

EPI MONTHLY REPORT



Marine Toxin Poisoning Surveillance in Miami-Dade County, 2008-2010

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Background

South Florida has some of the best back-water and commercial fishing in the state where frequent visitors and residents can experience diverse marine activities. Popular seasonal fish include blue marlin, barracuda, grouper and snapper. Unfortunately, some of these fish are likely to contain potent toxins that can cause food poisoning in consumers who are unaware of potential health hazards. The three types of marine toxin food poisoning that are mandated reportable diseases to the Florida Department of Health include: ciguatera, neurotoxic shellfish and saxitoxin (paralytic shellfish) poisoning. On April 10, 2010 there was a massive oil spill in the Gulf of Mexico that caused marine contamination. Although there have not been many confirmed observations of oil in local waters, it prompted our staff to research seafood poisonings in Miami-Dade County. This study aims to establish a baseline of recent marine toxin exposures in order to better prepare the public health system for health threats due to an oil spill or other future natural or man-made disasters.

Methods

Since 2005, the Miami-Dade County Health Department (MDCHD) has used the Electronic Surveillance System for the Early Notification of Community Based

Epidemics (ESSENCE) to detect reportable diseases or potential outbreaks using chief complaint data from the county's largest emergency department (ED) hospitals. In 2009, data collected from the Florida Poison Information Center Network (FPICN) merged with ESSENCE, providing MDCHD staff access to data from 3 poison control hotlines centers (Miami, Jacksonville and Tampa) in the State of Florida. FPICN has played an important role in assessing, triaging, and monitoring known or suspected poisonings across the state of Florida. Thus, using FPICN data can provide comprehensive information regarding marine toxin poisonings in Miami Dade County. FPICN data from January 1, 2008 to June 30, 2010 was analyzed for the State of Florida (excluding Miami-Dade County) and it was compared to Miami-Dade County. Socio-demographic variables included age and sex; exposure variables included event type, exposure site, caller site, exposure month and event description; and clinical variables included syndrome, duration of illness, treatment location and outcome severity. The following 28 terms were queried: fish, ciguatera, neurotoxic, shellfish, saxitoxin, bass, grouper, barracuda, snapper, mackerel, scallops, oyster, crabmussels, clam, tuna, squid, mercury, algae, seaweed, tide, scombroid, coelenterate, marine, tetrodotoxin, pfisteria,

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domoic, seafood. Retrieved terms that were unrelated to fish poisoning were excluded. Data was compared to lab confirmed cases in Merlin, the Florida electronic communicable disease reporting database.

Results

Throughout the three years, there were 294, 289, and 110 calls statewide. Each year, Miami-Dade represented 14%, 20% and 19% of calls, respectively.

Trends by age group demonstrated that the highest percentage of calls was from adults aged 20-54 and the lowest percentage was for children 0-4 and seniors 75 years and above. Males were responsible for an average of 72% of the calls. Calls to the Miami-Dade County branch were primarily for food poisoning while the rest of the state mostly had calls for bites and stings. Catfish was the most common event description for the state, representing between 28-42% of the calls.

However, Miami-Dade differed in that during 2008 and 2009, ciguatera was reported in 37-46% of the calls. Another difference was that in the state, 5-11% of calls were for red tide, yet in Miami-Dade, in 2009 and 2010, no calls were made for red tide. Half of all exposures and calls occurred in a residence.

Compared to the state (8%), Miami-Dade (22%) residents had a higher average percentage of calls made from a health care facility. From 2008-2009, the majority of calls were between the months of June through September. In 2008, Miami-Dade calls occurred sporadically throughout the year. Of the three call centers, the Miami center had the highest percentage of calls. The primary syndromes for all calls were dermatological and gastrointestinal. The majority were classified as minor or no effect. However, data from 2009 in Miami-Dade indicated that over 75% had either a moderate or major effect. Another major difference was that most calls from the state were managed on site while the majority of Miami-Dade callers were directed to a healthcare facility.

Conclusions

During the two and a half year study period, there were over 548,000 calls to the three call centers of the Florida Poison Information Center Network. Although marine toxin-related poisonings were responsible for <1% of calls (693), 109 were specifically for ciguatera or paralytic shellfish poisoning, both of which are reportable diseases. This is compared to the 110 lab confirmed cases of these three diseases in the State. Limitations of the study are that this data is not comprehensive in that some people with fish poisoning may not call a poison center. Additionally, not all terms that may be related to fish poisoning were queried. Results that prompt further research include why Miami-Dade callers were more likely to be sent a healthcare facility when compared to the other two call centers. This data can then be compared to data over the next few years to determine potential effects from the oil spill. Further education should be provided to the public regarding food safety to reduce marine toxin poisonings.

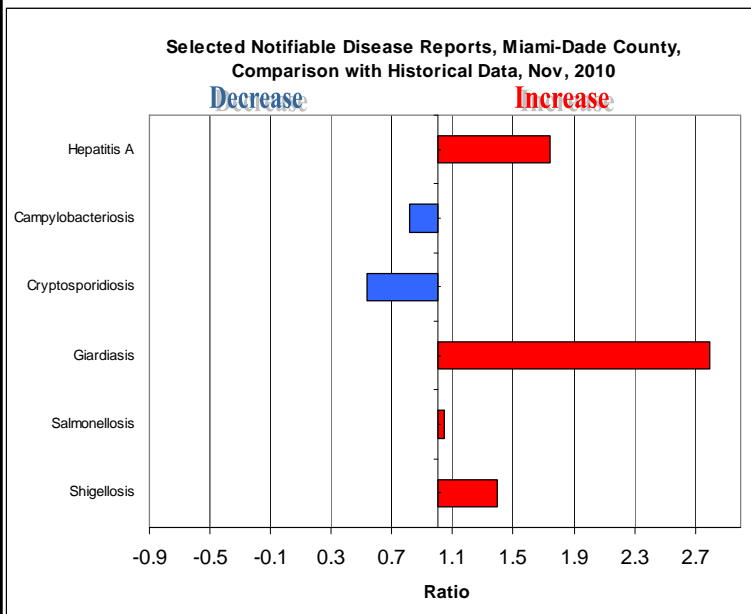


Happy New Year!

TRAVEL HEALTH TIPS:

CDC Travelers' Health offers information to assist travelers and their health-care providers in deciding the vaccines, medications, and other measures necessary to prevent illness and injury during international travel.

<http://wwwnc.cdc.gov/travel/>



**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



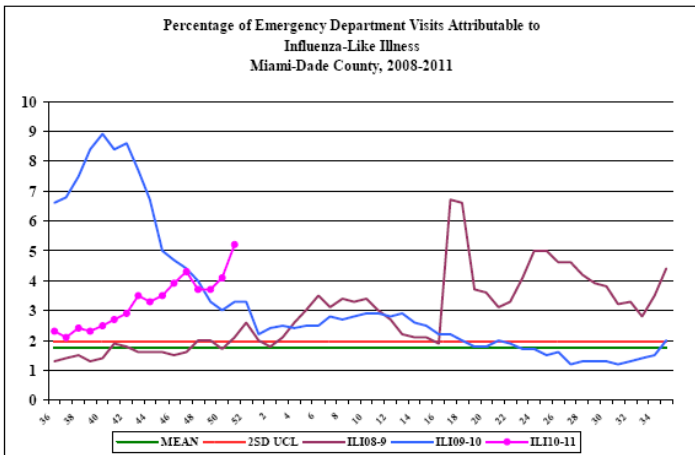
Miami-Dade County Health Department
EDC-IS Influenza/Respiratory Illness
Surveillance Report



Week 51: 12/19/2010– 12/25/2010

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 20,417 ED visits; among them 1,066 (5.2%) were ILI. At the same week of last year, 3.3% 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 November 2010

Diseases/Conditions	2010 Current Month	2010 Year to Date	2009 Year to Date	2008 Year to Date
HIV/AIDS				
AIDS*	52	667	802	994
HIV	136	1114	1080	1408
STD				
Infectious Syphilis	23	318	N/A	N/A
Chlamydia	722	7960	N/A	N/A
Gonorrhea	221	2268	N/A	N/A
TB				
Tuberculosis**	15	139	N/A	N/A
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	7	175	154	134
Ciguatera Poisoning	0	13	34	19
Cryptosporidiosis	1	21	24	55
Cyclosporiasis	0	0	0	0
Dengue Fever	7	1	1	5
E. coli, O157:H7	0	0	0	2
E. coli, Non-O157	0	0	0	1
Encephalitis (except WNV)	0	1	0	5
Encephalitis, West Nile Virus	0	0	1	0
Giardiasis, Acute	63	724	601	257
Influenza Novel Strain	0	20	1378	0
Influenza, Pediatric Death	0	0	2	0
Legionellosis	1	11	18	6
Leptospirosis	0	1	0	0
Listeriosis	0	14	0	4
Lyme disease	0	5	6	8
Malaria	6	27	17	13
Meningitis (except aseptic)	0	0	0	3
Meningococcal Disease	2	19	15	8
Salmonellosis	49	458	511	478
Shigellosis	15	191	159	61
Streptococcus pneumoniae, Drug Resistant	5	125	106	102
Toxoplasmosis	0	1	1	1
Typhoid Fever	1	4	3	1
Vibriosis	1	3	0	2
West Nile Fever	0	0	0	0
Immunization Preventable Diseases				
Measles	0	0	0	0
Mumps	1	4	1	6
Pertussis	2	29	35	26
Rubella	0	0	0	1
Tetanus	0	0	0	0
Varicella	4	72	58	60
Hepatitis				
Hepatitis A	5	47	44	29
Hepatitis B (Acute)	2	28	12	14
Lead				
Lead Poisoning	13	239	138	162

*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.