3	7.0	1	3.5	0	0.0	1	1.7	0	0.0	1	1.5	1	1.6
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Legionellosis	0	0.0	2	7.1	2	4.6	6	10.3	0	0.0	2	3.0	8	13.2
Listeriosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	1.6
Meningitis, Aseptic	2	4.6	1	3.5	2	4.6	2	3.4	1	3.1	1	1.5	2	3.3
Meningitis, Other Bacterial*	2	4.6	0	0.0	1	2.3	2	3.4	0	0.0	1	1.5	0	0.0
Salmonellosis	9	20.9	4	14.1	5	11.4	10	17.1	7	21.5	11	16.5	14	23.0
Shigellosis	2	4.6	1	3.5	0	0.0	1	1.7	0	0.0	0	0.0	0	0.0
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	0	0.0	0	0.0	1	2.3	1	1.7	0	0.0	2	3.0	0	0.0
Streptococcal Disease, Group B, in Newborn*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	7	16.3	2	7.1	1	2.3	5	8.6	3	9.2	14	21.0	1	1.6
Ages < 5 Years*	2	*	1	*	0	*	1	*	0	*	0	*	0	*
Drug Resistant, Ages 5+ Years*	4	*	1	*	0	*	3	*	1	*	6	*	0	*
Drug Susceptible, Ages 5+ Years*	1	*	0	*	1	*	1	*	2	*	8	*	1	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	0	0.0	0	0.0	1	2.3	1	1.7	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**36**	**83.7**	**18**	**63.5**	**26**	**59.2**	**45**	**77.0**	**24**	**73.8**	**54**	**81.0**	**65**	**106.9**
HEPATITIS														
Hepatitis A	0	0.0	0	0.0	0	0.0	0	0.0	1	3.1	0	0.0	0	0.0
Hepatitis B*	16	37.2	6	21.2	0	0.0	16	27.4	23	70.8	11	16.5	8	13.2
Acute*	3	7.0	0	0.0	0	0.0	3	5.1	6	18.5	0	0.0	0	0.0
Chronic*	13	30.2	6	21.2	0	0.0	13	22.2	17	52.3	11	16.5	8	13.2
Hepatitis C*	112	260.3	62	218.8	18	41.0	102	174.5	104	320.0	161	241.4	62	102.0
Acute*	3	7.0	0	0.0	0	0.0	5	8.6	5	15.4	0	0.0	0	0.0
Chronic*	109	253.3	62	218.8	18	41.0	97	166.0	99	304.6	161	241.4	62	102.0
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**128**	**297.5**	**68**	**239.9**	**18**	**41.0**	**118**	**201.9**	**128**	**393.8**	**172**	**257.9**	**70**	**115.1**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Highland		Hocking		Holmes		Huron		Jackson		Jefferson		Knox	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	0	n/a	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Foodborne*	1	n/a	0	n/a	1	n/a	1	n/a	0	n/a	0	n/a	0	n/a
Healthcare-Associated*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	1	n/a
Institutional*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**1**	**n/a**	**0**	**n/a**	**2**	**n/a**	**1**	**n/a**	**0**	**n/a**	**0**	**n/a**	**1**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	8	18.6	8	28.2	14	31.9	25	42.8	10	30.8	42	63.0	2	3.3
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pertussis	0	0.0	1	3.5	2	4.6	1	1.7	1	3.1	4	6.0	4	6.6
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	14	32.5	3	10.6	4	9.1	3	5.1	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**22**	**51.1**	**12**	**42.3**	**20**	**45.5**	**29**	**49.6**	**11**	**33.8**	**46**	**69.0**	**6**	**9.9**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	1	3.1	0	0.0	0	0.0
*Anaplasma phagocytophilum**	0	0.0	0	0.0	0	0.0	0	0.0	1	3.1	0	0.0	0	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	0	0.0	1	3.5	1	2.3	0	0.0	0	0.0	19	28.5	1	1.6
Malaria	0	0.0	0	0.0	1	2.3	0	0.0	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	0	0.0	0	0.0	1	3.1	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	0	0.0	1	3.5	1	2.3	0	0.0	0	0.0	0	0.0	1	1.6
SUB-TOTAL	**0**	**0.0**	**2**	**7.1**	**3**	**6.8**	**0**	**0.0**	**2**	**6.2**	**19**	**28.5**	**2**	**3.3**
GRAND TOTAL	**187**	**432.3**	**100**	**352.9**	**69**	**152.5**	**193**	**328.5**	**165**	**507.6**	**291**	**436.3**	**144**	**235.1**
POPULATION	**43,029**		**28,340**		**43,936**		**58,439**		**32,505**		**66,704**		**60,814**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Lake		Lawrence		Licking		Logan		Lorain		Lucas		Madison	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Botulism	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	0	*	1	*	0	*	0	*	0	*	0	*
Campylobacteriosis	64	28.0	20	32.9	12	7.0	6	13.3	49	16.0	73	16.9	10	23.0
Coccidioidomycosis	2	0.9	0	0.0	1	0.6	0	0.0	0	0.0	1	0.2	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	3	1.3	4	6.6	39	22.6	30	66.4	19	6.2	45	10.4	5	11.5
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0
Escherichia coli , Shiga Toxin-Producing	3	1.3	3	4.9	3	1.7	1	2.2	4	1.3	6	1.4	1	2.3
O157:H7	0	0.0	0	0.0	1	0.6	1	2.2	1	0.3	0	0.0	0	0.0
Not O157:H7	3	1.3	2	3.3	2	1.2	0	0.0	3	1.0	4	0.9	0	0.0
Unknown Serotype	0	0.0	1	1.6	0	0.0	0	0.0	0	0.0	2	0.5	1	2.3
Giardiasis	4	1.7	1	1.6	5	2.9	0	0.0	5	1.6	11	2.5	3	6.9
Haemophilus influenzae , Invasive Disease	2	0.9	0	0.0	1	0.6	0	0.0	8	2.6	8	1.8	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Legionellosis	15	6.6	1	1.6	4	2.3	1	2.2	12	3.9	11	2.5	2	4.6
Listeriosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0
Meningitis, Aseptic	3	1.3	3	4.9	7	4.1	5	11.1	12	3.9	58	13.4	2	4.6
Meningitis, Other Bacterial*	0	0.0	0	0.0	2	1.2	0	0.0	3	1.0	8	1.8	0	0.0
Salmonellosis	26	11.4	9	14.8	21	12.2	3	6.6	49	16.0	52	12.0	7	16.1
Shigellosis	1	0.4	2	3.3	13	7.5	0	0.0	9	2.9	69	16.0	1	2.3
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	1	0.4	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	2	0.9	1	1.6	0	0.0	0	0.0	4	1.3	18	4.2	1	2.3
Streptococcal Disease, Group B, in Newborn*	2	*	0	*	0	*	1	*	0	*	4	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	1.2	0	0.0
Streptococcus pneumoniae , Invasive Disease	9	3.9	3	4.9	9	5.2	0	0.0	13	4.2	33	7.6	4	9.2
Ages < 5 Years*	1	*	0	*	0	*	0	*	2	*	2	*	0	*
Drug Resistant, Ages 5+ Years*	2	*	1	*	0	*	0	*	4	*	7	*	1	*
Drug Susceptible, Ages 5+ Years*	6	*	2	*	9	*	0	*	7	*	24	*	3	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0
Yersiniosis	2	0.9	0	0.0	1	0.6	0	0.0	0	0.0	1	0.2	0	0.0
SUB-TOTAL	**139**	**60.8**	**47**	**77.2**	**119**	**69.1**	**47**	**104.1**	**189**	**61.7**	**405**	**93.6**	**36**	**82.9**
HEPATITIS														
Hepatitis A	0	0.0	0	0.0	1	0.6	0	0.0	1	0.3	7	1.6	0	0.0
Hepatitis B*	12	5.2	24	39.4	26	15.1	2	4.4	31	10.1	78	18.0	11	25.3
Acute*	0	0.0	3	4.9	4	2.3	0	0.0	0	0.0	0	0.0	0	0.0
Chronic*	12	5.2	21	34.5	22	12.8	2	4.4	31	10.1	78	18.0	11	25.3
Hepatitis C*	266	116.4	222	364.7	180	104.5	32	70.9	496	161.9	1,080	249.7	78	179.6
Acute*	0	0.0	8	13.1	1	0.6	0	0.0	0	0.0	2	0.5	0	0.0
Chronic*	266	116.4	214	351.6	179	104.0	32	70.9	496	161.9	1,078	249.3	78	179.6
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	0	0.0
SUB-TOTAL	**278**	**121.6**	**246**	**404.1**	**207**	**120.2**	**34**	**75.3**	**529**	**172.7**	**1,165**	**269.4**	**89**	**205.0**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

OUTBREAKS*	Lake		Lawrence		Licking		Logan		Lorain		Lucas		Madison	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Community*	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a	1	n/a	0	n/a
Foodborne*	0	n/a	0	n/a	0	n/a	0	n/a	1	n/a	13	n/a	0	n/a
Healthcare-Associated*	0	n/a	0	n/a	2	n/a	2	n/a	1	n/a	5	n/a	0	n/a
Institutional*	0	n/a	0	n/a	2	n/a	2	n/a	2	n/a	8	n/a	1	n/a
Waterborne*	1	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**1**	**n/a**	**1**	**n/a**	**4**	**n/a**	**5**	**n/a**	**4**	**n/a**	**27**	**n/a**	**1**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	59	25.8	34	55.9	37	21.5	7	15.5	59	19.3	245	56.6	6	13.8
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	0	0.0	1	1.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.5	0	0.0
Pertussis	7	3.1	1	1.6	26	15.1	1	2.2	6	2.0	12	2.8	5	11.5
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	6	2.6	1	1.6	3	1.7	1	2.2	6	2.0	14	3.2	1	2.3
SUB-TOTAL	**72**	**31.5**	**37**	**60.8**	**67**	**38.9**	**9**	**19.9**	**71**	**23.2**	**273**	**63.1**	**12**	**27.6**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Anaplasma phagocytophilum *	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichia chaffeensis *	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	0	0.0	2	3.3	5	2.9	0	0.0	0	0.0	6	1.4	0	0.0
Malaria	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	0	n/a	2	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.7	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	2	0.9	0	0.0	4	2.3	0	0.0	3	1.0	2	0.5	0	0.0
SUB-TOTAL	**2**	**0.9**	**2**	**3.3**	**12**	**5.8**	**0**	**0.0**	**3**	**1.0**	**12**	**2.8**	**0**	**0.0**
GRAND TOTAL	**492**	**214.8**	**333**	**545.4**	**409**	**234.0**	**95**	**199.3**	**796**	**258.5**	**1,882**	**428.9**	**138**	**315.5**
POPULATION	**228,614**		**60,872**		**172,198**		**45,165**		**306,365**		**432,488**		**43,419**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Mahoning		Marion		Medina		Meigs		Mercer		Miami		Monroe	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	1	0.6	0	0.0	1	2.4	0	0.0	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	14	6.1	6	9.2	34	19.2	7	30.3	40	97.8	15	14.3	3	21.1
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	10	4.3	22	33.8	7	3.9	0	0.0	53	129.6	18	17.2	0	0.0
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	1	0.4	1	1.5	2	1.1	1	4.3	6	14.7	1	1.0	1	7.0
O157:H7	0	0.0	0	0.0	0	0.0	0	0.0	2	4.9	1	1.0	0	0.0
Not O157:H7	0	0.0	1	1.5	2	1.1	1	4.3	4	9.8	0	0.0	1	7.0
Unknown Serotype	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Giardiasis	3	1.3	0	0.0	9	5.1	0	0.0	1	2.4	4	3.8	0	0.0
Haemophilus influenzae , Invasive Disease	6	2.6	1	1.5	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Legionellosis	12	5.2	3	4.6	6	3.4	2	8.6	1	2.4	1	1.0	0	0.0
Listeriosis	0	0.0	0	0.0	0	0.0	2	8.6	0	0.0	0	0.0	0	0.0
Meningitis, Aseptic	6	2.6	3	4.6	6	3.4	1	4.3	9	22.0	4	3.8	0	0.0
Meningitis, Other Bacterial*	2	0.9	0	0.0	1	0.6	0	0.0	1	2.4	2	1.9	0	0.0
Salmonellosis	24	10.4	6	9.2	32	18.1	4	17.3	3	7.3	14	13.4	0	0.0
Shigellosis	7	3.0	0	0.0	0	0.0	0	0.0	1	2.4	0	0.0	0	0.0
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	4	1.7	3	4.6	4	2.3	0	0.0	1	2.4	4	3.8	0	0.0
Streptococcal Disease, Group B, in Newborn*	0	*	0	*	1	*	0	*	0	*	0	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	23	10.0	13	20.0	4	2.3	1	4.3	2	4.9	5	4.8	0	0.0
Ages < 5 Years*	2	*	0	*	0	*	0	*	0	*	0	*	0	*
Drug Resistant, Ages 5+ Years*	13	*	3	*	2	*	0	*	1	*	2	*	0	*
Drug Susceptible, Ages 5+ Years*	8	*	10	*	2	*	1	*	1	*	3	*	0	*
Toxic Shock Syndrome (TSS)	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	1	0.4	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**114**	**49.6**	**59**	**90.6**	**109**	**61.5**	**18**	**77.8**	**119**	**290.9**	**68**	**65.0**	**4**	**28.1**
HEPATITIS														
Hepatitis A	0	0.0	2	3.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hepatitis B*	40	17.4	23	35.3	12	6.8	10	43.2	0	0.0	9	8.6	0	0.0
Acute*	4	1.7	3	4.6	0	0.0	2	8.6	0	0.0	2	1.9	0	0.0
Chronic*	36	15.7	20	30.7	12	6.8	8	34.6	0	0.0	7	6.7	0	0.0
Hepatitis C*	442	192.2	234	359.5	187	105.5	87	376.2	27	66.0	145	138.5	13	91.5
Acute*	4	1.7	3	4.6	1	0.6	1	4.3	0	0.0	1	1.0	0	0.0
Chronic*	438	190.4	231	354.9	186	105.0	86	371.9	27	66.0	144	137.6	13	91.5
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**482**	**209.6**	**259**	**397.9**	**199**	**112.3**	**97**	**419.5**	**27**	**66.0**	**154**	**147.1**	**13**	**91.5**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Mahoning		Marion		Medina		Meigs		Mercer		Miami		Monroe	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	0	n/a	1	n/a	0	n/a	0	n/a	1	n/a	1	n/a	0	n/a
Foodborne*	2	n/a	0	n/a	3	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Healthcare-Associated*	1	n/a	0	n/a	2	n/a	0	n/a	1	n/a	0	n/a	0	n/a
Institutional*	0	n/a	5	n/a	1	n/a	0	n/a	0	n/a	1	n/a	0	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	0	n/a	3	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**3**	**n/a**	**6**	**n/a**	**6**	**n/a**	**0**	**n/a**	**5**	**n/a**	**2**	**n/a**	**0**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	259	112.6	16	24.6	53	29.9	3	13.0	23	56.2	16	15.3	5	35.2
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	1	4.3	0	0.0	0	0.0	0	0.0
Meningococcal Disease	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	0	0.0	0	0.0	1	2.4	2	1.9	0	0.0
Pertussis	16	7.0	32	49.2	17	9.6	1	4.3	9	22.0	9	8.6	0	0.0
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	10	4.3	2	3.1	16	9.0	0	0.0	3	7.3	7	6.7	0	0.0
SUB-TOTAL	**286**	**124.3**	**50**	**76.8**	**86**	**48.5**	**5**	**21.6**	**36**	**88.0**	**34**	**32.5**	**5**	**35.2**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Anaplasma phagocytophilum**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	2	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	3	1.3	0	0.0	4	2.3	2	8.6	0	0.0	0	0.0	0	0.0
Malaria	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	2	n/a	0	n/a	1	n/a	0	n/a	1	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	2	3.1	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	2	0.9	0	0.0	2	1.1	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**10**	**3.5**	**2**	**3.1**	**8**	**3.9**	**2**	**8.6**	**1**	**0.0**	**0**	**0.0**	**0**	**0.0**
GRAND TOTAL	**895**	**386.9**	**376**	**568.4**	**408**	**226.3**	**122**	**527.6**	**188**	**444.9**	**258**	**244.6**	**22**	**154.8**
POPULATION	**230,008**		**65,096**		**177,221**		**23,125**		**40,909**		**104,679**		**14,210**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Montgomery		Morgan		Morrow		Muskingum		Noble		Ottawa		Paulding	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	1	7.0	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	1	*	0	*	0	*
Campylobacteriosis	71	13.4	3	20.3	5	14.3	14	16.3	1	7.0	9	22.1	11	58.3
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	34	6.4	2	13.5	8	22.8	26	30.2	0	0.0	2	4.9	2	10.6
Cyclosporiasis	0	0.0	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	9	1.7	0	0.0	2	5.7	1	1.2	1	7.0	0	0.0	0	0.0
O157:H7	4	0.8	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0
Not O157:H7	4	0.8	0	0.0	2	5.7	0	0.0	1	7.0	0	0.0	0	0.0
Unknown Serotype	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Giardiasis	19	3.6	1	6.8	0	0.0	4	4.6	0	0.0	0	0.0	1	5.3
Haemophilus influenzae , Invasive Disease	12	2.3	0	0.0	1	2.9	3	3.5	1	7.0	0	0.0	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Legionellosis	26	4.9	1	6.8	1	2.9	10	11.6	0	0.0	1	2.5	1	5.3
Listeriosis	0	0.0	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0
Meningitis, Aseptic	28	5.3	0	0.0	4	11.4	10	11.6	5	35.0	1	2.5	1	5.3
Meningitis, Other Bacterial*	9	1.7	0	0.0	1	2.9	2	2.3	0	0.0	0	0.0	0	0.0
Salmonellosis	76	14.3	6	40.5	4	11.4	9	10.5	1	7.0	4	9.8	0	0.0
Shigellosis	95	17.9	0	0.0	1	2.9	1	1.2	0	0.0	0	0.0	3	15.9
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	34	6.4	0	0.0	0	0.0	7	8.1	1	7.0	2	4.9	2	10.6
Streptococcal Disease, Group B, in Newborn*	3	*	0	*	0	*	1	*	0	*	0	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	59	11.1	1	6.8	3	8.6	17	19.8	2	14.0	4	9.8	0	0.0
Ages < 5 Years*	2	*	1	*	0	*	0	*	0	*	0	*	0	*
Drug Resistant, Ages 5+ Years*	12	*	0	*	0	*	2	*	0	*	0	*	0	*
Drug Susceptible, Ages 5+ Years*	45	*	0	*	3	*	15	*	2	*	4	*	0	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**475**	**89.4**	**14**	**94.6**	**30**	**85.6**	**108**	**125.5**	**13**	**90.9**	**23**	**56.6**	**21**	**111.3**

HEPATITIS														
Hepatitis A	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hepatitis B*	175	32.9	3	20.3	9	25.7	23	26.7	6	42.0	3	7.4	0	0.0
Acute*	20	3.8	1	6.8	1	2.9	7	8.1	2	14.0	0	0.0	0	0.0
Chronic*	155	29.2	2	13.5	8	22.8	16	18.6	4	28.0	3	7.4	0	0.0
Hepatitis C*	1,176	221.4	31	209.4	70	199.8	184	213.8	31	216.9	57	140.3	12	63.6
Acute*	9	1.7	1	6.8	1	2.9	8	9.3	2	14.0	4	9.8	0	0.0
Chronic*	1,167	219.7	30	202.6	69	196.9	176	204.5	29	202.9	53	130.4	12	63.6
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**1,351**	**254.3**	**34**	**229.7**	**79**	**225.5**	**207**	**240.5**	**37**	**258.8**	**60**	**147.7**	**12**	**63.6**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Montgomery		Morgan		Morrow		Muskingum		Noble		Ottawa		Paulding	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	1	n/a	0	n/a	1	n/a	0	n/a	1	n/a	0	n/a	0	n/a
Foodborne*	3	n/a	0	n/a	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a
Healthcare-Associated*	1	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Institutional*	8	n/a	0	n/a	0	n/a	0	n/a	1	n/a	1	n/a	0	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**13**	**n/a**	**0**	**n/a**	**1**	**n/a**	**2**	**n/a**	**2**	**n/a**	**1**	**n/a**	**0**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	247	46.5	10	67.5	10	28.5	33	38.3	2	14.0	12	29.5	5	26.5
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	1	0.2	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0
Mumps	38	7.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pertussis	52	9.8	0	0.0	7	20.0	0	0.0	0	0.0	0	0.0	0	0.0
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	16	3.0	0	0.0	1	2.9	2	2.3	0	0.0	0	0.0	6	31.8
SUB-TOTAL	**354**	**66.6**	**10**	**67.5**	**18**	**51.4**	**36**	**41.8**	**2**	**14.0**	**12**	**29.5**	**11**	**58.3**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Anaplasma phagocytophilum**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	5	0.9	0	0.0	0	0.0	3	3.5	0	0.0	0	0.0	0	0.0
Malaria	5	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	0	n/a	0	n/a	3	n/a	0	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	0	0.0	1	7.0	0	0.0	0	0.0
Zika Virus Infection*	3	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**14**	**2.6**	**0**	**0.0**	**0**	**0.0**	**7**	**4.6**	**1**	**7.0**	**0**	**0.0**	**0**	**0.0**
GRAND TOTAL	**2,207**	**413.0**	**58**	**391.8**	**128**	**362.5**	**360**	**412.5**	**55**	**370.8**	**96**	**233.8**	**44**	**233.2**
POPULATION	**531,239**		**14,804**		**35,036**		**86,068**		**14,294**		**40,636**		**18,865**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Perry		Pickaway		Pike		Portage		Preble		Putnam		Richland	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	8	22.3	11	19.1	0	0.0	11	6.8	2	4.8	8	23.5	17	14.0
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	5	13.9	10	17.4	2	7.1	10	6.2	1	2.4	8	23.5	34	28.1
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	2	5.6	2	3.5	0	0.0	1	0.6	0	0.0	2	5.9	3	2.5
O157:H7	1	2.8	1	1.7	0	0.0	0	0.0	0	0.0	2	5.9	1	0.8
Not O157:H7	0	0.0	1	1.7	0	0.0	1	0.6	0	0.0	0	0.0	2	1.7
Unknown Serotype	1	2.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Giardiasis	5	13.9	1	1.7	1	3.6	6	3.7	2	4.8	4	11.7	6	5.0
Haemophilus influenzae , Invasive Disease	0	0.0	3	5.2	2	7.1	0	0.0	0	0.0	0	0.0	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Legionellosis	0	0.0	5	8.7	0	0.0	1	0.6	1	2.4	0	0.0	2	1.7
Listeriosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningitis, Aseptic	1	2.8	2	3.5	1	3.6	4	2.5	3	7.3	3	8.8	13	10.7
Meningitis, Other Bacterial*	0	0.0	2	3.5	0	0.0	1	0.6	0	0.0	0	0.0	5	4.1
Salmonellosis	3	8.4	8	13.9	1	3.6	16	9.9	7	17.0	4	11.7	17	14.0
Shigellosis	0	0.0	13	22.6	1	3.6	27	16.7	0	0.0	0	0.0	2	1.7
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	0	0.0	1	1.7	1	3.6	5	3.1	0	0.0	3	8.8	5	4.1
Streptococcal Disease, Group B, in Newborn*	0	*	0	*	0	*	1	*	0	*	1	*	1	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	1	2.8	5	8.7	6	21.3	16	9.9	3	7.3	1	2.9	15	12.4
Ages < 5 Years*	0	*	0	*	0	*	0	*	1	*	0	*	0	*
Drug Resistant, Ages 5+ Years*	1	*	1	*	1	*	7	*	0	*	0	*	2	*
Drug Susceptible, Ages 5+ Years*	0	*	4	*	5	*	9	*	2	*	1	*	13	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yersiniosis	0	0.0	0	0.0	0	0.0	3	1.9	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**25**	**69.6**	**63**	**109.4**	**15**	**53.3**	**102**	**63.0**	**19**	**46.1**	**34**	**99.8**	**120**	**99.1**
HEPATITIS														
Hepatitis A	0	0.0	0	0.0	1	3.6	2	1.2	1	2.4	0	0.0	0	0.0
Hepatitis B*	9	25.1	23	40.0	16	56.8	30	18.5	18	43.6	0	0.0	41	33.9
Acute*	1	2.8	1	1.7	2	7.1	6	3.7	3	7.3	0	0.0	8	6.6
Chronic*	8	22.3	22	38.2	14	49.7	24	14.8	15	36.4	0	0.0	33	27.2
Hepatitis C*	94	261.6	155	269.3	174	617.9	204	126.0	72	174.6	11	32.3	297	245.2
Acute*	2	5.6	4	6.9	4	14.2	2	1.2	1	2.4	0	0.0	9	7.4
Chronic*	92	256.1	151	262.3	170	603.7	202	124.8	71	172.1	11	32.3	288	237.8
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**103**	**286.7**	**178**	**309.2**	**191**	**678.3**	**236**	**145.8**	**91**	**220.6**	**11**	**32.3**	**338**	**279.1**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Perry		Pickaway		Pike		Portage		Preble		Putnam		Richland	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a	0	n/a	2	n/a
Foodborne*	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a
Healthcare-Associated*	0	n/a	0	n/a	0	n/a	3	n/a	0	n/a	3	n/a	1	n/a
Institutional*	0	n/a	7	n/a	0	n/a	3	n/a	0	n/a	1	n/a	2	n/a
Waterborne*	0	n/a	2	n/a	1	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**0**	**n/a**	**9**	**n/a**	**1**	**n/a**	**8**	**n/a**	**0**	**n/a**	**4**	**n/a**	**5**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	2	5.6	18	31.3	7	24.9	49	30.3	13	31.5	15	44.0	41	33.9
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pertussis	0	0.0	35	60.8	0	0.0	6	3.7	1	2.4	0	0.0	5	4.1
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	2	5.6	2	3.5	2	7.1	3	1.9	0	0.0	0	0.0	3	2.5
SUB-TOTAL	**4**	**11.1**	**55**	**95.5**	**9**	**32.0**	**58**	**35.8**	**14**	**33.9**	**15**	**44.0**	**49**	**40.5**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	3	10.7	0	0.0	0	0.0	0	0.0	1	0.8
*Anaplasma phagocytophilum**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	3	10.7	0	0.0	0	0.0	0	0.0	1	0.8
La Crosse Virus Disease*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	0	0.0	0	0.0	0	0.0	9	5.6	0	0.0	0	0.0	2	1.7
Malaria	0	0.0	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	8	28.4	0	0.0	0	0.0	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	1.7
SUB-TOTAL	**0**	**0.0**	**0**	**0.0**	**11**	**39.1**	**10**	**6.2**	**0**	**0.0**	**0**	**0.0**	**5**	**4.1**
GRAND TOTAL	**132**	**367.4**	**305**	**514.2**	**227**	**802.6**	**414**	**250.7**	**124**	**300.6**	**64**	**176.2**	**517**	**422.8**
POPULATION	**35,927**		**57,565**		**28,160**		**161,921**		**41,247**		**34,056**		**121,107**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Ross		Sandusky		Scioto		Seneca		Shelby		Stark		Summit	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0
Botulism	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	5	6.5	10	16.9	19	25.0	7	12.6	21	43.2	82	21.9	59	10.9
Coccidioidomycosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0
Cryptosporidiosis	8	10.4	2	3.4	2	2.6	2	3.6	4	8.2	46	12.3	19	3.5
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	1.1	0	0.0
Escherichia coli , Shiga Toxin-Producing	3	3.9	0	0.0	1	1.3	1	1.8	2	4.1	9	2.4	6	1.1
O157:H7	2	2.6	0	0.0	0	0.0	0	0.0	1	2.1	2	0.5	3	0.6
Not O157:H7	1	1.3	0	0.0	1	1.3	1	1.8	1	2.1	7	1.9	3	0.6
Unknown Serotype	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Giardiasis	2	2.6	3	5.1	3	3.9	1	1.8	0	0.0	23	6.2	12	2.2
Haemophilus influenzae , Invasive Disease	2	2.6	2	3.4	1	1.3	1	1.8	1	2.1	5	1.3	6	1.1
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2
Legionellosis	3	3.9	0	0.0	2	2.6	0	0.0	4	8.2	18	4.8	34	6.3
Listeriosis	1	1.3	0	0.0	1	1.3	0	0.0	0	0.0	1	0.3	1	0.2
Meningitis, Aseptic	3	3.9	2	3.4	11	14.5	1	1.8	3	6.2	28	7.5	27	5.0
Meningitis, Other Bacterial*	0	0.0	3	5.1	0	0.0	0	0.0	0	0.0	5	1.3	4	0.7
Salmonellosis	9	11.7	15	25.3	7	9.2	9	16.3	8	16.5	44	11.8	51	9.4
Shigellosis	7	9.1	0	0.0	6	7.9	0	0.0	1	2.1	6	1.6	14	2.6
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0
Streptococcal Disease, Group A, Invasive	2	2.6	2	3.4	1	1.3	1	1.8	4	8.2	11	2.9	16	3.0
Streptococcal Disease, Group B, in Newborn*	0	*	1	*	0	*	0	*	1	*	3	*	5	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0
Streptococcus pneumoniae , Invasive Disease	6	7.8	3	5.1	6	7.9	1	1.8	1	2.1	47	12.6	51	9.4
Ages < 5 Years*	0	*	0	*	0	*	0	*	0	*	0	*	6	*
Drug Resistant, Ages 5+ Years*	1	*	1	*	0	*	0	*	0	*	15	*	7	*
Drug Susceptible, Ages 5+ Years*	5	*	2	*	6	*	1	*	1	*	32	*	38	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.4
Vibriosis	0	0.0	0	0.0	0	0.0	1	1.8	0	0.0	4	1.1	0	0.0
Other (Not Cholera)	0	0.0	0	0.0	0	0.0	1	1.8	0	0.0	4	1.1	0	0.0
Yersiniosis	0	0.0	0	0.0	1	1.3	0	0.0	0	0.0	3	0.8	6	1.1
SUB-TOTAL	**51**	**66.2**	**43**	**72.5**	**61**	**80.2**	**25**	**45.2**	**50**	**102.8**	**343**	**91.8**	**315**	**58.3**
HEPATITIS														
Hepatitis A	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0
Hepatitis B*	32	41.6	6	10.1	44	57.8	6	10.8	13	26.7	40	10.7	99	18.3
Acute*	3	3.9	0	0.0	5	6.6	2	3.6	1	2.1	4	1.1	20	3.7
Chronic*	29	37.7	6	10.1	39	51.3	4	7.2	12	24.7	36	9.6	79	14.6
Hepatitis C*	260	337.7	81	136.5	301	395.6	109	196.9	54	111.1	371	99.3	890	164.7
Acute*	6	7.8	2	3.4	3	3.9	6	10.8	0	0.0	9	2.4	15	2.8
Chronic*	254	329.9	79	133.2	298	391.7	103	186.1	54	111.1	362	96.9	875	161.9
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**292**	**379.2**	**87**	**146.6**	**345**	**453.4**	**115**	**207.8**	**67**	**137.8**	**412**	**110.3**	**989**	**183.0**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Ross		Sandusky		Scioto		Seneca		Shelby		Stark		Summit	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	1	n/a
Foodborne*	0	n/a	1	n/a	0	n/a	0	n/a	0	n/a	3	n/a	0	n/a
Healthcare-Associated*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	7	n/a	1	n/a
Institutional*	0	n/a	1	n/a	1	n/a	0	n/a	0	n/a	27	n/a	3	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	2	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	2	n/a	0	n/a
SUB-TOTAL	**0**	**n/a**	**2**	**n/a**	**1**	**n/a**	**0**	**n/a**	**0**	**n/a**	**41**	**n/a**	**5**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	20	26.0	24	40.5	9	11.8	9	16.3	6	12.3	202	54.1	245	45.3
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	0	0.0	0	0.0	0	0.0	0	0.0	7	14.4	1	0.3	1	0.2
Pertussis	2	2.6	4	6.7	1	1.3	1	1.8	0	0.0	21	5.6	21	3.9
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	5	6.5	4	6.7	12	15.8	1	1.8	1	2.1	28	7.5	16	3.0
SUB-TOTAL	**27**	**35.1**	**32**	**53.9**	**22**	**28.9**	**11**	**19.9**	**14**	**28.8**	**252**	**67.4**	**283**	**52.4**
ZOONOSES														
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	5	6.6	0	0.0	0	0.0	1	0.3	0	0.0
*Anaplasma phagocytophilum**	0	0.0	0	0.0	2	2.6	0	0.0	0	0.0	1	0.3	0	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	3	3.9	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	0	0.0	1	1.3	0	0.0	0	0.0	1	0.3	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	2	2.6	0	0.0	3	3.9	3	5.4	0	0.0	8	2.1	6	1.1
Malaria	0	0.0	1	1.7	0	0.0	0	0.0	0	0.0	1	0.3	2	0.4
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	2	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	1	1.3	0	0.0	0	0.0	0	0.0	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	1	1.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	1	2.1	5	1.3	5	0.9
SUB-TOTAL	**2**	**2.6**	**2**	**3.4**	**10**	**13.1**	**3**	**5.4**	**1**	**2.1**	**16**	**4.3**	**16**	**2.6**
GRAND TOTAL	**372**	**483.1**	**166**	**276.4**	**439**	**575.6**	**154**	**278.2**	**132**	**271.5**	**1,064**	**273.8**	**1,608**	**296.3**
POPULATION	**77,000**		**59,330**		**76,088**		**55,353**		**48,623**		**373,612**		**540,300**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

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GENERAL INFECTIOUS DISEASES	Trumbull		Tuscarawas		Union		Van Wert		Vinton		Warren		Washington	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0
Botulism	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Infant*	0	*	1	*	0	*	0	*	0	*	0	*	0	*
Campylobacteriosis	13	6.4	14	15.1	24	43.3	8	28.2	1	7.7	25	11.0	35	57.7
Coccidioidomycosis	1	0.5	0	0.0	0	0.0	1	3.5	0	0.0	0	0.0	0	0.0
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cryptosporidiosis	11	5.5	12	13.0	29	52.3	0	0.0	0	0.0	12	5.3	0	0.0
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia coli , Shiga Toxin-Producing	0	0.0	2	2.2	2	3.6	1	3.5	1	7.7	3	1.3	1	1.6
O157:H7	0	0.0	0	0.0	2	3.6	1	3.5	0	0.0	0	0.0	0	0.0
Not O157:H7	0	0.0	2	2.2	0	0.0	0	0.0	1	7.7	2	0.9	1	1.6
Unknown Serotype	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0
Giardiasis	0	0.0	7	7.6	1	1.8	1	3.5	0	0.0	8	3.5	1	1.6
Haemophilus influenzae , Invasive Disease	3	1.5	1	1.1	0	0.0	4	14.1	0	0.0	6	2.6	0	0.0
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Legionellosis	9	4.5	1	1.1	0	0.0	1	3.5	0	0.0	2	0.9	1	1.6
Listeriosis	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningitis, Aseptic	6	3.0	8	8.7	1	1.8	2	7.1	0	0.0	16	7.0	3	4.9
Meningitis, Other Bacterial*	2	1.0	0	0.0	0	0.0	1	3.5	0	0.0	2	0.9	0	0.0
Salmonellosis	22	10.9	16	17.3	11	19.8	2	7.1	1	7.7	15	6.6	13	21.4
Shigellosis	9	4.5	0	0.0	0	0.0	7	24.7	0	0.0	11	4.8	1	1.6
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcal Disease, Group A, Invasive	9	4.5	2	2.2	2	3.6	2	7.1	0	0.0	12	5.3	1	1.6
Streptococcal Disease, Group B, in Newborn*	0	*	0	*	1	*	0	*	0	*	0	*	0	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Streptococcus pneumoniae , Invasive Disease	26	12.9	3	3.2	0	0.0	1	3.5	2	15.5	15	6.6	6	9.9
Ages < 5 Years*	1	*	1	*	0	*	0	*	0	*	0	*	0	*
Drug Resistant, Ages 5+ Years*	5	*	0	*	0	*	0	*	0	*	5	*	0	*
Drug Susceptible, Ages 5+ Years*	20	*	2	*	0	*	1	*	2	*	10	*	6	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibriosis	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0
Other (Not Cholera)	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	1	0.4	0	0.0
Yersiniosis	1	0.5	0	0.0	0	0.0	0	0.0	1	7.7	1	0.4	0	0.0
SUB-TOTAL	**113**	**56.0**	**69**	**74.7**	**71**	**128.0**	**31**	**109.3**	**6**	**46.4**	**130**	**57.3**	**62**	**102.3**
HEPATITIS														
Hepatitis A	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hepatitis B*	44	21.8	4	4.3	14	25.2	1	3.5	4	31.0	50	22.0	11	18.1
Acute*	6	3.0	0	0.0	0	0.0	0	0.0	1	7.7	4	1.8	0	0.0
Chronic*	38	18.8	4	4.3	14	25.2	1	3.5	3	23.2	46	20.3	11	18.1
Hepatitis C*	485	240.3	95	102.8	96	173.1	38	134.0	32	247.7	321	141.4	102	168.3
Acute*	4	2.0	3	3.2	0	0.0	0	0.0	1	7.7	2	0.9	0	0.0
Chronic*	481	238.3	92	99.5	96	173.1	38	134.0	31	239.9	319	140.5	102	168.3
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB-TOTAL	**529**	**262.1**	**99**	**107.1**	**110**	**198.4**	**39**	**137.5**	**36**	**278.6**	**371**	**163.4**	**113**	**186.4**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

OUTBREAKS*	Trumbull		Tuscarawas		Union		Van Wert		Vinton		Warren		Washington	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Community*	0	n/a	0	n/a	2	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Foodborne*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
Healthcare-Associated*	0	n/a	2	n/a	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a
Institutional*	0	n/a	0	n/a	1	n/a	2	n/a	0	n/a	4	n/a	2	n/a
Waterborne*	0	n/a	0	n/a	1	n/a	0	n/a	0	n/a	1	n/a	0	n/a
Zoonotic*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a
SUB-TOTAL	**0**	**n/a**	**2**	**n/a**	**4**	**n/a**	**2**	**n/a**	**0**	**n/a**	**6**	**n/a**	**2**	**n/a**
VACCINE-PREVENTABLE														
Influenza-Associated Hospitalization	89	44.1	29	31.4	9	16.2	8	28.2	3	23.2	47	20.7	26	42.9
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningococcal Disease	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mumps	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pertussis	1	0.5	7	7.6	8	14.4	3	10.6	0	0.0	17	7.5	0	0.0
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Varicella	4	2.0	1	1.1	1	1.8	4	14.1	1	7.7	13	5.7	0	0.0
SUB-TOTAL	**96**	**47.6**	**37**	**40.0**	**18**	**32.5**	**15**	**52.9**	**4**	**31.0**	**77**	**33.9**	**26**	**42.9**
ZOONOSES														
Brucellosis	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Anaplasma phagocytophilum *	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ehrlichia chaffeensis *	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
La Crosse Virus Disease*	0	0.0	1	1.1	1	1.8	0	0.0	0	0.0	0	0.0	0	0.0
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lyme Disease	1	0.5	1	1.1	0	0.0	0	0.0	0	0.0	3	1.3	0	0.0
Malaria	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rabies, Animal*	2	n/a	0	n/a	0	n/a	0	n/a	0	n/a	1	n/a	0	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.9	0	0.0
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Zika Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.9	0	0.0
SUB-TOTAL	**3**	**0.5**	**4**	**4.3**	**1**	**1.8**	**0**	**0.0**	**0**	**0.0**	**8**	**3.1**	**0**	**0.0**
GRAND TOTAL	**741**	**366.2**	**211**	**226.1**	**204**	**360.6**	**87**	**299.7**	**46**	**356.0**	**592**	**257.6**	**203**	**331.6**
POPULATION	**201,825**		**92,420**		**55,457**		**28,362**		**12,921**		**227,063**		**60,610**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

GENERAL INFECTIOUS DISEASES	Wayne		Williams		Wood		Wyandot		Unknown		TOTAL	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Amebiasis	0	0.0	0	0.0	1	0.8	0	0.0	0	n/a	19	0.2
Botulism	1	0.9	0	0.0	0	0.0	0	0.0	0	n/a	8	0.1
Infant*	1	*	0	*	0	*	0	*	0	n/a	8	*
Campylobacteriosis	31	26.6	7	18.9	16	12.3	18	81.4	0	n/a	1,962	16.9
Coccidioidomycosis	1	0.9	0	0.0	0	0.0	0	0.0	0	n/a	23	0.2
Creutzfeldt-Jakob Disease (CJD)	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	4	0.0
Cryptosporidiosis	5	4.3	3	8.1	14	10.8	5	22.6	0	n/a	1,949	16.8
Cyclosporiasis	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	6	0.1
Escherichia coli , Shiga Toxin-Producing	8	6.9	0	0.0	2	1.5	1	4.5	0	n/a	263	2.3
O157:H7	1	0.9	0	0.0	1	0.8	1	4.5	0	n/a	77	0.7
Not O157:H7	5	4.3	0	0.0	1	0.8	0	0.0	0	n/a	159	1.4
Unknown Serotype	2	1.7	0	0.0	0	0.0	0	0.0	0	n/a	27	0.2
Giardiasis	1	0.9	1	2.7	2	1.5	0	0.0	0	n/a	395	3.4
Haemophilus influenzae , Invasive Disease	2	1.7	0	0.0	2	1.5	1	4.5	0	n/a	180	1.5
Hemolytic Uremic Syndrome (HUS)	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	7	0.1
Legionellosis	2	1.7	0	0.0	5	3.8	1	4.5	0	n/a	510	4.4
Listeriosis	1	0.9	0	0.0	1	0.8	0	0.0	0	n/a	36	0.3
Meningitis, Aseptic	3	2.6	0	0.0	3	2.3	1	4.5	0	n/a	664	5.7
Meningitis, Other Bacterial*	0	0.0	0	0.0	3	2.3	0	0.0	0	n/a	134	1.2
Salmonellosis	41	35.2	8	21.6	29	22.3	4	18.1	0	n/a	1,528	13.2
Shigellosis	1	0.9	2	5.4	3	2.3	0	0.0	0	n/a	1,076	9.3
Staphylococcus aureus , Intermediate Resistance to Vancomycin (VISA)	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	8	0.1
Streptococcal Disease, Group A, Invasive	3	2.6	3	8.1	3	2.3	0	0.0	0	n/a	419	3.6
Streptococcal Disease, Group B, in Newborn*	1	*	0	*	0	*	0	*	0	n/a	67	*
Streptococcal Toxic Shock Syndrome (STSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	11	0.1
Streptococcus pneumoniae , Invasive Disease	8	6.9	7	18.9	12	9.2	2	9.0	0	n/a	977	8.4
Ages < 5 Years*	0	*	0	*	0	*	0	*	0	n/a	58	*
Drug Resistant, Ages 5+ Years*	1	*	1	*	1	*	1	*	0	n/a	249	*
Drug Susceptible, Ages 5+ Years*	7	*	6	*	11	*	1	*	0	n/a	670	*
Toxic Shock Syndrome (TSS)	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	3	0.0
Typhoid Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	11	0.1
Vibriosis	0	0.0	0	0.0	1	0.8	0	0.0	0	n/a	13	0.1
Other (Not Cholera)	0	0.0	0	0.0	1	0.8	0	0.0	0	n/a	13	0.1
Yersiniosis	3	2.6	0	0.0	0	0.0	0	0.0	0	n/a	57	0.5
SUB-TOTAL	**112**	**96.2**	**31**	**83.7**	**97**	**74.5**	**33**	**149.2**	**0**	**n/a**	**10,330**	**88.9**
HEPATITIS												
Hepatitis A	0	0.0	0	0.0	1	0.8	0	0.0	0	n/a	38	0.3
Hepatitis B*	9	7.7	2	5.4	10	7.7	3	13.6	26	n/a	2,693	23.2
Acute*	0	0.0	0	0.0	0	0.0	2	9.0	0	n/a	299	2.6
Chronic*	9	7.7	2	5.4	10	7.7	1	4.5	26	n/a	2,394	20.6
Hepatitis C*	120	103.0	58	156.7	117	89.8	20	90.4	508	n/a	21,424	184.5
Acute*	3	2.6	0	0.0	1	0.8	0	0.0	2	n/a	274	2.4
Chronic*	117	100.5	58	156.7	116	89.1	20	90.4	506	n/a	21,150	182.1
Hepatitis E	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	5	0.0
SUB-TOTAL	**129**	**110.8**	**60**	**162.1**	**128**	**98.3**	**23**	**104.0**	**534**	**n/a**	**24,160**	**208.0**

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

REPORTED CASES OF SELECTED NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE, OHIO, 2016

	Wayne		Williams		Wood		Wyandot		Unknown		TOTAL	
OUTBREAKS*	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**	**N**	**Rate**
Community*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	45	n/a
Foodborne*	1	n/a	0	n/a	6	n/a	0	n/a	0	n/a	73	n/a
Healthcare-Associated*	0	n/a	0	n/a	3	n/a	0	n/a	0	n/a	77	n/a
Institutional*	0	n/a	0	n/a	3	n/a	0	n/a	0	n/a	292	n/a
Waterborne*	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	19	n/a
Zoonotic*	0	n/a	1	n/a	1	n/a	0	n/a	0	n/a	11	n/a
SUB-TOTAL	**1**	**n/a**	**1**	**n/a**	**13**	**n/a**	**0**	**n/a**	**0**	**n/a**	**517**	**n/a**
VACCINE-PREVENTABLE												
Influenza-Associated Hospitalization	40	34.3	8	21.6	35	26.9	5	22.6	0	n/a	4,130	35.6
Influenza-Associated Pediatric Mortality*	0	*	0	*	0	*	0	*	0	n/a	1	*
Influenza A Virus, Novel Human Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	6	0.1
Meningococcal Disease	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	8	0.1
Mumps	1	0.9	0	0.0	1	0.8	0	0.0	0	n/a	74	0.6
Pertussis	21	18.0	0	0.0	1	0.8	0	0.0	0	n/a	971	8.4
Tetanus	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	2	0.0
Varicella	5	4.3	3	8.1	3	2.3	1	4.5	0	n/a	450	3.9
SUB-TOTAL	**67**	**57.5**	**11**	**29.7**	**40**	**30.7**	**6**	**27.1**	**0**	**n/a**	**5,642**	**48.6**
ZOONOSES												
Brucellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	3	0.0
Chikungunya Virus Infection*	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	4	0.0
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	6	0.1
Ehrlichiosis/Anaplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	13	0.1
*Anaplasma phagocytophilum**	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	5	0.0
*Ehrlichia chaffeensis**	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	8	0.1
La Crosse Virus Disease*	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	9	0.1
Leptospirosis	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	1	0.0
Lyme Disease	1	0.9	0	0.0	1	0.8	0	0.0	0	n/a	159	1.4
Malaria	0	0.0	0	0.0	0	0.0	1	4.5	0	n/a	63	0.5
Q Fever	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	3	0.0
Acute	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	2	0.0
Chronic	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	1	0.0
Rabies, Animal*	1	n/a	0	n/a	1	n/a	0	n/a	0	n/a	41	n/a
Spotted Fever Rickettsiosis*	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	23	0.2
Trichinellosis	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	1	0.0
West Nile Virus Infection	0	0.0	0	0.0	0	0.0	0	0.0	0	n/a	17	0.1
Zika Virus Infection*	0	0.0	1	2.7	0	0.0	0	0.0	0	n/a	95	0.8
SUB-TOTAL	**2**	**0.9**	**1**	**2.7**	**2**	**0.8**	**1**	**4.5**	**0**	**n/a**	**438**	**3.4**
GRAND TOTAL	**311**	**265.3**	**104**	**278.3**	**280**	**204.3**	**63**	**284.8**	**534**	**n/a**	**41,087**	**349.0**
POPULATION	**116,470**		**37,017**		**130,219**		**22,118**		**0**		**11,614,373**	

N = number of cases reported.
Rates use 2015 U.S. Census estimates and are per 100,000 population.
n/a = not applicable.
* Please see Technical Notes (pp. 102-105).

ESCHERICHIA COLI, SHIGA TOXIN-PRODUCING SEROGROUPS BY YEAR OF ONSET, OHIO, 2012-2016

SEROGROUP	2012	2013	2014	2015	2016
O1	0	0	0	0	1
O5	1	4	1	3	3
O8	0	0	1	0	2
O22	0	0	0	0	1
O26*	26	27	21	32	30
O28	0	1	0	0	0
O36	0	1	0	0	0
O39	0	0	1	1	0
O45*	14	15	10	3	8
O55	1	0	0	0	1
O61	0	0	0	1	0
O69	1	2	0	0	1
O71	2	4	7	9	2
O76	2	2	1	2	1
O77	0	0	1	1	1
O78	1	0	0	0	0
O79	0	0	0	0	2
O80	0	0	0	1	1
O84	1	0	1	0	2
O91	1	0	2	3	1
O93	0	0	0	0	1
O100	0	0	0	0	1
O103*	18	25	27	35	49
O111*	10	21	11	13	21
O118	1	1	0	8	4
O119	0	0	0	0	2
O121*	1	10	2	2	6
O123	1	0	1	0	0
O124	1	0	1	0	1
O128	0	1	0	1	0
O136	0	0	0	0	1
O141	0	0	0	0	1
O145*	4	2	2	6	2
O146	1	0	2	0	0
O152	1	0	0	0	0
O157	117	75	89	105	77
O159	0	1	0	0	0
O163	1	0	0	0	0
O165	1	2	1	1	1
O166	0	0	0	1	0
O168	0	0	0	0	1
O174	0	0	1	0	0
O177	0	0	0	0	1
O178	0	1	1	1	0
O180	0	0	1	0	0
O181	0	0	0	2	0
O185	0	0	1	0	0
O186	2	0	5	5	4
O Rough	4	2	1	1	0
O Undetermined	2	3	2	3	6
Unknown	25	23	9	25	27
TOTAL	**240**	**223**	**203**	**265**	**263**

* ODH Lab began testing the top 6 non-O157 STEC isolates in 2011; prior to 2011, all non-O157 isolates were sent to CDC for typing.

HAEMOPHILUS INFLUENZAE , INVASIVE DISEASE SEROTYPES IN CHILDREN <5 YEARS OF AGE BY YEAR OF ONSET, OHIO, 2012-2016

SEROTYPE	2012	2013	2014	2015	2016
Type A	0	5	0	1	3
Type B	3	1	0	2	2
Type C	0	0	0	0	0
Type E	3	0	0	0	0
Type F	1	2	4	2	2
Non-Typeable	10	21	13	12	12
Unknown	0	0	2	0	1
TOTAL	**17**	**29**	**19**	**17**	**20**

MENINGOCOCCAL DISEASE SEROGROUPS BY YEAR OF ONSET, OHIO, 2012-2016

SEROGROUP	2012	2013	2014	2015	2016
Group A	0	0	2	0	0
Group B	4	3	2	13	6
Group C	6	0	0	2	0
Group W	0	2	5	0	0
Group Y	8	4	1	1	2
Not Groupable	1	0	0	2	0
Unknown	5	1	2	0	0
TOTAL	**24**	**10**	**12**	**18**	**8**

SALMONELLA SEROTYPES BY YEAR OF ONSET, OHIO, 2012-2016

SEROTYPE	2012	2013	2014	2015	2016
Abony	1	0	1	0	0
Adelaide	1	0	0	0	0
Agbeni	8	9	7	9	15
Agona	11	8	10	5	10
Agoueve	0	2	0	0	0
Alachua	0	1	1	0	0
Albany	1	0	0	0	0
Albert	0	0	0	2	0
Altona	1	2	1	1	0
Anatum	6	6	4	4	10
Apapa	0	0	2	1	0
Baildon	3	0	5	6	2
Bareilly	4	3	7	10	6
Bere	0	1	0	0	0
Berta	9	10	6	6	22
Blijdorp	0	1	0	0	0
Blockley	0	0	1	0	0
Bodjonegoro	0	1	0	0	0
Bonariensis	0	0	0	0	1
Bongori	0	0	0	2	0
Bovis-morbificans	13	2	3	9	9
Braenderup	22	20	28	24	40
Brandenburg	1	0	2	1	2
Bredeney	1	2	1	0	1
Buzu	0	0	0	0	1
Cerro	0	0	1	0	0
Chailey	0	1	0	3	0
Chester	2	1	3	3	0
Choleraesuis	0	0	0	0	1
Choleraesuis, var Kunzendorf	1	0	0	0	0
Colindale	1	0	0	0	0
Corvallis	0	0	0	0	2
Cotham	2	0	2	3	1
Cubana	0	0	1	0	0
Derby	1	1	4	0	4
Dublin	2	3	2	11	11
Durban	2	0	2	0	1
Ealing	0	2	0	1	0
Eastbourne	0	0	0	0	4
Enteritidis	264	289	305	397	412
Fluntern	1	1	0	0	0
Fresno	0	0	1	0	0
Gaminara	0	4	0	2	3
Gera	0	2	0	0	0
Give	0	1	0	1	2
Glostrup	0	0	0	0	1
Guinea	0	0	0	0	1
Hadar	7	2	4	6	2
Haifa	0	0	0	0	2
Hartford	32	11	12	15	37
Hato	0	0	0	0	2
Havana	0	2	0	0	1
Heidelberg	25	27	32	44	35
Holcomb	1	1	1	1	1
Hvittingfoss	3	2	2	1	2
Indiana	0	0	0	1	1
Infantis	38	42	40	33	40
Irumu	0	0	0	1	0
Isangi	0	0	0	2	0
Javiana	22	26	35	35	40
Johannesburg	3	1	0	2	1
Kedougou	1	0	0	0	0
Kentucky	2	1	0	6	0
Kiambu	0	1	1	1	2
Kingabwa	1	0	0	0	0
Kingston	0	0	1	0	0
Kintambo	0	0	0	2	0

SALMONELLA SEROTYPES BY YEAR OF ONSET, OHIO, 2012-2016

SEROTYPE	2012	2013	2014	2015	2016
Kokomlemle	0	0	1	0	0
Kottbus	0	0	0	1	0
Legon	0	0	0	1	0
Lexington	0	0	1	0	0
Lille	3	2	0	0	0
Litchfield	9	3	4	6	4
Loma Linda	0	2	0	0	1
Lome	0	0	1	0	1
London	0	1	0	0	2
Madelia	0	0	0	1	0
Manhattan	2	2	0	1	1
Matadi	0	0	1	0	1
Mbandaka	5	13	5	2	15
Miami	1	6	5	2	2
Michigan	0	0	1	0	0
Mikawasima	0	0	0	1	0
Minnesota	0	1	1	1	0
Mississippi	3	2	12	3	1
Monschaui	1	2	2	2	0
Montevideo	24	20	19	20	29
Muenchen	20	25	15	27	24
Muenster	5	1	3	4	9
Muenster, var 15 +	1	0	0	0	0
Napoli	0	0	1	4	2
New Mexico	0	0	1	0	0
Newport	117	61	62	60	98
Nima	1	0	0	0	0
Norwich	2	1	2	9	2
Nottingham	0	0	0	1	0
Nyanza	0	0	0	1	0
Offa	0	0	1	0	0
Ohio	0	1	2	2	1
Okatie	0	0	0	0	1
Onderstepoort	0	0	0	1	0
Oranienburg	37	21	25	39	49
Oslo	0	0	1	2	3
Pakistan	0	0	0	1	0
Panama	6	3	2	5	0
Paratyphi A	1	2	6	1	1
Paratyphi B	1	0	0	0	0
Paratyphi B, var L - Tartrate +	59	51	38	17	12
Paratyphi B, var Tartrate +	0	1	0	0	0
Pensacola	0	0	1	0	0
Pomona	3	1	2	3	0
Poona	1	5	6	8	7
Potsdam	2	1	0	0	0
Putten	1	0	1	0	0
Reading	1	2	1	4	2
Richmond	1	0	0	0	0
Rissen	1	1	2	1	0
Roodepoort	0	1	0	0	0
Rubislaw	1	1	1	2	1
Saarbruecken	0	0	0	1	0
Saint Paul	24	19	27	13	18
San Diego	4	4	4	5	3
Schwartzengrund	1	2	2	9	10
Senftenberg	1	1	1	3	1
Shubra	0	0	0	1	0
Singapore	0	1	0	0	2
Skansen	0	0	1	0	0
Soerenga	1	0	0	0	0
Stanley	4	10	5	14	3
Stanleyville	0	0	1	0	0
Stellingen	1	0	0	0	0
Suelldorf	0	1	0	0	0
Takoradi	0	0	0	1	0
Tallahassee	0	0	0	1	0

SALMONELLA SEROTYPES BY YEAR OF ONSET, OHIO, 2012-2016

SEROTYPE	2012	2013	2014	2015	2016
Tarshyne	0	0	2	0	0
Teddington	0	0	0	1	0
Telelkebir	1	0	0	2	3
Tennessee	0	0	1	1	7
Thompson	33	13	15	18	38
Toucra	0	0	0	0	1
Tudu	0	0	0	1	0
Typhimurium	208	196	155	194	195
Typhimurium, var Copenhagen	0	1	0	0	1
Uganda	0	2	4	1	4
Uganda, var 15 +	0	1	0	0	0
Urbana	4	3	3	2	1
Uzaramo	0	0	1	0	0
Virchow	8	3	2	3	6
Wandsworth	0	1	0	0	0
Waycross	0	0	1	1	0
Weltevreden	4	1	2	4	2
Wien	0	0	0	1	0
Worthington	0	0	0	1	3
(I) 1,9,12:Non-motile	1	0	0	0	0
(I) 3,10:-:1,5	0	1	0	0	0
(I) 3,10:-:l,w	0	1	0	0	0
(I) 3,10:Non-motile	0	0	1	0	0
(I) 4,5:b:-	0	1	0	0	0
(I) 4,5,12:-:1,2	0	0	1	0	0
(I) 4,5,12:-:2	0	0	1	0	0
(I) 4,5,12:b:-	0	0	0	3	13
(I) 4,5,12:b:-, var L + Tartrate +	0	0	1	0	0
(I) 4,5,12:b:-, var L - Tartrate +	0	0	0	21	21
(I) 4,5,12:d:-	0	0	1	0	0
(I) 4,5,12:i:-	75	118	72	85	82
(I) 4,5,12:Non-motile	0	1	1	1	0
(I) 6,7:-:1,5	0	0	1	0	0
(I) 6,7:-:5	0	0	3	0	0
(I) 6,7:-:l,w	0	1	0	0	0
(I) 6,7:k:-	0	1	1	0	0
(I) 6,7:Non-motile	3	0	1	1	0
(I) 6,8:Non-motile	0	0	1	1	0
(I) 9,12:g,z51:-	0	0	1	0	0
(I) 9,12:Non-motile	0	2	1	1	1
(I) 18:Non-motile	1	0	0	0	0
(I) 47:b:-	0	0	0	1	0
(I) 47:m,t:-	0	1	0	0	0
(I) Rough Os:e,h:e,n,z15	0	1	0	0	1
(I) Rough Os:g,m:-	0	1	1	0	0
(I) Rough Os:i:2	0	0	1	0	0
(I) Rough Os:m,t:-	0	0	0	1	1
(I) Rough Os:Non-motile	0	0	0	1	0
(II) 21:z10:z6	0	0	0	0	0
(II) 58:l,z13,z28:z6	0	0	0	0	1
(III) Arizona	1	0	1	0	0
(IIIa) 13,23:z4,z23:-	0	0	0	0	1
(IIIa) 50:z4,z23:-	0	0	0	0	1
(IIIb) 16:Non-motile	0	1	0	0	0
(IIIb) 47:k:-	0	0	1	0	0
(IIIb) 47:k:z53	0	0	0	1	0
(IIIb) 47:Non-motile	0	0	1	0	0
(IIIb) 48:i:z	1	1	1	0	0
(IIIb) 48:z52:z	0	0	0	2	1
(IIIb) 48:Non-motile	0	1	0	0	0
(IIIb) 50:k:-	1	0	0	0	0
(IIIb) 50:k:e,n,x	0	0	0	1	0
(IIIb) 50:k:z	0	1	0	0	0
(IIIb) 50:r:z	0	0	0	1	0
(IIIb) 50:Non-motile	0	1	0	0	0
(IIIb) 60:i:e,n,x,z15	0	0	0	0	1
(IIIb) 60:r:e,n,x,z15	0	0	1	1	1

SALMONELLA SEROTYPES BY YEAR OF ONSET, OHIO, 2012-2016

SEROTYPE	2012	2013	2014	2015	2016
(IIIb) 60:r:z	0	2	0	0	0
(IIIb) 60:z52:z53	0	0	0	0	1
(IIIb) 61:-:1,5,7	0	0	0	0	1
(IIIb) 61:-:z53	0	0	1	0	0
(IIIb) 61:c:z35	0	0	0	1	0
(IIIb) 61:l,v:1,5	1	0	0	0	0
(IIIb) 61:l,v,z13:1,5	0	0	1	0	0
(IIIb) 61:l,v,z13:1,5,7	0	0	0	0	1
(IIIb) 61:l,z13:1,5	0	2	0	0	0
(IIIb) 61:z52:z53	0	0	0	1	0
(IIIb) 65:k:-	0	0	1	0	0
(IIIb) Rough Os:c:z35	1	0	0	0	0
(IIIb) Rough Os:k:z35	0	0	0	0	1
(IIIb) Rough Os:Non-motile	0	0	1	0	0
(IV) 1,40:z4,z32:-	0	1	0	0	0
(IV) 17:z29:-	0	0	1	0	0
(IV) 44:z4,z23:-	0	0	1	2	1
(IV) 44:z4,z32:-	0	1	0	0	0
(IV) 45:g,z51:-	0	0	1	0	2
(IV) 48:g,z51:- (Marina)	1	0	1	0	0
(IV) 50:g,z51:- (Wassenaar)	0	0	1	1	0
(IV) 50:z4,z23:- (Flint)	1	0	1	0	0
Rough Os:d:1,7	1	0	0	0	0
Rough Os:e,h:1,2	1	0	0	0	0
Rough Os:e,h:1,6	0	1	0	0	0
Rough Os:f,g:-	1	0	0	0	1
Rough Os:g,m,s:-	0	1	1	0	0
Rough Os:i:1,2	0	0	1	0	0
Rough Os:i:2	0	0	1	0	0
Rough Os:m,t:-	0	0	0	0	1
Rough Os:z:1,6	0	1	0	0	0
Rough Os:Non-motile	1	0	0	1	0
SUB-TOTAL	**1,187**	**1,124**	**1,088**	**1,290**	**1,429**
SEROGROUP					
Group A	1	0	0	1	0
Group B	4	7	5	4	1
Group C	1	3	4	0	5
Group C1	1	0	1	0	0
Group D	8	1	7	1	3
Group G	0	0	0	0	1
Group H	0	0	0	0	1
SUB-TOTAL	**15**	**11**	**17**	**6**	**11**
UNGROUPED, UNTYPED	68	55	83	77	88
GRAND TOTAL	**1,270**	**1,190**	**1,188**	**1,373**	**1,528**

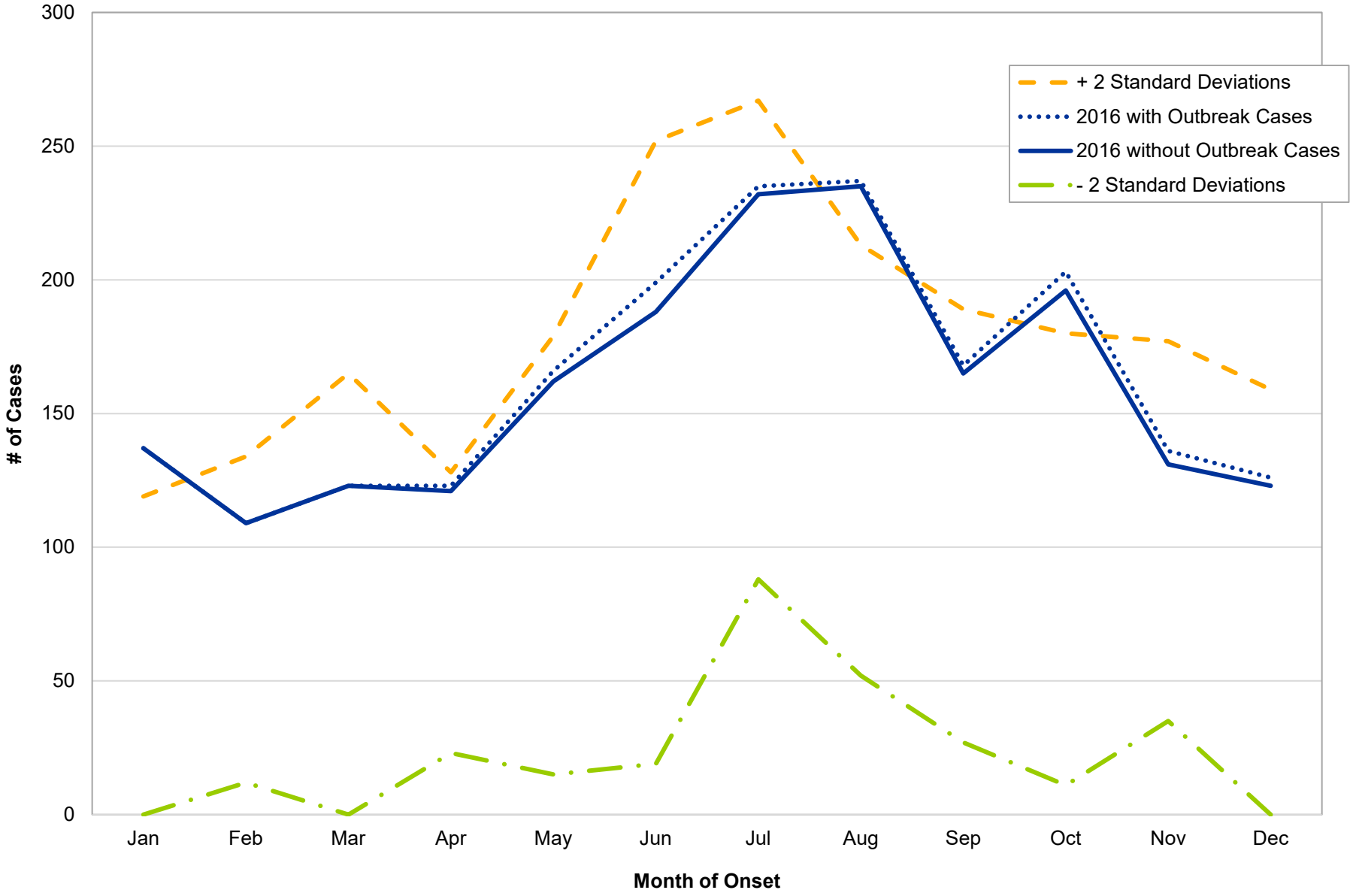
GRAPHS OF SELECTED NOTIFIABLE DISEASE INCIDENCE

Disease incidence from 2016 is graphically presented to demonstrate general trends in surveillance data for selected Ohio reportable infectious diseases, including any statistically significant changes in the incidence observed. The trend graphs compare disease incidence from 2016 (i.e., observed cases) to baseline disease incidence (i.e., expected cases) by month. Baseline disease incidence was determined by calculating the average disease incidence, excluding outbreak- and cluster-associated cases, throughout the previous three years, 2013-2015. Statistically significant changes in incidence are demonstrated by graphing two standard deviations above and below the average baseline disease incidence. A statistically significant difference in 2016 disease incidence compared to baseline disease incidence suggests the difference is unlikely to have occurred by chance.

General surveillance trends are graphed statewide. The 2016 data represent confirmed and probable cases of selected reportable diseases. In many instances, two trend lines can be seen graphed for 2016 incidence data: one for all cases, including those linked to a known outbreak or cluster, and one for cases not linked to a known outbreak or cluster. It should be noted that not every graph will include a trend line for cases linked to a known outbreak or cluster as not all cases are outbreak- or cluster-associated. For statistical reliability/stability purposes, only diseases for which 10 or more cases were reported in a given month are included in the statewide trends.

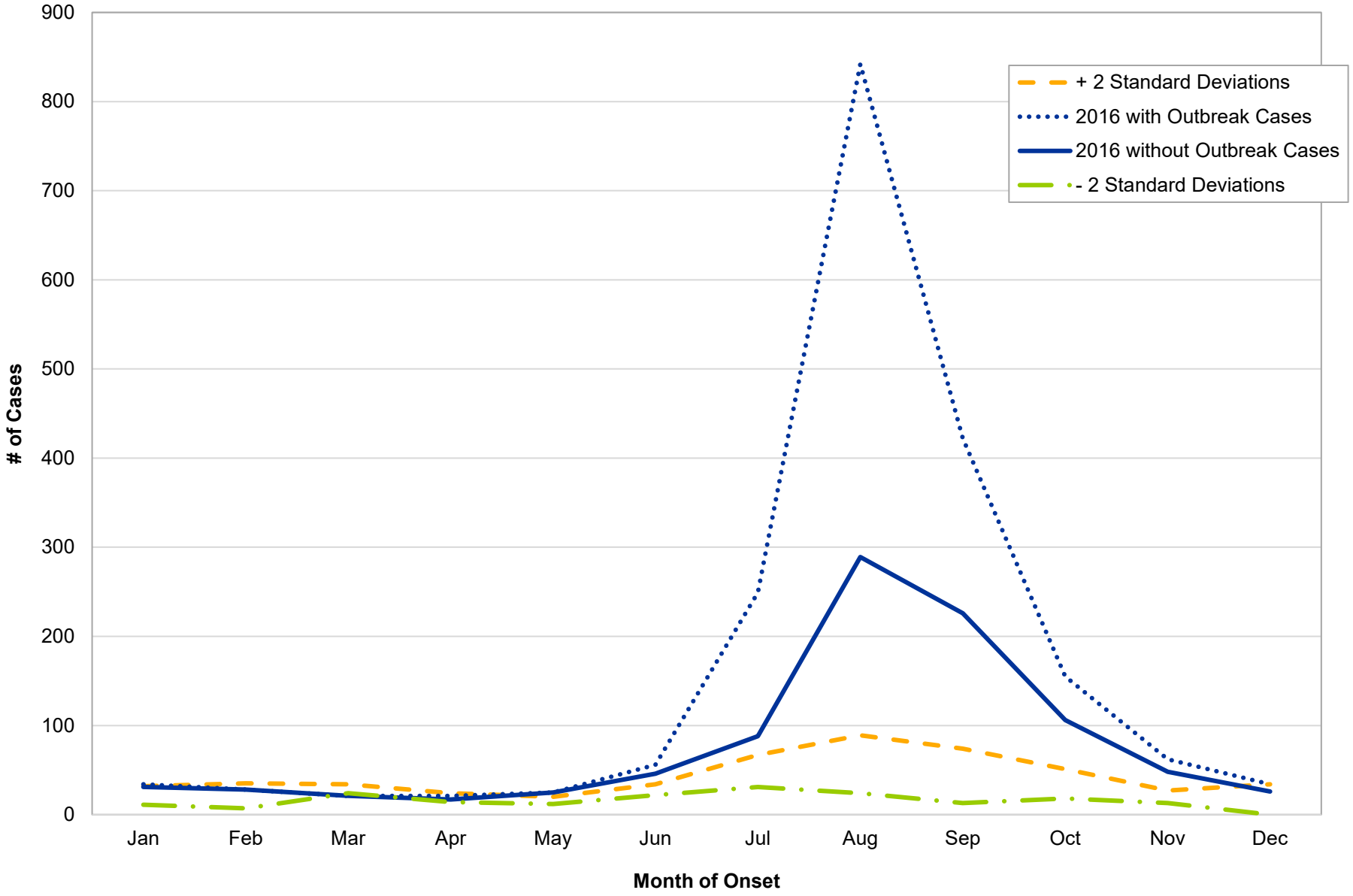
Disease data for 2016 and data used in the calculation of the baseline (2013-2015) average are finalized. All data are by month and year of illness onset. The source of the data is the Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Campylobacteriosis



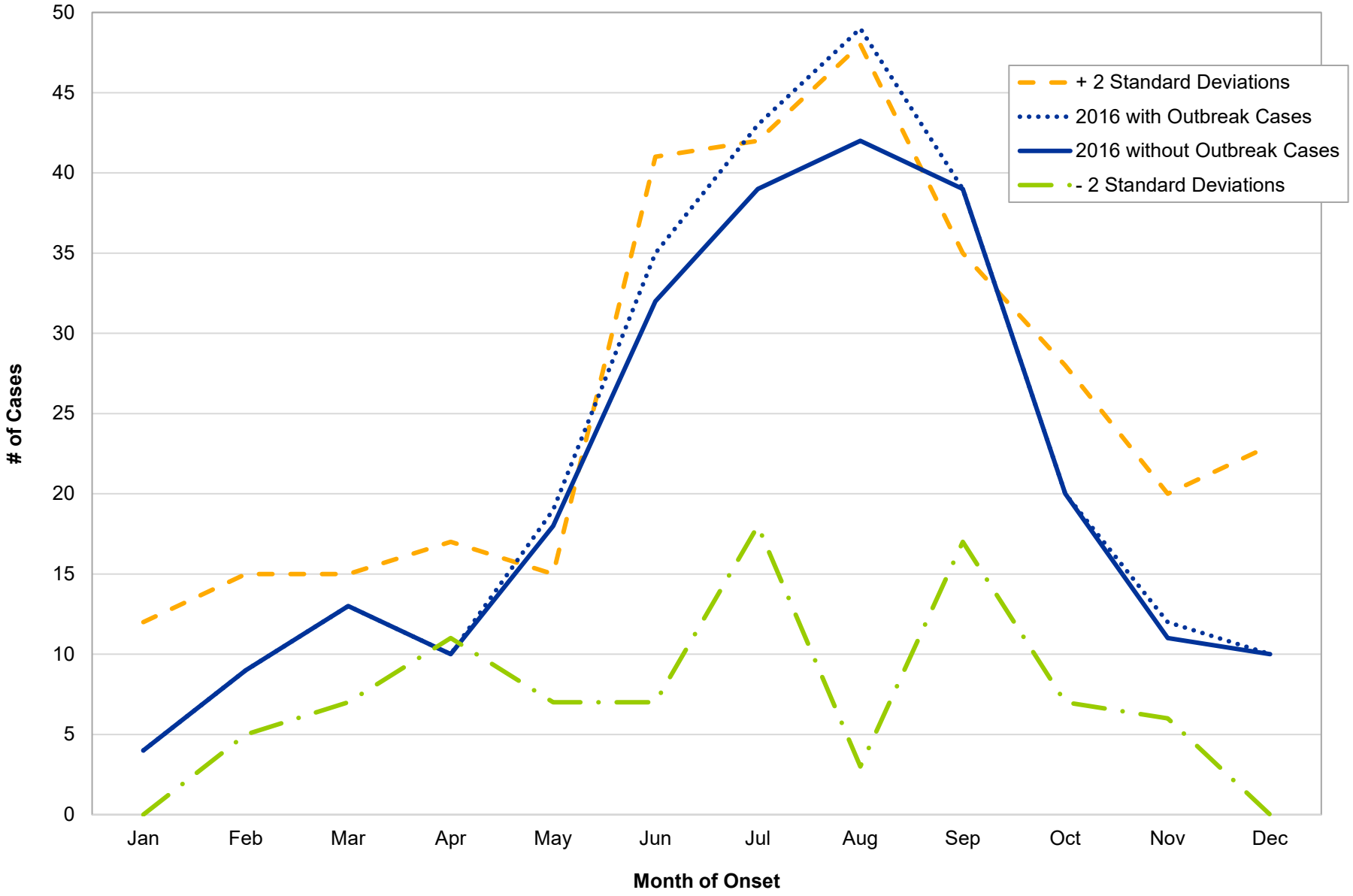
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Cryptosporidiosis



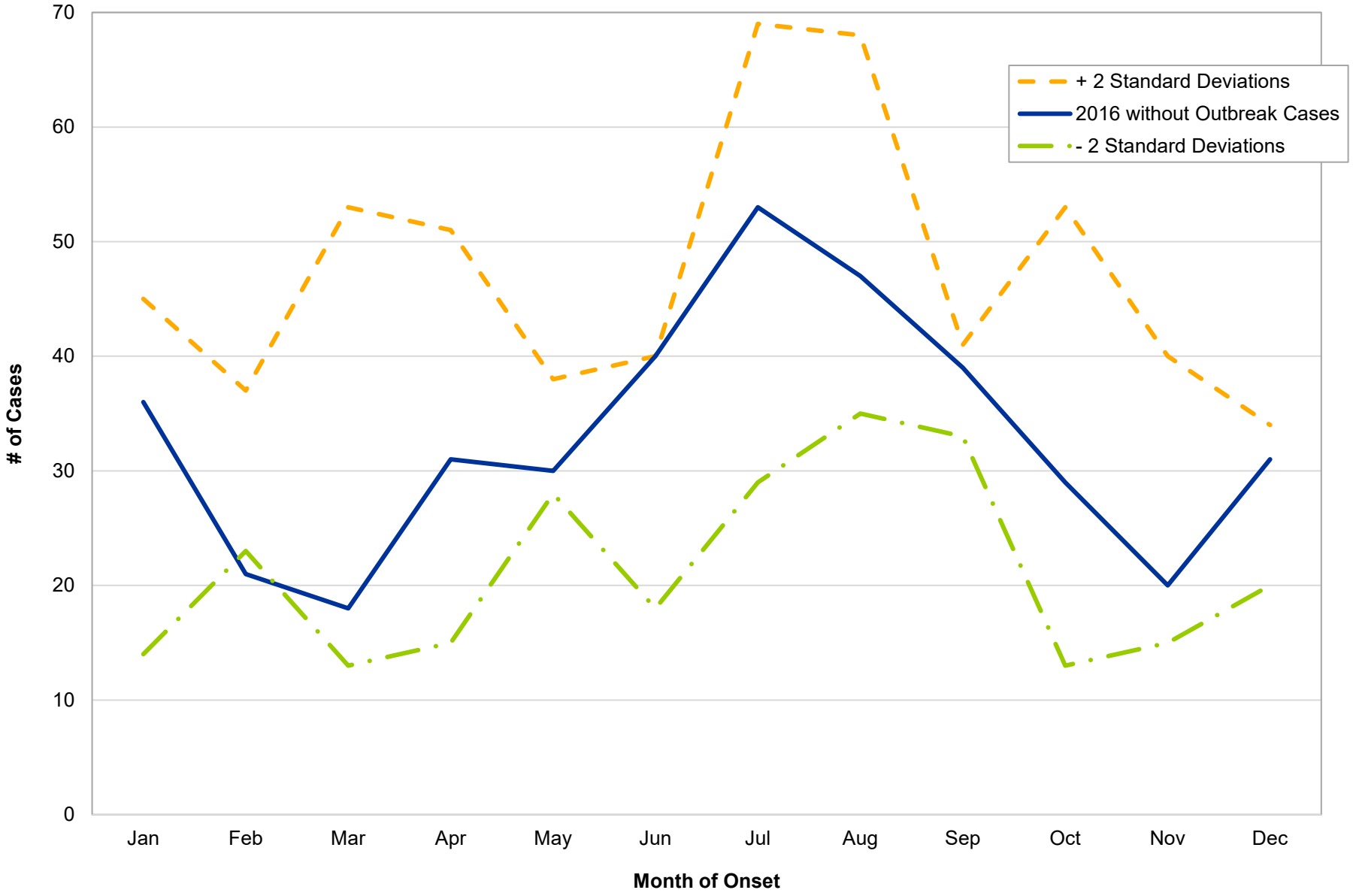
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Escherichia coli, Shiga Toxin-Producing



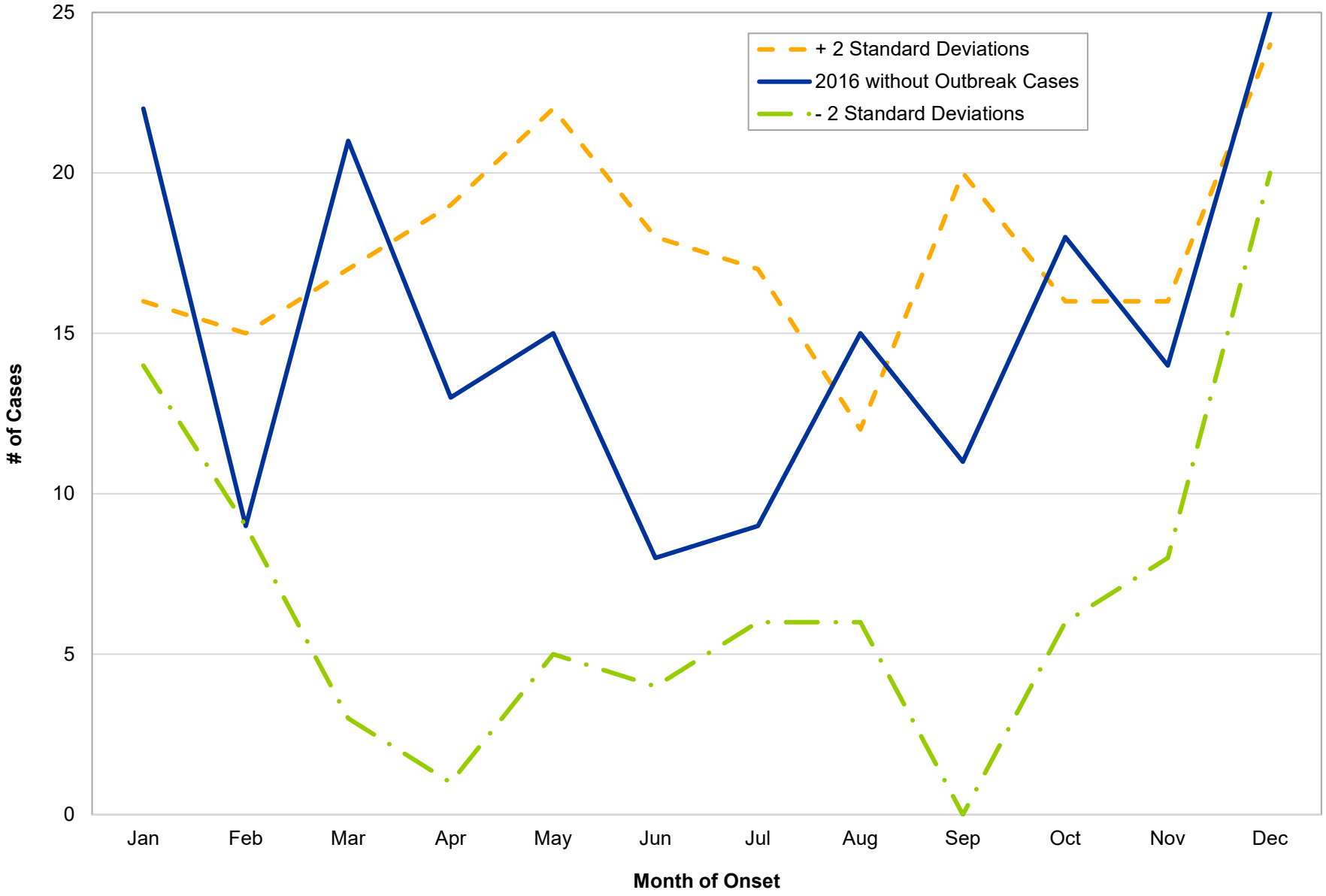
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Giardiasis



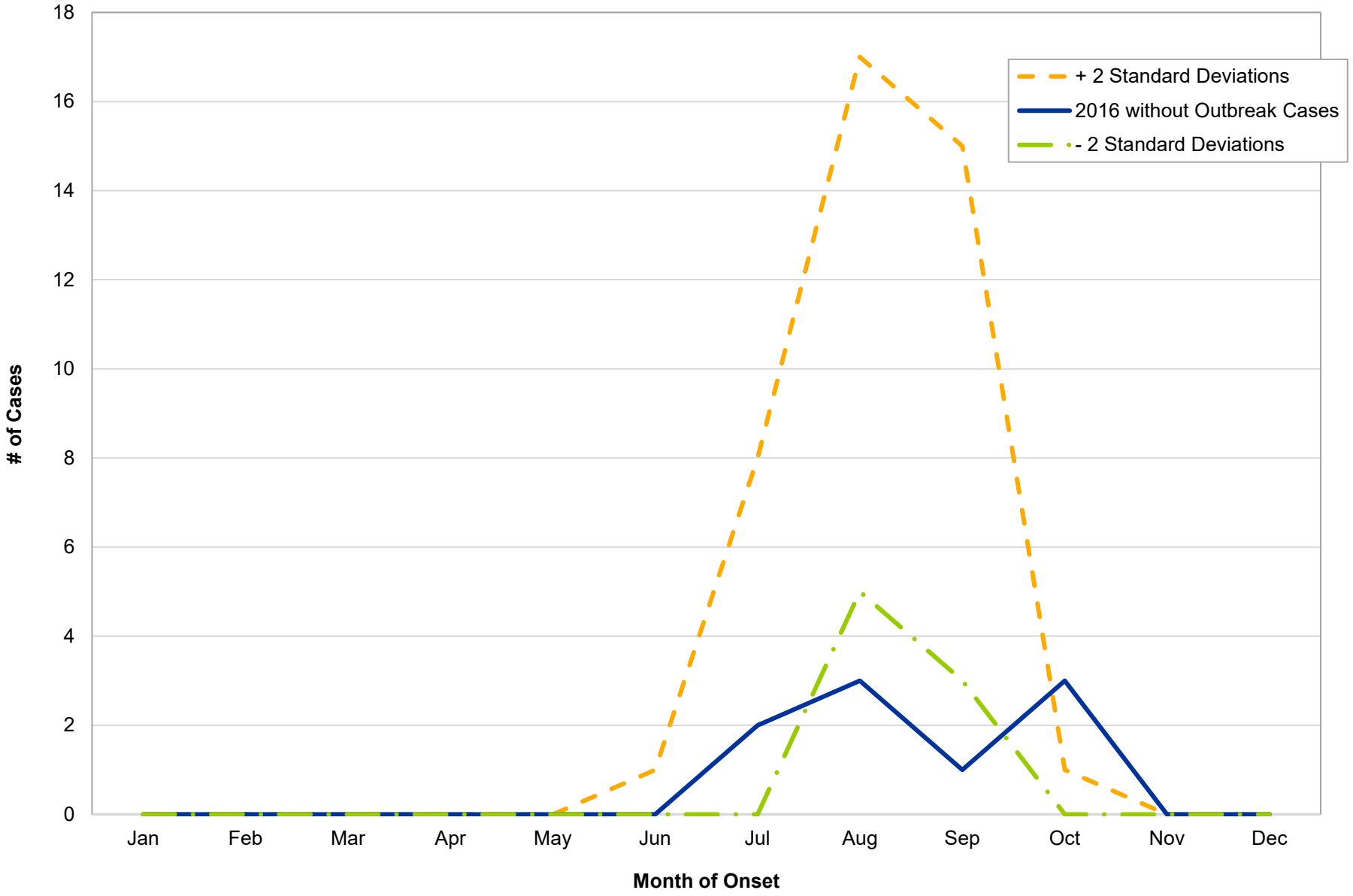
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Haemophilus influenzae, Invasive Disease



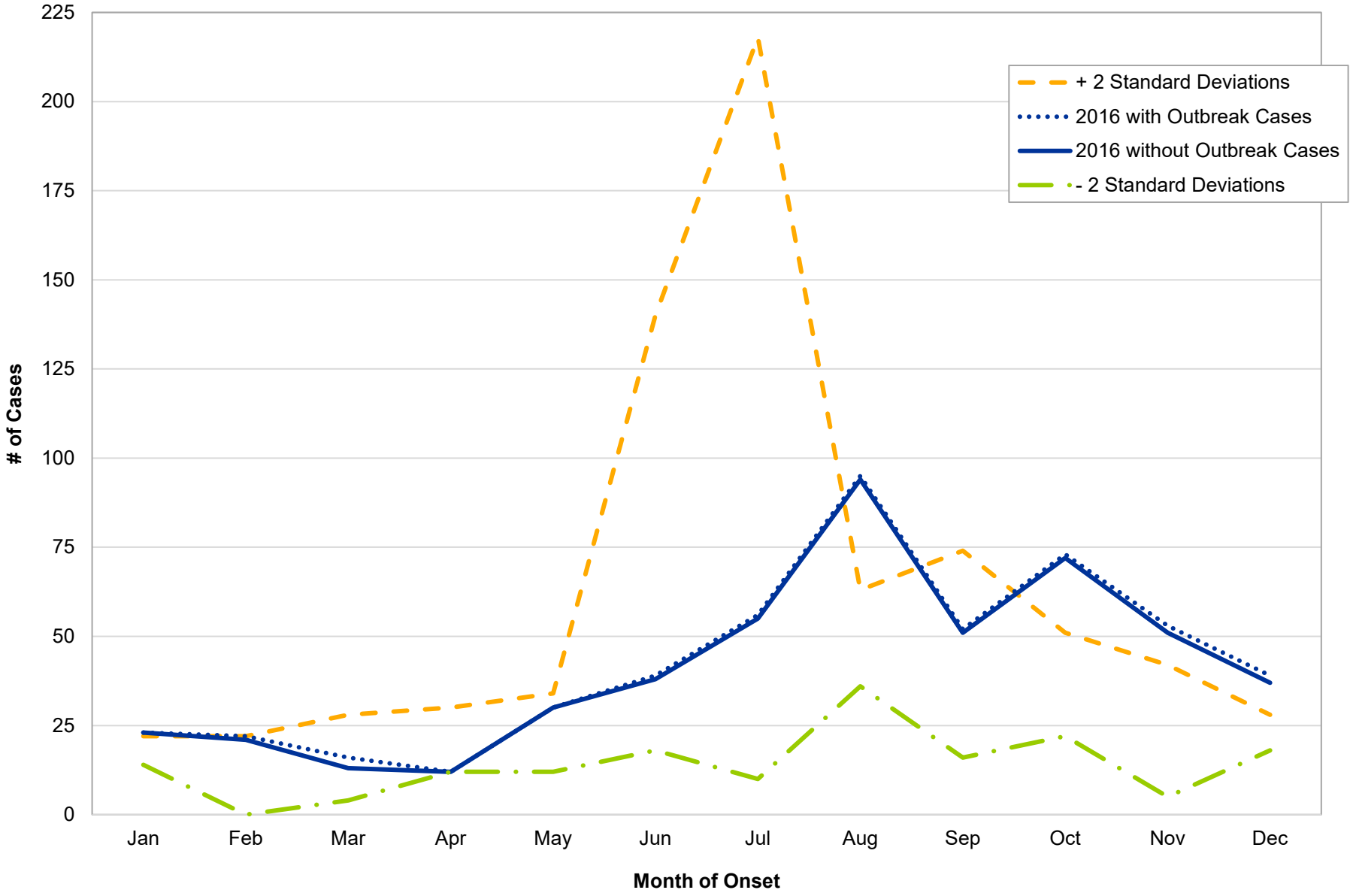
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
La Crosse Virus Disease



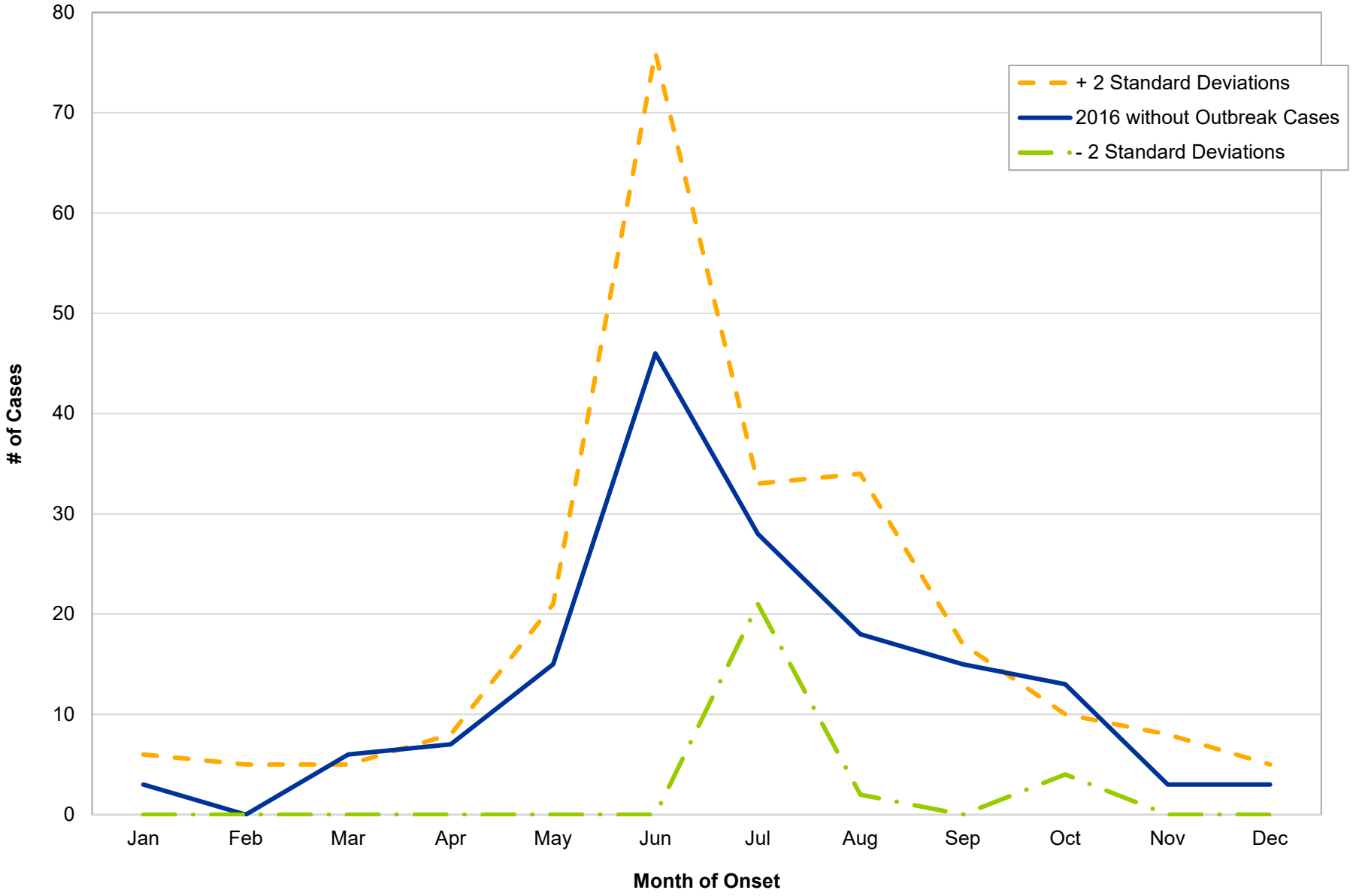
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Legionellosis



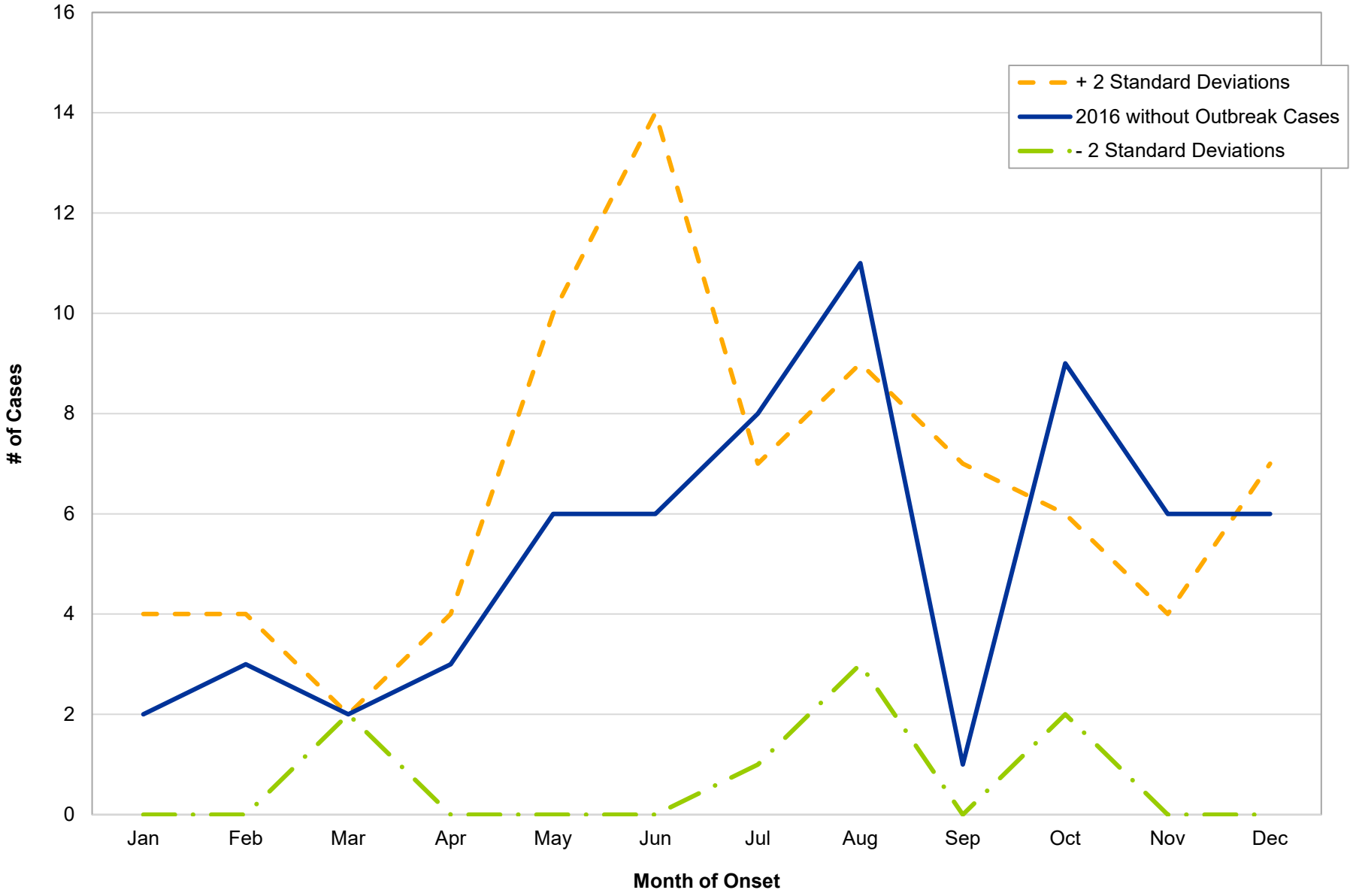
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Lyme Disease



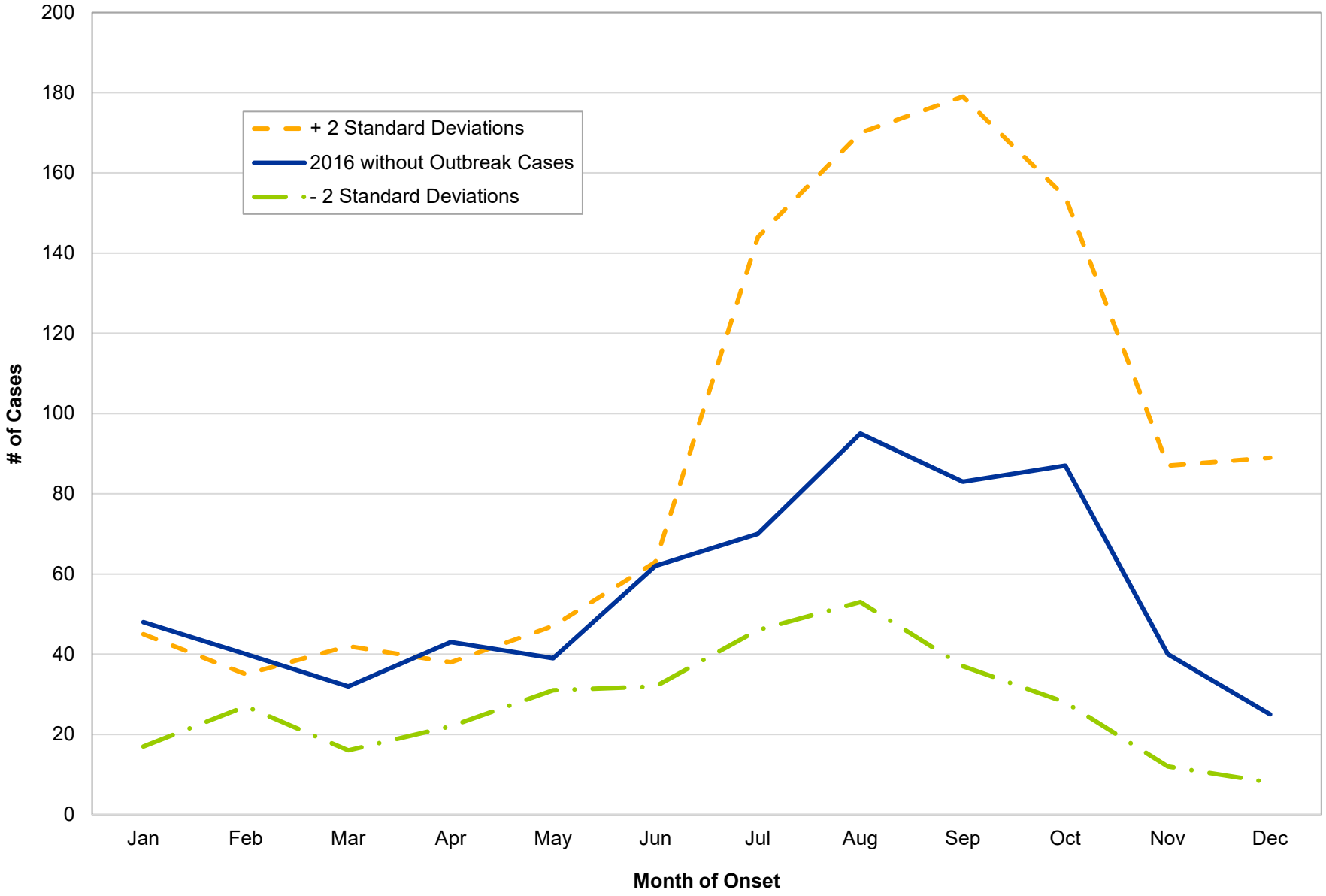
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Malaria



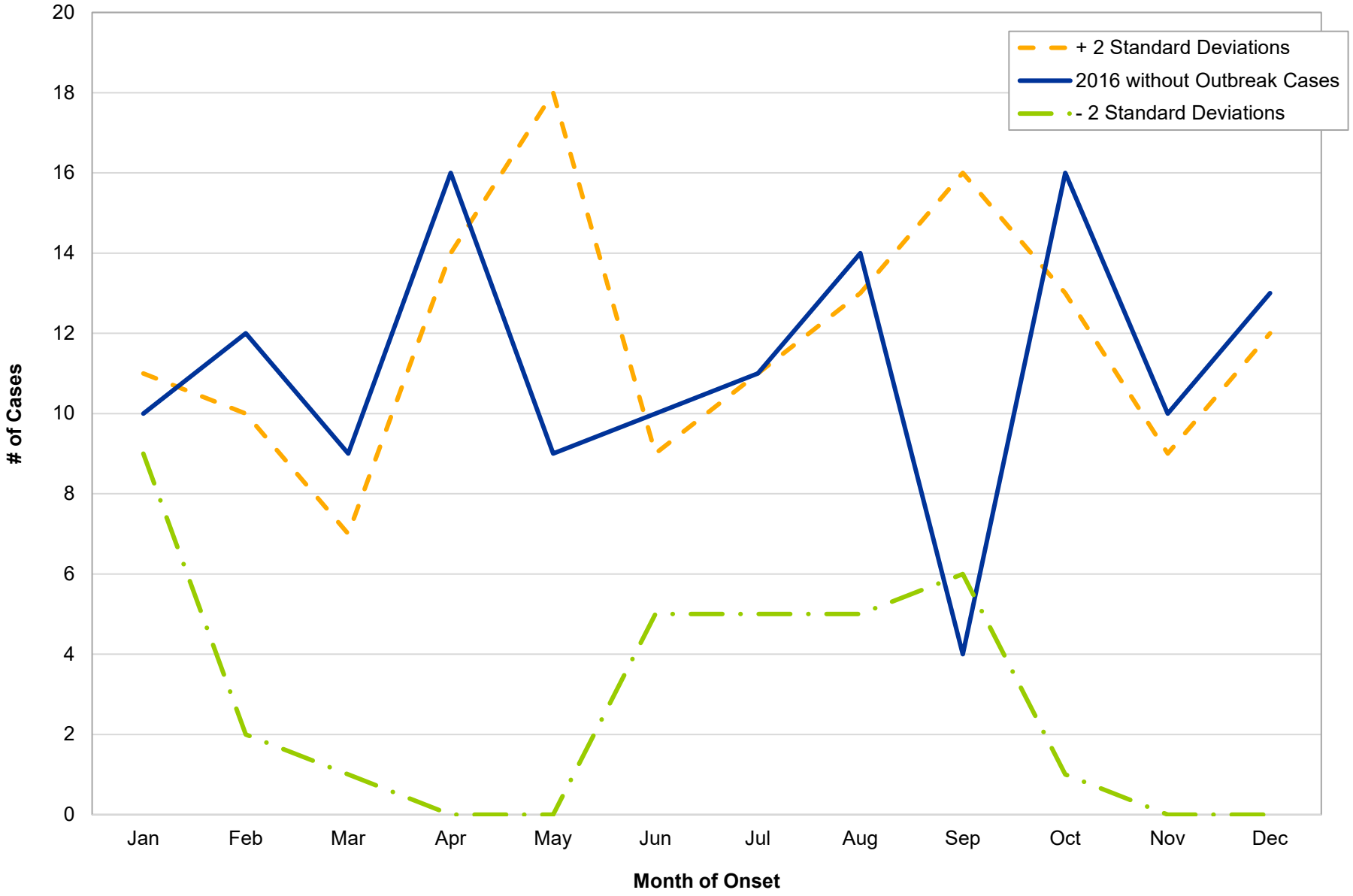
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Meningitis, Aseptic



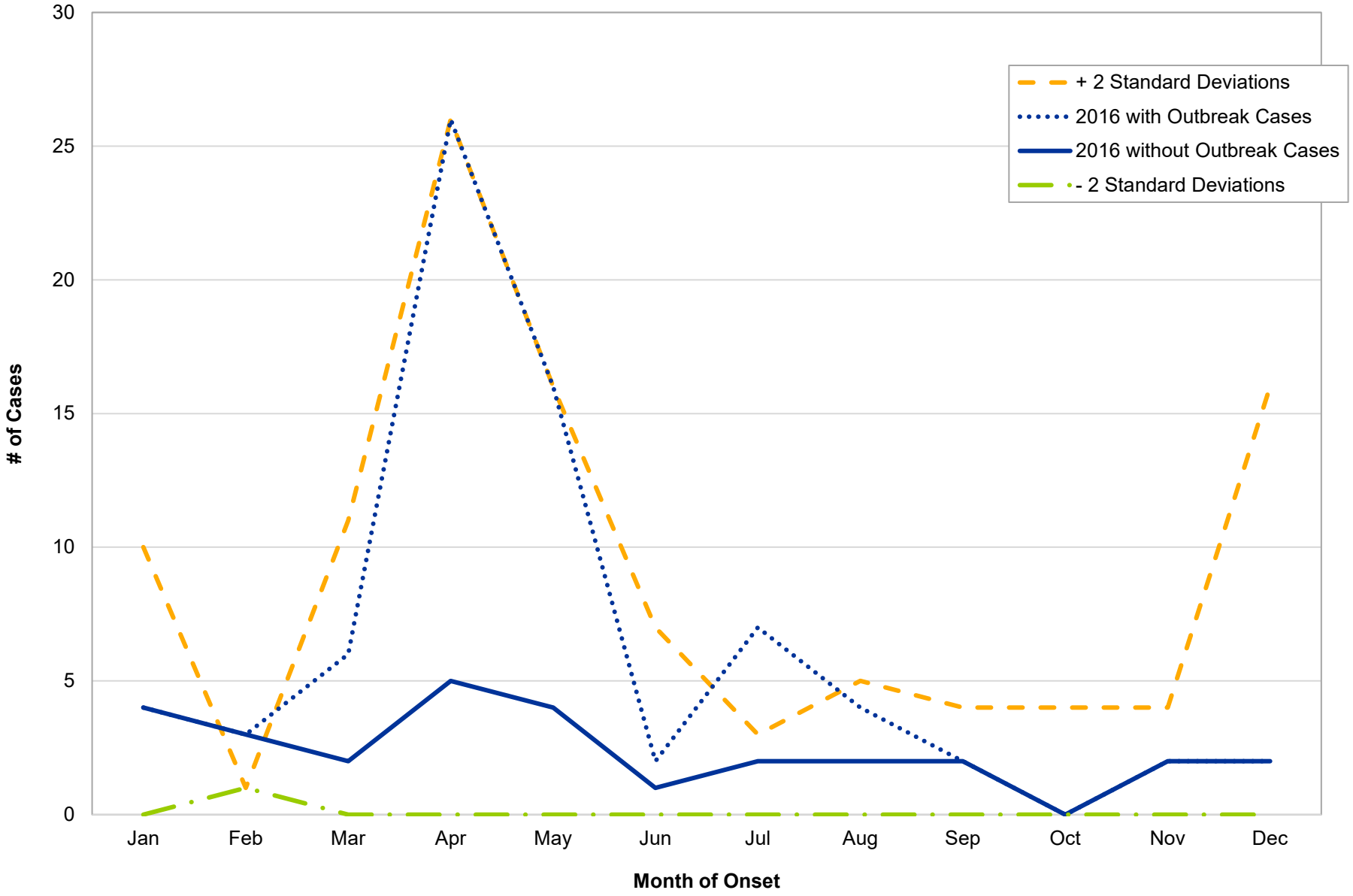
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Meningitis, Other Bacterial



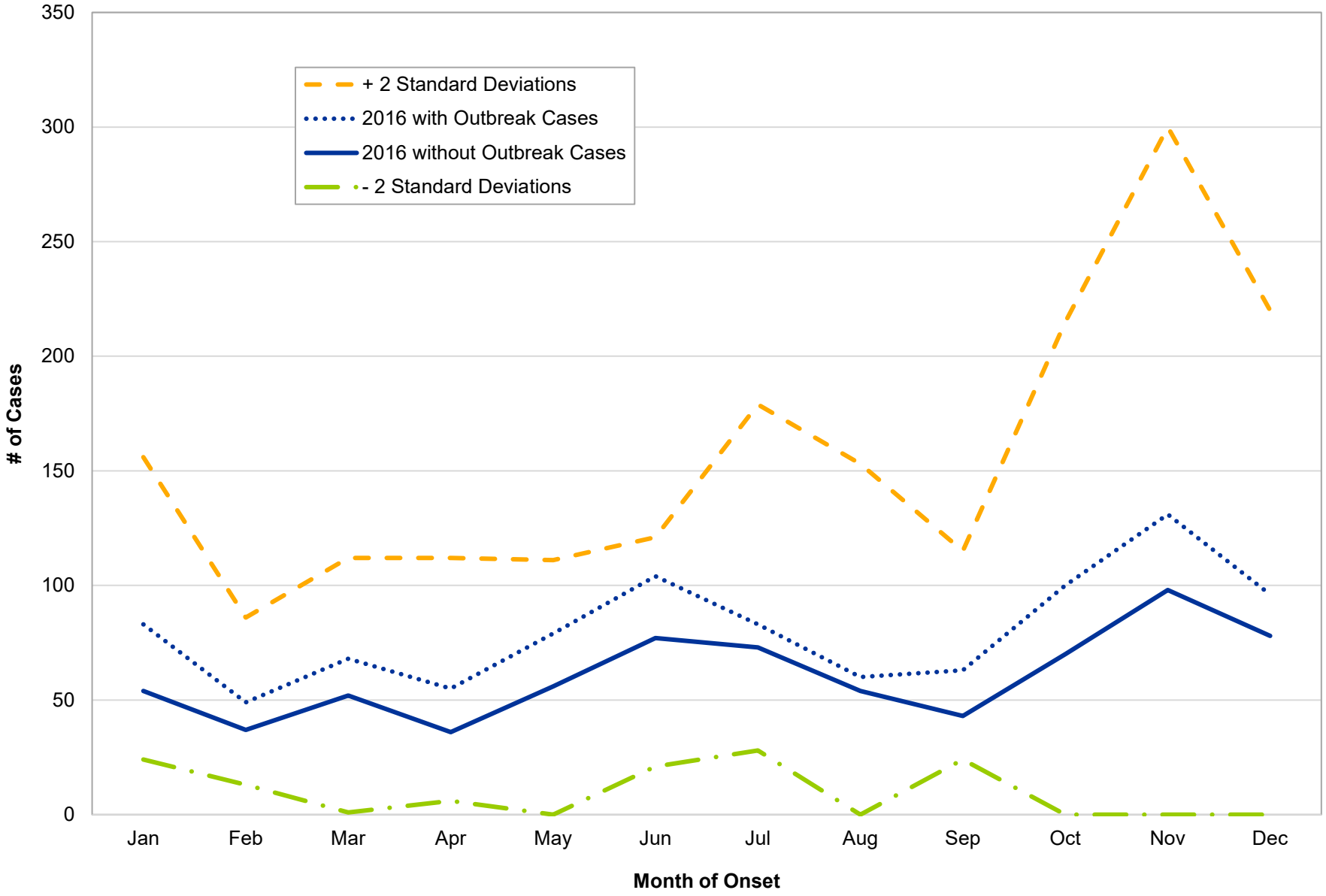
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Mumps



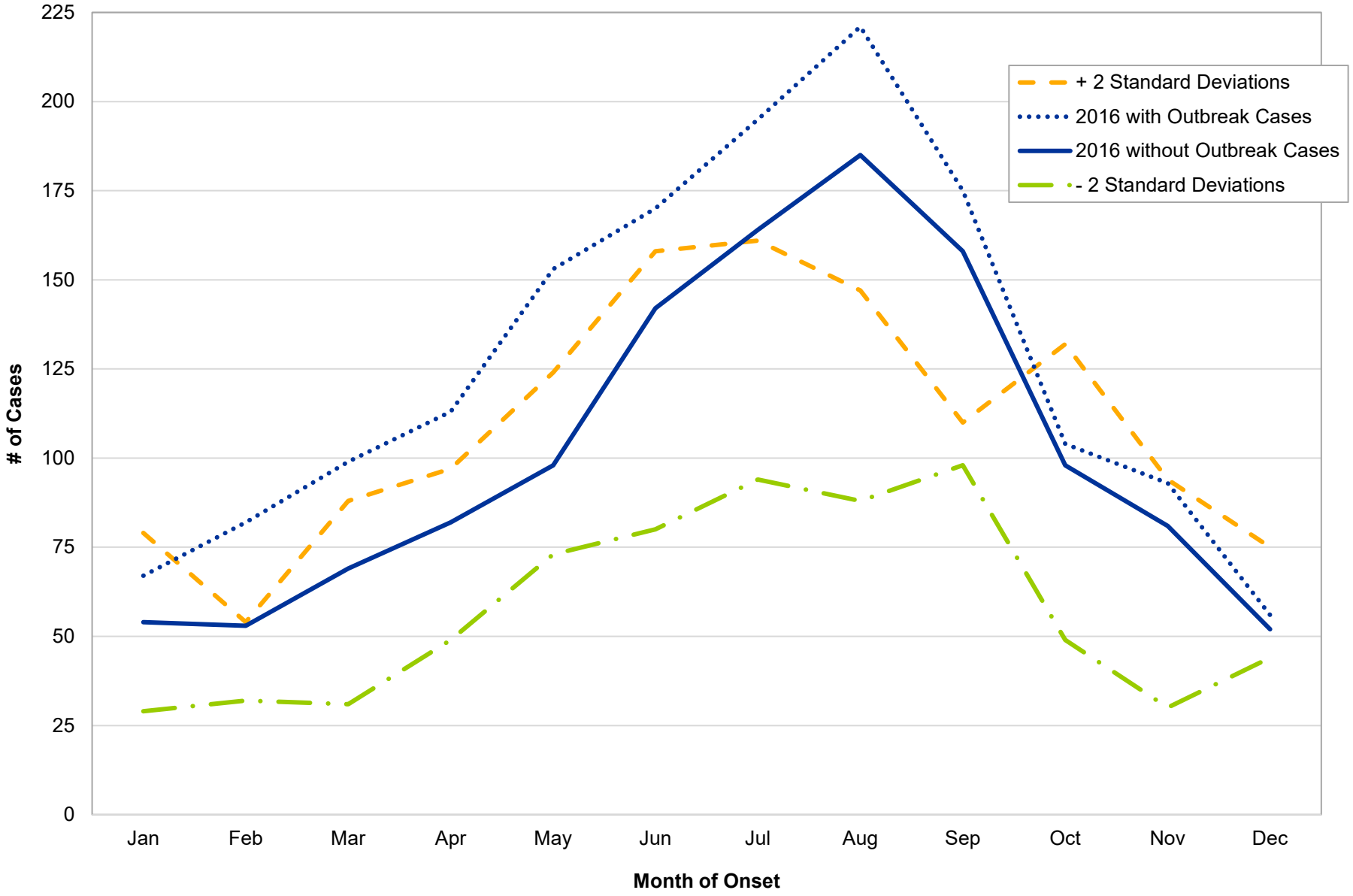
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Pertussis



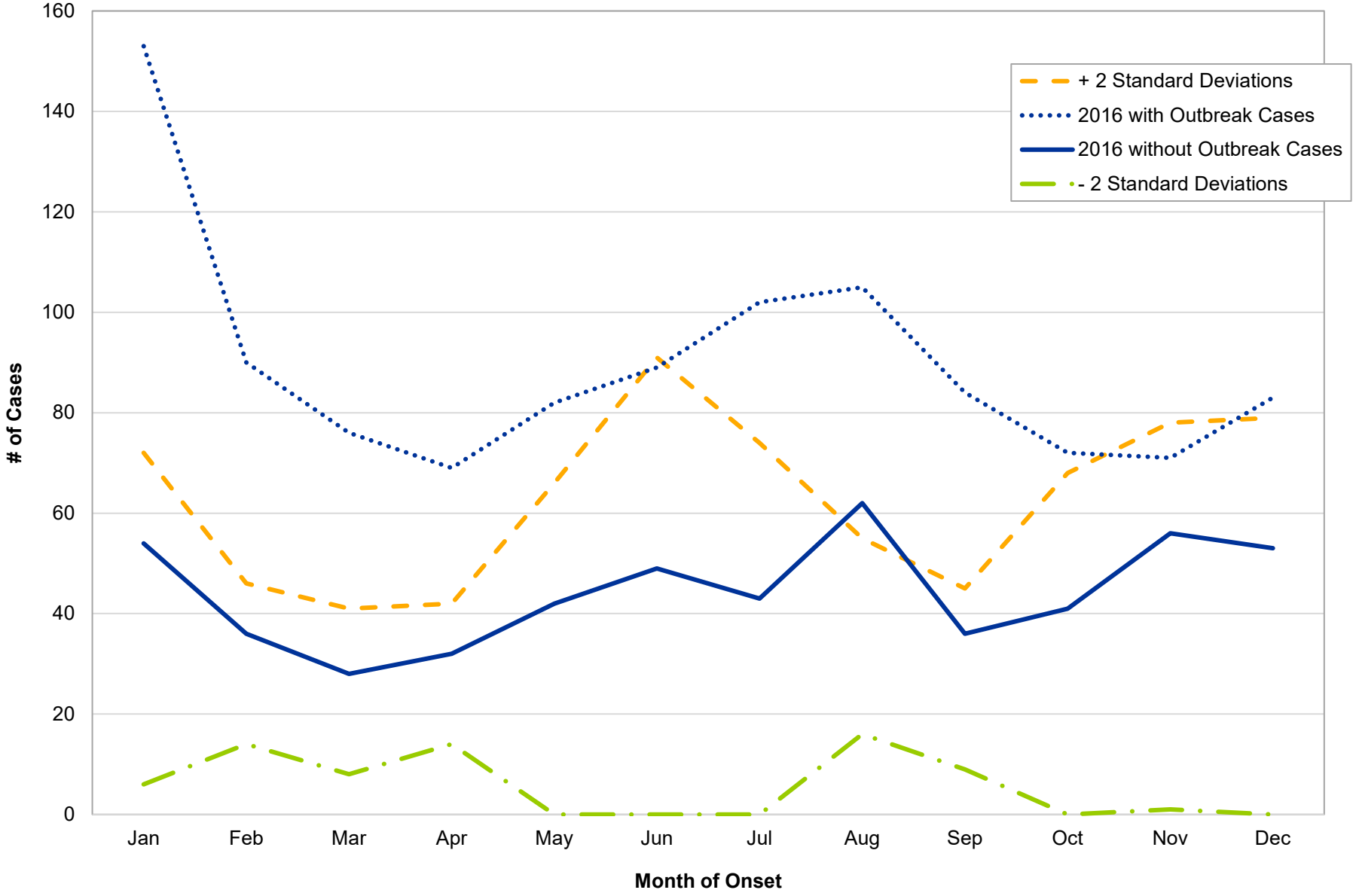
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Salmonellosis



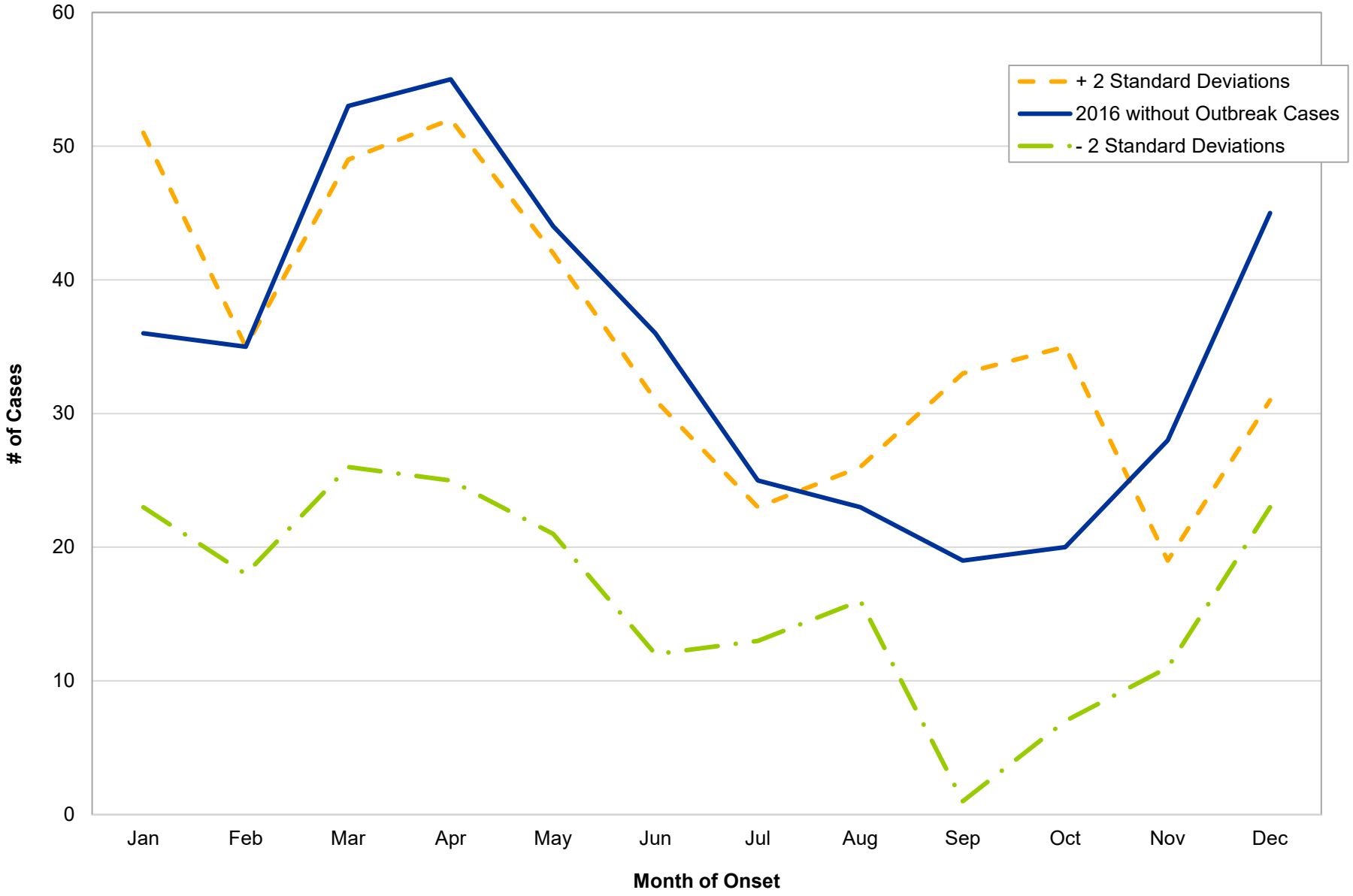
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Shigellosis



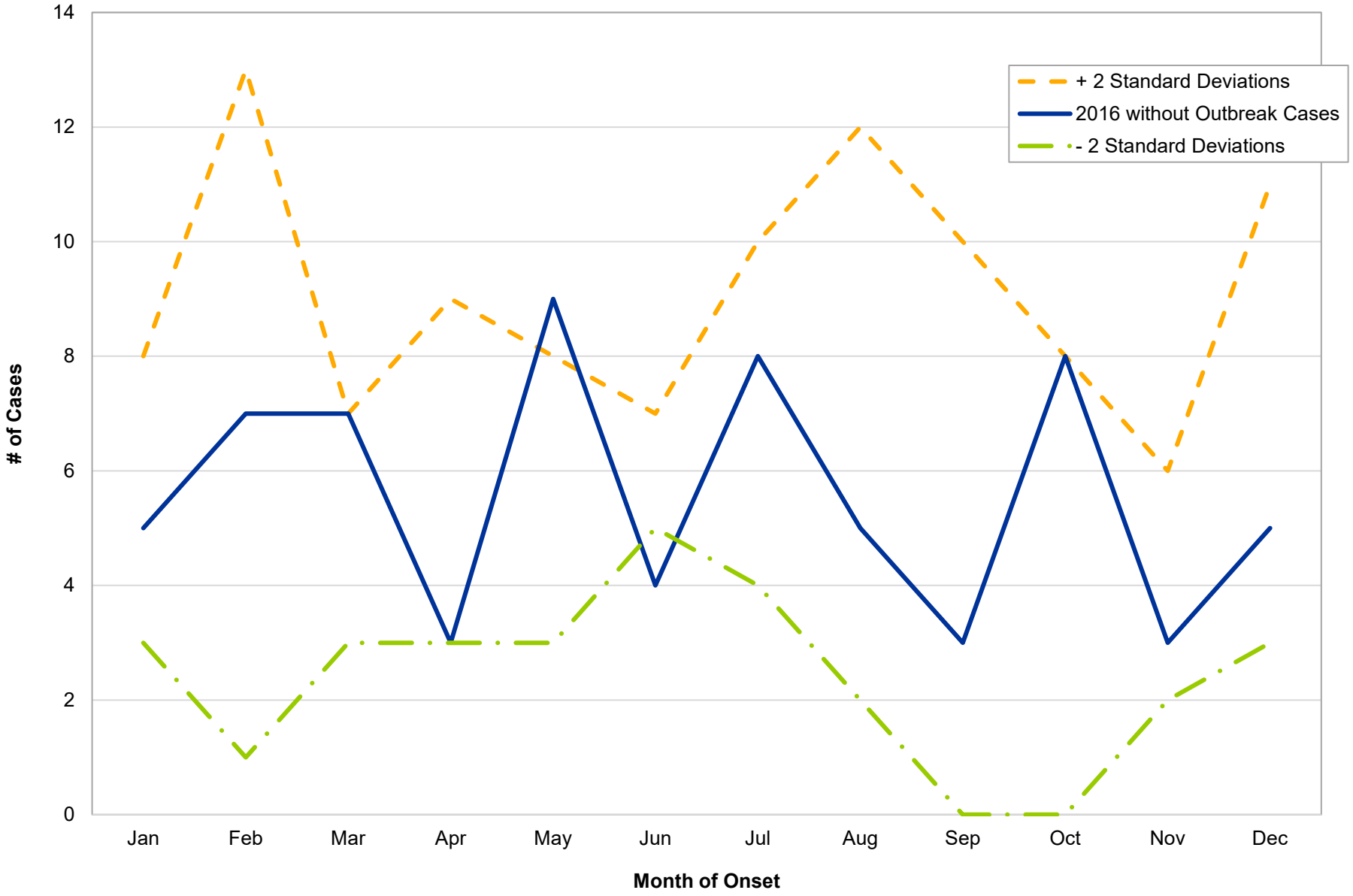
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Streptococcal Disease, Group A, Invasive



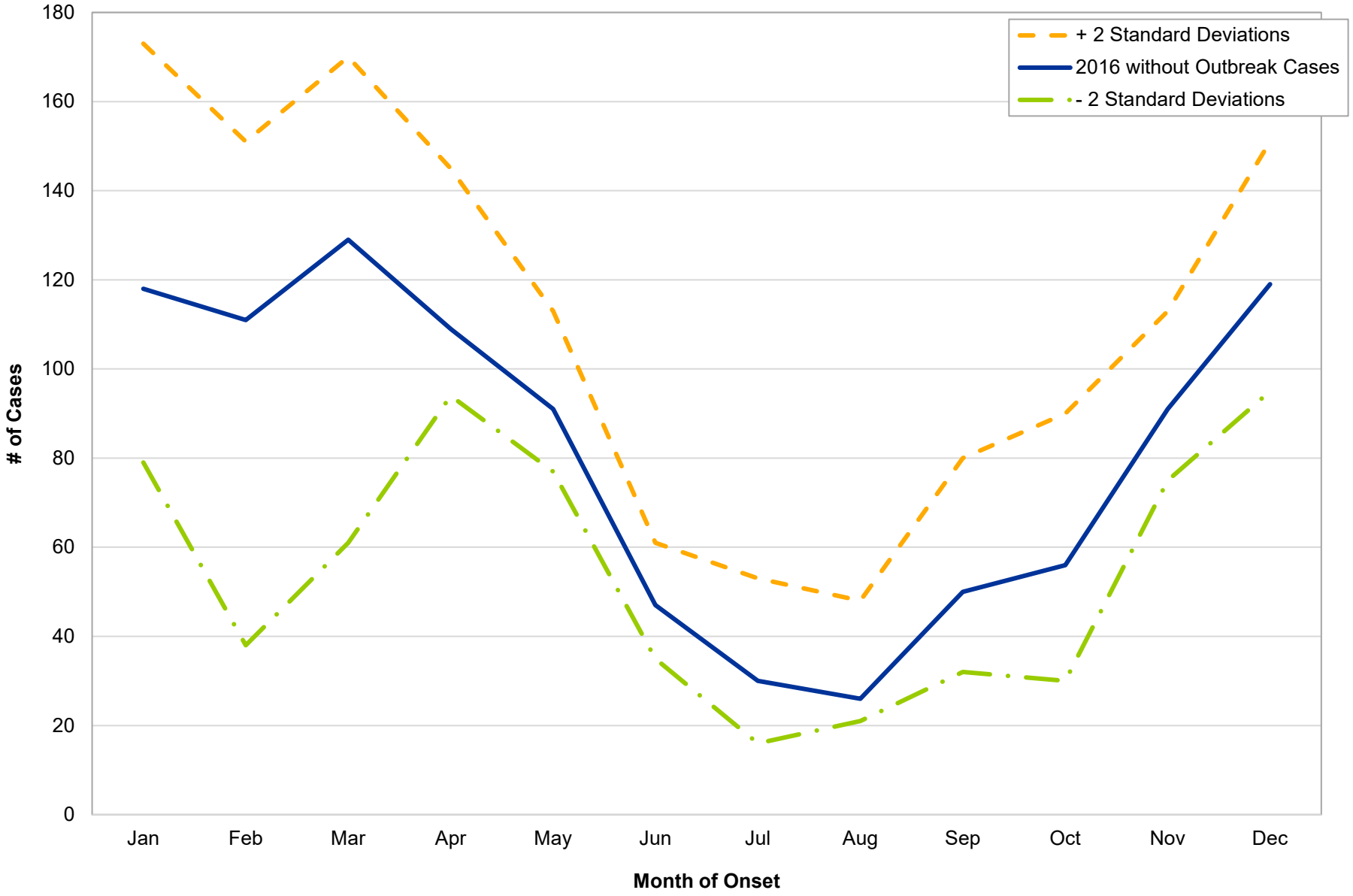
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Streptococcal Disease, Group B, in Newborn



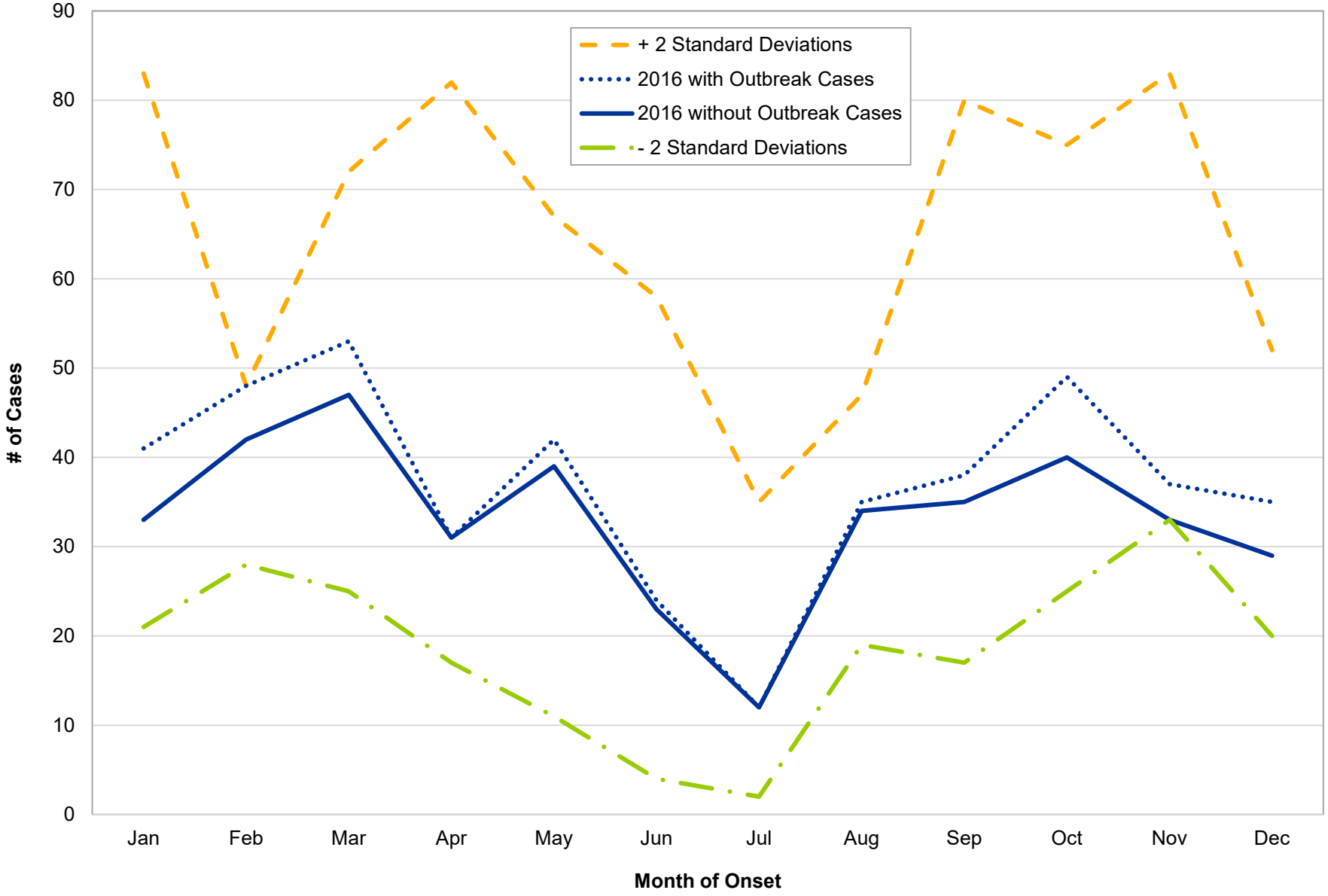
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Streptococcus pneumoniae, Invasive Disease



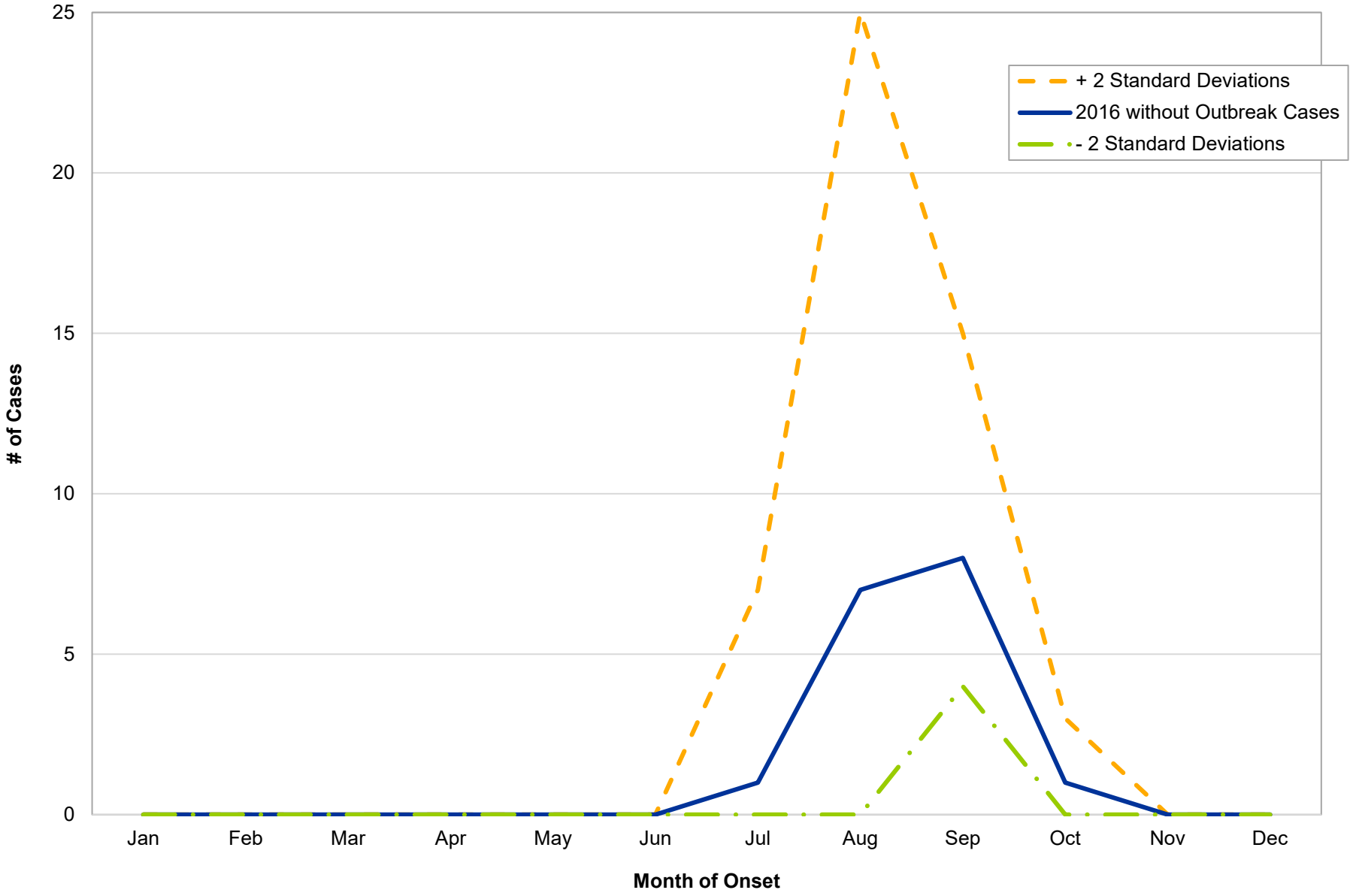
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Varicella



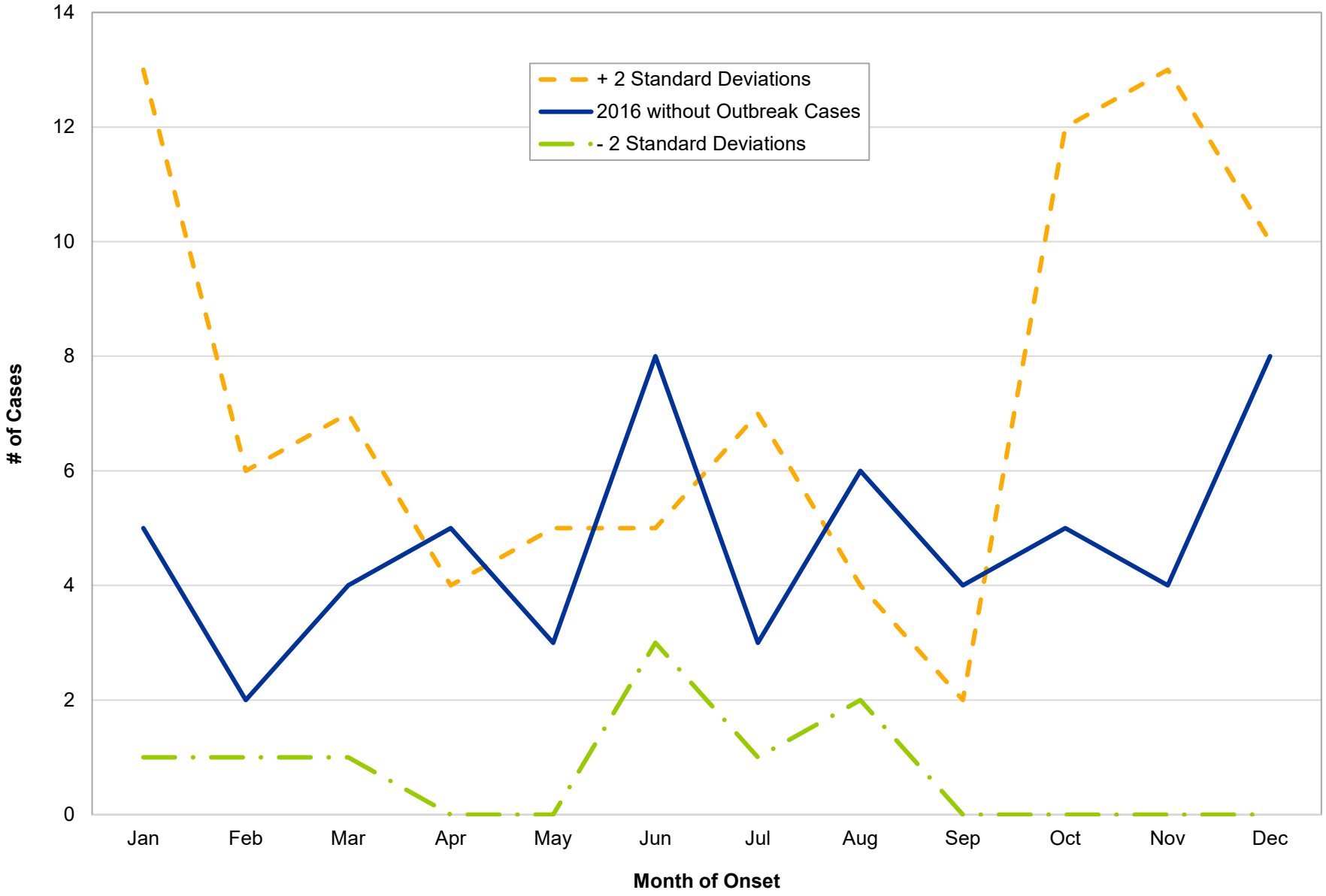
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
West Nile Virus Infection



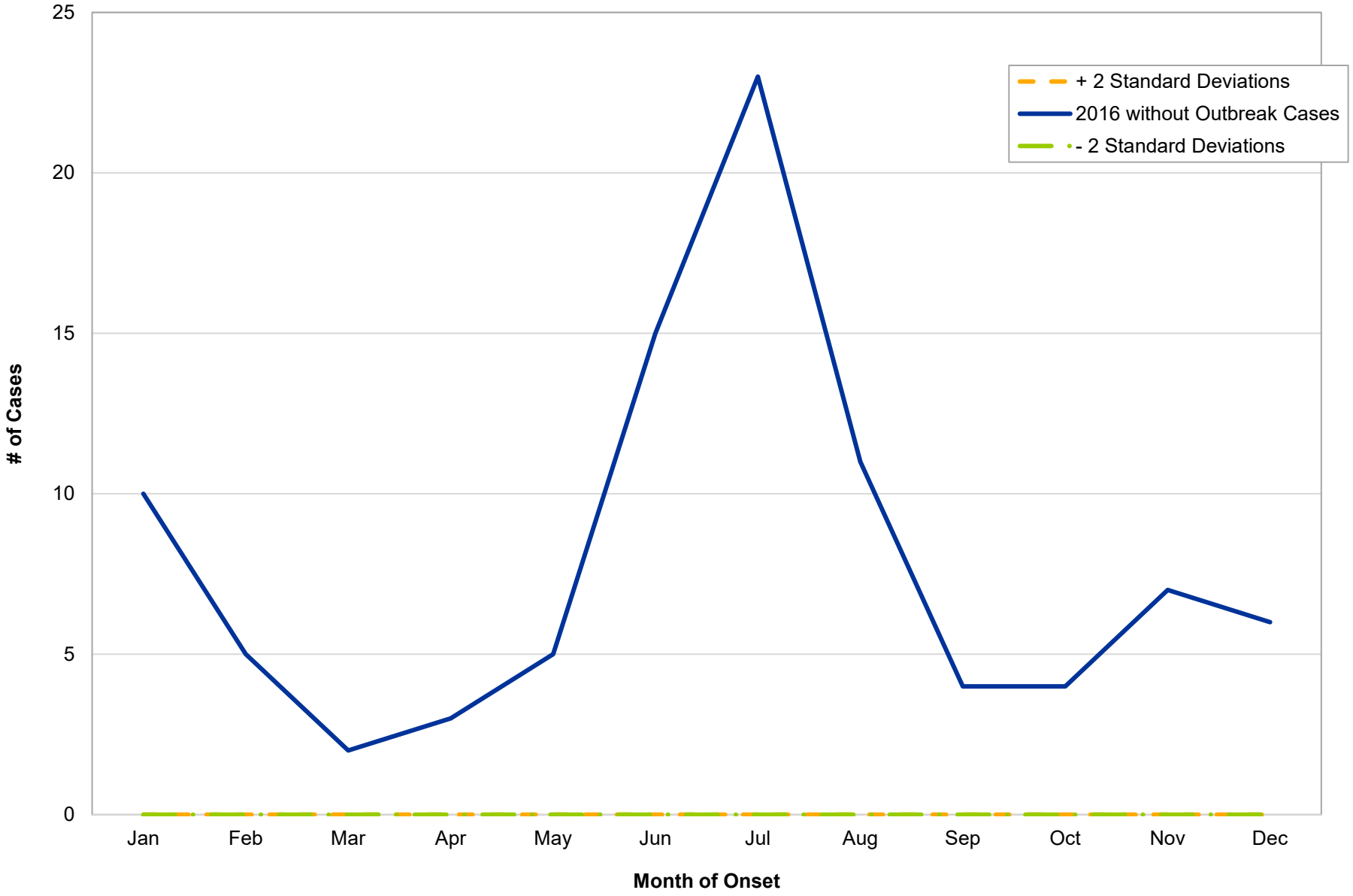
Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Yersiniosis



Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

INCIDENCE TRENDS BY MONTH OF ONSET, OHIO, 2016
Zika Virus Infection



Baseline trends are 2 standard deviations of mean counts from 2013-2015 data.
Source of disease data: Ohio Disease Reporting System.

PROFILES OF SELECTED NOTIFIABLE DISEASES

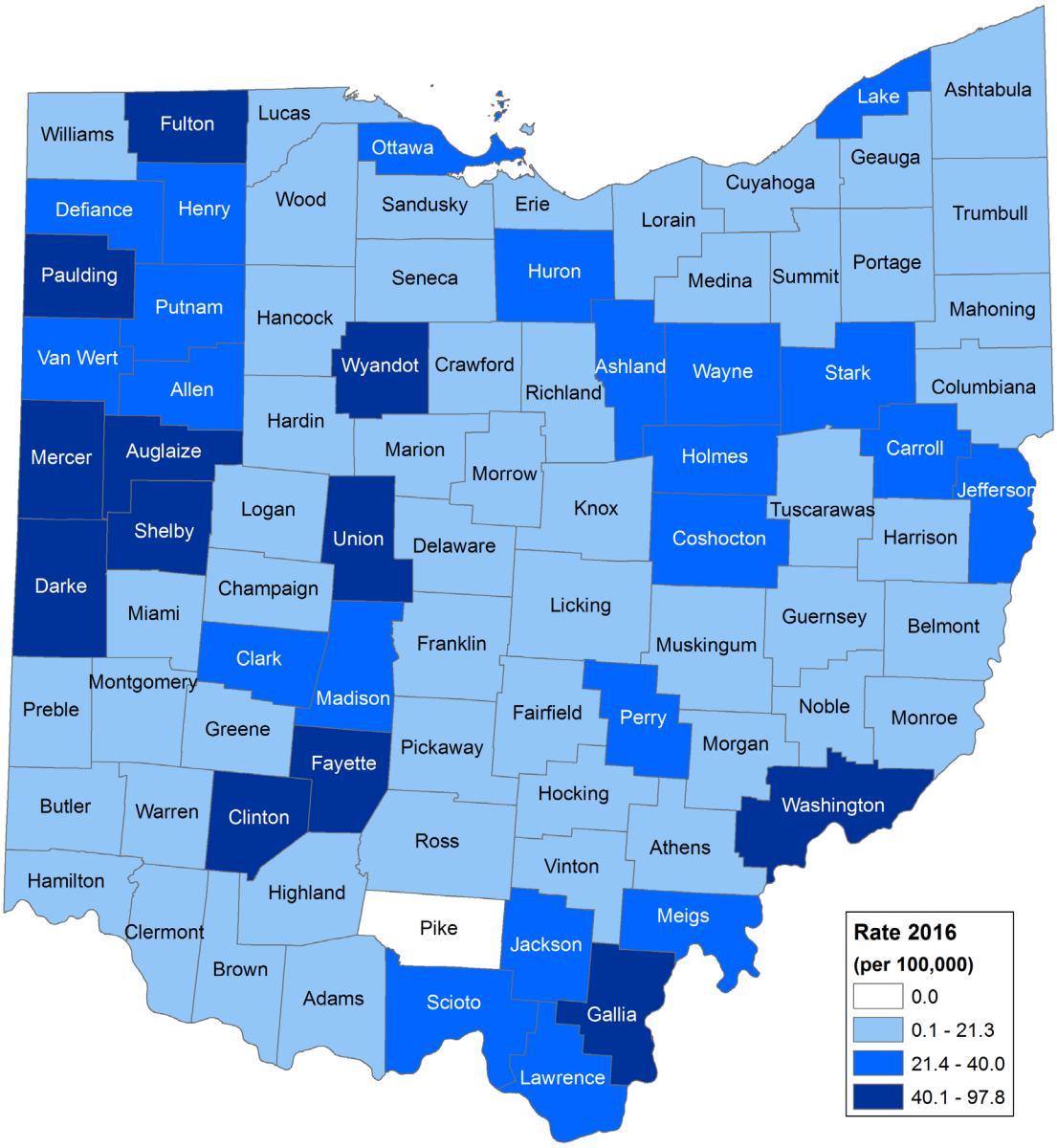
CAMPYLOBACTERIOSIS

Number of cases in 2016:	*1,962*	*Rate in 2016:*	*16.9*
Number of cases in 2015:	*1,786*	*Rate in 2015:*	*15.4*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

Like salmonellosis, the highest incidence for campylobacteriosis during 2016 occurred in rural counties. Urban counties had lower rates (Figure 1).

Figure 1: Campylobacteriosis, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

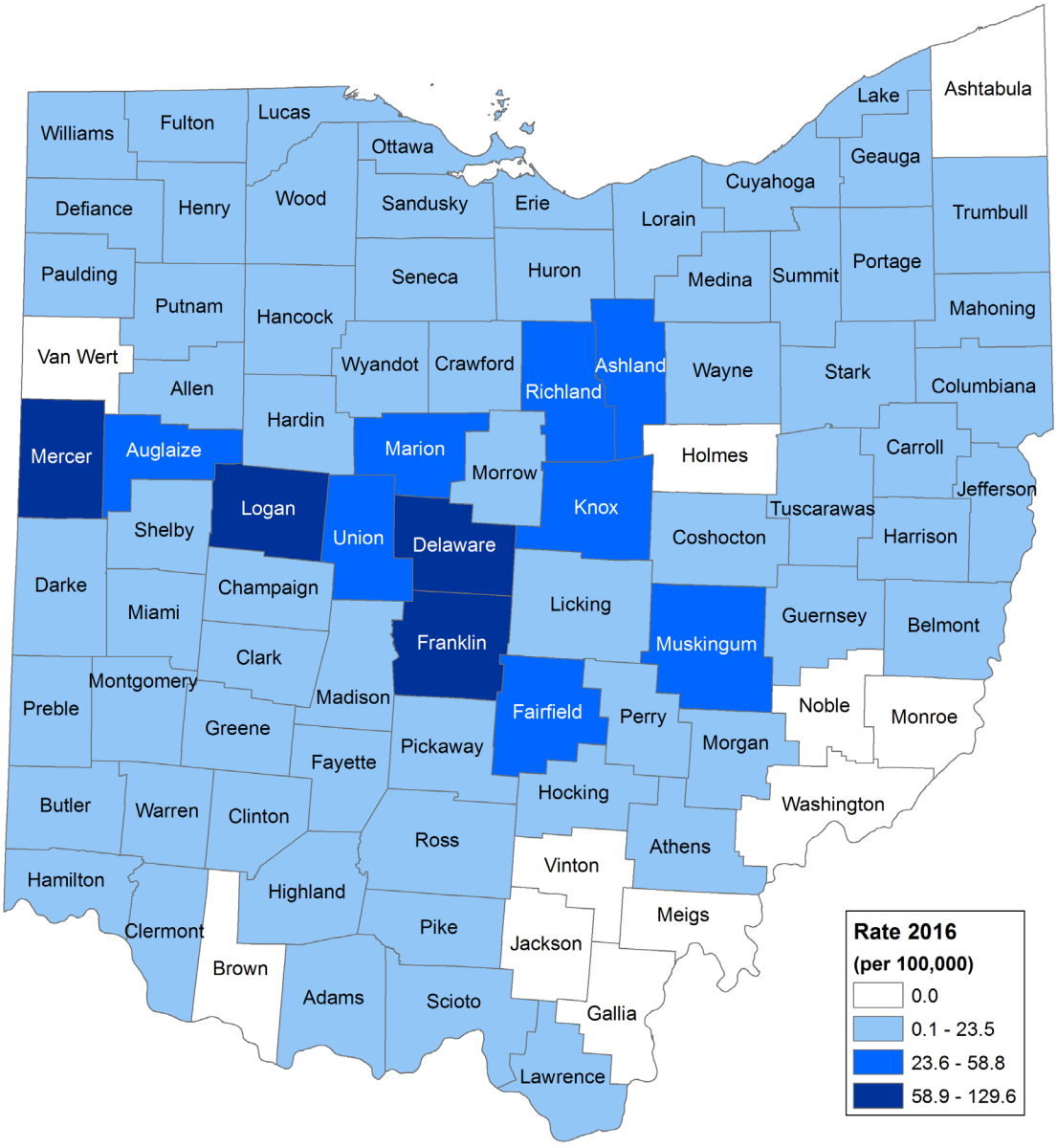
CRYPTOSPORIDIOSIS

Number of cases in 2016:	*1,949*	*Rate in 2016:*	*16.8*
Number of cases in 2015:	*429*	*Rate in 2015:*	*3.7*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

The greatest incidence of cryptosporidiosis during 2016 occurred in the central and western parts of Ohio (Figure 2). Nearly half of all cases (48 percent) reported in 2016 were associated with several outbreaks in central Ohio during the summer involving pools, water parks and other community exposures.

Figure 2: Cryptosporidiosis, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

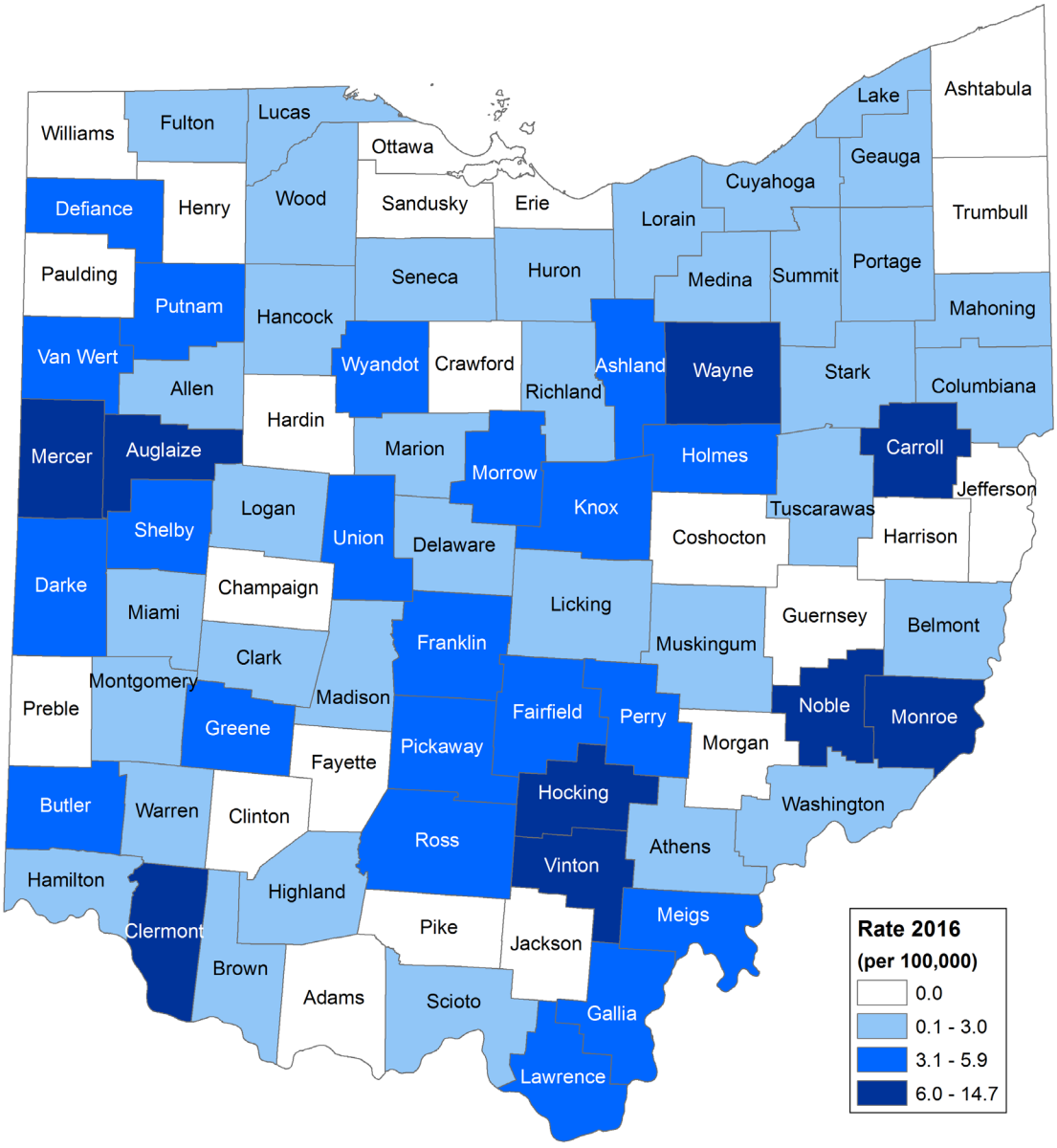
ESCHERICHIA COLI, SHIGA TOXIN-PRODUCING

Number of cases in 2016:	*263*	*Rate in 2016:*	*2.3*
Number of cases in 2015:	*265*	*Rate in 2015:*	*2.3*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

The greatest incidence of Shiga toxin-producing *E. coli* during 2016 occurred in rural counties in the western, southeastern and northeastern parts of Ohio (Figure 3).

Figure 3: Shiga Toxin-Producing *Escherichia coli*, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

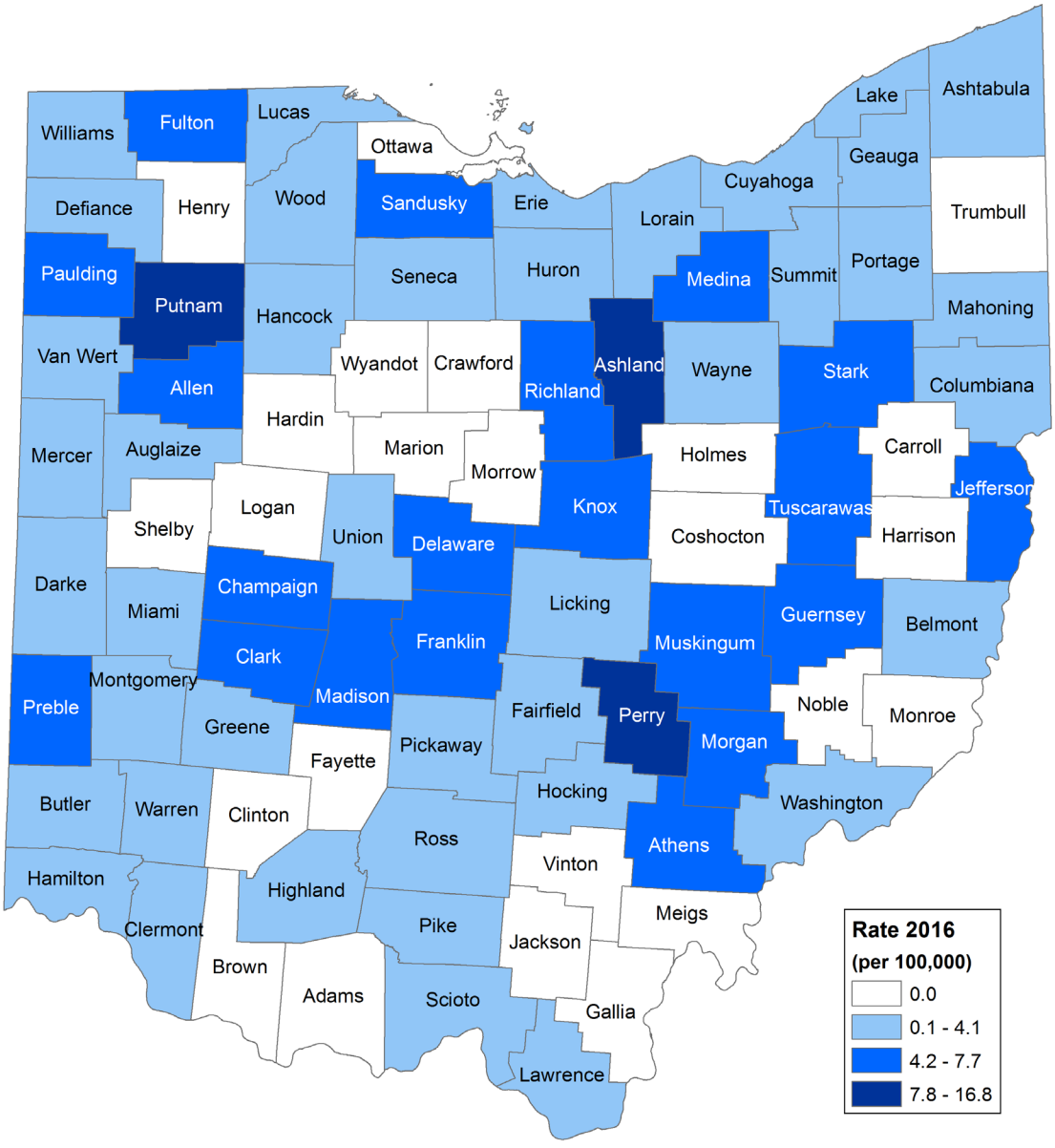
GIARDIASIS

Number of cases in 2016:	*395*	*Rate in 2016:*	*3.4*
Number of cases in 2015:	*376*	*Rate in 2015:*	*3.2*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

The incidence of giardiasis during 2016 was spread throughout Ohio, with the highest incidence occurring in Ashland, Perry and Putnam counties (Figure 4).

Figure 4: Giardiasis, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

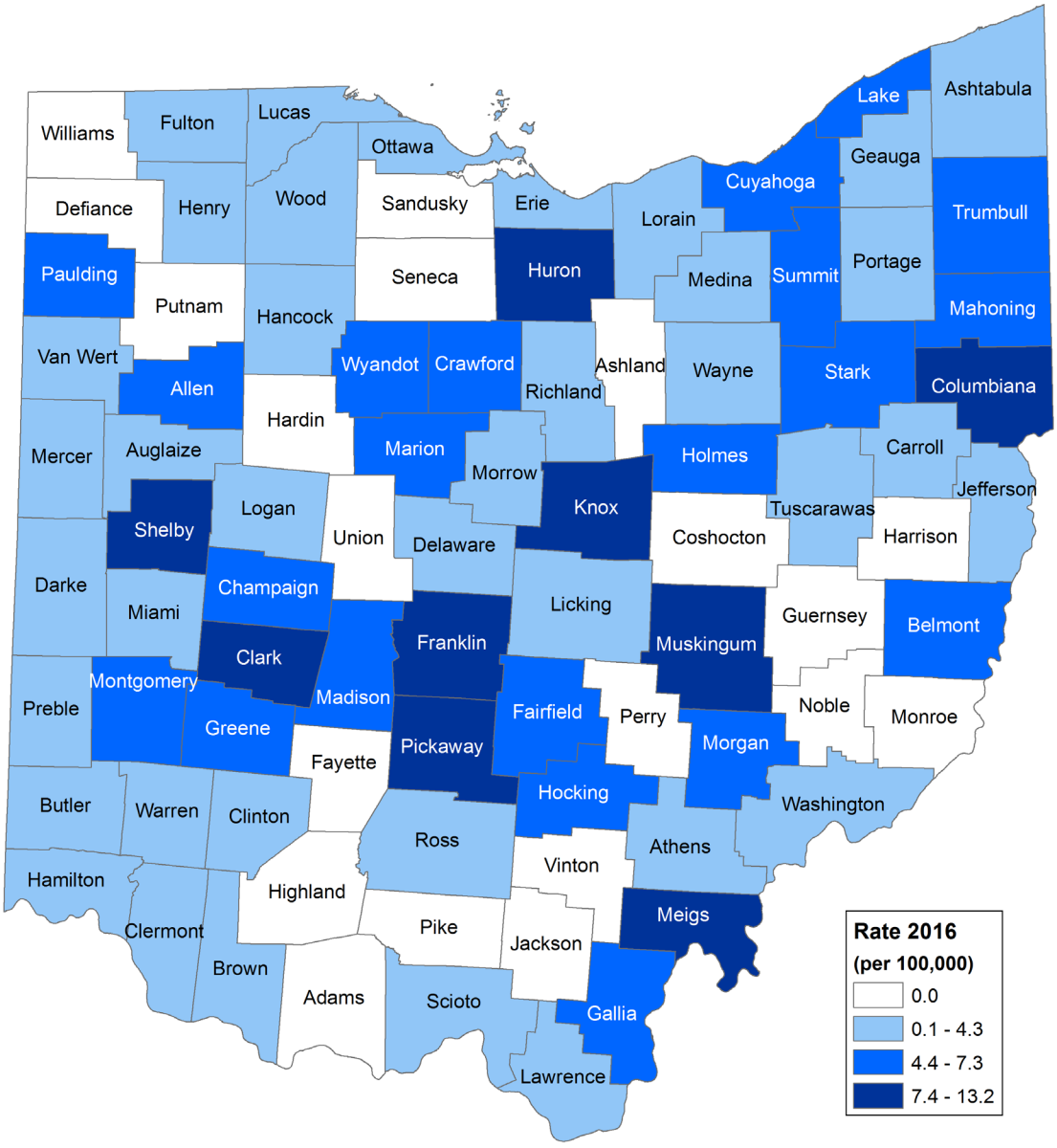
LEGIONELLOSIS

Number of cases in 2016:	*510*	*Rate in 2016:*	*4.4*
Number of cases in 2015:	*566*	*Rate in 2015:*	*4.9*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

The highest rates of legionellosis during 2016 occurred in both urban and rural areas of Ohio, with no strong trend apparent (Figure 5).

Figure 5: Legionellosis, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

LYME DISEASE

Number of cases in 2016:	*159*	*Rate in 2016:*	*1.4*
Number of cases in 2015:	*147*	*Rate in 2015:*	*1.3*

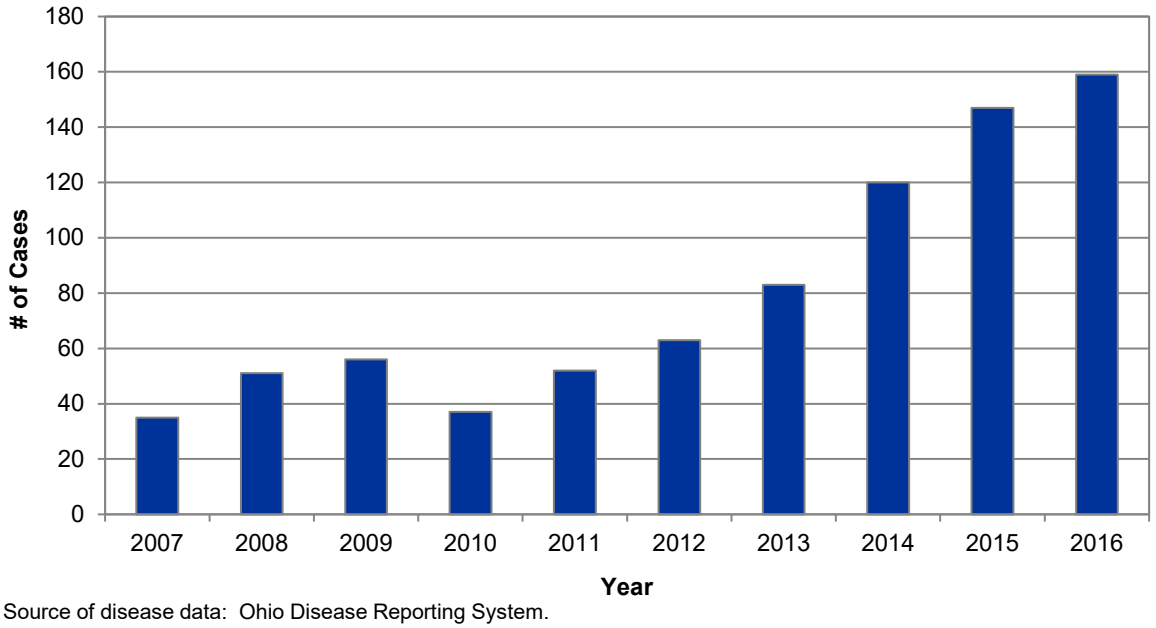
* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

Black-legged ticks that carry Lyme disease are most commonly found in the eastern and southern areas of the state, but are likely to occur in suitable wooded habitat throughout most or all of Ohio.

As with Rocky Mountain spotted fever, people who spend time in the outdoors in tick-infested environments, especially woodlands and brushy areas, are at an increased risk of exposure. Dogs or other pets that frequent these types of areas may also bring infected ticks home.

Figure 6 displays the number of Lyme disease cases reported to the Ohio Department of Health from 2007 through 2016.

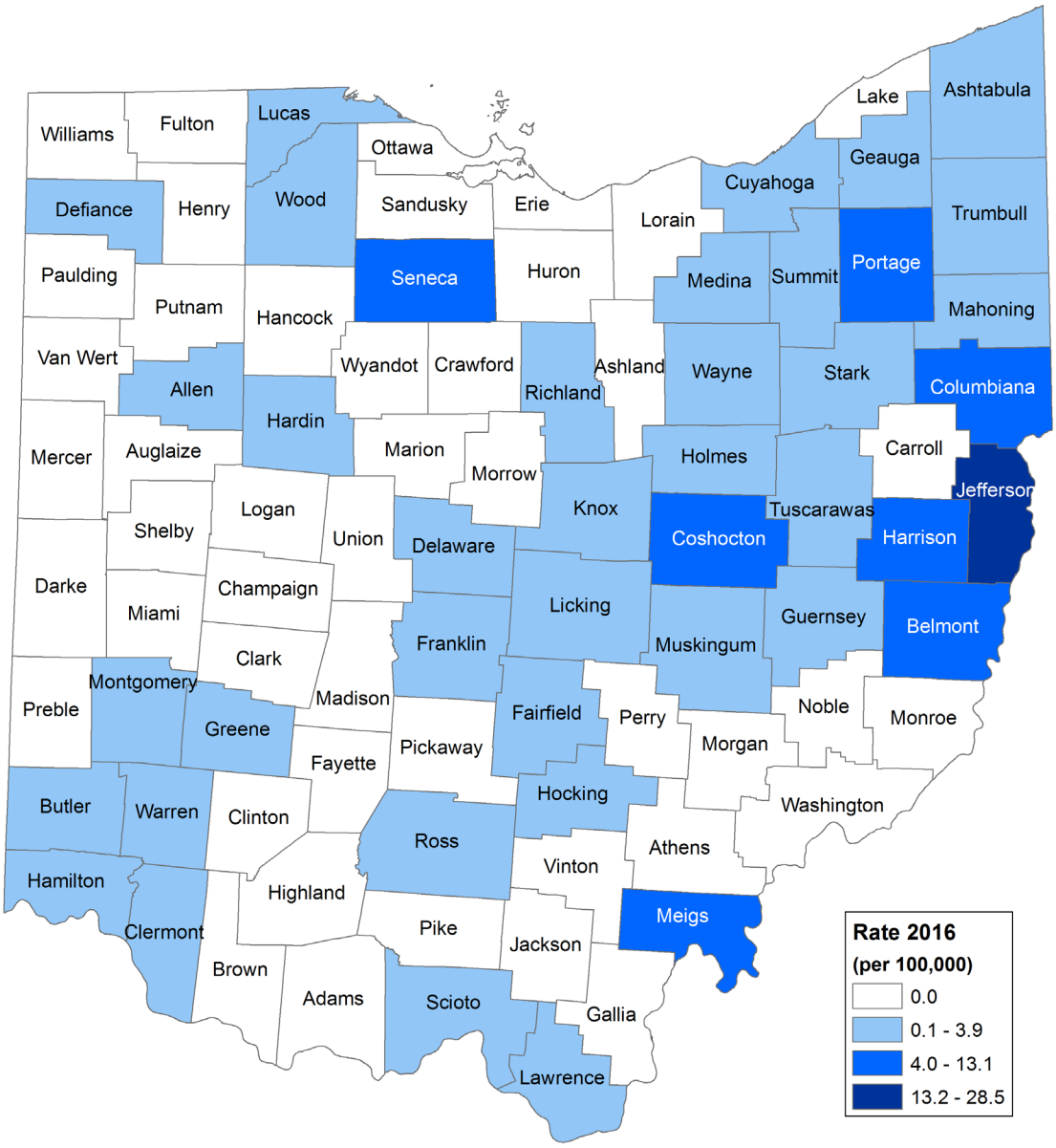
Figure 6: Lyme Disease by Year of Onset, Ohio, 2007-2016



Source of disease data: Ohio Disease Reporting System.

The incidence of Lyme disease during 2016 was highest in the eastern part of Ohio (Figure 7).

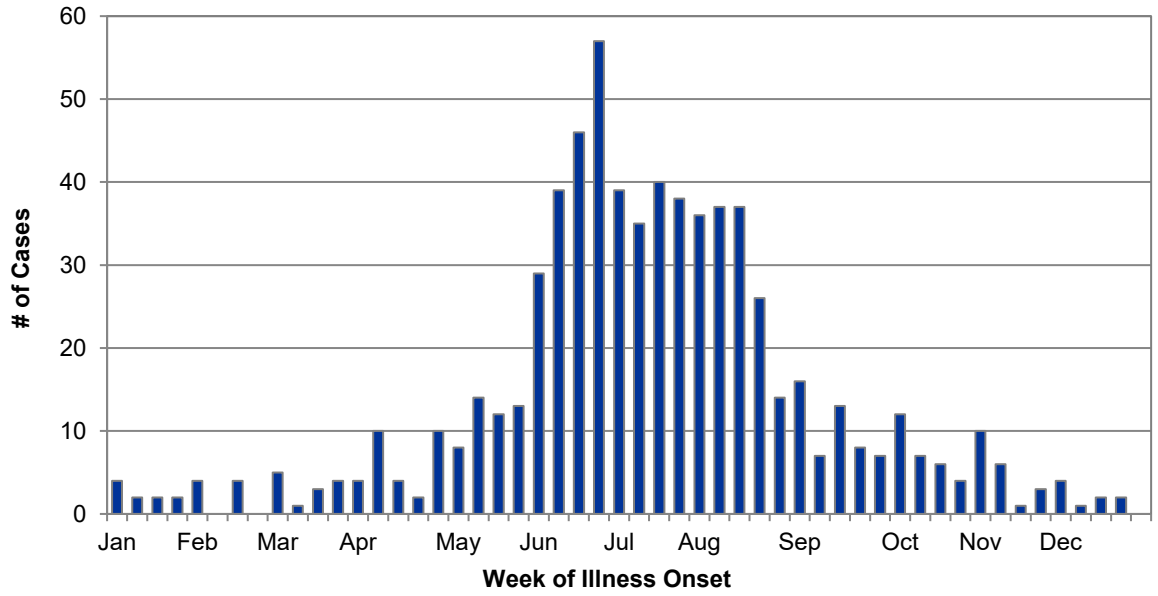
Figure 7: Lyme Disease, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

Lyme disease cases occur year-round in Ohio (Figure 8). The number of reported cases is lowest in the winter, gradually rises in the spring, peaks in the summer, then declines through late summer and autumn. The majority of cases reported 2007-2016 had onset from June through August. It can take anywhere from three to 30 days from when the tick bite occurs to when symptoms of Lyme disease appear. This means late spring through mid-summer is the time of year when Ohioans are most at risk for contracting Lyme disease.

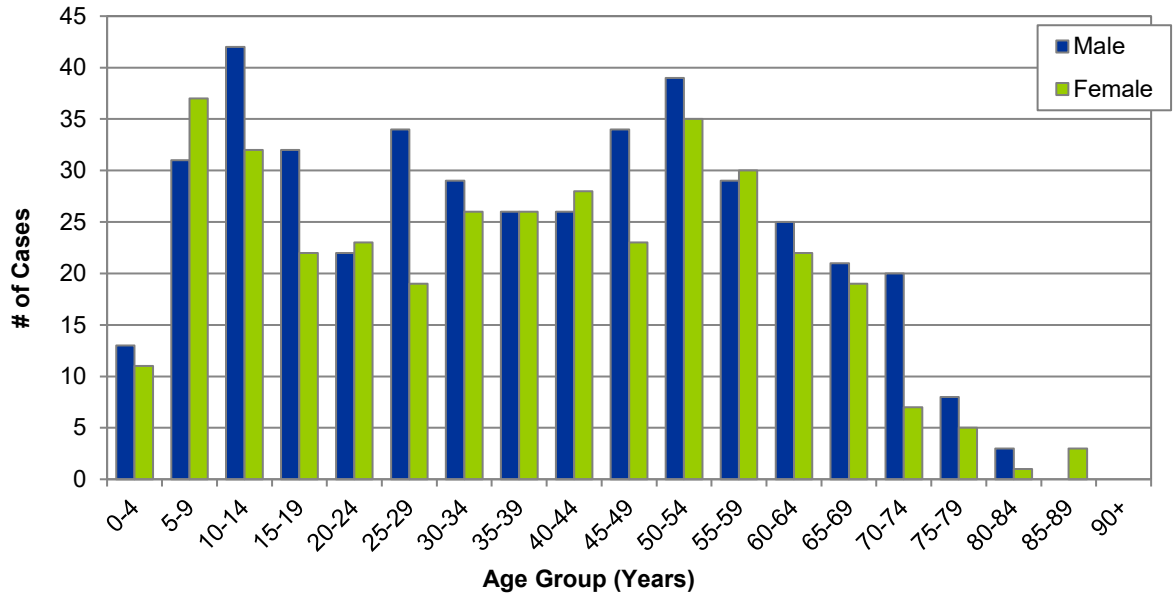
Figure 8: Lyme Disease by Week of Illness Onset, Ohio, 2007-2016



Source of disease data: Ohio Disease Reporting System.

All ages are at risk for becoming infected with the bacteria that causes Lyme diseases. However, children aged 10-14 years was the largest age group with cases reported in Ohio 2007-2016 (Figure 9).

Figure 9: Lyme Disease by Age and Sex, Ohio, 2007-2016



Source of disease data: Ohio Disease Reporting System.

MALARIA

Number of cases in 2016:	*63*	*Rate in 2016:*	*0.5*
Number of cases in 2015:	*36*	*Rate in 2015:*	*0.3*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

Malaria is a mosquito-borne disease caused by one of five *Plasmodium* parasites: *P. falciparum*, *P. knowlesi*, *P. malariae*, *P. ovale* and *P. vivax*. The disease is endemic in tropical and sub-tropical regions throughout the world. People infected with the malaria parasites experience fever, chills and flu-like illness; severe complications and death can occur if people are not treated promptly. Malaria was once a problem in the United States, including in Ohio, but thanks largely to infrastructure improvements, local transmission in the United States is now rare and has not been documented in Ohio since the 1930s. Most cases are diagnosed in travelers, refugees and immigrants coming from countries where malaria transmission occurs.

Before 2016, Ohio reported an average of 30-40 travel-associated cases of malaria per year. In 2016, the number of malaria cases reported nearly doubled to 63 cases (Table 1). This may be due to an increase in incidence in endemic areas or changing resistance patterns of the *Plasmodium* parasites to the antimalarial drugs used for chemoprophylaxis. Most malaria cases reported in Ohio 2012-2016 were in travelers arriving from African countries (90 percent).

Table 1: Malaria by Region of Exposure and Year, Ohio, 2012-2016

Region of Exposure	2012	2013	2014	2015	2016
Africa	30	32	34	33	60
Cameroon	1	2	2	1	1
Ethiopia	2	1	1	1	1
Ghana	4	3	8	8	6
Kenya	2	1	0	1	4
Liberia	4	3	3	4	3
Nigeria	3	5	5	2	12
Sierra Leone	2	5	7	4	8
Uganda	1	1	2	2	10
Other*	11	11	6	10	15
Asia	7	0	3	2	2
Caribbean	1	0	0	1	1
Central America	0	0	1	0	0
Oceania	0	1	0	0	0
Unknown	2	0	1	0	0
Total	**40**	**33**	**39**	**36**	**63**

* Other countries include: Benin, Burkina Faso, Central African Republic, Chad, Democratic Republic of the Congo, Côte d'Ivoire, Eritrea, Guinea, Madagascar, Mali, Mauritania, Niger, Rwanda, Senegal, Sudan, Tanzania, Togo and Zambia.
Source of disease data: Ohio Disease Reporting System.

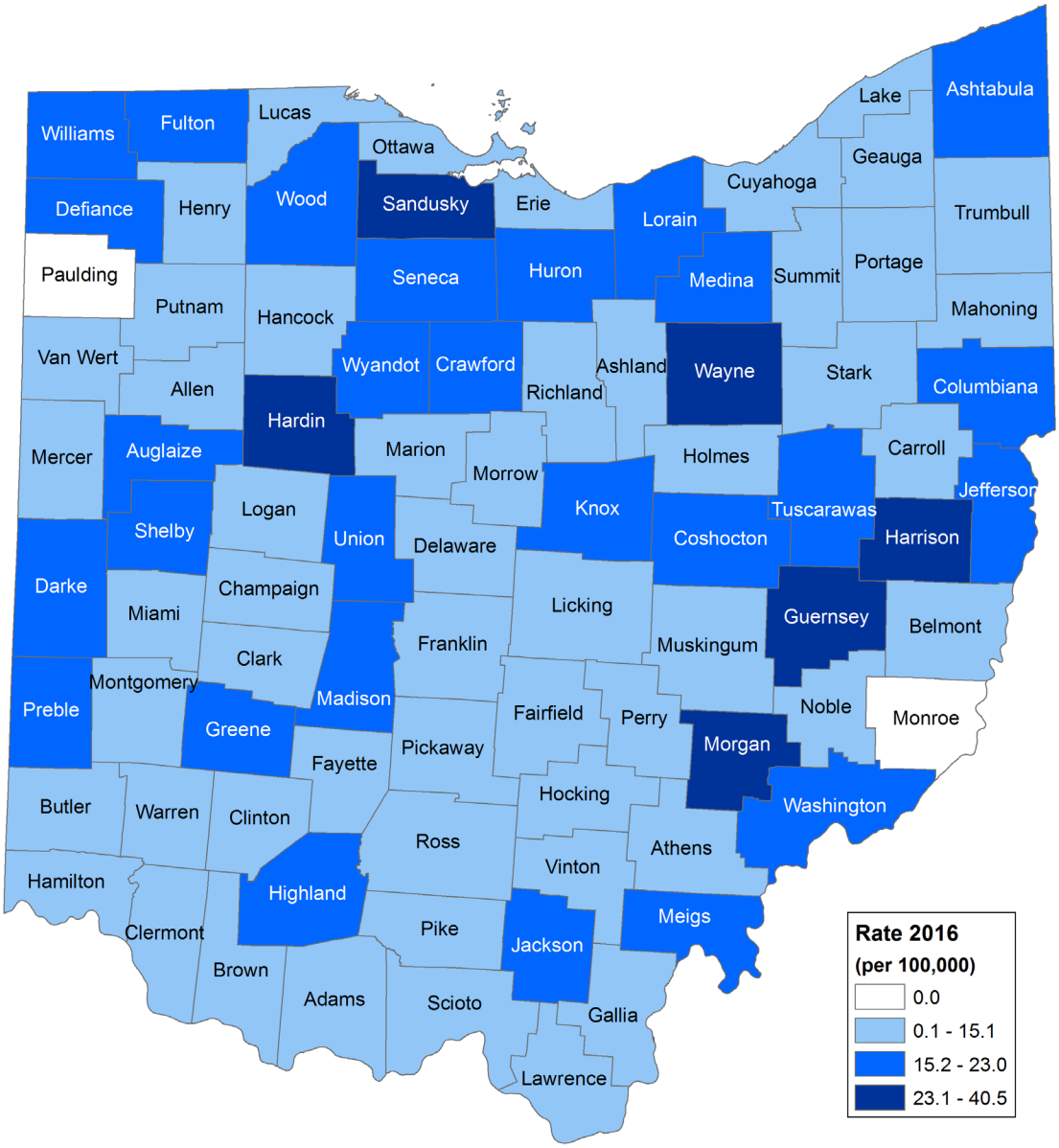
SALMONELLOSIS

Number of cases in 2016:	*1,528*	*Rate in 2016:*	*13.2*
Number of cases in 2015:	*1,373*	*Rate in 2015:*	*11.8*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

The incidence of salmonellosis during 2016 was spread throughout Ohio, with the highest incidence occurring in Guernsey, Hardin, Harrison, Morgan, Sandusky and Wayne counties (Figure 10).

Figure 10: Salmonellosis, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

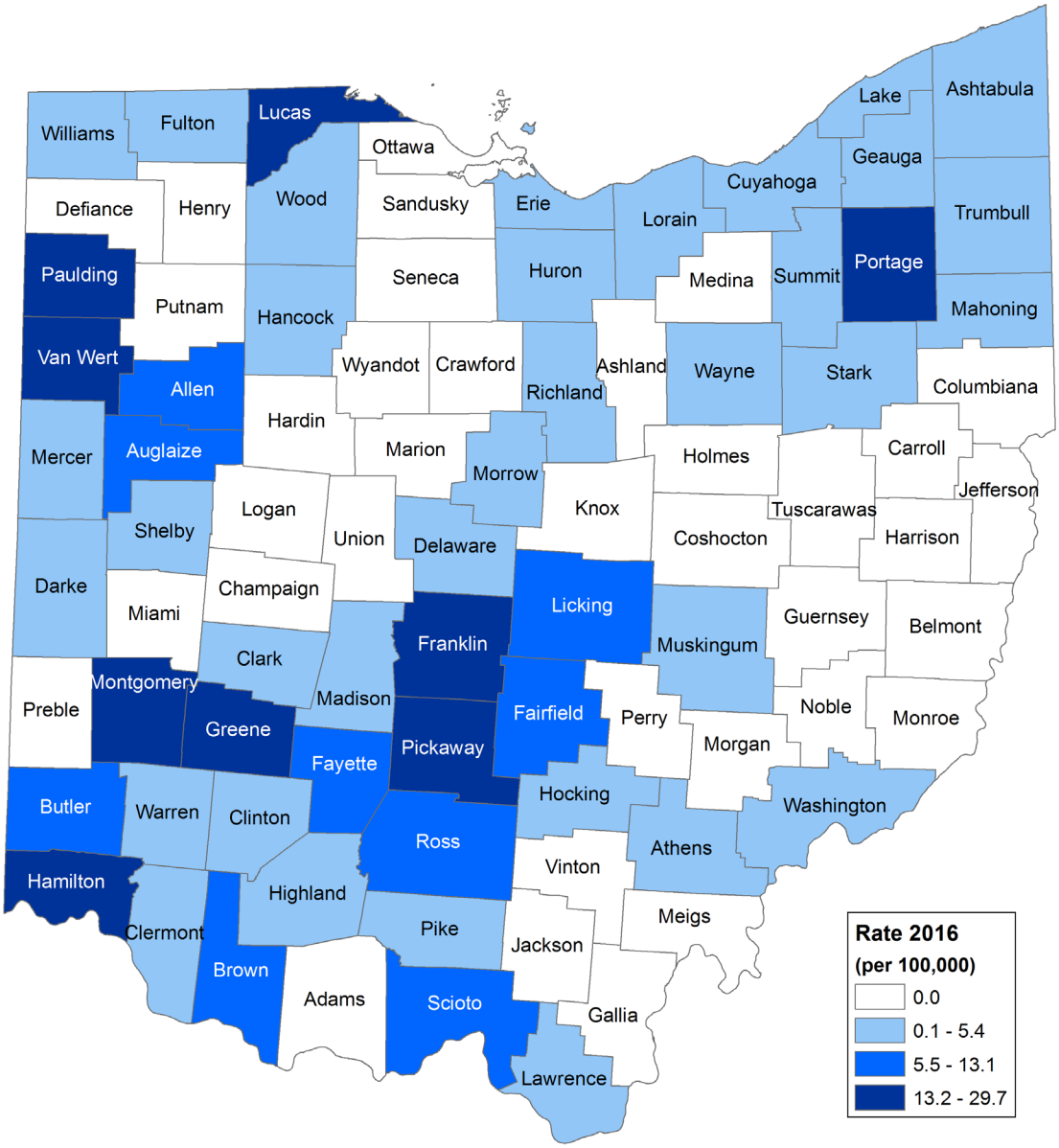
SHIGELLOSIS

Number of cases in 2016:	*1,076*	*Rate in 2016:*	*9.3*
Number of cases in 2015:	*748*	*Rate in 2015:*	*6.4*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

The incidence of shigellosis during 2016 was higher in central, northwestern and southwestern Ohio counties (Figure 11).

Figure 11: Shigellosis, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

SPOTTED FEVER RICKETTSIOSIS

Number of cases in 2016:	*23*	*Rate in 2016:*	*0.2*
Number of cases in 2015:	*13*	*Rate in 2015:*	*0.1*

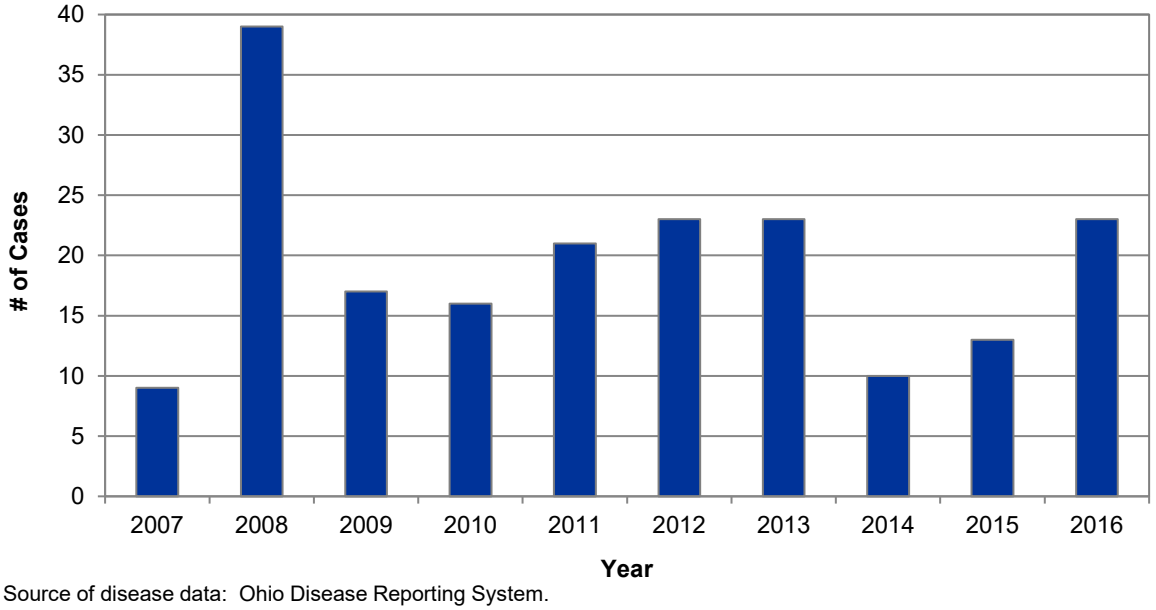
* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

Rocky Mountain spotted fever (RMSF) is a tick-borne infection caused by the bacterium *Rickettsia rickettsii*. In Ohio, this organism is transmitted to humans by the bite of infected American dog ticks (*Dermacentor variabilis*). The American dog tick is the most commonly encountered tick in Ohio and is often found in overgrown lots and along weedy roadsides, paths and hiking trails.

People who spend time in the outdoors in tick-infested environments, especially woodlands and brushy areas, are at an increased risk of exposure. Dogs or other pets that frequent these types of areas may also bring infected ticks home. A few human cases of RMSF originate in Ohio each year.

Figure 12 displays the number of Rocky Mountain spotted fever cases reported to the Ohio Department of Health from 2007 through 2016.

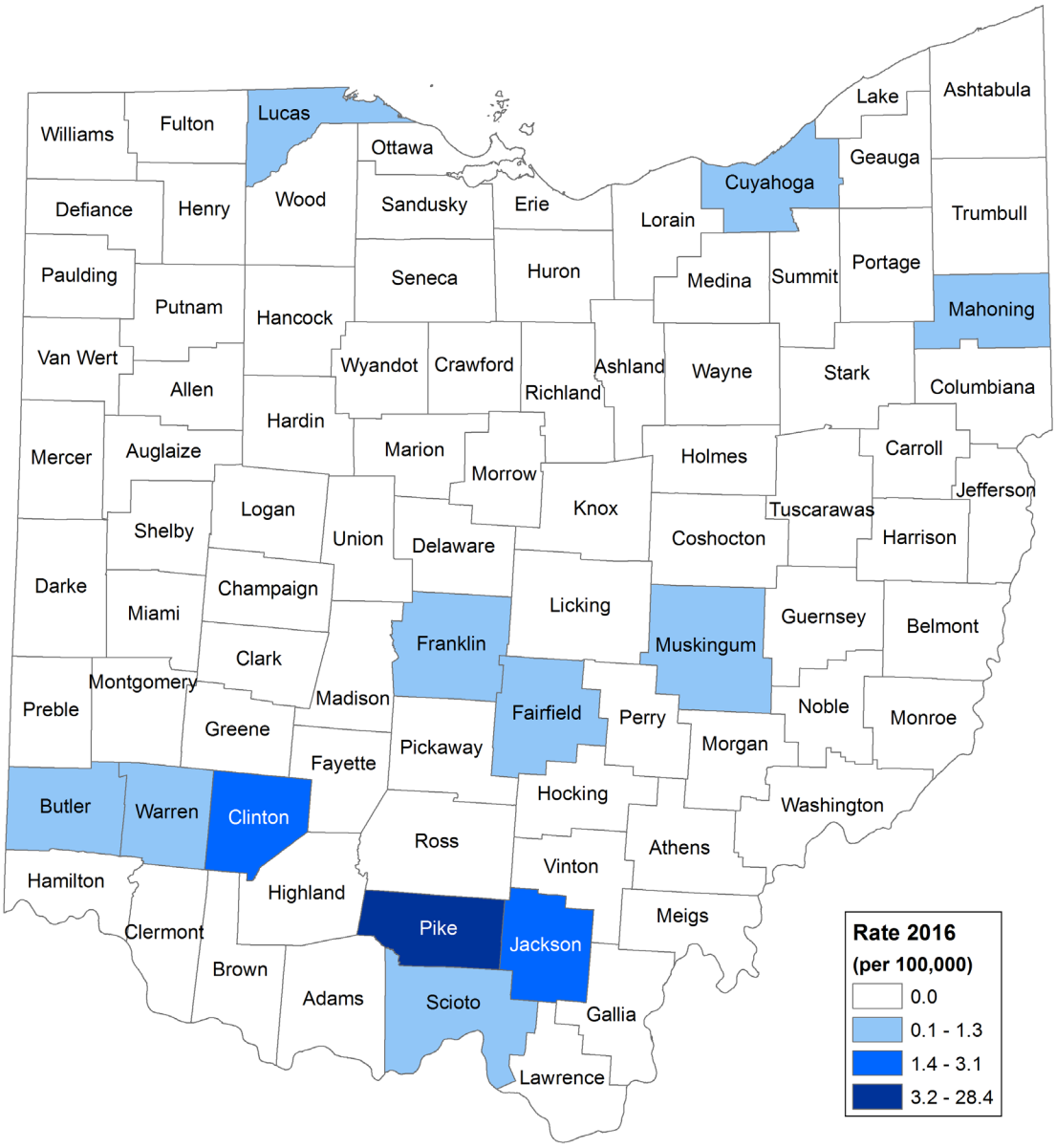
Figure 12: Rocky Mountain Spotted Fever by Year of Onset, Ohio, 2007-2016



Source of disease data: Ohio Disease Reporting System.

The incidence of RMSF during 2016 was highest in the southern part of Ohio (Figure 13).

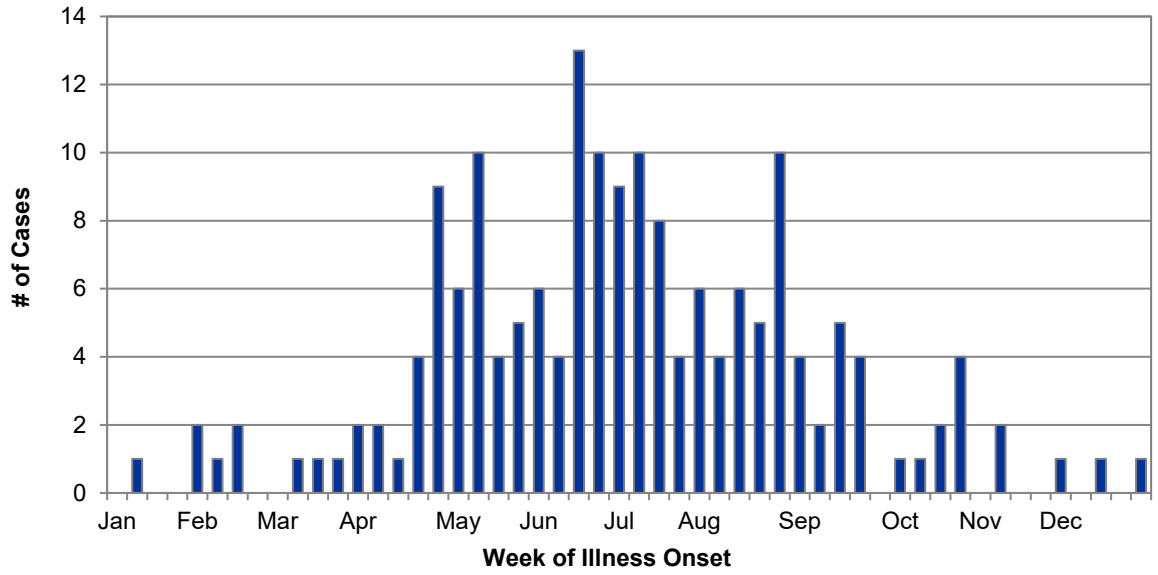
Figure 13: Rocky Mountain Spotted Fever, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

Adult American dog ticks are active during spring and summer, but are the most abundant from mid-April to mid-July. Most cases occur in May and June, the peak American dog tick season in Ohio, with fewer cases from July to September (Figure 14).

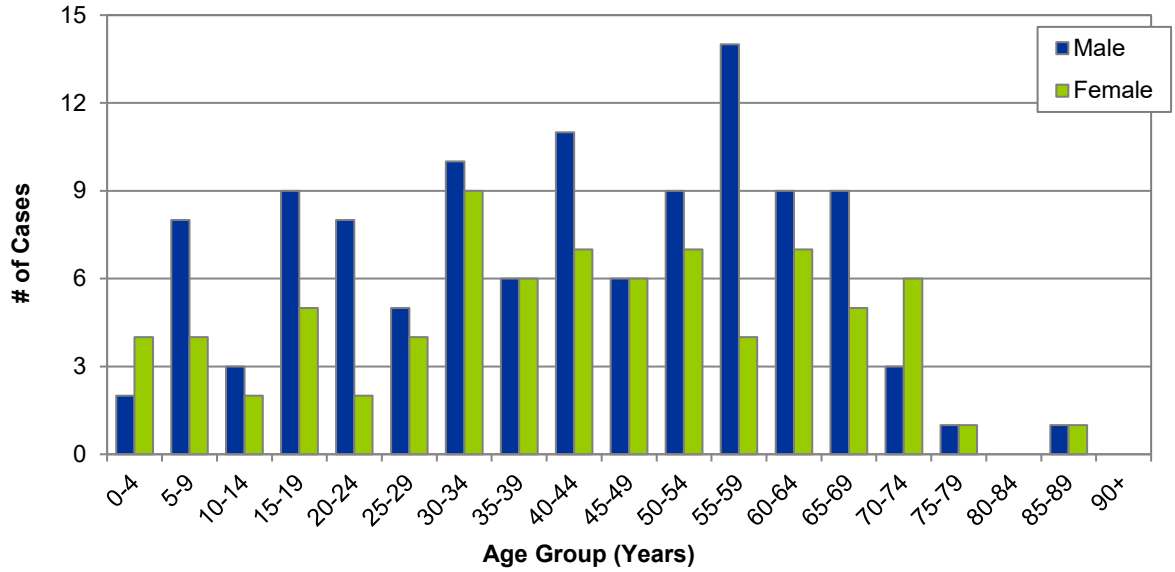
Figure 14: Rocky Mountain Spotted Fever by Week of Illness Onset, Ohio, 2007-2016



Source of disease data: Ohio Disease Reporting System.

Although cases have been reported in every age group, increased incidence is seen as age increases (Figure 15). Cases of spotted fever rickettsiosis are more frequently reported in men than in women, and the majority of reported cases are among people at least 40 years old.

Figure 15: Rocky Mountain Spotted Fever by Age and Sex, Ohio, 2007-2016



Source of disease data: Ohio Disease Reporting System.

ZIKA VIRUS INFECTION

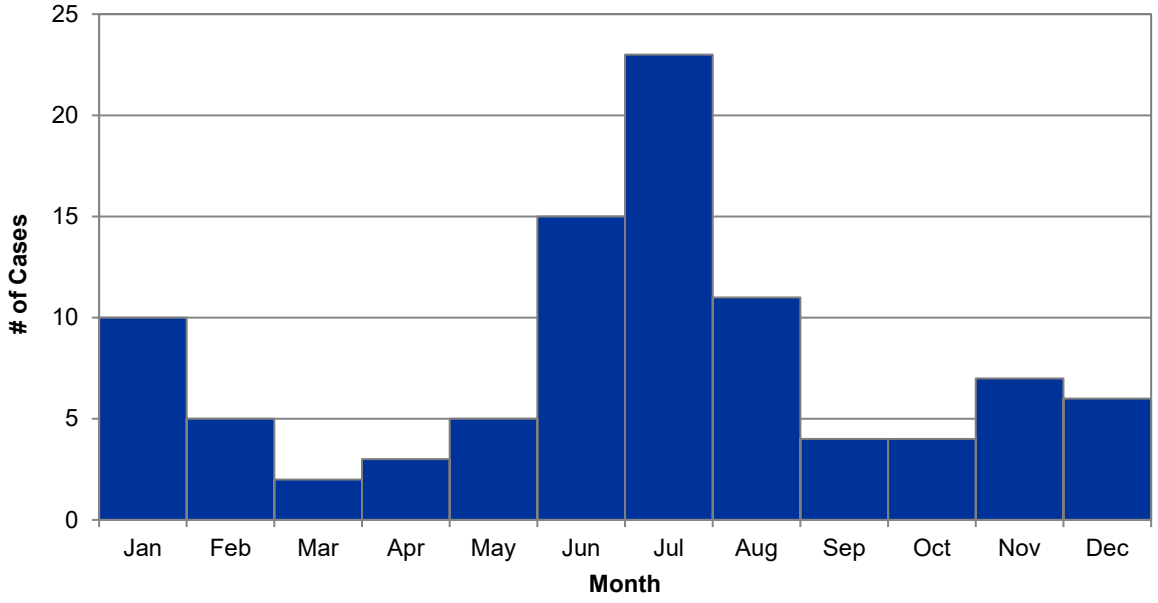
Number of cases in 2016:	*95*	*Rate in 2016:*	*0.8*
Number of cases in 2015:	*0*	*Rate in 2015:*	*0.0*

* Rates are based on the 2015 and 2016 U.S. Census estimates and are per 100,000 population.

Zika virus is a disease primarily transmitted by mosquitoes. This infection has historically occurred in Africa, Southeast Asia and islands in the Pacific Ocean. In May 2015, Zika virus was found for the first time in the Western Hemisphere in northeastern Brazil. During 2016, the virus had also spread through much of the Caribbean, Central America and South America. Mosquito-borne Zika virus transmission was also reported in the continental United States during 2016 in Miami-Dade County, Florida as well as Brownsville, Texas.

Zika virus infection became a nationally notifiable condition in 2016. There were no reported cases of Zika virus disease transmission through mosquito bites in Ohio. However, cases were reported in travelers returning from areas with risk of Zika. In 2016, Ohio reported 94 cases of Zika virus in travelers returning from areas with risk of Zika and one case sexually acquired from a traveler returning from an area with risk of Zika (Figure 16). More than half of cases (52 percent) occurred Jun.-Aug. 2016. The majority of cases traveled to areas in the Caribbean Islands (Table 2).

Figure 16: Zika Virus Infection Cases by Month, Ohio, 2016



Source of disease data: Ohio Disease Reporting System.

Table 2: Zika Virus Infection by Exposure, Ohio, 2016

Exposure	2016 Cases
Caribbean	74
Dominican Republic	12
Haiti	13
Puerto Rico	28
St. Lucia	7
Virgin Islands, U.S.	4
Other*	10
Central America and Mexico	15
South America	4
United States (Florida)	1
Sexually acquired from traveler	1
Total	**95**

* Other countries include: Aruba, Bonaire, Grenada, Guadeloupe, Jamaica, St. Martin and Virgin Islands, British.
Source of disease data: Ohio Disease Reporting System.

OUTBREAK SUMMARIES

Starting in 2009, the categories for outbreak reporting changed (see Ohio Administrative Code Chapter 3701-03). These are referred to as "Class C: Report an outbreak, unusual incidence or epidemic by the end of the next business day." The categories for outbreak reporting are: community outbreak, foodborne outbreak, healthcare-associated outbreak, institutional outbreak, waterborne outbreak and zoonotic outbreak.

In 2016, the Bureau of Infectious Diseases (BID) assisted local health jurisdictions in Ohio in the investigation of 537 outbreaks. These outbreaks were detected in 65 of 88 counties throughout the state. The number of Ohioans known to be ill from these outbreaks was 10,277 (median 9, range 1-1,000). The outbreaks were classified as: community (46), foodborne (83), healthcare-associated (79), institutional (292), waterborne (20) and zoonotic (17). Causative agents identified during the outbreak investigations included: *Acinetobacter baumannii*, *Bacillus cereus*, *Bordetella pertussis*, *Burkholderia cepacia*, *Campylobacter* spp., *Clostridium difficile*, *Clostridium perfringens*, coxsackievirus, *Cryptosporidium* spp., enteroaggregative *Escherichia coli*, extended spectrum Beta-lactamase bacteria, hepatitis A virus, herpes simplex virus, influenza virus, *Legionella pneumophila*, mumps virus, mushroom poisoning, norovirus genotypes GI and GII, parvovirus, *Pseudomonas aeruginosa*, respiratory syncytial virus, rhinovirus, *Salmonella* (various serotypes), sapovirus, *Sarcoptes scabiei* (scabies mite), *Serratia marcescens*, Shiga toxin-producing *Escherichia coli* (STEC, various serotypes), *Shigella sonnei*, *Staphylococcus aureus* (various strains), *Streptococcus* spp. and varicella-zoster virus.

This is the seventh year that norovirus sequencing data has been available in the annual summary. Viral sequencing, as well as most serotyping, was performed at the Ohio Department of Health Laboratory.

Details on the types of 2016 outbreaks are discussed below.

COMMUNITY OUTBREAKS

In 2016, 46 community outbreaks were reported from a variety of settings. Twenty-two of these outbreaks were confirmed, with the causative agent as follows: *B. pertussis* (5), *Campylobacter* spp. (1), *Cryptosporidium* spp. (2), hepatitis A virus (1), mumps virus (1), norovirus (5), *Salmonella* (2), Shiga toxin-producing *E. coli* (1), *S. sonnei* (1) and varicella-zoster virus (3).

The confirmed community outbreaks of 2016 are listed in Table 1.

Table 1: Confirmed Community Outbreaks, Ohio, 2016

Month of Onset	Causative Agent	County	# Ill
December 2015	*Bordetella pertussis*	Clark	6
January 2016	Norovirus GII.2	Richland	32
January 2016	Norovirus GII.2	Franklin	11
March 2016	Norovirus GII	Summit	6
March 2016	*Shigella sonnei*	Portage	107
March 2016	Hepatitis A virus	Franklin	2
March 2016	Varicella-zoster virus	Delaware	5
March 2016	*Bordetella pertussis*	Franklin	3

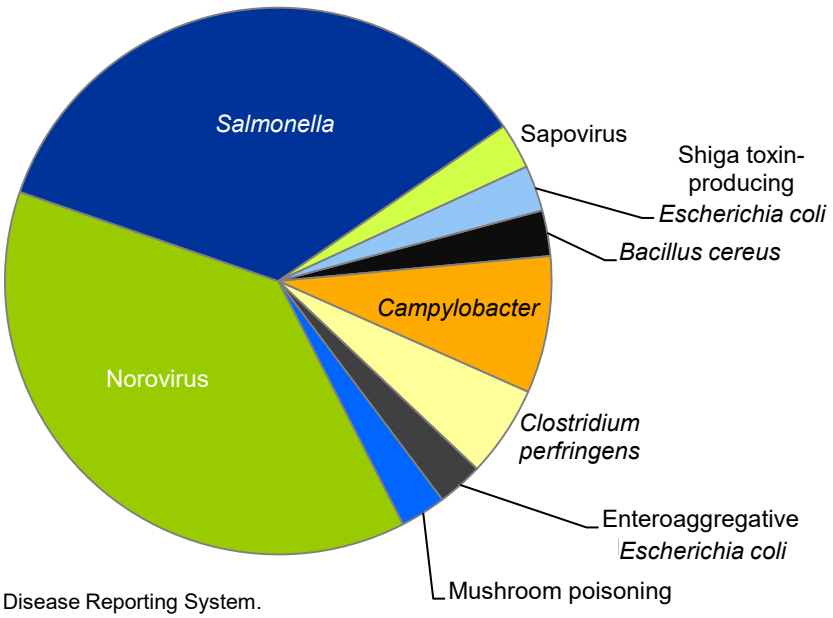
Month of Onset	Causative Agent	County	# Ill
May 2016	Norovirus GII	Franklin	5
May 2016	*Bordetella pertussis*	Marion	31
June 2016	*Campylobacter* spp.	Franklin	2
June 2016	*Bordetella pertussis*	Franklin	6
June 2016	Mumps virus	Shelby, Auglaize	8
July 2016	Norovirus GII.4 untypeable	Erie	20
July 2016	*Salmonella* Montevideo	Erie	13
July 2016	*Escherichia coli* O103	Franklin	7
July 2016	*Salmonella* Enteritidis	Franklin	4
July 2016	*Cryptosporidium* spp.	Mercer	21
September 2016	*Cryptosporidium* spp.	Fairfield	5
September 2016	Varicella-zoster virus	Darke	7
November 2016	Varicella-zoster virus	Holmes	5
November 2016	*Bordetella pertussis*	Franklin	5

Source of outbreak data: Ohio Disease Reporting System.

FOODBORNE OUTBREAKS

In 2016, 37 of the 83 foodborne outbreaks reported were confirmed. These 83 outbreaks in Ohio met the general definition of a foodborne outbreak: "An incident in which two or more persons experience a similar illness after ingestion of a common food, and epidemiologic analysis implicates the food as the source of the illness." (Some outbreaks with one person ill are multistate outbreaks.) The 37 confirmed outbreaks also met the agent-specific criteria for confirmation of outbreaks. As shown in Figure 1, for these 37 foodborne outbreaks, the causative agent was distributed as follows: *B. cereus* (1), *Campylobacter* spp. (3), *Clostridium perfringens* (2), enteroaggregative *E. coli* (1), *E. coli* O26 (1), mushroom poisoning (1), norovirus (14), *Salmonella* (13) and sapovirus (1).

Figure 1: Confirmed Foodborne Outbreaks by Etiologic Agent, Ohio, 2016



Source of outbreak data: Ohio Disease Reporting System.

There were no individual cases of foodborne botulism in Ohio in 2016.

In late October, 2016, a campylobacteriosis outbreak was recognized in central Ohio. Eleven primary cases (5 confirmed) were recognized in Delaware and Franklin County residents. Onsets ranged from Oct. 23 to Nov. 20, 2016. The median age was 30 years old (range 1-66 years). The median duration of illness was six days (range 1-14 days), two were hospitalized. No deaths were reported, but one patient developed Miller Fisher Syndrome (a variant of Guillain-Barré Syndrome). The case-patients had a history of consuming raw milk from a dairy farm that distributed milk via herd shares. *Campylobacter jejuni* was recovered from two clinical and one milk sample; they matched by pulsed-field gel electrophoresis and whole genome sequencing. Consequently, the Ohio Department of Agriculture issued a health alert regarding raw milk available through herd shares.

In 2016, two large outbreaks of *Salmonella* serotype Enteritidis (SE) associated with the use of raw shell eggs were reported. In late February, 87 case-patients from five counties in the greater Dayton area reported a history of consuming food from a Montgomery County restaurant. Thirty were confirmed cases; five were hospitalized, and eighteen went to an emergency room. Most of the case-patients (75 percent) were in the 20-49 year age group. Mayonnaise made with raw eggs by the restaurant staff was culture-positive for the same strain of SE as the patients; several food workers were also positive.

The second SE outbreak occurred in May, 2016. Twenty-eight case-patients from six counties (and two other states) reported eating at a restaurant in Wayne County. Sixteen were confirmed cases; seven were hospitalized. Most of the case-patients (64 percent) were in the 20-49 year age group. Case-patients were interviewed for their food history. Eighteen of 19 cases reported eating Hollandaise sauce at the restaurant. Of ten well meal companions, only one ate Hollandaise sauce. Pasteurized milk and raw shell eggs were used to the make the Hollandaise sauce at the restaurant.

Food sanitarians agree that more emphasis is needed with food service operators to avoid risky foods, such as those made with raw shell eggs. If they wish to make these dishes, the use of pasteurized eggs is recommended. The U.S. Food and Drug Administration (FDA) advises: For recipes that call for eggs that are raw or undercooked when the dish is served – like Caesar salad dressing and homemade ice cream – use either shell eggs that have been treated to destroy *Salmonella* by pasteurization or another approved method or use pasteurized egg products.

The 37 confirmed foodborne outbreaks are detailed in Table 2.

Table 2: Confirmed Foodborne Outbreaks, Ohio, 2016

Month of Onset	Causative Agent	County	# Ill	Suspected Food Vehicle	Event / Setting
December 2015	*Campylobacter jejuni*	Stark	2	Raw milk	Farm
December 2015	*Salmonella* Virchow	Multistate	2	Powdered supplement	Private home
January 2016	Norovirus GII.2	Franklin	9	Unknown	Restaurant
January 2016	Norovirus (untyped)	Cuyahoga	56	Unknown	Restaurant
January 2016	*Salmonella* Saint Paul	Butler	2	Unknown	Restaurant
January 2016	Norovirus GII.2	Gallia	3	Unknown	Restaurant
January 2016	*Salmonella* Gaminara	Multistate	1	Chia flax powder	Private home
January 2016	*Salmonella* Enteritidis	Multistate	1	Unknown	Travel outside the U.S.

Month of Onset	Causative Agent	County	# Ill	Suspected Food Vehicle	Event / Setting
February 2016	Norovirus GII.2	Franklin	52	Unknown	Catered meal at conference
February 2016	Norovirus GII.7	Medina	22	Unknown	Restaurant
February 2016	Norovirus GII.2	Hancock	5	Unknown	Restaurant
February 2016	*Bacillus cereus*	Lorain	4	Bean soup	Private home
February 2016	Norovirus GII.4 untypeable	Hamilton	8	Unknown	Restaurant
February 2016	*Salmonella* Enteritidis	Montgomery	87	Mayonnaise made with raw eggs	Restaurant
March 2016	*Clostridium perfringens*	Muskingum	35	Taco meat (beef)	Religious location
March 2016	Norovirus GII.2	Gallia	3	Unknown	Private home
March 2016	*Salmonella* Muenchen	Multistate	1	Sprouts	Multiple
March 2016	*Salmonella* Oslo	Multistate	2	Cucumbers	Private home
May 2016	*Salmonella* Enteritidis	Wayne	29	Hollandaise sauce, eggs Benedict	Restaurant
May 2016	Enteroaggregative *Escherichia coli*	Delaware	10	Unknown	Restaurant
May 2016	*Salmonella* Anatum	Multistate	1	Hot peppers	Multiple
May 2016	Norovirus GII.2	Lucas	21	Lettuce	Restaurant
May 2016	*Salmonella* Typhimurium	Multistate	3	Cheese	Cheese shop
May 2016	*Escherichia coli* O26	Franklin	3	Unknown	Grocery store
July 2016	*Campylobacter jejuni*	Ashland	3	Hamburger	Private home
July 2016	*Salmonella* (I) 4,5,12:b:-	Wood	12	Peanut butter and jelly sandwiches	School
July 2016	*Clostridium perfringens*	Medina	59	Chicken salad sandwich	Restaurant
August 2016	*Salmonella* Hartford	Highland	8	Unknown	Private home
August 2016	*Salmonella* Javiana	Multistate	4	Onions	Multiple
September 2016	Norovirus GII	Franklin	5	Unknown	Restaurant
September 2016	Mushroom poisoning	Portage	7	Mushroom	Private home
September 2016	Norovirus GI.7A	Franklin	6	Deep fried pickles	Restaurant
October 2016	*Campylobacter jejuni*	Multicounty	11	Raw milk	Farm
November 2016	Norovirus GII	Stark	4	Unknown	Party
November 2016	Sapovirus GI.2	Franklin	15	Unknown	Restaurant
November 2016	Norovirus GI.7A	Wood	4	French fries	Restaurant
December 2016	Norovirus GI	Cuyahoga	34	Unknown	Restaurant

Source of outbreak data: Ohio Disease Reporting System.

Here are links to the outbreak reports for some of the foodborne multistate outbreaks:

Multistate Outbreak of *Salmonella* Virchow Infections Linked to Garden of Life RAW Meal Organic Shake & Meal Products

Multistate Outbreak of *Salmonella* Infections Linked to Alfalfa Sprouts from One Contaminated Seed Lot

HEALTHCARE-ASSOCIATED OUTBREAKS

There were 79 healthcare-associated outbreaks reported in 2016, 47 of which were confirmed as shown in Table 3.

Table 3: Confirmed Healthcare-Associated Outbreaks, Ohio, 2016

Month of Onset	Causative Agent	# Ill	Setting
November 2015	*Acinetobacter baumannii*	12	Hospital
January 2016	*Burkholderia cepacia*	7	Hospital
January 2016	Norovirus GII.6B	32	Long-term care facility
January 2016	*Acinetobacter baumannii*	14	Multiple sites
January 2016	*Acinetobacter baumannii*	9	Long-term care facility
January 2016	Extended spectrum Beta-lactamase bacteria	13	Hospital
February 2016	*Pseudomonas aeruginosa*	7	Physician's office
February 2016	*Sarcoptes scabiei*	21	Long-term care facility
February 2016	Sapovirus 53	17	Long-term care facility
February 2016	*Acinetobacter baumannii*	4	Rehabilitation facility
February 2016	Norovirus GII.4 untypeable	72	Long-term care facility
February 2016	Influenza A virus H1	55	Long-term care facility
March 2016	Norovirus GII.6B	62	Long-term care facility
March 2016	Norovirus GII.4 Sydney	51	Long-term care facility
March 2016	Norovirus GII.4 untypeable	86	Hospital
March 2016	Norovirus GII.4 untypeable	41	Long-term care facility
March 2016	Norovirus GII.3	21	Hospital
March 2016	Influenza B virus	10	Long-term care facility
March 2016	Influenza A virus H1	2	Long-term care facility
March 2016	Influenza A virus (not subtyped)	5	Long-term care facility
April 2016	Norovirus GII.4 Sydney	76	Long-term care facility
April 2016	Influenza A virus H1	10	Long-term care facility
April 2016	Influenza A virus H3	11	Long-term care facility
May 2016	Norovirus GII.4 untypeable	72	Long-term care facility
May 2016	Norovirus GII.4 Sydney	23	Long-term care facility
May 2016	*Clostridium difficile*	22	Long-term care facility
May 2016	Norovirus (untyped)	10	Long-term care facility
June 2016	*Serratia marcescens*	7	Hospital
July 2016	Rhinovirus	10	Hospital
July 2016	*Clostridium difficile*	4	Long-term care facility
July 2016	*Acinetobacter baumannii*	6	Hospital
July 2016	*Sarcoptes scabiei*	54	Hospital
July 2016	*Bordetella pertussis*	2	Hospital
August 2016	Norovirus GII.4 untypeable	8	Long-term care facility
October 2016	*Sarcoptes scabiei*	5	Long-term care facility
October 2016	*Salmonella* Newport	2	Long-term care facility
October 2016	Norovirus GI.6A	17	Long-term care facility

Month of Onset	Causative Agent	# Ill	Setting
November 2016	Influenza A virus H3	14	Long-term care facility
December 2016	Norovirus GI.3B	54	Long-term care facility
December 2016	Norovirus GII.4 untypeable	90	Long-term care facility
December 2016	Norovirus (untyped)	35	Long-term care facility
December 2016	Respiratory syncytial virus (RSV)	4	Hospital
December 2016	Norovirus (untyped)	25	Hospital
December 2016	Norovirus GII.14	8	Long-term care facility
December 2016	Norovirus GI.2	16	Hospital
December 2016	Norovirus GII.6B	9	Long-term care facility
December 2016	Norovirus GI	44	Long-term care facility

Source of outbreak data: Ohio Disease Reporting System

INSTITUTIONAL OUTBREAKS

In 2016, 292 institutional outbreaks were reported. Of these, 122 were confirmed. See Table 4 below for the confirmed institutional outbreaks.

Table 4: Confirmed Institutional Outbreaks, Ohio, 2016

Month of Onset	Causative Agent	County	# Ill	Setting
November 2015	*Bordetella pertussis*	Franklin	3	School
November 2015	*Bordetella pertussis*	Franklin	4	School
December 2015	Norovirus GII.2	Franklin	22	School
December 2015	*Shigella sonnei*	Franklin	32	Day care center
December 2015	Varicella-zoster virus	Franklin	5	School
December 2015	*Bordetella pertussis*	Franklin	7	School
January 2016	Norovirus GII.2	Franklin	36	School
January 2016	*Shigella sonnei*	Greene	9	Day care center
January 2016	Norovirus GII.2 and GII.3	Franklin	127	School
January 2016	*Streptococcus* spp.	Franklin	17	School
January 2016	*Streptococcus* spp.	Franklin	20	School
January 2016	*Shigella sonnei*	Fairfield	8	School
January 2016	*Bordetella pertussis*	Franklin	2	Day care center
January 2016	*Bordetella pertussis*	Franklin	2	Workplace
January 2016	*Bordetella pertussis*	Franklin	3	School
January 2016	*Bordetella pertussis*	Franklin	4	Day care center
January 2016	*Bordetella pertussis*	Greene	2	School
January 2016	*Bordetella pertussis*	Franklin	2	School

Month of Onset	Causative Agent	County	# Ill	Setting
February 2016	Norovirus GII.4 untypeable	Butler	318	College, university
February 2016	Norovirus GII.4 untypeable	Auglaize	22	Assisted living facility
February 2016	*Staphylococcus aureus*, methicillin-resistant and herpes simplex virus	Sandusky	5	School sports team
February 2016	*Streptococcus*, group A	Franklin	11	School
February 2016	*Shigella sonnei*	Montgomery	8	School
February 2016	Influenza A virus H1	Richland	19	School
February 2016	Influenza A virus H1	Franklin	3	Homeless shelter
February 2016	*Bordetella pertussis*	Franklin	2	Day care center
February 2016	*Bordetella pertussis*	Franklin	5	School
February 2016	*Bordetella pertussis*	Franklin	2	University, group home
February 2016	*Bordetella pertussis*	Franklin	3	School
February 2016	*Bordetella pertussis*	Franklin	7	School
February 2016	*Bordetella pertussis*	Franklin	2	School
March 2016	Coxsackievirus	Cuyahoga	16	Day care center
March 2016	Norovirus GII.4 untypeable	Franklin	20	Day care center
March 2016	*Bordetella pertussis*	Franklin	2	School
March 2016	*Bordetella pertussis*	Franklin	5	School
March 2016	*Bordetella pertussis*	Franklin	2	School
March 2016	Mumps virus	Montgomery	37	College, university
March 2016	*Bordetella pertussis*	Franklin	6	Private home, school
March 2016	*Bordetella pertussis*	Franklin	5	School
March 2016	*Bordetella pertussis*	Franklin	6	Day care center
April 2016	Coxsackievirus	Cuyahoga	4	Day care center
April 2016	Parvovirus	Marion	2	School
April 2016	*Shigella sonnei*	Franklin	5	Day care center
April 2016	Coxsackievirus	Van Wert	30	Day care center
April 2016	Coxsackievirus	Stark	5	School
April 2016	Coxsackievirus	Stark	2	School
April 2016	*Shigella sonnei*	Butler	8	Day care center
April 2016	*Shigella sonnei*	Allen	16	In-home day care
April 2016	*Shigella sonnei*	Montgomery	7	School
April 2016	Coxsackievirus	Stark	23	Day care center
May 2016	Coxsackievirus	Stark	28	Day care center
May 2016	Norovirus GII.4 untypeable	Franklin	53	Assisted living and long-term care facility
May 2016	Coxsackievirus	Franklin	5	Day care center
May 2016	*Campylobacter* spp.	Allen	5	Day care center
May 2016	Coxsackievirus	Stark	23	Day care center
May 2016	Norovirus GII.4 untypeable	Ashland	18	Assisted living facility

Month of Onset	Causative Agent	County	# Ill	Setting
May 2016	*Shigella sonnei*	Summit	10	Day care center
May 2016	*Shigella sonnei*	Montgomery	11	Day care center
May 2016	*Shigella sonnei*	Franklin	13	Day care center
May 2016	*Sarcoptes scabiei*	Logan	23	MRDD facility, workplace
May 2016	Varicella-zoster virus	Greene	5	Day care center
May 2016	*Bordetella pertussis*	Pickaway	11	School
May 2016	*Bordetella pertussis*	Franklin	2	Day care center
June 2016	*Shigella sonnei*	Butler	12	Day care center
June 2016	*Shigella sonnei*	Greene	3	Day care center
June 2016	Norovirus GII.4 untypeable	Union	19	Camp
June 2016	Conjunctivitis (agent unknown)	Cuyahoga	27	Day care center
June 2016	*Shigella sonnei*	Lucas	44	Day care center
June 2016	*Shigella sonnei*	Franklin	5	Day care center
July 2016	*Shigella sonnei*	Warren	7	Day care center
July 2016	Coxsackievirus	Stark	10	Day care center
July 2016	*Shigella sonnei*	Franklin	21	Day care center
July 2016	*Cryptosporidium* spp.	Franklin	9	Day care center
July 2016	*Shigella sonnei*	Greene	11	Day care center
July 2016	*Staphylococcus aureus*, methicillin-resistant	Hamilton	38	School
July 2016	*Bordetella pertussis*	Clermont	3	School
July 2016	*Bordetella pertussis*	Lucas	2	Religious facility
August 2016	*Salmonella* Typhimurium	Lorain	4	Preschool
August 2016	Coxsackievirus	Lucas	6	Day care center
August 2016	Coxsackievirus	Hamilton	10	Day care center
August 2016	*Sarcoptes scabiei*	Gallia	4	Assisted living facility, group home, MRDD facility
August 2016	*Shigella sonnei*	Franklin	28	Day care center
August 2016	*Campylobacter jejuni*	Stark	2	Day care center
August 2016	*Clostridium difficile* and *Cryptosporidium* spp.	Licking	33	Day care center
August 2016	*Shigella sonnei*	Franklin	48	Day care center
August 2016	*Shigella sonnei*	Franklin	13	Day care center
August 2016	*Bordetella pertussis*	Franklin	5	Workplace
August 2016	*Bordetella pertussis*	Franklin	6	School
September 2016	Coxsackievirus	Richland	40	School
September 2016	*Staphylococcus aureus*, unknown susceptibility	Hamilton	9	School
September 2016	*Cryptosporidium* spp.	Wood	10	Day care center
September 2016	*Staphylococcus aureus*, Clindamycin-resistant	Clark	11	School sports team
September 2016	Norovirus GI.3B	Franklin	49	School
September 2016	*Shigella* spp.	Franklin	14	Day care center

Month of Onset	Causative Agent	County	# Ill	Setting
September 2016	*Shigella sonnei*	Franklin	18	Day care center
September 2016	*Bordetella pertussis*	Franklin	3	School
September 2016	*Bordetella pertussis*	Medina	6	School
September 2016	*Bordetella pertussis*	Franklin	5	School
September 2016	*Bordetella pertussis*	Franklin	5	School
September 2016	*Bordetella pertussis*	Franklin	2	School
September 2016	*Bordetella pertussis*	Clermont	6	School
September 2016	*Bordetella pertussis*	Warren	3	School
October 2016	*Cryptosporidium* spp.	Franklin	14	Day care center, school
October 2016	*Shigella sonnei*	Franklin	9	Day care center, school
October 2016	Respiratory syncytial virus (RSV)	Franklin	4	Day care center
October 2016	Respiratory syncytial virus (RSV)	Ashtabula	4	Day care center
October 2016	*Streptococcus* spp.	Franklin	13	School
October 2016	Varicella-zoster virus	Warren	7	Correctional institution
October 2016	*Bordetella pertussis*	Clermont	3	School
October 2016	*Bordetella pertussis*	Franklin	4	School
October 2016	*Bordetella pertussis*	Franklin	19	School
October 2016	*Bordetella pertussis*	Montgomery	8	School
October 2016	*Bordetella pertussis*	Franklin	3	School
November 2016	Norovirus GI	Lucas	35	Assisted living facility
November 2016	*Shigella sonnei*	Pickaway	7	School
November 2016	Norovirus GII.4 untypeable and sapovirus GV.1	Franklin	65	Day care center
November 2016	*Bordetella pertussis*	Pickaway	8	School
November 2016	*Bordetella pertussis*	Miami	3	School
December 2016	Norovirus GII.6A	Clark	294	School
December 2016	*Shigella sonnei*	Hamilton	3	Day care center
December 2016	Norovirus GII.4 untypeable	Franklin	19	Day care center, school
December 2016	Influenza A virus (not subtyped)	Portage	45	Assisted living facility

Source of outbreak data: Ohio Disease Reporting System.

WATERBORNE OUTBREAKS

In 2016, 18 confirmed and probable waterborne outbreaks were reported. These are detailed in Table 5.

Table 5: Confirmed and Probable Waterborne Outbreaks, Ohio, 2016

Month of Onset	Causative Agent	County	# Ill	Setting
March 2016	*Legionella pneumophila*	Pickaway	2	Long-term care facility
May 2016	*Cryptosporidium* spp.	Mercer	4	Recreational water, untreated
June 2016	*Shigella sonnei*	Pike	248	Recreational water, untreated
June 2016	Norovirus GII	Muskingum	4	Recreational water, untreated
June 2016	*Cryptosporidium* spp.	Mercer	4	Recreational water, treated
June 2016	*Shigella sonnei*	Pickaway	44	Recreational water, untreated
June 2016	*Cryptosporidium* spp.	Mercer	6	Recreational water, treated
June 2016	*Cryptosporidium* spp.	Delaware	228	Recreational water, treated
July 2016	*Cryptosporidium* spp.	Delaware, Franklin	1,000	Multiple settings
July 2016	*Cryptosporidium* spp.	Stark	2	Recreational water, treated
July 2016	*Legionella pneumophila*	Lake	6	Cooling tower at industrial site
July 2016	*Cryptosporidium* spp.	Fairfield	4	Recreational water, untreated
August 2016	*Cryptosporidium* spp.	Union	45	Recreational water, untreated
August 2016	*Cryptosporidium* spp.	Stark	42	Recreational water, treated
August 2016	*Cryptosporidium hominis*	Delaware	26	Recreational water, treated
August 2016	*Cryptosporidium parvum*	Fairfield	4	Recreational water, treated
August 2016	*Cryptosporidium* spp.	Fairfield	2	Recreational water, treated
August 2016	*Cryptosporidium* spp.	Erie	6	Recreational water, untreated

Source of outbreak data: Ohio Disease Reporting System.

In the summer of 2016, the largest ever outbreak of *Cryptosporidium* in Ohio was reported. This outbreak involved three jurisdictions (Columbus Public Health, Delaware General Health District, Franklin County Public Health). It appeared to have spread via water and person-to-person contact. There were 24 *Cryptosporidium* outbreaks in 2016, and 13 were waterborne. This was also the highest number of confirmed and probable individual *Cryptosporidium* cases (sporadic and outbreak-related) ever reported in one year in Ohio.

Shigellosis associated with a campground in Ohio caused 248 people to become ill in July, 2016. There were 23 confirmed cases of *Shigella sonnei*. People from multiple jurisdictions, both within Ohio and outside of Ohio, were ill after spending time at the campground.

ZOONOTIC OUTBREAKS

In 2016, 17 confirmed and probable zoonotic outbreaks were reported, as seen in Table 6.

Table 6: Confirmed and Probable Zoonotic Outbreaks, Ohio, 2016

Month of Onset	Causative Agent	County	# Ill	Type of Animal	Setting
November 2015	*Cryptosporidium* spp.	Fairfield	3	Calves	Farm
December 2015	*Cryptosporidium* spp.	Wood	2	Calves	Farm
March 2016	*Salmonella* Braenderup	Multistate	15	Live poultry	Private home, school, feed store
March 2016	*Salmonella* Enteritidis	Multistate	30	Live poultry	Private home, school
March 2016	*Salmonella* Mbandaka	Multistate	9	Live poultry	Private home, feed store
March 2016	*Cryptosporidium* spp.	Hancock	9	Calves	Farm
March 2016	*Salmonella* Muenster	Multistate	7	Live poultry	Private home
April 2016	*Cryptosporidium* spp.	Clark	3	Calves	Private home
April 2016	*Campylobacter* spp.	Stark	5	Baby poultry	Farm, feed store
April 2016	*Campylobacter coli*	Lawrence	3	Live poultry	Feed store
April 2016	*Salmonella* Typhimurium	Williams	5	Hedgehogs	Farm
May 2016	*Salmonella* Infantis	Multistate	5	Live poultry	Private home
May 2016	*Salmonella* Enteritidis	Franklin	14	Baby poultry	School
June 2016	*Salmonella* Indiana	Multistate	1	Live poultry	Farm, hatchery, feed store
June 2016	*Campylobacter* spp.	Stark	4	Poultry	Commercial poultry processing facility
June 2016	*Campylobacter coli* and *Escherichia coli* O157:H7	Auglaize	2	Cows, chickens	Farm
July 2016	*Escherichia coli* O157:H7	Clermont	4	Various animals, water	County fair

Source of outbreak data: Ohio Disease Reporting System

Here the link to an outbreak report for a multistate zoonotic outbreak:

Eight Multistate Outbreaks of Human *Salmonella* Infections Linked to Live Poultry in Backyard Flocks

Please refer to the Technical Notes for additional information on the outbreak data.

Acknowledgements: These outbreak investigations were performed by local public health personnel (nurses, sanitarians, epidemiologists) and healthcare professionals in the medical community. Laboratory analysis was done in local clinical labs, the Ohio Department of Health Laboratory and the Ohio Department of Agriculture Laboratory. Our thanks to all these partners for their work in the investigation of outbreaks and the prevention of disease.

TECHNICAL NOTES

SPECIFIC DISEASES

***Anaplasma phagocytophilum*:** formerly known as human granulocytic ehrlichiosis (HGE).

Babesiosis: became reportable in Ohio Jan. 1, 2014.

Chikungunya Virus Infection: not explicitly reportable in Ohio until May 1, 2015, but prior reporting was captured under "Other Arthropod-borne Diseases." Case reporting prior to 2015 may not be complete since this was not listed by name on Ohio's reportable disease list at that time.

Cytomegalovirus (CMV), Congenital: no longer reportable in Ohio starting Jan. 1, 2014.

***Ehrlichia chaffeensis*:** formerly known as human monocytic ehrlichiosis (HME).

Hepatitis B and C: due to the chronic nature of hepatitis B and C, all conditions associated with hepatitis B and C are shown by date of report to better capture and describe disease incidence. Data in the "Month of Onset" table are by the month the case was reported to the Centers for Disease Control and Prevention (CDC). State correctional cases are excluded from individual county totals, thus county totals do not match totals; these include as follows: zero cases of acute hepatitis B, 95 cases of chronic hepatitis B, two cases of acute hepatitis C and 2,265 cases of chronic hepatitis C. In 2016, past or present hepatitis C changed to chronic hepatitis C.

Influenza-Associated Pediatric Mortality: includes cases for children less than 18 years of age. Data in the "Month of Onset" table are by the month of death.

Influenza A Virus, Novel Human Infection: listed in the Vaccine-Preventable Diseases tables as it is an influenza A virus infection, even though in all likelihood there will not be a readily available vaccine for a novel virus infection.

La Crosse Virus Disease: also known as California serogroup virus disease.

Meningitis, Other Bacterial: includes cases of bacterial meningitis for which the agent was specified, excluding group A *Streptococcus*, group B *Streptococcus* (in newborns less than three months of age), *Haemophilus influenzae*, *Listeria monocytogenes*, *Mycobacterium tuberculosis, Neisseria meningitidis* and *Streptococcus pneumoniae*. Cases of meningitis due to these agents are reported as those specific conditions.

Rabies, Animal: refers only to cases among animal species. The last reported case of human rabies in Ohio occurred in 1971.

Spotted Fever Rickettsiosis: includes Rocky Mountain Spotted Fever (RMSF) and other spotted fever group *Rickettsia*.

***Streptococcus pneumoniae*, Invasive Disease, Ages <5 Years:** numbers include cases for all children less than five years of age, regardless of drug-resistance pattern.

***Streptococcus pneumoniae*, Invasive Disease, Drug Resistant, Ages 5+ Years:** numbers include cases five years of age and older with intermediate resistance or resistance to one or more antimicrobial agents.

***Streptococcus pneumoniae*, Invasive Disease, Drug Susceptible, Ages 5+ Years:** numbers include cases five years of age and older with invasive *Streptococcus pneumoniae* that are susceptible or of unknown susceptibility to all antimicrobial agents tested.

Zika Virus Infection: became explicitly reportable in Ohio Sep. 16, 2016. Reporting prior to Sep. 16, 2016 was facilitated under "Other Arthropod-borne Diseases."

OUTBREAKS

Numbers indicate the number of outbreaks reported and do not reflect the number of cases involved in the outbreak, except as noted. Outbreak data for vaccine-preventable diseases (i.e., influenza, pertussis, varicella-zoster virus) only include confirmed outbreaks. All other outbreaks are confirmed, probable or suspected.

Outbreak data are not included in the "Age in Years" and "Sex" tables, and rates were not calculated in any table. Outbreak data are by year of report, so "Month" refers to the month of report, except as noted. The source of outbreak data is the ODH Bureau of Infectious Diseases, the Ohio Disease Reporting System and local health jurisdictions. ***Twenty multistate and multicounty outbreaks are not included in the "County" table; thus, county totals do not match totals. (There were one community, ten foodborne, two healthcare-associated, one waterborne and six zoonotic outbreaks that were multistate or multicounty.)*** A multistate outbreak is an outbreak where the exposure occurred in more than one state while a multicounty outbreak is an outbreak where the exposure occurred in more than one county.

Cases in the non-influenza vaccine-preventable outbreaks (i.e., pertussis, varicella-zoster virus) are either confirmed or probable status. Cases in all other outbreaks are confirmed, probable or suspected.

Definitions for the six categories of outbreaks are from the ODH Infectious Disease Control Manual (IDCM). Foodborne outbreaks and waterborne outbreaks are also defined on the CDC's Nationally Notifiable Disease Surveillance System's website. Outbreak definitions for vaccine-preventable diseases are located in the disease-specific chapters of the IDCM.

Community: defined as two or more cases of similar illness with a common exposure in the community and not considered a foodborne or waterborne disease outbreak.

Foodborne: an incident in which two or more persons experience a similar illness after ingestion of a common food, and epidemiologic analysis implicates the food as the source of the illness. In addition, there are agent-specific criteria to confirm foodborne outbreaks.

Healthcare-associated: defined as the occurrence 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.

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

Waterborne: defined as any outbreak of an infectious disease, chemical poisoning or toxin-mediated illness where water is indicated as the source by an epidemiological investigation.

Zoonotic: defined as the occurrence of 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.

RATE CALCULATIONS

Population estimates for rates in the "Age in Years," "Sex" and "County of Residence" tables come from the 2016 U.S. Census estimates. Population data for rates in the "Year of Onset" table come from the U.S. Census estimates for each year. Rates were not calculated for the following conditions because they pertain to selected age populations and not the entire population. Rates were calculated in the "Age in Years" table only for the conditions below containing an asterisk (*) because appropriate population data were available for the denominator:

- Botulism, infant
- Hepatitis B, perinatal infection
- Influenza-associated pediatric mortality*
- Streptococcal disease, group B, in newborn
- *Streptococcus pneumoniae*, invasive disease, ages < 5 years*
- *Streptococcus pneumoniae*, invasive disease, drug resistant, ages 5+ years*
- *Streptococcus pneumoniae*, invasive disease, drug susceptible, ages 5+ years*

DISEASES NOT INCLUDED IN TABLES

There were no known cases in Ohio of the following reportable diseases during at least the past five years; thus, they are not included in the 2012-2016 disease tables (pp. 6-8):

- Anthrax
- Cholera
- Eastern equine encephalitis virus disease
- *Ehrlichia ewingii*
- Hantavirus
- Middle East respiratory syndrome
- Plague
- Poliomyelitis
- Powassan virus disease
- Psittacosis
- Rabies, human
- Rubella, congenital
- Severe acute respiratory syndrome
- Smallpox
- St. Louis encephalitis virus disease
- *Staphylococcus aureus*, resistant to Vancomycin (VRSA)
- Typhus fever, murine*
- Viral hemorrhagic fever
- Western equine encephalitis virus disease
- Yellow fever

* no longer reportable Sept. 16, 2016

Reportable diseases not included in the "Age in Years," "Sex," "Month of Onset" and "County of Residence" tables (pp. 9-44) had no known cases reported in 2016.

SEROTYPES AND SEROGROUPS

The bacteriology laboratory at ODH performs serogrouping of Shiga toxin-producing *Escherichia coli* isolates, serogrouping of *Neisseria meningitidis* isolates and serotyping of *Salmonella* isolates. Hospital and other clinical laboratories are encouraged to send *Salmonella*, *Neisseria meningitidis* and Shiga toxin-producing *Escherichia coli* isolates to the ODH Laboratory for serotyping and serogrouping. The ODH Laboratory also requests *Listeria* and *Vibrio* isolates. *Haemophilus influenzae* (in children under 5 years of age) and Vancomycin-resistant *Staphylococcus aureus* isolates with a minimum inhibitory concentration (MIC) of 8 or greater are requested to be sent directly to the Centers for Disease Control and Prevention (CDC) Laboratory. For further information on the submission of isolates, please contact the bacteriology laboratory at (614) 644-4656.

REFERENCES

Ohio Department of Health. *Infectious Disease Control Manual*. Columbus, OH: Ohio Department of Health; 2016. Available at: http://www.odh.ohio.gov/pdf/idcm/sect3TOC.pdf.