

# Epidemiology Annual Report 2014-2015

**Florida Department of Health in Charlotte County**

Disease Control Prevention, Preparedness, and Health Promotion

The Epidemiology Annual Report is published annually by the Disease Control Prevention and Preparedness department in the Florida Department of Health in Charlotte County. To obtain a free copy of the report, please contact:

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## Acknowledgements

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## Epidemiology

The Epidemiology Program contained within the division of Disease Control Prevention, Preparedness, and Health Promotion at the Florida Department of Health in Charlotte County conducts disease surveillance and investigates suspected occurrences of infectious diseases and conditions that are reported from physician's offices, hospitals, assisted living facilities, schools, and laboratories. Surveillance is primarily conducted through passive reporting from the medical community as required by Chapter 381, Florida Statutes.

Data is collected and examined to determine the existence of trends. The Epidemiology Program also conducts syndromic and influenza-like illness surveillance activities. Syndromic surveillance was added to the disease reporting process as an active method of determining activities in the community that could be early indicators of outbreaks or bioterrorism.

**Florida Department of Health in Charlotte County**  
**Disease Control Prevention, Preparedness and Health Promotion**  
**Epidemiology**

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## Acronyms

Acronyms	
<b>CNS</b>	Central Nervous System
<b>DCPP</b>	Disease Control, Prevention, Preparedness, and Health Promotion
<b>DOH-Charlotte</b>	Department of Health in Charlotte County
<b>E. coli (STEC)</b>	Escherichia coli, Shiga Toxin-Producing Infection
<b>FDOH</b>	Florida Department of Health
<b>PEP</b>	Post Exposure Prophylaxis
<b>N</b>	Size of population or sample



## Letter from the Director

The Epidemiology Program contained within the division of Disease Control, Prevention, Preparedness, and Health Promotion (DCPP) at the Florida Department of Health in Charlotte County conducts disease surveillance and investigates suspected occurrences and outbreaks of infectious diseases and conditions that are reported from physician's offices, hospitals, community members, and laboratories. Surveillance is primarily conducted through passive reporting from the medical community as required by Chapter 381, Florida Statutes. Data is collected and examined to determine the existence of trends.

The Epidemiology Program also conducts syndromic and influenza-like illness surveillance activities. Syndromic surveillance was added to the disease reporting process as an active method of determining activities in the community that could be early indicators of outbreaks or bioterrorism.

Today's infectious disease challenges are broader and more complex than in the past. The diversity of organisms, their ability to adapt, changing environments, and the broad array of beliefs, norms and values in Florida require dynamic and innovative approaches to disease prevention and control initiatives. International travel, immigration, antibiotic resistance, climate change, socioeconomic inequalities, and health disparities have created the potential for rapid transmission of infectious diseases.

The staff at the Florida Department of Health in Charlotte County are dedicated, compassionate, skillful and diligent in their efforts to improve the health outcomes of our community. Our mission is to protect, promote, and improve the health of all people in Florida through integrated state, county, and community efforts. We believe in an approach and value system that includes innovation, collaboration, accountability, responsiveness, and excellence.

Together, we will build a healthier tomorrow.

I invite you to read our annual report to learn more about the work of our program from 2014-2015.

Ana C. Scuteri, MPH  
Director  
Disease Control, Prevention, Preparedness, and Health Promotion

## Overview of Charlotte County

**Table 1.1 Characteristics of persons living in Charlotte County and diagnosed with a reportable disease or condition; 2014- 2015\*\***

	Charlotte County (N= 914)		Florida (N= 103,170)	
	N	%	N	%
<b>Gender</b>				
<b>Male</b>	497	54.4%	56,413	54.6%
<b>Female</b>	417	45.6%	46,723	45.2%
<b>Unknown*</b>	0	0%	210	0.2%
<b>Race</b>				
<b>White</b>	602	65.9%	52,706	51%
<b>Black</b>	16	1.8%	10,192	10%
<b>Asian/Pacific Islander</b>	7	0.8%	1,494	1.4%
<b>American Indian/Alaskan Native</b>	0	0.0%	127	0.1%
<b>Other</b>	16	1.8%	4,211	4.1%
<b>Unknown*</b>	273	29.9%	34,440	33%
<b>Ethnicity</b>				
<b>Hispanic</b>	39	4.3%	13,607	13%
<b>Non-Hispanic</b>	546	59.7%	47,816	46.3%
<b>Unknown*</b>	329	36%	41,747	40.6%

\*Unknown includes demographic variables marked unknown and those not provided.

\*\*Data as of June 2016

# Annual Summary

**Table 1.2 2014-2015 Disease Summary Data for Charlotte County, Florida**

Disease	2014	2015
Amebic Encephalitis	0	0
Animal Bite, PEP Recommended	16	16
Campylobacteriosis	22	47
Carbon Monoxide Poisoning	0	0
Chikungunya	3	0
Creutzfeldt-Jakob Disease (CJD)	0	0
Cryptosporidiosis	13	2
Cryptosporiasis	0	0
Dengue Fever	0	0
Ehrlichiosis/Anaplasmosis	0	0
E. coli Shiga Toxin Producing	3	3
Giardiasis	6	9
H. influenza (Invasive Disease)	5	0
Hemolytic Uremic Syndrome	0	0
Hepatitis A	3	3
Hepatitis B	0	0
Hepatitis B, Acute	11	10
Hepatitis B, Chronic	17	27
Hepatitis B, Perinatal	0	1
Hepatitis C, Acute	0	2
Hepatitis C, Chronic	255	288
Hepatitis E	0	0
Lead Poisoning	2	1
Legionellosis	5	2
Leprosy (Hansen's Disease)	0	0
Listeriosis	1	0
Lyme Disease	4	0
Malaria	0	1
Measles	0	0
Meningitis, Bacterial, Cryptococcal, Mycotic	1	0
Meningococcal Disease	0	0
Mumps	0	0
Pertussis	4	2
Salmonellosis	44	49
Shigellosis	2	7
S. aureus, Community Associated	0	0
S. pneumoniae, Invasive Disease,	2	0
S. pneumoniae, Invasive Disease,	1	0
Streptococcal Disease Invasive Group A	0	0
Toxoplasmosis	0	0
Typhoid Fever	0	0
Varicella	5	10
V. alginolyticus	1	1
V. parahaemolyticus	1	0
V. vulnificus	3	1
<b>TOTAL</b>	<b>430</b>	<b>483</b>



## Plug into Public Health Surveillance

Why does the Florida Department of Health in Charlotte County conduct surveillance?

The importance of surveillance is paramount in public health. **Surveillance can serve as an early warning system for impending public health emergencies.**

Most of the most pressing infectious diseases in Charlotte County are foodborne illnesses. Foodborne illness (also known as food poisoning) is a costly and yet preventable health issue. Contaminated food, water, objects, handrails, surfaces, poisonous food, and harmful chemicals can lead to foodborne illnesses.

Most foodborne illness can be caused by bacteria, virus, or parasites. Some foodborne illnesses are caused by dangerous toxins or chemicals such as ciguatera. Ciguatera is a toxin produced by microorganisms and found in certain reef fish. Ciguatera can cause pain, nausea and cardiac/neurological symptoms in humans when consumed.

Foodborne illness is present in every country, every state and every city. In Charlotte County, our two main offenders are campylobacter and salmonella.



**Surveillance** is the continuous, systematic collection, analysis, and interpretation of health-related data needed for the planning, implementation, and evaluation of public health practice.

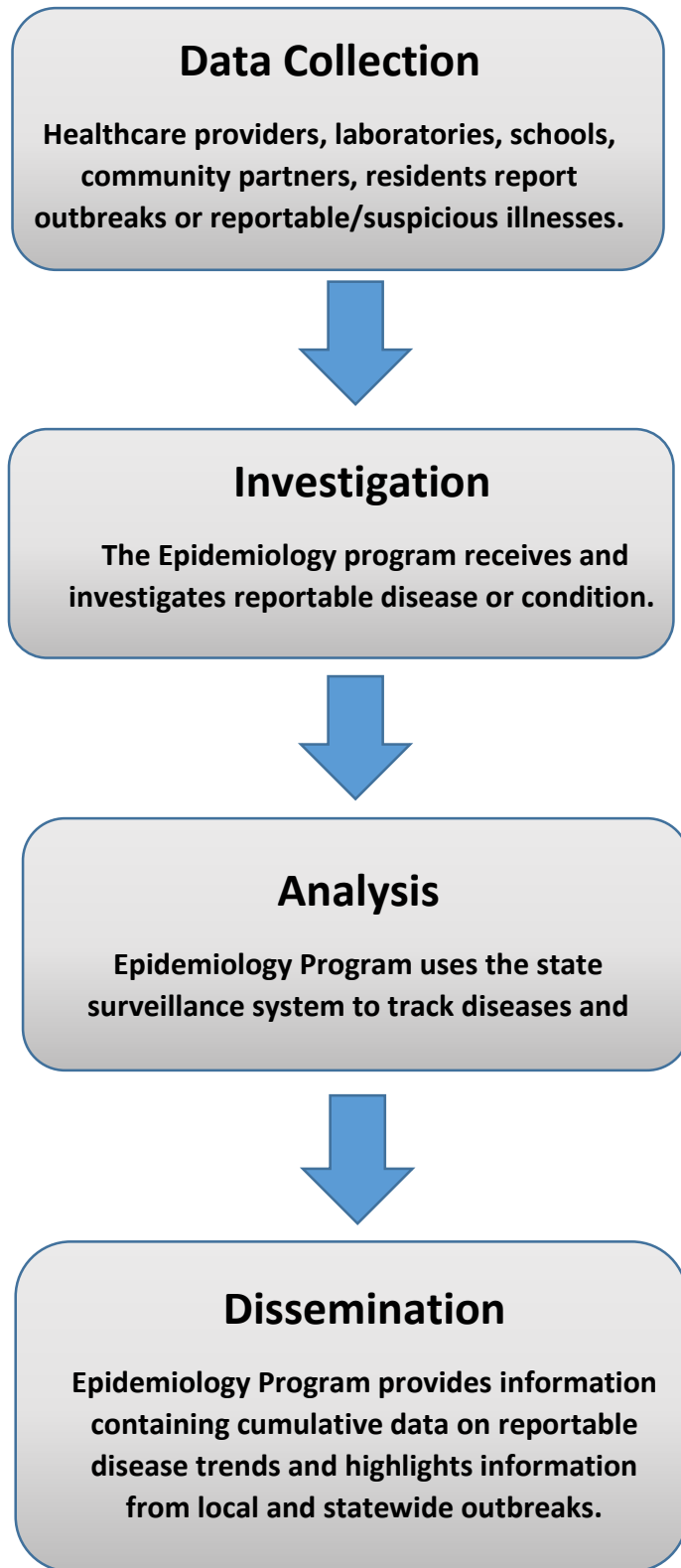
(As defined by the World Health Organization)

Another important function of public health surveillance **is to monitor and clarify the epidemiology of health problems.** At the Florida Department of Health in Charlotte County, the epidemiology staff monitor reports from hospitals, nursing homes, assisted living facilities, laboratories, clinics, and private medical practices to monitor incidences of disease, outbreaks, and patterns of “notifiable diseases” (Appendix A) to detect potential and current outbreaks and dangers to the public.

Over the past two years, we investigated nearly 200 cases of campylobacter and salmonella; however, most foodborne infections are undiagnosed and unreported. Sometimes ill people do not go to the doctor and sometimes the doctor does not test for the foodborne illness pathogen.

By monitoring and conducting surveillance, we are able to track sources of contamination, contain outbreaks of disease, and educate the public on how to protect themselves.

## Epidemiology Investigation Process



## Enterics by the Numbers

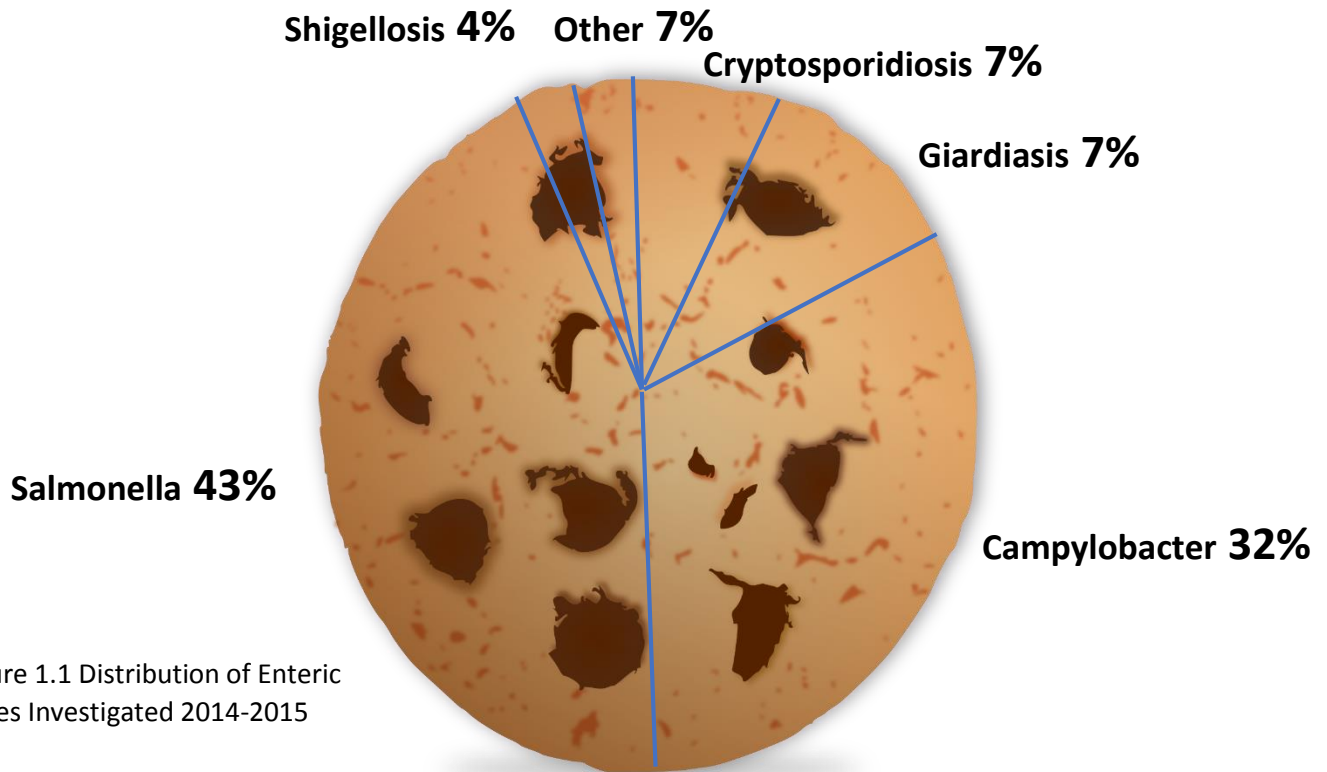
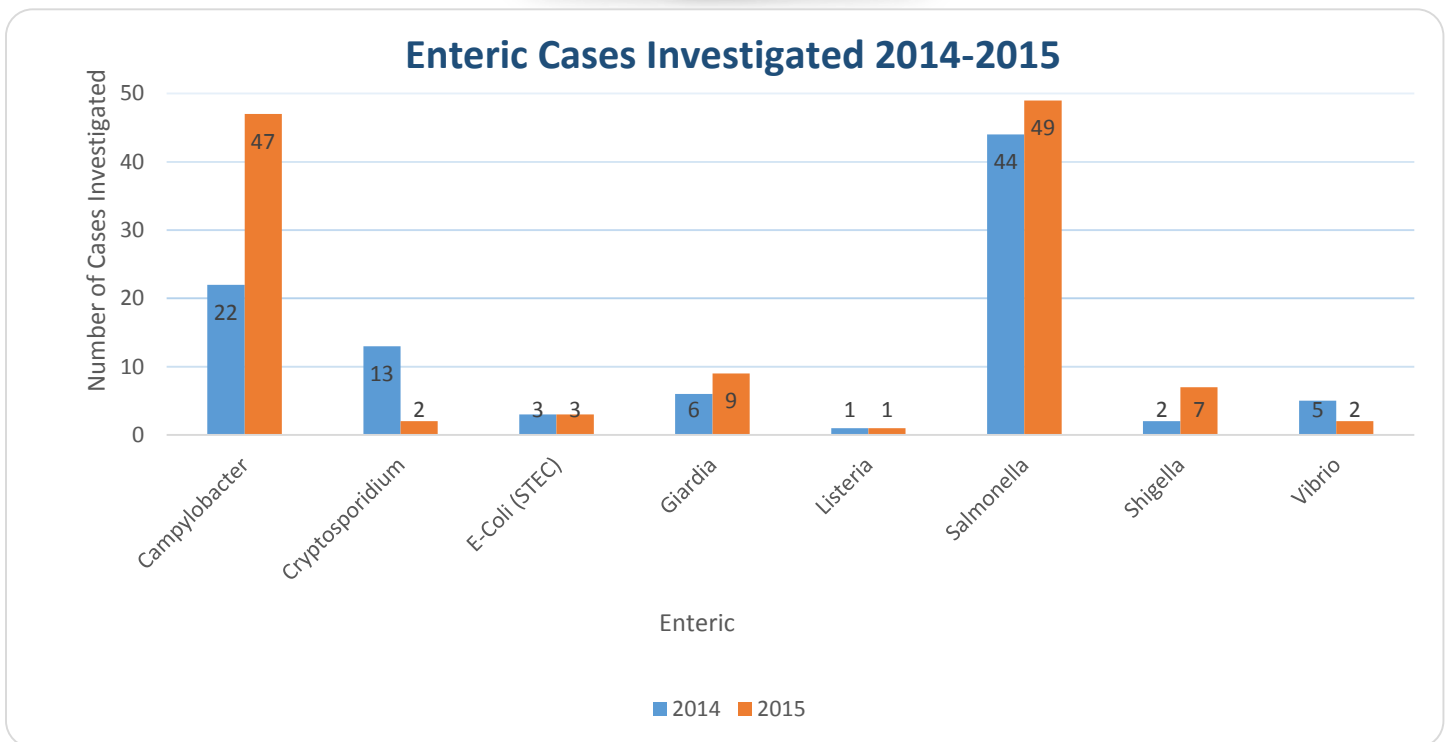
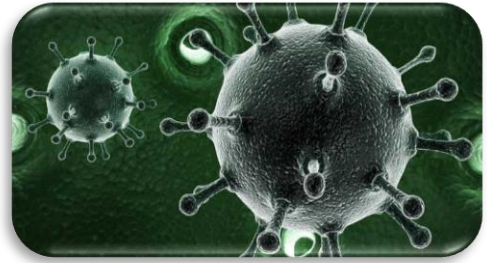


Figure 1.1 Distribution of Enteric Cases Investigated 2014-2015

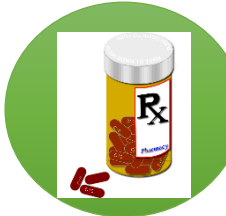


# Hepatitis by the Numbers

## FDOH-Charlotte Hepatitis Outreach throughout Charlotte County



**Charlotte County Jail**



**Drug Rehabilitation Center**



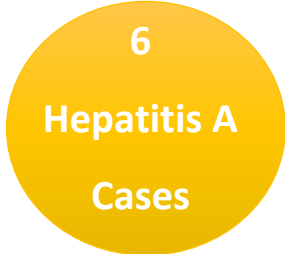
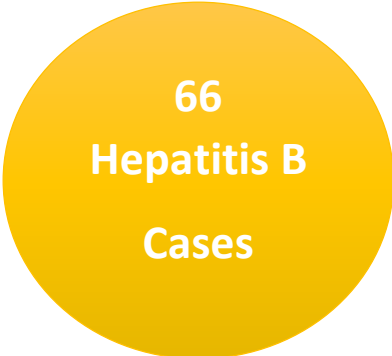
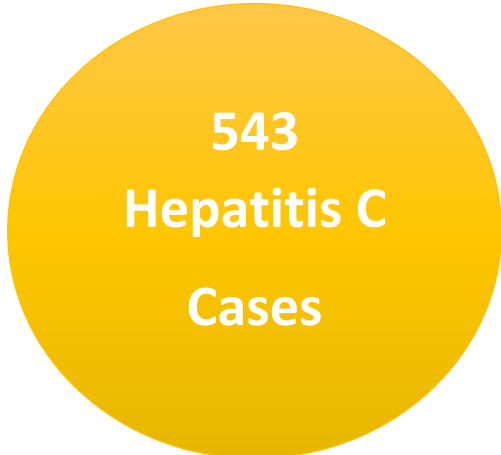
**Bars, nightclubs, pubs**



**Faith-based organizations**



## Hepatitis Cases Investigated





## Spotlight on Epidemiology

From 2014-2015, 913 cases of reportable communicable disease were reported and subsequently investigated in Charlotte County. Reportable diseases in Florida are broken down into one of the following six categories (Figure 1.2):

- **Vaccine-Preventable Diseases**
- **CNS Diseases and Bacteremias**
- **Enteric Infections**
- **Viral Hepatitis**
- **Vectorborne and Zoonoses**
- **Other**

Enteric infections and viral hepatitis comprise the majority of cases reported to the Florida Department of Health in Charlotte County (DOH-Charlotte) from 2014-2015. The enteric infections reported include the following: campylobacteriosis, cryptosporidiosis, giardiasis, E. coli (STEC), listeriosis, salmonellosis, vibriosis\*, and shigellosis. Enteric illnesses accounted for 24% of all reportable disease cases in the county (217/913 cases). The viral hepatitis cases reported included the following: hepatitis A, hepatitis B, Perinatal Hepatitis B, acute hepatitis B, chronic hepatitis B, acute hepatitis C, and chronic hepatitis C. All viral hepatitis infections combined accounted for 68% of all reportable disease cases in the county (617/913 cases). The Central Nervous System (CNS) diseases and bacteremias reported include: *Haemophilus influenzae* (invasive disease), *Strep pneumoniae* invasive disease drug-resistant and *Strep pneumoniae* invasive disease drug susceptible. CNS diseases and bacteremias accounted for 1% of all reportable in the county (8/913 cases). The vaccine-preventable diseases reported include: mumps, pertussis, and varicella. Vaccine preventable diseases accounted for 2.3% of all reportable diseases in the

county (21/913 cases).

The vectorborne diseases and zoonoses reported include those attributed to animal bites to humans requiring rabies post exposure prophylaxis and also positive animal rabies cases. These combined accounted for 4% of all reportable diseases in the county (40/913 cases). In the disease category labeled as “other,” DOH-Charlotte recorded lead poisoning and legionellosis, which accounted for 1% of all reportable disease cases (10/913).

Each case requires, at a minimum, contacting the patient for information regarding possible sources of exposure, any family or other close personal contacts who also may be at risk, and if necessary making further contacts with the patient’s physician, the hospital, and/or the diagnostic laboratory providing the information. If the patient works in (or attends) a setting where the risk of transmitting certain diseases is high (such as restaurants, hospitals or daycares), the epidemiology staff will also contact the co-workers or fellow attendees to advise them on preventive measures and to offer prophylaxis when appropriate.





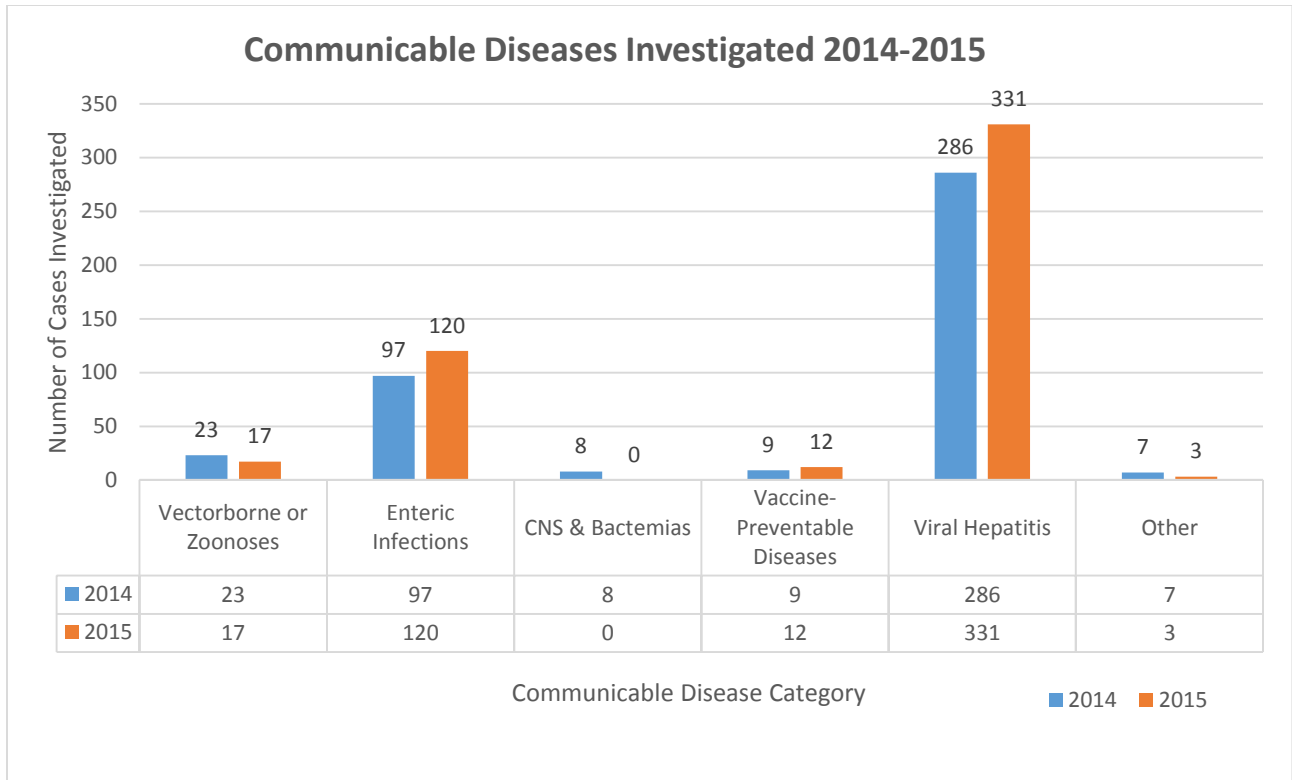


Figure 1.3 Communicable Diseases Investigated 2014-2015

## Additional Resources

### VACCINE PREVENTABLE DISEASES

- <http://www.cdc.gov/vaccines/vpd-vac/varicella/default.htm>
- [www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm](http://www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm)

#### Recommended immunization:

- <http://www.cdc.gov/vaccines/schedules/index.html>

### CNS DISEASES AND BACTEREMIAS

- [http://www.cdc.gov/ncidod/dbmd/diseaseinfo/haeminfluserob\\_t.htm](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/haeminfluserob_t.htm)
- <http://www.cdc.gov/pneumococcal/clinicians/streptococcus-pneumoniae.html>

### ENTERICS

#### Florida Online Foodborne Illness Complaint Form – Public Use

- [http://www.doh.state.fl.us/environment/medicine/foodsurveillance/Online\\_Foodborne\\_Complaint\\_Form.html](http://www.doh.state.fl.us/environment/medicine/foodsurveillance/Online_Foodborne_Complaint_Form.html)

#### Florida Food Recall Searchable Database

- [http://www.doh.state.fl.us/environment/medicine/foodsurveillance/Recalls\\_Page.htm](http://www.doh.state.fl.us/environment/medicine/foodsurveillance/Recalls_Page.htm)

### VIRAL HEPATITIS

- <https://www.cdc.gov/hepatitis/>

### VECTORBORNE AND ZOOSES

#### Information is available from the Florida Department of Health website at:

- <http://www.doh.state.fl.us/environment/medicine/rabies/rabies-index.html>

### OTHER

- <http://www.floridahealth.gov/diseases-and-conditions/vibrio-infections/index.html>
- <http://www.cdc.gov/legionella/index.html>

# Appendix A

## Reportable Diseases/Conditions in Florida Practitioner\* List 11/24/08

Did you know that you are required by Florida statute\*\* to report certain diseases to your local county health department?

\*Reporting requirements for laboratories differ. For specific information on disease reporting, consult Rule 64D-3, Florida Administrative Code (FAC).

! = Report immediately 24/7 by phone upon initial suspicion or laboratory test order  
 ☎ = Report immediately 24/7 by phone  
 • = Report next business day  
 + = Other reporting timeframe

<p>! Any disease outbreak</p> <p>! Any case, cluster of cases, or outbreak of a disease or condition found in the general community or any defined setting such as a hospital, school or other institution, not listed below that is of urgent public health significance. This includes those indicative of person to person spread, zoonotic spread, the presence of an environmental, food or waterborne source of exposure and those that result from a deliberate act of terrorism.</p> <p>Acquired Immune Deficiency Syndrome (AIDS)+</p> <p>Amebic encephalitis*</p> <p>Anaplasmosis*</p> <p>! Anthrax</p> <p>Arsenic poisoning*</p> <p>! Botulism (foodborne, wound, unspecified, other)</p> <p>Botulism (infant)*</p> <p>! Brucellosis</p> <p>California serogroup virus (neuroinvasive and non-neuroinvasive disease)*</p> <p>Campylobacteriosis*</p> <p>Cancer (except non-melanoma skin cancer, and including benign and borderline intracranial and CNS tumors)+</p> <p>Carbon monoxide poisoning*</p> <p>Chancroid*</p> <p>Chlamydia*</p> <p>! Cholera</p> <p>Ciguatera fish poisoning (Ciguatera)*</p> <p>Congenital anomalies*</p> <p>Conjunctivitis (in neonates ≤ 14 days old)*</p> <p>Creutzfeldt-Jakob disease (CJD)*</p> <p>Cryptosporidiosis*</p> <p>Cyclosporiasis*</p> <p>Dengue*</p> <p>! Diphtheria</p> <p>Eastern equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)*</p> <p>Ehrlichiosis*</p> <p>Encephalitis, other (non-arboviral)*</p> <p>☎ Enteric disease due to: <i>Escherichia coli</i>, O157:H7 <i>Escherichia coli</i>, other pathogenic <i>E. coli</i> including entero-toxicogenic, invasive, pathogenic, hemorrhagic, aggregative strains and shiga toxin positive strains</p> <p>Giardiasis*</p> <p>! Glanders</p> <p>Gonorrhea*</p>	<p>Granuloma inguinale*</p> <p>! <i>Haemophilus influenzae</i> (meningitis and invasive disease)</p> <p>Hansen's disease (Leprosy)*</p> <p>☎ Hantavirus infection</p> <p>☎ Hemolytic uremic syndrome</p> <p>☎ Hepatitis A</p> <p>Hepatitis B, C, D, E, and G*</p> <p>Hepatitis B surface antigen (HBsAg) (positive in a pregnant woman or a child up to 24 months old)*</p> <p>Herpes simplex virus (HSV) (in infants up to 60 days old with disseminated infection with involvement of liver, encephalitis and infections limited to skin, eyes and mouth; anogenital in children ≤ 12 yrs)*</p> <p>Human Immunodeficiency Virus (HIV) infection (all, and including neonates born to an infected woman, exposed newborn)+</p> <p>Human papillomavirus (HPV) (associated laryngeal papillomas or recurrent respiratory papillomatosis in children ≤ 6 years of age; anogenital in children ≤ 12 yrs)*</p> <p>! Influenza due to novel or pandemic strains</p> <p>☎ Influenza-associated pediatric mortality (in persons aged &lt; 18 yrs)</p> <p>Lead poisoning (blood lead level ≥ 10µg/dL); additional reporting requirements exist for hand held and/or on-site blood lead testing technology, see 64D-3 FAC*</p> <p>Legionellosis*</p> <p>Leptospirosis*</p> <p>☎ Listeriosis</p> <p>Lyme disease*</p> <p>Lymphogranuloma venereum (LGV)*</p> <p>Malaria*</p> <p>! Measles (Rubeola)</p> <p>! Melioidosis</p> <p>Meningitis (bacterial, cryptococcal, mycotic)*</p> <p>! Meningococcal disease (includes meningitis and meningococcemia)</p> <p>Mercury poisoning*</p> <p>Mumps*</p> <p>☎ Neurotoxic shellfish poisoning</p> <p>☎ Pertussis</p> <p>Pesticide-related illness and injury*</p> <p>! Plague</p> <p>! Poliomyelitis, paralytic and non-paralytic</p> <p>Psittacosis (Ornithosis)*</p> <p>Q Fever*</p> <p>☎ Rabies (human, animal)</p>	<p>! Rabies (possible exposure)</p> <p>! Ricin toxicity</p> <p>Rocky Mountain spotted fever*</p> <p>! Rubella (including congenital)</p> <p>St. Louis encephalitis (SLE) virus disease (neuroinvasive and non-neuroinvasive)*</p> <p>Salmonellosis*</p> <p>Saxitoxin poisoning including paralytic shellfish poisoning (PSP)*</p> <p>! Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV) disease</p> <p>Shigellosis*</p> <p>! Smallpox</p> <p>Staphylococcus aureus, community associated mortality*</p> <p>☎ Staphylococcus aureus (infection with intermediate or full resistance to vancomycin, VISA, VRSA)</p> <p>☎ Staphylococcal enterotoxin B (disease due to)</p> <p>Streptococcal disease (invasive, Group A)*</p> <p>Streptococcus pneumoniae (invasive disease)*</p> <p>Syphilis*</p> <p>☎ Syphilis (in pregnant women and neonates)</p> <p>Tetanus*</p> <p>Toxoplasmosis (acute)*</p> <p>Trichinellosis (Trichinosis)*</p> <p>Tuberculosis (TB)*</p> <p>! Tularemia</p> <p>☎ Typhoid fever</p> <p>! Typhus fever (disease due to <i>Rickettsia prowazekii</i> infection)</p> <p>Typhus fever (disease due to <i>Rickettsia typhi</i>, <i>R. felis</i> infection)*</p> <p>! Vaccinia disease</p> <p>Varicella (Chickenpox)*</p> <p>Varicella mortality*</p> <p>! Venezuelan equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)</p> <p>Vibriosis (Vibrio infections)*</p> <p>! Viral hemorrhagic fevers (Ebola, Marburg, Lassa, Machupo)</p> <p>West Nile virus disease (neuroinvasive and non-neuroinvasive)*</p> <p>Western equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)*</p> <p>! Yellow fever</p>
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