

# HIV/STI Surveillance Report, Chicago

## December 2013



**HEALTHY**  
**CHICAGO**

CHICAGO DEPARTMENT OF PUBLIC HEALTH

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Dear Friends,

I am proud to introduce the 2013 HIV/STI Surveillance report, which presents the latest trends and characteristics of HIV and other sexually transmitted infections (STI) in the city of Chicago. This report highlights our continued progress towards reaching our Healthy Chicago target of reducing the annual number of HIV infections by 25%. It also highlights the work that remains in eliminating racial disparities in HIV and reducing STI infections among youth in Chicago.

The report also presents, for the first time, the HIV continuum of care that describes the various stages at which people living with HIV are in as they move towards viral suppression. The HIV continuum of care measures will help answer three important questions. Are people being linked to care in a timely way? If so, do they stay in medical care? Do they take HIV medications and ultimately achieve viral suppression? The current report shows that the great majority of new HIV diagnoses (78%) are linked promptly to HIV medical care after being diagnosed, but less than half are regularly taking HIV medications or are virally suppressed.

Achieving a high percentage of coverage at each step of the continuum of care is essential in a comprehensive strategy to reduce HIV transmission in Chicago. These indicators will provide our local HIV prevention and care partners with critical information for targeting gaps at each stage of engagement.

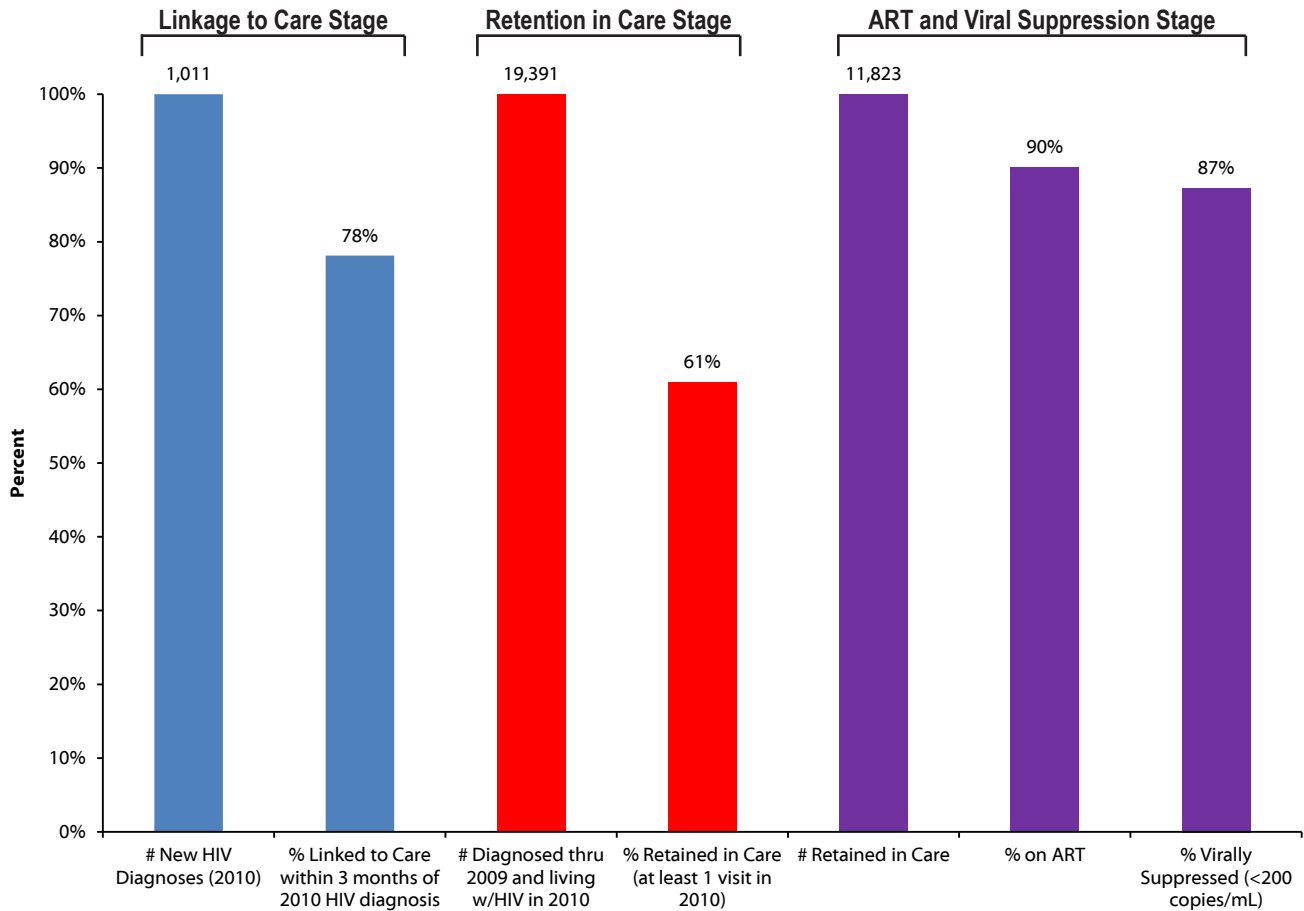
Together, ongoing surveillance data and the continuum of care indicators provide a clearer picture into the current state of the HIV epidemic and our efforts to combat HIV in Chicago. It is my sincere hope that you will take the time to read this report and join us in our efforts to keep pushing towards the goal of an AIDS-free generation in Chicago.

For information on how you can join us, please email us at [healthychicago@cityofchicago.org](mailto:healthychicago@cityofchicago.org).

Bechara Choucair, M.D.  
Commissioner, Chicago Department of Public Health

## HIV Continuum of Care, Chicago, 2010

Figure 1. HIV Continuum of Care, Chicago, 2010



## HIV Continuum of Care, Chicago, 2010

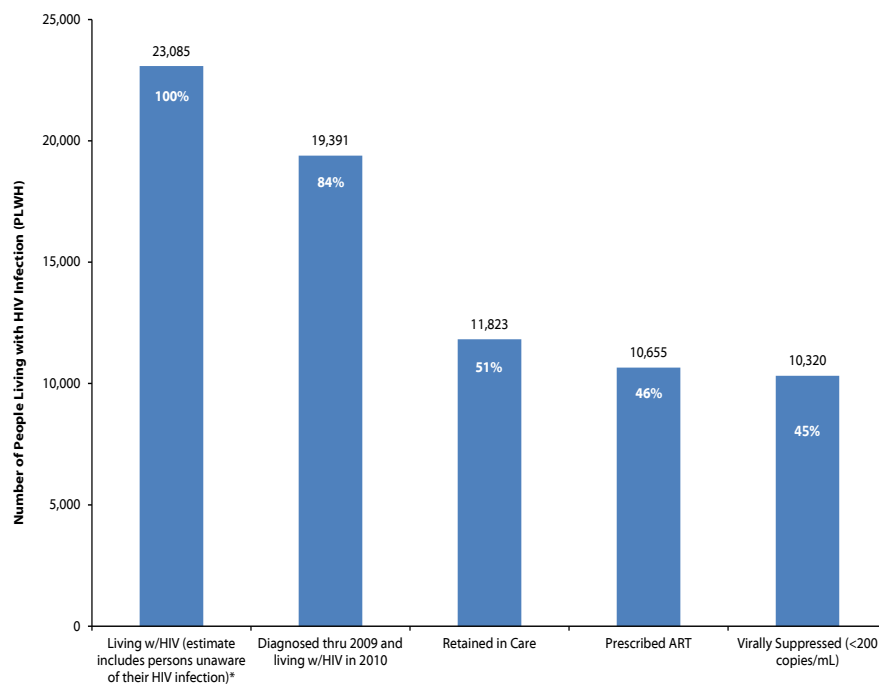
Viral suppression among HIV-positive persons is a critical component of the HIV treatment and prevention strategy in Chicago. Recent studies have shown that viral suppression decreases the risk of transmitting the HIV virus to others by 96% (See Reference #1 in Appendix C). Widespread viral suppression among persons infected with HIV could have a major impact on reducing the HIV epidemic in Chicago. In order to achieve this outcome, persons with HIV must engage in a continuum of testing and care services. These services begin with HIV testing and diagnoses, followed by prompt linkage to HIV medical care. Engagement continues with consistent and ongoing retention in HIV medical care, prescription and adherence to antiretroviral therapy (ART), and finally sustained viral suppression. Local surveillance data now allows the Chicago Department of Public Health to monitor many of the indicators along this continuum.

Using data from the Chicago HIV/AIDS Reporting System and the Chicago Medical Monitoring Project (MMP) (See Study Description in Appendix C), we determined the number of persons (18 years and over) diagnosed with HIV and the percentages of adults linked to care, retained in care, on ART and virally suppressed in the city of Chicago (See pg. 2 for Figure 1). Almost 8 of 10 (78%) adults diagnosed with HIV in 2010 were linked to HIV medical care within 3 months of their diagnosis. However, less than two-thirds, (61%) of all adults living with HIV in Chicago in 2010 received HIV medical care in 2010. In addition, we estimate that of those who had received HIV medical care in 2010, 90% were prescribed antiretroviral therapy (ART) and 87% had a suppressed viral load.

### Alternate Perspective (Figure 2)

Another important way of looking at progress along the continuum of care is to measure each indicator among all persons living with HIV in Chicago. This would include people who have not been tested for nor diagnosed with HIV, but are in fact HIV-infected. CDC estimates that 16% of persons living with HIV in 2010 were unaware of their infection (See Reference #2 in Appendix C). If we examine the continuum of HIV care indicators using the total estimate of persons living with HIV in Chicago in 2010 (n=23,085), we estimate that just over half (51%) received HIV medical care in 2010 (compared to 37% nationally) (See Reference #3 in Appendix C). Additionally, less than half (46%) were found to be on ART, and even fewer (45%) were virally suppressed (compared to 33% and 25% nationally) (See Reference #3 in Appendix C).

**Figure 2. Alternate Perspective to the HIV Continuum of Care, Chicago, 2010**



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## Overview of HIV/STI in Chicago

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Over the past decade, reported cases of HIV and AIDS in Chicago have dropped significantly. Major reductions in HIV and AIDS have occurred across the decade among males and females, across all race/ethnicity groups and among IDU and heterosexuals. Among STIs, we have recently seen syphilis cases decrease by 15% from a 15-year high of 686 cases reported in 2010. This report highlights these and other notable trends that reflect the determined efforts of the Chicago Department of Public Health and its many community partners.

### How does Chicago compare to US rates?

Despite these local highlights, Chicago, like most other large urban areas in the United States, continues to have significantly higher rates of HIV and other STI diagnoses than the country overall. Chicago's 2011 HIV prevalence rate is three times greater than the national rate, while new HIV infection and AIDS diagnosis rates are both at least double. Chicago's 2012 chlamydia rate is twice the national rate, the gonorrhea rate is three times higher, and the primary and secondary (P&S) syphilis rate is over 7 times higher than the national rate.

### Who is most affected?

The burden of HIV and STIs in Chicago varies by disease; HIV is measured in three categories: prevalent disease (cumulative new and existing diagnoses), new annual AIDS diagnoses (indicating later stage disease), and new annual HIV diagnoses. Both prevalent HIV cases and new annual AIDS diagnoses in Chicago are primarily composed of men who have sex with men (MSM), non-Hispanic (NH) Blacks, and persons over the age of 30 years. New HIV diagnoses and P&S syphilis diagnoses in recent years have, however, been most common among NH Black MSM under the age of 30. Chlamydia and gonorrhea are both most commonly diagnosed in youth (13-24 years) and NH Blacks, however, chlamydia is diagnosed much more commonly among females. For the first time, CDPH is reporting HIV and AIDS surveillance data for transgender persons as part of this report. Transgender categories were included on the Illinois HIV/AIDS case reporting form in 2009. While the numbers reported remain low; we will continue to include these data in our annual reports as the reporting system matures.

### Racial/Ethnic Disparities

Racial/ethnic disparities in Chicago are significant and stark. Rates of new HIV diagnoses in 2011 in Chicago were highest among NH Blacks: more than double that of Hispanics, and over three times higher than that of NH Whites. The overall

number of reported HIV cases among NH Blacks is twice that of NH Whites and Hispanics, despite similar population levels among these groups. Compared to NH Whites, 2012 chlamydia rates are over 12 times higher among NH Blacks and 3 times higher among Hispanics. Notably, 2012 Chicago gonorrhea rates among NH Blacks are 12 times higher than among both Hispanics and NH Whites. CDPH continues to prioritize efforts to eliminate racial disparities in prevalence and incidence of HIV and STI infections.

### Recent Trends

Five-year trends suggest a continuing annual decline in new HIV infections. Significant decreases have been observed among all age groups and all risk groups, with the exception of young MSM. In fact, young MSM have experienced an average 5% annual increase in HIV infections since 2007. Though 2012 syphilis cases decreased 13% from 2011, overall, syphilis has increased an average of 9% annually since 2008. Large increases in syphilis cases have been observed among NH Blacks (10% annual increase since 2008), and Hispanics (average 12% annual increase in syphilis cases since 2008). In 2008, one-third of syphilis cases were among those under age 30. By 2012, this proportion increased to over half of all syphilis cases. Five-year trends for chlamydia reveal a significant annual average increase (6% per year) in diagnoses among 13 to 19 year olds in Chicago since 2008. Hispanics have seen the largest increase of any race/ethnicity in chlamydia cases since 2008. Overall, gonorrhea cases have decreased 4% per year since 2008. The largest decreases have been among NH Blacks and persons 30 years and older. Hispanics saw an overall 6% average annual increase in gonorrhea during the past 5 years. Finally, congenital syphilis remains stubbornly persistent in Chicago. Since 2008 there have been 73 diagnoses of congenital syphilis, reaching a high of 22 cases reported in 2012.

### Next Steps

These data show that significant progress has been made in the city's efforts to reduce transmission of HIV and STIs. However, they also emphasize the need to focus efforts on improving health among adolescents and young adults and eliminating disparities among racial and sexual minorities in the city. These data serve as important tools for CDPH and its partners as we work together to improve prevention and care efforts across the city.

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## Highlights of Analyses: HIV/AIDS

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### Incidence

- From 2007 to 2011, the number of HIV infection diagnoses fell from 1,180 to 1,008, representing a 15% absolute decrease and a five-year average decrease of 5%. There was a 5% average decline among NH Blacks and an 8% average decline among NH Whites. During this time period, the decline was sharper for females (11% five-year average) than for males (3%).
- The largest decline in the number of HIV infection diagnoses among transmission groups occurred among IDUs (20% average decrease). Consequently, from 2007 to 2011, the percentage of IDU cases overall dropped from 14% to 7% of all diagnoses. In 2011, male-to-male sexual contact was the leading mode of transmission (69%), followed distantly by heterosexual contact (21%).
- There have been considerable differences in HIV trends by age group. Between 2007 and 2011, the number of HIV infection diagnoses increased on average by 5% for those ages 20-24, while all other age groups observed decreases, during the same time period.
- While males account for 81% of all 2011 HIV infection diagnoses, this percentage varies by race/ethnicity. Among NH Black diagnoses, 75% are males, compared to 93% for Whites, and 86% for Hispanic men. Among MSM who were diagnosed with HIV Infection in 2011, 48% were Black, 20% were White, and 21% were Hispanic.
- Among females, heterosexual contact accounts for 86% of all HIV infection diagnoses in 2011 for all race/ethnicity groups. In 2011, 74% of new female HIV infections were among NH Blacks.
- In 2011, 25% of all new HIV diagnoses were diagnosed with AIDS within 12 months, this is a significant improvement from 37% in 2000.

### Prevalence

- Of the 21,555 people living with HIV infection in 2011, 79% are men, 51% are NH Black, and 59% are MSM.
- Among NH Black men living with HIV infection, 63% were infected as a result of male-to-male sexual contact, compared with 90% of NH White, 75% of Hispanic, and 80% of NH Asian/Pacific Islander men.

### AIDS

- Over the past five years, AIDS cases have annually declined by an average of 5%, from 632 AIDS diagnoses in 2007 to 538 in 2011. Although the decline occurred in both sexes, males continue to represent three out of every four AIDS diagnoses.
- Most racial/ethnic groups in Chicago experienced a decrease in the number of annual AIDS diagnoses. However, NH Blacks accounted for 58% of all AIDS diagnoses while NH Whites and Hispanics represented 13% and 21% of the diagnoses, respectively.
- Men who have sex with men continue to represent the largest percentage of AIDS diagnoses, accounting for over half of all cases in 2011. Heterosexual transmission accounted for one in four, and IDU accounted for one in 12 AIDS cases.
- While the number of annual AIDS cases has declined across all transmission groups, the largest decline occurred among injection drug users (IDU); from 2007 to 2011 the number of cases due to IDU fell on average by 16%.
- Because of a decline in the number of AIDS diagnoses among those over 30, the proportion of AIDS diagnoses from 2007 to 2011 increased the greatest for those less than 30 years old. For example, in 2007, about one in seven people diagnosed with AIDS were under the age of 30. In 2011, about one in five people diagnosed with AIDS were under the age of 30. .

## HIV/AIDS

**Figure 3. People Living and Diagnosed with HIV Infection, Chicago, 1992-2011**

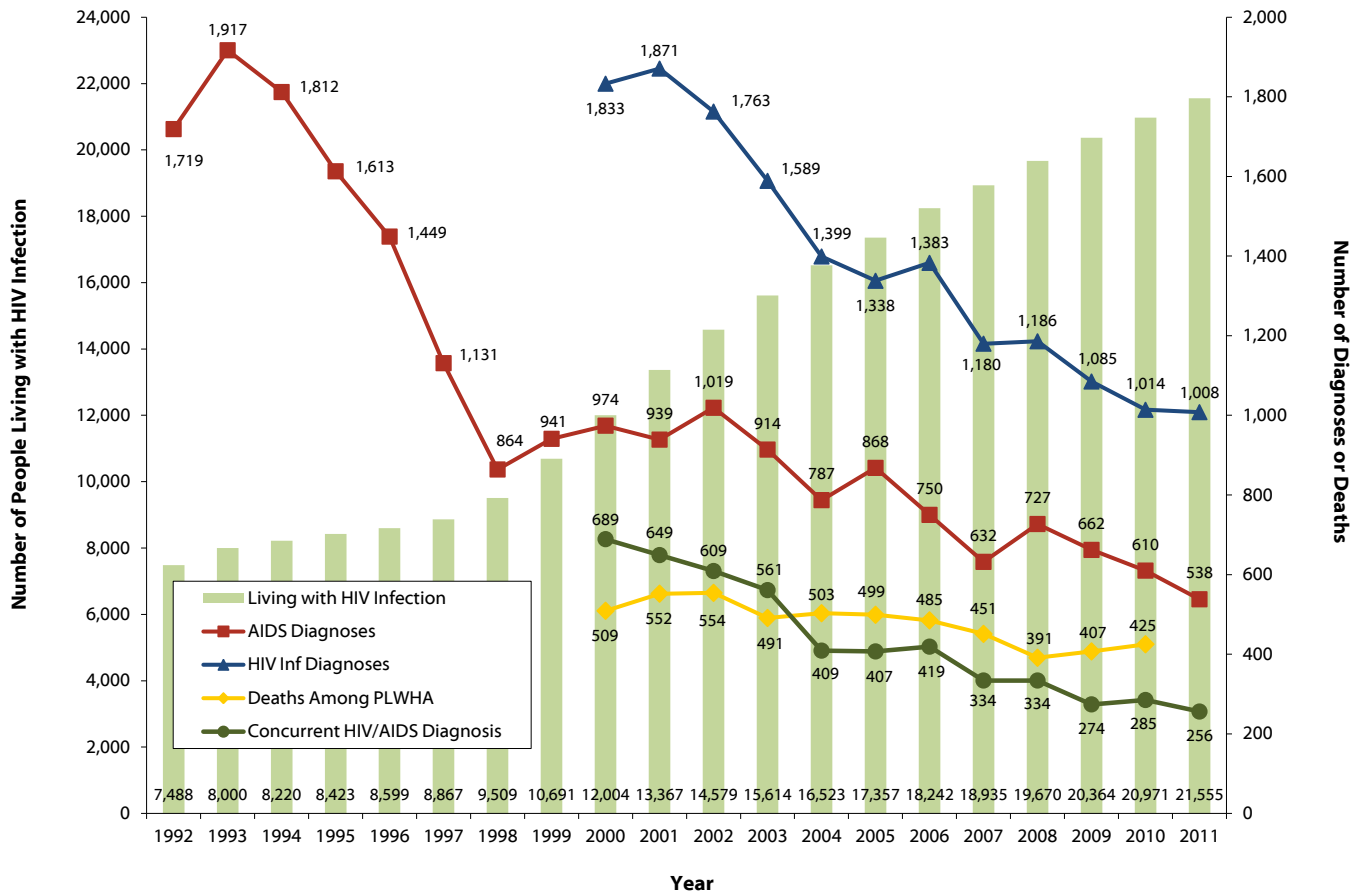


Table 1. HIV/STI Case Rates by Race/Ethnicity and Sex, Chicago

| Demographic Characteristics | HIV Infection <sup>§</sup> |       | AIDS   |       | Diagnosed/Reported Cases <sup>§</sup> |        |           |         | Syphilis <sup>€</sup> |       | Chicago |         | United States** |       |
|-----------------------------|----------------------------|-------|--------|-------|---------------------------------------|--------|-----------|---------|-----------------------|-------|---------|---------|-----------------|-------|
|                             | No.                        | Rate* | No.    | Rate* | No.                                   | Rate*  | No.       | Rate*   | No.                   | Rate* | No.     | Rate*   | No.             | Rate* |
| <b>Race/Ethnicity</b>       |                            |       |        |       |                                       |        |           |         |                       |       |         |         |                 |       |
| Black, non-Hispanic         | 553                        | 63.4  | 314    | 36.0  | 5,991                                 | 686.8  | 14,479    | 1,659.9 | 290                   | 33.2  | 11,079  | 1,270.1 | 335,798         | 951.9 |
| White, non-Hispanic         | 165                        | 19.3  | 70     | 8.2   | 469                                   | 54.9   | 1,125     | 131.6   | 156                   | 18.3  | 5,432   | 635.5   | 273,800         | 143.9 |
| Hispanic                    | 201                        | 25.8  | 113    | 14.5  | 437                                   | 56.1   | 3,107     | 398.9   | 99                    | 12.7  | 3,795   | 487.2   | 151,130         | 319.9 |
| Asian/PI, non-Hispanic      | 15                         | 10.3  | 5      | 3.4   | 39                                    | 26.8   | 152       | 101.1   | 9                     | 6.2   | 233     | 160.2   | 8,366           | 66.7  |
| AI/AN, non-Hispanic         | 2                          | 48.8  | 0      | 0.0   | 5                                     | 122.0  | 12        | 292.9   | 0                     | 0.0   | 29      | 707.8   | 3,039           | 130.8 |
| Other, non-Hispanic         | 70                         | 174.2 | 36     | 89.6  | 63                                    | 1490.4 | 279       | 6,600.4 | 5                     | 118.2 | 1,190   | 2,962.0 | N/A             | N/A   |
| <b>Sex<sup>^</sup></b>      |                            |       |        |       |                                       |        |           |         |                       |       |         |         |                 |       |
| Male                        | 817                        | 62.5  | 408    | 31.2  | 4,752                                 | 363.3  | 8,364     | 639.4   | 526                   | 40.2  | 17,055  | 1,303.8 | 585,197         | 496.1 |
| Female                      | 178                        | 12.8  | 125    | 9.0   | 4,948                                 | 356.6  | 19,574    | 1,410.7 | 59                    | 4.3   | 4,413   | 318.0   | 188,668         | 153.6 |
| <b>Chicago</b>              | 1,008                      | 37.4  | 538    | 20.0  | 9,715                                 | 360.4  | 27,804    | 1,031.5 | 585                   | 21.7  | 21,555  | 799.6   | N/A             | N/A   |
| <b>United States</b>        | 48,298                     | 16.3  | 33,015 | 10.8  | 321,849                               | 104.2  | 1,412,791 | 457.6   | 13,970                | 4.5   | N/A     | N/A     | 784,701         | 268.6 |

<sup>§</sup> 2011 Diagnoses for HIV and AIDS; 2012 Reported Cases for STIs. <sup>†</sup> Prevalence rate per 100,000 population. <sup>¶</sup> HIV infection diagnosis and prevalence represents people with HIV at any stage of disease through 4/1/2013.

<sup>\*</sup>Rate per 100,000 population using 2010 U.S. Census Bureau Population figures. <sup>^</sup>Primary and secondary syphilis (symptomatic and infectious stages) only. <sup>\*\*</sup>Centers for Disease Control and Prevention. HIV Surveillance Report, 2010; vol. 22, p. 50; people living with HIV through 2009. <sup>^</sup> Chicago totals by sex exclude transgender.

**Table 2. HIV Infections\* by Year of Diagnosis and Selected Demographic Characteristics, Chicago, 2007-2011**

| Demographic Characteristics | Year of Diagnosis |       |       |       |       |       |       |       |       |       | Estimated Annual Percent Change |
|-----------------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------------------|
|                             | 2007              |       | 2008  |       | 2009  |       | 2010  |       | 2011  |       |                                 |
|                             | No.               | %     | No.   | %     | No.   | %     | No.   | %     | No.   | %     |                                 |
| Gender**                    |                   |       |       |       |       |       |       |       |       |       |                                 |
| Male                        | 924               | 78.3  | 911   | 76.8  | 855   | 78.8  | 834   | 82.2  | 817   | 81.1  | -3.3                            |
| Female                      | 252               | 21.4  | 271   | 22.8  | 219   | 20.2  | 172   | 17.0  | 178   | 17.7  | -10.9                           |
| Transgender: MtF            | 3                 | 0.3   | 4     | 0.3   | 10    | 0.9   | 7     | 0.7   | 10    | 1.0   | 34.5                            |
| Transgender: FtM            | 1                 | 0.1   | 0     | 0.0   | 1     | 0.1   | 1     | 0.1   | 3     | 0.3   | N/A                             |
| Race/Ethnicity^             |                   |       |       |       |       |       |       |       |       |       |                                 |
| Black, non-Hispanic         | 659               | 55.8  | 697   | 58.8  | 628   | 57.9  | 573   | 56.5  | 553   | 54.9  | -5.3                            |
| White, non-Hispanic         | 241               | 20.4  | 206   | 17.4  | 192   | 17.7  | 202   | 19.9  | 165   | 16.4  | -7.5                            |
| Hispanic                    | 190               | 16.1  | 208   | 17.5  | 190   | 17.5  | 170   | 16.8  | 201   | 19.9  | -0.9                            |
| Asian/PI, non-Hispanic      | 19                | 1.6   | 23    | 1.9   | 10    | 0.9   | 13    | 1.3   | 15    | 1.5   | -9.9                            |
| AI/AN, non-Hispanic         | 2                 | 0.2   | 2     | 0.2   | 3     | 0.3   | 1     | 0.1   | 2     | 0.2   | -6.7                            |
| Multiple, non-Hispanic      | 56                | 4.7   | 46    | 3.9   | 51    | 4.7   | 49    | 4.8   | 70    | 6.9   | 5.2                             |
| Transmission Group          |                   |       |       |       |       |       |       |       |       |       |                                 |
| Male Sex w/Male             | 709               | 60.1  | 715   | 60.3  | 693   | 63.9  | 675   | 66.6  | 694   | 68.9  | -1.0                            |
| Injection Drug Use          | 163               | 13.8  | 152   | 12.8  | 125   | 11.5  | 93    | 9.1   | 68    | 6.7   | -20.1                           |
| MSM and IDU§                | 45                | 3.8   | 41    | 3.4   | 27    | 2.5   | 19    | 1.9   | 27    | 2.7   | -16.4                           |
| Heterosexual                | 240               | 20.4  | 267   | 22.5  | 224   | 20.6  | 217   | 21.4  | 215   | 21.3  | -4.2                            |
| Other¶                      | 10                | 0.8   | 7     | 0.6   | 6     | 0.6   | 5     | 0.5   | 4     | 0.4   | -19.5                           |
| Age Category+               |                   |       |       |       |       |       |       |       |       |       |                                 |
| Less than 13                | 6                 | 0.5   | 6     | 0.5   | 7     | 0.6   | 3     | 0.3   | 1     | 0.1   | -34.8                           |
| 13-19                       | 63                | 5.3   | 76    | 6.4   | 59    | 5.4   | 47    | 4.6   | 64    | 6.3   | -4.4                            |
| 20-29                       | 308               | 26.1  | 364   | 30.7  | 365   | 33.6  | 329   | 32.4  | 332   | 32.9  | 0.5                             |
| 20-24                       | 137               | 11.6  | 188   | 15.9  | 196   | 18.1  | 180   | 17.8  | 179   | 17.8  | 5.0                             |
| 25-29                       | 171               | 14.5  | 176   | 14.8  | 169   | 15.6  | 149   | 14.7  | 153   | 15.2  | -3.8                            |
| 30-39                       | 321               | 27.2  | 289   | 24.4  | 258   | 23.8  | 271   | 26.7  | 234   | 23.2  | -6.7                            |
| 40-49                       | 293               | 24.8  | 278   | 23.4  | 255   | 23.5  | 222   | 21.9  | 223   | 22.1  | -7.4                            |
| 50-59                       | 142               | 12.0  | 132   | 11.1  | 107   | 9.9   | 111   | 10.9  | 120   | 11.9  | -5.0                            |
| 60+                         | 47                | 4.0   | 41    | 3.5   | 34    | 3.1   | 31    | 3.1   | 34    | 3.4   | -8.9                            |
| Total                       | 1,180             | 100.0 | 1,186 | 100.0 | 1,085 | 100.0 | 1,014 | 100.0 | 1,008 | 100.0 | -4.6                            |

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 4/1/2013. \*\*Current gender identity or gender with which a person identifies. ^ Multiple, non-Hispanic indicates more than one race identified. §Men who have sex with men and inject drugs. ¶Includes perinatal transmission, blood transfusion and hemophilia. †Age at time of diagnosis.

**Table 3. HIV Infection Diagnoses\* in 2011: Race/Ethnicity<sup>Δ</sup> by Gender\*\*, Mode of Transmission, and Age Category, Chicago**

| Males   | Mode of Transmission              | Black, NH  |              | White, NH  |              | Hispanic   |              | Race/Ethnicity <sup>Δ</sup> |              | AI/AN, NH |              | Multiple, NH |              | Total        |              |
|---------|-----------------------------------|------------|--------------|------------|--------------|------------|--------------|-----------------------------|--------------|-----------|--------------|--------------|--------------|--------------|--------------|
|         |                                   | No.        | %            | No.        | %            | No.        | %            | No.                         | %            | No.       | %            | No.          | %            | No.          | %            |
|         | Male Sex w/Male                   | 330        | 79.8         | 139        | 90.3         | 146        | 84.2         | 10                          | 87.3         | 2         | 100.0        | 57           | 94.1         | 686          | 84.0         |
|         | Injection Drug Use                | 30         | 7.2          | 4          | 2.3          | 10         | 5.7          | 0                           | 0.0          | 0         | 0.0          | 1            | 2.1          | 45           | 5.4          |
|         | MSM and IDU <sup>§</sup>          | 12         | 2.8          | 7          | 4.5          | 5          | 3.1          | 0                           | 1.8          | 0         | 0.0          | 2            | 3.4          | 26           | 3.2          |
|         | Heterosexual                      | 41         | 10.0         | 4          | 2.9          | 11         | 6.4          | 1                           | 10.9         | 0         | 0.0          | 0            | 0.3          | 58           | 7.1          |
|         | Other <sup>¶</sup>                | 1          | 0.2          | 0          | 0.0          | 1          | 0.6          | 0                           | 0.0          | 0         | 0.0          | 0            | 0.0          | 2            | 0.2          |
|         | <b>Age category<sup>†</sup></b>   |            |              |            |              |            |              |                             |              |           |              |              |              |              |              |
|         | 13-19                             | 40         | 9.7          | 0          | 0.0          | 2          | 1.2          | 0                           | 0.0          | 0         | 0.0          | 4            | 6.6          | 46           | 5.6          |
|         | 20-24                             | 109        | 26.3         | 11         | 7.1          | 28         | 16.2         | 2                           | 18.2         | 0         | 0.0          | 6            | 9.8          | 158          | 19.3         |
|         | 25-29                             | 59         | 14.3         | 25         | 16.2         | 34         | 19.7         | 1                           | 9.1          | 1         | 50.0         | 12           | 19.7         | 132          | 16.2         |
|         | 30-39                             | 79         | 19.1         | 45         | 29.2         | 49         | 28.3         | 3                           | 27.3         | 0         | 0.0          | 15           | 24.6         | 191          | 23.4         |
|         | 40-49                             | 67         | 16.2         | 47         | 30.5         | 47         | 27.2         | 2                           | 18.2         | 1         | 50.0         | 14           | 23.0         | 178          | 21.8         |
|         | 50-59                             | 47         | 11.4         | 24         | 15.6         | 9          | 5.2          | 3                           | 27.3         | 0         | 0.0          | 6            | 9.8          | 89           | 10.9         |
|         | 60+                               | 13         | 3.1          | 2          | 1.3          | 4          | 2.3          | 0                           | 0.0          | 0         | 0.0          | 4            | 6.6          | 23           | 2.8          |
|         | <b>Total Males</b>                | <b>414</b> | <b>100.0</b> | <b>154</b> | <b>100.0</b> | <b>173</b> | <b>100.0</b> | <b>11</b>                   | <b>100.0</b> | <b>2</b>  | <b>100.0</b> | <b>61</b>    | <b>100.0</b> | <b>817</b>   | <b>100.0</b> |
| Females | Mode of Transmission              |            |              |            |              |            |              |                             |              |           |              |              |              |              |              |
|         |                                   |            |              |            |              |            |              |                             |              |           |              |              |              |              |              |
|         | Injection Drug Use                | 18         | 13.6         | 2          | 15.0         | 2          | 8.4          | 0                           | 0.0          | 0         | 0.0          | 2            | 20.0         | 23           | 12.9         |
|         | Heterosexual                      | 112        | 85.6         | 9          | 85.0         | 23         | 91.6         | 4                           | 100.0        | 0         | 0.0          | 5            | 67.5         | 153          | 86.0         |
|         | Other <sup>¶</sup>                | 1          | 0.8          | 0          | 0.0          | 0          | 0.0          | 0                           | 0.0          | 0         | 0.0          | 1            | 12.5         | 2            | 1.1          |
|         | <b>Age category<sup>†</sup></b>   |            |              |            |              |            |              |                             |              |           |              |              |              |              |              |
|         | 13-19                             | 15         | 11.5         | 1          | 10.0         | 0          | 0.0          | 0                           | 0.0          | 0         | 0.0          | 0            | 0.0          | 16           | 9.0          |
|         | 20-24                             | 15         | 11.5         | 0          | 0.0          | 2          | 8.0          | 0                           | 0.0          | 0         | 0.0          | 2            | 25.0         | 19           | 10.7         |
|         | 25-29                             | 16         | 12.2         | 0          | 0.0          | 2          | 8.0          | 0                           | 0.0          | 0         | 0.0          | 0            | 0.0          | 18           | 10.1         |
|         | 30-39                             | 28         | 21.4         | 1          | 10.0         | 7          | 28.0         | 1                           | 25.0         | 0         | 0.0          | 0            | 0.0          | 37           | 20.8         |
|         | 40-49                             | 30         | 22.9         | 4          | 40.0         | 8          | 32.0         | 1                           | 25.0         | 0         | 0.0          | 2            | 25.0         | 45           | 25.3         |
|         | 50-59                             | 18         | 13.7         | 3          | 30.0         | 6          | 24.0         | 1                           | 25.0         | 0         | 0.0          | 3            | 37.5         | 31           | 17.4         |
|         | 60+                               | 9          | 6.9          | 1          | 10.0         | 0          | 0.0          | 1                           | 25.0         | 0         | 0.0          | 0            | 0.0          | 11           | 6.2          |
|         | <b>Total Females</b>              | <b>131</b> | <b>100.0</b> | <b>10</b>  | <b>100.0</b> | <b>25</b>  | <b>100.0</b> | <b>4</b>                    | <b>100.0</b> | <b>0</b>  | <b>0.0</b>   | <b>8</b>     | <b>100.0</b> | <b>178</b>   | <b>100.0</b> |
|         | <b>Total Transgender: MtF</b>     | <b>6</b>   | <b>100.0</b> | <b>1</b>   | <b>100.0</b> | <b>2</b>   | <b>100.0</b> | <b>0</b>                    | <b>0.0</b>   | <b>0</b>  | <b>0.0</b>   | <b>1</b>     | <b>100.0</b> | <b>10</b>    | <b>100.0</b> |
|         | <b>Total Transgender: FtM</b>     | <b>2</b>   | <b>100.0</b> | <b>0</b>   | <b>0.0</b>   | <b>1</b>   | <b>100.0</b> | <b>0</b>                    | <b>0.0</b>   | <b>0</b>  | <b>0.0</b>   | <b>0</b>     | <b>0.0</b>   | <b>3</b>     | <b>100.0</b> |
|         | <b>All HIV Infections in 2011</b> | <b>553</b> | <b>100.0</b> | <b>165</b> | <b>100.0</b> | <b>201</b> | <b>100.0</b> | <b>15</b>                   | <b>100.0</b> | <b>2</b>  | <b>100.0</b> | <b>70</b>    | <b>100.0</b> | <b>1,008</b> | <b>100.0</b> |

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 4/1/2013. \*\*Current gender identity or gender with which a person identifies. <sup>Δ</sup>Multiple, non-Hispanic indicates more than one race identified; NH = not Hispanic. <sup>§</sup>Men who have sex with men and inject drugs. <sup>¶</sup>Includes perinatal transmission, blood transfusion and hemophilia. <sup>†</sup>Age at time of diagnosis.

**Table 4. People Living with HIV Infection (PLWH)\* in 2011: Race/Ethnicity<sup>^</sup> by Gender<sup>\*\*\*</sup>, Mode of Transmission, and Age Category, Chicago**

| Males                      | Mode of Transmission      | Race/Ethnicity <sup>^</sup> |       |           |       |          |       |              |       |           |       |              |        | Total  |       |
|----------------------------|---------------------------|-----------------------------|-------|-----------|-------|----------|-------|--------------|-------|-----------|-------|--------------|--------|--------|-------|
|                            |                           | Black, NH                   |       | White, NH |       | Hispanic |       | Asian/PI, NH |       | AI/AN, NH |       | Multiple, NH |        |        |       |
|                            |                           | No.                         | %     | No.       | %     | No.      | %     | No.          | %     | No.       | %     | No.          | %      |        |       |
| Males                      | Mode of Transmission      | 4,862                       | 62.8  | 4,607     | 90.3  | 2,348    | 74.6  | 160          | 80.3  | 16        | 67.5  | 602          | 76.8   | 12,610 | 73.9  |
|                            |                           | 1,486                       | 19.2  | 149       | 2.9   | 352      | 11.2  | 5            | 2.6   | 2         | 9.6   | 70           | 8.9    | 2,064  | 12.1  |
|                            |                           | 641                         | 8.3   | 251       | 4.9   | 209      | 6.6   | 11           | 5.6   | 2         | 9.2   | 83           | 10.5   | 1,198  | 7.0   |
|                            |                           | 645                         | 8.3   | 73        | 1.4   | 214      | 6.8   | 21           | 10.6  | 2         | 9.6   | 25           | 3.2    | 981    | 5.8   |
|                            |                           | 107                         | 1.4   | 20        | 0.4   | 25       | 0.8   | 2            | 1.0   | 1         | 4.2   | 4            | 0.5    | 159    | 0.9   |
|                            | Age category <sup>†</sup> | 117                         | 1.5   | 3         | 0.1   | 13       | 0.4   | 0            | 0.0   | 1         | 4.2   | 5            | 0.6    | 140    | 0.8   |
|                            |                           | 511                         | 6.6   | 54        | 1.1   | 91       | 2.9   | 4            | 2.0   | 1         | 4.2   | 32           | 4.1    | 695    | 4.1   |
|                            |                           | 611                         | 7.9   | 188       | 3.7   | 212      | 6.7   | 7            | 3.5   | 3         | 12.5  | 48           | 6.1    | 1,078  | 6.3   |
|                            |                           | 1,316                       | 17.0  | 773       | 15.2  | 765      | 24.3  | 69           | 34.7  | 4         | 16.7  | 160          | 20.4   | 3,104  | 18.2  |
|                            |                           | 2,249                       | 29.0  | 1,994     | 39.1  | 1,161    | 36.9  | 68           | 34.2  | 8         | 33.3  | 280          | 35.7   | 5,770  | 33.8  |
| Total Males                | 2,075                     | 26.8                        | 1,540 | 30.2      | 636   | 20.2     | 38    | 19.1         | 7     | 29.2      | 201   | 25.6         | 4,506  | 26.4   |       |
|                            | 838                       | 10.8                        | 549   | 10.8      | 268   | 8.5      | 13    | 6.5          | 0     | 0.0       | 57    | 7.3          | 1,728  | 10.1   |       |
|                            | 7,746                     | 100.0                       | 5,101 | 100.0     | 3,150 | 100.0    | 199   | 100.0        | 24    | 100.0     | 784   | 100.0        | 17,055 | 100.0  |       |
| Females                    | Mode of Transmission      | 990                         | 30.2  | 140       | 43.0  | 137      | 22.0  | 5            | 14.1  | 1         | 28.0  | 60           | 43.1   | 1,336  | 30.3  |
|                            |                           | 2,157                       | 65.8  | 175       | 53.6  | 461      | 73.8  | 28           | 82.9  | 4         | 72.0  | 75           | 54.0   | 2,900  | 65.7  |
|                            |                           | 128                         | 3.9   | 11        | 3.4   | 26       | 4.2   | 1            | 2.9   | 0         | 0.0   | 4            | 2.9    | 170    | 3.9   |
|                            |                           | 88                          | 2.7   | 6         | 1.8   | 6        | 1.0   | 0            | 0.0   | 0         | 0.0   | 0            | 0.0    | 100    | 2.3   |
|                            |                           | 164                         | 5.0   | 5         | 1.5   | 24       | 3.8   | 0            | 0.0   | 0         | 0.0   | 5            | 3.6    | 198    | 4.5   |
|                            | Age category <sup>†</sup> | 240                         | 7.3   | 8         | 2.5   | 40       | 6.4   | 2            | 5.9   | 0         | 0.0   | 6            | 4.3    | 296    | 6.7   |
|                            |                           | 755                         | 23.0  | 66        | 20.2  | 145      | 23.2  | 9            | 26.5  | 0         | 0.0   | 21           | 15.2   | 998    | 22.6  |
|                            |                           | 1,021                       | 31.2  | 112       | 34.4  | 208      | 33.3  | 14           | 41.2  | 0         | 0.0   | 49           | 35.5   | 1,407  | 31.9  |
|                            |                           | 753                         | 23.0  | 102       | 31.3  | 140      | 22.4  | 6            | 17.6  | 4         | 80.0  | 46           | 33.3   | 1,053  | 23.9  |
|                            |                           | 226                         | 6.9   | 27        | 8.3   | 59       | 9.4   | 2            | 5.9   | 1         | 20.0  | 10           | 7.2    | 326    | 7.4   |
| Total Females              | 3,277                     | 100.0                       | 326   | 100.0     | 625   | 100.0    | 34    | 100.0        | 5     | 100.0     | 138   | 100.0        | 4,413  | 100.0  |       |
|                            | 41                        | 100.0                       | 5     | 100.0     | 18    | 100.0    | 0     | 0.0          | 0     | 0.0       | 6     | 100.0        | 70     | 100.0  |       |
|                            | 15                        | 100.0                       | 0     | 0.0       | 2     | 100.0    | 0     | 0.0          | 0     | 0.0       | 0     | 0.0          | 17     | 100.0  |       |
| All HIV Infections in 2011 |                           | 11,079                      | 100.0 | 5,432     | 100.0 | 3,795    | 100.0 | 233          | 100.0 | 29        | 100.0 | 928          | 100.0  | 21,555 | 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. \*HIV infection diagnoses represents people newly diagnosed with HIV in a given year, at any stage of disease through 4/1/2013. \*\*Current gender identity or gender with which a person identifies. ^ Multiple, non-Hispanic indicates more than one race identified; NH = not Hispanic. §Men who have sex with men and inject drugs. ¶Includes perinatal transmission, blood transfusion and hemophilia. †Age at time of diagnosis.

**Table 5. AIDS<sup>†</sup> Cases by Year of Diagnosis and Selected Demographic Characteristics, Chicago, 2007-2011**

| Demographic Characteristics | Year of Diagnosis |       |      |       |      |       |      |       |      |       | Estimated Annual Percent Change |
|-----------------------------|-------------------|-------|------|-------|------|-------|------|-------|------|-------|---------------------------------|
|                             | 2007              |       | 2008 |       | 2009 |       | 2010 |       | 2011 |       |                                 |
|                             | No.               | %     | No.  | %     | No.  | %     | No.  | %     | No.  | %     |                                 |
| Gender**                    |                   |       |      |       |      |       |      |       |      |       |                                 |
| Male                        | 487               | 77.1  | 555  | 76.3  | 513  | 77.5  | 466  | 76.4  | 408  | 75.8  | -5.2                            |
| Female                      | 142               | 22.5  | 171  | 23.5  | 148  | 22.4  | 140  | 23.0  | 125  | 23.2  | -4.4                            |
| Transgender: MtF            | 3                 | 0.5   | 1    | 0.1   | 1    | 0.2   | 4    | 0.7   | 5    | 0.9   | 27.2                            |
| Transgender: FtM            | 0                 | 0.0   | 0    | 0.0   | 3    | 0.5   | 2    | 0.3   | 1    | 0.2   | N/A                             |
| Race/Ethnicity^             |                   |       |      |       |      |       |      |       |      |       |                                 |
| Black, non-Hispanic         | 373               | 59.0  | 436  | 60.0  | 391  | 59.1  | 371  | 60.8  | 314  | 58.4  | -4.9                            |
| White, non-Hispanic         | 109               | 17.2  | 122  | 16.8  | 96   | 14.5  | 93   | 15.2  | 70   | 13.0  | -10.9                           |
| Hispanic                    | 107               | 16.9  | 129  | 17.7  | 126  | 19.0  | 104  | 17.0  | 113  | 21.0  | -1.1                            |
| Asian/PI, non-Hispanic      | 12                | 1.9   | 7    | 1.0   | 5    | 0.8   | 7    | 1.1   | 5    | 0.9   | -16.1                           |
| AI/AN, non-Hispanic         | 0                 | 0.0   | 1    | 0.1   | 1    | 0.2   | 0    | 0.0   | 0    | 0.0   | N/A                             |
| Multiple, non-Hispanic      | 31                | 4.9   | 32   | 4.4   | 40   | 6.0   | 33   | 5.4   | 36   | 6.7   | 3.4                             |
| Transmission Group          |                   |       |      |       |      |       |      |       |      |       |                                 |
| Male Sex w/Male             | 341               | 53.9  | 374  | 51.4  | 368  | 55.5  | 331  | 54.3  | 307  | 57.0  | -3.3                            |
| Injection Drug Use          | 117               | 18.6  | 137  | 18.9  | 108  | 16.3  | 88   | 14.4  | 63   | 11.8  | -15.5                           |
| MSM and IDU§                | 37                | 5.9   | 40   | 5.4   | 33   | 5.0   | 31   | 5.1   | 22   | 4.2   | -12.1                           |
| Heterosexual                | 134               | 21.2  | 168  | 23.2  | 150  | 22.6  | 153  | 25.0  | 135  | 25.1  | -0.8                            |
| Other¶                      | 3                 | 0.5   | 7    | 1.0   | 2    | 0.3   | 6    | 1.0   | 10   | 1.9   | 25.3                            |
| Age Category†               |                   |       |      |       |      |       |      |       |      |       |                                 |
| Less than 13                | 1                 | 0.2   | 1    | 0.1   | 0    | 0.0   | 0    | 0.0   | 0    | 0.0   | N/A                             |
| 13-19                       | 9                 | 1.4   | 17   | 2.3   | 16   | 2.4   | 9    | 1.5   | 15   | 2.8   | 3.9                             |
| 20-29                       | 97                | 15.3  | 128  | 17.6  | 144  | 21.8  | 120  | 19.7  | 116  | 21.6  | 3.0                             |
| 20-24                       | 35                | 5.5   | 46   | 6.3   | 62   | 9.4   | 41   | 6.7   | 45   | 8.4   | 4.0                             |
| 24-29                       | 62                | 9.8   | 82   | 11.3  | 82   | 12.4  | 79   | 13.0  | 71   | 13.2  | 2.4                             |
| 30-39                       | 188               | 29.7  | 184  | 25.3  | 169  | 25.5  | 168  | 27.5  | 137  | 25.5  | -7.0                            |
| 40-49                       | 203               | 32.1  | 245  | 33.7  | 207  | 31.3  | 191  | 31.3  | 148  | 27.5  | -8.4                            |
| 50-59                       | 98                | 15.5  | 121  | 16.6  | 99   | 15.0  | 90   | 14.8  | 92   | 17.1  | -4.1                            |
| 60+                         | 36                | 5.7   | 31   | 4.3   | 27   | 4.1   | 32   | 5.2   | 30   | 5.6   | -3.3                            |
| Total                       | 632               | 100.0 | 727  | 100.0 | 662  | 100.0 | 610  | 100.0 | 538  | 100.0 | -4.9                            |

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 4/1/2013. \*\*Current gender identity or gender with which a person identifies. ^Multiple, non-Hispanic indicates more than one race identified. §Men who have sex with men and inject drugs. ¶Includes perinatal transmission, blood transfusion and hemophilia. †Age at time of diagnosis.

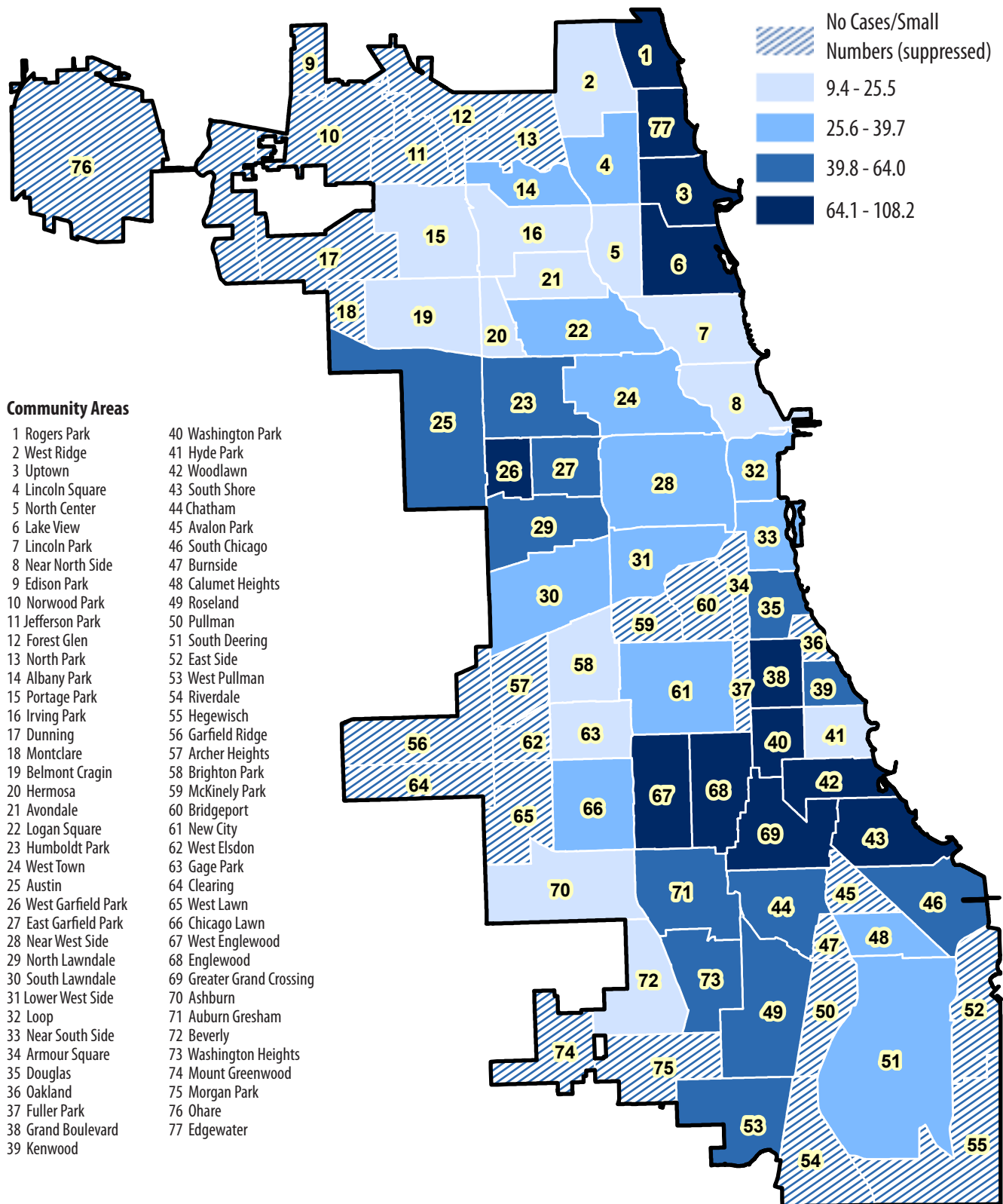


**Table 6. 2010-2011 Average Annual HIV Infection Diagnosis Rates by Community Area, Chicago**

| Community Area                   | Average HIV Infections <sup>†</sup> | Average HIV Infection Rate <sup>§</sup> | Community Area        | Average HIV Infections <sup>†</sup> | Average HIV Infection Rate <sup>§</sup> |
|----------------------------------|-------------------------------------|---|-----------------------|-------------------------------------|---|
| 1 Rogers Park                    | 43                                  | 78.2                                    | 40 Washington Park    | 11                                  | 93.9                                    |
| 2 West Ridge                     | 16                                  | 22.2                                    | 41 Hyde Park          | 5                                   | 19.5                                    |
| 3 Uptown                         | 61                                  | 108.2                                   | 42 Woodlawn           | 19                                  | 73.1                                    |
| 4 Lincoln Square                 | 14                                  | 35.4                                    | 43 South Shore        | 35                                  | 70.3                                    |
| 5 North Center                   | 6                                   | 18.8                                    | 44 Chatham            | 18                                  | 58.0                                    |
| 6 Lake View                      | 65                                  | 68.9                                    | 45 Avalon Park        | 4                                   | 39.3                                    |
| 7 Lincoln Park                   | 11                                  | 17.2                                    | 46 South Chicago      | 16                                  | 51.3                                    |
| 8 Near North Side                | 17                                  | 21.1                                    | 47 Burnside           | 0                                   | 0.0                                     |
| 9 Edison Park                    | 0                                   | 0.0                                     | 48 Calumet Heights    | 5                                   | 36.2                                    |
| 10 Norwood Park                  | 2                                   | 5.4                                     | 49 Roseland           | 22                                  | 49.3                                    |
| 11 Jefferson Park                | 0                                   | 0.0                                     | 50 Pullman            | 2                                   | 27.3                                    |
| 12 Forest Glen                   | 0                                   | 0.0                                     | 51 South Deering      | 6                                   | 39.7                                    |
| 13 North Park                    | 2                                   | 11.2                                    | 52 East Side          | 2                                   | 8.7                                     |
| 14 Albany Park                   | 17                                  | 33.0                                    | 53 West Pullman       | 14                                  | 47.2                                    |
| 15 Portage Park                  | 6                                   | 9.4                                     | 54 Riverdale          | 2                                   | 30.9                                    |
| 16 Irving Park                   | 9                                   | 16.9                                    | 55 Hegewisch          | 0                                   | 0.0                                     |
| 17 Dunning                       | 2                                   | 4.8                                     | 56 Garfield Ridge     | 3                                   | 8.7                                     |
| 18 Montclare                     | 2                                   | 14.9                                    | 57 Archer Heights     | 0                                   | 0.0                                     |
| 19 Belmont Cragin                | 14                                  | 17.8                                    | 58 Brighton Park      | 8                                   | 17.6                                    |
| 20 Hermosa                       | 6                                   | 24.0                                    | 59 McKinley Park      | 2                                   | 12.8                                    |
| 21 Avondale                      | 10                                  | 25.5                                    | 60 Bridgeport         | 4                                   | 12.5                                    |
| 22 Logan Square                  | 26                                  | 35.3                                    | 61 New City           | 14                                  | 31.5                                    |
| 23 Humboldt Park                 | 27                                  | 47.9                                    | 62 West Elsdon        | 2                                   | 11.0                                    |
| 24 West Town                     | 27                                  | 33.2                                    | 63 Gage Park          | 6                                   | 15.0                                    |
| 25 Austin                        | 43                                  | 43.6                                    | 64 Clearing           | 0                                   | 0.0                                     |
| 26 West Garfield Park            | 14                                  | 77.8                                    | 65 West Lawn          | 3                                   | 9.0                                     |
| 27 East Garfield Park            | 13                                  | 63.2                                    | 66 Chicago Lawn       | 17                                  | 30.6                                    |
| 28 Near West Side                | 21                                  | 38.3                                    | 67 West Englewood     | 26                                  | 73.2                                    |
| 29 North Lawndale                | 23                                  | 64.0                                    | 68 Englewood          | 23                                  | 75.0                                    |
| 30 South Lawndale                | 22                                  | 27.7                                    | 69 Gr. Grand Crossing | 22                                  | 67.5                                    |
| 31 Lower West Side               | 10                                  | 28.0                                    | 70 Ashburn            | 6                                   | 14.6                                    |
| 32 Loop                          | 8                                   | 27.3                                    | 71 Auburn Gresham     | 24                                  | 49.2                                    |
| 33 Near South Side               | 8                                   | 37.4                                    | 72 Beverly            | 5                                   | 25.0                                    |
| 34 Armour Square                 | 0                                   | 0.0                                     | 73 Washington Heights | 13                                  | 49.1                                    |
| 35 Douglas                       | 9                                   | 49.3                                    | 74 Mount Greenwood    | 0                                   | 0.0                                     |
| 36 Oakland                       | 3                                   | 50.7                                    | 75 Morgan Park        | 4                                   | 17.7                                    |
| 37 Fuller Park                   | 4                                   | 139.1                                   | 76 O'Hare             | 0                                   | 0.0                                     |
| 38 Grand Boulevard               | 15                                  | 68.4                                    | 77 Edgewater          | 58                                  | 102.6                                   |
| 39 Kenwood                       | 10                                  | 56.1                                    | Unknown CA            | 21                                  | --                                      |
| <b>Chicago Total<sup>¶</sup></b> |                                     |   |                       | <b>1,008</b>                        | <b>37.4</b>                             |

Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. <sup>†</sup>2010-2011 average annual number of new HIV infections. <sup>§</sup>Rate per 100,000 population using 2010 U.S. Census Bureau population figures. <sup>¶</sup>Includes all persons with

**Figure 4. 2010-2011 Average HIV Infection Diagnoses Rate (per 100,000)  
by Community Area, Chicago**

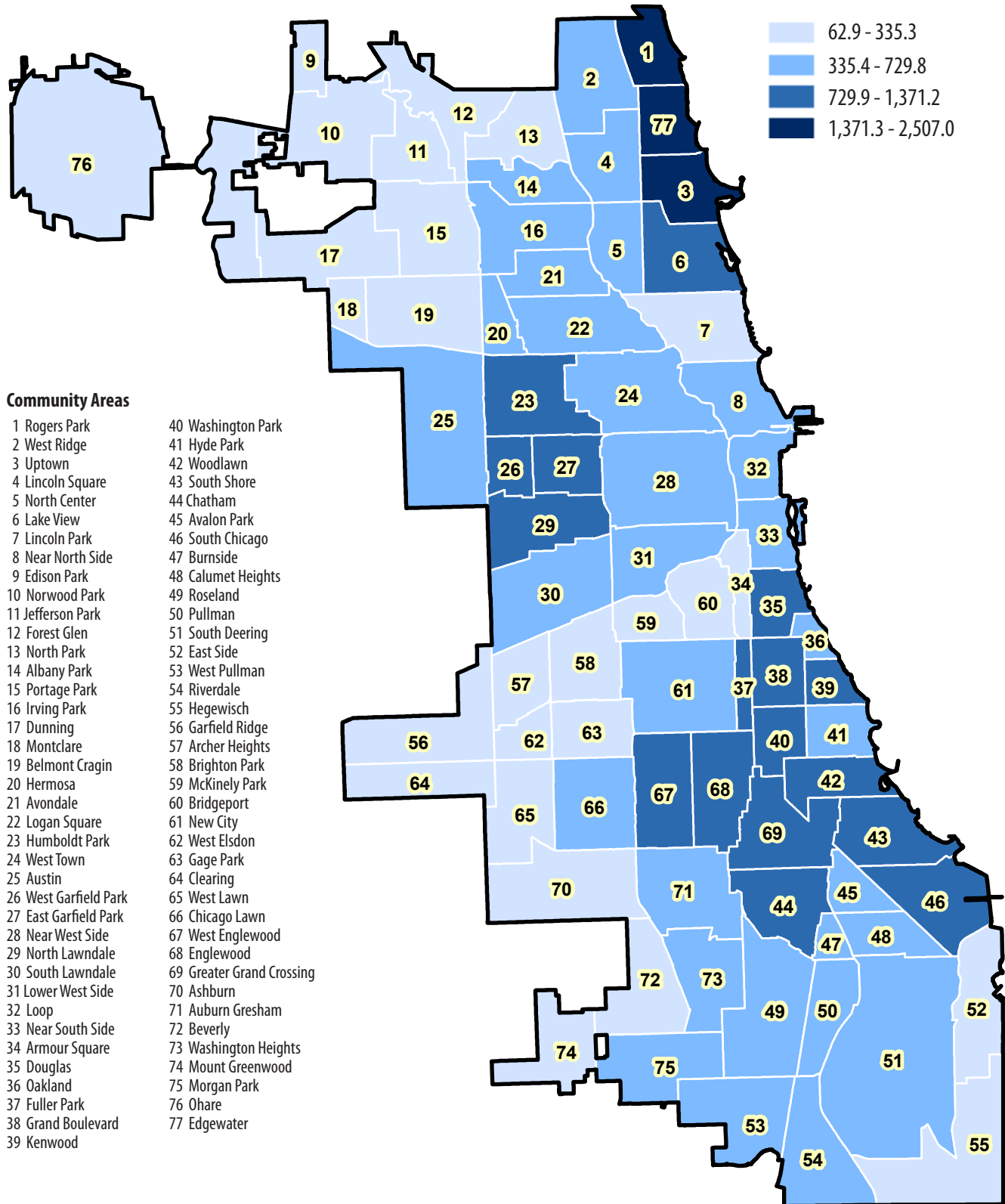


**Table 7. People Living with HIV Infection Rate<sup>†</sup> by Community Area, Chicago, 2011**

| Community Area                   | Prevalent Cases <sup>†</sup> | Prevalence Rate <sup>§</sup> | Community Area        | Prevalent Cases <sup>†</sup> | Prevalence Rate <sup>§</sup> |
|----------------------------------|------------------------------|------------------------------|-----------------------|------------------------------|------------------------------|
| 1 Rogers Park                    | 927                          | 1,685.7                      | 40 Washington Park    | 132                          | 1,126.6                      |
| 2 West Ridge                     | 294                          | 408.7                        | 41 Hyde Park          | 136                          | 529.6                        |
| 3 Uptown                         | 1,413                        | 2,507.0                      | 42 Woodlawn           | 269                          | 1,035.3                      |
| 4 Lincoln Square                 | 222                          | 562.1                        | 43 South Shore        | 595                          | 1,195.6                      |
| 5 North Center                   | 123                          | 386.0                        | 44 Chatham            | 255                          | 821.8                        |
| 6 Lake View                      | 1,294                        | 1,371.2                      | 45 Avalon Park        | 72                           | 706.9                        |
| 7 Lincoln Park                   | 215                          | 335.3                        | 46 South Chicago      | 249                          | 798.1                        |
| 8 Near North Side                | 375                          | 465.9                        | 47 Burnside           | 18                           | 617.3                        |
| 9 Edison Park                    | 11                           | 98.3                         | 48 Calumet Heights    | 73                           | 528.5                        |
| 10 Norwood Park                  | 24                           | 64.8                         | 49 Roseland           | 283                          | 634.3                        |
| 11 Jefferson Park                | 39                           | 153.3                        | 50 Pullman            | 42                           | 573.4                        |
| 12 Forest Glen                   | 32                           | 172.9                        | 51 South Deering      | 72                           | 476.5                        |
| 13 North Park                    | 45                           | 251.0                        | 52 East Side          | 30                           | 130.2                        |
| 14 Albany Park                   | 237                          | 459.8                        | 53 West Pullman       | 171                          | 576.7                        |
| 15 Portage Park                  | 114                          | 177.8                        | 54 Riverdale          | 28                           | 432.0                        |
| 16 Irving Park                   | 198                          | 371.1                        | 55 Hegewisch          | 10                           | 106.1                        |
| 17 Dunning                       | 49                           | 116.9                        | 56 Garfield Ridge     | 38                           | 110.1                        |
| 18 Montclare                     | 27                           | 201.1                        | 57 Archer Heights     | 13                           | 97.1                         |
| 19 Belmont Cragin                | 220                          | 279.4                        | 58 Brighton Park      | 105                          | 231.4                        |
| 20 Hermosa                       | 98                           | 391.8                        | 59 McKinley Park      | 32                           | 205.0                        |
| 21 Avondale                      | 176                          | 448.3                        | 60 Bridgeport         | 69                           | 215.8                        |
| 22 Logan Square                  | 438                          | 595.1                        | 61 New City           | 207                          | 466.5                        |
| 23 Humboldt Park                 | 447                          | 793.6                        | 62 West Elsdon        | 23                           | 127.0                        |
| 24 West Town                     | 461                          | 566.1                        | 63 Gage Park          | 79                           | 198.0                        |
| 25 Austin                        | 719                          | 729.8                        | 64 Clearing           | 29                           | 125.3                        |
| 26 West Garfield Park            | 201                          | 1,116.6                      | 65 West Lawn          | 42                           | 125.9                        |
| 27 East Garfield Park            | 237                          | 1,152.3                      | 66 Chicago Lawn       | 243                          | 436.8                        |
| 28 Near West Side                | 389                          | 708.8                        | 67 West Englewood     | 311                          | 875.9                        |
| 29 North Lawndale                | 369                          | 1,027.5                      | 68 Englewood          | 300                          | 978.7                        |
| 30 South Lawndale                | 559                          | 705.0                        | 69 Gr. Grand Crossing | 296                          | 907.9                        |
| 31 Lower West Side               | 141                          | 394.2                        | 70 Ashburn            | 102                          | 248.3                        |
| 32 Loop                          | 131                          | 447.4                        | 71 Auburn Gresham     | 334                          | 685.2                        |
| 33 Near South Side               | 120                          | 561.0                        | 72 Beverly            | 39                           | 194.7                        |
| 34 Armour Square                 | 30                           | 224.0                        | 73 Washington Heights | 139                          | 524.7                        |
| 35 Douglas                       | 175                          | 959.5                        | 74 Mount Greenwood    | 12                           | 62.9                         |
| 36 Oakland                       | 43                           | 726.6                        | 75 Morgan Park        | 96                           | 425.8                        |
| 37 Fuller Park                   | 25                           | 869.3                        | 76 O'Hare             | 15                           | 117.6                        |
| 38 Grand Boulevard               | 255                          | 1,162.8                      | 77 Edgewater          | 1,350                        | 2,388.5                      |
| 39 Kenwood                       | 144                          | 807.1                        | Unknown CA            | 4,229                        | --                           |
| <b>Chicago Total<sup>¶</sup></b> |                              |                              | <b>21,555</b>         | <b>799.6</b>                 |                              |

Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. <sup>†</sup>People living with HIV infection represents people living with HIV at any stage of disease through 2011. <sup>§</sup>Rate per 100,000 population using 2010 U.S. Census Bureau population figures. <sup>¶</sup>Includes all persons with unknown/undetermined community area.

**Figure 5. HIV Infection Prevalence Rate (per 100,000)  
by Community Area, Chicago through 2010**



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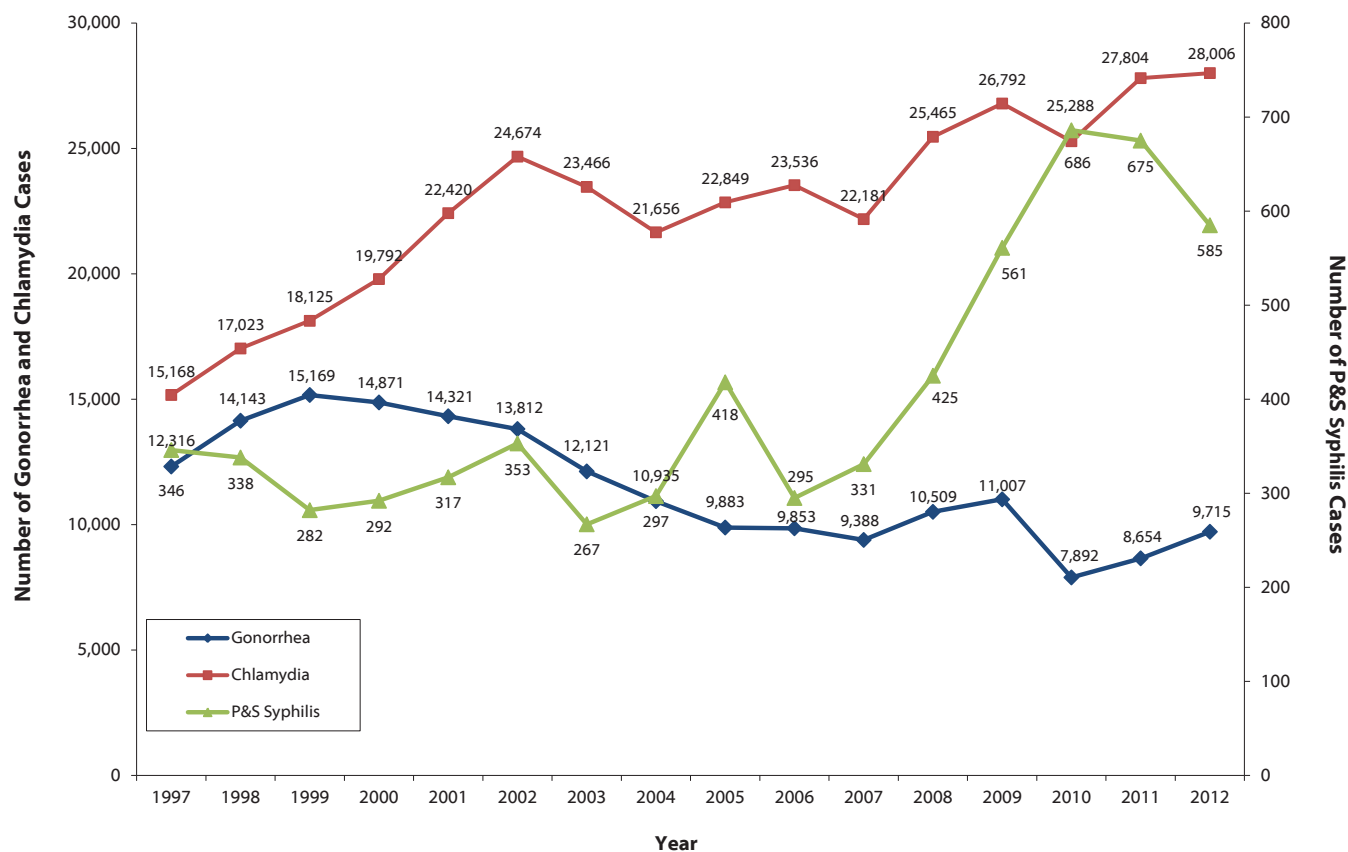
## Highlights of Analyses: Sexually Transmitted Infections

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- Chlamydia infections in Chicago have steadily increased over the last 5 years, reaching over 28,000 cases in 2012. This continues a long-standing upward trend that began over 15 years ago.
- Though 2012 syphilis cases decreased 13% from 2011, overall, syphilis has increased an average of 9% annually since 2008 reaching a high of 686 cases in 2010.
- Between 1999 and 2010, gonorrhea diagnoses decreased almost 50% from 15,169 in 1999 to 7,892 in 2010. From 2011 to 2012, we have seen an increase to 9,715 cases. Gonorrhea among NH Blacks has decreased an average of 11% annually since 2008. However, a large racial disparity persists between NH Blacks and NH other races.
- While gonorrhea diagnoses are evenly distributed between males and females, 70% of chlamydia diagnoses are accounted for by females, and males account for 90% of syphilis diagnoses.
- Adolescents and young adults comprise the majority of STI diagnoses in Chicago. In 2012, those 13 to 24 years old comprised 67% of gonorrhea cases and 71% of chlamydia cases, while 47% of syphilis cases were among those under age 30.
- NH Blacks comprise the majority of STIs in Chicago, comprising 52% of 2012 chlamydia infections, 62% of gonorrhea infections, and 50% of syphilis infections. Hispanics have accounted for an increasing proportion of gonorrhea infections since 2010, and in syphilis since 2008. However, assessing trends in race/ethnicity for gonorrhea and chlamydia is complicated by the increases in “unknown” race/ethnicity since 2010 when a new reporting system was implemented. Unknown race/ethnicity comprised approximately 30% of both gonorrhea and chlamydia cases in 2012.
- Reflecting the preponderance of syphilis infection among males, the highest risk transmission group is MSM, making up 61% of 2012 cases. Notably, 20% of male syphilis cases were reported as ‘unknown’ risk, which, if known, would likely increase the MSM proportion of cases.
- Notably for syphilis, young adults between 20 and 24 years old have seen a five-year average annual increase in syphilis of 19% since 2008.
- Forty-three percent of men newly diagnosed with syphilis in 2011 were also infected with HIV.
- Following an increase in female syphilis cases, congenital syphilis cases have increased between 2008 and 2012. Since 2008, there have been 73 congenital syphilis cases, and 3 stillbirths.

## Sexually Transmitted Infections

**Figure 6. Number of Reported Sexually Transmitted Infections, Chicago, 1997-2012**



**Table 8. Trends in Gonorrhea Cases by Selected Demographic Characteristics, Chicago, 2008-2012**

| Demographic Characteristics | Year of Report |              |               |              |              |              |              |              |              |              | Estimated Annual Percent Change |
|-----------------------------|----------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------------------|
|                             | 2008           |              | 2009          |              | 2010         |              | 2011         |              | 2012         |              |                                 |
|                             | No.            | %            | No.           | %            | No.          | %            | No.          | %            | No.          | %            |                                 |
| <b>Sex</b>                  |                |              |               |              |              |              |              |              |              |              |                                 |
| Male                        | 5,121          | 48.7         | 5,023         | 45.6         | 3,623        | 45.9         | 4,141        | 47.9         | 4,752        | 48.9         | -3.4                            |
| Female                      | 5,388          | 51.3         | 5,983         | 54.4         | 4,248        | 53.8         | 4,497        | 52.0         | 4,948        | 50.9         | -4.5                            |
| <b>Race/Ethnicity</b>       |                |              |               |              |              |              |              |              |              |              |                                 |
| Black, non-Hispanic         | 8,736          | 83.1         | 8,839         | 80.3         | 4,821        | 61.1         | 5,756        | 66.5         | 5,991        | 61.7         | -11.2                           |
| White, non-Hispanic         | 426            | 4.1          | 429           | 3.9          | 343          | 4.3          | 393          | 4.5          | 469          | 4.8          | 1.1                             |
| Hispanic                    | 352            | 3.3          | 387           | 3.5          | 333          | 4.2          | 439          | 5.1          | 437          | 4.5          | 5.7                             |
| Asian/PI, non-Hispanic      |                |              | 24            | 0.2          | 15           | 0.2          | 28           | 0.3          | 39           | 0.4          | 23.1                            |
| AI/AN, non-Hispanic         |                |              | 4             | 0.0          | 7            | 0.1          | 8            | 0.1          | 5            | 0.1          | 8.4                             |
| Other, non-Hispanic         | 110            | 1.0          | 60            | 0.5          | 34           | 0.4          | 116          | 1.3          | 63           | 0.6          | -4.5                            |
| Unknown                     | 885            | 8.4          | 1,264         | 11.5         | 2,339        | 29.6         | 1,914        | 22.1         | 2,711        | 27.9         | 30.4                            |
| <b>Age<sup>†</sup></b>      |                |              |               |              |              |              |              |              |              |              |                                 |
| Less than 13                | 18             | 0.2          | 22            | 0.2          | 23           | 0.3          | 29           | 0.3          | 21           | 0.2          | 6.0                             |
| 13-19                       | 3,041          | 28.9         | 3,142         | 28.5         | 2,730        | 34.6         | 3,136        | 36.2         | 3,261        | 33.6         | 1.4                             |
| 20-29                       | 5,313          | 50.6         | 5,700         | 51.8         | 3,694        | 46.8         | 4,022        | 46.5         | 4,644        | 47.8         | -6.0                            |
| 20-24                       | 3,532          | 33.6         | 3,832         | 34.8         | 2,520        | 31.9         | 2,767        | 32.0         | 3,173        | 32.7         | -5.3                            |
| 25-29                       | 1,771          | 16.9         | 1,868         | 17.0         | 1,174        | 14.9         | 1,255        | 14.5         | 1,471        | 15.1         | -7.4                            |
| 30-39                       | 1,394          | 13.3         | 1,420         | 12.9         | 938          | 11.9         | 929          | 10.7         | 1,138        | 11.7         | -8.0                            |
| 40-49                       | 610            | 5.8          | 510           | 4.6          | 368          | 4.7          | 392          | 4.5          | 467          | 4.8          | -7.7                            |
| 50+                         | 244            | 2.3          | 213           | 1.9          | 139          | 1.8          | 146          | 1.7          | 184          | 1.9          | -9.0                            |
| <b>Total**</b>              | <b>10,509</b>  | <b>100.0</b> | <b>11,007</b> | <b>100.0</b> | <b>7,892</b> | <b>100.0</b> | <b>8,654</b> | <b>100.0</b> | <b>9,715</b> | <b>100.0</b> | <b>-3.9</b>                     |

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

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

\*\*Includes cases with unknown sex or age.

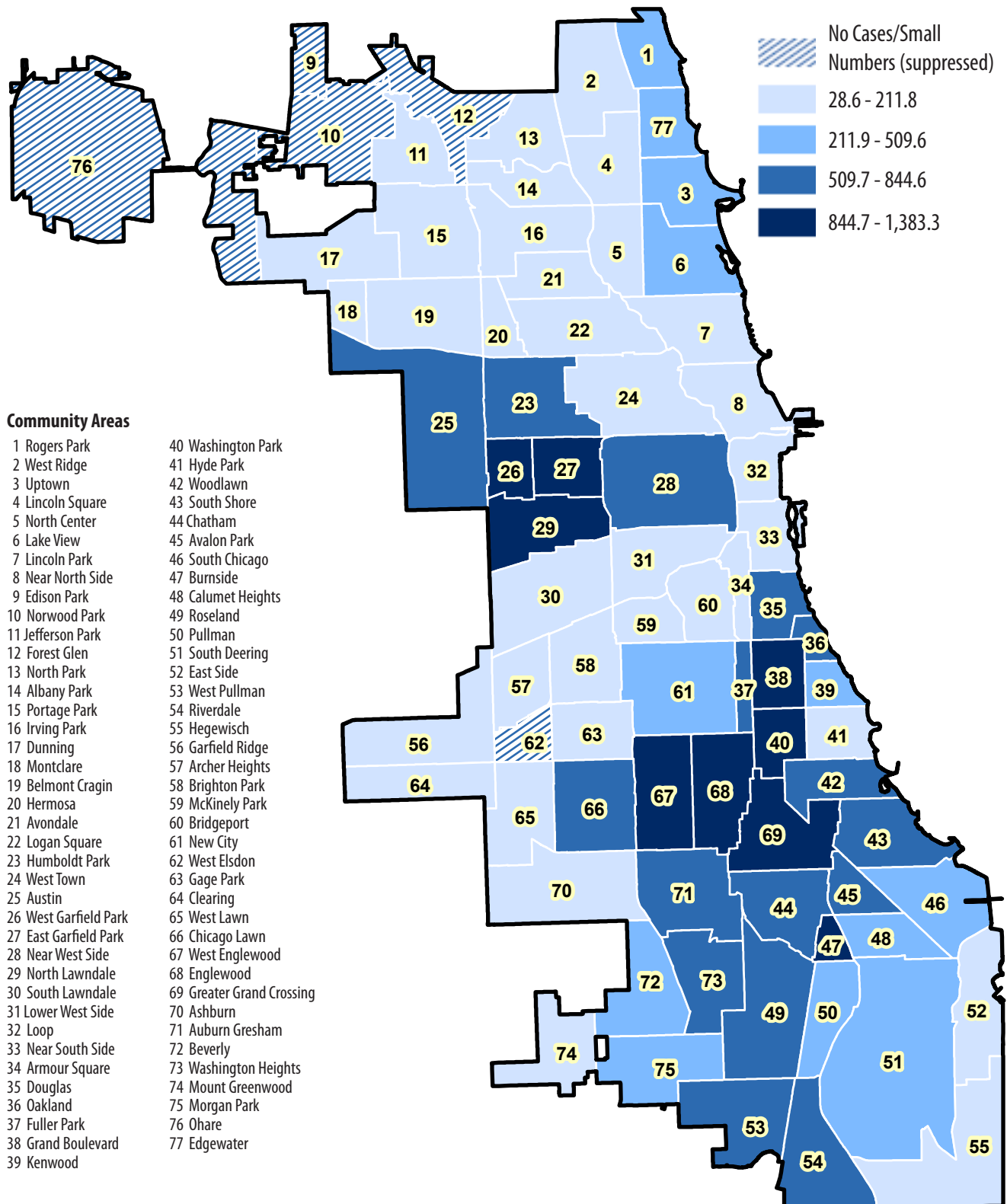
**Table 9. Gonorrhea Case Rates by Community Area, Chicago, 2012**

| Community Area        | Gonorrhea Cases <sup>†</sup> | Rate <sup>§</sup> | Community Area                   | Gonorrhea Cases <sup>†</sup> | Rate <sup>§</sup> |
|-----------------------|------------------------------|-------------------|----------------------------------|------------------------------|-------------------|
| 1 Rogers Park         | 178                          | 323.7             | 40 Washington Park               | 138                          | 1,177.8           |
| 2 West Ridge          | 84                           | 116.8             | 41 Hyde Park                     | 44                           | 171.3             |
| 3 Uptown              | 192                          | 340.7             | 42 Woodlawn                      | 190                          | 731.2             |
| 4 Lincoln Square      | 28                           | 70.9              | 43 South Shore                   | 360                          | 723.4             |
| 5 North Center        | 26                           | 81.6              | 44 Chatham                       | 225                          | 725.2             |
| 6 Lake View           | 246                          | 260.7             | 45 Avalon Park                   | 61                           | 598.9             |
| 7 Lincoln Park        | 40                           | 62.4              | 46 South Chicago                 | 159                          | 509.6             |
| 8 Near North Side     | 120                          | 149.1             | 47 Burnside                      | 29                           | 994.5             |
| 9 Edison Park         | <5                           | --                | 48 Calumet Heights               | 64                           | 463.4             |
| 10 Norwood Park       | <5                           | --                | 49 Roseland                      | 360                          | 806.8             |
| 11 Jefferson Park     | 10                           | 39.3              | 50 Pullman                       | 33                           | 450.5             |
| 12 Forest Glen        | <5                           | --                | 51 South Deering                 | 66                           | 436.8             |
| 13 North Park         | 8                            | 44.6              | 52 East Side                     | 15                           | 65.1              |
| 14 Albany Park        | 41                           | 79.5              | 53 West Pullman                  | 200                          | 674.5             |
| 15 Portage Park       | 34                           | 53.0              | 54 Riverdale                     | 48                           | 740.5             |
| 16 Irving Park        | 38                           | 71.2              | 55 Hegewisch                     | 6                            | 63.7              |
| 17 Dunning            | 12                           | 28.6              | 56 Garfield Ridge                | 22                           | 63.7              |
| 18 Montclare          | 9                            | 67.0              | 57 Archer Heights                | 5                            | 37.3              |
| 19 Belmont Cragin     | 65                           | 82.5              | 58 Brighton Park                 | 21                           | 46.3              |
| 20 Hermosa            | 25                           | 100.0             | 59 McKinley Park                 | 6                            | 38.4              |
| 21 Avondale           | 30                           | 76.4              | 60 Bridgeport                    | 14                           | 43.8              |
| 22 Logan Square       | 88                           | 119.6             | 61 New City                      | 188                          | 423.6             |
| 23 Humboldt Park      | 312                          | 553.9             | 62 West Elsdon                   | <5                           | --                |
| 24 West Town          | 136                          | 167.0             | 63 Gage Park                     | 38                           | 95.3              |
| 25 Austin             | 832                          | 844.6             | 64 Clearing                      | 10                           | 43.2              |
| 26 West Garfield Park | 249                          | 1383.3            | 65 West Lawn                     | 25                           | 75.0              |
| 27 East Garfield Park | 237                          | 1152.3            | 66 Chicago Lawn                  | 333                          | 598.6             |
| 28 Near West Side     | 296                          | 539.3             | 67 West Englewood                | 421                          | 1,185.7           |
| 29 North Lawndale     | 494                          | 1375.6            | 68 Englewood                     | 381                          | 1,242.9           |
| 30 South Lawndale     | 73                           | 92.1              | 69 Gr. Grand Crossing            | 310                          | 950.9             |
| 31 Lower West Side    | 36                           | 100.6             | 70 Ashburn                       | 87                           | 211.8             |
| 32 Loop               | 37                           | 126.4             | 71 Auburn Gresham                | 384                          | 787.8             |
| 33 Near South Side    | 28                           | 130.9             | 72 Beverly                       | 52                           | 259.6             |
| 34 Armour Square      | 21                           | 156.8             | 73 Washington Heights            | 165                          | 622.8             |
| 35 Douglas            | 99                           | 542.8             | 74 Mount Greenwood               | 6                            | 31.4              |
| 36 Oakland            | 41                           | 692.8             | 75 Morgan Park                   | 77                           | 341.6             |
| 37 Fuller Park        | 24                           | 834.5             | 76 O'Hare                        | <5                           | --                |
| 38 Grand Boulevard    | 220                          | 1003.2            | 77 Edgewater                     | 143                          | 253.0             |
| 39 Kenwood            | 86                           | 482.0             | <b>Chicago Total<sup>¶</sup></b> | <b>9,715</b>                 | <b>360.4</b>      |

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 Rate (per 100,000) by Community Area, Chicago, 2012**



**Table 10. Trends in Chlamydia Cases by Selected Demographic Characteristics, Chicago, 2008-2012**

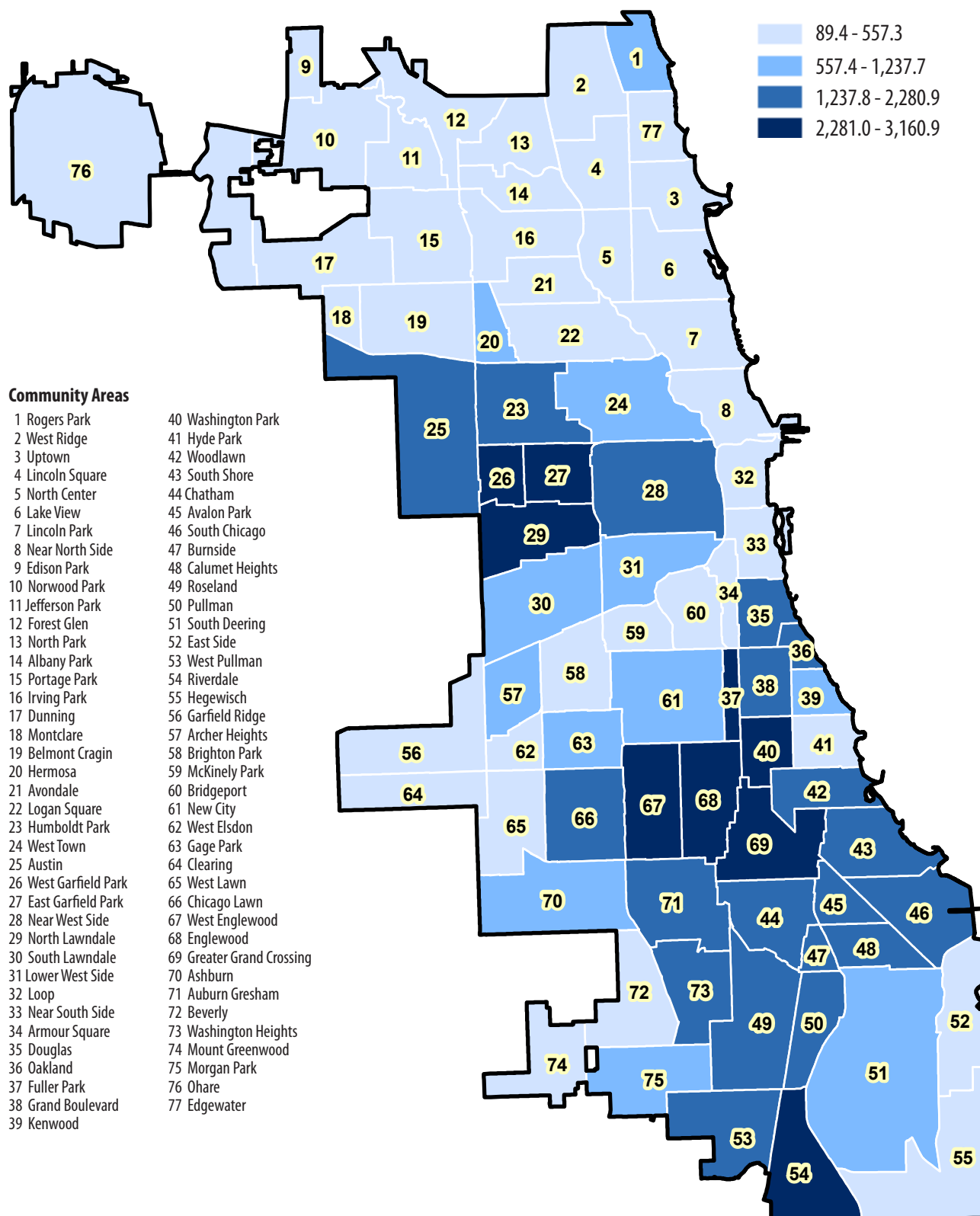
| Demographics Characteristics   |  | Year of Report |       |        |       |        |       | Estimated |       |        |       |                       |      |
|--|--|----------------|-------|--------|-------|--------|-------|-----------|-------|--------|-------|-----------------------|------|
|  |  | 2008           |       | 2009   |       | 2010   |       | 2011      |       | 2012   |       | Annual Percent Change |      |
|  |  | No.            | %     | No.    | %     | No.    | %     | No.       | %     | No.    | %     |                       |      |
| Sex  |  |                |       |        |       |        |       |           |       |        |       |                       |      |
| Male   |  | 7,334          | 28.8  | 7,413  | 27.7  | 7,023  | 27.8  | 8,500     | 30.6  | 8,364  | 29.9  |                       | 4.1  |
| Female   |  | 18,130         | 71.2  | 19,365 | 72.3  | 18,192 | 71.9  | 19,232    | 69.2  | 19,574 | 69.9  |                       | 1.5  |
| Race/Ethnicity   |  |                |       |        |       |        |       |           |       |        |       |                       |      |
| Black, non-Hispanic  |  | 18,297         | 71.9  | 18,552 | 69.2  | 13,359 | 52.8  | 15,714    | 56.5  | 14,479 | 51.7  |                       | -6.1 |
| White, non-Hispanic  |  | 1,172          | 4.6   | 1,118  | 4.2   | 977    | 3.9   | 1,292     | 4.6   | 1,125  | 4.0   |                       | 0.6  |
| Hispanic   |  | 2,770          | 10.9  | 2,478  | 9.2   | 2,838  | 11.2  | 3,456     | 12.4  | 3,107  | 11.1  |                       | 5.8  |
| Asian/PI, non-Hispanic   |  |                |       | 88     | 0.3   | 129    | 0.5   | 131       | 0.5   | 152    | 0.5   |                       | 18.0 |
| AI/AN, non-Hispanic  |  | 339            | 1.3   | 174    | 0.6   | 28     | 0.1   | 14        | 0.1   | 12     | 0.0   |                       | -6.7 |
| Other, non-Hispanic  |  |                |       |        |       | 170    | 0.7   | 481       | 1.7   | 279    | 1.0   |                       | 6.5  |
| Unknown  |  | 2,887          | 11.3  | 4,370  | 16.3  | 7,787  | 30.8  | 6,716     | 24.2  | 8,852  | 31.6  |                       | 30.6 |
| Age <sup>†</sup>   |  |                |       |        |       |        |       |           |       |        |       |                       |      |
| Less than 13   |  | 50             | 0.2   | 57     | 0.2   | 115    | 0.5   | 41        | 0.1   | 58     | 0.2   |                       | -0.3 |
| 13-19  |  | 8,491          | 33.3  | 8,612  | 32.1  | 9,245  | 36.6  | 10,282    | 37.0  | 10,304 | 36.8  |                       | 5.8  |
| 20-29  |  | 13,113         | 51.5  | 14,033 | 52.4  | 12,334 | 48.8  | 13,671    | 49.2  | 13,822 | 49.4  |                       | 0.8  |
| 20-24  |  | 8,774          | 34.5  | 9,449  | 35.3  | 8,405  | 33.2  | 9,359     | 33.7  | 9,548  | 34.1  |                       | 1.6  |
| 25-29  |  | 4,339          | 17.0  | 4,584  | 17.1  | 3,929  | 15.5  | 4,312     | 15.5  | 4,274  | 15.3  |                       | -0.9 |
| 30-39  |  | 2,854          | 11.2  | 3,059  | 11.4  | 2,636  | 10.4  | 2,804     | 10.1  | 2,839  | 10.1  |                       | -1.0 |
| 40-49  |  | 713            | 2.8   | 769    | 2.9   | 716    | 2.8   | 755       | 2.7   | 722    | 2.6   |                       | 0.1  |
| 50+  |  | 240            | 0.9   | 262    | 1.0   | 242    | 1.0   | 251       | 0.9   | 261    | 0.9   |                       | 1.3  |
| Total**  |  | 25,465         | 100.0 | 26,792 | 100.0 | 25,288 | 100.0 | 27,804    | 100.0 | 28,006 | 100.0 |                       | 2.3  |
| 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, 2012**

| Community Area        | Chlamydia Cases <sup>†</sup> | Rate <sup>§</sup> | Community Area                   | Chlamydia Cases <sup>†</sup> | Rate <sup>§</sup> |
|-----------------------|------------------------------|-------------------|----------------------------------|------------------------------|-------------------|
| 1 Rogers Park         | 336                          | 611.0             | 40 Washington Park               | 362                          | 3,089.5           |
| 2 West Ridge          | 218                          | 303.0             | 41 Hyde Park                     | 109                          | 424.4             |
| 3 Uptown              | 302                          | 535.8             | 42 Woodlawn                      | 471                          | 1,812.7           |
| 4 Lincoln Square      | 104                          | 263.3             | 43 South Shore                   | 917                          | 1,842.6           |
| 5 North Center        | 69                           | 216.5             | 44 Chatham                       | 522                          | 1,682.4           |
| 6 Lake View           | 402                          | 426.0             | 45 Avalon Park                   | 136                          | 1,335.3           |
| 7 Lincoln Park        | 209                          | 326.0             | 46 South Chicago                 | 508                          | 1,628.3           |
| 8 Near North Side     | 375                          | 465.9             | 47 Burnside                      | 57                           | 1,954.7           |
| 9 Edison Park         | 10                           | 89.4              | 48 Calumet Heights               | 193                          | 1,397.3           |
| 10 Norwood Park       | 40                           | 108.0             | 49 Roseland                      | 866                          | 1,940.9           |
| 11 Jefferson Park     | 66                           | 259.4             | 50 Pullman                       | 114                          | 1,556.3           |
| 12 Forest Glen        | 19                           | 102.7             | 51 South Deering                 | 187                          | 1,237.7           |
| 13 North Park         | 34                           | 189.6             | 52 East Side                     | 101                          | 438.3             |
| 14 Albany Park        | 218                          | 423.0             | 53 West Pullman                  | 551                          | 1,858.3           |
| 15 Portage Park       | 204                          | 318.1             | 54 Riverdale                     | 175                          | 2,699.8           |
| 16 Irving Park        | 213                          | 399.2             | 55 Hegewisch                     | 33                           | 350.1             |
| 17 Dunning            | 91                           | 217.0             | 56 Garfield Ridge                | 104                          | 301.3             |
| 18 Montclare          | 52                           | 387.3             | 57 Archer Heights                | 78                           | 582.4             |
| 19 Belmont Cragin     | 430                          | 546.1             | 58 Brighton Park                 | 221                          | 487.1             |
| 20 Hermosa            | 169                          | 675.7             | 59 McKinley Park                 | 87                           | 557.3             |
| 21 Avondale           | 137                          | 348.9             | 60 Bridgeport                    | 106                          | 331.5             |
| 22 Logan Square       | 380                          | 516.3             | 61 New City                      | 516                          | 1,162.8           |
| 23 Humboldt Park      | 884                          | 1,569.5           | 62 West Elsdon                   | 78                           | 430.7             |
| 24 West Town          | 493                          | 605.4             | 63 Gage Park                     | 276                          | 691.8             |
| 25 Austin             | 2,247                        | 2,280.9           | 64 Clearing                      | 63                           | 272.3             |
| 26 West Garfield Park | 569                          | 3,160.9           | 65 West Lawn                     | 152                          | 455.7             |
| 27 East Garfield Park | 587                          | 2,854.1           | 66 Chicago Lawn                  | 922                          | 1,657.4           |
| 28 Near West Side     | 1,095                        | 1,995.2           | 67 West Englewood                | 981                          | 2,763.0           |
| 29 North Lawndale     | 1,116                        | 3,107.6           | 68 Englewood                     | 896                          | 2,922.9           |
| 30 South Lawndale     | 560                          | 706.3             | 69 Gr. Grand Crossing            | 777                          | 2,383.3           |
| 31 Lower West Side    | 220                          | 615.1             | 70 Ashburn                       | 323                          | 786.3             |
| 32 Loop               | 115                          | 392.7             | 71 Auburn Gresham                | 951                          | 1,951.0           |
| 33 Near South Side    | 93                           | 434.8             | 72 Beverly                       | 101                          | 504.1             |
| 34 Armour Square      | 63                           | 470.5             | 73 Washington Heights            | 444                          | 1,675.9           |
| 35 Douglas            | 268                          | 1,469.5           | 74 Mount Greenwood               | 32                           | 167.6             |
| 36 Oakland            | 117                          | 1,977.0           | 75 Morgan Park                   | 237                          | 1,051.3           |
| 37 Fuller Park        | 80                           | 2,781.6           | 76 O'Hare                        | 26                           | 203.8             |
| 38 Grand Boulevard    | 486                          | 2,216.2           | 77 Edgewater                     | 224                          | 396.3             |
| 39 Kenwood            | 176                          | 986.5             | <b>Chicago Total<sup>¶</sup></b> | <b>28,006</b>                | <b>1,039.0</b>    |

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

**Figure 8. Chlamydia Rate (per 100,000) by Community Area, Chicago, 2012**



**Table 12. Trends in Syphilis Cases by Selected Demographic Characteristics, Chicago, 2008-2012**

| Demographic<br>Characteristic | Year of Report |       |      |       |      |       |      |       |      |       | Estimated<br>Annual<br>Percent<br>Change |
|-------------------------------|----------------|-------|------|-------|------|-------|------|-------|------|-------|--|
|                               | 2008           |       | 2009 |       | 2010 |       | 2011 |       | 2012 |       |  |
|                               | No.            | %     | No.  | %     | No.  | %     | No.  | %     | No.  | %     |  |
| Sex                           |                |       |      |       |      |       |      |       |      |       |  |
| Male                          | 398            | 93.6  | 530  | 94.5  | 602  | 87.8  | 616  | 91.3  | 526  | 89.9  | 7.3                                      |
| Female                        | 27             | 6.4   | 31   | 5.5   | 84   | 12.2  | 59   | 8.7   | 59   | 10.1  | 24.7                                     |
| Race/Ethnicity*               |                |       |      |       |      |       |      |       |      |       |  |
| Black, non-Hispanic           | 198            | 46.6  | 315  | 56.1  | 402  | 58.6  | 375  | 55.6  | 290  | 49.6  | 9.8                                      |
| White, non-Hispanic           | 136            | 32.0  | 153  | 27.3  | 152  | 22.2  | 170  | 25.2  | 156  | 26.7  | 3.9                                      |
| Hispanic                      | 64             | 15.1  | 69   | 12.3  | 92   | 13.4  | 86   | 12.7  | 99   | 16.9  | 11.5                                     |
| Asian/PI, non-Hispanic        | 17             | 4.0   | 6    | 1.1   | 11   | 1.6   | 8    | 1.2   | 9    | 1.5   | -9.4                                     |
| AI/AN, non-Hispanic           | 3              | 0.7   | 5    | 0.9   | 0    | 0.0   | 0    | 0.0   | 0    | 0.0   | N/A                                      |
| Other/Unknown                 | 7              | 1.6   | 13   | 2.3   | 29   | 4.2   | 36   | 5.3   | 31   | 5.3   | 49.1                                     |
| Transmission Group            |                |       |      |       |      |       |      |       |      |       |  |
| Male sex w/ Male              | 271            | 63.8  | 345  | 61.5  | 340  | 49.6  | 452  | 67.0  | 356  | 60.9  | 8.5                                      |
| Heterosexual Males            | 50             | 11.8  | 40   | 7.1   | 86   | 12.5  | 73   | 10.8  | 51   | 8.7   | 6.6                                      |
| Females                       | 27             | 6.4   | 31   | 5.5   | 84   | 12.2  | 59   | 8.7   | 59   | 10.1  | 24.7                                     |
| Male unknown                  | 77             | 18.1  | 145  | 25.8  | 176  | 25.7  | 90   | 13.3  | 117  | 20.0  | 3.7                                      |
| Age†                          |                |       |      |       |      |       |      |       |      |       |  |
| Less than 13                  | 0              | 0.0   | 0    | 0.0   | 0    | 0.0   | 0    | 0.0   | 0    | 0.0   | N/A                                      |
| 13-19                         | 30             | 7.1   | 36   | 6.4   | 35   | 5.1   | 43   | 6.4   | 36   | 6.2   | 5.6                                      |
| 20-29                         | 141            | 26.1  | 196  | 34.9  | 260  | 37.9  | 258  | 38.2  | 240  | 41.0  | 19.9                                     |
| 20-24                         | 65             | 8.2   | 109  | 19.4  | 136  | 19.8  | 136  | 20.1  | 115  | 19.7  | 29.7                                     |
| 25-29                         | 76             | 17.9  | 87   | 15.5  | 124  | 18.1  | 122  | 18.1  | 125  | 21.4  | 14.3                                     |
| 30-39                         | 114            | 26.8  | 170  | 30.3  | 167  | 24.3  | 174  | 25.8  | 152  | 26.0  | 6.2                                      |
| 40-49                         | 109            | 25.6  | 121  | 21.6  | 162  | 23.6  | 140  | 20.7  | 112  | 19.1  | 2.0                                      |
| 50+                           | 31             | 7.3   | 38   | 6.8   | 62   | 9.0   | 60   | 8.9   | 45   | 7.5   | 12.3                                     |
| HIV Co-Infection              |                |       |      |       |      |       |      |       |      |       |  |
| Male                          | 195            | 45.9  | 271  | 48.3  | 292  | 42.6  | 292  | 43.2  | --   | --    | 13.7                                     |
| Female                        | 0              | 0.0   | 2    | 0.3   | 4    | 0.6   | 2    | 0.3   | --   | --    |  |
| Total Co-Infected             | 195            | 45.9  | 273  | 48.6  | 296  | 43.2  | 294  | 43.5  | --   | --    | 14.0                                     |
| Total**                       | 425            | 100.0 | 561  | 100.0 | 686  | 100.0 | 675  | 100.0 | 585  | 100.0 | 8.6                                      |

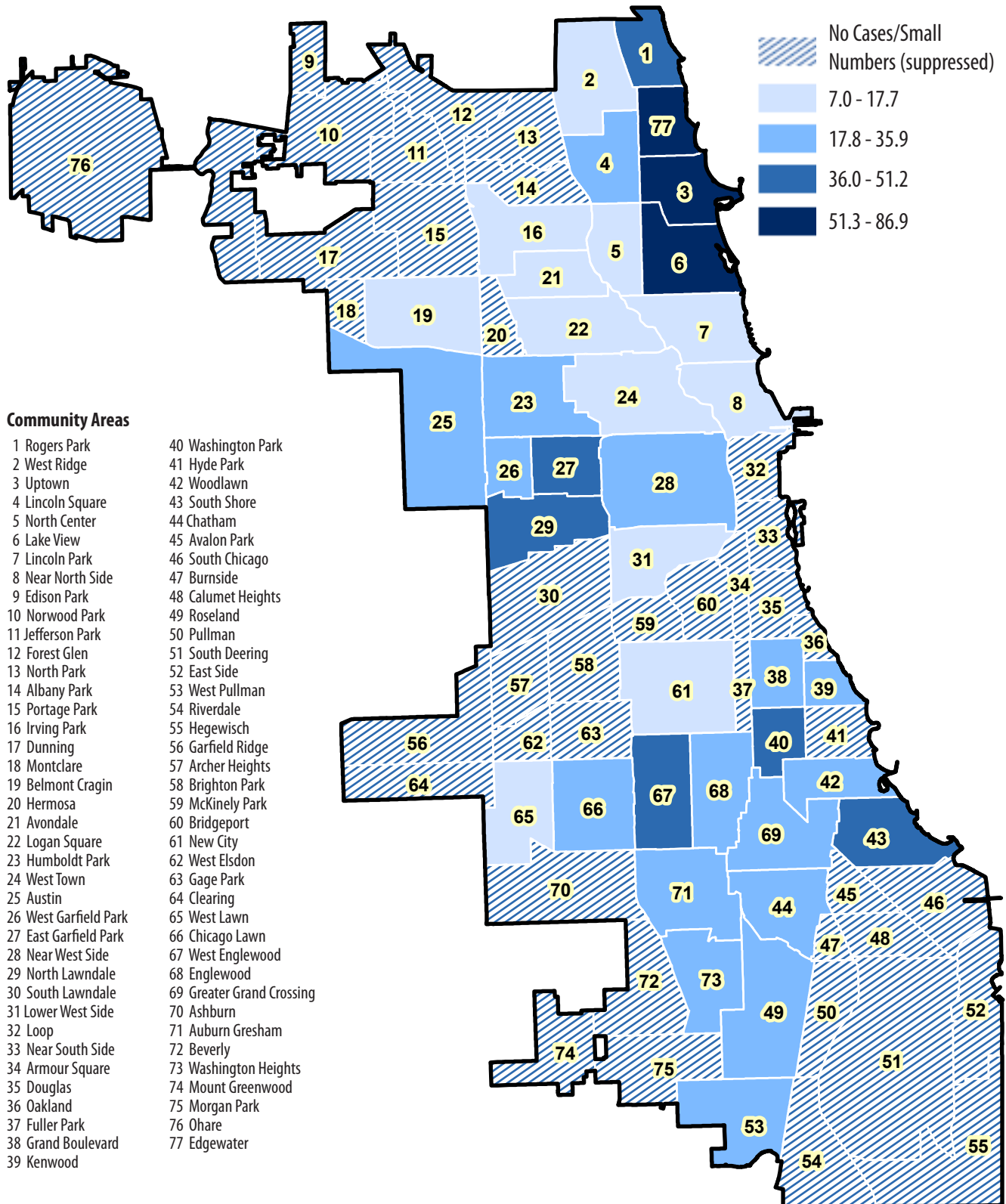
Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. †Age at time of diagnosis. \*\*Includes cases with unknown sex or age.

**Table 13. Syphilis Case Rates by Community Area, Chicago, 2012**

| Community Area        | P&S Syphilis Cases <sup>†</sup> | Rate <sup>§</sup> | Community Area                   | P&S Syphilis Cases <sup>†</sup> | Rate <sup>§</sup> |
|-----------------------|---------------------------------|-------------------|----------------------------------|---------------------------------|-------------------|
| 1 Rogers Park         | 27                              | 49.1              | 40 Washington Park               | 6                               | 51.2              |
| 2 West Ridge          | 5                               | 7.0               | 41 Hyde Park                     | <5                              | --                |
| 3 Uptown              | 48                              | 85.2              | 42 Woodlawn                      | 8                               | 30.8              |
| 4 Lincoln Square      | 10                              | 25.3              | 43 South Shore                   | 24                              | 48.2              |
| 5 North Center        | 5                               | 15.7              | 44 Chatham                       | 8                               | 25.8              |
| 6 Lake View           | 66                              | 69.9              | 45 Avalon Park                   | <5                              | --                |
| 7 Lincoln Park        | 8                               | 12.5              | 46 South Chicago                 | <5                              | --                |
| 8 Near North Side     | 8                               | 9.9               | 47 Burnside                      | <5                              | --                |
| 9 Edison Park         | <5                              | --                | 48 Calumet Heights               | <5                              | --                |
| 10 Norwood Park       | <5                              | --                | 49 Roseland                      | 14                              | 31.4              |
| 11 Jefferson Park     | <5                              | --                | 50 Pullman                       | <5                              | --                |
| 12 Forest Glen        | <5                              | --                | 51 South Deering                 | <5                              | --                |
| 13 North Park         | <5                              | --                | 52 East Side                     | <5                              | --                |
| 14 Albany Park        | <5                              | --                | 53 West Pullman                  | 9                               | 30.4              |
| 15 Portage Park       | <5                              | --                | 54 Riverdale                     | <5                              | --                |
| 16 Irving Park        | 8                               | 15.0              | 55 Hegewisch                     | <5                              | --                |
| 17 Dunning            | <5                              | --                | 56 Garfield Ridge                | <5                              | --                |
| 18 Montclare          | <5                              | --                | 57 Archer Heights                | <5                              | --                |
| 19 Belmont Cragin     | 6                               | 7.6               | 58 Brighton Park                 | <5                              | --                |
| 20 Hermosa            | <5                              | --                | 59 McKinley Park                 | <5                              | --                |
| 21 Avondale           | 5                               | 12.7              | 60 Bridgeport                    | <5                              | --                |
| 22 Logan Square       | 13                              | 17.7              | 61 New City                      | 6                               | 13.5              |
| 23 Humboldt Park      | 15                              | 26.6              | 62 West Elsdon                   | <5                              | --                |
| 24 West Town          | 9                               | 11.1              | 63 Gage Park                     | <5                              | --                |
| 25 Austin             | 27                              | 27.4              | 64 Clearing                      | <5                              | --                |
| 26 West Garfield Park | 5                               | 27.8              | 65 West Lawn                     | 5                               | 15.0              |
| 27 East Garfield Park | 7                               | 34.0              | 66 Chicago Lawn                  | 16                              | 28.8              |
| 28 Near West Side     | 12                              | 21.9              | 67 West Englewood                | 15                              | 42.2              |
| 29 North Lawndale     | 18                              | 50.1              | 68 Englewood                     | 11                              | 35.9              |
| 30 South Lawndale     | <5                              | --                | 69 Gr. Grand Crossing            | 8                               | 24.5              |
| 31 Lower West Side    | 6                               | 16.8              | 70 Ashburn                       | <5                              | --                |
| 32 Loop               | <5                              | --                | 71 Auburn Gresham                | 16                              | 32.8              |
| 33 Near South Side    | <5                              | --                | 72 Beverly                       | <5                              | --                |
| 34 Armour Square      | <5                              | --                | 73 Washington Heights            | 7                               | 26.4              |
| 35 Douglas            | <5                              | --                | 74 Mount Greenwood               | <5                              | --                |
| 36 Oakland            | <5                              | --                | 75 Morgan Park                   | <5                              | --                |
| 37 Fuller Park        | <5                              | --                | 76 O'Hare                        | <5                              | --                |
| 38 Grand Boulevard    | 7                               | 31.9              | 77 Edgewater                     | 39                              | 69.0              |
| 39 Kenwood            | 5                               | 28.0              | <b>Chicago Total<sup>¶</sup></b> | <b>577</b>                      | <b>21.4</b>       |

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

**Figure 9. Primary and Secondary Syphilis Rate (per 100,000)  
by Community Area, Chicago, 2012**





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## Special Focus: Congenital Syphilis

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Despite the existence of effective prevention measures, syphilis remains a problem with an estimated 13,970 individuals diagnosed with P&S Syphilis in the United States in 2011. (1) Pregnant women who are infected with syphilis can transmit the infection to the fetus, causing congenital syphilis (CS), with serious adverse outcomes for the pregnancy in up to 80% of cases. More newborn infants are affected by congenital syphilis than any other neonatal infection, including human immunodeficiency virus (HIV) infection. During 2011, 360 cases of congenital syphilis were reported nationally, compared to an estimated 162 cases of perinatal HIV infection during 2010. (2) Congenital syphilis rates were 15 times and 3.5 times higher among infants born to NH Black and Hispanic mothers (33.0 and 7.6 cases per 100,000 live births, respectively) compared to NH White mothers (2.2 cases per 100,000 live births). (3)

Unlike many neonatal infections, CS is a preventable disease, which can be eliminated through effective prenatal screening, and the timely treatment of infected pregnant women. Elimination of CS would reduce the numbers of miscarriages, stillbirths, preterm and low-birth-weight infants, and perinatal deaths.

Trends in congenital syphilis usually follow trends in P&S syphilis among women, with a lag of 1 to 2 years. In Chicago, the total number of P&S syphilis among women increased by 118% (from 27 cases to 59) during 2008–2012 (Table 12). The total number of congenital syphilis also increased by 83% (from 12 cases to 22 cases per) during 2008–2012 (Table 14). The rate of P&S syphilis among women in Chicago was 4.3 cases per 100,000 women in 2012 and the rate of congenital syphilis was 33.2 cases per 100,000 live births in 2012. Since 2008, there have been 73 CS cases, of which 3 were stillborn. NH Black mothers accounted for 81% of all CS cases, while Hispanic mothers account for 10%. The highest numbers of P&S syphilis among women and congenital syphilis were observed in largely impoverished neighborhoods on the south and west sides of Chicago (Figure 4).

Although most cases of congenital syphilis occurred among cases in Chicago in 2012, among infants whose mothers have had some prenatal care, late or limited prenatal care (55%) has been associated with congenital syphilis. Failure of health care providers to adhere to maternal syphilis screening recommendations also contributes to the occurrence of

congenital syphilis. (4)

Given the high preventability of CS and the high numbers of reported CS cases in Chicago, we are proposing four guiding principles to control congenital syphilis:

- Enhance CS surveillance activities.
- Eliminate barriers to care (community perception of risk, financial barriers, the limited availability of health care providers, provider difficulty in communicating with patients, organizational barriers to accessibility and acceptability of treatment, lack of syphilis knowledge among providers, poor coordination of services, and patients' inadequate understanding of the need for care).
- Measure screening for syphilis among females in prenatal and birthing facilities; and
- Establish partnerships and collaborations with community-based organizations (CBOs), maternal/child health organizations, and providers throughout the city of Chicago.

### References:

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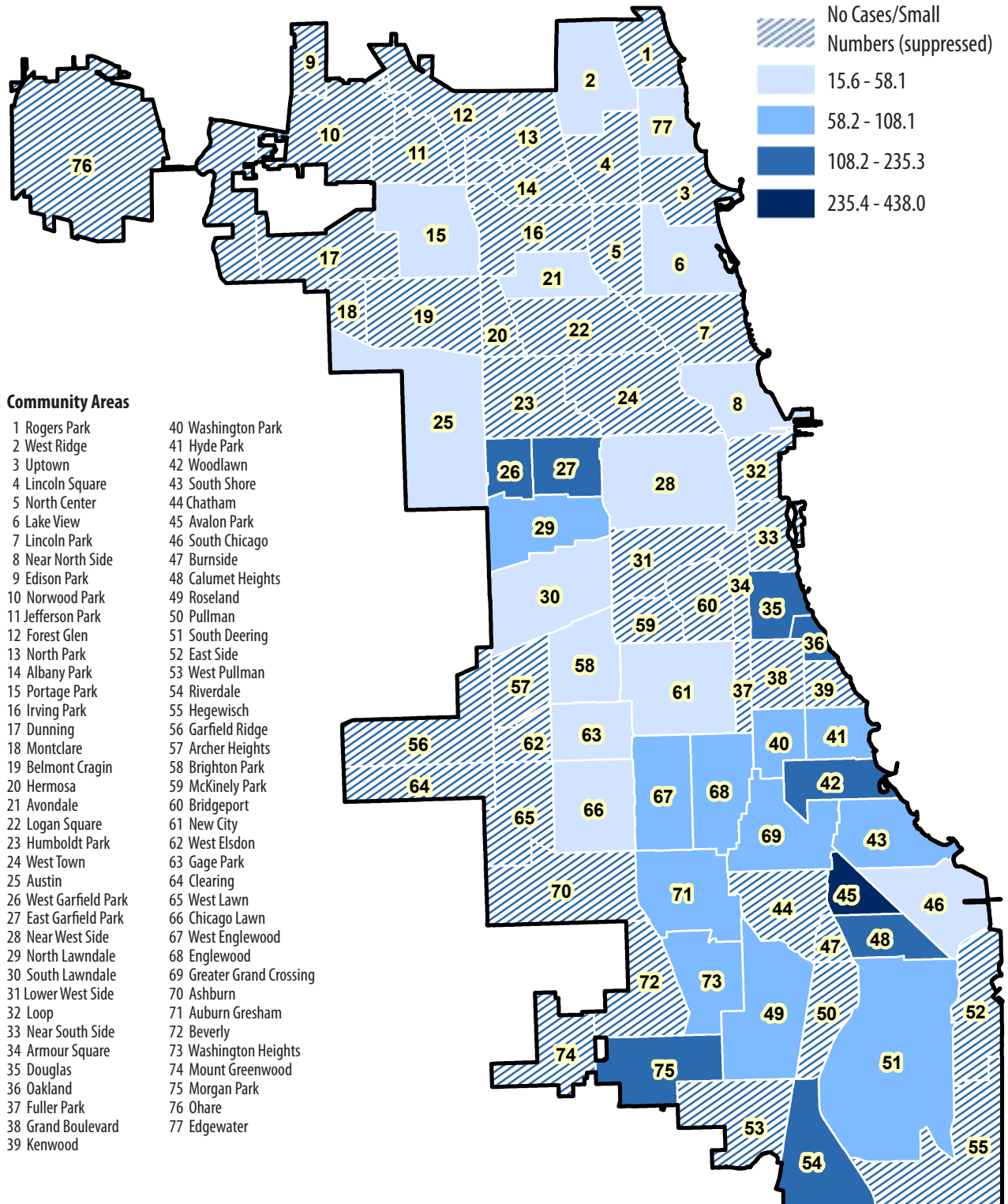


**Table 14. Congenital Syphilis Cases by Selected Demographic Characteristics, Chicago, 2008-2012**

|                                 | Year of Report |      |      |       |      |      |      |      |      |       | Estimated<br>Annual Percent<br>Change |
|---------------------------------|----------------|------|------|-------|------|------|------|------|------|-------|---------------------------------------|
| Demographics<br>Characteristics | 2008           |      | 2009 |       | 2010 |      | 2011 |      | 2012 |       |                                       |
|                                 | No.            | %    | No.  | %     | No.  | %    | No.  | %    | No.  | %     |                                       |
| Case Classification             |                |      |      |       |      |      |      |      |      |       |                                       |
| Presumptive Cases               | 11             | 91.7 | 10   | 100.0 | 18   | 95.0 | 9    | 90.0 | 22   | 100.0 | 13.7                                  |
| Stillborns                      | 1              | 33.3 | 0    | 0.0   | 1    | 5.0  | 1    | 10.0 | 0    |       | N/A                                   |
| Race/Ethnicity                  |                |      |      |       |      |      |      |      |      |       |                                       |
| Black, non-Hispanic             | 8              | 66.7 | 9    | 90.0  | 16   | 84.2 | 9    | 90.0 | 17   | 77.3  | 16.3                                  |
| White, non-Hispanic             | 0              | 0.0  | 0    | 0.0   | 0    | 0.0  | 0    | 0.0  | 1    | 4.5   | N/A                                   |
| Hispanic                        | 3              | 25.0 | 0    | 0.0   | 2    | 10.5 | 0    | 0.0  | 2    | 9.1   | N/A                                   |
| Asian/PI, non-Hispanic          | 0              | 0.0  | 1    | 10.0  | 0    | 0.0  | 0    | 0.0  | 2    | 9.0   | 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              | 33.3 | 0    | 0.0   | 1    | 5.3  | 1    | 10.0 | 0    | 0.0   | N/A                                   |
| Multiple, non-Hispanic^         | N/A            | 0.0  | N/A  | 0.0   | 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                           | 0              | 0.0  | 2    | 20.0  | 3    | 15.8 | 2    | 20.0 | 5    | 22.7  | N/A                                   |
| 20-29                           | 10             | 83.3 | 3    | 30.0  | 12   | 63.2 | 6    | 60.0 | 15   | 68.2  | 16.2                                  |
| 20-24                           | 4              | 33.3 | 3    | 33.3  | 9    | 47.4 | 4    | 40.0 | 13   | 59.1  | 30.3                                  |
| 25-29                           | 6              | 50.0 | 0    | 0.0   | 3    | 15.8 | 2    | 20.0 | 2    | 9.1   | N/A                                   |
| 30-39                           | 2              | 66.7 | 3    | 33.3  | 3    | 15.8 | 2    | 20.0 | 1    | 4.5   | -16.4                                 |
| 40+                             | 0              | 0.0  | 2    | 20.0  | 1    | 5.3  | 0    | 0.0  | 1    | 50.0  | N/A                                   |
| Median Age                      | 25             |      | 24   |       | 25   |      | 22   |      | 22   |       |                                       |
| Total                           | 12             |      | 10   |       | 19   |      | 10   |      | 22   |       | 12.9                                  |

*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 Rate (per 100,000 live births) by Community Area, Chicago, 2008-2012 (city total rate = 33.2)**



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## Appendix A: Technical Notes

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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 made a number of modifications to STI/HIV Chicago. A description of the changes and other technical notes follow.

In January, 2006 Illinois transitioned from a code-based to a name-based HIV reporting system. To date, approximately, 80% of previously reported code-based cases now have names and are in the new surveillance database (named eHARS) provided by the Centers for Disease Control and Prevention (CDC) in June, 2009. While efforts are still underway to ascertain names on code-based HIV cases, epidemiological analyses of HIV and AIDS in this section will be based only on name-based HIV cases in eHARS and thus prevalence numbers in this report may be smaller than those in previous reports. 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 4/1/2013.

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.

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. Reporting delays are important when interpreting trends in case numbers and rates over time and especially, the most recent year of diagnosis. Almost 50% of HIV/AIDS cases were actually reported within the same calendar year in which they were diagnosed, and more than 85% of all cases are reported within two calendar years of diagnosis. In order to present the most complete data as possible, we will be presenting trend data through 2009, the year of diagnosis for which we believe data are close to 100% complete. Additional cases continue to be reported in subsequent years and new cases are identified through laboratory reporting and registry matches. Thus, the number of cases diagnosed for each year are subject to change as new information is received from any of the reporting sources.

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 whose 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

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## Appendix A: Technical Notes cont'd

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Administrative Code 693 (Control of sexually transmissible infections code). Gonorrhea is a bacterial STI caused by *Neisseria gonorrhoea*; 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. Treatment of gonorrhea is especially important due to antibiotic resistance therefore dual antibiotic treatment is required to overcome the infection. Timely reporting of gonorrhea and treatment adheres to the “critical period” defined by the State of Illinois Department of Public Health; that is “60 days before the date of specimen collection and she extended through the date of treatment if the patient was not treated at the time specimen was collect” (IDPH, 2013).

Chlamydia 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). Chlamydia is a bacterial STI caused by *Chlamydia trachomatis*; infection can be asymptomatic more so in females than males (Heymann, 2004). Co-infection with gonorrhea can occur. Left untreated, disease sequelae can include pelvic inflammatory disease (PID), ectopic pregnancy, and infertility. Timely reporting of gonorrhea and treatment adheres to the “critical period” defined by the State of Illinois Department of Public Health; that is “60 days before the date of specimen collection and she extended through the date of treatment if the patient was not treated at the time specimen was collect” (IDPH, 2013).

Syphilis is one of three 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 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.

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## Appendix B: Geocoding Methodology and Limitations

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### **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**

The INEDSS data file, containing only street address and a record identifier (state case number), is converted from Microsoft Excel to a common delimited (.csv) file. This file is 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., 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 HIPPA 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 than those officially recorded by the government.
- C. Addresses may end at jurisdictional boundaries.

In 2012, 37,721 cases of Gonorrhea and Chlamydia were reported to the Chicago Department of Public Health. Of these, 2,371 (6.3%) were not geocoded. This represents a 3.6% (N=3,617) decline in the proportion of address that were not geocoded in the 2011 INEDSS data file (3,617/36,458; 9.9%).

### **Limitations in Determining Geographic Patterns 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: HIV Continuum of Care, Chicago, 2010

| Legend   | #      | %    | Data Source                                    |
|--|--------|------|--|
| # New HIV Diagnoses (2010)                             | 1,011  | 100% | Chicago HIV/AIDS Reporting System <sup>a</sup> |
| % Linked to Care within 3 months of 2010 HIV Diagnosis | 790    | 78%  | Chicago HIV/AIDS Reporting System <sup>b</sup> |
| # Diagnosed thru 2009 and living w/HIV in 2010         | 19,391 | 100% | Chicago HIV/AIDS Reporting System <sup>c</sup> |
| % Retained in Care (at least 1 visit in 2010)          | 11,823 | 61%  | Medical Monitoring Project (MMP) <sup>d</sup>  |
| # Retained in Care                                     | 11,823 | 100% | Medical Monitoring Project (MMP) <sup>e</sup>  |
| % On Antiretroviral Therapy                            | 10,655 | 90%  | Medical Monitoring Project (MMP) <sup>f</sup>  |
| % Virally Suppressed (<200 copies/ml)                  | 10,320 | 87%  | Medical Monitoring Project (MMP) <sup>g</sup>  |

The Medical Monitoring Project (MMP) is a cross-sectional survey with a 3-stage sampling design to obtain locally representative estimates of HIV-infected adults receiving medical care. Jurisdictions, outpatient HIV care facilities, and patients with at least 1 HIV medical care visit are randomly sampled. Data are collected through medical record review and a face-to-face interview. Population estimates are weighted for the probability of selection and adjusted for non-response.

<sup>a</sup>Number of persons ≥18 years of age diagnosed with HIV infection between 1/1/2010 and 12/31/2010.

<sup>b</sup>Percent of persons ≥18 years of age with ≥=1 CD4 or Viral Load or HIV-1 Genotype test reported within 3 months of HIV diagnosis among those diagnosed with HIV infection from 1/1/2010 to 12/31/2010.

<sup>c</sup>Number of persons ≥18 years of age diagnosed with HIV infection through 12/31/2009 and living on 12/31/2010.

<sup>d</sup>Total weighted population estimate of HIV-infected adults who had at least one documented HIV medical care visit in 2010 applied to number of persons ≥18 years of age diagnosed with HIV infection through 12/31/2009 and living on 12/31/2010. [11,823/19,391 = 61%]

<sup>e</sup>Total weighted population estimate of HIV-infected adults who had at least one documented HIV medical care visit in 2010.

<sup>f</sup>Total weighted percent of HIV-infected adults who had at least one documented HIV medical care visit in 2010 with a documented prescription for antiretroviral therapy in 2010.

<sup>g</sup>Total weighted percent of HIV-infected adults who had at least one documented HIV medical care visit in 2010 and had a documented HIV viral load of undetectable or ≤200 copies/mL at most recent viral load test in 2010.

### References for Alternate Perspective Continuum:

1. Cohen MS, Chen YQ, McCauley M, et al. *Prevention of HIV-1 infection with early antiretroviral therapy*. N Engl J Med. 2011; 365:493-505.
2. Centers for Disease Control and Prevention. *HIV Surveillance Supplemental Report*. October 2013
3. Centers for Disease Control and Prevention. *Vital Signs: HIV Prevention Through Care and Treatment — United States*. MMWR. November 29, 2011.

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## Appendix D: List of Acronyms

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AI/AN = American Indian/Alaskan Native  
AIDS = Acquired Immunodeficiency Syndrome  
ART = Anti-Retroviral therapy  
CDC = Centers for Disease Control and Prevention  
FtM = Female to Male Transgender  
HAART = Highly active anti-retroviral therapy  
HIV = Human Immunodeficiency Virus  
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  
NH = Non-Hispanic  
PI = Pacific Islander  
P&S = Primary and secondary syphilis  
STI = Sexually transmitted infection

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