# Section 2

# Data Summaries for Selected Reportable Diseases/Conditions of Frequent Occurrence

Cause: HIV

Type of illness: Decreased immune system function allows opportunistic infections and tumors to develop that do not usually affect people who have healthy immune systems

Transmission: Anal or vaginal sex; blood exposure (e.g., sharing drug needles, receiving infected blood transfusion [rare due to donor screening]); or from mother to child during pregnancy, delivery or breast-feeding

Reason for surveillance: Enhance efforts to prevent HIV transmission, improve allocation of resources for treatment services, and assist in evaluating the impact of public health interventions

Comments: The expansion of electronic laboratory reporting (ELR) in 2007 led to an artificial peak in newly reported cases in 2008, followed by a general decline in reported cases through 2012. Additional expansion of ELR in 2012 was followed by another increase in newly reported AIDS cases in 2013.

### **Summary of Case Demographics**





### **Additional Information**

For AIDS cases in adult men reported in 2013, male-to-male sexual contact was the most common risk factor (63.6%), followed by heterosexual contact (25.8%).

In 2013, blacks were over-represented among AIDS cases, accounting for 43.8% of adult cases among men and 69.4% of the adult cases among women.

For information on HIV, please see the HIV chapter within this section (page 31).

Please visit the AIDS Surveillance website to access additional information at www.FloridaHealth.gov/diseasesand-conditions/aids/surveillance/index.html.

To locate services across the state please visit www.FloridaHealth.gov/diseases-and-conditions/aids/index.html.

Reported Adult (13 Years and Older) AIDS Cases by Gender and Mode of Exposure, Florida, 2013

Mode of exposure	Females cases (n=943)	Males cases (n=2,336)	
	Number (percent)	Number (percent)	
Men who have sex with men (MSM)	NA	1,486 (63.6)	
Heterosexual	821 (87.1)	603 (25.8)	
Injection drug user (IDU)	109 (11.6)	152 (6.5)	
MSM and IDU	NA	88 (3.8)	
Other	13 (1.4)	7 (0.3)	
Total	943	2,336	
	0.0	2,000	



Cause: Campylobacter bacteria

Type of illness: Gastroenteritis (diarrhea, vomiting)

Transmission: Fecal-oral; including person-to-person, animal-to-person, waterborne, and foodborne

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated food product, ill food handler), monitor incidence over time, estimate burden of illness

Comments: The use of culture-independent diagnostic testing for *Campylobacter* has increased significantly in recent years. Florida changed the campylobacteriosis surveillance case definition in January and July 2011 to adapt to this change, increasing the number of reported cases. Due to the change in the surveillance case definition, there were approximately seven months in 2011 when positive enzyme immunoassay (EIA) tests were included as part of the probable case definition.

# Summary of Case Demographics





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Campylobacteriosis cases were missing 6.0% of ethnicity data in 2009, 6.6% of race data in 2009, 6.2% of ethnicity data in 2011, 5.1% of race data in 2011, 6.1% of ethnicity data in 2012, 6.2% of race data in 2012, 5.2% of ethnicity data in 2013, and 5.1% of race data in 2013.

# Campylobacteriosis

#### **Summary of Case Factors**



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

#### Cause: Carbon monoxide (CO) gas

Type of illness: Common symptoms include headache, dizziness, weakness, nausea, vomiting, chest pain, and confusion; high levels of CO inhalation can cause loss of consciousness and death

Exposure: Breathing CO gas from combustion fumes (produced by cars and trucks, generators, stoves, lanterns, burning charcoal and wood, and gas ranges and heating systems)

Reason for surveillance: Identify and mitigate persistent sources of exposure, identify populations at risk, evaluate trends in environmental conditions, measure impact of public health interventions

Comments: CO poisoning became a reportable condition in Florida on November 24, 2008; therefore only cases from 2009 to 2013 are presented in this report. Increased incidence in 2013 was primarily due to outbreaks in Hendry, Palm Beach, Duval, and Seminole counties, which accounted for 69 cases.

#### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Carbon monoxide poisoning cases were missing 7.0% of ethnicity data in 2009, 7.0% of race data in 2009, 5.8% of ethnicity data in 2012, and 16.8% of race data in 2013.

#### **Summary of Case Factors**

Summary	Number	Reported Corbon Manavida Baiaaning Cases bull Arath of
Number of cases	161	Cepure Carbon Wonoxide Forsoning Cases by Wonth Of
Case classification	Number (Percent)	Occurrence, Case Classification, Outcome, Imported Status, and
Confirmed	142 (88.2)	Outoreak Status, Florida
Probable	19 (11.8)	Month of Occurrence, Annual to 4-Year Comparison
Outcome	Number (Percent)	\$ 40 -
Hospitalized	49 (30.4)	
Died	9 (5.6)	
Imported status	Number (Percent)	₫ 10 - ···
Exposed in Florida	161 (100.0)	
Exposed in the U.S., not Florida	0 (0.0)	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Exposed outside the U.S.	0 (0.0)	Month
Exposed location unknown	0 (0.0)	2013 - Previous 4-year average
Outbreak status	Number (Percent)	
Sporadic	35 (21.7)	Case Classification Trend Outcome Trend
Outbreak-associated	125 (77.6)	
Outbreak status unknown	1 (0.6)	80% - <b>1</b> 00 - 100
Exposure Type	Number (Percent)	
Generator	36 (22.4)	
Forklift	31 (19.3)	g 20% - 50
Grill/stove	26 (16.1)	
Automobile	22 (13.7)	2009 2010 2011 2012 2013 2009 2010 2011 2012 2013 Year
Fuel-burning appliances	5 (3.1)	- Hospitalized - Died
Power tools	3 (1.9)	
Other	16 (9.9)	
Unknown	16 (9.9)	Imported Status Trend Outbreak Status Trend
		200
		ž 150 - / ž 150 -
		Year Year
		Exposed in FL - Exposed in U.S., not FL - Sporadic - Outbreak-associated

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the exposure most likely occurred. Outbreak-associated indicates that two or more cases are epidemiologically linked.

# Additional Information

In 2013, the rate of CO poisoning was higher among women than men, a shift from previous years. Sixty-nine cases (42.9%) were related to four clusters identified in 2013. The clusters included a propane-fueled forklift operating inside a warehouse (22 cases), a generator being used in a strip mall next to a daycare (23 cases), a charcoal grill being used in an apartment (14 cases), and a charcoal grill that was not adequately extinguished being stored in a garage (10 cases).

Cause: Chlamydia trachomatis bacteria

- Type of illness: Frequently asymptomatic; sometimes abnormal discharge from vagina or penis or burning sensation when urinating
- Transmission: Sexually transmitted disease (STD) spread by anal, vaginal, or oral sex and sometimes from mother to child during pregnancy or delivery
- Reason for surveillance: Effective interventions implemented immediately for every case, monitor incidence over time, estimate burden of illness, evaluate treatment and prevention programs
- Comments: Chlamydia is the most common reportable STD in Florida and the U.S. Incidence is highest among 15- to 24-year-old women, partly due to the emphasis on screening/treating women. Severe complications can occur in women, including pelvic inflammatory disease, inability to get pregnant, and ectopic pregnancies.

#### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Chlamydia cases were missing 21.2% of race data in 2009, 15.9% of race data in 2009, 15.4% of ethnicity data in 2010, 13.6% of race data in 2010, 18.9% of ethnicity data in 2011, 18.4% of race data in 2011, 30.0% of ethnicity data in 2012, 25.2% of race data in 2012, 31.3% of ethnicity data in 2013, and 26.9% of race data in 2013.

Cause: Ciguatoxins produced by marine dinoflagellates associated with tropical/subtropical reef fish

Type of illness: Nausea, vomiting, and neurologic symptoms (e.g., tingling fingers or toes, temperature reversal); anecdotal evidence of long-term periodic recurring symptoms

Exposure: Foodborne; consuming fish contaminated with ciguatoxins

Reason for surveillance: Identify and control outbreaks, identify high-risk products (e.g., barracuda)

Comments: Outbreaks are usually associated with multiple people sharing an implicated fish. While case finding in Florida is thought to be more complete than in other states, underreporting is still likely due to lack of recognition and reporting by medical practitioners. Marine dinoflagellates are typically found in tropical and subtropical waters and are eaten by herbivorous fish that are in turn eaten by larger carnivorous fish, causing the toxins to bioaccumulate in larger fish, such as grouper. Cases in women exceeded cases in men in 2013.

### **Summary of Case Demographics**

Summary			Reported Ciguatera Fish Poisoning Cases and Incidence Rates per
Number of cases		49	100,000 Population (Restricted to Exposures Occurring in Florida) by
Incidence rate (per	100,000 population)	0.3	County of Residence, Florida, 2013 (N = 39)
Change from 5-year	r average incidence	+19.2%	
Age (in years)			
Mean		39	
Median		39	
Min-max		5 - 74	K July
Gender	Number (Percent)	Rate	
Female	27 (55.1)	0.3	
Male	22 (44.9)	0.2	
Unknown gender	0		
Race	Number (Percent)	Rate	
White	43 (87.8)	0.3	Bate per 100 000 periulation
Black	4 (8.2)	NA	
Other	2 (4.1)	NA	
Unknown race	0		
Ethnicity	Number (Percent)	Rate	0.9 - 1.3
Non-Hispanic	31 (64.6)	0.2	1.4 - 2.6
Hispanic	17 (35.4)	NA	
Unknown ethnicity	1		Note that rates based on <20 cases are not reliable and should be interpreted with caution.



Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Ciguatera fish poisoning cases were missing 8.3% of race data in 2011.

#### **Summary of Case Factors**

Summary	Number	
Number of cases	49	
Outcome	Number	(Percent)
Hospitalized	12	(24.5)
Died	0	(0.0)
Imported status	Number	(Percent)
Exposed in Florida	39	(79.6)
Exposed in the U.S., not Florida	1	(2.0)
Exposed outside the U.S.	9	(18.4)
Exposed location unknown	0	(0.0)
Outbreak status	Number	(Percent)
Sporadic	0	(0.0)
Outbreak-associated	49	(100.0)
Outbreak status unknown	0	(0.0)



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the exposure most likely occurred. A single case of ciguatera fish poisoning is considered an outbreak.

Cause: Cryptosporidium parasites

Type of illness: Gastroenteritis (diarrhea, vomiting)

Transmission: Fecal-oral; including person-to-person, animal-to-person, waterborne, and foodborne

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated food/water source, ill food handler), monitor incidence over time, estimate burden of illness

Comments: Florida changed the cryptosporidiosis surveillance case definition in January 2011. Detection of *Cryptosporidium* antigen by enzyme-linked immunoassay test was removed from the criteria to meet the confirmed case definition and is now used as criteria to meet the probable case definition instead, leading to more cases being classified as probable instead of confirmed.

### Summary of Case Demographics

Summary Number of cases Incidence rate (per	100,000 population)	409 2.1	Reported Cryptosporidiosis Cases and Incidence Rates per 100,000 Population (Restricted to Infections Acquired in Florida) by County of Residence, Florida, 2013 (N = 351)
Age (in years)	r average incidence	-15.6%	
Mean Median Min-max		42 42 0 - 99	
Gender	Number (Percent)	Rate	5 9
Female Male Unknown gender	200 (48.9) 209 (51.1)	2.0 2.2	8 6 7 7 8 15 12 1 5
Race	Number (Percent)	Rate	5
White Black Other Unknown race	304 (76.0) 59 (14.8) 37 (9.3) 9	2.0 1.8 3.8	Rate per 100,000 population
Ethnicity	Number (Percent)	Rate	3.1 - 5.9
Non-Hispanic Hispanic	326 (82.1) 71 (17.9)	2.2 1.6	<b>6.0 - 11.5</b>
Unknown ethnicity	12		Note that rates based on <20 cases are not reliable and should be interpreted with caution.



Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Cryptosporidiosis cases were missing 12.9% of ethnicity data in 2009 and 10.1% of race data in 2009.

# Cryptosporidiosis

#### **Summary of Case Factors**

Number	Reported Cryptosporidiosis Cases by Month of Occurrence.
409	Case Classification, Outcome, Sensitive Situation, Imported
Number (Percent)	Status and Outbreak Status Florida
201 (49.1)	
208 (50.9)	100 Month of Occurrence, Annual to 5-Year Comparison
Number (Percent)	8 80 -
171 (41.8)	g 60 -
3 (0.7)	
Number (Percent)	
19 (4.6)	
2 (0.5)	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
12 (2.9)	Month
8 (2.0)	2013 - Previous 5-year average
Number (Percent)	
351 (85.8)	Case Classification Trend Outcome Trend
8 (2.0)	
30 (7.3)	§ 80% - <b>1 1 1 1 1 1 1 1 1 1</b>
20 (4.9)	6 g 60% - 6 g
Number (Percent)	4 5 40% - 4 5 40% - 4 5
355 (86.8)	g 20% - 2
50 (12.2)	
4 (1.0)	2009 2010 2011 2012 2013 2009 2010 2011 2012 2013
	Confirmed Probable Died
Situation Trend	Imported Status Trend
	Number 409 Number (Percent) 201 (49.1) 208 (50.9) Number (Percent) 171 (41.8) 3 (0.7) Number (Percent) 19 (4.6) 2 (0.5) 12 (2.9) 8 (2.0) Number (Percent) 351 (85.8) 8 (2.0) 30 (7.3) 20 (4.9) Number (Percent) 355 (86.8) 50 (12.2) 4 (1.0) Situation Trend

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

Cause: Cyclospora parasites

Type of illness: Gastroenteritis (diarrhea, vomiting)

Transmission: Fecal-oral; waterborne and foodborne

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated food product), monitor incidence over time, estimate burden of illness

Comments: Incidence is strongly seasonal, peaking in June and July. Large statewide or multistate outbreaks occur occasionally. A large multistate outbreak occurred in 2005 (see the Summary of Notable Outbreaks and Case Investigations section of the *Florida Morbidity Statistics Report, 1997-2006* for additional information). In 2013, a multistate outbreak including 631 cases from 25 states was associated with bagged salad and fresh cilantro from Mexico. Florida identified 33 cases possibly associated with this outbreak.

### **Summary of Case Demographics**

Summary			Reported Cyclosporiasis Cases and Incidence Rates per 100,000			
Number of cases		47	Population (Restricted to Infections Acquired in Florida) by County of			
Incidence rate (per	100,000 population)	0.2	Residence, Florida, 2013 (N = 40)			
Change from 5-year	r average incidence	-6.6%				
Age (in years)			A CALLER AND A CAL			
Mean 53		53				
Median		57	a the second sec			
Min-max		2 - 95				
Gender	Number (Percent)	Rate				
Female	26 (55.3)	0.3				
Male	21 (44.7)	0.2				
Unknown gender	0		5 4 7			
Race	Number (Percent)	Rate				
White	37 (86.0)	0.2	Rate per 100 000 population			
Black	5 (11.6)	NA				
Other	1 (2.3)	NA	0.1 - 0.4			
Unknown race	4		0.5 - 0.7			
Ethnicity	Number (Percent)	Rate	<b>0.8</b> - 1.6			
Non-Hispanic	38 (88.4)	0.3	<b>1</b> .7 - 6.7			
Hispanic	5 (11.6)	NA	and the second			
Unknown ethnicity	4		Note that rates based on <20 cases are not reliable and should be interpreted with caution			
			The and allow passes on the same and not follow be interpreted with outlon.			



Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Cyclosporiasis cases were missing 12.5% of ethnicity data in 2009, 17.5% of race data in 2009, 6.3% of race data in 2010, 12.1% of ethnicity data in 2011, 17.2% of race data in 2011, 8.0% of ethnicity data in 2012, 8.0% of race data in 2012, 8.5% of ethnicity data in 2013, and 8.5% of race data in 2013.

# Cyclosporiasis

#### **Summary of Case Factors**

Summary	Number	
Number of cases	47	
Case classification	Number	(Percent)
Confirmed	41	(87.2)
Probable	6	(12.8)
Outcome	Number	(Percent)
Hospitalized	2	(4.3)
Died	0	(0.0)
Imported status	Number	(Percent)
Acquired in Florida	40	(85.1)
Acquired in the U.S., not Florida	2	(4.3)
Acquired outside the U.S.	3	(6.4)
Acquired location unknown	2	(4.3)
Outbreak status	Number	(Percent)
Sporadic	8	(17.0)
Outbreak-associated	39	(83.0)
Outbreak status unknown	0	(0.0)



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

Cause: Dengue viruses (DENV-1, DENV-2, DENV-3, DENV-4)

Type of illness: Acute febrile illness, symptoms include headache, joint pain, muscle aches, rash, and eye pain; warning signs for more severe disease (hemorrhagic fever or dengue shock syndrome) include severe abdominal pain, vomiting, and mucosal bleeding

Transmission: Bite of infective mosquito, rarely by blood transfusion or organ transplant

Reason for surveillance: Identify individual cases and implement control measures to prevent endemicity, monitor incidence over time, estimate burden of illness

Comments: An outbreak of locally acquired dengue fever occurred in Monroe County in 2009 and 2010. Isolated cases of locally acquired dengue fever were identified from 2010 to 2012. In 2013, there were two unrelated local introductions in Miami-Dade County (DENV-1 and 4) and one outbreak in Martin County (DENV-1).

#### **Summary of Case Demographics**







# **Dengue Fever**

### **Summary of Case Factors**

Summary	Number	
Number of cases	160	
Case classification	Number	(Percent)
Confirmed	96	(60.0)
Probable	64	(40.0)
Outcome	Number	(Percent)
Hospitalized	83	(51.9)
Died	0	(0.0)
Imported status	Number	(Percent)
Acquired in Florida	24	(15.0)
Acquired in the U.S., not Florida	55	(34.4)
Acquired outside the U.S.	80	(50.0)
Acquired location unknown	1	(0.6)
Outbreak status	Number	(Percent)
Sporadic	127	(79.4)
Outbreak-associated	31	(19.4)
Outbreak status unknown	2	(1.3)
Region where infection acquired	Number	(Percent)
Central America/Caribbean	116	(85.9)
South America	10	(7.4)
Asia	6	(4.4)
Africa	3	(2.2)

Case counts and rates from this report may differ from those found in other vector-borne disease reports as different criteria are used to assemble the data. Other reports may use illness onset date instead of report date, or county of exposure instead of the case's county of residence.



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

#### **Additional Information**

In 2013, an outbreak of locally acquired dengue fever (DENV-1) occurred in Martin County, resulting in at least 28 people being infected. Two were non-Florida residents (not included in Florida morbidity counts) and five were residents of other Florida counties (four residing in St. Lucie County, one residing in Palm Beach County). Seven of the infected people were identified in a seroprevalence survey conducted as part of an emergency response. Four of those people were asymptomatic and therefore did not meet the Florida surveillance case definition for dengue fever. This was the second DENV introduction in Martin County since 2011. People that used DEET-based repellents were less likely to be infected in a survey conducted in Martin County; however only 13% of those surveyed routinely used any repellents when outside.

The two sporadic local introductions of dengue fever (DENV-1 and 4) in Miami-Dade County were both linked to household members with a history of recent travel to a dengue-endemic country followed by febrile illness.

Cause: Ehrlichia chaffeensis, Ehrlichia ewingii and Anaplasma phagocytophilum bacteria

Type of illness: Common symptoms include fever, headache, fatigue, and muscle aches

Transmission: Tick-borne; bite of infective tick

- Reason for surveillance: Monitor incidence over time, estimate burden of illness, understand epidemiology of each species, target areas of high incidence for prevention education
- Comments: Most infections reported were acquired in Florida, particularly in the north central part of the state. Though transmission peaks in the spring and summer, cases are reported year-round in Florida. Delays in treatment can result in severe outcome; a fatal infection of ehrlichiosis acquired in Florida was reported in a non-Florida resident in 2013 (cases in non-Florida residents are excluded from data in this report).

#### Summary of Case Demographics





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Ehrlichiosis/anaplasmosis cases were missing 14.3% of ethnicity data in 2009, 7.1% of ethnicity data in 2010, 7.1% of race data in 2010, 7.7% of ethnicity data in 2011, 7.7% of race data in 2011, 10.7% of ethnicity data in 2012, and 7.1% of race data in 2012.

#### **Summary of Case Factors**

Summary	Number	
Number of cases	23	
Case classification	Number	(Percent)
Confirmed	12	(52.2)
Probable	11	(47.8)
Outcome	Number	(Percent)
Hospitalized	19	(82.6)
Died	0	(0.0)
Imported status	Number	(Percent)
Acquired in Florida	17	(73.9)
Acquired in the U.S., not Florida	5	(21.7)
Acquired outside the U.S.	0	(0.0)
Acquired location unknown	1	(4.3)
Outbreak status	Number	(Percent)
Sporadic	22	(95.7)
Outbreak-associated	0	(0.0)
Outbreak status unknown	1	(4.3)
Type of infection	Number	(Percent)
Ehrlichia chaffeensis (HME)	21	(91.3)
Anaplasma phagocytophilum (HGA)	2	(8.7)

Case counts and rates from this report may differ from those found in other vector-borne disease reports as different criteria are used to assemble the data. Other reports may use illness onset date instead of report date, or county of exposure instead of the case's county of residence.



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

# **Additional Information**

Human illness caused by *Ehrlichia chaffeensis* is referred to as human monocytic ehrlichiosis (HME). It is transmitted by the lone star tick (*Amblyomma americanum*), which is one of the most commonly encountered ticks in the southeastern U.S. Human *E. ewingii* ehrlichiosis cases, caused by *Ehrlichia ewingii* transmitted by the lone star tick, present with similar symptoms of HME and are indistinguishable from *E. chaffeensis* by serologic testing. Some cases classified as HME may actually be due to *E. ewingii*. *E. ewingii* has most frequently been identified in immunocompromised patients. Anaplasmosis is a tick-borne bacterial disease caused by *Anaplasma phagocytophilum*. It was previously known as human granulocytotropic ehrlichiosis (HGE) and thought to be caused by another species of *Ehrlichia*, but was later renamed human granulocytotropic anaplasmosis (HGA) when the bacterium classification changed from *Ehrlichia* to *Anaplasma*. HGA is transmitted by *Ixodes* species ticks, such as *Ixodes scapularis*, the black-legged tick that transmits Lyme disease. Unlike HME, most HGA cases reported in Florida are due to infections acquired in the northeastern and midwestern U.S.

Cause: Giardia parasites

Type of illness: Gastroenteritis (diarrhea, vomiting)

Transmission: Fecal-oral; including person-to-person, animal-to-person, waterborne, and foodborne

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated food/water source, ill food handler), monitor incidence over time, estimate burden of illness

Comments: From August 2008 to January 2011, laboratory-confirmed cases no longer had to be symptomatic to meet the confirmed case definition. In January 2011, the giardiasis surveillance case definition reverted back to requiring a case to be symptomatic to meet the confirmed case definition. The changes in case definition resulted in an increase in reported cases in 2009 and 2010.

#### Summary of Case Demographics

Summary			Reported Acute Giardiasis Cases and Incidence Rates per 100,000
Number of cases		1,114	Population (Restricted to Infections Acquired in Florida) by County of
Incidence rate (per	100,000 population)	5.8	Residence, Florida, 2013 (N = 774)
Change from 5-yea	r average incidence	-31.0%	97734
Age (in years)			24 1 3 4
Mean		31	
Median		30	3 2 16
Min-max		0 - 89	
Gender	Number (Percent)	Rate	18
Female	418 (37.5)	4.2	
Male	696 (62.5)	7.4	
Unknown gender	0		30 to 39 18 0 13
Race	Number (Percent)	Rate	8 1 1 1 5
White	851 (84.2)	5.6	Rate per 100 000 population
Black	101 (10.0)	3.1	
Other	59 (5.8)	6.0	0.1 - 4.5
Unknown race	103		4.6 - 8.0
Ethnicity	Number (Percent)	Rate	8.1 - 12.9
Non-Hispanic	675 (66.4)	4.6	<b>1</b> 3.0 - 25.7
Hispanic	341 (33.6)	7.5	with a second second
Unknown ethnicity	98		Note that rates based on <20 cases are not reliable and should be interpreted with caution.



Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Acute giardiasis cases were missing 9.4% of ethnicity data in 2009, 10.4% of race data in 2009, 28.7% of ethnicity data in 2010, 28.6% of race data in 2010, 13.1% of ethnicity data in 2011, 12.3% of race data in 2011, 13.2% of ethnicity data in 2012, 12.4% of race data in 2012, 8.8% of ethnicity data in 2013, and 9.2% of race data in 2013

# Giardiasis, Acute

#### **Summary of Case Factors**

Summary	Number	Reported Acute Giardiasis Cases by Month of Occurrence Case
Number of cases	1,114	Classification Outcome Sensitive Situation Imported Status
Case classification	Number (Percent)	and Outbrook Statuo, Elorida
Confirmed	1,091 (97.9)	and Oubleak Status, Fiorida
Probable	23 (2.1)	Month of Occurrence, Annual to 5-Year Comparison
Outcome	Number (Percent)	
Hospitalized	113 (10.1)	g 150 -
Died	1 (0.1)	
Sensitive situation	Number (Percent)	Ê 50 -
Daycare attendee	57 (5.1)	
Daycare staff	3 (0.3)	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Health care staff	18 (1.6)	Month
Food handler	10 (0.9)	2013 - Previous 5-year average
Imported status	Number (Percent)	
Acquired in Florida	774 (69.5)	Case Classification Trend Outcome Trend
Acquired in the U.S., not Florida	45 (4.0)	
Acquired outside the U.S.	223 (20.0)	8 80%
Acquired location unknown	72 (6.5)	
Outbreak status	Number (Percent)	
Sporadic	1,001 (89.9)	
Outbreak-associated	96 (8.6)	
Outbreak status unknown	17 (1.5)	2009 2010 2011 2012 2013 2009 2010 2011 2012 2013
		Died
Sensitive	Situation Trend	Imported Status Trend Outbreak Status Trend
- 08 case		
ar of		
40 -		
z o		
2009 2010	2011 2012 2013	2009 2010 2011 2012 2013 2009 2010 2011 2012 2013
	Year	Year Year Year
- Daycare atte	f – – Food handler	Acquired In FL - Acquired In U.S., not FL - Sporadic Outbreak-associated

Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

Cause: Neisseria gonorrhoeae bacteria

- Type of illness: Frequently asymptomatic; sometimes abnormal discharge from vagina or penis or burning sensation when urinating
- Transmission: Sexually transmitted disease (STD) spread by anal, vaginal, or oral sex and sometimes from mother to child during pregnancy or delivery
- Reason for surveillance: Effective interventions implemented immediately for every case, monitor incidence over time, estimate burden of illness, evaluate treatment and prevention programs
- Comments: Incidence is highest among 20- to 24-year-olds, followed closely by 15- to 19-year-olds. Incidence has declined nationally and in Florida in the past five years. A shift in treatment guidelines and recommendations for screening of women under the age of 25 likely contributed to the decrease in cases.

### **Summary of Case Demographics**

Summary			Reported Gonorrhea Cases and Incidence Rates per 100,000 Population
Number of cases		21,073	by County of Residence, Florida, 2013 (N = 21,073)
Incidence rate (per	100,000 population)	109.1	
Change from 5-yea	r average incidence	-0.9%	500 84 150 27 <sup>8</sup> 81
Age (in years)			23 13 553 8 10 19 18 2300
Mean		27	
Median		24	
Min-max		0 - 87	52 53
Gender	Number (Percent)	Rate	387 525
Female	9,822 (46.7)	99.5	
Male	11,202 (53.3)	118.6	194
Unknown gender	49		1,424 2,036 593 162 300
Race	Number (Percent)	Rate	443 4 19 260
White	5,466 (32.0)	36.1	Poto por 100 000 population
Black	11,503 (67.3)	358.1	
Other	117 (0.7)	11.9	
Unknown race	3,987		68.2 - 104.9
Ethnicity	Number (Percent)	Rate	105.0 - 162.8
Non-Hispanic	14,276 (89.3)	96.6	<b>162.9 - 261.7</b>
Hispanic	1,719 (10.7)	37.8	
Unknown ethnicity	5,078		
			Note that rates based on <20 cases are not reliable and should be interpreted with caution.



Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Gonorrhea cases were missing 18.2% of ethnicity data in 2009, 11.3% of race data in 2009, 12.4% of ethnicity data in 2010, 9.1% of race data in 2010, 15.0% of ethnicity data in 2011, 12.3% of race data in 2011, 19.8% of ethnicity data in 2012, 10.8% of race data in 2012, 24.1% of ethnicity data in 2013, and 18.9% of race data in 2013.

Cause: HIV

Type of illness: Flu-like illness at primary infection, causes severe damage to immune system leading to AIDS

- Transmission: Anal or vaginal sex; blood exposure (e.g., sharing drug needles, receiving infected blood transfusion [rare due to donor screening); or from mother to child during pregnancy, delivery, or breast-feeding
- Reason for surveillance: Enhance efforts to prevent HIV transmission, improve allocation of resources for treatment services, and assist in evaluating the impact of public health interventions
- Comments: The expansion of electronic laboratory reporting (ELR) in 2007 led to an artificial peak in newly reported cases in 2008, followed by a general decline in reported cases through 2012. Additional expansion of ELR in 2012 was followed by another increase in newly reported cases of HIV infection in 2013. These trends were observed across most race, sex, and risk groups throughout the state.

#### **Summary of Case Demographics**

Summary			Reported HIV Infection Cases and Incidence Rates per 100.000
Number of cases		5.938	Population by County of Residence, Florida, 2013 ( $N = 5.830$ )
Incidence rate (per Change from 5-yea	100,000 population) r average incidence	30.7 +3.6%	71 15 18 5 1 5 1 7 7
Age (in years)			
Mean		39	
Median		38	3 - 32 - 12
Min-max		0 - 87	42 99
Gender	Number (Percent)	Rate	9 12 40 63
Female	1,386 (23.3)	14.0	49
Male	4,552 (76.7)	48.2	210 403 111 86 12
Unknown gender	0		46 3 5 10
Race	Number (Percent)	Rate	52 2 9 19
White	3,079 (51.9)	20.4	Rate per 100,000 population
Black	2,641 (44.5)	82.2	
Other	211 (3.6)	21.5	15 2 - 24 6
Unknown race	7		24.7 - 39.3
Ethnicity	Number (Percent)	Rate	<b>39.4 - 58.5</b>
Non-Hispanic	4,293 (73.8)	29.1	
Hispanic	1,523 (26.2)	33.5	in a substitute with
Unknown ethnicity	122		County totals exclude Department of Corrections cases (n=108).



### Additional Information

HIV infection cases tend to represent a more current picture of the AIDS epidemic. For HIV infection cases in men reported in 2013, male-to-male sexual contact was the most common risk factor (77.3%), followed by heterosexual contact (16.4%).

In 2013, HIV infection cases by race and ethnicity were more evenly distributed among adult men compared to adult women; 65.6% of infected adult women are black.

From 1979 to 2013, 1,208 perinatally infected babies were born in Florida. The birth of HIVinfected babies rose from 1979 through 1993. In April 1994, the U.S. Public Health Service released guidelines for use of zidovudine (ZDV), also known as azidothymidine (AZT), to reduce perinatal HIV transmission. Beginning in October 1996, Florida law required the offering of HIV testing to pregnant women, resulting in more HIV-positive women being offered ZDV during their pregnancies. Enhanced perinatal surveillance systems have documented increased use of ZDV among exposed infants and HIV-infected mothers at the prenatal, intrapartum, delivery and neonatal stages.

In the past few years, the use of other medical therapies, including protease inhibitors, has supplemented the use of ZDV for both infected mothers and their babies. The use of these medical therapies has been accompanied by a decrease in the number of perinatally HIV-infected infants and is responsible for the dramatic decline in perinatally acquired HIV/AIDS since 1994. Other initiatives in Florida have also contributed to the reduction in perinatal cases, including Targeted Outreach to Pregnant Women Act programs, the assignment of perinatal nurses to the most heavily impacted counties, social marketing and provider education. Combined, these successful initiatives have resulted in a 90.9% decline in perinatally infected births in Florida from 110 cases in 1993 to 10 cases in 2013.

For information on AIDS, please see the AIDS chapter within this section (page 11).



Please visit the AIDS Surveillance website to access additional information at www.FloridaHealth.gov/diseasesand-conditions/aids/surveillance/index.html.

To locate services across the state please visit www.FloridaHealth.gov/diseases-and-conditions/aids/index.html.

#### Cause: Haemophilus influenzae bacteria

- Type of illness: Can present as pneumonia, bacteremia, septicemia, meningitis, epiglottitis, septic arthritis, cellulitis, or purulent pericarditis; less frequently endocarditis and osteomyelitis
- Transmission: Person-to-person; inhalation of infective respiratory tract droplets or direct contact with infective respiratory tract secretions
- Reason for surveillance: Identify and control outbreaks, monitor incidence over time, monitor effectiveness of immunization programs and vaccines

Comments: *H. influenzae* serotype b (Hib) is a vaccine-preventable disease. Meningitis and septicemia due to Hib in children <5 years old have almost been eliminated since the introduction of effective Hib conjugate vaccines. One Hib case was reported in 2013, compared to three in 2012, zero in 2011, and four in 2010.

### **Summary of Case Demographics**

Summary			Reported H. influenzae Invasive Disease in Children <5 Years Old and
Number of cases		22	Incidence Rates per 100,000 Population (Restricted to Infections
Incidence rate (per	100,000 population)	2.0	Acquired in Florida) by County of Residence, Florida, 2013 (N = 21)
Change from 5-year	r average incidence	-16.5%	
Age (in years)			A A A A A A A A A A A A A A A A A A A
Mean		1	
Median		0	
Min-max		0 - 4	Y John LL
Gender	Number (Percent)	Rate	
Female	8 (36.4)	NA	
Male	14 (63.6)	NA	
Unknown gender	0		
Race	Number (Percent)	Rate	
White	9 (40.9)	NA	Rate per 100 000 population
Black	10 (45.5)	NA	
Other	3 (13.6)	NA	0.1 - 2.6
Unknown race	0		2.7 - 4.2
Ethnicity	Number (Percent)	Rate	4.3 - 6.8
Non-Hispanic	16 (72.7)	NA	<b>6</b> .9 - 10.9
Hispanic	6 (27.3)	NA	with a second second
Unknown ethnicity	0		Note that rates based on <20 cases are not reliable and should be interpreted with caution.



#### **Summary of Case Factors**

Summary	Number		Re
Number of cases	22		
Case classification	Number	(Percent)	
Confirmed	22	(100.0)	
Probable	0	(0.0)	
Outcome	Number	(Percent)	es
Hospitalized	19	(86.4)	cas
Died	1	(4.5)	erof
Imported status	Number	(Percent)	, de la
Acquired in Florida	21	(95.5)	ź
Acquired in the U.S., not Florida	0	(0.0)	
Acquired outside the U.S.	0	(0.0)	
Acquired location unknown	1	(4.5)	
Outbreak status	Number	(Percent)	
Sporadic	20	(90.9)	
Outbreak-associated	1	(4.5)	100% า
Outbreak status unknown	1	(4.5)	g 80% -
			ö



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

Cause: Hepatitis A virus (HAV)

Type of illness: Inflammation of the liver; sometimes asymptomatic; symptoms can include fever, malaise, loss of appetite, nausea, vomiting, abdominal discomfort, and jaundice

Transmission: Fecal-oral; including person-to-person, waterborne, and foodborne

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated food product, ill food handler), monitor effectiveness of immunization programs

Comments: Hepatitis A is a vaccine-preventable disease. Incidence has continued to decline in Florida as well as nationally, likely due to increased use of the hepatitis A vaccine and recommendations to vaccinate as part of the routine childhood immunization schedule. A large portion of infections are acquired while traveling in other countries (27.1% in 2013).

# Summary of Case Demographics





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Hepatitis A cases were missing 6.3% of race data in 2009, 5.6% of ethnicity data in 2010, 6.8% of ethnicity data in 2013, and 5.3% of race data in 2013.

# **Hepatitis A**

### **Summary of Case Factors**



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

#### **Additional Information**

In 2013, 165 confirmed hepatitis A cases from 10 states were identified as part of a multistate outbreak linked to Townsend Farms Organic Antioxidant Blend. The product contained pomegranate seeds from a company in Turkey that were contaminated with hepatitis A. The Food and Drug Administration traceback and traceforward investigation determined that the contaminated pomegranate seeds were also included in a Harris Teeter product, however no cases were identified who consumed this product. While Florida did not have any reported cases associated with this multistate outbreak, some county health departments did offer post-exposure prophylaxis to residents from other states who had been exposed to the product and were currently in Florida at the time the incident was reported.

Cause: Hepatitis B virus (HBV)

Type of illness: Inflammation of the liver; sometimes asymptomatic; symptoms can include malaise, loss of appetite, nausea, vomiting, abdominal discomfort, and jaundice; ~5% of infections become chronic

Transmission: Blood exposure (e.g., sharing drug needles), anal or vaginal sex, percutaneous exposure (e.g., tattooing, needle sticks), or from mother to child during pregnancy or delivery

Reason for surveillance: Enhance efforts to prevent HBV transmission, identify and prevent outbreaks, improve allocation of resources for treatment services, assist in evaluating the impact of public health interventions, monitor effectiveness of immunization programs

Comments: Hepatitis B is a vaccine-preventable disease. Incidence declined over the last decade due to increased vaccination. An enhanced surveillance project in 2012 has led to an increase in cases identified.

#### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Acute hepatitis B cases were missing 6.0% of ethnicity data in 2009, 5.7% of race data in 2009, 11.7% of ethnicity data in 2010, 11.1% of race data in 2010, 8.5% of ethnicity data in 2011, 7.2% of race data in 2011, 8.9% of ethnicity data in 2012, 6.8% of race data in 2012, 9.9% of ethnicity data in 2013, and 8.0% of race data in 2013.

# Hepatitis B, Acute

#### **Summary of Case Factors**

Summary	Number	
Number of cases	375	
Case classification	Number	(Percent)
Confirmed	323	(86.1)
Probable	52	(13.9)
Outcome	Number	(Percent)
Hospitalized	257	(68.5)
Died	8	(2.1)
Imported status	Number	(Percent)
Acquired in Florida	320	(85.3)
Acquired in the U.S., not Florida	5	(1.3)
Acquired outside the U.S.	3	(0.8)
Acquired location unknown	47	(12.5)
Outbreak status	Number	(Percent)
Sporadic	337	(89.9)
Outbreak-associated	17	(4.5)
Outbreak status unknown	21	(5.6)

The number of reported acute hepatitis B cases continued to slowly increase in 2013, partially due to an enhanced surveillance project focusing on chronic hepatitis in young adults implemented in 2012. The additional follow-up has resulted in identifying acute cases that would otherwise have been misclassified as chronic. The increase was seen in both genders, blacks and whites, but not in Hispanics.

The 12 outbreak-associated cases were each linked to one other case; nine sexual links, two household links, and one personal contact link. Both the increase in cases and outbreakassociated cases can likely be attributed to improved reporting and surveillance as more providers report laboratory results electronically.

In 2013, 267 cases (71.2%) were interviewed to determine possible risk factors. Risk factors reported are shown to the right. Note that a person can report multiple risk factors. New infections of viral hepatitis are most frequently attributed to drug use, likely leading to sharing of injection equipment or risky sexual behaviors.



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

#### Cause: Hepatitis B virus (HBV)

- Type of illness: Acute or chronic illness; infection is identified when a woman tests positive for hepatitis B surface antigen (HBsAg) during pregnancy, regardless of symptoms; up to 90% of perinatal infections become chronic
- Transmission: Anal or vaginal sex, blood exposure (e.g., sharing drug needles), percutaneous exposure (e.g., tattooing, needle sticks), or from mother to child during pregnancy or delivery
- Reason for surveillance: Identify individual cases and implement control measures to prevent HBV transmission from mother to baby; evaluate effectiveness of screening programs
- Comments: Hepatitis B is a vaccine-preventable disease. Identification of HBsAg in pregnant women allows for appropriate treatment of their infants, significantly reducing the infants' risk of contracting HBV. In the U.S., Asians have a high HBsAg carrier rate (7-16%) and account for most infections in the "other" race category.

#### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Hepatitis B surface antigen in pregnant women cases were missing 6.5% of ethnicity data in 2009, 6.2% of race data in 2009, 8.0% of ethnicity data in 2010, 6.6% of race data in 2010, 6.2% of ethnicity data in 2011, 5.3% of ethnicity data in 2012, 9.3% of ethnicity data in 2013, and 7.3% of race data in 2013.

#### **Summary of Case Factors**

Summary	Number	
Number of cases	482	
Outcome	Number	(Percent)
Hospitalized	52	(10.8)
Died	0	(0.0)
Imported status	Number	(Percent)
Acquired in Florida	181	(37.6)
Acquired in the U.S., not Florida	12	(2.5)
Acquired outside the U.S.	120	(24.9)
Acquired location unknown	169	(35.1)

According to the 2013 National Immunization Survey, the estimated HBV vaccination coverage for birth dose administered from birth through 3 days of age was  $74.2\% \pm 1.4$  in the U.S. and  $58.0 \pm 8.3$  in Florida.



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired.

Cause: Hepatitis C virus (HCV)

- Type of illness: Inflammation of the liver; sometimes asymptomatic; symptoms can include fever, malaise, loss of appetite, nausea, vomiting, abdominal discomfort, and jaundice
- Transmission: Blood exposure, with most infections occurring due to sharing injection drug equipment; rarely from mother to child during pregnancy or delivery or by anal or vaginal sex
- Reason for surveillance: Enhance efforts to prevent HCV transmission, identify and prevent outbreaks, improve allocation of resources for treatment services, assist in evaluating the impact of public health interventions and screening programs
- Comments: A change in case definition in 2008 and an enhanced surveillance project focusing on chronic infections in young adults implemented in 2012 has led to an increase in the number of acute cases identified.

#### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Acute hepatitis C cases were missing 13.0% of ethnicity data in 2009, 11.7% of race data in 2009, 11.4% of ethnicity data in 2010, 6.7% of race data in 2010, and 7.1% of ethnicity data in 2012.

# Hepatitis C, Acute

#### **Summary of Case Factors**

Summary	Number	
Number of cases	220	
Case classification	Number	(Percent)
Confirmed	134	(60.9)
Probable	86	(39.1)
Outcome	Number	(Percent)
Hospitalized	180	(81.8)
Died	2	(0.9)
Imported status	Number	(Percent)
Acquired in Florida	172	(78.2)
Acquired in the U.S., not Florida	3	(1.4)
Acquired outside the U.S.	0	(0.0)
Acquired location unknown	45	(20.5)
Outbreak status	Number	(Percent)
Sporadic	195	(88.6)
Outbreak-associated	9	(4.1)
Outbreak status unknown	16	(7.3)

Variation in identified disease incidence at the local level likely reflects differences in the true incidence of disease and differences in the vigor with which surveillance is performed. Conducting surveillance for acute hepatitis C is difficult because acute infection is differentiated from chronic infection only by the presence of acute clinical symptoms. Most acute cases are identified only when symptoms warrant hospitalization. The majority of hepatitis C laboratory case reports received by the Florida Department of Health (DOH) are from laboratories and do not include symptom information. Additional followup is required to determine if they represent acute or chronic infection, or repeated testing of a person previously reported. Not all counties have the resources to conduct these investigations due to the large volume of laboratory results received. As a result, there is variation in the number of acute hepatitis C cases identified by county.

In 2012, DOH implemented an enhanced surveillance project focusing on chronic hepatitis in young adults. Increased testing and surveillance in 2013 allowed DOH to identify the largest number of acute hepatitis C cases identified in 10



years. In 2013, 153 cases (69.5%) were interviewed to determine possible risk factors. Risk factors reported are shown above. Note that a person can report multiple risk factors. Injection drug use and non-injection drug use were the most commonly reported risk factors, which was also true in the young adult population. New infections of viral hepatitis are most frequently attributed to drug use, likely leading to sharing of injection equipment or risky sexual behaviors.

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

#### Cause: Lead

- Type of illness: Wide range of adverse health effects, from difficulty learning, sluggishness, and fatigue to seizures, coma, and death
- Exposure: Most commonly ingestion of paint dust in houses built prior to elimination of lead in paints in 1978 for children; occupational exposure for adults
- Reason for surveillance: Estimate burden among children, ensure follow-up care for identified cases, prevent new cases and exacerbation of illness, help target future public health interventions
- Comments: Prior to 2010, lead poisoning case data were primarily stored outside the state's reportable disease surveillance system, therefore only cases from 2010 to 2013 are presented in this report. Lead poisoning is most often identified in children as part of routine screening.

#### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Lead poisoning cases were missing 22.1% of ethnicity data in 2010, 30.8% of race data in 2010, 26.0% of ethnicity data in 2011, 25.7% of race data in 2011, 25.7% of ethnicity data in 2012, 22.7% of race data in 2012, 24.6% of ethnicity data in 2013, and 25.9% of race data in 2013.

# Lead Poisoning

### **Summary of Case Factors**

Summary	Number	
Number of cases	683	
Outcome	Number	(Percent)
Hospitalized	6	(0.9)
Died	0	(0.0)
Imported status	Number	(Percent)
Exposed in Florida	506	(74.1)
Exposed in the U.S., not Florida	15	(2.2)
Exposed outside the U.S.	58	(8.5)
Exposed location unknown	104	(15.2)
Outbreak status	Number	(Percent)
Sporadic	607	(88.9)
Outbreak-associated	28	(4.1)
Outbreak status unknown	48	(7.0)

Reported Lead Poisoning Cases by Month of Occurrence, Outcome, Imported Status, and Outbreak Status, Florida Month of Occurrence, Annual to 3-Year Comparison 200 Cases 150 Number of 100 50 n Oct Nov Dec Jan Feb Ma May Jun Jul Sep Apr Aua Month 2013 -- Previous 3-year average Outcome Trend 20 10 Number hospitalized Number died 8 15 6 10 4 5 2 0 0 2010 2011 2012 2013 2009 Year Hospitalized Imported Status Trend Outbreak Status Trend 1,000 1.000 Number of cases 800 800 600 600 400 400 200 200

0

2009

2010

Sporadic

2011

Year

2012

- Outbreak-associated

2013

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the exposure most likely occurred. Outbreak-associated indicates that two or more cases are epidemiologically linked.

\_\_\_\_\_

2012

Exposed in U.S., not FL

2013

2011

Yea

2010

Number of cases

0

2009

Exposed outside U.S.

Exposed in FL

#### **Additional Information**

In 2012, the Centers for Disease Control and Prevention (CDC) defined a new reference level of 5 micrograms per deciliter ( $\mu$ g/dL) to identify people with elevated blood lead levels. In Florida, the surveillance case definition remains unchanged at  $\geq$ 10  $\mu$ g/dL.

The incidence of lead poisoning is highest in 1- to 4-year-olds, as routine lead screening is recommended by the CDC for children in this age group who are Medicaid-enrolled or eligible, foreign-born or otherwise identified as high-risk. The incidence rate of lead poisoning is much higher in men than women; this difference is mostly due to adult occupational cases of lead poisoning. Differences by gender among children are not observed. The large number of cases reported in Hillsborough County are primarily due to occupational screening.

Cause: Legionella bacteria

Type of illness: Common symptoms include fever, muscle pain, cough, and pneumonia

Transmission: Airborne; inhalation of aerosolized water containing the bacteria

Reason for surveillance: Identify and control outbreaks, identify and mitigate common reservoirs, monitor incidence over time, estimate burden of illness

Comments: The elderly and those with weakened immune systems are at highest risk for developing disease. Environmental assessments are conducted for outbreaks to determine the source; recently identified sources in Florida and the U.S. include decorative fountains, hot tubs, cooling towers (air-conditioning units for large buildings), and potable water systems. Increasing incidence in Florida is consistent with the increase observed nationally over the past decade.

# **Summary of Case Demographics**





# Legionellosis

#### **Summary of Case Factors**

Summary	Number	
Number of cases	250	
Outcome	Number	(Percent)
Hospitalized	248	(99.2)
Died	25	(10.0)
Imported status	Number	(Percent)
Acquired in Florida	222	(88.8)
Acquired in the U.S., not Florida	13	(5.2)
Acquired outside the U.S.	3	(1.2)
Acquired location unknown	12	(4.8)
Outbreak status	Number	(Percent)
Sporadic	235	(94.0)
Outbreak-associated	9	(3.6)
Outbreak status unknown	6	(2.4)

Reported Legionellosis Cases by Month of Occurrence, Outcome, Imported Status, and Outbreak Status, Florida Month of Occurrence, Annual to 5-Year Comparison 50 Number of cases 40 30 20 10 n Jul Sep Oct Nov Dec Feb Ma May Jun Aug Jan Apr Month 2013 -- Previous 5-year average Outcome Trend 100 08 80 09 40 00 40 00 300 Number hospitalized 200 100 20 0 0 2009 2010 2011 2012 2013 Year lospitalized Imported Status Trend Outbreak Status Trend 250 250 Number of cases Number of cases 200 200 150 150 100 100 50 50

0

2009

2010

Sporadic

2011

Year

2013

2012

- Outbreak-associated

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

0

2009

Acquired outside U.S.

Acquired in FL

2010

2011

Yea

2012

Acquired in U.S., not FL

2013

#### **Additional Information**

In Florida, sporadic cases of both Legionnaires' disease and Pontiac fever (two distinct presentations of legionellosis) are monitored. Four outbreaks were identified in 2013 involving a hospital, an adult living facility, a continuing care retirement community, and an RV resort. Hot water systems, hot tubs, and cooling towers were identified as the sources of the outbreaks.

Cause: Listeria monocytogenes bacteria

Type of illness: Most people infected with *Listeria* have "invasive" infection, in which the bacteria has spread beyond the gastrointestinal tract; initial illness is often characterized by fever and diarrhea

Transmission: Foodborne; transmitted to infants during pregnancy

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated food product), monitor incidence over time, estimate burden of illness, reduce stillbirths

Comments: Listeriosis primarily affects older adults and people with weakened immune systems, pregnant women, and newborns. Infection during pregnancy can cause fetal loss, preterm labor, stillbirths, and illness or death in newborn infants.

### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Listeriosis cases were missing 5.3% of race data in 2011, 6.1% of ethnicity data in 2012, 12.1% of race data in 2012, and 7.3% of ethnicity data in 2013.

# Listeriosis

#### Summary of Case Factors

Summary	Number	
Number of cases	41	
Outcome	Number	(Percent)
Hospitalized	38	(92.7)
Died	9	(22.0)
Imported status	Number	(Percent)
Acquired in Florida	40	(97.6)
Acquired in the U.S., not Florida	0	(0.0)
Acquired outside the U.S.	1	(2.4)
Acquired location unknown	0	(0.0)
Outbreak status	Number	(Percent)
Sporadic	41	(100.0)
Outbreak-associated	0	(0.0)
Outbreak status unknown	0	(0.0)



Sporadic

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

Acquired outside U.S.

#### Additional Information

One 2013 listeriosis case was originally associated with a multistate cluster potentially linked to deli meats (Centers for Disease Control and Prevention [CDC] cluster code 1311MAGX6-1). However, after further analysis of the whole genome sequence of the isolate, the case was determined not to be associated with the outbreak. In March 2013, four previously reported cases matching a multistate cluster (CDC cluster code 1302MLGX6-2) were determined to be false positives due to contaminated laboratory culture media. These cases were not counted for surveillance purposes and are not included in the 41 cases reported in 2013. The manufacturer of the culture media notified all customers of the issue and reinforced the need to visually inspect all non-sterile prepared media prior to use to ensure there is no surface or subsurface contamination.

Cause: Borrelia burgdorferi bacteria

Type of illness: Acute illness or late manifestation; common acute symptoms include fever, headache, fatigue, and erythema migrans (characteristic bull's-eye rash); late manifestation symptoms can include Bell's palsy, severe joint pain and swelling, and shooting pain

Transmission: Tick-borne; bite of infective tick

Reason for surveillance: Monitor incidence over time, estimate burden of illness and degree of endemicity, target areas of high incidence for prevention education

Comments: A case definition change in 2008 expanding the acceptable laboratory criteria contributes significantly to the increase in cases starting in 2008. Most cases (~65-85%) are imported from other states, primarily the Northeast and Midwest U.S. The increase in 2013 was due to an increase in imported cases.

### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Lyme disease cases were missing 5.5% of ethnicity data in 2009, 10.9% of race data in 2009, 10.7% of ethnicity data in 2010, 8.3% of race data in 2010, 10.4% of ethnicity data in 2011, 8.7% of race data in 2011, 6.8% of ethnicity data in 2012, 6.8% of race data in 2012, 10.9% of ethnicity data in 2013, and 13.0% of race data in 2013.

Note that the majority of Lyme disease cases are acquired outside of Florida.

# Lyme Disease

#### **Summary of Case Factors**

Summary	Number	
Number of cases	138	
Case classification	Number	(Percent)
Confirmed	87	(63.0)
Probable	51	(37.0)
Outcome	Number	(Percent)
Hospitalized	12	(8.7)
Died	0	(0.0)
Imported status	Number	(Percent)
Acquired in Florida	21	(15.2)
Acquired in the U.S., not Florida	109	(79.0)
Acquired outside the U.S.	3	(2.2)
Acquired location unknown	5	(3.6)
Outbreak status	Number	(Percent)
Sporadic	136	(98.6)
Outbreak-associated	1	(0.7)
Outbreak status unknown	1	(0.7)

Case counts and rates from this report may differ from those found in other vector-borne disease reports as different criteria are used to assemble the data. Other reports may use illness onset date instead of report date, or county of exposure instead of the case's county of residence.



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

Cause: Plasmodium vivax, P. falciparum, P. malariae, P. ovale parasites

Type of illness: Uncomplicated or severe illness; common symptoms include high fever with chills, rigor, sweats, headache, nausea, and vomiting

Transmission: Bite of infective mosquito; rarely by blood transfusion or organ transplant

Reason for surveillance: Identify individual cases and implement control measures to prevent endemicity, monitor incidence over time, estimate burden of illness

Comments: There were no Florida-acquired malaria infections reported in 2013. All infections were associated with travel abroad to countries with endemic transmission (primarily African countries). Imported malaria cases peaked in 2010 after the January 2010 earthquake in Haiti resulted in an influx of Haitians in Florida, but decreased from 2011 to 2013. The last malaria case possibly acquired in Florida was reported in 2010.

# **Summary of Case Demographics**





# Malaria

### **Summary of Case Factors**

Summary	Number	
Number of cases	54	
Outcome	Number (Percent	t)
Hospitalized	45 (83.3)	
Died	1 (1.9)	
Imported status	Number (Percent	t)
Acquired in Florida	0 (0.0)	
Acquired in the U.S., not Florida	0 (0.0)	
Acquired outside the U.S.	54 (100.0)	
Acquired location unknown	0 (0.0)	
Outbreak status	Number (Percent	t)
Sporadic	48 (88.9)	
Outbreak-associated	5 (9.3)	
Outbreak status unknown	1 (1.9)	
Region where infection acquired	Number (Percent	t)
Africa	33 (61.1)	
Central America/Caribbean	8 (14.8)	
South America	8 (14.8)	
Asia	4 (7.4)	
Unknown	1 (1.9)	

Case counts and rates from this report may differ from those found in other vector-borne disease reports as different criteria are used to assemble the data. Other reports may use illness onset date instead of report date, or county of exposure instead of the case's county of residence.



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

Cause: Neisseria meningitidis bacteria

Type of illness: Neurological (meningitis) or bloodstream infections (septicemia) most common

- Transmission: Person-to-person; direct contact or inhalation of respiratory droplets from nose or throat of colonized or infected person
- Reason for surveillance: Immediate public health actions are taken in response to every suspected meningococcal disease case to prevent secondary transmission, monitor effectiveness of immunization programs and vaccines

Comments: Five *N. meningitidis* serogroups cause almost all invasive disease (A, B, C, Y and W135). Vaccines provide protection against serogroups A, C, Y, and W135. In 2013, a high proportion of infections were due to serogroup W135 in Florida, primarily in Miami-Dade and Broward counties.

### **Summary of Case Demographics**





#### Summary of Case Factors

Summary	Number	Reported Maningococcal Disease Cases by Month of
Number of cases	58	Occurrence, Case Classification, Outcome, Imported Status, and
Case classification	Number (Percent)	Outbrook Status, Elorido
Confirmed	57 (98.3)	Ouwieak Status, Fiorida
Probable	1 (1.7)	Month of Occurrence, Annual to 5-Year Comparison
Outcome	Number (Percent)	
Hospitalized	56 (96.6)	8 -
Died	6 (10.3)	
Imported status	Number (Percent)	ਊ <sup>4</sup> 1
Acquired in Florida	56 (96.6)	z 0 + $z$
Acquired in the U.S., not Florida	0 (0.0)	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Acquired outside the U.S.	1 (1.7)	Month
Acquired location unknown	1 (1.7)	2013 - Previous 5-year average
Outbreak status	Number (Percent)	
Sporadic	57 (98.3)	Case Classification Trend Outcome Trend
Outbreak-associated	0 (0.0)	
Outbreak status unknown	1 (1.7)	§ 80% -
Serogroup	Number (Percent)	
Group W135	21 (36.2)	
Group B	13 (22.4)	ğ 20% -
Group C	11 (19.0)	
Group Y	9 (15.5)	2009 2010 2011 2012 2013 2009 2010 2011 2012 2013 Year
Non-groupable	2 (3.4)	
Unknown	2 (3.4)	
		Imported Status Trend Outbreak Status Trend
		ž z
		2009 2010 2011 2012 2013 2009 2010 2011 2012 2013
		Year Year Year
		Acquired in r.L Acquired in O.S., not r.L Sporadic - Outbreak-associated
		(

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

# **Additional Information**

Beginning in late 2008, a dominant clone of N. meningitidis W135 emerged in south Florida. This N. meningitidis clone has caused the majority of invasive meningococcal disease cases in south Florida over the past 7 years and has also caused an increase in invasive meningococcal disease in the region. For additional information on the initial cluster, please see the article below.

Doyle TJ, Mejia-Echeverry A, Fiorella P, Leguen F, Livengood J, Kay R, et al. 2010. Cluster of Serogroup W135 Meningococci, Southeastern Florida, 2008–2009. Emerging Infectious Diseases, 16(1):113-115. Available at wwwnc.cdc.gov/eid/article/16/1/09-1026 article.

S

Cause: Bordetella pertussis bacteria

Type of illness: Respiratory infection; early symptoms last 1-2 weeks and include runny nose, low-grade fever, mild cough, and apnea; progresses to paroxysmal cough or "whoop" with posttussive vomiting and exhaustion

Transmission: Person-to-person; inhalation of infective, aerosolized respiratory tract droplets

Reason for surveillance: Identify cases for treatment to prevent death, identify and prevent outbreaks, limit transmission in settings with infants or others who may transmit to infants, monitor effectiveness of immunization programs and vaccines

Comments: Pertussis incidence has increased nationwide since the 1980s. There was sharp increase in incidence in Florida in 2012, and that increase continued in 2013. Over 50% of the cases reported in 2013 were outbreak-associated. Incidence is highest in infants <1 year old.

# **Summary of Case Demographics**





# Pertussis

### **Summary of Case Factors**



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

#### **Additional Information**

Older adults often have milder infections and serve as the reservoirs and sources of infection for infants and young children. One dose of Tdap (tetanus, diphtheria, pertussis) vaccine became a requirement for children entering, attending, or transferring to the seventh grade during the 2009-2010 school year.

There was a large increase in reported pertussis cases in both 2012 and 2013, 53.6% of which were outbreakassociated in 2013. The majority of outbreak-associated cases in 2013 were among household members or close contacts, with the exception of an outbreak in Columbia County associated with a church involving 109 cases.

Cause: Pesticides

Type of illness: Respiratory, gastrointestinal, neurological, dermal, etc., depending on the agent

Exposure: Depends on agent; dermal, inhalation, and ingestion are most common

Reason for surveillance: Identify and mitigate persistent sources of exposure, identify populations at risk, evaluate trends in environmental conditions and occupational exposure, improve administration and proper use of pesticides to reduce exposure

Comments: Starting in January 2012, suspect sporadic cases (i.e., not part of a cluster) and suspect cases associated with non-occupational exposures (typically limited household exposures) were no longer reportable, resulting in a substantially decreased number of cases reported in 2012. Note that suspect cases are included in acute pesticide-related illness and injury case counts and rates in this report.

#### **Summary of Case Demographics**





Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case.

#### **Additional Information**

Reported Acute Pesticide-Related Illness and Injury Cases b	y Health Effects*
Severity of Illness, and Activity at the Time of Exposure, Flo	orida, 2011-2013

		,eaa, <u>_</u> e	
Category	2011	2012	2013
Health Effects*	Number (Percent)	Number (Percent)	Number (Percent)
Respiratory	143 (31.7)	45 (63.4)	33 (48.5)
Gastrointestinal	152 (33.7)	40 (56.3)	21 (30.9)
Neurological	173 (38.4)	39 (54.9)	33 (48.5)
Ocular	172 (38.1)	23 (32.4)	25 (36.8)
Dermal	131 (29.0)	12 (16.9)	11 (16.2)
Severity of Illness	Number (Percent)	Number (Percent)	Number (Percent)
Low	367 (81.4)	44 (62.0)	65 (95.6)
Moderate	79 (17.5)	22 (31.0)	2 (2.9)
High	5 (1.1)	4 (5.6)	1 (1.5)
Death	0 (0.0)	1 (1.4)	0 (0.0)
Activity at Time of Exposure	Number (Percent)	Number (Percent)	Number (Percent)
Applying pesticide	154 (34.1)	18 (25.4)	9 (13.2)
Routine indoor living	73 (16.2)	22 (31.0)	8 (11.8)
Routine outdoor living	67 (14.9)	4 (5.6)	2 (2.9)
Routine work or activity not related to pesticide exposure	7 (1.6)	14 (19.7)	20 (29.4)
Other	6 (1.3)	12 (16.9)	21 (30.9)
Unknown	144 (31.9)	1 (1.4)	8 (11.8)
Total	451	71	68

\* Cases must report two or more health effects, therefore percentages will not total to 100%.



<sup>r</sup> Note that there may be multiple exposure types and routes for one case.

Definitions of exposure types:

- Drift: Person was exposed via the movement of pesticides away from the treatment site.
- Targeted: Person was exposed to an application of a pesticide material released at the target site, and not carried from the target site by air.
- Indoor air: Person was exposed via indoor air contamination (this includes residential, commercial and greenhouse indoor air).
- Surface: Person was exposed via contact with pesticide residues on a treated surface (e.g., plant material, carpets, or a treated animal) or entry into an outdoor treated area.
- Leak/spill: Person was exposed to a leak or spill of pesticide material (e.g., from a leaking container or equipment, flood waters, emergency response).

Cause: Rabies virus

Type of illness in humans: Fever, headache, insomnia, confusion, hallucinations, increase in saliva, difficulty swallowing, and fear of water; death usually occurs within days of symptom onset

Transmission: Infectious saliva or nervous tissue in contact with open wound or mucous membrane via bite

Reason for surveillance: Identify and mediate sources of exposure, ensure effective preventative measures are implemented

Comments: Incidence of human exposures to suspected rabid animals for which post-exposure prophylaxis (PEP) is recommended has increased since case reporting was initiated. A multistate and multicountry rabies organ transplant investigation in 2013 resulted in 564 people contacted and assessed for exposure and 71 receiving PEP, including many Florida residents.

# **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Possible exposure to rabies cases were missing 14.0% of ethnicity data in 2009, 16.4% of race data in 2009, 12.1% of ethnicity data in 2010, 14.7% of race data in 2010, 9.8% of ethnicity data in 2011, 12.0% of race data in 2011, 18.3% of ethnicity data in 2012, 18.3% of race data in 2012, 15.8% of ethnicity data in 2013, and 16.8% of race data in 2013.

### **Additional Information**

The last case of human rabies acquired in Florida was in 1948. The animals most frequently diagnosed with rabies in Florida are raccoons, bats, unvaccinated cats, and foxes. Rabies is endemic in the raccoon and bat populations of Florida. Rabies frequently spreads from raccoons, and occasionally bats, to other animal species such as foxes and cats.





Laboratory testing for animal rabies is only done when animals potentially expose (e.g., bite) humans or domestic animals, thus these data do not necessarily correlate with the true prevalence of rabies by animal species in Florida. A total of 103 laboratory-confirmed rabid animals were reported in 2013.

Case counts in this report may differ from those found in other rabies reports as different criteria are used to assemble the data. Other reports use the calendar year, while this report uses report year. For additional information on calendar year versus report year, please see the paragraph on Reporting Period within Interpreting the Data in the Introduction (page vii). Note that one cat and one raccoon tested positive during the overlap of calendar year 2013 and report year 2014 and therefore will be included in the 2014 Florida Morbidity Statistics Report.



#### Laboratory-Confirmed Rabid Animals by Type of Animal, Florida, 2012 and 2013

•	•	
Type of animal	2012	2013
rype of animal	Number (Percent)	Number (Percent)
Raccoon	59 (57.8)	70 (68.0)
Bat	14 (13.7)	19 (18.4)
Cat	8 (7.8)	8 (7.8)
Fox	11 (10.8)	2 (1.9)
Skunk	2 (2.0)	2 (1.9)
Bobcat	3 (2.9)	2 (1.9)
Other	1 (1.0)	0 (0.0)
Dog	2 (2.0)	0 (0.0)
Horse	2 (2.0)	0 (0.0)
Total	102	103

Laboratory-Confirmed Rabid Animals by County, Florida, 2013 (N = 103)



Cause: Rickettsia rickettsii bacteria

Type of illness: Fever, headache, abdominal pain, vomiting, and muscle pain; rash develops in 80% of cases

Transmission: Tick-borne; bite of infective tick

Reason for surveillance: Monitor incidence over time, estimate burden of illness, monitor geographical and temporal occurrence, target areas of high incidence for prevention education

Comments: Rocky Mountain spotted fever (RMSF) incidence has increased markedly in recent years in Florida, possibly due to increased disease awareness and reporting. Most infections are acquired within Florida, primarily in the northern and central regions of the state. Cases are reported year-round without distinct seasonality, though peak transmission typically occurs during the summer months.

### **Summary of Case Demographics**

C			Penarted Packy Mountain Spotted Faver Cases and Incidence Pates per
Summary			
Number of cases		22	100,000 Population (Restricted to Infections Acquired in Florida) by
Incidence rate (per 2	100,000 population)	0.1	County of Residence, Florida, 2013 (N = 15)
Change from 5-year	r average incidence	+26.4%	
Age (in years)			All and a start of the start of
Mean		54	
Median		57	
Min-max		12 - 80	- Vinter L
Gender	Number (Percent)	Rate	
Female	9 (40.9)	NA	
Male	13 (59.1)	NA	
Unknown gender	0		(50)
Race	Number (Percent)	Rate	
White	19 (95.0)	NA	
Black	0 (0.0)	NA	Rate per 100,000 population
Other	1 (5.0)	NA	
Unknown race	2		0.6 - 0.8
Ethnicity	Number (Percent)	Rate	0.9 - 1.7
Non-Hispanic	19 (95.0)	NA	<b>1</b> .8 - 11.3
Hispanic	1 (5.0)	NA	No. martine A
Unknown ethnicity	2		Note that rates based on <20 cases are not reliable and should be interpreted with caution.



Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Rocky Mountain spotted fever cases were missing 7.7% of ethnicity data in 2010, 7.7% of race data in 2010, 25.0% of ethnicity data in 2011, 25.0% of race data in 2011, 12.9% of ethnicity data in 2012, 9.7% of race data in 2012, 9.1% of ethnicity data in 2013, and 9.1% of race data in 2013.

#### **Summary of Case Factors**

Summary	Number	
Number of cases	22	
Case classification	Number	(Percent)
Confirmed	2	(9.1)
Probable	20	(90.9)
Outcome	Number	(Percent)
Hospitalized	8	(36.4)
Died	0	(0.0)
Imported status	Number	(Percent)
Acquired in Florida	15	(68.2)
Acquired in the U.S., not Florida	4	(18.2)
Acquired outside the U.S.	2	(9.1)
Acquired location unknown	1	(4.5)
Outbreak status	Number	(Percent)
Sporadic	22	(100.0)
Outbreak-associated	0	(0.0)
Outbreak status unknown	0	(0.0)

Case counts and rates from this report may differ from those found in other vector-borne disease reports as different criteria are used to assemble the data. Other reports may use illness onset date instead of report date, or county of exposure instead of the case's county of residence.



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

#### **Additional Information**

Across the U.S., an estimated 90% of the rickettsial disease cases are RMSF. Human antibodies to spotted fever rickettsial species such as *R. parkeri*, *R. amblyommii*, *R. africae*, and *R. conorii* are known to cross-react with serologic tests for the RMSF organism *R. rickettsii*. In addition, commercial antibody testing to differentiate other spotted fever rickettsial infections (SFRs) from RMSF is currently limited. This may be one explanation for apparent changes in RMSF incidence, disease severity, and geographic distribution over time. National reporting criteria for RMSF were expanded to include all spotted SFRs in 2010, but as of 2013, the Florida surveillance case definition was limited to RMSF. Due to cross reactivity, other SFRs may be reported as RMSF. In 2013, the Centers for Disease Control and Prevention (CDC) reported increased *R. africae* activity in southern Africa. Four Florida travelers to this region developed eschar lesions at the site of a tick bite, and reported other symptoms consistent with SFR. Two of these cases were confirmed as *R. africae* by PCR testing at CDC and are not included in RMSF counts in this report. The other two cases had no confirmatory testing done and had only positive serologic testing for RMSF. These two cases were reported as RMSF and included in counts in this report, although *R. rickettsii* is not known to circulate in southern Africa and rarely is associated with eschars.

Cause: Salmonella bacteria (excluding Salmonella serotype Typhi, which causes typhoid fever and is described in Section 3: Narratives for Selected Reportable Diseases/Conditions of Infrequent Occurrence)

Type of illness: Gastroenteritis (diarrhea, vomiting)

Transmission: Fecal-oral; including person-to-person, animal-to-person, waterborne, and foodborne

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated food product, ill food handler), monitor incidence over time, estimate burden of illness

Comments: In recent years, Florida has had the highest number and one of the highest rates of salmonellosis cases of any state in the U.S. Salmonellosis rates are very high in <1-year-olds and decrease dramatically with age. The seasonal pattern is very strong, peaking in late summer.

#### **Summary of Case Demographics**

ethnicity data in 2009 and 5.1% of race data in 2009.

Summary			Reported Salmonellosis Cases and Incidence Rates per 100,000	
Number of cases Incidence rate (per	100,000 population)	6,133 31.7	Population (Restricted to Infections Acquired in Florida) by County of Residence, Florida, 2013 (N = 5,638)	
Age (in years) Mean Median	r average incluence	-2.9% 25 9	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Min-max		0 - 97		
Gender	Number (Percent)	Rate	122 155	
Female Male	3,145 (51.3) 2,987 (48.7) 1	31.9 31.6	<sup>60</sup> 24 158 83 55 157 285 157 193 193 193 193 248 68 275	
Race	Number (Percent)	Rate	110 6 42	
White Black Other	4,671 (79.6) 728 (12.4) 469 (8.0)	30.9 22.7 47.7	Rate per 100,000 population 0.0 0.1 - 26.6 0.1 - 26.6 0.1 - 26.6 0.1 - 26.6 0.1 - 26.6 0.1 - 26.6 0.1 - 26.6	
Unknown race	265		26.7 - 36.1	
Ethnicity	Number (Percent)	Rate	<b>36.2 - 54.1</b>	
Non-Hispanic	4,567 (78.0)	30.9	<b>54.2 - 96.8</b>	
Hispanic	1,287 (22.0)	28.3		
Unknown ethnicity	279		Note that rates based on <20 cases are not reliable and should be interpreted with caution.	



# Salmonellosis

#### **Summary of Case Factors**



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

#### Additional Information

Most outbreak-associated cases are due to household clusters; however, some outbreak-associated cases are part of national or multistate outbreaks linked to particular food items. In 2013, Florida had 58 outbreak-associated cases that were part of 23 different multistate outbreaks.

Cause: Shiga toxin-producing Escherichia coli (STEC) bacteria

Type of illness: Gastroenteritis (diarrhea, vomiting); less frequently hemolytic uremic syndrome (HUS)

Transmission: Fecal-oral; including person-to-person, animal-to-person, waterborne and foodborne

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated food product, ill food handler), monitor incidence over time, estimate burden of illness

Comments: Incidence varied considerably over the past 10 years. STEC infection typically peaks in late spring and early summer, although in 2013, the largest number of cases occurred in December. Incidence is highest in children <5 years old, a group shown to be particularly vulnerable to STEC infection. STEC incidence in women has increased steadily over the past five years, surpassing that of men in 2010 and remaining higher since.

#### **Summary of Case Demographics**

Summarv			Reported Shiga Toxin-Producing E. coli Infection Cases and Incidence
Number of cases		121	Rates per 100,000 Population (Restricted to Infections Acquired in
Incidence rate (per	100,000 population)	0.6	Florida) by County of Residence, Florida, 2013 (N = $105$ )
Change from 5-year	r average incidence	+34.1%	
Age (in years)			
Mean		28	
Median		17	2 2
Min-max		0 - 91	
Gender	Number (Percent)	Rate	
Female	71 (58.7)	0.7	
Male	50 (41.3)	0.5	
Unknown gender	0		5 8 4 1 2
Race	Number (Percent)	Rate	
White	100 (89.3)	0.7	Rate per 100 000 population
Black	6 (5.4)	NA	
Other	6 (5.4)	NA	0.1 - 0.8
Unknown race	9		0.9 - 1.4
Ethnicity	Number (Percent)	Rate	<b>1.5 - 3.2</b>
Non-Hispanic	87 (79.8)	0.6	<b>3.3 - 5.8</b>
Hispanic	22 (20.2)	0.5	and the second
Unknown ethnicity	12		Note that rates based on <20 cases are not reliable and should be interpreted with caution.



Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Shiga toxin-producing E. coli infection cases were missing 5.3% of race data in 2009, 12.9% of ethnicity data in 2010, 12.9% of race data in 2010, 6.8% of ethnicity data in 2011, 5.8% of race data in 2011, 10.8% of ethnicity data in 2012, 9.7% of race data in 2012, 9.9% of ethnicity data in 2013, and 7.4% of race data in 2013.

#### **Summary of Case Factors**

Summary	Number	
Number of cases	121	
Case classification	Number	(Percent)
Confirmed	109	(90.1)
Probable	12	(9.9)
Outcome	Number	(Percent)
Hospitalized	40	(33.1)
Died	1	(0.8)
Sensitive situation	Number	(Percent)
Daycare attendee	12	(9.9)
Daycare staff	0	(0.0)
Health care staff	3	(2.5)
Food handler	2	(1.7)
Imported status	Number	(Percent)
Acquired in Florida	105	(86.8)
Acquired in the U.S., not Florida	1	(0.8)
Acquired outside the U.S.	3	(2.5)
Acquired location unknown	12	(9.9)
Outbreak status	Number	(Percent)
Sporadic	84	(69.4)
Outbreak-associated	32	(26.4)
Outbreak status unknown	5	(4.1)
Serogroup	Number	(Percent)
O157	50	(45.9)
O103	13	(11.9)
O111	11	(10.1)
O121	5	(4.6)
O26	5	(4.6)
O145	4	(3.7)
O45	1	(0.9)
Other	20	(18.3)

While O157 remains the most common serogroup identified in STEC infections, the top six non-O157 serogroups (O26, O45, O103, O111, O121, O145) are being increasingly identified due to advances in laboratory testing technology.

Most outbreak-associated cases are due to household clusters; however, some cases are part of national or multistate outbreaks linked to particular food items. In 2013, Florida had two cases that were part of an *E.coli* O121 multistate outbreak



linked to Farm Rich products. Of note, Florida had two separate in-state *E. coli* O157 clusters including nine people; one cluster was associated with a kale product from a local natural food store.

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

Cause: Shigella bacteria

Type of illness: Gastroenteritis (diarrhea, vomiting)

Transmission: Fecal-oral; including person-to-person, waterborne, and foodborne

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., ill daycare attendee), monitor incidence over time, estimate burden of illness

Comments: Shigellosis incidence decreased substantially in 2013. Historically, shigellosis has a cyclic temporal pattern with large, community-wide outbreaks, frequently involving daycare centers, every 2-3 years. Consistent with this trend, shigellosis incidence is highest in children aged 1 to 4 years and 5 to 9 years and a large portion of cases are outbreak-associated, primarily due to outbreaks in daycare centers. Shigellosis activity increased in 2010 and 2011, but started decreasing in 2012.

# **Summary of Case Demographics**





# Shigellosis

#### **Summary of Case Factors**



#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

Cause: Treponema pallidum bacteria

Type of illness: Sores on genitals, anus or mouth, or a rash on the body

- Transmission: Sexually transmitted disease (STD) spread by anal, vaginal, or oral sex and sometimes from mother to child during pregnancy or delivery
- Reason for surveillance: Effective interventions implemented immediately for every case to prevent further transmission, monitor trends, evaluate effectiveness of control programs
- Comments: Syphilis is separated into early syphilis (i.e., syphilis <1 year duration; the infectious stage) and late or latent syphilis (i.e., syphilis diagnosed >1 year after infection). Men who have sex with men (MSM) have a higher incidence of early syphilis than non-MSM men and are also more likely to be co-infected with HIV.

### **Summary of Case Demographics**





Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Syphilis cases were missing 9.9% of ethnicity data in 2009, 8.3% of race data in 2009, 8.3% of race data in 2009, 5.3% of ethnicity data in 2010, 5.0% of race data in 2010, 7.7% of ethnicity data in 2011, 6.4% of race data in 2011, 8.2% of ethnicity data in 2012, 10.9% of ethnicity data in 2013, and 8.5% of race data in 2013.

Cause: Mycobacterium tuberculosis bacteria

Type of illness: Usually respiratory (severe cough, pain in chest), but can affect all parts of the body including kidneys, spine, or brain

Transmission: Person-to-person; inhalation of aerosolized droplets from people with active tuberculosis (TB)

- Reason for surveillance: Effective interventions implemented immediately for every case to prevent further transmission, monitor directly observed therapy programs, evaluate trends
- Comments: TB continues to be a public health threat in Florida; however incidence has been declining over the past decade, and continued to decline in 2013. Medically underserved and low-income populations, including racial and ethnic minorities, have high rates of TB exposure and infection.

### **Summary of Case Demographics**



Reported Tuberculosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida 10-Year Disease Trend Age Groups, Annual to 5-Year Comparison 8 8 6 6 Rate Rate 4 4 2 2 0 0 2004 2007 2010 2013 1-4 5-9 15-19 20-24 25-34 35-44 45-54 55-64 65-74 75-84 10-14 85+ Yea Age group 2013 -- Previous 5-year average Gender Trend Race Trend Ethnicity Trend 12 12 12 8 8 8 Rate Rate Rate Δ Δ 4 0 0 0 2009 2010 2011 2012 2013 2009 2010 2011 2012 2013 2009 2010 2011 2012 2013 Year Yea Yea -Female – – Male White --Black -Non-Hispanic – Hispanic Othe

# Additional Information

People experiencing homelessness are at increased risk for disease and are a focus for TB prevention and control efforts in Florida. Since 1998, the total number of TB cases among the homeless population in Florida has decreased by over 50%; however, in the same time period the percent of people with TB disease who are homeless has remained relatively stable. In 2013, 8.6% of TB cases were in homeless people.

The rate of TB in U.S.-born people in Florida has been decreasing faster than the rate among foreign-born people. Being born in a country where TB is prevalent is one of the most significant risk factors for later developing TB and is a focus for TB prevention and control efforts in Florida. In 2013, 57.4% of the total cases counted in Florida were among the foreign-born people. The most common countries of origin in 2013 included Haiti, Mexico, India, and Guatemala, accounting for 44% of cases identified in foreign-born people.

TB and HIV co-infection has been declining modestly but steadily over time in Florida. In 2013, 13% of TB cases were co-infected with HIV. HIV infection remains the biggest risk factor for developing active TB disease following infection with TB and is a focus for TB prevention and control efforts in Florida.











Number and Percent of Counted Tuberculosis Cases Co-Infected With HIV, Florida, 1998-2013



Cause: Varicella-zoster virus (VZV)

Type of illness: Common symptoms include vesicular rash, itching, tiredness, and fever

- Transmission: Person-to-person; contact with or inhalation of aerosolized, infective respiratory tract droplets or secretions, or direct contact with vesicular lesions of people infected with VZV
- Reason for surveillance: Identify and control outbreaks, monitor effectiveness of immunization programs and vaccines, monitor trends and severe outcomes

Comments: Varicella (chicken pox) is a classic childhood disease that is now vaccine-preventable. It became reportable in Florida in late 2006 and has shown a steady decrease in incidence since 2008, due to effective vaccination programs. Beginning with the 2008-2009 school year, children entering kindergarten were required to receive two doses of varicella vaccine.

# **Summary of Case Demographics**



![](_page_63_Figure_9.jpeg)

Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Varicella cases were missing 10.0% of ethnicity data in 2009 and 11.1% of race data in 2009.

# Varicella

### **Summary of Case Factors**

Summary	Number	Reported Varicella Cases by Month of Occurrence, Case
Number of cases	659	Classification Outcome Sensitive Situation Imported Status
Case classification	Number (Percent)	Classification, Outcome, Sensitive Situation, Imported Status,
Confirmed	220 (33.4)	and Outoreak Status, Florida
Probable	439 (66.6)	Month of Occurrence, Annual to 5-Year Comparison
Outcome	Number (Percent)	
Hospitalized	46 (7.0)	80 150 -
Died	2 (0.3)	
Sensitive situation	Number (Percent)	
Daycare attendee	80 (12.1)	
Daycare staff	2 (0.3)	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Health care staff	9 (1.4)	Month
Food handler	5 (0.8)	2013 - Previous 5-year average
Imported status	Number (Percent)	
Acquired in Florida	622 (94.4)	Case Classification Trend Outcome Trend
Acquired in the U.S., not Florida	7 (1.1)	
Acquired outside the U.S.	10 (1.5)	dig 8 4
Acquired location unknown	20 (3.0)	
Outbreak status	Number (Percent)	t <del>g</del> 40% - <b>→ → → → → → → → → →</b>
Sporadic	459 (69.7)	
Outbreak-associated	185 (28.1)	- 0% +
Outbreak status unknown	15 (2.3)	Year Year
		Confirmed Probable Died
50 100 - Sensitive	Situation Trend	Imported Status Trend 0 Utbreak Status Trend 0 Utbreak Status Trend
9 50 - En		ag 400 - ag
z 0		
2009 2010	2011 2012 2013	2009 2010 2011 2012 2013 2009 2010 2011 2012 2013
— Daycare atte Daycare stat	Year endee — Health care staff ff Food handler	Year Year —Acquired in FL Acquired in U.S., not FLSporadic Outbreak-associated —Acquired outside U.S.

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Sensitive situation categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the infection was most likely acquired. Outbreak-associated indicates that two or more cases are epidemiologically linked.

#### **Additional Information**

Most cases of varicella occur in winter and spring with the highest incidence in school-aged children. There have been a few small outbreaks identified in school settings involving fewer than five cases, but the majority of cases identified as outbreak-associated were due to household clusters.

Cause: Vibrio species bacteria (see following page for list of species included)

- Type of illness: Gastroenteritis (diarrhea, vomiting), bacteremia, septicemia, wound infection, cellulitis; other common symptoms include low-grade fever, headache, and chills
- Transmission: Foodborne, waterborne, and wound infections from direct contact with seawater where the bacteria naturally live or direct contact with marine wildlife
- Reason for surveillance: Identify sources of transmission (e.g., shellfish collection area) and mitigate source, monitor incidence over time, estimate burden of illness
- Comments: *Vibrio* species are endemic in Florida's seawater. Incidence is typically higher in the summer when exposure to seawater is more common and warmer water is conducive to bacterial growth. Incidence increased in 2013, which may in part be due to increased media attention on vibriosis since 2012.

#### **Summary of Case Demographics**

![](_page_65_Figure_8.jpeg)

![](_page_65_Figure_9.jpeg)

Note that trend graphs should be interpreted with caution when more than 5% of data are missing. Vibriosis (excluding cholera) cases were missing 5.4% of ethnicity data in 2009, 12.3% of ethnicity data in 2010, 10.8% of race data in 2010, 7.7% of ethnicity data in 2011, 5.2% of race data in 2011, 10.9% of ethnicity data in 2012, 8.2% of race data in 2012, 8.9% of ethnicity data in 2013, and 6.3% of race data in 2013.

#### **Summary of Case Factors**

Summary	Number	
Number of cases	191	
Case classification	Number	(Percent)
Confirmed	190	(99.5)
Probable	1	(0.5)
Outcome	Number	(Percent)
Hospitalized	96	(50.3)
Died	12	(6.3)
Imported status	Number	(Percent)
Acquired in Florida	180	(94.2)
Acquired in the U.S., not Florida	4	(2.1)
Acquired outside the U.S.	3	(1.6)
Acquired location unknown	4	(2.1)
Outbreak status	Number	(Percent)
Sporadic	189	(99.0)
Outbreak-associated	2	(1.0)
Outbreak status unknown	0	(0.0)
Type of infection	Number	(Percent)
Vibrio parahaemolyticus	55	(28.8)
Vibrio alginolyticus	49	(25.7)
Vibrio vulnificus	41	(21.5)
Vibrio fluvialis	14	(7.3)
Vibrio cholerae Type Non-O1	12	(6.3)
Vibrio mimicus	8	(4.2)
Grimontia hollisae	4	(2.1)
Other Vibrio species	8	(4.2)

![](_page_66_Figure_3.jpeg)

#### Interpretation:

Occurrence is determined by the earliest date associated with the case, which is most frequently the date of onset, but can also be the diagnosis date, the laboratory report date, or the date the county health department was notified of the case. For outcome, a case can be included in the hospitalized count as well as the death count. Hospitalized status means that a person was hospitalized at the time of their illness, though the hospitalization may not necessarily have been due to the illness. Hospitalization status is not available prior to 2010. Deaths include all people with the illness who died, though the death may not necessarily have been due to the illness. Imported status refers to where the infection was most likely acquired. Outbreak- associated indicates that two or more cases are epidemiologically linked.

# **Additional Information**

In 2012, the most commonly reported *Vibrio* infection was *V. alginolyticus*, accounting for 38.8% of cases, compared to only 25.7% of cases in 2013. The number of infections in all other *Vibrio* species increased in 2013 compared to 2012. *Vibrio vulnificus* can cause particularly severe disease, with about 50% of bloodstream infections being fatal. Of the 41 cases due to *V. vulnificus* reported in 2013, 36 (87.8%) were hospitalized and 12 (29.3%) died, accounting for all 12 deaths in people with vibriosis. *V. vulnificus* infections typically occur in people who have chronic liver disease, a history of alcoholism, or are immunocompromised. Of the 41 cases, 35 (85.4%) had underlying medical conditions. Of the 12 people who died, three (25.0%) reported consuming seafood, one (8.3%) had a wound with exposure to seawater, one (8.3%) had multiple exposures, and seven (58.3%) had other or unknown exposures. Like other vibriosis cases, most *V. vulnificus* infections occur in the summer, in white, non-Hispanic men.