HIV/STI Surveillance Report, Chicago

December 2015

HEALTHY CHICAGO

CHICAGO DEPARTMENT OF PUBLIC HEALTH

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Dear Friends,

Chicago continues to make progress in our fight against HIV, AIDS and sexually transmitted infections (STIs). The Chicago Department of Public Health's 2015 HIV/STI Surveillance Report highlights the latest STI trends in Chicago, including our progress combatting these infections and ongoing work to close gaps in diagnosing, treating and reporting individuals infected with HIV and STIs.

For 13 consecutive years we have seen declines in HIV of which I am especially proud. Chicago is also outperforming the nation at each point along the HIV continuum of care which monitors progress of individuals diagnosed with HIV through viral suppression. This means, people living with HIV and AIDS (PLWHA) are likely to be in medical care, getting the services and medicine they need to live healthy lives. In fact, among those newly diagnosed in Chicago, 86% of those prescribed antiretroviral therapy (ART) have already achieved the ultimate goal of viral suppression which is a 6% increase from last year.

This report presents a detailed and comprehensive look at the state of HIV and STI in Chicago but there are a few key data points that I would like to highlight. Specific to HIV and AIDS:

- From 2010 to 2014, the number of HIV infection diagnoses fell from 1,033 to 973. That is 48% below the peak of 1,857 reported in 2001.
- The largest decline in the number of HIV infection diagnoses among transmission groups occurred among intravenous drug users (IDU). From 2010 to 2014, the percentage of IDU cases dropped from 8.5% of all HIV diagnoses to 3.0% of all HIV diagnoses.
- In 2014, 18.9% of all new HIV diagnoses were diagnosed with AIDS within 12 months - this is down from the nearly 30% in 2010.
- From 2010 to 2014, AIDS cases have declined annually by nearly 9.0%
- The number of annual AIDS cases has declined across all transmission/risk groups.

While we are making significant strides against HIV, STIs remain a persistent area of concern. We are continuing to prioritize reducing rates of STIs in the city and as the report shows we have made some progress. Among some of these findings:

- From 2010 to 2014, the total number of reported primary and secondary syphilis cases has decreased.
- Between 2013 and 2014, the number of cases of gonorrhea and chlamydia among females declined.
- African Americans are the only racial/ethnic group for which there has been an overall decline in HIV, chlamydia, gonorrhea, and syphilis infection diagnoses from 2010-2014.

Under the leadership of Mayor Emanuel we have made real progress in our fight. But there is more work to be done. The data in this report will be used by our department and partners to inform HIV and STI programming and planning efforts, better equipping us to allocate resources to those who need the most assistance and ultimately ensure that all Chicagoans have the tools they need to lead long, healthier lives.

Julie Morita, M.D.
Commissioner, *Chicago Department of Public Health*

Overview of HIV/STIs in Chicago

Chicago continues to make progress in the fight against HIV and other sexually transmitted infections (STIs).

For the 13th year in a row, there has been a steady decline in the number of diagnosed HIV and AIDS cases in Chicago. Since 2000, the number of new HIV diagnoses has declined nearly 50% and the number of new AIDS diagnoses nearly 60%. In addition to these declines, Chicago outperforms the national percentage of HIV-positive individuals in care (55%). Similar to what has been seen nationally, there has been an increase in the number of Primary and Secondary (P&S) syphilis infections. However, there has been an overall decline in the number of gonorrhea infections.

Like most large urban areas, Chicago carries a heavier burden of HIV, AIDS and sexually transmitted infection (STI) morbidity than suburban or rural areas.

This report highlights these and other notable trends observed through 2014, as of September 30, 2015. By collecting, analyzing and publishing the most recent data available, CDPH is helping our partners initiate, and implement their outreach, testing, prevention and care approaches across the city to ensure resources and efforts are directed to populations in greatest need.

HIV Continuum of Care, Chicago, 2012

The HIV Continuum of Care is an important tool for monitoring progress and identifying opportunities for prevention and treatment interventions. Since ensuring HIV-positive individuals are engaged in care is critical to both individual health and slowing the spread of disease, the Continuum was developed to show the percentages of people living with HIV at various levels of engagement in care. The report shows various areas in which Chicago is exceeding national outcomes. Two models of the Continuum have been developed to monitor local targets and compare against national figures. Though both models estimate the number of HIV-positive persons at different points of the care continuum, they differ in methodology.

The Continuum developed by CDPH (Figure 1), estimates the percentage of people with new diagnoses who were linked to care, and the percentage of people who were retained in care, prescribed ART, and virally suppressed is based on all known diagnoses. Eight out of ten (80%) adults diagnosed with HIV in 2012 were linked to medical care within 3 months of their diagnosis. However, almost two-thirds, (63%) of all adults living with HIV in Chicago in 2012 received HIV medical care in 2012. In addition, it is estimated that of those who received HIV medical care in 2012, 94% were prescribed ART and 86% had achieved viral suppression (Figure 1).

The model developed by the Centers for Disease Control and Prevention (CDC) (Figure 2), calculates each indicator based on all persons living with HIV, including those unaware of their status (12.8%). This model allows for comparison between the Chicago HIV Continuum of Care and that of the US overall. If we examine the continuum of HIV care starting with the estimated number of people living with HIV in Chicago in 2012 (n = 20,819 diagnosed, 3,111 undiagnosed), Chicago fares better than the nation overall. In Chicago, it is estimated that over half (55%) received HIV medical care in 2012, compared to 39% nationally. Additionally, 52% were found to be on ART and 45% were virally suppressed, compared to 36% and 30% nationally.

Who is most affected?

The impact of HIV on Chicago residents can be described at 3 levels of morbidity: prevalent disease (people living with HIV), new annual HIV diagnoses, and new annual AIDS diagnoses (late stage disease). Rates of these different morbidity levels can help compare Chicago's burden with that of the US overall (Table 1). New HIV infection diagnoses in 2014 were highest among those who identify as male (83.2%), were reported as MSM (78.3%), and were 30 years of age or older at diagnosis (Table 2). Among people living with HIV infection through 2013, the highest morbidity was found among those who identify as male (79.8%), MSM (60.5%), and those 30 years of age or older (87.1%) (Table 4). Similarly, new annual AIDS diagnoses in Chicago were comprised primarily of males (76.0%), MSM (62.6%), and persons 30-49 years of age (51.4%) (Table 5). Non-Hispanic (NH) Blacks were affected by HIV more than any other race/ethnicity group, as evidenced by the fact that they account for nearly a third of Chicago's population, yet represented over 50% of prevalent cases, new infection diagnoses, and new AIDS diagnoses.

Compared to older adults, adolescents and young adults are disproportionately affected by STIs. Chlamydia and gonorrhea are most commonly diagnosed in youth and young adults, aged 13-24 years and NH Blacks (Tables 8,10). While gonorrhea is diagnosed in males and females nearly equally, chlamydia is diagnosed much more commonly among females (66.6%) (Table 10). The largest proportions of P&S syphilis diagnoses are observed among NH Blacks, MSM and those over the age of 30, although those between the ages of 20-29 are heavily impacted (Table 12).

Given that community areas across the city of Chicago can vary greatly by risk of infection, the geographic distribution of new infections is informative. The two community areas with the highest average HIV infection diagnosis rates from 2013 to 2014 were Uptown (110.0 per 100,000) and West Garfield Park (97.2 per 100,000) (Table 6); Community areas with the highest prevalence rates in 2013 were Uptown (2,223.1 per 100,000) and Edgewater (2,162.0 per 100,000) (Table 7). Chicago community areas with the highest gonorrhea infection diagnosis rates in 2014 were West Garfield Park (872.2 per 100,000) and Washington Park (827.9 per 100,000) (Table 9); The highest average chlamydia case rates in 2014 were in the community areas of North Lawndale (2,926.6 per 100,000) and West Garfield Park (2,777.6 per 100,000) (Table 11), and the two community areas with the highest P&S syphilis infection diagnosis rates in 2014 were Uptown (106.5 per 100,000) and Edgewater (77.8 per 100,000) (Table 13).

Racial/Ethnic Disparities

Racial/ethnic health disparities in Chicago continue and mirror disparities observed across the nation. In 2014, the rates of new HIV diagnoses in Chicago were highest among NH Blacks (57.6 per 100,000); more than double that of both Hispanics (27.6 per 100,000) and NH Whites (24.6 per 100,000). The overall number of reported HIV cases among NH Blacks (n = 516) is more than twice that of NH White (n = 210) and Hispanics (n = 211), despite similar population distribution across these groups. The 2014 chlamydia diagnosis rate among NH Blacks (1,436.2 per 100,000) was over 10 times higher than that for NH Whites (177.5 per 100,000), and nearly 4 times higher than the rate among Hispanics (431.7 per 100,000). Additionally, the 2014 Chicago gonorrhea rate among NH Blacks is nearly 5 times higher than that for both Hispanics and NH Whites (Table 1).

Recent Trends

Though trends differ among sub-populations, the overall five-year trend suggests stability in the number of new HIV infections diagnosed from 2010-2014. Decreases in new HIV infections have been observed among those people aged 30-59 years and all transmission groups, with the exception of MSM. In fact, MSM have experienced an estimated average percent increase in HIV infections of 3.1 % annually since 2010 (Table 2).

Overall, the number of P&S syphilis and chlamydia infections diagnosed from 2010-2014 remain relatively constant, with estimated annual percent changes (EAPC) of 2.1% and 0.5%, respectively (Tables 10, 12). However, the number of P&S syphilis cases diagnosed among those between the ages of 25 and 29 years has experienced an estimated annual increase of 2.3% since 2010. Noteworthy increases in P&S syphilis cases have also been observed among NH Whites (4.6% estimated annual increase), Hispanics (4.2% estimated annual increase), as well as Asian/Pacific Islanders (A/PI) (8.1% estimated annual increase). Congenital syphilis remains persistent in Chicago. Since 2010, there have been 86 diagnoses of congenital syphilis, reaching a high of 22 cases reported in 2012 (Table 14).

Gonorrhea has increased slightly from 7,892 cases in 2010 to 8,306 in 2014. Overall, gonorrhea cases have increased < 1.0% per year since 2010 (Table 8). The largest increases have been among NH Whites, NH A/PI, Hispanics, and persons 25-39 years of age. The largest decreases have been among NH Blacks and among persons under the age of 13 years (Table 8). While racial/ethnic disparities persist, it should be noted that progress is being made to reduce morbidity among those most affected. In 2014, NH Whites accounted for 5.6% of all chlamydia cases (Table 10). Since 2010, NH Whites have seen the largest increase in chlamydia cases (8.6% estimated annual increase) of any race/ethnicity. NH Blacks are the only racial/ethnic group for which there has been overall decline in HIV, chlamydia, gonorrhea, and P&S syphilis infection diagnoses from 2010-2014 (Tables 2, 8, 10, 12).

How does Chicago compare to US?

Overall, the estimated number of diagnoses of HIV infection in the United States remained stable from 2009-2013 at approximately 46,000 annually. Given population growth, this resulted in estimated rates of infection decreasing from 15.3 per 100,000 populations in 2009 to 15.0 per 100,000 populations in 2013. In Chicago, the number of new HIV infection diagnoses has remained relatively stable from 2010-2014, with approximately 1,000 new infections annually. Much of the HIV and STI burden in the US is concentrated in large metropolitan areas, such as Chicago, where infection rates exceeded national rates. The 2014 rate of HIV infection diagnoses in Chicago (36.1 per 100,000) is approximately 3 times higher than the national rate and the prevalence rate for Chicago (847.6 per 100,000) is also nearly 3 times the national rate. Similarly, the rate of P&S syphilis is approximately 4 times higher in Chicago than the US. The chlamydia rate in Chicago is 2 times higher, and the rate for gonorrhea is nearly 3 times higher than the national rate.

Impacting HIV Transmission

Overall, the data presented show significant progress has been made towards reducing transmission of HIV and STIs in Chicago. However, the data also underscore the need to continue to interrupt the spread of infection at as many points along transmission pathways as possible. The HIV Continuum of Care should be utilized to assess both the need for and success of interventions implemented along the continuum, which have the potential to contribute to decreased transmission, morbidity, and mortality.

HIV Continuum of Care, Chicago, 2012

Figure 1. HIV Continuum of Care Among Cases 18 Years and Older, Chicago, 2012 (as of 9/30/2015)
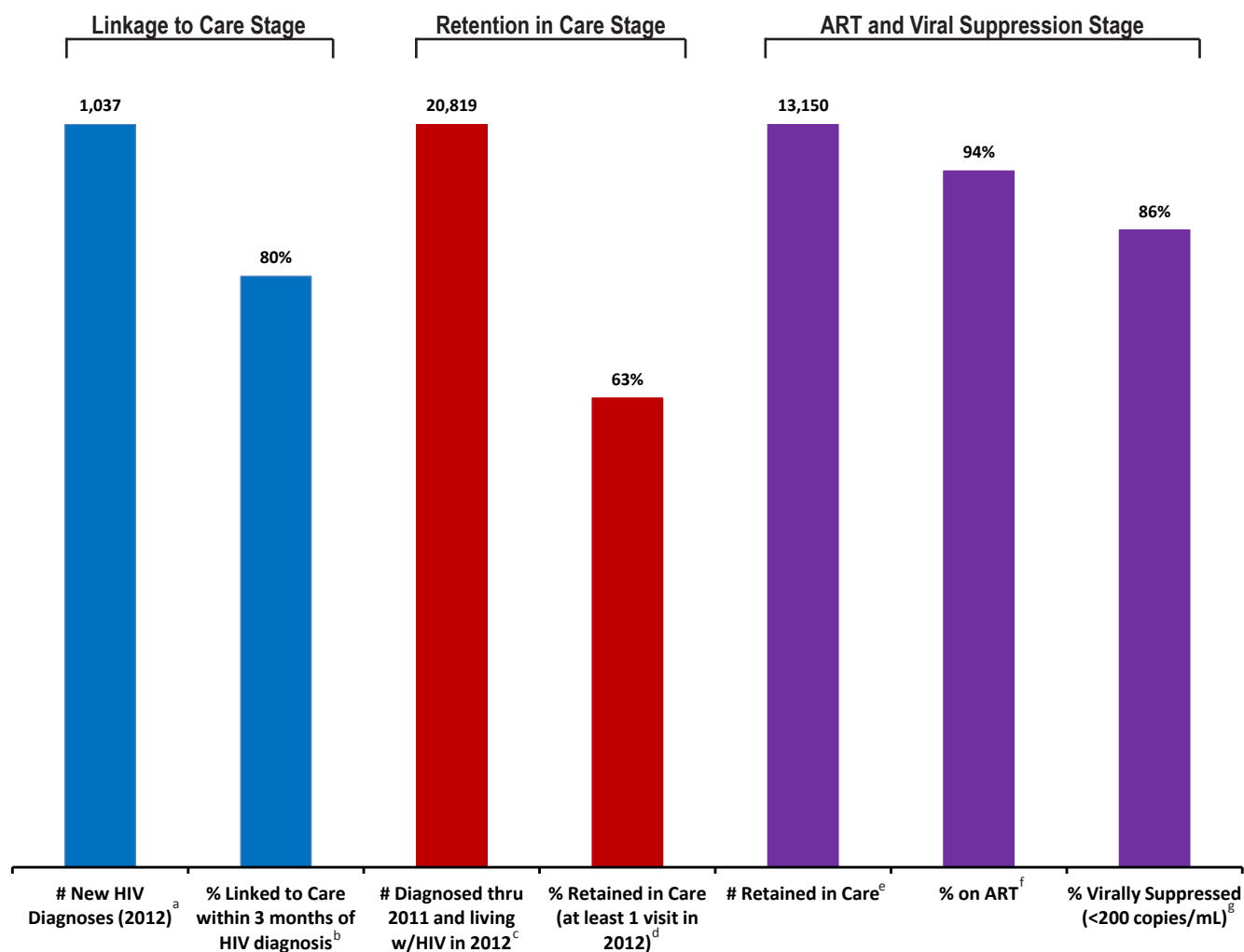
[a] Number of persons ≥18 years of age at diagnosis and diagnosed with HIV infection between 1/1/2012 and 12/31/2012. Source: Chicago HIV/AIDS Reporting System (as of 12/22/2014). NHAS output, Link1 table.

[b] Percent of persons ≥18 years of age linked to care (at least one CD4 or VL or HIV-1 genotype test) within 3 months of HIV diagnosis among those diagnosed with HIV infection from 1/1/2012 to 12/31/2012. Source: Chicago HIV/AIDS Reporting System (as of 12/22/2014). NHAS output, Link1 table.

[c] Number of persons ≥18 years of age on 12/31/2011 diagnosed with HIV infection through 12/31/2011 and living with HIV on 12/31/2012. Source: Chicago HIV/AIDS Reporting System (as of 12/22/2014). NHAS output, Care1 or VL1 tables.

[d] Percent of HIV-infected adults who received at least one medical care visit between January-April 2012. Total sum of weights from MMP 2012 cycle using 'Diagnosed and Living with HIV/AIDS' as the denominator.

[e] Number of HIV-infected adults who received at least one medical care visit between January-April 2012. Total sum of weights from MMP 2012 cycle.

[f] Total weighted percent "on ART" from MMP 2012 (applied to "Retained in Care" for number). CDC Vital Signs program with output using NOMCAR option (missings excluded).

[g] Total weighted percent "suppressed viral load" from MMP 2012 (applied to "Retained in Care" for number). CDC Vital Signs program with output using NOMCAR option (missings excluded).

Figure 2. Alternate Perspective to the HIV Continuum of Care Among Cases 18 Years and Older, Chicago and the United States, 2012 (as of 9/30/2015)
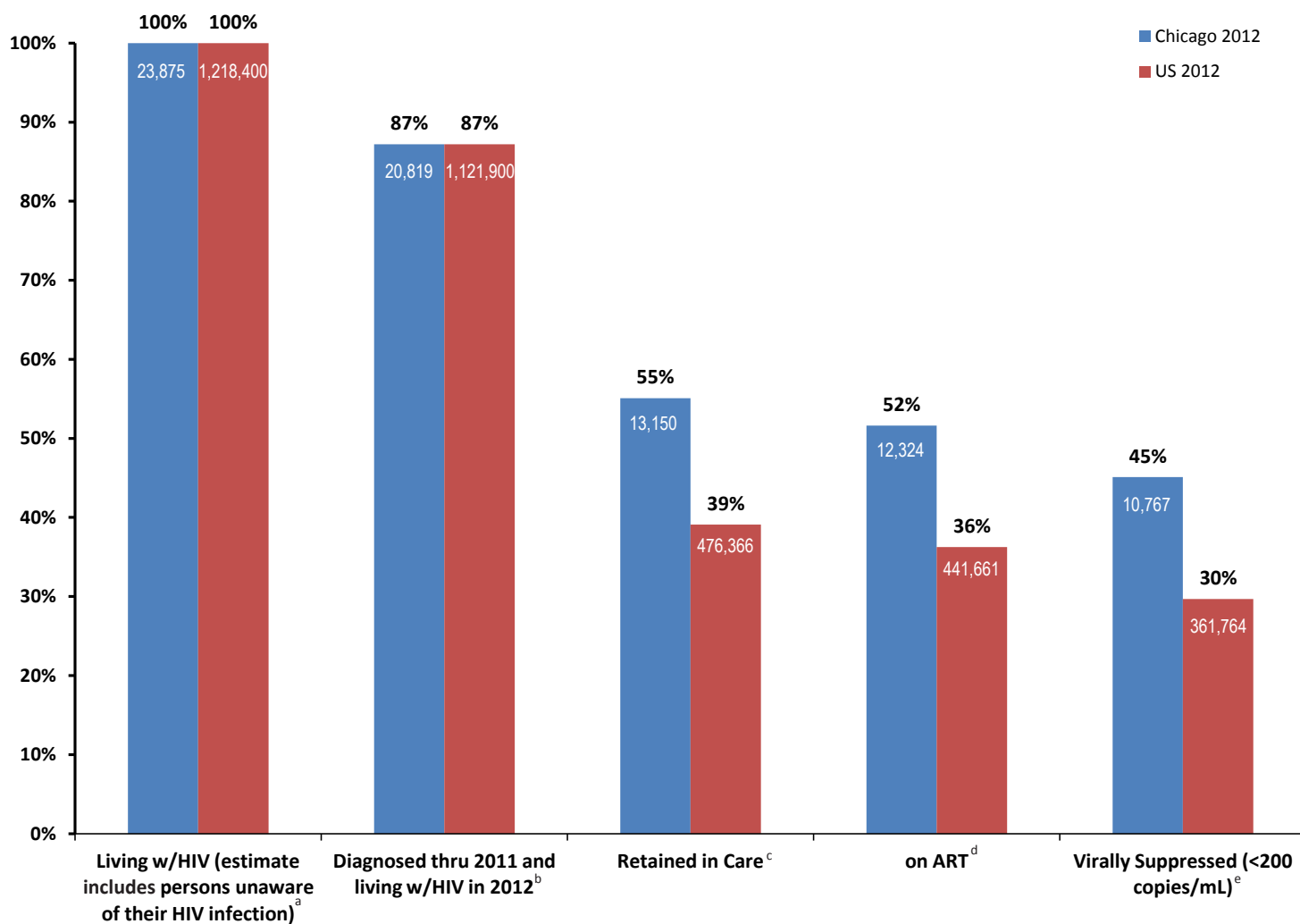
[a]CDC Estimated Persons Living with Undiagnosed HIV, 2012 (National), MMWR, July 2015 (Total 12.8%)
[b]Number of persons ≥18 years of age on 12/31/2011 diagnosed with HIV infection through 12/31/2011 and living with HIV on 12/31/2012. Source: Chicago HIV/AIDS Reporting System (as of 12/22/2014). NHAS output, Care1 or VL1 tables.
[c]Percent and number of HIV-infected adults who received at least one medical care visit between January-April 2012. Total sum of weights from MMP 2012 cycle.
[d]Total weighted percent "on ART" from MMP 2012. First applied to "Retained in Care" for number then using "Living" as the denominator. CDC Vital Signs program with output using NOMCAR option (missings excluded).
[e] Total weighted percent "suppressed viral load, of those on ART" from MMP 2012. First applied to "on ART" for number then using "Living" as the denominator. CDC Vital Signs program with output using NOMCAR option (missings excluded).

HIV/AIDS Highlights

Incidence

- From 2010 to 2014, **the number of HIV infection diagnoses fell from 1,033 to 973**, representing a 5.8% absolute decrease and an estimated annual percent change (EAPC) decrease of 0.9%. A 2.0% EAPC decline was observed among NH Blacks and a 13.0% EAPC decline among American Indian/ Alaska Native (AI/AN). During this time period, a 5.0% EAPC decline in number of infections diagnosed was observed among females, as well as a slight decrease (< 1% EAPC) among males (Figure 3, Table 2).

- The largest decline in the number of HIV infection diagnoses among transmission groups occurred among intravenous drug users (IDUs) (27.7% EAPC decrease). Consequently, from 2010 to 2014, **the percentage of IDU cases overall dropped from 8.5% to 3.0% of all diagnoses**. In 2014, as in previous years, male-to-male sexual contact (MSM) was the leading mode of transmission (78.3%), followed by heterosexual contact (15.5%) (Table 2).

- There have been considerable differences in HIV trends by age group. Between 2010 and 2014, the number of HIV infection diagnoses decreased among those 30-39 years, 40-49 years, and 50-59 years, while all other ages increased annually (Table 2).

- While males account for 84.0% of all 2014 HIV infection diagnoses, this percentage varied by race/ethnicity. Among NH Black diagnoses, 76.4% were males, compared to 96.2% among Whites, and 91.0% among Hispanic men. Among MSM who were diagnosed with HIV Infection in 2014, 48.2% were Black, 24.3% were White, and 24.0% were Hispanic (Table 3).

- Among females, heterosexual contact accounts for 87.5% of all HIV infection diagnoses in 2014 for all race/ethnicity groups. In 2014, 85.9% of new female HIV infections were among NH Blacks (Table 3).

- In 2014, 18.9% of all new HIV diagnoses were diagnosed with AIDS within 12 months, down from 27.7% in 2010 (Figure 3).

Prevalence

- Of the 22,875 people living in Chicago with HIV infection in 2013, 79.3% were men, 50.8% were NH Black, and 60.8% were MSM (Table 4).

- Among NH Black men living with HIV infection, 66.3% were infected as a result of male-to-male sexual contact, compared with 90.8% of NH White, 76.0% of Hispanic, and 82.6% of NH Asian/Pacific Islander men (Table 4).

AIDS

- Over the past five years, AIDS cases have declined annually by nearly 9.0% on average, from 619 AIDS diagnoses in 2010 to 412 in 2014. Although the decline occurred in both sexes, males continue to represent approximately 3 out of every 4 AIDS diagnoses (Table 5).

- All racial/ethnic groups in Chicago experienced a decrease in the number of annual AIDS diagnoses. However, NH Blacks accounted for 59.5% of all AIDS diagnoses while NH Whites and Hispanics represented 13.3% and 21.4% of the diagnoses, respectively.

- Men who have sex with men continue to represent the largest percentage of AIDS diagnoses, accounting for nearly 3 out of every 5 cases in 2014. Heterosexual transmission accounted for nearly 1 out of every 5 diagnoses, and IDU accounted for 1 in 9 AIDS cases.

- While the number of annual AIDS cases has declined across all transmission groups, the largest decline occurred among IDUs; from 2010 to 2014 the number of cases due to IDU fell by nearly 50%, with an estimated average annual decrease of 16.5%.

Figure 3. People Living and Diagnosed with HIV Infection, Chicago, 1990-2014 (as of 9/30/2015)
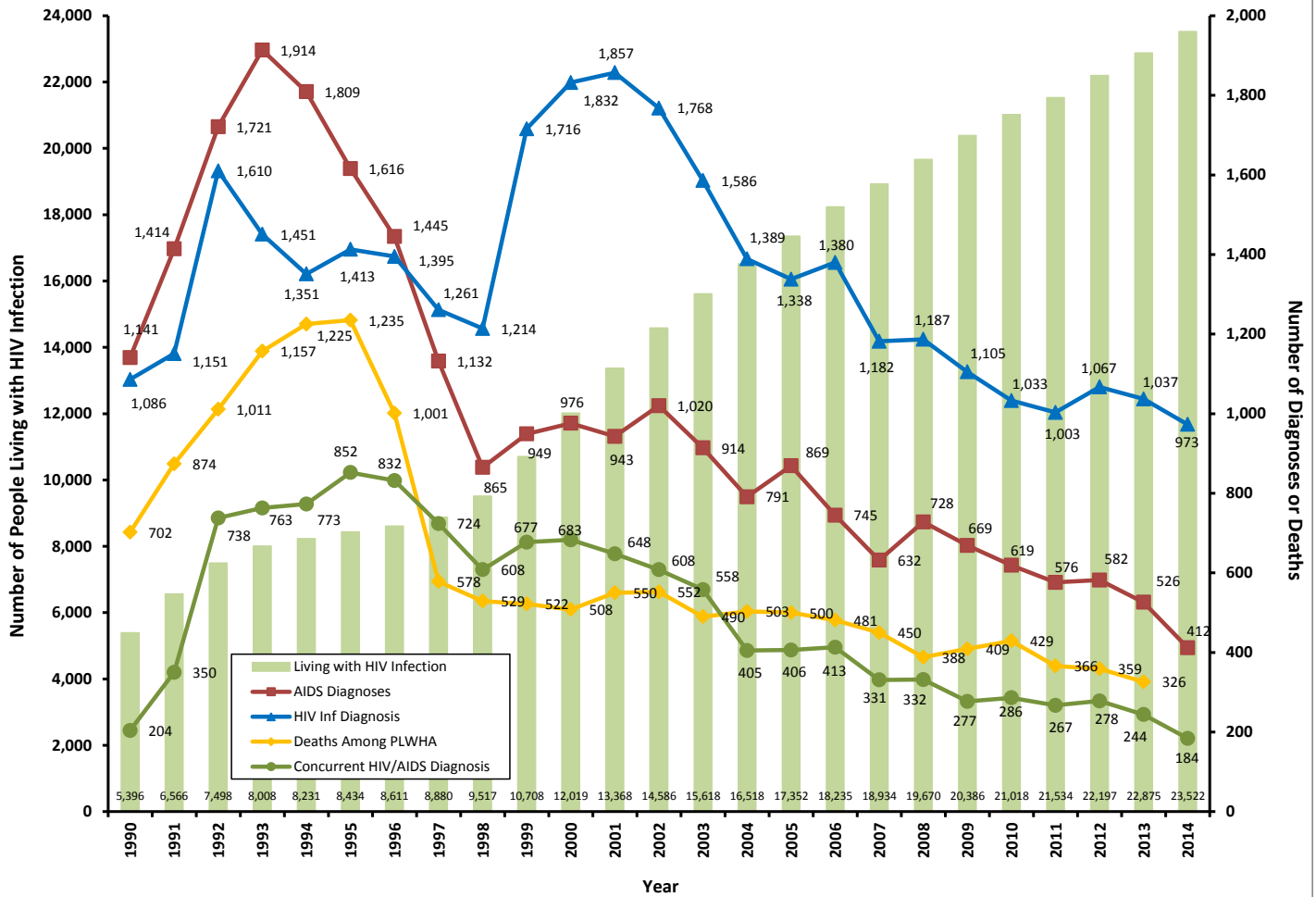
Notes:
1. 1983 - AIDS case reporting
2. 1995 - Effective drug therapy against HIV became available
3. 1999 - Code-based HIV reporting
4. 2006 - HIV-name based reporting
5. 2012 - All CD4 and viral load labs became reportable.

Table 1. HIV/STI Case Rates by Race/Ethnicity and Birth Sex, Chicago

Demographic Characteristics	Diagnosed/Reported Cases*										HIV Prevalence†			
	HIV Infection§		AIDS		Gonorrhea		Chlamydia		Syphilis€		Chicago		United States**	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*
Race/Ethnicity														
Black, non-Hispanic	516	57.6	245	27.4	4,200	469.1	12,858	1,436.2	280	31.3	11,620	1,297.9	390,186	1,029.6
White, non-Hispanic	210	24.6	55	6.4	680	79.6	1,516	177.5	191	22.4	5,629	659.2	294,490	149.5
Hispanic	211	27.6	88	11.5	495	64.8	3,298	431.7	103	13.5	4,271	559.1	201,086	396.3
Asian/PI, non-Hispanic	16	10.8	<5	--	25	16.8	172	115.7	10	6.7	231	155.4	11,764	78.2
AI/AN, non-Hispanic	--	--	--	--	6	201.5	20	671.6	<5	--	28	940.2	2,864	138.1
Other, non-Hispanic	20	29.4	20	29.4	62	91.1	311	457.1	56	82.3	1096	1,610.8	29,256	438.8
Sex^														
Male	810	62.0	313	24.0	4,709	360.6	9,073	694.7	581	44.5	18,150	1,389.7	698,700	459.4
Female	138	9.9	93	6.7	3,582	257.2	18,201	1,306.8	62	4.5	4,568	328.0	228,448	145.3
Chicago	973	36.1	412	15.3	8,306	307.8	27,320	1,012.3	643	23.8	22,875	847.6	N/A	N/A
United States	44,784	13.9	21,318	6.6	350,062	110.7	1,441,789	456.1	19,999	6.3	--	--	950,811	355.9

* 2014 Diagnoses for HIV and AIDS; 2013 HIV Prevalence; 2014 Reported Cases for STIs. † Prevalence rate per 100,000 population. § HIV infection diagnosis and prevalence represents people with HIV at any stage of disease through 9/30/14. *Rate per 100,000 population using 2010 U.S. Census Bureau Population figures. €Primary and secondary syphilis (symptomatic and infectious stages) only. **Centers for Disease Control and Prevention. Diagnosis of HIV Infection in the United States and Dependent Areas, 2014; vol. 26, pp. 107, 109 and 111. CDC Factsheet - Reported STDs in the United States: Table 1. Sexually Transmitted Diseases - Reported Cases and Rates of Reported Cases per 100,000 Population, United States, 1941-2014 for Primary and Secondary Syphilis, Chlamydia, and Gonorrhea. ^ Totals based on birth sex.

Table 2. HIV Infections[*] by Year of Diagnosis and Selected Demographic Characteristics, Chicago, 2010-2014

| Demographic Characteristics | Year of Diagnosis | | | | | | | | | | Estimated Annual Percent Change |
| | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | |
	No.	%	No.	%	No.	%	No.	%	No.	%	
Gender[**]											
Male	848	82.1	812	81.0	869	81.4	869	83.8	810	83.2	-0.05
Female	174	16.8	176	17.5	176	16.5	161	15.5	138	14.2	-4.91
Transgender: MtF	9	0.9	10	1.0	19	1.8	6	0.6	7	0.7	-9.63
Transgender: FtM	2	0.2	5	0.5	3	0.3	1	0.1	7	0.7	9.37
Race/Ethnicity[^]											
Black, non-Hispanic	579	56.1	536	53.4	563	52.8	551	53.1	516	53.0	-2.01
White, non-Hispanic	196	19.0	155	15.5	218	20.4	217	20.9	210	21.6	4.86
Hispanic	188	18.2	217	21.6	225	21.1	213	20.5	211	21.7	2.14
Asian/PI, non-Hispanic	15	1.5	11	1.1	10	0.9	16	1.5	16	1.6	5.17
AI/AN, non-Hispanic	2	0.2	1	0.1	2	0.2	1	0.1	0	0.0	-12.94
Multiple, non-Hispanic	53	5.1	83	8.3	49	4.6	39	3.8	20	2.1	-23.70
Unknown	6	0.6	2	0.2	6	0.5	12	1.1	0	0.0	-16.40
Transmission Group											
Male Sex w/Male	698	67.6	687	68.5	791	74.2	785	75.7	762	78.3	3.14
Injection Drug Use	88	8.5	61	6.1	43	4.0	33	3.2	30	3.0	-24.17
MSM and IDU§	28	2.7	38	3.8	27	2.5	27	2.6	25	2.6	-5.23
Heterosexual	214	20.8	211	21.0	182	17.1	173	16.7	151	15.5	-8.57
Other¶	5	0.5	6	0.6	24	2.2	19	1.8	6	0.6	15.76
Age Category[†]											
Less than 13	3	0.3	2	0.2	10	0.9	6	0.6	5	0.5	23.62
13-19	50	4.8	65	6.5	76	7.1	51	4.9	58	6.0	0.54
20-29	334	32.3	336	33.5	358	33.5	416	40.1	399	41.0	5.86
20-24	185	17.9	182	18.1	170	15.9	244	23.5	192	19.7	3.74
25-29	149	14.4	154	15.4	188	17.6	172	16.6	207	21.3	7.98
30-39	274	26.5	233	23.2	272	25.5	243	23.4	219	22.5	-3.98
40-49	225	21.8	212	21.1	185	17.3	174	16.8	172	17.7	-7.08
50-59	116	11.2	119	11.9	119	11.2	116	11.2	86	8.8	-6.05
60+	31	3.0	36	3.6	47	4.4	31	3.0	34	3.5	0.35
Total	**1,033**	**100.0**	**1,003**	**100.0**	**1,067**	**100.0**	**1,037**	**100.0**	**973**	**100.0**	**-0.86**

*Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. *HIV infection diagnoses represents people newly diagnosed with HIV in a given year, at any stage of disease through 9/30/2015 . **Current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses may differ slightly across tables . ^ Multiple, non-Hispanic indicates more than one race identified. §Men who have sex with men and inject drugs. ¶Includes perinatal transmission, blood transfusion, hemophilia, and NIR. †Age at time of diagnosis.*

	Black, NH No.	Black, NH %	White, NH No.	White, NH %	Hispanic No.	Hispanic %	Asian/PI, NH No.	Asian/PI, NH %	AI/AN, NH No.	AI/AN, NH %	Multiple, NH No.	Multiple, NH %	Total No.	Total %
Males														
Mode of Transmission														
Male Sex w/Male	355	90.8	185	92.2	180	94.6	12	89.2	14	93.3	0	0.0	746	92.1
Injection Drug Use	11	2.7	4	1.8	2	0.9	0	1.5	0	0.0	0	0.0	16	2.0
MSM and IDU§	8	1.9	10	4.8	4	1.9	1	9.2	1	6.7	0	0.0	23	2.8
Heterosexual	17	4.3	2	0.7	5	2.6	0	0.0	0	0.0	0	0.0	23	2.9
Other¶	1	0.3	1	0.5	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2
Age category†														
< 13	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
13-19	42	10.7	1	0.5	5	2.6	2	15.4	0	0.0	0	0.0	50	6.2
20-24	115	29.4	15	7.5	37	19.5	3	23.1	3	20.0	0	0.0	173	21.4
25-29	86	22.0	47	23.4	44	23.2	2	15.4	5	33.3	0	0.0	184	22.7
30-39	64	16.4	61	30.3	56	29.5	3	23.1	4	26.7	0	0.0	188	23.2
40-49	46	11.8	49	24.4	33	17.4	2	15.4	2	13.3	0	0.0	132	16.3
50-59	25	6.4	22	10.9	9	4.7	1	7.7	1	6.7	0	0.0	58	7.2
60+	12	3.1	6	3.0	6	3.2	0	0.0	0	0.0	0	0.0	24	3.0
Total Males	**391**	**100.0**	**201**	**100.0**	**190**	**100.0**	**13**	**100.0**	**15**	**100.0**	**0**	**0.0**	**810**	**100.0**
Females														
Mode of Transmission														
Injection Drug Use	12	10.5	2	22.9	0	0.7	0	0.0	0	0.0	0	0.0	13	9.6
Heterosexual	95	85.9	5	77.1	15	99.3	3	100.0	3	100.0	0	0.0	121	87.5
Other¶	4	3.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	2.9
Age category†														
< 13	4	3.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	2.9
13-19	6	5.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	4.3
20-24	13	11.8	0	0.0	1	6.7	0	0.0	1	33.3	0	0.0	15	10.9
25-29	9	8.2	1	14.3	3	20.0	0	0.0	1	33.3	0	0.0	14	10.1
30-39	19	17.3	3	42.9	3	20.0	2	66.7	0	0.0	0	0.0	27	19.6
40-49	31	28.2	1	14.3	3	20.0	0	0.0	0	0.0	0	0.0	35	25.4
50-59	21	19.1	1	14.3	4	26.7	1	33.3	0	0.0	0	0.0	27	19.6
60+	7	6.4	1	14.3	1	6.7	0	0.0	1	33.3	0	0.0	10	7.2
Total Females	**110**	**100.0**	**7**	**100.0**	**15**	**100.0**	**3**	**100.0**	**3**	**100.0**	**0**	**0.0**	**138**	**100.0**
Total Transgender: MtF	**11**	**100.0**	**1**	**100.0**	**4**	**100.0**	**0**	**0.0**	**1**	**100.0**	**0**	**0.0**	**17**	**100.0**
Total Transgender: FtM	**3**	**100.0**	**1**	**100.0**	**2**	**100.0**	**0**	**0.0**	**1**	**100.0**	**0**	**0.0**	**7**	**100.0**
All HIV Infections in 2014	**516**	**100.0**	**210**	**100.0**	**211**	**100.0**	**16**	**100.0**	**20**	**100.0**	**0**	**0.0**	**973**	**100.0**

*Note: Groups may not total 100% due to rounding; values <0.5 are rounded to zero. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. *HIV infection diagnoses represents people newly diagnosed with HIV in a given year, at any stage of disease through 9/30/2015. **Current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses values may differ slightly across tables. ^Multiple, non-Hispanic indicates more than one race identified; totals include cases with unknown race ethnicity. §Men who have sex with men and inject drugs. ¶Includes perinatal transmission, blood transfusion, hemophilia, and NIR. †Age at time of diagnosis, does not include <13 years of age due to small numbers.*

Table 4. People Living with HIV Infection (PLWH)* in 2013: Race/Ethnicity^ by Gender**, Mode of Transmission, and Age Category, Chicago

		Black, NH		White, NH		Hispanic		Asian/PI, NH		AI/AN, NH		Multiple, NH		Uknown		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Males	**Mode of Transmission**																
	Male Sex w/Male	5,369	66.3	4,826	90.8	2,725	76.0	164	82.6	18	76.1	717	77.6	1	100.0	13,820	76.1
	Injection Drug Use	1,358	16.8	135	2.5	349	9.7	4	2.2	2	7.4	70	7.5	0	0.0	1,918	10.6
	MSM and IDU§	622	7.7	258	4.8	245	6.8	8	4.2	2	7.4	99	10.8	0	0.0	1,234	6.8
	Heterosexual	629	7.8	69	1.3	232	6.5	20	10.1	1	4.8	31	3.4	0	0.0	983	5.4
	Other¶	122	1.5	27	0.5	36	1.0	2	1.0	1	4.3	7	0.8	0	0.0	195	1.1
	Age category†																
	<13	29	0.4	0	0.0	4	0.1	0	0.0	0	0.0	1	0.1	0	0.0	34	0.2
	13-19	108	1.3	3	0.1	20	0.6	0	0.0	1	4.3	1	0.1	0	0.0	133	0.7
	20-24	572	7.1	55	1.0	117	3.3	4	2.0	1	4.3	39	4.2	0	0.0	788	4.3
	25-29	722	8.9	187	3.5	259	7.2	9	4.5	3	13.0	60	6.5	0	0.0	1,240	6.8
	30-39	1,384	17.1	766	14.4	836	23.3	61	30.7	3	13.0	177	19.2	0	0.0	3,227	17.8
	40-49	2,011	24.8	1,797	33.8	1,203	33.5	72	36.2	7	30.4	304	32.9	0	0.0	5,394	29.7
	50-59	2,234	27.6	1,777	33.4	803	22.4	35	17.6	7	30.4	262	28.4	1	100.0	5,119	28.2
	60+	1,041	12.9	730	13.7	345	9.6	18	9.0	1	4.3	80	8.7	0	0.0	2,215	12.2
Total Males		8,101	100.0	5,315	100.0	3,587	100.0	199	100.0	23	100.0	924	100.0	1	100.0	18,150	100.0
Females	**Mode of Transmission**																
	Injection Drug Use	964	28.2	130	42.6	130	20.1	4	11.6	2	30.0	60	38.1	0	0.0	1,289	28.2
	Heterosexual	2,314	67.6	165	54.1	493	75.9	27	88.4	4	70.0	90	57.4	0	0.0	3,092	67.7
	Other¶	144	4.2	10	3.3	26	4.0	0	0.0	0	0.0	7	4.5	0	0.0	187	4.1
	Age category†																
	<13	26	0.8	0	0.0	3	0.5	0	0.0	0	0.0	4	2.6	0	0.0	33	0.7
	13-19	80	2.3	2	0.7	9	1.4	0	0.0	0	0.0	2	1.3	0	0.0	93	2.0
	20-24	149	4.4	8	2.6	16	2.5	0	0.0	0	0.0	7	4.5	0	0.0	180	3.9
	25-29	244	7.1	7	2.3	35	5.4	0	0.0	0	0.0	3	1.9	0	0.0	289	6.3
	30-39	691	20.2	46	15.1	129	19.9	10	32.3	0	0.0	23	14.7	0	0.0	899	19.7
	40-49	1,034	30.2	109	35.7	227	35.0	13	41.9	0	0.0	51	32.7	0	0.0	1,434	31.4
	50-59	871	25.5	101	33.1	157	24.2	5	16.1	3	60.0	48	30.8	0	0.0	1,185	25.9
	60+	327	9.6	32	10.5	73	11.2	3	9.7	2	40.0	18	11.5	0	0.0	455	10.0
Total Females		3,422	100.0	305	100.0	649	100.0	31	100.0	5	100.0	156	100.0	0	0.0	4,568	100.0
Total Transgender: MtF		68	100.0	7	100.0	30	100.0	0	0.0	0	0.0	11	100.0	0	0.0	116	100.0
Total Transgender: FtM		28	100.0	2	100.0	4	100.0	1	100.0	0	0.0	4	100.0	0	0.0	39	100.0
All HIV Infections in 2013		11,620	100.0	5,629	100.0	4,271	100.0	231	100.0	28	100.0	1,095	100.0	1	100.0	22,875	100.0

*Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. *All persons diagnosed with HIV, from the beginning of the epidemic through 12/31/2012 and living through 12/31/2013 as of 09/30/2015. **Current gender identity or gender with which a person identifies. Because total values were calculated using current gender, independently of values using birth sex, total diagnoses values may differ slightly across tables. ^Multiple, non-Hispanic indicates more than one race identified. §Men who have sex with men and inject drugs. ¶Includes perinatal transmission, blood transfusion, hemophilia, and NIR. †Age at time of diagnosis.*

Table 5. AIDS[*] Cases by Year of Diagnosis and Selected Demographic Characteristics, Chicago, 2010-2014 (as of 9/30/2015)

Demographic Characteristics	2010 No.	2010 %	2011 No.	2011 %	2012 No.	2012 %	2013 No.	2013 %	2014 No.	2014 %	Estimated Annual Percent Change
Gender[**]											
Male	467	75.4	438	76.0	459	78.9	429	81.6	313	76.0	-7.9
Female	143	23.1	131	22.7	119	20.4	88	16.7	93	22.6	-11.8
Transgender: MtF	5	0.8	6	1.0	3	0.5	7	1.3	2	0.5	-15.5
Transgender: FtM	4	0.6	1	0.2	1	0.2	2	0.4	4	1.0	N/A
Race/Ethnicity[^]											
Black, non-Hispanic	371	59.9	339	58.9	334	57.4	303	57.6	245	59.5	-9.0
White, non-Hispanic	93	15.0	70	12.2	89	15.3	86	16.3	55	13.3	-8.1
Hispanic	112	18.1	123	21.4	113	19.4	100	19.0	88	21.4	-6.7
Asian/PI, non-Hispanic	7	1.1	4	0.7	9	1.5	4	0.8	4	1.0	-10.6
AI/AN, non-Hispanic	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	N/A
Multiple, non-Hispanic	36	5.8	40	6.9	36	6.2	33	6.3	20	4.9	-12.8
Other/Unknown	3	0.5	0	0.0	0	0.0	0	0.0	0	0.0	N/A
Transmission Group											
Male Sex w/Male	340	55.0	336	58.4	364	62.5	361	68.7	258	62.6	-4.7
Injection Drug Use	87	14.0	65	11.3	70	12.1	42	8.1	44	10.7	-16.5
MSM and IDU§	35	5.7	26	4.4	19	3.3	26	5.0	15	3.6	-18.3
Heterosexual	149	24.0	139	24.2	117	20.1	85	16.2	86	20.8	-14.5
Other¶	8	1.3	10	1.7	12	2.1	11	2.1	9	2.2	3.4
Age Category[†]											
Less than 13	0	0.0	0	0.0	0	0.0	0	0.0	3	0.7	N/A
13-19	10	1.6	19	3.3	20	3.4	12	2.3	8	1.9	-8.7
20-29	122	19.7	125	21.7	142	24.4	138	26.2	81	19.7	-6.9
20-24	45	7.3	51	8.9	49	8.4	70	13.3	32	7.8	-3.6
24-29	77	12.4	74	12.8	93	16.0	68	12.9	49	11.9	-9.4
30-39	171	27.6	143	24.8	136	23.4	141	26.8	101	24.5	-10.1
40-49	190	30.7	158	27.4	137	23.5	123	23.4	111	26.9	-12.4
50-59	93	15.0	99	17.2	106	18.2	88	16.7	76	18.4	-5.1
60+	33	5.3	32	5.6	41	7.0	24	4.6	32	7.8	-3.4
Total	619	100.0	576	100.0	582	100.0	526	100.0	412	100.0	-8.7

Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. *All persons diagnosed with AIDS, from the beginning of the epidemic through 9/30/2015. **Current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses values may differ slightly across tables . ^Multiple, non-Hispanic indicates more than one race identified. §Men who have sex with men and inject drugs. ¶Includes perinatal transmission, blood transfusion, hemophilia, and NIR. †Age at time of diagnosis.

Table 6. 2013-2014 Average Annual HIV Infection* Diagnosis Rates by Community Area, Chicago (as of 09/30/15)

Community Area	Average HIV Infections	Average HIV Infection Rate	Community Area	Average HIV Infections	Average HIV Infection Rate
1 Rogers Park	42	76.4	40 Washington Park	7	59.7
2 West Ridge	18	24.3	41 Hyde Park	7	25.3
3 Uptown	62	110	42 Woodlawn	14	52
4 Lincoln Square	9	22.8	43 South Shore	34	67.3
5 North Center	<5	--	44 Chatham	12	38.7
6 Lake View	63	66.8	45 Avalon Park	6	54
7 Lincoln Park	7	10.1	46 South Chicago	17	54.5
8 Near North Side	13	15.5	47 Burnside	<5	--
9 Edison Park	0	0	48 Calumet Heights	<5	--
10 Norwood Park	<5	--	49 Roseland	20	44.8
11 Jefferson Park	<5	--	50 Pullman	6	75.1
12 Forest Glen	0	0	51 South Deering	5	33.1
13 North Park	0	0	52 East Side	<5	--
14 Albany Park	12	23.3	53 West Pullman	10	33.7
15 Portage Park	6	9.4	54 Riverdale	<5	--
16 Irving Park	11	19.7	55 Hegewisch	<5	--
17 Dunning	<5	--	56 Garfield Ridge	<5	--
18 Montclare	<5	--	57 Archer Heights	<5	--
19 Belmont Cragin	14	17.8	58 Brighton Park	9	19.8
20 Hermosa	5	20	59 McKinley Park	<5	--
21 Avondale	9	22.9	60 Bridgeport	5	14.1
22 Logan Square	20	27.2	61 New City	9	19.2
23 Humboldt Park	26	46.2	62 West Elsdon	<5	--
24 West Town	23	27.6	63 Gage Park	9	21.3
25 Austin	42	42.1	64 Clearing	0	0
26 West Garfield Park	18	97.2	65 West Lawn	7	19.5
27 East Garfield Park	13	60.8	66 Chicago Lawn	23	40.4
28 Near West Side	25	44.6	67 West Englewood	19	53.5
29 North Lawndale	21	57.1	68 Englewood	17	55.5
30 South Lawndale	19	23.3	69 Gr. Grand Crossing	24	72.1
31 Lower West Side	9	25.2	70 Ashburn	9	21.9
32 Loop	9	30.7	71 Auburn Gresham	23	47.2
33 Near South Side	6	25.7	72 Beverly	<5	--
34 Armour Square	<5	--	73 Washington Heights	8	30.2
35 Douglas	11	57.6	74 Mount Greenwood	<5	--
36 Oakland	<5	--	75 Morgan Park	9	37.7
37 Fuller Park	0	0	76 O'Hare	<5	--
38 Grand Boulevard	17	77.5	77 Edgewater	50	88.5
39 Kenwood	6	30.8	*Unknown CA*	137	--
			Chicago Total¶	**1,020**	**37.8**

*Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. §Rate per 100,000 population using 2010 U.S. Census Bureau population figures. ¶Includes all persons with unknown/undetermined community area. *HIV infection diagnoses represents newly diagnosed with HIV in a given year, at any stage of the disease through 9/30/2014.*

Figure 4. 2013-2014 Average Annual HIV Infection Diagnosis Case Rates by Community Area, Chicago

Case Rates Per 100,000 Population

- No Cases/Small Numbers (suppressed)
- 9.4 - 27.6
- 27.7 - 42.1
- 42.2 - 60.8
- 60.9 - 97.2

1 Rogers Park
2 West Ridge
3 Uptown
4 Lincoln Square
5 North Center
6 Lake View
7 Lincoln Park
8 Near North Side
9 Edison Park
10 Norwood Park
11 Jefferson Park
12 Forest Glen
13 North Park
14 Albany Park
15 Portage Park
16 Irving Park
17 Dunning
18 Montclare
19 Belmont Cragin
20 Hermosa
21 Avondale
22 Logan Square
23 Humboldt Park
24 West Town
25 Austin
26 West Garfield Park
27 East Garfield Park
28 Near West Side
29 North Lawndale
30 South Lawndale
31 Lower West Side
32 Loop
33 Near South Side
34 Armour Square
35 Douglas
36 Oakland
37 Fuller Park
38 Grand Boulevard
39 Kenwood
40 Washington Park

41 Hyde Park
42 Woodlawn
43 South Shore
44 Chatham
45 Avalon Park
46 South Chicago
47 Burnside
48 Calumet Heights
49 Roseland
50 Pullman
51 South Deering
52 East Side
53 West Pullman
54 Riverdale
55 Hegewisch
56 Garfield Ridge
57 Archer Heights
58 Brighton Park
59 Mckinley Park
60 Bridgeport
61 New City
62 West Elsdon
63 Gage Park
64 Clearing
65 West Lawn
66 Chicago Lawn
67 West Englewood
68 Englewood
69 Greater Grand Crossing
70 Ashburn
71 Auburn Gresham
72 Beverly
73 Washington Heights
74 Mount Greenwood
75 Morgan Park
76 Ohare
77 Edgewater

Data classified using quartiles
Data source: CDPH, HIV/AIDS Reporting System (as of 10/25/15),
City of Chicago GIS Shapefiles, and U.S Census
Map Prepared by: Margaret Eaglin, MPH, MUPP on 11/13/15

Table 7. People Living with HIV Infection (PLWH) in 2013 by Community Area, Chicago (as of 09/30/2015)

Community Area	Prevalent Cases	Prevalence Rate	Community Area	Prevalent Cases	Prevalence Rate
1 Rogers Park	897	1,631.2	40 Washington Park	137	1,169.2
2 West Ridge	307	426.7	41 Hyde Park	140	545.2
3 Uptown	1,253	2,223.1	42 Woodlawn	242	931.4
4 Lincoln Square	185	468.4	43 South Shore	625	1,255.9
5 North Center	112	351.5	44 Chatham	278	896.0
6 Lake View	1,041	1,103.1	45 Avalon Park	69	677.5
7 Lincoln Park	180	280.7	46 South Chicago	266	852.6
8 Near North Side	328	407.5	47 Burnside	23	788.8
9 Edison Park	9	80.5	48 Calumet Heights	81	586.4
10 Norwood Park	33	89.1	49 Roseland	272	609.6
11 Jefferson Park	37	145.4	50 Pullman	48	655.3
12 Forest Glen	33	178.3	51 South Deering	83	549.3
13 North Park	42	234.2	52 East Side	28	121.5
14 Albany Park	223	432.7	53 West Pullman	171	576.7
15 Portage Park	120	187.1	54 Riverdale	24	370.3
16 Irving Park	200	374.8	55 Hegewisch	9	95.5
17 Dunning	52	124.0	56 Garfield Ridge	38	110.1
18 Montclare	32	238.3	57 Archer Heights	18	134.4
19 Belmont Cragin	209	265.4	58 Brighton Park	115	253.5
20 Hermosa	98	391.8	59 McKinley Park	31	198.6
21 Avondale	170	433.0	60 Bridgeport	73	228.3
22 Logan Square	353	479.7	61 New City	185	416.9
23 Humboldt Park	439	779.4	62 West Elsdon	26	143.6
24 West Town	404	496.1	63 Gage Park	88	220.6
25 Austin	714	724.8	64 Clearing	26	112.4
26 West Garfield Park	170	944.4	65 West Lawn	50	149.9
27 East Garfield Park	223	1,084.3	66 Chicago Lawn	250	449.4
28 Near West Side	369	672.4	67 West Englewood	266	749.2
29 North Lawndale	366	1,019.2	68 Englewood	282	919.9
30 South Lawndale	505	636.9	69 Gr. Grand Crossing	311	953.9
31 Lower West Side	138	385.8	70 Ashburn	94	228.8
32 Loop	122	416.6	71 Auburn Gresham	338	693.4
33 Near South Side	109	509.6	72 Beverly	41	204.7
34 Armour Square	31	231.5	73 Washington Heights	159	600.2
35 Douglas	173	948.6	74 Mount Greenwood	11	57.6
36 Oakland	45	760.4	75 Morgan Park	97	430.3
37 Fuller Park	28	973.6	76 O'Hare	18	141.1
38 Grand Boulevard	273	1,244.9	77 Edgewater	1,222	2,162.0
39 Kenwood	149	835.2	*Unknown CA*	*6,483*	--
			Chicago Total¶	**22,890**	**849.2**

Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. †All persons diagnosed with HIV, from the beginning of the epidemic through 12/31/2011 and living through 12/31/2012 as of 09/30/2014. §Rate per 100,000 population using 2010 U.S. Census Bureau population figures. ¶Includes all persons with unknown/undetermined community area.

Figure 5. People Living with HIV Infection (PLWH) in 2013 by Community Area, Chicago

Case Rates per 100,000 Population

- 57.6 - 280.7
- 280.8 - 724.8
- 724.9 - 1,255.9
- 1,256.0 - 2,223.1

1 Rogers Park
2 West Ridge
3 Uptown
4 Lincoln Square
5 North Center
6 Lake View
7 Lincoln Park
8 Near North Side
9 Edison Park
10 Norwood Park
11 Jefferson Park
12 Forest Glen
13 North Park
14 Albany Park
15 Portage Park
16 Irving Park
17 Dunning
18 Montclare
19 Belmont Cragin
20 Hermosa
21 Avondale
22 Logan Square
23 Humboldt Park
24 West Town
25 Austin
26 West Garfield Park
27 East Garfield Park
28 Near West Side
29 North Lawndale
30 South Lawndale
31 Lower West Side
32 Loop
33 Near South Side
34 Armour Square
35 Douglas
36 Oakland
37 Fuller Park
38 Grand Boulevard
39 Kenwood
40 Washington Park

41 Hyde Park
42 Woodlawn
43 South Shore
44 Chatham
45 Avalon Park
46 South Chicago
47 Burnside
48 Calumet Heights
49 Roseland
50 Pullman
51 South Deering
52 East Side
53 West Pullman
54 Riverdale
55 Hegewisch
56 Garfield Ridge
57 Archer Heights
58 Brighton Park
59 Mckinley Park
60 Bridgeport
61 New City
62 West Elsdon
63 Gage Park
64 Clearing
65 West Lawn
66 Chicago Lawn
67 West Englewood
68 Englewood
69 Greater Grand Crossing
70 Ashburn
71 Auburn Gresham
72 Beverly
73 Washington Heights
74 Mount Greenwood
75 Morgan Park
76 Ohare
77 Edgewater

Data classified using quartiles
Data source: CDPH, HIV/AIDS Reporting System (as of 10/25/2015),
City of Chicago GIS Shapefiles, and U.S Census
Map Prepared by: Margaret Eaglin, MPH, MUPP on 11/13/2015

STI Highlights

- *Chlamydia trachomatis* is the most common reportable communicable disease in both males and females in Chicago. In 2014, a total of 27,320 chlamydia infections were reported to CDPH. Between 2010–2014, the total number of reported chlamydia cases increased from 25,288 to 27,320. Chlamydia cases among females slightly decreased by 1.0%, from 2010 to 2014. Additionally, the annual percent of cases among males increased by 4.0% during the same time period. As in previous years, the reported number of cases among females was about two times the number of cases among males in 2014, likely reflecting a larger number of females screened for this infection. It is also likely that many of the sex partners of women with chlamydia did not receive a diagnosis of chlamydia nor were they reported as having chlamydia (Table 10).

- The combination of persistently high gonorrhea morbidity along with resistance and decreased treatment options is reinforcing the need to better understand the epidemiology of gonorrhea. From 2010 to 2014, the total number of reported gonorrhea cases increased annually by < 1.0% (Table 8). Notably in 2014, the number of gonorrhea cases among females were the lowest since 2010 (43.1% of cases), while the number of gonorrhea cases among males were the highest since 2010 (56.7%) (Table 8). An increase among males in 2014 compared to females is suggestive of either increased transmission or increased case ascertainment (e.g., through increased extra-genital screening) among men. Our participation in the STD Surveillance Network (SSuN) demonstrated that there is a need to collect data on gender of sex partner for males. As a result, in addition to updating our STI surveillance morbidity form in 2011, gender of sex partner was added to the surveillance system (INEDSS) which allows providers to report this information to the health department and assess trends in gonorrhea cases among MSM.

- Overall, P&S syphilis has decreased 6.7% from 2010 (686 cases) to 2014 (643 cases), with an estimated annual decrease of 2.1% (EAPC). The total number of P&S syphilis cases decreased annually by 1.5% among males from 2010-2014. During this same period, the number of cases among females decreased annually by 6.6% (Table 12).

- The majority of STI diagnoses in Chicago are concentrated among adolescents and young adults. Those 13 to 24 years old accounted for 59.7% of gonorrhea cases and 66.7% of chlamydia cases, while 44.0% of P&S syphilis cases were among those under age 30 (Table 8, 10, 12). NH Blacks comprised the majority of STIs in Chicago during 2014, at 47.1% of chlamydia infections, 50.6% of gonorrhea infections, and 43.4% of syphilis infections. Since 2010, NH Whites and Hispanics have accounted for increasing proportions of gonorrhea infections and P&S syphilis cases (Table 8, 10, 12).

- The largest proportion of P&S syphilis cases (59.7%) remains among men who have sex with men (MSM), while men who have sex with females (MSW) represented close to 11%. Notably, 19.4% of male syphilis cases were reported as 'unknown' risk, which, if known, would likely increase the number of MSM cases. Based on the provisional data, 41.6% of males newly diagnosed with syphilis in 2014 were also infected with HIV (Table 12).

- Trends in congenital syphilis usually follow trends for P&S syphilis among females, with a lag of 1–2 years. During 2010-2014, the total number of P&S syphilis among females decreased from 84 cases to 62, with an estimated annual decrease of 6.6%. As a result, the total number of congenital syphilis only slightly increased from 19 cases to 20 cases (5.2% EAPC) during the same time period (Table 12, 14).

Figure 6. Number of Reported Sexually Transmitted Infections, Chicago, 1997-2014
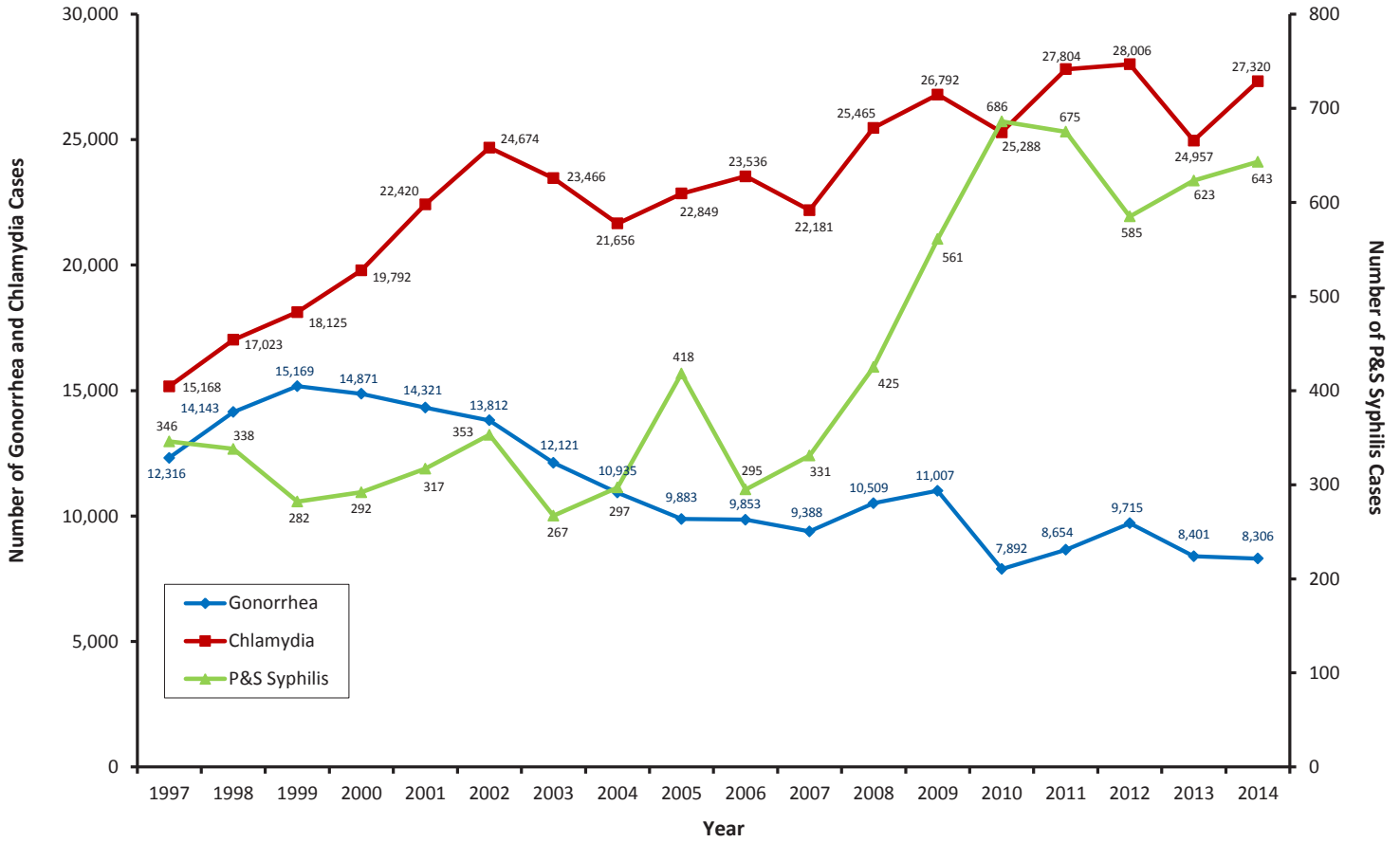
Table 8. Trends in Gonorrhea Cases by Selected Demographic Characteristics, Chicago, 2010-2014

Demographic Characteristics	2010 No.	%	2011 No.	%	2012 No.	%	2013 No.	%	2014 No.	%	Estimated Annual Percent Change
Sex											
Male	3,623	45.9	4,141	47.9	4,752	48.9	4,286	51.0	4,709	56.7	5.7
Female	4,248	53.8	4,497	52.0	4,948	50.9	4,107	48.9	3,582	43.1	-4.2
Race/Ethnicity											
Black, non-Hispanic	4,821	61.1	5,756	66.5	5,991	61.7	5,357	63.8	4,200	50.6	-3.4
White, non-Hispanic	343	4.3	393	4.5	469	4.8	465	5.5	680	8.2	16.6
Hispanic	333	4.2	439	5.1	437	4.5	424	5.0	495	6.0	7.9
Asian/PI, non-Hispanic	15	0.2	28	0.3	39	0.4	26	0.3	25	0.3	9.9
AI/AN, non-Hispanic	7	0.1	8	0.1	5	0.1	9	0.1	6	0.1	-1.9
Other, non-Hispanic	34	0.4	116	1.3	63	0.6	62	0.7	62	0.8	5.9
Unknown	2,339	29.6	1,914	22.1	2,711	27.9	2,058	24.6	2,838	34.2	4.7
Age†											
Less than 13	23	0.3	29	0.3	21	0.2	16	0.2	6	0.1	-28.0
13-19	2,730	34.6	3,136	36.2	3,261	33.6	2,682	31.9	2,162	26.0	-6.0
20-29	3,694	46.8	4,022	46.5	4,644	47.8	4,099	48.8	4,273	51.4	3.2
20-24	2,520	31.9	2,767	32.0	3,173	32.7	2,780	33.1	2,798	33.7	2.2
25-29	1,174	14.9	1,255	14.5	1,471	15.1	1,319	15.7	1,475	17.8	5.2
30-39	938	11.9	929	10.7	1,138	11.7	1,017	12.1	1,196	14.4	5.9
40-49	368	4.7	392	4.5	467	4.8	422	5.0	458	5.5	5.2
50+	139	1.8	146	1.7	184	1.9	165	2.0	211	2.5	10.0
Total**	7,892	100.0	8,654	100.0	9,715	100.0	8,401	100.0	8,306	100.0	0.7

*Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. †Age at time of diagnosis. **Includes cases with unknown sex or age.*

Table 9. Gonorrhea Case Rates by Community Area, Chicago, 2014

Community Area	Gonorrhea Cases	Rate	Community Area	Gonorrhea Cases	Rate
1 Rogers Park	166	301.9	40 Washington Park	97	827.9
2 West Ridge	54	75.1	41 Hyde Park	24	93.5
3 Uptown	288	511	42 Woodlawn	116	446.4
4 Lincoln Square	24	60.8	43 South Shore	296	594.8
5 North Center	23	72.2	44 Chatham	170	547.9
6 Lake View	290	307.3	45 Avalon Park	43	422.2
7 Lincoln Park	56	87.3	46 South Chicago	126	403.9
8 Near North Side	83	103.1	47 Burnside	15	514.4
9 Edison Park	<5	--	48 Calumet Heights	52	376.5
10 Norwood Park	<5	--	49 Roseland	211	472.9
11 Jefferson Park	7	27.5	50 Pullman	25	341.3
12 Forest Glen	<5	--	51 South Deering	54	357.4
13 North Park	5	27.9	52 East Side	17	73.8
14 Albany Park	35	67.9	53 West Pullman	138	465.4
15 Portage Park	34	53	54 Riverdale	51	786.8
16 Irving Park	49	91.8	55 Hegewisch	<5	--
17 Dunning	13	31	56 Garfield Ridge	23	66.6
18 Montclare	11	81.9	57 Archer Heights	5	37.3
19 Belmont Cragin	56	71.1	58 Brighton Park	21	46.3
20 Hermosa	21	84	59 McKinley Park	10	64.1
21 Avondale	45	114.6	60 Bridgeport	13	40.7
22 Logan Square	72	97.8	61 New City	101	227.6
23 Humboldt Park	215	381.7	62 West Elsdon	8	44.2
24 West Town	117	143.7	63 Gage Park	39	97.8
25 Austin	545	553.2	64 Clearing	10	43.2
26 West Garfield Park	157	872.2	65 West Lawn	21	63
27 East Garfield Park	155	753.6	66 Chicago Lawn	207	372.1
28 Near West Side	175	318.9	67 West Englewood	290	816.8
29 North Lawndale	278	774.1	68 Englewood	241	786.2
30 South Lawndale	76	95.9	69 Gr. Grand Crossing	233	714.7
31 Lower West Side	49	137	70 Ashburn	77	187.4
32 Loop	42	143.4	71 Auburn Gresham	271	556
33 Near South Side	24	112.2	72 Beverly	15	74.9
34 Armour Square	11	82.1	73 Washington Heights	113	426.5
35 Douglas	69	378.3	74 Mount Greenwood	<5	--
36 Oakland	37	625.2	75 Morgan Park	51	226.2
37 Fuller Park	13	452	76 O'Hare	5	39.2
38 Grand Boulevard	125	570	77 Edgewater	200	353.9
39 Kenwood	67	375.5	*Unknown CA*	*1417*	
			Chicago Total¶	**8,306**	**308.1**

Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. §Rate per 100,000 population using 2010 U.S. Census Bureau population figures. ¶Includes all persons with unknown/undetermined community area.

Figure 7. Gonorrhea Case Rates (per 100,000) by Community Area, Chicago, 2014

Case Rates per 100,000 Population

- No Cases/Small Numbers (suppressed)
- 27.5 - 187.4
- 187.5 - 426.5
- 426.6 - 625.2
- 625.3 - 872.2

1 Rogers Park
2 West Ridge
3 Uptown
4 Lincoln Square
5 North Center
6 Lake View
7 Lincoln Park
8 Near North Side
9 Edison Park
10 Norwood Park
11 Jefferson Park
12 Forest Glen
13 North Park
14 Albany Park
15 Portage Park
16 Irving Park
17 Dunning
18 Montclare
19 Belmont Cragin
20 Hermosa
21 Avondale
22 Logan Square
23 Humboldt Park
24 West Town
25 Austin
26 West Garfield Park
27 East Garfield Park
28 Near West Side
29 North Lawndale
30 South Lawndale
31 Lower West Side
32 Loop
33 Near South Side
34 Armour Square
35 Douglas
36 Oakland
37 Fuller Park
38 Grand Boulevard
39 Kenwood
40 Washington Park

41 Hyde Park
42 Woodlawn
43 South Shore
44 Chatham
45 Avalon Park
46 South Chicago
47 Burnside
48 Calumet Heights
49 Roseland
50 Pullman
51 South Deering
52 East Side
53 West Pullman
54 Riverdale
55 Hegewisch
56 Garfield Ridge
57 Archer Heights
58 Brighton Park
59 Mckinley Park
60 Bridgeport
61 New City
62 West Elsdon
63 Gage Park
64 Clearing
65 West Lawn
66 Chicago Lawn
67 West Englewood
68 Englewood
69 Greater Grand Crossing
70 Ashburn
71 Auburn Gresham
72 Beverly
73 Washington Heights
74 Mount Greenwood
75 Morgan Park
76 Ohare
77 Edgewater

Data classified using quartiles
Data source: Illinois National Electronic Disease
Surveillance System (6/2015) and City of Chicago GIS Shapefiles
Map Prepared by: Margaret Eaglin, MPH, MUPP on 11/13/2015

Table 10. Trends in Chlamydia Cases by Selected Demographic Characteristics, Chicago, 2010-2014

| Demographics Characteristics | Year of Report | | | | | | | | | | Estimated Annual Percent Change |
| | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | |
	No.	%	No.	%	No.	%	No.	%	No.	%	
Sex											
Male	7,023	27.8	8,500	30.6	8,364	29.9	7,520	30.1	9,073	33.2	4.0
Female	18,192	71.9	19,232	69.2	19,574	69.9	17,396	69.6	18,201	66.6	-1.0
Race/Ethnicity											
Black, non-Hispanic	13,359	52.8	15,714	56.5	14,479	51.7	13,184	52.8	12,858	47.1	-2.5
White, non-Hispanic	977	3.9	1,292	4.6	1,125	4.0	1,222	4.9	1,516	5.6	8.6
Hispanic	2,838	11.2	3,456	12.4	3,107	11.1	2,906	11.6	3,298	12.1	1.2
Asian/PI, non-Hispanic	129	0.5	131	0.5	152	0.5	159	0.6	172	0.6	8.0
AI/AN, non-Hispanic	28	0.1	14	0.1	12	0.0	11	0.0	20	0.1	-8.7
Other, non-Hispanic	170	0.7	481	1.7	279	1.0	273	1.1	311	1.1	6.6
Unknown	7,787	30.8	6,716	24.2	8,852	31.6	7,202	28.8	9,145	33.5	4.0
Age[†]											
Less than 13	115	0.5	41	0.1	58	0.2	49	0.2	28	0.1	-23.3
13-19	9,245	36.6	10,282	37.0	10,304	36.8	8,545	34.2	8,427	30.9	-3.6
20-29	12,334	48.8	13,671	49.2	13,822	49.4	12,783	51.2	14,497	53.1	2.6
20-24	8,405	33.2	9,359	33.7	9,548	34.1	8,898	35.6	9,789	35.8	2.6
25-29	3,929	15.5	4,312	15.5	4,274	15.3	3,885	15.5	4,708	17.2	2.6
30-39	2,636	10.4	2,804	10.1	2,839	10.1	2,594	10.4	3,144	11.5	2.8
40-49	716	2.8	755	2.7	722	2.6	748	3.0	845	3.1	3.3
50+	242	1.0	251	0.9	261	0.9	238	1.0	379	1.4	8.8
Total**	**25,288**	**100.0**	**27,804**	**100.0**	**28,006**	**100.0**	**24,957**	**100.0**	**27,320**	**100.0**	**0.5**

Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable.
†Age at time of diagnosis. **Includes cases with unknown sex or age.

Table 11. Chlamydia Case Rates by Community Area, Chicago, 2014

Community Area	Chlamydia Cases	Rate	Community Area	Chlamydia Cases	Rate
1 Rogers Park	399	725.6	40 Washington Park	316	2,696.9
2 West Ridge	245	340.6	41 Hyde Park	107	416.7
3 Uptown	403	715.0	42 Woodlawn	389	1,497.1
4 Lincoln Square	110	278.5	43 South Shore	894	1,796.4
5 North Center	90	282.4	44 Chatham	460	1,482.5
6 Lake View	527	558.5	45 Avalon Park	131	1,286.2
7 Lincoln Park	266	414.9	46 South Chicago	438	1,403.9
8 Near North Side	388	482.1	47 Burnside	47	1,611.8
9 Edison Park	20	178.8	48 Calumet Heights	125	905.0
10 Norwood Park	42	113.4	49 Roseland	646	1,447.8
11 Jefferson Park	58	227.9	50 Pullman	91	1,242.3
12 Forest Glen	17	91.9	51 South Deering	194	1,284.0
13 North Park	32	178.5	52 East Side	105	455.7
14 Albany Park	206	399.7	53 West Pullman	481	1,622.2
15 Portage Park	233	363.4	54 Riverdale	149	2,298.7
16 Irving Park	229	429.2	55 Hegewisch	30	318.3
17 Dunning	86	205.1	56 Garfield Ridge	143	414.3
18 Montclare	65	484.1	57 Archer Heights	83	619.7
19 Belmont Cragin	475	603.2	58 Brighton Park	285	628.2
20 Hermosa	178	711.7	59 McKinley Park	89	570.1
21 Avondale	214	545.1	60 Bridgeport	101	315.9
22 Logan Square	398	540.8	61 New City	545	1,228.1
23 Humboldt Park	893	1,585.5	62 West Elsdon	90	497.0
24 West Town	493	605.4	63 Gage Park	283	709.4
25 Austin	1,893	1,921.6	64 Clearing	63	272.3
26 West Garfield Park	500	2,777.6	65 West Lawn	180	539.6
27 East Garfield Park	487	2,367.9	66 Chicago Lawn	828	1,488.5
28 Near West Side	635	1,157.0	67 West Englewood	814	2,292.6
29 North Lawndale	1,051	2,926.6	68 Englewood	716	2,335.7
30 South Lawndale	550	693.7	69 Gr. Grand Crossing	697	2,137.9
31 Lower West Side	251	701.7	70 Ashburn	278	676.7
32 Loop	155	529.3	71 Auburn Gresham	835	1,713.1
33 Near South Side	95	444.1	72 Beverly	75	374.4
34 Armour Square	80	597.4	73 Washington Heights	410	1,547.6
35 Douglas	244	1,337.9	74 Mount Greenwood	46	240.9
36 Oakland	124	2,095.3	75 Morgan Park	207	918.2
37 Fuller Park	46	1,599.4	76 O'Hare	31	243.0
38 Grand Boulevard	414	1,887.9	77 Edgewater	283	500.7
39 Kenwood	189	1,059.4	*Unknown CA*	*2,854*	
			Chicago Total¶	**27,320**	**1,013.5**

Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. §Rate per 100,000 population using 2010 U.S. Census Bureau population figures. ¶Includes all persons with unknown/undetermined community area.

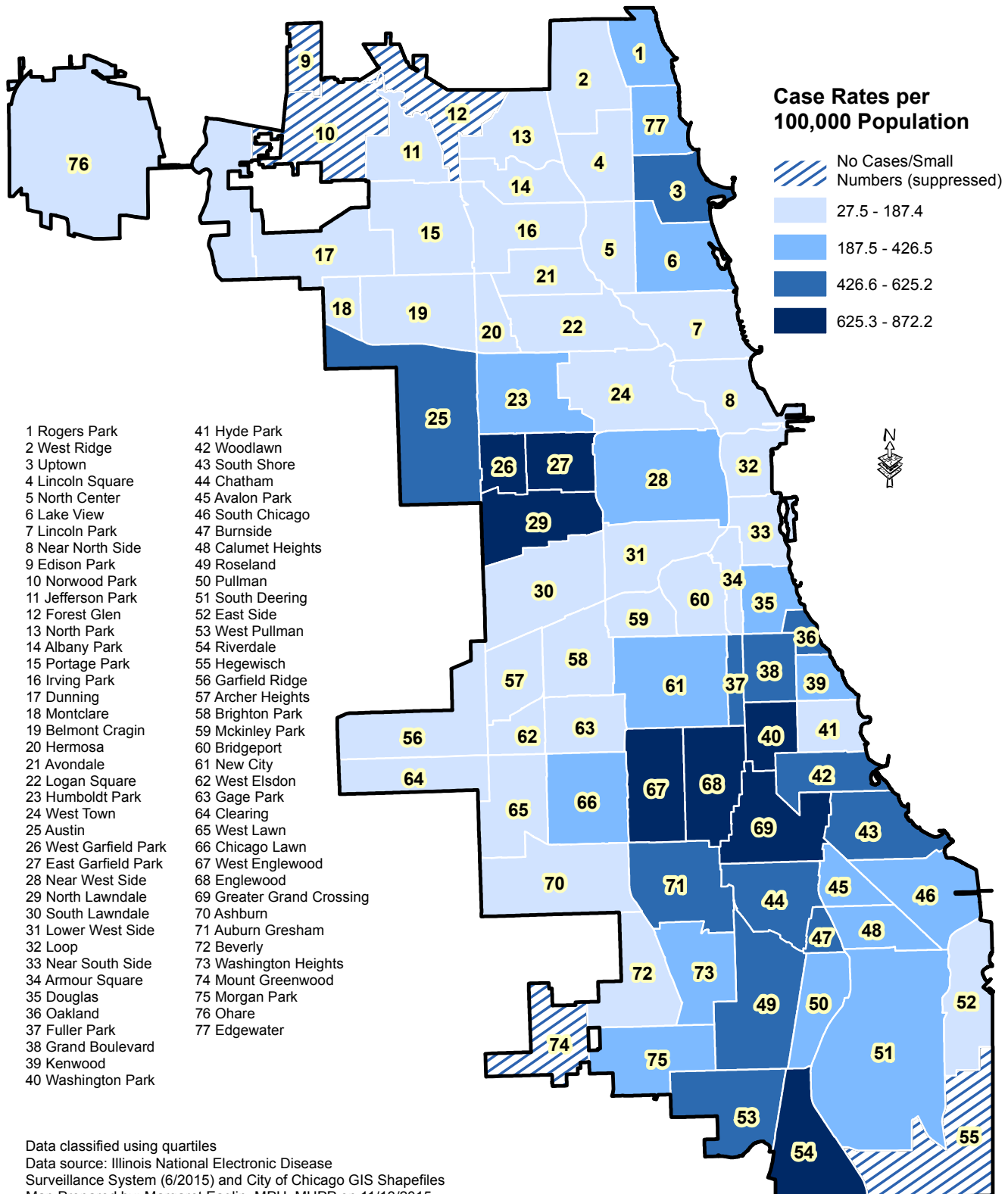# Figure 8. Chlamydia Case Rates (per 100,000) by Community Area, Chicago, 2014

Case Rates per 100,000 Population

- 91.9 - 455.7
- 455.8 - 1,059.4
- 1,059.5 - 1,921.6
- 1,921.7 - 2,926.6

1 Rogers Park
2 West Ridge
3 Uptown
4 Lincoln Square
5 North Center
6 Lake View
7 Lincoln Park
8 Near North Side
9 Edison Park
10 Norwood Park
11 Jefferson Park
12 Forest Glen
13 North Park
14 Albany Park
15 Portage Park
16 Irving Park
17 Dunning
18 Montclare
19 Belmont Cragin
20 Hermosa
21 Avondale
22 Logan Square
23 Humboldt Park
24 West Town
25 Austin
26 West Garfield Park
27 East Garfield Park
28 Near West Side
29 North Lawndale
30 South Lawndale
31 Lower West Side
32 Loop
33 Near South Side
34 Armour Square
35 Douglas
36 Oakland
37 Fuller Park
38 Grand Boulevard
39 Kenwood
40 Washington Park

41 Hyde Park
42 Woodlawn
43 South Shore
44 Chatham
45 Avalon Park
46 South Chicago
47 Burnside
48 Calumet Heights
49 Roseland
50 Pullman
51 South Deering
52 East Side
53 West Pullman
54 Riverdale
55 Hegewisch
56 Garfield Ridge
57 Archer Heights
58 Brighton Park
59 Mckinley Park
60 Bridgeport
61 New City
62 West Elsdon
63 Gage Park
64 Clearing
65 West Lawn
66 Chicago Lawn
67 West Englewood
68 Englewood
69 Greater Grand Crossing
70 Ashburn
71 Auburn Gresham
72 Beverly
73 Washington Heights
74 Mount Greenwood
75 Morgan Park
76 Ohare
77 Edgewater

Data classified using quartiles
Data source: Illinois National Electronic Disease
Surveillance System (6/2015) and City of Chicago GIS Shapefiles
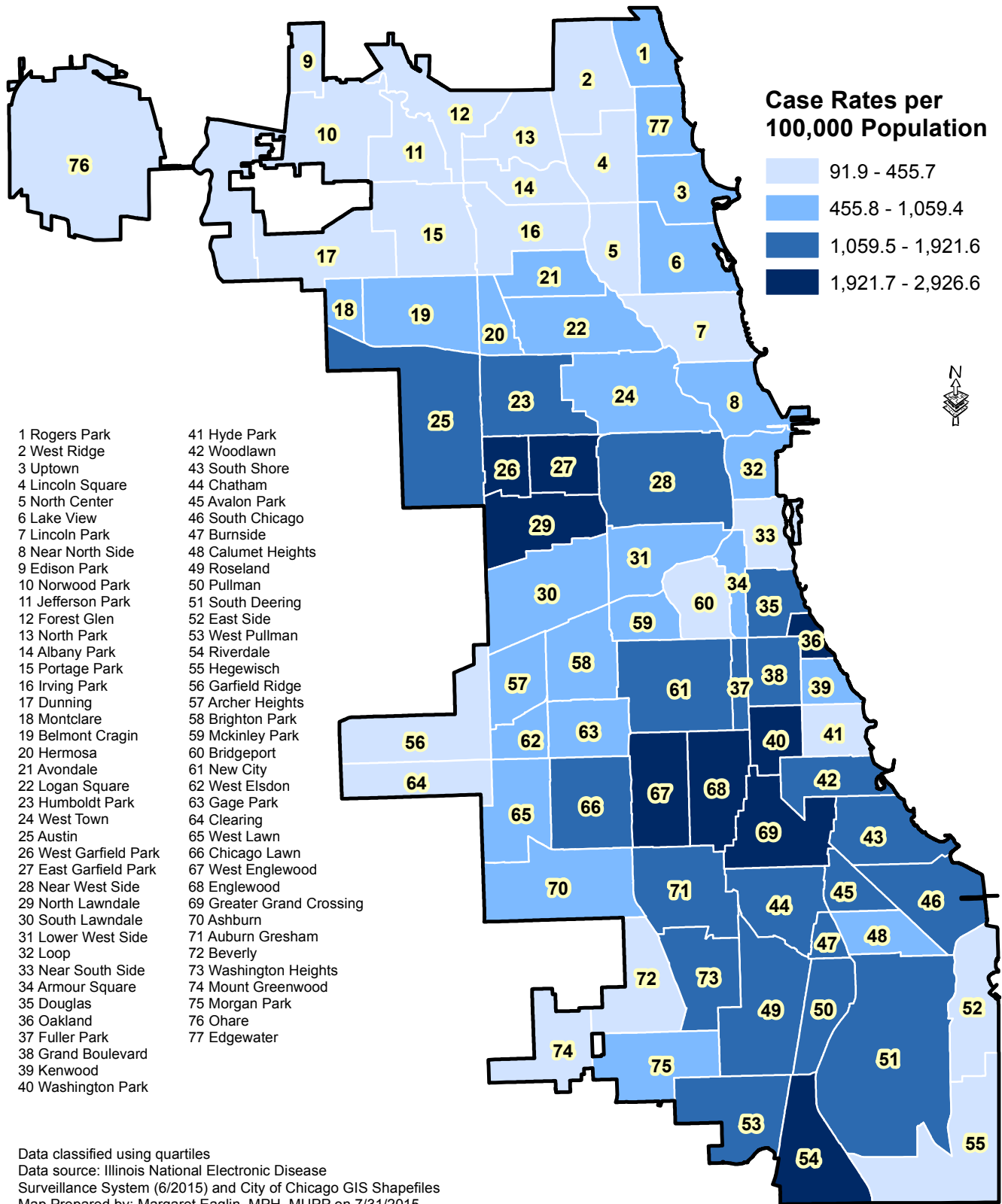Map Prepared by: Margaret Eaglin, MPH, MUPP on 7/31/2015

Table 12. Trends in Primary and Seconary Syphilis Cases by Selected Demographic Characteristics, Chicago, 2010-2014

Demographic Characteristic	Year of Report										Estimated Annual Percent Change
	2010		2011		2012		2013		2014		
	No.	%	No.	%	No.	%	No.	%	No.	%	
Sex*											
Male	602	87.8	616	91.3	526	89.9	567	91.0	581	90.4	-1.5
Female	84	12.2	59	8.7	59	10.1	55	8.8	62	9.6	-6.6
Race/Ethnicity*											
Black, non-Hispanic	402	58.6	375	55.6	290	49.6	291	46.7	280	43.4	-9.3
White, non-Hispanic	152	22.2	170	25.2	156	26.7	169	27.1	191	29.7	4.6
Hispanic	92	13.4	86	12.7	99	16.9	104	16.7	103	16.0	4.2
Asian/PI, non-Hispanic	11	1.6	8	1.2	9	1.5	21	3.4	10	1.5	8.1
AI/AN, non-Hispanic	0	0.0	0	0.0	0	0.0	0	0.0	3	4.0	N/A
Other/Unknown	29	4.2	36	5.3	31	5.3	38	6.1	56	8.7	14.7
Transmission Group											
Male sex w/ Male	340	49.6	452	67.0	356	60.9	385	61.8	384	59.7	0.8
Heterosexual Males	86	12.5	73	10.8	51	8.7	70	11.2	72	11.2	-3.9
Females	84	12.2	59	8.7	59	10.1	55	8.8	62	9.6	-6.6
Male unknown	176	25.7	90	13.3	117	20.0	113	18.1	125	19.4	-4.5
Age†											
Less than 13	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	N/A
13-19	35	5.1	43	6.4	36	6.2	27	4.3	26	4.0	-10.1
20-29	260	37.9	258	38.2	240	41.0	249	40.0	257	40.0	-0.6
20-24	136	19.8	136	20.1	115	19.7	134	21.5	114	17.7	-3.6
25-29	124	18.1	122	18.1	125	21.4	115	18.5	143	22.2	2.3
30-39	167	24.3	174	25.8	152	26.0	175	28.1	175	27.2	1.0
40-49	162	23.6	140	20.7	112	19.1	108	17.3	113	17.6	-9.3
50+	62	9.0	60	8.9	45	7.5	68	10.1	72	11.2	4.3
HIV Co-Infection											
Male	292	42.6	292	43.2	229	39.1	248	39.8	268	41.6	-3.3
Female	4	0.6	2	0.3	5	0.8	3	0.5	10	1.5	25.1
Total Co-Infected	296	43.2	294	43.5	234	40.0	252	40.4	278	43.2	-2.8
Total**	686	100.0	675	100.0	585	100.0	623	100.0	643	100	-2.1

Note: *Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. †Age at time of diagnosis. **Includes cases with unknown sex, age, or transmission group.

Table 13. Primary and Secondary Syphilis Case Rates by Community Area, Chicago, 2014

Community Area	P&S Syphilis Cases	Rate	Community Area	P&S Syphilis Cases	Rate
1 Rogers Park	39	70.9	40 Washington Park	<5	--
2 West Ridge	8	11.1	41 Hyde Park	<5	--
3 Uptown	60	106.5	42 Woodlawn	8	30.8
4 Lincoln Square	5	12.7	43 South Shore	23	46.2
5 North Center	<5	--	44 Chatham	9	29
6 Lake View	58	61.5	45 Avalon Park	<5	--
7 Lincoln Park	12	18.7	46 South Chicago	9	28.8
8 Near North Side	9	11.2	47 Burnside	<5	--
9 Edison Park	0	0	48 Calumet Heights	<5	--
10 Norwood Park	0	0	49 Roseland	12	26.9
11 Jefferson Park	<5	--	50 Pullman	5	68.3
12 Forest Glen	<5	--	51 South Deering	6	39.7
13 North Park	<5	--	52 East Side	0	0
14 Albany Park	6	11.6	53 West Pullman	<5	--
15 Portage Park	<5	--	54 Riverdale	0	0
16 Irving Park	6	11.2	55 Hegewisch	0	0
17 Dunning	<5	--	56 Garfield Ridge	<5	--
18 Montclare	0	0	57 Archer Heights	<5	--
19 Belmont Cragin	5	6.3	58 Brighton Park	<5	--
20 Hermosa	<5	--	59 McKinley Park	<5	--
21 Avondale	10	25.5	60 Bridgeport	<5	--
22 Logan Square	13	17.7	61 New City	5	11.3
23 Humboldt Park	16	28.4	62 West Elsdon	<5	--
24 West Town	12	14.7	63 Gage Park	<5	--
25 Austin	30	30.5	64 Clearing	<5	--
26 West Garfield Park	6	33.3	65 West Lawn	5	15
27 East Garfield Park	13	63.2	66 Chicago Lawn	12	21.6
28 Near West Side	13	23.7	67 West Englewood	12	33.8
29 North Lawndale	14	39	68 Englewood	13	42.4
30 South Lawndale	5	6.3	69 Gr. Grand Crossing	14	42.9
31 Lower West Side	<5	--	70 Ashburn	5	12.2
32 Loop	6	20.5	71 Auburn Gresham	17	34.9
33 Near South Side	5	23.4	72 Beverly	<5	--
34 Armour Square	<5	--	73 Washington Heights	<5	--
35 Douglas	<5	--	74 Mount Greenwood	<5	--
36 Oakland	0	0	75 Morgan Park	6	26.6
37 Fuller Park	0	0	76 O'Hare	0	0
38 Grand Boulevard	12	54.7	77 Edgewater	44	77.8
39 Kenwood	6	33.6	*Unknown CA*	*8*	
			Chicago Total¶	**643**	**23.9**

Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. §Rate per 100,000 population using 2010 U.S. Census Bureau population figures. ¶Includes all persons with unknown/undetermined community area.

Figure 9. Primary and Secondary Syphilis Case Rates (per 100,000) by Community Area, Chicago, 2014
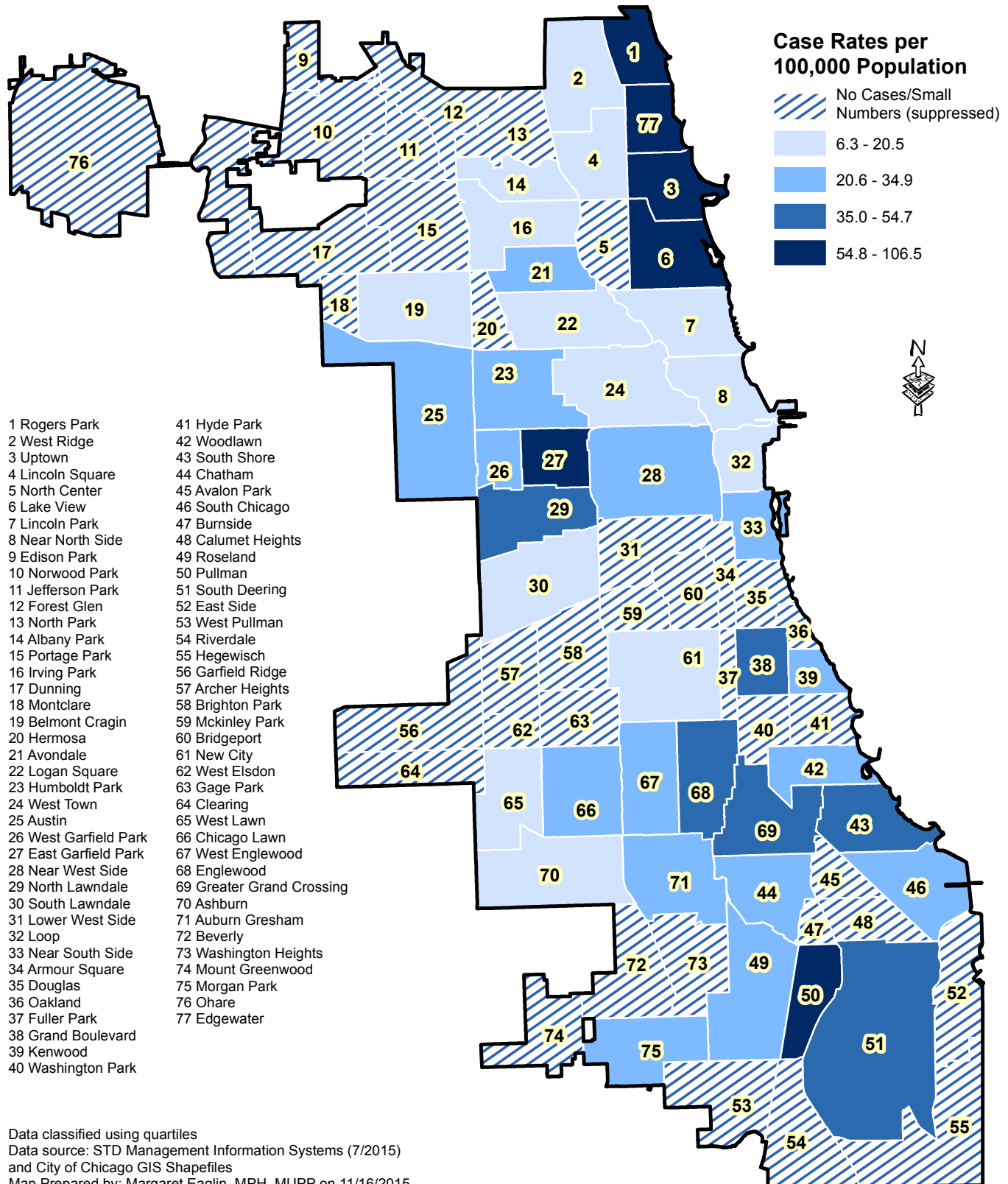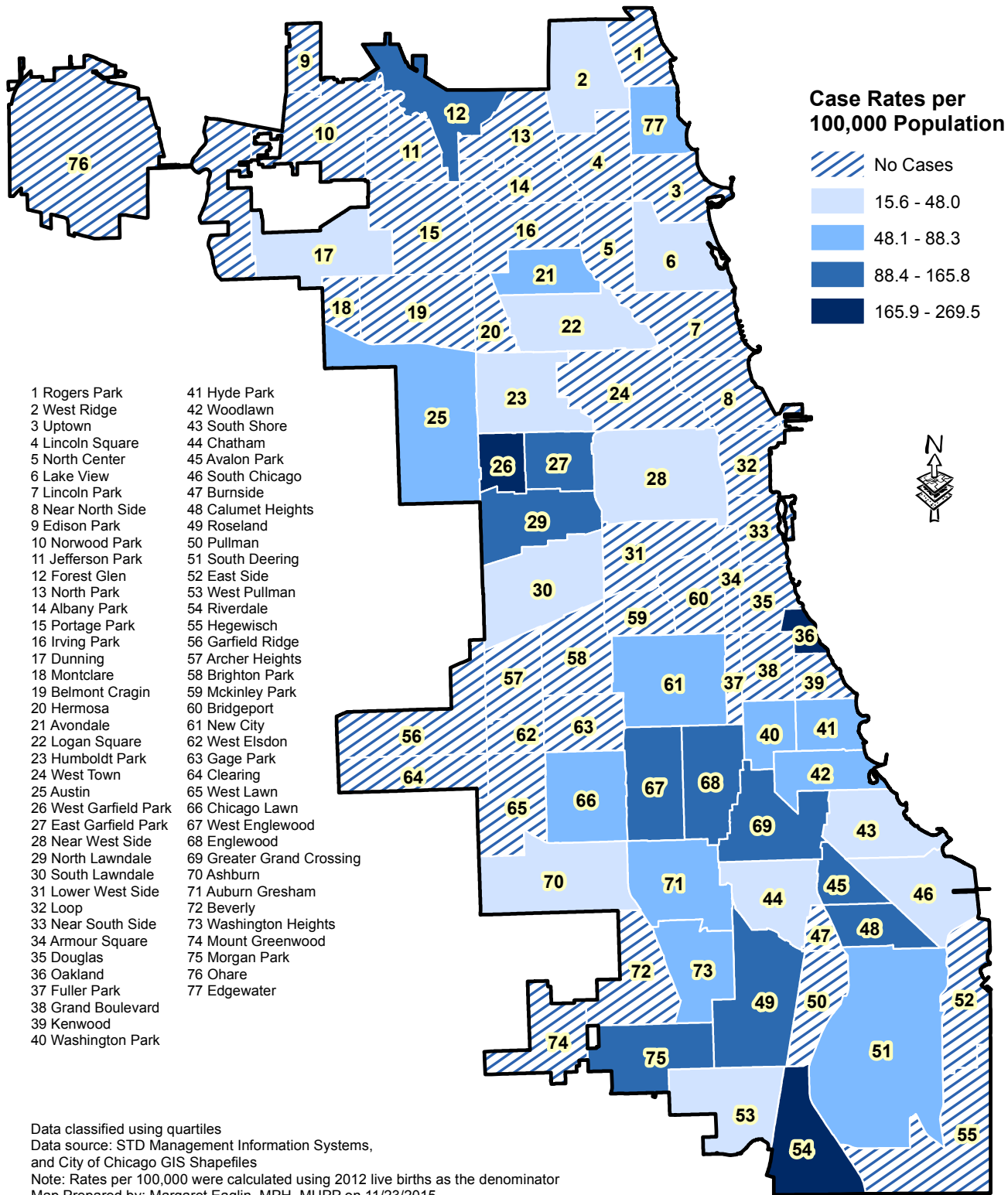
Case Rates per 100,000 Population

- No Cases/Small Numbers (suppressed)
- 6.3 - 20.5
- 20.6 - 34.9
- 35.0 - 54.7
- 54.8 - 106.5

N

1 Rogers Park
2 West Ridge
3 Uptown
4 Lincoln Square
5 North Center
6 Lake View
7 Lincoln Park
8 Near North Side
9 Edison Park
10 Norwood Park
11 Jefferson Park
12 Forest Glen
13 North Park
14 Albany Park
15 Portage Park
16 Irving Park
17 Dunning
18 Montclare
19 Belmont Cragin
20 Hermosa
21 Avondale
22 Logan Square
23 Humboldt Park
24 West Town
25 Austin
26 West Garfield Park
27 East Garfield Park
28 Near West Side
29 North Lawndale
30 South Lawndale
31 Lower West Side
32 Loop
33 Near South Side
34 Armour Square
35 Douglas
36 Oakland
37 Fuller Park
38 Grand Boulevard
39 Kenwood
40 Washington Park

41 Hyde Park
42 Woodlawn
43 South Shore
44 Chatham
45 Avalon Park
46 South Chicago
47 Burnside
48 Calumet Heights
49 Roseland
50 Pullman
51 South Deering
52 East Side
53 West Pullman
54 Riverdale
55 Hegewisch
56 Garfield Ridge
57 Archer Heights
58 Brighton Park
59 Mckinley Park
60 Bridgeport
61 New City
62 West Elsdon
63 Gage Park
64 Clearing
65 West Lawn
66 Chicago Lawn
67 West Englewood
68 Englewood
69 Greater Grand Crossing
70 Ashburn
71 Auburn Gresham
72 Beverly
73 Washington Heights
74 Mount Greenwood
75 Morgan Park
76 Ohare
77 Edgewater

Data classified using quartiles
Data source: STD Management Information Systems (7/2015)
and City of Chicago GIS Shapefiles
Map Prepared by: Margaret Eaglin, MPH, MUPP on 11/16/2015

Table 14. Congenital Syphilis Cases by Selected Demographic Characteristics, Chicago, 2010-2014

Demographics Characteristics	2010 No.	%	2011 No.	%	2012 No.	%	2013 No.	%	2014 No.	%	Estimated Annual Percent Change
Case Classification											
Presumptive Cases	18	95.0	9	90.0	22	100.0	13	87.0	18	90.0	3.8
Stillborns	1	5.0	1	10.0	0	0.0	2	13.0	2	10.0	N/A
Race/Ethnicity											
Black, non-Hispanic	16	84.2	9	90.0	17	77.3	9	60.0	13	65.0	-4.1
White, non-Hispanic	0	0.0	0	0.0	1	4.5	2	13.3	1	5.0	N/A
Hispanic	2	10.5	0	0.0	2	9.1	3	20.0	1	5.0	N/A
Asian/PI, non-Hispanic	0	0.0	0	0.0	2	9.0	0	0.0	0	0.0	N/A
AI/AN, non-Hispanic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	N/A
Other/Unk	1	5.3	1	10.0	0	0.0	1	6.7	5	25.0	N/A
Multiple, non-Hispanic^	N/A		N/A		N/A		N/A		N/A		N/A
Maternal Age Category†											
Less than 13	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	N/A
13-19	3	15.8	2	20.0	5	22.7	3	20.0	0	0.0	N/A
20-29	12	63.2	6	60.0	15	68.2	10	66.7	15	75.0	10.0
20-24	9	47.4	4	40.0	13	59.1	7	46.7	9	45.0	5.8
25-29	3	15.8	2	20.0	2	9.1	3	20.0	6	30.0	19.6
30-39	3	15.8	2	20.0	1	4.5	2	13.3	5	25.0	N/A
40+	1	5.3	0	0.0	1	50.0	0	0.0	0	0.0	N/A
Median Age	25		22		22		22		26		
Total	**19**		**10**		**22**		**15**		**20**		**5.2**

Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. †Age at time of diagnosis.

Figure 10. Average Annual Congenital Syphilis Case Rates (per 100,000 live births) by Community Area, Chicago, 2010-2014 (city total rate = 39.7)

Case Rates per 100,000 Population

- No Cases
- 15.6 - 48.0
- 48.1 - 88.3
- 88.4 - 165.8
- 165.9 - 269.5

1 Rogers Park
2 West Ridge
3 Uptown
4 Lincoln Square
5 North Center
6 Lake View
7 Lincoln Park
8 Near North Side
9 Edison Park
10 Norwood Park
11 Jefferson Park
12 Forest Glen
13 North Park
14 Albany Park
15 Portage Park
16 Irving Park
17 Dunning
18 Montclare
19 Belmont Cragin
20 Hermosa
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27 East Garfield Park
28 Near West Side
29 North Lawndale
30 South Lawndale
31 Lower West Side
32 Loop
33 Near South Side
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36 Oakland
37 Fuller Park
38 Grand Boulevard
39 Kenwood
40 Washington Park

41 Hyde Park
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55 Hegewisch
56 Garfield Ridge
57 Archer Heights
58 Brighton Park
59 Mckinley Park
60 Bridgeport
61 New City
62 West Elsdon
63 Gage Park
64 Clearing
65 West Lawn
66 Chicago Lawn
67 West Englewood
68 Englewood
69 Greater Grand Crossing
70 Ashburn
71 Auburn Gresham
72 Beverly
73 Washington Heights
74 Mount Greenwood
75 Morgan Park
76 Ohare
77 Edgewater

Data classified using quartiles
Data source: STD Management Information Systems,
and City of Chicago GIS Shapefiles
Note: Rates per 100,000 were calculated using 2012 live births as the denominator
Map Prepared by: Margaret Eaglin, MPH, MUPP on 11/23/2015

Appendix A: Technical Notes

As the HIV epidemic and HIV reporting systems change, new opportunities arise to better describe the epidemic. Thus, in keeping with these changes we have a made a number of modifications to STI/HIV Chicago. A description of the changes and other technical notes follow.

Diagnoses data are presented through 2014. While STI data are final, AIDS and HIV data for 2014 are still provisional. When interpreting data in this report, keep in mind that the eHARS database is updated continuously to reflect the most current and complete information on people infected and newly diagnosed with HIV or AIDS; data in this report were up-to-date as of 9/30/2015. Reporting delays are important when interpreting trends in case numbers, rates over time, and especially, the most recent year of diagnosis. Report delay is defined as the interval between the date an HIV or AIDS case is diagnosed and the date the case is reported to the health department. Within 3 years, the total number of HIV diagnoses reported are relatively stable (fluctuating < 10 cases) and the data are no longer considered provisional. For those diagnosed in 2014 (to date), 89% were reported within 3 months and 98% within 6 months. In order to provide the most complete data as possible, we will be presenting trend data through 2014. Additional cases continue to be reported in subsequent years and new cases are identified through laboratory reporting and registry matches. Thus, the numbers of cases diagnosed for each year are subject to change as new information is received from any of the reporting sources.

The "HIV Infection Diagnosis" data presented in this issue include 3 categories of diagnoses: (1) a diagnosis of HIV infection (not AIDS), (2) a diagnosis of HIV infection with a later diagnosis of AIDS, and (3) concurrent diagnoses of HIV infection and AIDS. HIV cases include both laboratory-defined cases as well as HIV cases diagnosed by a physician without laboratory tests. AIDS represent a later stage in the HIV disease spectrum. Data from the HIV reporting system should be interpreted with caution. HIV surveillance reports may not be representative of all persons infected with HIV because not all infected persons have been tested. The guidelines for cell suppression used in this report try to balance data accessibility with confidentiality and confidence in the stability of the estimates published. Rates and percentages based on twenty or fewer cases can vary widely just by random chance even when there is no meaningful statistical difference between measurements. Thus, the number and rate for categories with less than 5 are suppressed.

For surveillance purposes, HIV and AIDS cases are counted only once in a hierarchy of modes of transmission. Persons with more than one reported mode of transmission are classified in the transmission mode first in the hierarchy. The exception is men who have sex with men and also inject drugs, which has its own category. Persons whose transmission mode is classified as male-to-male sexual contact (MSM) include men who report sexual contact with other men and men who report sexual contact with both men and women. Persons who mode of transmission is classified as heterosexual contact are persons who report specific heterosexual contact with a person with, or at increased risk for, HIV infection (e.g., an injection drug user).

Because many cases of HIV infection and AIDS are initially reported without a defined mode of transmission, we use multiple imputation to assign a mode of transmission for these cases. Multiple imputation is a statistical approach in which each missing mode of transmission is replaced with a set of plausible values that represent the uncertainty about the true, but missing, value. The plausible values are analyzed by using standard procedures, and the results from these analyses are then combined to produce the final results. Multiple imputation is used by the Centers for Disease Control and Prevention (CDC) in their national HIV Surveillance Report.

Gonorrhea is one of three sexually transmitted infections (STI) that local providers are required to report to CDPH per 77 Illinois Administrative Code 693 (Control of sexually transmissible infections code). Gonorrhea is a bacterial STI caused by *Neisseria gonorrhoeae*; infection varies in course, severity and symptoms among males and females (Heymann, 2004). Co-infection with chlamydia can occur. Left untreated, disease sequelae can include pelvic inflammatory disease (PID), ectopic pregnancy, and infertility. *Neisseria gonorrhoeae* has progressively developed resistance to each of the antibiotics used for treatment of gonorrhea. Most recently, declining susceptibility to cefixime resulted in a change in the CDC treatment guidelines, so that dual therapy with ceftriaxone and either azithromycin or doxycycline is now the only CDC recommended treatment regimen for gonorrhea.

C. trachomatis infection is the most commonly reported notifiable disease of the three sexually transmitted infections (STI) that local providers are required to report to CDPH per 77 Illinois Administrative Code 693 (Control of sexually transmissible infections code). Chlamydial infections in women are usually asymptomatic. However, these can result in pelvic inflammatory disease (PID), which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. In addition, pregnant women infected with chlamydia can pass the infection to their infants during delivery, potentially resulting in neonatal ophthalmia and pneumonia. Because of the large burden of disease and risks associated with infection, CDC recommends that all sexually active women younger than age 26 years receive annual chlamydia screening.

Syphilis is the third of the sexually transmitted infections that local providers are required to report to CDPH per 77 Illinois Administrative Code 693 (Control of sexually transmissible infections code). Syphilis is caused by a bacterial STI called *Treponema pallidum*. Syphilis, a genital ulcerative disease, causes significant complications if untreated and facilitates the transmission of HIV infection. Syphilis is characterized by stages: primary (can have a lesion known as a chancre, usually occurring 3 weeks post exposure), secondary (symptoms include rash and fatigue), early latent (less than 1 year post exposure), and late latent (greater than 1 year post exposure). Primary and secondary syphilis are the most infectious and symptomatic stages. Periods of latency vary and may lead to increased morbidity and, potentially, mortality.

A probable case of congenital syphilis is defined as: " A condition affecting an infant whose mother had untreated or inadequately treated syphilis at delivery, regardless of signs in the infant, or an infant or child who has a reactive treponemal test for syphilis and any one of the following:

•   Any evidence of congenital syphilis on physical examination
•   Any evidence of congenital syphilis on radiographs of long bones
•   A reactive cerebrospinal fluid (CSF) venereal disease research laboratory (VDRL)
•   An elevated CSF cell count or protein (without other cause)
•   A reactive fluorescent treponemal antibody absorbed - 19S-IgM antibody test or
•   IgM enzyme-linked immunosorbent assay" (CDC 1997)

A syphilitic stillbirth is defined as: "A fetal death that occurs after a 20-week gestation or in which the fetus weighs >500g and the mother had untreated or inadequately treated syphilis at delivery" (CDC 1997).

Estimated Annual Percent Change (EAPC) is used to provide a general picture of disease trends across the 5 years of the report. EAPC assumes a constant rate of change and should not be over-interpreted.

References:
1.   Centers for Disease Control and Prevention (2013). Sexually Transmitted Disease Surveillance. Retrieved from http://www.cdc.gov/std/default.htm.
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4.   Illinois Department of Public Health (2013). Control of Sexually Transmissible Infections Code. Retrieved from http://www.idph.state.il.us/2013_Rules/Adopted/77_IAC_693_6-13. pdf
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Appendix B: Geocoding Methodology and Limitations

INEDSS - Address Validation

On March 24, 2012, INEDSS Release 10.2 was deployed. This release included address validation within INEDSS and geocoded data. Before case information is submitted to the Illinois Department of Public Health (IDPH) for counting, addresses are verified to ensure the accuracy and standardization of the data. Addresses that are verified in INEDSS will be assigned latitude and longitude coordinates. For addresses not validated, INEDSS geocodes the data using the zip code centroid, followed by the city and then the country.

Twice a month, IDPH submits an updated morbidity file to the Chicago Department of Public Health (CDPH) via MOVEit File Transfer, a secured application for exchanging confidential files and data between servers and organizations. This file does not include the geocoded address field. Once CDPH receives the electronic file, it is prepared for submission to the City of Chicago GIS FTP server for validation and geocoding.

Geocoding INEDSS Morbidity File

Before the INEDSS data file is submitted to the City of Chicago GIS FTP site, the street address is rounded (e.g. 8634 to 8600) in order to preserve confidentiality. A new data file is created containing only the rounded street address and a record identifier (state case number). This file is converted from Microsoft Excel to a common delimited (.csv) file, and submitted to the City of Chicago GIS FTP server for processing.

The files submitted are assigned a name that does not associate it with a person, case, health condition, or CDPH. Once the geographic identifiers (e.g., community area number, zipcode, ward, and 2010 census tract) are selected, the file is submitted. After the geocoder has received the request, an email is sent notifying the user that the geocoding process has commenced. When the geocoding job is completed, the results (output) file is downloaded to a secure server that meets HIPAA security requirements. Lastly, the original (input) file that was submitted and the results (output) file are both deleted from the FTP folders.

Addresses that are not geocoded in the output file are cleaned using the Geocoder website by identifying the correct street components. All apartment components (e.g., FL, BSMT, Apt #1) are also removed from the address field. The file is resubmitted to the GIS FTP server for validation and geocoding. To increase the number of geocoded addresses, the match standard code can be changed from medium (default) to low to obtain nearest matches.

Reasons why addresses fail to match

A.   Addresses may be missing street segments or in the wrong format (AVE, ST., King Dr. instead of Dr. Martin Luther King Drive).

B.   Address may incorporate typographical errors that result in erroneous street names or local street names that are different that those officially recorded by the government.

C.   Addresses may end at jurisdictional boundaries.

In 2014, 35,626 cases of Gonorrhea and Chlamydia were reported to the Chicago Department of Public Health. Of these, 4,228 (11.9%) were not geocoded.

Limitations in Determining Geographic Patters in Rates of Health-Related Events

•   Unable to determine if the geographical variation in the incidence rates across years is due to a true change in the progression of the disease or an artifact of the address validation process in INEDSS.

•   Inflation of the rates due to increase in the proportion of exact or nearest matched addresses.

Appendix C: List of Acronyms

AI/AN = American Indian/Alaskan Native
AIDS = Acquired Immunodeficiency Syndrome
ART = Anti-Retroviral therapy
CDC = Centers for Disease Control and Prevention
CDPH = Chicago Department of Public Health
EAPC = Estimate Annual Percent Change
eHARS = Enhanced HIV/AIDS Reporting System
FtM = Female to Male Transgender
HAART = Highly Active Anti-Retroviral Therapy
HIV = Human Immunodeficiency Virus
IDPH = Illinois Department of Public Health
IDU = Injection Drug Use/Injection Drug User
MtF = Male to Female Transgender
MSM = Men who have sex with men
MSM/IDU = Men with a history of injection drug use who have sex with men
NIR = No identified risk
NH = Non-Hispanic
PI = Pacific Islander
PLWHA = People Living with HIV/AIDS
P&S = Primary and Secondary Syphilis
STI = Sexually Transmitted Infection
SSun = STD Surveillance Network

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