Miami-Dade County Health Department
Office of Epidemiology and Disease Control

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Epi Monthly Report

Comparison of 2005-2007 Influenza-like Illness Observed from Emergency Department Visits in Miami-Dade County

Maria X. Bustamante, Guoyan Zhang, Erin O'Connell, Diana Rodriguez, Rene Borroto-Ponce, Fermin Leguen

Background

The threat of pandemic and seasonal influenza has drawn attention to syndromic surveillance systems for the early detection of influenza-like illness [1]. Since 2005, the Miami-Dade County Health Department has implemented ESSENCE to monitor emergency department data for Influenza-like Illness (ILI). The purpose of this study was to describe ILI surveillance methods and compare the two Influenza seasons using ILI activities in ESSENCE between 2006 and 2007 in Miami-Dade County.

Methods

In Miami-Dade County, there are fourteen hospitals that automatically transmit Emergency Department (ED) chief complaint data with selected demographic information to the Office of Epidemiology and Disease Control. The ILI category was defined as a chief complaint of fever with either cough or sore throat, as well as a chief complaint of "flu". The weekly ILI report has been used to monitor ILI trends using an Exponentially Weighted Moving Average (EWMA). Data was analyzed in SAS 9.1.3 with the weekly percentage of ILI visits. The threshold Upper Control Limits for the EWMA (UCLE) are 2 and 3 σ above the mean. The weekly percentage of Respiratory syndrome was calculated to be compared with ILI trends.

Results

Compared to the 2005-2006 influenza season, the 2006-2007 season showed the following characteristics: (1) the percent of ILI among total ED visits was much lower than 2005-2006 season's level; (2) the time periods were much shorter than the previous year (11 weeks and 20 weeks respectively); (3) the first significant increase wave came earlier than the previous year (at week 42 and 49 respectively); and (4) there were no early peak cases among children aged 0-17 years in the 2006-2007 season. For the past 2 years, respiratory and ILI ED visits have had similar trends. A review of the chief complaints showed that there were no hospital behavior changes in the coding of chief complaints for both respiratory and ILI syndromes.

Sentinel physicians' data also showed there was no significant peak time for the percent of ILI in the 2006-2007 influenza season compared to the previous years.

Conclusions

This study demonstrates that there is no obvious ILI activity among pediatric and adult populations in the 2006-2007 season compared to the 2005-2006 season. This is particularly the case among children, who did not have an obvious peak time.

Limitations

There was no complete data for flu shots by age group to be used. Therefore we could not determine an association be-

Inside this issue:

Fermin Leguen MD, MPH
Chief Physician, Miami-Dade County Health Department
Director, Office of Epidemiology and Disease Control

8600 NW 17th Street
Suite 200
Miami, Florida 33126

Tel: (305) 470-5660
Fax: (305) 470-5533
E-mail:
fermin_leguen@doh.state.fl.us

tween the low level of ILI among children and the percentage of flu vaccination.

Figure 1. Percentage of ED Visits Attributable to Influenza-like Illness, Miami-Dade County, 2005-2007

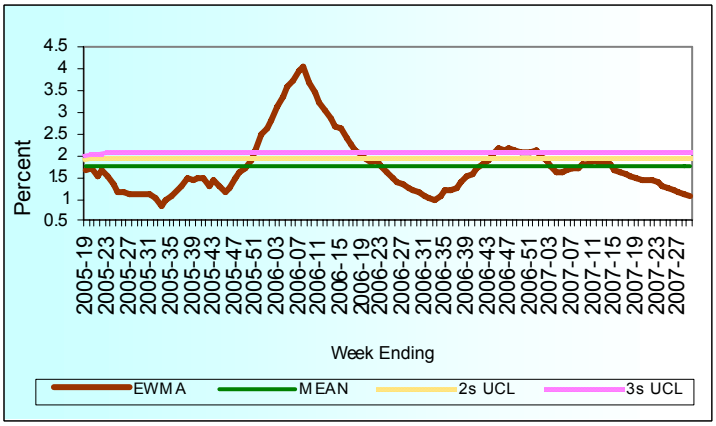


Figure 2. Percentage of ED Visits Attributable to Influenza-like Illness among Children Aged 0-17, Miami-Dade County, 2005-2007

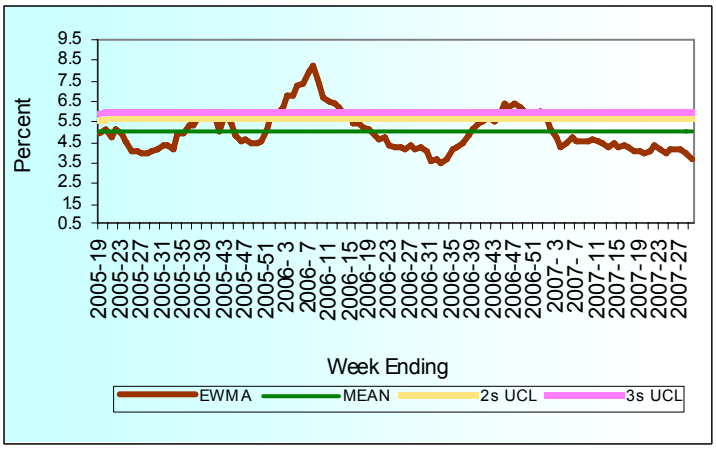


Figure 3. Percent of Respiratory and ILI Syndromes among all ED visits in Miami-Dade County, 2005-2007

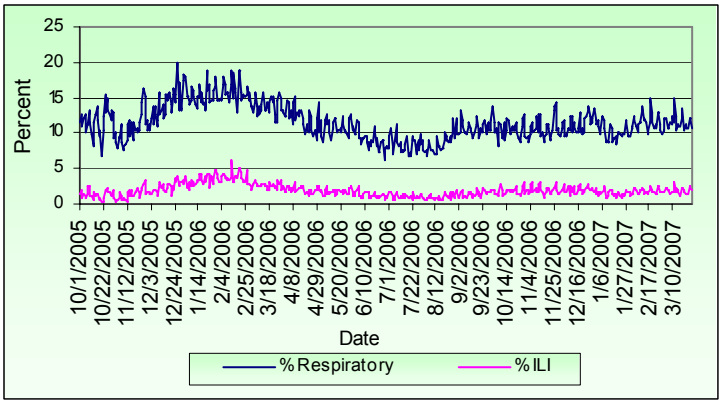
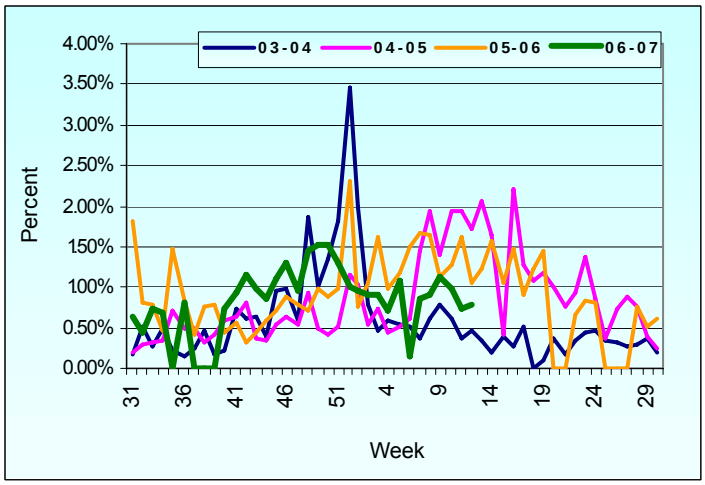


Figure 4. Percent of ILI Visits among Sentinel Physician's Clinics, Miami-Dade County, 2003-2007



References

CDC. Framework for evaluating public health surveillance systems for early detection of outbreaks. MMWR 2004; 53 (RR05).

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

AVIAN FLU WATCH

Unless indicated, information is current as of July 25, 2007



- **Since 2003, 318 human cases of avian influenza (H5N1) have been confirmed** by the World Health Organization (WHO). Of these, 192 have been fatal.
- **Countries with confirmed *human* cases** include Cambodia, China, Djibouti, Indonesia, Thailand, Vietnam, Iraq, Azerbaijan, Egypt, Turkey, and Lao People's Democratic Republic.
- **No human cases of avian influenza (H5N1) have been reported in the United States.**
- **The most recent confirmed case of human infection with H5N1 avian influenza is from Egypt.** A 25 year old female was hospitalized July 21 after presenting with symptoms the day before; she is under treatment and her condition remains stable. She may have been exposed to sick or dead poultry the week prior to symptom onset as indicated by investigations. From Indonesia is a 6 year old girl who became symptomatic June 23 and was hospitalized July 5 and died July 8; the source of her exposure may have been an outbreak in chickens near her school. In Vietnam, 2 new cases have been reported. A 29 year old male, developed symptoms May 10, was hospitalized May 15, and later discharged June 11. The source of exposure for this case is said to have occurred after slaughtering poultry for a wedding. Also from Vietnam is a 19 year old male who remains in stable condition after being admitted to the hospital May 25 when he developed symptoms. These are the first cases from Vietnam since November 2005. According to the WHO, these cases have coincided with poultry outbreaks in May and June this year with highly pathogenic avian influenza.
- **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/downld/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: World Health Organization; World Organisation for Animal Health; Centers for Disease Control and Prevention

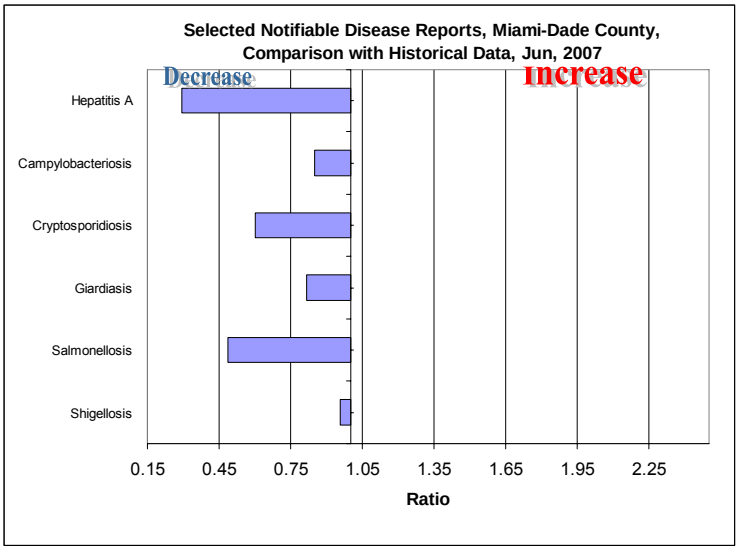
PARTICIPATE IN INFLUENZA SENTINEL PROVIDER SURVEILLANCE

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, 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 at 305-470-5660.

Monthly Report
Selected Reportable Diseases/Conditions in Miami-Dade County, June 2007

Diseases/Conditions	2007 this Month	2007 Year to Date	2006 Year to Date	2005 Year to Date	2004 Year to Date	2003 Year to Date
AIDS *Provisional	43	401	622	739	705	529
Campylobacteriosis	14	60	80	66	64	64
Ciguatera Poisoning	0	0	0	0	0	0
Cryptosporidiosis	1	14	8	12	4	5
Cyclosporosis	0	0	0	0	0	0
Dengue Fever	0	1	1	0	3	0
E. coli, O157:H7	0	1	0	0	1	0
E. coli, Non-O157	0	0	0	0	0	0
Encephalitis (except WNV)	1	1	0	0	1	0
Encephalitis, West Nile Virus	0	0	0	0	1	0
West Nile Fever	0	0	0	0	0	0
Giardiasis, Acute	18	110	97	94	139	77
Hepatitis A	2	14	20	27	16	21
Hepatitis B	2	9	14	26	19	29
HIV *Provisional	119	701	566	775	862	814
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	9	78	75	79	141	110
Legionnaire's Disease	0	1	4	2	4	0
Leptospirosis	0	0	0	1	0	0
Lyme disease	0	0	0	0	1	2
Malaria	0	2	5	1	8	5
Measles	0	0	0	0	1	0
Meningitis (except aseptic)	4	5	10	7	5	2
Meningococcal Disease	1	4	8	5	11	3
Mumps	0	1	0	0	0	0
Pertussis	0	11	5	4	5	1
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	25	146	240	199	166	197
Shigellosis	21	67	50	156	90	165
Streptococcus pneumoniae, Drug Resistant	10	51	59	27	45	62
Tetanus	0	0	0	0	0	0
Toxoplasmosis	0	1	0	0	1	4
Tuberculosis *Provisional	10	70	105	89	91	104
Typhoid Fever	0	0	2	2	1	2
Vibrio cholera Type O1	0	0	0	0	0	0
Vibrio cholera Non-O1	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.