

# EPI MONTHLY REPORT



## Food-borne Outbreak at a Birthday Party in Miami-Dade County, July 2010

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#### Background

On Tuesday, July 27, 2010, the Miami-Dade County Health Department (MDCHD) Epidemiology, Disease Control and Immunization Services (EDC-IS) was notified of a cluster of ill persons who attended a birthday party on Saturday, July 24th. The party was held at a private home and food was served by a local catering company. On July 28th, the host of the party provided MDCHD with a line list of 36 guests and a copy of the food and beverage invoice. According to the host, nearly all attendees were suspected to be ill. This report summarizes findings from the investigation.

#### Methods

On July 29th, EDC-IS and the Office of Environmental Health (EH) conducted a joint inspection of the catering facility. The purpose of the visit was to assess sanitary conditions, observe food preparation/handling, verify licensing documents, and conduct employee interviews. Phone interviews, using a food-history and illness questionnaire, were administered to party attendees to collect information on demographics, food and/or drink exposures, and clinical symptoms. Data was entered and analyzed in Epi Info 3.5.1.

#### Results

**Site visit:** The company provides food service at a local University in a restaurant-style setting; however they were not licensed to operate as a catering business. During time of inspection, a broken cooler was under repair, and staff were not wearing hairnets, aprons, or gloves while preparing and/or handling food. Discussions with the manager revealed that the chicken served at the party had been stored in the broken cooler. All items for the party were purchased from wholesale food suppliers and local grocery stores.

**Data analysis:** A total of 42 persons attended the birthday party, of which 29 were available for interview (69%). Twenty (20) reported eating at the party and subsequently becoming ill. The remaining 9 persons ate but did not get sick. Ninety percent (90%) of ill persons experienced diarrhea and abdominal pain, followed by weakness (85%) and nausea (75%) (Table 1). Five (5) out of the 29 ill persons went to a physician for their symptoms; however no stool samples were collected. A total of 33 food and beverage items were served at the party. Food-specific attack rates revealed that those who ate the chicken quesadilla (RR=2.11, p-value=.03), stir fry vegetables with chicken (RR=2.12, p-value=.01), and guacamole (RR=2.29, p-value=.001) were

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**HEALTH DEPARTMENT**  
[www.dadehealth.org](http://www.dadehealth.org)



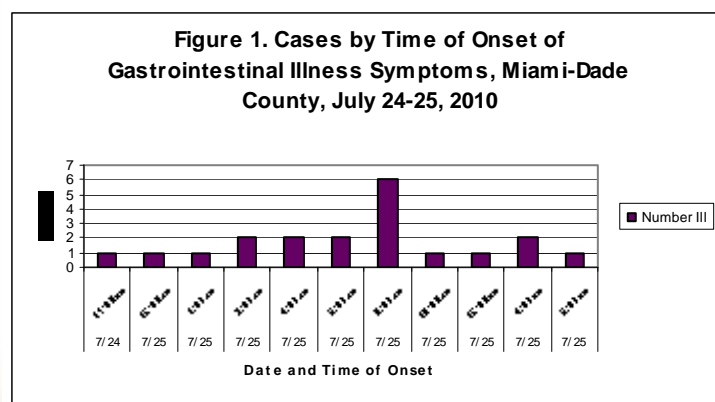
approximately twice as likely to become ill than those who ate other foods. The following tables provide a summary of gender and age effects (Table 2) and an epidemic curve of time of illness onset (Figure 1).

**Table 1. Symptoms of ill persons from party, Miami-Dade County, July 2010 (n = 20)**

Symptom	n	%
Diarrhea (defined as ? 3 loose stools in a 24 hour period)	18	90.0
Abdominal Pain	18	90.0
Weakness	17	85.0
Nausea	15	75.0
Chills	13	65.0
Headache	10	50.0
Fever	8	40.0
Dizziness	8	40.0
Vomiting	6	30.0
Cough	2	10.0
Sore throat	1	5.0
Congestion	1	5.0
Runny nose	1	5.0

**Table 2. Gender and age distribution of party attendees, July 24, 2010 (n=29)**

	Ill (n=20)		Non-ill (n=9)		Total (n=29)	
	n	%	n	%	n	%
Gender						
Male	8	40.0	3	33.3	11	37.9
Female	12	60.0	6	66.7	18	62.1
Age group						
0 - 24	4	20.0	1	11.1	5	17.2
25 - 44	3	15.0	1	11.1	4	13.8
45 - 64	11	55.0	4	44.4	15	51.7
65 - 84	1	5.0	1	11.1	2	6.9
85+	1	5.0	2	22.2	3	10.3



## Discussion

The cause of this outbreak remains unknown, as neither food nor stool specimens were obtained to identify an etiological agent. The predominant clinical syndromes of diarrhea and abdominal pain, a short incubation period (between 6-24 hours), and consumption of poultry are suggestive of the bacterial pathogen *Clostridium perfringens*; however, without collection or lab confirmation of any cultures, the results are inconclusive.

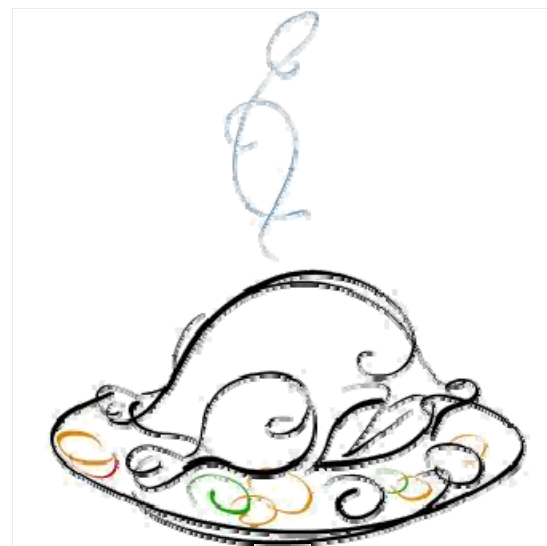
There were several limitations to this investigation, including: unavailability of the host to gather information, incomplete lists of guests and menu items, and response time of attendees to complete the risk assessment questionnaire. The host of the party was unavailable for interview, making it difficult to confirm a complete list of attendees and a correct list of food items. For example, some items mentioned in the catering contract were not served at all, while additional food items prepared by the host were served. These important details were learned after the development of the food history questionnaire and commencement of interviews, which resulted in several changes made to the questionnaire during the course of investigation. Interviews took approximately 2 weeks to complete (from July 29th – August 13th), lending a possibility to recall bias of food consumption and illness symptoms. Finally, the response rate was low, yielding a small sample size for the study.

The success of foodborne outbreak investigations relies heavily on timely reporting, including notifying the health department of a suspected outbreak, developing an accurate risk assessment tool, conducting patient interviews, and collecting food and stool specimens. A more aggressive approach is necessary to identify persons at risk, the source of exposure, and to prevent additional cases of foodborne illness.

# Prepare for **November**

## It's Turkey Time!

### Turkey Quick Basics: Safely Thaw, Stuff, and Cook



#### **Safe Thawing**

Thawing turkeys must be kept at a safe temperature. The "danger zone" is between 40 and 140°F — the temperature range where foodborne bacteria multiply rapidly. .

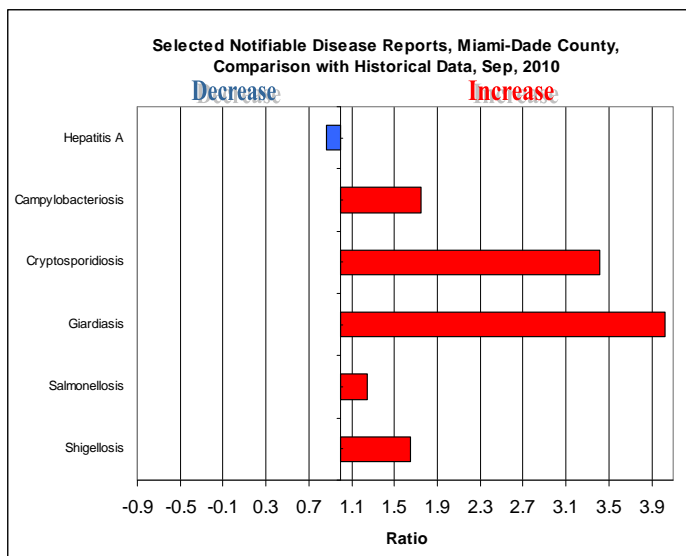
#### **Safe Stuffing**

Cook the stuffing outside the turkey in a casserole dish. However, if you place stuffing inside the turkey, do so just before cooking, and use a food thermometer. Bacteria can survive in stuffing that has not reached 165°F, possibly resulting in foodborne illness.

#### **Safe Cooking**

Set the oven temperature no lower than 325°F and be sure the turkey is completely thawed.

*For further information, please visit <http://www.cdc.gov/Features/TurkeyTime/>*



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

Childhood Lead Poisoning Prevention Program .....305-470-6877  
Hepatitis .....305-470-5536  
Immunizations or outbreaks .....305-470-5660  
HIV/AIDS Program .....305-470-6999  
STD Program .....305-325-3242  
Tuberculosis Program .....305-324-2470





**Miami-Dade County Health Department**  
**EDC-IS Influenza/Respiratory Illness**  
**Surveillance Report**

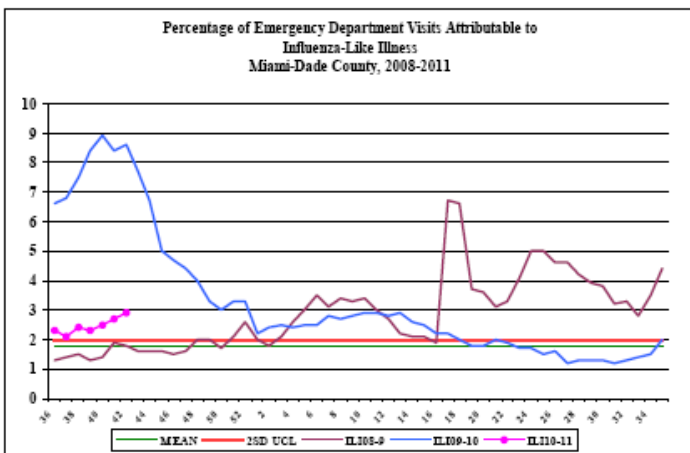


**Week 42: 10/17/2010– 10/23/2010**

Miami Dade County Health Department EDC-IS collects and analyzes weekly information on influenza activity in Miami-Dade County. On a daily basis, selected Miami-Dade County hospitals electronically transmit hospital emergency department data to the Miami-Dade County Health Department.

This data is then categorized into 10 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”. Each week, staff will determine the percentage of all emergency department visits that fall into the ILI category.

Influenza-Like-Illness, All Age



During this period, there were 8,400 ED visits; among them 269 (3.2%) were ILI. At the same week of last year, 12.9% of ED visits were ILI.

For more information, please contact  
**Erin O’Connell** at 305-470-5660.

**PARTICIPATE IN INFLUENZA**  
**SENTINEL**  
**PROVIDER SURVEILLANCE**

**The Miami-Dade County Health Department 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  
**Erin O’Connell** at 305-470-5660.

**About the Epi Monthly Report**

The Epi Monthly Report is a publication of the Miami-Dade County Health Department, 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, contact Lizbeth Londoño at 305-470-6918.



# Miami-Dade County Monthly Report

## Select reportable Disease/Conditions

### September 2010

Diseases/Conditions	2010	2010	2009	2008
	Current Month	Year to Date	Year to Date	Year to Date
<b>HIV/AIDS</b>				
AIDS*	38	546	703	861
HIV	113	869	887	1212
<b>STD</b>				
Infectious Syphilis	38	269	N/A	N/A
Chlamydia	777	6484	N/A	N/A
Gonorrhea	225	1817	N/A	N/A
<b>TB</b>				
Tuberculosis**	18	115	N/A	N/A
<b>Epidemiology, Disease Control &amp; Immunization Services</b>				
<b>Epidemiology</b>				
Campylobacteriosis	18	160	132	109
Ciguatera Poisoning	0	13	33	19
Cryptosporidiosis	10	19	18	41
Cyclosporiasis	0	1	1	5
Dengue Fever	11	38	4	5
E. coli, O157:H7	0	0	0	2
E. coli, Non-O157	0	0	0	1
Encephalitis (except WNV)	0	0	0	5
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	94	584	487	189
Influenza Novel Strain	0	20	1262	0
Influenza, Pediatric Death	0	0	2	0
Legionellosis	1	7	16	6
Leptospirosis	1	1	0	0
Listeriosis	1	14	0	4
Lyme disease	2	5	3	6
Malaria	1	19	15	9
Meningitis (except aseptic)	0	0	0	3
Meningococcal Disease	2	16	13	8
Salmonellosis	75	338	393	349
Shigellosis	20	155	132	41
Streptococcus pneumoniae, Drug Resistant	5	115	88	84
Toxoplasmosis	0	1	1	0
Typhoid Fever	0	2	3	1
Vibriosis	1	1	0	2
West Nile Fever	0	0	0	0
<b>Immunization Preventable Diseases</b>				
Measles	0	0	0	0
Mumps	0	3	0	3
Pertussis	0	25	32	19
Rubella	0	0	0	1
Tetanus	0	0	0	0
Varicella	1	65	51	44
<b>Hepatitis</b>				
Hepatitis A	4	38	40	24
Hepatitis B (Acute)	3	26	11	14
<b>Lead</b>				
Lead Poisoning	23	205	114	141

\*Data on AIDS are 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.