

SYPHILIS IN HOUSTON / HARRIS COUNTY

AUGUST 2010



Houston Department of
Health and Human Services

SYPHILIS 101

INSIDE THIS ISSUE:

SYPHILIS 101	1
NATIONAL TRENDS	1
TRENDS IN HOUSTON/HARRIS COUNTY	2
SYPHILIS AND HIV	2
SYPHILIS BY AGE GROUP	2
SYPHILIS AMONG MSM	3
SYPHILIS BY RACE/ETHNICITY	3
CONGENITAL SYPHILIS	3
PARTNER SERVICES	4
STATS AT A GLANCE	4

Syphilis is a sexually transmitted infection (STI) caused by the bacterium *Treponema pallidum*.

Transmission: Syphilis can be transmitted during vaginal, anal, or oral sex. A pregnant woman may also pass syphilis to her baby. Once you have syphilis and are treated, you can still get it again if exposed.

Signs and Symptoms (in adults): Many people may not have any symptoms for years, or they may not realize the symptoms are caused by syphilis. The signs and symptoms are often confused for other illnesses or diseases.

Syphilis occurs in stages, with the first stage being called the primary stage. The primary stage usually causes a single sore called a chancre, but sometimes there may be multiple sores. A chancre is generally small, round, and painless and will heal without treatment in 3 to 6 weeks. If treatment is not

obtained, syphilis will progress to the secondary stage. This secondary stage usually starts with a red or reddish-brown rash. A rash may appear on the palms of the hands and bottoms of the feet, or it may appear elsewhere on the body. The rash may be so light as to be unnoticeable. Other symptoms may include fever, headaches, sore throat, patchy hair loss, fatigue, swollen lymph glands, muscle aches, and weight loss. If syphilis is not treated in the primary or secondary stages, it will progress to a latent stage where symptoms will disappear. Even without symptoms, the infection is still in the body. This "silent" or "hidden" stage can last for years. In about 15% of those that have not been treated, late stages of syphilis will develop. The late stages may damage internal organs and can cause paralysis, blindness, dementia, and death.

Treatment: Syphilis may be cured easily by an antibiotic if it is caught in the early stages. Treatment will prevent damage, but it will not fix the damage already done by syphilis.



Treponema pallidum, the bacterium that causes syphilis.
Image courtesy of CDC

STD VS. STI

In the past, "sexually transmitted disease" or "STD", was used to describe conditions that are often spread through sexual contact. More recently, "sexually transmitted infection" or "STI" has replaced "STD". The term "disease" usually indicates visible signs and symptoms. Since so many common STDs are asymptomatic, they may be more accurately described as causing an infection.

NATIONAL TRENDS

When examining current syphilis trends, primary and secondary (P&S) syphilis are most often reported. These stages are looked at because they best reflect recent infections, not those infections that were obtained years earlier.

Mandatory national reporting of syphilis began in 1941 with reported cases reaching an all-time low in 2000. After an 89.7% decline in P&S syphilis rates between 1990

and 2000, a National Plan to Eliminate Syphilis was announced. Shortly after this announcement, rates began to increase nationally. P&S syphilis rates have now increased each year since 2001.

This increase has been primarily in males, but in recent years, the rate in females has also increased. As of 2008, the national P&S syphilis rate in males was 7.6 cases per 100,000 population (15.2%

increase from 2007). Likewise, the national P&S syphilis rate increased 36.4% in females from 1.1 in 2007 to 1.5 cases per 100,000 population in 2008.

Geographically, the South accounted for 49.7% of total P&S syphilis cases in 2008. Texas was of particular concern, ranking 10th of 50 states with the highest rates of P&S syphilis.

TRENDS IN HOUSTON/HARRIS COUNTY

In 2008, Houston/Harris County's rate of P&S syphilis in males was approximately 2 times that of the national rate.

Similarly, the rate in females was approximately 3 times that of the national rate. Of reported cases in Houston/Harris County, 77.9% of 2009 cases were male and 22.1% female.

From 1999 to 2007, total case counts and rates increased every

year in Houston/Harris County. After years of increase, the P&S rate declined 16.1% from 2007 to 2008. The rate in 2009 also declined 16.0% from 2008.

As of 2009, Harris County had the greatest number of P&S syphilis cases of all 254 counties in Texas. Of those Texas counties with case counts over 10, Harris County ranked 10th based on P&S rate.

Nationally, Harris County ranked 5th of all counties for the most number of P&S syphilis cases in 2008. This represents improvement as Harris County was ranked 2nd nationally in 2007.



Rash on the palms caused by secondary syphilis. Image courtesy of CDC

SYPHILIS AND HIV

The CDC reports that those infected with sexually transmitted infections are at least two to five times more likely to acquire HIV if exposed. Infections, such as syphilis, can cause genital ulcers and inflammation that make people more susceptible to HIV when exposed.

For those individuals that

already have HIV, they are more likely to transmit HIV to sex partners if they are co-infected with another STI. This is possible because STIs increase the infectiousness of HIV. Co-infected individuals are more likely to shed HIV in genital secretions, and the HIV virus is more likely to be found in higher concentrations in those

secretions. The good news is that treatment of STIs will decrease this risk.

In Houston/Harris County, it is estimated that approximately 33.8% of those with primary or secondary syphilis in 2009 were also HIV positive. Among men who have sex with men (MSM), it is estimated that 54.5% of those with primary or secondary syphilis in 2009 were HIV positive.

SYPHILIS BY AGE GROUP

In the U.S., CDC estimates there are 19 million new cases of sexually transmitted infections each year. Nearly half of these infections will be in youth ages 15 to 24 years. Following this trend, syphilis also disproportion-

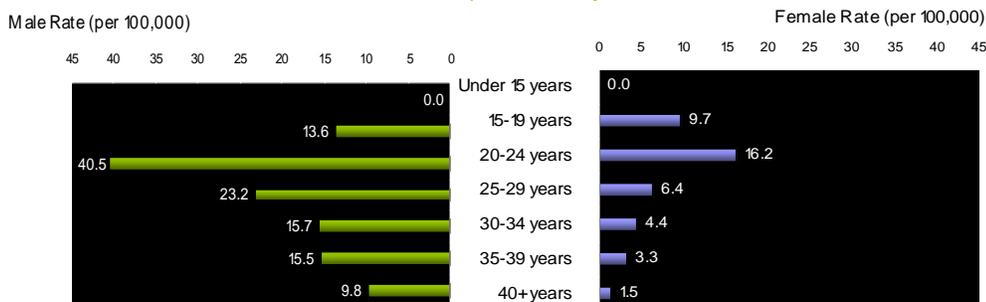
ately affects those in younger age groups.

In Houston/Harris County, highest P&S syphilis rates in 2009 were among males 20-24 years, followed by males 25-29 years. Among females in

Houston/Harris County, the highest rates were in those 20-24 years, followed by those 15-19 years.

In general, Houston/Harris County has a slightly "younger" syphilis burden than what is observed in national trends.

Syphilis (P&S)— Age- and sex-specific rates
Houston/Harris County, 2009



One in two sexually active people will get an STI by age 25. With odds like that, getting tested is a priority! Check out our web site to find out how you can get tested.

SYPHILIS AMONG MEN WHO HAVE SEX WITH MEN (MSM)

As of 2010, the CDC released a national population estimate of men who have sex with men (MSM). This analysis defined MSM as those “men who reported engaging in same-sex behavior within the past five years”. Based on this estimate of 4% of the US male population, the national syphilis rate in MSM is more than 46 times higher than the rate in other men. In comparison to women, the national P&S syphilis rate in MSM is over 71 times higher. These new estimates provided by

the CDC further demonstrate the disparities that exist for new syphilis diagnoses.

From 2002-2009 in Houston/Harris County, MSM have accounted for 48.8-64.3% of all P&S syphilis cases. Most recent data for 2009 indicates that 53.0% of P&S syphilis cases for that year were in MSM.

Among Houston/Harris County MSM with primary or secondary syphilis in 2009, 59.5% were Black/African American, 19.6% White, and 19.0% Hispanic (1.8%

were of another race/ethnicity). From 2008 to 2009, all racial/ethnic groups experienced a decline in MSM cases except for the Black/African American population.

An increasing proportion of these infections have been among young MSM ages 15-24 years. The 15-24 age group made up the largest proportion of MSM P&S cases in 2009 (35.1% of all MSM P&S cases).

SYPHILIS BY RACE/ETHNICITY

In 2009, P&S syphilis rates in Houston/Harris County were highest among Black/African American men, followed by Black/African American women. Racial disparities became especially notable in Houston/Harris County when the Black/African American rate increased by 284.1% from 2004 to 2007. As of 2009, the P&S syphilis rate in the Black/African American population was 7.9 times higher than that of Whites and 10.9 times higher than that of Hispanics. The rate in Whites

was 1.4 times higher than that of Hispanics.

While P&S syphilis rates in Houston/Harris County were highest in Black/African Americans and Whites aged 20-29, rates were highest in Hispanics aged 35-44 years. These trends demonstrate the need for targeted prevention strategies for diverse communities.

From 2008 to 2009 in Houston/Harris County, the P&S syphilis rates decreased in all racial/

ethnic groups.

Nationally, the P&S syphilis rate in Black/African Americans ages 15+ was 7.9 times higher than that of Whites ages 15+ in 2008. The disparity was slightly lower in Houston/Harris County that year (6.9 times higher). While there was a 2008 national disparity between Hispanics and Whites ages 15+, this trend was not seen in Houston/Harris County that year.

CONGENITAL SYPHILIS

If a woman has untreated syphilis while she is pregnant, the baby may be born dead (stillbirth) or die shortly after birth. Due to this risk, it is important for all pregnant women to get tested for syphilis. Babies can be born with syphilis (called congenital syphilis) and may not have any signs or symptoms. Babies with syphilis need immediate treatment. If the baby doesn't receive treatment,

serious health problems may occur. These health problems could include seizures, deafness, neurological impairment, bone and teeth deformities, and death.

Texas Trends, 2008:

According to CDC's Surveillance Report, Texas had the second highest congenital syphilis rate in the nation. Also in 2008, Texas had the most reported congenital

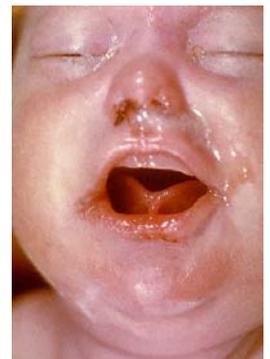
syphilis cases of all 50 states.

Houston/Harris County Trends:

For 2008 and 2009, cases of congenital syphilis were the highest they've been since 1998 in Houston/Harris County. The Black/African American and Hispanic populations are disproportionately affected by congenital syphilis. In 2009, 64.4% of cases were among Black/African Americans and 31.1% were among Hispanics.

Syphilis may be prevented by:

- Abstaining from sexual contact
- Having sex within mutually monogamous relationships where both partners are known to be uninfected
- Using latex condoms to reduce your risk
- Since sores that pass syphilis may occur in areas that condoms don't cover, they may not always prevent infection. However, using latex condoms will reduce your risk and prevent other STIs such as HIV.



Newborn with congenital syphilis.

Image courtesy of CDC

HOUSTON DEPARTMENT OF HEALTH AND HUMAN SERVICES

Bureaus of Epidemiology and HIV/STD and Viral Hepatitis Prevention
 8000 N. Stadium
 Houston, TX 77054
 Phone: 832-393-5080, 713-794-9020

Visit us online:
www.houstontx.gov/health



PARTNER SERVICES IN HOUSTON/HARRIS COUNTY

Partner elicitation and notification is the process by which people are informed that they may have been exposed to diseases for the purpose of referral, testing, and treatment. The Houston Department of Health and Human Services has professional Disease Intervention Specialists (DIS) that specialize in notifying people that they might have STIs. They are highly knowledgeable of STIs and operate under strict standards of confidentiality. DIS receive intense training on how to discreetly notify people of positive STI tests and how to notify the sex partners of those that test positive. Protected by law, partners are not given any information about the person that has tested positive or the person that named them as a partner. These services have been a part of public health in the U.S. for over 50 years and are the preferred method of informing partners that they may have been exposed. See DIS on YouTube: www.youtube.com/user/PENShouston
Partner Elicitation & Notification Services in Houston/Harris County: www.penshouston.org

HIV/STD and Viral Hepatitis Prevention Bureau's Mission and Vision

Mission: The mission of the HIV/STD and Viral Hepatitis Prevention Bureau is to work in partnership with the community to assess, plan, and implement effective public health strategies to reduce the spread of HIV, viral Hepatitis and other sexually transmitted diseases in the City of Houston.

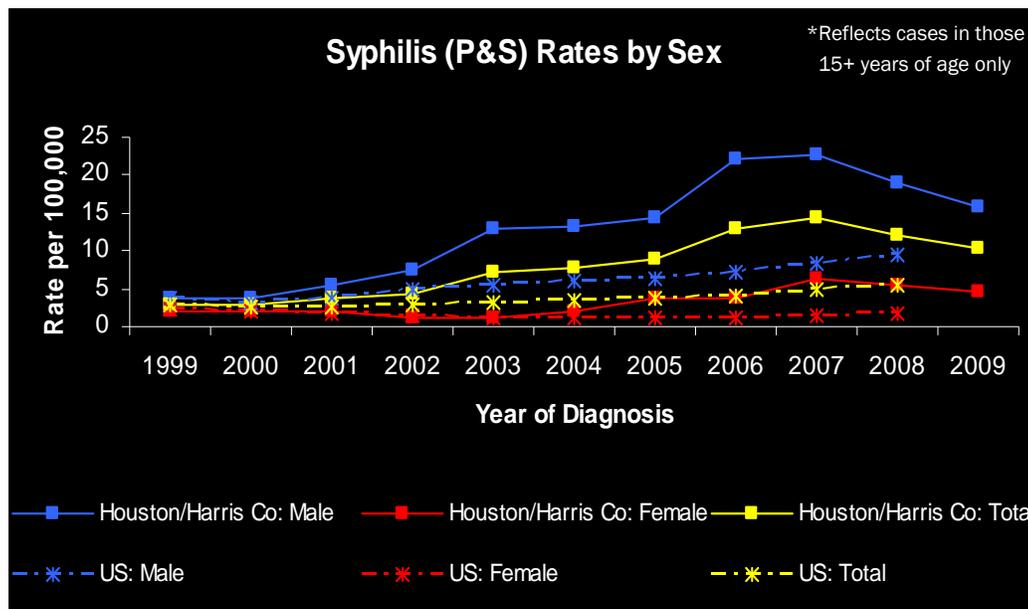
Vision: The elimination of HIV, viral Hepatitis and sexually transmitted diseases through the adoption of health promoting behaviors among the residents of Houston

What is epidemiology? Epidemiology is the study of the distribution and determinants of diseases and injuries.

- Sources:**
- Centers for Disease Control and Prevention (CDC)
 - National Prevention Information Network
 - American Social Health Association
 - City of Houston's STD*MIS data as of April 2010

STATS AT A GLANCE, P&S SYPHILIS

	P&S Case Count	Population Estimate, Harris County Source: TX Dept. of State Health Services	P&S Rate per 100,000 persons
2006 Houston/Harris County	380	3,830,130	9.9
2007 Houston/Harris County	435	3,891,420	11.2
2008 Houston/Harris County	373	3,965,716	9.4
2009 Houston/Harris County	317	4,016,367	7.9



Did you know?

More STI data and statistics can be found on our web site:

www.houstontx.gov/health/std.html