

Epi Monthly Report

Foodborne Illness Report, Miami-Dade County

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Introduction

On July 5, 2006, the Infection Control Practitioner (ICP) of Hospital A informed the Miami-Dade County Health Department (MDCHD) Office of Epidemiology and Disease Control (OEDC) of 2 patients that were admitted on July 4th due to gastrointestinal symptoms that included abdominal pain, nausea, vomiting and diarrhea. Both patients were among a group of visitors who had been in Miami since June 30th. The ICP stated that 9 other group members had been ill with gastrointestinal symptoms and visited another hospital's Emergency Department. All eleven patients ate together at a luncheon on July 4th and became ill within the next 14 hours. Upon receipt of the initial hospital reports, the OEDC immediately began an investigation.

Methods

Environmental Investigation

On July 5, The Department of Business and Professional Regulation Division of Hotels and Restaurants (DBPR) conducted an environmental investigation at the restaurant where the 11 patients had eaten the previous day. DBPR evaluated restaurant compliance with a 57-item checklist, visually observed the kitchen area and interviewed the restaurant manager and kitchen staff.

Epidemiologic and Laboratory Investigation

The OEDC initiated a case-control study to determine the cause of the out-

break. A case was defined as an attendee of the July 4 luncheon who presented with two or more of the following symptoms: nausea, vomiting, diarrhea, abdominal pain, fever, headache, weakness or dizziness. Case finding was initiated using a list of luncheon attendees provided by the group. Controls were non-ill persons who attended the luncheon. The OEDC obtained a menu from the restaurant to develop a Food and Illness History Questionnaire. The questionnaire included a 72-hour food and beverage history. It also elicited demographic information, recent travel history, recent activities and clinical symptoms. Epi Info 3.3.2 was used for data analysis. Blood and urine samples were taken for all patients admitted to the hospital; however no stool samples were taken.

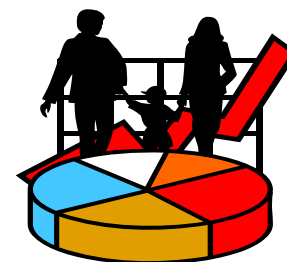
Results

Environmental Investigation

The Food Service Inspection Report identified non-compliance with 15 of 57 food service regulations. Of the 15 violations, 11 were marked as critical violations.

Below are 7 of the 15 food-related violations:

1. Ready-to-eat potentially hazardous food was prepared on site and held more than 24 hours without a properly marked date.
2. No conspicuously located thermometer was found in the food holding unit.
3. Utensils were stored for cleaning in



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water less than 135 degrees Fahrenheit.

4. Potentially hazardous food was stored at greater than 41 degrees Fahrenheit.
5. Thermotape failed to indicate that the sanitization temperature of 160 degrees Fahrenheit was achieved on the dish surface.
6. No consumer advisory notice on raw/undercooked animal products was found.
7. Live flies were observed in the kitchen.

The restaurant did not receive any additional complaints from other customers. Employees were interviewed and none reported illness within the past 10 days. All food employees and managers were appropriately trained and certified. The restaurant received a warning from DBPR for the violations and was notified to make all corrections within 30 days.

Epidemiologic and Laboratory Investigation

There were a total of 56 attendees at the luncheon on 12:00 PM July 4, 2006. Forty of the 56 (71.4%) attendees were visiting Miami as a group. They had participated in all of the same activities and had eaten meals together since arrival in Miami on either June 30th or July 1st. Sixteen of the 56 attendees (28.6%) met the case definition; 40 reported no illness. All 16 cases were interviewed. Twenty-two of 40 non-ill attendees (55.0%) were interviewed.

Of the sixteen ill, two ate no other meals with the group except for the lunch. Eleven of the 16 (68.8%) ill were admitted to the emergency departments of two hospitals. The epidemic curve for the outbreak (Figure 1) demonstrates that cases became ill within an 1 1/2 hour period, which was between 2 and 13 1/2 hours after the luncheon. The median incubation period was 6 hours. The most common symptom was nausea (Table 1). Patients experienced symptoms up to 72 hours after the onset of illness.

Figure 1. Foodborne Illness Report, Epidemic curve by time of illness onset

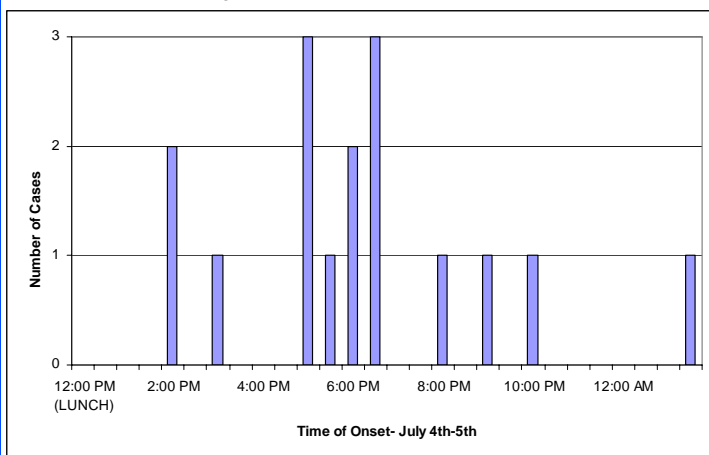


Table 1. Foodborne Illness Report, Symptoms experienced by ill patients (n=16)

Symptoms	Number	Percent
Nausea	13	81
Chills	12	75
Abdominal Pain	12	75
Headache	12	75
Weakness	12	75
Dizziness	12	75
Vomiting	11	69
Diarrhea	9	56
Fever	6	38

Statistical analyses did not implicate any specific food item as the source of the outbreak. Blood and urine samples identified no specific pathogen.

Discussion

No clear source for this outbreak was identified. Given that no stool specimens or food samples were obtained, OEDC investigators were unable to identify a specific pathogen associated with the outbreak. The luncheon at the restaurant still may be the source of the outbreak. All cases became ill within 13 hours of the meal. Additionally, two of the 16 cases did not participate in any other meals or activities with the other group members. Given the short incubation period, it is most likely that the source of the outbreak was a bacterial toxin.

OEDC issued the following recommendations to the restaurant:

1. Correct all violations, including critical violations, as indicated on the Food Service Inspection Report, within 30 days.
2. Ensure that all kitchen staff is informed of the outbreak.
3. Require all staff to review safety measures to ensure proper handling, preparing and storage of food.
4. Monitor kitchen staff for symptoms of possible illness.

The following recommendations were suggested to those who attended the luncheon:

1. If there are signs of illness, immediately go to the hospital.
2. Report any additional information or symptoms to MDCHD.
3. Wash hands frequently, especially after using the restroom.



4. Use proper sanitation practices while cooking as to not infect others.

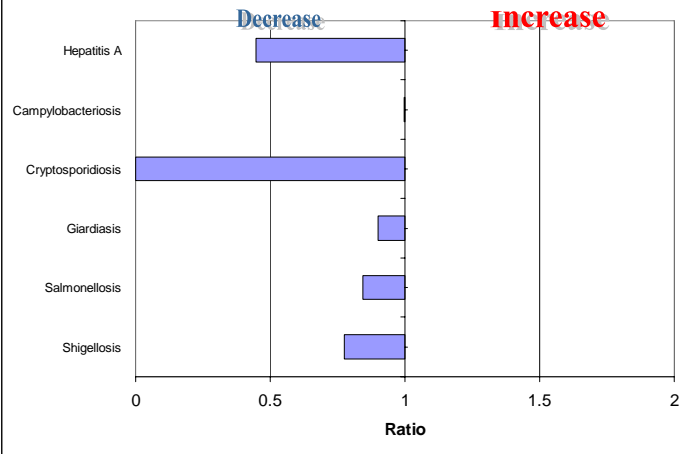
During a follow-up visit conducted by DBPR with the restaurant staff, all of the recommendations had been met, including the correction of violations. A follow-up with the Director of the group who attended the luncheon confirmed all recommendations were met.

TO REPORT ANY DISEASE AND FOR INFORMATION CALL:

Office of Epidemiology and Disease Control

Childhood Lead Poisoning Prevention Program	(305) 470-6877
Hepatitis	(305) 470-5536
Other diseases and outbreaks	(305) 470-5660
HIV/AIDS Program	(305) 470-6999
STD Program	(305) 325-3242
Tuberculosis Program	(305) 324-2470
Special Immunization Program	(786) 845-0550

Selected Notifiable Disease Reports, Miami-Dade County, Comparison with Historical Data, July, 2006



AVIAN FLU WATCH

Unless indicated, information is current as of August 17, 2006

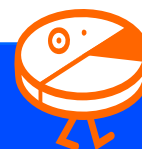


- **Since 2003, 239 human cases of avian influenza (H5N1) have been confirmed** by the World Health Organization (WHO). Of these, 140 have been fatal.
- **Countries with confirmed human cases** include Cambodia, China, Djibouti, Indonesia, Thailand, Vietnam, Iraq, Azerbaijan, Egypt and Turkey.
- **No human cases of avian influenza (H5N1) have been reported in the United States.**
- **The most recently confirmed human H5N1 case occurred in Thailand.** The patient, a 17-year-old man. On July 10, the young man had buried carcasses of dead chickens. He developed symptoms on July 15, was hospitalized on July 20, and died on July 24. This is the first human case of H5N1 reported in Thailand in 2006.
- **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 Organisation for Animal Health Web Site at http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm (Updated 08/17/06).
- Routine surveillance has indicated the presence of H5 and N1 avian influenza subtypes in samples from two wild mute swans in Michigan, but testing has ruled out the possibility of this being the highly pathogenic H5N1 strain that has spread through birds in Asia, Europe and Africa. Test results thus far indicate this is low pathogenicity avian influenza, which poses no threat to human health.
- **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: World Health Organization; World Organisation for Animal Health; Centers for Disease Control and Prevention

About the Epi Monthly Report

The Epi Monthly Report is a publication of the Miami-Dade County Health Department, Office of Epidemiology and Disease Control. 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 Diana Rodriguez, Managing Editor, or Rodlescia Sneed at 305-470-5660.



Monthly Report

Selected Reportable Diseases/Conditions in Miami-Dade County, July 2006

Diseases/Conditions	2006 this Month	2006 Year to Date	2005 Year to Date	2004 Year to Date	2003 Year to Date	2002 Year to Date
AIDS ^{Provisional}	106	729	840	845	603	654
Animal Rabies	0	0	0	0	0	0
Campylobacteriosis	16	96	83	87	78	59
<i>Chlamydia trachomatis</i>	347	2648	2240	2231	2597	2732
Ciguatera Poisoning	0	0	0	0	0	0
Cryptosporidiosis	0	8	15	11	7	3
Cyclosporiasis	0	0	11	1	1	1
Dengue Fever	0	1	0	3	0	2
Diphtheria	0	0	0	0	0	0
<i>E. coli</i> , O157:H7	0	0	0	2	0	0
<i>E. coli</i> , Non-O157	0	0	1	0	0	1
<i>E. coli</i> , Other	1	1	0	0	0	0
Encephalitis (except WNV)	0	0	0	0	0	0
Encephalitis, West Nile Virus	0	0	0	3	0	0
West Nile Fever	0	0	0	2	0	0
Giardiasis, Acute	22	119	114	174	97	122
Gonorrhea	165	1029	942	799	1113	1217
Hepatitis A	5	25	33	20	25	83
Hepatitis B	1	15	30	24	35	11
HIV ^{Provisional}	104	681	881	1044	946	1167
Lead Poisoning	6	81	105	177	141	155
Legionnaire's Disease	3	7	2	6	4	1
Leptospirosis	0	0	2	0	0	0
Lyme disease	0	0	0	2	2	1
Malaria	2	7	4	10	5	8
Measles	0	0	0	1	0	0
Meningitis (except aseptic)	1	11	9	8	2	4
Meningococcal Disease	0	8	5	12	3	11
Mumps	0	0	0	0	0	0
Pertussis	0	5	8	7	4	4
Polio	0	0	0	0	0	0
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	44	284	255	225	254	153
Shigellosis	17	67	167	109	187	126
<i>Streptococcus pneumoniae</i> , Drug Resistant	12	71	43	20	71	81
Syphilis, Infectious	15	126	94	98	99	120
Syphilis, Other	65	372	347	450	633	621
Tetanus	0	0	0	0	0	0
Toxoplasmosis	0	0	7	4	5	14
Tuberculosis ^{Provisional}	10	115	104	133	128	130
Typhoid Fever	0	2	2	2	2	2
<i>Vibrio cholera</i> Type O1	0	0	0	1	0	0
<i>Vibrio cholera</i> Non-O1	0	0	0	0	0	1
<i>Vibrio</i> , Other	0	0	0	0	1	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.

