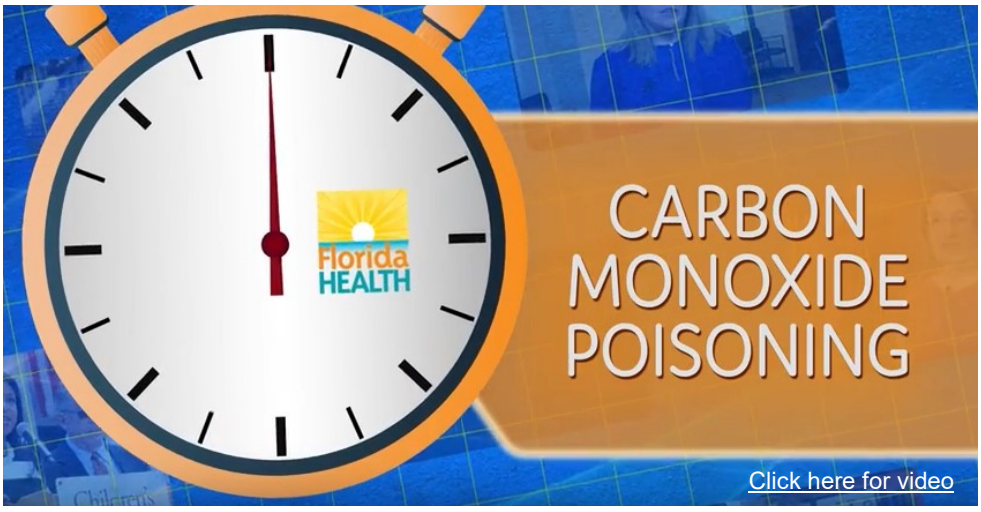
Epi Monthly

Florida Department of Health in Miami-Dade County July 2018 Volume 19, Issue 7

This Month in Public Health

- World Hepatitis Day was July 28. In last month's issue of the Epi Monthly Report, a report was published on the recent hepatitis A virus trends seen in Miami-Dade County, just one of five types of hepatitis viruses that lead to a significant global burden of disease. In honor of World Hepatitis Day, take a few moments to refresh your viral hepatitis knowledge here.
- The Florida Department of Health in Broward County is currently investigating an outbreak of zoonotic hookworm or cutaneous larva migrans (CLM) among a group of individuals who spent time on several beaches and a park in Broward County. An update on CLM, commonly known as hookworms, can be found on page 2.
- We're two months into the 2018 hurricane season and want to remind everyone about the dangers of carbon monoxide poisoning. Carbon monoxide (CO) is an odorless, colorless, poisonous gas that can cause sudden illness and death if present in sufficient concentration in the ambient air.

At a Glance



The Florida Department of Health presents "Florida Health Minute: Carbon Monoxide Poisoning."

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Cutaneous Larva Migrans: An Outbreak and an Update

The Florida Department of Health in Broward County is investigating an outbreak of zoonotic hookworm or cutaneous larva migrans (CLM) among a group of individuals who spent time on several beaches and a park in Broward County.[1] Hookworms live in the small intestine and their eggs are passed in the feces of an infected person or animal.[2] After the infected person or animal defecates, eggs are deposited on the soil or sand where they can mature, hatch, and release larvae (immature worms). Once the larvae mature, they can penetrate the skin of humans. Hookworm infections are primarily acquired by walking barefoot on contaminated soil.[2]

Over the past two decades, the Florida Department of Health in Miami-Dade County (DOH Miami-Dade) has identified several outbreaks of hookworm, most notably in 2006 at a children's aquatic sports day camp. The outbreak was announced to the community via press release and led to the clinical diagnosis of 22 cases, all believed to be associated with an outdoor sandbox likely contaminated by feral cats in the area.[3] The most recent outbreak in 2010 was likely also associated with cats, with environmental samples from feline feces obtained along the beach in northern Miami Beach testing positive for hookworm eggs and larvae.[4]

Photo courtesy of The Washington Post.

The Florida Department of Health in Miami-Dade County would like to encourage Miami-Dade County residents and visitors to be mindful in areas with soil and sand. DOH Miami-Dade recommends not walking barefoot in areas where hookworm is common and where there may be human or animal fecal contamination. In light of the current investigation in Broward County, we urge you to please report any suspect cases with similar exposures to the index case and clusters of CLM to DOH Miami-Dade, Epidemiology, Disease Control, and Immunization Services (EDC-IS) at 305-470-5660.

References:

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Keep Fighting the Bite:
A Quick Synopsis of Keystone, Mayaro, and Yellow Fever Viruses

By: Isabel Griffin, Shelby Graff, and Danielle Fernandez

It has been two years since the Florida Department of Health in Miami-Dade County (DOH Miami-Dade) reported the first outbreak of locally-acquired Zika virus in the continental United States.[1] Since the mosquito repellent-filled summer of 2016, DOH Miami-Dade has continued mosquito-borne disease surveillance, closely monitoring for the re-emergence of Zika virus (and other new emerging viruses) within the county. Miami-Dade County is uniquely predisposed to have outbreaks of diseases like Zika and chikungunya due to its tropical climate, place in global trade and tourism, and its connection with countries endemic with mosquito-borne disease. As a friendly reminder to continue your efforts to "Fight the Bite," DOH Miami-Dade wanted to share a quick update about three mosquito-borne viruses we are closely monitoring.

Keystone Virus

Keystone virus (KEYV) was first identified in 1964 in the Tampa Bay area of Florida and has since been found in animal populations in coastal regions across the United States from Texas to the Chesapeake Bay.[2] Previously, no human cases had been reported; however, in August 2016, a 16-year-old boy was diagnosed with the first known clinical case of KEYV. The boy was infected in central Florida while attending a summer camp and recalled numerous mosquito bites. He developed a low-grade fever, erythematous rash, and mild-joint pain and the usual flavivirus laboratory work-up was conducted for which Zika virus, chikungunya, and dengue fever were all negative.[2] KEYV is primarily spread through the bite of an infected *Aedes atlanticus* mosquito, but other *Aedes* and *Culex* species mosquitoes have also been shown to be competent vectors. Unlike other mosquito-borne diseases, KEYV is unique is that it can be transmitted transovarially in mosquitoes (from female mosquito to its offspring).[2] Based on preliminary data from the Miami-Dade County Mosquito Control and Habitat Management Division, trap counts of *Aedes atlanticus* have typically peaked between September and November of each year in Miami-Dade County. To date, KEYV has not been identified in the county.

Photo courtesy of Lednicky et. al.

Mayaro virus

Mayaro virus (MAYV) is a New World alphavirus primarily transmitted by tree canopy-dwelling *Haemagogus* spp. mosquitoes via a sylvatic cycle with forest-dwelling nonhuman primates and first discovered in 1954 among Trinidadian forest workers presenting with febrile illness.[3,4]

Many regions across the Americas and Caribbean do not consist of the typical environment in which MAYV is known to propagate; however, MAYV was recently isolated from a child in Haiti in 2016, in a semi-rural region 20 miles west of Port-au-Prince. Haiti is not native to wild non-human primates which suggests a different reservoir (besides monkeys) or human-to-human transmission.[5] In addition, the urban mosquito *Aedes aegypti* (the same mosquito that transmits dengue virus, chikungunya, and Zika virus) has been shown to be an experimental vector for Mayaro virus.[6]

Patients infected with MAYV typically present with acute febrile illness (duration 3 to 5 days), headache, retro-orbital pain, arthralgia, vomiting, diarrhea, and rash.[7] Over the years there have been multiple instances of Mayaro virus outbreaks, primarily in South America. The virus was first discovered during an outbreak in Trinidad in 1954 following this in 1955 there was an outbreak near the Guama River in Brazil.[8,9] Since the outbreak in Brazil there have been multiple other instances of outbreaks within the country including the 1978 outbreak in Belterra, Brazil, the 2007 outbreak in Manaus, Brazil, and the 2008 outbreak in Belem, Brazil.[10,11,12] The Mayaro virus has also begun to progress outside of Brazil to countries like Bolivia which had an outbreak in 2007 and Venezuela which had an outbreak in the Portuguesa State in 2010.[7] To date, MAYV has not been identified in the continental United States.

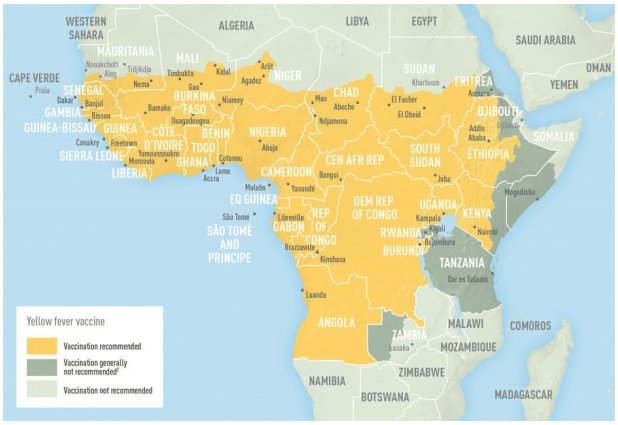
Yellow Fever

In 1900, after decades of epidemics of yellow fever spread through the American South, the yellow fever virus was discovered by United States Army physicians Walter Reed and James Carroll, attempting to identify the likely transmission of the virus. It is now widely known that the yellow fever virus is spread through the bite of infected *Aedes* or *Haemagogus* species mosquitoes.[13]

The majority of people infected with yellow fever virus will either not have symptoms, or have mild symptoms of fever, chills, headache, back ache, and myalgia and completely recover. For people who develop symptoms, the time from infection until illness is typically 3 to 6 days and symptoms typically resolve within a week after onset. One in seven people who get yellow fever develop serious illness including jaundice (yellow skin), bleeding, shock, and organ failure. While there has been a vaccine (YF-VAX) for yellow fever available since the 1930s, recently there has been a global shortage of the YF-VAX vaccine due in part to a large, ongoing outbreak of yellow fever in several states in Brazil.[14,15,16]

Vaccination is routinely recommended for people aged 9 months or older and who are traveling to or living in areas at risk for yellow fever virus in Africa and South America.

Areas with risk of yellow fever virus transmission in South America and Africa.



Photos courtesy of the Centers for Disease Control and Prevention (CDC).

In July 2017, Sanofi Pasteur, the manufacturer of the YF-VAX vaccine, announced a total depletion of the vaccine for civilian travel and presented an alternative vaccine, Stamaril.[17] Manufactured in France, Stamaril is not currently licensed in the United States, but is licensed and distributed in approximately 70 countries, and has comparable efficacy and safety to YF-VAX. Stamaril has been made available at select clinics throughout the country, including the DOH Miami-Dade main health clinic.[18] For more information on the Stamaril vaccine or to make an appointment prior to travel, please visit: http://www.floridahealth.gov/programs-and-services/immunization/yellow-fever-vaccine-provider/index.html.

Prevention

The first line of defense against emerging and re-emerging mosquito borne diseases is an engaged and informed community. To "fight the bite" and protect yourself against mosquito bites, the Miami-Dade County Mosquito Control and Habitat Management Division, in partnership with DOH Miami-Dade urges everyone to drain stagnant water and cover both skin and items from mosquito bites and breeding, respectively. Mosquitoes are able to breed in minimal sources of standing water (bottle caps, tires, planters), so it is important to discard old household items not in use and tip and toss water from areas around one's home and workplace where water tends to pool. When choosing an effective and safe mosquito repellant, make sure the product is Environmental Protection Agency-registered. When able, cover skin by wearing long-sleeved shirts and long pants, and for added protection, permethrin can be used to treat clothing and gear, such as boots, pants, socks, and tents. For more information on what repellent is right for you, please refer to the Environmental Protection Agency (EPA) search tool to help you choose skin-applied repellent products: http://cfpub.epa.gov/oppref/insect/#searchform.

If you suspect that you may have a patient who meets both the clinical and epidemiologic criteria for Keystone virus disease, Mayaro, or yellow fever, please contact DOH Miami-Dade at 305-470-5660.

References:

[1] Likos et al. "Local Mosquito-Borne Transmission of Zika Virus—Miami-Dade and Broward Counties, Florida, June—August 2016." MMWR. 2016. 65(38):1032-1038.

[2] Lednicky et al. "Keystone Virus Isolated from a Florida Teenager with Rash and Subjective Fever: Another Endemic Arbovirus in the Southeastern United States?" Oxford University Press. Infectious Disease Society of America. 2018.

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[13] Reed W, et al. The Etiology of Yellow Fever—A Preliminary Note. *Public Health Papers and Reports*. 1900. *26*, 37–53.

[14] U.S. Food and Drug Administration. "Yellow Fever Vaccine: YF-VAX." June 2016. Retrieved from: "https://www.fda.gov/downloads/biologicsbloodvaccines/vaccines/approvedproducts/ucm142831.pdf

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[16] Pan American Health Organization. "Brazil works to control Yellow Fever outbreak, with PAHO/WHO support." 2018. Retrieved from: https://www.paho.org/hq/index.php?option=com_content&view=article&id=13098&Itemid=1926&lang=fr.

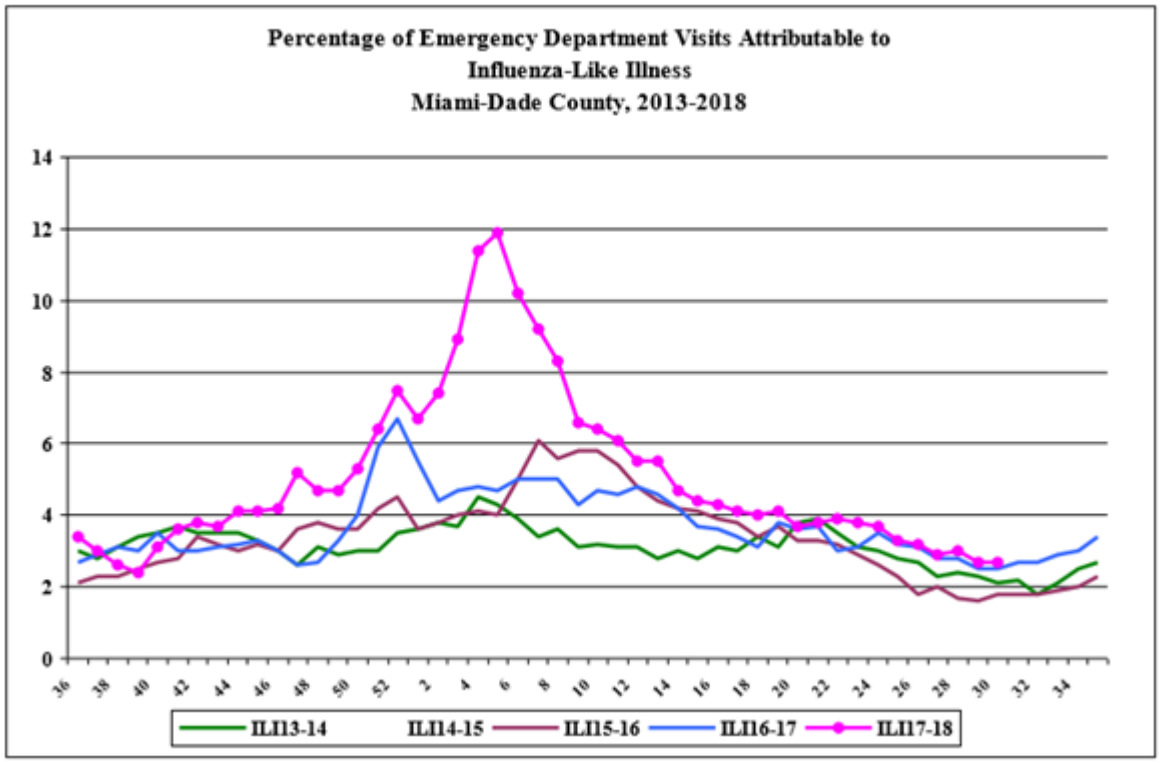
[17] Gershman M., Sotir M. "Update: Temporary Total Depletion of U.S. Licensed Yellow Fever Vaccine for Civilian Travelers Addressed by Investigational New Drug Use of Imported Stamaril Vaccine." 2017. MMWR. 66 (29); 780. Retrieved from: https://www.cdc.gov/mmwr/volumes/66/wr/mm6629a4.htm

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



During this period, there were 29,324 ED visits; among them 801 (2.7%) were ILI. At the same week of last year, 2.5% 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
June 2018

Diseases/Conditions	2018 Current Month	2018 Year to Date	2017 Year to Date	2016 Year to Date
HIV/AIDS				
AIDS*	46	255	236	308
HIV	114	733	697	873
STD				
Infectious Syphilis*	42	224	207	221
Chlamydia*	1093	6577	6433	6192
Gonorrhea*	396	2091	1645	1406
TB				
Tuberculosis**	5	57	37	56
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	83	421	314	286
Chikungunya Fever	0	0	0	0
Ciguatera Poisoning	10	18	7	0
Cryptosporidiosis	4	14	14	9
Cyclosporiasis	0	0	0	0
Dengue Fever	0	1	1	7
Escherichia coli, Shiga Toxin-Producing	14	70	20	4
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	19	90	62	118
Influenza Novel Strain	0	0	0	0
Influenza, Pediatric Death	0	0	0	0
Legionellosis	12	28	15	4
Leptospirosis	0	0	0	0
Listeriosis	0	1	4	4
Lyme disease	2	2	1	2
Malaria	2	7	4	1
Meningitis (except aseptic)	1	8	2	2
Meningococcal Disease	0	0	0	0
Salmonella serotype Typhy (Typhoid Fever)	0	2	0	1
Salmonellosis	81	284	303	262
Shigellosis	32	164	42	38
Streptococcus pneumoniae, Drug Resistant	1	11	16	2
Vibriosis	0	4	3	2
West Nile Fever	0	0	0	0
Immunization Preventable Diseases				
Measles	0	1	0	2
Mumps	0	6	0	2
Pertussis	2	11	16	13
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	11	44	21	44
Hepatitis				
Hepatitis A	0	6	60	15
Hepatitis B (Acute)	2	15	20	6
Healthy Homes				
Lead Poisoning	15	95	80	54

*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

With the new school year quickly approaching, DOH Miami-Dade would like to remind parents to check children's immunization records and make sure that all immunizations are up-to-date prior to the start of school. To better serve our community, select immunization clinics countywide will be open on Saturday, August 18—in addition to regular operating hours—for back to school immunizations. Below you will find a map with all participating locations, clinic addresses, hours of operation, and service prices. All clinics are walk-in and open to the public.

Back to School Immunization Locations

Collaborative effort between Florida Department of Health in Miami-Dade County and Community Health Centers

Immunizations for Children on Saturday, August 18, 2018

Name	Address	Zip	Hours	Phone	Price
01-Borinquen Medical Center -West Dade / Sweetwater	10528 SW 8 St	33174	8:00am-12:00pm	305 552-1201	$ 5.00
02-Borinquen Medical Center- (Main)	3601 Federal Highway	33137	8:00am-12:00pm	305 576-6611	$ 5.00
03-Borinquen Medical Center- North Miami	708 NE 125 St	33161	8:00am-12:00pm	786 433-8815	$ 5.00
04-CHI: Coconut Grove Health Center	3831 Grand Ave	33133	8:30am-12:30pm	305-252-4820	Free
05-CHI: Doris Ison Health Center	10300 SW 216 St	33190	8:30am-12:30pm	305-252-4820	Free
06-CHI: Everglades Health Center	19300 SW 376 St	33034	8:00am-12:00pm	305-252-4820	Free
07-CHI: Martin Luther King, Jr. Clinica Campesina	810 West Mowry Dr	33030	8:30am-12:30pm	305-252-4820	Free
08-CHI: Naranja Health Center	13805 SW 264 St	33032	8:30am-12:30pm	305-252-4820	Free
09-CHI: South Dade Health Center	13600 SW 312 St	33033	8:00am-12:00pm	305-252-4820	Free
10-CHI: South Miami Health Center	6350 Sunset Dr	33143	8:30am-12:30pm	305-252-4820	Free
11-CHI: West Kendall Health Center	13540 SW 135 Ave	33186	8:30am-12:30pm	305-252-4820	Free
12-Citrus Health Network, Inc: Maternal & Child Health Center	551 W 51 Place 2nd Floor	33012	9:00am-1:00pm	305 817-6560	Free
13-Health Department: Health District Center Immunization Clinic	1350 NW 14 St	33125	8:00am-12:00pm	786 845-0550	Free
14-Health Department: West Perrine Immunization Clinic	18255 Homestead Ave	33157	8:00am-12:00pm	786 845-0550	Free
15-Jessie Trice Community Health Center	5361 NW 22 Ave	33142	9:00am-2:00pm	305 637-6400	$ 10.00
16-Miami Beach Community Health Center North	11645 Biscayne Blvd	33181	8:00am-12:00pm	305 538-8835	Free
17-Miami Beach Community Health Center: Beverly Press Center	1221 71 St	33141	8:00am-12:00pm	305 538-8835	Free
18-Miami Beach Community Health Center: Stanley C. Myers Center	710 Alton Rd	33139	8:00am-12:00pm	305 538-8835	Free

Requirements when visiting the Clinic:
Bring your Child's Immunization Records.
Child's parent or guardian must be present
Pay attention to clinic hours; Come early!
All clinics are Walk-Ins (on that Saturday only)

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