

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 2011, the Bureau of Infectious Diseases (ODH) assisted local health jurisdictions in Ohio in the investigation of 255 outbreaks.* These outbreaks were detected in 50 of 88 counties throughout the state. The number of Ohioans known to be ill from these outbreaks was 4,106 (median 6, range 2-206). The outbreaks were classified as: community (32), foodborne (61), healthcare-associated (37), institutional (104), waterborne (17) and zoonotic (4). Causative agents identified during the outbreak investigations included: *Acinetobacter baumannii*, *Bordetella pertussis*, *Clostridium perfringens*, *Cryptosporidium* spp., Enterovirus, *Escherichia coli* O111, *Escherichia coli* O157, *Giardia* spp., Hepatitis A virus, *Histoplasma capsulatum*, Influenza A virus, *Legionella pneumophila*, *Microsporium canis*, Norovirus, *Pediculus capitis* (head louse), *Pseudomonas aeruginosa*, *Ralstonia pickettii*, *Salmonella* spp., *Sarcoptes scabiei* (scabies mite), scombroid (histamine) poisoning, *Shigella sonnei*, *Staphylococcus aureus*, *Streptococcus pyogenes*, *Tinea* spp. and Varicella Zoster virus.

This is the second 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 2011 outbreaks are discussed below.

COMMUNITY OUTBREAKS

In 2011, 32 community outbreaks* were reported from a variety of settings. Twenty-three of these outbreaks were confirmed, with the causative agent as follows: *B. pertussis* (7), Enterovirus (1), *E. coli* O157 (1), *Giardia* spp. (1), *H. capsulatum* (1), Norovirus genotype GI (1), Norovirus genotype GII (5), *P. aeruginosa* (1), *S. scabiei* (2), *S. sonnei* (1) and methicillin-resistant *S. aureus* (2).

The confirmed community outbreaks of 2011 are listed in Table 1.

Table 1: Confirmed Community Outbreaks, Ohio, 2011

Month of Onset	Causative Agent	County	# Ill
November 2010	<i>Giardia</i> spp.	Franklin	9
December 2010	Methicillin-resistant <i>Staphylococcus aureus</i>	Franklin	3
December 2010	Norovirus GII.1 Hawaii	Delaware	4
February 2011	Norovirus GII.1	Franklin	135
March 2011	Norovirus GII.4 New Orleans	Miami	66
April 2011	<i>Sarcoptes scabiei</i>	Crawford	4
April 2011	<i>Histoplasma capsulatum</i>	Logan	3
April 2011	<i>Bordetella pertussis</i>	Franklin	3

Month of Onset	Causative Agent	County	# Ill
May 2011	<i>Bordetella pertussis</i>	Franklin	4
May 2011	<i>Bordetella pertussis</i>	Franklin	5
June 2011	<i>Bordetella pertussis</i>	Franklin	3
June 2011	<i>Escherichia coli</i> O157	Auglaize	3
July 2011	Methicillin-resistant <i>Staphylococcus aureus</i>	Franklin	4
July 2011	<i>Bordetella pertussis</i>	Athens	3
July 2011	<i>Bordetella pertussis</i>	Madison	5
September 2011	Enterovirus	Lawrence	31
September 2011	<i>Bordetella pertussis</i>	Franklin	3
September 2011	<i>Shigella sonnei</i>	Cuyahoga	2
November 2011	Norovirus GI.2	Lucas	2
December 2011	<i>Sarcoptes scabiei</i>	Crawford	7
December 2011	<i>Pseudomonas aeruginosa</i>	Medina	2
December 2011	Norovirus GII.1	Lucas	4
December 2011	Norovirus GII.6A	Summit	4

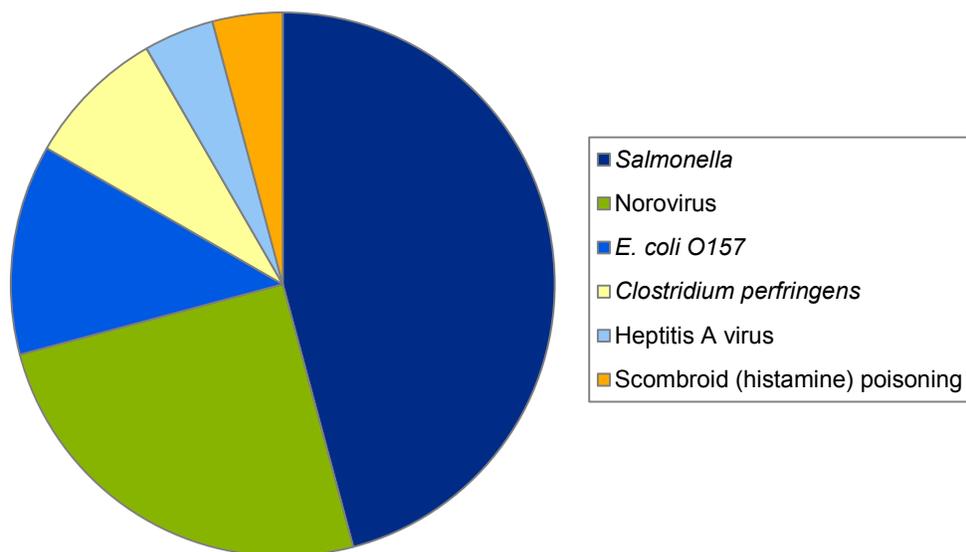
Source of outbreak data: Ohio Disease Reporting System.

FOODBORNE OUTBREAKS

In 2011, 24 of the 61 foodborne outbreaks reported in Ohio were confirmed. These 61 outbreaks 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.” The 24 confirmed outbreaks also met the agent-specific [criteria for confirmation](#) of outbreaks. As shown in Figure 1, for these 24 foodborne outbreaks, the causative agent was distributed as follows: *Salmonella* spp. (11), Norovirus (6), *E. coli* O157 (3), *Clostridium perfringens* (2), Hepatitis A virus (1) and scombroid (histamine) poisoning (1).

A single case of foodborne botulism (type A) was reported in January 2011. Commercially-produced potato soup was implicated (see [Morbidity and Mortality Weekly Report \(MMWR\) July 8, 2011, Vol. 60 \(26\); 890](#)). This was a single case in Ohio; it was not an outbreak.

Figure 1: Confirmed Foodborne Outbreaks by Etiologic Agent, Ohio, 2011



Source of outbreak data: Ohio Disease Reporting System.

The 24 confirmed foodborne outbreaks are detailed in Table 2.

Table 2: Confirmed Foodborne Outbreaks, Ohio, 2011

Month of Onset	Causative Agent	County	# Ill	Suspected Food Vehicle	Event / Setting
January 2011	Norovirus GII.4 New Orleans	Crawford	2	Unknown	Home
January 2011	Norovirus GII.4 New Orleans	Wyandot	2	Chicken	Grocery store
January 2011	<i>Escherichia coli</i> O157	Multistate	2	Lebanon bologna	Commercial product: recalled
January 2011	Hepatitis A virus	Lake	4	Cold cuts, cheese, deli food	Home
February 2011	<i>Salmonella</i> Hadar	Multistate	2	Turkey burger	Commercial product: recalled
February 2011	Norovirus GII.4 New Orleans	Crawford	3	Unknown	Home
March 2011	<i>Salmonella</i> Agona	Multistate	1	Papaya	Commercial product: recalled
April 2011	<i>Salmonella</i> Heidelberg	Multistate	14	Ground turkey	Commercial product: recalled
May 2011	<i>Salmonella</i> Enteritidis	Miami	11	Chicken sandwich	Party
June 2011	<i>Salmonella</i> Typhimurium	Ottawa	14	Cake	Party
June 2011	<i>Salmonella</i> Enteritidis	Lake	41	Unknown	Wedding reception

Month of Onset	Causative Agent	County	# Ill	Suspected Food Vehicle	Event / Setting
June 2011	<i>Salmonella</i> Typhimurium	Multistate	5	Ground beef	Commercial product
July 2011	<i>Salmonella</i> Enteritidis	Hamilton	4	Unknown	Restaurant
July 2011	<i>Salmonella</i> Newport	Multistate	3	Tomatoes	Restaurant
August 2011	<i>Escherichia coli</i> O157	Fulton	3	Unknown	Home
September 2011	Norovirus GII	Belmont	115	Salad	Wedding reception
September 2011	<i>Salmonella</i> Enteritidis	Cuyahoga	37	Cross-contaminated chicken	Restaurant
September 2011	<i>Escherichia coli</i> O157	Butler	4	Ground beef	Commercial product
October 2011	<i>Salmonella</i> Oranienburg	Lucas	4	Unknown	Home
October 2011	Scombroid (histamine) poisoning	Medina	2	Tuna fish	Restaurant
November 2011	<i>Clostridium perfringens</i>	Henry	101	Turkey	Church dinner
November 2011	Norovirus GI.6A	Ashtabula	3	Unknown	Restaurant
December 2011	Norovirus GI.6A	Summit	11	Sandwiches	Restaurant
December 2011	<i>Clostridium perfringens</i>	Summit	17	Turkey	Potluck

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 *E. coli* O157:H7 Infections Associated with Lebanon Bologna](#)

[Multistate Outbreak of Human *Salmonella* Hadar Infections Associated with Turkey Burgers](#)

[Multistate Outbreak of Human *Salmonella* Agona Infections Linked to Whole, Fresh Imported Papayas](#)

[Multistate Outbreak of Human *Salmonella* Heidelberg Infections Linked to Ground Turkey](#)

HEALTHCARE-ASSOCIATED OUTBREAKS

There were 37 healthcare-associated outbreaks* reported in 2011, all of which were confirmed as shown in Table 3.

Table 3: Confirmed Healthcare-Associated Outbreaks, Ohio, 2011

Month of Onset	Causative Agent	# Ill	Setting
November 2010	<i>Acinetobacter baumannii</i>	18	Long term care facility
December 2010	Methicillin-sensitive <i>Staphylococcus aureus</i>	3	Hospital
December 2010	Norovirus GII.4 New Orleans	56	Assisted living
December 2010	Norovirus GII.4 New Orleans	19	Hospital
January 2011	Norovirus genotype unknown	45	Hospital
January 2011	Norovirus genotype unknown	52	Hospital
January 2011	Norovirus GII.4 New Orleans	105	Long term care facility
January 2011	Influenza A virus	7	Long term care facility
January 2011	Influenza A virus	20	Long term care facility
February 2011	Influenza A virus	84	Long term care facility
February 2011	Norovirus GII.4 New Orleans	28	Hospital
February 2011	Norovirus GII.4 New Orleans	73	Long term care facility
February 2011	Norovirus GII.4 New Orleans	75	Long term care facility
February 2011	Norovirus genotype unknown	57	Long term care facility
February 2011	<i>Salmonella</i> Javiana	2	Long term care facility
March 2011	Influenza A virus	28	Long term care facility
March 2011	Norovirus GII.4 New Orleans	63	Long term care facility
March 2011	<i>Acinetobacter baumannii</i>	7	Hospital
March 2011	Norovirus GII.4 New Orleans	46	Long term care facility
March 2011	<i>Sarcoptes scabiei</i>	7	Long term care facility
March 2011	Methicillin-sensitive <i>Staphylococcus aureus</i>	5	Hospital
April 2011	<i>Sarcoptes scabiei</i>	18	Hospital
April 2011	<i>Sarcoptes scabiei</i>	45	Long term care facility
April 2011	<i>Ralstonia pickettii</i>	4	Dialysis center
May 2011	<i>Sarcoptes scabiei</i>	4	Long term care facility
May 2011	Methicillin-sensitive <i>Staphylococcus aureus</i>	3	Hospital
June 2011	<i>Sarcoptes scabiei</i>	11	Long term care facility
July 2011	<i>Ralstonia pickettii</i>	2	Dialysis center
July 2011	<i>Sarcoptes scabiei</i>	30	Long term care facility
August 2011	<i>Sarcoptes scabiei</i>	14	Long term care facility
September 2011	Methicillin-sensitive <i>Staphylococcus aureus</i>	4	Hospital
November 2011	Methicillin-resistant <i>Staphylococcus aureus</i>	4	Outpatient clinic
November 2011	<i>Sarcoptes scabiei</i>	3	Long term care facility
November 2011	<i>Sarcoptes scabiei</i>	6	Long term care facility
November 2011	<i>Sarcoptes scabiei</i>	3	Long term care facility
November 2011	<i>Sarcoptes scabiei</i>	12	Long term care facility
December 2011	Norovirus GII.4 New Orleans	18	Long term care facility

Source of outbreak data: Ohio Disease Reporting System.

INSTITUTIONAL OUTBREAKS

In 2011, 104 institutional outbreaks* were reported. Of these, 72 were confirmed. See Table 4 below for the confirmed institutional outbreaks.

Month of Onset	Causative Agent	County	# Ill	Setting
October 2010	Varicella Zoster virus	Delaware	13	Day care center
November 2010	Varicella Zoster virus	Hancock	14	School
December 2010	Varicella Zoster virus	Ashtabula	27	School
December 2010	<i>Streptococcus pyogenes</i>	Lucas	13	Day care center
January 2011	<i>Bordetella pertussis</i>	Franklin	4	School
January 2011	<i>Bordetella pertussis</i>	Franklin	2	Day care center
January 2011	<i>Bordetella pertussis</i>	Franklin	2	School
January 2011	<i>Streptococcus pyogenes</i>	Lucas	22	School
January 2011	<i>Sarcoptes scabiei</i>	Champaign	29	Assisted living
January 2011	Norovirus GII.4 Minerva	Franklin	43	Assisted living
January 2011	Norovirus GII.4 New Orleans	Darke	14	Assisted living
January 2011	Norovirus GII.4 Appeldorne	Franklin	9	Assisted living
January 2011	Norovirus GII.4 New Orleans	Sandusky	65	Assisted living
January 2011	Norovirus GI.3B	Montgomery	15	Assisted living
January 2011	<i>Shigella sonnei</i>	Hamilton	17	Day care center
January 2011	Methicillin-resistant <i>Staphylococcus aureus</i>	Jackson	6	College/university
February 2011	<i>Bordetella pertussis</i>	Franklin	2	Day care center
February 2011	<i>Escherichia coli</i> O157	Hamilton	10	Day care center
February 2011	Group A <i>Streptococcus</i>	Richland	10	School
February 2011	Norovirus GII.4 New Orleans	Hancock	43	Assisted living
February 2011	<i>Tinea</i> spp.	Stark	5	Day care center
March 2011	<i>Bordetella pertussis</i>	Franklin	4	School
March 2011	Methicillin-resistant <i>Staphylococcus aureus</i>	Franklin	4	School
March 2011	Norovirus GI.3B	Summit	33	Independent living
March 2011	Methicillin-resistant <i>Staphylococcus aureus</i>	Madison	22	Correctional facility
March 2011	<i>Sarcoptes scabiei</i>	Auglaize	11	Assisted living
April 2011	<i>Bordetella pertussis</i>	Franklin	4	School
April 2011	<i>Bordetella pertussis</i>	Franklin	3	School
April 2011	<i>Shigella sonnei</i>	Hamilton	6	Day care center
May 2011	<i>Bordetella pertussis</i>	Franklin	5	Day care center
May 2011	<i>Bordetella pertussis</i>	Franklin	3	School
May 2011	<i>Pediculus capitis</i>	Ashland	8	School
May 2011	<i>Shigella sonnei</i>	Hamilton	13	Day care center
June 2011	<i>Shigella sonnei</i>	Hamilton	15	Day care center
June 2011	<i>Shigella sonnei</i>	Hamilton	28	Day care center
June 2011	<i>Shigella sonnei</i>	Hamilton	13	Day care center

Month of Onset	Causative Agent	County	# Ill	Setting
June 2011	<i>Sarcoptes scabiei</i>	Montgomery	7	Group home
June 2011	<i>Shigella sonnei</i>	Hamilton	6	Day care center
June 2011	<i>Bordetella pertussis</i>	Franklin	4	School
July 2011	<i>Bordetella pertussis</i>	Franklin	2	Day care center
July 2011	<i>Cryptosporidium</i> spp.	Hamilton	4	Day care center
July 2011	<i>Shigella sonnei</i>	Hamilton	6	Day care center
July 2011	<i>Cryptosporidium</i> spp.	Hamilton	9	Day care center
July 2011	<i>Escherichia coli</i> O111	Logan	2	Summer camp
August 2011	<i>Bordetella pertussis</i>	Franklin	2	School
August 2011	<i>Bordetella pertussis</i>	Hamilton	3	School
August 2011	<i>Cryptosporidium</i> spp.	Hamilton	30	Day care center
August 2011	<i>Cryptosporidium</i> spp.	Hamilton	3	Day care center
September 2011	<i>Bordetella pertussis</i>	Ashland	6	School
September 2011	<i>Bordetella pertussis</i>	Delaware	3	School
September 2011	<i>Bordetella pertussis</i>	Franklin	3	School
September 2011	<i>Bordetella pertussis</i>	Franklin	5	School
September 2011	<i>Sarcoptes scabiei</i>	Licking	5	School
September 2011	<i>Escherichia coli</i> O157	Franklin	3	Assisted living
September 2011	<i>Pediculus capitis</i>	Ashland	8	Correctional facility
September 2011	Norovirus GII.6C	Delaware	52	School
September 2011	<i>Sarcoptes scabiei</i>	Medina	3	School
September 2011	Varicella Zoster virus	Ashland	5	MRDD facility
October 2011	<i>Bordetella pertussis</i>	Delaware	9	School
October 2011	<i>Bordetella pertussis</i>	Delaware	12	School
October 2011	Varicella Zoster virus	Franklin	6	School
October 2011	<i>Sarcoptes scabiei</i>	Cuyahoga	3	School
October 2011	<i>Cryptosporidium</i> spp.	Hamilton	8	Day care center
October 2011	<i>Shigella sonnei</i>	Butler	3	Day care center
November 2011	Norovirus GII.4 New Orleans	Butler	36	Assisted living
November 2011	<i>Bordetella pertussis</i>	Ashland	2	School
November 2011	<i>Bordetella pertussis</i>	Franklin	4	School
November 2011	<i>Bordetella pertussis</i>	Franklin	4	School
November 2011	<i>Bordetella pertussis</i>	Franklin	2	School
November 2011	<i>Bordetella pertussis</i>	Franklin	2	School
November 2011	<i>Bordetella pertussis</i>	Franklin	2	School
December 2011	<i>Sarcoptes scabiei</i>	Coshocton	9	School

Source of outbreak data: Ohio Disease Reporting System.

WATERBORNE OUTBREAKS

In 2011, 17 confirmed and probable waterborne outbreaks were reported. These outbreaks are detailed in Table 5.

Table 5: Confirmed and Probable Waterborne Outbreaks, Ohio, 2011

Month of Onset	Causative Agent	County	# Ill	Setting
January 2011	<i>Cryptosporidium</i> spp.	Richland	87	Hotel pool
January 2011	<i>Legionella pneumophila</i>	Montgomery	11	Hospital
March 2011	<i>Legionella pneumophila</i>	Cuyahoga	8	Long term care facility
July 2011	<i>Cryptosporidium</i> spp.	Hamilton	7	Spray park
July 2011	<i>Cryptosporidium</i> spp.	Hamilton	3	Pool
July 2011	<i>Cryptosporidium</i> spp.	Hamilton	2	Pool
July 2011	<i>Cryptosporidium</i> spp.	Hamilton	19	Pool
August 2011	<i>Cryptosporidium</i> spp.	Hamilton	7	Pool
August 2011	<i>Cryptosporidium</i> spp.	Delaware	2	Water park
August 2011	<i>Cryptosporidium</i> spp.	Hamilton	4	Pool
August 2011	<i>Cryptosporidium</i> spp.	Hamilton	4	Spray park
August 2011	<i>Legionella pneumophila</i>	Franklin	10	Long term care facility
August 2011	<i>Cryptosporidium</i> spp.	Hamilton	3	Spray park
August 2011	<i>Cryptosporidium</i> spp.	Hamilton	2	Pool
August 2011	<i>Cryptosporidium</i> spp.	Hamilton	2	Pool
September 2011	<i>Legionella pneumophila</i>	Hamilton	5	Work site
September 2011	<i>Pseudomonas aeruginosa</i>	Fayette	7	Hotel hot tub

Source of outbreak data: Ohio Disease Reporting System.

ZOONOTIC OUTBREAKS

In 2011, four confirmed zoonotic outbreaks were reported, as seen in Table 6.

Table 6: Confirmed Zoonotic Outbreaks, Ohio, 2011

Month of Onset	Causative Agent	County	# Ill	Type of Animal
January 2011	<i>Salmonella</i> (I) 4,5,12:i:-	Multistate	3	Snakes, mice
March 2011	<i>Salmonella</i> Altona, <i>Salmonella</i> Johannesburg	Multistate	16	Chicks, ducklings
September 2011	<i>Salmonella</i> Paratyphi B	Cuyahoga	2	Aquarium fish
November 2011	<i>Microsporium canis</i> , var <i>canis</i>	Franklin	16	Kittens

Source of outbreak data: Ohio Disease Reporting System.

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

[Multistate Outbreak of Human Salmonella I 4,5,12:i:-Infections Associated with Frozen Rodents](#)

[Multistate Outbreak of Human *Salmonella* Altona and *Salmonella* Johannesburg Infections Linked to Chicks and Ducklings](#)

* Please see Technical Notes (pp. 90-93).