

Epi Monthly Report

Prevalence of Sexually Transmitted Diseases in Pregnant Women: Miami-Dade County, 2004-2005

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Introduction

Sexually transmitted diseases (STDs) can contribute to a number of adverse pregnancy outcomes including early onset of labor, ectopic pregnancy, stillbirth, low birthweight, and conjunctival infection of newborn. Consequently, the CDC 2006 Guidelines for Treatment of Sexually Transmitted Diseases recommend that pregnant women should be screened for chlamydia, gonorrhea, syphilis, Hepatitis B, Hepatitis C, and HIV on their first prenatal visit. Through early detection, with the exception of Hepatitis C, treatment/interventions can be employed to prevent the transmission of STDs to the infant. Both chlamydia and gonorrhea can be transmitted to the infant during delivery as baby passes birth canal. If left untreated, syphilis can be transmitted to the fetus during pregnancy by crossing the placenta and infecting the baby in the uterus. All three of these STDs (chlamydia, gonorrhea, and syphilis) can be treated and cured during pregnancy with antibiotics. In the United States each year an estimated 200000, 40000, and 8000 pregnant women are infected with Chlamydia, gonorrhea, and syphilis respectively.

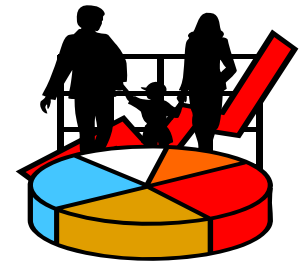
The study objectives were to describe the prevalence of chlamydia, gonorrhea, and syphilis during pregnancy among women in Miami-Dade County and examine the associations between STD prevalence among pregnant women and age, race/ethnicity, marital status, preterm birth, and low birthweight.

Methods

Data for this analysis was obtained from live birth certificates (2004 revision) for calendar years 2004 and 2005. For this two year period over 64,000 live births were registered in Miami-Dade County. Chi-square test was used to examine the associations between the prevalence of three STDs (Chlamydia, gonorrhea, and syphilis) present and/or treated during pregnancy and maternal characteristics such as age, race/ethnicity, and marital status. In addition, associations between STD prevalence and preterm birth (birth <37 weeks) and low birthweight (<2,500 grams) were also examined.

Results

The prevalence rate of chlamydia infection during pregnancy (10.4 per 1,000 live births) was 6 ½ times that of gonorrhea (1.6 per 1,000 live births) and 6 times that of syphilis (1.8 per 1,000 live births). When examining prevalence rates of STDs by age group, rates of chlamydia and gonorrhea were higher among the 10-19 year olds as compared to pregnant women 20 years of age and older. Syphilis, on the other hand, was more prevalent among older women. As seen in Figure 2, prevalence rates of chlamydia and gonorrhea were highest among Non-Hispanic Blacks followed by Haitians, with the second highest rates of infection. Syphilis was more prevalent among Haitians as compared to all other race/ethnic groups. An analysis of STDs



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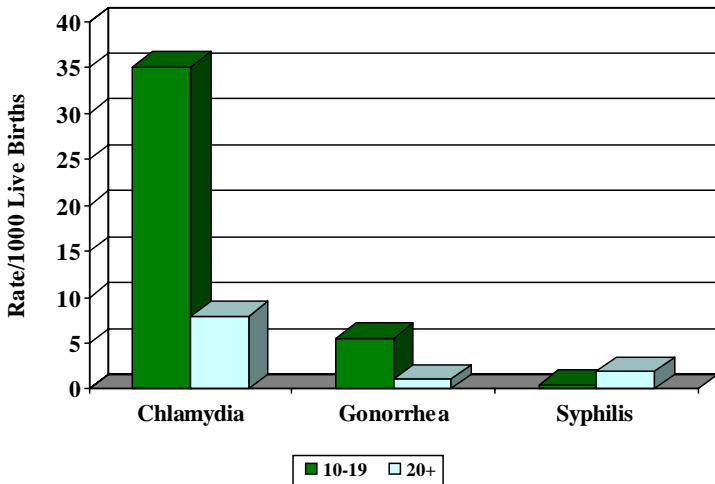
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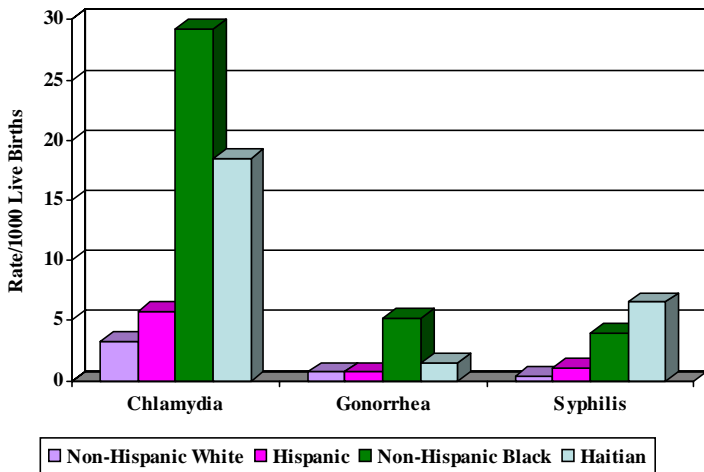
by marital status revealed that the rate of gonorrhea among unmarried women was almost 8 times the rate observed among married women. Unwed women also had higher rates of chlamydia and syphilis. The low birthweight rates among mothers infected with gonorrhea and mothers infected with syphilis were double the rate among mothers with no STDs during pregnancy. A similar relationship was observed when examining the preterm birth rate by the mothers STD status.

Figure 1. Prevalence Rates of STDs among Pregnant Women by Age Group: Miami-Dade County, 2004-2005



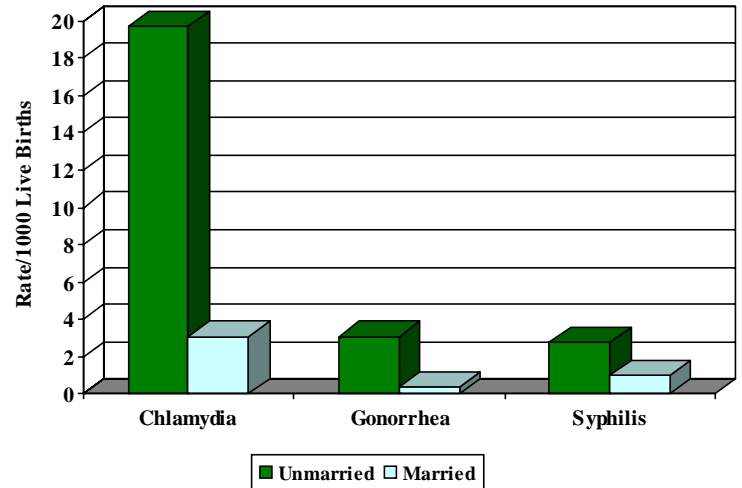
Data Source: Miami-Dade County Health Department

Figure 2. Prevalence Rates of STD among Pregnant Women by Race/Ethnicity: Miami-Dade County, 2004-2005



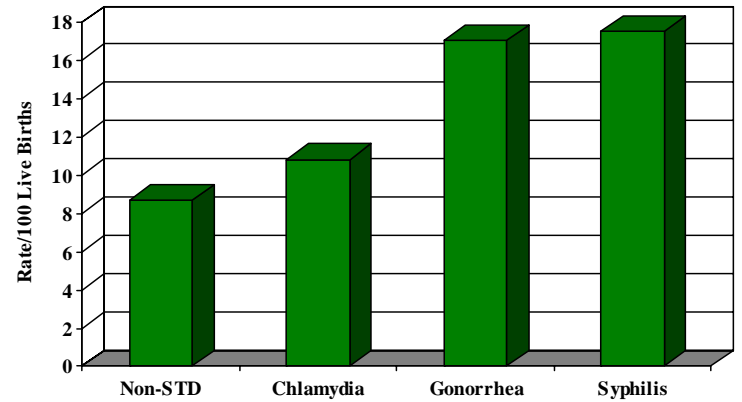
Data Source: Miami-Dade County Health Department

Figure 3. Prevalence Rates of STD among Pregnant Women by Marital Status in Miami-Dade County, 2004-2005



Data Source: Miami-Dade County Health Department

Figure 4. Low Birthweight Rate (<2,500 grams) by Mother's STD Status: Miami-Dade County, 2004-2005



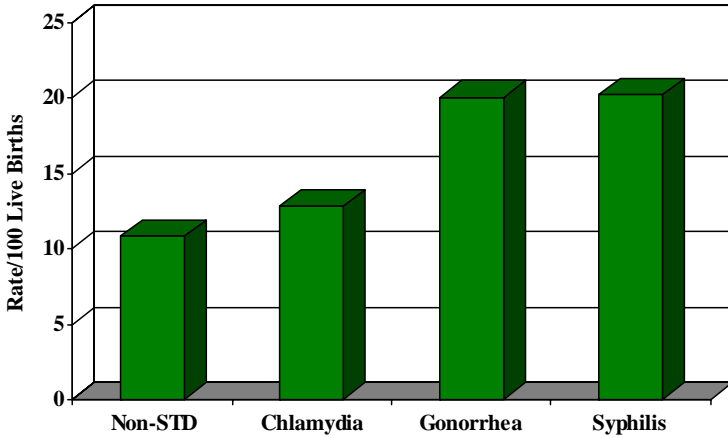
Data Source: Miami-Dade County Health Department

Limitations

The STDs present and/or treated during pregnancy were reported by physician at time of birth. Since it is possible a mother may have changed providers during pregnancy, the medical records and patient medical histories may have been incomplete or inaccurate. Furthermore, during analysis, we were unable to adjust for race/ethnicity when examining prevalence rates of preterm births and low birth weight by mother's STD status due to small sample sizes after stratification by race/ethnicity. Finally, in order to evaluate the sensitivity and specificity of STD data reported on the birth certificate we planned to use STD Program Surveillance data. However, the STD Surveillance



Figure 5. Preterm Birth Rate (<37 weeks) by Mother's STD Status: Miami-Dade County, 2004-2005



Data Source: Miami-Dade County Health Department

data we received was stripped of identifiers and thus were unable to link the two databases.

Conclusions

There are clear disparities with respect to age, race/ethnicity, and marital status for STD prevalence during pregnancy. Teens and young adults 10-19 years of age, Non-Hispanic Black and Haitian women, and unwed mothers had higher rates of STDs during pregnancy. According to this analysis, the presence of gonorrhea and syphilis during pregnancy can contribute to adverse pregnancy outcomes such as low birthweight and preterm birth.

Public Health Implications

Increased preconception screening for STDs, especially among the high-risk populations identified above, may prove useful. Sharing these findings with health care providers in the community is essential in preventing disease transmission and adverse pregnancy outcomes among these high risk groups. In addition, the new "Medical and Health Information" section on the 2004 revision of the live birth certificate concerning infections present and/or treated during pregnancy could be useful tool for studying STDs among pregnant women. Efforts will be made to further evaluate the sensitivity and specificity of this data.

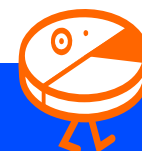
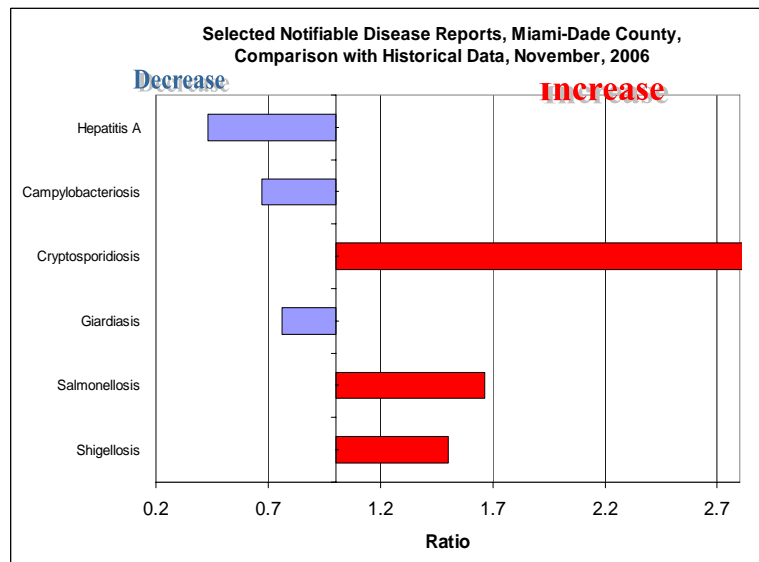


*Thank you
for your
support !*

**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
November 29, 2006



- **Since 2003, 258 human cases of avian influenza (H5N1) have been confirmed** by the World Health Organization (WHO). Of these, 154 have been fatal.
- **Countries with confirmed human cases** include Cambodia, China, Djibouti, Indonesia, Thailand, Vietnam, Iraq, Azerbaijan, Egypt and Turkey.
- **No human cases of avian influenza (H5N1) have been reported in the United States.**
- **There have not been any newly confirmed human H5N1 cases occurring since November 29, 2006. Please refer to the November 2006 issue of the Epi Monthly Report for that information.**
- **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/download/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.

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.

PARTICIPATE IN INFLUENZA SENTINEL PROVIDER SURVEILLANCE

Why does Florida need influenza sentinel providers?

Sentinel providers are key to the success of the Florida Department of Health's Influenza Surveillance System. An influenza sentinel provider conducts surveillance for influenza-like illness (ILI) in collaboration with the Florida State Health Department, Bureau of Epidemiology and the Centers for Disease Control and Prevention (CDC). Data reported by sentinel providers, in combination with other influenza surveillance data, provides a national picture of influenza virus and ILI activity in the U.S. and Florida.

What data do sentinel providers collect and how do they report?

Sentinel providers report the total number of patient visits each week and number of patient visits for ILI by age group (0–4 years, 5–24 years, 25–64 years, and ≥ 65 years) year round. These data are transmitted once a week via the internet or via fax to a central database at CDC. Most providers report that it takes **less than 30 minutes a week** to compile and report their data. In addition, sentinel providers can submit specimens from a subset of patients to the state laboratory for virus isolation **free of charge**.

Who can be an Influenza Sentinel Provider?

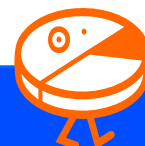
Providers of any specialty (e.g., family practice, internal medicine, pediatrics, infectious diseases) in any type of practice (e.g., private practice, public health clinic, urgent care center, emergency room, university student health center) are eligible to be sentinel providers.

Why Volunteer?

Epidemics of influenza usually occur during the winter months and are responsible for approximately 36,000 deaths per year in the United States. Influenza and pneumonia together were the eighth leading cause of death in Florida in 2004, with over 3,000 deaths statewide. Serious complications due to influenza can also occur in persons with chronic health conditions such as heart disease, diabetes, or HIV. Recently, human infections and deaths from bird flu (influenza A H5N1) reported worldwide since 2003 have generated great concern for this or another strain's potential for a pandemic.

Data from sentinel providers are critical for monitoring the impact of influenza. In combination with other influenza surveillance data, they can be used to guide prevention and control activities, vaccine strain selection, and patient care. Sentinel providers receive feedback on the data submitted, summaries of Florida and national influenza data, a free subscription to CDC's Morbidity and Mortality Weekly Report (valued at \$150.00) and the Emerging Infectious Diseases Journal. Most importantly, the data provided are critical for protecting the public's health.

For more information, please contact **Erin O'Connell** at 305-470-5660.



Monthly Report
Selected Reportable Diseases/Conditions in Miami-Dade County,
November 2006

Diseases/Conditions	2006 this Month	2006 Year to Date	2005 Year to Date	2004 Year to Date	2003 Year to Date	2002 Year to Date
AIDS ^{Provisional}	95	1093	1171	1263	916	985
Animal Rabies	0	0	0	0	0	0
Campylobacteriosis	7	150	129	127	132	102
<i>Chlamydia trachomatis</i>	524	4709	3553	4286	4014	4320
Ciguatera Poisoning	0	0	0	0	0	2
Cryptosporidiosis	8	35	35	17	13	12
Cyclosporiasis	0	0	20	2	1	1
Dengue Fever	1	3	3	5	1	5
Diphtheria	0	0	0	0	0	0
<i>E. coli</i> , O157:H7	0	1	0	5	0	0
<i>E. coli</i> , Non-O157	0	0	1	1	2	2
<i>E. coli</i> , Other	0	0	0	0	0	0
Encephalitis (except WNV)	0	0	0	1	0	1
Encephalitis, West Nile Virus	0	0	0	15	6	2
West Nile Fever	0	0	0	6	0	1
Giardiasis, Acute	17	199	199	259	197	205
Gonorrhea	153	1764	1504	1646	1687	1847
Hepatitis A	3	46	59	40	56	134
Hepatitis B	2	24	45	35	49	42
HIV ^{Provisional}	87	1116	1283	1542	1485	1727
Lead Poisoning	8	133	160	278	254	273
Legionnaire's Disease	0	9	8	11	8	1
Leptospirosis	0	0	2	0	0	0
Lyme disease	0	0	0	3	4	2
Malaria	1	15	10	18	12	12
Measles	0	0	0	1	0	0
Meningitis (except aseptic)	0	12	11	11	7	10
Meningococcal Disease	1	13	6	20	4	12
Mumps	0	0	0	0	0	0
Pertussis	1	8	9	9	9	6
Polio	0	0	0	0	0	0
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	72	550	550	409	493	308
Shigellosis	20	137	242	143	275	224
<i>Streptococcus pneumoniae</i> , Drug Resistant	5	92	59	59	109	108
Syphilis, Infectious	12	191	147	197	174	200
Syphilis, Other	55	614	507	744	935	1024
Tetanus	0	0	0	0	0	0
Toxoplasmosis	0	0	9	11	9	22
Tuberculosis ^{Provisional}	18	178	186	230	194	206
Typhoid Fever	0	6	2	3	4	4
<i>Vibrio cholera</i> Type O1	0	0	0	0	0	0
<i>Vibrio cholera</i> Non-O1	0	0	0	0	0	1
<i>Vibrio</i> , Other	0	0	0	0	1	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.

