Mission:
To protect, promote & improve the health
of all people in Florida through integrated
state, county & community efforts.

Rick Scott
Governor

John H. Armstrong, MD, FACS
State Surgeon General & Secretary

Vision: To be the Healthiest State in the Nation

FLORIDA DEPARTMENT OF HEALTH, POLK COUNTY

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EPI-Gram

REPORT SUMMARY—ISSUE 2, FEBRUARY 2016

- Surveillance from participating that are used to monitor Influenza-like illness (ILI) in Polk County are beginning to show increasing activity as of the week ending January 30, 2016, but several indicators remain at or near baseline in comparison to previous flu seasons.
- In May 2015, the Pan American health Organization (PAHO) issued an alert confirming the first case of Zika virus infection in Brazil. Zika virus will continue to spread but the trajectory will be difficult to determine.
- As a part of a Federal response effort, an Environmental Protection Agency task force is working closely with Flint water operators to restore safe drinking water to its residents.

REPORTABLE DISEASE SUMMARY:

In January 2016, the Epidemiology Program of the Florida Department of Health in Polk County (FDOH-Polk) investigated a total of 113 reportable diseases.

Fifteen cases of campylobacteriosis were identified in the month of January, which is above the previous five-year mean (10) for the month.

FDOH-Polk Epidemiology noticed an increase in varicella (chickenpox) cases during 2015, and which is continuing into the new year. Six cases of varicella were identified in the month of January, which is above the previous five-year mean (4.2) for the month.

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SPECIAL POINTS OF INTEREST

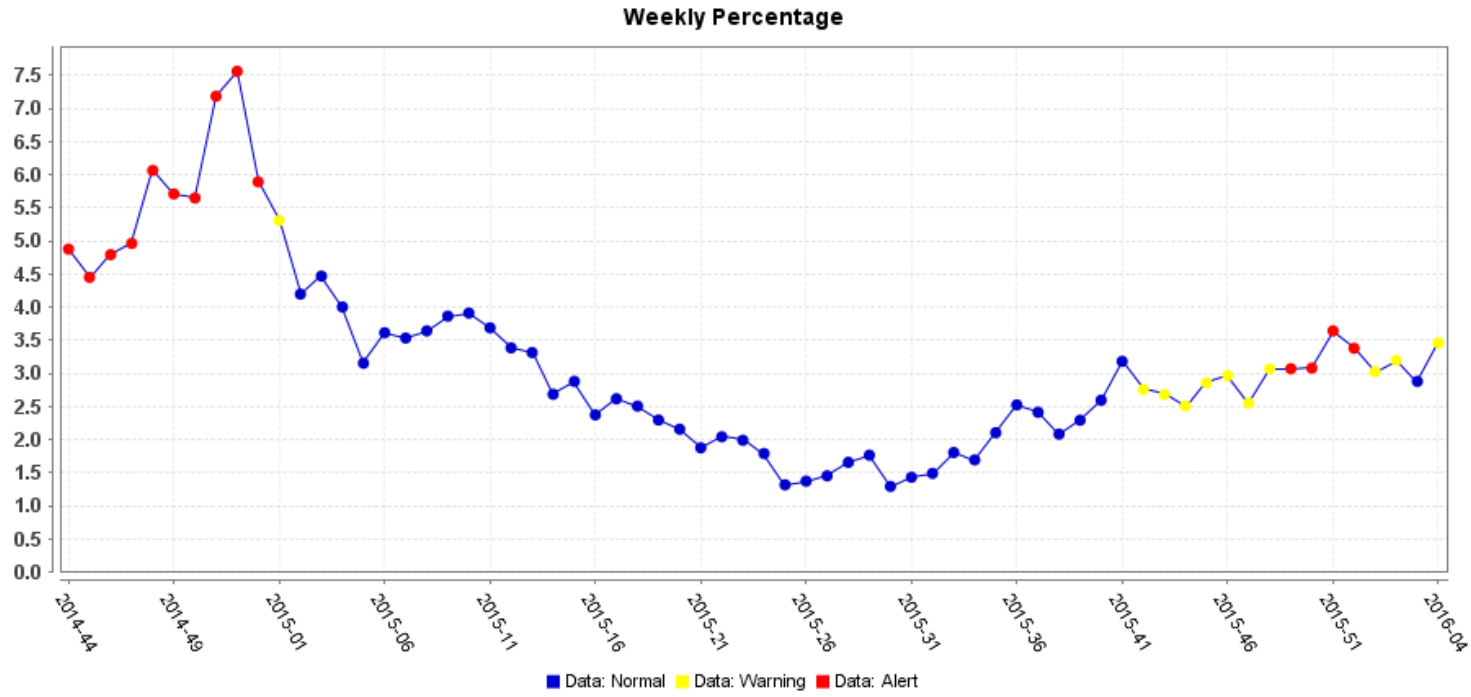
- Zika Virus emerges in the Americas, information for Clinicians and Obstetricians on pages 4 and 5
- Flint, Michigan experiences a drinking water crisis due to lead contamination, page 7

TABLE 1: PROVISIONAL CASES OF SELECTED NOTIFIABLE DISEASES, POLK COUNTY, FLORIDA, JANUARY 2016

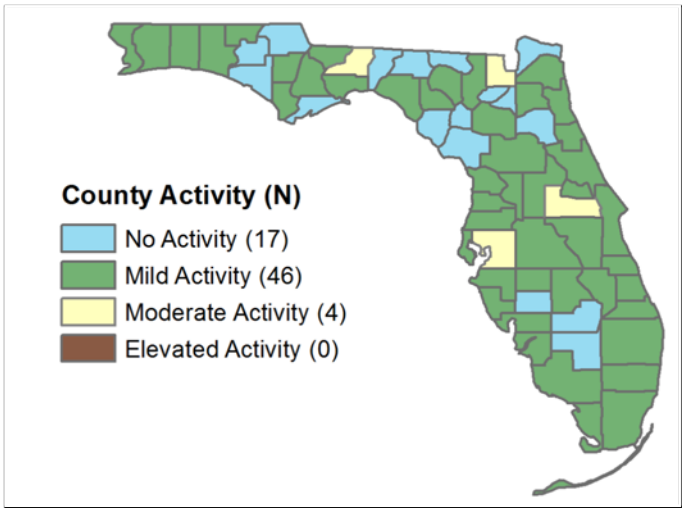
* MEAN OF THE NUMBER OF CASES OF THE SAME MONTH IN THE PREVIOUS FIVE YEARS

	POLK					FLORIDA				
Disease	January			Cumulative (YTD)		January			Cumulative (YTD)	
	2016	2015	Mean*	2016	2015	2016	2015	Mean*	2016	2015
Vaccine Preventables										
Pertussis	0	1	1.6	0	1	11	35	39.4	11	35
Varicella	6	4	4.2	6	4	68	68	70.4	68	68
CNS Diseases & Bacteremias										
Haemophilus influenzae Invasive Disease	1	0	0.4	1	0	22	36	27.2	22	36
Meningitis: Bacterial or Mycotic	1	1	1.4	1	1	8	13	15.4	8	13
Meningococcal Disease	0	1	0.2	0	1	1	4	5.6	1	4
Strep pneumoniae Invasive Disease: Drug-Resistant	1	0	3.2	1	0	14	19	64.2	14	19
Strep pneumoniae Invasive Disease: Drug-Susceptible	5	4	3.8	5	4	49	30	75.4	49	30
Enteric Infections										
Campylobacteriosis	15	12	10	15	12	211	291	221	211	291
Cryptosporidiosis	1	8	2.6	1	8	25	44	38.2	25	44
Escherichia coli: Shiga Toxin-Producing (STEC) Infection	2	2	1	2	2	31	32	32.2	31	32
Giardiasis: Acute	1	4	1.8	1	4	34	83	84.8	34	83
Salmonellosis	9	12	14.6	9	12	280	319	295.8	280	319
Shigellosis	2	12	5.4	2	12	47	131	101	47	131
Vibriosis (Other Vibrio Species)	1	0	0	1	0	2	1	0.8	2	1
Viral Hepatitis										
Hepatitis A	1	0	0.2	1	0	8	7	8	8	7
Hepatitis B: Acute	1	1	0.8	1	1	27	36	26.4	27	36
Hepatitis B: Chronic	3	5	6.2	3	5	355	429	343	355	429
Hepatitis B: Surface Antigen in Pregnant Women	0	0	1.4	0	0	10	38	39.8	10	38
Hepatitis C: Acute	0	0	0.8	0	0	20	15	13.6	20	15
Hepatitis C: Chronic	36	52	49.8	36	52	2694	2732	2333.8	2694	2732
Vector Borne, Zoonoses										
Chikungunya Fever	0	0	0	0	0	0	18	3.6	0	18
Lyme Disease	1	0	0.2	1	0	13	7	6.8	13	7
Rabies: Animal	0	0	0.6	0	0	5	7	7	5	7
Rabies: Possible Exposure	1	23	6.8	1	23	128	245	202	128	245
Others										
Carbon Monoxide Poisoning	0	4	0.8	0	4	19	20	13.2	19	20
Hansen's Disease (Leprosy)	0	1	0.2	0	1	1	5	2	1	5
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	1	2	0.6	1	2
Lead Poisoning	0	0	1.4	0	0	34	63	74.6	34	63
Legionellosis	0	0	0.6	0	0	17	32	22.4	17	32
Pesticide-Related Illness and Injury: Acute	0	0	0.2	0	0	0	0	4.8	0	0

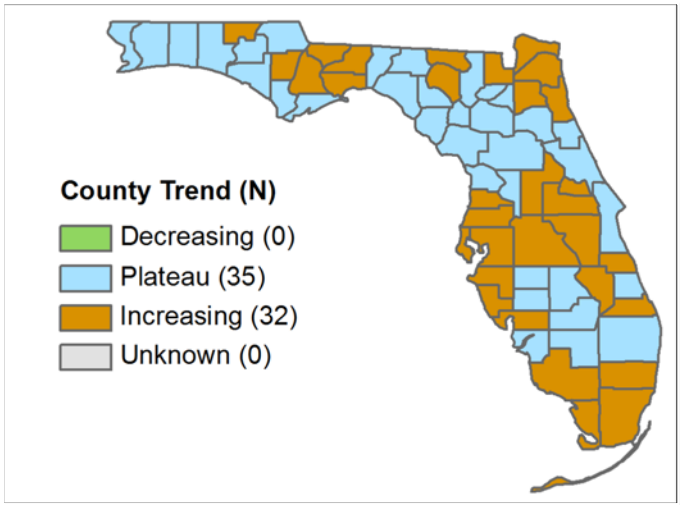
FIGURE 1: ESSENCE WEEKLY PERCENTAGE OF ILI EMERGENCY DEPARTMENT VISITS, POLK COUNTY PARTICIPATING HOSPITALS (N=5), WEEK 44, 2014 TO WEEK 4, 2016



MAP 1: COUNTY INFLUENZA ACTIVITY LEVEL



MAP 2: COUNTY INFLUENZA ACTIVITY TREND



FLU SUMMARY

The number of visits identified through ESSENCE to local emergency department for ILI has increased during the month of January in Polk County in comparison to previous weeks.

The state of Florida reported local activity to the Centers for Disease Control and Prevention (CDC) in week 4 of 2016. The most recent reports are posted at http://www.floridahealth.gov/diseases-and-conditions/influenza/index.html

The CDC has announced that they have received reports of severe influenza illness and activity is increasing across the United States. Nationally, H1N1 has been the predominately circulating strain over the last few weeks.

The CDC recommends flu vaccination for everyone six months of age and older as long as influenza viruses are circulating.

ESSENCE: The Electronic Surveillance System for Early Notification of Community-based Epidemics is a bio-surveillance system that collects emergency department chief complaint data from participating hospitals and urgent care centers in Florida. Polk County has 5 participating hospitals.

Current as of February 4, 2016. Please check for updates at :

http://www.floridahealth.gov/diseases-and-conditions/zika-virus/index.html

Zika Fever - Information for Clinicians

Please contact your county health department by the next business day if you suspect a patient has Zika fever to ensure prompt mosquito control efforts.

Zika fever, a dengue-like illness caused by a mosquito-borne flavivirus, has been identified in several countries in Central and South America, Mexico and the Caribbean including Puerto Rico. Outbreaks have previously been reported in Africa, Southeast Asia and the Pacific Islands. **The Ministry of Health of Brazil has reported an increase in the number of babies born with microcephaly and other poor pregnancy outcomes in areas experiencing Zika virus outbreaks**. Further studies are being conducted to investigate this concern. Fetuses and infants of women infected with Zika virus during pregnancy should be evaluated for possible congenital infection and neurologic abnormalities.

Transmission occurs through the bite of an infected mosquito, including the same mosquitoes that can transmit dengue and chikungunya. Perinatal, in utero, and possible sexual and transfusion transmission has also been reported. **Suspect cases should be advised to avoid mosquito bites while ill to prevent infection of local mosquitoes.**

Incubation period is approximately 2 to 14 days.

Clinical Presentation: Only about 1 in 5 people infected with Zika virus are symptomatic. Zika fever is a mild illness with symptoms similar to those of mild dengue fever. Severe disease requiring hospitalization is uncommon. Treatment is symptomatic and illness typically resolves within a week. Co-infections with dengue or chikungunya are possible and should be considered. Aspirin and other non-steroidal anti-inflammatory drugs are not advised in case of co-infection with dengue. Pregnant women with fever should be treated with acetaminophen. Signs/symptoms of Zika fever may include:

- Acute fever (often low grade)
- Maculopapular rash
- Arthralgia
- Conjunctivitis
- Myalgia
- Headache
- Retro-orbital pain
- Vomiting

Laboratory testing: Polymerase chain reaction (PCR) at Florida Department of Health can be used to detect viral RNA in serum samples collected during the first week post-symptom onset. PCR may also detect virus in urine, possibly longer than serum. Serum antibody tests are also available, however, cross-reaction with related flaviviruses (e.g. dengue and West Nile viruses) is common and results may be difficult to interpret. Commercial testing for Zika virus is currently not available.

Please contact your county health department to request Zika virus testing for patients meeting the following criteria:

- Currently pregnant women who (while pregnant) experienced two or more of the following signs/symptoms: fever, maculopapular rash, arthralgia, or conjunctivitis **within two weeks of travel to an area reporting Zika virus activity** regardless of the length of time since the travel/illness occurred

OR

- Mothers of an infant or fetus with microcephaly or intracranial calcifications **and** with history of travel to an area with Zika virus activity during pregnancy

OR

- If not pregnant, persons with two or more of the following signs/symptoms: fever, maculopapular rash, arthralgia or conjunctivitis **and** a history of travel to an area reporting Zika virus activity in the two weeks prior to illness onset **or** is a suspect local case

Guidance will be updated as additional information becomes available.

Resources:
Florida Department of Health in Polk County: phone number (863) 519-8300
DOH: http://www.floridahealth.gov/diseases-and-conditions/mosquito-borne-diseases/index.html
CDC: http://www.cdc.gov/zika/
CDC Zika virus and pregnancy MMWR: http://www.cdc.gov/mmwr/volumes/65/wr/mm6502e1er.htm

Version 1.0 1/20/2016

Current as of February 4, 2016. Please check for updates at :

http://www.floridahealth.gov/diseases-and-conditions/zika-virus/index.html

Zika Fever - Information for Obstetricians

Zika fever has been identified in South and Central America as well as Mexico and the Caribbean including Puerto Rico. **The Ministry of Health of Brazil has reported an increase in the numbers of babies born with microcephaly in areas experiencing Zika virus outbreaks**. Further studies are being conducted to investigate this concern. In response to this concern and out of an abundance of caution, the Centers for Disease Control and Prevention (CDC) has issued a travel alert recommending:

- Pregnant women in any trimester should consider postponing travel to areas where Zika virus transmission is ongoing. Pregnant women who must travel to one of these areas should talk to their doctor or other health care provider first and strictly follow steps to avoid mosquito bites during the trip.
- Women trying to become pregnant should consult with their health care provider before traveling to these areas and strictly follow steps to prevent mosquito bites during the trip.
- Fetuses and infants of women infected with Zika virus during pregnancy should be evaluated for possible congenital infection and neurologic abnormalities, including microcephaly or intracranial calcifications.

Transmission occurs through the bite of an infected mosquito. Perinatal and in utero transmission has been reported but, to date, transmission through breastfeeding has not been reported.

Pregnant women or women trying to become pregnant who decide to travel to areas with Zika virus activity should take appropriate precautions to avoid mosquito bites.

- **Bring EPA registered insect repellant** with any of the following active ingredients
  - DEET
  - Oil of lemon eucalyptus
  - Picaridin
  - IR3535
  - It is safe for pregnant or nursing women to use EPA-approved repellants **if applied according to package label instructions**.

- **Cover skin** with long-sleeved shirts and long pants
  - Apply a permethrin repellent directly to clothing or purchase pre-treated clothing. Follow the manufacturer's directions and **do not apply directly to skin.**

- **Keep mosquitoes out of hotel rooms**
  - Choose a hotel or lodging with air conditioning or screens on windows and doors.

- Other mosquito-borne diseases such as dengue fever, chikungunya fever, and malaria may also impact the fetus or newborn and pose a risk in many of the same areas Zika virus is present, emphasizing the need to strictly follow steps to prevent mosquito bites.

- Travelers returning home should be advised to avoid being bitten by mosquitoes for three weeks following travel, especially while ill, to prevent infection of local mosquitoes.

- While at home, draining standing water near residences and businesses at least weekly is recommended to keep local mosquito populations low and prevent local introductions.

Guidance will be updated as additional information becomes available.

Resources:
Florida Department of Health in Polk County: (863) 519-8300
DOH: http://www.floridahealth.gov/diseases-and-conditions/mosquito-borne-diseases/index.html
CDC Zika virus: http://www.cdc.gov/zika/
CDC microcephaly: http://www.cdc.gov/ncbddd/birthdefects/microcephaly.html

Mosquito Bite Prevention (United States)

Not all mosquitoes are the same. Different mosquitoes spread different viruses and bite at different times of the day.

Type of Mosquito	Viruses spread	Biting habits
Aedes aegypti, *Aedes albopictus*	Chikungunya, Dengue, Zika	Daytime
Culex species	West Nile	Dusk (evening) to dawn (morning)

Protect yourself and your family from mosquito bites

Use insect repellent

Use an Environmental Protection Agency (EPA)-registered insect repellent with one of the following active ingredients. All EPA-registered insect repellents are evaluated for safety and effectiveness.

Active ingredient Higher percentages of active ingredient provide longer protection	Some brand name examples*
DEET	Off!, Cutter, Sawyer, Ultrathon
Picaridin, also known as **KBR 3023**, **Bayrepel**, and **icaridin**	Cutter Advanced, Skin So Soft Bug Guard Plus, Autan (outside the United States)
Oil of lemon eucalyptus (OLE) or **para-menthane-diol** (PMD)	Repel
IR3535	Skin So Soft Bug Guard Plus Expedition, SkinSmart

* Insect repellent brand names are provided for your information only. The Centers for Disease Control and Prevention and the U.S. Department of Health and Human Services cannot recommend or endorse any name brand products.

CDC

CS258143A January 12, 2016

To learn more about Zika virus please visit **http://www.cdc.gov/zika/index.html**

To keep abreast on travel notices issued by the CDC please visit **http://wwwnc.cdc.gov/travel/notices**

Healthcare providers should report any suspect Zika virus disease cases to the Florida Department of Health in Polk County at (863) 519-8300

ENVIRONMENTAL PROTECTION AGENCY (EPA) ISSUES EMERGENCY ORDER OVER WATER CRISIS IN FLINT, MICHIGAN

On January 16, 2016, President Obama signed an emergency declaration ordering federal assistance to the citizens of Flint, Michigan in a response to the current water lead-contamination crisis.

At Risk Populations: Children at higher risk for lead exposure are poor, members of racial-ethnic minority groups, recent immigrants, live in homes built prior to 1950 or in 1978, and/or have parents who are exposed to lead occupationally.

Effects of Lead Poisoning: Blood lead levels as low as 10 micrograms per deciliter have been associated with adverse effects. Lead poisoning has been proven to be harmful to the development of the brain and nervous systems of fetuses and young children.

Blood lead levels (BLL) ≥ 10 micrograms per deciliter should be reported to the Department of Health in Polk County. DOH offers limited services for those children <6 with a confirmed BLL ≥20 micrograms per deciliter or two confirmed BLLs micrograms per deciliter taken more than 3 months apart.

Outbreaks of any disease are reportable, and the Florida Department of Health in Polk County should be notified 24/7 by phone at (863) 519-8300, or after hours at (863) 413-2620.

Director	(863) 519-7900
Joy Jackson, MD	Ext. 11001
Epidemiology	(863) 519-8300
Gregory Danyluk, PhD, MPH, MS	Ext. 12163
Leslie McKay, MPH, CPH	Ext. 12186
Suzi Turner, MPH	Ext. 12212
Immunizations & Hepatitis Program	(863) 519-7900
Leroy Dux	Ext. 11304
Tuberculosis	(863) 965-6259
Tracey Murvin	Ext. 10112
STD	(863) 519-8233
James Hinson	Ext. 11200
Environmental Health	(863) 519-8300
John Cook	Ext. 12100

Reportable Diseases/Conditions in Florida

Practitioner List (Laboratory Requirements Differ)

Effective June 4, 2014

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

To Report In Polk County:

Epidemiology Unit:	(863) 519-8300	Fax: 519-8306
Hepatitis Unit:	(863) 519-8240	Fax: 519-8639
TB Unit:	(863) 965-6259	Fax: 965-6262
STD Unit:	(863) 519-8722	Fax: 519-8737
HIV Unit:	(863) 519-7900	Ext. 11236
Animal Services:	(863) 499-2600	Fax: 499-2603

Emergency After Hours: (863) 413-2620

! 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

! Outbreaks of any disease, any case, cluster of cases, or exposure to an infectious or non-infectious disease, condition, or agent found in the general community or any defined setting (e.g., hospital, school, other institution) not listed that is of urgent public health significance
+ Acquired immune deficiency syndrome (AIDS)
☎ Amebic encephalitis
! Anthrax
• Arsenic poisoning
• Arboviral diseases not otherwise listed
! Botulism, foodborne, wound, and unspecified
• Botulism, infant
! Brucellosis
• California serogroup virus disease
• Campylobacteriosis
+ Cancer, excluding non-melanoma skin cancer and including benign and borderline intracranial and CNS tumors
• Carbon monoxide poisoning
• Chancroid
• Chikungunya fever
☎ Chikungunya fever, locally acquired
• Chlamydia
! Cholera (*Vibrio cholerae* type O1)
• Ciguatera fish poisoning
+ Congenital anomalies
• Conjunctivitis in neonates <14 days old
• Creutzfeldt-Jakob disease (CJD)
• Cryptosporidiosis
• Cyclosporiasis
• Dengue fever
☎ Dengue fever, locally acquired
! Diphtheria
• Eastern equine encephalitis
• Ehrlichiosis/anaplasmosis
• *Escherichia coli* infection, Shiga toxin-producing
• Giardiasis, acute
! Glanders
• Gonorrhea
• Granuloma inguinale
! *Haemophilus influenzae* invasive disease in children <5 years old
• Hansen's disease (leprosy)
☎ Hantavirus infection
☎ Hemolytic uremic syndrome (HUS)
☎ Hepatitis A
• Hepatitis B, C, D, E, and G
• Hepatitis B surface antigen in pregnant women or children <2 years old
☎ Herpes B virus, possible exposure
• Herpes simplex virus (HSV) in infants <60 days old with disseminated infection and liver involvement; encephalitis; and infections limited to skin, eyes, and mouth; anogenital HSV in children <12 years old
+ Human immunodeficiency virus (HIV) infection
• HIV, exposed infants <18 months old born to an HIV-infected woman
• Human papillomavirus (HPV), associated laryngeal papillomas or recurrent respiratory papillomatosis in children <6 years old; anogenital papillomas in children <12 years old
! Influenza A, novel or pandemic strains
☎ Influenza-associated pediatric mortality in children <18 years old
• Lead poisoning
• Legionellosis
• Leptospirosis
☎ Listeriosis
• Lyme disease
• Lymphogranuloma venereum (LGV)
• Malaria
! Measles (rubeola)
! Melioidosis
• Meningitis, bacterial or mycotic
! Meningococcal disease
• Mercury poisoning
• Mumps
+ Neonatal abstinence syndrome (NAS)
☎ Neurotoxic shellfish poisoning
☎ Pertussis
• Pesticide-related illness and injury, acute
! Plague
! Poliomyelitis
• Psittacosis (ornithosis)
• Q Fever
☎ Rabies, animal or human
! Rabies, possible exposure
! Ricin toxin poisoning
• Rocky Mountain spotted fever and other spotted fever rickettsioses
! Rubella
• St. Louis encephalitis
• Salmonellosis
• Saxitoxin poisoning (paralytic shellfish poisoning)
! Severe acute respiratory disease syndrome associated with coronavirus infection
• Shigellosis
! Smallpox
☎ Staphylococcal enterotoxin B poisoning
☎ *Staphylococcus aureus* infection, intermediate or full resistance to vancomycin (VISA, VRSA)
• *Streptococcus pneumoniae* invasive disease in children <6 years old
• Syphilis
☎ Syphilis in pregnant women and neonates
• Tetanus
• Trichinellosis (trichinosis)
• Tuberculosis (TB)
! Tularemia
☎ Typhoid fever (*Salmonella* serotype Typhi)
! Typhus fever, epidemic
! Vaccinia disease
• Varicella (chickenpox)
! Venezuelan equine encephalitis
• Vibriosis (infections of *Vibrio* species and closely related organisms, excluding *Vibrio cholerae* type O1)
! Viral hemorrhagic fevers
• West Nile virus disease
! Yellow fever

*Section 381.0031 (2), *Florida Statutes* (*F.S.*), provides that "Any practitioner licensed in this state to practice medicine, osteopathic medicine, chiropractic medicine, naturopathy, or veterinary medicine; any hospital licensed under part I of chapter 395; or any laboratory licensed under chapter 483 that diagnoses or suspects the existence of a disease of public health significance shall immediately report the fact to the Department of Health." Florida's county health departments serve as the Department's representative in this reporting requirement. Furthermore, Section 381.0031 (4), *F.S.* provides that "The department shall periodically issue a list of infectious or noninfectious diseases determined by it to be a threat to public health and therefore of significance to public health and shall furnish a copy of the list to the practitioners..."