Section 2

Data Summaries for Selected Reportable Diseases/Conditions of Frequent Occurrence

AIDS

Disease Facts

Cause: HIV virus

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

Transmission: Anal or vaginal sex, blood exposure (e.g., sharing drug needles, receiving infected blood transfusion) 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: Cases increased in 2004 due to increased CD4 testing statewide. Electronic laboratory reporting delays in late 2007 decreased cases that year (data not shown), while contributing to a spike in 2008. The overall trend of AIDS cases has decreased since 2009.
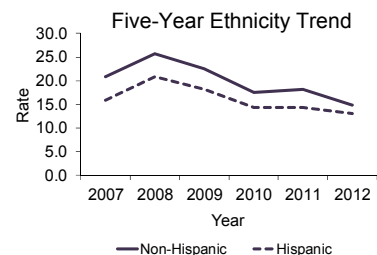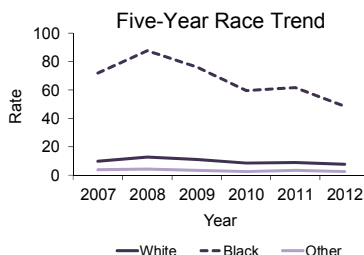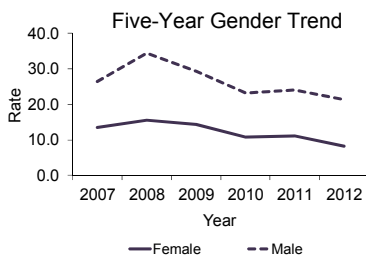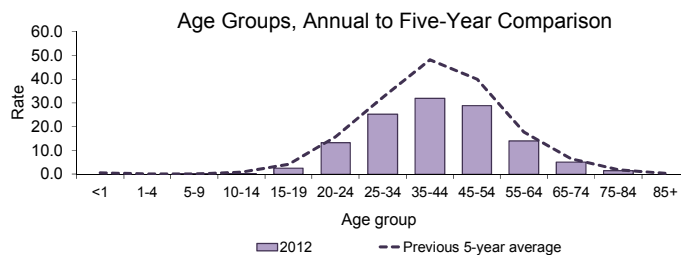
Summary of Case Demographics

Summary		
Number of cases		2,775
Incidence rate (per 100,000 population)		14.6
Change from 5-year average incidence		-27.6%
Age (in years)		
Mean		43
Median		42
Min-max		(9 - 83)
Gender	Number (Percent)	Rate
Female	795 (28.6)	8.2
Male	1,980 (71.4)	21.3
Unknown gender	0	
Race	Number (Percent)	Rate
White	1,198 (43.3)	8.0
Black	1,540 (55.7)	48.9
Other	28 (1.0)	2.9
Unknown race	9	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	2,183 (79.1)	14.9
Hispanic	578 (20.9)	13.1
Unknown ethnicity	14	

Reported AIDS Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=2,725)

Rate per 100,000 population
- 0.0
- 0.1 - 7.0
- 7.1 - 11.1
- 11.2 - 17.2
- 17.3 - 35.2
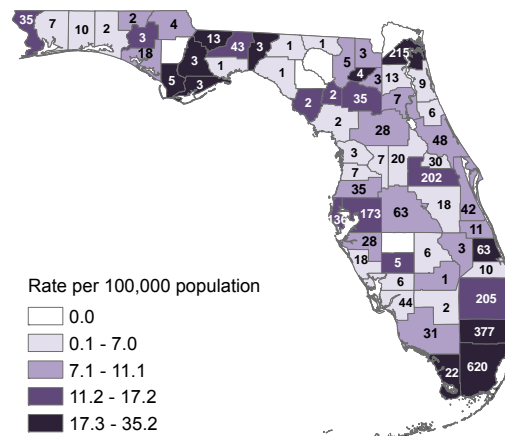
County totals exclude Department of Corrections cases (n=50). Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported AIDS Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
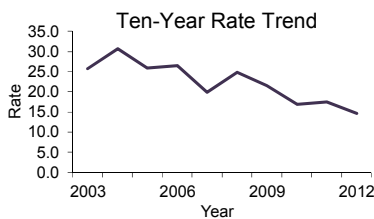
Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison
- 2012
- Previous 5-year average

Five-Year Gender Trend
- Female
- Male

Five-Year Race Trend
- White
- Black
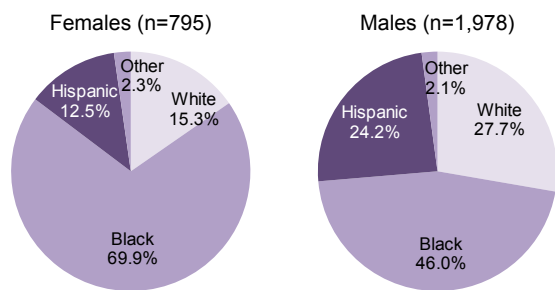- Other

Five-Year Ethnicity Trend
- Non-Hispanic
- Hispanic

Table 1: Reported Adult (13 Years and Older) AIDS Cases by Gender and Mode of Exposure, Florida, 2012

Mode of exposure	Female cases (n=795) Number (percent)	Male cases (n=1,978) Number (percent)
Men who have sex with men (MSM)	NA	1,201 (60.7)
Heterosexual	685 (86.2)	533 (26.9)
Injection drug user (IDU)	98 (12.3)	144 (7.3)
MSM and IDU	NA	92 (4.7)
Other	12 (1.5)	8 (0.4)
Total	795	1,978

For AIDS cases in men reported in 2012, male-to-male sexual contact (MSM) was the most common risk factor (60.7%), followed by cases with a heterosexual risk (26.9%) (Table 1).

In 2012, blacks were over-represented among AIDS cases, accounting for 46.0% of adult cases among men and 69.9% of the adult cases among women (Figure 1).

Figure 1: Reported Adult (13 Years and Older) AIDS Cases by Gender and Race/Ethnicity, Florida 2012

Females (n=795)

Other 2.3%
Hispanic 12.5%
White 15.3%
Black 69.9%

Males (n=1,978)

Other 2.1%
Hispanic 24.2%
White 27.7%
Black 46.0%

For information on HIV, please see the HIV chapter within this section (page 33).

Please visit the Bureau of Communicable Diseases' webpage to access additional information at http://www.floridahealth.gov/diseases-and-conditions/aids/surveillance/index.html.

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

Campylobacteriosis

Disease Facts

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

Summary		
Number of cases		1,964
Incidence rate (per 100,000 population)		10.3
Change from 5-year average incidence		+48.6%
Age (in years)		
Mean		36
Median		36
Min-max		0 - 99
Gender	Number (Percent)	Rate
Female	911 (46.4)	9.4
Male	1,052 (53.6)	11.3
Unknown gender	1	
Race	Number (Percent)	Rate
White	1,573 (85.4)	10.5
Black	144 (7.8)	4.6
Other	125 (6.8)	13.0
Unknown race	122	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	1,223 (66.3)	8.4
Hispanic	621 (33.7)	14.1
Unknown ethnicity	120	

Reported Campylobacteriosis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=1,630)
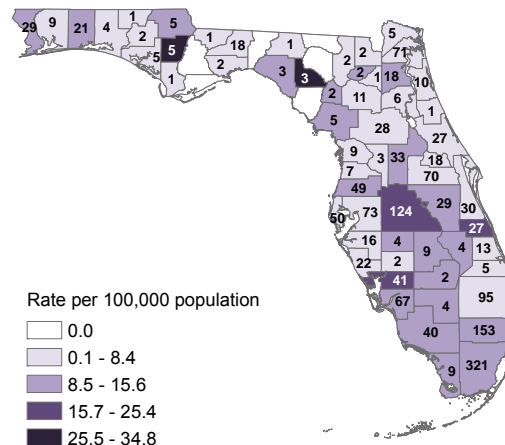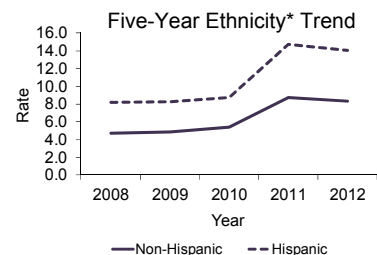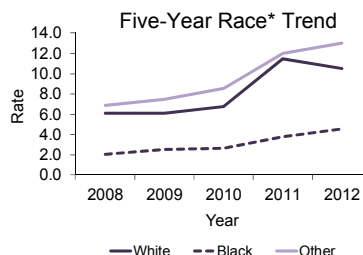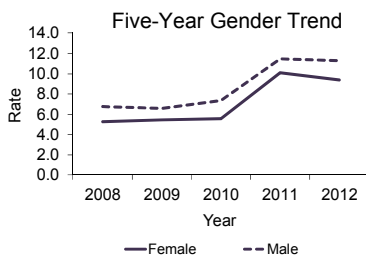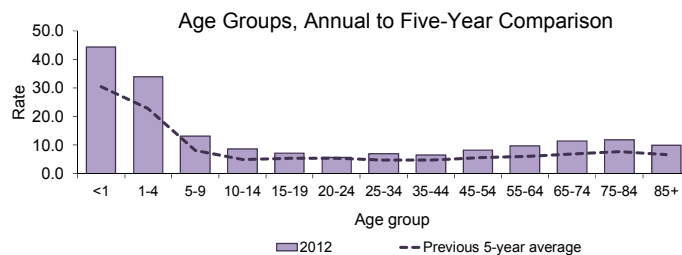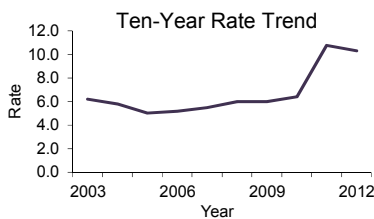

Rate per 100,000 population
- 0.0
- 0.1 - 8.4
- 8.5 - 15.6
- 15.7 - 25.4
- 25.5 - 34.8

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Campylobacteriosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
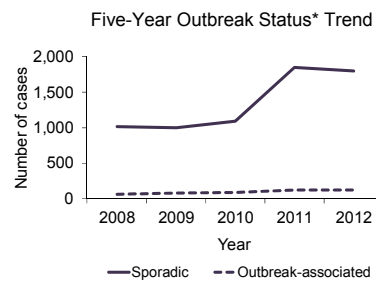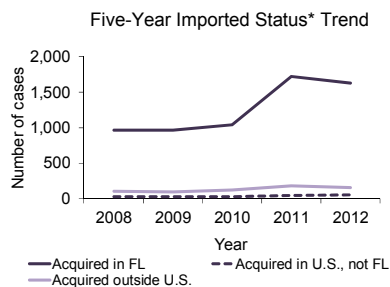

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

■ 2012 - - Previous 5-year average

Five-Year Gender Trend

—Female - - Male

Five-Year Race* Trend

—White - - Black —Other

Five-Year Ethnicity* Trend
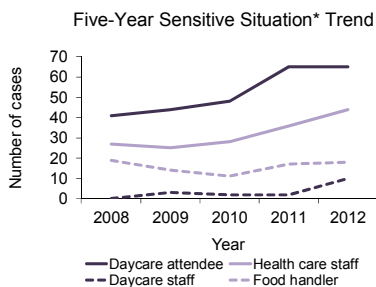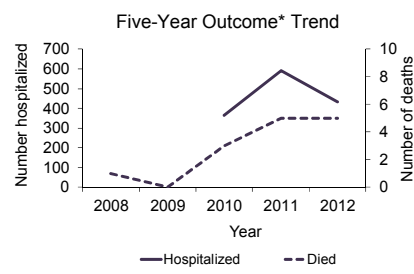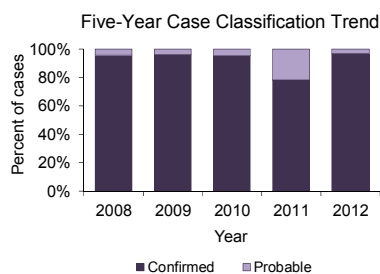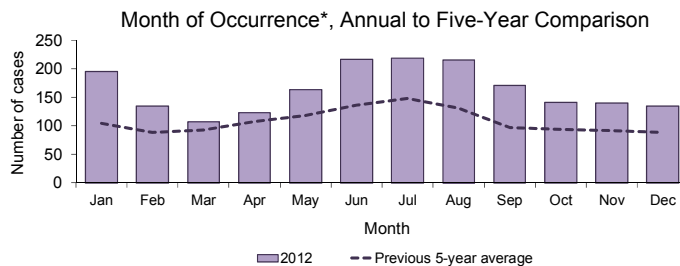
—Non-Hispanic - - Hispanic

* Note that race and ethnicity trend graphs should be interpreted with caution. For campylobacteriosis, the percent of cases with missing race by year was 8.6% in 2008, 6.6% in 2009, 4.0% in 2010, 5.1% in 2011 and 6.2% in 2012; missing ethnicity by year was 8.7% in 2008, 6.0% in 2009, 4.5% in 2010, 6.3% in 2011 and 6.1% in 2012.

Summary of Case Factors

Summary	Number
Number of cases	1,964
Case Classification	Number (Percent)
Confirmed	1,911 (97.3)
Probable	53 (2.7)
Outcome*	Number (Percent)
Hospitalized	432 (22.0)
Died	5 (0.3)
Sensitive Situation*	Number (Percent)
Daycare attendee	65 (3.3)
Daycare staff	10 (0.5)
Health care staff	44 (2.2)
Food handler	18 (0.9)
Imported Status*	Number (Percent)
Acquired in Florida	1,630 (83.0)
Acquired in the U.S., not Florida	55 (2.8)
Acquired outside the U.S.	160 (8.1)
Imported status unknown	119 (6.1)
Outbreak Status*	Number (Percent)
Sporadic	1,795 (91.4)
Outbreak-associated	123 (6.3)
Outbreak status unknown	46 (2.3)

Reported Campylobacteriosis Cases by Month of Occurrence*, Case Classification, Outcome*, Sensitive Situation*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Sensitive Situation* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome and 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.

Carbon Monoxide Poisoning

Disease Facts

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 2012 are presented in this report. All laboratory results from people with volume fractions ≥9% of carboxyhemoglobin in blood are reportable in Florida.

Summary of Case Demographics

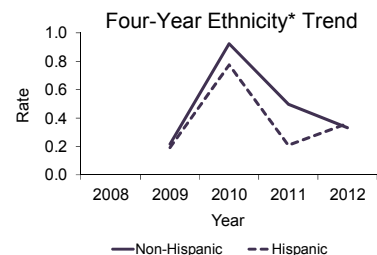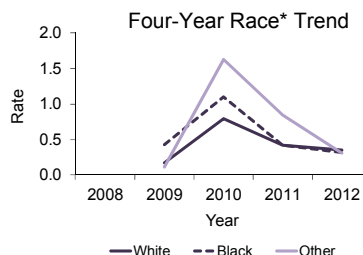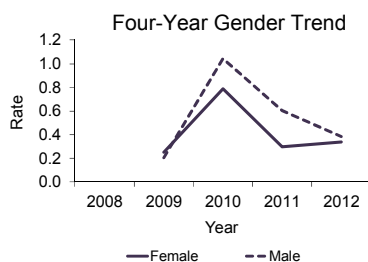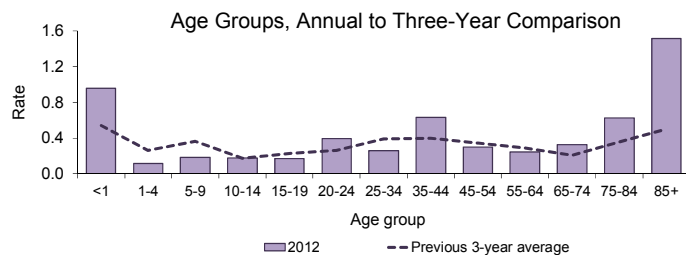| Summary		
Number of cases		69
Incidence rate (per 100,000 population)		0.4
Change from 3-year average incidence		-31.6%
Age (in years)		
Mean		48
Median		44
Min-max		0 - 93
Gender	Number (Percent)	Rate
Female	33 (47.8)	0.3
Male	36 (52.2)	0.4
Unknown gender	0	
Race	Number (Percent)	Rate
White	53 (80.3)	0.4
Black	10 (15.2)	NA
Other	3 (4.5)	NA
Unknown race	3	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	49 (75.4)	0.3
Hispanic	16 (24.6)	NA
Unknown ethnicity	4	

Reported Carbon Monoxide Poisoning Cases and Incidence Rates per 100,000 Population for Only Exposures Occurring in Florida by County of Residence, Florida, 2012 (N=68)
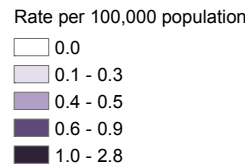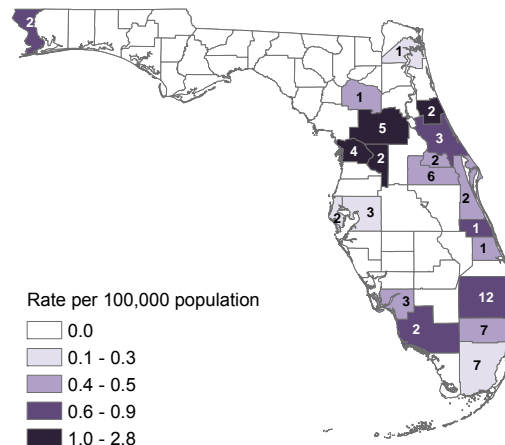
Rate per 100,000 population
- 0.0
- 0.1 - 0.3
- 0.4 - 0.5
- 0.6 - 0.9
- 1.0 - 2.8

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Carbon Monoxide Poisoning Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Four-Year Rate Trend

Age Groups, Annual to Three-Year Comparison

■ 2012   - - Previous 3-year average

Four-Year Gender Trend

— Female   - - Male

Four-Year Race* Trend

— White   - - Black   — Other

Four-Year Ethnicity* Trend

— Non-Hispanic   - - Hispanic
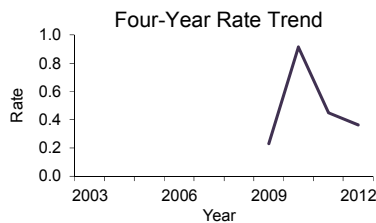
* Note that race and ethnicity trend graphs should be interpreted with caution. For carbon monoxide poisoning, the percent of cases with missing race by year was 7.0% in 2009, 2.9% in 2010, 2.4% in 2011 and 4.3% in 2012; missing ethnicity by year was 7.0% in 2009, 2.3% in 2010, 3.5% in 2011 and 5.8% in 2012.

Summary of Case Factors

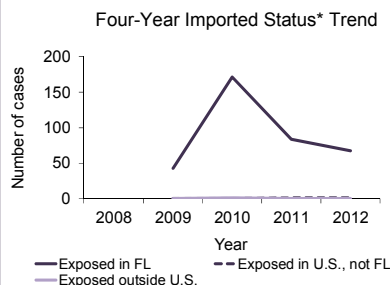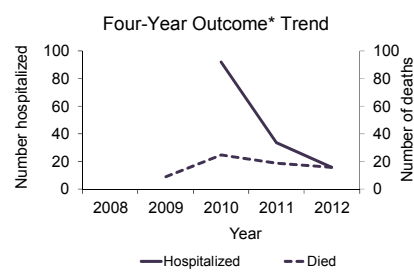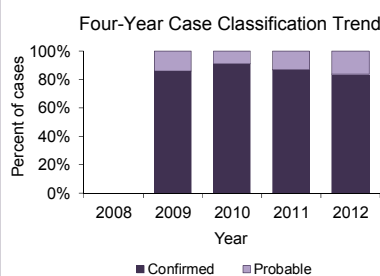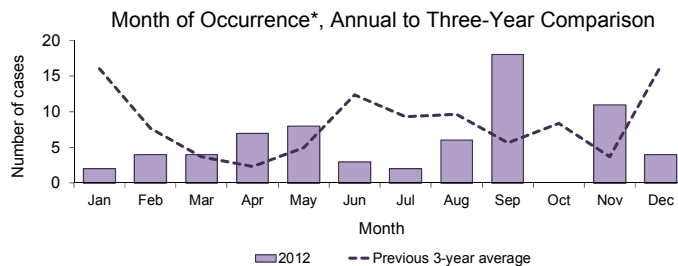| Summary	Number
Number of cases	69
Case Classification	Number (Percent)
Confirmed	58 (84.1)
Probable	11 (15.9)
Outcome*	Number (Percent)
Hospitalized	16 (23.2)
Died	16 (23.2)
Imported Status*	Number (Percent)
Exposed in Florida	68 (98.6)
Exposed in the U.S., not Florida	1 (1.4)
Exposed outside the U.S.	0 (0.0)
Imported status unknown	0 (0.0)
Outbreak Status*	Number (Percent)
Sporadic	34 (49.3)
Outbreak-associated	35 (50.7)
Outbreak status unknown	0 (0.0)
Exposure Type	Number (Percent)
Automobile	30 (43.5)
Generator	14 (20.3)
Fire	11 (15.9)
Fuel burning appliances	4 (5.8)
Other	4 (5.8)
Power tools	3 (4.3)
Grill/stove	1 (1.4)
Unknown	2 (2.9)

Reported Carbon Monoxide Poisoning Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Three-Year Comparison

2012 — Previous 3-year average

Four-Year Case Classification Trend — Confirmed, Probable

Four-Year Outcome* Trend — Hospitalized, Died

Four-Year Imported Status* Trend — Exposed in FL, Exposed in U.S., not FL, Exposed outside U.S.

Four-Year Outbreak Status* Trend — Sporadic, Outbreak-associated

* 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. Note that 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. Outcome categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the exposure most likely occurred. Outbreak-associated indicates that two or more cases are epidemiologically-linked.

Chlamydia

Disease Facts

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 STD in Florida and the U.S. Incidence is highest among 15 to 24-year-old women, partly due to the existing screening policy to identify infection, which places stronger emphasis on screening/treating women. Severe complications can occur in women, including pelvic inflammatory disease, inability to get pregnant and ectopic pregnancies.
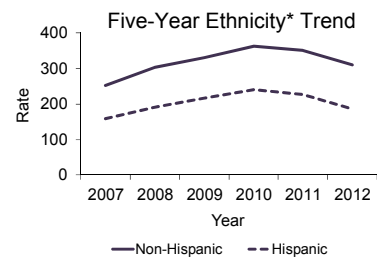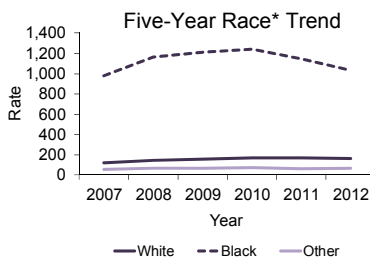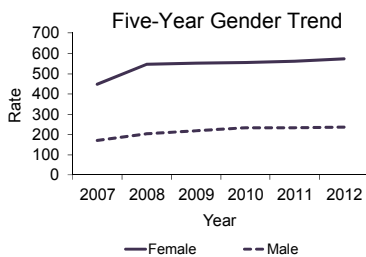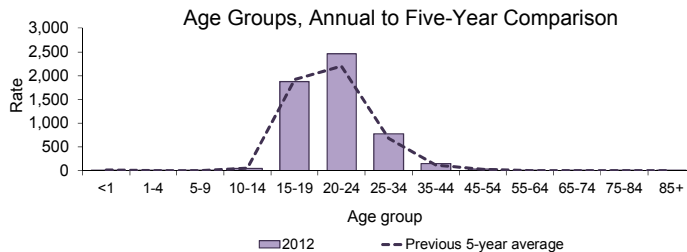
Summary of Case Demographics

Summary		
Number of cases		77,890
Incidence rate (per 100,000 population)		409.0
Change from 5-year average incidence		+8.7%
Age (in years)		
Mean		24
Median		21
Min-max		0 - 100
Gender	Number (Percent)	Rate
Female	55,806 (71.7)	573.4
Male	22,077 (28.3)	237.1
Unknown gender	7	
Race	Number (Percent)	Rate
White	24,499 (42.5)	164.1
Black	32,455 (56.3)	1,030.2
Other	673 (1.2)	70.0
Unknown race	20,263	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	45,340 (84.6)	309.9
Hispanic	8,238 (15.4)	186.7
Unknown ethnicity	24,312	

Reported Chlamydia Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=77,890)

Rate per 100,000 population
- 150.8 - 363.7
- 363.8 - 473.1
- 473.2 - 617.4
- 617.5 - 927.6
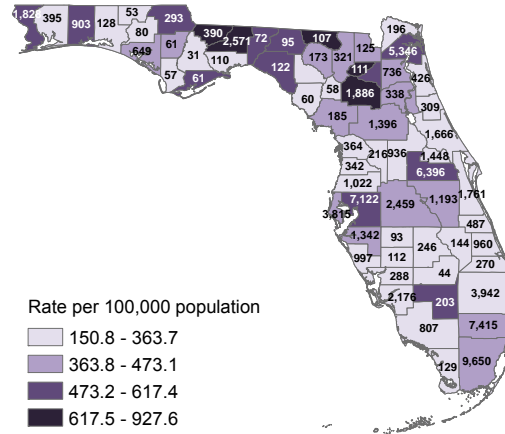
Reported Chlamydia Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison
2012 — Previous 5-year average

Five-Year Gender Trend
— Female — - Male

Five-Year Race* Trend
— White — - Black — Other

Five-Year Ethnicity* Trend
— Non-Hispanic — - Hispanic
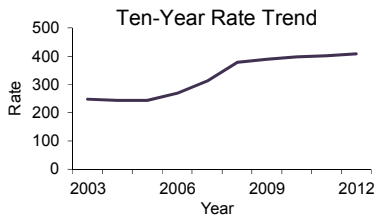
* Note that race and ethnicity trend graphs should be interpreted with caution. For chlamydia, the percent of cases with missing race by year was 19.0% in 2008, 16.0% in 2009, 14.0% in 2010, 19.0% in 2011 and 26.0% in 2012; missing ethnicity by year was 27.0% in 2008, 22.0% in 2009, 16.0% in 2010, 20.0% in 2011 and 31.0% in 2012.

Ciguatera Fish Poisoning

Disease Facts

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.
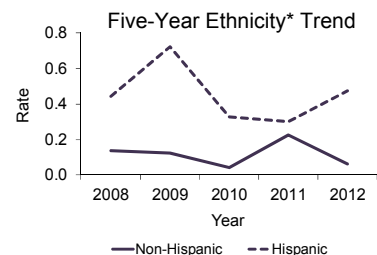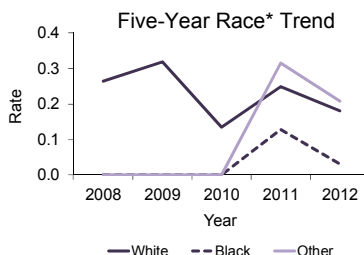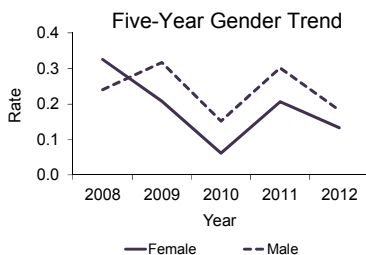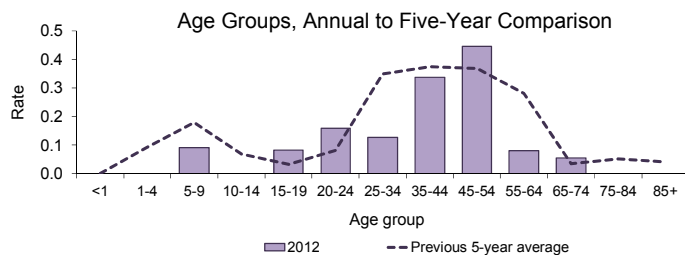
Summary of Case Demographics

Summary		
Number of cases		30
Incidence rate (per 100,000 population)		0.2
Change from 5-year average incidence		-25.0%
Age (in years)		
Mean		41
Median		44
Min-max		9 - 70
Gender	Number (Percent)	Rate
Female	13 (43.3)	NA
Male	17 (56.7)	NA
Unknown gender	0	
Race	Number (Percent)	Rate
White	27 (90.0)	0.2
Black	1 (3.3)	NA
Other	2 (6.7)	NA
Unknown race	0	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	9 (30.0)	NA
Hispanic	21 (70.0)	0.5
Unknown ethnicity	0	

Reported Ciguatera Fish Poisoning Cases and Incidence Rates per 100,000 Population for Only Exposures Occurring in Florida by County of Residence, Florida, 2012 (N=30)
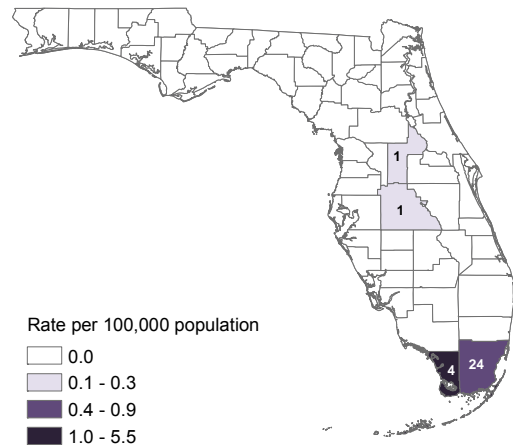
Rate per 100,000 population
- 0.0
- 0.1 - 0.3
- 0.4 - 0.9
- 1.0 - 5.5

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Ciguatera Fish Poisoning Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

■ 2012   - - Previous 5-year average

Five-Year Gender Trend

—Female   - - Male

Five-Year Race* Trend

—White   - - Black   —Other

Five-Year Ethnicity* Trend

—Non-Hispanic   - - Hispanic
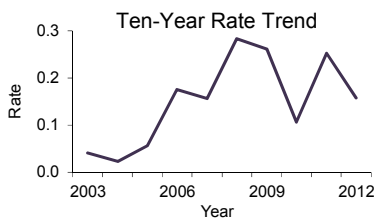
* Note that race and ethnicity trend graphs should be interpreted with caution. For ciguatera fish poisoning, the percent of cases with missing race by year was 26.4% in 2008, 4.1% in 2009, 0.0% in 2010, 8.3% in 2011 and 0.0% in 2012; missing ethnicity by year was 28.3% in 2008, 2.0% in 2009, 0.0% in 2010, 4.2% in 2011 and 0.0% in 2012.

Summary of Case Factors

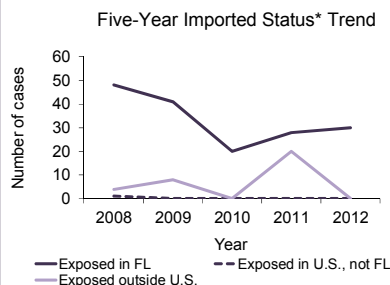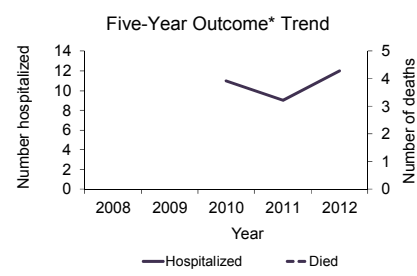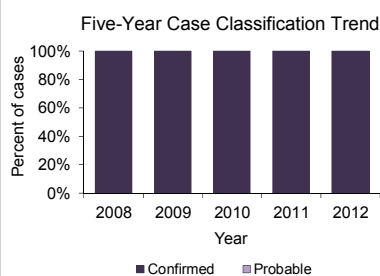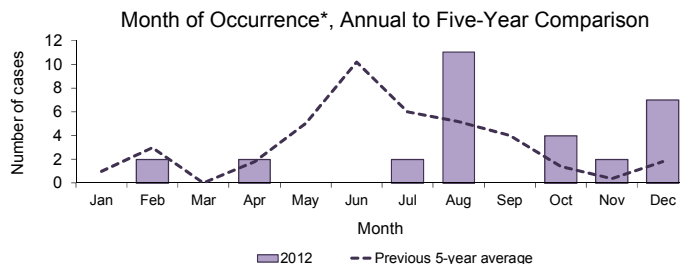| Summary	Number
Number of cases	30
Case Classification	Number (Percent)
Confirmed	30 (100.0)
Probable	0 (0.0)
Outcome*	Number (Percent)
Hospitalized	12 (40.0)
Died	0 (0.0)
Imported Status*	Number (Percent)
Exposed in Florida	30 (100.0)
Exposed in the U.S., not Florida	0 (0.0)
Exposed outside the U.S.	0 (0.0)
Imported status unknown	0 (0.0)
Outbreak Status*	Number (Percent)
Sporadic	0 (0.0)
Outbreak-associated	30 (100.0)
Outbreak status unknown	0 (0.0)

Note that there is no probable case classification for ciguatera fish poisoning.

Reported Ciguatera Fish Poisoning Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

□ 2012   - - Previous 5-year average

Five-Year Case Classification Trend

■ Confirmed   ■ Probable

Five-Year Outcome* Trend

— Hospitalized   - - Died

Five-Year Imported Status* Trend

— Exposed in FL   - - Exposed in U.S., not FL
— Exposed outside U.S.

Five-Year Outbreak Status* Trend

— Sporadic   - - Outbreak-associated

* 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. Note that 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. Outcome categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the exposure most likely occurred. A single case of ciguatera fish poisoning is considered an outbreak.

Cryptosporidiosis

Disease Facts

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 EIA 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.
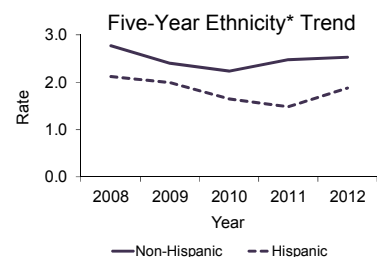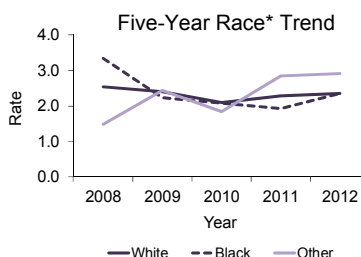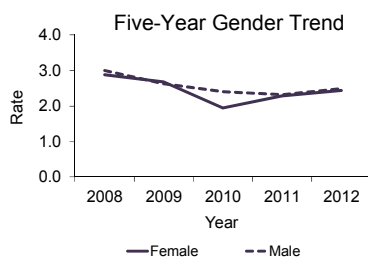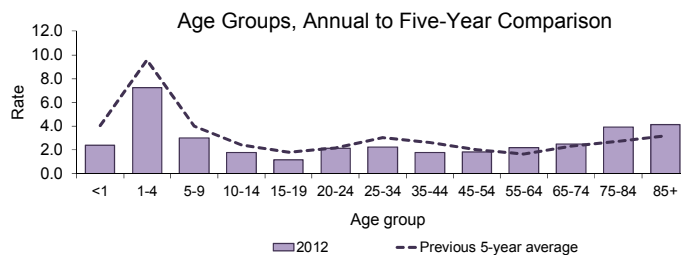
Summary of Case Demographics

Summary		
Number of cases		470
Incidence rate (per 100,000 population)		2.5
Change from 5-year average incidence		-12.2%
Age (in years)		
Mean		40
Median		39
Min-max		0 - 93
Gender	Number (Percent)	Rate
Female	238 (50.6)	2.4
Male	232 (49.4)	2.5
Unknown gender	0	
Race	Number (Percent)	Rate
White	352 (77.5)	2.4
Black	74 (16.3)	2.3
Other	28 (6.2)	2.9
Unknown race	16	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	371 (81.7)	2.5
Hispanic	83 (18.3)	1.9
Unknown ethnicity	16	

Reported Cryptosporidiosis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=399)
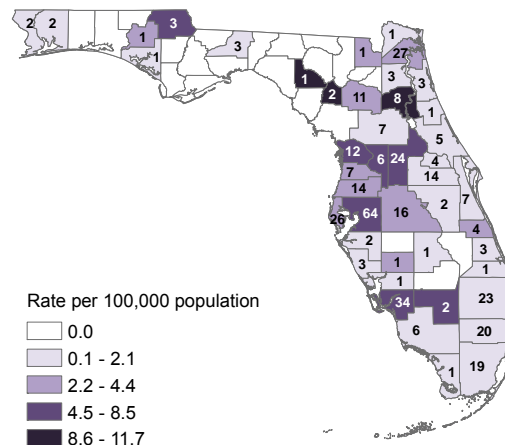
Rate per 100,000 population
- 0.0
- 0.1 - 2.1
- 2.2 - 4.4
- 4.5 - 8.5
- 8.6 - 11.7

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Cryptosporidiosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 --- Previous 5-year average

Five-Year Gender Trend

Five-Year Race* Trend

Five-Year Ethnicity* Trend

—Female --Male

—White --Black —Other

—Non-Hispanic --Hispanic
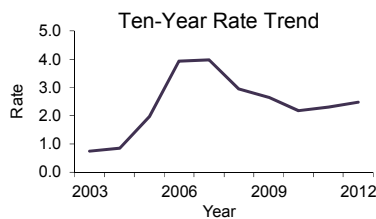
* Note that race and ethnicity trend graphs should be interpreted with caution. For cryptosporidiosis, the percent of cases with missing race by year was 10.9% in 2008, 10.3% in 2009, 3.9% in 2010, 2.3% in 2011 and 3.4% in 2012; missing ethnicity by year was 10.7% in 2008, 12.9% in 2009, 2.7% in 2010, 2.5% in 2011 and 3.4% in 2012.

Summary of Case Factors

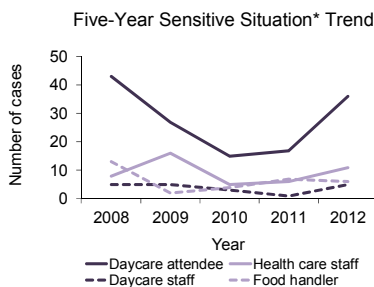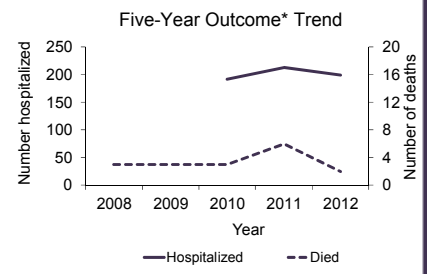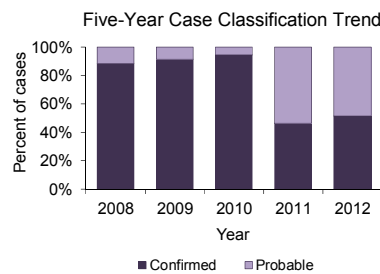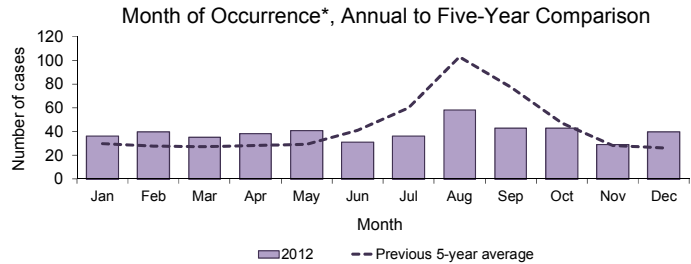| Summary	Number
Number of cases	470
Case Classification	Number (Percent)
Confirmed	243 (51.7)
Probable	227 (48.3)
Outcome*	Number (Percent)
Hospitalized	199 (42.3)
Died	2 (0.4)
Sensitive Situation*	Number (Percent)
Daycare attendee	36 (7.7)
Daycare staff	5 (1.1)
Health care staff	11 (2.3)
Food handler	6 (1.3)
Imported Status*	Number (Percent)
Acquired in Florida	399 (84.9)
Acquired in the U.S., not Florida	15 (3.2)
Acquired outside the U.S.	34 (7.2)
Imported status unknown	22 (4.7)
Outbreak Status*	Number (Percent)
Sporadic	386 (82.1)
Outbreak-associated	74 (15.7)
Outbreak status unknown	10 (2.1)

Reported Cryptosporidiosis Cases by Month of Occurrence*, Case Classification, Outcome*, Sensitive Situation*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Sensitive Situation* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome and 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.

Cyclosporiasis

Disease Facts

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 has remained relatively stable in recent years. Large peaks in reported cases occur occasionally, and are predominantly caused by large state-wide or multi-state outbreaks. In 2005, a large outbreak due to basil imported from Peru resulted in 592 cases in Florida and other states (see the Summary of Notable Outbreaks and Case Investigations section of the *Florida Morbidity Statistics Report, 1997-2006* for additional information).

Summary of Case Demographics

Summary		
Number of cases		25
Incidence rate (per 100,000 population)		0.1
Change from 5-year average incidence		-51.4%
Age (in years)		
Mean		45
Median		52
Min-max		0 - 79
Gender	Number (Percent)	Rate
Female	11 (44.0)	NA
Male	14 (56.0)	NA
Unknown gender	0	
Race	Number (Percent)	Rate
White	20 (87.0)	0.1
Black	0 (0.0)	NA
Other	3 (13.0)	NA
Unknown race	2	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	15 (65.2)	NA
Hispanic	8 (34.8)	NA
Unknown ethnicity	2	

Reported Cyclosporiasis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=14)
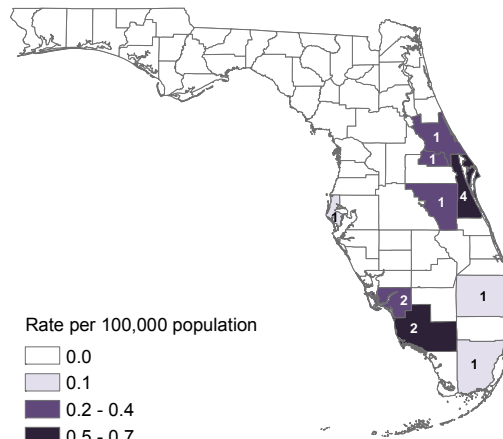
Rate per 100,000 population
- 0.0
- 0.1
- 0.2 - 0.4
- 0.5 - 0.7

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Cyclosporiasis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
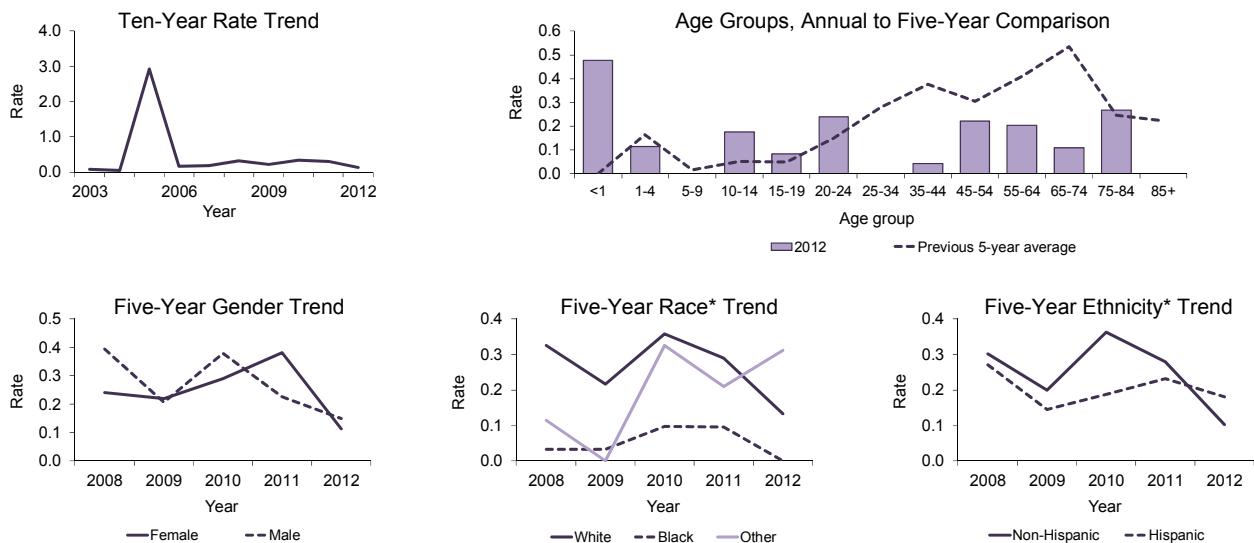
* Note that race and ethnicity trend graphs should be interpreted with caution. For cyclosporiasis, the percent of cases with missing race by year was 15.3% in 2008, 17.5% in 2009, 6.3% in 2010, 17.2% in 2011 and 8.0% in 2012; missing ethnicity by year was 6.8% in 2008, 12.5% in 2009, 3.2% in 2010, 12.1% in 2011 and 8.0% in 2012.

Summary of Case Factors

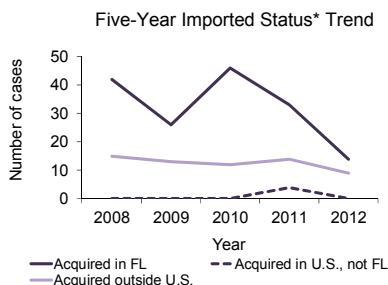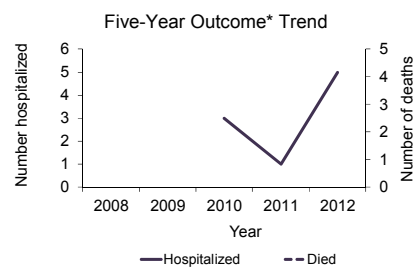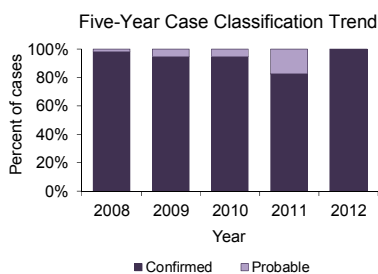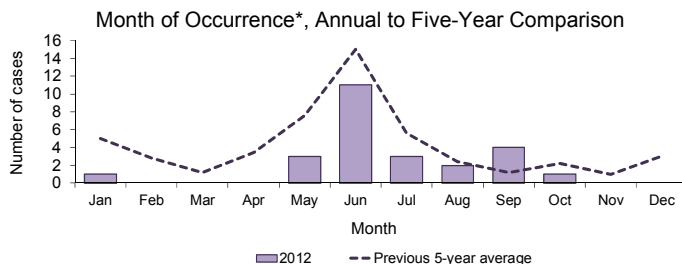| Summary	Number
Number of cases	25
Case Classification	**Number (Percent)**
Confirmed	25 (100.0)
Probable	0 (0.0)
Outcome*	**Number (Percent)**
Hospitalized	5 (20.0)
Died	0 (0.0)
Imported Status*	**Number (Percent)**
Acquired in Florida	14 (56.0)
Acquired in the U.S., not Florida	0 (0.0)
Acquired outside the U.S.	9 (36.0)
Imported status unknown	2 (8.0)
Outbreak Status*	**Number (Percent)**
Sporadic	25 (100.0)
Outbreak-associated	0 (0.0)
Outbreak status unknown	0 (0.0)

Reported Cyclosporiasis Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

2012 ▪ Previous 5-year average

Five-Year Case Classification Trend

■ Confirmed ■ Probable

Five-Year Outcome* Trend

Hospitalized — — Died

Five-Year Imported Status* Trend

Acquired in FL — — Acquired in U.S., not FL
Acquired outside U.S.

Five-Year Outbreak Status* Trend

Sporadic — — Outbreak-associated

* 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. Note that 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. Outcome 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.

Dengue Fever

Disease Facts

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, 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 Key West in 2009 and 2010. Isolated cases of locally-acquired dengue fever were also identified in 2011 and 2012; three dengue fever cases were acquired in Florida in 2012 (two in Miami-Dade County and one in Osceola County).
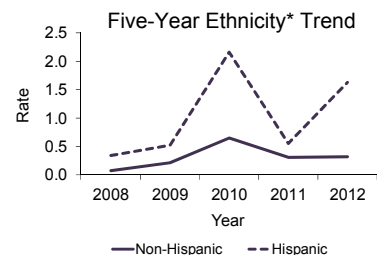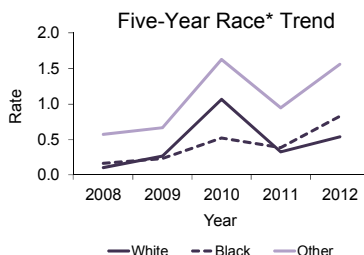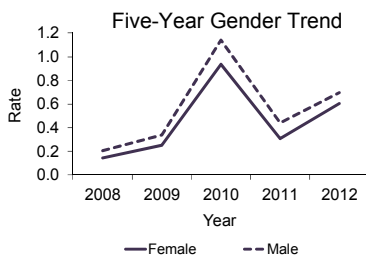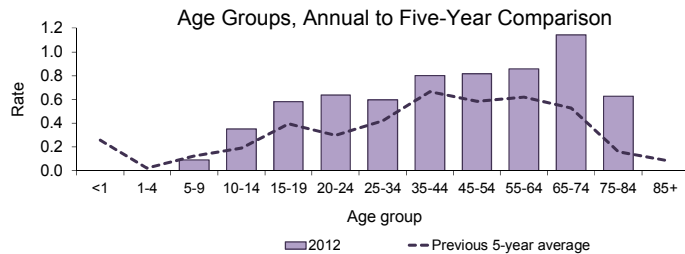
Summary of Case Demographics

Summary		
Number of cases		124
Incidence rate (per 100,000 population)		0.7
Change from 5-year average incidence		+51.4%
Age (in years)		
Mean		47
Median		48
Min-max		7 - 83
Gender	Number (Percent)	Rate
Female	59 (47.6)	0.6
Male	65 (52.4)	0.7
Unknown gender	0	
Race	Number (Percent)	Rate
White	81 (66.4)	0.5
Black	26 (21.3)	0.8
Other	15 (12.3)	NA
Unknown race	2	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	48 (40.0)	0.3
Hispanic	72 (60.0)	1.6
Unknown ethnicity	4	

Reported Dengue Fever Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=124)
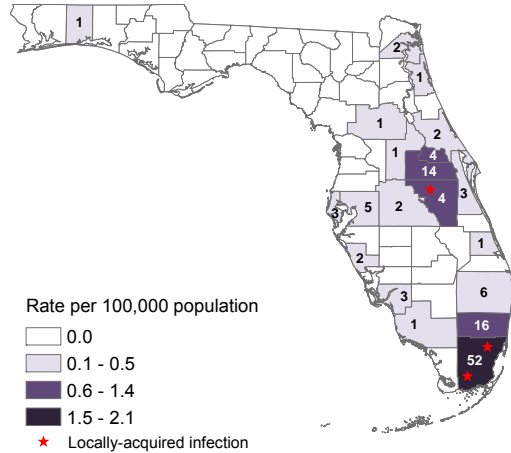
Rate per 100,000 population
- 0.0
- 0.1 - 0.5
- 0.6 - 1.4
- 1.5 - 2.1
- ★ Locally-acquired infection

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Dengue Fever Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — — Previous 5-year average

Five-Year Gender Trend

— Female — — Male

Five-Year Race* Trend

— White — — Black — Other

Five-Year Ethnicity* Trend

— Non-Hispanic — — Hispanic
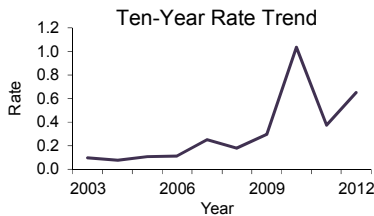
* Note that race and ethnicity trend graphs should be interpreted with caution. For dengue fever, the percent of cases with missing race by year was 21.2% in 2008, 5.5% in 2009, 3.1% in 2010, 2.8% in 2011 and 1.6% in 2012; missing ethnicity by year was 21.2% in 2008, 1.8% in 2009, 4.1% in 2010, 2.8% in 2011 and 3.2% in 2012.

Summary of Case Factors

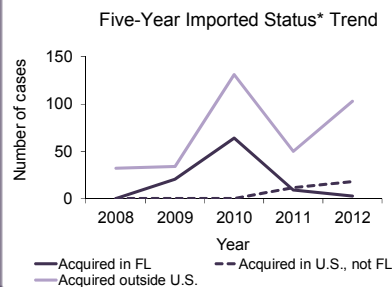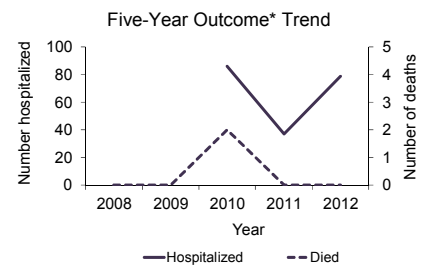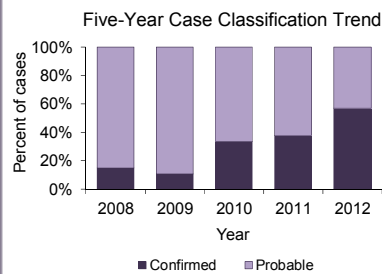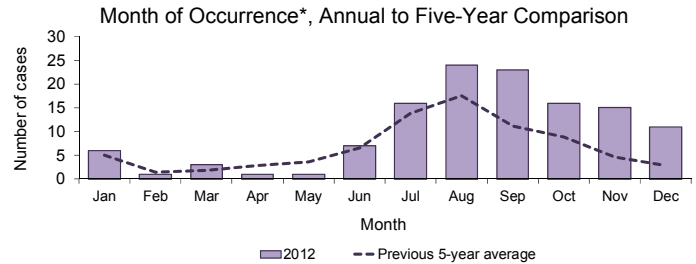| Summary	Number
Number of cases	124
Case Classification	Number (Percent)
Confirmed	71 (57.3)
Probable	53 (42.7)
Outcome*	Number (Percent)
Hospitalized	79 (63.7)
Died	0 (0.0)
Imported Status*	Number (Percent)
Acquired in Florida	3 (2.4)
Acquired in the U.S., not Florida	18 (14.5)
Acquired outside the U.S.	103 (83.1)
Imported status unknown	0 (0.0)
Outbreak Status*	Number (Percent)
Sporadic	118 (95.2)
Outbreak-associated	3 (2.4)
Outbreak status unknown	3 (2.4)
Type of Disease	Number (Percent)
Dengue fever	123 (99.2)
Dengue hemorrhagic fever	1 (0.8)
Region where Infection Acquired	Number (Percent)
Florida	3 (2.4)
Puerto Rico (considered U.S.)	17 (13.7)
Virigin Islands (considered U.S.)	1 (0.8)
Central America/Caribbean	92 (74.2)
Asia	5 (4.0)
South America	4 (3.2)
Africa	1 (0.8)
Europe	1 (0.8)

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.

Reported Dengue Fever Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.

Ehrlichiosis/Anaplasmosis

Disease Facts

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: More ehrlichiosis cases were reported in 2012 than any previous year. There is no standardized surveillance program for identifying disease in tick populations in Florida, making it difficult to ascertain why case numbers fluctuate from year to year. Most of the infections were acquired in Florida, particularly in the north central part of the state. Though transmission peaks in the spring, cases are reported year round in Florida.
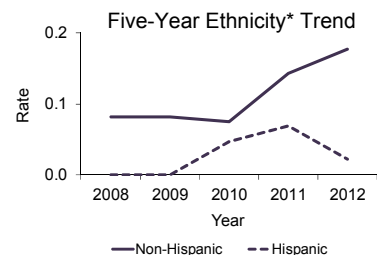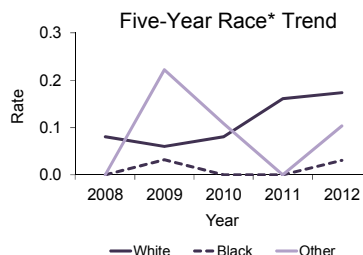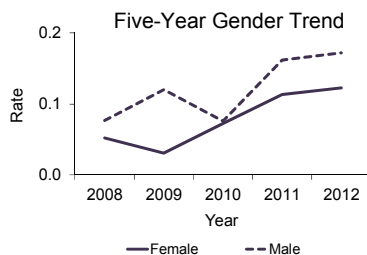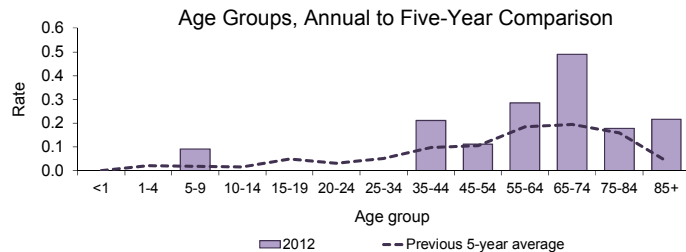
Summary of Case Demographics

Summary		
Number of cases		28
Incidence rate (per 100,000 population)		0.1
Change from 5-year average incidence		+63.4%
Age (in years)		
Mean		59
Median		64
Min-max		7 - 86
Gender	Number (Percent)	Rate
Female	12 (42.9)	NA
Male	16 (57.1)	NA
Unknown gender	0	
Race	Number (Percent)	Rate
White	26 (92.9)	0.2
Black	1 (3.6)	NA
Other	1 (3.6)	NA
Unknown race	0	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	26 (96.3)	0.2
Hispanic	1 (3.7)	NA
Unknown ethnicity	1	

Reported Ehrlichiosis/Anaplasmosis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=21)
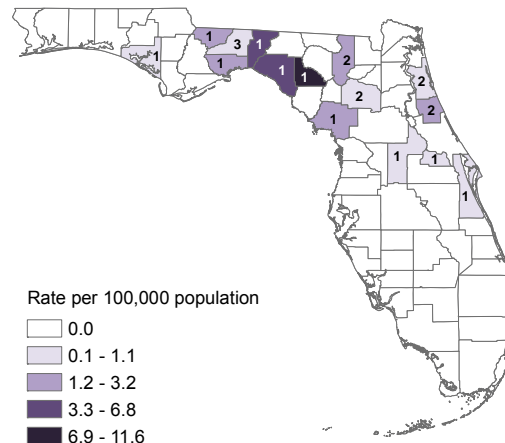
Rate per 100,000 population
- 0.0
- 0.1 - 1.1
- 1.2 - 3.2
- 3.3 - 6.8
- 6.9 - 11.6

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Ehrlichiosis/Anaplasmosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — Previous 5-year average

Five-Year Gender Trend — Female — Male

Five-Year Race* Trend — White — Black — Other

Five-Year Ethnicity* Trend — Non-Hispanic — Hispanic
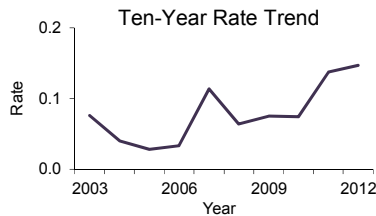
* Note that race and ethnicity trend graphs should be interpreted with caution. For ehrlichiosis/anaplasmosis, the percent of cases with missing race by year was 0.0% in 2008, 14.3% in 2009, 7.1% in 2010, 7.7% in 2011 and 0.0% in 2012; missing ethnicity by year was 0.0% in 2008, 14.3% in 2009, 7.1% in 2010, 7.7% in 2011 and 3.6% in 2012.
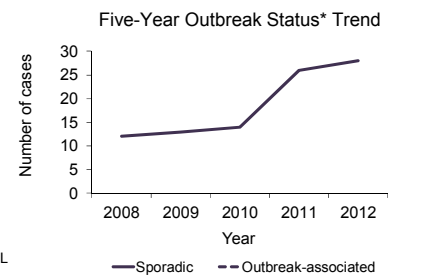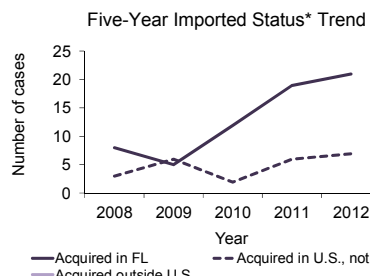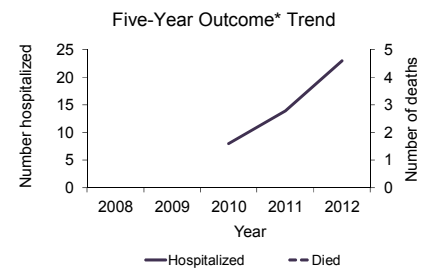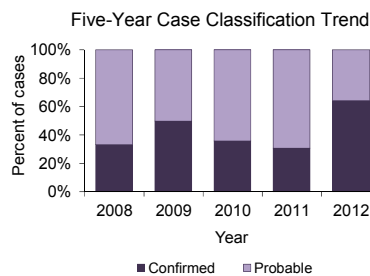
Summary of Case Factors

Summary	Number
Number of cases	28
Case Classification	**Number (Percent)**
Confirmed	18 (64.3)
Probable	10 (35.7)
Outcome*	**Number (Percent)**
Hospitalized	23 (82.1)
Died	0 (0.0)
Imported Status*	**Number (Percent)**
Acquired in Florida	21 (75.0)
Acquired in the U.S., not Florida	7 (25.0)
Acquired outside the U.S.	0 (0.0)
Imported status unknown	0 (0.0)
Outbreak Status*	**Number (Percent)**
Sporadic	28 (100.0)
Outbreak-associated	0 (0.0)
Outbreak status unknown	0 (0.0)
Type of Infection	**Number (Percent)**
E. chaffeensis (HME)	23 (82.1)
A. phagocytophilum (HGA)	5 (17.9)
E. ewingii	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.

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

Reported Ehrlichiosis/Anaplasmosis Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

one of the most commonly encountered ticks in the southeastern U.S. Human 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.

* 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. Note that 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. Outcome 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.

Giardiasis

Disease Facts

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.
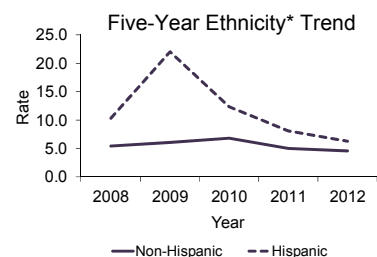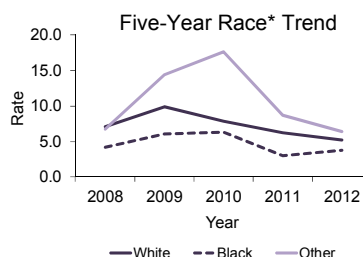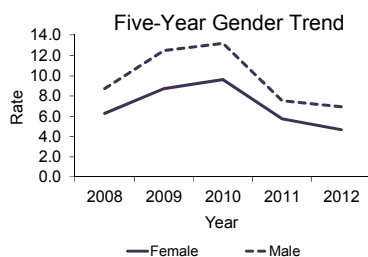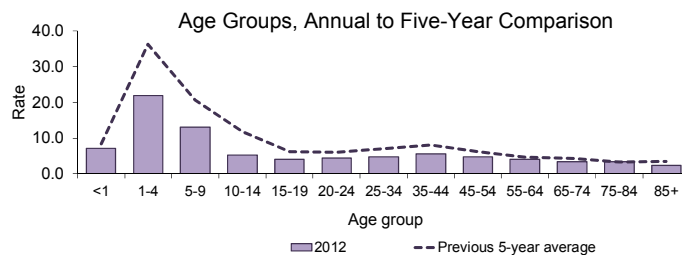
Summary of Case Demographics

Summary		
Number of cases		1,095
Incidence rate (per 100,000 population)		5.8
Change from 5-year average incidence		-33.0%
Age (in years)		
Mean		30
Median		27
Min-max		0 - 94
Gender	Number (Percent)	Rate
Female	452 (41.3)	4.6
Male	643 (58.7)	6.9
Unknown gender	0	
Race	Number (Percent)	Rate
White	780 (81.3)	5.2
Black	118 (12.3)	3.7
Other	62 (6.5)	6.5
Unknown race	135	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	673 (70.7)	4.6
Hispanic	279 (29.3)	6.3
Unknown ethnicity	143	

Reported Giardiasis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=773)
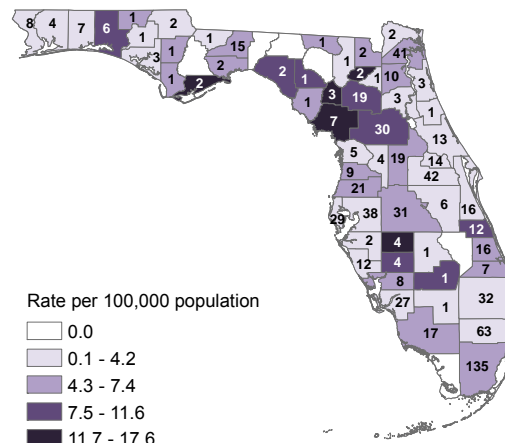
Rate per 100,000 population
- 0.0
- 0.1 - 4.2
- 4.3 - 7.4
- 7.5 - 11.6
- 11.7 - 17.6

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Giardiasis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison
- 2012
- Previous 5-year average

Five-Year Gender Trend
- Female
- Male

Five-Year Race* Trend
- White
- Black
- Other

Five-Year Ethnicity* Trend
- Non-Hispanic
- Hispanic
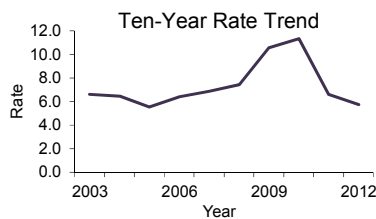
* Note that race and ethnicity trend graphs should be interpreted with caution. For giardiasis, the percent of cases with missing race by year was 11.6% in 2008, 10.4% in 2009, 28.7% in 2010, 12.3% in 2011 and 12.3% in 2012; missing ethnicity by year was 12.5% in 2008, 9.3% in 2009, 28.7% in 2010, 13.1% in 2011 and 13.1% in 2012.

Section 2: Data Summaries for Selected Reportable Diseases/Conditions of Frequent Occurrence

Summary of Case Factors

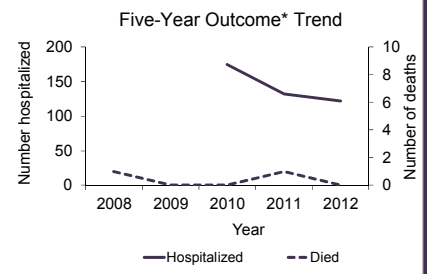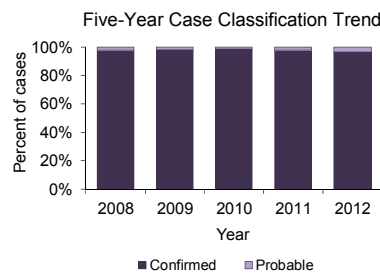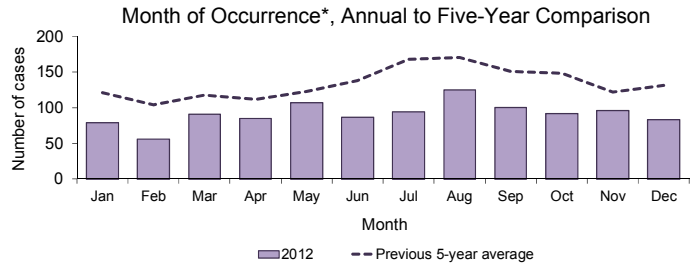| Summary	Number
Number of cases	1,095
Case Classification	Number (Percent)
Confirmed	1,058 (96.6)
Probable	37 (3.4)
Outcome*	Number (Percent)
Hospitalized	122 (11.1)
Died	0 (0.0)
Sensitive Situation*	Number (Percent)
Daycare attendee	80 (7.3)
Daycare staff	8 (0.7)
Health care staff	19 (1.7)
Food handler	8 (0.7)
Imported Status*	Number (Percent)
Acquired in Florida	773 (70.6)
Acquired in the U.S., not Florida	31 (2.8)
Acquired outside the U.S.	232 (21.2)
Imported status unknown	59 (5.4)
Outbreak Status*	Number (Percent)
Sporadic	970 (88.6)
Outbreak-associated	108 (9.9)
Outbreak status unknown	17 (1.6)

Reported Giardiasis Cases by Month of Occurrence*, Case Classification, Outcome*, Sensitive Situation*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Sensitive Situation* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome and 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.

Gonorrhea

Disease Facts

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. The number of cases and rate of gonorrhea have 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.
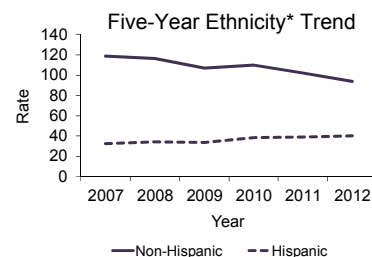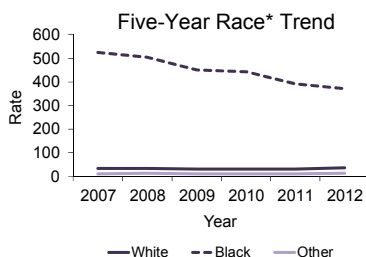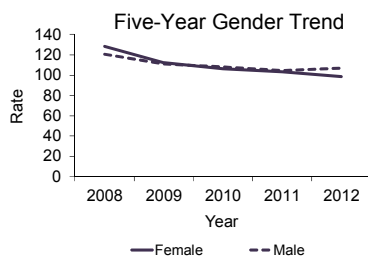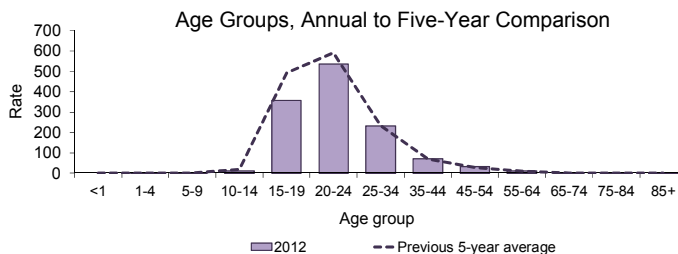
Summary of Case Demographics

Summary		
Number of cases		19,554
Incidence rate (per 100,000 population)		102.7
Change from 5-year average incidence		-10.6%
Age (in years)		
Mean		27
Median		24
Min-max		1 - 87
Gender	Number (Percent)	Rate
Female	9,613 (49.2)	98.8
Male	9,941 (50.8)	106.8
Unknown gender	0	
Race	Number (Percent)	Rate
White	5,523 (31.8)	37.0
Black	11,689 (67.4)	371.0
Other	131 (0.8)	13.6
Unknown race	2,211	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	13,690 (88.6)	93.6
Hispanic	1,760 (11.4)	39.9
Unknown ethnicity	4,104	

Reported Gonorrhea Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=19,554)
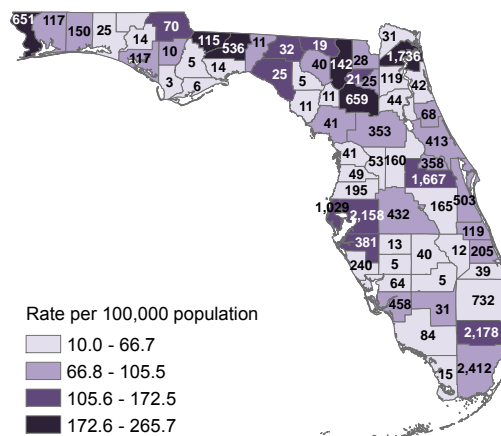
Rate per 100,000 population
- 10.0 - 66.7
- 66.8 - 105.5
- 105.6 - 172.5
- 172.6 - 265.7

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Gonorrhea Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison
- 2012
- Previous 5-year average

Five-Year Gender Trend
- Female
- Male

Five-Year Race* Trend
- White
- Black
- Other

Five-Year Ethnicity* Trend
- Non-Hispanic
- Hispanic
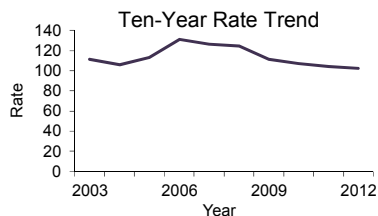
* Note that race and ethnicity trend graphs should be interpreted with caution. For gonorrhea, the percent of cases with missing race by year was 12.0% in 2008, 12.0% in 2009, 9.0% in 2010, 13.0% in 2011 and 11.0% in 2012; missing ethnicity by year was 21.0% in 2008, 19.0% in 2009, 13.0% in 2010, 16.0% in 2011 and 21.0% in 2012.

H. influenzae, Invasive Disease in Children <5 Years Old

Disease Facts

Cause: *Haemophilus influenzae* bacteria

Type of illness: Can present as pneumonia, bacteremia, septicemia, meningitis, epiglottitis, septic arthritis, cellulitis, 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. Three Hib cases were reported in 2012, compared to zero cases in 2011 and four cases in 2010.
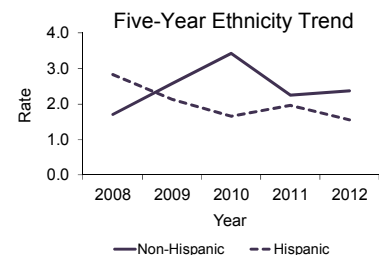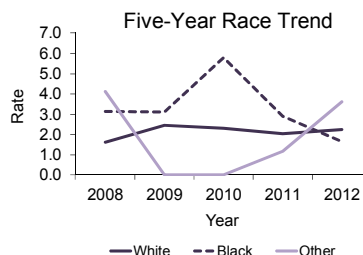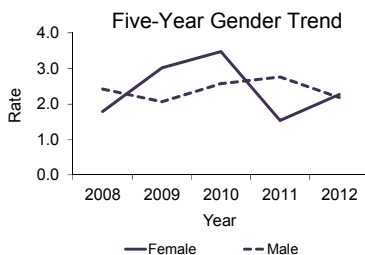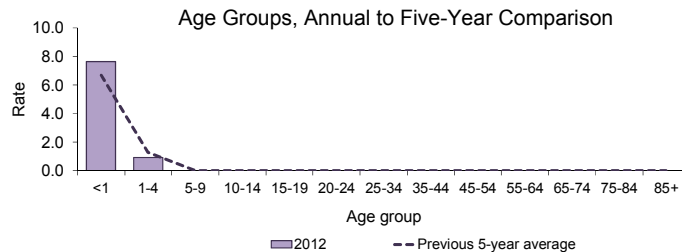
Summary of Case Demographics

Summary		
Number of cases		24
Incidence rate (per 100,000 population)		2.2
Change from 5-year average incidence		-7.2%
Age (in years)		
Mean		1
Median		<1
Min-max		0 - 3
Gender	Number (Percent)	Rate
Female	12 (50.0)	NA
Male	12 (50.0)	NA
Unknown gender	0	
Race	Number (Percent)	Rate
White	17 (70.8)	NA
Black	4 (16.7)	NA
Other	3 (12.5)	NA
Unknown race	0	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	18 (78.3)	NA
Hispanic	5 (21.7)	NA
Unknown ethnicity	1	

Reported *H. influenzae*, Invasive Disease Cases in Children <5 Years Old and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=24)
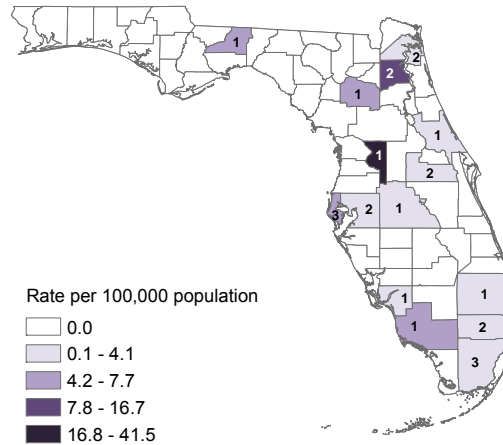
Rate per 100,000 population
- 0.0
- 0.1 - 4.1
- 4.2 - 7.7
- 7.8 - 16.7
- 16.8 - 41.5

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported *H. influenzae*, Invasive Disease Cases in Children <5 Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — — Previous 5-year average

Five-Year Gender Trend

— Female — – Male

Five-Year Race Trend

— White — – Black — Other

Five-Year Ethnicity Trend

— Non-Hispanic — – Hispanic
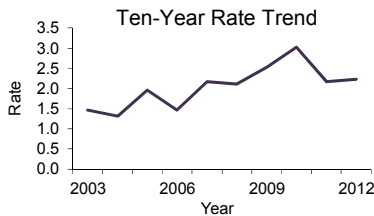
Summary of Case Factors

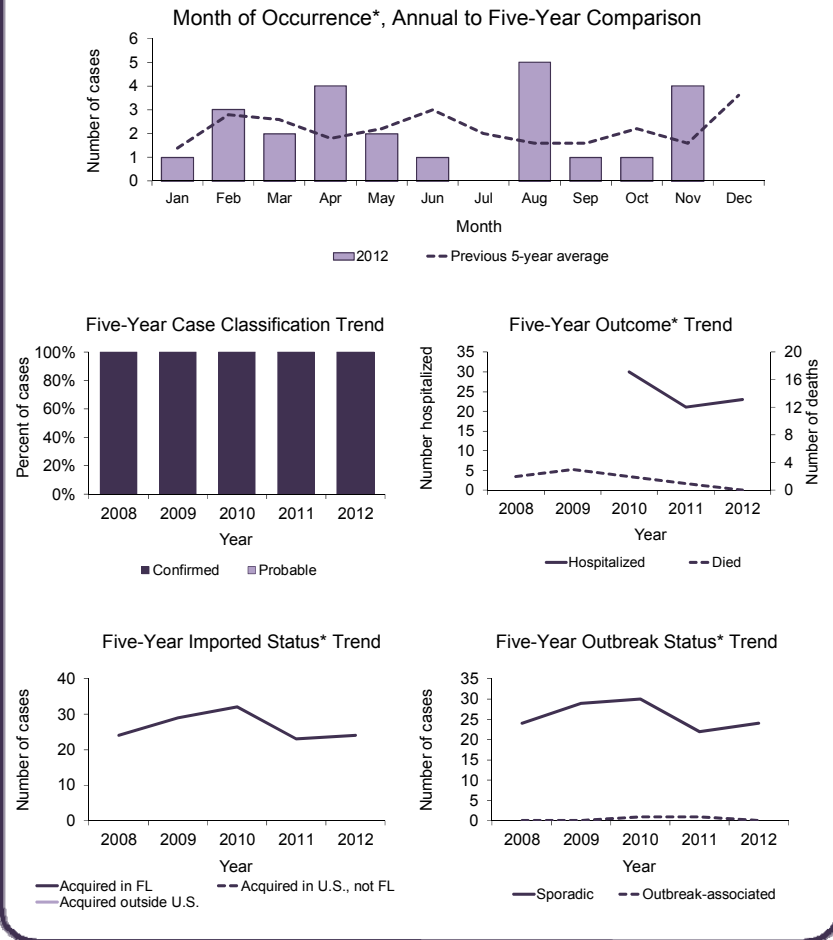| Summary	Number
Number of cases	24
Case Classification	Number (Percent)
Confirmed	24 (100.0)
Probable	0 (0.0)
Outcome*	Number (Percent)
Hospitalized	23 (95.8)
Died	0 (0.0)
Imported Status*	Number (Percent)
Acquired in Florida	24 (100.0)
Acquired in the U.S., not Florida	0 (0.0)
Acquired outside the U.S.	0 (0.0)
Imported status unknown	0 (0.0)
Outbreak Status*	Number (Percent)
Sporadic	24 (100.0)
Outbreak-associated	0 (0.0)
Outbreak status unknown	0 (0.0)

Reported *H. influenzae*, Invasive Disease Cases in Children <5 Years Old by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

* 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. Note that 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. Outcome 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.

HIV Infection

Disease Facts

Cause: HIV virus

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) 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: Enhanced reporting laws in 2006 and expansion of electronic laboratory reporting in 2007 led to an artificial peak in newly diagnosed HIV infections in 2007 and an increase in reported HIV infection cases in 2008, followed by decreases in 2009 and 2010. New HIV infection cases began to rise in 2011 and continued to increase in 2012.
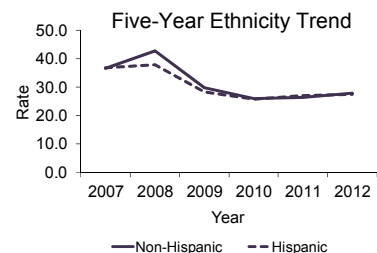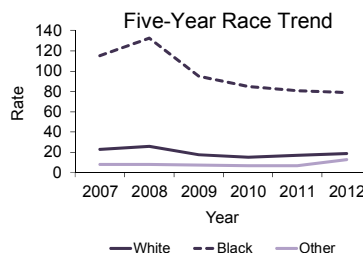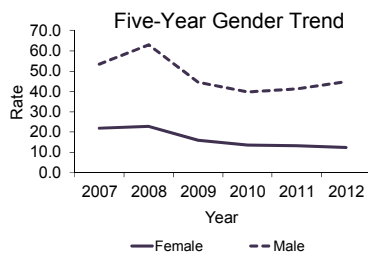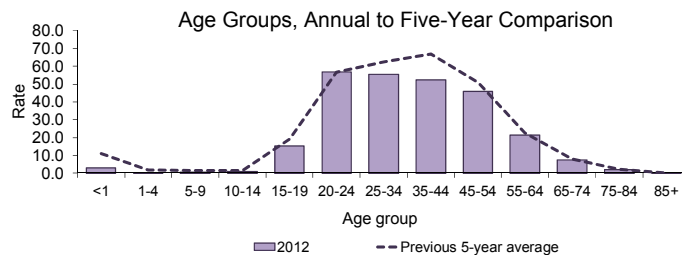
Summary of Case Demographics

Summary		
Number of cases		5,388
Incidence rate (per 100,000 population)		28.3
Change from 5-year average incidence		-13.0%
Age (in years)		
Mean		39
Median		39
Min-max		0 - 85
Gender	Number (Percent)	Rate
Female	1,208 (22.4)	12.4
Male	4,180 (77.6)	44.9
Unknown gender	0	
Race	Number (Percent)	Rate
White	2,753 (51.3)	18.4
Black	2,488 (46.4)	79.0
Other	125 (2.3)	13.0
Unknown race	22	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	4,093 (77.2)	28.0
Hispanic	1,211 (22.8)	27.4
Unknown ethnicity	84	

Reported HIV Infection Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=5,266)

Rate per 100,000 population
- 0.0
- 0.1 - 13.7
- 13.8 - 20.1
- 20.2 - 32.8
- 32.9 - 50.3
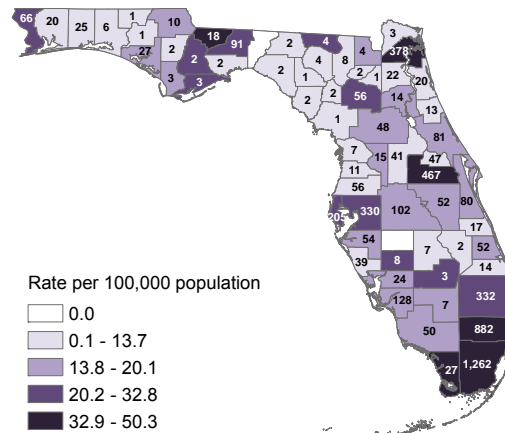
County totals exclude cases identified while incarcerated (n=122). Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported HIV Infection Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

Five-Year Gender Trend

Five-Year Race Trend

Five-Year Ethnicity Trend
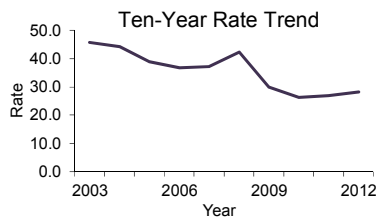
Table 1: Reported Adult (13 Years and Older) HIV Infection Cases by Gender and Mode of Exposure, Florida, 2012

Mode of exposure	Female cases (n=1,200)	Male cases (n=4,168)
	Number (percent)	Number (percent)
Men who have sex with men (MSM)	NA	3,110 (74.6)
Heterosexual	1,089 (90.8)	804 (19.3)
Injection drug user (IDU)	100 (8.3)	156 (3.7)
MSM and IDU	NA	93 (2.2)
Other	11 (0.9)	5 (0.1)
Total	1,200	4,168

Figure 1: Reported Adult (13 Years and Older) HIV Infection Cases by Gender and Race/Ethnicity, Florida 2012

Females (n=1,200)

Other 0.8%
White 18.1%
Hispanic 14.6%
Black 66.5%

Males (n=4,168)

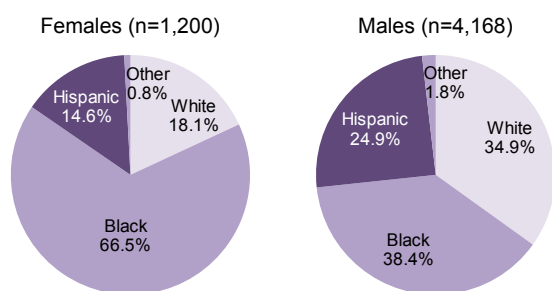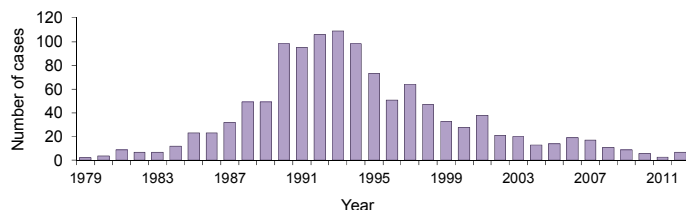Other 1.8%
White 34.9%
Hispanic 24.9%
Black 38.4%

Figure 2: Reported Perinatal HIV Infection Cases by Year of Birth, Florida, 1979-2012

HIV infection cases tend to represent a more current picture of the AIDS epidemic. For HIV infection cases in men reported in 2012, male-to-male sexual contact (MSM) was the most common risk factor (74.6%), followed by cases involving heterosexual risk (19.3%) (Table 1).

In 2012, HIV infection cases by race and ethnicity are more evenly distributed among men compared to women; 66.5% of infected adult women are black (Figure 1).

From 1979 to 2012, 1,197 perinatally-infected babies were born in Florida (Figure 2). The birth of HIV-infected babies rose from 1979 through 1993. In April 1994, the U.S. Public Health Service released guidelines for zidovudine (ZDV) also known as azidothymidine (AZT), used 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 pregnancy. 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 (TOPWA) 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 93.6% decline in perinatally-infected births in Florida from 109 cases in 1993 to 7 cases in 2012 (note that one of the seven cases born in 2012 was not recognized until 2013 and is not included in other HIV infection case counts in this report).

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

Please visit the Bureau of Communicable Diseases' webpage to access additional information at http://www.floridahealth.gov/diseases-and-conditions/aids/surveillance/index.html.

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

Hepatitis A

Disease Facts

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; person-to-person

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 (31.4% in 2012).
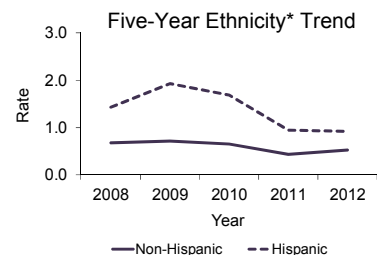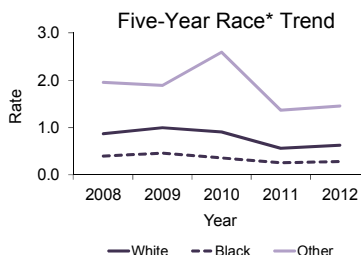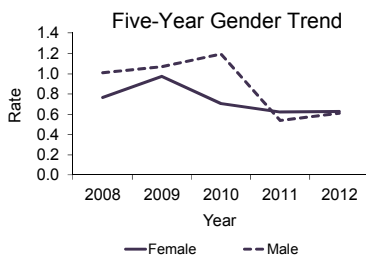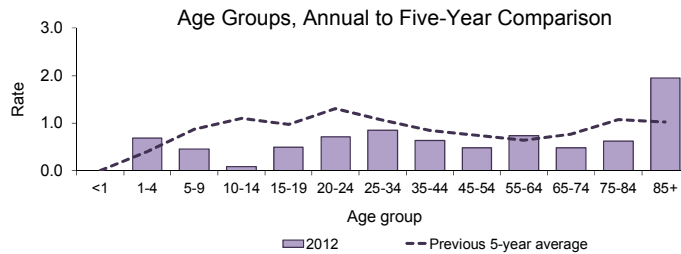
Summary of Case Demographics

Summary		
Number of cases		118
Incidence rate (per 100,000 population)		0.6
Change from 5-year average incidence		-28.8%
Age (in years)		
Mean		45
Median		44
Min-max		3 - 95
Gender	Number (Percent)	Rate
Female	61 (51.7)	0.6
Male	57 (48.3)	0.6
Unknown gender	0	
Race	Number (Percent)	Rate
White	95 (80.5)	0.6
Black	9 (7.6)	NA
Other	14 (11.9)	NA
Unknown race	0	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	77 (65.3)	0.5
Hispanic	41 (34.7)	0.9
Unknown ethnicity	0	

Reported Hepatitis A Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=77)

Rate per 100,000 population
- 0.0
- 0.1 - 0.6
- 0.7 - 1.4
- 1.5 - 4.4
- 4.5 - 8.6
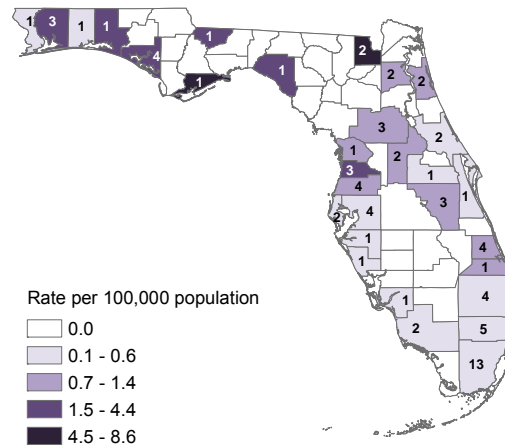
Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Hepatitis A Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
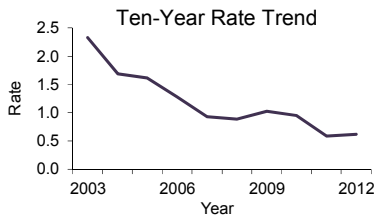
Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — Previous 5-year average

Five-Year Gender Trend

—Female --Male

Five-Year Race* Trend

—White --Black —Other

Five-Year Ethnicity* Trend

—Non-Hispanic --Hispanic

* Note that race and ethnicity trend graphs should be interpreted with caution. For hepatitis A, the percent of cases with missing race by year was 4.8% in 2008, 6.3% in 2009, 4.5% in 2010, 3.6% in 2011 and 0.0% in 2012; missing ethnicity by year was 4.8% in 2008, 3.7% in 2009, 5.6% in 2010, 3.6% in 2011 and 0.0% in 2012.

Summary of Case Factors

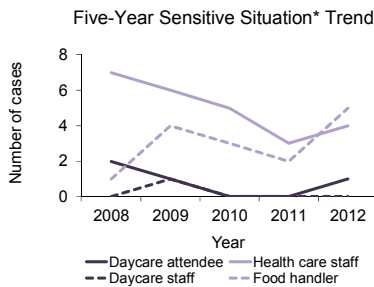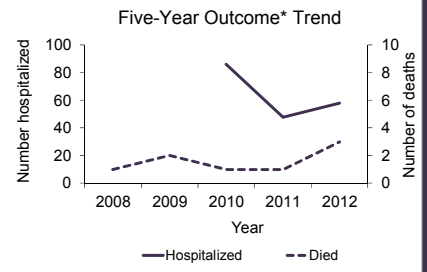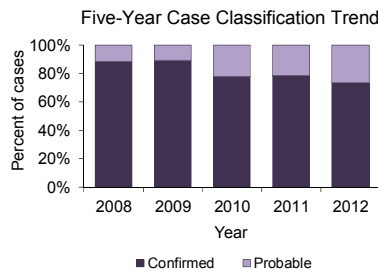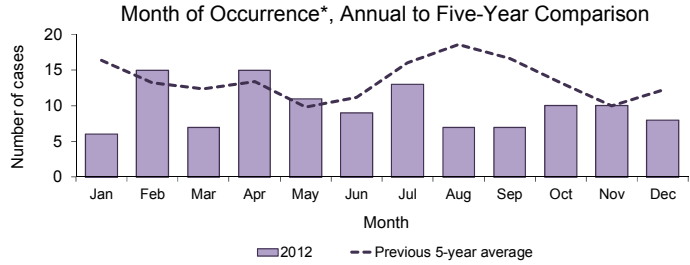| Summary	Number
Number of cases	118
Case Classification	**Number (Percent)**
Confirmed	87 (73.7)
Probable	31 (26.3)
Outcome*	**Number (Percent)**
Hospitalized	58 (49.2)
Died	3 (2.5)
Sensitive Situation*	**Number (Percent)**
Daycare attendee	1 (0.8)
Daycare staff	0 (0.0)
Health care staff	4 (3.4)
Food handler	5 (4.2)
Imported Status*	**Number (Percent)**
Acquired in Florida	77 (65.3)
Acquired in the U.S., not Florida	0 (0.0)
Acquired outside the U.S.	37 (31.4)
Imported status unknown	4 (3.4)
Outbreak Status*	**Number (Percent)**
Sporadic	112 (94.9)
Outbreak-associated	6 (5.1)
Outbreak status unknown	0 (0.0)

Reported Hepatitis A Cases by Month of Occurrence*, Case Classification, Outcome*, Sensitive Situation*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Sensitive Situation* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome and 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.

Hepatitis B, Acute

Disease Facts

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

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 and vaccines

Comments: Hepatitis B is a vaccine-preventable disease. Incidence has declined steadily over the last decade likely due to increased use of vaccine, however the number of cases increased in 2012 for the first time in 10 years. Approximately 5% of acute HBV infections progress to chronic infections.

Summary of Case Demographics

Summary		
Number of cases		292
Incidence rate (per 100,000 population)		1.5
Change from 5-year average incidence		-9.8%
Age (in years)		
Mean		45
Median		44
Min-max		0 - 88
Gender	Number (Percent)	Rate
Female	122 (41.8)	1.3
Male	170 (58.2)	1.8
Unknown gender	0	
Race	Number (Percent)	Rate
White	211 (77.3)	1.4
Black	50 (18.3)	1.6
Other	12 (4.4)	NA
Unknown race	19	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	233 (87.3)	1.6
Hispanic	34 (12.7)	0.8
Unknown ethnicity	25	

Reported Acute Hepatitis B Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=292)
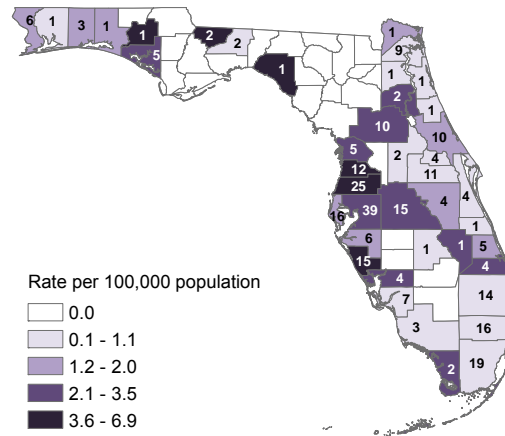
Rate per 100,000 population
- 0.0
- 0.1 - 1.1
- 1.2 - 2.0
- 2.1 - 3.5
- 3.6 - 6.9

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Acute Hepatitis B Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
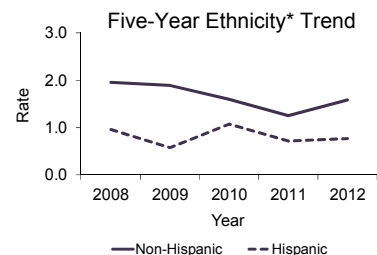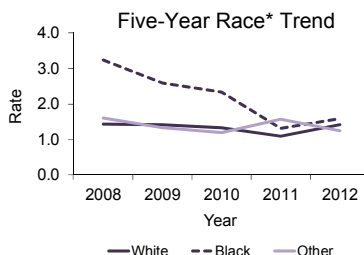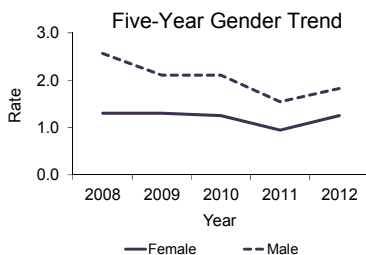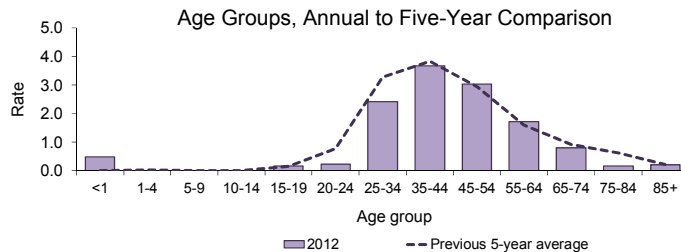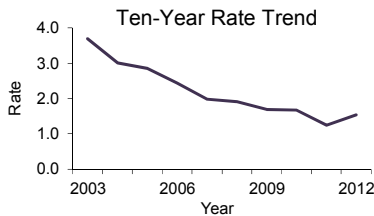
* Note that race and ethnicity trend graphs should be interpreted with caution. For acute hepatitis B, the percent of cases with missing race by year was 9.5% in 2008, 5.3% in 2009, 10.8% in 2010, 7.2% in 2011 and 6.5% in 2012; missing ethnicity by year was 9.2% in 2008, 5.7% in 2009, 11.4% in 2010, 8.5% in 2011 and 8.6% in 2012.

Summary of Case Factors

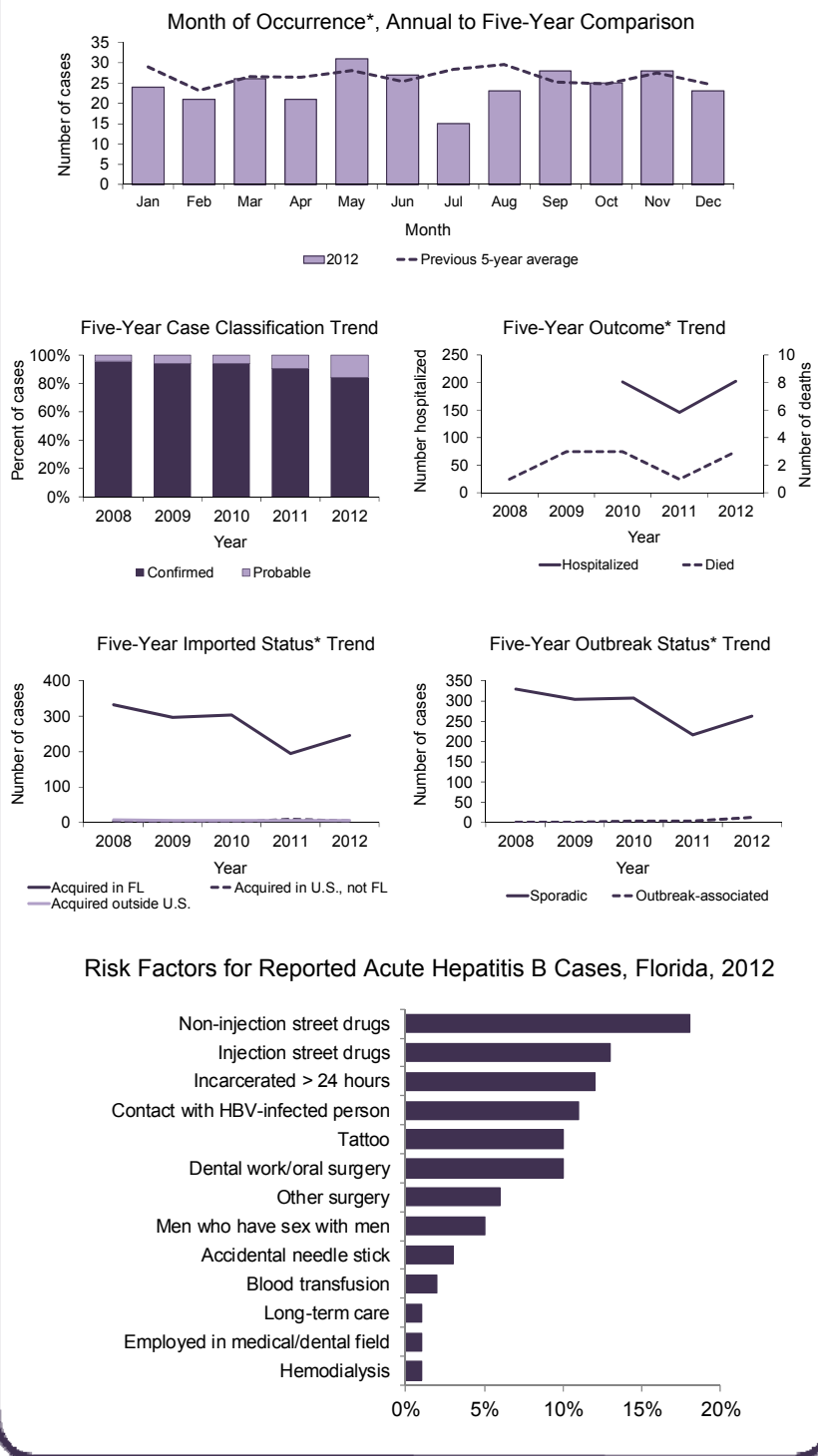| Summary	Number
Number of cases	292
Case Classification	Number (Percent)
Confirmed	247 (84.6)
Probable	45 (15.4)
Outcome*	Number (Percent)
Hospitalized	203 (69.5)
Died	3 (1.0)
Imported Status*	Number (Percent)
Acquired in Florida	245 (83.9)
Acquired in the U.S., not Florida	4 (1.4)
Acquired outside the U.S.	5 (1.7)
Imported status unknown	38 (13.0)
Outbreak Status*	Number (Percent)
Sporadic	263 (90.1)
Outbreak-associated	12 (4.1)
Outbreak status unknown	17 (5.8)

The number of reported hepatitis B cases increased for the first time in the last 10 years. The increase was seen in both genders, blacks and whites, but not in Hispanics.

An increase was seen in the number of outbreak-associated hepatitis B cases for the first time in five years. The 11 outbreak-associated cases were each linked to one other case; four sexual links (with one case linked to a 2010 case) and one household link. Both the increase in cases and outbreak-associated cases can likely be attributed to improved reporting and surveillance as more providers report laboratory results electronically.

Reported risk factors for the 217 cases (74.3%) that were interviewed 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.

Reported Acute Hepatitis B Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

Risk Factors for Reported Acute Hepatitis B Cases, Florida, 2012

* 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. Note that 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. Outcome 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.

Hepatitis B, Surface Antigen in Pregnant Women

Disease Facts

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

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. Most infections are identified through routine screening programs of pregnant women. Identification of HBsAg in pregnant women allows for appropriate treatment of their infants, significantly reducing the infants' risk of contracting HBV. Of those infants infected perinatally, as many as 90% become chronically infected.

Summary of Case Demographics

Summary		
Number of cases		413
Incidence rate (per 100,000 population)		11.6
Change from 5-year average incidence		-25.7%
Age (in years)		
Mean		30
Median		30
Min-max		15 - 47
Gender	Number (Percent)	Rate
Female	413 (100.0)	11.6
Male	NA	NA
Unknown gender	NA	
Race	Number (Percent)	Rate
White	55 (14.0)	2.1
Black	189 (48.0)	26.5
Other	150 (38.1)	68.3
Unknown race	19	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	360 (93.5)	13.9
Hispanic	25 (6.5)	2.6
Unknown ethnicity	28	

Reported Hepatitis B Surface Antigen in Pregnant Women Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=413)
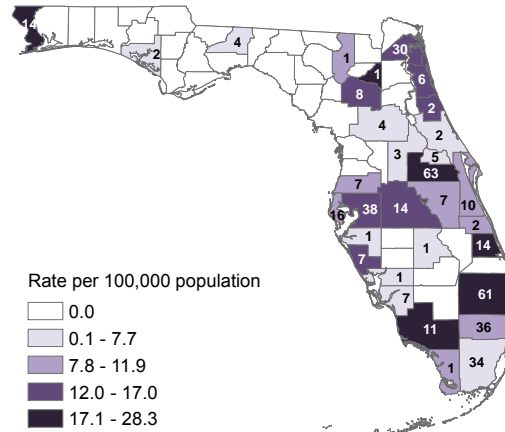
Rate per 100,000 population
- 0.0
- 0.1 - 7.7
- 7.8 - 11.9
- 12.0 - 17.0
- 17.1 - 28.3

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution. Rate is per 100,000 women aged 15-44 years.

Reported Hepatitis B Surface Antigen in Pregnant Women Incidence Rate per 100,000 Population by Year, Age, Race, and Ethnicity, Florida
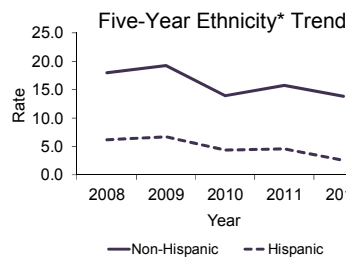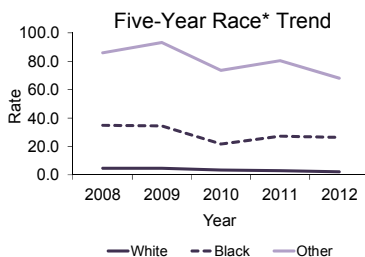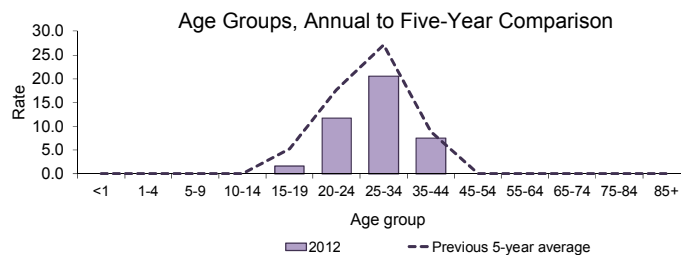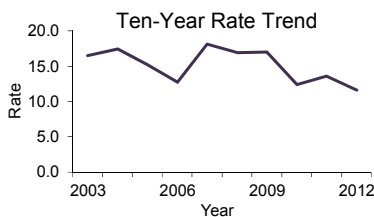
* Note that race and ethnicity trend graphs should be interpreted with caution. For hepatitis B surface antigen in pregnant women, the percent of cases with missing race by year was 8.7% in 2008, 6.0% in 2009, 5.9% in 2010, 4.2% in 2011 and 4.6% in 2012; missing ethnicity by year was 11.2% in 2008, 5.9% in 2009, 7.3% in 2010, 5.4% in 2011 and 6.8% in 2012.

Summary of Case Factors

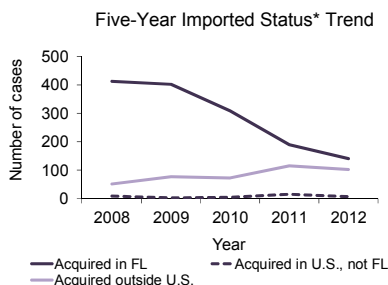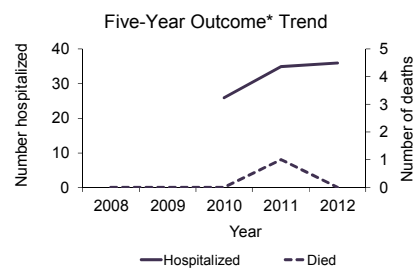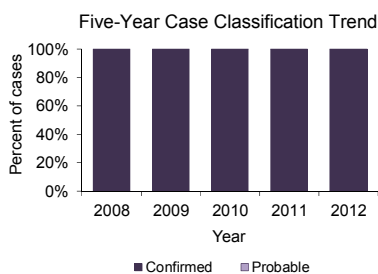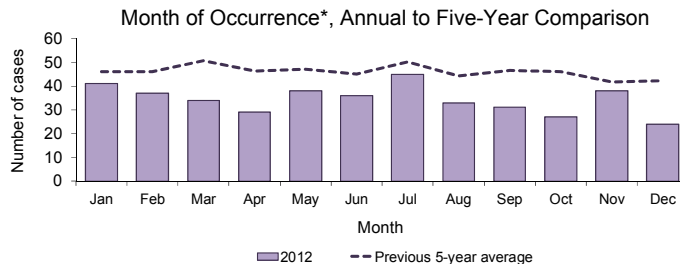| Summary	Number
Number of cases	413
Case Classification	Number (Percent)
Confirmed	413 (100.0)
Probable	0 (0.0)
Outcome*	Number (Percent)
Hospitalized	36 (8.7)
Died	0 (0.0)
Imported Status*	Number (Percent)
Acquired in Florida	141 (34.1)
Acquired in the U.S., not Florida	8 (1.9)
Acquired outside the U.S.	104 (25.2)
Imported status unknown	160 (38.7)
Outbreak Status*	Number (Percent)
Sporadic	403 (97.6)
Outbreak-associated	0 (0.0)
Outbreak status unknown	10 (2.4)

Note that there is no probable case classification for hepatitis surface antigen in pregnant women.

Reported Hepatitis B Surface Antigen in Pregnant Women Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.

Hepatitis C, Acute

Disease Facts

Cause: Hepatitis C virus (HCV)

Type of illness: Inflammation of the liver; sometimes asymptomatic; symptoms can include 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: The acute hepatitis C surveillance case definition changed in 2008, leading to more cases being classified as confirmed compared to previous reporting years.

Summary of Case Demographics

Summary		
Number of cases		168
Incidence rate (per 100,000 population)		0.9
Change from 5-year average incidence		+115.2%
Age (in years)		
Mean		34
Median		30
Min-max		16 - 72
Gender	Number (Percent)	Rate
Female	82 (48.8)	0.8
Male	86 (51.2)	0.9
Unknown gender	0	
Race	Number (Percent)	Rate
White	151 (93.2)	1.0
Black	7 (4.3)	NA
Other	4 (2.5)	NA
Unknown race	6	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	143 (90.5)	1.0
Hispanic	15 (9.5)	NA
Unknown ethnicity	10	

Risk Factors for Reported Acute Hepatitis C Cases, Florida, 2012
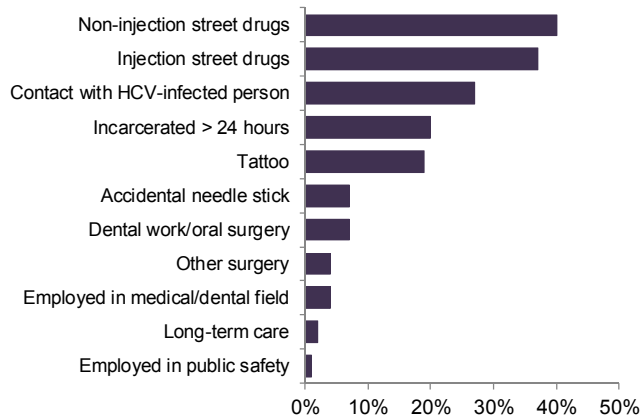
Reported Acute Hepatitis C Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
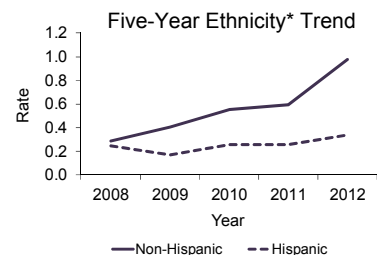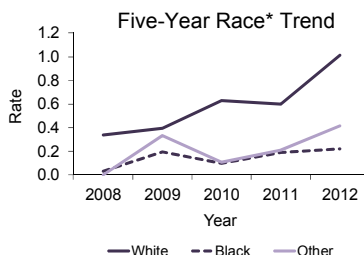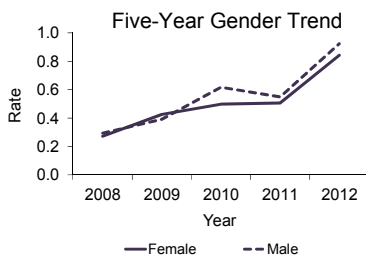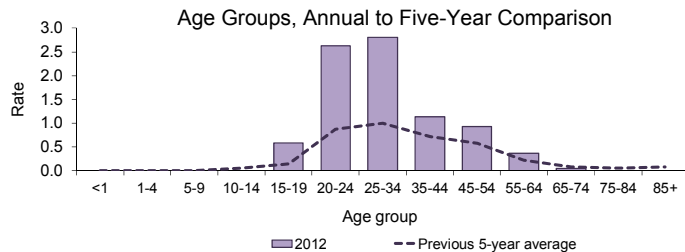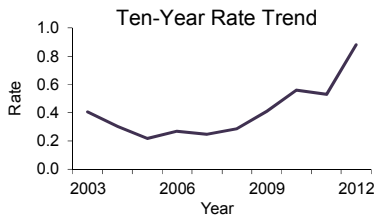
* Note that race and ethnicity trend graphs should be interpreted with caution. For acute hepatitis C, the percent of cases with missing race by year was 3.8% in 2008, 13.0% in 2009, 7.6% in 2010, 3.0% in 2011 and 3.6% in 2012; missing ethnicity by year was 1.9% in 2008, 14.3% in 2009, 12.4% in 2010, 2.0% in 2011 and 6.0% in 2012.

Summary of Case Factors

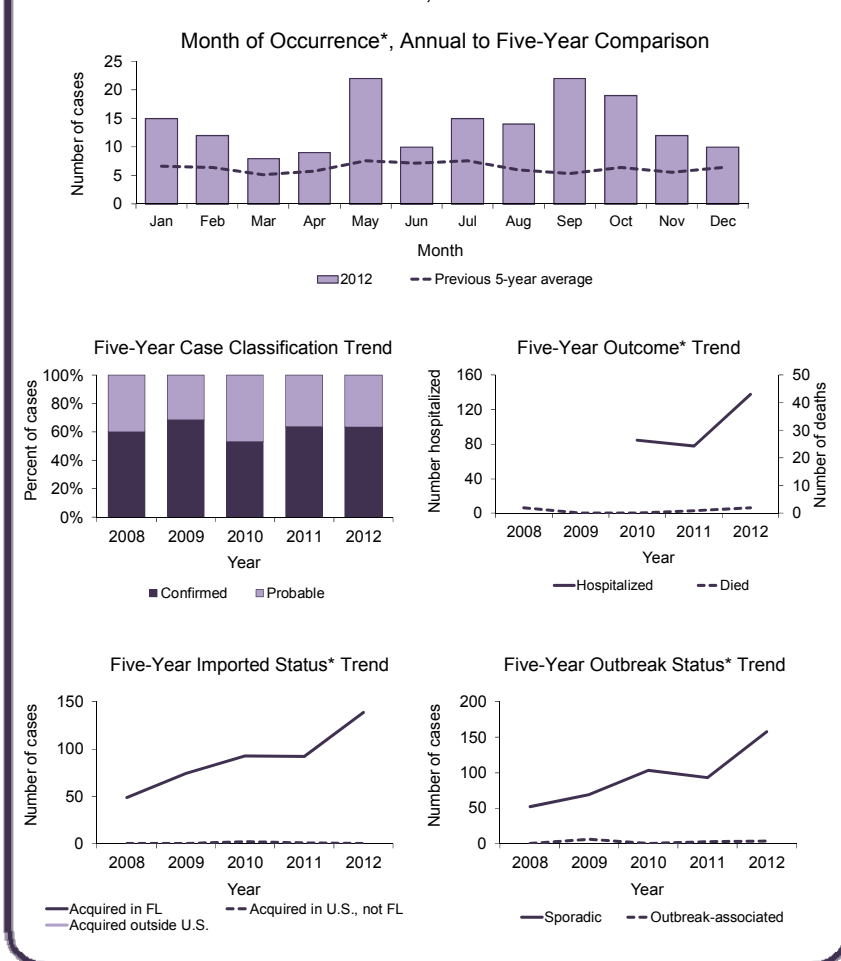| Summary	Number
Number of cases	168
Case Classification	**Number (Percent)**
Confirmed	107 (63.7)
Probable	61 (36.3)
Outcome*	**Number (Percent)**
Hospitalized	138 (82.1)
Died	2 (1.2)
Imported Status*	**Number (Percent)**
Acquired in Florida	139 (82.7)
Acquired in the U.S., not Florida	0 (0.0)
Acquired outside the U.S.	0 (0.0)
Imported status unknown	29 (17.3)
Outbreak Status*	**Number (Percent)**
Sporadic	158 (94.0)
Outbreak-associated	4 (2.4)
Outbreak status unknown	6 (3.6)

Variation in identified disease incidence at the local level probably reflects, to varying degrees, both differences in the true incidence of disease and differences in the vigor with which surveillance is performed. Conducting surveillance for acute hepatitis C has been difficult because no serologic marker for acute infection is available. Acute infection is differentiated from chronic infection by the presence of clinical symptoms and most acute cases (81% in 2012) are identified only when those symptoms warrant hospitalization. Hepatitis C is reportable by health care providers, however the majority of hepatitis laboratory results sent to

Reported Acute Hepatitis C Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

the Florida Department of Health (DOH) come from large reference laboratories. These reports do not include symptom information and require additional follow up to determine if they represent acute infection, chronic infection, or repeated testing of a person who was 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 received a small amount of funds to conduct enhanced surveillance of hepatitis C in young adults aged 18 to 30 years. Fourteen counties participated in the project from March 1-July 31. The most common risk factor identified in those cases was injection drug use, specifically injection of prescription opioids. Also in 2012, CDC recommended that all persons born between 1945 and 1965 be screened for hepatitis C. The increased testing and surveillance in 2012 allowed DOH to identify the most acute HCV cases in the past ten years. The risk factors reported by the 114 cases (67.9%) that were interviewed are shown on the previous page.

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* 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. Note that 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. Outcome 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.

Lead Poisoning

Disease Facts

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 2012 are presented in this report. Lead poisoning is most often identified in children as part of routine screening.

Summary of Case Demographics

Summary		
Number of cases		864
Incidence rate (per 100,000 population)		4.5
Change from 2-year average incidence		+35.0%
Age (in years)		
Mean		31
Median		32
Min-max		0 - 82
Gender	Number (Percent)	Rate
Female	101 (11.7)	1.0
Male	761 (88.3)	8.2
Unknown gender	2	
Race	Number (Percent)	Rate
White	396 (60.8)	2.7
Black	197 (30.3)	6.3
Other	58 (8.9)	6.0
Unknown race	213	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	447 (72.8)	3.1
Hispanic	167 (27.2)	3.8
Unknown ethnicity	250	

Reported Lead Poisoning Cases and Incidence Rates per 100,000 Population for Only Exposures Occurring in Florida by County of Residence, Florida, 2012 (N=618)
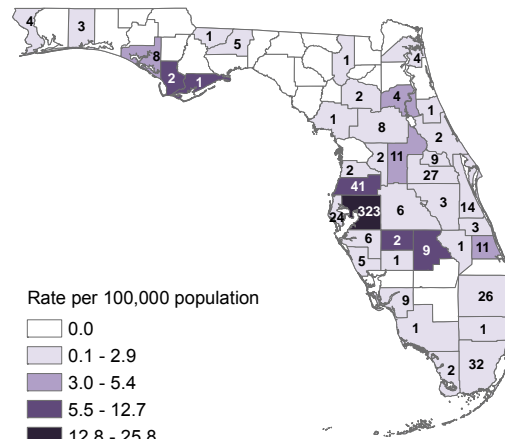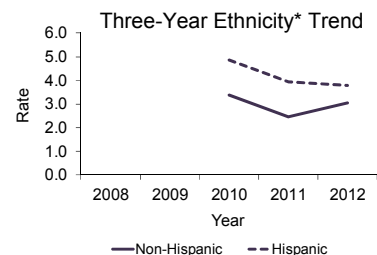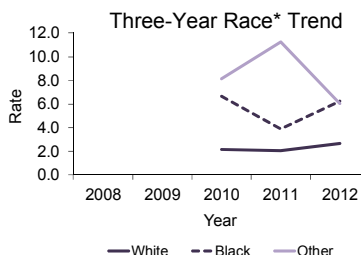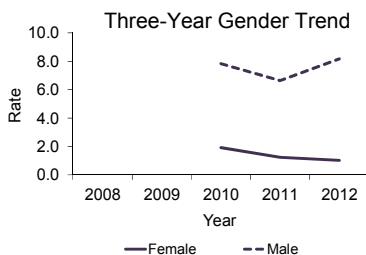

Rate per 100,000 population
- 0.0
- 0.1 - 2.9
- 3.0 - 5.4
- 5.5 - 12.7
- 12.8 - 25.8
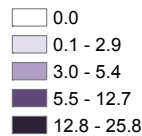
Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Lead Poisoning Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Three-Year Rate Trend

Age Groups, Annual to Two-Year Comparison

■ 2012   - - Previous 2-year average

Three-Year Gender Trend

—Female - -Male

Three-Year Race* Trend

—White - -Black —Other

Three-Year Ethnicity* Trend

—Non-Hispanic - -Hispanic
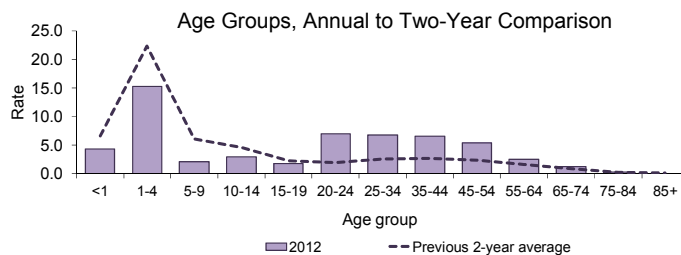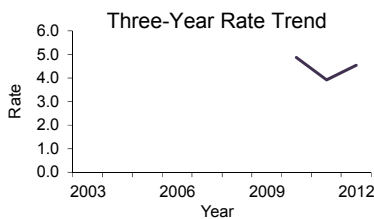
* Note that race and ethnicity trend graphs should be interpreted with caution. For lead poisoning, the percent of cases with missing race by year was 34.1% in 2010, 27.6% in 2011 and 24.7% in 2012; missing ethnicity by year was 23.6% in 2010, 28.4% in 2011 and 28.9% in 2012.

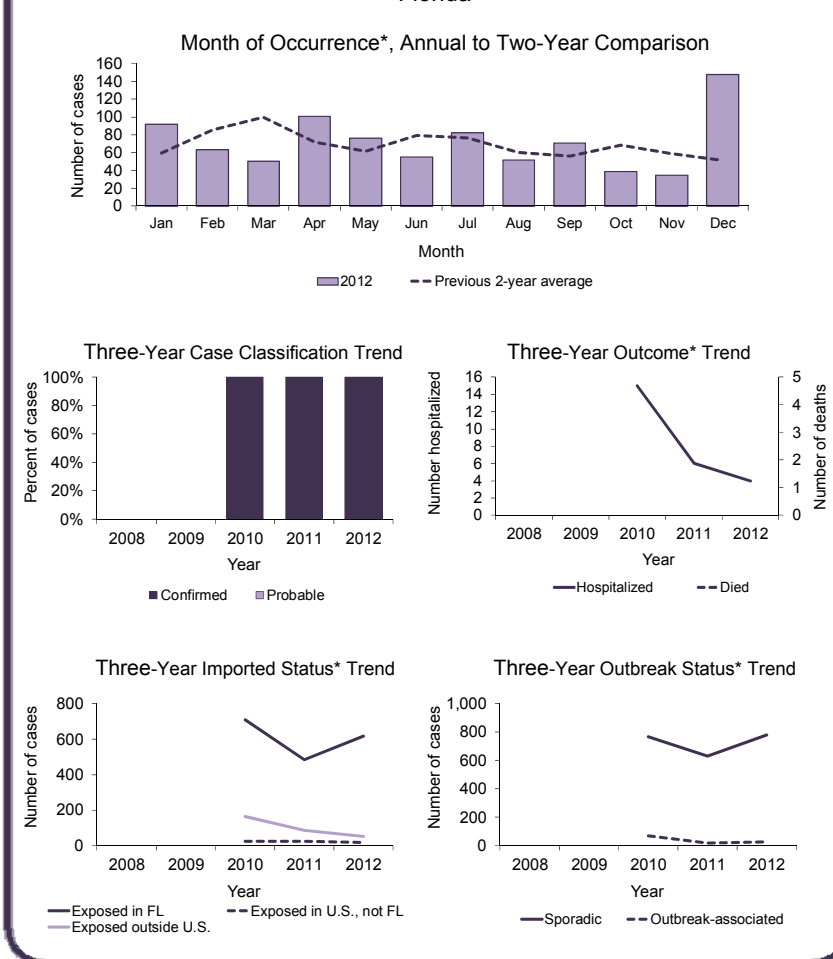| Summary	Number
Number of cases	864
Case Classification	**Number (Percent)**
Confirmed	864 (100.0)
Probable	0 (0.0)
Outcome*	**Number (Percent)**
Hospitalized	4 (0.5)
Died	0 (0.0)
Imported Status*	**Number (Percent)**
Exposed in Florida	618 (71.5)
Exposed in the U.S., not Florida	18 (2.1)
Exposed outside the U.S.	53 (6.1)
Imported status unknown	175 (20.3)
Outbreak Status*	**Number (Percent)**
Sporadic	782 (90.5)
Outbreak-associated	27 (3.1)
Outbreak status unknown	55 (6.4)

Note that there is no probable case classification for lead poisoning.

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

Reported Lead Poisoning Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

* 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. Note that 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. Outcome categories are not mutually exclusive, and most cases do not fall into any of these categories. Imported status refers to where the exposure most likely occurred. Outbreak-associated indicates that two or more cases are epidemiologically-linked.

Section 2: Data Summaries for Selected Reportable Diseases/Conditions of Frequent Occurrence

Legionellosis

Disease Facts

Cause: *Legionella* bacteria

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

Transmission: Airborne; inhalation of aerosolized water contaminated with *Legionella* bacteria

Reason for surveillance: Identify and control outbreaks, identify and mitigate common sources (e.g., contaminated hot tubs, decorative fountains), 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 water used for drinking and showering.
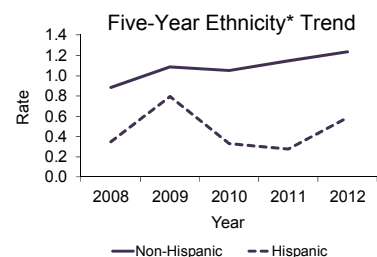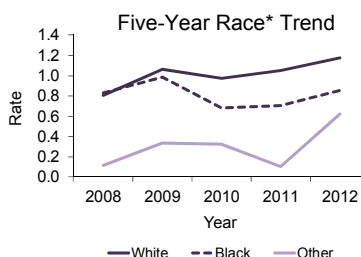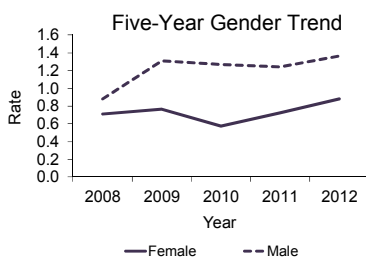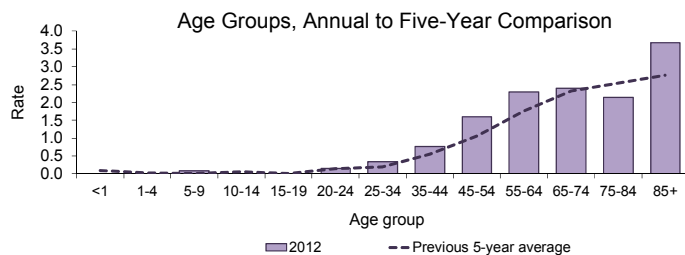
Summary of Case Demographics

Summary		
Number of cases		213
Incidence rate (per 100,000 population)		1.1
Change from 5-year average incidence		+22.9%
Age (in years)		
Mean		61
Median		60
Min-max		9 - 91
Gender	Number (Percent)	Rate
Female	86 (40.4)	0.9
Male	127 (59.6)	1.4
Unknown gender	0	
Race	Number (Percent)	Rate
White	176 (84.2)	1.2
Black	27 (12.9)	0.9
Other	6 (2.9)	NA
Unknown race	4	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	181 (87.4)	1.2
Hispanic	26 (12.6)	0.6
Unknown ethnicity	6	

Reported Legionellosis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=170)
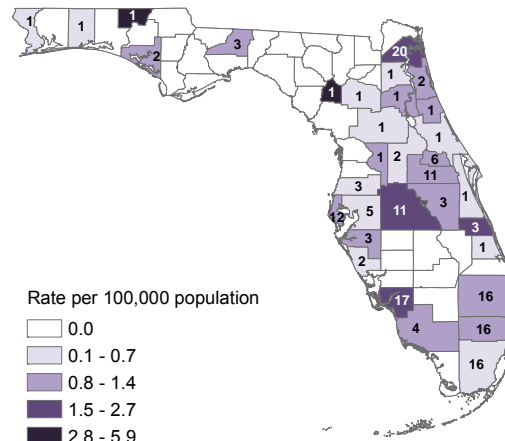
Rate per 100,000 population

- 0.0
- 0.1 - 0.7
- 0.8 - 1.4
- 1.5 - 2.7
- 2.8 - 5.9

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Legionellosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

☐ 2012 - - Previous 5-year average

Five-Year Gender Trend

—Female - -Male

Five-Year Race* Trend

—White - -Black —Other

Five-Year Ethnicity* Trend

—Non-Hispanic - -Hispanic
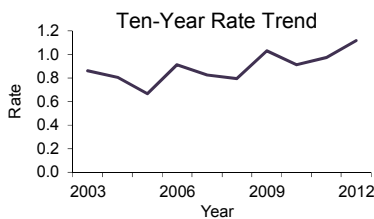
* Note that race and ethnicity trend graphs should be interpreted with caution. For legionellosis, the percent of cases with missing race by year was 2.0% in 2008, 1.6% in 2009, 2.3% in 2010, 3.2% in 2011 and 1.9% in 2012; missing ethnicity by year was 3.4% in 2008, 1.0% in 2009, 2.9% in 2010, 2.7% in 2011 and 2.8% in 2012.
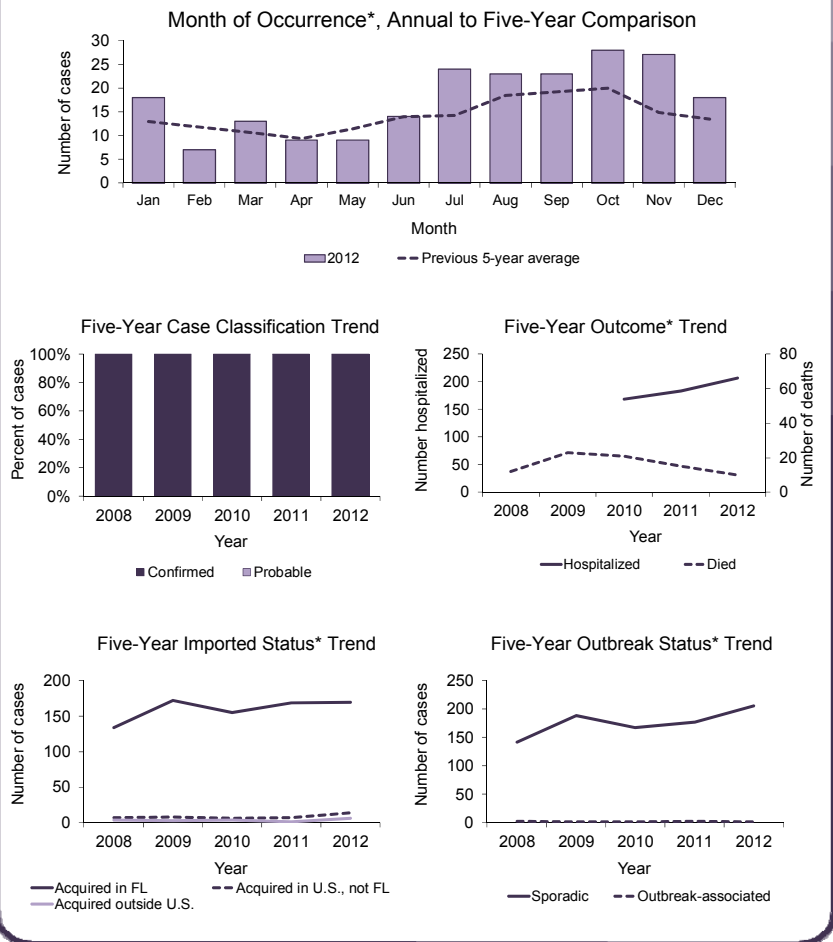
Summary of Case Factors

Summary	Number
Number of cases	213
Case Classification	Number (Percent)
Confirmed	213 (100.0)
Probable	0 (0.0)
Outcome*	Number (Percent)
Hospitalized	207 (97.2)
Died	10 (4.7)
Imported Status*	Number (Percent)
Acquired in Florida	170 (79.8)
Acquired in the U.S., not Florida	14 (6.6)
Acquired outside the U.S.	6 (2.8)
Imported status unknown	23 (10.8)
Outbreak Status*	Number (Percent)
Sporadic	206 (96.7)
Outbreak-associated	1 (0.5)
Outbreak status unknown	6 (2.8)

Note that there is no probable case classification for legionellosis.

In Florida, sporadic cases of both Legionnaires' disease and Pontiac fever (two distinct presentations of legionellosis) are monitored. One Florida resident was linked to an outbreak of Legionnaires' disease in Chicago associated with exposure to a decorative fountain in a Chicago hotel. The Florida resident attended a conference at the identified hotel prior to the onset of symptoms.

Reported Legionellosis Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.

Listeriosis

Disease Facts

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.
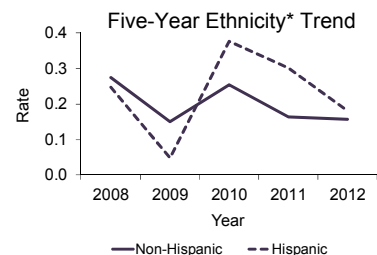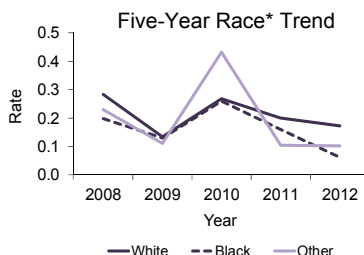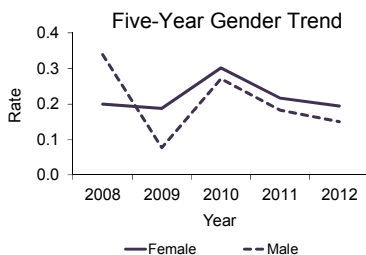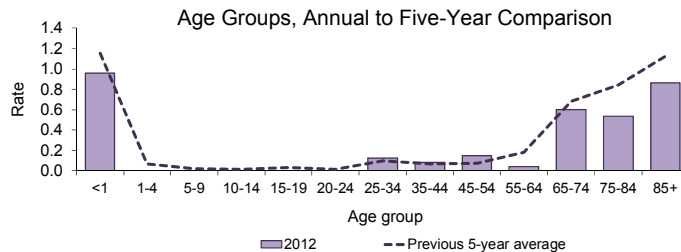
Summary of Case Demographics

Summary		
Number of cases		33
Incidence rate (per 100,000 population)		0.2
Change from 5-year average incidence		-17.5%
Age (in years)		
Mean		62
Median		68
Min-max		0 - 97
Gender	Number (Percent)	Rate
Female	19 (57.6)	NA
Male	14 (42.4)	NA
Unknown gender	0	
Race	Number (Percent)	Rate
White	26 (89.7)	0.2
Black	2 (6.9)	NA
Other	1 (3.4)	NA
Unknown race	4	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	23 (74.2)	0.2
Hispanic	8 (25.8)	NA
Unknown ethnicity	2	

Reported Listeriosis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=28)
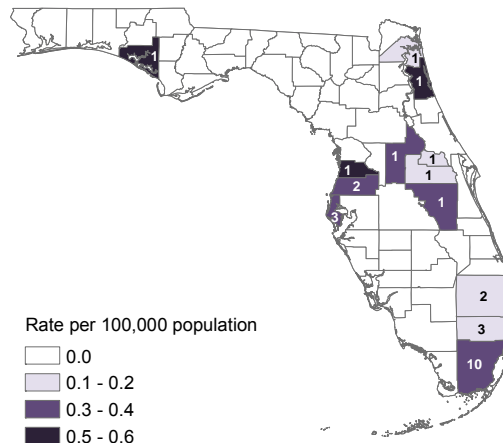
Rate per 100,000 population
- 0.0
- 0.1 - 0.2
- 0.3 - 0.4
- 0.5 - 0.6

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Listeriosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
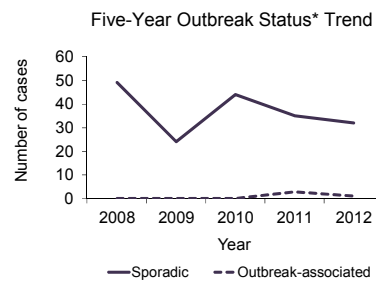
Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

— 2012   -- Previous 5-year average

Five-Year Gender Trend

— Female   -- Male

Five-Year Race* Trend

— White   -- Black   — Other

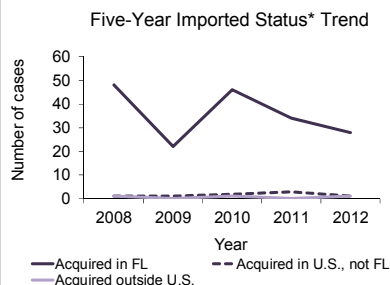Five-Year Ethnicity* Trend
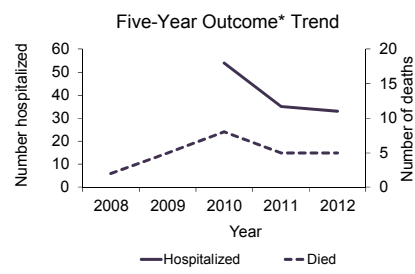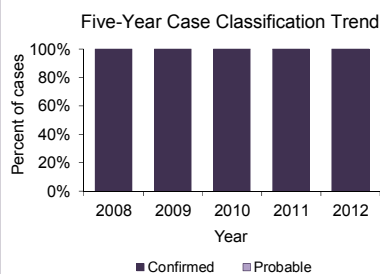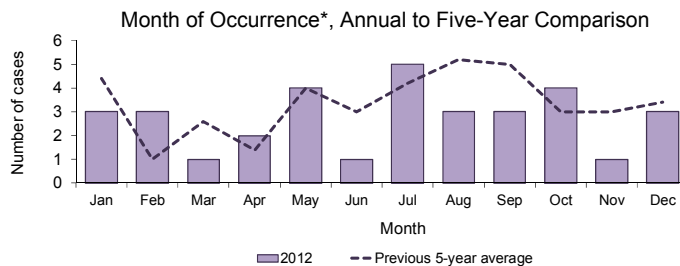
— Non-Hispanic   -- Hispanic
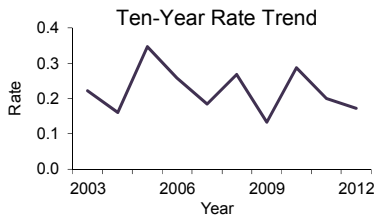
* Note that race and ethnicity trend graphs should be interpreted with caution. For listeriosis, the percent of cases with missing race by year was 0.0% in 2008, 0.0% in 2009, 3.7% in 2010, 5.3% in 2011 and 12.1% in 2012; missing ethnicity by year was 0.0% in 2008, 4.0% in 2009, 1.9% in 2010, 2.6% in 2011 and 6.1% in 2012.

Summary of Case Factors

Summary	Number
Number of cases	33
Case Classification	Number (Percent)
Confirmed	33 (100.0)
Probable	0 (0.0)
Outcome*	Number (Percent)
Hospitalized	33 (100.0)
Died	5 (15.2)
Imported Status*	Number (Percent)
Acquired in Florida	28 (84.8)
Acquired in the U.S., not Florida	1 (3.0)
Acquired outside the U.S.	1 (3.0)
Imported status unknown	3 (9.1)
Outbreak Status*	Number (Percent)
Sporadic	32 (97.0)
Outbreak-associated	1 (3.0)
Outbreak status unknown	0 (0.0)

Note that there is no probable case classification for listeriosis.

Reported Listeriosis Cases by Month of Occurrence*, Case Classification, Outcome*, Sensitive Situation*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.

Lyme Disease

Disease Facts

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. Although Lyme disease is endemic in Florida, most cases (~65-85%) are imported from other states, primarily the Northeast and Midwest U.S.
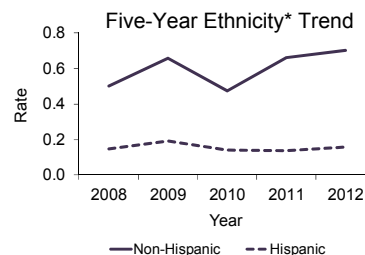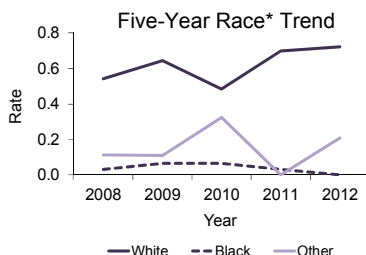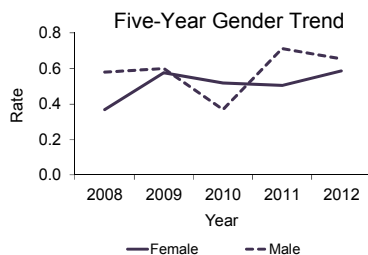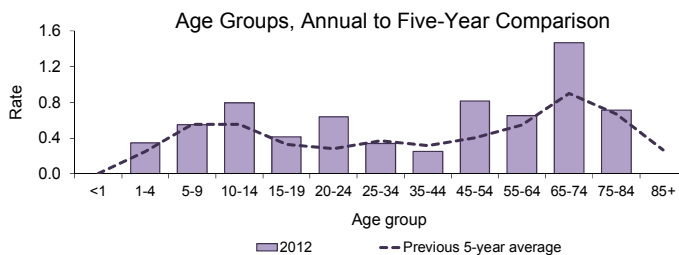
Summary of Case Demographics

Summary		
Number of cases		118
Incidence rate (per 100,000 population)		0.6
Change from 5-year average incidence		+34.7%
Age (in years)		
Mean		46
Median		52
Min-max		2 - 84
Gender	Number (Percent)	Rate
Female	57 (48.3)	0.6
Male	61 (51.7)	0.7
Unknown gender	0	
Race	Number (Percent)	Rate
White	108 (98.2)	0.7
Black	0 (0.0)	NA
Other	2 (1.8)	NA
Unknown race	8	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	103 (93.6)	0.7
Hispanic	7 (6.4)	NA
Unknown ethnicity	8	

Reported Lyme Disease Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=39)

Rate per 100,000 population
- 0.0
- 0.1 - 0.3
- 0.4 - 0.5
- 0.6 - 1.0
- 1.1 - 6.8
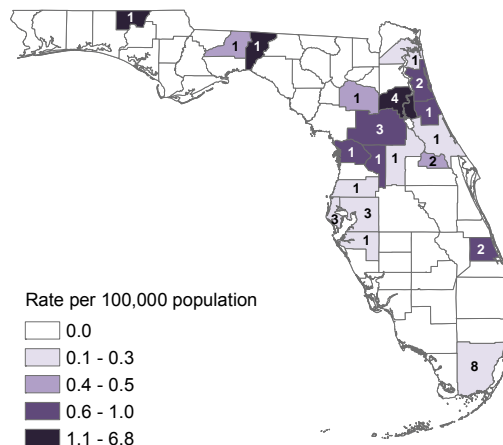
Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Lyme Disease Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — — Previous 5-year average

Five-Year Gender Trend

—Female — -Male

Five-Year Race* Trend

—White — -Black —Other

Five-Year Ethnicity* Trend

—Non-Hispanic — -Hispanic
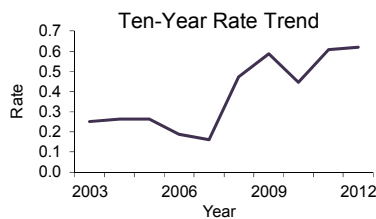
* Note that race and ethnicity trend graphs should be interpreted with caution. For Lyme disease, the percent of cases with missing race by year was 6.8% in 2008, 10.9% in 2009, 8.3% in 2010, 8.7% in 2011 and 6.8% in 2012; missing ethnicity by year was 10.2% in 2008, 5.5% in 2009, 10.7% in 2010, 10.4% in 2011 and 6.8% in 2012.

Summary of Case Factors

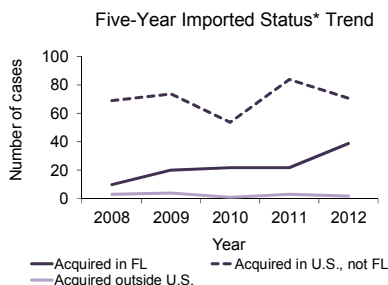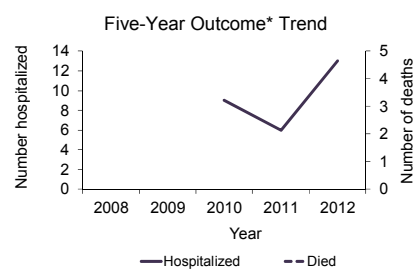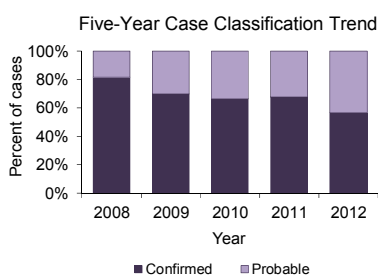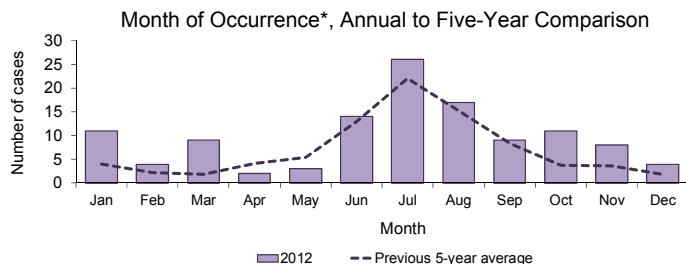| Summary	Number
Number of cases	118
Case Classification	Number (Percent)
Confirmed	67 (56.8)
Probable	51 (43.2)
Outcome*	Number (Percent)
Hospitalized	13 (11.0)
Died	0 (0.0)
Imported Status*	Number (Percent)
Acquired in Florida	39 (33.1)
Acquired in the U.S., not Florida	71 (60.2)
Acquired outside the U.S.	2 (1.7)
Imported status unknown	6 (5.1)
Outbreak Status*	Number (Percent)
Sporadic	115 (97.5)
Outbreak-associated	3 (2.5)
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.

Reported Lyme Disease Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.

Malaria

Disease Facts

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 2012. All infections were associated with travel abroad to countries with endemic transmission (primarily African countries). The last malaria case possibly acquired in Florida was reported in 2010. The patient had frequent domestic airline travel, but had not recently been in any airports that received direct flights from malaria-endemic countries.
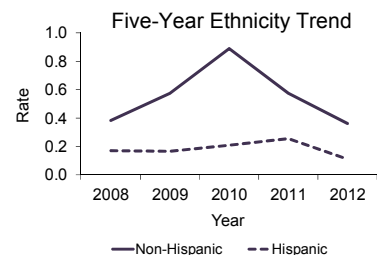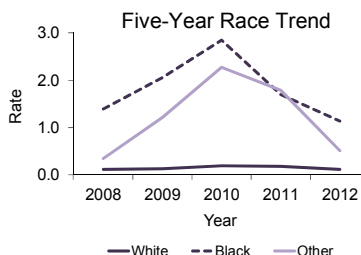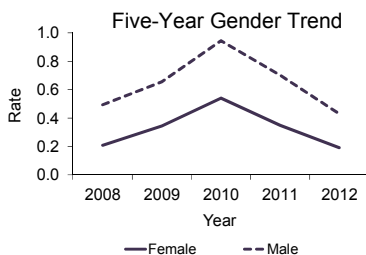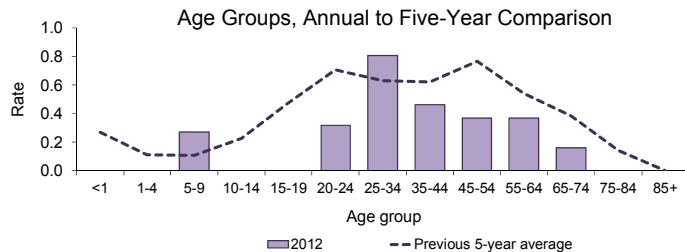
Summary of Case Demographics

Summary		
Number of cases		59
Incidence rate (per 100,000 population)		0.3
Change from 5-year average incidence		-35.5%
Age (in years)		
Mean		40
Median		40
Min-max		6 - 74
Gender	**Number (Percent)**	**Rate**
Female	19 (32.2)	NA
Male	40 (67.8)	0.4
Unknown gender	0	
Race	**Number (Percent)**	**Rate**
White	18 (30.5)	NA
Black	36 (61.0)	1.1
Other	5 (8.5)	NA
Unknown race	0	
Ethnicity	**Number (Percent)**	**Rate**
Non-Hispanic	53 (91.4)	0.4
Hispanic	5 (8.6)	NA
Unknown ethnicity	1	

Reported Malaria Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=59)
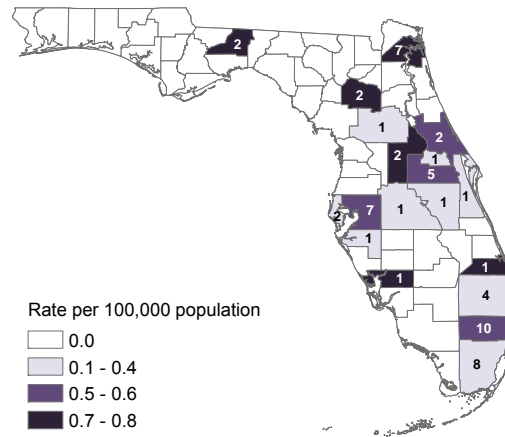
Rate per 100,000 population
- 0.0
- 0.1 - 0.4
- 0.5 - 0.6
- 0.7 - 0.8

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Malaria Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
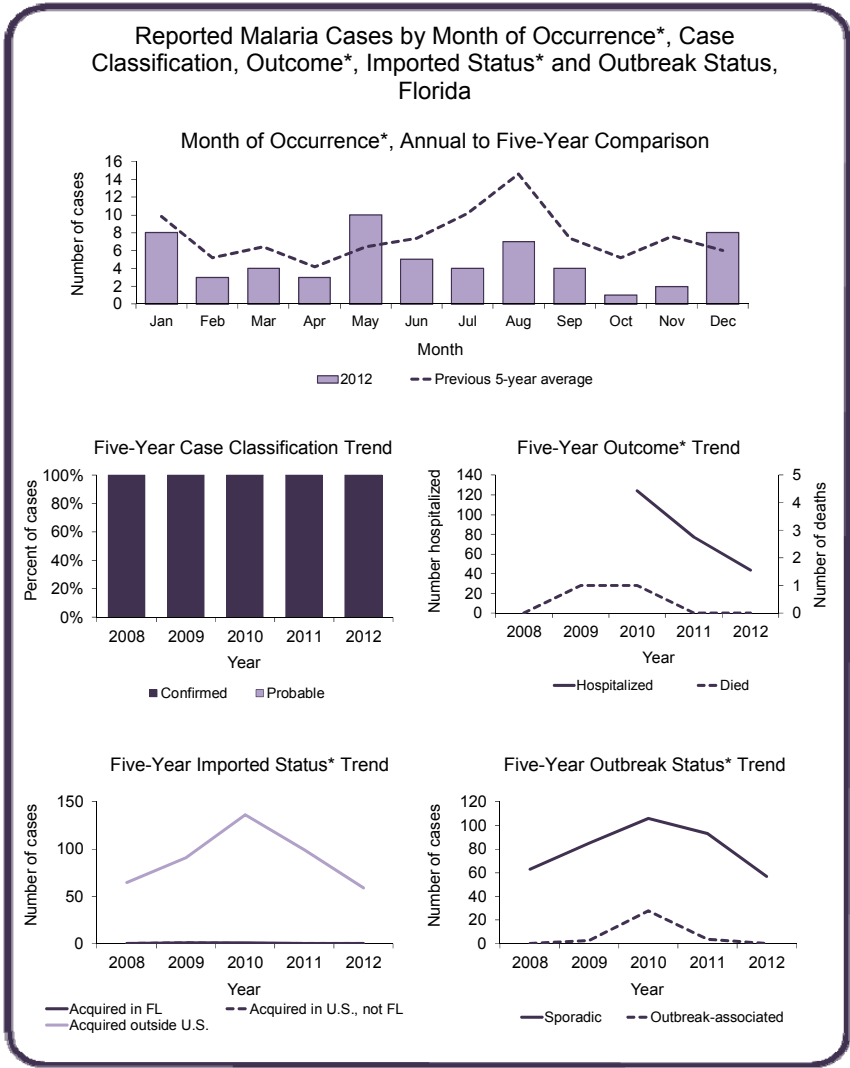
Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — Previous 5-year average

Five-Year Gender Trend

Female — Male

Five-Year Race Trend

White — Black — Other

Five-Year Ethnicity Trend

Non-Hispanic — Hispanic
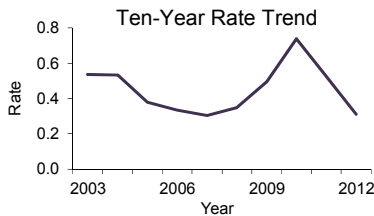
Summary of Case Factors

Summary	Number
Number of cases	59
Case Classification	Number (Percent)
Confirmed	59 (100.0)
Probable	0 (0.0)
Outcome*	Number (Percent)
Hospitalized	44 (74.6)
Died	0 (0.0)
Imported Status*	Number (Percent)
Acquired in Florida	0 (0.0)
Acquired in the U.S., not Florida	0 (0.0)
Acquired outside the U.S.	59 (100.0)
Imported status unknown	0 (0.0)
Outbreak Status*	Number (Percent)
Sporadic	57 (96.6)
Outbreak-associated	0 (0.0)
Outbreak status unknown	2 (3.4)
Region where Infection Acquired	Number (Percent)
Africa	37 (62.7)
Central America/Caribbean	18 (30.5)
Asia	3 (5.1)
South America	1 (1.7)

Note that there is no probable case classification for malaria.

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.

Reported Malaria Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.

Meningococcal Disease

Disease Facts

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 2012, an unusually high proportion of infections were due to serogroup W135 in Florida, primarily in Miami-Dade County.
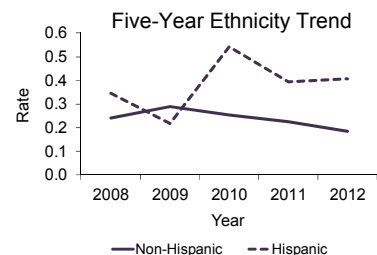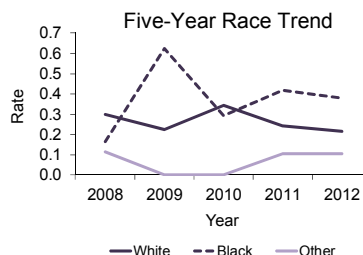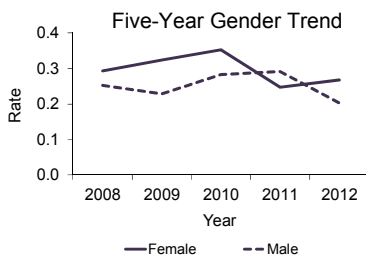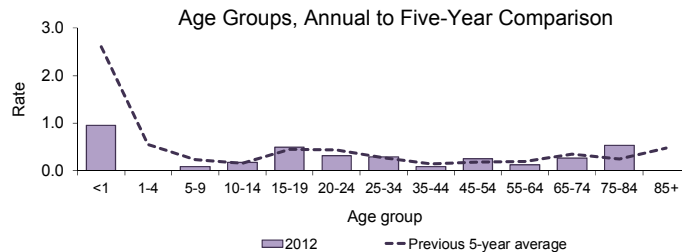
Summary of Case Demographics

Summary		
Number of cases		45
Incidence rate (per 100,000 population)		0.2
Change from 5-year average incidence		-21.2%
Age (in years)		
Mean		41
Median		41
Min-max		0 - 82
Gender	Number (Percent)	Rate
Female	26 (57.8)	0.3
Male	19 (42.2)	NA
Unknown gender	0	
Race	Number (Percent)	Rate
White	32 (71.1)	0.2
Black	12 (26.7)	NA
Other	1 (2.2)	NA
Unknown race	0	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	27 (60.0)	0.2
Hispanic	18 (40.0)	NA
Unknown ethnicity	0	

Reported Meningococcal Disease Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=43)
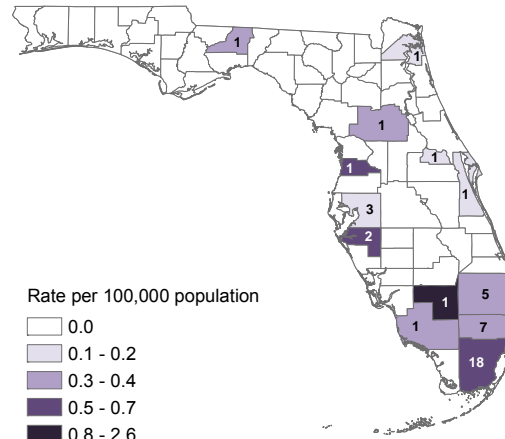
Rate per 100,000 population
- 0.0
- 0.1 - 0.2
- 0.3 - 0.4
- 0.5 - 0.7
- 0.8 - 2.6

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Meningococcal Disease Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — — Previous 5-year average

Five-Year Gender Trend

—Female - -Male

Five-Year Race Trend

—White - -Black —Other

Five-Year Ethnicity Trend

—Non-Hispanic - -Hispanic
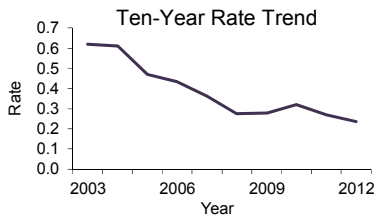
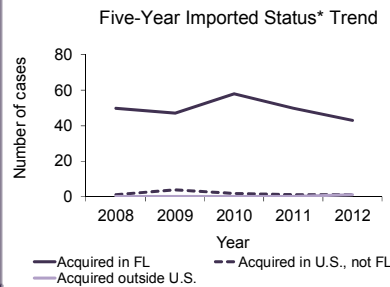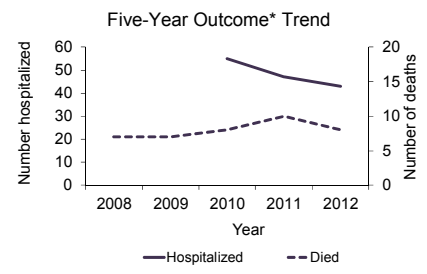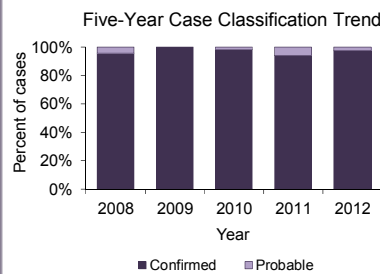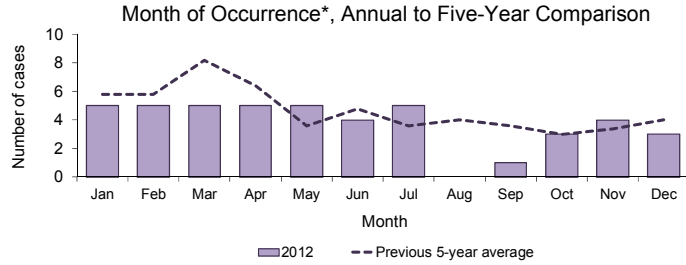## Summary of Case Factors

Summary	Number
Number of cases	45
Case Classification	**Number (Percent)**
Confirmed	44 (97.8)
Probable	1 (2.2)
Outcome*	**Number (Percent)**
Hospitalized	43 (95.6)
Died	8 (17.8)
Imported Status*	**Number (Percent)**
Acquired in Florida	43 (95.6)
Acquired in the U.S., not Florida	1 (2.2)
Acquired outside the U.S.	1 (2.2)
Imported status unknown	0 (0.0)
Outbreak Status*	**Number (Percent)**
Sporadic	41 (91.1)
Outbreak-associated	4 (8.9)
Outbreak status unknown	0 (0.0)
Serogroup	**Number (Percent)**
Group W135	22 (48.9)
Group C	11 (24.4)
Group B	5 (11.1)
Group Y	5 (11.1)
Non-groupable	1 (2.2)
Unknown	1 (2.2)

Reported Meningococcal Disease Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.

Pertussis

Disease Facts

Cause: *Bordetella pertussis* bacteria

Type of illness: Runny nose, mild fever, mild cough, paroxysmal cough or "whoop", posttussive vomiting, shortness of breath and apnea

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 in Florida and the U.S. in the past 10 years, despite routine vaccine use, partially due to waning immunity from childhood vaccines. Infants are at greatest risk for getting pertussis and having severe complications, including death.
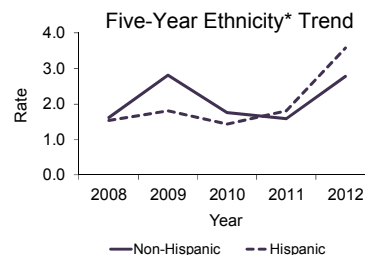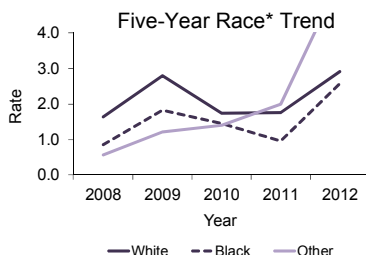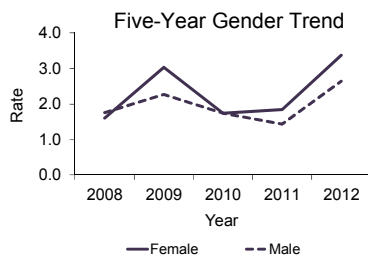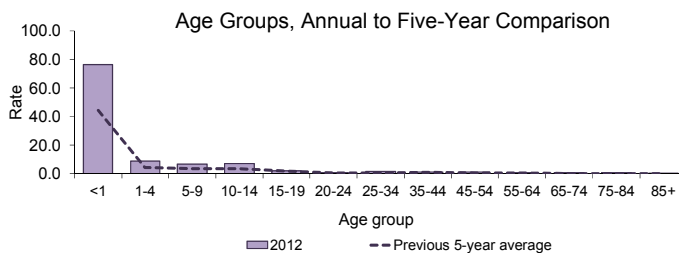
Summary of Case Demographics

Summary		
Number of cases		575
Incidence rate (per 100,000 population)		3.0
Change from 5-year average incidence		+70.6%
Age (in years)		
Mean		16
Median		9
Min-max		0 - 98
Gender	Number (Percent)	Rate
Female	329 (57.2)	3.4
Male	246 (42.8)	2.6
Unknown gender	0	
Race	Number (Percent)	Rate
White	435 (76.4)	2.9
Black	81 (14.2)	2.6
Other	53 (9.3)	5.5
Unknown race	6	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	408 (72.1)	2.8
Hispanic	158 (27.9)	3.6
Unknown ethnicity	9	

Reported Pertussis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=547)
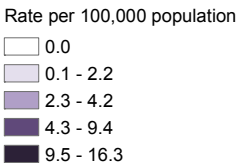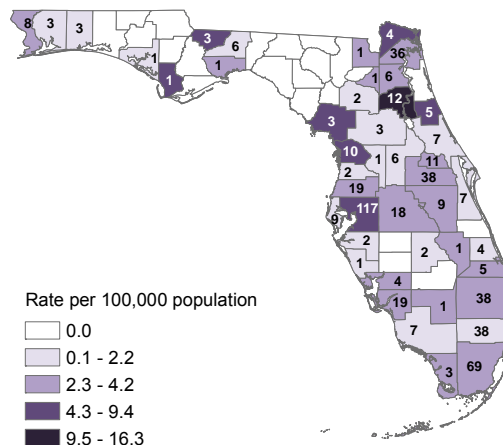
Rate per 100,000 population
- 0.0
- 0.1 - 2.2
- 2.3 - 4.2
- 4.3 - 9.4
- 9.5 - 16.3

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Pertussis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

Five-Year Gender Trend

Five-Year Race* Trend

Five-Year Ethnicity* Trend
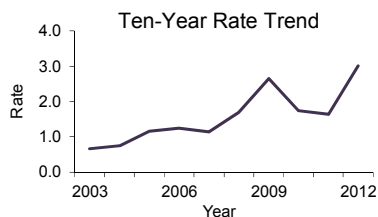
* Note that race and ethnicity trend graphs should be interpreted with caution. For pertussis, the percent of cases with missing race by year was 13.1% in 2008, 3.6% in 2009, 4.0% in 2010, 0.3% in 2011 and 1.0% in 2012; missing ethnicity by year was 5.1% in 2008, 2.4% in 2009, 3.4% in 2010, 0.6% in 2011 and 1.6% in 2012.

Summary of Case Factors

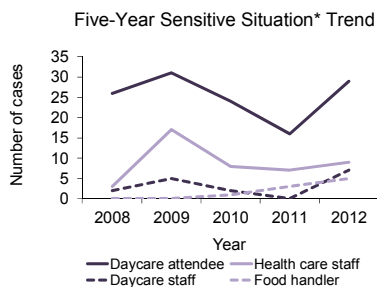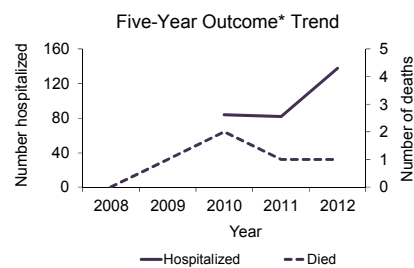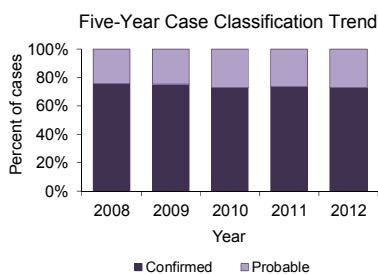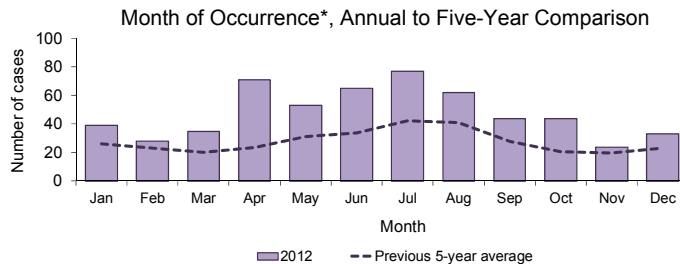| Summary	Number
Number of cases	575
Case Classification	Number (Percent)
Confirmed	419 (72.9)
Probable	156 (27.1)
Outcome*	Number (Percent)
Hospitalized	138 (24.0)
Died	1 (0.2)
Sensitive Situation*	Number (Percent)
Daycare attendee	29 (5.0)
Daycare staff	7 (1.2)
Health care staff	9 (1.6)
Food handler	5 (0.9)
Imported Status*	Number (Percent)
Acquired in Florida	547 (95.1)
Acquired in the U.S., not Florida	20 (3.5)
Acquired outside the U.S.	4 (0.7)
Imported status unknown	4 (0.7)
Outbreak Status*	Number (Percent)
Sporadic	340 (59.1)
Outbreak-associated	233 (40.5)
Outbreak status unknown	2 (0.3)

Reported Pertussis Cases by Month of Occurrence*, Case Classification, Outcome*, Sensitive Situation*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Sensitive Situation* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome and 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. There was a large increase in reported pertussis cases in 2012, 40.5% of which were outbreak-associated. The majority of pertussis outbreak-associated cases reported in 2012 were among household members or close contacts, with the exception of an outbreak in Putnam County associated with a church.

Pesticide-Related Illness and Injury

Disease Facts

Cause: Pesticides

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

Exposure: Depends on agent; dermal, inhalation, 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 substantially decreased number of cases reported in 2012.
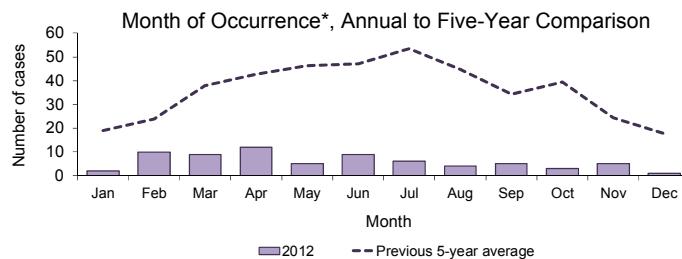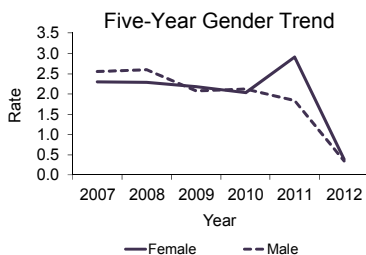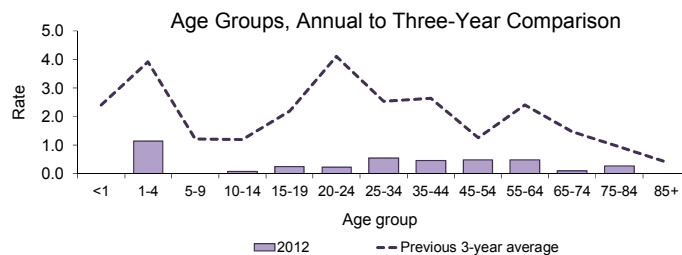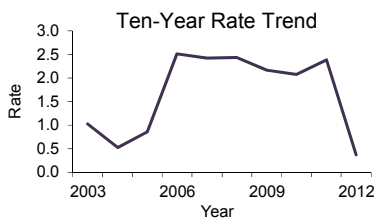
Summary of Case Demographics

Summary		
Number of cases		71
Incidence rate (per 100,000 population)		0.4
Change from 5-year average incidence		-83.8%
Age (in years)		
Mean		38
Median		40
Min-max		1 - 78
Gender	Number (Percent)	Rate
Female	38 (53.5)	0.4
Male	33 (46.5)	0.4
Unknown gender	0	
Race	Number (Percent)	Rate
White	52 (75.4)	0.3
Black	9 (13.0)	0.3
Other	8 (11.6)	0.8
Unknown race	2	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	57 (83.8)	0.4
Hispanic	11 (16.2)	0.2
Unknown ethnicity	3	

Reported Pesticide-Related Illness and Injury Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=71)
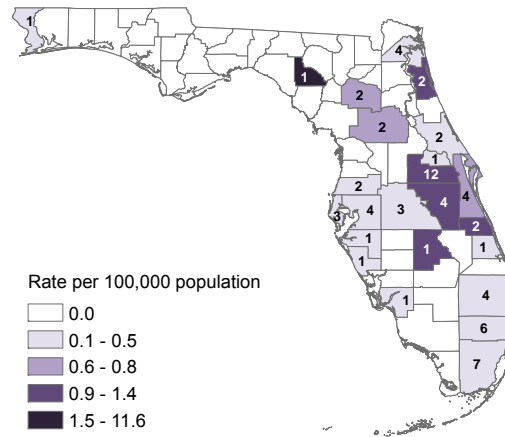
Rate per 100,000 population
- 0.0
- 0.1 - 0.5
- 0.6 - 0.8
- 0.9 - 1.4
- 1.5 - 11.6

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Pesticide-Related Illness and Injury Incidence Rate per 100,000 Population by Year, Age, Gender and Month of Occurrence* , Florida

Ten-Year Rate Trend

Age Groups, Annual to Three-Year Comparison

Five-Year Gender Trend

Month of Occurrence*, Annual to Five-Year Comparison

* 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.

Note that race and ethnicity were not collected for the majority of cases reported prior to 2012 and are therefore not presented here.

Reported Pesticide-Related Illness and Injury Incidence Cases by Heath Effects*, Severity of Illness, and Activity at Time of Exposure, Florida, 2010-2013

Category	2010	2011	2012
Health Effects*	Number (Percent)	Number (Percent)	Number (Percent)
Respiratory	108 (27.6)	143 (31.7)	45 (63.4)
Gastrointestinal	121 (30.9)	152 (33.7)	40 (56.3)
Neurological	103 (26.3)	173 (38.4)	39 (54.9)
Ocular	149 (38.0)	172 (38.1)	23 (32.4)
Dermal	93 (23.7)	131 (29.0)	12 (16.9)
Severity of Illness	Number (Percent)	Number (Percent)	Number (Percent)
Low	311 (79.3)	367 (81.4)	44 (62.0)
Moderate	70 (17.9)	79 (17.5)	22 (31.0)
High	9 (2.3)	5 (1.1)	4 (5.6)
Death	2 (0.5)	0 (0.0)	1 (1.4)
Activity at Time of Exposure	Number (Percent)	Number (Percent)	Number (Percent)
Applying pesticide	238 (60.7)	154 (34.2)	18 (25.4)
Routine indoor living	21 (5.4)	73 (16.2)	22 (31.0)
Routine outdoor living	6 (1.5)	67 (14.9)	4 (5.6)
Routine work or activity not related to pesticide exposure	6 (1.5)	7 (1.6)	14 (19.7)
Other	9 (2.3)	6 (1.3)	12 (16.9)
Unknown	112 (28.6)	144 (31.9)	1 (1.4)
Total	392	451	71

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

Reported Pesticide-Related Illness and Injury Incidence Cases by Occupational Exposure, Exposure Route* and Exposure Type*, Florida
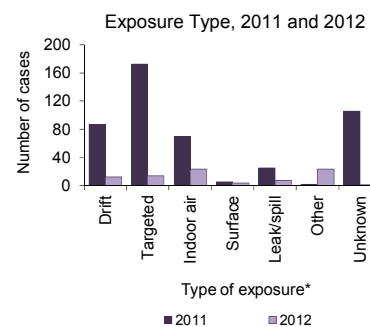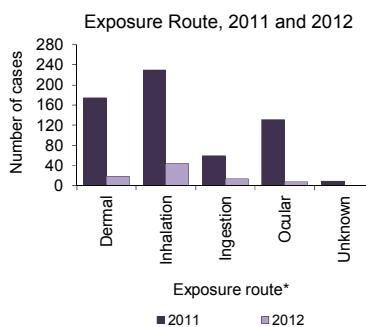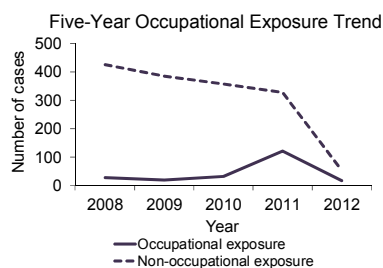
* Note that there may be multiple exposure types and routes for one case.

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 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).

Rabies, Animal and Possible Human Exposure

Disease Facts

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: Bite of rabid animal (infected saliva in direct contact with blood or mucous membrane)

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

Comments: Incidence of human exposures to animals for which post-exposure prophylaxis (PEP) is recommended has increased since case reporting was initiated, possibly due to improved reporting, increased exposures to possibly rabid animals, increased inappropriate or unnecessary use of PEP or a combination of factors. The last case of human rabies acquired in Florida was in 1948.

Summary of Case Demographics

Possible Rabies Exposures where PEP was Recommended		
Number of cases		2,371
Incidence rate (per 100,000 population)		12.5
Change from 5-year average incidence		+23.3%
Age (in years)		
Mean		37
Median		36
Min-max		0 - 100
Gender	Number (Percent)	Rate
Female	1,236 (52.1)	12.7
Male	1,135 (47.9)	12.2
Unknown gender	0	
Race	Number (Percent)	Rate
White	1,670 (86.3)	11.2
Black	221 (11.4)	7.0
Other	44 (2.3)	4.6
Unknown race	436	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	1,625 (83.8)	11.1
Hispanic	313 (16.2)	7.1
Unknown ethnicity	433	

Reported Possible Rabies Where Post-Exposure Prophylaxis was Recommended and Incidence Rates per 100,000 Population for Only Exposures Occurring in Florida by County of Residence, Florida, 2012 (N=2,310)
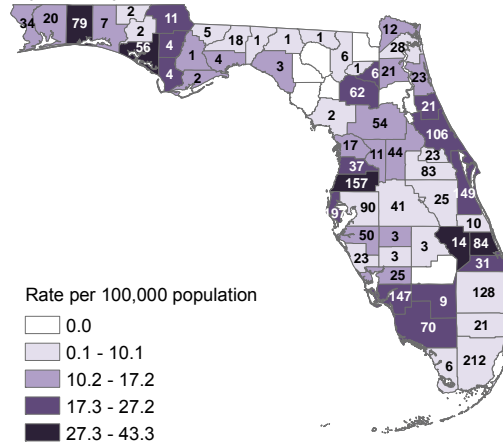
Rate per 100,000 population
- 0.0
- 0.1 - 10.1
- 10.2 - 17.2
- 17.3 - 27.2
- 27.3 - 43.3

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Possible Rabies Exposures Where Post-Exposure Prophylaxis was Recommended and Incidence Rates per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — Previous 5-year average

Five-Year Gender Trend

Female --Male

Five-Year Race* Trend

White --Black Other

Five-Year Ethnicity* Trend

Non-Hispanic --Hispanic
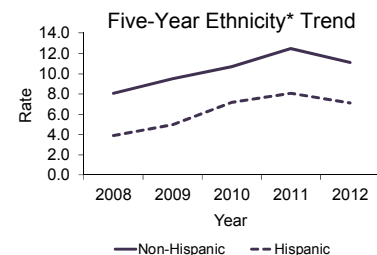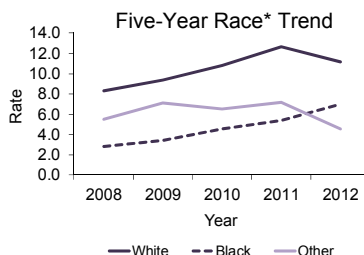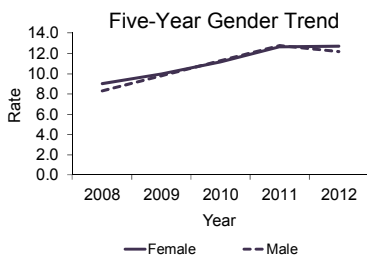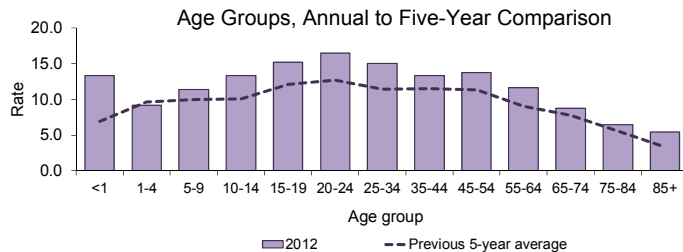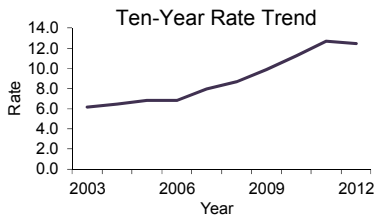
* Note that race and ethnicity trend graphs should be interpreted with caution. For rabies, possible human exposure, the percent of cases with missing race by year was 16.3% in 2008, 16.4% in 2009, 14.7% in 2010, 12.0% in 2011 and 18.4% in 2012; missing ethnicity by year was 17.7% in 2008, 14.0% in 2009, 12.1% in 2010, 9.8% in 2011 and 18.3% in 2012.

The animals most frequently diagnosed with rabies in Florida are unvaccinated cats, raccoons, bats and foxes. Rabies is endemic in the raccoon and bat populations of Florida. Rabies frequently spreads from raccoons, and occasionally bats, into 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. Of the 2,371 possible exposures where PEP was recommended, only 157 exposures (6.6%) resulted in an animal being tested. A total of 103 laboratory-confirmed rabid animals were reported in 2012.

Animal Rabies	
Number of cases	102
Change from 5-year average cases	-23.7%

Laboratory-Confirmed Rabid Animals Florida, Ten-Year Trend

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

Type of Animal	2011 Number (Percent)	2012 Number (Percent)
Racoon	79 (66.4)	59 (57.8)
Bat	18 (15.1)	14 (13.7)
Fox	6 (5)	11 (10.8)
Cat	11 (9.2)	8 (7.8)
Bobcat	2 (1.7)	3 (2.9)
Dog	1 (0.8)	2 (2)
Horse	1 (0.8)	2 (2)
Skunk	1 (0.8)	2 (2)
Coyote	0 (0)	1 (1)
Total*	119	102

* One laboratory-confirmed animal that was reported in 2011 was actually tested in July 2010 and is excluded from this table.
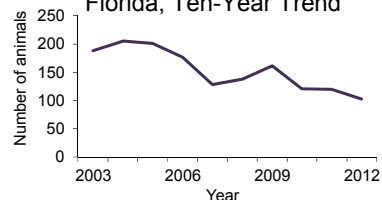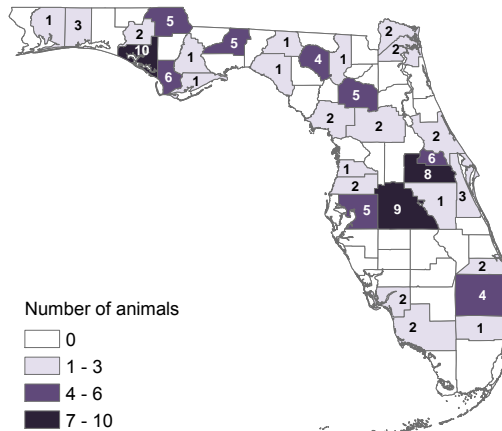
Laboratory-Confirmed Rabid Animals by County, Florida, 2012

Number of animals
- 0
- 1 - 3
- 4 - 6
- 7 - 10

Rocky Mountain Spotted Fever (RMSF)

Disease Facts

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: RMSF incidence has increased markedly in recent years in Florida, possibly 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.
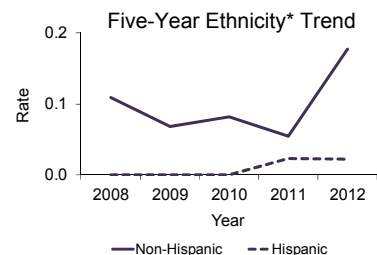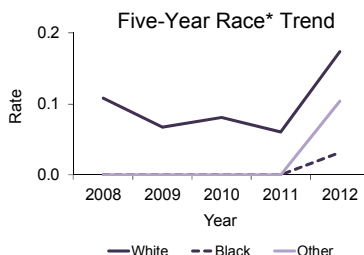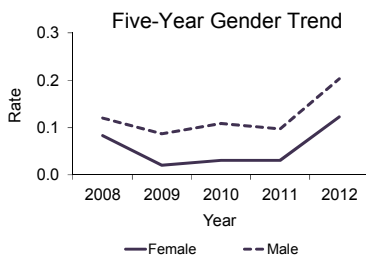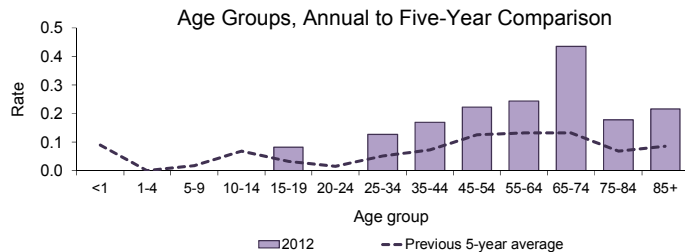
Summary of Case Demographics

Summary		
Number of cases		31
Incidence rate (per 100,000 population)		0.2
Change from 5-year average incidence		+103.5%
Age (in years)		
Mean		55
Median		57
Min-max		19 - 89
Gender	Number (Percent)	Rate
Female	12 (38.7)	NA
Male	19 (61.3)	NA
Unknown gender	0	
Race	Number (Percent)	Rate
White	26 (92.9)	0.2
Black	1 (3.6)	NA
Other	1 (3.6)	NA
Unknown race	3	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	26 (96.3)	0.2
Hispanic	1 (3.7)	NA
Unknown ethnicity	4	

Reported Rocky Mountain Spotted Fever Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=20)
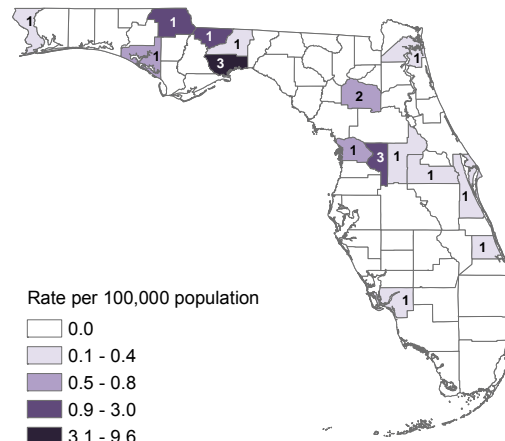
Rate per 100,000 population
- 0.0
- 0.1 - 0.4
- 0.5 - 0.8
- 0.9 - 3.0
- 3.1 - 9.6

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Rocky Mountain Spotted Fever Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — — Previous 5-year average

Five-Year Gender Trend

— Female — — Male

Five-Year Race* Trend

— White — — Black — Other

Five-Year Ethnicity* Trend

— Non-Hispanic — — Hispanic
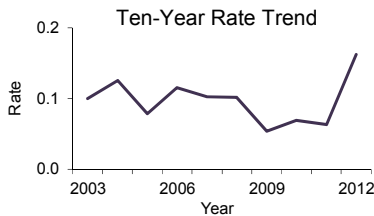
* Note that race and ethnicity trend graphs should be interpreted with caution. For Rocky Mountain spotted fever, the percent of cases with missing race by year was 15.8% in 2008, 0.0% in 2009, 7.7% in 2010, 25.0% in 2011 and 9.7% in 2012; missing ethnicity by year was 15.8% in 2008, 0.0% in 2009, 7.7% in 2010, 25.0% in 2011 and 12.9% in 2012.
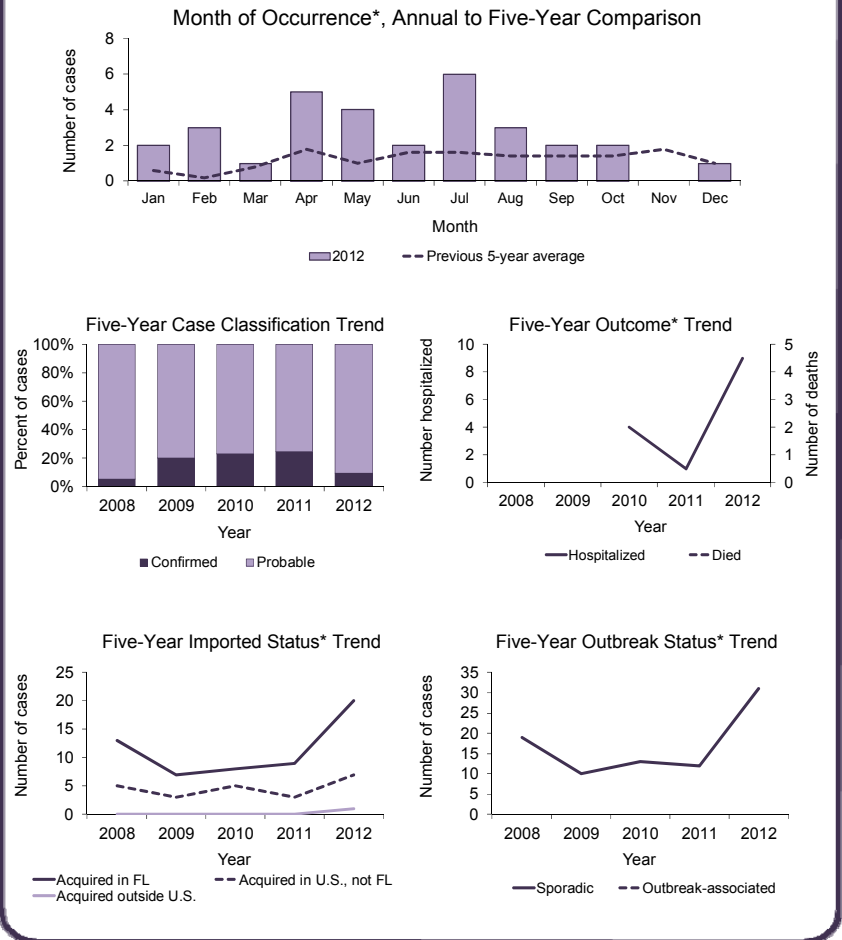
Summary of Case Factors

Summary	Number
Number of cases	31
Case Classification	Number (Percent)
Confirmed	3 (9.7)
Probable	28 (90.3)
Outcome*	Number (Percent)
Hospitalized	9 (29.0)
Died	0 (0.0)
Imported Status*	Number (Percent)
Acquired in Florida	20 (64.5)
Acquired in the U.S., not Florida	7 (22.6)
Acquired outside the U.S.	1 (3.2)
Imported status unknown	3 (9.7)
Outbreak Status*	Number (Percent)
Sporadic	31 (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.

Across the U.S., an estimated 90% of the rickettsial disease cases are from 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

Reported Rocky Mountain Spotted Fever Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

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 2012, the Florida surveillance case definition was limited to RMSF. Due to cross reactivity, other SFRs may be reported as RMSF. In 2012, all 31 reported cases had positive serology for RMSF at commercial laboratories, although there were three infections with eschar lesions, which is indicative of an SFR other than RMSF. Additional testing by the Centers for Disease Control and Prevention to determine the *Rickettsia* species was not done on these three cases.

* 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. Note that 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. Outcome 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.

Salmonellosis

Disease Facts

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.
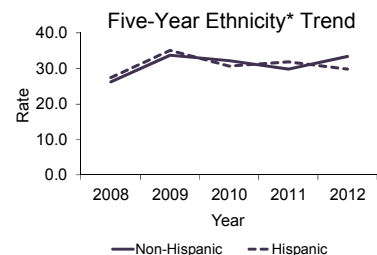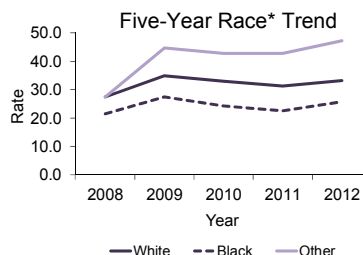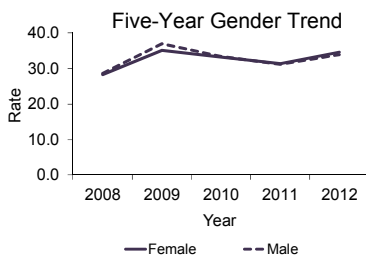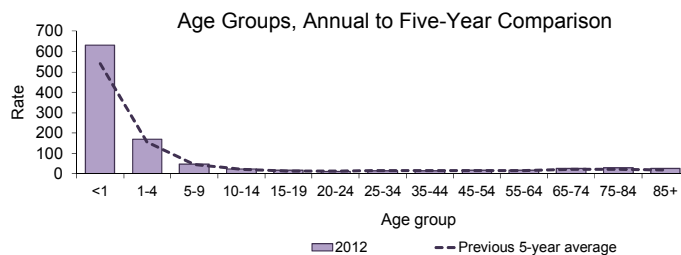
Summary of Case Demographics

Summary		
Number of cases		6,523
Incidence rate (per 100,000 population)		34.3
Change from 5-year average incidence		+9.5%
Age (in years)		
Mean		25
Median		9
Min-max		0 - 100
Gender	Number (Percent)	Rate
Female	3,366 (51.6)	34.6
Male	3,153 (48.4)	33.9
Unknown gender	4	
Race	Number (Percent)	Rate
White	4,978 (79.7)	33.3
Black	816 (13.1)	25.9
Other	454 (7.3)	47.2
Unknown race	275	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	4,896 (78.8)	33.5
Hispanic	1,321 (21.2)	29.9
Unknown ethnicity	306	

Reported Salmonellosis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=6,041)
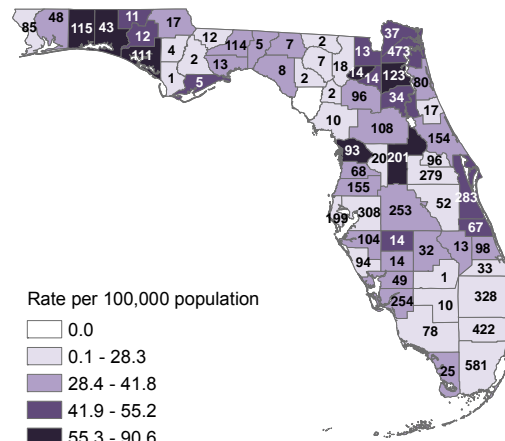
Rate per 100,000 population
- 0.0
- 0.1 - 28.3
- 28.4 - 41.8
- 41.9 - 55.2
- 55.3 - 90.6

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Salmonellosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida
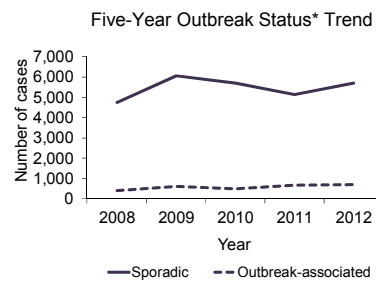
Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison
- 2012
- Previous 5-year average

Five-Year Gender Trend
- Female
- Male

Five-Year Race* Trend
- White
- Black
- Other

Five-Year Ethnicity* Trend
- Non-Hispanic
- Hispanic
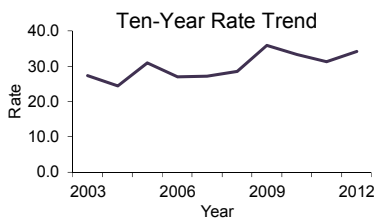
* Note that race and ethnicity trend graphs should be interpreted with caution. For salmonellosis, the percent of cases with missing race by year was 7.0% in 2008, 5.2% in 2009, 3.9% in 2010, 2.5% in 2011 and 4.2% in 2012; missing ethnicity by year was 7.2% in 2008, 5.5% in 2009, 4.3% in 2010, 2.9% in 2011 and 4.7% in 2012.

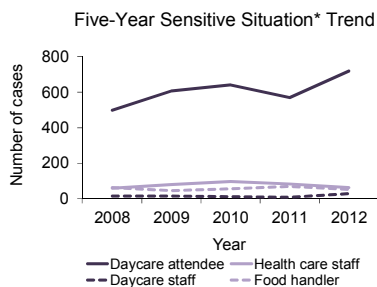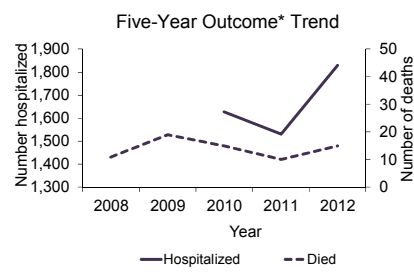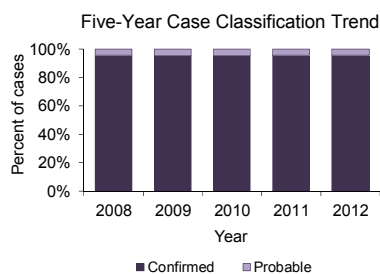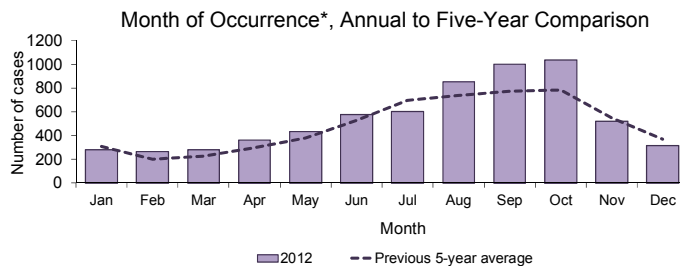| Summary	Number
Number of cases	6,523
Case Classification	Number (Percent)
Confirmed	6,249 (95.8)
Probable	274 (4.2)
Outcome*	Number (Percent)
Hospitalized	1,829 (28.0)
Died	15 (0.2)
Sensitive Situation*	Number (Percent)
Daycare attendee	720 (11.0)
Daycare staff	28 (0.4)
Health care staff	62 (1.0)
Food handler	53 (0.8)
Imported Status*	Number (Percent)
Acquired in Florida	6,041 (92.6)
Acquired in the U.S., not Florida	93 (1.4)
Acquired outside the U.S.	114 (1.7)
Imported status unknown	275 (4.2)
Outbreak Status*	Number (Percent)
Sporadic	5,707 (87.5)
Outbreak-associated	709 (10.9)
Outbreak status unknown	107 (1.6)

Reported Salmonellosis Cases by Month of Occurrence*, Case Classification, Outcome*, Sensitive Situation*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Sensitive Situation* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome and 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.

Shiga Toxin-Producing *E. coli* (STEC) Infection

Disease Facts

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 varies considerably over the past 10 years. STEC infection typically peaks in late spring and early summer; in 2012, the largest number of cases were seen in August, September and October. STEC infection 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.
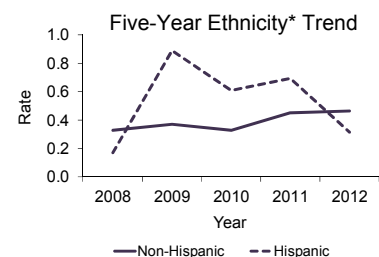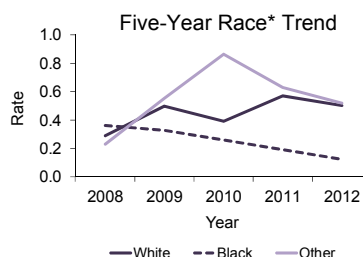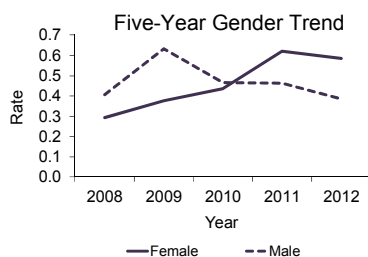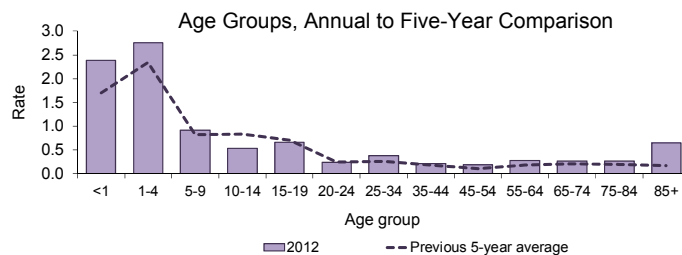
Summary of Case Demographics

Summary		
Number of cases		93
Incidence rate (per 100,000 population)		0.5
Change from 5-year average incidence		+16.3%
Age (in years)		
Mean		26
Median		16
Min-max		0 - 89
Gender	Number (Percent)	Rate
Female	57 (61.3)	0.6
Male	36 (38.7)	0.4
Unknown gender	0	
Race	Number (Percent)	Rate
White	75 (89.3)	0.5
Black	4 (4.8)	NA
Other	5 (6.0)	NA
Unknown race	9	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	68 (82.9)	0.5
Hispanic	14 (17.1)	NA
Unknown ethnicity	11	

Reported Shiga Toxin-Producing *E. coli* Infection Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=76)
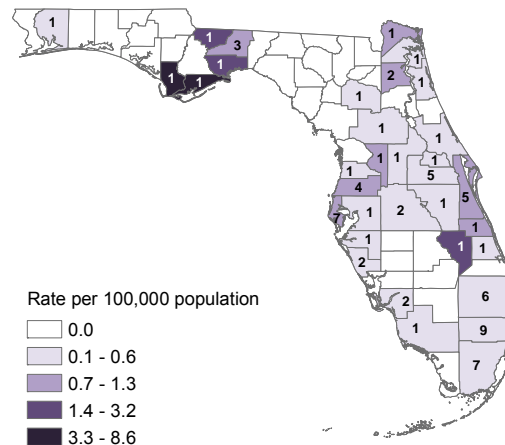
Rate per 100,000 population
- 0.0
- 0.1 - 0.6
- 0.7 - 1.3
- 1.4 - 3.2
- 3.3 - 8.6

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Shiga Toxin-Producing *E. coli* Infection Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — — Previous 5-year average

Five-Year Gender Trend

— Female — — Male

Five-Year Race* Trend

— White — — Black — Other

Five-Year Ethnicity* Trend
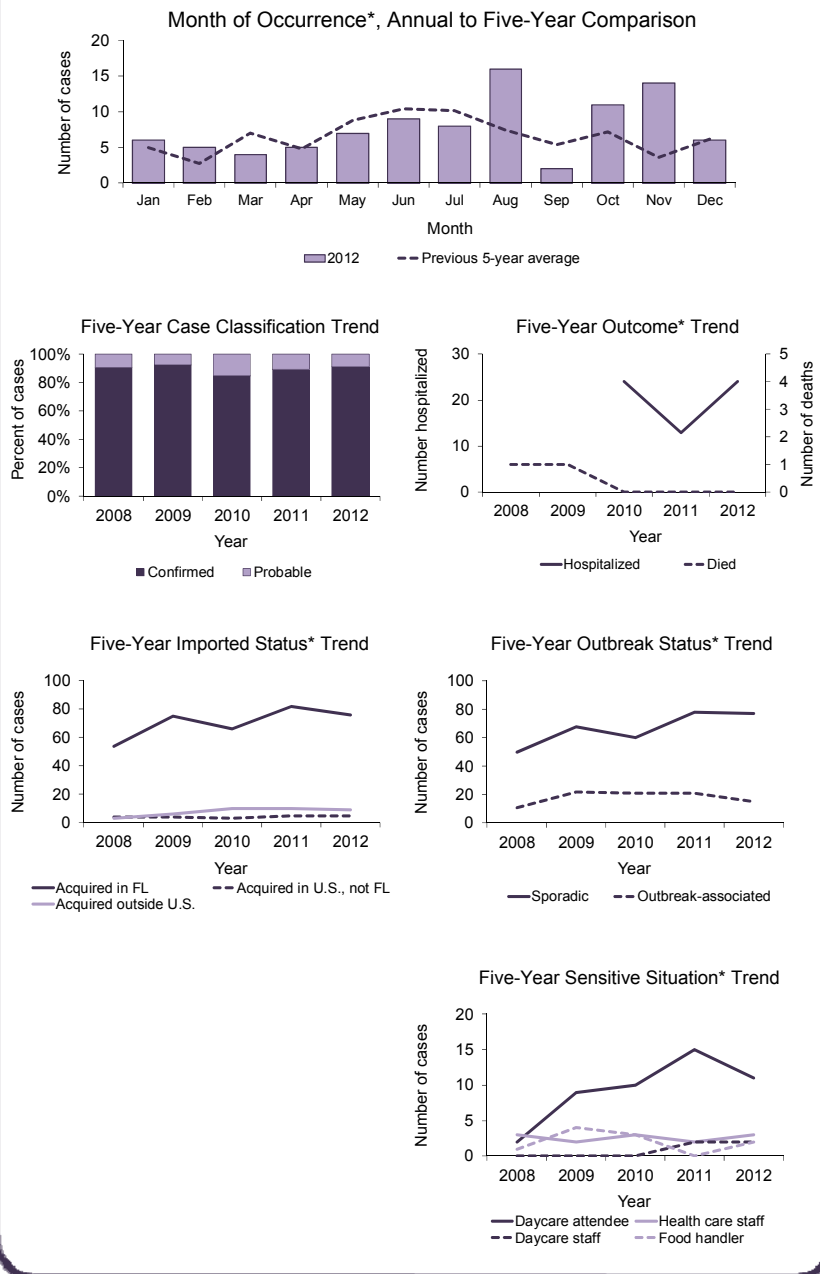
— Non-Hispanic — — Hispanic
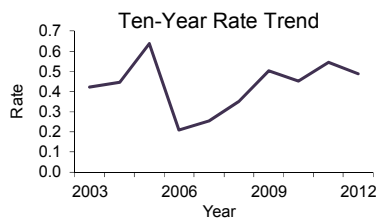
* Note that race and ethnicity trend graphs should be interpreted with caution. For Shiga toxin-producing *E. coli* infection, the percent of cases with missing race by year was 13.8% in 2008, 5.3% in 2009, 12.9% in 2010, 5.8% in 2011 and 9.7% in 2012; missing ethnicity by year was 15.4% in 2008, 3.2% in 2009, 12.9% in 2010, 6.8% in 2011 and 11.8% in 2012.

Summary of Case Factors

Summary	Number
Number of cases	93
Case Classification	Number (Percent)
Confirmed	85 (91.4)
Probable	8 (8.6)
Outcome*	Number (Percent)
Hospitalized	24 (25.8)
Died	0 (0.0)
Sensitive Situation*	Number (Percent)
Daycare attendee	11 (11.8)
Daycare staff	2 (2.2)
Health care staff	3 (3.2)
Food handler	2 (2.2)
Imported Status*	Number (Percent)
Acquired in Florida	76 (81.7)
Acquired in the U.S., not Florida	5 (5.4)
Acquired outside the U.S.	9 (9.7)
Imported status unknown	3 (3.2)
Outbreak Status*	Number (Percent)
Sporadic	77 (82.8)
Outbreak-associated	15 (16.1)
Serotypes of Confirmed Cases	Number (Percent)
O157:H7	31 (36.5)
O103:H2	11 (12.9)
O157	6 (7.1)
O26:H11	5 (5.9)
O111:non-motile	5 (5.9)
O157:non-motile	4 (4.7)
O69:H11	3 (3.5)
O118:H16	3 (3.5)
O145:non-motile	2 (2.4)
O103:H11	1 (1.2)
O121:H19	1 (1.2)
O1:H20	1 (1.2)
O71:H7	1 (1.2)
O74:H52	1 (1.2)
O76:H19	1 (1.2)
O88:H25	1 (1.2)
O130:H11	1 (1.2)
O141:H49	1 (1.2)
O174:H21	1 (1.2)
O174:non-motile	1 (1.2)
O178:H19	1 (1.2)
O rough:H8	1 (1.2)
O rough:non-motile	1 (1.2)
O not typeable:H7	1 (1.2)

Reported Shiga Toxin-Producing *E. coli* Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status*, Outbreak Status and Sensitive Situation*, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

Five-Year Sensitive Situation* Trend

* 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. Note that 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. Outcome and 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.

Shigellosis

Disease Facts

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 was high in Florida in 2012. 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. Shigellosis activity increased in 2010 and 2011, but started decreasing in 2012.
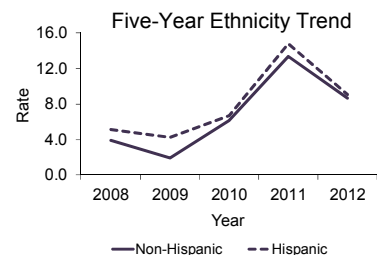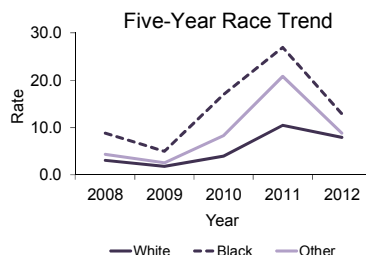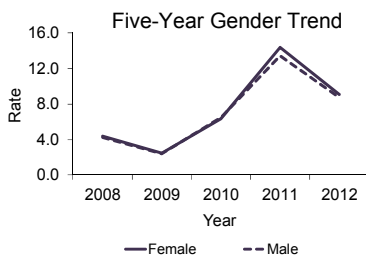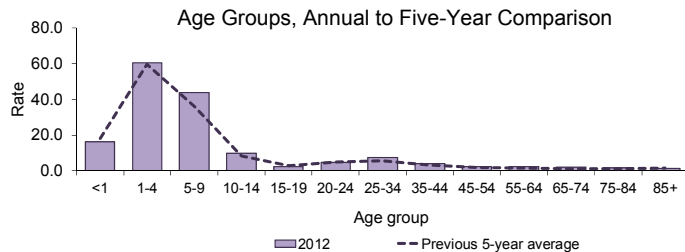
Summary of Case Demographics

Summary		
Number of cases		1,702
Incidence rate (per 100,000 population)		8.9
Change from 5-year average incidence		+13.1%
Age (in years)		
Mean		16
Median		7
Min-max		0 - 95
Gender	Number (Percent)	Rate
Female	887 (52.1)	9.1
Male	815 (47.9)	8.8
Unknown gender	0	
Race	Number (Percent)	Rate
White	1,183 (70.6)	7.9
Black	408 (24.3)	13.0
Other	85 (5.1)	8.8
Unknown race	26	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	1,272 (76.0)	8.7
Hispanic	401 (24.0)	9.1
Unknown ethnicity	29	

Reported Shigellosis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=1,637)
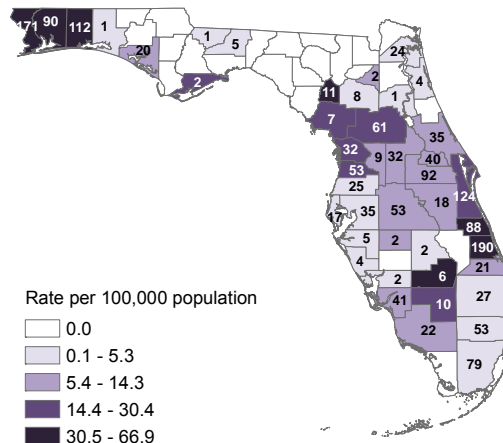
Rate per 100,000 population
- 0.0
- 0.1 - 5.3
- 5.4 - 14.3
- 14.4 - 30.4
- 30.5 - 66.9

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

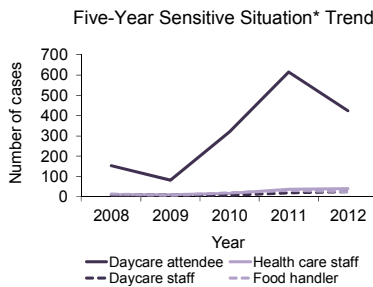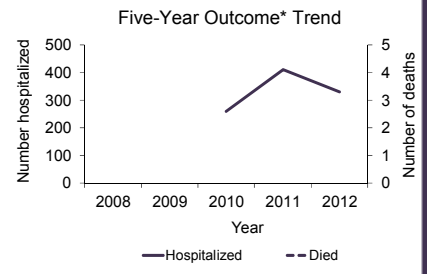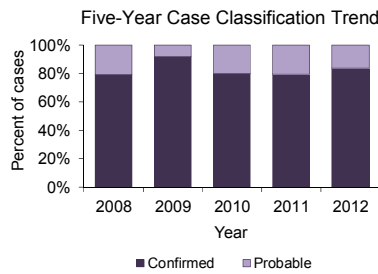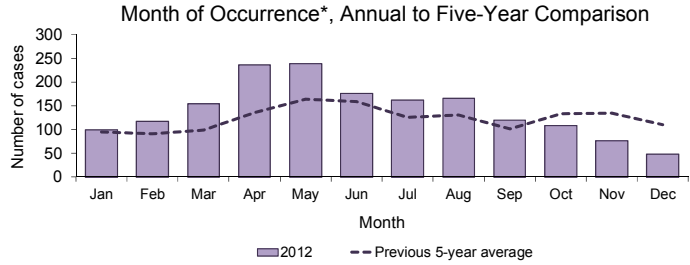Reported Shigellosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

Five-Year Gender Trend

Five-Year Race Trend

Five-Year Ethnicity Trend
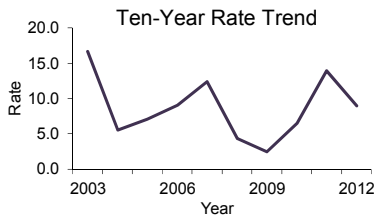
Summary of Case Factors

Summary	Number
Number of cases	1,702
Case Classification	**Number (Percent)**
Confirmed	1,433 (84.2)
Probable	269 (15.8)
Outcome*	**Number (Percent)**
Hospitalized	331 (19.4)
Died	0 (0.0)
Sensitive Situation*	**Number (Percent)**
Daycare attendee	423 (24.9)
Daycare staff	24 (1.4)
Health care staff	40 (2.4)
Food handler	25 (1.5)
Imported Status*	**Number (Percent)**
Acquired in Florida	1,637 (96.2)
Acquired in the U.S., not Florida	11 (0.6)
Acquired outside the U.S.	35 (2.1)
Imported status unknown	19 (1.1)
Outbreak Status*	**Number (Percent)**
Sporadic	892 (52.4)
Outbreak-associated	792 (46.5)
Outbreak status unknown	18 (1.1)

Reported Shigellosis Cases by Month of Occurrence*, Case Classification, Outcome*, Sensitive Situation*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Sensitive Situation* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome and 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.

Syphilis

Disease Facts

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). Incidence is highest in blacks, men and adults aged 20-54 years. 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.
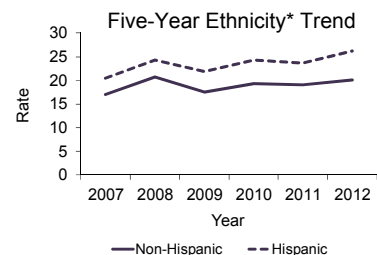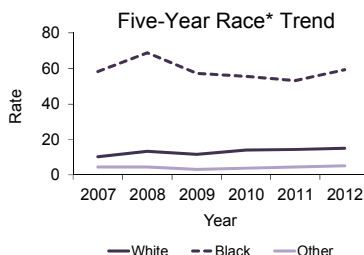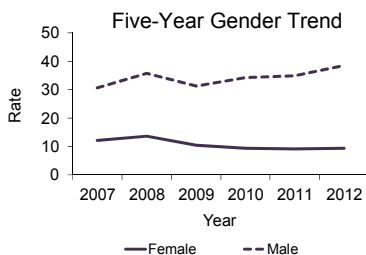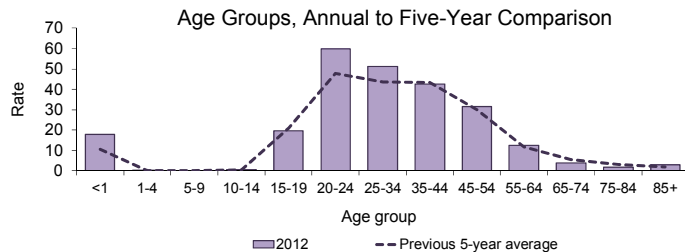
Summary of Case Demographics

Summary		
Number of cases		4,509
Incidence rate (per 100,000 population)		23.7
Change from 5-year average incidence		+7.6%
Age (in years)		
Mean		37
Median		35
Min-max		0 - 98
Gender	Number (Percent)	Rate
Female	912 (20.2)	9.4
Male	3,595 (79.8)	38.6
Unknown gender	2	
Race	Number (Percent)	Rate
White	2,276 (54.3)	15.2
Black	1,867 (44.5)	59.3
Other	52 (1.2)	5.4
Unknown race	314	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	2,948 (71.8)	20.2
Hispanic	1,159 (28.2)	26.3
Unknown ethnicity	402	

Reported Syphilis Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=4,509)
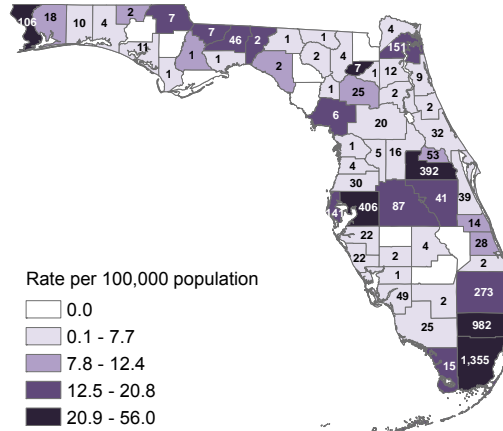
Rate per 100,000 population
- 0.0
- 0.1 - 7.7
- 7.8 - 12.4
- 12.5 - 20.8
- 20.9 - 56.0

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Syphilis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

2012 — Previous 5-year average

Five-Year Gender Trend

Female -- Male

Five-Year Race* Trend

White -- Black — Other

Five-Year Ethnicity* Trend

Non-Hispanic -- Hispanic
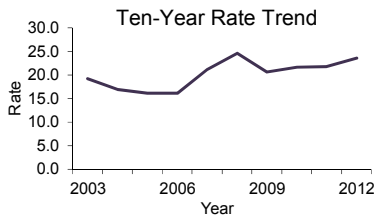
* Note that race and ethnicity trend graphs should be interpreted with caution. For syphilis, the percent of cases with missing race by year was 11.0% in 2008, 9.0% in 2009, 5.0% in 2010, 7.0% in 2011 and 7.0% in 2012; missing ethnicity by year was 13.0% in 2008, 10.0% in 2009, 6.0% in 2010, 8.0% in 2011 and 9.0% in 2012.

Tuberculosis (TB)

Disease Facts

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 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 2012. Medically underserved and low-income populations, including racial and ethnic minorities, such as blacks and other races, have high rates of TB exposure and infection.
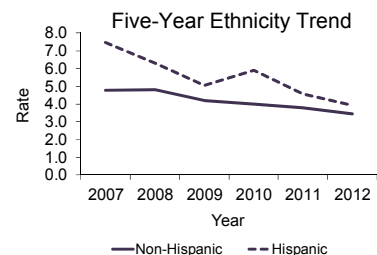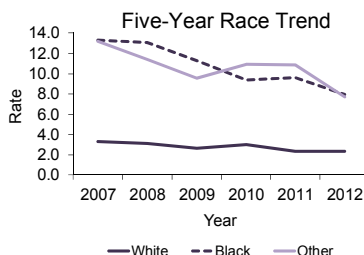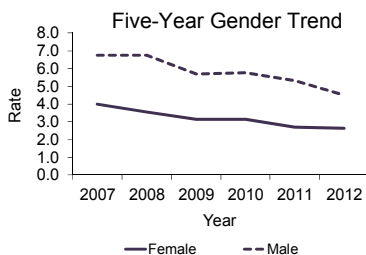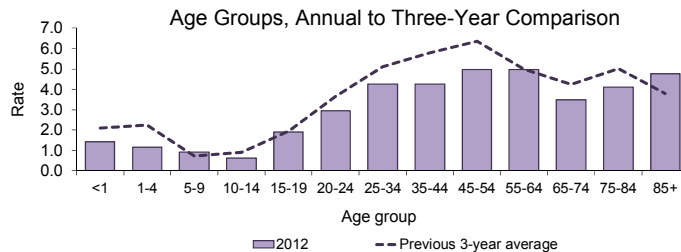
Summary of Case Demographics

Summary		
Number of cases		679
Incidence rate (per 100,000 population)		3.6
Change from 5-year average incidence		-23.4%
Age (in years)		
Mean		48
Median		49
Min-max		0 - 98
Gender	Number (Percent)	Rate
Female	258 (38.0)	2.7
Male	421 (62.0)	4.5
Unknown gender	0	
Race	Number (Percent)	Rate
White	355 (52.3)	2.4
Black	250 (36.8)	7.9
Other	74 (10.9)	7.7
Unknown race	0	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	506 (74.5)	3.5
Hispanic	173 (25.5)	3.9
Unknown ethnicity	0	

Counted Tuberculosis Cases and Incidence Rates per 100,000 Population by County of Residence, Florida, 2012 (N=679)
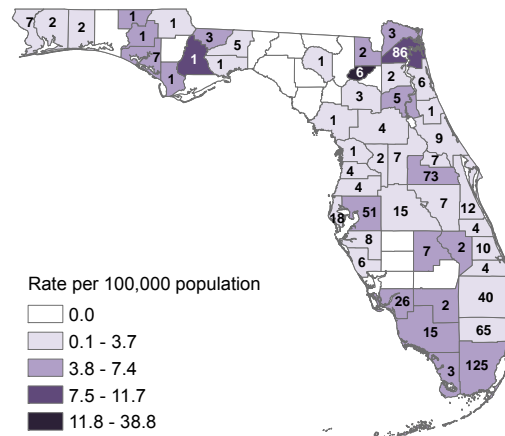
Rate per 100,000 population
- 0.0
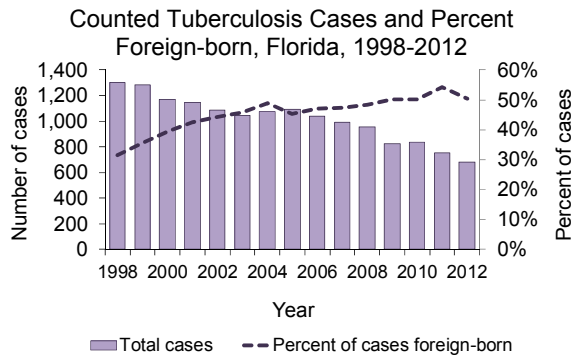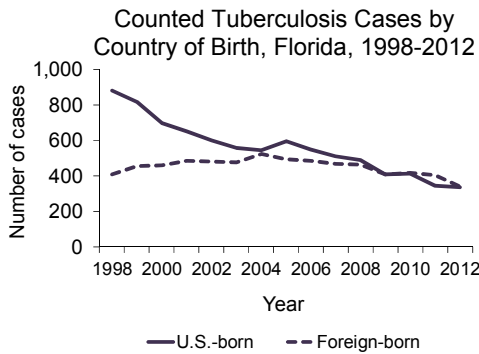- 0.1 - 3.7
- 3.8 - 7.4
- 7.5 - 11.7
- 11.8 - 38.8

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Counted Tuberculosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Three-Year Comparison

Five-Year Gender Trend

Five-Year Race Trend

Five-Year Ethnicity Trend

Counted Tuberculosis Cases by Country of Birth, Florida, 1998-2012

Counted Tuberculosis Cases and Percent Foreign-born, Florida, 1998-2012
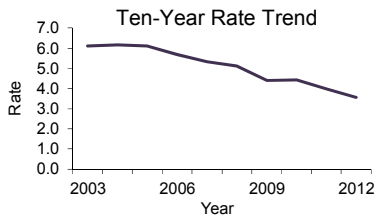
The rate of TB in U.S.-born people in Florida has been decreasing faster than the rate among foreign-born people. Being born in a country where TB is prevalent is one of the most significant risk factors for later developing TB, and now 50% of the total cases counted in Florida are among the foreign-born.

TB and HIV co-infection has been declining modestly but steadily over time in Florida. In 2012, 11% of TB cases were co-infected with HIV. HIV infection is the biggest risk factor for developing active TB disease following infection.

Number and Percent of Counted Tuberculosis Cases Co-Infected with HIV, Florida, 1998-2012
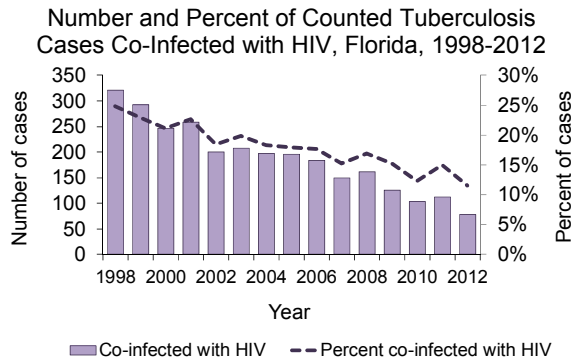
Varicella

Disease Facts

Cause: Varicella-zoster virus (VZV)

Type of illness: Common symptoms include blister-like 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 zoster 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 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. Most cases occur in winter and spring with the highest prevalence in school-aged children, most likely due to school contact. Households outbreaks are common.

Summary of Case Demographics

Summary		
Number of cases		815
Incidence rate (per 100,000 population)		4.3
Change from 5-year average incidence		-33.5%
Age (in years)		
Mean		15
Median		10
Min-max		0 - 86
Gender	Number (Percent)	Rate
Female	386 (47.4)	4.0
Male	429 (52.6)	4.6
Unknown gender	0	
Race	Number (Percent)	Rate
White	625 (78.8)	4.2
Black	113 (14.2)	3.6
Other	55 (6.9)	5.7
Unknown race	22	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	627 (79.0)	4.3
Hispanic	167 (21.0)	3.8
Unknown ethnicity	21	

Reported Varicella Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=790)

Rate per 100,000 population
- 0.0
- 0.1 - 6.5
- 6.6 - 12.7
- 12.8 - 23.6
- 23.7 - 40.7

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

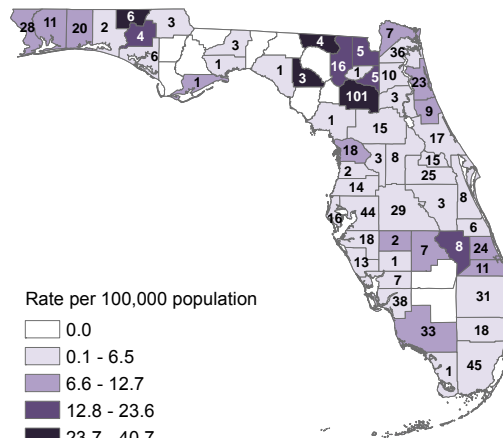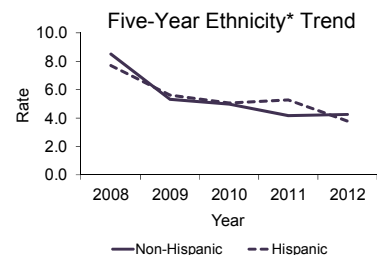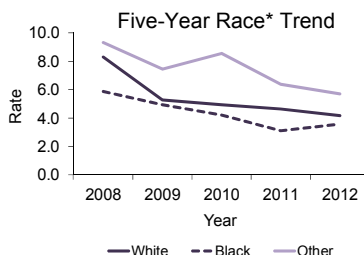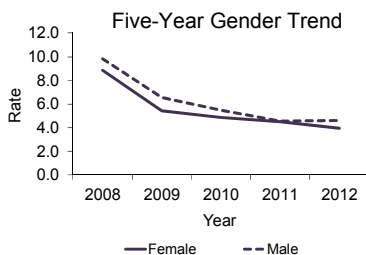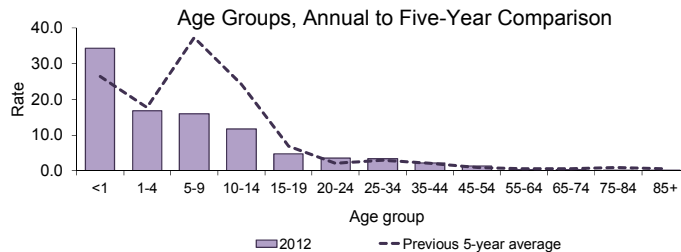Reported Varicella Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Six-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

■ 2012   – – Previous 5-year average

Five-Year Gender Trend

—Female – –Male

Five-Year Race* Trend

—White – –Black —Other

Five-Year Ethnicity* Trend

—Non-Hispanic – –Hispanic
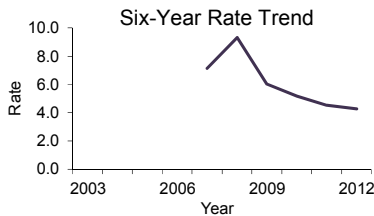
* Note that race and ethnicity trend graphs should be interpreted with caution. For varicella, the percent of cases with missing race by year was 14.5% in 2008, 11.2% in 2009, 3.4% in 2010, 1.4% in 2011 and 2.7% in 2012; missing ethnicity by year was 10.4% in 2008, 10.0% in 2009, 3.2% in 2010, 2.2% in 2011 and 2.6% in 2012.

Summary of Case Factors

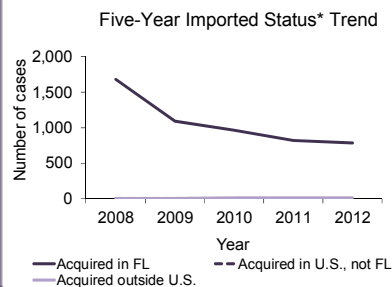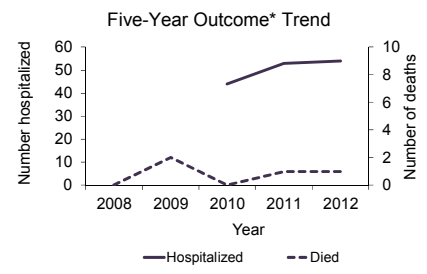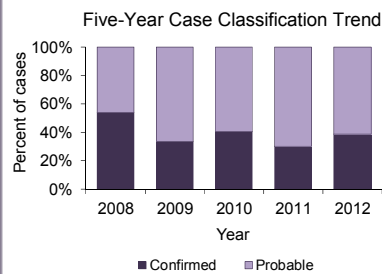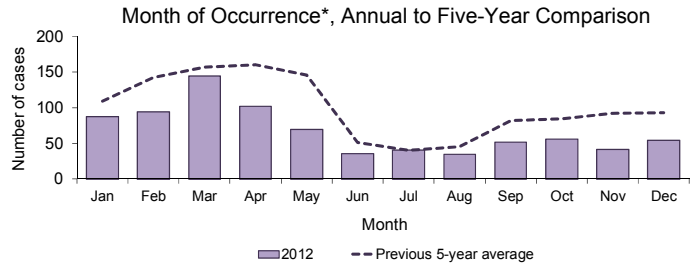| Summary	Number
Number of cases	815
Case Classification	**Number (Percent)**
Confirmed	317 (38.9)
Probable	498 (61.1)
Outcome*	**Number (Percent)**
Hospitalized	54 (6.6)
Died	1 (0.1)
Imported Status*	**Number (Percent)**
Acquired in Florida	790 (96.9)
Acquired in the U.S., not Florida	3 (0.4)
Acquired outside the U.S.	8 (1.0)
Imported status unknown	14 (1.7)
Outbreak Status*	**Number (Percent)**
Sporadic	542 (66.5)
Outbreak-associated	272 (33.4)
Outbreak status unknown	1 (0.1)

Reported Varicella Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.

Vibriosis

Disease Facts

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, wound infections from direct contact with seawater where the bacteria naturally live

Reason for surveillance: Identify sources of transmission (e.g., shellfish collection area) and mitigate source, monitor incidence over time, estimate burden of illness

Comments: In Florida, *Vibrio* infections usually occur through contact of broken skin with seawater where *Vibrio* species are endemic or ingestion of contaminated product (e.g., raw oysters). Incidence rates are typically higher in summer months when exposure to seawater is more common and warmer water is conducive to bacterial growth.
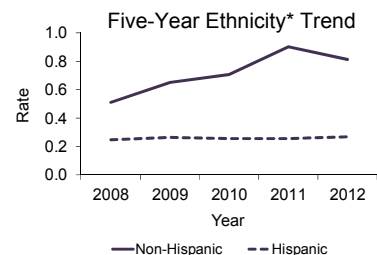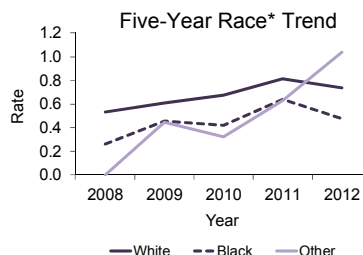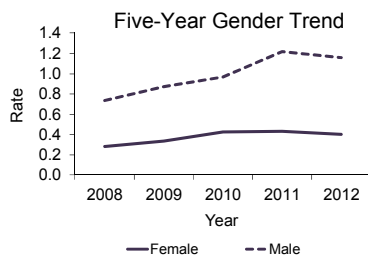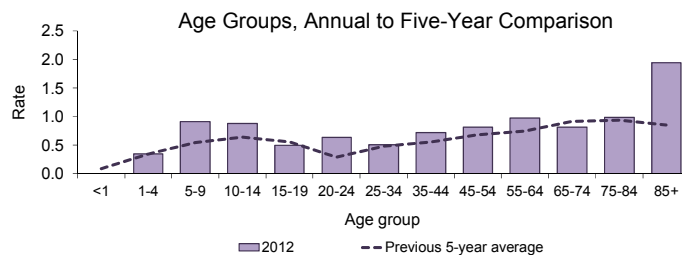
Summary of Case Demographics

Summary		
Number of cases		147
Incidence rate (per 100,000 population)		0.8
Change from 5-year average incidence		+22.5%
Age (in years)		
Mean		46
Median		47
Min-max		2 - 93
Gender	Number (Percent)	Rate
Female	39 (26.5)	0.4
Male	108 (73.5)	1.2
Unknown gender	0	
Race	Number (Percent)	Rate
White	110 (81.5)	0.7
Black	15 (11.1)	NA
Other	10 (7.4)	NA
Unknown race	12	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	119 (90.8)	0.8
Hispanic	12 (9.2)	NA
Unknown ethnicity	16	

Reported Vibriosis Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=137)
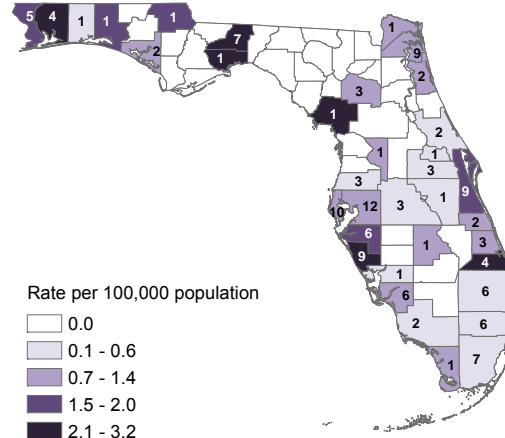
Rate per 100,000 population
- 0.0
- 0.1 - 0.6
- 0.7 - 1.4
- 1.5 - 2.0
- 2.1 - 3.2

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported Vibriosis Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend

Age Groups, Annual to Five-Year Comparison

■ 2012 - - Previous 5-year average

Five-Year Gender Trend

— Female - - Male

Five-Year Race* Trend

— White - - Black — Other

Five-Year Ethnicity* Trend
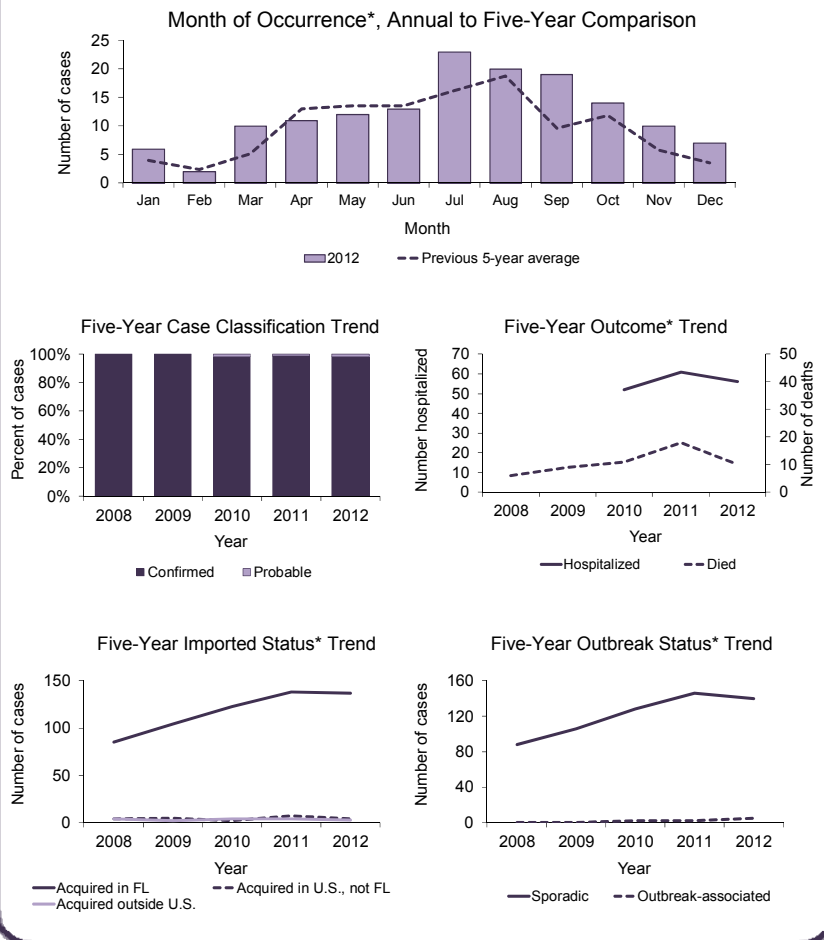
— Non-Hispanic - - Hispanic
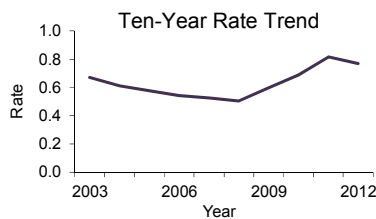
* Note that race and ethnicity trend graphs should be interpreted with caution. For vibriosis, the percent of cases with missing race by year was 7.4% in 2008, 3.6% in 2009, 10.8% in 2010, 5.2% in 2011 and 8.2% in 2012; missing ethnicity by year was 9.6% in 2008, 5.4% in 2009, 12.3% in 2010, 7.7% in 2011 and 10.9% in 2012.

Summary of Case Factors

Summary	Number
Number of cases	147
Case Classification	**Number (Percent)**
Confirmed	145 (98.6)
Probable	2 (1.4)
Outcome*	**Number (Percent)**
Hospitalized	56 (38.1)
Died	10 (6.8)
Imported Status*	**Number (Percent)**
Acquired in Florida	137 (93.2)
Acquired in the U.S., not Florida	4 (2.7)
Acquired outside the U.S.	3 (2.0)
Imported status unknown	3 (2.0)
Outbreak Status*	**Number (Percent)**
Sporadic	140 (95.2)
Outbreak-associated	5 (3.4)
Outbreak status unknown	2 (1.4)
Species	**Number (Percent)**
V. alginolyticus	57 (38.8)
V. parahaemolyticus	42 (28.6)
V. vulnificus	26 (17.7)
V. cholerae, non-O1	7 (4.8)
V. fluvialis	5 (3.4)
V. mimicus	4 (2.7)
V. hollisae	1 (0.7)
Other *Vibrio*	5 (3.4)

Reported Vibriosis Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

* 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. Note that 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. Outcome 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

Vibrio vulnificus can cause particularly severe disease, with about 50% of bloodstream infections being fatal. Of the 26 cases reported in 2012, all were hospitalized and nine (34.6%) died, accounting for nine (90.0%) of the 10 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 26 cases, 24 (92.3%) had underlying medical conditions. Of the people that died, five (55.6%) reported consumption of raw oysters, three (33.3%) had wounds with exposure to seawater, and one (11.1%) had multiple exposures. Like other vibriosis cases, most *V. vulnificus* infections occur in the summer, in white, non-Hispanic men.

West Nile Virus Disease

Disease Facts

Cause: West Nile virus (WNV)

Type of illness: Acute febrile illness; common symptoms are headache, joint pain, muscle pain, rash; <1% will develop encephalitis or meningitis

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

Reason for surveillance: Identify areas where WNV is being transmitted to target public education on prevention, prevent outbreaks, monitor incidence over time, estimate burden of illness

Comments: WNV disease was introduced to Florida in 2001. The highest number of cases was reported in 2003, followed by 2012. WNV disease is established as a seasonal epidemic in summer and fall in Florida, as well as nationally. However, in Florida the risk of infection is year-round.
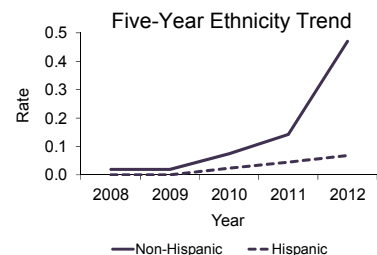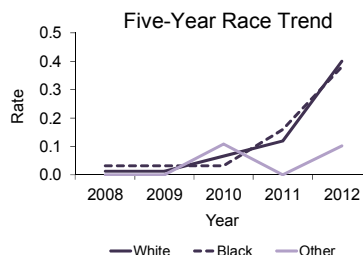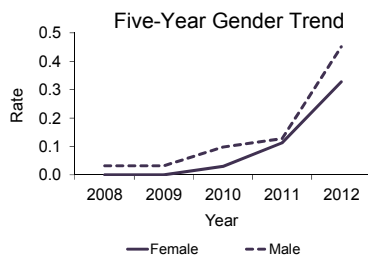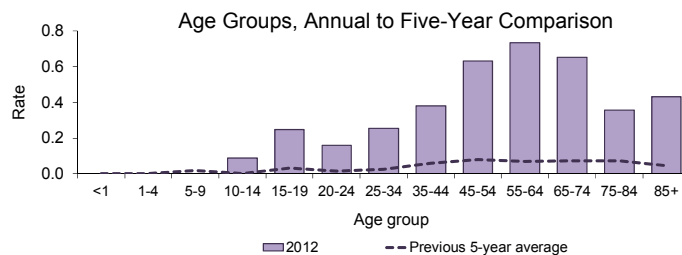
Summary of Case Demographics

Summary		
Number of cases		74
Incidence rate (per 100,000 population)		0.4
Change from 5-year average incidence		+677.2%
Age (in years)		
Mean		53
Median		54
Min-max		12 - 93
Gender	Number (Percent)	Rate
Female	32 (43.2)	0.3
Male	42 (56.8)	0.5
Unknown gender	0	
Race	Number (Percent)	Rate
White	60 (82.2)	0.4
Black	12 (16.4)	NA
Other	1 (1.4)	NA
Unknown race	1	
Ethnicity	Number (Percent)	Rate
Non-Hispanic	69 (95.8)	0.5
Hispanic	3 (4.2)	NA
Unknown ethnicity	2	

Reported West Nile Virus Disease Cases and Incidence Rates per 100,000 Population for Only Infections Acquired in Florida by County of Residence, Florida, 2012 (N=66)
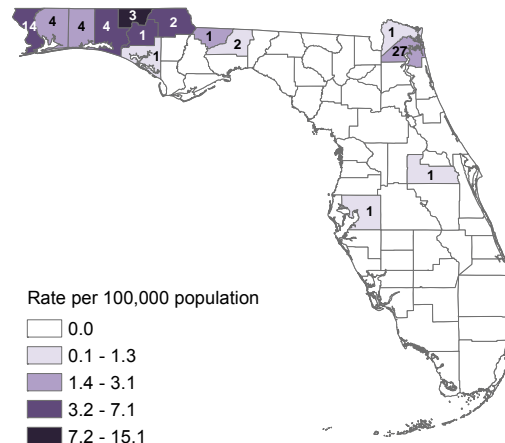
Rate per 100,000 population
- 0.0
- 0.1 - 1.3
- 1.4 - 3.1
- 3.2 - 7.1
- 7.2 - 15.1

Note that rates based on less than 20 cases are not reliable and should be interpreted with caution.

Reported West Nile Virus Disease Incidence Rate per 100,000 Population by Year, Age, Gender, Race, and Ethnicity, Florida

Ten-Year Rate Trend
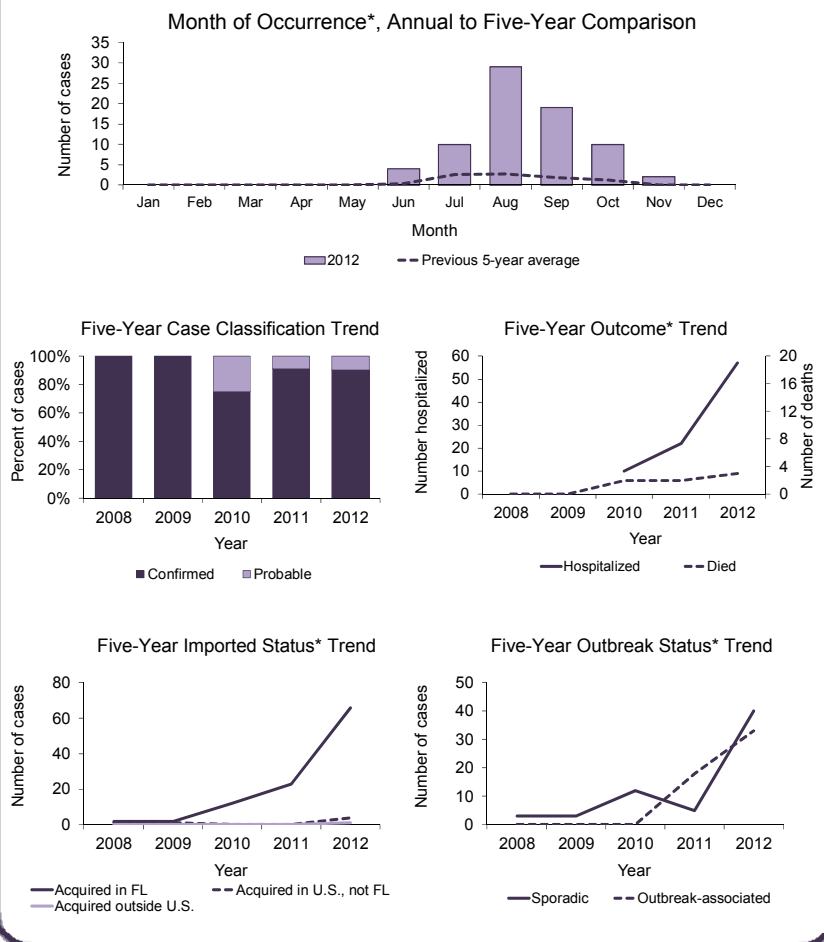
Age Groups, Annual to Five-Year Comparison

2012 — Previous 5-year average

Five-Year Gender Trend

Female — Male

Five-Year Race Trend

White — Black — Other

Five-Year Ethnicity Trend

Non-Hispanic — Hispanic
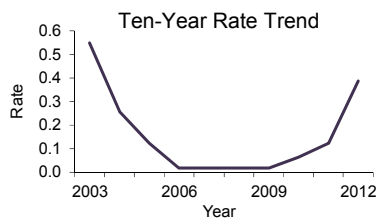
Summary of Case Factors

Summary	Number
Number of cases	74
Case Classification	**Number (Percent)**
Confirmed	67 (90.5)
Probable	7 (9.5)
Outcome*	**Number (Percent)**
Hospitalized	57 (77.0)
Died	3 (4.1)
Imported Status*	**Number (Percent)**
Acquired in Florida	66 (89.2)
Acquired in the U.S., not Florida	4 (5.4)
Acquired outside the U.S.	1 (1.4)
Imported status unknown	3 (4.1)
Outbreak Status*	**Number (Percent)**
Sporadic	40 (54.1)
Outbreak-associated	33 (44.6)
Outbreak status unknown	1 (1.4)
Type of Disease	**Number (Percent)**
Non-neuroinvasive	21 (28.4)
Neuroinvasive	53 (71.6)

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.

The peak in human WNV disease cases occurred in 2003. After the 2003 peak, the number of human cases gradually decreased over the years from 2004 to 2009 until case numbers started increasing in 2010. Dry environmental conditions and herd immunity in bird populations may have contributed to the low number of cases from 2006 to 2009.

Since the introduction of WNV in 2001, 2012 represents the second highest year of record for WNV disease in Florida and nationally. In Florida, cases were focused in Duval County and the Panhandle, particularly Escambia County. These two counties carried the heaviest disease burden, accounting for 62% of the 2012 cases. The 2012 outbreak likely resulted from many factors, including higher-than-normal temperatures that influenced mosquito and bird abundance, viral replication in host mosquitoes and interactions of birds and mosquitoes.

Reported West Nile Virus Disease Cases by Month of Occurrence*, Case Classification, Outcome*, Imported Status* and Outbreak Status, Florida

Month of Occurrence*, Annual to Five-Year Comparison

Five-Year Case Classification Trend

Five-Year Outcome* Trend

Five-Year Imported Status* Trend

Five-Year Outbreak Status* Trend

* 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. Note that 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. Outcome 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.