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### **EXECUTIVE AND DATA SUMMARY**

#### **EXECUTIVE SUMMARY**

Every Chicagoan should have the opportunity to lead a healthy life. It is the mission of the Chicago Department of Public Health (CDPH) to promote and improve health by engaging residents, communities and stakeholders in establishing services and policies that prioritize residents with the greatest need. We do this work by making data-informed decisions and allocating valuable resources and expertise to where they are needed most.

The annual CDPH HIV/STI Surveillance Report provides CDPH and our many partners in the public health system with the data needed to treat and prevent HIV and other sexually transmitted infections, including chlamydia, gonorrhea, syphilis and congenital syphilis (STIs). The findings of this 2019 report show that HIV continues to disproportionately impact certain groups, including men; gay, bisexual and other men who have sex with men (MSM); and Black communities. The new HIV Services Portfolio (CDPH's enhanced HIV programming) is designed to address challenges and barriers experienced by these groups to ensure all Chicagoans have the opportunity to achieve sexual health and wellness.

The 2019 report also focuses on HIV and STIs in youth and among participants in CDPH's Housing Opportunities for People Living with HIV (HOPWA) program. In Section Three, we present data about the HIV epidemic and STIs among adolescents and young adults aged 13-29 years old. This age group continues to face the highest number of new HIV diagnoses and the highest rate of STIs in Chicago. Section Four presents data for Chicago HOPWA participants, which demonstrates how housing assistance and other supportive services impact HIV health outcomes among people living with HIV (PLWH) at each stage of the HIV Continuum of Care.

#### **DATA SUMMARY**

#### HIV CONTINUUM OF CARE

- In 2018, 81% of persons newly diagnosed with HIV in Chicago were linked to HIV medical care within one month of HIV diagnosis, and 95% of persons newly diagnosed were linked to medical care within 12 months.
- Among all PLWH in 2018, 68% accessed care and 41% were retained in medical care.
- 52% of PLWH in Chicago achieved viral suppression in 2018, an increase when compared to 2017 data (48%).

#### HIV

• In 2018, a total of 734 new HIV diagnoses were reported among Chicago residents – the lowest number since 1988 – yielding a rate of 27.2 per 100,000 population. This rate represents a 3% decrease compared with 2017 (27.9 cases per 100,000 population) and a 25% decrease compared to 2014 (36.1 cases per 100,000).

### **EXECUTIVE AND DATA SUMMARY**

- A total of 23,580 individuals had been diagnosed with HIV through 2017 and were living with HIV in 2018, yielding a rate of 873.7 per 100,000 population. This rate represents almost a 2% increase in PLWH compared to 2016 (859.4 cases per 100,000 population).
- There were 5.2 times as many new HIV diagnoses in men than in women.
- In 2018, individuals aged 20-29 years old represented 43% of all new HIV diagnoses.
- Non-Hispanic (NH) Blacks represented 55% of new HIV diagnoses, 60% of AIDS diagnoses and 56% of late HIV diagnoses.
- Compared with other HIV transmission groups, there were 3.8 times more new HIV diagnoses among MSM than those reporting heterosexual contact transmission (HET) and 13 times more than those reporting injection drug use (IDU).
- In 2018, the highest rates of new HIV infection diagnoses were seen in individuals residing in Washington Park (76.8 per 100,000), Chatham (64.5 per 100,000) and Grand Boulevard (59.3 per 100,000). The highest rates of PLWH were observed in Uptown (2,004.9 per 100,000), Edgewater (1,886.0 per 100,000) and Rogers Park (1,551.2 per 100,000).

# CHLAMYDIA, GONORRHEA, PRIMARY & SECONDARY SYPHILIS AND CONGENITAL SYPHILIS

- In 2018, a total of 30,608 chlamydia cases, 12,679 gonorrhea cases and 877 primary and secondary (P&S) syphilis cases were reported to the CDPH.
- There were 1.4 times as many reported chlamydia cases in women than men, 2.1 times as many reported gonorrhea cases in men than women and 10.5 times as many reported P&S syphilis cases in men than women. MSM continued to account for the majority (81%) of P&S syphilis cases in 2018.
- In 2018, individuals aged 20-29 years old were the most frequently diagnosed group for chlamydia, gonorrhea and P&S syphilis.
- The number of reported STIs was highest among NH Blacks: 44% of reported chlamydia cases, 49% of reported gonorrhea cases and 38% of reported P&S syphilis cases.
- In 2018, the three community areas with the highest chlamydia case rates were Riverdale (2,884.9 per 100,000), Washington Park (2,833.5 per 100,000) and North Lawndale (2,804.1 per 100,000).
- In 2018, the three community areas with the highest gonorrhea case rates were North Lawndale (1,166.7 per 100,000), Riverdale (1,157.1 per 100,000) and Washington Park (1,152.2 per 100,000).
- All community areas with the highest rates of chlamydia and gonorrhea included areas considered to have a high economic hardship. See Appendix D for more information about the Chicago Community Area Economic Hardship Index.
- In 2018, the three community areas with the highest P&S syphilis case rates were Uptown (131.3 per 100,000 population), Washington Park (93.9 per 100,000 population) and Edgewater (90.2 per 100,000 population).
- There were 11 reported cases of congenital syphilis in 2018 in Chicago, similar to 2017.
- NH Black mothers accounted for approximately 73% of the reported congenital syphilis cases in 2018.

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### HIV

#### HIV CONTINUUM OF CARE, CHICAGO, 2018

The HIV Continuum of Care is an important tool for monitoring progress and identifying opportunities for HIV prevention, care, treatment and housing interventions. Since ensuring PLWH are engaged in care is critical to both individual and population-level health, the continuum depicts two paths: (1) the percentages of <a href="mailto:newly diagnosed">newly diagnosed</a> individuals linked to HIV medical care over the course of one year and (2) the percentages of PLWH at specific levels of care engagement and viral suppression.

In 2018, 81.4% of those newly diagnosed with HIV were linked to HIV medical care within one month of HIV diagnosis. By 12 months post-diagnosis, 94.7% of persons newly diagnosed were linked to medical care. For individuals diagnosed with HIV through 2017 and living with HIV in 2018, 68.0% had accessed medical care (having at least one medical visit in 2018), 41.1% were considered to be retained in care (having at least two medical visits in 2018) and 60.0% had a viral load test in the past 12 months. Reaching viral suppression for PLWH is important to living a high-quality and healthy life and to reducing the likelihood HIV will be transmitted to others. For individuals diagnosed with HIV through 2017 and living with HIV in 2018, 52.0% were considered to be virally suppressed (< 200 copies/mL). The data represented in the continuum illustrate a continuing need to strengthen HIV prevention, care, treatment and housing interventions to ensure that all newly diagnosed PLWH are rapidly linked to medical care and prescribed antiretroviral medications and, once engaged in care, that PLWH have every opportunity to stay in care and achieve viral suppression (Figure 1.1).

#### HIV IN CHICAGO

In 2018, a total of 734 individuals were newly diagnosed with HIV in the City of Chicago, with a corresponding rate of 27.2 per 100,000 population (Table 1.1) - the lowest ever reported since the late 1980s. However, caution should be taken when comparing 2018 data to previous years as the reduction in new diagnoses may be due to incomplete provider and laboratory reporting. The number of individuals newly diagnosed with AIDS (stage 3 HIV infection) increased by 4.2% from 349 in 2017 to 351 in 2018, though the 2017 and 2018 AIDS case rates were the same - 13.0 per 100,000 population (Table 1.1). Of those newly diagnosed in 2018, a total of 160 individuals were considered to have a late/concurrent diagnosis (individuals were diagnosed with HIV and subsequently AIDS within the 12-month period), which is an increase of 2.6% from 2017 (N=156). This increase in late/concurrent diagnosis signals an opportunity to improve early diagnosis of HIV among people living in Chicago (Table 1.2).

In 2018, a total of 23,580 individuals were diagnosed with HIV through 2017 and living with HIV in 2018, which corresponds to a rate of 873.7 per 100,000 population (Table 1.1). Of those living with HIV in 2018, a total of 12,018 individuals were living with AIDS (Table 1.3).

#### HIV BY CHICAGO COMMUNITY AREA

In 2018, the three community areas with the highest average HIV infection diagnosis rates were Washington Park (76.8 per 100,000), Chatham (64.5 per 100,000) and Grand Boulevard (59.3 per 100,000) (Figure 1.2; Appendix Table A.1).

Similar to previous years, in 2017, the three community areas with the highest HIV prevalence rates were Uptown (2,004.9 per 100,000), Edgewater (1,886.0 per 100,000) and Rogers Park 1,551.2 100,000) (Figure 1.3; Appendix Table A.2).

#### HIV BY SEX/GENDER

In 2018, there were 5.2 times as many new HIV diagnoses in men than women, with 615 cases reported among males and 119 cases reported among females (Table 1.1). The largest number of late diagnoses occurred among males (N=132) when compared to females (N=24), with males accounting for 82.5% of late diagnoses (Table 1.2). New diagnoses among transgender individuals accounted for 3.1% (N=23) of the total 2018 new diagnoses (Table 1.2). While efforts to accurately categorize cases among transgender individuals have improved, estimates of new diagnoses may represent an underestimate.

In 2017, there were 4.2 times as many men living with HIV than women (18,750 males and 4,492 females) (Table 1.3). HIV prevalence among transgender individuals accounted for 1.4% (N=338) of the total Chicago prevalence (Table 1.3). While efforts to accurately categorize cases among transgender individuals have improved, estimates of prevalent cases may represent an underestimate.

#### **HIV BY AGE**

In 2018, 36.4% of reported new HIV diagnoses were among persons aged 20-29 years old. This age group also represented the largest percentage of individuals with a late HIV diagnosis, accounting for 51.2% (82/160) of reported late diagnosed cases (Table 1.2).

In 2018, individuals aged 40 years and older accounted for 68.5% of those individuals living with HIV in the City of Chicago (Table 1.3). Individuals aged 20-29 years old (who accounted for the largest number of new diagnoses) only represented 11.8% of those living with HIV in 2018 (Table 1.3).

### HIV BY RACE/HISPANIC ETHNICITY

In 2018, NH Blacks were the most frequently diagnosed population, representing 55.2% of new HIV diagnoses, 59.8% of AIDS diagnoses and 55.6% of late diagnoses (Table 1.2). When compared to the next two populations with the largest number of reported cases, there were 2.4 times as many new HIV diagnoses among NH Blacks than among Hispanics and 3.1 times as many new HIV diagnoses than among NH Whites. (Table 1.2).

In 2018, NH Blacks accounted for half (49.9%) of those individuals living with HIV in the City of Chicago (Table 1.3). When compared with the next two populations with the largest number of PLWH, there were 2.1 times more NH Blacks living with HIV than NH Whites living with HIV and 2.5 times more than Hispanics living with HIV (Table 1.3).

#### HIV BY TRANSMISSION GROUP

In 2018, MSM accounted for the majority (72.2%) of new HIV diagnoses in the City of Chicago (Table 1.2). Compared with other HIV transmission groups, there were 3.8 times more new HIV diagnoses among MSM than those reporting HET and 13.3 than those reporting IDU (Table 1.2).

In 2018, MSM represented 63.9% of individuals living with HIV. In comparison to other HIV transmission groups, there were 3.8 times more new HIV diagnoses among MSM than those reporting HET and 13 times more than those reporting IDU (Table 1.3).

#### **CHLAMYDIA**

#### CHLAMYDIA IN CHICAGO

Chlamydia, a sexually transmitted bacterial infection caused by Chlamydia trachomatis, is the most common notifiable disease in the United States. According to the CDC 2018 STD Surveillance Report, chlamydia is one of the most prevalent STIs and has comprised the largest proportion of all STIs reported to CDC since 1944. In 2018, a total of 30,608 chlamydia cases were reported in the City of Chicago (Table 1.4). This case count corresponds to a rate of 1,135.5 per 100,000 population (Table 1.1).

#### CHLAMYDIA BY CHICAGO COMMUNITY AREA

In 2018, the rates of reported cases of chlamydia ranged from 178.3 to 2,884.9 per 100,000 population throughout the City of Chicago (Figure 1.4). The three community areas with the highest average chlamydia case rates from in 2018 were Riverdale (2,884.9 per 100,000), Washington Park (2,833.5 per 100,000) and North Lawndale (2,804.1 per 100,000) (Figure 1.4; Appendix Table A.3).

#### CHLAMYDIA BY SEX

In 2018, there were 1.4 times as many reported chlamydia cases in women than men, with 17,933 cases reported among females and 12,672 cases reported among males (Table 1.4). This disparity between the sexes is consistent with previous years and likely reflects a larger number of females screened for this infection. It is also likely that many of the sex partners of women with chlamydia did not receive a diagnosis nor were they reported as having chlamydia infections.

#### CHLAMYDIA BY AGE

The number of reported cases of chlamydia were highest among adolescents and young adults aged 13-29 years old. In 2018, individuals aged 20-29 years old represented 54.0% of all reported chlamydia cases (Table 1.4). If this group were combined with those aged 13-19 years old, individuals 13 to 29 years represented 78.6% of all reported chlamydia cases in 2018 (Table 1.4).

#### CHLAMYDIA BY RACE/HISPANIC ETHNICITY

In 2018, NH Blacks were the most frequently diagnosed population, representing 43.6% of reported chlamydia cases in Chicago (Table 1.4). When compared to the next two populations with the largest number of reported cases, there were 2.8 times as many chlamydia cases in NH Blacks compared to Hispanics and 4.7 times as many compared to NH Whites (Table 1.4).

#### CHLAMYDIA + HIV CO-INFECTION

In 2018, a total of 1,297 (4.2%) reported chlamydia cases were also co-infected with HIV (Table 1.5). The majority of co-infected individuals were male (93.2%), NH Black (44.8%), aged 20-29 years old (35.6%) and MSM (66.9%) (Table 1.5).

#### GONORRHEA

#### **GONORRHEA IN CHICAGO**

Gonorrhea, a sexually transmitted bacterial infection caused by *Neisseria gonorrhoeae*, is the second most commonly reported notifiable disease in the United States and Chicago. In 2018, a total of 12,679 gonorrhea cases were reported in the City of Chicago (Table 1.1). This case count corresponds to a rate of 470.4 per 100,000 population (Table 1.1).

According to the CDC 2018 STD Surveillance Report, gonorrhea infections, like those resulting from *Chlamydia trachomatis*, are a major cause of pelvic inflammatory disease (PID) in the United States which can lead to serious outcomes among women, such as tubal infertility, ectopic pregnancy and chronic pelvic pain. In addition, epidemiologic and biologic studies provide evidence that gonococcal infections facilitate the transmission of HIV infection. Also of concern, *Neisseria gonorrhoeae* has progressively developed resistance to many of the antimicrobials used for treatment of gonorrhea.

#### GONORRHEA BY CHICAGO COMMUNITY AREA

In 2018, the rates of reported cases of gonorrhea ranged from 31.4 to 1,166.7 per 100,000 population throughout the City of Chicago (Figure 1.5). The three community areas with the highest average gonorrhea case rates in 2018 were North Lawndale (1,166.7 per 100,000), Riverdale (1,157.1 per 100,000) and Washington Park (1,152.2 per 100,000) (Figure 1.5; Appendix Table A.4).

#### **GONORRHEA BY SEX**

As in previous years, the number of reported gonorrhea cases among males was 2.1 higher than among females in 2018. In total, 8,616 cases were reported among males and 4,063 cases among females (Table 1.4). The magnitude of diagnoses among males suggests either increased transmission or increased case ascertainment (e.g., through increased extra-genital screening among MSM). As most providers do not routinely report sex of sex partners or site of infection for gonorrhea cases, trends in gonorrhea diagnoses among MSM cannot be assessed.

#### **GONORRHEA BY AGE**

Similar to reported cases of chlamydia, gonorrhea cases in Chicago continued to be highest among adolescents and young adults. In 2018, individuals aged 20-29 years old were the most frequently diagnosed age group, representing 51.4% of all reported gonorrhea cases (Table 1.4). If this group were combined with those aged 13-19 years old, individuals 13-29 years represent 69.2% of all reported gonorrhea cases in 2018 (Table 1.4).

#### GONORRHEA BY RACE/HISPANIC ETHNICITY

In 2018, the number of reported gonorrhea cases remained highest among NH Blacks, with 49.0% of reported cases in Chicago (Table 1.4). When compared to the next two populations with the largest number of reported cases, there were 4.0 times as many gonorrhea cases in NH Blacks compared to Hispanics and 3.5 times as many compared to NH Whites (Table 1.4).

#### GONORRHEA + HIV CO-INFECTION

In 2018, a total of 1,546 (12.1%) reported gonorrhea cases were also co-infected with HIV (Table 1.5). The majority of co-infected individuals were male (97.7%), NH Black (48.6%), aged 20-29 years old (38.7%) and MSM (67.3%) (Table 1.5).

#### PRIMARY & SECONDARY (P&S) SYPHILIS

#### P&S SYPHILIS IN CHICAGO

P&S syphilis are the most infectious stages of the infection that reflect symptomatic disease and are used as indicators of new infection. In 2018, a total of 877 P&S syphilis cases were reported in the City of Chicago (Table 1.1). This case count corresponds to a rate of 32.5 per 100,000 population (Table 1.1).

#### P&S SYPHILIS BY CHICAGO COMMUNITY AREA

In 2018, the rates of reported cases of P&S syphilis ranged from 9.7 to 131.3 per 100,000 population throughout the City of Chicago (Figure 1.6). The three community areas with the highest average P&S syphilis case rates in 2018 were Uptown (131.3 per 100,000 population), Washington Park (93.9 per 100,000 population) and Edgewater (90.2 per 100,000 population) (Figure 1.6; Appendix Table A.4).

#### P&S SYPHILIS BY SEX

In 2018, the number of reported P&S syphilis cases among men was 10.5 times higher than among females, with 800 cases reported among males and 76 cases reported among females (Table 1.4). MSM continued to account for the majority of P&S syphilis cases in 2018, representing 709 of the 877 reported cases.

#### P&S SYPHILIS BY AGE

In 2018, individuals aged 20-29 years old were the most frequently diagnosed age group, representing 37.9% of all reported P&S syphilis cases (Table 1.4). However, unlike reported chlamydia and gonorrhea cases, older age groups also made up large percentages of reported P&S syphilis cases, with individuals aged 30-39 representing 30.7% and individuals 40-49 representing 16.0% of all reported cases (Table 1.4).

#### P&S SYPHILIS BY RACE/HISPANIC ETHNICITY

Like with other reportable STIs, NH Blacks were the most frequently diagnosed population, representing 38.3% of reported P&S syphilis cases in Chicago in 2018 (Table 1.4). When compared to the next two populations with the largest number of reported cases, there were 1.7 times as many P&S syphilis cases in NH Blacks compared to Hispanics and 1.4 times as many compared to NH Whites (Table 1.4).

#### P&S SYPHILIS BY TRANSMISSION GROUP

According to the 2018 CDC STD Surveillance Report, MSM accounted for the majority of reported P&S syphilis cases in 2018 in the United States. Similarly in Chicago, the largest proportions of P&S syphilis cases (80.8%) were among MSM, while men who have sex with females represent 1.4% of

the cases (Table 1.4). Notably, 9.0% of male syphilis cases were reported among males whose sexual orientation was unknown, which, if known, could potentially increase the number of cases among MSM.

#### P&S SYPHILIS + HIV CO-INFECTION

In 2018, a total of 310 reported P&S syphilis cases (35.3%) were also co-infected with HIV (Table 1.5). The majority of co-infected individuals were male (97.4%), NH Black (42.9%), aged 30-39 years old (36.8%) and MSM (71.9%) (Table 1.5).

#### **CONGENITAL SYPHILIS**

#### CONGENITAL SYPHILIS IN CHICAGO

If an early syphilis infection is left untreated in a pregnant woman, it can lead to congenital syphilis which can cause infection of the fetus and increase the risk for stillbirth or death of the infant. Similar to the previous year, in 2018, there were only 11 congenital syphilis cases reported in Chicago (Table 1.6). In 2018, CDPH launched two media campaigns in the areas with the highest incidence of P&S syphilis among females in Chicago.

#### CONGENITAL SYPHILIS BY CHICAGO COMMUNITY AREA

From 2014 to 2018, the average annual rates of reported cases of congenital syphilis ranged from 0 to 714.3 per live births throughout the City of Chicago. The Chicago community area with the highest average congenital syphilis case rate from 2014 to 2018 was Fuller Park, which is considered an area of high economic hardship (Figure 1.7).

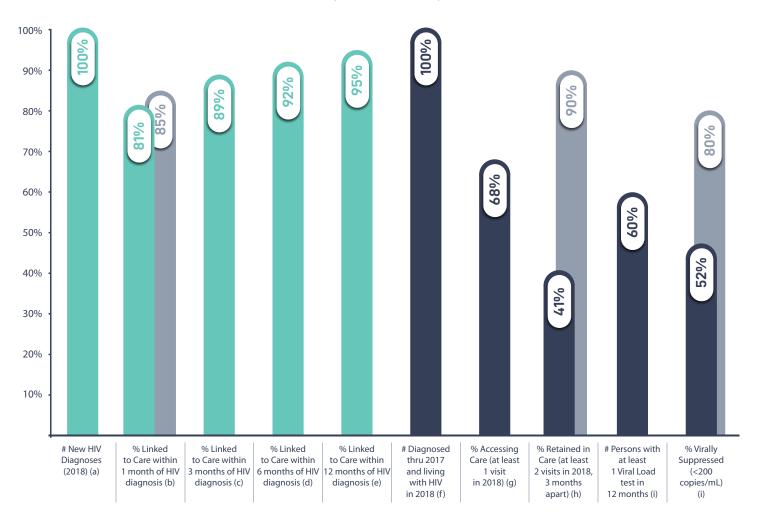
#### CONGENITAL SYPHILIS BY MATERNAL AGE

In 2018, mothers aged 20-29 accounted for 54.5 % of the congenital syphilis cases in the City of Chicago (Table 1.6). This age group has accounted for the majority of congenital syphilis cases for the past five years. The median maternal age for congenital syphilis cases in 2018 was 28 years old, an increase from the median age of 25 years in 2017 (Table 1.6).

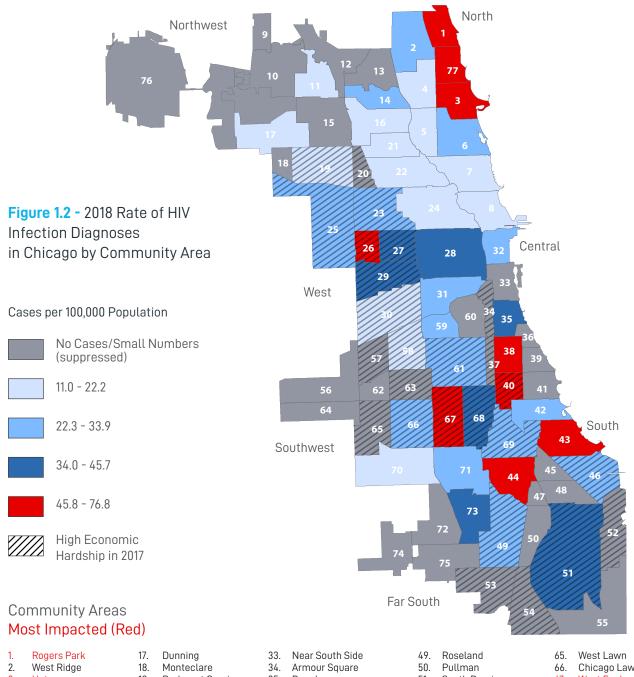
#### CONGENITAL SYPHILIS BY RACE/ETHNICITY

As in previous years, in 2018, the highest proportion of the congenital syphilis cases were among NH Blacks (72.7%) followed by Hispanics (18.2%) while less than 10% of cases were among NH Whites (Table 1.6).

Figure 1.1: HIV Continuum of Care Among Persons Aged 13 Years and Older, Chicago, 2018 (as of 9/30/2019)



(a) Number of persons ≥ 13 years of age at diagnosis and diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/ AIDS reporting system (eHARS) (as of 10/01/2019), NHAS output, Link1 Table, (b) Percent of persons ≥ 13 years of age linked to care (at least one CD4. VL, or HIV-1 genotype test) within 1 month of HIV diagnosis among those diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (c) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 3 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (d) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 6 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (e) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 12 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (f) Number of persons ≥ 13 years of age on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, Care1 and VL1 Tables. (g) Percent of persons ≥ 13 years of age on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018 who received at least one medical care visit (at least one CD4 or VL) between January 2018 and December 2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, Care1 Table. (h) Percent of persons ≥ 13 years of age on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018 who received at least two medical care visits (at least one CD4 or VL at each), 3 months apart, between January 2018 and December 2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, Care1 Table. (i) Percent of persons ≥ 13 years of age on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018 who received at least one VL test in the past 12 months. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, VL1 Table. (j) Percent of persons ≥ 13 years of age on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018 whose most recent viral load test result was < 200 copies/mL. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, VL1 Table. Note: Grey bars represent the National HIV/AIDS Strategy (NHAS) indicators for 2020.



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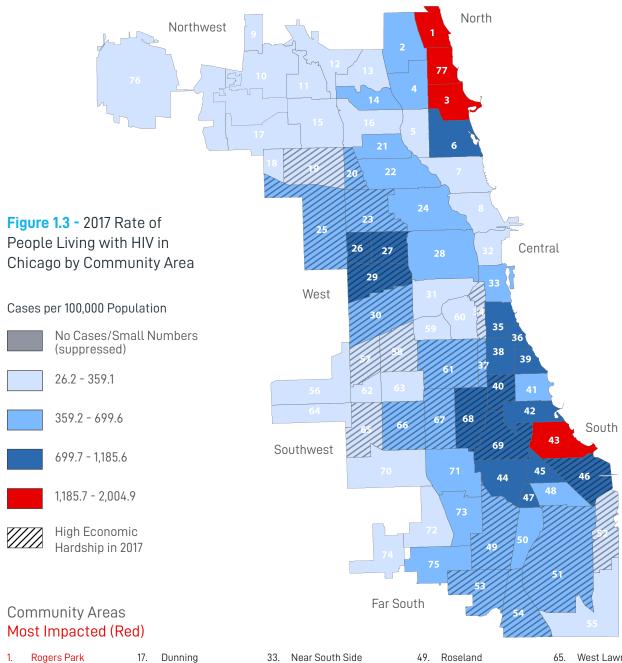
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74. Mount Greenwood
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76. Ohare

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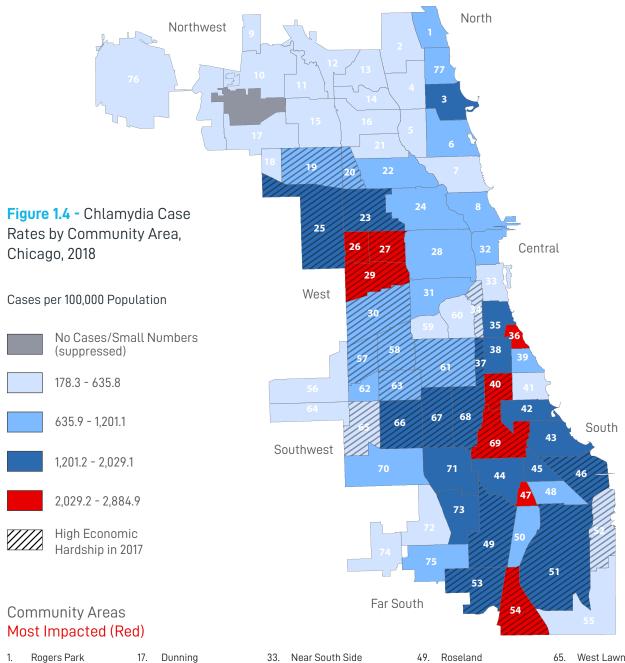
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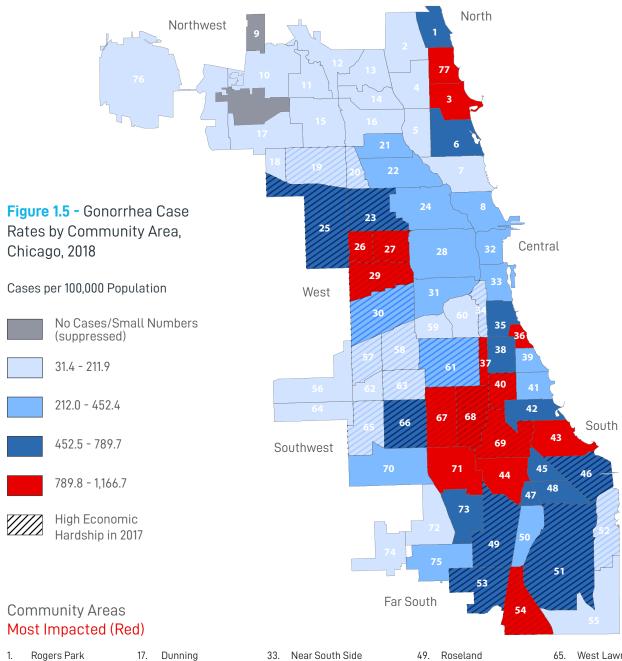
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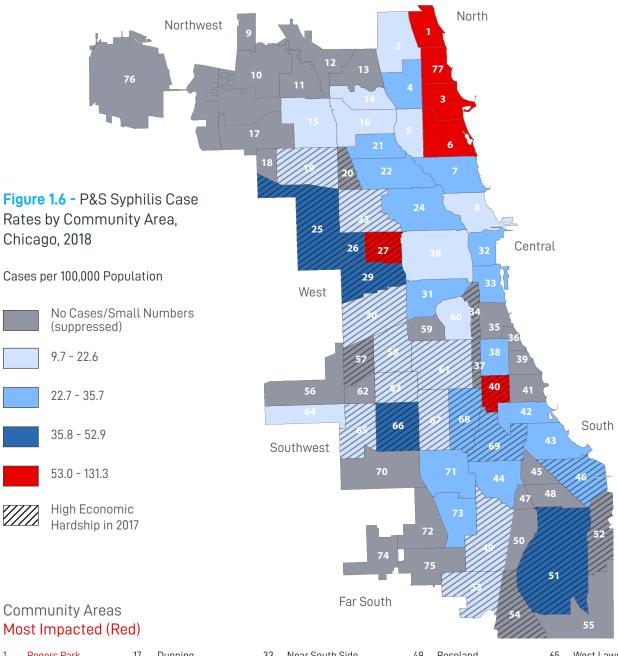
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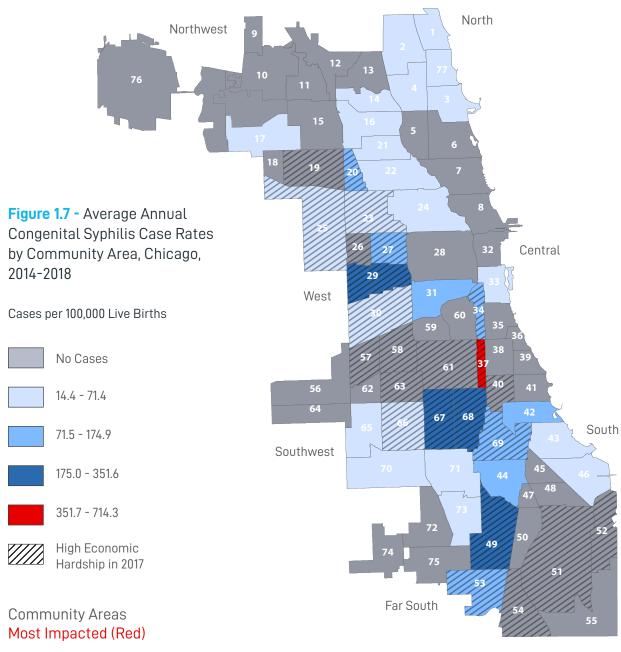
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Table 1.1: HIV and STI Case Rates by Race/Ethnicity and Birth Sex, Chicago and United States, 2018 (as of 10/1/2019)

Demographic			Diagnosed/Reported Cases, 2018 ¥								H	HIV Prevalence, 2017 †			
Characteristics	HIV Inf	ection§	All	DS	Gono	rrhea	Chlan	nydia	Syph	ilis€	HIV Prev	alence, 20	017† Unite	d States*	
Race/ Ethnicity	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	
Black, non-Hispanic	405	45.2	210	23.5	6,215	694.2	13,335	1,489.5	336	37.5	11,771	1,314.8	414,747	1,094.40	
White, non-Hispanic	132	15.5	53	6.2	1,754	205.4	2,827	331.1	244	28.6	5,570	652.3	300,619	152.7	
Hispanic	169	22.1	67	8.8	1,537	201.2	4,847	634.5	200	26.2	4,699	615.1	222,662	438.8	
Asian/PI, non-Hispanic	15	10.1	6	4.0	140	94.2	386	259.7	18	12.1	294	197.8	14,244	94.7	
AI/AN, non-Hispanic	<5		0	0.0	18	604.4	33	1,108.1	2	67.2	21	705.2	3,871	186.6	
Other, non-Hispanic	12	17.6	15	22.0	117	172.0	332	487.9	21	30.9	1,225	1,800.4	46,857	702.8	
Unknown	0		0		2,898		8,848		56		0	0.0	-	-	
Sex^															
Male	615	47.1	274	21.0	8,616	659.7	12,672	970.3	800	61.3	19,026	1,456.8	765,129	503.1	
Female	119	8.5	77	5.5	4,063	291.7	17,933	1,287.5	76	5.5	4,554	327.0	236,589	150.4	
Unknown	0		0		0		3		1		0		-	-	
Chicago <sup>β</sup>	734	27.2	351	13.0	12,679	470.4	30,608	1,135.5	877	32.5	23,580	873.7	-	-	
United States‡ **	37,377	11.4	17,032	5.2	583,405	179.1	1,758,668	539.9	35,063	10.8	-	-	1,003,782	308.7	

<sup>¥ 2018</sup> Diagnoses for HIV and AIDS; 2018 Reported Cases for STIs; 2017 HIV Prevalence. † Prevalence rate per 100,000 population. § HIV infection diagnosis and prevalence represents people with HIV at any stage of disease through 10/1/19. βTotals of newly diagnosed HIV and AIDS may be lower due to incomplete laboratory reporting. \* Rate per 100,000 population using 2010 U.S. Census Bureau Population figures. € Primary and secondary syphilis (symptomatic and infectious stages) only. Unknown Race/Ethnicity not reported. \*\* Centers for Disease Control and Prevention. HIV Surveillance Report, 2018 (Preliminary); vol. 30. http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published November 2019. , pp. 17, 19 and 98, 99.‡ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2018. Atlanta: U.S. Department of Health and Human Services; 2019. DOI: 10.15620/cdc.79370... ^ Counts based on birth sex.

**Table 1.2:** HIV Infections and Late Diagnosis by Selected Demographic Characteristics, Chicago, 2018 (as of 10/1/2019)

Demographic Characteristics	H No.	IV*	No.	OS* %	Late Di No.	agnosis‡ %
Gender**						
Male	592	80.7%	267	76.1%	132	82.5%
Female	119	16.2%	76	21.7%	24	15.0%
Transgender: MtF	23	3.1%	8	2.3%	<5	2.5%
Transgender: FtM	0	0.0%	0	0.0%	0	0.0%
Race/Ethnicity^						
Black, non-Hispanic	405	55.2%	210	59.8%	89	55.6%
White, non-Hispanic	132	18.0%	53	15.1%	25	15.6%
Hispanic	169	23.0%	67	19.1%	38	23.8%
Asian/PI, non-Hispanic	15	2.0%	6	1.7%	<5	2.5%
AI/AN, non-Hispanic	<5	<1%	0	0.0%	0	0.0%
Multiple, non-Hispanic	12	1.6%	15	4.3%	<5	2.5%
Unknown	0	0.0%	0	0.0%	0	0.0%
Transmission Group						
Male Sex w/Male	530	72.2%	210	59.8%	104	65.0%
Injection Drug Use	40	5.4%	43	12.3%	15	9.4%
MSM and IDU§	19	2.6%	16	4.6%	5	3.1%
Heterosexual	141	19.2%	81	23.1%	37	23.1%
Other¶	<5	<1%	<5	<1%	0	0.0%
Age Category <sup>†</sup>						
Less than 13	<5	<1%	<5	<10/0	0	0.0%
13-19	42	5.7%	7	2.0%	7	4.4%
20-29	267	36.4%	68	19.4%	41	25.6%
20-24	119	16.2%	25	7.1%	14	8.8%
25-29	157	21.4%	43	12.3%	27	16.9%
30-39	197	26.8%	94	26.8%	41	25.6%
40-49	111	15.1%	83	23.6%	37	23.1%
50-59	77	10.5%	63	17.9%	25	15.6%
60+	28	3.8%	35	10.0%	9	5.6%
Total€	734		351		160	

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, at any stage of disease through 10/1/2019. AIDS represents all newly diagnosed as AIDS, or stage 3 HIV, through 10/1/2019.\*\* Current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses may differ slightly across tables. ^ Multiple, non-Hispanic indicates more than one race identified. § Men who have sex with men and inject drugs. ¶ Includes perinatal transmission, blood transfusion, hemophilia, and no indicated risk (NIR). † Age at time of diagnosis. ‡ Late diagnosis represents those diagnosed with stage 3 HIV (AIDS) within 1 year of being diagnosed with HIV. €Total case count may be lower due to incomplete laboratory reporting.

**Table 1.3:** People Living with HIV/AIDS in 2017, by Selected Demographic Characteristics, Chicago (as of 10/1/2019)

Demographic Characteristics	No.	HIV*	No.	AIDS¥
Gender**				
Male	18,750	79.5%	9,567	79.6%
Female	4,492	19.1%	2,308	19.2%
Transgender: MtF	279	1.2%	117	1.0%
Transgender: FtM	59	<1%	26	<1%
Race/Ethnicity^				
Black, non-Hispanic	11,771	49.9%	6,251	52.0%
White, non-Hispanic	5,570	23.6%	2,430	20.2%
Hispanic	4,699	19.9%	2,518	21.0%
Asian/PI, non-Hispanic	294	1.2%	133	1.1%
AI/AN, non-Hispanic	21	<10/0	8	<1%
Multiple, non-Hispanic	1,225	5.2%	678	5.6%
Unknown	0	0.0%	0	0.0%
Transmission Group				
Male Sex w/Male	15,064	63.9%	7,041	58.6%
Injection Drug Use	2,620	11.1%	1,755	14.6%
MSM and IDU§	1,271	5.4%	835	6.9%
Heterosexual	4,259	18.1%	2,209	18.4%
Other¶	367	1.6%	178	1.5%
Ara Catarand				
Age Category <sup>†</sup> Less than 13	66	<1%	11	<10/0
13-19	169	<1%	12	<1%
20-29	2,789	11.8%	730	6.1%
20-24	846	3.6%	200	1.7%
25-29	1,943	8.2%	530	4.4%
30-39	4,398	18.7%	1,749	14.6%
40-49	5,488	23.3%	2,813	23.4%
50-59	6,807	28.9%	4,111	34.2%
60+	3,863	16.4%	2,582	21.5%
	3,003	10.470	2,302	21.370
Total	23,580		12,018	

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 prevalence represents people diagnosed with HIV through 2017 and living with HIV in 2018. \* AIDS represents people diagnosed with AIDS through 2017 and living with AIDS in 2018. \*\* Current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses may differ slightly across tables. ^ Multiple, non-Hispanic indicates more than one race identified. § Men who have sex with men and inject drugs.¶ Includes perinatal transmission, blood transfusion, hemophilia, and NIR. † Current age as of 2018.

**Table 1.4:** Reported Cases of Chlamydia, Gonorrhea, P&S Syphilis by Selected Demographic Characteristics, Chicago, 2018

Demographic Characteristics	Chlar No.	nydia %	Gono No.	rrhea %	P&S S No.	&S Syphilis %	
Birth Sex¥							
Male	12,672	41.4%	8,616	68.0%	800	91.2%	
Female	17,933	58.6%	4,063	32.0%	76	8.7%	
Unknown	3	0.0%			1	<1%	
Race/Ethnicity							
Black, non-Hispanic	13,335	43.6%	6,215	49.0%	336	38.3%	
White, non-Hispanic	2,827	9.2%	1,754	13.8%	244	27.8%	
Hispanic	4,847	15.8%	1,537	12.1%	200	22.8%	
Asian/PI, non-Hispanic	386	1.3%	140	1.1%	18	2.1%	
AI/AN, non-Hispanic	33	<1%	18	<1%	2	<1%	
Multiple, non-Hispanic	332	1.1%	117	<1%	21	2.4%	
Unknown	8,848	28.9%	2,898	22.9%	56	6.4%	
Transmission Group‡							
Male sex w/Male	-	-	-	-	709	80.8%	
Heterosexual Males	-	-	-	-	12	1.4%	
Females	-	-	-	-	76	8.7%	
Male unknown	-	-	-	-	79	9.0%	
Age Category†							
Less than 13	27	<10/0	11	<10/0	0	0.0%	
13-19	7,524	24.6%	2,254	17.8%	36	4.1%	
20-29	16,521	54.0%	6,520	51.4%	332	37.9%	
20-24	9,917	32.4%	3,440	27.1%	132	15.1%	
25-29	6,604	21.6%	3,080	24.3%	200	22.8%	
30-39	4,709	15.4%	2,596	20.5%	269	30.7%	
40-49	1,223	4.0%	821	6.5%	140	16.0%	
50-59	508	1.7%	381	3.0%	73	8.3%	
60+	96	<1%	96	<1%	27	3.1%	
Total**	30,608	100.0%	12,679	100.0%	877	100.0%	

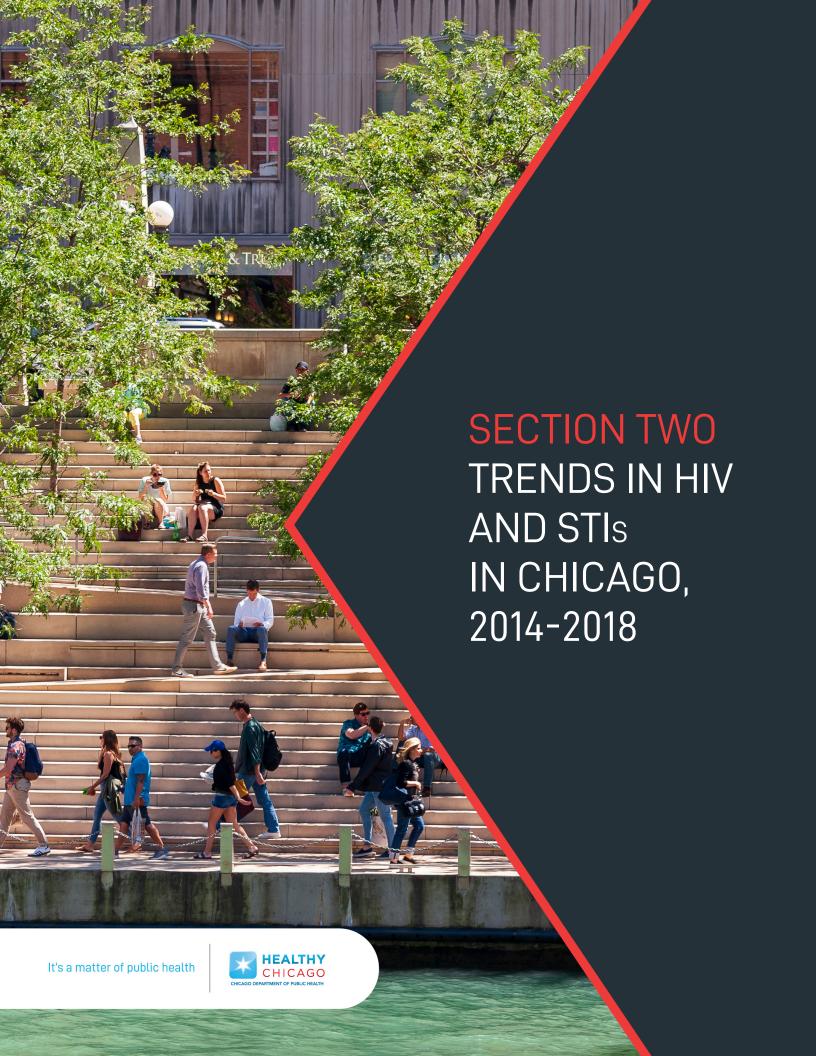
**Table 1.5:** Co-Infection between HIV Infection Diagnoses & Reported Cases of Chlamydia, Gonorrhea, P&S Syphilis by Selected Demographic Characteristics, Chicago, 2018<sup>€</sup>

Demographic Characteristics	HIV + Ch No.	Chlamydia HIV + Gonorrhea No. %		HIV + P&S Syp No.		
Gender**						
Male	1,209	93.2%	1,511	97.7%	302	97.4%
Female	88	6.8%	35	2.3%	7	2.3%
Unknown	-	0.0%	-	0.0%	<5	<10/0
Race/Ethnicity^						
Black, non-Hispanic	581	44.8%	751	48.6%	133	42.9%
White, non-Hispanic	294	22.7%	315	20.4%	93	30.0%
Hispanic	252	19.4%	284	18.4%	64	20.6%
Asian/PI, non-Hispanic	18	1.4%	22	1.4%	<5	<1%
AI/AN, non-Hispanic	<5	<1%	<5	<10/0	<5	<1%
Other/Multiple, non-His- panic	11	<1%	13	<1%	7	2.3%
Unknown	137	10.6%	159	10.3%	8	2.6%
Transmission Group ¥						
Male Sex w/Male	868	66.9%	1,040	67.3%	223	71.9%
Injection Drug Use	8	<1%	0	0.0%	<5	<1%
MSM and IDU§	43	3.3%	58	3.8%	16	5.2%
Heterosexual	46	3.5%	25	1.6%	6	1.9%
Other¶	176	13.6%	197	12.7%	27	8.7%
Missing	156	12.0%	226	14.6%	36	11.6%
Age Category†						
13-19	25	1.9%	25	1.6%	<5	<1%
20-29	462	35.6%	598	38.7%	86	27.7%
20-24	144	11.1%	198	12.8%	33	10.6%
25-29	318	24.5%	400	25.9%	53	17.1%
30-39	457	35.2%	564	36.5%	114	36.8%
40-49	202	15.6%	223	14.4%	55	17.7%
50-59	128	9.9%	115	7.4%	42	13.5%
60+	23	1.8%	21	1.4%	10	3.2%
Total	1,297		1,546		310	

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+Chlamydia, HIV+Gonorrhea and HIV+Syphilis diagnoses represents people living with HIV and also diagnosed with the respective STI during 2018. € Data Source: Illinois Department of Public Health (IDPH) as of 10/1/2019. \*\* Current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses may differ slightly across tables. ^ Multiple, non-Hispanic indicates more than one race identified. Al/AN refers to American Indian/ Alaskan Native. ¥ Transmission Group data based on HIV surveillance data as of 10/1/2019. § Men who have sex with men and inject drugs. ¶ Includes perinatal transmission, blood transfusion, hemophilia, and NIR. † Age at time of STI diagnosis.

Table 1.6: Congenital Syphilis Cases by Selected Demographic Characteristics, Chicago, 2014-2018

					Year o	f Report				
	2	2014 2015			20	016	2	017	2	018
Demographic Characteristics	No.	%	No.	%	No.	%	No.	%	No.	%
Case Classification										
Presumptive Cases	18	90.0%	24	100.0%	12	100.0%	10	91.0%	10	90.9%
Stillborns	<5	10.0%	0	0.0%	0	0.0%	<5	9.0%	<5	9.1%
Race/Ethnicity										
Black, non-Hispanic	13	65.0%	18	75.0%	9	75.0%	10	91.0%	8	72.7%
White, non-Hispanic	<5	5.0%	<5	4.2%	<5	8.3%	0	0.0%	<5	9.1%
Hispanic	<5	5.0%	5	20.8%	<5	8.3%	<5	9.0%	<5	18.2%
Asian/PI, non-Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
AI/AN, non-Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	5	25.0%	0	0.0%	<5	8.3%	0	0.0%	0	0.0%
Maternal Age Category†										
Less than 13	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
13-19	0	0.0%	<5	8.3%	0	0.0%	0	0.0%	0	0.0%
20-29	15	75.0%	19	79.2%	8	67.0%	8	73.0%	6	54.5%
20-24	9	45.0%	12	50.0%	<5	25.0%	<5	27.0%	<5	27.3%
25-29	6	30.0%	7	29.2%	5	42.0%	5	45.0%	<5	27.3%
30-39	5	25.0%	<5	8.3%	<5	33.0%	<5	27.0%	5	45.5%
40+	0	0.0%	<5	4.2%	0	0.0%	0	0.0%	0	0.0%
Median Age	26		23		27		25		28	
Total	20		24		12		11		11	



### Trends in People Living With and Diagnosed With HIV Infection in Chicago

From 1990-2018, there has been an annual increase in the number of PLWH in Chicago. In 2017, 23,580 PLWH resided in Chicago. This is approximately 4.4 times the number of PLWH in Chicago in 1990 (Figure 2.1).

In 2018, the number of newly diagnosed HIV cases reported to CDPH was below 800 for the second year in a row with 734 cases. Caution should be taken when interpreting the drop in cases over the last two years as this could be related to the reporting delays.

The proportion of newly diagnosed HIV infections and distribution of cases among males and females has remained relatively consistent from 2014–2018, with a majority of cases occurring among men (Table 2.1). Comparing 2017 newly diagnosed HIV cases with 2018 newly diagnosed HIV cases, all age groups had a percent decrease in newly diagnosed HIV infections, except for those 40 years of age and older (Table 2.2). From 2014–2018, the largest proportion of HIV infection diagnoses occurred among NH Blacks (Table 2.3), with 405 cases accounting for 55.2% of the reported 2018 cases. Over the five year span, the distribution of cases among racial/ethnic categories has remained relatively stable (Table 2.3).

### Trends in the Number of Reported STIs in Chicago

CHLAMYDIA: The number of chlamydia cases (30,608 cases) reported in 2018 is the highest since 1997 (Figure 2.2). Since 2014, chlamydia cases have increased by 12.2% (27,274 to 30,608) (Table 2.1). While there has been a steady increase in the proportion of reported chlamydia cases in males from 2014-2018, women continue to have the highest number of cases with 1.4 times as many reported chlamydia cases in women than men in 2018 (Table 2.1).

GONORRHEA: Between 2014 and 2018, the total number of gonorrhea cases increased by 53% (8,291 to 12,679) (Table 2.1). Targeted and extra-genital STI screening among MSM may have contributed, in part, to the overall increase in the number of reported gonorrhea cases in recent years.

PRIMARY & SECONDARY SYPHILIS: Similar to chlamydia and gonorrhea, between 2014 and 2018, the total number of reported P&S syphilis cases increased by 36.4% (from 643 to 877), mostly among males (Table 2.1).

TRENDS BY AGE: As has been observed in previous years, in 2018, individuals aged  $\leq$  29 years old made up a majority (78.6%) of reported chlamydia cases. This is also true for gonorrhea (69.3%), but case reports are rising in all age groups except 13-19 year olds. This increase in reported gonorrhea cases in older age groups may be a result of increased testing efforts by providers and increased STI awareness in specific population groups, such as MSM. As with chlamydia and gonorrhea, reported P&S syphilis cases have increased across all age categories with the exception of the <13 age group as compared to 2014. The majority of 2018 cases are seen in ages 20-29 (37.9%) (Table 2.2).

TRENDS BY RACE/HISPANIC ETHNICITY: Similar to HIV trends over the last five years, the highest proportion of chlamydia, gonorrhea and P&S syphilis cases were among NH Blacks followed by NH Whites for gonorrhea and P&S syphilis and Hispanics for chlamydia (Table 2.3). Hispanics account for the second highest proportion of chlamydia cases from 2014 to 2018 going from 12.1% of the cases in 2014 to 15.8% of the cases in 2018 (Table 2.3). Hispanics comprise the third highest proportion of cases for P&S syphilis with 16.0% of the cases in 2014 and 22.8% of the cases in 2018 (Table 2.3).

**FIGURE 2.1:** People Living with HIV Infection, People Diagnosed with HIV Infection, People Diagnosed with AIDS, Concurrent HIV/AIDS Diagnoses and Deaths Among People Living with HIV Infection, Chicago, 1990-2018 (as of 10/01/2019)

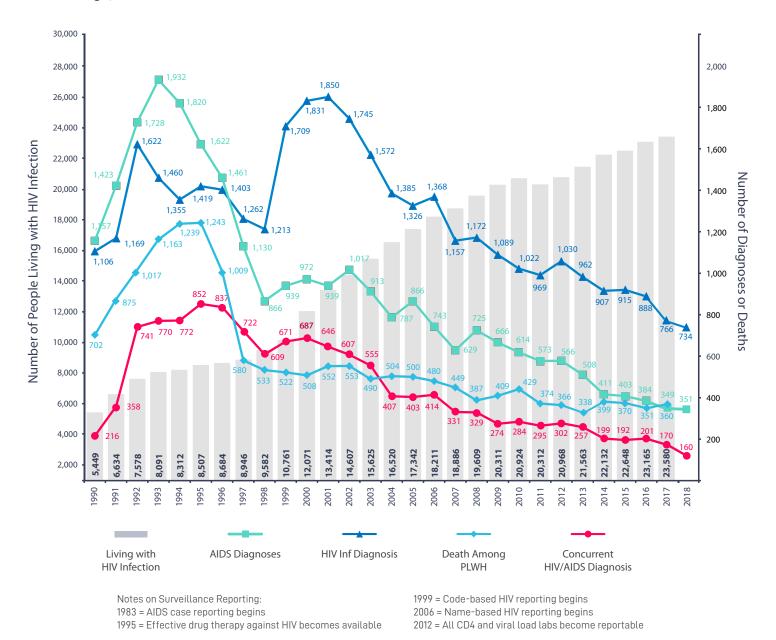
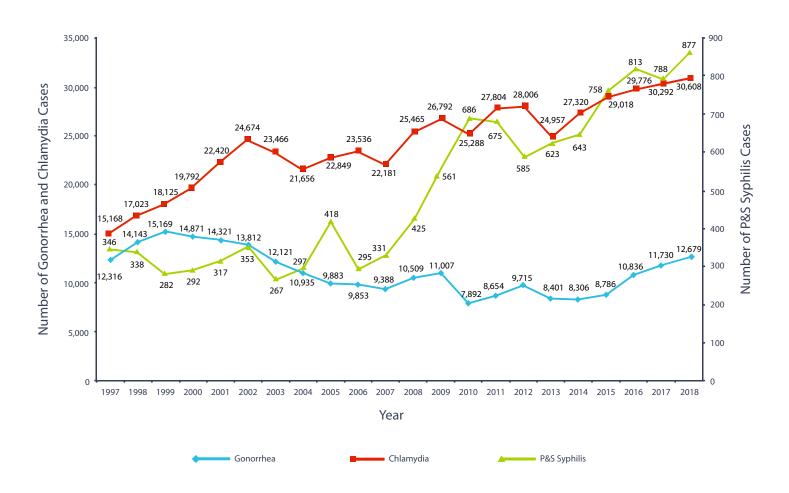


Figure 2.2: Number of Reported Sexually Transmitted Infections, Chicago, 1997-2018



## SECTION TWO: TRENDS IN HIV AND STIs IN CHICAGO, 2014-2018

Table 2.1: HIV/STI Cases by Year of Diagnosis and Sex\* Chicago, 2014-2018

Year of Diagnosis	2014		2015		20	2016		2017		2018	
	No.	0/0	0/0								
HIV Infection Diagnosis											
Male	748	82.5%	758	82.8%	715	80.5%	615	80.3%	592	80.7%	-3.7%
Female	131	14.4%	132	14.4%	155	17.5%	127	16.6%	119	16.2%	-6.3%
Transgender: MtF	23	2.5%	21	2.3%	17	1.9%	21	2.7%	23	3.1%	9.5%
Transgender: FtM	5	<1%	<5	<1%	<5	<10/0	<5	<1%	0	0.0%	-
Total	907		915		888		766		734		-4.2%
AIDS Cases											
Male	307	74.7%	326	80.9%	309	80.5%	267	76.5%	267	76.1%	0.0%
Female	96	23.4%	69	17.1%	70	18.2%	78	22.3%	76	21.7%	-2.6%
Transgender: MtF	6	1.5%	5	1.2%	5	1.3%	<5	1.1%	8	2.3%	-
Transgender: FtM	<5	<1%	<5	<1%	0	0.0%	0	0.0%	0	0.0%	-
Total	411		403		384		349		351		<1%
Chlamydia Cases¥											
Male	9,073	33.3%	10,299	35.6%	11,279	37.9%	12,031	39.7%	12,672	41.4%	5.3%
Female	18,201	66.7%	18,635	64.4%	18,464	62.1%	18,199	60.1%	17,933	58.6%	-1.5%
Total	27,274		28,934		29,743		30,292		30,608		1.0%
Gonorrhea Cases¥											
Male	4,709	56.8%	5,173	59.1%	6,900	63.8%	7,707	65.7%	8,616	68.0%	11.8%
Female	3,582	43.2%	3,583	40.9%	3,920	36.2%	3,997	34.1%	4,063	32.0%	1.7%
Total	8,291		8,756		10,820		11,730		12,679		8.1%
P&S Syphilis Cases¥											
Male	581	90.4%	700	92.3%	764	94.0%	733	93.0%	800	91.2%	9.1%
Female	62	9.6%	58	7.7%	49	6.0%	55	7.0%	76	8.7%	38.2%
Total	643		758		813		788		877		11.3%

Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. \*For HIV and AIDS cases, current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses may differ slightly across tables. HIV and AIDS cases as of 10/1/2019. For STI cases, reported sex at birth. ¥ Includes cases with unknown sex.

## SECTION TWO: TRENDS IN HIV AND STIs IN CHICAGO, 2014-2018

Table 2.2: HIV/STI Cases by Year of Diagnosis and Age Group, Chicago, 2014-2018

Year of Diagnosis	2014		2015		2016		2017		2018		% Change 2017 to 2018
<b>,</b>	No.	%	No.	0/0	No.	0/0	No.	%	No.	0/0	0/0
HIV Infection Diagnosis											
Less than 13	5	<1%	<5	<1%	<5	<1%	<5	<1%	<5	<11%	-
13-19	58	6.4%	60	6.6%	64	7.2%	60	7.8%	42	5.7%	-42.9%
20-29	384	42.3%	389	42.5%	365	41.1%	286	37.3%	276	37.6%	-3.6%
20-24	192	21.2%	206	22.5%	152	17.1%	129	16.8%	119	16.2%	-8.4%
25-29	192	21.2%	183	20.0%	213	24.0%	157	20.5%	157	21.4%	0.0%
30-39	196	21.6%	223	24.4%	214	24.1%	207	27.0%	197	26.8%	-5.1%
40-49	148	16.3%	117	12.8%	117	13.2%	107	14.0%	111	15.1%	3.6%
50+	116	12.8%	123	13.4%	125	14.1%	102	13.3%	105	14.3%	2.9%
Total	907		915		888		766		734		-4.4%
AIDS Cases											
Less than 13	<5	<1%	0	<1%	<5	<1%	<5	<1%	<5	<1%	_
13-19	8	1.9%	<5	<1%	8	2.1%	7	2.0%	7	2.0%	0.0%
20-29	83	20.2%	100	24.8%	110	28.6%	71	20.3%	68	19.4%	-4.2%
20-24	32	7.8%	34	8.4%	46	12.0%	27	7.7%	25	7.1%	-7.4%
25-29	51	12.4%	66	16.4%	64	16.7%	44	12.6%	43	12.3%	-2.3%
30-39	112	27.3%	94	23.3%	90			27.2%	94	26.8%	-2.3%
40-49	104	25.3%	92	22.8%	71	23.4% 18.5%	95 77	22.1%	83	23.6%	7.8%
50+											
	101	24.6%	116	28.8%	103	26.8%	97	27.8%	98	27.9%	1.0%
Total	411		403		384		349		351		<1%
Chlamydia Cases											
Less than 13	28	< 11%	26	< 1%	37	< 1%	43	<1%	27	<10/0	-37.2%
13-19	8,427	30.8%	8,036	27.7%	7,867	26.4%	7,750	25.6%	7,524	24.6%	-2.9%
20-29	14,497	53.1%	15,833	54.6%	16,137	54.2%	16,410	54.2%	16,521	54.0%	<10/0
20-24	9,789	35.8%	10,229	35.3%	10,033	33.7%	10,206	33.7%	9,917	32.4%	-2.8%
25-29	4,708	17.2%	5,604	19.3%	6,104	20.5%	6,204	20.5%	6,604	21.6%	6.4%
30-39	3,144	11.5%	3,689	12.7%	4,078	13.7%	4,435	14.6%	4,709	15.4%	6.2%
40-49	845	3.1%	1,013	3.5%	1,135	3.8%	1,263	4.2%	1,223	4.0%	-3.2%
50+	379	1.4%	421	1.5%	522	1.8%	591	2.0%	604	2.0%	2.2%
Total	27,320		29,018		29,776		30,292		30,608		1.0%
Gonorrhea Cases											
Less than 13	6	< 10/0	8	< 1%	16	< 1%	8	<1%	11	<1%	37.5%
13-19	2,162	26.0%	2,165	24.6%	2,315	21.4%	2,331	19.9%	2,254	17.8%	-3.3%
20-29	4,273	51.4%	4,529	51.5%	5,483	50.6%	5,927	50.5%	6,520	51.4%	10.0%
20-24	2,798	33.7%	2,740	31.2%	3,117	28.8%	3,250	27.7%	3,440	27.1%	5.8%
25-29	1,475	17.8%	1,789	20.4%	2,366	21.8%	2,677	22.8%	3,080	24.3%	15.1%
30-39	1,196	14.4%	1,413	16.1%	1,952	18.0%	2,228	19.0%	2,596	20.5%	16.5%
40-49	458	5.5%	438	5.0%	682	6.3%	779	6.6%	821	6.5%	5.4%
50+	211	2.5%	233	2.7%	388	3.6%	457	3.9%	477	3.8%	4.4%
Total	8,306	2.070	8,786	2.770	10,836	0.070	11,730	0.770	12,679	0.070	8.1%
P&S Syphilis Cases											
Less than 13	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	-
13-19	26	4.0%	23	3.0%	27	3.3%	22	2.8%	36	4.1%	63.6%
20-29	257	40.0%	305	40.2%	291	35.8%	300	38.1%	332	37.9%	10.7%
20-24	114	17.7%	137	18.1%	101	12.4%	114	14.5%	132	15.1%	15.8%
25-29	143	22.2%	168	22.2%	190	23.4%	186	23.6%	200	22.8%	7.5%
30-39	175	27.2%	199	26.3%	263	32.3%	244	31.0%	269	30.7%	10.2%
40-49	113	17.6%	132	17.4%	141	17.3%	120	15.2%	140	16.0%	16.7%
50+	72	11.2%	99	13.1%	91	11.2%	102	12.9%	100	11.4%	-2.0%
Total	643		758		813		788		877		11.3%

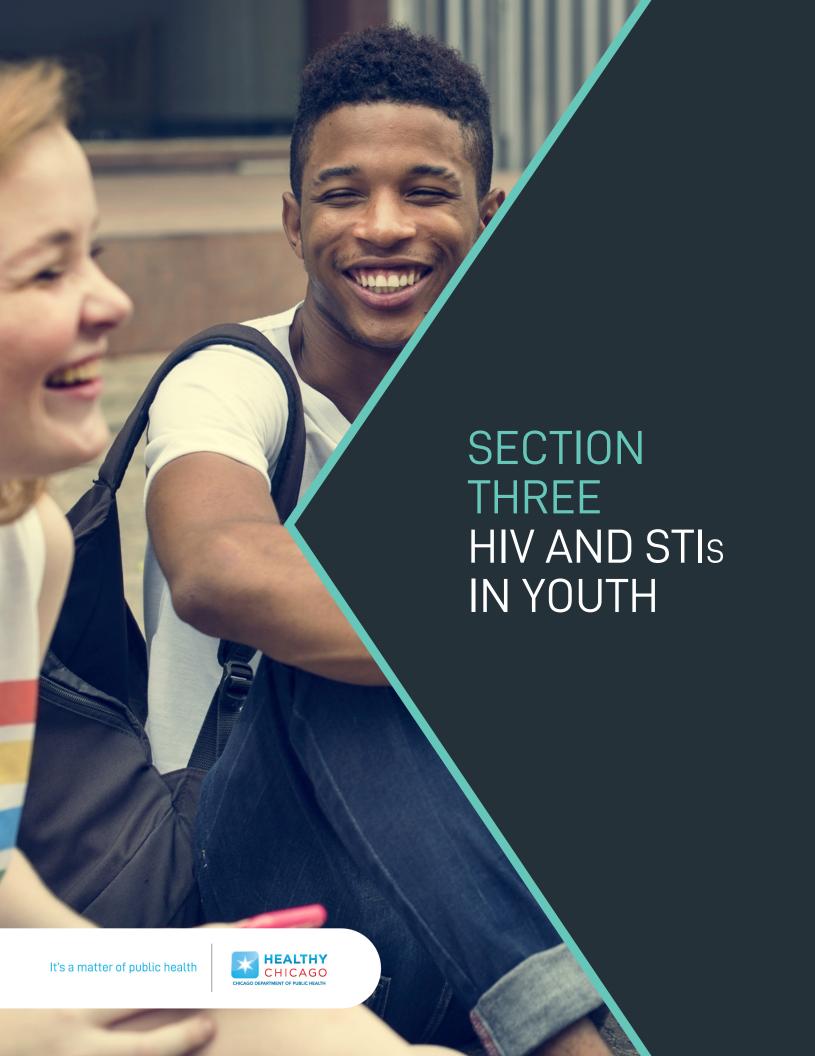
Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. HIV and AIDS cases as of 10/1/2019. \*Age at time of diagnosis. € Estimated Annual Percent Change (EAPC) is used to provide a general picture of disease trends across the 5 years of the report. EAPC assumes a constant rate of change and should not be over-interpreted.

## SECTION TWO: TRENDS IN HIV AND STIs IN CHICAGO, 2014-2018

Table 2.3: HIV/STI Cases by Year of Diagnosis and Race/Ethnicity, Chicago, 2014-2018

Year of Diagnosis	2014		2015		2016		2017		2018		% Change 2017 to 2018	
	No.	%	No.	%	No.	%	No.	%	No.	%	%	
HIV Infection Diagnosis												
Black, non-Hispanic	476	52.5%	482	52.7%	504	56.8%	418	54.6%	405	55.2%	-3.1%	
White, non-Hispanic	174	19.2%	171	18.7%	132	14.9%	142	18.5%	132	18.0%	-7.0%	
Hispanic	214	23.6%	200	21.9%	201	22.6%	165	21.5%	169	23.0%	2.4%	
Asian/PI, non-Hispanic	16	1.8%	24	2.6%	23	2.6%	25	3.3%	15	2.0%	-40.0%	
AI/AN*, non-Hispanic	0	0.0%	<5	<10/0	<5	<10/0	<5	<1%	<5	<10/0	-	
Other, non-Hispanic	27	3.0%	36	3.9%	26	2.9%	14	1.8%	12	1.6%	-14.3%	
Total	907		915		888		766		734		-4.2%	
AUDO Octob												
AIDS Cases	00/	E / 00 /	040	= / OO/	040	== == /	047	/4.00/	040	50.007	4.007	
Black, non-Hispanic	234	56.9%	219	54.3%	213	55.5%	214	61.3%	210	59.8%	-1.9%	
White, non-Hispanic	58	14.1%	62	15.4%	59	15.4%	42	12.0%	53	15.1%	26.2%	
Hispanic	92	22.4%	93	23.1%	84	21.9%	68	19.5%	67	19.1%	-1.5%	
Asian/PI, non-Hispanic	5	1.2%	7	1.7%	7	1.8%	8	2.3%	6	1.7%	-25.0%	
AI/AN*, non-Hispanic	0	0.0%	<5	<111/0	<5	<1%	<5	<1%	0	0.0%	-	
Other, non-Hispanic	22	5.4%	21	5.2%	20	5.2%	16	4.6%	15	4.3%	-6.3%	
Total	411		403		384		349		351		<1%	
Chlamydia Cases												
Black, non-Hispanic	12,858	47.1%	13,786	47.5%	12,003	40.3%	12,446	41.1%	13,335	43.6%	7.1%	
White, non-Hispanic	1,516	5.5%	2,106	7.3%	2,346	7.9%	2,675	8.8%	2,827	9.2%	5.7%	
Hispanic	3,298	12.1%	3,785	13.0%	3,970	13.3%	4,379	14.5%	4,847	15.8%	10.7%	
Asian/Pl, non-Hispanic	172	< 1%	264	< 1%	295	1.0%	349	1.2%	386	1.3%	10.6%	
AI/AN*, non-Hispanic	20	< 1%	30	< 1%	34	< 1%	33	<1%	33	<1%	0.0%	
Other, non-Hispanic	311	1.1%	254	< 1%	268	< 1%	270	<1%	332	1.1%	23.0%	
Unknown	9,145	33.5%	8,793	30.3%	10,860	36.5%	10,140	33.5%	8,848	28.9%	-12.7%	
Total	<b>27,320</b>	33.370	29,018	30.370	<b>29,776</b>	30.370	30,292	33.370	30,608	20.770	1.0%	
Totat	27,320		27,010		27,770		30,272		30,000		1.070	
Gonorrhea Cases												
Black, non-Hispanic	4,200	50.6%	4,812	54.8%	4,798	44.3%	5,606	47.8%	6,215	49.0%	10.9%	
White, non-Hispanic	680	8.2%	948	10.8%	1,283	11.8%	1,414	12.1%	1,754	13.8%	24.0%	
Hispanic	495	6.0%	639	7.3%	921	8.5%	1,143	9.7%	1,537	12.1%	34.5%	
Asian/Pl, non-Hispanic	25	< 1%	67	< 1%	85	< 1%	114	1.0%	140	1.1%	22.8%	
AI/AN*, non-Hispanic	6	< 1%	12	< 1%	14	< 1%	15	<1%	18	<1%	20.0%	
Other, non-Hispanic	62	< 1%	73	< 1%	85	< 1%	74	<1%	117	<1%	58.1%	
•		34.2%		25.4%	3,650					22.9%		
Unknown <b>Total</b>	2,838 <b>8,306</b>	54.270	2,235 <b>8,786</b>	20.470	10,836	33.7%	3,364 <b>11,730</b>	28.7%	2,898 <b>12,679</b>	۷۷.7%0	-13.9% <b>8.1%</b>	
iotat	8,306		8,786		10,836		11,/30		12,0/9		8.1%	
P&S Syphilis Cases												
Black, non-Hispanic	280	43.5%	330	43.5%	294	36.2%	268	34.1%	336	38.3%	25.4%	
White, non-Hispanic	191	29.7%	251	33.1%	253	31.1%	230	29.2%	244	27.8%	6.1%	
Hispanic	103	16.0%	147	19.4%	173	21.3%	132	16.8%	200	22.8%	51.5%	
Asian/PI, non-Hispanic	103	1.6%	147	1.5%	29	3.6%	19	2.4%	18	2.1%	-5.3%	
AI/AN*, non-Hispanic		< 1%						<1%		<1%	0.570	
	< 5		< 5	< 1%	< 5	< 1%	<5		<5 21		// 70/	
Other, non-Hispanic	56	8.7%	15	2.0%	62	7.6%	63	8.0%	21	2.4%	-66.7%	
Unknown 	0	0.0%	0	0.0%	0	0.0%	75	9.5%	56	6.4%	-25.3%	
Total	643		758		813		787		877		11.4%	

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 and AIDS cases as of 10/1/2019. € 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.\*AI/AN refers to American Indian/ Alaskan Native.



### SECTION THREE: HIV AND STIS IN YOUTH

## HIV

According to the CDC 2018 HIV Surveillance Report, individuals aged 13-29 years old accounted for 41.1% of new HIV diagnoses in 2018 in the United States. Approximately 10.3% of the PLWH in 2018 were aged 13-29 years old.

In Chicago, 321 cases of HIV infection were diagnosed among individuals aged 13-29 years old in 2018, accounting for 43.7% of all new HIV infection diagnoses (Table 3.1). The majority of cases were among males (81.9%), NH Blacks (62.9%) and MSM (80.4%) (Table 3.1). Between 2014 and 2018, the number of new HIV diagnoses in this population decreased by 28.2%, from 447 cases diagnosed in 2014 to 321 cases diagnosed in 2018 (Table 3.1). From 2014-2018, the highest average annual rate of HIV diagnoses among those aged 13-29 years old was observed in Uptown (26.8 per 100,000 population), Greater Grand Crossing (25.9 per 100,000 population) and East Garfield Park (24.9 per 100,000 population) (Figure 3.1; Appendix Table A.6).

In 2017, 3,024 people aged 13-29 years old were living with HIV in Chicago, accounting for 12.8% of all individuals living with HIV in the city (Table 3.2). The majority of these individuals were male (78.8%), NH Black (68.7%) and MSM (73.7%) (Table 3.2). Between 2013 and 2017, the number of individuals aged 13-29 years old living with HIV increased by 9.4% from 2,764 in 2013 to 3,024 in 2017 (Table 3.2). From 2013-2017, the highest average annual rate of individuals aged 13-29 years old living with HIV was observed in South Shore (215.1 per 100,000 population), Washington Park (203.6 per 100,000 population) and Greater Grand Crossing (194.7 per 100,000 population) (Figure 3.2; Appendix Table A.7).

In 2017, 85.6% of those diagnosed with HIV aged 13-29 years old were linked to HIV medical care within one month of HIV diagnosis (Figure 3.3). By 12 months after diagnosis, 95.4% had been linked to medical care (Figure 3.3). For individuals aged 13-29 years old who were diagnosed with HIV through 2017 and living with HIV in 2018, 95.4% had accessed medical care (having at least one medical visit in 2017), 82.6% were considered to be retained in care (having at least two medical visits in 2017) and 93.4% had a viral load test in the past 12 months (Figure 3.3). For this group, only 63.6% were considered to be virally suppressed (< 200 copies/ mL), indicating an opportunity to strengthen programs and services for younger populations (Figure 3.3).

## **STIs**

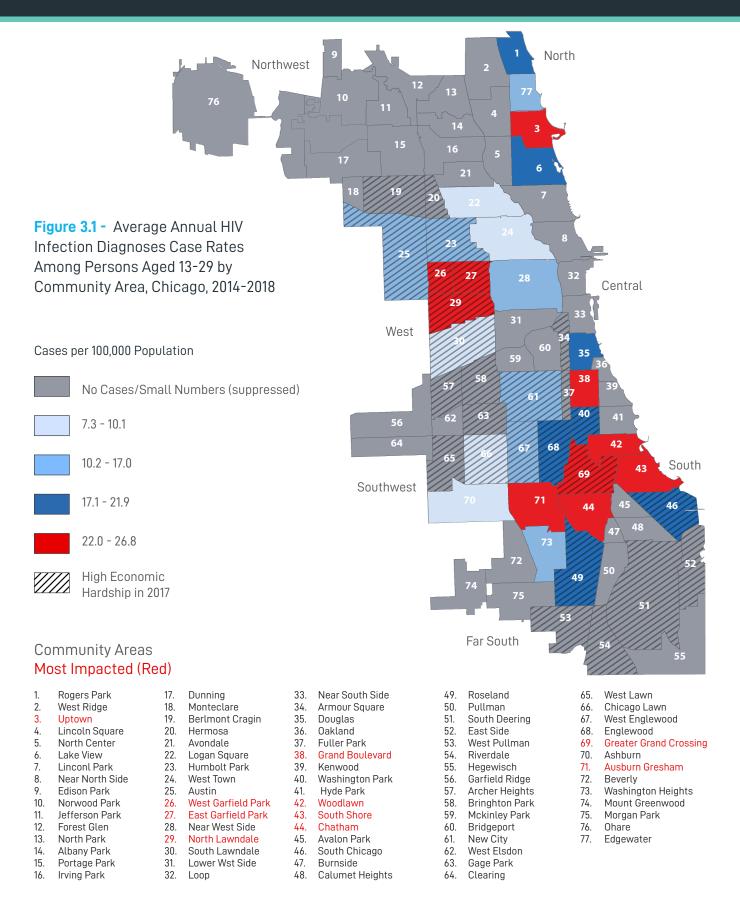
According to the CDC 2018 STD Surveillance Report, incidence and prevalence estimates suggest that young people aged 15-24 years old acquire half of all new STIs, and that one in four sexually-active adolescent females has an STI. Consistent with national data, STI rates among adolescents and young adults in Chicago are acquiring 50% or more of newly reported STIs. In 2018, 24,045 (78.5%) cases of chlamydia, 8,744 (69.0%) cases of gonorrhea and 368 (42.0%) cases of P&S syphilis were diagnosed among those aged 13-29 years old. Between 2014 and 2018 in Chicago, the total number of cases diagnosed in this population has been steadily increasing across all reportable STIs: 4.8% increase in chlamydia cases, 36.3% increase in gonorrhea cases and a 30.0% increase in P&S syphilis cases (Table 3.3; Table 3.4; Table 3.5).

As shown in Table 3.3, the proportion of chlamydia cases in 2018 among those aged 13-29 years old was highest among females (64.2%) and NH Blacks (47.8%). Gonorrhea cases in 2018 in this age group were highest among males (60.6%) and NH Blacks (55.4%) (Table 3.4). For P&S syphilis, there were 8.4 times as many P&S syphilis cases in 2018 among men (89.1%) in this population than women (89.1% vs. 10.6%), reflecting the overall epidemiology of P&S syphilis in Chicago (Table 3.5). Like chlamydia and gonorrhea, NH Blacks aged 13-29 years old represented the largest share of new P&S syphilis cases in 2018 (48.1%), followed by Hispanics (24.2%).

#### REFERENCES

CDC. *HIV Surveillance Report*, 2018 (Preliminary). Retrieved December 12, 2019, from http://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2018-vol-30.pdf

CDC. (2018). STDs in Adolescents and Young Adults - 2018 Sexually Transmitted Diseases Surveillance. Retrieved October 21, 2019, from https://www.cdc.gov/std/stats18/adolescents.html



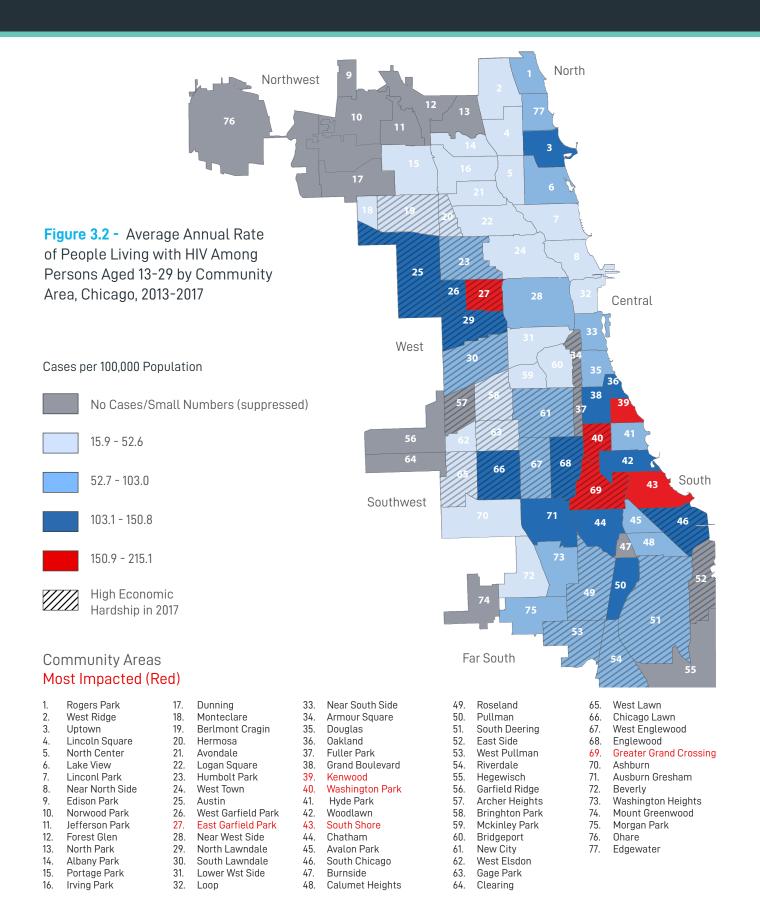
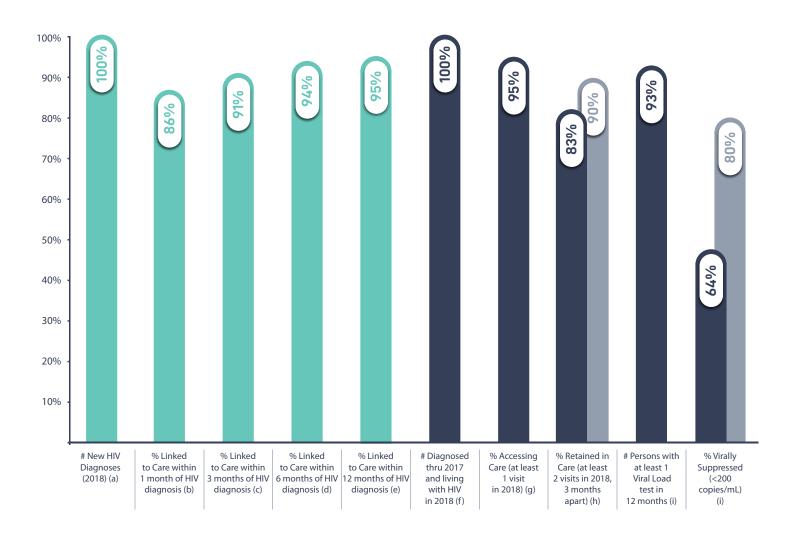


Figure 3.3: HIV Continuum of Care Among Persons Aged 13-29, Chicago 2018 (as of 9/30/2019)



(a) Number of persons aged 13-29 years at diagnosis and diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (b) Percent of persons aged 13-29 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 1 month of HIV diagnosis among those diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (c) Percent of persons aged 13-29 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 3 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (d) Percent of persons aged 13-29 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 6 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (e) Percent of persons aged 13-29 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 12 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2018 and 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (f) Number of persons aged 13-29 years of age on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, Care1 and VL1 Tables. (g) Percent of persons aged 13-29 years of age on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018 who received at least one medical care visit (at least one CD4 or VL) between January 2018 and December 2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, Carel Table. (h) Percent of persons aged 13-29 years of age on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018 who received at least two medical care visits (at least one CD4 or VL at each), 3 months apart, between January 2018 and December 2018. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, Care1 Table. (i) Percent of persons aged 13-29 years on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018 who received at least one VL test in the past 12 months. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, VL1 Table. (j) Percent of persons aged 13-29 years on 12/31/2017 diagnosed with HIV through 12/31/2017 and living with HIV on 12/31/2018 whose most recent viral load test result was < 200 copies/mL. Source: Chicago enhanced HIV/AIDS reporting system (eHARS) (as of 09/30/2019). NHAS output, VL1 Table. Note: Grey bars represent the National HIV/AIDS Strategy (NHAS) indicators for 2020.

Table 3.1: Reported Cases of HIV Infection Diagnoses Among Persons Aged 13-29, Chicago, 2014-2018

Demographic Characteristics	20	014	2	015	20	16	20	117	20	018	% Change 2017 to 2018
	No.	0/0	No.	0/0	No.	0/0	No.	%	No.	9/0	%
Sex*											
Male	384	85.9%	388	85.8%	361	83.6%	289	82.6%	263	81.9%	-9.0%
Female	44	9.8%	49	10.8%	59	13.7%	43	12.3%	41	12.8%	-4.7%
Transgender: MtF	18	4.0%	14	3.1%	12	2.8%	16	4.6%	17	5.3%	6.3%
Transgender: FtM	<5	<10/0	<5	<1%	0	0.0%	<5	<10/0	0	0.0%	-
Race/Ethnicity											
Black, non-Hispanic	274	61.3%	279	61.7%	282	65.3%	209	59.7%	202	62.9%	-3.3%
White, non-Hispanic	53	11.9%	61	13.5%	45	10.4%	54	15.4%	41	12.8%	-24.1%
Hispanic	100	22.4%	84	18.6%	87	20.1%	71	20.3%	63	19.6%	-11.3%
Asian/PI, non-Hispanic	6	1.3%	8	1.8%	6	1.4%	11	3.1%	7	2.2%	-36.4%
AI/AN, non-Hispanic	0	0.0%	0	0.0%	<5	<1%	0	0.0%	0	0.0%	0.0%
Multiple, non-Hispanic	14	3.1%	20	4.4%	11	2.5%	5	1.4%	8	2.5%	60.0%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0%
Transmission Category											
MSM	374	83.7%	375	83.0%	343	79.4%	288	82.3%	258	80.4%	-10.4%
IDU	5	1.1%	5	1.1%	7	1.6%	<5	<1%	5	1.6%	-
MSM/IDU	16	3.6%	14	3.1%	18	4.2%	<5	<1%	8	2.5%	-
Heterosexual	47	10.5%	54	11.9%	59	13.7%	52	14.9%	47	14.6%	-9.6%
Other	5	1.1%	5	1.1%	<5	<1%	<5	1.1%	<5	<10/0	-
Age											
<13	5	1.1%	<5	<10/0	<5	<1%	<5	1.1%	<5	<10/0	-
13-19	58	13.0%	60	13.3%	64	14.8%	60	17.1%	42	13.1%	-30.0%
20-24	192	43.0%	206	45.6%	152	35.2%	129	36.9%	119	37.1%	-7.8%
25-29	192	43.0%	183	40.5%	213	49.3%	157	44.9%	157	48.9%	0.0%
Total	447		452		432		350		321		-8.3%

Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. \*For HIV and AIDS cases, current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses may differ slightly across tables . HIV and AIDS cases as of 10/1/2019. For STI cases, reported sex at birth.

Table 3.2: Reported Cases of People Living with HIV Among Persons Aged 13-29, Chicago, 2013-2017 (as of 10/1/2019)

Demographic Characteristics	20	)13	20	014	20	15	20	16	20	017	% Change 2016-2017
	No.	%	No.	0/0	No.	0/0	No.	0/0	No.	0/0	0/0
Sex*											
Male	2,082	75.3%	2,217	76.5%	2,371	77.8%	2,428	78.3%	2,383	78.8%	-1.9%
Female	576	20.8%	558	19.3%	548	18.0%	546	17.6%	512	16.9%	-6.2%
Transgender: MtF	96	3.5%	112	3.9%	116	3.8%	116	3.7%	116	3.8%	0.0%
Transgender:FtM	10	<10/0	11	<1%	11	<1%	11	<1%	13	<1%	18.2%
Race/Ethnicity											
Black, non-Hispanic	1,878	67.9%	1,959	67.6%	2,064	67.8%	2,115	68.2%	2,077	68.7%	-1.8%
White, non-Hispanic	254	9.2%	262	9.0%	277	9.1%	271	8.7%	268	8.9%	-1.1%
Hispanic	478	17.3%	523	18.0%	540	17.7%	547	17.6%	524	17.3%	-4.2%
Asian/PI, non-Hispanic	14	<1%	15	<1%	22	<10/0	27	<1%	34	<1%	25.9%
AI/AN, non-Hispanic	<5	<1%	<5	<1%	<5	<10/0	<5	<1%	5	<1%	0.0%
Multiple, non-Hispanic	138	5.0%	137	4.7%	142	4.7%	139	4.5%	119	3.9%	-14.4%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0%
Transmission Category											
MSM	1,864	67.4%	2,018	69.6%	2,179	71.5%	2,246	72.4%	2,228	73.7%	-0.8%
IDU	56	2.0%	53	1.8%	50	1.6%	49	1.6%	42	1.4%	-14.3%
MSM/IDU	100	3.6%	99	3.4%	100	3.3%	103	3.3%	79	2.6%	-23.3%
Heterosexual	467	16.9%	451	15.6%	438	14.4%	430	13.9%	412	13.6%	-4.2%
Other	277	10.0%	277	9.6%	279	9.2%	273	8.8%	263	8.7%	-3.7%
Age											
<13	67	2.4%	67	2.3%	69	2.3%	70	2.3%	66	2.2%	-5.7%
13-19	234	8.5%	203	7.0%	183	6.0%	181	5.8%	169	5.6%	-6.6%
20-24	973	35.2%	996	34.4%	1,001	32.9%	929	30.0%	846	28.0%	-8.9%
25-29	1,490	53.9%	1,632	56.3%	1,793	58.9%	1,921	61.9%	1,943	64.3%	1.1%
Total	2,764		2,898		3,046		3,101		3,024		-2.5%

Note: Groups may not total 100% due to rounding. Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. \*For HIV and AIDS cases, current gender identity or gender with which a person identifies. Because total diagnoses were calculated using current gender, independently of values using birth sex, total diagnoses may differ slightly across tables. HIV and AIDS cases as of 10/1/2019.

Table 3.3: Reported Cases of Chlamydia Among Persons Aged 13-29, Chicago, 2014-2018

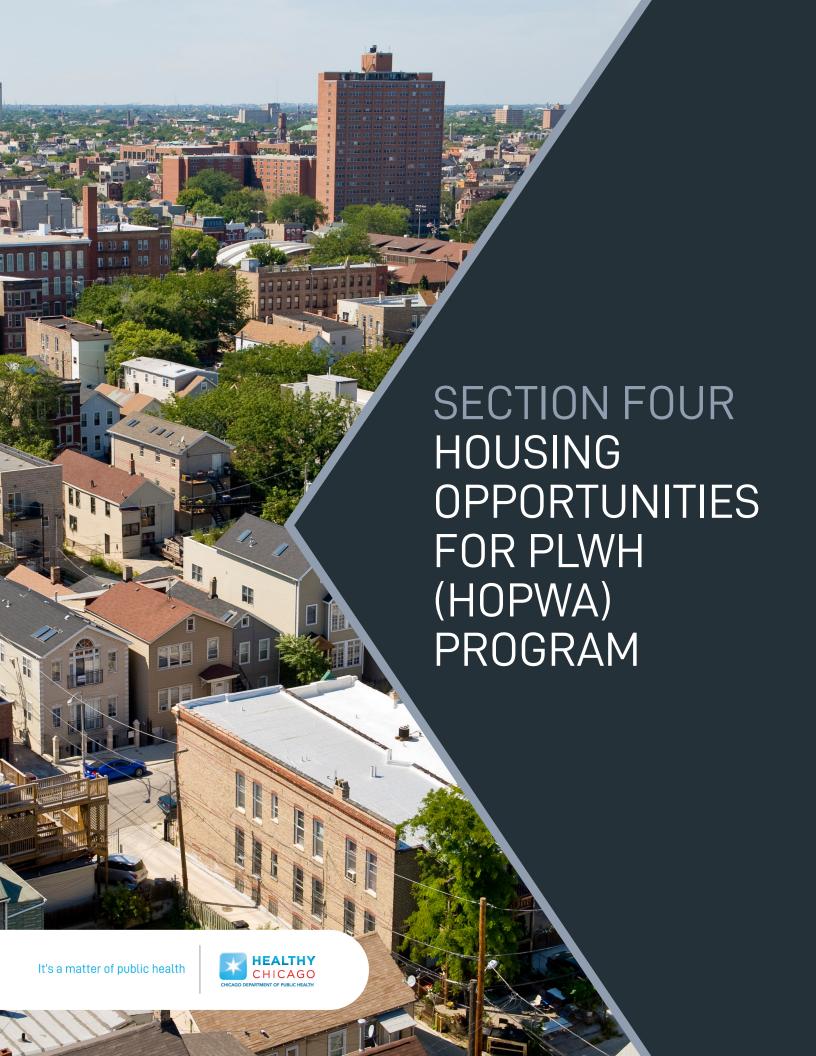
Demographic Characteristics	20	14	20	)15	20	16	20	17	20	)18	% Change 2017-2018
	No.	%	No.	0/0	No.	0/0	No.	0/0	No.	0/0	0/0
Birth Sex											
Male	6,844	29.9%	7,535	31.6%	8,039	33.5%	8,269	34.5%	8,615	35.8%	3.8%
Female	16,047	70.0%	16,265	68.1%	15,936	66.4%	15,642	65.3%	15,429	64.2%	-1.7%
Unknown	33	<1%	69	<1%	29	<1%	49	<10/0	<5	0.0%	-100.0%
Race/Ethnicity											
Black, non-Hispanic	11,584	50.5%	12,223	51.2%	10,674	44.5%	10,842	45.3%	11,486	47.8%	5.6%
White, non-Hispanic	1,066	4.7%	1,430	6.0%	1,491	6.2%	1,668	7.0%	1,707	7.1%	2.0%
Hispanic	2,683	11.7%	3,019	12.6%	3,096	12.9%	3,331	13.9%	3,666	15.2%	9.7%
Asian/PI, non-Hispanic	129	<1%	191	<1%	206	<1%	235	<1%	256	1.1%	8.6%
AI/AN, non-Hispanic	16	<1%	24	<1%	27	<1%	28	<111/0	26	<1%	-7.5%
Other	257	1.1%	203	<1%	207	<1%	201	<10/0	262	1.1%	29.9%
Unknown	7,189	31.4%	6,779	28.4%	8,303	34.6%	7,655	31.9%	6,642	27.6%	-13.5%
Age											
13-19	8,427	36.8%	8,036	33.7%	7,867	32.8%	7,550	31.5%	7,524	31.3%	-0.7%
20-29	14,497	63.2%	15,833	66.3%	16,137	67.2%	16,410	68.5%	16,521	68.7%	0.3%
20-24	9,789	42.7%	10,229	42.9%	10,033	41.8%	10,206	42.6%	9,917	41.2%	-3.2%
25-29	4,708	20.5%	5,604	23.5%	6,104	25.4%	6,204	25.9%	6,604	27.5%	6.1%
Median Age	21		21		21		22		22		
Total	22,924		23,869		24,004		23,960		24,045		<1%

Table 3.4: Reported Cases of Gonorrhea Among Persons Aged 13-29, Chicago, 2014-2018

Demographic Characteristics	20	)14	20	)15	20	16	20	17	20	)18	% Change 2017-2018
	No.	%	No.	0/0	No.	0/0	No.	0/0	No.	0/0	0/0
Birth Sex											
Male	3,248	50.5%	3,530	52.7%	4,363	56.0%	4,876	59.0%	5,315	60.6%	2.6%
Female	3,179	49.4%	3,144	47.0%	3,422	43.9%	3,348	40.5%	3,459	39.4%	-2.8%
Unknown	8	<1%	20	<1%	13	<1%	34	<10/0	0	<10/0	-100.0%
Race/Ethnicity											
Black, non-Hispanic	3,653	56.8%	4,107	61.4%	3,998	51.3%	4,578	55.4%	4,864	55.4%	0.0%
White, non-Hispanic	340	5.3%	472	7.1%	600	7.7%	698	8.5%	880	10.0%	18.7%
Hispanic	363	5.6%	426	6.4%	593	7.6%	749	9.1%	983	11.2%	23.5%
Asian/PI, non-Hispanic	16	<1%	47	<1%	42	<1%	62	<10/0	81	<10/0	23.0%
AI/AN, non-Hispanic	<5	0.0%	8	<1%	10	<1%	10	<1%	16	<10/0	50.6%
Other	49	<1%	62	<1%	42	<1%	65	<10/0	83	<10/0	20.2%
Unknown	2,012	31.3%	1,572	23.5%	2,496	32.0%	2,096	25.4%	1,867	21.3%	-16.2%
Age											
13-19	2,162	33.6%	2,165	32.3%	2,315	29.7%	2,331	28.2%	2,254	25.7%	-9.0%
20-29	4,273	66.4%	4,529	67.7%	5,483	70.3%	5,927	71.8%	6,520	74.3%	3.5%
20-24	2,798	43.5%	2,740	40.9%	3,117	40.0%	3,250	39.4%	3,440	39.2%	-0.4%
25-29	1,475	22.9%	1,789	26.7%	2,366	30.3%	2,677	32.4%	3,080	35.1%	8.3%
Median Age	21		22		22		22		23		
Total	6,435		6,694		7,798		8,258		8,774		

**Table 3.5:** Reported Cases of P&S Syphilis Among Persons Aged 13-29, Chicago, 2014-2018

Demographic Characteristics	20	014	2	015	20	116	20	117	2	018	% Change 2017-2018
	No.	%	No.	%	No.	0/0	No.	0/0	No.	%	0/0
Birth Sex											
Male	247	87.3%	290	88.4%	288	90.6%	290	90.1%	328	89.1%	-1.0%
Female	36	12.7%	38	11.6%	30	9.4%	32	9.9%	39	10.6%	6.6%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	<1%	-
Race/Ethnicity											
Black, non-Hispanic	161	56.9%	182	55.5%	155	48.7%	152	47.2%	177	48.1%	1.9%
White, non-Hispanic	51	18.0%	63	19.2%	60	18.9%	59	18.3%	63	17.1%	-6.6%
Hispanic	45	15.9%	62	18.9%	70	22.0%	56	17.4%	89	24.2%	39.1%
Asian/PI, non-Hispanic	<5	1.1%	5	1.5%	<5	1.3%	5	1.6%	6	1.6%	3.7%
AI/AN, non-Hispanic	0	0.0%	<5	<1%	<5	<1%	1	<1%	1	<1%	-4.6%
Other	0	0.0%	<5	<1%	8	2.5%	17	5.3%	10	2.7%	-49.2%
Unknown	23	8.1%	13	4.0%	20	6.3%	32	9.9%	22	6.0%	-39.8%
Age											
13-19	26	9.2%	23	7.0%	27	8.5%	22	6.8%	36	9.8%	43.2%
20-29	257	90.8%	305	93.0%	291	91.5%	300	93.2%	332	90.2%	-3.2%
20-24	114	40.3%	137	41.8%	101	31.8%	114	35.4%	132	35.9%	1.3%
25-29	143	50.5%	168	51.2%	190	59.7%	186	57.8%	200	54.3%	-5.9%
Median Age	25		25		26		25		25		
Total	283		328		318		322		368		



#### **Background**

Housing has been shown to be an important social determinant of physical and mental health and well-being (Maqbool, N; Viveiros, J; Ault, M, 2015). Affordable and stable housing can help lead to better health outcomes among low-income populations by reducing the risk of mental illness, physical disease and disability, limiting stressors related to financial burden or frequent moves, as well as allowing individuals and families to spend more of their income on paying for healthcare and healthy foods (Milloy, M.J.; et al., 2012), (Maqbool, N; Viveiros, J; Ault, M, 2015). In addition to these cohealth benefits, housing assistance for PLWH is linked to improved HIV prevention, treatment access and retention in HIV care, and a reduction in behaviors that can transmit HIV to others (Kidder, D P; Wolitski, R J; Campsmith, M L, 2007a), (Lennon, C A; et al., 2013).

#### What do we do

Since 1992, CDPH has served as the United States Department of Housing and Urban Development (HUD) - HOPWA formula grantee for the Chicago Eligible Metropolitan Statistical Area (EMSA). The Chicago EMSA is comprised of seven counties (Cook, DeKalb, DuPage, Grundy, Kendall, McHenry, and Will), with a 2017 estimated population of 7.4 million, representing 58% of the population of the state of Illinois.

CDPH's HOPWA program addresses the specific housing needs of PLWH by funding not-for-profit, community-based organizations located within the Chicago EMSA to prevent homelessness and facilitate access to a range of needed care, treatment and supportive services. The HOPWA program funds three service categories:

- Facility-Based Housing Assistance funds residential facilities (e.g., community residences, single-room-occupancy dwellings, short-term facilities, project-based rental units and master-leased units) and multiple apartments within the same building or building complex that houses PLWH and their families. This program also provides access to supportive services for clients and their beneficiaries.
- Tenant-Based Rental Assistance is a rental subsidy program used to help low-income households
  obtain permanent housing in the private rental housing market that meets housing quality
  standards and is rent-reasonable. This program also provides access to supportive services for
  clients and beneficiaries.
- Housing Information Services are intended for low-income PLWH and their families who are
  homeless or in imminent danger of becoming homeless that are not currently in HOPWAsupported housing. The program assists in locating, acquiring and maintaining housing. Services
  may also include referral to legal assistance for eviction issues, mediation, adoption, acquiring
  social security benefits and other federal assistance and wrongful discharge.

#### **CDPH HOPWA Program Goal and Objectives**

Goal - Provide housing for PLWH.

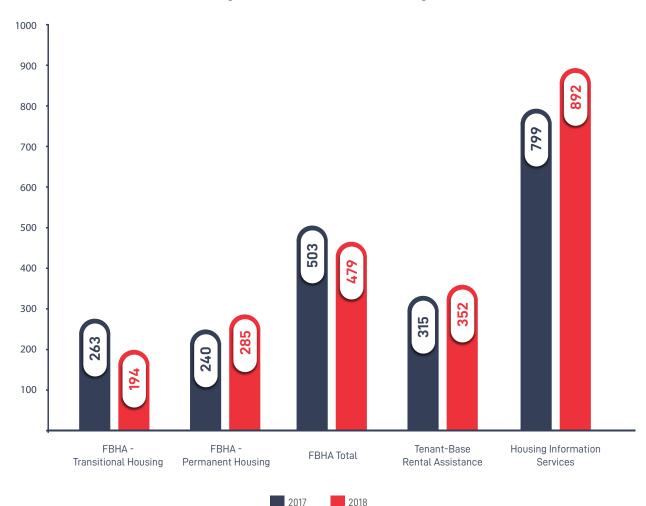
**Objective 1.1** – Provide Facility-Based Housing Assistance to a minimum of 467 low-income PLWH in the Chicago EMSA.

**Objective 1.2** – Provide Housing Information Services to a minimum of 787 low-income PLWH in the Chicago EMSA.

**Objective 1.3** – Provide Tenant-Based Rental Assistance to a minimum of 334 low-income PLWH in the Chicago EMSA.

#### **CDPH HOPWA Program Performance**

Figure 4.1: Total Number of HOPWA Clients who Received Facility-Based Services, Tenant-Based Services and/or Housing Information Services, Chicago EMSA, 2017 and 2018



#### HIV Continuum of Care: HOPWA Clients vs. Chicago EMSA, 2017

Since 2015, CDPH has been collaborating with HOPWA-funded agencies in the Chicago EMSA to collect client-level data to track medical outcomes along the HIV Care Continuum. The purpose of this evaluation is to evaluate the health outcomes of HOPWA clients utilizing the HIV Care Continuum, among those who received housing assistance from January 1, 2017 through December 31, 2017.

#### **Methods**

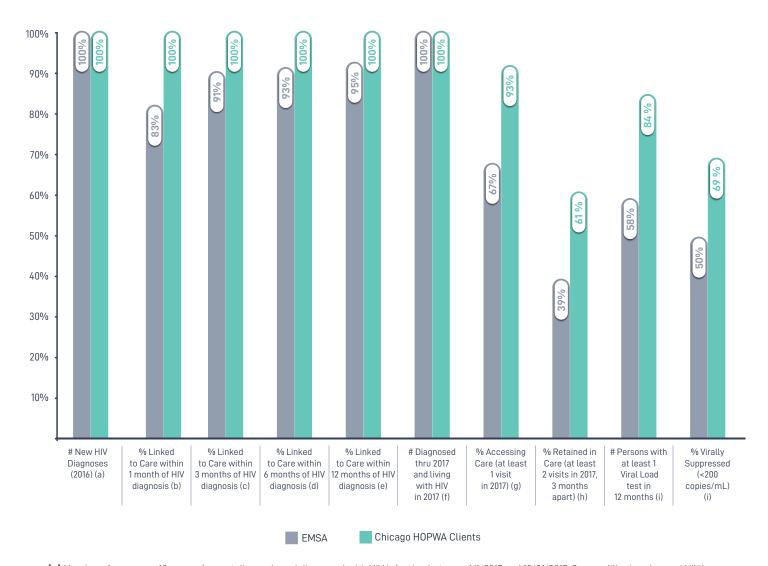
Sixteen HOPWA-funded organizations submitted 2016-2017 client rosters (N=1,409) to CDPH via a secure file transfer protocol (sFTP). Rosters consisted of client's first name, last name, date of birth, gender, HOPWA intake and exit date and housing model. Of the client rosters, 1,094 (60.4%) HOPWA clients receiving housing assistance during January 1, 2017 through December 31, 2017 were eligible for this evaluation. Using client's first name, last name and date of birth, 1,058 HOPWA clients were matched to CDPH's enhanced HIV/AIDS Reporting System (eHARS). Of those, 170 were removed from the sample due to duplicate eHARS unique identifiers. For this evaluation, 888 (81%) unduplicated HOPWA clients were then evaluated for linkage to care, accessing care, retention in care and viral suppression using the CDC National HIV/AIDS Strategy (NHAS) indicator program. Among those matched cases, 75% were male, 63.2% were aged 45 years and older, 65.5% were NH Black and 44.1% were MSM (Table 4.1).

Date of diagnosis was obtained from eHARS. Linkage to care was assessed among individuals who were 13 years of age at diagnosis, resided in Chicago EMSA (based on most recent residence), diagnosed with HIV infection between January 1, 2017 and December 31, 2017, and defined as having one medical care visit with a provider within three, six or 12 months of diagnosis. Accessing care, retention in care and viral suppression were assessed among individuals who were 13 years of age at diagnosis, resided in Chicago EMSA (based on most recent residence) and diagnosed with HIV infection through December 31, 2016 and living with HIV on December 31, 2017. Accessing care was defined as one medical care visit between January 1, 2017 and December 31, 2017. Individuals were considered retained in care if they had had two medical care visits at least three months apart between January 1, 2017 and December 31, 2017. Viral suppression was defined as having a viral load <200 copies/mL between January 1, 2017 and December 31, 2017. Matching and analyses were performed using SAS version 9.4.

**Table 4.1:** Demographic Characteristics of HOPWA Clients Who Received Housing Assistance and Supportive Services in 2017, Chicago EMSA

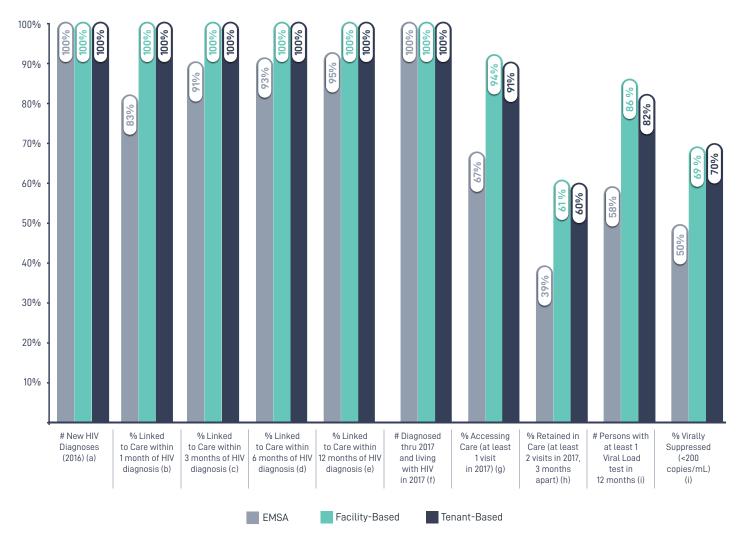
	Matched HO	PWA Clients
Characteristics	No.	0/0
Birth Sex		
Male	666	75.0%
Female	222	25.0%
Age in 2017		
<13	16	1.8%
13-24	37	4.2%
25-34	161	18.1%
35-44	113	12.7%
45-54	288	32.4%
55-64	235	26.5%
65+	38	4.3%
Race/Ethnicity		
NH Black	582	65.5%
Hispanic/Latino	143	16.1%
NH White	82	9.2%
Other	81	9.2%
Transmision Category		
Male-to-male sexual contact (MSM)	392	44.1%
Injection drug use (IDU)	138	15.5%
Heterosexual contact	140	15.8%
MSM and IDU	116	13.1%
Other	102	11.5%
Total	888	100%

Figure 4.2: HIV Continuum of Care Among Persons Aged 13 Years and Older, Chicago EMSA vs HOPWA Clients, 2017 (as of 10/1/2019)



(a) Number of persons ≥ 13 years of age at diagnosis and diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/ AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (b) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 1 month of HIV diagnosis among those diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (c) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 3 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (d) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 6 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (e) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 12 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2017 and 12/31/2017, Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019), NHAS output, Link1 Table. (f) Number of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, Care1 and VL1 Tables. (g) Percent of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017 who received at least one medical care visit (at least one CD4 or VL) between January 2017 and December 2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, Care1 Table. (h) Percent of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017 who received at least two medical care visits (at least one CD4 or VL at each), 3 months apart, between January 2017 and December 2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, Care1 Table. (ii) Percent of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017 who received at least one VL test in the past 12 months. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, VL1 Table. (j) Percent of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017 whose most recent viral load test result was &tt; 200 copies/mL. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, VL1 Table. Note: Grey bars represent the National HIV/AIDS Strategy (NHAS) indicators for 2020.

Figure 4.3: HIV Continuum of Care Among Persons Aged 13 Years and Older, Chicago EMSA vs. Facility-Based and Tenant-Based Housing Assitance, 2017 (as of 10/1/2019)



(a) Number of persons ≥ 13 years of age at diagnosis and diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/ AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (b) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 1 month of HIV diagnosis among those diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (c) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 3 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (d) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 6 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (e) Percent of persons ≥ 13 years of age linked to care (at least one CD4, VL, or HIV-1 genotype test) within 12 months of HIV diagnosis among those diagnosed with HIV infection between 1/1/2017 and 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/01/2019). NHAS output, Link1 Table. (f) Number of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, Care1 and VL1 Tables. (g) Percent of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017 who received at least one medical care visit (at least one CD4 or VL) between January 2017 and December 2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, Care1 Table. (h) Percent of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017 who received at least two medical care visits (at least one CD4 or VL at each), 3 months apart, between January 2017 and December 2017. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, Care1 Table. (ii) Percent of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017 who received at least one VL test in the past 12 months. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, VL1 Table. (j) Percent of persons ≥ 13 years of age on 12/31/2016 diagnosed with HIV through 12/31/2016 and living with HIV on 12/31/2017 whose most recent viral load test result was &tt; 200 copies/mL. Source: Illinois enhanced HIV/AIDS reporting system (eHARS) (as of 10/1/2019). NHAS output, VL1 Table. Note: Grey bars represent the National HIV/AIDS Strategy (NHAS) indicators for 2020.

#### SECTION FOUR: HOUSING OPPORTUNITIES FOR PLWH (HOPWA) PROGRAM

#### Results

Figure 4.2 compares the 2017 HIV Continuum of Care for CDPH HOPWA clients and all PLWH in the Chicago EMSA. In 2017, 100% of HOPWA clients were linked to HIV medical care within one month of HIV diagnosis, as compared to 83% for the Chicago EMSA overall. For HOPWA clients who were diagnosed with HIV through December 31, 2016 and living with HIV in December 31, 2017, 93% accessed medical care, 61% were retained in care, 84% had a viral load test in the previous 12 months and 69% attained viral suppression. PLWH in the Chicago EMSA who were not HOPWA clients had much lower percentages across these categories.

Figure 4.3 breaks out the 2017 HIV Continuum of Care by HOPWA clients who received facility-based services, HOPWA clients who received tenant-based services and all PLWH in the Chicago EMSA. In 2017, 100% of HOPWA clients diagnosed with HIV were linked to HIV medical care within one month of HIV diagnosis, as compared to 83% for the Chicago EMSA. For HOPWA clients who were diagnosed with HIV through December 31, 2016 and living with HIV in December 31, 2017 and received facility-based housing assistance, 94% accessed medical care, 61% were retained in care, 86% had a viral load test in the past 12 months and 69% attained viral suppression. For HOPWA clients who were diagnosed with HIV through December 31, 2016 and living with HIV in December 31, 2017 and received tenant-based housing assistance, the results were very similar: 91% accessed medical care, 60% were retained in care, 82% had a viral load test in the past 12 months and 70% attained viral suppression. Outcomes for HOPWA clients, regardless of service type, were much better than for the general population PLWH in the Chicago EMSA.

#### SECTION FOUR: HOUSING OPPORTUNITIES FOR PLWH (HOPWA) PROGRAM

#### **Discussion**

This evaluation provides the CDPH HOPWA program with the ability to monitor the HIV health outcomes of PLWH who use HOPWA services along each step of the continuum. Results of this analysis are consistent with previous studies that have demonstrated a link between housing assistance and improved HIV health outcomes among PLWH. The data also suggest that CDPH HOPWA-funded programs have opportunities to strengthen programming to better support ongoing retention in care, prescribing of antiretroviral medications and viral suppression.

#### References

City of Chicago. (2019). Housing Opportunities for Persons with AIDS (HOPWA). Retrieved from Public Health: https://www.chicago.gov/city/en/depts/cdph/provdrs/healthy\_living/svcs/housing-opportunities-for-persons-with-aids.html

Kidder, D P; Wolitski, R J; Campsmith, M L. (2007a). Health care, health care use, medication adherence among homeless and housed people living with HIV/AIDS. American Journal of Public Health, 91(12), 2238-2245. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2089119/

Lennon, C A; et al. (2013). Service Priorities and Unmet Service Needs Among People Living with HIV/AIDS: Results from a Nationwide Interview of HIV/AIDS Housing Organizations. *AIDS Care, 25*(9), 1083-1091. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4271631/

Maqbool, N; Viveiros, J; Ault, M. (2015). *The Impacts of Affordable Housing on Health: A Research Summary.* Center for Housing Policy - Insights from Housing Policy Research. Retrieved from Center for Housing Policy - Insights from Housing Policy Research.

Milloy, M.J.; et al. (2012). Housing Status and the Health of People Living with HIV/AIDS. *Current HIV/AIDS Report*, *9*(4), 364-374. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3693560/



#### **Appendix A: Technical Notes - General**

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

Diagnoses data are presented through 2018. While STI data are final, AIDS and HIV data for 2018 are still provisional.

#### HIV/AIDS

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 a of 10/01/2019. Reporting delays are important when interpreting trends in case numbers and rates over time, especially with the most recent year of diagnosis. Report delay is defined as the interval between the date an HIV or AIDS case is diagnosed and the date the case is reported to the health department. Within three years, the total number of HIV diagnoses reported are relatively stable (fluctuating < 10 cases) and the data are no longer considered provisional. In order to provide the most complete data as possible, we will be presenting trend data through 2018. Additional cases continue to be reported in subsequent years and new cases are identified through laboratory reporting and registry matches. Thus, the numbers of cases diagnosed for each year are subject to change as new information is received from any of the reporting sources.

The "HIV Infection Diagnosis" data presented in this issue include three categories of diagnoses: (1) a diagnosis of HIV infection, (2) a diagnosis of HIV infection with a later diagnosis of AIDS, and (3) concurrent diagnoses of HIV infection and AIDS [defined as receiving an AIDS diagnosis within 12 months of an HIV diagnosis]. 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 20 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 five are suppressed.

For surveillance purposes, HIV and AIDS cases are counted only once in a hierarchy of modes of transmission. Persons with more than one reported mode of transmission are classified in the transmission mode first in the hierarchy. The exception is men who have sex with men and also inject drugs, which has its own category. Persons whose transmission mode is classified as male-to-male sexual contact (MSM) include men who report sexual contact with other men and men who report sexual contact with both men and women. Persons 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**

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

#### **CHLAMYDIA**

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

#### **SYPHILIS**

Syphilis is one of three STIs 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 bacteria called *Treponema Pallidum*. Syphilis, a genital ulcerative disease, causes significant complications if untreated and facilitates the transmission of HIV infection. Syphilis is characterized by stages: primary (can have a lesion known as a chancre, usually occurring three weeks post exposure), secondary (symptoms include rash and fatigue), early latent (less than one year post exposure) and late latent (greater than one 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).

#### **REFERENCES:**

- 1. Centers for Disease Control and Prevention (2013). <u>Sexually Transmitted Disease</u> Surveillance. Retrieved from http://www.cdc.gov/std/default.htm.
- 2. Centers for Disease Control and Prevention (1997). <u>Case Definition for Infectious</u> Conditions Under Public Health Surveillance. MMWR; 46(No. RR-10).
- 3. Heymann, D (Ed) (2004). <u>Control of Communicable Diseases Manual (18th Ed)</u>. American Public Health Association: Washington, DC.
- 4. Illinois Department of Public Health (2013). Control of Sexually Transmissible Infections Code. Retrieved from <a href="http://www.idph.state.il.us/2013">http://www.idph.state.il.us/2013</a> Rules/Adopted/77\_IAC\_693\_6-13. pdf
- 5. Zenilman, J. (2007). <u>Sexually Transmitted Diseases. In K. Nelson & C Masters Williams (Eds.)</u>, <u>Infectious Disease Epidemiology: Theory and Practice, 2nd edition.</u> Sudbury, MA: Jones and Bartlett Publishers.

Table A.1: 2018 HIV Infection Diagnosis Rates by Community Area, Chicago (as of 10/01/2019)

Co	ommunity Area	Average HIV Infections <sup>†</sup>	Average HIV Rate §		Community Area	Average HIV Infections†	Averag Infec Rat
	Rogers Park	32	58.2	40	Washington Park	9	76.8
	West Ridge	19	26.4	41	Hyde Park	0	0.0
	Uptown	29	51.5	42	Woodlawn	7	26.9
L	incoln Square	6	15.2	43	South Shore	29	58.3
	North Center	5	15.7	44	Chatham	20	64.
	Lake View	32	33.9	45	Avalon Park	<5	<5
	Lincoln Park	<5	<5	46	South Chicago	9	28.8
N	ear North Side	10	12.4	47	Burnside	0	0.0
	Edison Park	0	0.0	48	Calumet Heights	<5	<5
1	Norwood Park	<5	<5	49	Roseland	12	26.9
J	efferson Park	5	19.6	50	Pullman	0	0.0
	Forest Glen	0	0.0	51	South Deering	6	39.7
3	North Park	<5	<5	52	East Side	<5	<5
	Albany Park	14	27.2	53	West Pullman	6	20.2
)	Portage Park	<5	<5	54	Riverdale	<5	<5
5	Irving Park	6	11.2	55	Hegewisch	0	0.0
7	Dunning	6	14.3	56	Garfield Ridge	<5	<5
3	Montclare	<5	<5	57	Archer Heights	<5	<5
9 B	elmont Cragin	11	14.0	58	Brighton Park	5	11.0
0	Hermosa	<5	<5	59	McKinley Park	5	32.0
1	Avondale	8	20.4	60	Bridgeport	<5	<5
2 I	Logan Square	11	14.9	61	New City	14	31.5
3 ⊦	lumboldt Park	15	26.6	62	West Elsdon	<5	<5
4	West Town	15	18.4	63	Gage Park	<5	<5
5	Austin	31	31.5	64	Clearing	<5	<5
6 We	st Garfield Park	10	55.6	65	West Lawn	<5	<5
7 Ea	st Garfield Park	9	43.8	66	Chicago Lawn	16	28.8
8 N	lear West Side	20	36.4	67	West Englewood	18	50.7
9 N	orth Lawndale	14	39.0	68	Englewood	14	45.7
0 S	outh Lawndale	13	16.4	69	Gr. Grand Crossing	10	30.7
1 Lo	ower West Side	10	28.0	70	Ashburn	7	17.0
2	Loop	8	27.3	71	Auburn Gresham	16	32.8
3 N	ear South Side	<5	<5	72	Beverly	<5	<5
4 Δ	rmour Square	<5	<5	73	Washington Heights	12	45.3
5	Douglas	7	38.4	74	Mount Greenwood	0	0.0
6	Oakland	<5	<5	75	Morgan Park	5	22.2
7	Fuller Park	0	0.0	76	O'Hare	<5	<5
B Gı	rand Boulevard	13	59.3	77	Edgewater	31	54.8
9	Kenwood	<5	<5		Unknown CA	73	
					Chicago Total <sup>¶</sup>	734	27.2

Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. §Rate per 100,000 population using 2010 U.S. Census Bureau population figures. ¶Includes all persons with unknown/undetermined community area. \*HIV infection diagnoses represents newly diagnosed with HIV in a given year, at any stage of the disease through 10/01/19.

**Table A.2:** People Living with HIV Infection in 2017 by Community Area, Chicago (as of 10/01/19)

	Cilicago (as of 10/01/19)						
	Community Area	Prevalent Cases	Prevalent Rate		Community Area	Prevalent Cases	Prevale Rate
	Rogers Park	853	1,551.2	40	Washington Park	120	1,024.
2	West Ridge	315	437.9	41	Hyde Park	125	486.7
3	Uptown	1,130	2,004.9	42	Woodlawn	237	912.1
4	Lincoln Square	186	471.0	43	South Shore	729	1,464.
5	North Center	91	285.6	44	Chatham	298	960.4
6	Lake View	863	914.5	45	Avalon Park	76	746.2
7	Lincoln Park	132	205.9	46	South Chicago	267	855.8
8	Near North Side	289	359.1	47	Burnside	26	891.6
9	Edison Park	6	53.6	48	Calumet Heights	92	666.1
10	Norwood Park	29	78.3	49	Roseland	285	638.7
11	Jefferson Park	31	121.8	50	Pullman	49	668.9
12	Forest Glen	22	118.9	51	South Deering	95	628.8
13	North Park	33	184.0	52	East Side	38	164.9
14	Albany Park	212	411.3	53	West Pullman	168	566.6
15	Portage Park	141	219.9	54	Riverdale	31	478.2
16	Irving Park	186	348.6	55	Hegewisch	11	116.7
17	Dunning	60	143.1	56	Garfield Ridge	54	156.5
18	Montclare	33	245.8	57	Archer Heights	22	164.3
19	Belmont Cragin	227	288.3	58	Brighton Park	105	231.4
20	Hermosa	98	391.8	59	McKinley Park	43	275.4
21	Avondale	146	371.9	60	Bridgeport	73	228.3
22	Logan Square	278	377.7	61	New City	188	423.6
23	Humboldt Park	347	616.1	62	West Elsdon	28	154.6
24	West Town	336	412.6	63	Gage Park	82	205.5
25	Austin	687	697.4	64	Clearing	29	125.3
26	West Garfield Park	165	916.6	65	West Lawn	59	176.9
27	East Garfield Park	220	1,069.7	66	Chicago Lawn	281	505.1
28	Near West Side	333	606.8	67	West Englewood	222	625.3
29	North Lawndale	319	888.3	68	Englewood	258	841.7
30	South Lawndale	426	537.3	69	Gr. Grand Crossing	333	1,021.
31	Lower West Side	121	338.3	70	Ashburn	105	255.6
32	Loop	105	358.6	71	Auburn Gresham	341	699.6
33	Near South Side	122	570.4	72	Beverly	38	189.7
34	Armour Square	36	268.8	73	Washington Heights	132	498.2
35	Douglas	163	893.7	74	Mount Greenwood	5	26.2
36	Oakland	54	912.5	75	Morgan Park	101	448.0
37	Fuller Park	20	695.4	76	O'Hare	20	156.8
38	Grand Boulevard	260	1,185.6	77	Edgewater	1,066	1,886.
39	Kenwood	145	812.7		Unknown CA	8,128	
					Chicago Total <sup>¶</sup>	23,580	874.8

Note: Use caution when interpreting data based on less than 20 events; rate/percent is unreliable. †All persons diagnosed with HIV, from the beginning of the epidemic through 12/31/16 and living through 12/31/17 as of 10/01/19. §Rate per 100,000 population using 2010 U.S. Census Bureau population figures. ¶Includes all persons with unknown/undetermined community area.

Table A.3: Chlamydia Case Rates by Community Area, Chicago, 2018

	Community Area	Chalmydia Cases	Rate		Community Area	Chlamydia Cases	Rate
1	Rogers Park	523	951.1	40	Washington Park	332	2,833
2	West Ridge	313	435.1	41	Hyde Park	173	673.
3	Uptown	821	1,456.7	42	Woodlawn	466	1,793
4	Lincoln Square	173	438.1	43	South Shore	999	2,007
5	North Center	124	389.1	44	Chatham	532	1,714
6	Lake View	980	1,038.5	45	Avalon Park	144	1,413
7	Lincoln Park	322	502.2	46	South Chicago	521	1,670
8	Near North Side	600	745.5	47	Burnside	66	2,263
9	Edison Park	23	205.6	48	Calumet Heights	155	1,122
10	Norwood Park	70	189.1	49	Roseland	775	1,736
11	Jefferson Park	83	326.2	50	Pullman	123	1,679
12	Forest Glen	33	178.3	51	South Deering	227	1,502
13	North Park	65	362.5	52	East Side	160	694.
14	Albany Park	274	531.6	53	West Pullman	491	1,655
15	Portage Park	292	455.4	54	Riverdale	187	2,884
16	Irving Park	287	537.9	55	Hegewisch	63	668
17	Dunning	144	343.4	56	Garfield Ridge	210	608
18	Montclare	64	476.7	57	Archer Heights	95	709.
19	Belmont Cragin	545	692.1	58	Brighton Park	344	758
20	Hermosa	198	791.7	59	McKinley Park	98	627
21	Avondale	228	580.7	60	Bridgeport	173	541.
22	Logan Square	494	671.2	61	New City	533	1,20
23	Humboldt Park	792	1,406.2	62	West Elsdon	132	728.
24	West Town	633	777.3	63	Gage Park	408	1,022
25	Austin	1,824	1,851.5	64	Clearing	128	553.
26	West Garfield Park	458	2,544.3	65	West Lawn	246	737.
27	East Garfield Park	473	2,299.8	66	Chicago Lawn	843	1,515
28	Near West Side	593	1,080.5	67	West Englewood	710	1,999
29	North Lawndale	1,007	2,804.1	68	Englewood	622	2,029
30	South Lawndale	767	967.4	69	Gr. Grand Crossing	701	2,150
31	Lower West Side	330	922.6	70	Ashburn	404	983.
32	Loop	267	911.8	71	Auburn Gresham	912	1,871
33	Near South Side	136	635.8	72	Beverly	86	429.
34	Armour Square	82	612.4	73	Washington Heights	438	1,653
35	Douglas	283	1,551.7	74	Mount Greenwood	35	183.
36	Oakland	133	2,247.4	75	Morgan Park	250	1,108
37	Fuller Park	54	1,877.6	76	O'Hare	32	250.
38	Grand Boulevard	412	1,878.8	77	Edgewater	634	1,121
39	Kenwood	169	947.3		Unknown CA	2,091	
					Chicago Total <sup>1</sup>	30,608	1,135

Table A.4: Gonorrhea Case Rates by Community Area, Chicago, 2018

Community Area	Gonorrhea Cases	Rate		Community Area	Gonorhea Cases
Rogers Park	302	549.2	40	Washington Park	135
West Ridge	101	140.4	41	Hyde Park	87
Uptown	621	1,101.8	42	Woodlawn	204
Lincoln Square	83	210.2	43	South Shore	475
North Center	40	125.5	44	Chatham	269
Lake View	673	713.2	45	Avalon Park	56
Lincoln Park	102	159.1	46	South Chicago	228
Near North Side	201	249.7	47	Burnside	22
Edison Park	<5	<5	48	Calumet Heights	78
Norwood Park	18	48.6	49	Roseland	326
Jefferson Park	26	102.2	50	Pullman	33
Forest Glen	11	59.4	51	South Deering	76
North Park	20	111.5	52	East Side	31
Albany Park	103	199.8	53	West Pullman	191
Portage Park	71	110.7	54	Riverdale	75
Irving Park	86	161.2	55	Hegewisch	13
Dunning	35	83.5	56	Garfield Ridge	45
Montclare	6	44.7	57	Archer Heights	23
Belmont Cragin	124	157.5	58	Brighton Park	66
Hermosa	53	211.9	59	McKinley Park	27
Avondale	94	239.4	60	Bridgeport	44
Logan Square	171	232.4	61	New City	169
Humboldt Park	318	564.6	62	West Elsdon	23
West Town	227	278.8	63	Gage Park	82
Austin	778	789.7	64	Clearing	18
West Garfield Park	190	1,055.5	65	West Lawn	42
East Garfield Park	224	1,089.1	66	Chicago Lawn	306
Near West Side	224	408.2	67	West Englewood	330
North Lawndale	419	1,166.7	68	Englewood	273
South Lawndale	185	233.3	69	Gr. Grand Crossing	321
Lower West Side	111	310.3	70	Ashburn	135
Loop	94	321.0	71	Auburn Gresham	420
Near South Side	55	257.1	72	Beverly	21
Armour Square	20	149.4	73	Washington Heights	155
Douglas	123	674.4	74	Mount Greenwood	6
Oakland	61	1,030.8	75	Morgan Park	102
Fuller Park	28	973.6	76	O'Hare	11
Grand Boulevard	163	743.3	77	Edgewater	505
Kenwood	75	420.4	.,	Unknown CA	1,107
				Chicago Total <sup>¶</sup>	12,678

Table A.5: P&S Syphilis Case Rates by Community Area, Chicago, 2018

	Community Area	P&S Syphilis Cases	Rate		Community Area	P&S Syphilis Cases
	Rogers Park	46	83.7	40	Washington Park	11
	West Ridge	7	9.7	41	Hyde Park	<5
	Uptown	74	131.3	42	Woodlawn	8
	Lincoln Square	11	27.9	43	South Shore	25
	North Center	5	15.7	44	Chatham	12
	Lake View	76	80.5	45	Avalon Park	<5
	Lincoln Park	17	26.5	46	South Chicago	9
	Near North Side	13	16.2	47	Burnside	<5
	Edison Park	0	0.0	48	Calumet Heights	<5
)	Norwood Park	<5	<5	49	Roseland	9
	Jefferson Park	<5	<5	50	Pullman	<5
)	Forest Glen	0	0.0	51	South Deering	6
}	North Park	<5	<5	52	East Side	<5
	Albany Park	9	17.5	53	West Pullman	5
5	Portage Park	7	10.9	54	Riverdale	<5
5	Irving Park	10	18.7	55	Hegewisch	<5
,	Dunning	<5	<5	56	Garfield Ridge	<5
3	Montclare	<5	<5	57	Archer Heights	0
9	Belmont Cragin	12	15.2	58	Brighton Park	6
0	Hermosa	<5	<5	59	McKinley Park	<5
1	Avondale	14	35.7	60	Bridgeport	<5
2	Logan Square	21	28.5	61	New City	9
3	Humboldt Park	12	21.3	62	West Elsdon	0
4	West Town	21	25.8	63	Gage Park	9
5	Austin	47	47.7	64	Clearing	5
6	West Garfield Park	9	50.0	65	West Lawn	7
7	East Garfield Park	16	77.8	66	Chicago Lawn	22
8	Near West Side	21	38.3	67	West Englewood	6
9	North Lawndale	19	52.9	68	Englewood	8
0	South Lawndale	15	18.9	69	Gr. Grand Crossing	13
1	Lower West Side	11	30.8	70	Ashburn	<5
2	Loop	9	30.7	71	Auburn Gresham	13
3	Near South Side	7	32.7	72	Beverly	<5
4	Armour Square	<5	<5	73	Washington Heights	7
5	Douglas	<5	<5	74	Mount Greenwood	0
6	Oakland	<5	<5	75	Morgan Park	<5
7	Fuller Park	<5	<5	76	O'Hare	<5
8	Grand Boulevard	6	27.4	77	Edgewater	51
39	Kenwood	<5	<5		Unknown CA	55
					Chicago Total <sup>¶</sup>	877

**Table A.6:** Average Annual HIV Infection Diagnoses Case Rates Among Persons Aged 13-29 by Community Area, Chicago, 2014-2018 (as of 9/30/19)

	Community Area	Average HIV Infections*	Average HIV Infection Rate§		Community Area	Average HIV Infections*	Average I Infectio Rate§
	Rogers Park	12	19.2	40	Washington Park	<5	<5
	West Ridge	7	10.1	41	Hyde Park	5	16.0
	Uptown	17	26.8	42	Woodlawn	7	24.4
	Lincoln Square	<5	<5	43	South Shore	15	24.0
	North Center	<5	<5	44	Chatham	9	24.7
	Lake View	18	19.4	45	Avalon Park	<5	<5
	Lincoln Park	<5	<5	46	South Chicago	7	18.1
	Near North Side	<5	<5	47	Burnside	<5	<5
	Edison Park	0	0.0	48	Calumet Heights	<5	<5
	Norwood Park	<5	<5	49	Roseland	10	18.6
	Jefferson Park	<5	<5	50	Pullman	<5	<5
	Forest Glen	0	0.0	51	South Deering	<5	<5
	North Park	<5	<5	52	East Side	<5	<5
	Albany Park	<5	<5	53	West Pullman	5	12.6
	Portage Park	<5	<5	54	Riverdale	<5	<5
,	Irving Park	<5	<5	55	Hegewisch	<5	<5
	Dunning	<5	<5	56	Garfield Ridge	<5	<5
}	Montclare	<5	<5	57	Archer Heights	<5	<5
)	Belmont Cragin	5	6.1	58	Brighton Park	<5	<5
)	Hermosa	<5	<5	59	McKinley Park	<5	<5
l	Avondale	<5	<5	60	Bridgeport	<5	<5
2	Logan Square	6	7.3	61	New City	7	12.8
3	Humboldt Park	9	14.3	62	West Elsdon	<5	<5
4	West Town	6	7.3	63	Gage Park	<5	<5
5	Austin	20	17.0	64	Clearing	<5	<5
5	West Garfield Park	6	24.3	65	West Lawn	<5	<5
7	East Garfield Park	5	24.9	66	Chicago Lawn	9	14.3
В	Near West Side	8	16.4	67	West Englewood	10	21.2
)	North Lawndale	9	22.5	68	Englewood	8	20.9
)	South Lawndale	8	8.6	69	Gr. Grand Crossing	10	25.9
	Lower West Side	<5	<5	70	Ashburn	5	13.1
2	Loop	<5	<5	71	Auburn Gresham	<5	<5
3	Near South Side	<5	<5	72	Beverly	0	1.8
+	Armour Square	<5	<5	73	Washington Heights	5	16.8
)	Douglas	6	21.9	74	Mount Greenwood	<5	<5
)	Oakland	<5	<5	75	Morgan Park	<5	<5
	Fuller Park	0	0.0	76	O'Hare	0	0.0
3	Grand Boulevard	7	23.6	77	Edgewater	10	15.4
9	Kenwood	<5	<5		Unknown CA	46	
					Chicago Total¶	400	14.8

**Table A.7:** Average Annual People Living with HIV Case Rates Among Person 13-29 by Community Area, Chicago, 2014-2018 (as of 9/30/19)

	Community Area	Prevalent Cases†	Prevalence Rate§		Community Area	Prevalent Cases†	Prevalen Rate§
	Rogers Park	51	80.0	40	Washington Park	29	203.6
	West Ridge	21	29.2	41	Hyde Park	20	65.5
	Uptown	82	129.0	42	Woodlawn	39	142.5
	Lincoln Square	12	27.4	43	South Shore	132	215.1
5	North Center	6	19.4	44	Chatham	51	136.3
5	Lake View	72	76.4	45	Avalon Park	9	82.5
7	Lincoln Park	10	15.9	46	South Chicago	58	150.8
3	Near North Side	23	31.3	47	Burnside	5	145.7
7	Edison Park	0	0.0	48	Calumet Heights	14	88.9
0	Norwood Park	<5	<5	49	Roseland	54	102.0
1	Jefferson Park	<5	<5	50	Pullman	10	116.6
2	Forest Glen	0	0.0	51	South Deering	14	80.0
3	North Park	<5	<5	52	East Side	<5	<5
4	Albany Park	19	33.0	53	West Pullman	27	72.6
5	Portage Park	12	18.1	54	Riverdale	6	59.1
6	Irving Park	18	30.7	55	Hegewisch	<5	<5
7	Dunning	<5	<5	56	Garfield Ridge	<5	<5
8	Montclare	6	44.3	57	Archer Heights	<5	<5
9	Belmont Cragin	27	34.0	58	Brighton Park	13	28.1
0	Hermosa	11	42.4	59	McKinley Park	8	52.6
21	Avondale	12	28.8	60	Bridgeport	10	28.5
22	Logan Square	33	40.1	61	New City	30	57.2
3	Humboldt Park	56	84.8	62	West Elsdon	<5	<5
4	West Town	33	38.0	63	Gage Park	14	36.7
25	Austin	132	112.0	64	Clearing	<5	<5
6	West Garfield Park	33	142.5	65	West Lawn	9	30.1
27	East Garfield Park	39	184.9	66	Chicago Lawn	73	119.5
8	Near West Side	48	103.0	67	West Englewood	43	95.0
9	North Lawndale	58	139.8	68	Englewood	53	132.8
0	South Lawndale	30	33.4	69	Gr. Grand Crossing	75	194.7
1	Lower West Side	14	32.3	70	Ashburn	26	65.2
32	Loop	6	35.4	71	Auburn Gresham	67	120.2
3	Near South Side	8	82.0	72	Beverly	5	23.6
4	Armour Square	5	38.2	73	Washington Heights	30	99.9
5	Douglas	23	85.4	74	Mount Greenwood	<5	<5
6	Oakland	9	147.3	75	Morgan Park	15	57.9
7	Fuller Park	<5	<5	76	O'Hare	<5	<5
8	Grand Boulevard	39	139.3	77	Edgewater	46	74.0
9	Kenwood	31	171.0		Unknown CA	975	
					Chicago Total <sup>¶</sup>	2,966	110.0

#### **Appendix B: Geocoding Methodology and Limitations**

#### **INEDSS - ADDRESS VALIDATION**

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

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

#### GEOCODING INEDSS MORBIDITY FILE

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

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

# LIMITATIONS IN DETERMINING GEOGRAPHIC PATTERS IN RATES OF HEALTH-RELATED EVENTS

- Unable to determine if the geographical variation in the incidence rates across years is due to a true change in the progression of the disease or an artifact of the address validation process in INEDSS.
- Inflation of the rates due to increase in the proportion of exact or nearest matched addresses.

#### **Appendix C: List of Acronyms**

AI/AN = American Indian/Alaskan Native

AIDS = Acquired Immunodeficiency Syndrome

ART= Anti-Retroviral therapy

CDC = Centers for Disease Control and Prevention

CDPH = Chicago Department of Public Health

CHAT = Chicago Healthy Adolescents and Teens Program

CPS = Chicago Public Schools

eHARS = Enhanced HIV/AIDS Reporting System

EHI = Economic Hardship Index

EMSA = Eligible Metropolitan Statistical Area

FtM = Female to Male Transgender

HIV = Human Immunodeficiency Virus

HOPWA = Housing Opportunities for Persons with AIDS

IDPH = Illinois Department of Public Health

IDU = Injection Drug Use/Injection Drug User

INEDSS = Illinois National Electronic Disiease Surveillance System

GIS = Geographic Information Systems

MtF = Male to Female Transgender

MSM = Men who have sex with men

MSM/IDU = Men with a history of injection drug use who have sex with men

NIR = No identified risk

NH = Non-Hispanic

PI = Pacific Islander

PID = Pelvic Inflammatory Disease

PLWH = People Living with HIV/AIDS

P&S Syphilis = Primary and Secondary Syphilis

STI = Sexually Transmitted Infection

#### **Appendix D: Technical Notes - Hardship Index**

#### CHICAGO COMMUNITY AREA ECONOMIC HARDSHIP INDEX

The economic hardship index (EHI), developed by Richard P. Nathan and Charles F. Adams Jr. in 1975, is used to provide a complete, multidimensional measure of neighborhood socioeconomic conditions of inequality across the City of Chicago. The EHI is a composite of six indicators:

- Crowded housing (percentage occupied by housing units with more than one person per room);
- Poverty (percentage of persons living below the federal poverty level);
- Unemployment (percentage of persons over the age of 16 years who are unemployed);
- Education (percentage of persons over the age of 25 years without a high school education;
- Dependency (percentage of the population under 18 or over 64 years of age);
- Per capita income level.

The EHI score is a median of the six indicators that are standardized on a scale of 0 to 100, with a higher score representing a greater level of economic hardship or burden. The U.S. Census Bureau's American Community Survey estimates are used to calculate index values at the census tract levels. To calculate index values at the Chicago Community Area boundaries, the census tract data are aggregated using the Geographic Information Systems (GIS) software.

#### REFERENCES:

- 1. UIC Great Cities Institute (2016). Fact Sheet #2: Chicago Community Area Economic Hardship Index. Retrieved from: <a href="https://greatcities.uic.edu/wp-content/uploads/2016/07/GCI-Hardship-Index-Fact-SheetV2.pdf">https://greatcities.uic.edu/wp-content/uploads/2016/07/GCI-Hardship-Index-Fact-SheetV2.pdf</a>
- 2. Shih, M., Dumke, K.A., Goran, M.I., and Simon, P.A. (2012). The association between community-level economic hardship and childhood obesity prevalence in Los Angeles. Pediatric Obesity, Volume 8(6): 411-417. Retrieved from: <a href="http://corc.usc.edu/pdf/The%20association%20between%20community-level%20economic%20hardship%20and%20childhood%20obesity%20prevalence%20in%20Los%20Angeles.pdf">http://corc.usc.edu/pdf/The%20association%20between%20community-level%20economic%20hardship%20and%20childhood%20obesity%20prevalence%20in%20Los%20Angeles.pdf</a>



## It's a matter of public health





