

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 2013, the Bureau of Infectious Diseases (BID) assisted local health jurisdictions in Ohio in the investigation of 371 outbreaks. These outbreaks were detected in 61 of 88 counties throughout the state. The number of Ohioans known to be ill from these outbreaks was 6,368 (median 7, range 1-389). The outbreaks were classified as: community (40), foodborne (76), healthcare-associated (84), institutional (153), waterborne (14) and zoonotic (4). Causative agents identified during the outbreak investigations included: *Bacillus cereus*, *Bordetella pertussis*, *Campylobacter jejuni*, *Clostridium difficile*, *Clostridium perfringens*, coxsackievirus, *Cryptosporidium* spp., vancomycin-resistant *Enterococcus*, *Escherichia coli* O26, *Escherichia coli* O111, *Escherichia coli* O121, *Escherichia coli* O157:H7, *Giardia* spp., hepatitis A virus, influenza A virus, influenza B virus, *Legionella pneumophila*, *Listeria monocytogenes*, microcystin, norovirus genotypes GI and GII, *Pediculus capitis* (head louse), *Pseudomonas aeruginosa*, rotavirus, *Salmonella* (various serotypes), sapovirus, *Sarcoptes scabiei* (scabies mite), *Shigella sonnei*, *Staphylococcus aureus*, methicillin-resistant *Staphylococcus aureus* (MRSA), group A *Streptococcus*, *Streptococcus pyogenes* and varicella-zoster virus.

This is the fourth 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 2013 outbreaks are discussed below.

COMMUNITY OUTBREAKS

In 2013, 40 community outbreaks were reported from a variety of settings. Twenty-nine of these outbreaks were confirmed, with the causative agent as follows: *B. pertussis* (9), hepatitis A virus (1), norovirus genotype GI (2), norovirus genotype GII (10), *Salmonella* (2), *S. sonnei* (3), group A *Streptococcus* (1) and varicella-zoster virus (1).

The confirmed community outbreaks of 2013 are listed in Table 1.

Month of Onset	Causative Agent	County	# Ill
December 2012	Norovirus GII.2	Carroll	2
February 2013	Norovirus GII.4 Sydney	Richland	19
February 2013	Norovirus GII.4 Sydney	Lucas	9
February 2013	Norovirus GII.4 Sydney	Franklin	9
February 2013	Norovirus GII.2	Franklin	6
February 2013	<i>Bordetella pertussis</i>	Madison	3
March 2013	Norovirus GII.4 Sydney	Summit	7

Month of Onset	Causative Agent	County	# Ill
March 2013	<i>Salmonella</i> (I) 4,5,12:i-	Mercer	4
April 2013	Norovirus GII.4 Sydney	Union	5
April 2013	Norovirus GII.4 Sydney	Franklin	4
April 2013	<i>Bordetella pertussis</i>	Franklin	3
April 2013	<i>Bordetella pertussis</i>	Franklin	4
May 2013	<i>Salmonella</i> Enteritidis	Ashtabula	9
June 2013	Norovirus GI.6A	Ashland	5
June 2013	Varicella-Zoster virus	Auglaize	6
July 2013	<i>Shigella sonnei</i>	Summit	10
July 2013	<i>Bordetella pertussis</i>	Clark	5
July 2013	<i>Bordetella pertussis</i>	Franklin	4
August 2013	Norovirus GII.6B	Van Wert	8
August 2013	<i>Bordetella pertussis</i>	Clark	25
September 2013	Group A <i>Streptococcus</i>	Summit	2
September 2013	<i>Shigella sonnei</i>	Stark	60
September 2013	Hepatitis A virus	Lake	7
September 2013	<i>Bordetella pertussis</i>	Pickaway	11
October 2013	Norovirus GII.7	Franklin	4
October 2013	<i>Bordetella pertussis</i>	Franklin	5
October 2013	<i>Bordetella pertussis</i>	Franklin	3
November 2013	Norovirus GI.3B	Franklin	54
November 2013	<i>Shigella sonnei</i>	Stark	9

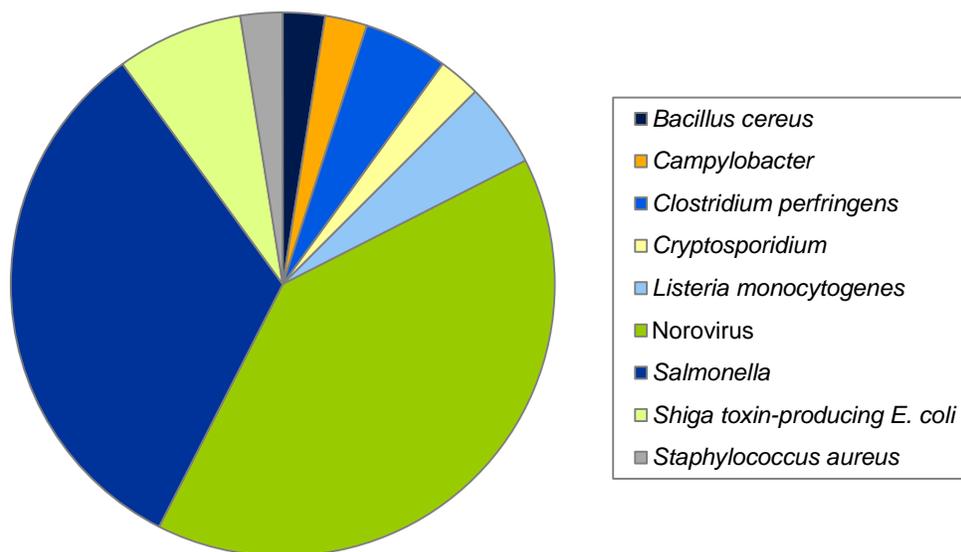
Source of outbreak data: Ohio Disease Reporting System.

FOODBORNE OUTBREAKS

In 2013, 40 of the 76 foodborne outbreaks reported were confirmed. Seventy-six 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 multi-state outbreaks.) The 40 confirmed outbreaks also met the agent-specific [criteria for confirmation](#) of outbreaks. As shown in Figure 1, for these 40 foodborne outbreaks, the causative agent was distributed as follows: *Bacillus cereus* (1), *Campylobacter* spp. (1), *Clostridium perfringens* (2), *Cryptosporidium* spp. (1), *E. coli* O26 (1), *E. coli* O121 (1), *E. coli* O157:H7 (1), *Listeria monocytogenes* (2), Norovirus GI (3), Norovirus GII (13), *Salmonella* spp. (13) and *Staphylococcus aureus* (1).

Neither individual cases nor outbreaks of foodborne botulism were reported in 2013 in Ohio.

Figure 1: Confirmed Foodborne Outbreaks by Etiologic Agent, Ohio, 2013



Source of outbreak data: Ohio Disease Reporting System.

The 40 confirmed foodborne outbreaks are detailed in Table 2.

Table 2: Confirmed Foodborne Outbreaks, Ohio, 2013

Month of Onset	Causative Agent	County	# Ill	Suspected Food Vehicle	Event / Setting
January 2013	<i>Staphylococcus aureus</i>	Champaign	33	Chicken and barley	Group dinner
January 2013	Norovirus GII.4 Sydney	Franklin	10	Refried beans and rice	Restaurant
February 2013	Norovirus GII.4 Sydney	Cuyahoga	66	Unknown	Dinner at retreat house
February 2013	Norovirus GII.2	Franklin	3	Unknown	Restaurant
February 2013	Norovirus GII.4 Sydney	Sandusky	25	Fried chicken	Restaurant
February 2013	Norovirus GII.4 Sydney	Franklin	12	Unknown	Restaurant
February 2013	<i>Salmonella</i> Saint Paul	Multistate	3	Cucumbers	Commercial product
February 2013	<i>Escherichia coli</i> O121	Multistate	6	Farm Rich frozen foods	Commercial product
March 2013	Norovirus GII.4 Sydney	Clermont	34	Unknown	Restaurant
March 2013	<i>Clostridium perfringens</i>	Stark	17	Roast beef	Catered party
March 2013	Norovirus GII.4 Sydney	Clark	6	Steak, egg, cheese biscuit	Restaurant
May 2013	Norovirus GII.4 Sydney	Summit	6	Salads	Restaurant
May 2013	Norovirus GI.6A	Medina	28	Taco bar	Teacher luncheon

Month of Onset	Causative Agent	County	# Ill	Suspected Food Vehicle	Event / Setting
May 2013	<i>Salmonella</i> Enteritidis	Athens	7	Unknown	Restaurant
May 2013	<i>Escherichia coli</i> O26	Multistate	1	Unknown	Restaurant
May 2013	<i>Salmonella</i> Heidelberg	Franklin	2	Chicken and noodles	Senior meals agency
June 2013	<i>Clostridium perfringens</i>	Summit	7	Sandwiches	Catered event
June 2013	Norovirus GII.4 Sydney	Lucas	2	Unknown	Restaurant
June 2013	<i>Listeria monocytogenes</i>	Cuyahoga	1	Crave Brothers cheese	Commercial product
June 2013	<i>Salmonella</i> Enteritidis	Lorain	2	Unknown	Reception held at home
June 2013	<i>Salmonella</i> Muenchen	Cuyahoga	7	Unknown	Private home
June 2013	<i>Listeria monocytogenes</i>	Multistate	1	Parsley	Commercial product
June 2013	<i>Escherichia coli</i> O157	Multicounty	5	Salad bar	Restaurant
July 2013	<i>Salmonella</i> Enteritidis	Franklin	2	Unknown	Restaurant
July 2013	Norovirus GII.6B	Delaware	4	Salad, guacamole	Restaurant
July 2013	<i>Salmonella</i> Montevideo	Multistate	1	Krinos tahini paste	Commercial product
August 2013	<i>Salmonella</i> Enteritidis	Summit	5	Unknown	Restaurant
August 2013	<i>Salmonella</i> Braenderup	Franklin	5	Unknown	Catered picnic
September 2013	<i>Campylobacter</i> spp.	Delaware	15	Unknown	Private home
September 2013	Norovirus GI.6A	Erie	97	Unknown	Conference at resort
September 2013	<i>Salmonella</i> (I) 4,5,12:i:-	Fulton	32	Prime rib	Restaurant
September 2013	<i>Cryptosporidium</i> spp.	Darke	8	Raw cider	Farm market
October 2013	<i>Salmonella</i> (I) 4,5,12:i:-	Hancock	3	Ground beef, toppings	Restaurant
October 2013	<i>Salmonella</i> Lomalinda	Franklin	2	Undercooked burger	Restaurant
November 2013	Norovirus GII.4 Sydney	Sandusky	7	Hamburger	Restaurant
November 2013	Norovirus GI.3B	Hamilton	6	Unknown	Restaurant
November 2013	Norovirus GII.6A	Lucas	16	Unknown	Restaurant
November 2013	<i>Salmonella</i> Typhimurium	Lucas	2	Turkey, dressing	Private home
December 2013	Norovirus GII.6B	Putnam	43	Salad bar	Restaurant
December 2013	<i>Bacillus cereus</i>	Ottawa	5	Landjaeger sausage	Commercial product

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* Saintpaul Infections Linked to Imported Cucumbers](#)

[Multistate Outbreak of *Salmonella* Montevideo and *Salmonella* Mbandaka Infections Linked to Tahini Sesame Paste](#) (Ohio's case was identified after the CDC's final report was posted.)

[Multistate Outbreak of Shiga Toxin-Producing *Escherichia coli* O121 Infections Linked to Farm Rich Brand Frozen Food Products](#)

[Multistate Outbreak of Listeriosis Linked to Crave Brothers Farmstead Cheeses](#)

HEALTHCARE-ASSOCIATED OUTBREAKS

There were 84 healthcare-associated outbreaks reported in 2013, 44 of which were confirmed as shown in Table 3.

Table 3: Confirmed Healthcare-Associated Outbreaks, Ohio, 2013

Month of Onset	Causative Agent	# Ill	Setting
December 2012	Influenza A H3 virus	5	Extended care facility
December 2012	Influenza A virus (no subtype reported)	8	Long-term care facility
December 2012	Influenza A H3 virus	21	Extended care facility
December 2012	Norovirus GII.4 Sydney	41	Long-term care facility
December 2012	Norovirus GII.4 Sydney	62	Long-term care facility
December 2012	Norovirus GII.4 Sydney	102	Long-term care facility
January 2013	Influenza A virus (no subtype reported)	12	Skilled nursing facility
January 2013	Influenza A virus (no subtype reported)	27	Long-term care facility
January 2013	Influenza virus	33	Long-term care facility
January 2013	Norovirus GII.4 New Orleans	36	Long-term care facility
January 2013	Norovirus GII.4 Sydney	41	Long-term care facility
January 2013	Norovirus GII.4 Sydney	42	Long-term care facility
January 2013	Norovirus GII.4 Sydney	52	Long-term care facility
January 2013	Norovirus GII.4 Sydney	65	Long-term care facility
February 2013	<i>Salmonella</i> Poona	2	Long-term care facility
February 2013	<i>Clostridium difficile</i>	5	MRDD facility
February 2013	Influenza A H3 virus	6	Long-term care facility
February 2013	Norovirus GII.4 Sydney	11	Long-term care facility
February 2013	Norovirus GII.4 Sydney	14	Hospital
February 2013	Norovirus GII.4 Sydney	24	Long-term care facility
February 2013	Norovirus GII.4 Sydney	38	Long-term care facility
February 2013	Norovirus GII.4 Sydney	38	Long-term care facility
February 2013	Norovirus GII.4 Sydney	38	Mental health facility
February 2013	Norovirus GII.4 Sydney	42	Retirement community
February 2013	Norovirus GII.4 Sydney	45	Long-term care facility
February 2013	Norovirus GII.4 Sydney	55	Group home for developmentally disabled
March 2013	Norovirus GII.4 Sydney	12	Behavioral health facility
March 2013	Norovirus GII.2	19	Long-term care facility
March 2013	Norovirus GII	34	Long-term care facility
March 2013	Norovirus GII.4 New Orleans	35	Long-term care facility
March 2013	Norovirus GII.4 Sydney	36	Long-term care facility
March 2013	Norovirus GII.4 Sydney	38	Long-term care facility
March 2013	Norovirus GII.4 Sydney	65	Long-term care facility
March 2013	Norovirus GI.6A	71	Long-term care facility
April 2013	Influenza B virus	14	Long-term care facility
April 2013	Norovirus (genotype unknown)	17	Hospital
April 2013	Norovirus GII.4 Sydney	24	Long-term care facility

Month of Onset	Causative Agent	# Ill	Setting
April 2013	Norovirus GII.4 Sydney	25	Long-term care facility
April 2013	Norovirus GII.4 Sydney	88	Long-term care facility
June 2013	Vancomycin-resistant <i>Enterococcus</i>	2	Hospital
July 2013	<i>Sarcoptes scabiei</i>	5	Long-term care facility
October 2013	<i>Salmonella</i> Typhimurium	4	Home care agency
October 2013	Norovirus GI.3B	51	Long-term care facility
November 2013	<i>Sarcoptes scabiei</i>	5	Long-term care facility

Source of outbreak data: Ohio Disease Reporting System.

INSTITUTIONAL OUTBREAKS

In 2013, 153 institutional outbreaks were reported. Of these, 99 were confirmed. See Table 4 below for the confirmed institutional outbreaks.

Table 4: Confirmed Institutional Outbreaks, Ohio, 2013

Month of Onset	Causative Agent	County	# Ill	Setting
October 2012	<i>Bordetella pertussis</i>	Franklin	2	School
October 2012	<i>Bordetella pertussis</i>	Franklin	2	School
October 2012	Varicella-Zoster virus	Ross	12	Correctional facility
November 2012	<i>Bordetella pertussis</i>	Franklin	5	School
November 2012	<i>Bordetella pertussis</i>	Hamilton	2	School
December 2012	<i>Bordetella pertussis</i>	Franklin	2	School
January 2013	Methicillin-resistant <i>Staphylococcus aureus</i>	Ashland	8	School
January 2013	Norovirus GII.4 Sydney	Hamilton	66	Independent living facility
January 2013	Norovirus GII.4 Sydney	Crawford	35	Assisted living facility
January 2013	<i>Bordetella pertussis</i>	Franklin	2	School
January 2013	<i>Bordetella pertussis</i>	Franklin	4	School
January 2013	Varicella-Zoster virus	Athens	5	School
January 2013	<i>Bordetella pertussis</i>	Franklin	5	School
January 2013	Influenza virus	Hamilton	33	Assisted living facility
February 2013	Norovirus GII.4 Sydney	Medina	30	Assisted living facility
February 2013	<i>Shigella sonnei</i>	Delaware	8	Day care center
February 2013	<i>Campylobacter</i> spp. And Norovirus GII.2	Licking	6	Day care center
February 2013	Norovirus GII and GI.3B	Medina	41	Assisted living facility
February 2013	Norovirus GII.13	Delaware	85	Assisted living facility
February 2013	<i>Bordetella pertussis</i>	Franklin	3	School
February 2013	<i>Bordetella pertussis</i>	Franklin	3	School

Month of Onset	Causative Agent	County	# Ill	Setting
March 2013	Norovirus GII.4 Sydney	Marion	10	Assisted living facility
March 2013	Norovirus GII.4 Sydney	Butler	32	Assisted living facility
March 2013	Rotavirus and Norovirus GII.4 Sydney	Fairfield	22	Assisted living facility
March 2013	Norovirus GI.3B	Franklin	5	Day care center
March 2013	Sapovirus and Rotavirus	Franklin	33	Day care center
March 2013	<i>Shigella sonnei</i> and Norovirus GII.2	Licking	27	Day care center
March 2013	Norovirus GII.4 Sydney	Cuyahoga	40	Assisted living facility
March 2013	Norovirus GI.4	Cuyahoga	24	Assisted living facility
April 2013	Norovirus GII.4 Sydney	Ashtabula	62	Assisted living facility
April 2013	Norovirus GII.4 Sydney	Union	69	Correctional facility
May 2013	Norovirus GII.4 Sydney	Miami	20	Assisted living facility
May 2013	<i>Bordetella pertussis</i>	Portage	3	School
May 2013	<i>Bordetella pertussis</i>	Franklin	3	School
May 2013	<i>Bordetella pertussis</i>	Summit	3	School
May 2013	<i>Bordetella pertussis</i>	Franklin	4	School
May 2013	<i>Bordetella pertussis</i>	Franklin	3	School
June 2013	Norovirus GI.6A	Franklin	20	Day care center
June 2013	Sapovirus	Licking	4	Day care center, summer camp
June 2013	<i>Bordetella pertussis</i>	Portage	2	School
July 2013	<i>Shigella sonnei</i>	Clark	11	Day care center
July 2013	<i>Clostridium difficile</i>	Ottawa	4	MRDD facility
July 2013	<i>Shigella sonnei</i>	Franklin	3	Day care center
July 2013	<i>Pediculus capitis</i> (head louse)	Union	40	Correctional facility
July 2013	<i>Escherichia coli</i> O111	Franklin	5	Day care center
July 2013	<i>Bordetella pertussis</i>	Franklin	3	School
August 2013	<i>Bordetella pertussis</i>	Franklin	3	School
August 2013	<i>Bordetella pertussis</i>	Franklin	35	School
August 2013	<i>Bordetella pertussis</i>	Butler	2	School
September 2013	Coxsackie virus	Franklin	17	Day care center
September 2013	<i>Pediculus capitis</i> (head louse)	Stark	11	School
September 2013	<i>Shigella sonnei</i>	Cuyahoga	5	Day care center
September 2013	<i>Giardia</i> spp.	Franklin	3	Day care center
September 2013	<i>Bordetella pertussis</i>	Madison	33	School
September 2013	Varicella-Zoster virus	Madison	7	School
September 2013	<i>Bordetella pertussis</i>	Franklin	7	School
September 2013	<i>Bordetella pertussis</i>	Clermont	2	School
September 2013	<i>Bordetella pertussis</i>	Franklin	11	School
September 2013	<i>Bordetella pertussis</i>	Hamilton	5	School

Month of Onset	Causative Agent	County	# Ill	Setting
September 2013	<i>Bordetella pertussis</i>	Hamilton	5	School
September 2013	<i>Bordetella pertussis</i>	Hamilton	2	School
September 2013	<i>Bordetella pertussis</i>	Hamilton	4	Day care center
October 2013	<i>Shigella sonnei</i>	Hamilton	13	Day care center
October 2013	<i>Shigella sonnei</i>	Summit	6	Day care center
October 2013	<i>Bordetella pertussis</i>	Hamilton	12	School
October 2013	<i>Bordetella pertussis</i>	Lucas	9	School
October 2013	<i>Bordetella pertussis</i>	Hamilton	2	School
October 2013	<i>Bordetella pertussis</i>	Franklin	5	School
October 2013	<i>Bordetella pertussis</i>	Clermont	8	School
October 2013	<i>Bordetella pertussis</i>	Clermont	4	School
October 2013	<i>Bordetella pertussis</i>	Franklin	7	School
October 2013	<i>Bordetella pertussis</i>	Franklin	6	School
October 2013	<i>Bordetella pertussis</i>	Franklin	10	School
October 2013	<i>Bordetella pertussis</i>	Clermont	8	School
October 2013	<i>Bordetella pertussis</i>	Hamilton	2	School
October 2013	<i>Bordetella pertussis</i>	Clermont	5	School
October 2013	<i>Bordetella pertussis</i>	Clinton	18	School
October 2013	<i>Bordetella pertussis</i>	Hamilton	5	School
October 2013	<i>Bordetella pertussis</i>	Clermont	4	School
October 2013	<i>Bordetella pertussis</i>	Hamilton	5	School
October 2013	<i>Bordetella pertussis</i>	Hamilton	4	School
November 2013	Norovirus GI.3B	Franklin	49	Correctional facility
November 2013	<i>Pediculus capitis</i> (head louse)	Cuyahoga	8	School
November 2013	<i>Sarcoptes scabiei</i>	Cuyahoga	7	Drug rehab facility
November 2013	<i>Shigella sonnei</i>	Cuyahoga	18	Day care center
November 2013	<i>Bordetella pertussis</i>	Franklin	4	School
November 2013	<i>Bordetella pertussis</i>	Hamilton	6	School
November 2013	<i>Bordetella pertussis</i>	Franklin	2	School
November 2013	<i>Bordetella pertussis</i>	Clermont	11	School
November 2013	<i>Bordetella pertussis</i>	Clermont	3	School
November 2013	<i>Bordetella pertussis</i>	Franklin	5	School
November 2013	<i>Bordetella pertussis</i>	Clermont	4	School
November 2013	<i>Bordetella pertussis</i>	Clermont	2	School
November 2013	<i>Bordetella pertussis</i>	Franklin	5	School
November 2013	<i>Bordetella pertussis</i>	Hamilton	5	School
November 2013	<i>Bordetella pertussis</i>	Clermont	2	School
December 2013	Norovirus GII.4 Sydney	Erie	10	Assisted living facility
December 2013	<i>Streptococcus pyogenes</i>	Franklin	3	School
December 2013	<i>Bordetella pertussis</i>	Hamilton	5	School

Source of outbreak data: Ohio Disease Reporting System.

WATERBORNE OUTBREAKS

In 2013, 14 waterborne outbreaks were reported. The 13 confirmed and probable waterborne outbreaks are detailed in Table 5.

Table 5: Confirmed and Probable Waterborne Outbreaks, Ohio, 2013

Month of Onset	Causative Agent	County	# Ill	Setting
November 2012	<i>Legionella pneumophila</i>	Franklin	7	Long-term care facility
December 2012	<i>Legionella pneumophila</i>	Franklin	2	Long-term care facility
December 2012	<i>Pseudomonas aeruginosa</i>	Huron	4	Hotel jacuzzi
March 2013	<i>Legionella pneumophila</i>	Cuyahoga	2	Hospital
April 2013	<i>Legionella pneumophila</i>	Holmes	2	Long-term care facility
April 2013	<i>Pseudomonas aeruginosa</i>	Franklin	5	Hotel hot tub
June 2013	<i>Legionella pneumophila</i>	Franklin	39	Retirement community
June 2013	<i>Legionella pneumophila</i>	Butler	11	Hot tub at private residence
June 2013	<i>Legionella pneumophila</i>	Franklin	4	Hospital
July 2013	<i>Legionella pneumophila</i>	Franklin	3	Hospital
July 2013	<i>Legionella pneumophila</i>	Auglaize	3	Manufacturing plant
July 2013	<i>Legionella pneumophila</i>	Franklin	2	Facility for developmentally disabled
September 2013	Microcystin	Ottawa	6	Township drinking water

Source of outbreak data: Ohio Disease Reporting System.

ZOONOTIC OUTBREAKS

In 2013, 4 zoonotic outbreaks were reported, as seen in Table 6.

Table 6: Confirmed Zoonotic Outbreaks, Ohio, 2013

Month of Onset	Causative Agent	County	# Ill	Type of Animal
February 2013	<i>Salmonella</i> (I) 4,5,12:i:-	Multistate	1	Reptiles and rodents
March 2013	<i>Salmonella</i> Infantis, Lille, Mbandaka, Newport	Multistate	22	Baby poultry
May 2013	<i>Campylobacter jejuni</i>	Franklin	11	Puppies in pet store
October 2013	<i>Salmonella</i> Typhimurium, <i>Campylobacter</i> spp.	Hamilton	6	Puppies in private home

Here are links to the outbreak reports for the zoonotic multistate outbreaks:

[Multistate Outbreak of Human *Salmonella* Infections Linked to Live Poultry](#)

Please refer to the Technical Notes (pp. 100-103) for additional information on the outbreak data.