



MIAMI-DADE COUNTY HEALTH DEPARTMENT

# EPI MONTHLY REPORT

## Foodborne Illness Outbreak at a Hotel in Miami-Dade County, April 2010

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#### Introduction and Background

On April 20, 2010, the Miami-Dade County Health Department (MDCHD) was notified of a possible foodborne illness outbreak during a convention held from April 8th to April 10th in a local hotel. There were 110 attendees coming from different states and other countries. Upon information provided, it was found that several attendees presented gastrointestinal symptoms. The predominant reported symptoms were diarrhea, nausea, vomiting, weakness and abdominal pain.

#### Methodology

Epidemiology, Disease Control & Immunization Services (EDC-IS) at the MDCHD began an investigation on the outbreak upon notification. A joint environmental field investigation was performed by the Department of Business and Professional Regulation (DBPR) and the EDC-IS on April 23, 2010. A list of the hotel's menu during the convention was obtained. A standard questionnaire, including food and medical history was developed by the EDC-IS investigator. It contained 46 questions. The questionnaire was administered electronically by the convention's coordinator and it was anonymous. No food or stool samples were tested, since the investigation was

performed two weeks after the convention. Analysis of data was performed using Epi Info statistical software. A case was defined as any person that consumed food during the convention held in the hotel between April 8th and April 10th, 2010 and reported the onset of diarrhea and/or additional symptoms in the same period.

#### Results

Sixty one individuals out of 110 attendees completed the questionnaire. Eleven people reported becoming ill during the convention, however, nine people met the case definition for this outbreak. The most common reported symptoms were: diarrhea (100%), nausea (88.9%), weakness (77.8%), abdominal pain (66.7%), vomiting (66.7%), and chills (55.6%). The onset of symptoms ranged from 16 hours to 43 hours after suspected first meal consumption. (See Fig. 1). Hospitalization or physician care was not reported.

Results from the case-control study indicated that only 3 foods were suspected as probable cause of the outbreak and these were served during dinner on the first day of the convention; crab crusted sea bass, bread 1 and butter 1. Initially these foods were statistically significant in association with the illness; however, further analy-

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sis involving stratification by attendance or dinner on the first day of the convention showed no statistical significance as the p-values for each food were greater than 0.05. (See Table 1).

The environmental field investigation on April 23, 2010 identified several deficiencies which included possible cross-contamination between raw and ready to eat foods, hygiene standard issues, and cold hold temperature issues.

### Conclusions and Recommendations

This gastroenteric illness outbreak seemed to be associated with the first day attendance of the convention at a local hotel in Miami; however, a statistical significant association was not found. This investigation had several limitations which contributed to the final results. Recall bias due to late administration of the questionnaire and partial participation from attendees (61 out of 110) prevented to gather more cases and controls into the investigation. Additionally, the original questionnaire was altered in some questions by the convention's coordinator, avoiding collecting some important information such as, food exposure outside the hotel. On the other hand, due to late notification to the EDC-IS at the MDCHD, laboratory or food testing was not possible. Since the incubation period could range between 16 hours to 46 hours a number of different pathogens can be suspected, including norovirus.

A recommendation to prevent future foodborne illness includes timely reporting, proper food handling, emphasizing hand-washing among employees and continuous checking of proper temperature of the refrigerators.

Interval from Exposure to illness Onset

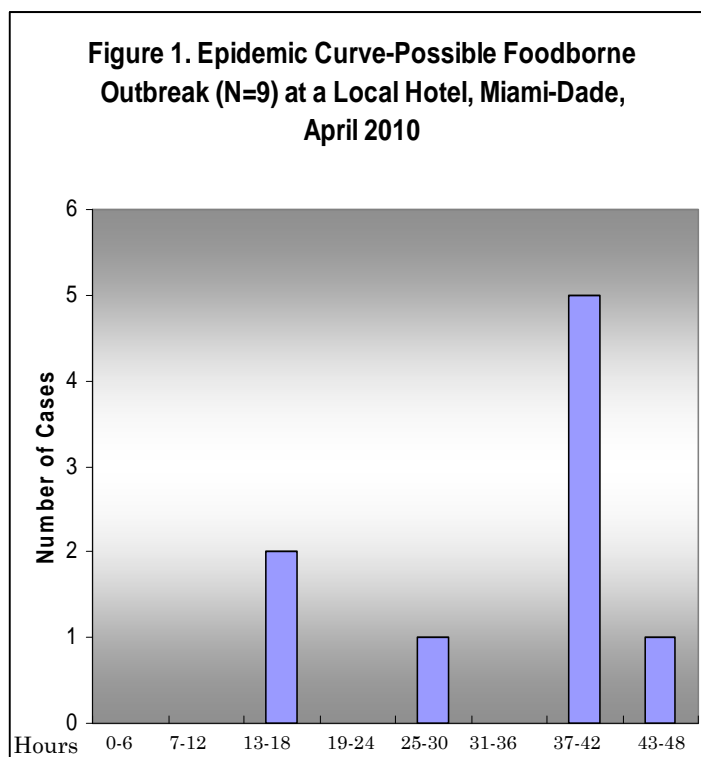


Table 1. Suspected Food Specific Odds Ratio -Food Borne Outbreak (N=61) at a local Hotel, Miami-Dade, April 2010

Food	Ate		Did not eat		Odds Ratio *
	ill (a)	well (b)	ill (c)	well (d)	
Crab crusted sea bass	6	6	5	44	8.13
Bread 1	6	10	5	40	2.86
Butter 1	4	5	7	45	2.54

\* Odds Ratios not statistically significant at  $\alpha$  level 0.05, after stratification.



## Frequently Asked Questions on “Dengue”

### Q. What is dengue?

A. Dengue is a disease caused by any one of four closely related dengue viruses (DENV 1, DENV 2, DENV 3, or DENV 4). The viruses are transmitted to humans by the bite of an infected mosquito

### Q. What is dengue hemorrhagic fever (DHF)?

A. DHF is a more severe form of dengue infection. It can be fatal if unrecognized and not properly treated in a timely manner. DHF is caused by infection with the same viruses that cause dengue fever. With good medical management, mortality due to DHF can be less than 1%.

### Q. How are dengue and dengue hemorrhagic fever (DHF) spread?

A. Dengue is transmitted to people by the bite of an Aedes mosquito that is infected with a dengue virus. The mosquito becomes infected with dengue virus when it bites a person who has dengue virus in their blood. The person can either have symptoms of dengue fever or DHF, or they may have no symptoms. After about one week, the mosquito can then transmit the virus while biting a healthy person. Dengue cannot be spread directly from person to person.

### Q. What are the symptoms of the disease?

A. The principal symptoms of dengue fever are high fever, severe headache, severe pain behind the eyes, joint pain, muscle and bone pain, rash, and mild bleeding (e.g., nose or gums bleed, easy bruising). Generally, younger children and those with their first dengue infection have a milder illness than older children and adults.

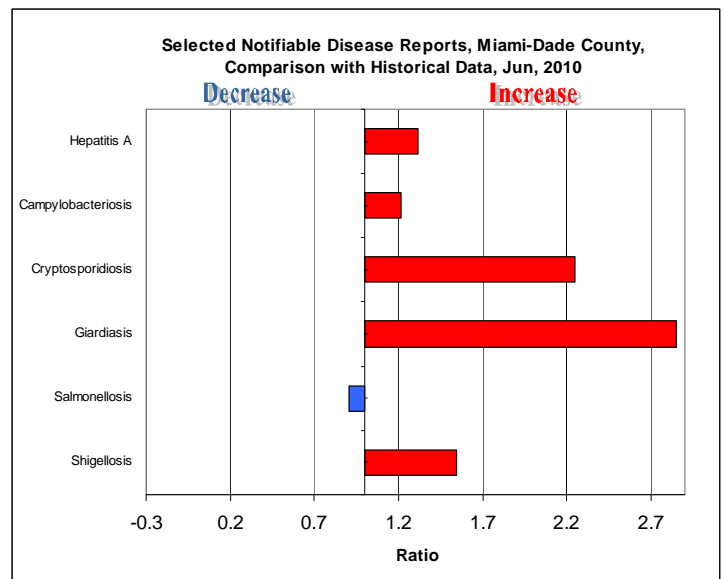
### Q. What is the treatment for dengue?

A. There is no specific medication for treatment of a dengue infection. Persons who think they have dengue should use analgesics (pain relievers) with acetaminophen and avoid those containing aspirin. They should also rest, drink plenty of fluids, and consult a physician. If they feel worse (e.g., develop vomiting and severe abdominal pain) in the first 24 hours after the fever declines, they should go immediately to the hospital for evaluation.

### Q. What can be done to reduce the risk of acquiring dengue?

A. There is no vaccine for preventing dengue. The best preventive measure for residents living in areas infested with Ae. aegypti is to eliminate the places where the mosquito lays her eggs, primarily artificial containers that hold water.

Please visit <http://www.cdc.gov/dengue/FAQFacts/index.html> for further reading on dengue.



### 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  
 Immunization Service .....305-470-5660  
 To make an appointment.....786-845-0550

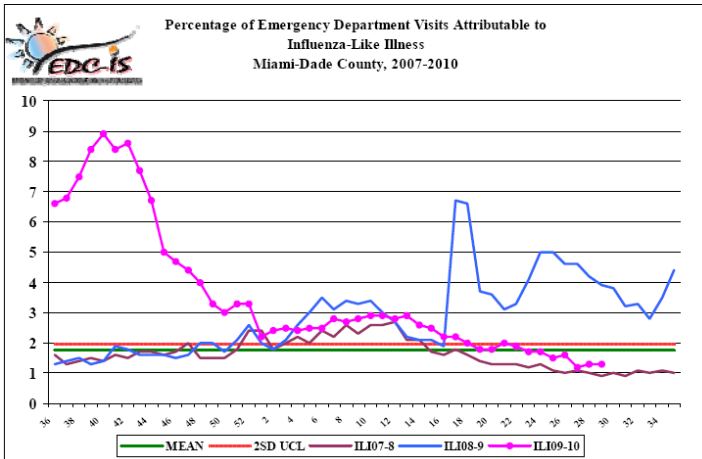
**Miami-Dade County Health Department**  
**EDC-IS Influenza/Respiratory Illness**  
**Surveillance Report**



**Week 29: 07/18/2010– 07/24/2010**

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.



During this period, there were 4,923 ED visits; among them 121 (2.5%) were ILI. At the same week of last year, 8.4% 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

### June 2010

Diseases/Conditions	2010 Current Month	2010 Year to Date	2009 Year to Date	2008 Year to Date
<b>HIV/AIDS</b>				
AIDS*	73	385	432	625
HIV	101	575	556	823
<b>STD</b>				
Infectious Syphilis	14	153	N/A	N/A
Chlamydia	707	4225	N/A	N/A
Gonorrhea	221	1171	N/A	N/A
<b>TB</b>				
Tuberculosis**	10	78	0	0
<b>Epidemiology, Disease Control &amp; Immunization Services</b>				
<b>Epidemiology</b>				
Campylobacteriosis	20	83	52	65
Ciguatera Poisoning	3	3	13	10
Cryptosporidiosis	3	6	7	7
Cyclosporiasis	0	0	0	4
Dengue Fever	3	7	3	1
E. coli, O157:H7	0	0	0	2
E. coli, Non-O157	0	0	0	1
Encephalitis (except WNV)	0	0	0	1
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	69	331	301	117
Influenza Novel Strain	0	20	429	0
Influenza, Pediatric Death	0	0	1	0
Legionellosis	1	4	7	5
Leptospirosis	0	0	0	0
Listeriosis	1	13	0	3
Lyme disease	1	2	1	2
Malaria	0	11	8	3
Meningitis (except aseptic)	0	0	0	3
Meningococcal Disease	2	12	11	6
Salmonellosis	46	156	205	190
Shigellosis	21	90	83	21
Streptococcus pneumoniae, Drug Resistant	13	99	71	65
Toxoplasmosis	0	1	0	0
Typhoid Fever	0	2	2	0
Vibriosis	0	0	0	2
West Nile Fever	0	0	0	0
<b>Immunization Preventable Diseases</b>				
Measles	0	0	0	0
Mumps	2	3	0	2
Pertussis	4	20	18	12
Rubella	0	0	0	1
Tetanus	0	0	0	0
Varicella	5	54	36	33
<b>Hepatitis</b>				
Hepatitis A	5	26	29	16
Hepatitis B (Acute)	3	17	7	7
<b>Lead</b>				
Lead Poisoning	17	134	57	73

\*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.