OAKLAND COUNTY
MICHIGAN
HEALTH DIVISION

STD & HIV ANNUAL REPORT

2017

An Annual Review of HIV and STD's reported in Oakland County, Michigan

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An Annual Review of HIV and STD's Reported in Oakland County, Michigan

LB>Completed Projects>Medical Services>HIV Reports>18-190 2017 HIV Report

SUMMARY

Oakland County saw a small increase in the number of reported cases of Chlamydia (0.7%). The number of reported cases of Gonorrhea increased by 18.6%. The number of primary and secondary Syphilis cases decreased slightly at 1.6%. There were more new diagnoses/previously positive but new to Oakland County Human Immunodeficiency Virus (HIV) cases reported to Oakland County in 2017 than there were in 2016.

CHLAMYDIA INFECTIONS

Since 2013, the number of chlamydia cases reported to Oakland County Health Division (OCHD) has risen (Table 1). In 2015, the number of reported cases drastically increased from the previous year. In 2017, there were only 29 more cases of chlamydia reported than the year previous. With 2015 and 2016 being years of significant increase, this relative plateau for 2017 is encouraging.

Year	Total Number of Chlamydia Cases Reported	Percent Change from Previous Year
2013	3,519	-
2014	3,586	1.9%
2015	3,983	11.1%
2016	4,192	5.3%
2017	4,221	0.7%

TABLE 1. CHLAMYDIA — REPORTED CASES AND PERCENT CHANGE, OAKLAND COUNTY, MI, 2013–2017

In 2016, five out of the twelve months of the year were the highest peak seen in that month for the last five years (Figure 1). Five months saw the second highest number of cases reported in the last five years.

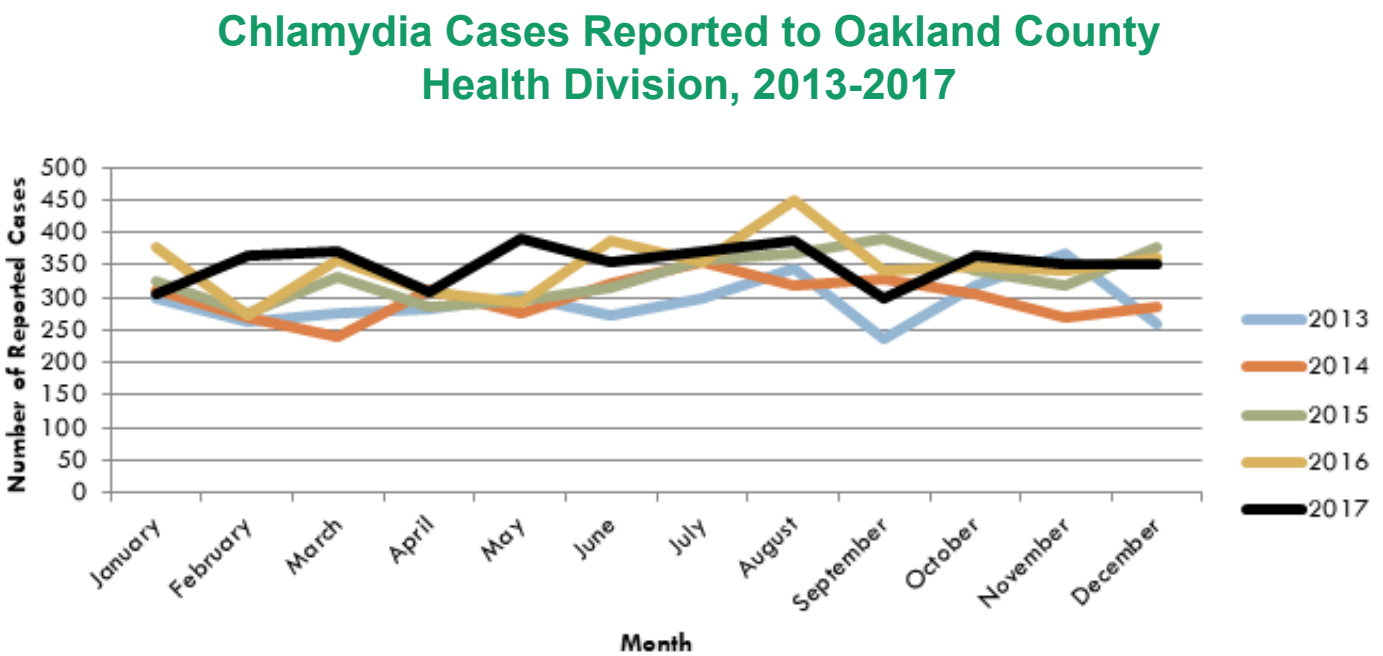

Figure 1

CHLAMYDIA INFECTIONS

In 2016, just over 1.7 million cases of chlamydia were reported to CDC. This made chlamydia the most common notifiable condition in the United States during the 2017 reporting year. Nationally, rates of reported chlamydia cases decreased slightly in 2012, but have continued to rise each year after, similar to what occurred in Oakland County. Consistently, the CDC reports a regional increase in the rates of chlamydia. In comparison to other states, Michigan is in the middle rate category for reported cases in 2017 (Figure 2). The overall rate of reported cases of chlamydia in the United States, Guam, Puerto Rico and the Virgin Islands is 529 cases per 100,000 population. Michigan had a rate of 510 cases per 100,000 population, which ranks 26th* among other US states and territories. Michigan overall experienced an increase in cases, up from 463 cases per 100,000 last year in 2016.

Chlamydia — Rates of Reported Cases by State, United States and Outlying Areas, 2017

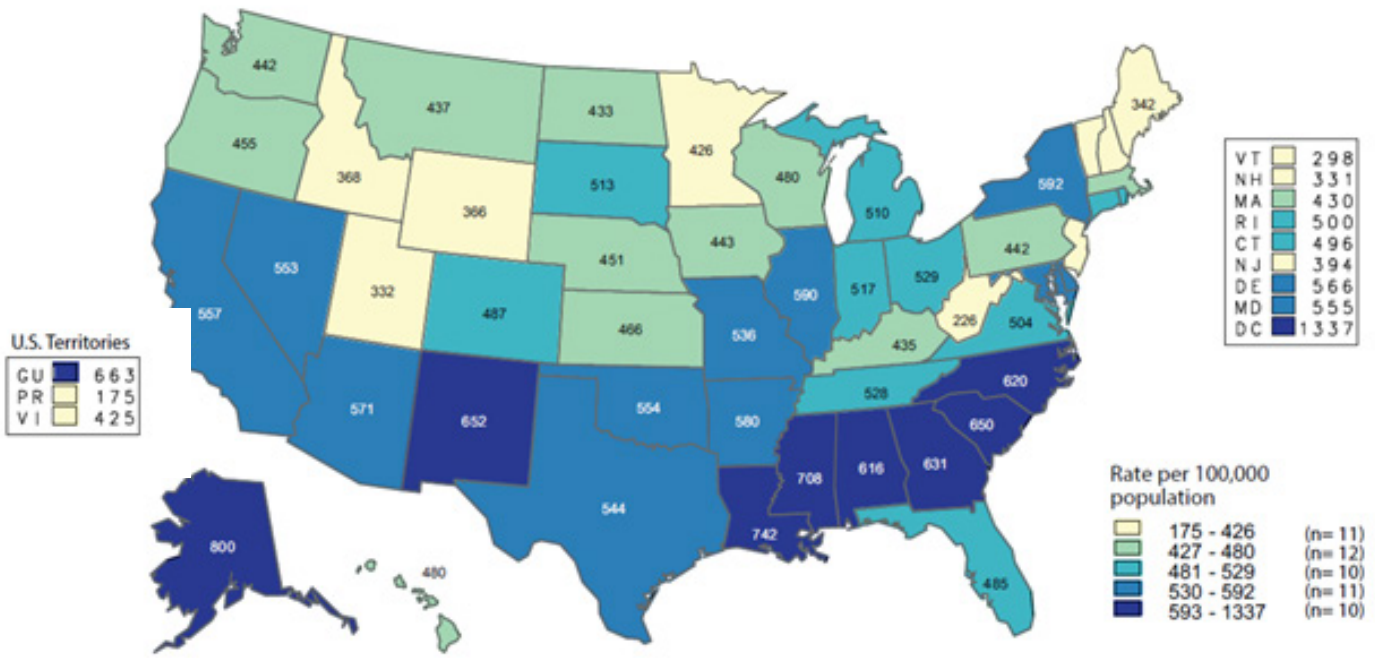

Figure 2

**Rankings are listed from highest to lowest. Michigan was 26, with 25 states/territories having higher rates than 510 per 100,000*

GONORRHEA INFECTIONS

Since 2015, the number of gonorrhea cases reported to OCHD has fluctuated, but as of late, there have been consistent, large increases from year to year (Table 2). There was a significant decrease in cases during 2014, but since 2015, the number of reported cases have continued to increase steadily. Encouragingly, the rate of increase slowed in 2017, however an increase of 18.6% is still significant.

Year	Total Number of Gonorrhea Cases Reported	Percent Change from Previous Year
2013	860	-
2014	631	-26.6%
2015	755	19.7%
2016	1023	35.5%
2017	1213	18.6%

TABLE 2. GONORRHEA — REPORTED CASES AND PERCENT CHANGE, OAKLAND COUNTY, MI, 2013–2017

In 2017, the number of gonorrhea cases reported each month was the peak for ten out of the twelve months since 2013 (Figure 3). This is not surprising given the rate of increase and that the last time Oakland County was close to 1,000 cases was in 2011.

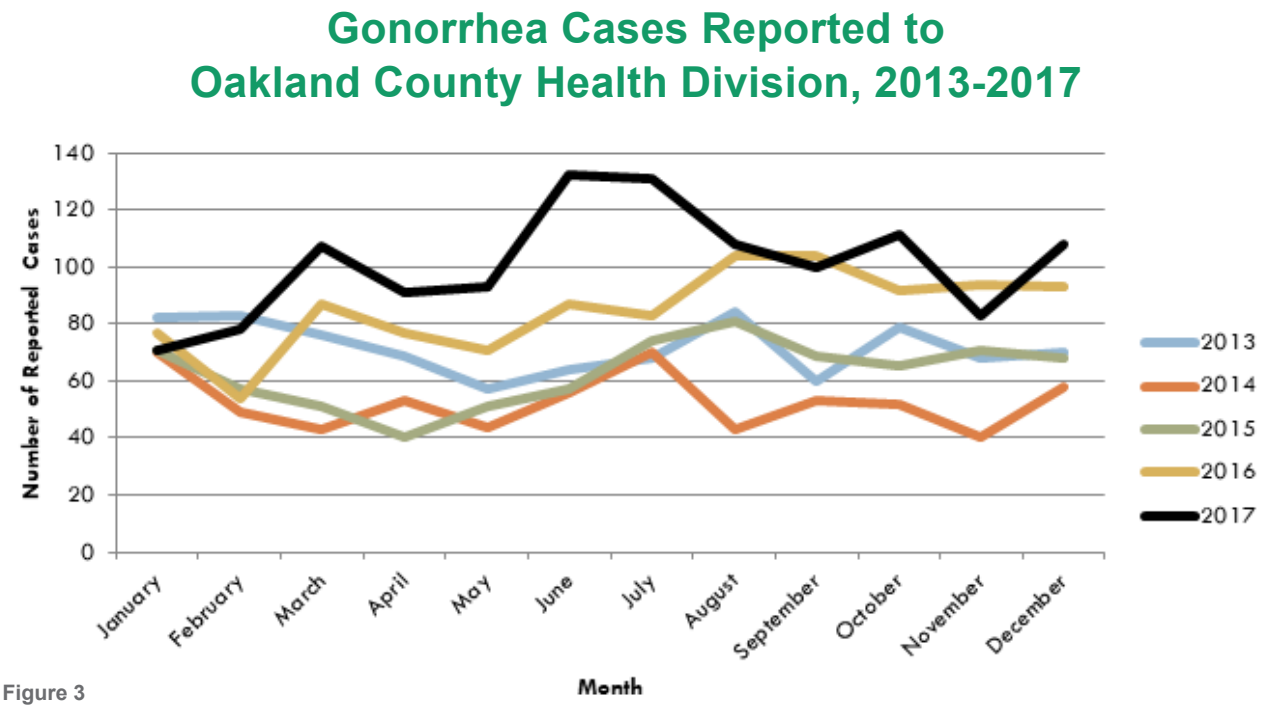

Figure 3

GONORRHEA INFECTIONS

Nationally, the rates of reported gonorrhea cases have increased steadily since 2012. The rates of gonorrhea have trended upward in Oakland County since 2012, but unlike the national numbers, there was a decrease in Oakland County numbers in 2014. The rates of gonorrhea increased markedly across the United States, similar to increases seen last year in 2016. Each region of the US has displayed a sharp increase, with the Midwestern and Western states seeing the most dramatic increase. In comparison to other states, Michigan is in the middle rate category for reported case rates of gonorrhea in 2017 (Figure 4), but still below the national average. The overall rate of reported cases of gonorrhea in the United States, Guam, Puerto Rico and Virgin Islands is 117.9 per 100, 000 population. Michigan had a rate of 159 cases per 100,000 population, which ranked Michigan 25th* among other US states and territories. Michigan reported a case rate of 126 cases per 100,000 in 2016.

Gonorrhea — Rates of Reported Cases by State, United States and Outlying Areas, 2017

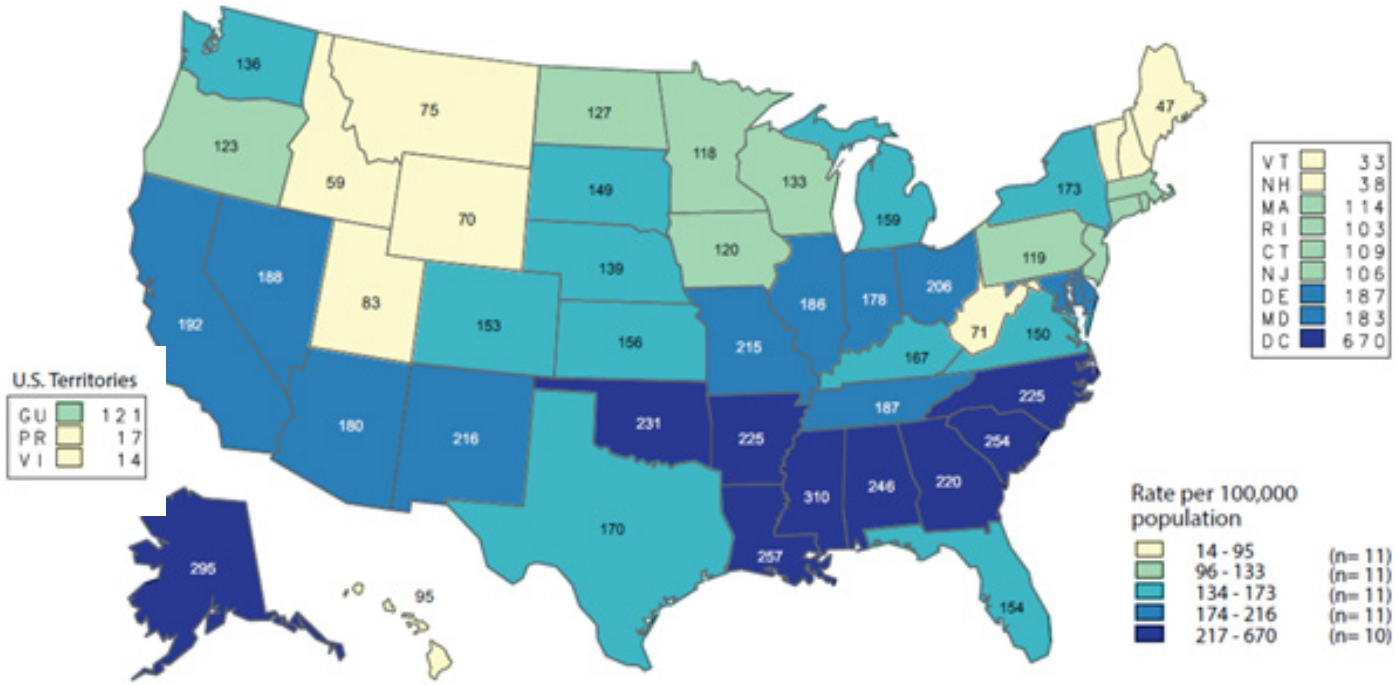

Figure 4

**Rankings are listed from highest to lowest. Michigan was 25, with 24 states/territories having higher rates than 159 per 100,000*

PRIMARY & SECONDARY SYPHILIS INFECTIONS

Since 2015, the number of primary and secondary syphilis cases reported to OCHD has shown a small, but consistent decrease (Table 3). Though the decrease from 2016 to 2017 was not as large as previous years, this still indicates a clear downward trend.

Year	Total Number of Primary & Secondary Syphilis Cases Reported	Percent Change from Previous Year
2013	70	-
2014	73	4.3%
2015	68	-6.9%
2016	64	-5.9%
2017	63	-1.6%

TABLE 3. PRIMARY & SECONDARY SYPHILIS — REPORTED CASES AND PERCENT CHANGE, OAKLAND COUNTY, MI, 2013–2017

The overall number of cases reported to OCHD was the lowest since 2013. 2017 had three five-year peak months (January, April, and May) and three minimum months in February, September and November (Figure 5). There continues to be no seasonal or other trend observed that may provide insight into disease trends.

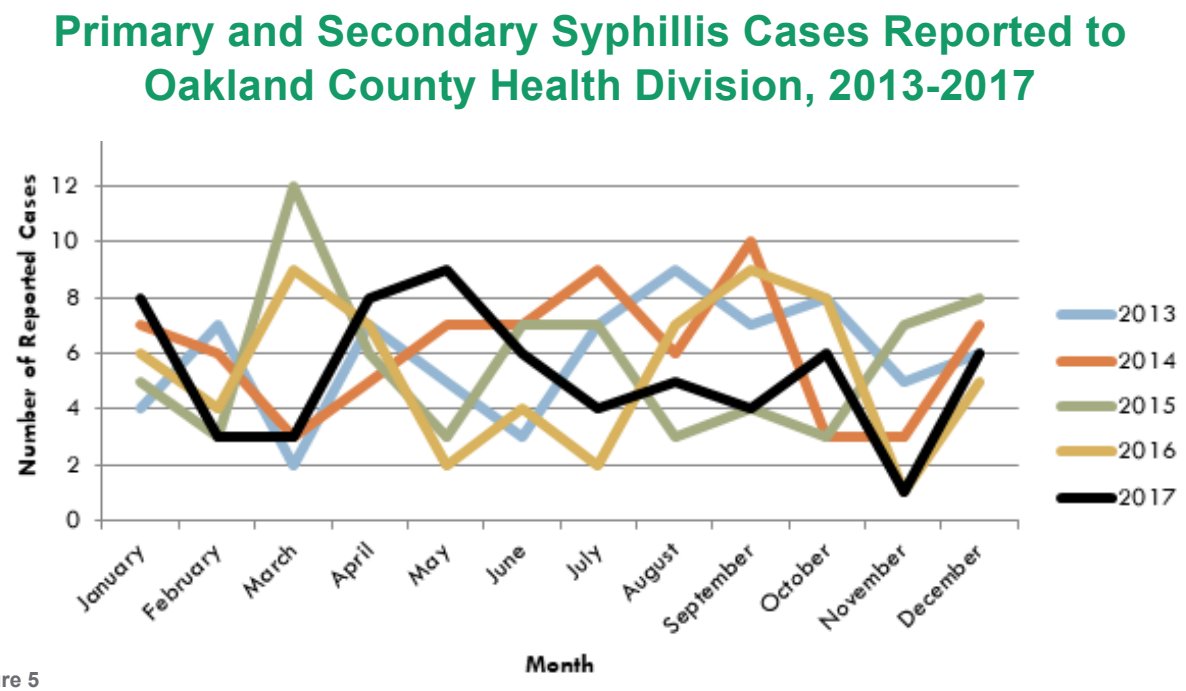

Figure 5

PRIMARY & SECONDARY SYPHILIS INFECTIONS

Nationally, the reported case rates of primary and secondary syphilis have plateaued since about 1998, with a slight upward trend beginning in 2011. Conversely, Oakland County experienced a sudden increase in 2013, followed by decreases in 2015, 2016, and 2017. Oakland County rates are still trending higher since the sudden increase in 2013, but continue a downward trend. Regionally, the CDC reports that all regions have seen an overall increase in cases, with the sharpest increase again occurring in the West. The Midwestern states still have the lowest case rates since 2006. Michigan is in the second lowest rate category for reported case rates of primary and secondary syphilis in 2017 (Figure 6). The overall rate of reported cases in the United States for 2016 was 9.5 cases per 100,000 population. Michigan had a rate of 4.8 cases per 100,000 population, which ranks Michigan tied for 38th among other US states and territories.

Primary and Secondary Syphilis — Rates of Reported Cases by State, United States and Outlying Areas, 2017

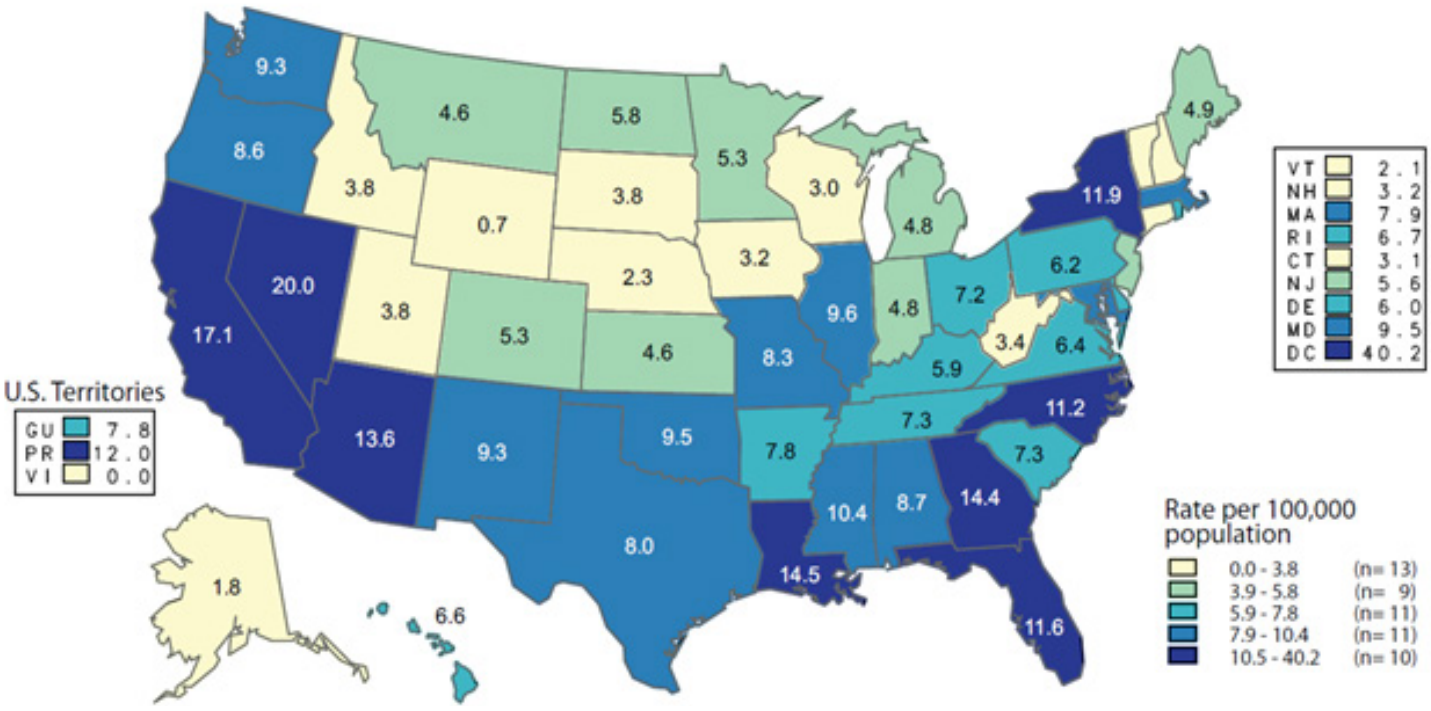

Figure 6

**Rankings are listed from highest to lowest. Michigan was 38, with 37 states/territories having higher rates than 4.8 per 100,000*

LATENT & CONGENITAL SYPHILLIS INFECTIONS

Since 2013, the number of latent syphilis cases reported to OCHD has fluctuated year to year and has not displayed an overall trend (Table 4). 2016 appeared to be an abnormally high year for cases based on the five-year figures, so a 16.5% percent decrease in cases is not unexpected.

Year	Total Number of Latent Syphilis Cases Reported	Percent Change from Previous Year
2013	91	-
2014	75	-17.6%
2015	89	18.7%
2016	103	15.7%
2017	86	-16.5%

TABLE 4. LATENT SYPHILIS— REPORTED CASES AND PERCENT CHANGE, OAKLAND COUNTY, MI, 2013–2017

Since 1991 there have been 6 reported cases of congenital syphilis in Oakland County. One case each was reported in 1991, 1992, 2008, 2014, 2015, and 2016.

2017 had the lowest number of reported latent syphilis cases during this five-year period (Figure 7). There was one peak month observed in January and five minimum months observed in 2017. No consistent seasonal trending was observed.

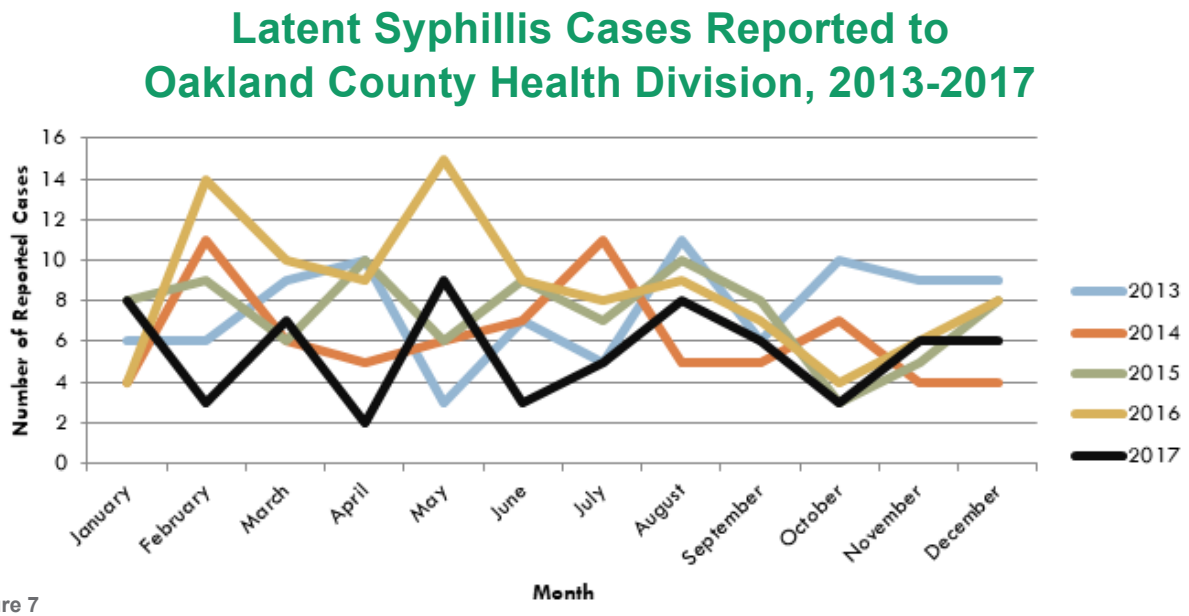

Figure 7

LATENT & CONGENITAL SYPHILLIS INFECTIONS

CDC reports only early latent syphilis infections in the year-end report, while Oakland County reports all latent cases. Case counts for latent syphilis tend to fluctuate, with no consistent trend in Oakland County. According to CDC, early latent infection case rates plateaued in 1998, but started to increase slightly in 2012. The last national decrease in early latent syphilis cases was in 1997. Since CDC does not report all stages of latent cases, it is hard to compare Oakland County numbers to national numbers.

While there have only been 6 cases of congenital syphilis reported in Oakland County since 1991, the CDC reports that national case rates have continued to increase since 2013 (Figure 8). Unsurprisingly, as the rate of primary and secondary syphilis in women increases, so does the rate of congenital syphilis. This highlights the importance not only of prenatal care, but making sure providers are testing appropriately.

Congenital Syphilis — Reported Cases by Year of Birth and Rates of Primary and Secondary Syphilis Among Women, United States, 2008–2017

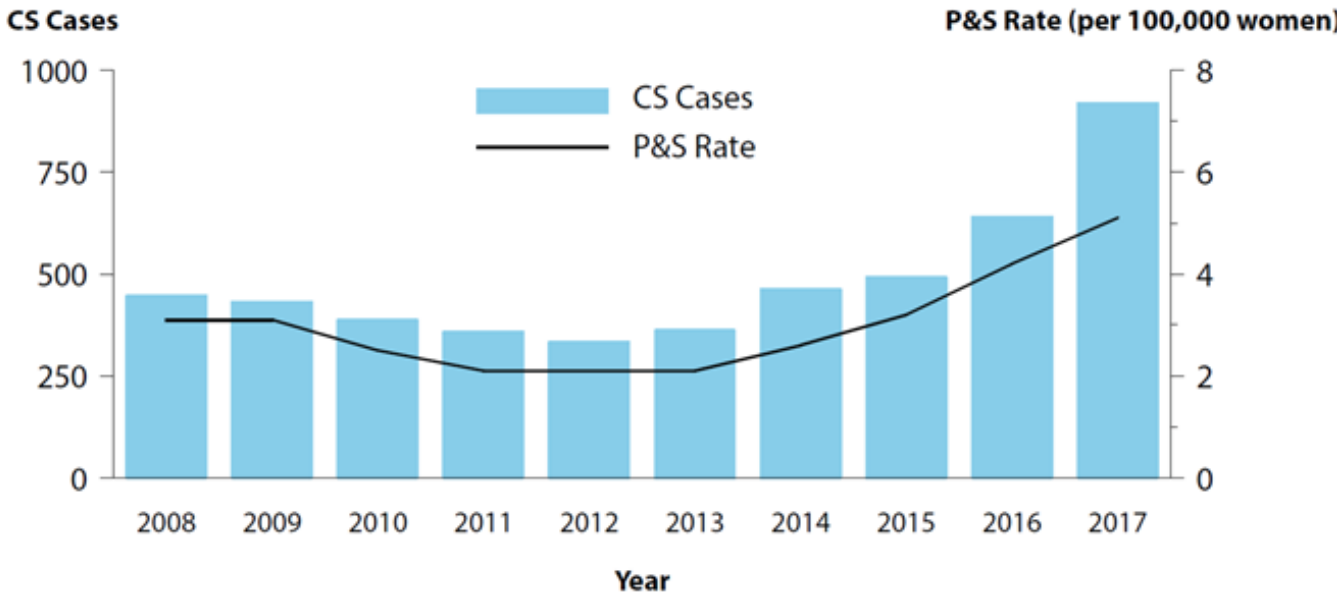

Figure 8

HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTIONS

Since 2013, the number of new HIV diagnoses reported to OCHD has fluctuated year to year. The numbers reported below in Table 5 reflect both new diagnoses and cases new to Oakland County. In 2017, there were 159 non-stage 3 HIV diagnoses/cases new to Oakland County. Of these 159 cases, 111 were new non-stage 3 diagnoses and 48 were previously diagnosed cases that came to Oakland County.

Year	HIV Diagnoses (Non-stage 3)	Percent Change from Previous Year
2013	109	-
2014	104	-4.59%
2015	119	14.42%
2016	112	-5.88%
2017	159	29.56%

TABLE 5. NON-STAGE 3 HIV DIAGNOSES/CASES NEW TO OAKLAND COUNTY AND PERCENT CHANGE, OAKLAND COUNTY, MI, 2013-2017

Since 2013, the number of stage 3 HIV diagnoses reported to OCHD has fluctuated, but has remained relatively stable since 2014. Though an increase occurred again in 2017, the reported numbers have trended downward from the 40 cases reported in 2013.

Year	Stage 3 HIV Diagnoses	Percent Change from Previous Year
2013	40	-
2014	31	-22.50%
2015	30	-3.23%
2016	32	6.67%
2017	36	11.11%

TABLE 6. STAGE 3 HIV DIAGNOSES/CASES NEW TO OAKLAND COUNTY AND PERCENT CHANGE, OAKLAND COUNTY, MI, 2013-2017

Statewide, there was an increase in the number of cases reported from 2016. 58% of the new diagnoses statewide were in the MSM (men who have sex with men) population[3]. The age group with the highest percentage of new diagnoses was 25-29 years at 25%, followed by 30-39 years at 21%. Statewide data shows that males were disproportionately affected, with 79% of new diagnoses occurring in males. Overall, 59% of new diagnoses were in persons who identify as black, while 32% identified as white, 7% as Hispanic.

HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTIONS

The prevalence of HIV in Michigan has increased again this year (Figure 9). Prevalence has increased not because of significantly more infections, but because those living with HIV are living longer. Advancements in antiretroviral therapy (ART) have made living with HIV much more possible and manageable.

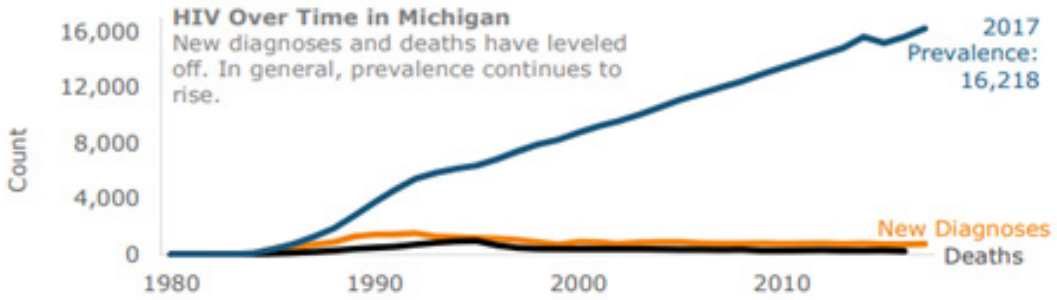

Figure 9

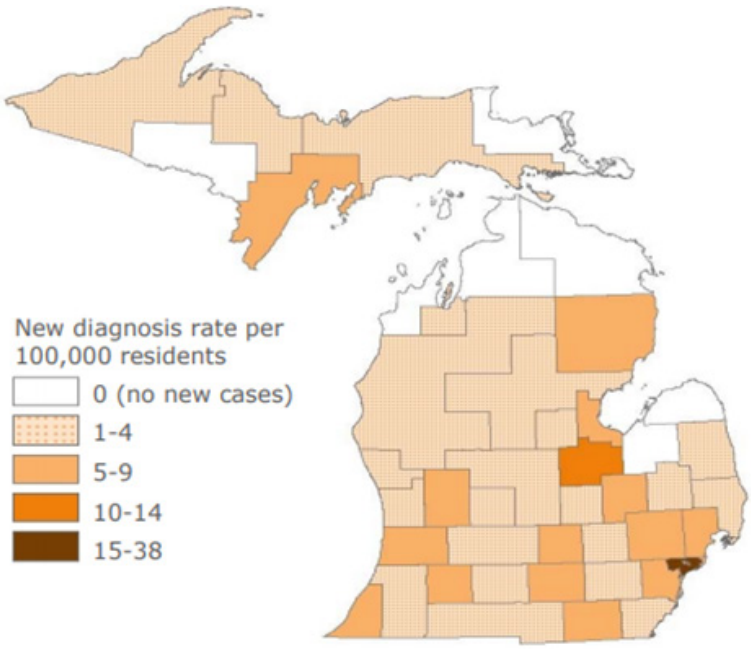

Figure 10

Oakland County data depicts the same prevalence trend seen within the state of Michigan. In 2017, the average new diagnosis rate for the state of Michigan was 7.7 cases per 100,000[3]. Seven (7) counties reported no new diagnoses. Oakland County, along with 14 other counties, had new case rates of 5-9 per 100,000. Oakland County had a new diagnosis rate of 8.4 cases per 100,000 which accounted for 14% of new cases in Michigan. Overall, the Detroit metro area (Lapeer, Macomb, Monroe, Oakland, St. Clair, Wayne (excluding Detroit), and Detroit city accounted for 67% of new diagnoses in the state. Saginaw County had new diagnosis rate of 10.4 per 100,000, while Detroit reported 33.9 new cases per 100,000 population (Figure 10), which is down from 38 in 2016.

The epidemic continues to disproportionately affect the City of Detroit. The City had a diagnosis rate of 34 new cases per 100,000 residents. This rate is over three times higher than the next highest jurisdiction – Saginaw County with 10 new cases per 100,000 residents.

CITATIONS

1. Sexually Transmitted Disease Surveillance 2017. Surveillance and Data Management Branch; National Center of HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; Centers for Disease Control and Prevention. Published September, 2017.

2. 2017 Sexually Transmitted Disease Surveillance: Tables for Chlamydia, Gonorrhea, and Syphilis. Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; Centers for Disease Control and Prevention.

3. Michigan Statewide HIV Surveillance Report: New Diagnoses and Prevalence Tables. HIV & STD Surveillance & Epidemiology Section, Division of Communicable Disease, Bureau of Disease Control, Prevention and Epidemiology; Michigan Department of Health and Human Services.

4. HIV in Michigan: An overview of the epidemic during 2017. HIV & STD Surveillance & Epidemiology Section, Division of Communicable Disease, Bureau of Disease Control, Prevention and Epidemiology; Michigan Department of Health and Human Services.