



**2023 Iowa Communicable
Disease Report**
January, 2025

IOWATM
Health and
Human Services

Acknowledgements

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Executive summary

Introduction

This report provides a snapshot of reportable and other diseases that occur in Iowa. When possible, details of each disease are provided, including information on serotypes, strains, groups, and outbreaks.

At the Iowa Department of Health and Human Services (Iowa HHS), the Center for Acute Disease Epidemiology (CADE) conducts surveillance for common and emerging infectious diseases, agents of bioterrorism, disease outbreaks, and rare and unusual acute diseases.

Although this report provides an overview of disease investigations, it represents only a fraction of the work accomplished by CADE staff each year. The time invested in each disease varies greatly by specific disease and nature of the reports received. Some reports require a quick database query and update of an electronic file. Others require hours of staff time in contact tracing, assisting other health investigators, and communication, education, and implementation of interventions.

Support for the initiatives of CADE comes from CDC's *Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases Cooperative Agreement* (ELC) and a variety of federal allocations and grants.

Methods

Disease reports are submitted to CADE via phone, fax, mail, or secure electronic reporting system (ELR). Reporters include healthcare providers, hospitals, local public health agencies, laboratories, and the public. Reports of diseases or exposures occurring outside of Iowa are reported by other states and the Centers for Disease Control and Prevention (CDC) to CADE via the Epi-X system or ELR re-routing. CADE tracks diseases in Iowa residents; however, acquisition/exposure to these disease causing pathogens may have occurred in Iowa, another state, or outside of the United States.

The State Hygienic Laboratory (SHL) is Iowa's environmental and public health laboratory and has developed and maintained effective and productive collaborations with Iowa HHS and several other state agencies. SHL laboratorians provide public health officials and healthcare providers guidance on specimen collection, submission, testing, and result interpretation. SHL communicates with sentinel laboratories via the Iowa Laboratory Response Network (ILRN) to disseminate LRN related updates and sponsor training exercises, workshops, webinars, and regional meetings.

Reports received by CADE are tracked in the secure web-based Iowa Disease Surveillance System (IDSS). De-identified data (data with personal identifying information taken out) is electronically exchanged between IDSS and CDC.

Executive summary

Reports of acute infectious diseases are typically referred to local public health agencies for patient investigations and interviews. These local agencies typically use IDSS to report information back to CADE. Local public health agencies are also critical in conducting outbreak investigations at the city and county level.

CADE uses current Council of State and Territorial Epidemiologists (CSTE)/CDC case definitions found at <https://ndc.services.cdc.gov>. CSTE/CDC definitions are used to classify each case as confirmed, probable, suspect, not a case, or awaiting more information. Only confirmed and probable cases of disease meeting the CSTE/CDC definitions are included in this report.

Most disease-specific data are transmitted to CDC electronically on a routine basis after being de-identified. The statistics reported by Iowa HHS programs to CDC are used to develop a composite picture of disease burden in the United States and helps to identify national outbreaks.

A few illnesses and conditions require a unique reporting system used by CADE for transmitting de-identified data to program-specific staff at CDC. These illnesses and conditions include but are not limited to influenza, acute flaccid myelitis and West Nile virus. Additionally, the National Outbreak Reporting System (NORS) is a CDC-sponsored system used by CADE to report outbreaks.

Case counts and Iowa-specific case demographics were retrieved from IDSS. The specific file used for this report was created in August, 2024. Case reports and additional information received after this date were not included in this report. In addition, the data file was generated using CDC's MMWR (Morbidity Mortality Weekly Report) year 2023. Therefore, case counts in this report may vary slightly from counts generated using the calendar year of 2023.

Rates were calculated using the 2020 census population for the State of Iowa or the appropriate estimated census year. Race and ethnicity data is self-reported and a large percentage of that information is missing from our data sets, thus caution must be used when drawing conclusions from reported race and ethnicity. Calculations were performed with Tableau® 2024.3.1.

Five Year Case Counts and Rates per 100,000 by Disease

		2018	2019	2020	2021	2022	2023
Acute Flaccid Myelitis	Count				1		
	Rate				†		
Babesiosis	Count		1	1	5	3	5
	Rate		†	†	†	†	†
Botulism - Infant	Count	1	2		1	1	
	Rate	†	†		†	†	
Brucellosis	Count	1	2	3	1		
	Rate	†	†	†	†		
Campylobacter	Count	1,658	1,386	1,114	1,270	1,066	1,358
	Rate	54.43	45.50	36.57	41.69	34.99	44.58
Chikungunya virus	Count		2	3		3	
	Rate		†	†		†	
Cholera	Count						2
	Rate						†
Cryptosporidiosis	Count	663	557	368	437	476	437
	Rate	21.76	18.28	12.08	14.35	15.63	14.35
Cyclospora	Count	212	121	269	88	36	52
	Rate	6.96	3.97	8.83	2.89	1.18	1.71
Dengue fever	Count	5	9	1	2	2	6
	Rate	†	†	†	†	†	†
E. coli (shiga toxin producing)	Count	568	595	363	499	500	478
	Rate	18.65	19.53	11.92	16.38	16.41	15.69
Ehrlichioses / Anaplasmosis	Count	27	34	9	26	18	28
	Rate	0.89	1.12	†	0.85	†	0.92
Giardia	Count	259	267	149	172	169	201
	Rate	8.50	8.76	4.89	5.65	5.55	6.60
Haemophilis influenzae type b	Count		2	3	2	1	1
	Rate		†	†	†	†	†
Hansen's disease	Count	1		1		2	3
	Rate	†		†		†	†
Hantavirus	Count				1		
	Rate				†		
Hemolytic Uremic Syndrome (HUS)	Count	9	7	3	12	5	2
	Rate	†	†	†	†	†	†
Hepatitis A	Count	10	9	6	8	8	13
	Rate	†	†	†	†	†	†

(†) Rates calculated for less than 20 cases are unreliable and not included in this table.

Five Year Case Counts and Rates per 100,000 by Disease

		2018	2019	2020	2021	2022	2023
Hepatitis D	Count	7	6	5	7	4	4
	Rate	†	†	†	†	†	†
Hepatitis E	Count	3	2	1	1	2	2
	Rate	†	†	†	†	†	†
Lacrosse encephalitis	Count						1
	Rate						†
Legionellosis	Count	63	68	34	44	45	57
	Rate	2.07	2.23	1.12	1.44	1.48	1.87
Listeriosis monocytogenes	Count	9	7	9	3	1	4
	Rate	†	†	†	†	†	†
Lyme disease	Count	283	303	257	359	154	212
	Rate	9.29	9.95	8.44	11.78	5.06	6.96
Malaria	Count	22	23	6	17	11	33
	Rate	0.72	0.76	†	†	†	1.08
Measles	Count		2				
	Rate		†				
Meningococcal invasive disease	Count	1	4	1	1	9	12
	Rate	†	†	†	†	†	†
MIS-C*	Count			26	45	11	3
	Rate			0.85	1.48	†	†
Mpox	Count					29	1
	Rate					0.95	†
Mumps	Count	26	14	8	10	11	9
	Rate	0.85	†	†	†	†	†
Pertussis	Count	162	244	31	23	28	58
	Rate	5.32	8.01	1.02	0.76	0.92	1.90
Psittacosis	Count				1		
	Rate				†		
Q Fever	Count	11	18	4	6	5	6
	Rate	†	†	†	†	†	†
Rocky Mountain spotted fever	Count	22	11	4	4	10	2
	Rate	0.72	†	†	†	†	†
Salmonellosis	Count	1,103	816	612	666	729	795
	Rate	36.21	26.79	20.09	21.86	23.93	26.10
Shigellosis	Count	100	98	62	70	106	143
	Rate	3.28	3.22	2.04	2.30	3.48	4.69

(†) Rates calculated for less than 20 cases are unreliable and not included in this table.

Five Year Case Counts and Rates per 100,000 by Disease

		2018	2019	2020	2021	2022	2023
Staphylococcus aureus - vancomycin-intermediate	Count		1				1
	Rate		†				†
Tetanus	Count					1	1
	Rate					†	†
Tularemia	Count	1	3	3	2	6	7
	Rate	†	†	†	†	†	†
Typhoid fever	Count	2	2	3	1	1	2
	Rate	†	†	†	†	†	†
West Nile Virus	Count	104	5	3	6	9	17
	Rate	3.414	†	†	†	†	†
Zika	Count	1	1				
	Rate	†	†				

(†) Rates calculated for less than 20 cases are unreliable and not included in this table.

2023 Case Counts by County

	Adair	Adams	Allamakee	Appanoose	Audubon	Benton	Black Hawk	Boone	Bremer	Buchanan	Buena Vista	Butler	Calhoun	Carroll	Cass	Cedar	Cerro Gordo	Cherokee	Chickasaw	Clarke	Clay	Clayton	Clinton	Crawford
Campylobacter	6	†	10	8	†	7	48	16	12	10	13	†	8	15	†	10	10	†		8	6	12	15	6
Cryptosporidiosis		†	†	†		†	12	†	†	9		†	†	†	†	†	†	†		†	†	†	†	†
Cyclospora				†		†	†				†						†			†				
Dengue fever																								
E. coli (shiga toxin producing)	†	†	†	6	†	6	18	7	†	†	†	6	†	†		†	†	†		†	†	†	†	†
Ehrlichioses / Anaplasmosis			†																		†	†		
Giardia			†	†		6	12		†	†	6	†	†				†		†	†		†		
Hepatitis A																								
Legionellosis					†		†		†	†													†	
Lyme disease			†	†		†	†	†		†						†		†		†		†	†	
Malaria							†								†									†
Meningococcal invasive disease							†																	
Mumps																						†		
Pertussis										8					†							†		
Q Fever							†																	
Salmonellosis	†	†	†	†	†	8	21	7	11	10	7	10	†	13	†	8	14	†	†	†	†	†	10	†
Shigellosis						†	†				6			†	†		†			†				
Tularemia																†								
West Nile Virus		†																					†	

(†) < 6 cases are suppressed

2023 Case Counts by County

	Dallas	Davis	Decatur	Delaware	Des Moines	Dickinson	Dubuque	Emmet	Fayette	Floyd	Franklin	Fremont	Greene	Grundy	Guthrie	Hamilton	Hancock	Hardin	Harrison	Henry	Howard	Humboldt
Campylobacter	47	†	†	22	9	†	38	†	10	†	†		†	†	†	11	7	7	†	11	8	8
Cryptosporidiosis	13	†	†	11	9	†	32	6	6	†	†			†		†	†			†	†	†
Cyclospora	†						†												†			
Dengue fever																						
E. coli (shiga toxin producing)	7	†	†	†	†	†	18		†	†	†	†	†	†	†	8	†	†		†	†	†
Ehrlichioses / Anaplasmosis	†														†	†						
Giardia	9	†			†	†	†	†	†	†	†		†		†	†		†	†			†
Hepatitis A	†																	†	†			
Legionellosis	†				†		†				†				†							
Lyme disease	9	†		†		†	27		†		†						†	†	†	†		
Malaria	†											†										
Meningococcal invasive disease	†						†															
Mumps	†																					
Pertussis	†	12		†						†												
Q Fever																						
Salmonellosis	39	†	†	7	14	6	29	†	†	7	†	†	†	†	†	†	†	†	6	6	†	†
Shigellosis	†			†			†									†						
Tularemia																						
West Nile Virus							†															

(†) < 6 cases are suppressed

2023 Case Counts by County

Diseases with an annual count of <6 are not included in this table.

	Ida	Iowa	Jackson	Jasper	Jefferson	Johnson	Jones	Keokuk	Kossuth	Lee	Linn	Louisa	Lucas	Lyon	Madison	Mahaska	Marion	Marshall
Campylobacter	†	6	11	13	18	53	12	†	12	12	100	†	6	13	13	14	15	12
Cryptosporidiosis	†	6	†	†	†	14	15	†		16	27		†	11	†	†	7	†
Cyclospora				†		†	†				†				†		†	†
Dengue fever						†					†							
E. coli (shiga toxin producing)		8	†	†	†	17	6	†	†	†	30		†	6	†	†	†	14
Ehrlichioses / Anaplasmosis		†		†	†					†	†				†		†	
Giardia		†	†		†	14		†	†	†	10		†			†	†	†
Hepatitis A						†												
Legionellosis				†		†			†		†					†		
Lyme disease		8	†	†	†	32	†	†		†	31		†		†	†	†	†
Malaria						7					6							†
Meningococcal invasive disease																		†
Mumps											†							
Pertussis						†	†				†		†					†
Q Fever						†				†				†				
Salmonellosis	†	13	†	7	7	26	†	†	†	11	42	†	†	†	6	10	8	12
Shigellosis		†	†		†	6			†		13			†	†	†	†	†
Tularemia																		
West Nile Virus										†	†			†				

(†) < 6 cases are suppressed

2023 Case Counts by County

Diseases with an annual count of <6 are not included in this table.

	Mills	Mitchell	Monona	Monroe	Montgomery	Muscatine	O'Brien	Osceola	Page	Palo Alto	Plymouth	Pocahontas	Polk	Pottawattamie	Poweshiek	Ringgold
Campylobacter	7	11	†	†	†	20	11	†	6	7	8	†	187	23	7	†
Cryptosporidiosis		†		†	†	6	†	†		†	12	†	39	†	†	
Cyclospora							†						17			
Dengue fever													†			
E. coli (shiga toxin producing)	†	6		†	†	8	†	†			†	†	66	†	†	†
Ehrlichioses / Anaplasmosis													†			†
Giardia		†			†	†	†			†	†	†	44	†		
Hepatitis A					†	†							†			
Legionellosis										†		†	19	†		
Lyme disease	†					†							12		†	
Malaria													10			
Meningococcal invasive disease													†	†		
Mumps													†			
Pertussis		†		†							†		†			
Q Fever																
Salmonellosis	6	†	†	†	†	6	†	†		7	15	†	103	21	†	†
Shigellosis		†					†				†		56	†	†	
Tularemia									†				†	†		
West Nile Virus									†		†	†	†			

(†) < 6 cases are suppressed

2023 Case Counts by County

Diseases with an annual count of <6 are not included in this table.

	Sac	Scott	Shelby	Sioux	Story	Tama	Taylor	Union	Van Buren	Wapello	Warren	Washington	Wayne	Webster	Winnebago	Winnesiek	Woodbury	Worth	Wright
Campylobacter	11	30	24	35	32	12	7	†	7	15	24	8	†	20	†	10	22	†	†
Cryptosporidiosis	†	6	8	20	11			†	†	†	†	†	†	†		†	6	†	†
Cyclospora		†			†						†								
Dengue fever					†														
E. coli (shiga toxin producing)	†	10	†	9	19	†	†	6	†	†	†	7		6	†	6	6	†	†
Ehrlichioses / Anaplasmosis					†				†	†						†	†		
Giardia	†	†			8	†			†	†	†	†	†	†			7		
Hepatitis A		†															†		
Legionellosis	†	†			†					†	†			†			†		
Lyme disease		11			†	†			†	†	†	†		†	†	†	†		
Malaria											†								
Meningococcal invasive disease																			
Mumps					†		†			†	†								
Pertussis									†		†	6	6						
Q Fever				†															
Salmonellosis	8	13	†	13	25	†	†	†	†	14	11	†	†	10	†	9	21	†	†
Shigellosis		†			†			†	†	†	†				†	†	10		
Tularemia								†			†						†		
West Nile Virus				†							†		†				†		

(†) < 6 cases are suppressed

Cases and Rates of Disease by Age Group per 100,000 Population

Diseases with an annual count of <6 are not included in this table.

Disease Name	Count/Rate	0-4	5-19	20-29	30-39	40-64	>64
Campylobacter	Count	137	139	154	171	435	322
	Rate	72.08	21.62	37.18	42.48	45.03	56.05
Cryptosporidiosis	Count	67	77	81	63	99	50
	Rate	35.25	11.97	19.56	15.65	10.25	8.70
Cyclospora	Count		†	9	15	21	6
	Rate		‡	‡	‡	2.17	‡
Dengue fever	Count		†	†	†	†	†
	Rate		‡	‡	‡	‡	‡
E. coli (shiga toxin producing)	Count	92	67	82	52	98	87
	Rate	48.40	10.42	19.80	12.92	10.14	15.14
Ehrlichioses / Anaplasmosis	Count		†	†	†	11	13
	Rate		‡	‡	‡	‡	‡
Giardia	Count	24	28	19	31	72	27
	Rate	12.63	4.35	‡	7.70	7.45	4.70
Hepatitis A	Count	†		†	†	†	†
	Rate	‡		‡	‡	‡	‡
Legionellosis	Count				†	24	32
	Rate				‡	2.48	5.57
Lyme disease	Count	14	38	16	27	68	49
	Rate	‡	5.91	‡	6.71	7.04	8.53
Malaria	Count	†	6	†	†	14	†
	Rate	‡	‡	‡	‡	‡	‡
Meningococcal invasive disease	Count	†		†	†	†	†
	Rate	‡		‡	‡	‡	‡
Mumps	Count	†	†		†	†	†
	Rate	‡	‡		‡	‡	‡
Pertussis	Count	31	18	†	†	†	†
	Rate	16.31	‡	‡	‡	‡	‡
Q Fever	Count				†	†	†
	Rate				‡	‡	‡
Salmonellosis	Count	79	93	91	95	248	189
	Rate	41.56	14.46	21.97	23.60	25.67	32.90

(†) < 6 cases are suppressed

(‡) Rates calculated for less than 20 cases are unreliable and not included in this table.

Cases and Rates of Disease by Age Group per 100,000 Population

Diseases with an annual count of <6 are not included in this table.

Disease Name	Count/Rate	0-4	5-19	20-29	30-39	40-64	>64
Shigellosis	Count	20	31	23	18	38	13
	Rate	10.523	4.821	5.553	‡	3.933	‡
Tetanus	Count						†
	Rate						‡
Tularemia	Count	†	†	†		†	†
	Rate	‡	‡	‡		‡	‡
West Nile Virus	Count				†	6	7
	Rate				‡	‡	‡

(†) < 6 cases are suppressed

(‡) Rates calculated for less than 20 cases are unreliable and not included in this table.

Cases and Rates of Disease by Sex per 100,000 Population

Diseases with an annual count of <6 are not included in this table.

Disease Name	Count/Rate	Female (cases/rate)	Male (cases/rate)	Other or unknown
Campylobacter	Count	649	694	15
	Rate	40.45	43.76	‡
Cryptosporidiosis	Count	245	185	7
	Rate	15.27	11.66	‡
Cyclospora	Count	27	25	
	Rate	1.68	1.58	
Dengue fever	Count	†	†	
	Rate	‡	‡	
E. coli (shiga toxin producing)	Count	250	226	†
	Rate	15.58	14.25	‡
Ehrlichioses / Anaplasmosis	Count	12	16	
	Rate	‡	‡	
Giardia	Count	80	121	
	Rate	4.99	7.63	
Hepatitis A	Count	†	8	
	Rate	‡	‡	
Legionellosis	Count	19	38	
	Rate	‡	2.40	
Lyme disease	Count	90	122	
	Rate	5.61	7.69	
Malaria	Count	11	22	
	Rate	‡	1.39	
Meningococcal invasive disease	Count	†	8	
	Rate	‡	‡	
Mumps	Count	†	†	
	Rate	‡	‡	
Pertussis	Count	32	26	
	Rate	1.99	1.64	
Q Fever	Count		6	
	Rate		‡	
Salmonellosis	Count	399	388	8
	Rate	24.87	24.46	‡
Shigellosis	Count	69	74	
	Rate	4.30	4.67	
Tularemia	Count	†	†	
	Rate	‡	‡	
West Nile Virus	Count	9	8	
	Rate	‡	‡	

(†) < 6 cases are suppressed

(‡) Rates calculated for less than 20 cases are unreliable and not included in this table.

Cases and Rates of Disease by Ethnicity per 100,000 Population

Diseases with an annual count of <6 are not included in this table.

Disease Name	Count/Rate	Not Hispanic or Latino	Hispanic or Latino	Unknown
Campylobacter	Count	1120	63	175
	Rate	42.45	29.17	‡
Cryptosporidiosis	Count	399	29	9
	Rate	15.12	13.43	‡
Cyclospora	Count	43	9	
	Rate	1.63	‡	
Dengue fever	Count	†	†	
	Rate	‡	‡	
E. coli (shiga toxin producing)	Count	424	44	10
	Rate	16.07	20.37	‡
Ehrlichioses / Anaplasmosis	Count	28		
	Rate	1.06		
Giardia	Count	183	18	
	Rate	6.94	‡	
Hepatitis A	Count	12	†	
	Rate	‡	‡	
Legionellosis	Count	54	†	†
	Rate	2.05	‡	‡
Lyme disease	Count	203	†	†
	Rate	7.69	‡	‡
Malaria	Count	32		†
	Rate	1.21		‡
Meningococcal invasive disease	Count	12		
	Rate	‡		
Mumps	Count	9		
	Rate	‡		
Pertussis	Count	58		
	Rate	2.20		
Q Fever	Count	6		
	Rate	‡		
Salmonellosis	Count	746	38	11
	Rate	28.28	17.59	‡
Shigellosis	Count	113	27	†
	Rate	4.28	12.50	‡
Tularemia	Count	7		
	Rate	‡		
West Nile Virus	Count	16	†	
	Rate	‡	‡	

(†) < 6 cases are suppressed

(‡) Rates calculated for < 20 cases are unreliable and not included in this table.

Cases and Rates of Disease by Race per 100,000 Population

Diseases with an annual count of <6 are not included in this table.

		White	Black or African-American	Asian	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander	Other race	Unknown
Campylobacter	Count	1126	45	17	7	†	†	157
	Rate	41.79	34.10	‡	‡	‡	‡	‡
Cryptosporidiosis	Count	412	9	†		†	†	8
	Rate	15.29	‡	‡		‡	‡	‡
Cyclospora	Count	51	†					
	Rate	1.89	‡					
Dengue fever	Count	6						
	Rate	‡						
E. coli (shiga toxin producing)	Count	434	18	12			†	13
	Rate	16.11	‡	‡			‡	‡
Ehrlichioses / Anaplasmosis	Count	27	†					
	Rate	1.00	‡					
Giardia	Count	167	26	†	†	†		†
	Rate	6.20	19.70	‡	‡	‡		‡
Hansens disease	Count	†				†		
	Rate	‡				‡		
Hepatitis A	Count	10	†	†				
	Rate	‡	‡	‡				
Legionellosis	Count	53	†					†
	Rate	1.97	‡					‡
Lyme disease	Count	199	†	8	†	†		†
	Rate	7.39	‡	‡	‡	‡		‡

(†) < 6 cases are suppressed

(‡) Rates calculated for less than 20 cases are unreliable and not included in this table.

Cases and Rates of Disease by Race per 100,000 Population

Diseases with an annual count of <6 are not included in this table.

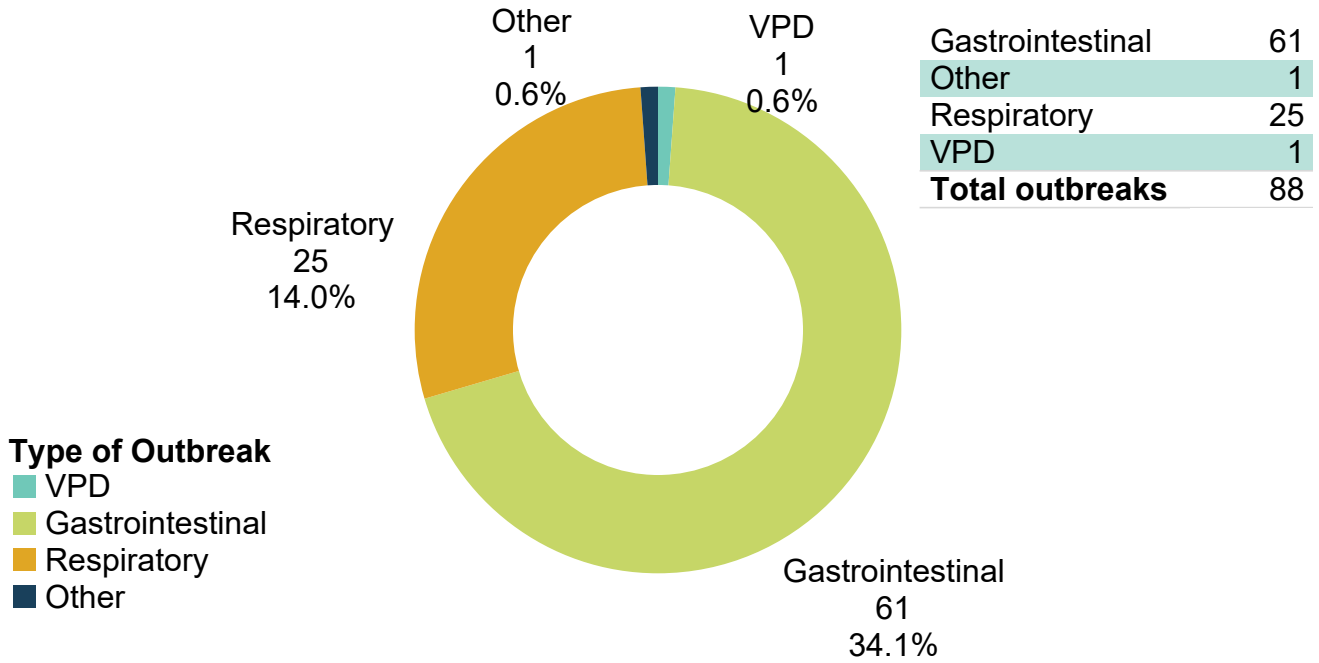
		White	Black or African-American	Asian	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander	Other race	Unknown
Meningococcal invasive disease	Count	†	8	†				
	Rate	†	†	†				
Mumps	Count	6		†		†		
	Rate	†		†		†		
Pertussis	Count	58						
	Rate	2.15						
Q Fever	Count	†		†				
	Rate	†		†				
Rocky Mountain spotted fever	Count	†						
	Rate	†						
Salmonellosis	Count	743	22	14	†	†	†	9
	Rate	27.57	16.67	†	†	†	†	†
Shigellosis	Count	103	29	†		7		†
	Rate	3.82	21.97	†		†		†
Tularemia	Count	7						
	Rate	†						
West Nile Virus	Count	17						
	Rate	†						

(†) < 6 cases are suppressed

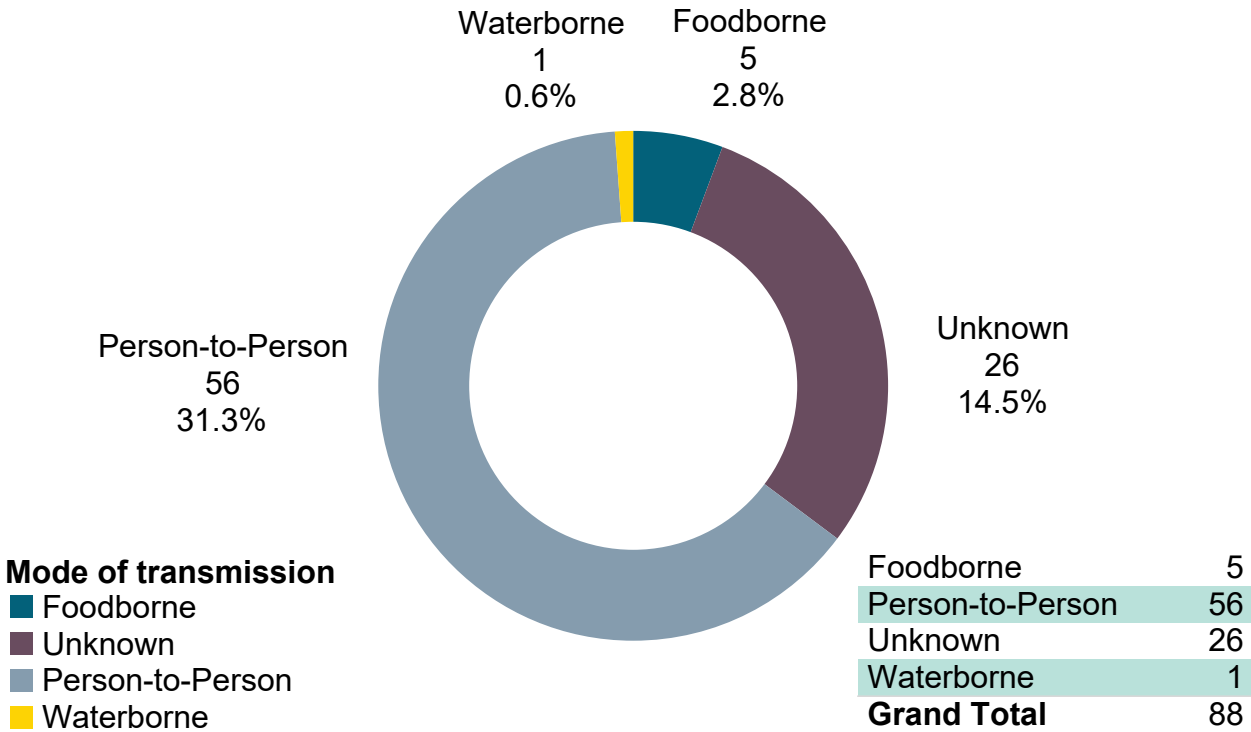
(‡) Rates calculated for less than 20 cases are unreliable and not included in this table.

Outbreak Profiles

Type of outbreak



Type of transmission



Outbreak Profiles

Outbreak settings

