



**Disease Surveillance in Miami-Dade County, 2004:
Selected Highlights**

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Traditional disease surveillance in Miami-Dade County is performed by a multidisciplinary team of investigators (physicians, nurses, and other staff members trained in public health and other social sciences areas). Surveillance of all reportable communicable diseases except Tuberculosis, Sexually Transmitted Diseases (STDs), Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), and vaccine preventable diseases is managed at the Miami-Dade County Health Department's Office of Epidemiology and Disease Control (OEDC). The information submitted from hospitals, medical offices, laboratories, and other sources is received at the OEDC by mail, fax, telephone, and electronically via the MERLIN system of the Florida Department of Health (FL DOH), or other non-customary ways. All confirmed cases are reported electronically to the FL DOH headquarters through the MERLIN system.

The purpose of this report is to share results of the surveillance activities performed at the OEDC during the year 2004 on selected diseases.



Results

Campylobacteriosis: There was a 16.8% decrease in the number of confirmed cases in 2004 (144 cases in 2004 vs. 173 cases in 2003). The highest incidence of campylobacteriosis in 2004 was observed between January and March, (36.1% of all cases) and June and August (41% of all cases). This trend is different from the one observed during the year 2003, which presented a peak between the months of September and December. Fifty-six percent of confirmed cases were among children less than 18 years of age. Four cases were attributed to outbreaks (Figure 1, 2 and map 1).

Salmonellosis: After the number of cases reached a historically high level in 2003, the number of confirmed cases declined to 459 in 2004, a 19.6% decrease from the 571 cases reported in 2003. Most confirmed cases occurred during the summer season. Children less than 18 years of age accounted for 68% of all confirmed cases; adults 18 to 44 years of age accounted for 18% of all cases. Forty-nine (10.7%) confirmed cases were attributed to outbreaks (Figure 3, 4 and map 2).

Inside this issue:

Disease Surveillance in Miami-Dade County, 2004: Selected Highlights 1

Selected Notifiable Disease Reports, Miami-Dade County, Comparison with Historical Data, May 2005 4

Selected Reportable Diseases/Conditions in Miami-Dade County, May 2005 5

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Figure 1. Incidence of Campylobacteriosis, Miami-Dade County and Florida, 1990-2004

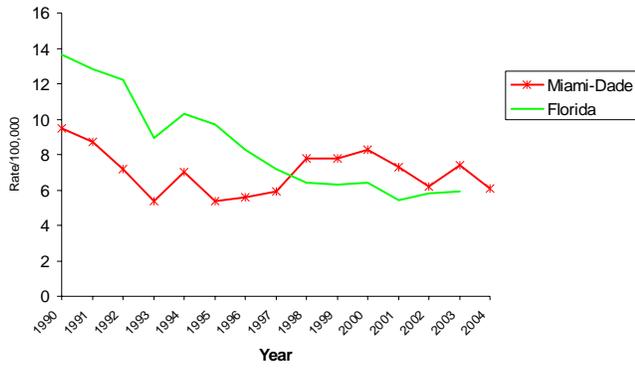


Figure 2. Reported Campylobacteriosis Cases by Month, Miami-Dade County, 2000-2004

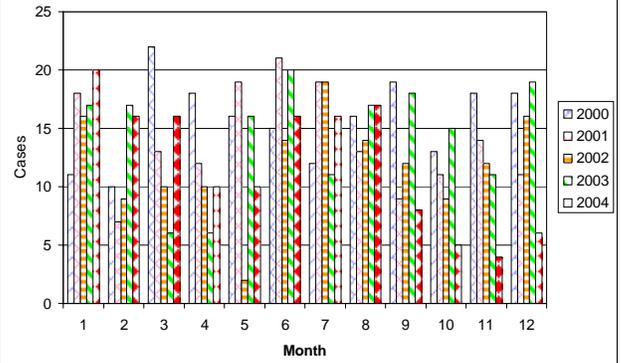


Figure 3. Incidence of Salmonellosis, Miami-Dade County and Florida, 1990-2003

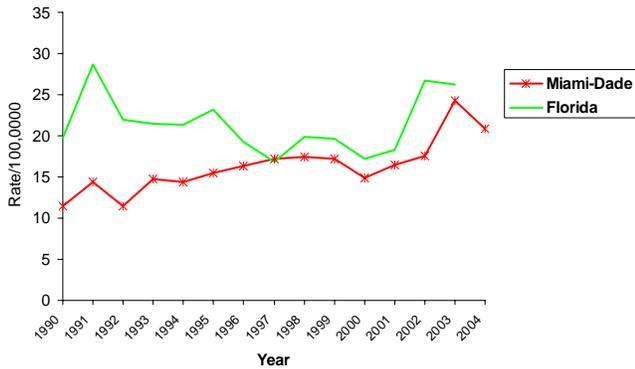


Figure 4. Reported Salmonellosis Cases by Month, Miami-Dade County, 2000-2004

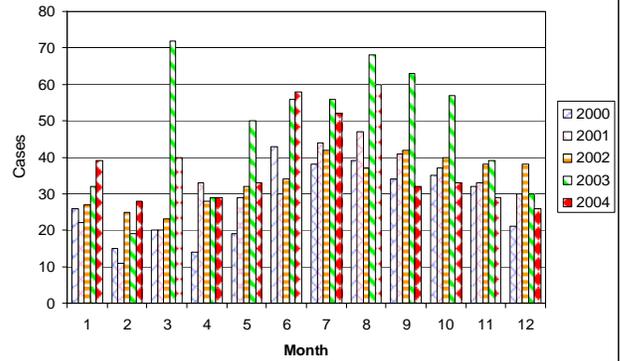


Figure 5. Incidence of Shigellosis, Miami-Dade County and Florida, 1990-2004

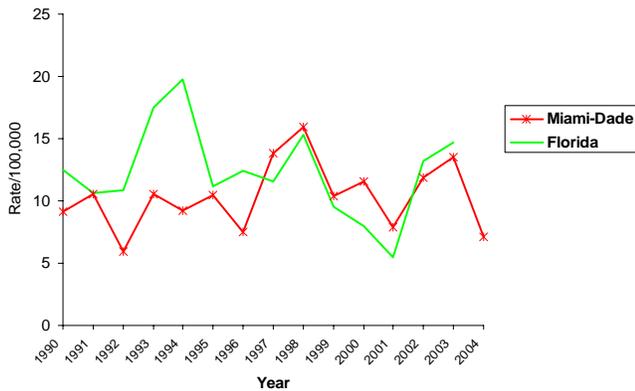
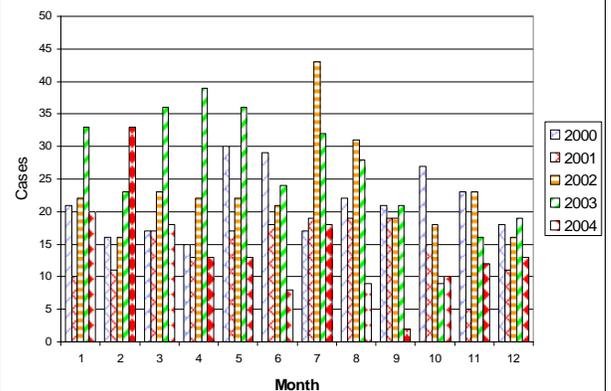
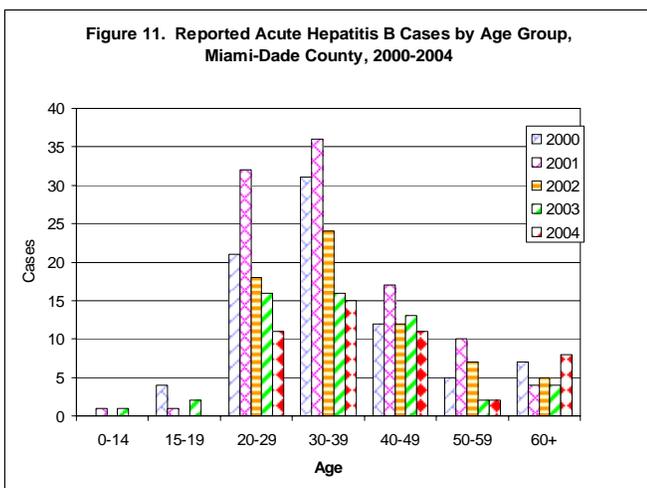
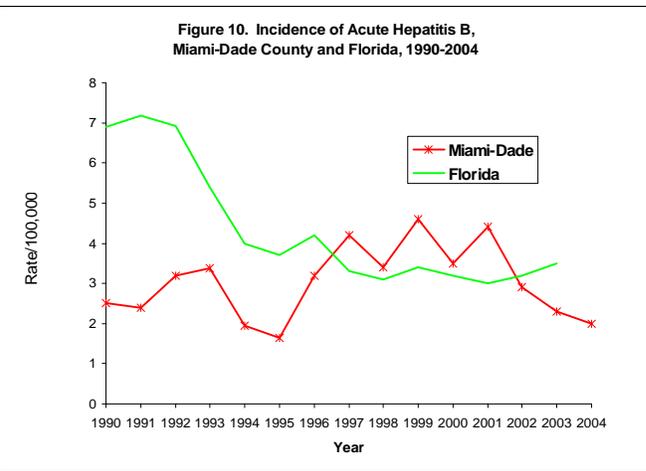
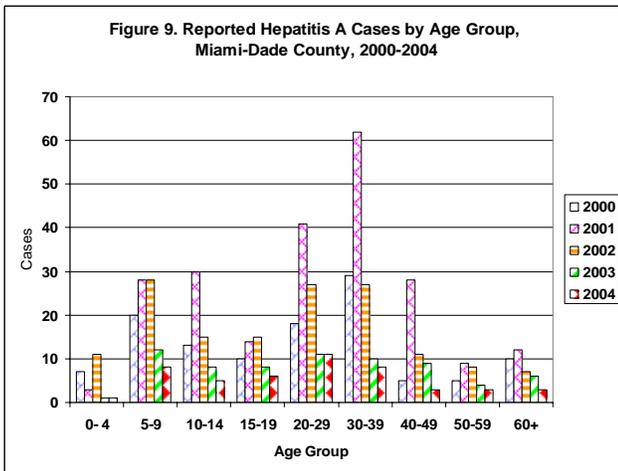
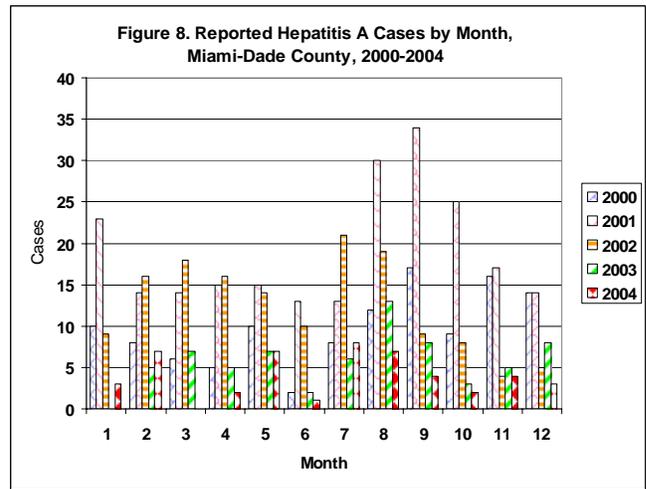
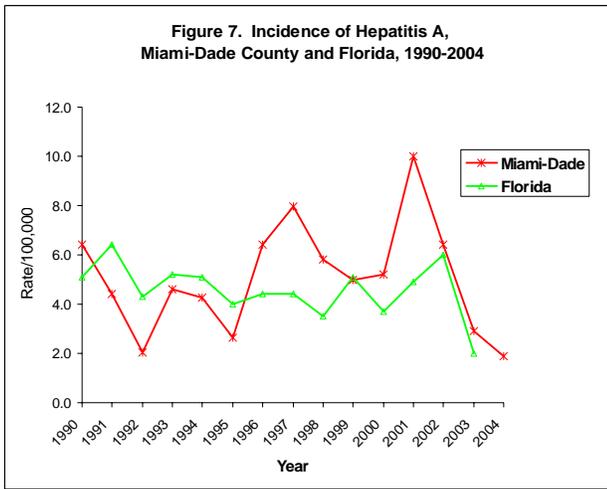


Figure 6. Reported Shigellosis Cases by Month, Miami-Dade County, 2000-2004

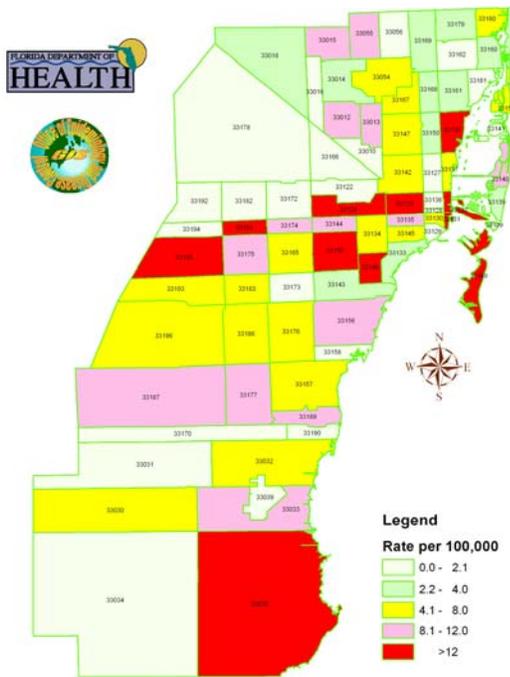




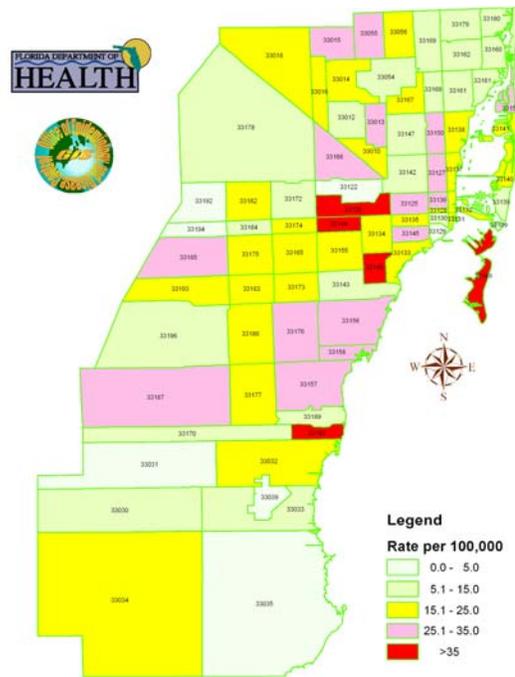
Shigellosis: The number of confirmed cases declined to 169 in 2004, a 47% decrease compared to the 316 cases confirmed in 2003. Children less than 18 years of age accounted for 82% of all reported cases. Forty-five (26.7%) cases were attributed to outbreaks (Figure 5, 6 and map 3).

Hepatitis A: Confirmed hepatitis A cases continued to decrease to 46 in 2004 from 69 in 2003 and 149 in 2002, after reaching a historically high level of 233 cases in 2001. In 2004, the incidence rate among children less than 18 years of age was 2.9 per 100,000 children (the 2001 rate was 13.7). The sustained decrease of hepatitis A incidence in

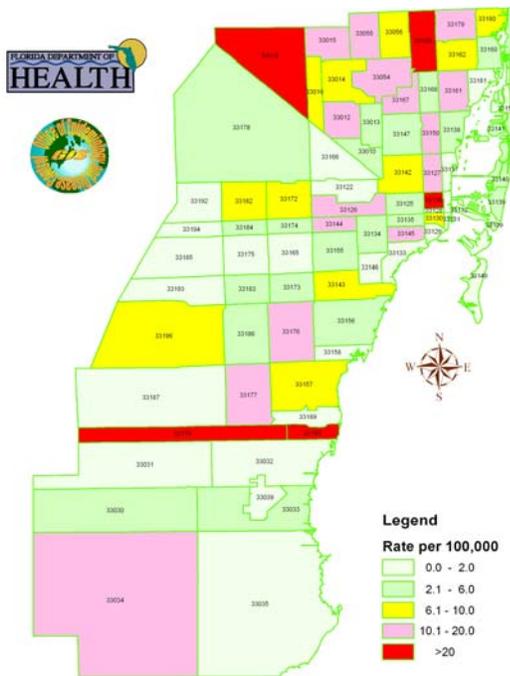
Map 1. Reported Campylobacteriosis per 100,000 Population
Miami-Dade County, 2004 (Countywide=6.1)



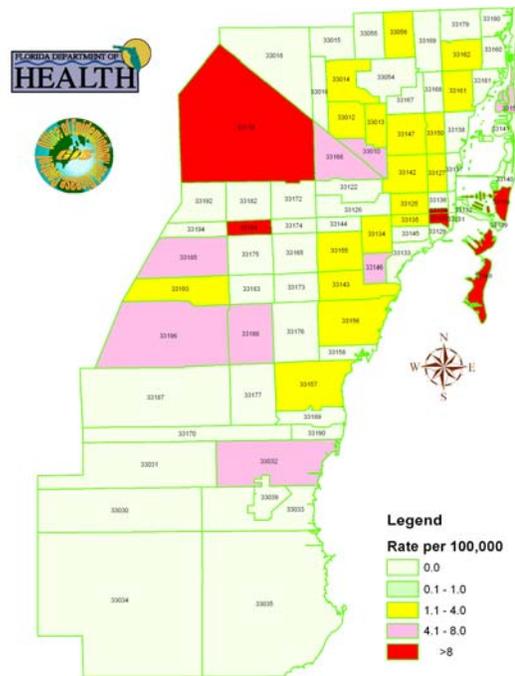
Map 2. Reported Salmonellosis per 100,000 Population
Miami-Dade County, 2004 (Countywide=20.8)



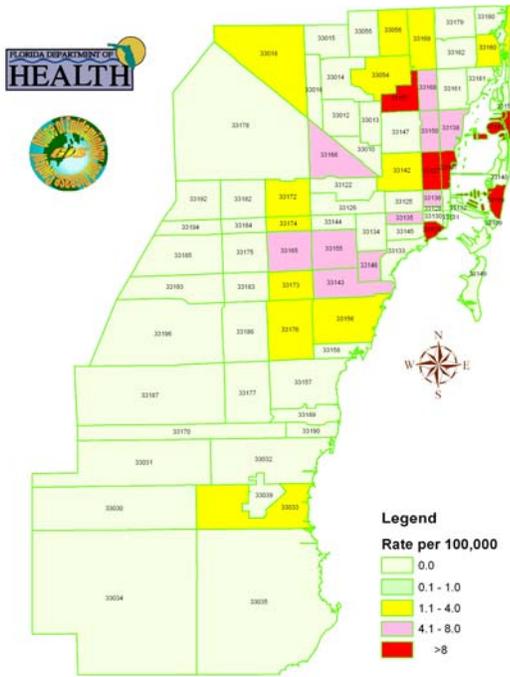
Map 3. Reported Shigellosis per 100,000 Population
Miami-Dade County, 2004 (Countywide=7.1)



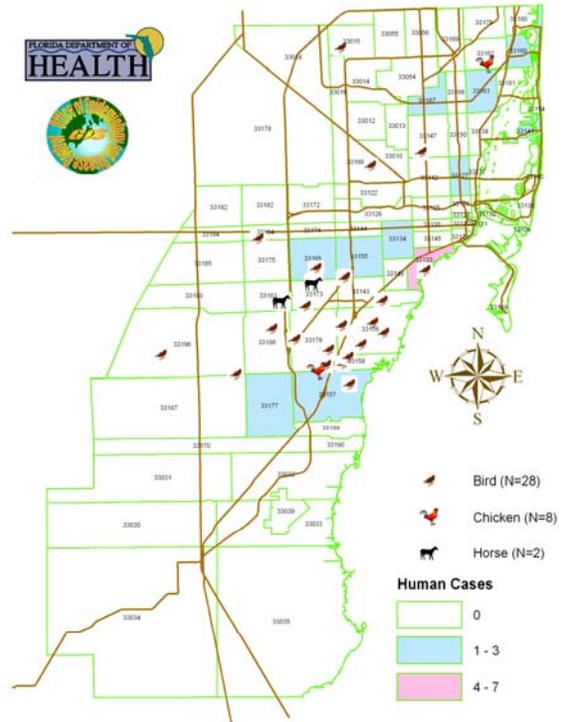
Map 4. Reported Hepatitis A per 100,000 Population
Miami-Dade County, 2004 (Countywide=1.9)



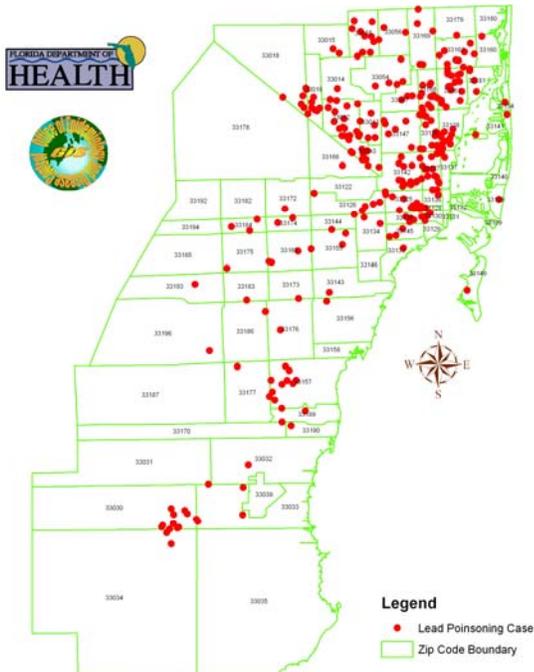
Map 5. Reported Hepatitis B per 100,000 Population
Miami-Dade County, 2004 (Countywide=2.0)



Map 6. West Nile Virus Positive Birds, Horses and Sentinel Chickens
in Miami-Dade County: 2004



Map 7. Reported Lead Poisoning Cases among Childhood
Miami-Dade County, 2004 (N=313)



Miami-Dade County could probably be attributed to two factors. One factor could be the aggressive vaccination and educational campaigns conducted by the Miami-Dade County Health Department in the areas with the highest hepatitis A incidence in recent years (Homestead and South Beach); and the other factor could be attributed to the typical cycles of hepatitis A morbidity, where the last three years could be considered non-epidemic years. An interesting data supporting the value of the intervention implemented in these areas is that there was only one confirmed hepatitis A case in Homestead and 5 confirmed cases in South Beach during the year 2004. During 2001, there were 35 confirmed cases in Homestead and 38 confirmed cases in South Beach (Figure 7-9 and map 4).

Hepatitis B (Acute): Forty-seven cases were confirmed during 2004, a 13% decrease compared to 54 cases in 2003. Males represented 66% of the cases (31/47), and seventy-nine percent of the cases (37/47) were among people aged 20-49 years (Figure 10, 11 and map 5).

Acute Giardiasis : A total of 294 cases were confirmed in 2004, a 9.7% increase compared to the 168 cases confirmed in 2003. Of the 294 cases, 80 (27.2%) cases were among children < 5 years old, 113 (38.4%) cases were children aged 5-17 years, 82 (27.9%) cases were adults aged 18-44 years. One hundred sixty-seven cases (56.8%) were among newly arrived Cuban refugees.

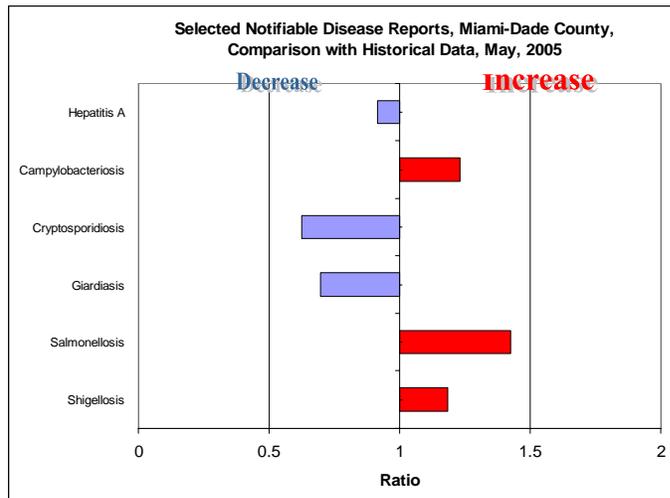
West Nile Virus (WNV): Twenty-one human cases of West Nile Virus (WNV) were confirmed in Miami-Dade County during 2004. Sixteen of these cases were classified as WNV encephalitis infection, and 5 were confirmed as WNV Fever. In 2002 and 2003, there were only 1 and 6 confirmed cases respectively in Miami-Dade County. Most human and avian WNV cases were located in the central region of the county during 2004 (map 6).

Childhood Lead Poisoning: There were 313 cases of childhood lead poisoning confirmed in Miami-Dade County during the year 2004 (blood lead level $\geq 10 \mu\text{g}/\text{dL}$). No significant changes in childhood lead poisoning morbidity were observed between the years 2003 (308 cases) and 2004. Sixty percent of the pediatric cases reported in 2004 (189/313) were females; 202 (64.5%) children were younger than 5 years old. Forty-eight percent of the cases (151/313) were Hispanic, twenty-three percent (70/313) Haitian and twenty-five percent (78/313) Non-Hispanic Black (map 7).

Comments

Traditional disease surveillance is an important component of the core public health activities performed by the Miami-Dade County Health Department, which plays a critical role in the prevention of the spread of communicable diseases among residents and visitors in Miami-Dade County. Future steps in the development of the OEDC include the enhancement of disease surveillance through the implementation of an Emergency Department-based syndromic surveillance program with local hospitals in Miami-Dade County, enhancing our staff's analytical skills through training on SAS and Geographical Information Systems (GIS), as well as facilitating their access to the latest advances in the field of public health and disease surveillance through their participation in seminars, workshops, and other scientific events in Florida and nationwide. OEDC staff is committed to the protec-

tion of Miami-Dade County residents and visitors against biological events of natural and/or bioterrorism origin.



*Ratio of current month total to mean of 15 month totals (from previous, comparable, and subsequent month periods for the past 5 years).

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



**Volume 6, Issue 6
June 2005
Page- 6**

Monthly Report

Selected Reportable Diseases/Conditions in Miami-Dade County, May 2005

Diseases/Conditions	2005 this Month	2005 Year to Date	2004 Year to Date	2003 Year to Date	2002 Year to Date	2001 Year to Date
AIDS ^{Provisional}	137	643	563	458	473	568
Animal Rabies	0	0	0	0	0	0
Campylobacteriosis	17	47	47	49	39	39
<i>Chlamydia trachomatis</i>	314	1569	1715	1759	1874	1449
Ciguatera Poisoning	0	0	0	0	0	0
Cryptosporidiosis	1	12	4	5	3	8
Cyclosporiasis	0	0	0	0	0	0
Diphtheria	0	0	0	0	0	0
<i>E. coli</i> , O157:H7	0	0	1	0	0	0
<i>E. coli</i> , Non-O157	0	0	0	0	1	0
<i>E. coli</i> , Other	0	0	0	0	0	0
Encephalitis (except WNV)	0	0	0	0	0	0
Encephalitis, West Nile Virus	0	0	0	0	0	0
West Nile Fever	0	0	0	0	0	0
Giardiasis, Acute	16	65	110	61	71	94
Gonorrhea	139	695	618	789	857	717
Hepatitis A	8	26	13	16	56	62
Hepatitis B	6	23	16	17	11	21
HIV ^{Provisional}	129	661	739	698	855	679
Lead Poisoning	27	63	104	81	96	103
Legionnaire's Disease	1	2	3	0	0	0
Leptospirosis	0	0	0	0	0	0
Lyme disease	0	0	1	1	0	1
Malaria	0	0	8	5	5	10
Measles	0	0	1	0	0	0
Meningitis (except aseptic)	0	3	2	2	3	1
Meningococcal Disease	0	3	8	3	9	9
Mumps	0	0	0	0	0	0
Pertussis	1	2	2	1	1	1
Polio	0	0	0	0	0	0
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	49	154	118	152	97	68
Shigellosis	25	113	77	132	77	34
<i>Streptococcus pneumoniae</i> , Drug Resistant	3	8	31	47	68	74
Syphilis, Infectious	15	69	80	81	77	78
Syphilis, Other	48	248	380	452	448	240
Tetanus	0	0	0	0	0	1
Toxoplasmosis	0	0	1	4	10	6
Tuberculosis ^{Provisional}	10	68	91	104	93	57
Typhoid Fever	0	2	1	1	1	0
<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	0	1	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.

