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EDC-IS
Epidemiology, Disease Control & Immunization Services
MDCHD

MIAMI-DADE COUNTY HEALTH DEPARTMENT
EPI MONTHLY REPORT

Shigellosis Trends, Miami-Dade, 2008-2010

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Inside this issue:

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The Miami-Dade County Health Department (MDCHD), Epidemiology, Disease Control and Immunization Services (EDC-IS) is monitoring a gradual increase in reported shigellosis cases that began in 2008. This increasing trend is similar to shigellosis trends throughout the State of Florida. This report presents a descriptive analysis of the reported cases from 2008 to 2010.

Introduction

Shigellosis is an infectious disease caused by a group of bacteria called Shigella. Common symptoms include diarrhea (often bloody), fever, and stomach cramps. Incubation is one to two days after exposure to the bacteria and symptoms resolve within 5 to 7 days. Some persons can shed the bacteria even if they are asymptomatic.

Most Shigella infections are a result of the bacterium passing from stools or soiled fingers of one person to the mouth of another person. The bacteria are usually spread by direct person-to-person contact and the consumption of contaminated foods. Shigella can be present in the stool of the infected person while they are ill and up to one or two weeks afterwards. It only takes 10 to 200 bacteria to cause infection which makes shigellosis highly contagious. High risk groups are toddlers who are not fully toilet-trained and family members and playmates of these children. Shigella can also be transmitted by flies and sexual contact.

Treatment and Prevention

Shigellosis is self-limiting in most healthy children and adults. Antibiotics are not necessary for treatment of uncomplicated cases of shigellosis. Antibiotics can shorten the duration of symptoms, lessen the risk of complications, and decrease the duration of shedding bacteria. Shigella bacteria have become resistant to certain antibiotics, therefore antibiotics are usually used to treat only the most severe and sensitive cases.

There is no current vaccine to prevent shigellosis. The most effective method for prevention is frequent and careful handwashing, especially after going to the bathroom, after changing diapers, and before preparing foods or beverages. Additional measures include:

- Dispose soiled diapers properly.
- Disinfect diaper changing areas after using them.
- Keep children with diarrhea out of child care settings.
- Supervise handwashing of toddlers and small children after they use the toilet.
- Do not prepare food for others while ill with diarrhea.
- Avoid swallowing water from ponds, lakes, or untreated pools.

Surveillance

The rate of reported shigellosis cases from 2008-2010 is shown in Figure 1. The incidence for shigellosis in Miami-Dade County has been higher than the incidence in Florida for the past two years. In Miami-Dade County, there was an increase in the number of reported cases per year from 75 cases in 2008 to 206 cases in 2010. More than 60% of the cases were among children ages 0-17. The age

distribution and other demographics of shigellosis cases in Miami-Dade County can be seen in Table 1. From 2008-2010, children ages 1-4 had the highest increase in shigellosis incidence (0.484 to 3.586 cases per 100,000). Children ages 1-9 accounted for 66.5% of all shigellosis cases in Miami-Dade County in 2010.

Although the number of cases among daycare attendance and staff (Figure 2) increased since 2008, the number of daycare outbreaks reported to the health department for 2010 was fewer as compared to 2009 (zero in 2008, 11 in 2009, and 4 in 2010). There were no geographical distribution patterns of shigellosis cases in Miami-Dade County during that time period.

The incidence of shigellosis cases was higher in warmer months which corresponded to expected seasonal trends.

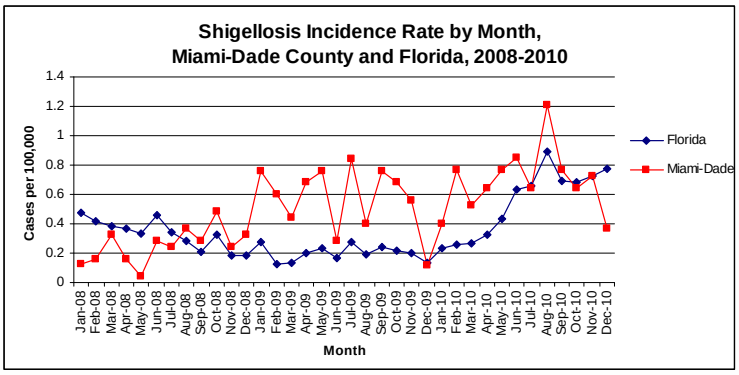

Figure 1. Shigellosis Incidence Rate by Month, Miami-Dade County and Florida, 2008-2010

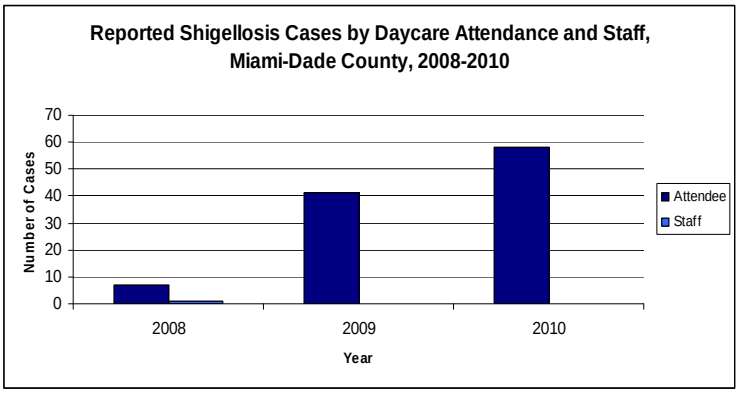

Figure 2. Reported Shigellosis Cases by Daycare Attendance and Staff, Miami-Dade County, 2008-2010

Table 1. Reported Shigellosis Cases and Incidence Rates (per 100,000) by Demographics, Miami-Dade, 2008-2010

Characteristics	2008 (n=75)		2009 (n=172)		2010 (n=206)	
	Cases	Rate	Cases	Rate	Cases	Rate
Age						
<1	3	0.121	3	0.121	7	0.282
1-4	12	0.484	60	2.403	89	3.586
5-9	26	1.049	44	1.762	48	1.934
10-14	4	0.161	18	0.721	14	0.564
15-19	3	0.121	2	0.080	6	0.242
20-29	10	0.403	13	0.521	16	0.645
30-39	11	0.444	12	0.481	13	0.524
40-49	4	0.161	15	0.601	3	0.121
50-59	1	0.040	1	0.040	6	0.242
>60	1	0.040	4	0.160	5	0.201
Gender						
Male	41	1.654	71	2.844	108	4.351
Female	34	1.372	101	4.046	98	3.948
Race/Ethnicity						
Non-Hispanic White	10	0.403	8	0.320	22	0.886
Non-Hispanic Black	22	0.888	61	2.443	88	3.545
Hispanic	42	1.695	101	4.046	90	3.626
American Indian/ Alaskan Native	0	0.000	0	0.000	1	0.040
Asian/Pacific Islander	1	0.040	1	0.040	0	0.000
Other	2	0.081	1	0.040	0	0.000
Import Status						
Acquired in U.S.	64	2.582	163	6.529	198	7.977
Acquired Outside U.S.	11	0.444	9	0.361	8	0.322

Conclusion

Although the numbers of reported shigellosis cases have increased in the past three years, the distribution of cases observed were among the expected high risk groups with no apparent geographical pattern or outbreaks in common.

The MDCHD Public Health professionals will continue to conduct surveillance to prevent and control the spread of disease by identifying cases and outbreaks as well as providing disease education and raising awareness to healthcare providers and the general public. Disease reporting to the health department in a timely manner is crucial in providing an accurate picture of the disease in the community and excluding persons involved in high risk groups.

For more information, please visit the Centers for Disease Control and Prevention (CDC) Shigellosis website at http://www.cdc.gov/nczved/divisions/dfbmd/diseases/shigellosis/

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FDA approves the first vaccine to prevent meningococcal disease in infants and toddlers

http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm252392.htm

EVERYDAY HEALTH

VACCINE

Everyday Health

Prevention

Toddlers

Smart Choices

babies

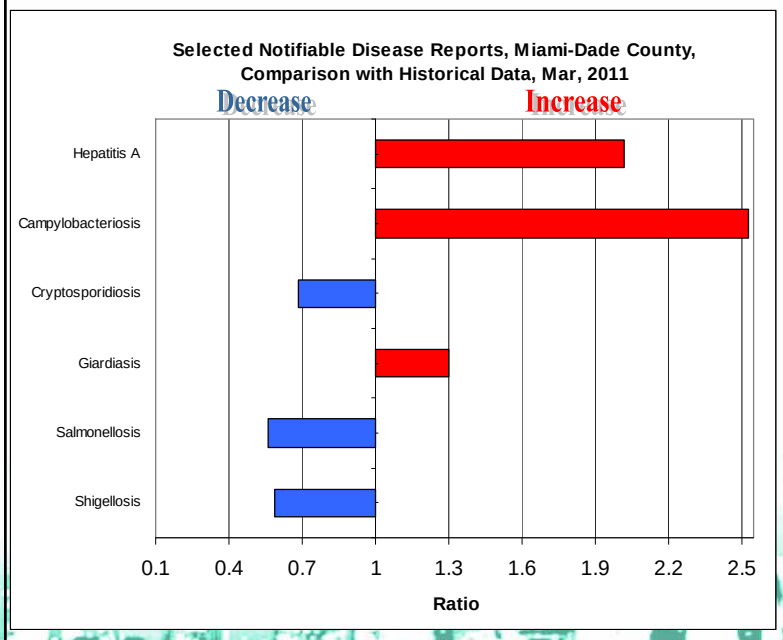
The U.S. Food and Drug Administration approved (April 2011) the use of Menactra in children as young as 9 months for the prevention of invasive meningococcal disease caused by *Neisseria meningitidis* serogroups A, C, Y and W-135. Menactra already is approved for use in people ages 2 through 55 years.

Meningococcal disease is a life-threatening illness caused by bacteria that infect the bloodstream (sepsis) and the lining that surrounds the brain and spinal cord (meningitis) Although the rates of meningococcal disease are low in the United States, infants and toddlers are more susceptible to getting this serious illness.

The safety of Menactra in children as young as 9 months was evaluated in four clinical studies in which over 3,700 participants received the vaccine. The most common adverse events reported in children who received Menactra at 9 months and 12 months of age were injection-site tenderness and irritability. Occurrence of fever was comparable to other vaccines routinely recommended for young children.

Menactra is given as a two-dose series beginning at 9-months, three months apart; and the study results showed the vaccine produces antibodies in the blood that are protective against the disease.

Click on the link above to read the complete news release.



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- 575-5415
Immunization Service 305-470-5660
To make an appointment.....786-845-0550

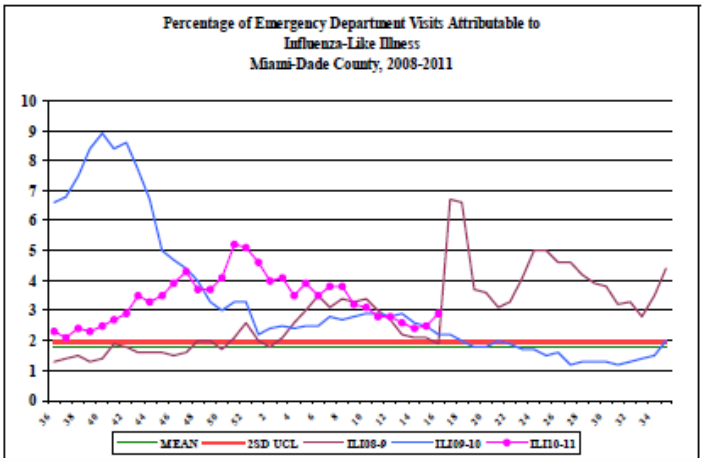
Miami-Dade County Health Department

EDC-IS Influenza/Respiratory Illness Surveillance Report

Week 16: 04/17/2011– 04/23/2011

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 21,872 ED visits; among them 639 (2.9%) were ILI. At the same week of last year, 2.2% 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
March 2011

Diseases/Conditions	2011 Current Month	2011 Year to Date	2010 Year to Date	2009 Year to Date
HIV/AIDS				
AIDS*	71	171	182	163
HIV	140	359	246	206
STD				
Infectious Syphilis	21	80	N/A	N/A
Chlamydia	697	2079	N/A	N/A
Gonorrhea	183	515	N/A	N/A
TB				
Tuberculosis**	10	25	31	N/A
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	30	78	35	25
Ciguatera Poisoning	0	4	0	3
Cryptosporidiosis	1	5	1	5
Cyclosporiasis	0	0	0	0
Dengue Fever	2	3	2	2
E. coli, O157:H7	0	0	0	0
E. coli, Non-O157	0	0	0	0
Encephalitis (except WNV)	0	0	0	0
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	29	92	144	150
Influenza Novel Strain	0	0	14	0
Influenza, Pediatric Death	0	0	0	0
Legionellosis	2	7	1	3
Leptospirosis	0	0	0	0
Listeriosis	0	0	3	0
Lyme disease	0	0	0	0
Malaria	3	6	6	5
Meningitis (except aseptic)	0	0	0	0
Meningococcal Disease	1	2	5	8
Salmonellosis	19	62	65	75
Shigellosis	9	23	36	34
Streptococcus pneumoniae, Drug Resistant	6	24	59	38
Toxoplasmosis	0	0	0	0
Typhoid Fever	1	1	0	0
Vibriosis	0	1	0	0
West Nile Fever	0	0	0	0
Immunization Preventable Diseases				
Measles	0	0	0	0
Mumps	0	0	0	0
Pertussis	4	4	5	10
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	2	10	23	20
Hepatitis				
Hepatitis A	7	10	11	13
Hepatitis B (Acute)	1	1	5	2
Lead				
Lead Poisoning	14	33	48	31

*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.