



Epi Monthly

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Public Health LOOK OUT!

Florida Department of Health in Miami-Dade County

- March is designated as **National Nutrition Month** raising awareness on the importance of developing healthy eating habits and engaging in regular physical activity, as well as making smart dietary choices based on accurate nutritional information. The campaign underscores how a person's diet and their risk of developing chronic diseases are both affected by the accessibility of affordable and nutritious food options. Organized by the Academy of Nutrition and Dietetics, this year's theme is 'Fuel for the Future', highlighting that eating with sustainability in mind helps fuel and protect us during every phase of life! Visit eatright.org to learn more about healthy foods and alternatives!
- **National Poison Prevention Week** (NPPW) is commemorated on March 19-25, 2023, to raise awareness about the hazards of poisonings for individuals of all ages and the significance of poisoning prevention. Poisoning can arise from accidental exposure to household cleaning products, prescription medication overdoses, illegal & recreational drug overdoses, pesticides, insect bites, carbon monoxide, eating or touching poisonous plants. Every day, more than 300 children are treated in emergency departments for poisoning, and an average of two children deaths occur due to poisoning. The Poison Help Hotline (1-800-222-1222) can be contacted if someone exhibits symptoms of poisoning. To learn more visit Poison.org.
- Every year on March 24, **World Tuberculosis Day** is celebrated to raise awareness about Tuberculosis and educate people on devastating health, social, and economic impacts of TB. This yearly event celebrates the date in 1882 when Dr. Robert Koch reported his discovery of the infectious agent that causes tuberculosis, *Mycobacterium tuberculosis*. Almost 28,000 people are diagnosed with tuberculosis every day, and over 4,100 die from the disease, making it one of the most prevalent infectious diseases. As World TB Day approaches, visit CDC.gov to learn more about this disease.

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

In This Issue

Public Health Lookout	1
Giardiasis Infections in Miami-Dade County, 2012-2022	2
EDC-IS Influenza Respiratory Illness Surveillance Report	5
Select Reportable Diseases and Conditions for January 2023	6
What's New at DOH - Miami-Dade	7



Understanding Cancer Take action Materials Map of Activities Our supporters



Click the image to the left to watch the video.

Florida Department of Health in Miami-Dade County
 Epidemiology, Disease Control, and Immunization Services
 1350 NW 14th St, Annex Building
 Miami, FL 33125
 Phone: 305-470-5660
 Fax: 305-470-5533
 eFax: 786-732-8714



By: Katerina Lopez

Introduction

Giardiasis is a diarrheal disease caused by the parasite *Giardia duodenalis*, also known as *Giardia*. This parasite lives in the intestines and is passed in stool, surviving for weeks to months outside of the body. The *Giardia* parasite can be found in every region of the United States as well as globally. Giardiasis can be contracted through ingesting the parasite or transmission through the feces of humans or animals infected with *Giardia*. Giardiasis became a reportable condition prior to 1992 in the state of Florida.² Common ways that giardiasis can be spread include consuming food or water contaminated with the *Giardia* parasite, having close contact with someone who is infected such as in daycare settings, traveling to areas with poor sanitation, exposure to feces through sexual contact with an infected person, touching contaminated surfaces that may have the *Giardia* germs such as bathroom handles or diapers, and having contact with infected animals or animal environments with feces. Common symptoms include diarrhea, gas, foul-smelling, greasy feces, abdominal cramping, or pain, upset stomach or nausea, and dehydration. These symptoms may begin mild and progressively worsen causing fatigue. Less common symptoms include fever, itchy skin, hives, and swelling of the eyes and joints. Because giardiasis may cause severe dehydration, overtime, it can lead to weight loss and vitamin deficiencies due to the inability to absorb nutrients such as fat, lactose, vitamin A, and vitamin B12. These symptoms typically start 1 to 2 weeks after becoming infected and may last between 2 to 6 weeks. It is also important to note, though many individuals experience symptoms, some may be asymptomatic.¹

Who Is at Risk?

While anyone can contract giardiasis, certain individuals are certainly more at risk. These individuals include people in daycare settings, people in close contact with infected individuals, travelers in areas with poor sanitation, people who have contact with feces during sexual activity, people who backpack or camp and drink untreated water, swimmers who swallow pool water, people who retrieve their water from shallow wells, people with weakened immune systems, and people who have contact with infected animals or animal environments contaminated with feces¹.

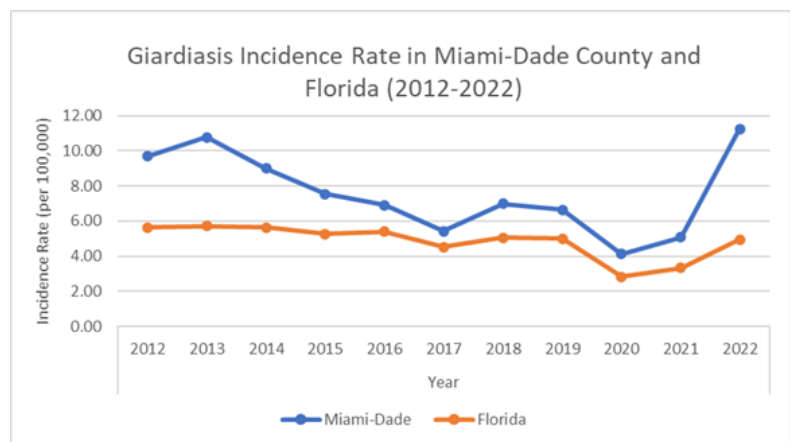
Methods

Confirmed cases of giardiasis in Miami-Dade County between 01/01/2012 and 12/31/2022 were obtained from the Florida Department of Health, Epidemiology Diseases Surveillance System, Merlin, by event date. Incidence rates were calculated per 100,000 population using population estimates from Florida Health Charts. Incidence was calculated for county and state levels by age, gender, and race/ethnicity. The statistical analysis was conducted using SAS 9.4 and ArcGIS Pro was used to geocode and identify high-density areas.

Results

A total of 2,272 confirmed giardiasis cases were reported from 2012 to 2022. From 2013 to 2017, Miami-Dade County experienced a downward trend with 279 confirmed cases in 2013 to 149 confirmed cases in 2017. Cases began to gradually increase from 118 in 2020 to 145 in 2021 and experienced a spike in 2022 with 325 confirmed cases in Miami-Dade County over the last decade. Figure 1 shows the incidence rate of giardiasis cases in Miami-Dade County in comparison to Florida. The spike from 2021 to 2022 is seen in both the state and county level but is much larger at the county level. The incidence rate for Miami-Dade County increased from 5.1 per 100,000 population in 2021 to 11.2 in 2022.

Figure 1. Giardiasis Incidence Rate in Miami-Dade County and Florida, 2012-2022



Age and Gender

Among the cases analyzed, there is a downward trend with average incidence rates decreasing as age increases. Children less than five years of age experienced the highest average incidence rate of giardiasis from 2012 to 2022 with an incidence rate of 20.8 per 100,000 population, whereas adults 85 years and older experienced the lowest average incidence rate of 2.4 per 100,000 population.

Incidence rates were highest among males for all observed years in comparison to females as seen in Figure 3. Both genders, similarly, experienced a downward trend from 2013 to 2017 and both experienced a peak in from 2021 to 2022. In 2022, the incidence rate for males was 14.9 per 100,000 population which is nearly twice as much as females with an incidence rate of 7.7 per 100,000 population.

Race and Ethnicity

From 2012 to 2022 giardiasis was most prevalent in the Hispanic population accounting for nearly 67% of all confirmed cases which translates to 1,521 cases out of the total 2,272 cases. This percentage is more than all the other races and ethnicities combined. The Non-Hispanic White population accounted for 30% of confirmed cases and the Non-Hispanic Black population accounted for 5% (Figure 4).

Distribution of Cases in Miami-Dade County

Around 61% of all giardiasis cases reported in Miami-Dade County from 2012-2022 were acquired in Florida. Approximately 26% of cases reported in Miami-Dade County were acquired outside of the United States, and about 2% of cases were acquired in the United States but outside of the state of Florida.

Figure 5 shows high density areas of giardiasis in Miami-Dade County with the highest concentration of cases in Miami Beach. Furthermore, the zip codes with the highest frequency of cases which include the city of Hialeah (33012), Olympia Heights (33165), and Miami Beach (33139). Fifty-seven confirmed cases of giardiasis were reported in in zip code 33139, the highest among all other zip codes.

Figure 2. Average Incidence Rate of Giardiasis by Age Group in Miami-Dade, 2012-2022

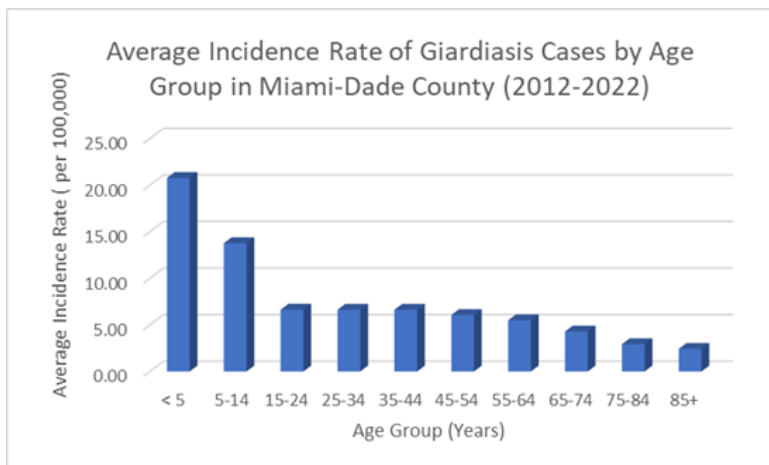


Figure 3. Giardiasis Incidence Rate by Gender in Miami Dade, 2012-2022

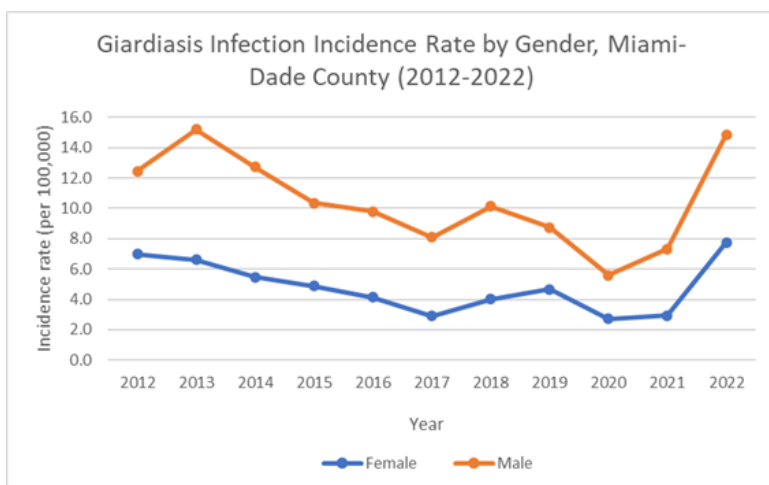
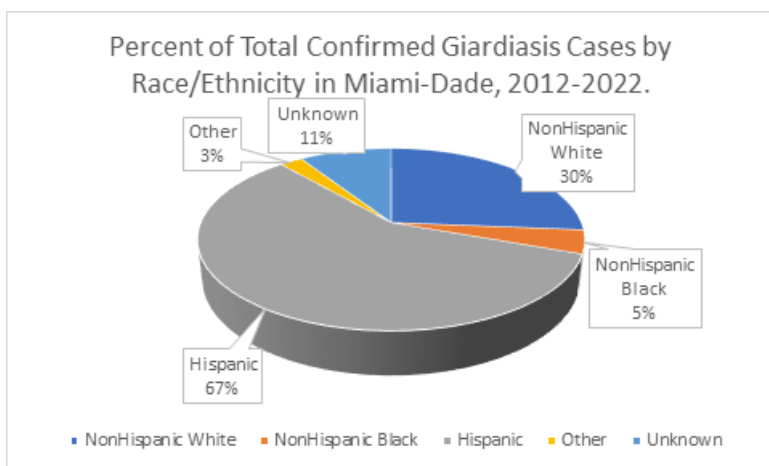


Figure 4. Percent of Total Confirmed Giardiasis Cases by Race and Ethnicity in Miami-Dade, 2012-2022

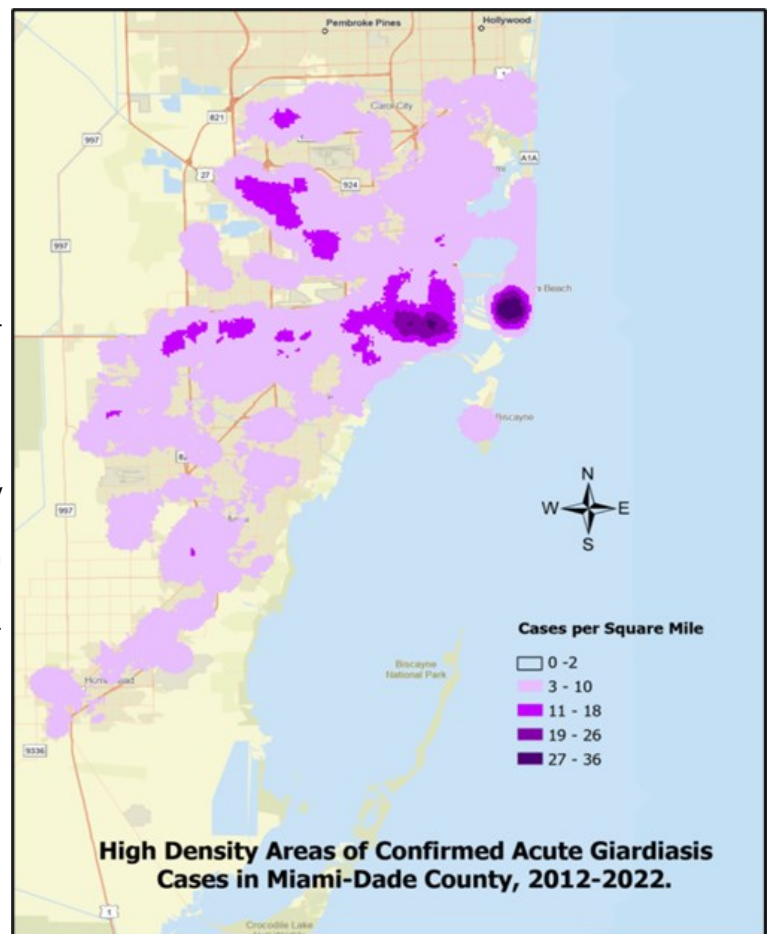


Discussion

Within the last ten years, giardiasis caused the greatest burden among children less than five years of age, which reportedly had the highest incidence rates across all years. Children are more likely to come into contact with feces, more specifically when wearing diapers. Children also are in the process of toilet training and/or spend much of their time in daycare settings. The poor hygiene habits in these day care settings, along with children's developing immune systems create a susceptibility to contracting giardiasis. Higher incidence rates in men in comparison to women may be due to sexual practices or poor hygiene, however, further exploration is necessary.

Because giardiasis is a worldwide endemic, the risk of infection increases with duration of travel. Giardiasis is most identified in routine screening of refugees and internationally adopted children.³ Due to the global travel restrictions that the COVID-19 pandemic brought, net international migration was slowing, and experienced the largest drop between 2020 and 2021, which was during the peak of the pandemic. Travel restriction began to relax during 2022 when the United States received an influx of humanitarian migrants such as asylum seekers and refugees.⁴ This influx of immigrants is consistent with the spike of giardiasis cases experienced from 2021 to 2022 in Miami-Dade County. The Miami-Dade County Refugee Health Program provides a free health assessment and immunizations for all eligible adult and child refugees.⁵

Figure 5. High Density Areas of Confirmed Giardiasis Cases in Miami-Dade, 2012-2022



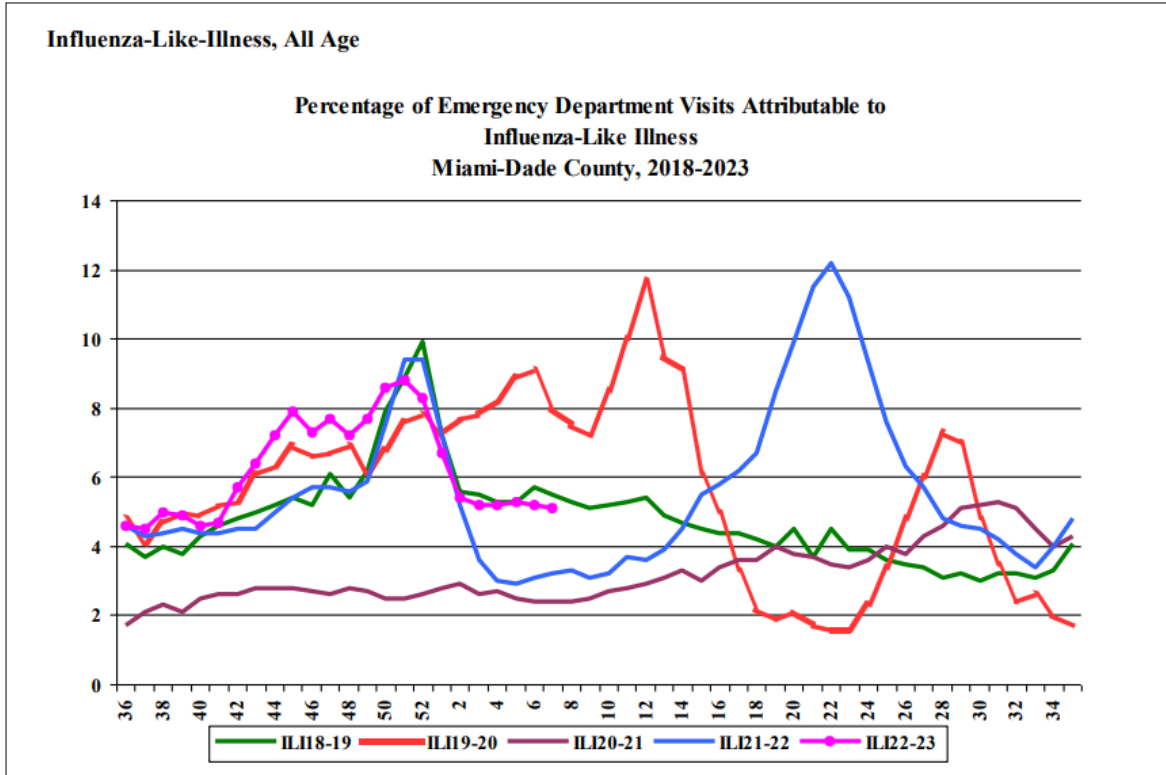
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4. Bureau UC. Net Migration Between the United States and Abroad in 2022 Reaches Highest Level Since 2017. www.census.gov. <https://www.census.gov/library/stories/2022/12/net-international-migration-returns-to-pre-pandemic-levels.html#:~:text=According%20to%20Vintage%202022%20population>
5. Refugee Health Program | Florida Department of Health in Miami-Dade. miamidade.floridahealth.gov. <https://miamidade.floridahealth.gov/programs-and-services/clinical-and-nutrition-services/refugee-health-assessment-program/index.html>

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 38,347 ED visits; among them 1,937 (5.1%) were ILI. During the same week last year, 3.2% 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
Stephanie Ramirez at 305-470-5660.



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

Diseases/Conditions	2023 Current Month	2023 Year to Date	2022 Year to Date	2021 Year to Date
HIV/AIDS				
AIDS*	39	39	28	24
HIV	176	176	153	70
STD				
Infectious Syphilis*	63	63	48	34
Chlamydia*	1052	1052	919	1031
Gonorrhea*	529	529	379	436
TB				
Tuberculosis**	9	9	11	9
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	37	37	28	25
Chikungunya Fever	0	0	0	0
Ciguatera Poisoning	0	0	0	0
Cryptosporidiosis	3	3	2	2
Cyclosporiasis	2	2	0	0
Dengue Fever	11	11	0	0
Escherichia coli, Shiga Toxin-Producing	10	10	12	2
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	11	11	4	1
Influenza, Pediatric Death	1	1	0	0
Legionellosis	2	2	1	0
Leptospirosis	0	0	0	0
Listeriosis	0	0	1	0
Lyme disease	0	0	0	0
Malaria	0	0	0	0
Meningitis (except aseptic)	0	0	0	0
Meningococcal Disease	0	0	0	0
Salmonella serotype Typhi (Typhoid Fever)	0	0	0	0
Salmonellosis	58	58	55	29
Shigellosis	17	17	7	1
S. Pneumoniae, invasive disease	15	15	4	2
Vibriosis	0	0	1	0
West Nile Fever	0	0	0	0
Zika Virus (non-congenital)	0	0	0	0
Immunization Preventable Diseases				
Measles	0	0	0	0
Mumps	0	0	0	0
Pertussis	0	0	0	0
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	0	0	0	0
Hepatitis				
Hepatitis A	2	2	0	2
Hepatitis B (Acute)	11	11	5	0
Healthy Homes				
Lead Poisoning	34	34	9	5

*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!

- Miami-Dade is one of selected Florida counties to participate in the **Sleep Baby Safely Project**, **SUIDI Advocacy Project**, and **Drowning Prevention Project** to combat preventable infant and child deaths in Miami-Dade and Florida!
- DOH Miami-Dade offers COVID-19 vaccines, vaccine boosters, pediatric vaccines, and flu shots. Visit miamidade.floridahealth.gov for clinic locations and appointments!

To report disease 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

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 Garcia at (786) 582-2266 or Yoselin.Garcia@flhealth.gov.

