



CD Update...Communicable Disease Surveillance Information

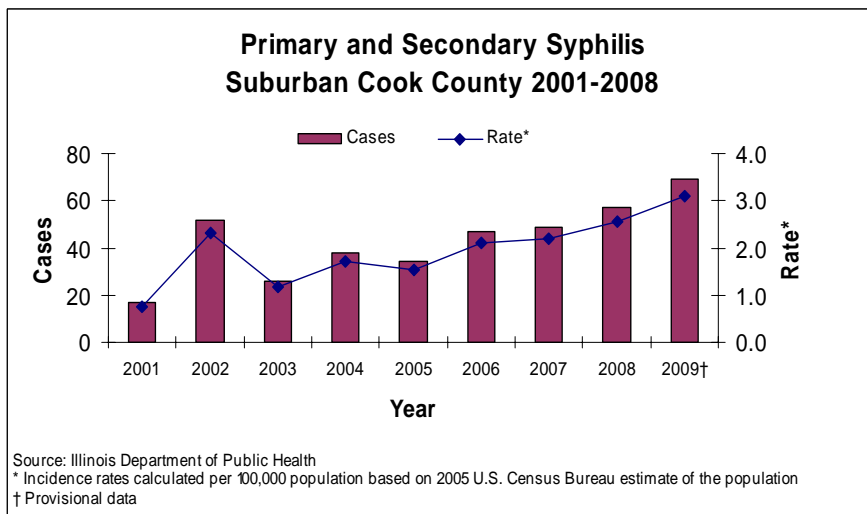
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Epidemiology of Syphilis in Suburban Cook County

Background: Syphilis is a sexually transmitted infection (STI) caused by the bacterium *Treponema pallidum*. Syphilis is passed from person to person through direct contact with a syphilis sore. Sores occur mainly on the external genitals, vagina, anus, or in the rectum. Sores also can occur on the lips and in the mouth. Transmission of the organism occurs during vaginal, anal, or oral sex. Pregnant women with the disease can pass it to the babies they are carrying. Untreated, it progresses through three stages - *primary* and *secondary*, which are characterized by infectious lesions, rashes and other systemic manifestations, and *early latent*, with no signs or symptoms present at the time of diagnosis. Syphilis is easy to cure in its early stages, but untreated syphilis can cause serious medical conditions, including damage to internal organs, paralysis, numbness, blindness, dementia, and death.

Epidemiologic Profile: In suburban Cook County (SCC), the majority of primary and secondary syphilis cases are males. Of these male cases, over half are reported as men who have sex with men (MSM). Disparities among racial and ethnic groups are pronounced. Non-hispanic blacks, representing 13.5% of the SCC population, account for over 60% of the primary and secondary syphilis cases reported in SCC. The highest primary and secondary syphilis incidence rates occur among persons 20-24 years of age. Geographically, the South district is the most heavily burdened, with primary and secondary syphilis rates more than three times those of residents in the North district.

Statistics: Primary and secondary syphilis incidence rates have been rising since 2003, with the 2009 rate (3.1 per 100,000 population) fifteen times higher than the CDC's Healthy People 2010 goal (0.2 per 100,000 population). There has also been an increase in the percentage of SCC syphilis cases categorized as early latent (47% in 2009 compared to 36% in 2008 and 29% in 2007). Since early latent cases represent missed opportunities in diagnosing syphilis infections during earlier stages, these data suggest that an increasing number of syphilis cases in SCC are not being identified and treated promptly.



Bar/Line Graph: Syphilis cases and rates in SCC have been increasing since 2003 (although there was a slight decrease in 2005). Risk and demographic data suggest that this increase may be driven by increases in the MSM population.

Did you know? Genital sores caused by syphilis make it easier to transmit and acquire HIV infection sexually. There is an estimated 2- to 5-fold increased risk of acquiring HIV if exposed to that infection when syphilis is present.

Prevention: The best way to avoid sexually transmitted infections (STIs), including syphilis, is to abstain from sexual contact or to be in a long-term, mutually monogamous relationship with a partner who has been tested and is known to be uninfected. Correct and consistent use of latex condoms can reduce the risk of syphilis only when the infected area or site of potential exposure is protected. For more information, visit:

- <http://www.cookcountypublichealth.org/programs-services/communicable-diseases/sexually-transmitted-diseases>
- <http://www.idph.state.il.us/public/hb/hbsyph.htm>
- <http://www.cdc.gov/std/syphilis/default.htm>

Morbidity for Selected Infectious Diseases, Suburban Cook County† 2005-2010

Cook County
Department of Public Health
Cook County Health and Hospitals System



Todd H. Stroger
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| Vaccine Preventable | 2005 | 2006 | 2007 | 2008 | 2009* | 5-year median | Jan 1 to Mar 31, 2010* |
|--|-------|-------|-------|-------|-------|---------------|------------------------|
| Diphtheria | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <i>Haemophilus influenzae</i> (type B) | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| Hepatitis B | | | | | | | |
| Acute | 12 | 17 | 39 | 66 | 26 | 26 | 6 |
| Chronic | 602 | 513 | 511 | 383 | 293 | 511 | 60 |
| Measles | 0 | 0 | 0 | 11 | 0 | 0 | 0 |
| Mumps | 0 | 70 | 21 | 19 | 14 | 19 | 1 |
| Pertussis (whooping cough) | 91 | 122 | 45 | 92 | 94 | 92 | 7 |
| Rubella | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tetanus | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Selected Diseases | | | | | | | |
| Cryptosporidiosis | 15 | 16 | 21 | 14 | 15 | 15 | 7 |
| <i>E.coli</i> O157:H7 | 12 | 14 | 17 | 10 | 33 | 14 | 0 |
| Giardiasis | 101 | 101 | 94 | 72 | 79 | 94 | 16 |
| <i>Haemophilus influenzae</i> (not B) | 27 | 21 | 21 | 30 | 15 | 21 | 4 |
| Hepatitis A | 39 | 43 | 35 | 46 | 36 | 39 | 5 |
| Hepatitis C (chronic) | 865 | 1,137 | 1,141 | 811 | 806 | 865 | 116 |
| Histoplasmosis | 4 | 9 | 10 | 19 | 3 | 9 | 5 |
| Legionellosis | 11 | 31 | 14 | 38 | 30 | 30 | 2 |
| Listeriosis | 10 | 3 | 7 | 11 | 26 | 10 | 1 |
| Lyme disease | 21 | 22 | 18 | 9 | 23 | 21 | 2 |
| Malaria | 13 | 19 | 11 | 21 | 19 | 19 | 0 |
| Meningococcal disease | 4 | 9 | 14 | 22 | 8 | 9 | 2 |
| West Nile virus (neuroinvasive) | 46 | 33 | 16 | 3 | 0 | 16 | 0 |
| Pneumococcal disease (invasive)¶ | 216 | 209 | 172 | 32 | 23 | 172 | 7 |
| Salmonellosis | 304 | 280 | 371 | 282 | 285 | 285 | 46 |
| Shigellosis | 76 | 89 | 95 | 120 | 90 | 90 | 41 |
| Streptococcal infections, invasive (Group A) | 80 | 50 | 47 | 38 | 46 | 47 | 14 |
| Typhoid fever | 4 | 4 | 7 | 5 | 3 | 4 | 4 |
| Tuberculosis disease | | | | | | | |
| Active | 120 | 116 | 139 | 100 | 100 | 116 | 16 |
| Latent | 1,848 | 1,323 | 947 | 733 | N/A | 1,135 | N/A |
| Sexually Transmitted Diseases | | | | | | | |
| Syphilis§ | 68 | 80 | 69 | 89 | 131 | 80 | 19 |
| Gonorrhea | 2,257 | 2,530 | 2,782 | 2,560 | 1,892 | 2,530 | 317 |
| Chlamydia | 6,585 | 7,574 | 8,110 | 8,219 | 6,755 | 7,574 | 1,523 |
| HIV | 228 | 198 | 213 | 209 | 94 | 209 | 39 |

† Excludes Skokie, Evanston, Oak Park, Stickney, Burbank, and Forest View

* Provisional cases as of 05/19/10

¶ Beginning in March 2008, this condition only reportable in those < 5 years of age

§ Early syphilis (primary, secondary, and early latent)