

Epi Monthly Report

Enhanced Public Health Surveillance Activities in Miami-Dade County for Super Bowl XLI

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Background

A large event such as the Super Bowl that attracts over 120,000 visitors to an area within a short period of time has the potential to increase the risk of communicable diseases and environmental hazards in a community in addition to the possibility of a bioterrorist attack. Though MDCHD has in place a syndromic surveillance system, additional public health measures were implemented to ensure the health and safety of all residents and visitors in the weeks surrounding the February 4th event.

The objective of this analysis was to identify unusual patterns of communicable diseases, health events or bioterrorism-related activity in Miami-Dade County immediately before, during and after Super Bowl XLI.

Methods

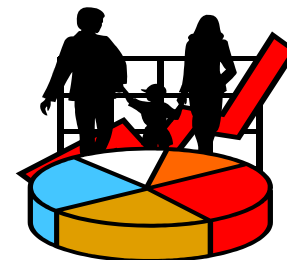
MDCHD utilized four surveillance systems, which included the Biological Warning and Incident Characterization (BWIC) system to support the Bio-Watch program, the Electronic Surveillance System for the Early Notification of Community Based Epidemics (ESSENCE), the Miami-Dade Fire Rescue 911 Call Center data and

school absenteeism data received from the Miami-Dade County Public School System. 911 calls are grouped into 96 different categories. Also, Infection Control Practitioners (ICPs) from the county's thirty-four hospitals submitted daily reports to MDCHD for the week before and after the event.

Results

BioWatch air samplers collected were all non-reactive and therefore BWIC was utilized in monitor mode rather than project mode. The daily total ED visits for Miami-Dade County residents progressively increased each of the 4 days after the Super Bowl to 2,448 (2,425-2,584) from the average of 2,315 for the first two months of 2007. ESSENCE detected a significant increase of cases with Respiratory Syndrome lasting for 8 days after Super Bowl Sunday. Historically, respiratory syndrome alerts have lasted for a maximum of 5 days (Figure 1).

Both ESSENCE and 911 call center data detected a statistically significant increase in the number of motor vehicle accidents on the day of and one day after the Super Bowl (Figure 2). Notably, 25% of all 911 calls in the general sickness category on the day of the Super Bowl were made from



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Dolphin Stadium. This included falls, injuries as well as general illness (Figure 3). Finally, 104 of the 392 public schools had above 8% absenteeism on the day after the Super Bowl, which is a 143% increase from the mean number of schools with that percentage of absenteeism. However, the data can not determine whether or not absenteeism was due to illness or to the event.

Miami-Dade Public School Report Schools with Absentee Rates 8% and above (n=104)

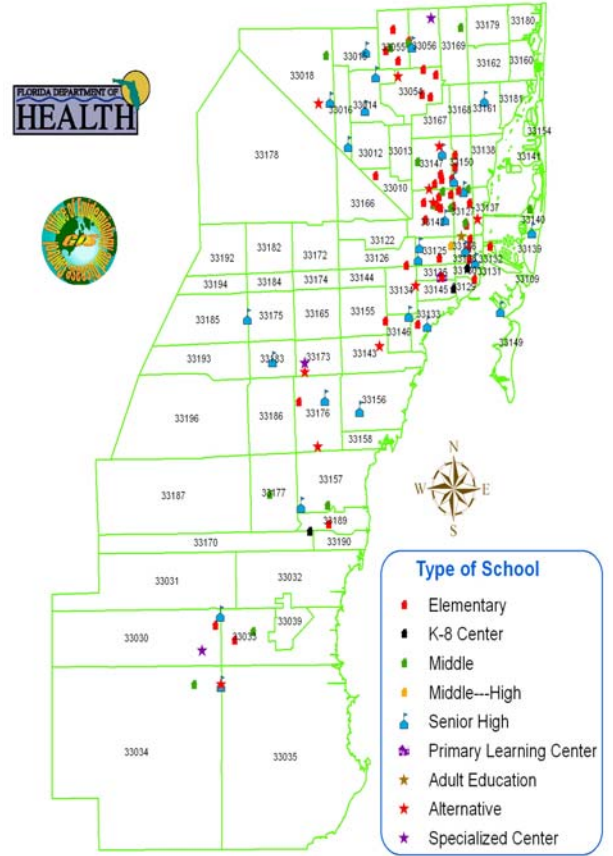


Figure-1. Respiratory Syndrome Seen in Miami-Dade County Emergency Departments, January - March 2007

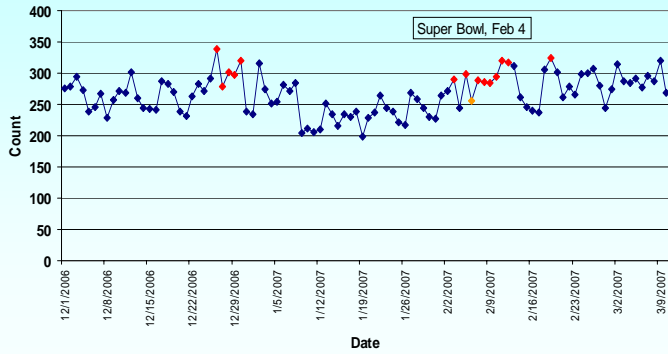


Figure-2. Motor Vehicle Accidents Seen at Miami-Dade County Emergency Departments, November 2006 - March 2007

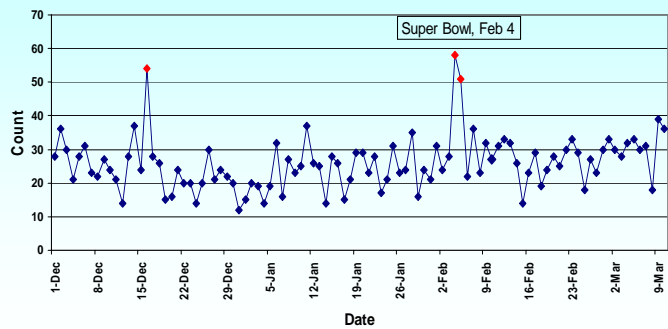
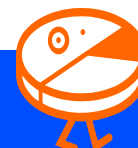
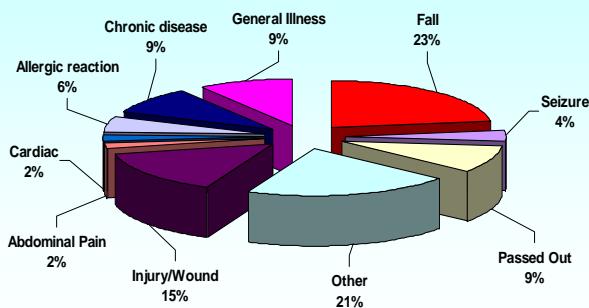


Figure-3. Percentage of Disease/Injury Calls Made to Miami-Dade Fire Rescue 911 Call Center from Dolphin Stadium, February 4, 2007



Conclusion

Although no communicable disease outbreak or bioterrorism event was detected during the days surrounding these festivities, the Super Bowl had a public health impact on the community as evidenced by an increase in respiratory syndrome cases, motor vehicle accidents and school absenteeism during that period. MDCHD will use this information to optimize planning for future events and contribute to preventive interventions aimed at reducing the impact that large public gathering events may have on our community.

TO REPORT ANY DISEASE AND FOR INFORMATION CALL:

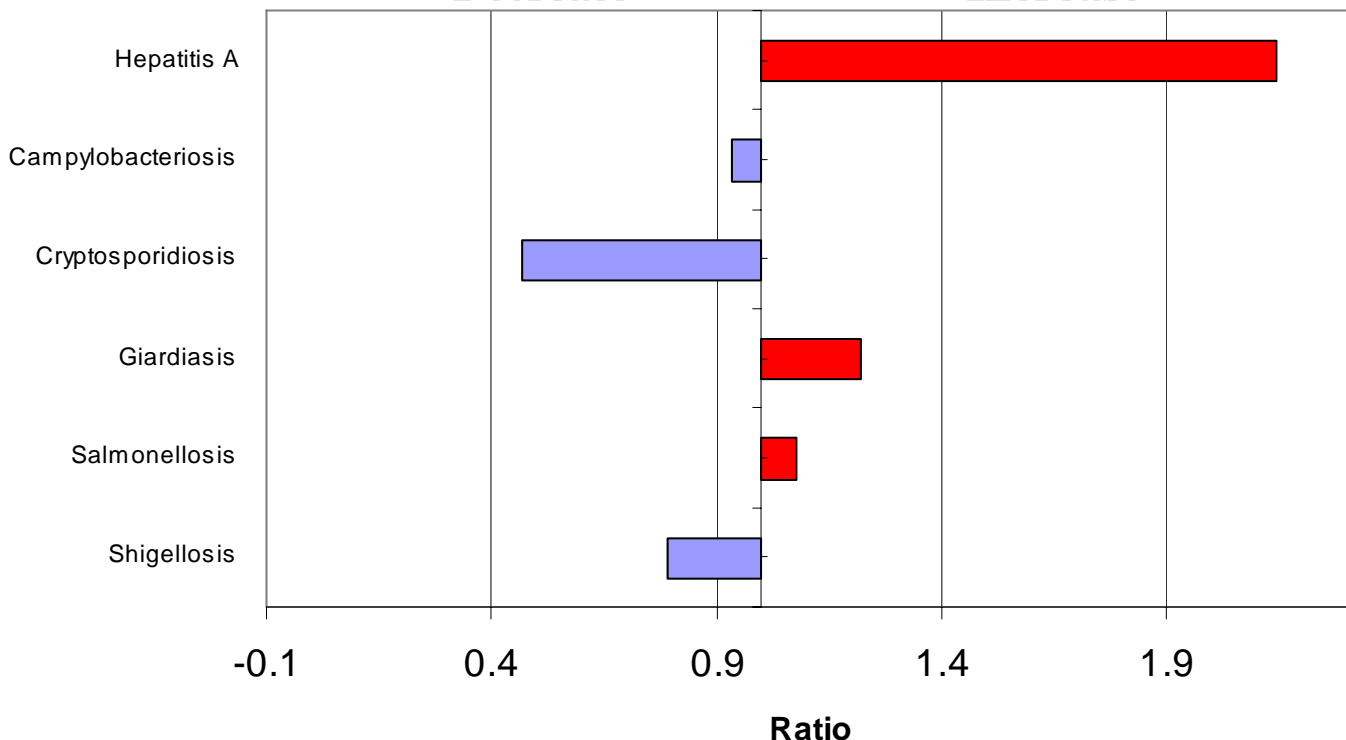
Office of Epidemiology and Disease Control

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

Selected Notifiable Disease Reports, Miami-Dade County, Comparison with Historical Data, Dec, 2007

Decrease

Increase



AVIAN FLU WATCH

Unless indicated, information is current as
of
November 12, 2007



- **Since 2003, 352 human cases of avian influenza (H5N1) have been confirmed** by the World Health Organization (WHO). Of these, 219 have been fatal.
- **14 Countries with confirmed human cases** include Cambodia, China, Djibouti, Indonesia, Thailand, Vietnam, Iraq, Azerbaijan, Egypt, Turkey, and Lao People's Democratic Republic, Pakistan, Nigeria, Myanmar,.
- **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 Indonesia.** A 30-year old male developed symptoms on January 13, 2008 and is currently in the hospital. Investigations into the source of his infection are ongoing.
- **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!!**

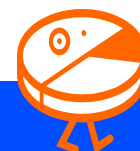
Sentinel providers are key to the success of the Florida Department of Health's Influenza Surveillance System. Data reported by sentinel providers gives a picture of the influenza virus and ILI activity in the U.S. and Florida which can be used to guide prevention and control activities, vaccine strain 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 Erin O'Connell at 305-470-5660.



Monthly Report
Selected Reportable Diseases/Conditions in Miami-Dade County,
December 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}	44	811	1180	1234	1329	1025
Campylobacteriosis	11	144	159	150	135	153
Ciguatera Poisoning	0	4	3	0	0	0
Cryptosporidiosis	1	48	41	37	19	19
Cyclosporiasis	0	0	1	26	2	2
Dengue Fever	4	7	7	3	5	4
<i>E. coli</i> , O157:H7	1	5	2	1	5	2
<i>E. coli</i> , Non-O157	0	3	0	1	1	3
Encephalitis (except WNV)	0	3	1	0	1	0
Encephalitis, West Nile Virus	0	1	0	0	15	6
Giardiasis, Acute	24	263	224	229	283	228
Hepatitis A	8	37	48	62	41	59
Hepatitis B	1	19	27	45	39	53
HIV ^{*Provisional}	104	1447	1179	1354	1592	1619
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	21	177	149	174	307	274
Legionnaire's Disease	3	6	11	13	13	10
Leptospirosis	2	2	0	2	0	0
Lyme disease	2	9	0	2	3	12
Malaria	2	11	15	14	21	16
Measles	0	0	0	0	1	0
Meningitis (except aseptic)	4	13	14	12	11	8
Meningococcal Disease	1	9	13	9	20	5
Mumps	1	4	1	0	0	0
Pertussis	2	28	24	9	9	11
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	40	426	612	645	439	545
Shigellosis	13	125	153	257	160	295
<i>Streptococcus pneumoniae</i> , Drug Resistant	12	96	114	77	62	123
Tetanus	0	0	0	0	0	0
Toxoplasmosis	4	7	0	9	15	13
Tuberculosis ^{*Provisional}	27	173	203	210	271	209
Typhoid Fever	1	3	7	2	3	5
<i>Vibrio cholera</i> Type O1	0	0	0	0	0	0
<i>Vibrio cholera</i> Non-O1	0	0	0	1	0	0
West Nile Fever	0	0	0	0	6	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.

