



Communicable Diseases



Gonorrhea

What is it?

Infection with the bacterium *Neisseria gonorrhoeae* (GC) causes gonorrheal infections, the second most commonly reported communicable disease in both Cook County Department of Public Health's (CCDPH's) jurisdiction, Illinois and in the United States.ⁱ Gonorrheal infections are easily treated with appropriate antibiotics, but drug-resistant strains are on the rise.ⁱ

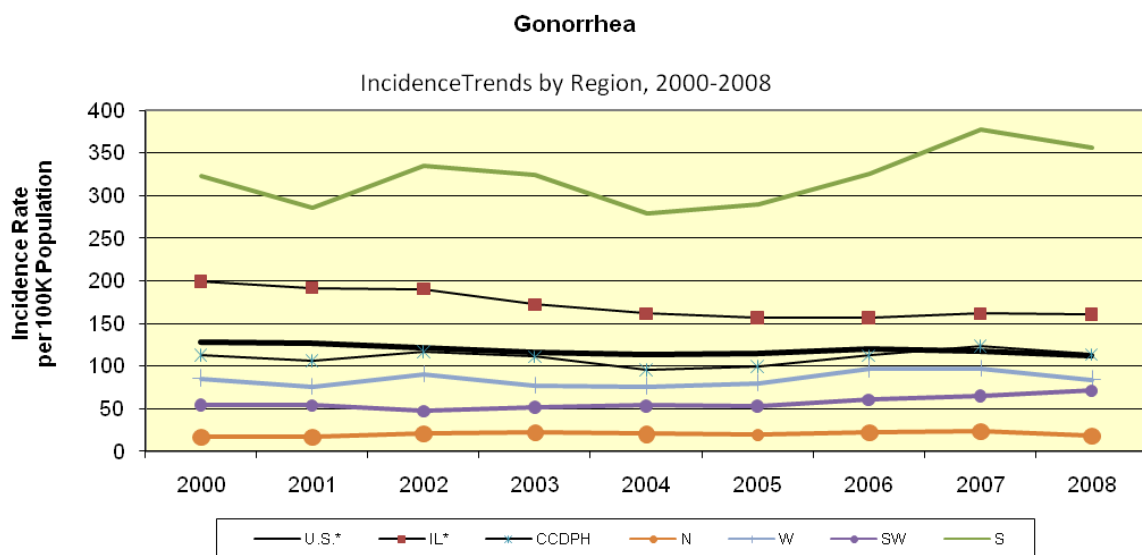
Why is it important:

Gonorrheal infections can facilitate transmission and acquisition of HIV when present in a sexual partner. HIV targets white blood cells, which the body uses to fight infections like gonorrhea. For example, among HIV-infected males, gonococcal urethritis increased HIV concentration in semen 5- to 8-fold compared with HIV-infected men without urethritis.^{ii,iii}

2000-2008

Gonorrhea (GC) rates were relatively stable between 2000 – 2008. In 2008, although the GC rate (113.6 per 100,000 population) in CCDPH's jurisdiction was slightly below the U.S. rate, the CCDPH GC rate was 6 times higher than the Healthy People (HP) 2010 goal of 19.0 per 100,000 population. The 2008 gonorrhea rate in the South district was notably higher than the rates in the other districts in CCDPH's jurisdiction. These rates reflect the disparity in gonorrhea rates in African Americans compared with other race/ethnicity groups (see Figure 2).

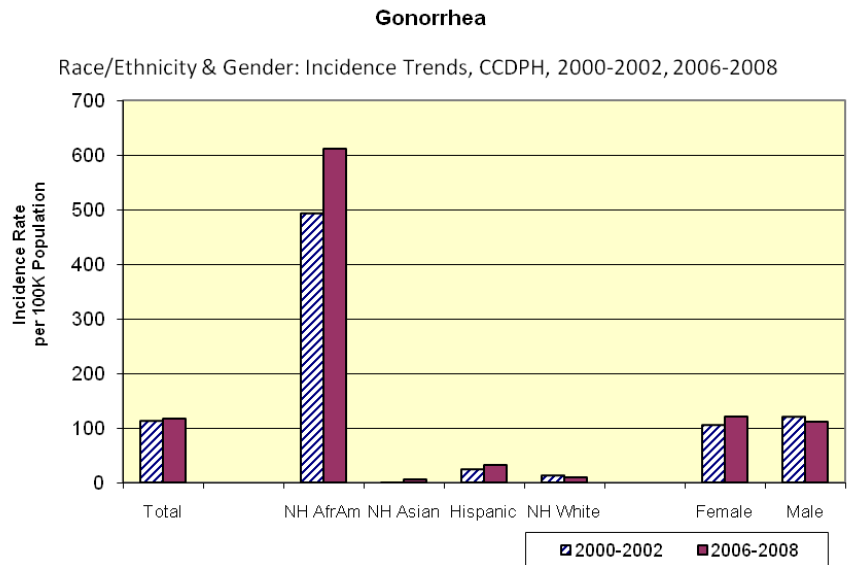
Figure 1



2000-2002 vs. 2006-2008**By Race and Gender**

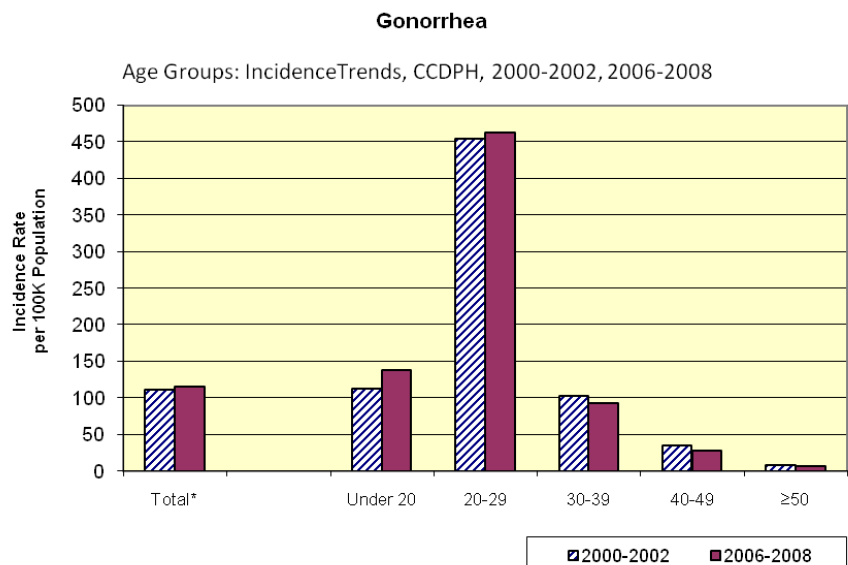
For CCDPH, gonorrhea rates changed very little from 2000-2002 (111.8/100,000) to 2006-2008 (116.5 per 100,000).

In CCDPH's jurisdiction, the gonorrhea rate in African Americans (2006-2008) was 612.2 per 100,000 population, 19 times higher than the rate in Hispanics (32.3 per 100,000 population), and 64 times higher than the rate in non-Hispanic Whites (9.5 per 100,000 population).

Figure 2**2000-2002 vs. 2006-2008****By Age Groups**

Gonorrhea rates in CCDPH were highest in persons under 30 years of age, a trend that was consistent comparing 2000-2002 with 2006-2008. Persons aged 20-24 years of age had the highest rates of gonorrhea (638.8 per 100,000 population for years 2006-2008). This rate is 34 times higher than the HP 2010 goal (19.0 per 100,000 population).

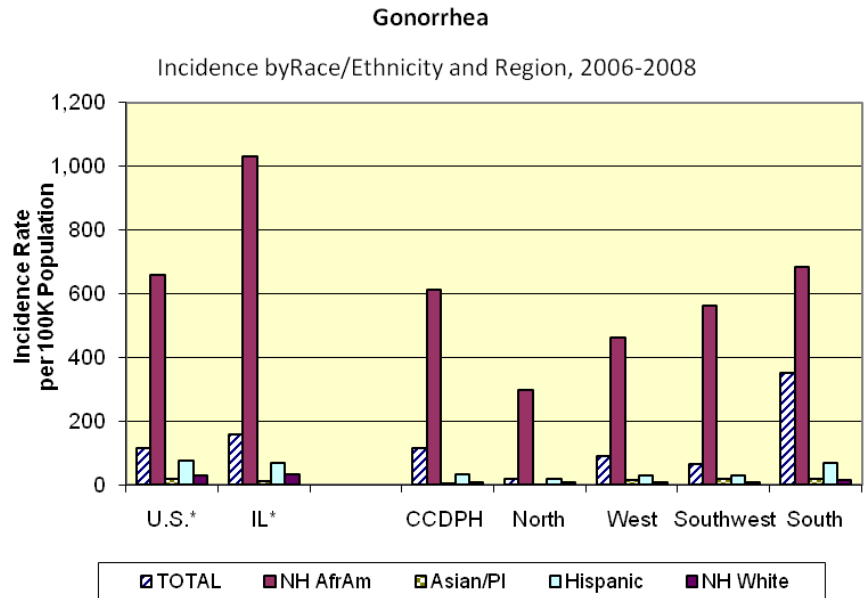
In persons under 15-19 years of age, gonorrhea rates increased 26%, rising from 457.9 per 100,000 between 2000-2002 to 575.4 per 100,000 between 2006-2008.

Figure 3

2006-2008**By Race/Ethnicity and Region**

In CCDPH's jurisdiction, African Americans represent less than 20% of the total population yet 72% of all gonorrhea cases diagnosed between 2006-2008 were African Americans.

Across all districts in CCDPH, gonorrhea rates were highest in African Americans, ranging from a low of 297.6 per 100,000 population in the North District to a high of 683.4 per 100,000 population in the South district.

Figure 4**By Gender and Region**

Gonorrhea rates were similar in males and females across all regions: in CCDPH's districts, in Illinois, and in the U.S. overall. The gonorrhea rate among females in the South district (2006-2008) was 360.2 per 100,000; in South district males, the rate was 345.1 per 100,000 population. These South district rates are more than three times higher than the average CCDPH rate of gonorrhea.

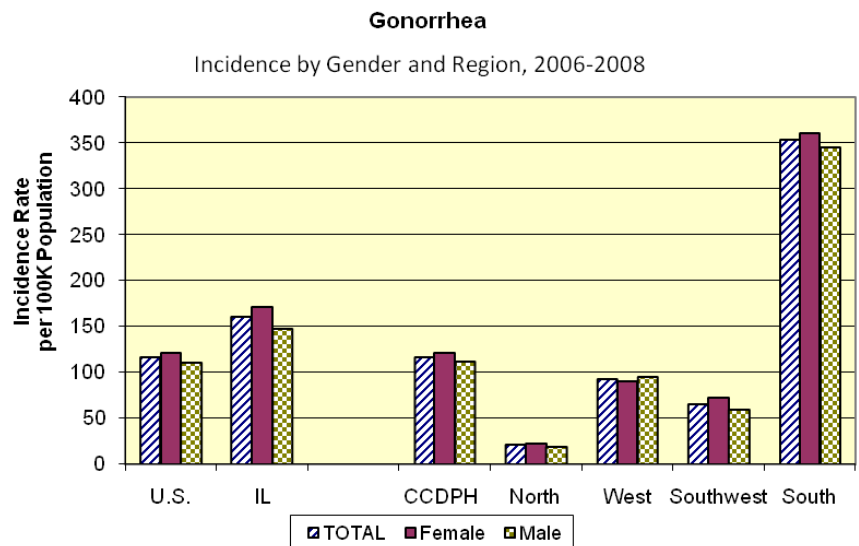
Figure 5

Table 1

**Gonorrhea
Incidence by Region
2000-2008**

	2000		2001		2002		2003		2004		2005		2006		2007		2008	
	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*
U.S.	363,136	128.7	361,705	126.8	351,852	122.0	335,104	115.2	330,132	112.4	339,593	114.6	358,366	119.7	355,991	118.0	336,742	111.6
IL	24,812	199.4	24,025	191.9	24,026	190.7	21,817	172.4	20,597	162.0	20,019	156.9	20,186	157.3	20,813	161.9	20,674	160.9
CCDPH	2,545	113.0	2,389	106.0	2,626	116.5	2,500	111.0	2,158	95.8	2,257	100.2	2,530	112.3	2,782	123.5	2,560	113.6
North	155	17.0	152	16.6	187	20.5	199	21.8	183	20.0	178	19.5	205	22.4	214	23.4	161	17.6
West	436	85.8	387	76.1	463	91.1	392	77.1	388	76.3	409	80.5	492	96.8	494	97.2	429	84.4
South	194	55.0	193	54.7	169	47.9	184	52.1	190	53.8	189	53.6	214	60.6	231	65.5	252	71.4
	1,543	323.1	1,363	285.4	1,596	334.2	1,548	324.1	1,333	279.1	1,381	289.2	1,557	326.0	1,800	376.9	1,701	356.2

* Rates based on 2000 Census population for CCDPH; for U.S. and Illinois, rates based on CDC Wonder online database.

Table 2

Gonorrhea

Incidence Trends, CCDPH By Race/Ethnicity, Gender, & Age Groups
2000-2002, 2006-2008

CCDPH				
	2000-2002		2006-2008	
Total	7,560	111.8	7,872	116.5
Race				
<i>NH AfrAm</i>	4,554	492.1	5,665	612.2
<i>NH Asian</i>	10	2.9	19	5.5
<i>Hispanic</i>	213	23.5	293	32.3
<i>NH White</i>	555	12.1	436	9.5
Gender				
<i>Female</i>	3,663	105.1	4,215	120.9
<i>Male</i>	3,896	119.0	3,657	111.7
Age Groups				
<i>Under 20</i>	2,172	113.3	2,657	138.6
<i>20-29</i>	3,785	455.5	3,845	462.7
<i>30-39</i>	1,047	103.6	939	92.9
<i>40-49</i>	380	36.1	300	28.5
<i>≥50</i>	176	9.0	131	6.7

*Unspecified estimate (N<5)

~Rate not calculated(N<5)

Rates based on 2000 Census Population for SCC

Table 3

Gonorrhea
Incidence by Race/Ethnicity&Gender by Region
2006-2008

	U.S.		IL		CCDPH		North		West		Southwest		South	
	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*
TOTAL	1,051,099	116.5	61,673	160.0	7,872	116.5	580	21.1	1,415	92.8	697	65.8	5,058	353.0
Race/Ethnicity†														
<i>NIH/AIAn</i>	567,074	659.5	44,496	1,029.9	5,665	612.2	164	297.6	858	462.9	409	561.7	4,183	683.4
<i>NIH/Asian</i>	6,438	18.8	153	11.3	19	5.5	6	2.2	6	17.6	4	20.1	3	18.7
<i>Hispanic</i>	72,638	75.4	2,789	69.5	293	32.3	56	20.1	133	30.8	29	31.6	72	69.5
<i>NIH/White</i>	157,926	31.7	7,128	34.2	436	9.5	167	7.8	69	7.9	87	10.0	113	16.2
Gender														
<i>Female</i>	557,204	121.7	33,580	171.7	4,215	120.9	325	23.2	709	90.7	397	72.2	2,712	360.2
<i>Male</i>	491,296	110.5	28,092	148.0	3,657	111.7	255	19.0	706	94.9	300	59.0	2,346	345.1

Note: NH = non-Hispanic; PI = Pacific Islander.

* Rates based on 2000 census population for all regions except U.S.; U.S. rates from CDC Wonder online database.

† Excludes persons <15 years of age for US and IL totals and rates.

ⁱ CDC. STD Surveillance, 2009 – Gonorrhea. Available at: <http://www.cdc.gov/std/stats09/gonorrhea.htm> (last accessed, 3/30/2011).

ⁱⁱ Sadiq ST, Taylor S, Copas AJ, et al. The effects of urethritis on seminal plasma HIV-1 RNA loads in homosexual men not receiving antiretroviral therapy. Sex Transm Infect 2005; 81:120-123.

ⁱⁱⁱ Cohen MS, Hoffman IF, Royce RA, et al. Reduction of concentration of HIV-1 in semen after treatment of urethritis: Implications for prevention of sexual transmission of HIV-1. Lancet 1997; 349:1868-1873.

Syphilis

What is it?

Syphilis infections are caused by the bacterium *Treponema pallidum* and are classified in stages (primary, secondary, and latent). Syphilis is referred to as “the great imitator” because clinical manifestations can be easily mistaken for other medical conditions. Infections are transmitted through direct contact with chancres, or syphilis sores, which are present during the first two stages (primary and secondary syphilis).ⁱ

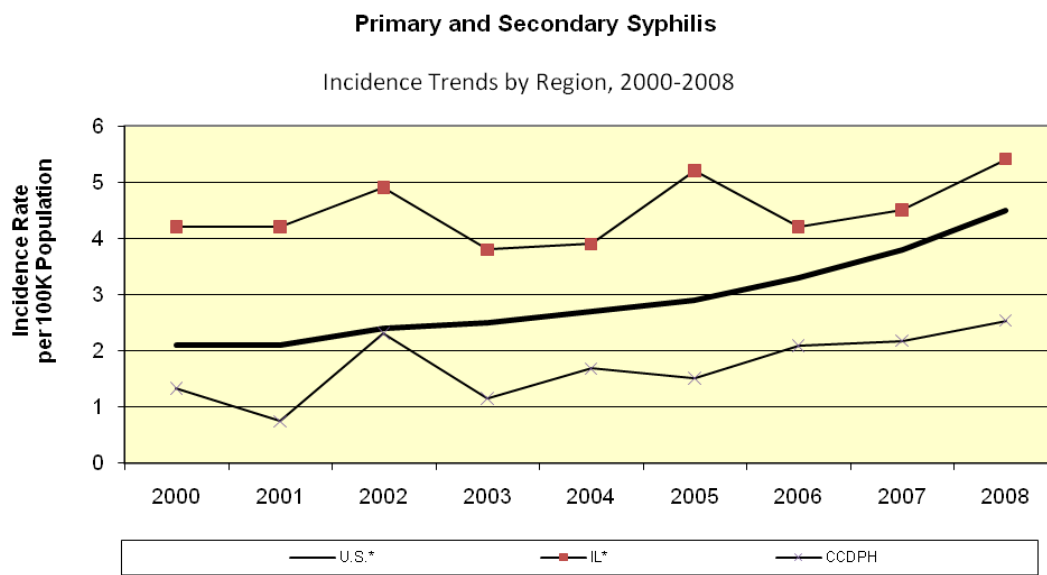
Why is it important?

Syphilis can spread from a pregnant woman to her baby if she does not receive treatment. Babies with syphilis may have birth defects or may be stillborn. Syphilis infections can also facilitate the transmission and acquisition of HIV. Persons are 2 to 5 times more likely to acquire HIV when syphilis is also present.ⁱⁱ In 2009, Cook County (including the City of Chicago) ranked second in the US in the number of primary and secondary syphilis cases behind Los Angeles.ⁱⁱⁱ

2000-2008

Though somewhat lower than rates in Illinois and the US, rates for Cook County Department of Public Health (CCDPH) primary and secondary (P & S) syphilis rose between 2000 and 2008. In the CCDPH jurisdiction, the 2008 rate of P & S syphilis was 2.5 per 100,000 population, 12.5 times the Healthy People (HP) 2010 goal of 0.2 per 100,000 population. Between 2005 and 2006, the rate of P & S syphilis in the CCDPH jurisdiction increased 40%, from 1.5 per 100,000 population to 2.1 per 100,000 population. Nationally, rates increased 18%, from 4.1 per 100,000 population in 2007 to 4.8 per 100,000 population in 2008.

Figure 1

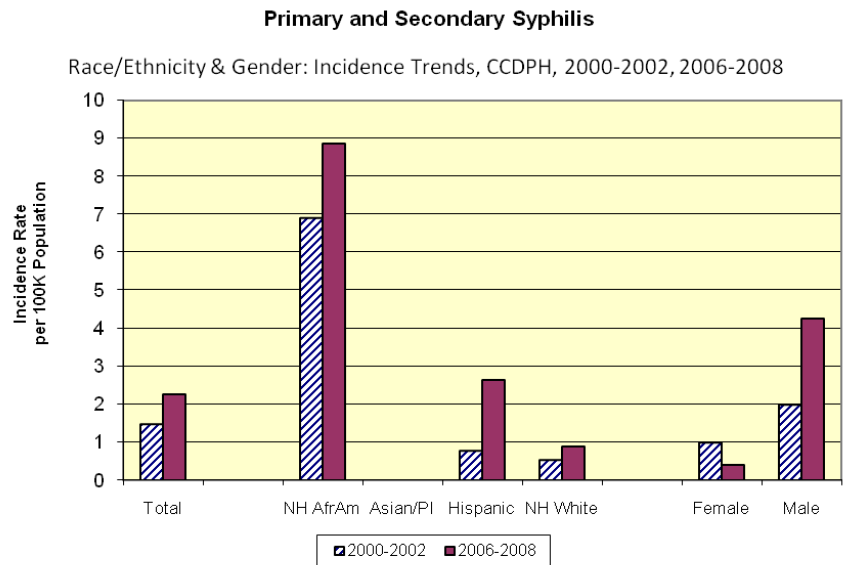


2000-2002 vs. 2006-2008**By Race/Ethnicity and Gender**

P & S syphilis cases increased from a rate of 1.5 per 100,000 population between 2000-2002 to a rate of 2.3 per 100,000 population between 2006-2008.

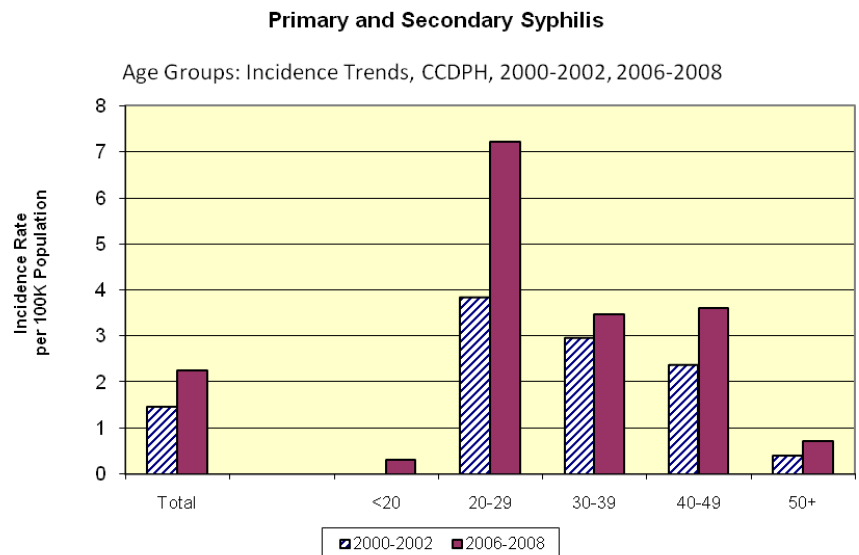
African Americans in CCDPH had the highest rate of P & S syphilis between 2006-2008 (8.9 per 100,000 population), 45 times higher than the HP 2010 goal.

The P & S rate in males between 2006-2008 was 4.2 per 100,000 population, 10 times higher than the average rate in females over the same time (0.4 per 100,000 population).

Figure 2**2000-2002 vs. 2006-2008****By Age Groups**

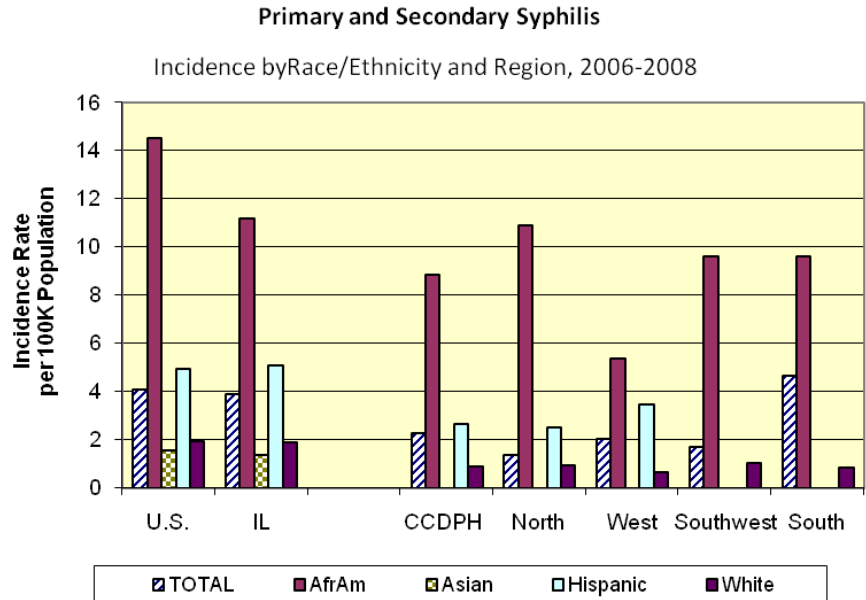
Among those aged 20-29 years, the P & S syphilis rate nearly doubled, from 3.9 per 100,000 population between 2000-2002 to 7.2 per 100,000 population between 2006-2008.

Rates also increased in other age groups over the two time periods: in those aged 30-39 years, the rate increased 17% from 3.0 to 3.5 per 100,000 population. Among those aged 40-49 years, the P & S rate increased 50% from 2.4 per 100,000 population between 2000-2002 to 3.6 per 100,000 population between 2006-2008. Finally, in those aged 50 years and older, the rate increased 75% from 0.4 per 100,000 population between 2000-2002 to 0.7 per 100,000 population between 2006-2008.

Figure 3

2006-2008**By Race/Ethnicity and Region**

P & S syphilis rates were higher in African Americans locally, statewide and nationally. In CCDPH's jurisdiction, the P & S syphilis rate in African Americans (2006-2008) ranged from a low of 5.4 per 100,000 population in the West district to a high of 10.9 per 100,000 population in the North district.

Figure 4**By Gender and Region**

The P & S rate in the CCDPH jurisdiction between 2006-2008 was 2.3 per 100,000 population, below the overall rate in the U.S (4.1/100,000).

The P & S syphilis rate (2006-2008) in males was substantially higher than the rate in females locally, statewide and nationally. In the South district during 2006-2008, the rate among males was 8.8 per 100,000 population, nearly 10 times higher than the rate among females in the South (0.9 per 100,000 population).

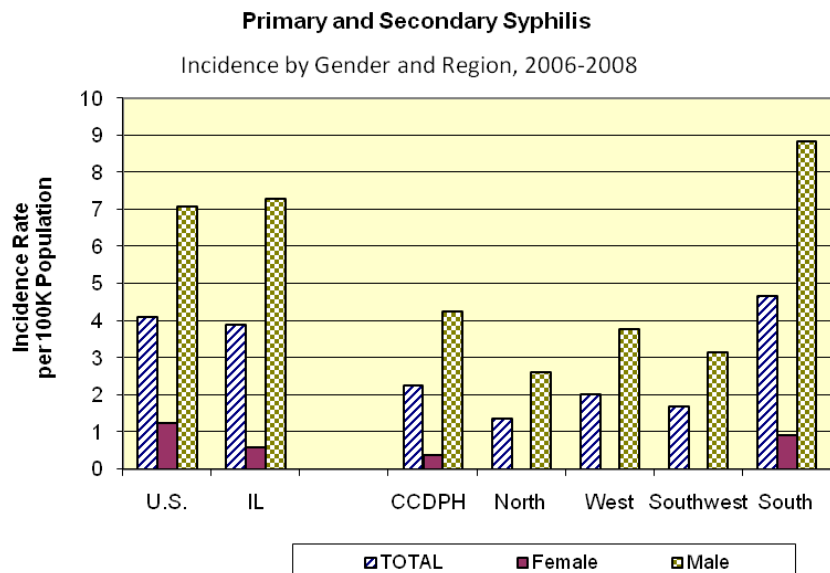
Figure 5

Table 1

**Primary and Secondary Syphilis
Incidence by Region
2000-2008**

	2000		2001		2002		2003		2004		2005		2006		2007		2008	
	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*
U.S.	5,979	2.1	6,103	2.1	6,862	2.4	7,177	2.5	7,980	2.7	8,724	2.9	9,756	3.3	11,466	3.8	13,500	4.5
IL	411	4.2	408	4.2	479	4.9	374	3.8	386	3.9	525	5.2	431	4.2	464	4.5	554	5.4
CCDPH	30	1.3	17	0.8	52	2.3	26	1.2	38	1.7	34	1.5	47	2.1	49	2.2	57	2.5
North	†	¶	†	¶	7	0.8	5	0.5	9	1.0	7	0.8	14	1.5	16	1.7	7	0.8
West	†	¶	†	¶	14	2.8	9	1.8	13	2.6	8	1.6	12	2.4	9	1.8	10	2.0
Swest	†	¶	0	0.0	10	2.8	†	¶	7	2.0	†	¶	†	¶	6	1.7	9	2.6
South	20	4.2	10	2.1	21	4.4	11	2.3	9	1.9	17	3.6	18	3.8	18	3.8	31	6.5

* Rates based on 2000 Census population for CCDPH; for U.S. and Illinois, rates based on CDC Wonder online database.

† Unspecified estimate (N<5).

¶ Rate not calculated (N<5).

Table 2

Primary and Secondary Syphilis

Incidence Trends, CCDPH By Race/Ethnicity, Gender, & Age Groups
2000-2002, 2006-2008

	SCC			
	2000-2002		2006-2008	
	n	rate	n	rate
Total	99	1.5	153	2.3
Race				
<i>NH AfrAm</i>	64	6.9	82	8.9
<i>Asian/PI</i>	*	~	*	~
<i>Hispanic</i>	7	0.8	24	2.6
<i>NH White</i>	24	0.5	41	0.9
Gender				
<i>Female</i>	34	1.0	14	0.4
<i>Male</i>	65	2.0	139	4.2
Age Groups (Years)				
<20	*	~	6	0.3
20-29	32	3.9	60	7.2
30-39	30	3.0	35	3.5
40-49	25	2.4	38	3.6
≥50	8	0.4	14	0.7

Note: NH = Not Hispanic; PI = Pacific Islander.

*Unspecified estimate (N<5).

~Rate not calculated (N<5).

Rates based on 2000 census population for CCDPH.

Table 3

**Primary and Secondary Syphilis
Incidence by Race/Ethnicity & Gender by Region
2006-2008**

	U.S.		IL		CCDPH		North		West		Southwest		South	
	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*
TOTAL	34,722	3.9	1,449	3.9	153	2.3	37	1.3	31	2.0	18	1.7	67	4.7
Race/Ethnicity**														
<i>NH Asian</i>	15,362	17.9	634	14.7	82	8.9	6	10.9	10	5.4	7	9.6	59	9.6
<i>Asian/PI</i>	536	1.6	18	1.3	†	¶	†	¶	0	0.0	0	0.0	0	0.0
<i>Hispanic</i>	5,306	5.5	235	5.9	24	2.6	7	2.5	15	3.5	†	¶	0	0.0
<i>NH White</i>	11,634	2.3	493	2.4	41	0.9	20	0.9	6	0.7	9	1.0	6	0.9
Gender														
<i>Female</i>	5,392	1.2	114	0.6	14	0.4	†	¶	†	¶	†	¶	7	0.9
<i>Male</i>	29,317	6.6	1,335	7.3	139	4.2	35	2.6	28	3.8	16	3.1	60	8.8

Note: NH = non-Hispanic; PI = Pacific Islander

* Rates based on 2000 census population for all regions except U.S.; U.S. rates from CDC Wonder online database

† Unspecified estimate (N<5)

¶ Rate not calculated (N<5)

** Excludes person <15 years of age for U.S. and IL totals and rates

ⁱ CDC. STD Surveillance, 2009 – Syphilis. Available at <http://www.cdc.gov/std/Syphilis/STDFact-MSM-Syphilis.htm> (last accessed 3/30/2011).

ⁱⁱ CDC. STD Facts—Syphilis and MSM. Available at: <http://www.cdc.gov/std/Syphilis/STDFact-MSM-Syphilis.htm> (last accessed 3/18/2011).

ⁱⁱⁱ CDC. STD Surveillance, 2009 – Table 31. Available at: <http://cdc.gov/std/statso9/tables/31.htm> (last accessed 3/30/2011).

Chlamydia

What is it/what causes it?

Chlamydial infections are caused by the bacterium *Chlamydia trachomatis*. *C. trachomatis* infections are easily cured with appropriate antibiotics. Though chlamydial infections are the most commonly reported communicable disease in Cook County Department of Public Health's (CCDPH) jurisdiction as well as the United States overall, underreporting is a significant problem because most individuals with chlamydial infections are asymptomatic and do not seek testing.ⁱ

Why is it important?

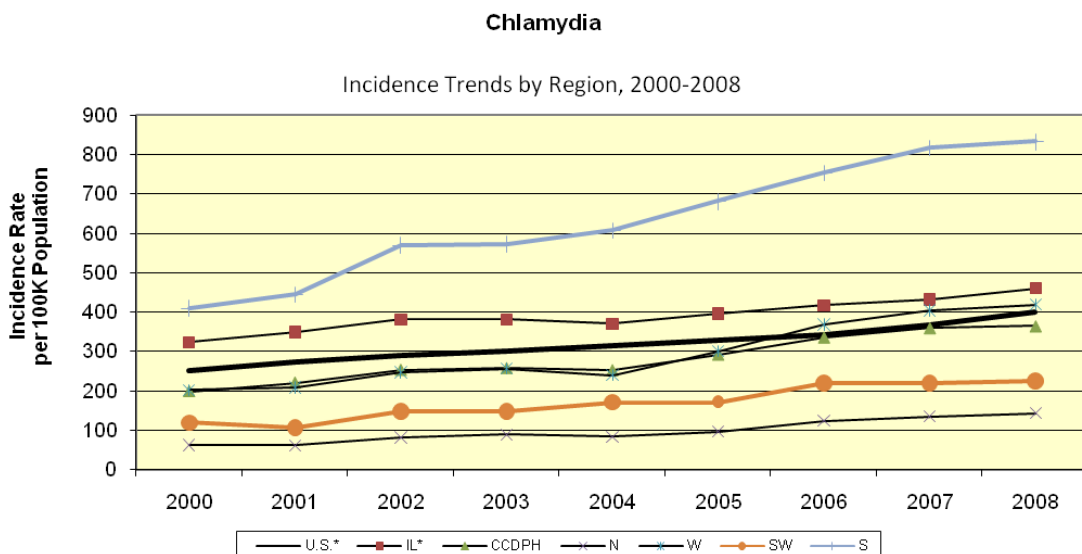
Because most people with chlamydial infections have no symptoms, many infections may go untreated. Untreated chlamydial infections, in turn, can lead to significant reproductive sequelae, including fallopian tube scarring and infertility in females and urethritis and epididymitis in males.ⁱ

2000-2008

Between 2000 - 2008, chlamydia rates increased for the U.S., Illinois, and all four districts within CCDPH's jurisdiction. Rates in the South district increased more sharply than rates in the other regions. In 2008, the rate in the South District was 833.1 per 100,000 population; the rate in the West district was 417.8 per 100,000 population.

Although rates have increased between 2000 - 2008, it is not clear whether these increases are a result of more new *C. trachomatis* infections or whether they reflect increases in the ease and availability of testing for *C. trachomatis* or some combination of these factors.

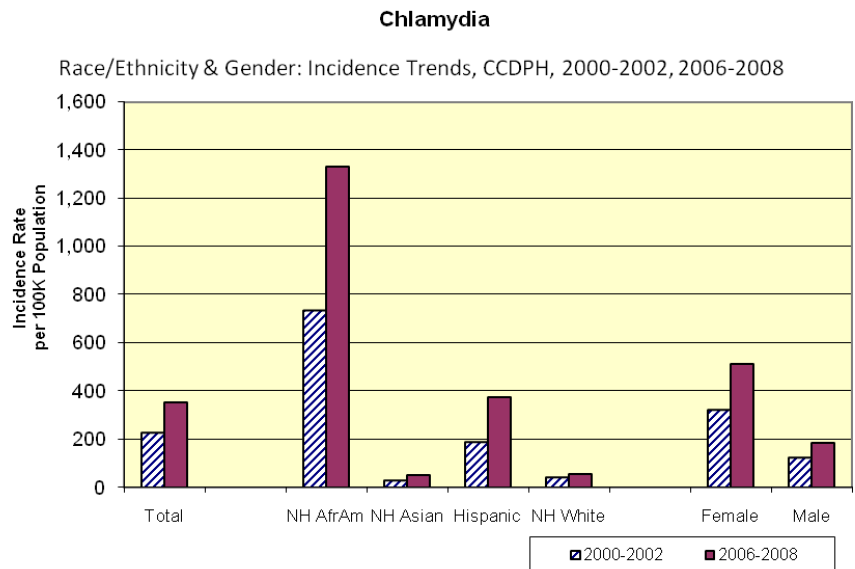
Figure 1



2000-2002 vs. 2006-2008**By Race and Gender**

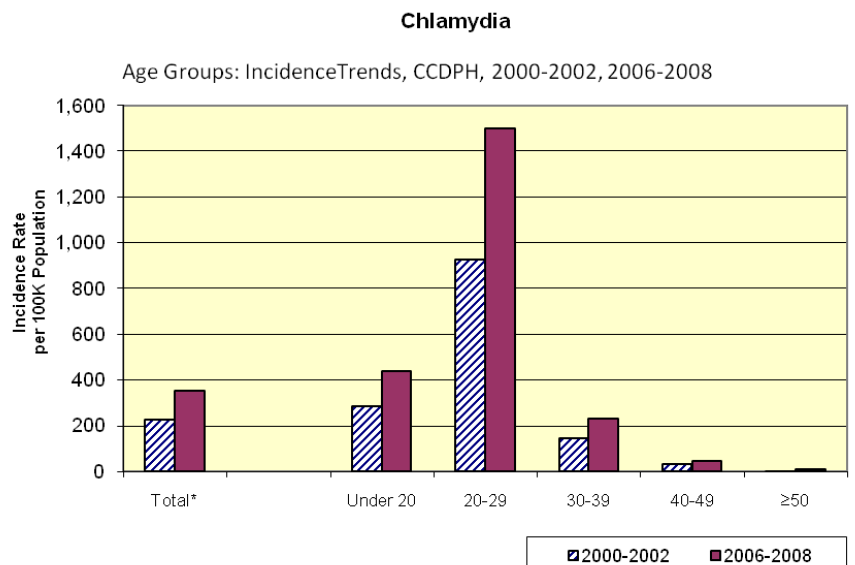
Chlamydia rates within CCDPH's jurisdiction increased from 224.4 per 100,000 population between 2000-2002 to 353.6 per 100,000 population between 2006-2008.

The overall chlamydia rate of 1,333.5 per 100,000 population in African Americans (2006-2008) was 3.6 times higher than the rate in Hispanics (375.1 per 100,000 population) and 25 times the rate in Whites and Asians (54.1 and 53.2 per 100,000 population, respectively).

Figure 2**2000-2002 vs. 2006-2008****By Age Groups**

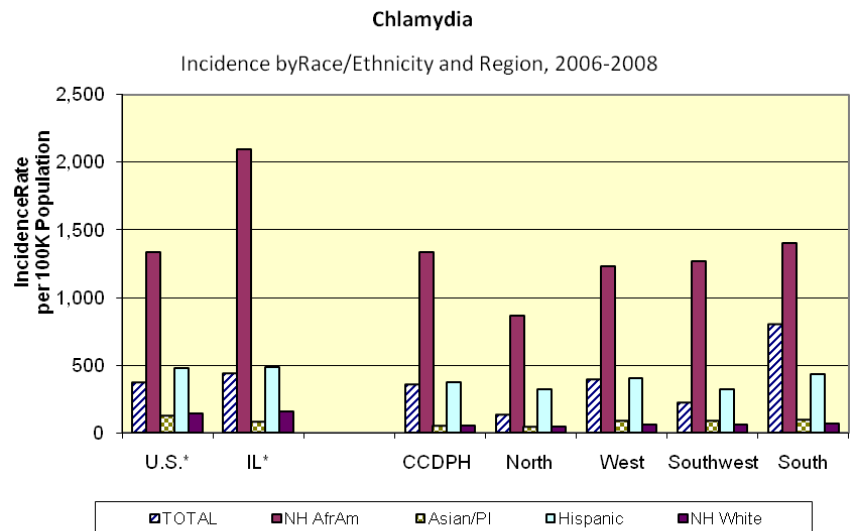
In most age groups, chlamydia rates were higher between 2006-2008 than 2000-2002. In persons aged 15-19 years, the chlamydia rate increased 56% from 1,168.1 per 100,000 population during 2000-2002 to 1,825.9 per 100,000 population during 2006-2008.

Between 2006-2008, the highest chlamydia rate was in persons aged 20-24 years (2,161.8 per 100,000 population), and the second highest rate was in persons 15-19 years of age (1,825.9 per 100,000 population).

Figure 3

2006-2008**By Race/Ethnicity and Region**

For years 2006-2008, disparity in rates by race/ethnicity was similar in the U.S., Illinois and each CCDPH district. Chlamydia rates were highest in African Americans. In the CCDPH jurisdiction, rates in African Americans ranged from a low of 865.6 per 100,000 population in the North district to 1,403.6 per 100,000 population in the South district.

Figure 4**By Gender and Region**

In CCDPH's jurisdiction during 2006-2008, the chlamydia rate in females was 511.8 per 100,000 population, 2.8 times higher than the rate in males (185.1 per 100,000 population).

Females in the South district had the highest chlamydia rate (1,134.3 per 100,000 population).

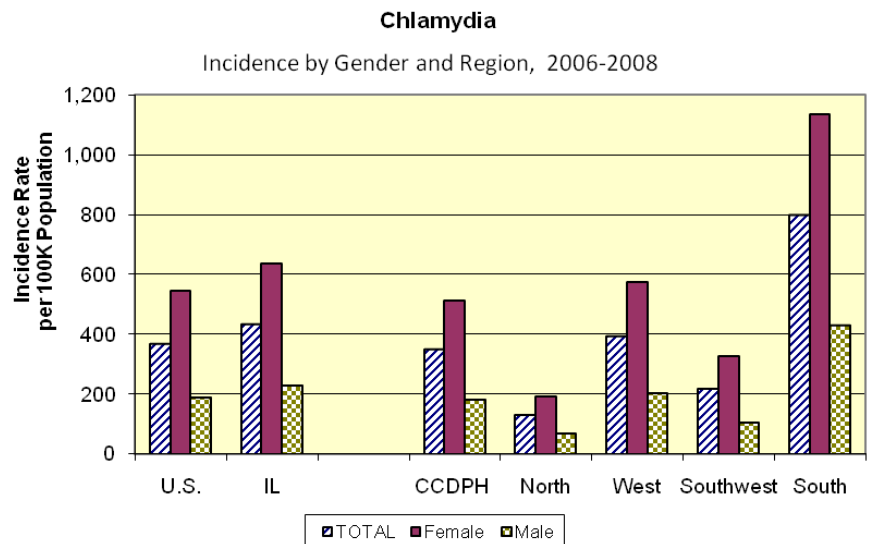
Figure 5

Table 1

Chlamydia
Incidence by Region
2000-2008

	2000		2001		2002		2003		2004		2005		2006		2007		2008	
	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*
U.S.	709,452	251.4	783,242	274.5	834,555	289.4	877,478	301.7	929,462	316.5	976,445	329.4	1,033,911	344.3	1,108,374	387.5	1,210,523	401.3
IL	40,350	324.3	43,716	349.2	48,101	381.7	48,294	381.7	47,185	371.1	50,559	396.1	53,586	417.6	55,470	431.6	59,169	460.4
CCDPH	4,478	198.7	4,975	220.8	5,714	253.6	5,811	257.9	5,695	252.8	6,585	292.3	7,574	336.1	8,110	359.9	8,219	364.8
North	569	62.2	560	61.2	745	81.5	804	87.9	753	82.4	876	95.8	1,126	123.2	1,235	135.1	1,302	142.4
West	1,028	202.2	1,060	208.5	1,257	247.3	1,302	256.1	1,217	239.4	1,524	299.8	1,866	367.1	2,049	403.1	2,124	417.8
South	418	118.4	373	105.7	520	147.3	518	146.8	602	170.6	600	170.0	770	218.2	772	218.8	793	224.7
South	1,955	409.3	2,121	444.1	2,722	569.9	2,735	572.7	2,902	607.6	3,254	681.3	3,599	753.6	3,904	817.4	3,979	833.1

* Rates based on 2000 Census population for CCDPH; for U.S. and Illinois, rates based on CDC Wonder online database.

Table 2

Chlamydia

Incidence Trends, CCDPH By Race/Ethnicity, Gender, & Age Groups
2000-2002, 2006-2008

CCDPH				
	2000-2002		2006-2008	
	n	rate*	n	rate*
Total	15,167	224.4	23,903	353.6
Race/Ethnicity				
<i>NH AfrAm</i>	6,785	733.2	12,340	1,333.5
<i>Asian/PI</i>	101	29.0	185	53.2
<i>Hispanic</i>	1,701	187.7	3,399	375.1
<i>NH White</i>	1,746	38.2	2,473	54.1
Gender				
<i>Female</i>	11,109	318.6	17,845	511.8
<i>Male</i>	4,053	123.8	6,058	185.1
Age Groups (Years)				
<15	230	15.7	228	15.5
15-19	5,258	1,168.1	8,219	1,825.9
20-24	5,474	1,400.9	8,447	2,161.8
25-29	2,233	507.2	4,026	914.4
30-39	1,462	144.7	2,330	230.6
40-49	325	30.9	492	46.8
50+	185	9.5	161	8.3

Note: NH = non-Hispanic; PI = Pacific Islander.

* Rates based on 2000 census population for CCDPH.

Table 3

Chlamydia
Incidence by Race/Ethnicity & Gender by Region
2006-2008

	U.S.		IL		CCDPH		North		West		Southwest		South	
	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*	n	rate*
TOTAL	3,349,808	371.1	168,225	436.5	23,903	353.6	3,663	133.5	6,039	396.0	2,335	220.5	11,482	801.4
Race/Ethnicity†														
<i>NH African</i>	1,137,228	1,332.7	90,576	2,096.5	12,340	1,333.5	477	865.6	2,279	1,229.5	925	1,270.3	8,591	1,403.6
<i>Asian/Pi</i>	43,213	126.3	1,110	81.6	185	53.2	123	44.3	29	85.3	18	90.5	15	93.3
<i>Hispanic</i>	462,232	479.6	19,488	486.0	3,399	375.1	893	319.9	1,743	403.7	295	321.8	448	432.1
<i>NH White</i>	705,746	141.8	31,973	153.4	2,473	54.1	990	46.5	505	57.9	522	59.8	453	64.8
Gender														
<i>Female</i>	2,494,452	544.9	124,550	637.0	17,845	511.8	2,724	194.3	4,495	575.3	1,794	326.1	8,541	1,134.3
<i>Male</i>	846,746	190.4	43,669	230.0	6,058	185.1	939	70.0	1,544	207.6	541	106.4	2,941	432.6

Note: NH = non-Hispanic; PI = Pacific Islander.

* Rates based on 2000 census population for all regions except U.S.; U.S. rates from CDC Wonder online database.

† Excludes persons <15 years of age for US and IL totals and rates.

ⁱ STD Facts – Chlamydia. Available at <http://www.cdc.gov/std/chlamydia/STDFact-Chlamydia.htm> (last accessed 3/25/2011).



Tuberculosis

What is it?

Tuberculosis (TB) is an infection caused by the bacterium *Mycobacterium tuberculosis*, which spreads from person to person when a contagious individual sneezes, coughs, or speaks and the TB germs are inhaled by others.ⁱ Tuberculosis usually infects the lungs but can infect any part of the body, including the kidney, brain or spine.ⁱ Close contacts of TB cases, such as household members, coworkers or others who spend considerable time together, can become infected.ⁱ

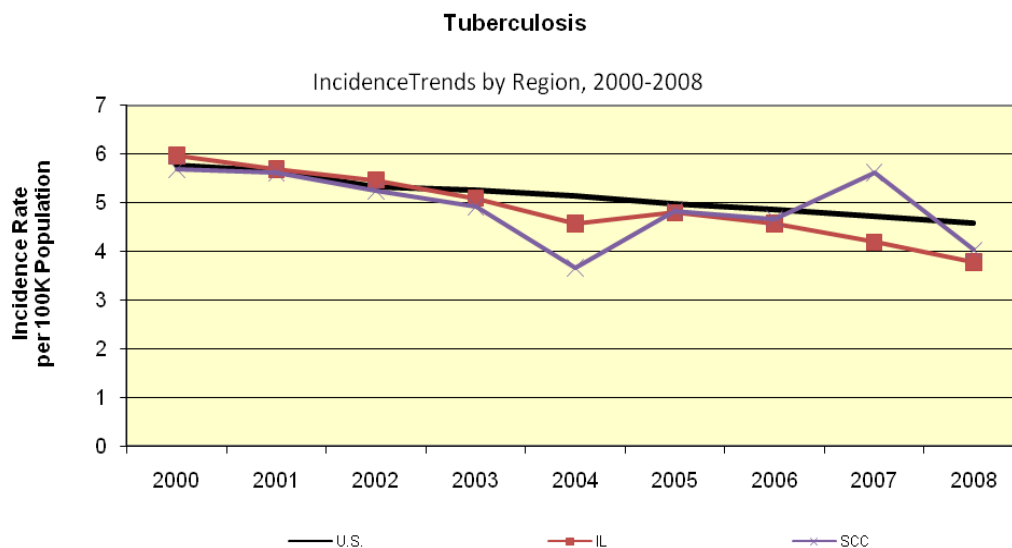
Why is it important?

Approximately 2 billion persons worldwide may be infected with the non-contagious form of TB, latent TB infectionⁱⁱ; of these, about 10% will go on to develop active TB, which is contagious and potentially deadly.ⁱⁱⁱ If untreated, a single TB case may infect as many as 10 other people.ⁱⁱ TB is also an indicator disease in persons with HIV, and persons with HIV and latent TB infection are much more likely to develop active TB.ⁱⁱⁱ

2000-2008

Overall, TB rates in the U.S. declined at a rate of about 0.2 cases per 100,000 population per year between 2000 and 2008. The 2008 TB rate in the U.S. was 4.6 cases per 100,000 population. Though there has been some fluctuation, overall, the trend in Suburban Cook County (SCC) was downward; the 2008 TB rate in SCC was 4.6 cases per 100,000 population, somewhat lower than the 2008 TB rate in the U.S.

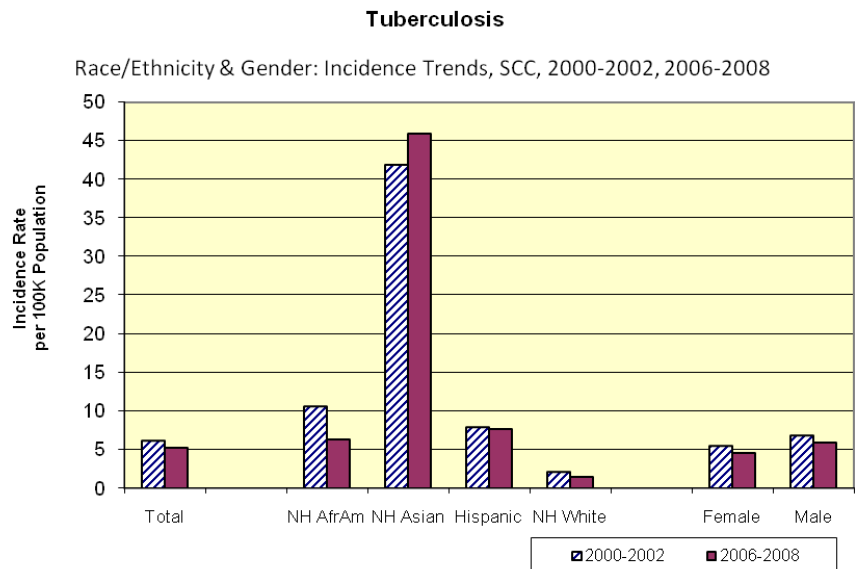
Figure 1



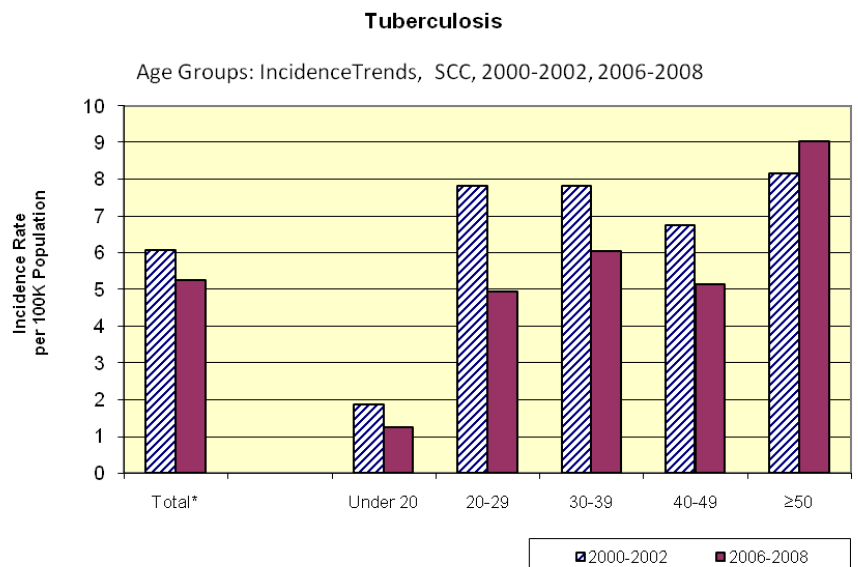
2000-2002 vs. 2006-2008**By Race and Gender**

Overall, the TB rate decreased 13% from 6.1 per 100,000 between 2000-2002 to 5.3 per 100,000 population between 2006-2008.

Asian/Pacific Islanders in SCC were disproportionately affected by TB relative to other race/ethnicity groups. The rate in Asian/Pacific islanders was 46.0 per 100,000 population, 6 times higher than the rate in Hispanics (7.7 per 100,000.), 7 times higher than the rate in African Americans (6.4 per 100,000 population) and 31 times higher than the rate in Whites (1.5 per 100,000).

Figure 2**2000-2002 vs. 2006-2008****By Age Groups**

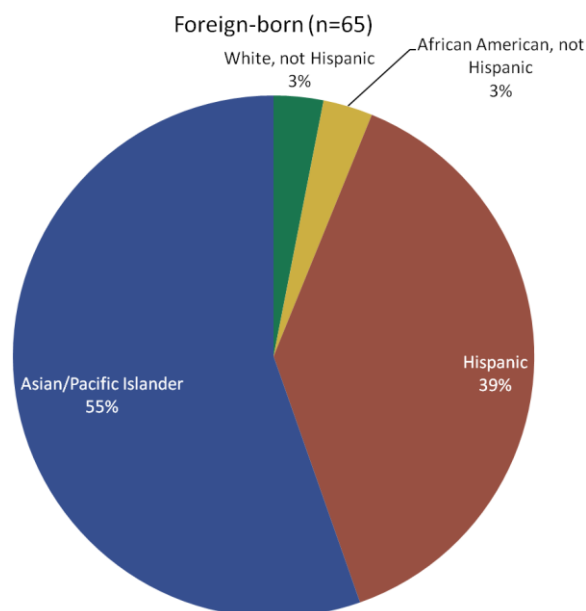
There was a decrease in TB rates from 2000-2002 and 2006-2008 in all age groups except for persons aged 50 and over. Between 2006-2008, the TB rate in those aged 50 years and over was 9.0 per 100,000 population, which was approximately 10% higher than the TB rate between 2000-2002.

Figure 3

Foreign born

Figure 4

There are important race/ethnicity differences in the distribution of cases by birthplace. Among those born overseas, 55% of TB cases were among Asian/Pacific Islanders and 39% were among Hispanics in 2010.



Domestic

Among cases born in the U.S., only 4% were Asian/Pacific Islander, with much larger proportions of White and African American (43% and 32%, respectively) relative to those born overseas (3% each, White and African American).

Figure 5

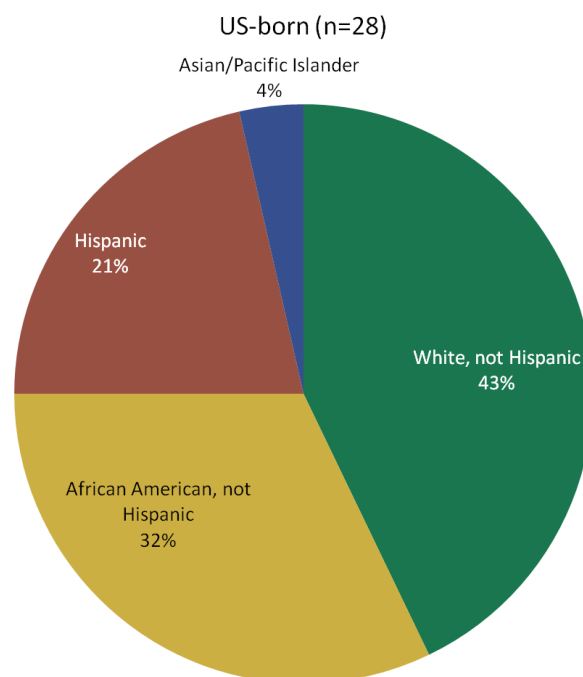


Table 1

**Tuberculosis
Incidence by Region
2000-2008**

	2000		2001		2002		2003		2004		2005		2006		2007		2008	
	n	rate	n	rate	n	rate	n	rate	n	rate	n	rate	n	rate	n	rate	n	rate
U.S.	16,310	5.8	15,945	5.6	15,056	5.3	14,836	5.3	14,500	5.1	14,067	5.0	13,727	4.9	13,288	4.7	12,904	4.6
IL	743	6.0	707	5.7	680	5.5	633	5.1	569	4.6	596	4.8	569	4.6	521	4.2	469	3.8
SCC	141	5.7	139	5.6	130	5.2	122	4.9	91	3.7	120	4.8	116	4.7	139	5.6	100	4.0

Rates based on 2000 Census Population for SCC

Table 2

Tuberculosis

Incidence Trends, SCC By Race/Ethnicity, Gender, & Age Groups
2000-2002, 2006-2008

CCDPH				
	2000-2002		2006-2008	
	n	rate	n	rate
Total	410	6.1	356	5.3
Race				
<i>NH AfrAm</i>	97	10.5	59	6.4
<i>NH Asian</i>	146	42.0	160	46.0
<i>Hispanic</i>	71	7.8	70	7.7
<i>NH White</i>	93	2.0	67	1.5
Gender				
<i>Female</i>	189	5.4	161	4.6
<i>Male</i>	221	6.8	195	6.0
Age Groups				
<i>Under 20</i>	36	1.9	24	1.3
<i>20-29</i>	65	7.8	41	4.9
<i>30-39</i>	79	7.8	61	6.0
<i>40-49</i>	71	6.7	54	5.1
<i>≥50</i>	159	8.2	176	9.0

*Unspecified estimate (N<5)

~Rate not calculated(N<5)

Rates based on 2000 Census Population for SCC

ⁱ CDC. Basic TB Facts. Available at: <http://www.cdc.gov/tb/topic/basics/default.htm> (last accessed 3/30/2011).

ⁱⁱ WHO. TB fact sheet #104. Available at: <http://www.who.int/mediacentre/factsheets/fs104/en/index.html> (last accessed 3/30/2011).

ⁱⁱⁱ CDC. TB Fact Sheets – latent TB Infections vs. TB Disease. Available at; <http://www.cdc.gov/tb/publications/factsheets/general/LTBAndActiveTB.htm> (last accessed 3/30/2011).



What is it?

Human immunodeficiency virus (HIV) is the virus that causes acquired immunodeficiency syndrome (AIDS). HIV attacks white blood cells in the immune system (T cells and CD4 cells) and gradually destroys the body's ability to fight infections. When an individual with HIV develops certain infections, like tuberculosis or *Mycobacterium avium* complex (MAC), or certain cancers (e.g., Kaposi's sarcoma) or whose CD4 cells drop below 200 (or CD4% drops below 14%), the person is considered to have progressed to AIDS.ⁱ

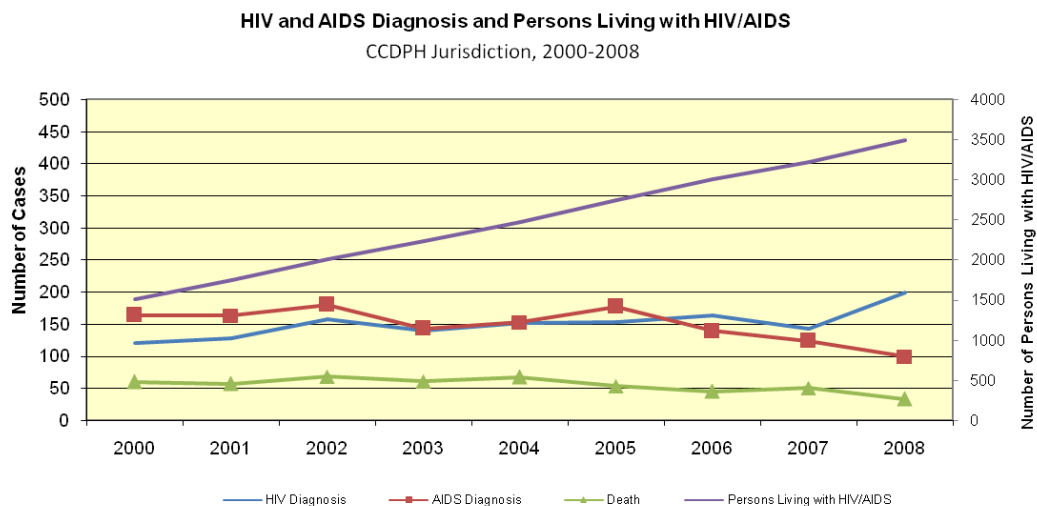
Why is it important?

There is no cure for HIV/AIDS. HIV can spread even when people do not appear sick and does not exert its effects for years after infection. Since 1981, the year HIV/AIDS was first described, more than 20 million people have died from HIV/AIDS worldwide and up to 40 million may be living with HIV/AIDS.ⁱ In the United States, the CDC estimates that 21% of persons with HIV infection do not realize they are infected.ⁱⁱ

2000-2008

Though AIDS diagnoses and HIV/AIDS deaths decreased in the Cook County Department of Public Health's (CCDPH's) jurisdiction since 2005, the number of persons living with HIV/AIDS (PLWHA) continued to increase each year. Every year from 2000 through 2008, nearly 300 additional persons were living with HIV/AIDS in Suburban Cook County (SCC), increasing from 1,510 PLWHA in 2000 to 3,488 PLWHA in 2008.

Figure 1

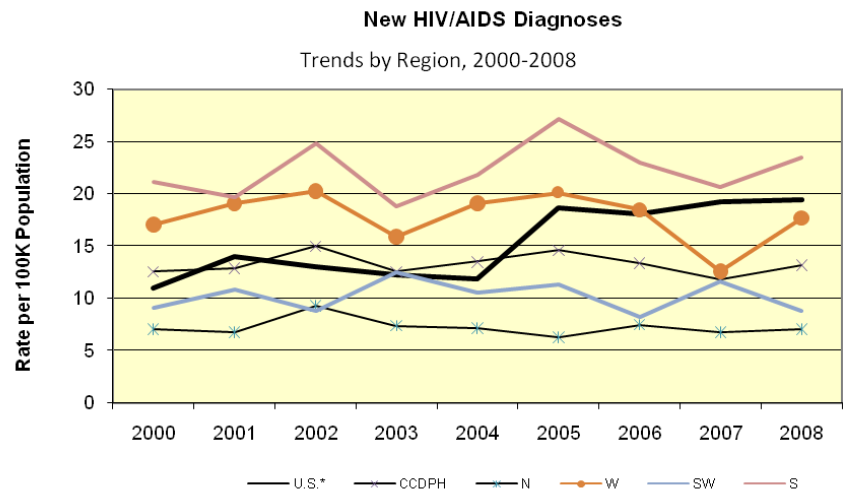


Trends in New HIV/AIDS Diagnoses

2000-2008

Figure 2

Rates of new HIV/AIDS diagnoses were higher in the South and West districts of CCDPH's jurisdiction relative to CCDPH's overall rate and the national rate. The average rate of new HIV/AIDS diagnosis between 2000-2008 in the South district was 22.3 per 100,000 population, 67% higher than the average CCDPH rate (13.3 per 100,000 population) over the same period. Rates were lowest in the North district, averaging 7.3 per 100,000 population, about three times lower than the average rate in the South district.



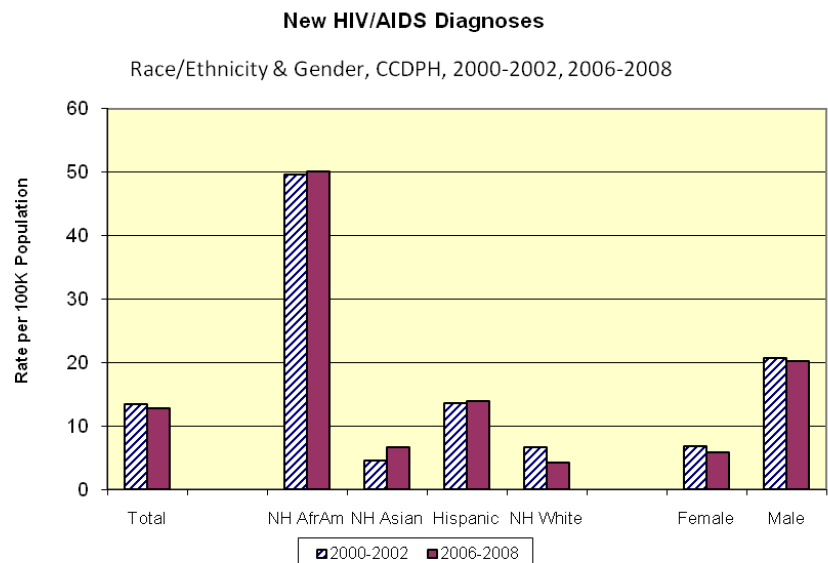
2000-2002 vs. 2006-2008

By Race and Gender

Figure 3

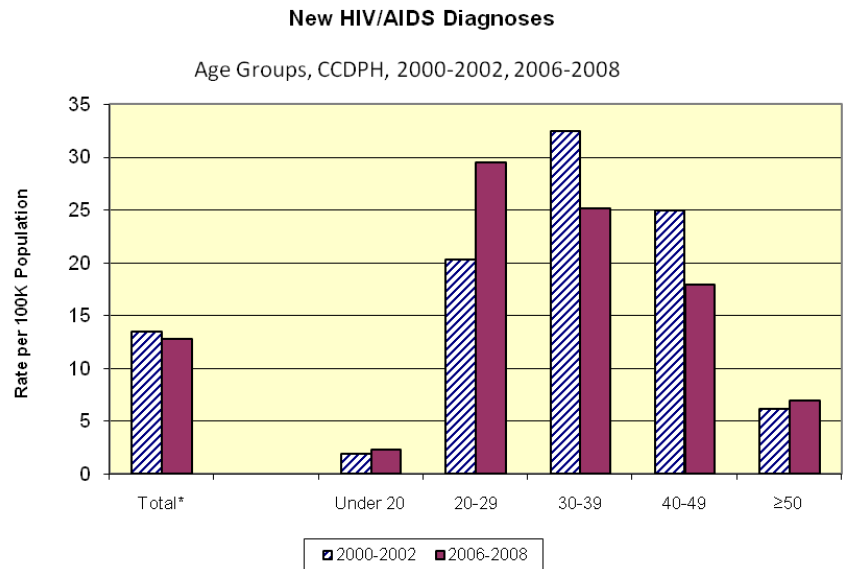
Overall, the rate of new HIV/AIDS diagnosis decreased slightly from 13.5 per 100,000 population between 2000-2002 to 12.8 per 100,000 population between 2006-2008.

Between 2006-2008 in CCDPH's jurisdiction, the rate of new HIV/AIDS diagnoses was highest in non-Hispanic African Americans (50.1 per 100,000 population), 3.6 times higher than the rate of new HIV diagnosis in Hispanics (13.9 per 100,000 population), and 12 times higher than the rate of new HIV/AIDS diagnosis in non-Hispanic Whites (4.2 per 100,000 population).



2000-2002 vs. 2006-2008**By Age Groups****Figure 4**

The rate of new HIV/AIDS diagnosis increased among those aged 20-29 years, from 20.3 per 100,000 population between 2000-2002 to 29.5 per 100,000 population between 2006-2008. However, the rate of new HIV/AIDS diagnosis among persons aged 30-39 decreased, from 32.4 per 100,000 population between 2000-2002 to 25.1 per 100,000 population between 2006-2008. Together, these data indicate that the average age at which persons received a new HIV/AIDS diagnosis decreased between the two periods.

**Reported HIV Infection by Risk Behavior****2000-2008****Figure 5**

The number of new HIV/AIDS diagnoses has fluctuated over time, but may be decreasing in suburban Cook County. On average, 300 new HIV/AIDS cases are diagnosed each year. Of these, just over half are in men who have sex with men and 27% are a result of high risk heterosexual contact. The number of new HIV/AIDS diagnoses resulting from injection drug use decreased from 55 in 2000 to 38 in 2008.

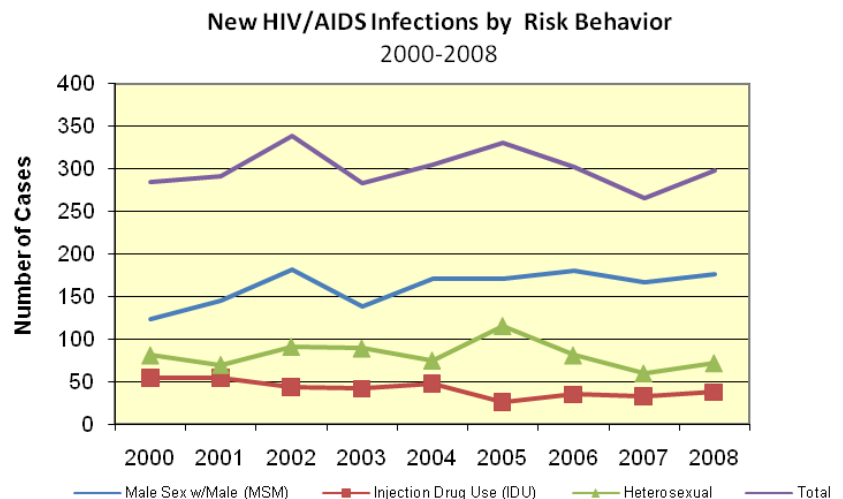


Table 1

HIV and AIDS Diagnosis and Persons Living with HIV/AIDS
Count by Year, CCDPH Jurisdiction
2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008
HIV Diagnosis	121	130	160	142	152	155	168	143	205
AIDS Diagnosis	162	161	176	142	151	174	132	119	87
Death	60	57	68	61	67	52	45	49	31
Persons Living with HIV/AIDS	1507	1741	2009	2232	2468	2745	3000	3213	3474

Table 2

**New HIV Diagnoses
Incidence by Region
2000-2008**

	2000		2001		2002		2003		2004		2005		2006		2007		2008	
	n	rate	n	rate	n	rate	n	rate	n	rate	n	rate	n	rate	n	rate	n	rate
U.S.	31,161	11.0	40,007	14.0	37,529	13.0	35,678	12.3	35,053	11.9	38,286	18.6	37,536	18.0	40,478	19.2	41,269	19.4
CCDPH	285	12.6	291	12.9	338	15.0	283	12.6	304	13.5	330	14.6	302	13.4	266	11.8	298	13.2
North	65	7.1	62	6.8	85	9.3	68	7.4	66	7.2	58	6.3	69	7.5	62	6.8	65	7.1
West	87	17.1	97	19.1	103	20.3	81	15.9	97	19.1	102	20.1	94	18.5	64	12.6	90	17.7
Swest	32	9.1	38	10.8	31	8.8	44	12.5	37	10.5	40	11.3	29	8.2	41	11.6	31	8.8
South	101	21.1	94	19.7	119	24.9	90	18.8	104	21.8	130	27.2	110	23.0	99	20.7	112	23.5

Table 3

New HIV Diagnoses

Trends, CCDPH By Race/Ethnicity, Gender, & Age Groups
2000-2002, 2006-2008

CCDPH				
	2000-2002		2006-2008	
Total	914	13.5	866	12.8
Race				
<i>NH AfrAm</i>	460	49.7	464	50.1
<i>NH Asian</i>	16	4.6	23	6.6
<i>Hispanic</i>	123	13.6	126	13.9
<i>NH White</i>	303	6.6	192	4.2
Gender				
<i>Female</i>	238	6.8	204	5.9
<i>Male</i>	676	20.7	662	20.2
Age Groups				
<i>Under 20</i>	37	1.9	45	2.3
<i>20-29</i>	169	20.3	245	29.5
<i>30-39</i>	327	32.4	254	25.1
<i>40-49</i>	262	24.9	188	17.9
<i>≥50</i>	119	6.1	134	6.9

Note: NH=non-Hispanic; PI = Pacific Islander.

Rates based on 2000 Census Population for CCDPH.

Table 4

Reported HIV Infection by Risk Behavior
Count by Year, CCDPH Jurisdiction
2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Male Sex w/Male (MSM)	124	145	182	139	171	171	180	167	177
Injection Drug Use (IDU)	55	55	44	42	48	26	35	33	38
Heterosexual	81	70	91	89	75	115	81	60	72
Total	285	291	338	283	304	330	302	266	298

ⁱ CDC. Revised Surveillance Case Definitions for HIV Infection Among Adults, Adolescents, and Children Aged <18 Months and for HIV Infection and AIDS Among Children Aged 18 Months to <13 Years --- United States, 2008. MMWR. 57(RR10):1-8, 2008.

ⁱⁱ CDC. HIV Testing. Available at: <http://www.cdc.gov/hiv/topics/testing/index.htm> Accessed March 2011.