Florida Department of Health in Miami-Dade County August 2018 Vol 19, Issue 8

This Month in Public Health

- Monday, August 20 marked World Mosquito Day and the British doctor Sir Ronald Ross's 1897 discovery that female mosquitoes transmit malaria between humans. Since 1999, epidemics from mosquito-borne viruses like West Nile virus, dengue, chikungunya, and Zika have occurred with increased frequency. Earlier this month, NPR featured a new video, "Malaria Must Die, so Millions can Live" by Aardman Animations. The two-minute video is very informative and highlights the ongoing historic fight against the parasite and the successes made in the effort to date.

- Thursday, August 22 was National Tooth Fairy Day. Practicing good oral health and hygiene is important not only for children but adults as well. The Florida Department of Health in Miami-Dade County (DOH Miami-Dade) provides affordable, comprehensive dental services to children and adults (regardless of insurance status). For more information on services provided or to make an appointment, please visit the Department's website here.

- Friday, August 31 is International Overdose Awareness Day. On July 11, 2018, the CDC released a Health Alert Network (HAN) update concerning an increase in overdose fatalities involving fentanyl in multiple states. In 2016, opioids killed more than 42,000 people. Among those fatalities, 40% of which involved a prescription opioid. Together we can put a "cap" on opioids!

In this Issue

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Seventh Annual Breastfeeding Awareness Walk

By: Vanessa Villamil and Cheryl Lorie

The Florida Department of Health in Miami-Dade County (DOH Miami-Dade) celebrated National Breastfeeding Month in August and World Breastfeeding Week August 1 through 7. This year's theme, *Breastfeeding: Foundation of Life*, focused on breastfeeding as the foundation for lifelong good health for babies and mothers.[1]

To commemorate these observances, DOH Miami-Dade, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Program, in partnership with the Healthy Start Coalition of Miami-Dade County, hosted the 7th Annual Breastfeeding Awareness Walk, on Saturday, August 4th at Tropical Park in Miami-Dade County. Over 1,200 people attended to support, promote and protect breastfeeding. The event featured a massive expo with 60 organizations, programs, businesses and mobile units providing resources, services, education and information on health, safety, nutrition, wellness, advocacy and so much more!

While parents engaged in conversations about available community resources and organizations, the children enjoyed the day with story time, water slides, balloon artists, face painting, and airbrush tattoo artists. Another highlight of the event was the "Big Latch On," a global initiative where women all around the world were breastfeeding their infant/child at the same time to break a world record. This year, we contributed to the initiative with 91 mothers and their babies/toddlers taking part.

Top. Dr. Lillian Rivera and staff receive a proclamation for Breastfeeding Awareness Month during the 7th Annual Breastfeeding Awareness Walk.

Bottom. Community members gather in support of breastfeeding together and this year's Breastfeeding Month theme, *Breastfeeding: Foundation for Life*.

Breastfeeding has been shown to improve the overall health and wellbeing of women and children.[2] Breastfed infants have a reduced risk of asthma, obesity, type 2 diabetes, ear and respiratory infections, and sudden infant death syndrome (SIDS), among others.[3] Mothers who breastfeed have a reduced risk of heart disease, type 2 diabetes, ovarian cancer, postpartum depression, as well as breast cancer.[3,4] The World Health Organization (WHO) recommends exclusive breastfeeding for up to 6 months of age, and breastfeeding with appropriate complimentary foods for up to 2 years.[5] There are rare exceptions when a mother should not breastfeed such as if mothers are infected with the human immunodeficiency virus (HIV), T-cell lymphotropic virus type I or type II, or use illicit street drugs.[6] Mothers should consult with their physicians for case-by-case assessments to determine best practices for mom and baby.

For more information about the Florida WIC program, please call 1-800-342-3556 or visit www.FloridaWIC.org. To learn more about National Breastfeeding Month and the benefits of breastfeeding, visit www.usbreastfeeding.org, www.llli.org or www.flbreastfeeding.org.

References

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[2] http://www.floridahealth.gov/newsroom/2018/08/080118-breastfeeding-Article.html
[3] https://www.cdc.gov/breastfeeding/about-breastfeeding/why-it-matters.html
[4] http://www.floridahealth.gov/newsroom/2018/08/080118-breastfeeding-Article.html
[5] http://www.who.int/topics/breastfeeding/en/
[6] https://www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/contraindications-to-breastfeeding.html

Legionellosis on the Rise?
Updates and trends in Miami-Dade County—2012-2018

By: Jolie Dobson, Jisue Lee, Juan Suarez, Alvaro Mejia-Echeverry

Background

Legionnaire's disease or legionellosis, is a serious type of pneumonia caused by *Legionella* bacteria transmitted through aerosolized water.[1]

The first recorded legionellosis outbreak occurred in 1976 during an American Legion Convention at a Philadelphia hotel, with approximately 2,000 attendees, where the name Legionnaires' disease was coined.[2,3] After the convention,152 people were hospitalized, and 22 died. This mysterious illness was isolated from the hotel's cooling tower and the agent was identified as a bacterium, *Legionella pneumophila* serogroup 1.[2,3] More recently, since July 2018, the New York City Department of Health and Mental Hygiene (DOHMH) reported an outbreak with 27 cases, including a fatality. According to DOHMH, *L. pneumophila* was isolated from a housing complex cooling tower and matched with the strain found in six patients affected in the outbreak.[4]

Legionella is a Gram-negative bacillus with more than 60 species, but one group in particular—*L. pneumophila*—is responsible for most legionellosis infections in the United States. Fresh water is the natural reservoir for *Legionella*; it thrives optimally at temperatures of 77-108°F, particularly in water systems such as cooling towers, spas, shower heads, and decorative fountains, when these are poorly maintained. Legionellosis cases have been reported from common settings such as hotels, long-term care facilities and hospitals.[5]

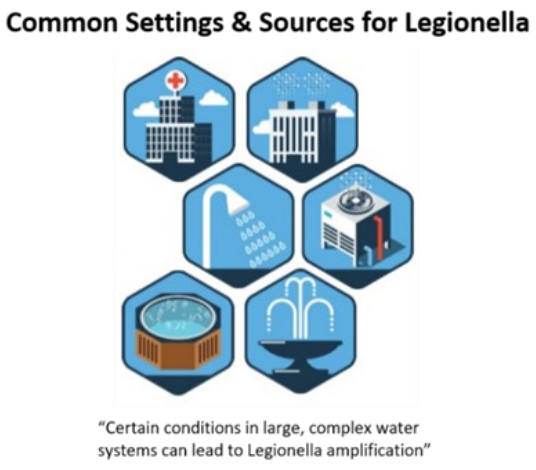

Photo courtesy of the Council for State and Territorial Epidemiologists (CSTE)

Legionella manifests itself in two ways: as legionellosis, with an incubation period of 2-10 days and symptoms that include fever, cough, myalgia, and most notably, pneumonia; or Pontiac Fever, a less severe infection without pneumonia.[6]

Transmission

Legionella is transmitted through aerosolized water that is inhaled or microaspirated, and is not transmitted from person to person. Common risk factors for legionellosis include chronic lung disease, history of cigarette smoking, age 50 years or older, and immunosuppression.[6]

As the average incubation period for legionellosis is up to 10 days, and it is estimated nationally that 10-15% of cases are among travelers, patients presenting with symptoms characteristic of *Legionella* infection, travel history, and exposure to susceptible water features during this period, should be evaluated for legionellosis.[7]

Testing

There are two preferred confirmatory testing methods for *Legionella*: culture and urine antigen test (UAT).[5] Culture is the gold standard for testing; however, due to the length of time required to culture, the UAT is generally preferred. In the United States, almost all of reported cases are diagnosed via the urine antigen

test. The UAT is a quick method (with results reported within 24 hours) for detecting the bacteria—specifically *L. pneumophila serogroup 1*—with 95-100% specificity. [7]

Reporting and Surveillance

Legionellosis is a reportable disease in Florida. A case of legionellosis is reported in the state of Florida with one or more of the four cardinal symptoms (fever, cough, myalgia, and pneumonia), and a positive laboratory result through an approved testing method.[8] See Table 1 for case definition. As of December 31, 2017, the Florida Department of Health (DOH) has changed the supportive (suspect) case definition for legionellosis, requiring only a single elevated antibody titer (single or multiple *Legionella species*) along with the clinical criteria, as opposed to a convalescent four-fold increase in antibody titers.[9]

Once reported, cases are interviewed to determine possible exposures and outbreaks, as well as to provide education about the disease. Typically, most cases occur between August and October.[6] Figure 1 shows the incidence of cases from 2012 to 2017 among Miami-Dade residents based on their date of onset. There is a noticeable increase in cases towards the end of 2017 partly due to the change in case definition on December 31, 2017. Data for 2018 is not represented as information is still being collected.

Table 1. DOH surveillance case definition criteria for legionellosis infection—as of December 31, 2017.

Criteria	**Case Classification**	
	Confirmed	***Suspect***
Clinical	Fever, Cough, Myalgia, **or** Pneumonia	Fever, Cough, Myalgia, **or** Pneumonia
Laboratory	Positive culture, **or** Positive UAT (*L. pneumophila serogroup 1*), **or** Fourfold or greater rise in antibody titer (*L. pneumophila serogroup 1*)	Single elevated antibody titer (*Legionella* species), **or** Detection of specific Legionella antigen or staining in respiratory secretions, **or** Positive PCR for *Legionella* species

Trends

Nationally, reported cases of legionellosis have been on the rise, with a four-fold increase from 2000 to 2016.[11] Similarly, figures 2 and 3 show an increase in the reported cases of legionellosis in the State of Florida and Miami-Dade County, respectively. Statewide and locally, there was a sharp increase in 2017 that may be due to a change in the Florida Department of Health's reporting case definition of suspect cases.

Figure 3 shows an eight-fold increase among cases in Miami-Dade County over the past six years, and table 2 shows that the majority of reported cases for 2018 (January 1—August 18, 2018) is among patients aged ≥60 years (66%), and male (71%), White (61%), and Hispanic (58%). The majority of cases were acquired in Florida (85%), and most were sporadic (86%)—not associated with an outbreak. A similar trend within the same timeframe for 2017 was also observed; patients were: aged ≥60 years (63%), Hispanic (51%), White (63%), male (74%), acquired the infection in Florida (76%), and sporadic (86%).

In 2017, 2% of reported cases were outbreak-associated, meaning that two or more cases had a common exposure setting within a 12-month period. So far 3% of cases reported between January and August 2018 have been outbreak-associated.

Table 2. Characteristics of reported legionellosis cases among Miami-Dade County residents — 2017 and 2018 (N=261).*

		2017 n=115		2018* n=59	
		n	(%)	n	(%)
Age	20-29	2	(2)	1	(2)
	30-39	5	(4)	2	(3)
	40-49	13	(11)	7	(12)
	50-59	20	(17)	10	(17)
	≥60	75	(65)	39	(66)
Case Classification	Confirmed	43	(37)	35	(59)
	Suspect	72	(63)	24	(41)
Ethnicity	Hispanic	59	(51)	34	(58)
	Non-Hispanic	53	(46)	23	(39)
	Unknown	3	(3)	2	(3)
Race	Black	39	(34)	14	(24)
	White	66	(57)	36	(61)
	Asian/Pacific Islander	1	(1)	0	(0)
	Other/Unknown	9	(8)	9	(16)
Gender	Male	68	(59)	42	(71)
	Female	47	(41)	17	(29)
Travel	Acquired in FL	59	(52)	45	(85)
	Acquired in US, not FL	2	(2)	0	(0.0)
	Acquired outside US	3	(3)	0	(0.0)
	Unknown	49	(43)	8	(15)
Outbreak Status	Outbreak-associated	2	(2)	2	(3)
	Sporadic	105	(91)	51	(86)
	Unknown	8	(7)	6	(10)

*Data collected January 1–August 18, 2018

Outbreaks

DOH surveillance guidelines define a legionellosis outbreak as two or more cases epidemiologically linked by place and time within a 12-month period.[6] Also, if a single case spent his/her entire incubation period in a healthcare setting or other facility, a full environmental assessment is warranted. Reflective of the increasing trend of legionellosis in Miami-Dade County, DOH Miami-Dade has conducted 13 investigations since 2016.

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Table 3. Environmental assessments conducted in response to legionellosis cases among Miami-Dade County residents by exposure setting 2016 to date (N=13).

Settings	Investigations n (%)
Hotels	1 (7.6%)
Long-term care facilities	6 (46.2%)
Hospitals	2 (15.4%)
Other (condominiums, prisons, etc.)	4 (30.8%)

Of the 13 investigations conducted since 2016, six were investigated during the first half of 2018. Among nine cases that triggered investigations, seven were found to be outbreak-associated and the remaining two were associated with sensitive facilities. The vast majority were male (78%) and over 50 years of age (89%). Among the nine, three had chronic lung disease, two had chronic heart disease, and one was immunosuppressed. The remaining three cases either did not report known risk factors or were lost to follow-up.

During the investigations, potential environmental sources were assessed for *Legionella* growth: cooling towers, hot tubs, drinking water systems (e.g. ice machines, shower heads, faucets), water heaters, and decorative fountains. Two facilities were implicated for *Legionella* growth in 2018. At each facility, bacteria were isolated from a decorative fountain and a hot tub separately.

Prevention

Due to the nature of *Legionella*, the only and best prevention method is to avoid exposure, which is accomplished through the proper maintenance of water systems and regular monitoring of potential sources in facilities. If *Legionella* is found in a water source, it is crucial to eliminate the bacteria as quickly as possible. Therefore, it is recommended for all facilities to adapt the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) standard 188-2018, Legionellosis: Risk Management for Building Water Systems, and implement a water safety plan for all types of water systems.

Conclusion

When clinicians suspect legionellosis, the recommended testing methods, culture and urine antigen test, should be considered. To keep the vulnerable population safe from legionellosis, it is vital for facilities to implement and adhere to water safety management programs designed to prevent *Legionella* growth within a facility.

Cases should be reported upon suspicion to the DOH Miami-Dade County, Epidemiology, Disease Control, and Immunization Services (EDC-IS) at 305-470-5660 or fax 305-470-5533.

Figure 1. Confirmed and Suspect Cases of Legionellosis by Month of Onset, Miami-Dade County, 2012-2017 (N=261).

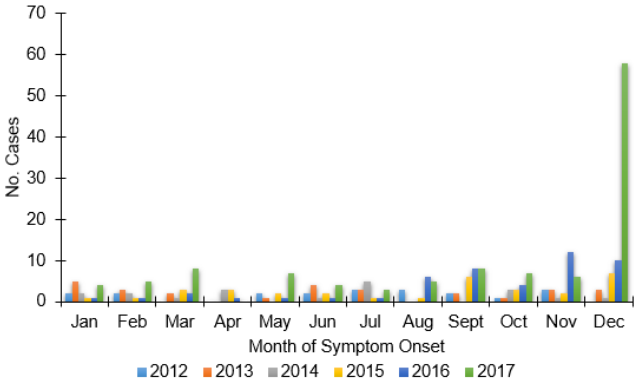
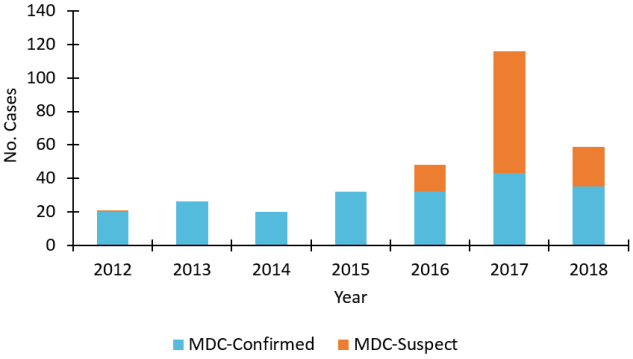
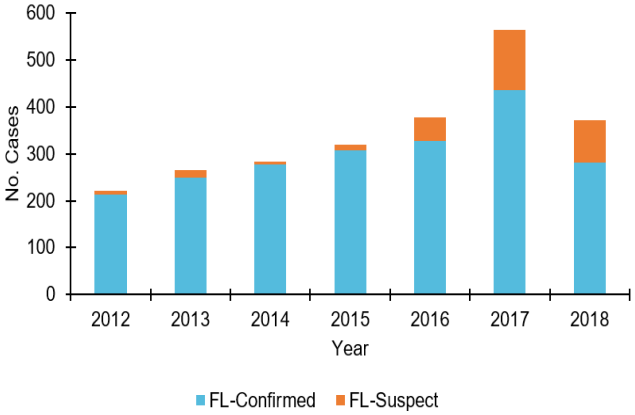


Figure 2. Incidence of Confirmed and Suspect Cases of Legionellosis, Miami-Dade County (MDC), 2012-2018 (N=322).



*Data collected January 1–August 18, 2018

Figure 3. Incidence of Confirmed and Suspect Cases of Legionellosis, Florida (FL), 2012-2018 (N=2405).



*Data collected January 1–August 18, 2018

1. In June 2017, the Centers for Medicare and Medicaid Services (CMS) released a memo requiring healthcare facilities to develop and implement policies aimed at preventing *Legionella* infections.
2. CDC has developed a *Legionella* water management toolkit that is a step-by-step guide to creating a *Legionella* prevention program.
3. American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) has published a revised edition of its standards which provides a more comprehensive approach to preventing the growth and spread of *Legionella*.

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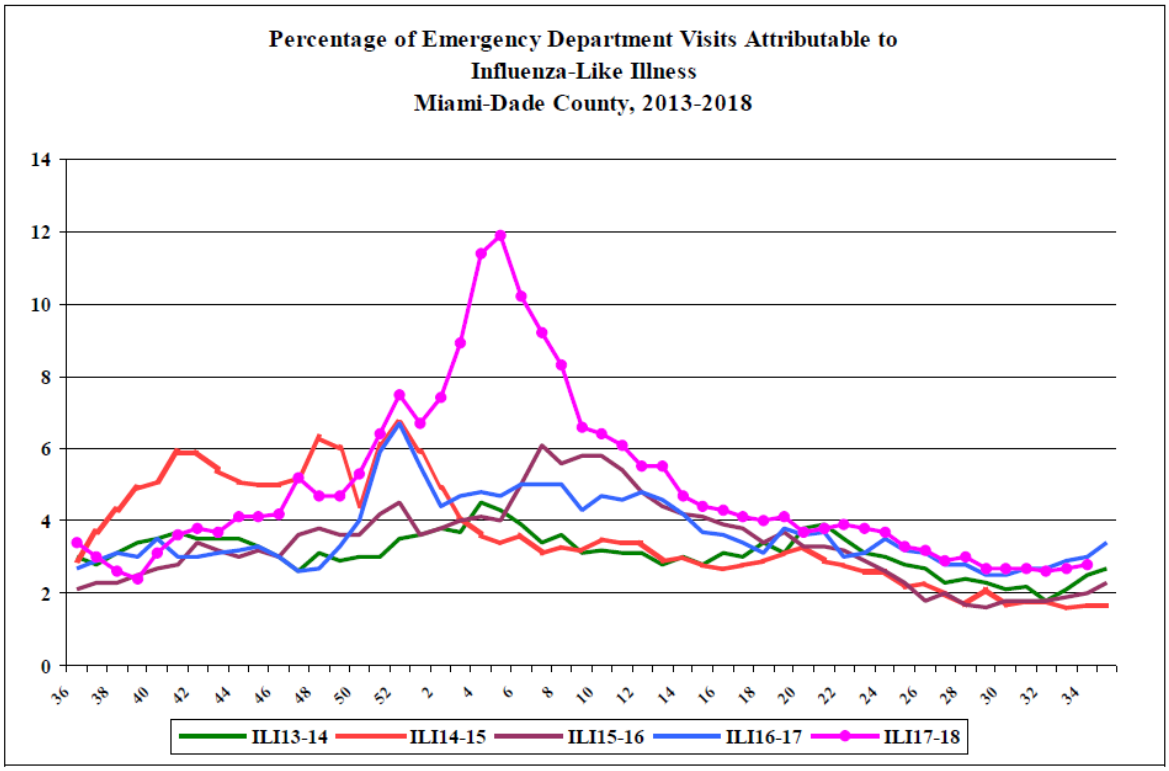
9. Interoffice Memorandum: Summary of 2018 Changes to Reportable Disease Case Definitions, Florida, August 8, 2018. Retrieved from: http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/_documents/case-def-archive/2018-summary-of-changes.pdf, August 29, 2018.
10. Legionella: History, Burden, and Trends. Centers for Disease Control and Prevention. https://www.cdc.gov/legionella/about/history.html. Published April 30, 2018. Accessed August 22, 2018.

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 29,266 ED visits during this period; among them, 813 (2.8%) were ILI. At the same week of last year, 3.0% 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
July 2018

Diseases/Conditions	2018 Current Month	2018 Year to Date	2017 Year to Date	2016 Year to Date
HIV/AIDS				
AIDS*	20	273	258	328
HIV	100	822	789	966
STD				
Infectious Syphilis*	36	260	225	248
Chlamydia*	1159	7736	7398	7123
Gonorrhea*	369	2460	1933	1607
TB				
Tuberculosis**	13	70	52	60
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	90	511	376	345
Chikungunya Fever	0	0	0	0
Ciguatera Poisoning	1	19	7	0
Cryptosporidiosis	5	19	18	12
Cyclosporiasis	0	0	0	1
Dengue Fever	2	3	2	7
Escherichia coli, Shiga Toxin-Producing	13	88	21	5
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	17	107	73	126
Influenza Novel Strain	0	0	0	0
Influenza, Pediatric Death	0	1	1	0
Legionellosis	1	29	18	5
Leptospirosis	0	0	0	0
Listeriosis	1	2	5	4
Lyme disease	0	1	2	2
Malaria	0	7	5	4
Meningitis (except aseptic)	1	7	2	2
Meningococcal Disease	0	0	6	0
Salmonella serotype Typhy (Typhoid Fever)	0	2	1	1
Salmonellosis	123	405	369	347
Shigellosis	32	196	63	45
Streptococcus pneumoniae, Drug Resistant	1	12	19	2
Vibriosis	1	5	3	4
West Nile Fever	0	0	0	0
Immunization Preventable Diseases				
Measles	2	3	0	4
Mumps	0	6	1	2
Pertussis	2	13	19	13
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	4	48	25	47
Hepatitis				
Hepatitis A	1	7	71	20
Hepatitis B (Acute)	1	15	24	9
Healthy Homes				
Lead Poisoning	21	116	132	61

*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.

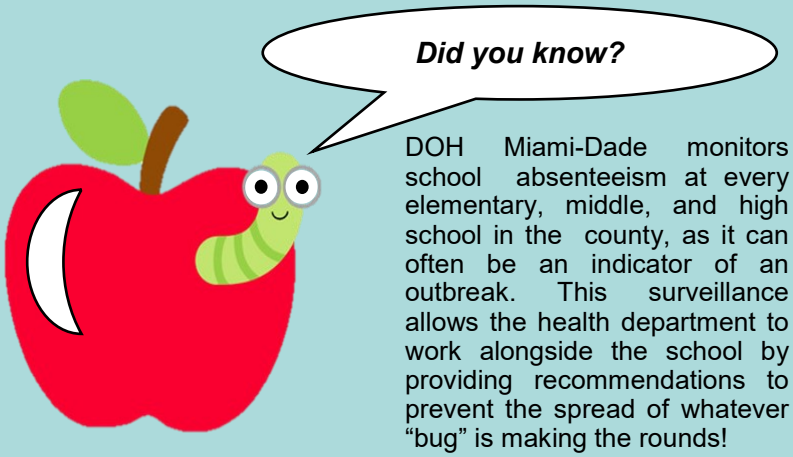
What's New at DOH Miami-Dade

- Earlier this month, DOH Miami-Dade released the 2018 Forces of Change Assessment Report (as part of the Community Health Improvement Plan) with the aim to identify the trends, factors, and events that are likely to influence community health and quality of life, or impact the work of the local public health system in Miami-Dade County. A total of 19 forces of change were identified with the most significant forces cited including: social/mental health, lack of affordable housing, and the opioid epidemic, among others. Assessment summary results, presented as an infographic and complete report, can be found by clicking here.

- The Consortium for a Healthier Miami-Dade is hosting its annual event on Friday, September 14, in commemoration of the 15 year anniversary of the group's inception. It will be a festive time celebrating our accomplishments and those who have been with us on our journey to create a healthier Miami-Dade. The event is open to the community and tickets are still available. We hope to see you there!

Outbreak Prevention: *The Back to School Edition*

Throughout the school year, DOH Miami-Dade receives multiple reports of respiratory and gastrointestinal outbreaks at schools and daycares throughout Miami-Dade County. In anticipation of the new school year, we encourage healthcare providers to discuss everyday preventative actions with students, parents, and staff to stop the spread of germs: washing your hands, staying home when you're sick, and getting the flu vaccine early (flu season starts in early October)!



DOH Miami-Dade monitors school absenteeism at every elementary, middle, and high school in the county, as it can often be an indicator of an outbreak. This surveillance allows the health department to work alongside the school by providing recommendations to prevent the spread of whatever "bug" is making the rounds!

With Labor Day weekend coming up, all Floridians and visitors are thinking about fun activities that include being outdoors in our great state! For the grill masters that will be cooking outdoors this weekend, DOH suggests these following tips:

- Propane and charcoal BBQ grills should only be used outdoors;
- The grill should be placed away from the home or deck railings, and out from under plants and trees;
- Children and pets should be at least three feet away from the grill area;
- Keep your grill clean by removing grease and fat buildup from the grates and trays below; and
- Never leave your grill unattended.

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