

# Epi Monthly

July 2023 Vol 24, Issue 7

## Public Health LOOK OUT!

### Florida Department of Health in Miami-Dade County

- **National Immunization Awareness Month** is observed in **August** to emphasize the importance of routine vaccination. Childhood vaccination against vaccine-preventable diseases can lead to lifelong immunity. People of all ages are encouraged to stay up to date with their vaccinations to prevent illness and avoid getting others sick. Healthcare workers play a key role in promoting vaccination. Find vaccination schedules, evidence-based strategies, and more at [CDC.gov](https://www.cdc.gov).
- **World Breastfeeding Week** is observed **August 1<sup>st</sup> – 7<sup>th</sup>** to promote breastfeeding globally. The 2023 theme for the week is “Enabling Breastfeeding- making a difference for working parents.” Breastfeeding provides important health benefits to infants and mothers. However, many mothers discontinue breastfeeding earlier than planned due to lack of resources and support. Workplaces can support breastfeeding by providing maternity leave benefits, spaces for pumping and storing breast milk, and adequate breaks. Find breastfeeding resources and recommendations at [CDC.gov](https://www.cdc.gov).
- **International Overdose Awareness Day** is observed on **August 31<sup>st</sup>**. This campaign raises awareness about drug overdose risk, prevention, and support resources available. Drug overdose remains the leading cause of injury-related death, with most overdoses involving synthetic or non-synthetic opioids. The observance gives a chance to acknowledge those who have died and their loved ones without stigma or judgement. Visit [CDC.gov](https://www.cdc.gov) to learn more about how to recognize signs of an overdose.

For the most recent information on COVID-19 in Florida please visit: <https://floridahealthcovid19.gov/>

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**World  
Hepatitis Day**  
**July 28, 2023**  
[conferenceseries.com](https://www.conferenceseries.com)



Click the image to the left to watch the video.

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## **Background**

Human metapneumovirus (HMPV) is a respiratory disease that can affect the upper and lower respiratory tract in people of all ages, specifically older adults, younger children, and those who are immunocompromised. HMPV is in the Pneumoviridae family which includes respiratory syncytial virus (RSV).<sup>1</sup> HMPV was discovered in 2001 by van den Hoogen et al. in respiratory patients from the Netherlands, though previous serological studies show that the virus has been circulating for at least 50 years.<sup>2</sup> The Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE) is a web-based tool that enables public health professionals to monitor and detect potential disease outbreaks and trends of illness using daily emergency department and urgent care data. This study uses ESSENCE to identify potential HMPV cases and trends in Miami-Dade County.

## **Symptoms and Diagnosis**

According to the CDC, the most common symptoms associated with HMPV include nasal congestion, fever, cough, and shortness of breath with an estimated incubation period of around 3 to 6 days and a varying duration of illness; these symptoms may develop to bronchitis or pneumonia. Laboratory diagnosis for HMPV is typically confirmed by a direct detection of viral genome by polymerase chain reaction (PCR) assays and direct detection of viral antigens in respiratory secretions using enzyme immunoassay or immunofluorescence.<sup>1</sup>

## **Transmission**

Transmission most likely occurs from an infected person to others through secretions from sneezing and coughing, touching, or shaking hands, and touching surfaces or objects that have the virus on them and then touching the mouth, nose, or eyes. In the U.S., HMPV begins circulating in the winter and lasts either until, or through spring. During the respiratory season, Influenza, RSV, and HMPV can circulate concurrently.<sup>1</sup>

## **Treatment and Prevention**

There is no current antiviral therapy that is used to treat HMPV, nor is there a vaccine for prevention of the disease. CDC recommended prevention methods include washing hands often with soap and water for at least 20 seconds, avoiding touching eyes, nose, or mouth with unwashed hands, and avoiding close contact with sick individuals. For those individuals who have cold-like symptoms, the CDC recommends that these people cover their mouth and nose when coughing and sneezing, wash their hands frequently and correctly, avoid sharing utensils and cups, refrain from kissing others, and to stay at home when they are sick. Moreover, cleaning surfaces that are potentially contaminated such as doorknobs and toys can also potentially prevent the spread of HMPV. Because HMPV is recently recognized as a respiratory virus, providers may not routinely test for HMPV. Considering and testing for HMPV, particularly in the winter and spring, should be implemented by healthcare professionals.<sup>1</sup>

**Methods**

Data was obtained from ESSENCE, which includes Miami-Dade County residents who visited emergency rooms and hospital associated urgent cares between 01/01/2021 and 05/31/2023. Human metapneumovirus cases were identified using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes: *J 12.3, J21.1, AND B97.81* within all diagnoses fields. In addition to the ICD-10-CM codes, the keyword, ‘metapneumovirus’, was pulled from the data set. The statistical analysis was conducted using SAS 9.4 to examine the frequency of human metapneumovirus (HMPV) cases by demographic characteristics and resident zip code. ArcGIS Pro was used to create a map of cases at zip code level.

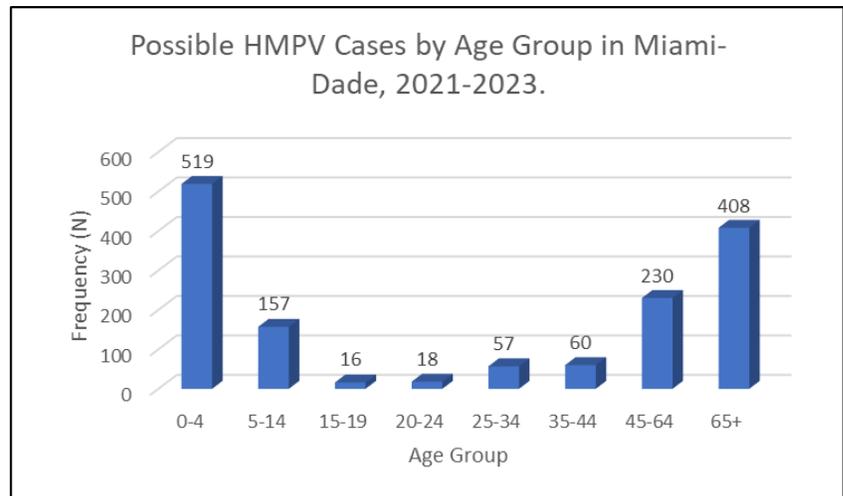
**Figure 1.** Distance in Miles from Home to Care Facility in Miami-Dade County, 2021-2023.

Distance from Home and Care Facility	Distance in Miles
Mean Distance	8.0
Median Distance	5.4
75th Percentile	7.7

**Results**

There are a total of 1,474 possible cases of human metapneumovirus (HMPV) identified in Miami-Dade County between 01/01/2021 and 05/31/2023. Of them, 453 were in 2021, 660 were in 2022 and 361 were in the first 5 months of 2023. As seen in Figure 1, the mean distance from home to care facility was 8.0 miles, the median distance was 5.4 miles, and 75% of cases live within 7.7 miles from the care facility.

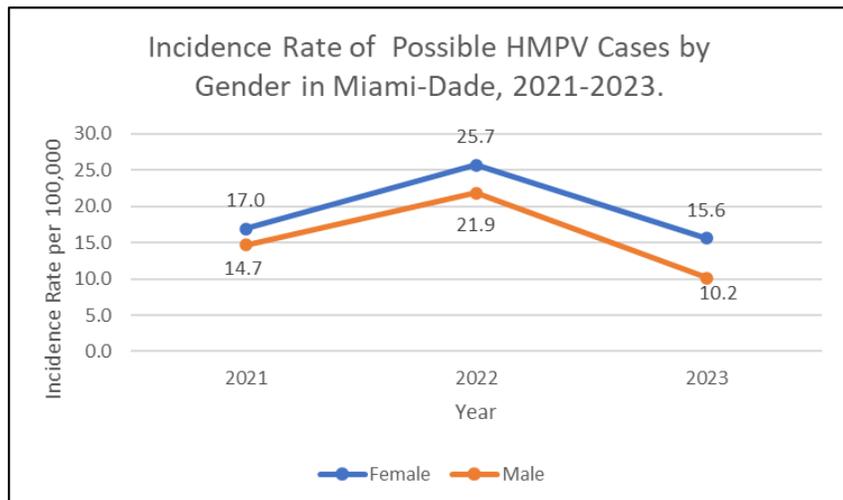
**Figure 2.** Possible HMPV Cases by Age Group in Miami-Dade, 2021-2023



*Age and Sex*

Most HMPV infections occurred among young children (0-4 age group) and the elderly (65+ age group) (Figure 2). Females accounted for 56.6% cases. The incidence rate for females increased from 17.0 in 2021 to 25.7 per 100,000 population in 2022 (Figure 3).

**Figure 3.** Incidence Rate of Possible HMPV Cases by Gender in Miami-Dade, 2021-2023



### Race/Ethnicity

From 2021-2023, 1,073 cases were reported among Hispanics which account for 83% of total cases. Non-Hispanic Whites accounted for 9% (117) of cases, and non-Hispanic Blacks accounted for 8% (102) of cases. During 2021-2023, Hispanics had an incidence rate of 55.5 per 100,000 population, non-Hispanic Whites had an incidence rate of 31.1 per 100,000 population, and non-Hispanic Blacks had an incidence rate of 24.5 per 100,000 population.

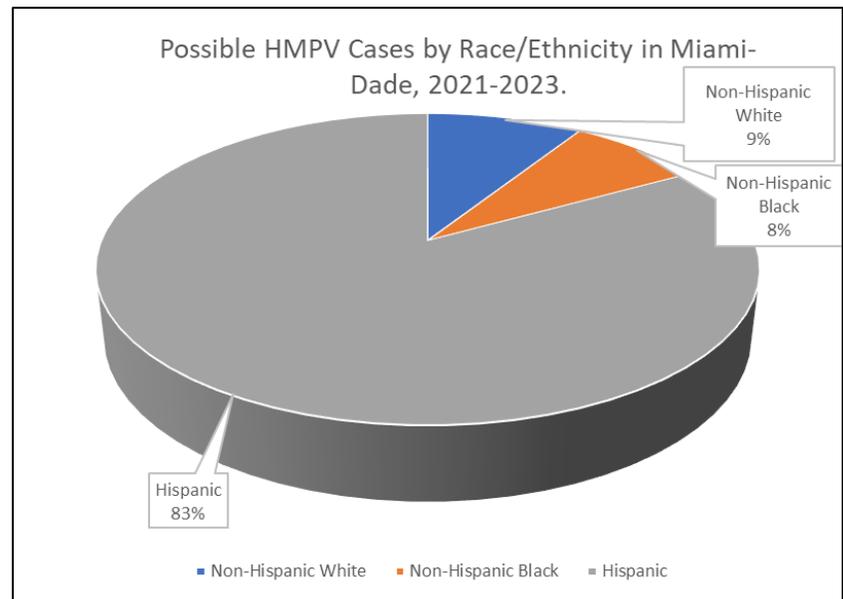
### Seasonality

Human metapneumovirus (HMPV) can circulate in distinct annual seasons in the United States, typically beginning in the winters months and lasts until or through the spring months.<sup>1</sup> As shown in Figure 5, November and December had the highest total frequency of cases in Miami-Dade County with 329 and 353 cases respectively. Cases experience a significant decrease during the summer months of June (26 cases), July (34 cases), and August (41 cases).

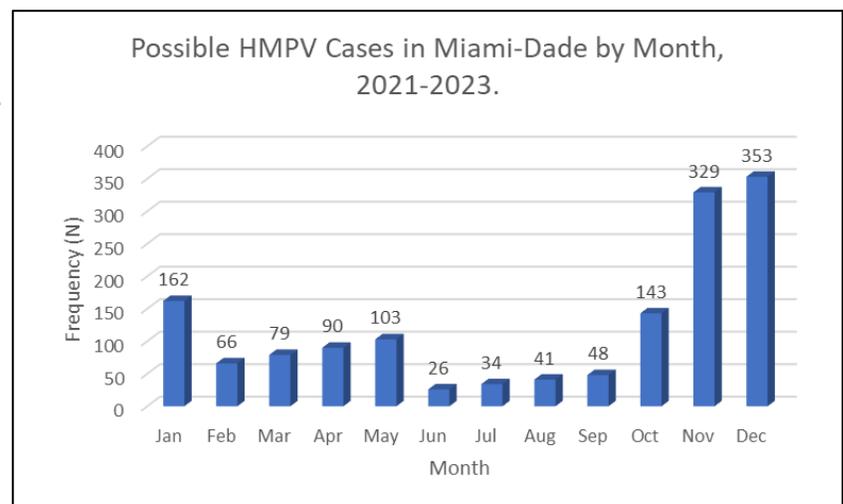
### Distribution of Cases in Miami-Dade County

Figure 6 exhibits cases of possible human metapneumovirus cases in Miami-Dade County from 2021-2023 by zip code. Areas with the highest number of cases (52-81 cases) include zip codes 33030, 33033, 33032, 33177, 33186, 33196, and 33193. Though cases are distributed throughout the county, cases of HMPV are observed more frequently in the Homestead, South Miami, and Kendall areas.

**Figure 4.** Possible HMPV Cases by Race/Ethnicity in Miami-Dade, 2021-2023



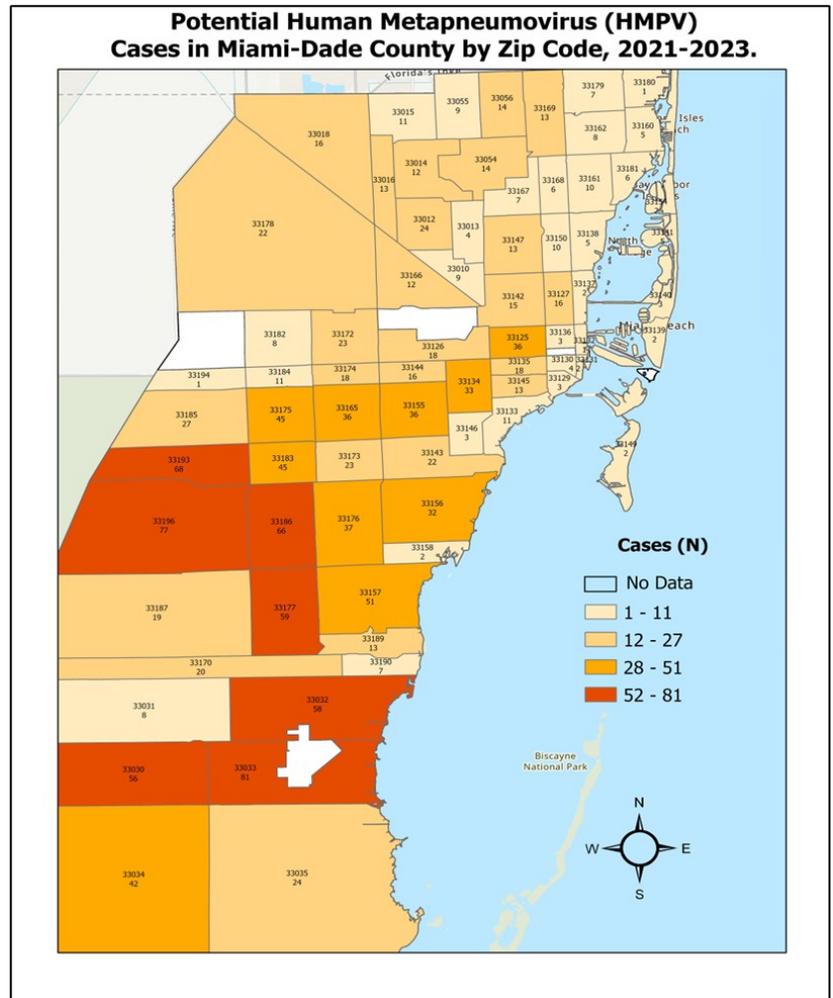
**Figure 5.** Possible HMPV Cases by Month in Miami-Dade, 2021-2023



## Discussion

Human metapneumovirus (HMPV), a respiratory disease that affects people of all ages, but specifically young children and older adults, spiked this spring. As of May 2023, cases have surpassed half of the total cases of 2022 alluding to a significant increase at the end of 2023. Since 2021, cases of HMPV have gradually increased from 453 in 2021 to 660 in 2022, and 361 as of May 31<sup>st</sup>, 2023. Young children, older adults, and immunocompromised individuals all have a vulnerable immune system which makes them susceptible to contracting HMPV. HMPV circulates during the respiratory virus season along with influenza and respiratory syncytial virus (RSV). Like the increase of RSV cases, HMPV follows a similar trend. This can be attributed to the decreased immunity in the population due to the COVID-19 guidelines such as using a face mask and practicing social distancing. Furthermore, an increased awareness of the virus as well as an increased focus on testing also support recent trends of HMPV. According to the population estimate from the United States Census Bureau, Miami-Dade County's Hispanic population accounts for 69.1% of the total population which is consistent with the data showing 83% of those with HMPV being Hispanic.<sup>3</sup> Because there is no vaccine or antiviral therapy for the prevention or treatment of HMPV, the most important prevention method that the CDC recommends is appropriate handwashing. Correct technique when washing your hands can prevent 1 in 5 respiratory infections.<sup>4</sup>

**Figure 6.** Possible HMPV Cases in Miami-Dade County by Zip Code, 2021-2023



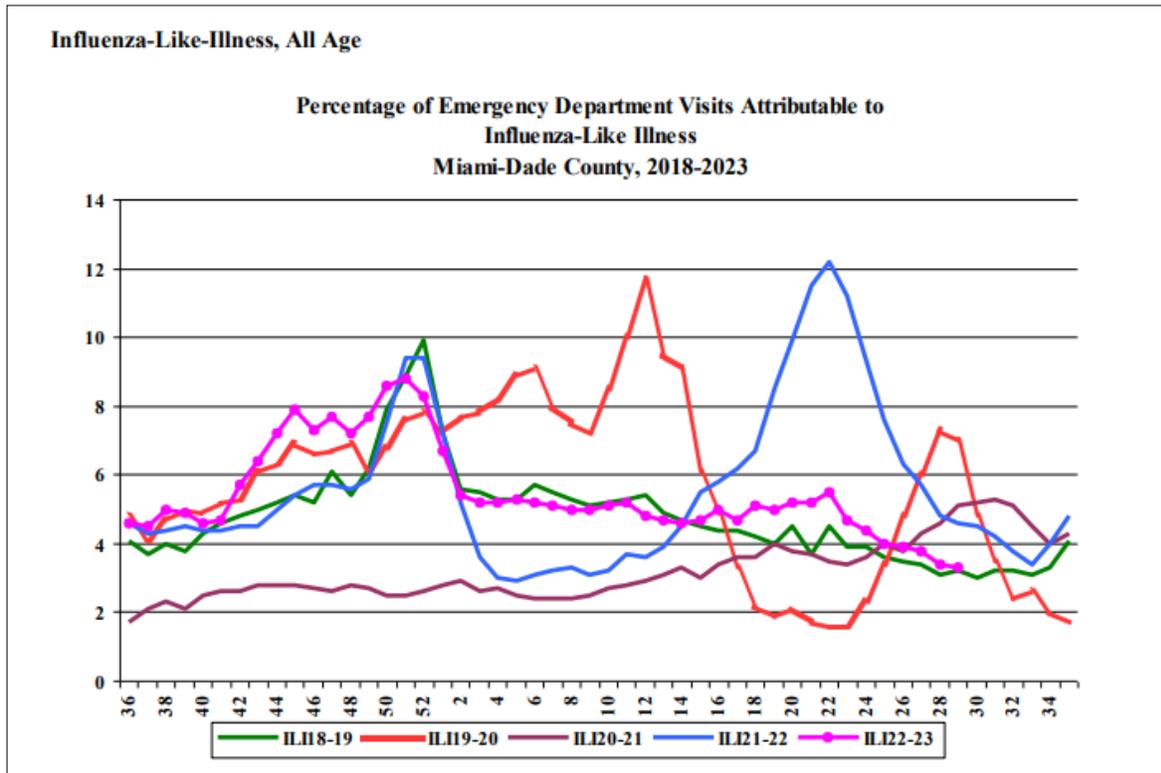
## References

1. Human Metapneumovirus | CDC. [www.cdc.gov](https://www.cdc.gov/ncird/human-metapneumovirus.html). Published February 10, 2023. <https://www.cdc.gov/ncird/human-metapneumovirus.html>
2. Rao BD, Gandhe SS, Pawar SH, Arankalle VA, S. Ismat Shah, AA Kinikar. First Detection of Human Metapneumovirus in Children with Acute Respiratory Infection in India: a Preliminary Report. 2004;42(12):5961-5962. doi:<https://doi.org/10.1128/jcm.42.12.5961-5962.2004>
3. QuickFacts: Miami-Dade County, Florida. Census Bureau QuickFacts. Published 2018. <https://www.census.gov/quickfacts/fact/table/miamidadecountyflorida#>
4. Handwashing - Clean Hands Save Lives. Centers for Disease Control and Prevention. Published 2020. <https://www.cdc.gov/handwashing/>

## Epidemiology, Disease Control and Immunization Services

### Florida Department of Health in Miami-Dade County

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 2020-2021 data is compared to the previous 4 influenza seasons (2016-2017, 2017-2018, 2018-2019, 2019-2020).



Across all ages, there were 35,231 ED visits; among them 1,162 (3.3%) were ILI. During the same week last year, 4.6% 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

**Stephanie Ramirez** at 305-470-5660.



## Miami-Dade County Monthly Report Select Reportable Disease/Conditions June 2023

Diseases/Conditions	2023 Current Month	2023 Year to Date	2022 Year to Date	2021 Year to Date
<b>HIV/AIDS</b>				
AIDS*	35	202	221	209
HIV	97	825	939	661
<b>STD</b>				
Infectious Syphilis*	56	392	324	308
Chlamydia*	1370	7870	7069	7014
Gonorrhea*	587	3388	3108	3116
<b>TB</b>				
Tuberculosis**	17	67	72	50
<b>Epidemiology, Disease Control &amp; Immunization Services</b>				
<b>Epidemiology</b>				
Campylobacteriosis	78	362	320	272
Chikungunya Fever	0	0	0	0
Ciguatera Poisoning	5	8	3	3
Cryptosporidiosis	4	45	28	23
Cyclosporiasis	9	13	3	3
Dengue Fever	20	72	25	1
Escherichia coli, Shiga Toxin-Producing	29	122	76	41
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	29	131	125	48
Influenza, Pediatric Death	0	1	0	0
Legionellosis	2	19	19	20
Leptospirosis	0	0	0	1
Listeriosis	0	1	3	4
Lyme disease	1	2	4	0
Malaria	1	4	0	1
Meningitis (except aseptic)	1	3	4	8
Meningococcal Disease	0	0	4	3
Salmonella serotype Typhi (Typhoid Fever)	0	0	0	0
Salmonellosis	148	534	475	321
Shigellosis	15	124	70	31
S. Pneumoniae, invasive disease	5	59	39	19
Vibriosis	4	17	14	11
West Nile Fever	0	0	0	0
Zika Virus (non-congenital)	0	0	0	0
<b>Immunization Preventable Diseases</b>				
Measles	0	0	0	0
Mumps	0	0	3	2
Pertussis	0	3	4	0
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	5	18	17	8
<b>Hepatitis</b>				
Hepatitis A	1	13	15	4
Hepatitis B (Acute)	4	46	48	11
<b>Healthy Homes</b>				
Lead Poisoning	26	235	147	49

\*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!

- Florida Department of Health in Miami-Dade is collaborating with Community Health Centers to provide the community with **back to school immunizations** on **August 12<sup>th</sup>**. [Visit](#) to view the event flyer and each location's hours of operation!
- **Hurricane Season** began **June 1!** FDOH-Miami-Dade urges all residents and visitors to prepare for hurricane season! Prepare an evacuation plan, disaster kit, and supplies such as water and non-perishable food. View the [Hurricane Readiness Guide](#) for crucial information on hurricane preparedness!
- Miami-Dade remains under a mosquito-borne illness alert! Currently, there are two local cases of dengue infection. Continue to follow protection efforts by remembering to **DRAIN and COVER**. [Visit](#) to learn more.
- DOH Miami-Dade offers COVID-19 vaccines, vaccine boosters, pediatric vaccines, and flu shots. Visit [miami-dade.floridahealth.gov](http://miami-dade.floridahealth.gov) for clinic locations and appointments!



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

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



## About the Epi Monthly

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 Yoselin Rodriguez at (786) 582-2266 or [Yoselin.Rodriguez@flhealth.gov](mailto:Yoselin.Rodriguez@flhealth.gov).

