Epi Monthly

Florida Department of Health in Miami-Dade County November 2018 Vol 19, Issue 11

This Month in Public Health

- World Diabetes Day was Wednesday, November 14th. The Florida Department of Health promotes the work of the Centers for Disease Control and Prevention (CDC) in diabetes prevention, early detection, and access to care and encourages healthcare providers to "Prevent Diabetes STAT: Screen, Test, Act Today."
- The week of November 12—18 marks U.S. Antibiotic Awareness Week. Since the 1940s, antimicrobials have been used to treat disease and benefit human health. Changing practices in the way antimicrobials are utilized and distributed threaten the ability of these drugs to operate as intended and lead to antibiotic resistance. Public health agencies nationwide are calling for widespread antibiotic stewardship to stem antibiotic overuse and resistance. The Florida Department of Health monitors antimicrobial resistance and provides trainings to healthcare providers on antibiotic stewardship.
- In 1983, President Ronald Reagan designated November as National Alzheimer's Disease Awareness Month. At the time, fewer than 2 million people were diagnosed with the disease; in 2014, the Centers for Disease Control and Prevention (CDC) estimated that as many as 5 million Americans were living with Alzheimer's disease. The most recent estimates predict that the number of people affected by Alzheimer's and other dementias will nearly triple by 2060—from 5 million to 14 million. For more information on the epidemiology of the disease, risk factors, and current research, please visit the CDC's Alzheimer's Disease and Healthy Aging website.

In this Issue

Florida Department of Health in Miami-Dade County
Epidemiology, Disease Control, and Immunization Services
8175 NW 12th Street, Suite 316
Miami, FL 33126
Phone: 305-470-5660
Fax: 305-470-5533
eFax: 786-732-8714

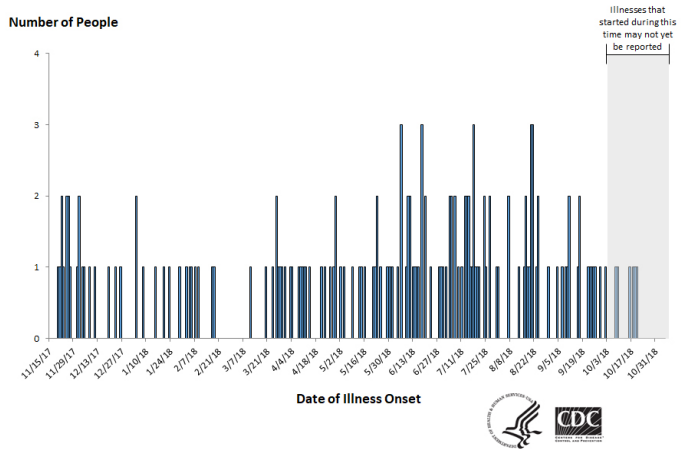
In the News

Multistate Outbreak of Multi-drug Resistant Salmonella linked to Raw Turkey, 2018

By: Danielle Fernandez and Vanessa Villamil

The Centers for Disease Control and Prevention (CDC) are currently investigating a multistate outbreak of multi-drug resistant *Salmonella* infections linked to raw turkey products.[1] As of November 5, 2018, 164 people infected with the outbreak strain of *Salmonella* Reading have been reported, 63 of whom have been hospitalized, and one death. The outbreak strain was identified in samples taken from raw turkey pet food, raw turkey products, and live turkeys. On November 15, 2018, Jennie-O Turkey Store Sales in Barron, Wisconsin recalled approximately 91,388 pounds of raw ground turkey products.[2] The recalled ground turkey was sold in one-pound packages labeled with establishment number "P-190". With the exception of the recalled Jennie-O brand ground turkey products, CDC is not advising that consumers avoid eating properly cooked turkey products, or that retailers stop selling raw turkey products.

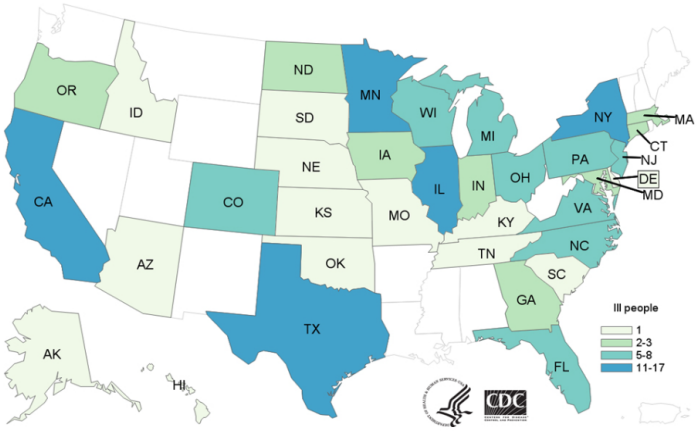
People infected with the outbreak strain of *Salmonella* Reading, by date of illness onset*



*n=164 for whom information was reported as of November 5, 2018. Some illness onset dates have been estimated from other reported information.

Illnesses that started after October 3, 2018 might not yet be reported due to the time it takes between when a person becomes ill and when the illness is reported. This takes an average of 2 to 4 weeks.

People infected with the outbreak strain of *Salmonella* Reading, by state of residence, as of November 5, 2018 (n=164)



Salmonella is a bacteria that causes diarrhea, fever, and abdominal cramps. The illness it causes is known as salmonellosis. Symptoms begin 12-72 hours after exposure and typically resolve within 4 to 7 days without treatment; as such, many cases may go undiagnosed and unreported. In some cases, infection may spread from the intestines to the bloodstream causing severe illness and hospitalization. It is estimated that salmonellosis is responsible for 1.2 million illnesses, 23,000 hospitalizations, and 450 deaths in the United States every year.[3]

Individuals are advised to handle raw turkey carefully and cook it thoroughly to prevent food poisoning.

To prevent *Salmonella* infection from raw turkey, follow these few simple steps:

Wash your hands before and after handling raw turkey products. *Salmonella* infections can spread from one person to another.

Cook raw turkey thoroughly to kill harmful bacteria. Use a food thermometer to check the temperature of the meat; turkey products should always be cooked and reheated to an internal temperature of 165°F to kill harmful bacteria.

Don't spread bacteria from raw turkey around food preparation areas. Washing raw poultry before cooking is not recommended as any existing bacteria may spread to other areas and foods.[4]

References:

1. https://www.cdc.gov/salmonella/reading-07-18/index.html
2. https://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/recall-case-archive/archive/2018/recall-112-2018-release
3. https://www.cdc.gov/salmonella/
4. https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/washing-food-does-it-promote-food-safety/washing-food

The Epidemiology of Shigellosis in Miami-Dade County—A Five Year Analysis, 2012 - 2017

By: Vanessa Villamil and Jenna Nelson

Background

Shigellosis is a common foodborne illness caused by a bacteria known as *Shigella*. It affects the small and large intestines. *Shigella* is very contagious, and even a small amount of the bacteria can make an individual ill. The most common symptoms of shigellosis include fever, diarrhea, stomach cramps, and feeling the need to pass stool even when the bowels are empty.[1,2] The symptoms may begin 2 days after exposure and typically resolve within 5 to 7 days without treatment.[1] People with weakened immune systems may be at risk for developing complications. Approximately 14,000 laboratory confirmed cases are reported annually in the United States, however it is estimated that the actual number of cases is closer to 500,000 due to under diagnosing.[3,4] In the past shigellosis has been most common among children aged 0 to 4, but recent trends have shown outbreaks in adult patients likely caused by sexual transmission.[5] This report summarizes the recent trends in shigellosis cases in Miami-Dade County.

Transmission

The *Shigella* bacteria is transmitted person-to-person through the fecal-oral route. *Shigella* can be found in an infected persons stool while they have diarrhea and up to 2 weeks after symptoms have subsided. Individuals may become sick by touching a surface containing even small amounts of the *Shigella* bacteria and then touching their mouths or food.[5] Common modes of transmission include sexual contact, consumption of contaminated food or water, and direct contamination from hand to mouth.[6] Shigellosis has a cyclical pattern with large community outbreaks occurring every 3 to 5 years, primarily in daycare settings.[7] Activity in Miami-Dade peaked in 2007, 2011, and 2014.[7]

Risk Factors

There are currently no vaccines available to prevent shigellosis. Outbreaks of shigellosis are common in daycares and school settings as young children often do not practice proper hand hygiene. Men who have sex with men (MSM) are at an increased risk of infection through sexual transmission.[5,6] Travelers to developing countries are at a higher risk for contracting shigellosis strains that cannot be treated by antibiotics.[5] Individuals with weakened immune systems can develop severe complications to a shigellosis infection. Shigellosis that spreads to the blood can be life-threatening.

Methods

Shigellosis cases were extracted from Merlin, the Florida Department of Health's Epidemiology Surveillance System. Only confirmed cases of shigellosis between 2012-2017 in Miami-Dade County were included. Population rates were retrieved from FLHealthCHARTS. The data was analyzed using SAS 9.4.

A confirmed case is defined as a person with confirmatory lab evidence.[8]

Overview of cases

There have been 1,143 cases of Shigellosis in Miami-Dade County between 2012-2017, with the majority occurring in 2014 (n=648). Eighty-two cases were reported in 2017. Rates were highest among males (3.6 per 100,000) as well as among Non-Hispanic Blacks (3.3 per 100,000) (Figures 2 and 3). The highest rates were in those between the ages of 0 and 4 and the lowest were in those 65 years or older (Figure 3). Amongst cases between the ages of 18 and 44, 63% were male. Table 1 shows a summary of the demographic characteristics of the 82 cases reported in 2017 including age, gender, race/ethnicity, travel, and outbreak status.

Discussion

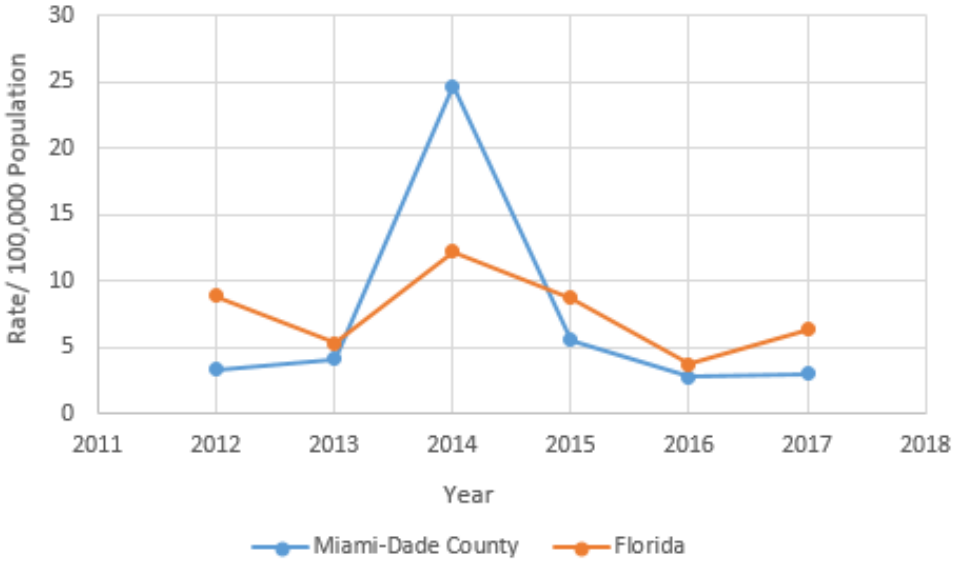
Over the last 5 years shigellosis rates have continued to be the highest amongst children between the ages of 0 and 4 in Miami-Dade County (Figure 3). This data is consistent with national data that shows children are more likely to get shigellosis often due to poor hand hygiene in daycare settings. Shigellosis outbreaks have been recently reported amongst men who have sex with men (MSM) across the United States.[5,6,9] In Miami-Dade County shigellosis rates were higher in adult males between the ages of 18-44 in 2017, however the data does not include the sexual behavior of cases. Shigellosis has been shown to have a cyclical pattern with outbreaks occurring every 3 to 5 years. The last spike in Miami-Dade was in 2014 (Figure 1).[7]

Prevention

To prevent shigellosis, wash hands thoroughly before eating and preparing food, after using the bathroom, and after changing a diaper. Avoid swallowing water from lakes, ponds, or swimming pools. Avoid sexual activity with individuals with diarrhea and up to one week after it has subsided as *Shigella* may still be present in the stool.[10]

To report shigellosis cases, please contact the Florida Department of Health in Miami-Dade County Epidemiology, Disease Control and Immunization Services by phone (305) 470-5660.

Figure 1. Incidence of reported shigellosis cases—Miami-Dade County and Florida, 2012-2017.



References

1. Shigella – Shigellosis. Centers for Disease Control and Prevention. https://www.cdc.gov/shigella/. Published January 17, 2018.
2. Shigella – Shigellosis. Centers for Disease Control and Prevention. https://www.cdc.gov/shigella/symptoms.html. Published July 25, 2017.
3. Scallan E, Hoekstra RM, Angulo FJ, et al. Foodborne Illness Acquired in the United States—Major Pathogens. *Emerging Infectious Diseases*. 2011;17(1):7-15. doi:10.3201/eid1701.p11101.
4. Table 2 - Foodborne Illness Acquired in the United States - Major Pathogens - Volume 17, Number 1 - January 2011 - Emerging Infectious Diseases journal - CDC. Centers for Disease Control and Prevention. https://wwwnc.cdc.gov/eid/article/17/1/p1-1101-t2. Published December 20, 2011.
5. Shigella – Shigellosis. Centers for Disease Control and Prevention. https://www.cdc.gov/shigella/prevention-control.html. Published March 31, 2017.
6. MDR Shigellosis: An Emerging Sexually Transmitted Infection. https://www.medscape.com/viewarticle/869602?src=par_cdc_stm_mscpedt&faf=1. Published October 10, 2016.
7. Florida Morbidity Statistics 2014. http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/data-and-publications/_documents/2014-fl-msr.pdf. Published June 2016.
8. Disease Reporting and Surveillance — Shigellosis. http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/_documents/cd-shigellosis.pdf
9. Vugia, J. D, Samuel, et al. Case-Control Study of Shigellosis in San Francisco: The Role of Sexual Transmission and HIV Infection. OUP Academic. https://academic.oup.com/cid/article/44/3/327/311976. Published February 1, 2007.
10. Shigella – Shigellosis. Centers for Disease Control and Prevention. https://www.cdc.gov/shigella/prevention-control.html. Published March 31, 2017.

Table 1. Characteristics of shigellosis cases and incidence rate per 100,000—Miami-Dade County, 2017.

Summary			
Number of cases			82
Incidence rate (per 100,000)			2.98
Age (in years)	**Number**	**Percent**	**Rate**
0-4	18	21.95%	11.26
5-17	18	21.95%	4.47
18-44	27	32.93%	2.66
45-64	13	15.85%	1.76
65+	6	7.32%	1.36
Gender			
Female	34	41.46%	2.4
Male	48	58.54%	3.6
Race/ethnicity			
Non-Hispanic White	11	13.41%	2.89
Non-Hispanic Black	17	20.73%	3.33
Hispanic	48	58.54%	2.58
Other	0	0.00%	
Unknown	6	7.32%	
Travel status			
Acquired in Florida	64	78.05%	
Acquired in U.S., not Florida	2	2.44%	
Acquired outside of the U.S.	10	12.19%	
Unknown	6	7.32%	
Outbreak status			
Sporadic	4	4.88%	
Outbreak-associated	78	95.12%	
Unknown	0	0.00%	

Figure 2. Shigellosis rates by gender per 100,000—Miami-Dade County, 2012-2017.

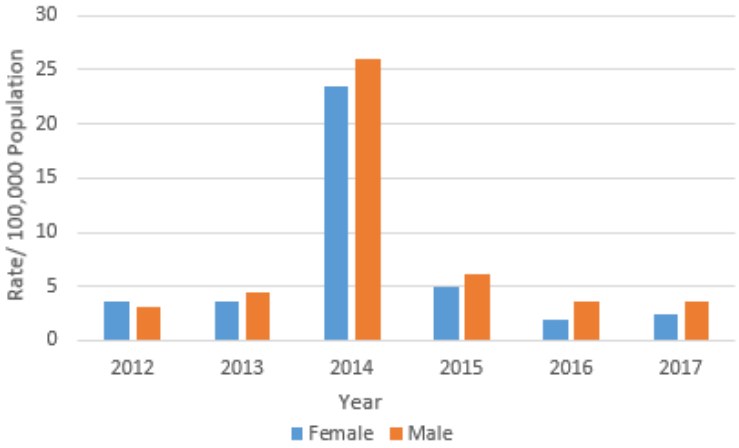


Figure 3. Shigellosis rates by age per 100,000—Miami-Dade County, 2012-2017.

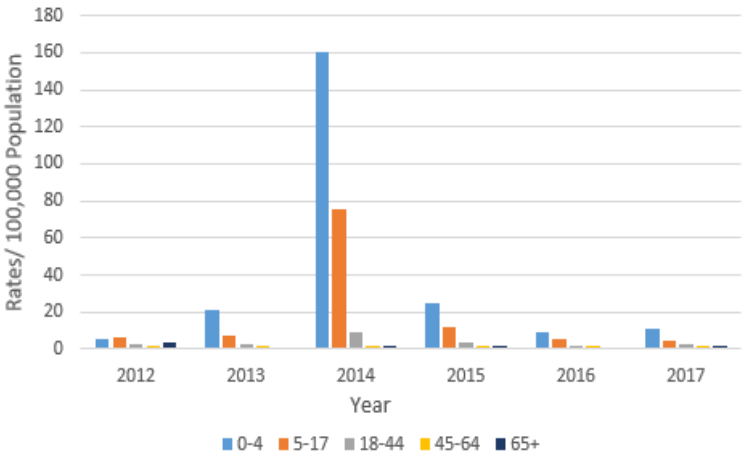
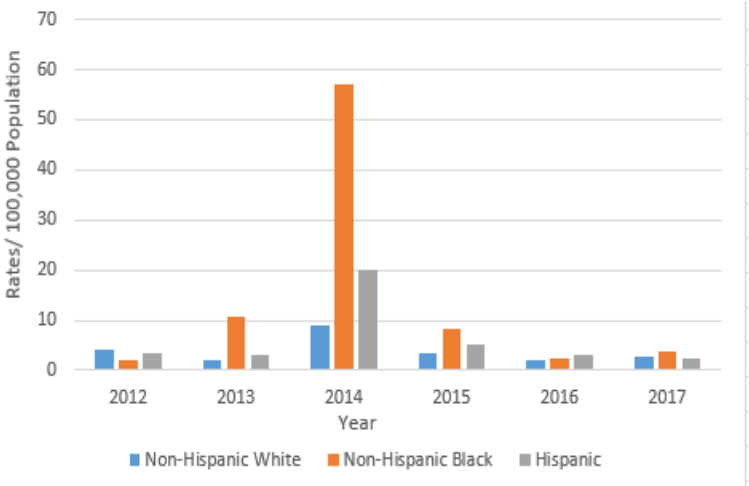


Figure 4. Shigellosis rates by race/ethnicity per 100,000—Miami-Dade County, 2012-2017.

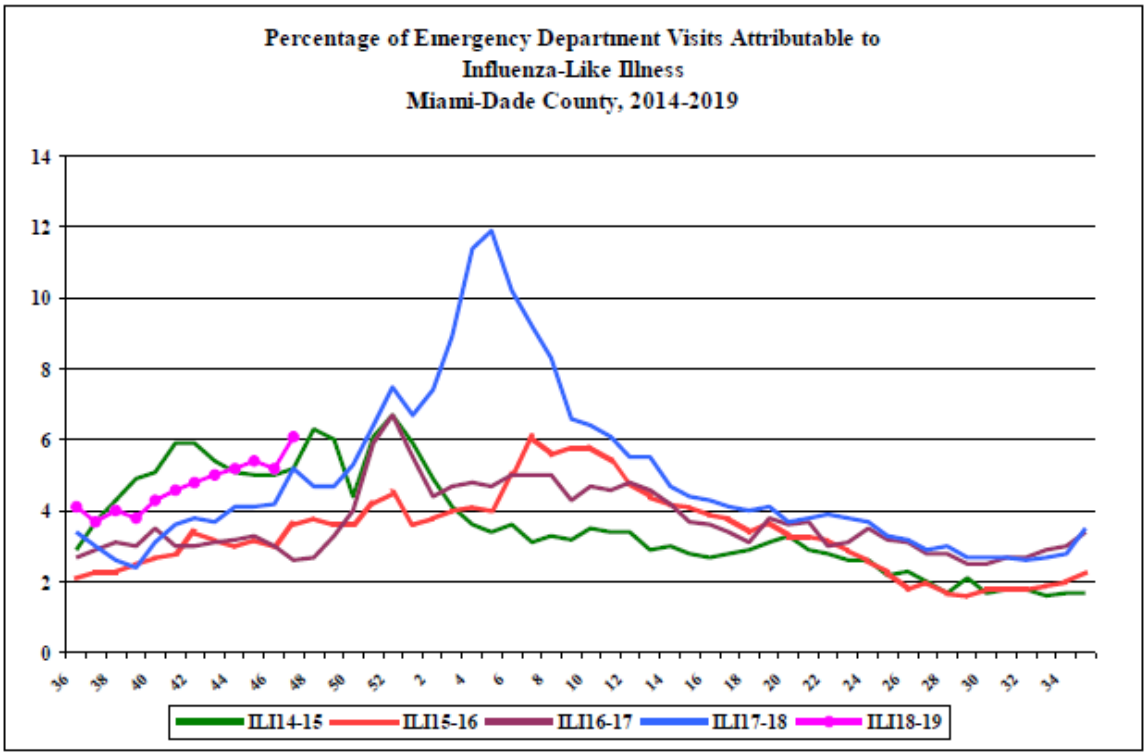


Florida Department of Health in Miami-Dade County
Epidemiology, Disease Control and Immunization Services

Influenza Like Illness Surveillance Report

On a daily basis, all of Miami-Dade County's emergency department (ED) hospitals electronically transmit ED data to the Florida Department of Health. This data is then categorized into 11 distinct syndromes. The influenza-like illness (ILI) syndrome consists of fever with either cough or sore throat. It can also include a chief complaint of “flu” or "ILI". This season's 2017-2018 data is compared to the previous 4 influenza seasons (2013-2014, 2014-2015, 2015-2016, 2016-2017).

Influenza-Like-Illness, All Age



Across all ages, there were 31,840 ED visits during this period; among them 1,929 (6.1%) were ILI. At the same week of last year, 5.2% of ED visits were ILI.

PARTICIPATE IN INFLUENZA SENTINEL PROVIDER SURVEILLANCE

Florida Department of Health in Miami-Dade County NEEDS Influenza Sentinel Providers!

Sentinel providers are key to the success of the Florida Department of Health’s Influenza Surveillance System. Data reported by sentinel providers gives a picture of the influenza virus and ILI activity in the U.S. and Florida which can be used to guide prevention and control activities, vaccine strain selection, and patient care.

- Providers of any specialty, in any type of practice, are eligible to be sentinel providers.
- Most providers report that it takes **less than 30 minutes a week** to compile and report data on the total number of patients seen and the number of patients seen with influenza-like illness.
- Sentinel providers can submit specimens from a subset of patients to the state laboratory for virus isolation **free of charge**.

For more information, please contact

Lakisha Thomas at 305-470-5660.

Miami-Dade County Monthly Report
Select Reportable Disease/Conditions
October 2018

Diseases/Conditions	2018 Current Month	2018 Year to Date	2017 Year to Date	2016 Year to Date
HIV/AIDS				
AIDS*	30	363	321	439
HIV	119	1099	1044	1246
STD				
Infectious Syphilis*	43	398	313	345
Chlamydia*	1285	11272	10176	10070
Gonorrhea*	390	3545	2794	2342
TB				
Tuberculosis**	12	100	74	84
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	55	677	572	483
Chikungunya Fever	0	1	1	0
Ciguatera Poisoning	7	35	7	11
Cryptosporidiosis	2	38	38	23
Cyclosporiasis	0	0	4	2
Dengue Fever	8	18	5	17
Escherichia coli, Shiga Toxin-Producing	8	128	28	7
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	19	154	113	164
Influenza Novel Strain	0	0	0	0
Influenza, Pediatric Death	0	1	1	0
Legionellosis	10	54	38	15
Leptospirosis	0	1	0	0
Listeriosis	1	5	7	5
Lyme disease	0	4	4	2
Malaria	1	11	5	8
Meningitis (except aseptic)	1	9	9	2
Meningococcal Disease	0	0	6	1
Salmonella serotype Typhy (Typhoid Fever)	0	4	2	1
Salmonellosis	95	702	663	593
Shigellosis	12	250	89	65
Streptococcus pneumoniae, Drug Resistant	3	14	23	4
Vibriosis	2	7	4	9
West Nile Fever	0	0	0	0
Immunization Preventable Diseases				
Measles	0	3	0	4
Mumps	0	7	6	4
Pertussis	2	16	32	21
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	4	66	37	63
Hepatitis				
Hepatitis A	2	15	106	36
Hepatitis B (Acute)	3	42	34	18
Healthy Homes				
Lead Poisoning	18	165	339	85

*Data is provisional at the county level and is subject to edit checks by state and federal agencies.

** Data on tuberculosis are provisional at the county level.

Data on EDC-IS includes Confirmed and Probable cases.

What's New at DOH Miami-Dade

- On November 20, DOH Miami-Dade confirmed a locally acquired case of dengue in the Miami-Dade County community. DOH Miami-Dade is working in conjunction with Miami-Dade County's Mosquito Control and Habitat Management Division to eliminate breeding and adult mosquito activity in the area of the confirmed case. As always, residents and visitors are reminded to "Drain and Cover" to avoid being bitten by mosquitoes and to take basic precautions to help limit exposure.
- On November 28, the rabies alert in North Miami Beach was lifted after 60 days without an additional positive laboratory result in the area. As there is risk of rabies transmission year-round in Florida, DOH Miami-Dade recommends that rabies vaccinations be kept up to date for all pets and at-risk livestock and individuals take caution and never handle, feed, or approach wild animals.
- On Saturday, December 1, the DOH Miami-Dade Special Supplemental Nutrition *Program* for Women, Infants, and Children (WIC), in conjunction with community partners, is hosting the 5th Annual Homestead/Florida City Health and Resource Fair. The event will take place from 9:30 am to 1:30 pm at the Homestead/Florida City WIC Clinic and is free and open to the public. Free health screenings will be provided and there will be a holiday book giveaway for children in attendance.

To report diseases and for information, call EDC-IS at:

Childhood Lead Poisoning Prevention Program	305-470-6877
Epidemiology and Disease Surveillance	305-470-5660
Hepatitis Program	305-470-5536
HIV/AIDS Program	305-470-6999
Immunization Services	305-470-5660
STD Program	305-575-5430
Tuberculosis Program	305-575-5415
Appointment Line	786-845-0550

Did You Know?

Many prominent individuals have been affected by Alzheimer's Disease and have voiced their support of advancing Alzheimer's research. One such advocate is Seth Rogen, actor, comedian, and co-founder of Hilarity for Charity, a non-profit organization "dedicated to raising awareness, inspiring change, and accelerating progress in Alzheimer's care, research, and support." Since 2007, the organization has raised over $7 million to help families struggling with Alzheimer's care, increase support groups nationwide, and fund cutting edge research.

About the Epi Monthly Report

The Epi Monthly Report is a publication of the Florida Department of Health in Miami-Dade County: Epidemiology, Disease Control & Immunization Services. The publication serves a primary audience of physicians, nurses, and public health professionals. Articles published in the Epi Monthly Report may focus on quantitative research and analysis, program updates, field investigations, or provider education. For more information or to submit an article, please contact Danielle Fernandez at 305-470-6980 or danielle.fernandez@flhealth.gov.

Florida HEALTH Miami-Dade County