



Epi Monthly Report

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**FLORIDA
DEPARTMENT OF
HEALTH IN MIAMI-
DADE COUNTY**

**EPIDEMIOLOGY,
DISEASE CONTROL
&**

**IMMUNIZATION
SERVICES**

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Happy Holidays to All!

As this year draws to a close and we begin to reflect on the work done in 2016, I would like to say “Thank you” to our wonderful providers and infection control practitioners who have been our constant partners in public health. I would especially like to thank all who have partnered and continue to work with us to protect the public’s health against Zika virus after its arrival in Miami-Dade County earlier in the year. Your collaboration and expertise has been invaluable as we work together to control this and other emerging diseases in our community.

We at the Florida Department of Health in Miami-Dade are looking forward to a great year during 2017, and we are also looking forward to continuing our partnership with such devoted colleagues. Thank you again for being dedicated partners in public health, and Season’s Greetings to you and your families!

Sincerely,

Reynald Jean, MD, MPH, MSN, AGPCNP-BC

Director of Tuberculosis, Epidemiology,

Disease Control, and Immunization Services

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Staphylococcal Food Poisoning Outbreaks in Multiple Daycares - Miami-Dade County, November 2016

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Introduction

On November 7th, 2016 a news report was released regarding a gastrointestinal illness (GI) outbreak at a day care in Broward County, Florida. According to the report, approximately 29 children at the preschool experienced nausea and/or vomiting, diarrhea, and dehydration shortly after eating lunch. Paramedics were called to the scene to assist with treating ill children and rule out gas exposure. During the afternoon, the Florida Department of Health in Miami-Dade County Office of Epidemiology, Disease Control, and Immunization Services (EDC-IS) received an email regarding a GI outbreak occurring earlier in the day at a Miami-Dade County daycare. Later that evening, the Florida Poison Information Center notified EDC-IS of a GI outbreak at a second Miami-Dade County child care center. Several children from both daycares experienced nausea and/or vomiting within hours of eating the scheduled lunch. As a precaution, several children were taken to area emergency departments (EDs), urgent care centers, and private physician offices, however, no stool samples were collected. Interviews with the directors of each daycare revealed that both lunches were provided by a local catering company located in Miami-Dade County, which also serviced the Broward County daycare with the GI outbreak. The catering company provides lunches to several daycares in South Florida through the Florida Department of Health's Child Care Food Program, a nutrition program which reimburses child care centers for meals and snacks obtained from approved contractors.

On November 8th, EDC-IS was notified by the Florida Department of Children and Families of additional GI outbreaks that had been reported on November 7th at other local day care centers, all of which were associated with the same catering company. A joint assessment at the catering facility was subsequently conducted between EDC-IS, the Florida Department of Health in Miami-Dade County Office of Environmental Health, and the Florida Department of Business and Professional Regulation (DBPR).

Epidemiological and Laboratory Investigation

EDC-IS was provided a list of 16 daycares within Miami-Dade County that ordered lunch from the catering company through the Child Care Food Program. Each child care center was contacted to obtain the total number of children & staff and a line list of ill persons. Line lists included information on age, gender, symptoms, and whether the individual visited a medical provider. Daycares with only one ill person were excluded from the investigation. On the day following the outbreak, three daycares had returned line lists and 54 ill children were identified. All parents from these daycares were called and most (69%) were interviewed. All interviewed parents confirmed that illness onset was immediately after the child's lunch time. By the end of the week, 8 daycares were affiliated with the outbreak with a total of 117 ill children and 6 ill staff.

A case was defined as a person who experienced vomiting within 3 hours after consuming lunch at a day care affiliated with the catering company on November 7th, 2016. Specific lunch foods consumed by the majority of cases could not be ascertained due to their young age, however cycled menus are provided to all Child Care Food Program participating daycares. Meals of affected daycares were prepared and delivered by the catering company that morning in accordance with the listed menu for November 7th. Menu lunch items for this day included baked ham slices, sweet potatoes, green beans, milk, margarine and whole wheat bread. Alternate menu items were sliced baked turkey, mixed vegetables, black eyed peas and whole wheat roll. Leftover food (baked ham slices and strips, black eyed peas, mixed vegetables and wheat roll) was collected from two daycares and sent to the Florida Department of Health's Bureau of Public Health Laboratories for testing.

A total of 403 children attended the eight day cares on November 7th. Overall, 117 children all were confirmed to have vomiting as reported by parent and/or daycare staff, of which 56% also experienced diarrhea. The attack rate for all eight daycares was 29%, but ranged from 10 to 90%. In addition, there were also 6 ill staff that ate from the classroom lunch, but it could not be determined if all staff ate from the lunch provided by the catering company. The mean age of cases was 3.49 years (median=3.30 years), with a range from 1.1 year to 10.5 years. Among ill cases, 47 (31.8%) were taken to an emergency room or healthcare facility. Table 1 provides a summary of the GI outbreak, including number of cases, attack rates, mean age, and percent hospitalized for each daycare investigated.

Laboratory testing via bacterial culturing detected *Staphylococcus aureus* at 10^8 colony forming units (CFU's) per gram of ham collected from the daycare facilities. Evidence of *S. aureus* was not found in the other foods. Samples were negative for *Bacillus cereus*. The food which was saved for quality control purposes was sent to a private laboratory by the caterer and tested for pathogens. Results were negative.

Catering Facility Environmental Assessment and Inspection

On November 9th, a joint assessment of the catering company was conducted between EDC-IS, the Florida Department of Health in Miami-Dade County Office of Environmental Health, and Florida DBPR. During the inspection, several violations were observed particularly with food handling and time/temperature controls. Stop sales were placed on several food items that were held outside of safe temperatures, including congri (a rice and bean dish), pork, turkey sandwiches, and cooked vegetables. Additional stop sales were issued on dented/rusted cans of peaches and corned beef hash which were being prepared for meals later that day. Observations on the delivery vans storing of hot and cold foods for distribution to the day cares showed hot foods kept in warmers and cold foods in ice. Some concerns were seen about the temperature of milk cartons before being placed in the ice. Other issues included a cold room that was held at 60° F, condensation drops falling over a preparation table, a grease substance coming from the trash and flowing to the storm sewers and food disposed next to the trash receptacle on the floor.

Discussion

Staphylococcal food poisoning (SFP) is one of the most common foodborne illnesses in the United States (Teague et al. 2013). SFP is caused by ingesting foods contaminated with enterotoxins produced by the bacterium *S. aureus*. Although the bacteria can be inactivated by heating food prior to consumption, the enterotoxins are heat-resistant and can still cause illness. SFP is characterized by a rapid onset of nausea, numerous vomiting episodes, and abdominal cramping. Diarrhea may also occur and fever is usually absent. The incubation period is typically 3 hours and ranges from 30 minutes to 8 hours. Illness is usually self-limited with individuals recovering in 24 – 48 hours. Occasionally, SFP can be severe enough to warrant hospitalization, particularly among younger children (Murray, 2005), therefore, safe food preparation in lunch programs, particularly child care centers, is essential.

Results from this investigation suggest this outbreak likely resulted from consumption of ham contaminated with *S. aureus* delivered by the catering company. *S. aureus* levels in the ham exceeded those (10^6 CFU/gram of food) typically known to cause illness. In addition, violations found at the catering company during the environmental assessment (improperly preparing and monitoring time and temperature controls for the food) resulted in an environment that is conducive to *S. aureus* germination and growth. *S. aureus* contamination and subsequent intoxication can be prevented by appropriate handwashing prior to handling of foods, ensuring clean food preparation, storage, and equipment surfaces. Additionally, “potentially hazardous” prepared foods should be immediately stored at either below 40° or above 140° F to prevent growth of *S. aureus*. Findings from these investigations emphasize the importance of adhering to food safety regulations. Caterers serving young children should be aware of the risks associated with improper food handling and storage.

Daycare	Number of Cases	Number of Attendees	Attack Rate (%)	Age Range (Years)	Mean Age (Years)	Hospitalized (%)
A	11	13	84.6	1.6 – 4.8	3.2	15.4
B	24	61	39.3	1.6 – 10.5	4.1	14.8
C	4	40	10.0	1.9 – 4.5	3.6	5.0
D	13	63	20.6	1.7 – 4.4	2.7	7.9
E	9	10	90.0	1.6 – 5.2	3.8	20.0
F	13	86	15.1	2.2 – 5.4	3.7	5.8
G	7	70	10.0	1.3 – 6.1	3.0	4.3
H	36	60	60.0	1.1 – 5.18	3.4	31.7
TOTAL	117	403	29.0	1.1-10-5	3.5	11.7

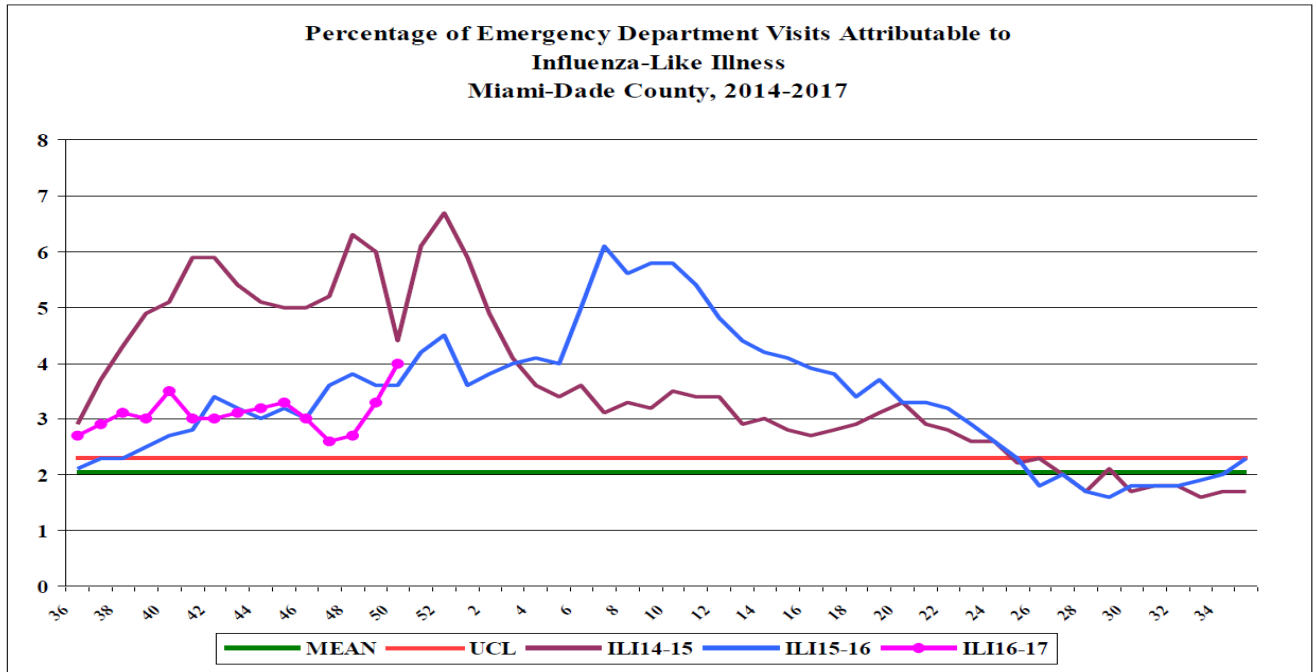
Table 1. Summary of GI outbreak in 8 daycares in Miami-Dade County on November 7, 2016

References

Murray RJ (2005). Recognition and management of *Staphylococcus aureus* toxin-mediated disease. *Intern Med J*; 35(Suppl 2):106–19.

Teague NS, Grigg SS, Peterson JC, Gomez GA, Talkington DF. (2013). Outbreak of Staphylococcal Food Poisoning from a Military Unit Lunch Party — United States, July

Influenza-Like-Illness, All Age



During this period, there were 26,606 ED visits; among them 1,053 (4.0%) were ILI. At the same week of last year, 3.6% 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

Lakisha Thomas at 305-470-5660.

**TO REPORT ANY DISEASE AND FOR INFORMATION CALL:
Epidemiology, Disease Control & Immunization Services**

Childhood Lead Poisoning Prevention Program305-470-6877
Hepatitis305-470-5536
Immunizations or outbreaks305-470-5660
HIV/AIDS Program305-470-6999

STD Program305-575-5430

Tuberculosis Program305- 575-5415

Immunization Service305-470-5660

To make an appointment.....786-845-0550

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 Emily Moore at (305) 470-6918.



Miami-Dade County Monthly Report

Select Reportable Disease/Conditions

November 2016

Diseases/Conditions	2016 Current Month	2016 Year to Date	2015 Year to Date	2014 Year to Date
HIV/AIDS				
AIDS*	25	465	420	475
HIV	122	1360	1235	1118
STD				
Infectious Syphilis*	30	375	303	304
Chlamydia*	889	10959	9706	8891
Gonorrhea*	233	2575	1975	1944
TB				
Tuberculosis**	8	92	109	110
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	26	286	598	326
Chikungunya Fever	0	0	26	70
Ciguatera Poisoning	3	14	15	22
Cryptosporidiosis	3	26	45	36
Cyclosporiasis	0	2	3	1
Dengue Fever	1	22	27	37
Escherichia coli, Shiga Toxin-Producing	1	8	17	25
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	15	179	179	203
Influenza Novel Strain	0	0	0	0
Influenza, Pediatric Death	0	0	0	0
Legionellosis	7	22	25	18
Leptospirosis	0	0	1	0
Listeriosis	0	5	6	5
Lyme disease	0	2	8	8
Malaria	0	10	7	6
Meningitis (except aseptic)	1	8	7	25
Meningococcal Disease	0	1	6	11
Salmonella serotype Typhi (Typhoid Fever)	0	1	2	1
Salmonellosis	83	682	631	593
Shigellosis	5	71	138	640
Streptococcus pneumoniae, Drug Resistant	0	4	1	40
Vibriosis	0	9	16	6
West Nile Fever	0	0	0	0
Immunization Preventable Diseases				
Measles	0	4	0	0
Mumps	0	4	3	0
Pertussis	1	23	29	31
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	5	68	49	40
Hepatitis				
Hepatitis A	5	40	33	31
Hepatitis B (Acute)	3	19	12	11
Healthy Homes				
Lead Poisoning	17	103	75	70

*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.