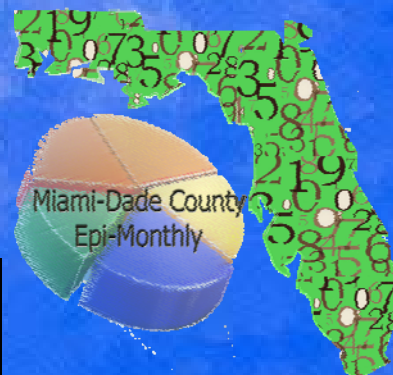


Epi Monthly Report

Differences in ILI Chief Complaints among Patients Visiting the Emergency Department in Miami-Dade County from April-July 2008 to April-July 2009

Pamela Mann, MPH



Inside this issue:

BACKGROUND

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 monitor chief complaints in the 17 largest of the 23 emergency department (ED) hospitals in Miami-Dade County. These 17 hospitals account for 90% of all ED visits in the county. ED data is frequently evaluated to anticipate disease outbreaks and to better understand disease trends/patterns in the area.

Overall, influenza patterns vary from year-to-year and are difficult to predict. However, as per the Centers for Disease Control and Prevention (CDC), flu outbreaks typically occur as early as October and usually peak in January, sometimes later. 2009 has proven to be different. With the emergence of novel influenza A (H1N1) in April 2009, the number of flu cases during the spring season has been dramatically higher than in past years.

As H1N1 continues to spread worldwide, infection has been reported to cause a wide range of influenza-like illness (ILI) symptoms, including fever, cough, sore throat, body aches, headache, chills and fatigue. Furthermore, most influenza viruses now being detected are lab-

confirmed Novel H1N1 viruses.

In response to higher levels of ILI than is normal for this time of year, this study aims to identify trends or differences in chief complaint data from patients reporting ILI symptoms who visited the ED in April-July of 2008 compared with April-July of 2009.

METHODS

Data for this study was extracted from ESSENCE. The ILI chief complaints were categorized into the following headings: 1) fever and cough, 2) fever and sore throat, 3) fever, sore throat and cough, and 4) flu. SAS 9.13 was employed for data analysis.

RESULTS

The number of patients with symptoms of ILI in the ED from April-July of 2008 was 3106, and in April-July of 2009 was 9560 - a three times increase. A chief complaint of fever and cough revealed to be the predominant ILI symptom in both years (2008 = 51%, 2009 = 42%).

Age Effects:

Compared to 2008, the proportion of ILI in children aged 5-17 increased from 34.2% to 41.7% (Figure-1). A chief complaint of fever and cough was highest among children aged 0-4

Differences in ILI Chief Complaints among Patients Visiting the Emergency Department in Miami-Dade County

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HEALTH DEPARTMENT
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Figure-1. Age Distribution of ED Patients with ILI in Miami-Dade County, April-July 2008 and April-July 2009

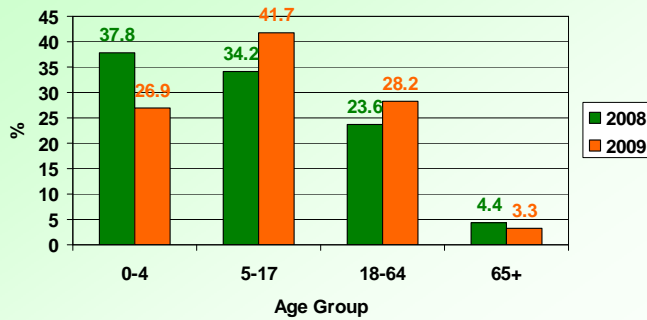


Figure-2. ED Patients with ILI Symptoms in Miami-Dade County, April-July 2008 and April-July 2009

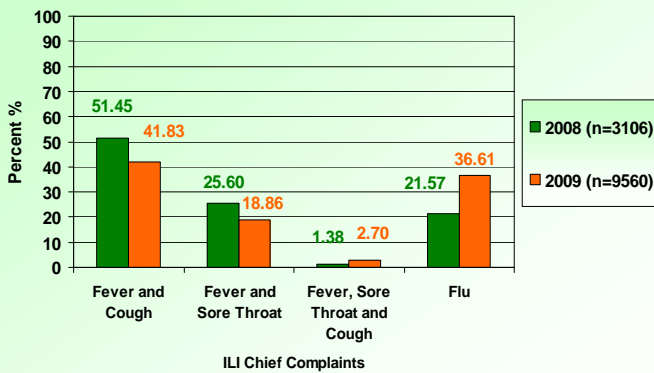
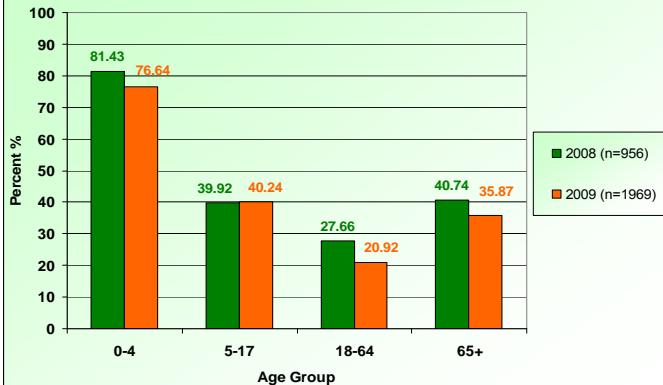


Figure-3. ED Patients with Chief Complaints of Fever and Cough by Age Group in Miami-Dade County, April-July 2008 and April-July 2009



(2008=81%, 2009 = 77%). In both years, chief complaints of fever, sore throat, and cough (2008= 3%, 2009 =5%) and fever and sore throat (2008=51%, 2009 =35%) were higher among persons aged 5 to 17 years (Figure-2, Figure-3).

Gender Effects:

Females represented the majority of ILI ED visits in both years (2008=53%, 2009=55%).

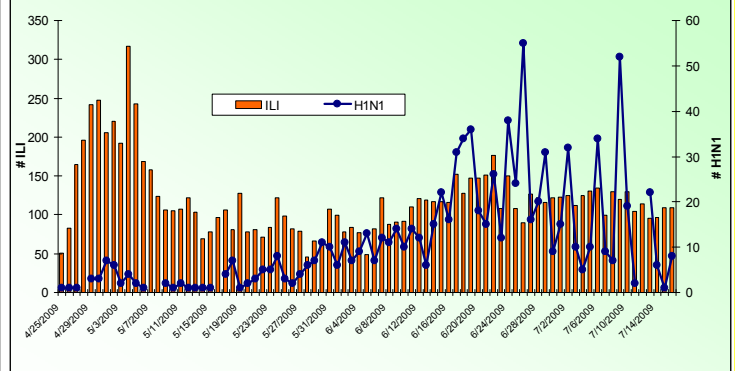
Race/Ethnicity Effects:

In 2008 and 2009, ED visits for ILI was most preva-

lent among Hispanics (2008 = 66%, 2009 = 65%). This is demographically representative of Miami-Dade County's large Hispanic population (61.3%).

ED Patients reporting ILI symptoms compared with Confirmed Cases of H1N1: The threat of a flu outbreak brought a sharp increase in ED visits for ILI. In April of 2009, the number of ED patients with ILI was much higher than the actual number of lab-confirmed H1N1 cases. Over time, this trend changed. As a result of clearer, more specific CDC testing and reporting guidelines, better testing capabilities of private and public laboratories, better-characterized H1N1 information, and more robust surveillance activities, the number of ILI ED visits decreased while the number of lab-confirmed H1N1 cases increased (Figure-4).

Figure-4. ILI ED Visits and Confirmed H1N1 Cases in Miami-Dade County, 2009



CONCLUSIONS

The number of ED visits for ILI in April-July of 2009 is approximately three times higher than during the same time in 2008, particularly among school-aged children. Despite this increase, the data indicates little variations in ILI among chief complaints, gender and race/ethnicity from April-July 2008 to April-July 2009. Identifying clinical differences in ILI chief complaint data from past flu seasons to this year can help better characterize this new influenza strain, and to understand the public health impact for guiding decision-makers' response to the ongoing outbreak.



2009 July is...

**Hemochromatosis
Awareness Month**

**International Group B
Strep Awareness Month**

Phelan-McDermid Syndrome Week

Juvenile Arthritis Awareness Month

National Youth Sports Week

UV Safety Month



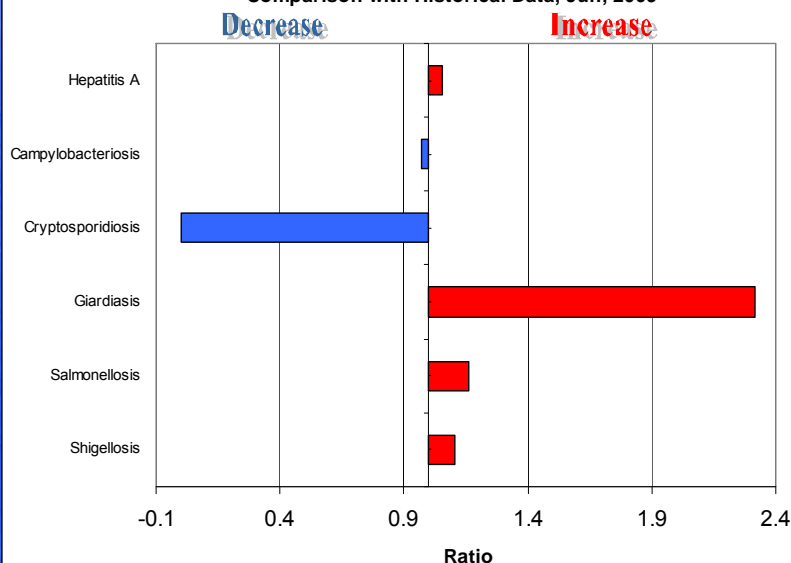
**International Group B Strep
(GBS) Awareness Month**

Approximately 1 in 4 pregnant women carry GBS, the most common cause of life-threatening infections in newborns according to the U.S. Centers for Disease Control and Prevention (CDC). GBS can also infect babies during pregnancy and the first few months of life. Not all babies exposed to GBS become infected, but, for those who do, the results can be devastating. GBS can cause babies to be miscarried, stillborn, born prematurely, become very sick, have lifelong handicaps, or die. Fortunately there are ways to help protect babies from Group B Strep. Learn more about GBS and help prevent its devastating effects.

www.groupbstrepiinternational.org
www.cdc.gov/groupbstrep/



**Selected Notifiable Disease Reports, Miami-Dade County,
Comparison with Historical Data, Jun, 2009**



**TO REPORT ANY DISEASE AND FOR
INFORMATION CALL:
Epidemiology, Disease Control
& Immunization Services**

Childhood Lead Poisoning
Prevention Program305-470-6877
Hepatitis305-470-5536
Immunizations or outbreaks305-470-5660
HIV/AIDS Program305-470-6999
STD Program305-325-3242
Tuberculosis Program305-324-2470
Immunization Service305-470-5660
To make an appointment.....786-845-0550

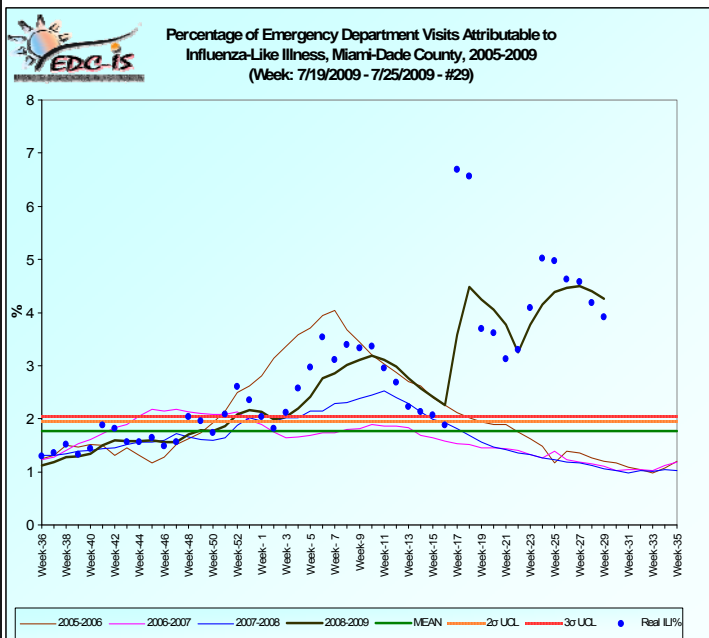
Miami-Dade County Health Department EDC-IS Influenza/Respiratory Illness Surveillance Report



Week 29: 7/19/2009 – 7/25/2009

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 week, 7/19-7/25, influenza-like illness activity decreased though was above the mean. About 3.92% of emergency department visits were attributed to influenza-like illness, compared with 0.98% observed during the same week last influenza season.

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.

Monthly Report

Selected Reportable Diseases/Conditions in Miami-Dade County, June 2009

Diseases/Conditions	2009 this Month	2009 Year to Date	2008 Year to Date	2007 Year to Date	2006 Year to Date	2005 Year to Date
AIDS ^{*Provisional}	114	465	649	396	N/A	N/A
Campylobacteriosis	16	52	65	60	80	66
Ciguatera Poisoning	10	13	10	0	0	0
Cryptosporidiosis	0	7	7	14	8	12
Cyclosporiasis	0	0	4	0	0	0
Dengue Fever	0	3	1	1	1	0
<i>E. coli</i> , O157:H7	0	0	2	1	0	0
<i>E. coli</i> , Non-O157	0	0	1	0	0	0
Encephalitis (except WNV)	0	0	1	1	0	0
Encephalitis, West Nile Virus	0	0	0	0	0	0
Giardiasis, Acute	56	303	117	110	97	94
Hepatitis A	4	29	16	14	20	27
Hepatitis B	3	7	7	9	14	26
HIV ^{*Provisional}	145	585	494	689	N/A	N/A
Influenza A (H5)	0	0	0	0	0	0
Influenza Isolates	0	0	0	0	0	0
Influenza Novel Strain	373	430	0	0	0	0
Influenza, Pediatric Death	1	1	0	0	0	0
Lead Poisoning	3	58	73	78	75	79
Legionnaire's Disease	2	7	5	1	4	2
Leptospirosis	0	0	0	0	0	1
Lyme disease	1	1	2	0	0	0
Malaria	1	8	3	2	5	1
Measles	0	0	0	0	0	0
Meningitis (except aseptic)	0	0	3	5	10	7
Meningococcal Disease	0	11	6	4	8	5
Mumps	0	0	2	1	0	0
Pertussis	4	18	12	11	5	4
Rubella	0	0	1	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	59	207	190	146	240	199
Shigellosis	15	85	21	67	50	156
<i>Streptococcus pneumoniae</i> , Drug Resistant	9	70	65	53	59	27
Tetanus	0	0	0	0	0	0
Toxoplasmosis	0	0	0	1	0	0
Tuberculosis ^{*Provisional}	N/A	N/A	N/A	N/A	N/A	N/A
Typhoid Fever	0	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	2	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.