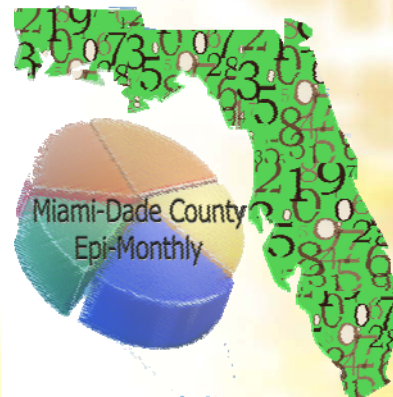


# Epi Monthly Report



## Outbreak of Gastrointestinal Illness Investigation at a Wedding in a Miami-Dade Hotel, December 2008

Riddhi A. Modi, Juan A. Suarez

### Background

On January 9th, 2009, Epidemiology, Disease Control and Immunization Services (EDC-IS) at the Miami-Dade County Health Department (MDCHD) received a report from the Department of Business and Professional Regulation (DBPR) regarding a potential outbreak on December 14, 2008. The outbreak took place at a wedding reception at a hotel in Miami-Dade County. Once rumors circulated that wedding guests were ill, one of the guests contacted DBPR. The wedding included over 140 local residents and invited guests from other states. The initial report stated that 40 of the guests became ill with gastroenteritis symptoms, which included vomiting, nausea, diarrhea and low fever within a span of 12 to 72 hours. Therefore, an EDC-IS surveillance team took initiative to perform an epidemiologic investigation upon notification of this reported outbreak.

### Methods

#### Environmental investigation

On January 12, 2009, an environmental inspection was performed at the hotel by both the EDC-IS surveillance team and the DBPR to review potential violations.

#### Epidemiologic investigation

The wedding host provided contact information for 30 of the 40 ill attendees. A questionnaire was developed by the EDC-IS investigators using the hotel's wedding menu. The questionnaire consisted of 72 questions which included demographic, risk exposure and illness information. The exposure section of the questionnaire identified specific foods consumed at the facility by the wedding guests. Investigators obtained interviews with 16 of the 30 ill attendees. While interviewing the 30 ill attendees, investigators were able to elicit information about 4 other wedding attendees that experienced no symptoms. However, since those 4 controls are insufficient for data comparison to the cases, only information obtained from the 16 ill attendees was used to carry out the analysis. Epi Info software was used for data analysis.

#### Laboratory investigation

No stool samples or food samples were tested since the investigation took place three weeks from the event date of December 14, 2008.

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





## Results

### Environmental investigation

The hotel inspection visit on January 12, 2009 cited a number of critical violations, including a malfunctioning dishwasher that did not reach the proper temperature to properly clean dishes and utensils. It was also discovered that hotel kitchen employees handled ready to eat foods with bare hands. This practice can contaminate foods through the improper hand sanitation. Survival of pathogens is possible if dish washing equipment does not operate properly.

### Epidemiologic investigation

After analyzing the questionnaires, it became apparent that the most common symptoms experienced by the ill cases were nausea (93.8%) and vomiting (81.3%), as shown in Table 1. The incubation period of this illness was between 12 to 72 hours and the duration of symptoms ranged from 24 to 72 hours.

Of the 16 ill attendees, 9 (56.3%) were females and 7 (43.7%) were males. The age range was between 20 to 69 years with a median of 60. The majority of the interviewed ill attendees consumed a wide variety of foods, wherein certain foods were at a higher percentage of consumption than others.

### Laboratory investigation

There were no laboratory results because no samples were obtained.

## Conclusions and Recommendations

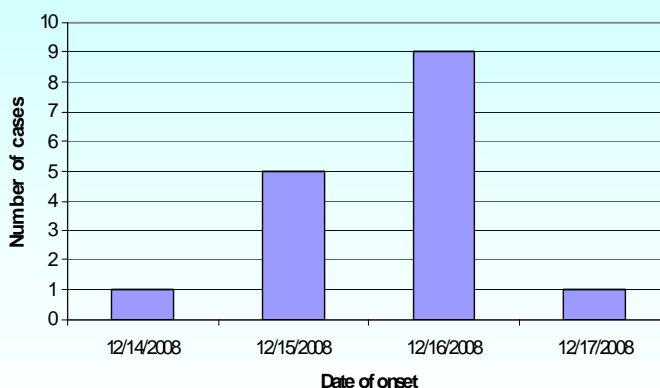
A gastroenteric illness outbreak occurred on December 14, 2008 at a wedding that took place at a hotel in Miami-Dade County. DBPR and EDC-IS investigated this outbreak to possibly identify the disease causing agent. This investigation had a number of limitations which prevented MDCHD from finding an association with a particular food or identifying a pathogen. Recall bias due to late reporting from the host of the wedding of the outbreak to DBPR and a low percentage of response from the attendees (20 of 140, 14.3%) both prevented the investigation to gather more cases and controls. In addition, the inability to obtain stool and food

samples prohibited investigators from identifying the specific pathogen. Due to the symptoms and incubation period occurring within 72 hours, a number of different pathogens, including Norovirus, can be suspected. Since there were critical violations observed at the hotel kitchen, the hotel could be a possible mode of transmission of pathogens that caused illness among the wedding attendees. MDCHD made recommendations to both the hotel and to the wedding attendees to prevent further spread of disease.

Table 1. Symptoms reported by ill cases at a wedding, December 2008, Miami-Dade County (n = 16)

Symptoms	Number (n)	Percent (%)
Nausea	15	93.8
Vomiting	13	81.3
Diarrhea	12	75.0
Weakness	12	75.0
Abdominal pain	11	68.8
Chills	6	37.5
Fever	6	37.5
Headache	6	37.5
Dizziness	4	25.0

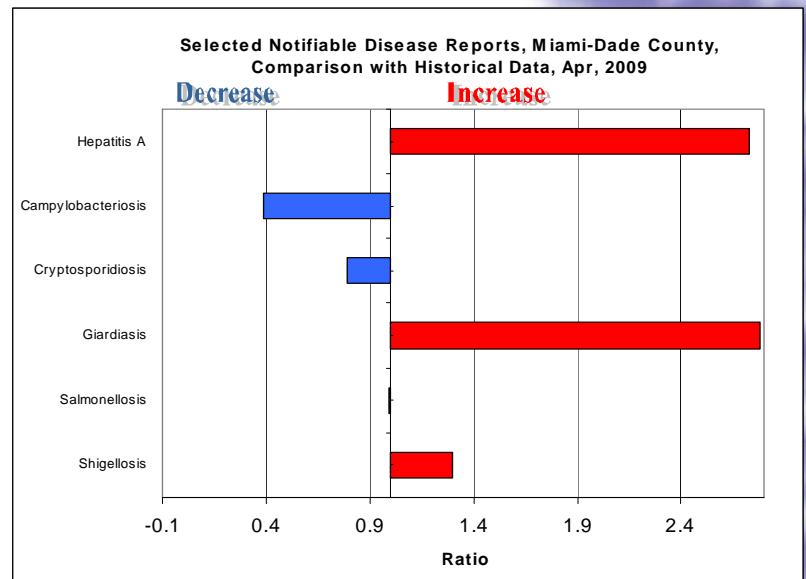
Epi Curve for Outbreak of Gastrointestinal Illness at a Wedding in a Miami-Dade County Hotel, December 2008





# 2009 May is...

Asthma and Allergy Awareness Month  
 American Stroke Month  
 Better Hearing and Speech Month  
 Better Sleep Month  
 Healthy Vision Month  
 Clean Air Month  
**Hepatitis Awareness Month**  
 Lupus Awareness Month  
 Melanoma/Skin Cancer Detection and Prevention Month  
 Lyme Disease Awareness Month  
 National Amyotrophic Lateral Sclerosis Awareness Month  
 Mental Health Month  
 National Arthritis Awareness Month  
 National Bike Month  
 National Cancer Research Month  
 National Celiac Disease Awareness Month  
 National Neurofibromatosis Month  
 National High Blood Pressure Education Month  
 National Osteoporosis Awareness and Prevention Month  
 National Physical Fitness and Sports Month  
 National Toxic Encephalopathy and Chemical Injury Awareness Month  
 National Teen Pregnancy Prevention Month  
 Older Americans Month



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

## Hepatitis Awareness Month

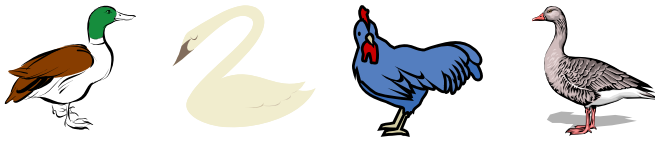
Hepatitis means "inflammation of the liver", and the most common cause is infection with one of 5 viruses, called hepatitis A,B,C,D, and E. The Hepatitis Foundation International (HFI) is dedicated to the eradication of viral hepatitis, a disease affecting over 500 million people around the world. HFI provides education, training programs, and materials for the public, patients, health educators, and medical professionals.

For more information, please visit [www.hepatitisfoundation.org](http://www.hepatitisfoundation.org)

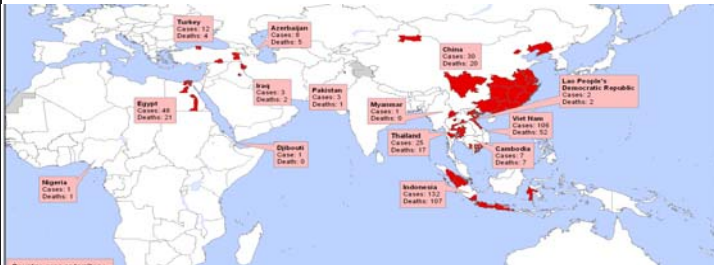


## AVIAN FLU WATCH

Unless indicated, information is current as of  
May 2009



- Since 2003, there have been 429 human cases of avian influenza (H5N1) confirmed by the World Health Organization (WHO). Of these, 262 cases have died. This means there is a 61% (262/429) fatality rate.
- **15 Countries with confirmed human cases** include Bangladesh, Cambodia, China, Djibouti, Indonesia, Thailand, Vietnam, Iraq, Azerbaijan, Egypt, Turkey, Nigeria, Pakistan, Myanmar, and Lao People's Democratic Republic.
- **No human cases of avian influenza (H5N1) have**



been reported in the United States.

- **H5N1 has been confirmed in birds in several other countries since 2003.** H5N1 has been documented in birds in more than 30 countries in Europe & Eurasia, South Asia, Africa, East Asia and the Pacific, and the Near East. For a list of these countries, visit the World Organization for Animal Health Web Site at: [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm).
  - **No restrictions on travel to affected countries have been imposed.** Travelers should avoid contact with live poultry and monitor their health for ten days after returning from an affected country.
- SOURCES: WHO, OIE, CDC

## 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.



# Monthly Report

## Selected Reportable Diseases/Conditions in Miami-Dade County,

### April 2009

Diseases/Conditions	2009	2009	2008	2007	2006	2005
	this Month	Year to Date	Year to Date	Year to Date	Year to Date	Year to Date
AIDS <sup>*Provisional</sup>	85	252	411	291	426	487
Campylobacteriosis	5	30	44	32	37	30
Ciguatera Poisoning	0	3	5	0	0	0
Cryptosporidiosis	1	6	7	9	5	11
Cyclosporiasis	0	0	4	0	0	0
Dengue Fever	1	3	1	1	0	0
<i>E. coli</i> , O157:H7	0	0	2	1	0	0
<i>E. coli</i> , Non-O157	0	0	10	0	0	0
Encephalitis (except WNV)	0	0	1	0	0	0
Encephalitis, West Nile Virus	0	0	0	0	0	0
Giardiasis, Acute	63	213	67	60	61	49
Hepatitis A	8	22	12	11	12	18
Hepatitis B	2	4	3	5	8	17
HIV <sup>*Provisional</sup>	94	317	552	452	380	151
Influenza A (H5)	0	0	0	0	0	0
Influenza Isolates	0	0	0	0	0	0
Influenza Novel Strain	0	0	0	0	0	0
Influenza, Pediatric Death	0	0	0	0	0	0
Lead Poisoning	13	45	48	47	40	36
Legionnaire's Disease	1	4	3	1	0	1
Leptospirosis	0	0	0	0	0	0
Lyme disease	0	0	0	0	0	0
Malaria	1	6	1	0	4	0
Measles	0	0	0	0	0	0
Meningitis (except aseptic)	0	0	3	5	5	3
Meningococcal Disease	2	10	3	3	7	3
Mumps	0	0	1	1	0	0
Pertussis	1	11	7	11	3	1
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	40	117	98	101	112	101
Shigellosis	18	54	15	39	31	88
<i>Streptococcus pneumoniae</i> , Drug Resistant	8	46	42	33	40	3
Tetanus	0	0	0	0	0	0
Toxoplasmosis	0	0	0	1	0	0
Tuberculosis <sup>*Provisional</sup>	N/A	N/A	56	50	75	58
Typhoid Fever	1	1	0	0	2	2
<i>Vibrio cholera</i> Type O1	0	0	0	0	0	0
<i>Vibrio cholera</i> Non-O1	0	0	0	0	0	0
<i>Vibrio</i> , Other	0	0	0	0	0	0
West Nile Fever	0	0	0	0	0	0



\*Data on AIDS are provisional at the county level and are subject to edit checks by state and federal agencies.

\*\* Data on tuberculosis are provisional at the county level.