

2012 Profile of HIV in Michigan (Statewide)

Description of the Epidemic by Age: Teens and young adults (13-24 years)

Data from enhanced HIV/AIDS Reporting System (eHARS), Michigan Profile for Healthy Youth (MiPHY), & Youth Risk Behavioral Survey (YRBS)

Overview:

As of January 2012, there were 2,935 persons living in Michigan who were ages 13-24 years old at HIV diagnosis. They comprise 19 percent of all persons reported with HIV infection in Michigan (five percent ages 13-19 years; 14 percent ages 20-24 years). The number of prevalent cases among persons ages 13-24 years at diagnosis is now higher than the number of prevalent cases among persons ages 25-29 years at diagnosis (table 8, page 101).

General risk behaviors:

Every two years, the Youth Risk Behavior Survey (YRBS) is conducted in Michigan high schools using a nationally standardized survey. Presented below are data from the 2011 survey on sexual risk behaviors and substance use behaviors that may be risk factors for acquiring HIV. Forty-one percent of all Michigan high school students (9-12th grade) have had sexual intercourse, 29 percent having had intercourse in the three months prior to taking the survey. Three percent of 9-12th graders have used heroin and three percent have used methamphetamines one or more times during their life. Three percent of 9-12th graders have used a needle to inject any illegal drug into their body one or more times during their life. Focusing on 12th graders, 54 percent reported having had intercourse. Fifteen percent of 12th graders report having had four or more sexual partners. Of students who had sexual intercourse during the past three months, 61 percent used a condom during last sexual intercourse. Of students who had ever had sexual intercourse, 20 percent drank alcohol or used drugs before their last sexual intercourse.

There were disparities among students based on race/ethnicity. Black students (grades 9–12) were more likely to have had sexual intercourse than Hispanic and white students (53, 47, and 38 percent respectively), although these differences were not statistically significant. Black students were more likely than white students to have four or more lifetime sexual partners (28 and 10 percent, respectively) and to have sex before the age of 13 (12 and 3 percent, respectively). Black and Hispanic students were more likely than white students to have had sex before age 13 (12, 12, and 2 percent, respectively), but white students were more likely than black students to have used alcohol or other drugs before sex (21 and 12 percent) (data not shown in tables).

Sexual minority youth:

Michigan first obtained information on sexual minority youth via the state Youth Risk Behavior Survey (YRBS) in 2011. Sexual minority students were identified as those who had any same-sex sexual contact (this includes persons who had sexual contact with same-sex partners only, as well as persons who had sexual contact with both sexes). A study was conducted to assess health risk behaviors associated with these students. Only sexually active students (students who had at least one sexual experience in their lifetimes) were included in the analysis. A total of 236 students (11 percent of all sexually active students) had experienced a same-sex sexual encounter. These students were more likely to stay home from school because they believed they would be unsafe. Students who had same-sex sexual contact were at a higher risk for reporting bullying at school or online compared to students who had opposite-sex sexual encounters only. They were also more likely to report being the victims of forced sexual intercourse. Associations were also found between sexual minority students and physical fights and physical abuse by a significant other. However, these associations may have been confounded by the students also reporting being forced to have sexual intercourse. The relationship between sexual minority

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students, physical abuse, and forced sex may require more research to fully understand the associations.

Sexual minority students were more likely to report being depressed compared to students who had opposite-sex sexual encounters only. Risk factors, such as feeling sad or hopeless almost every day for two weeks or more, seriously considering suicide, attempting suicide, or being injured from a suicide attempt were highly associated with students who had same-sex sexual contact. Compared to students who experienced opposite-sex sexual contact only, sexual minority students reported trying substances such as cigarettes, alcohol, and marijuana before the age of 13 significantly more often. Students who had same-sex sexual contact were also more likely to report injecting illegal drugs and/or using drugs such as heroin, methamphetamines, club (rave) drugs, or prescription drugs without a doctor's prescription compared to students who had opposite-sex sexual encounters only.

Reporting sexual intercourse for the first time before the age of 13 and sexual intercourse for the first time with a partner three or more years older were highly associated with sexual minority students. Sexual minority students were also less likely to report using a condom during their last sexual intercourse compared to students who had opposite-sex sexual encounters only.

Sexual minority students were more likely to be overweight or obese (>85th percentile for body mass index, by age and sex) compared to students who had opposite-sex sexual encounters only. Not surprisingly, a higher proportion of this group viewed themselves as overweight or obese and were trying to lose weight. Sexual minority students were more likely to report attempted weight loss by fasting for more than 24 hours, vomiting, or taking laxatives than students who had opposite-sex sexual encounters only (data not shown in tables).

STDs:

STD rates in Michigan are highest among teens and young adults (13-24 year olds). The STD data are shown on tables 17 and 18 (pages 111-112). In persons ages 20-24 years, the rate of chlamydia is five and a half times higher and the rate of gonorrhea is over five times higher than the rate among the rest of the population. Although those ages 15-24 make up only 14 percent of the population, they represent 67 percent of gonorrhea cases and 76 percent of chlamydia cases.

Teen pregnancy:

Teen (ages 15-19) pregnancy rates in Michigan have decreased over time, from 63.5 pregnancies per 1,000 females ages 15-19 years in 2000 to 51 pregnancies per 1,000 in 2010. Since 2005, however, the rate has remained relatively stable. The 2010 rate among teens in Wayne County (including the City of Detroit) was the highest of any county in Michigan (76 pregnancies per 1,000). Wayne County is followed closely by Clare, Oceana, and Lake counties with 68 pregnancies per 1,000 each, demonstrating that teen pregnancy is a rural as well as an urban concern.

In the Detroit Metro Area (DMA), the 2010 range was from 30 pregnancies per 1,000 females ages 15-19 (Oakland County) to 76 pregnancies per 1,000 in Wayne County. In Out-State Michigan, the 2010 rates ranged from 16 to 76 pregnancies per 1,000 females ages 15-19 (data not shown in tables).

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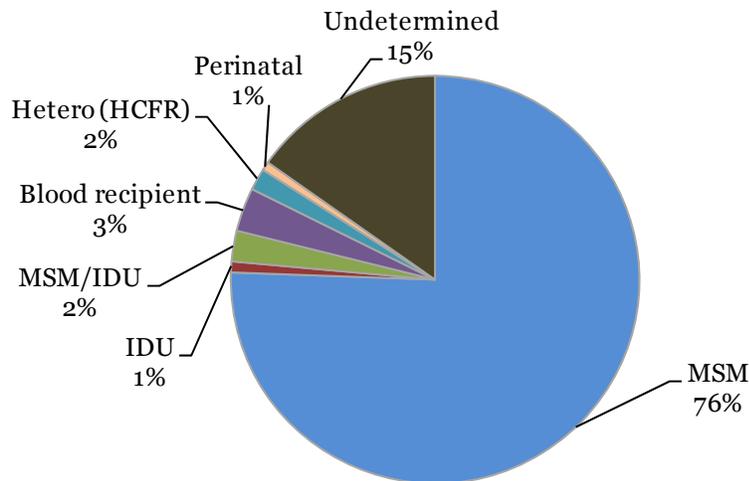
Risk-teens (13-19 years):

In the 1980s, most HIV-positive teenagers were recipients of HIV-infected blood or blood products. However, since screening of all blood products began in 1985, this proportion has steadily declined.

Among the 784 persons living with HIV in Michigan who were ages 13-19 at the time of HIV diagnosis, 577 (74 percent) are male (table 13, page 107). Among these male cases, over three-quarters are males who have sex with males (MSM) (78 percent), including those who also inject drugs (MSM/IDU) (figure 42). Three percent were recipients of HIV-infected blood products prior to 1985, and another three percent were injection drug users (including MSM/IDU). Two percent had heterosexual contact with females with known risk (HCFR). Fifteen percent of 13-19 year old males had undetermined risk.

The other 207 persons living with HIV in Michigan who were ages 13-19 at the time of diagnosis are female (26 percent). This is slightly higher than the proportion of all HIV-positive persons in Michigan who are female (22 percent; table 8, page 101). Of females who were 13-19 years at the time of diagnosis, over three-quarters (78 percent) have a risk of heterosexual contact (HCM). Six percent are injection drug users (IDU), and 15 percent had undetermined risk (figure 43).

Figure 42: Males ages 13-19 at diagnosis currently living with HIV infection in MI, by risk transmission category (n = 577)

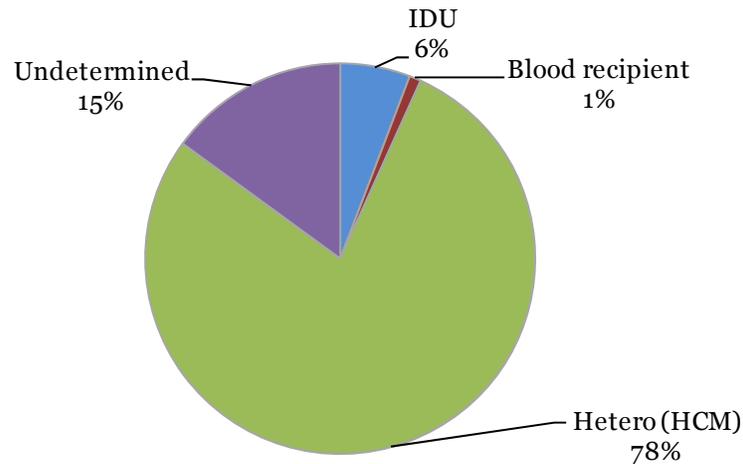


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Figure 43: Females ages 13-19 at diagnosis currently living with HIV infection in MI, by risk transmission category (n = 207)

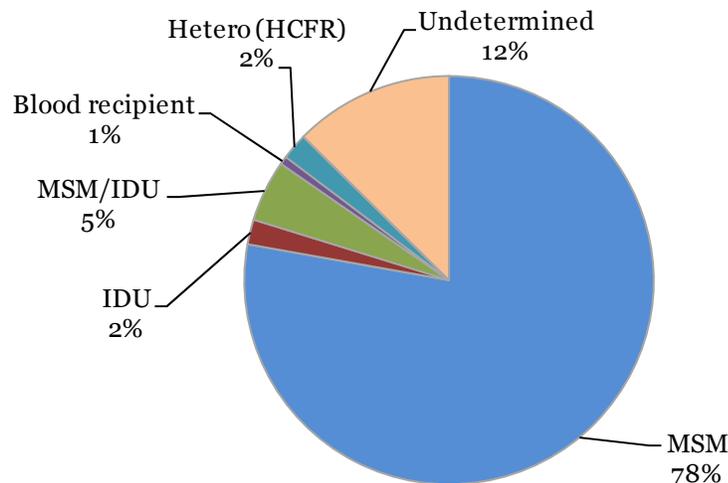


Risk-young adults (20-24 years):

Among the 2,151 persons living with HIV in Michigan who were ages 20-24 at the time of HIV diagnosis, over three-quarters (78 percent) are male (figure 44). Eighty-three percent of these HIV-positive male young adults report sex with other males (including MSM/IDU); 12 percent had undetermined risk; seven percent reported IDU (including MSM/IDU); two percent had heterosexual risk (HCFR); and one percent received HIV-infected blood products.

Figure 45 shows that, among the 483 females living with HIV who were ages 20-24 at the time of diagnosis, almost three-quarters (72 percent) had heterosexual risk (HCM). Fifteen percent of HIV-positive females in this age group had undetermined risk, 13 percent were IDU, and less than one percent received HIV-infected blood products..

Figure 44: Males ages 20-24 at diagnosis currently living with HIV infection in MI, by risk transmission category (n = 1,668)

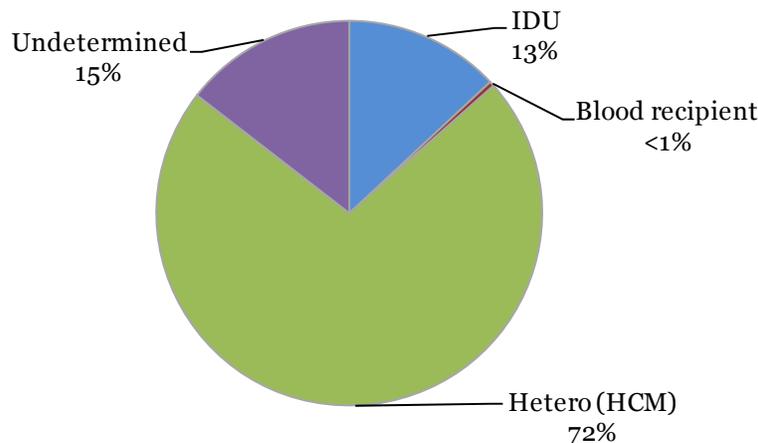


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Figure 45: Females ages 20-24 at diagnosis currently living with HIV infection in MI, by risk transmission category (n = 483)



Race/ethnicity:

Seventy-six percent of persons ages 13-19 at the time of HIV diagnosis are black, 17 percent are white, four percent are Hispanic, and two percent are of other or unknown race. Sixty-five percent of persons ages 20-24 at the time of HIV diagnosis are black, 28 percent are white, five percent are Hispanic, and three percent are of other or unknown race. Comparing these proportions with the racial/ethnic breakdown of those over 24 years at diagnosis (54 percent black, 39 percent white, five percent Hispanic, and 3 percent other or unknown race) shows that HIV-positive youth are disproportionately black (table 12, page 106).

Geographic distribution:

The majority (82 percent) of persons 13-24 years old at diagnosis live in high prevalence counties. They make up a slightly higher proportion of the total number of HIV-positive persons in high prevalence counties compared to low prevalence counties (19 percent vs. 17 percent, respectively) (see figure 3 on page 18 for high/low prevalence county classification). Two-thirds of teen (ages 13-19) cases live in the Detroit Metro Area (DMA) (data not shown in tables). While nearly two thirds of persons living with HIV in Michigan are living in the DMA, nearly three fourths of the new diagnoses among persons 13 to 19 years old are residents of the DMA (Trends). Of these DMA teens, 62 percent are living in City of Detroit.

Trends and conclusions:

The rate of new diagnoses remained stable among persons 13-19 years of age between 2006 and 2010. This is the first time in six consecutive annual trend analyses that there was not a significant increase in the rate of new diagnoses among this group. However, the rate of new diagnoses among 20-24 year olds increased for the second consecutive trend report. Additionally, decreasing rates among 35-39 year and 40-44 year olds have resulted in 13-24 year olds representing a larger proportion of new diagnoses and prevalent cases (Trends). The majority of male teen and young adult cases are males who have sex with males (MSM), while the majority of female teen and young adult cases have heterosexual risk. The majority of HIV-positive persons diagnosed in these age groups are black and live in the DMA.