

# 2010 Profile of HIV/AIDS in Michigan

## Description of the Epidemic by Age: Teens and Young Adults, 13-24)

Data from HIV/AIDS Reporting System (eHARS), STD Reporting System, MDCH Vital Records Youth Risk Behavior Survey, & Bureau of Juvenile Justice Youth Risk Behavior Survey

### Overview:

MDCH estimates that there are 3,230 persons currently living in Michigan who were ages 13-24 years when they were diagnosed with HIV. They comprise 17 percent of all persons reported with HIV/AIDS in Michigan (four percent age 13-19 years; 13 percent age 20-24 years). The number of prevalent cases among persons age 13-24 years at diagnosis is not as high as the level among persons age 25-39 years at diagnosis.

### General Risk Behaviors:

Every two years the Youth Risk Behavior Survey (YRBS) is conducted in Michigan high schools using a nationally standardized survey and was last conducted in 2009. Following are some highlights related to sexual risk behaviors and substance use behaviors that may be risk factors for acquiring HIV. Forty-six percent of all Michigan high school students (9-12th grade) have had sexual intercourse. Thirty-four percent of 9-12th graders have had intercourse in the past three months. Five percent of 9-12th graders have used heroin and six percent have used methamphetamines one or more times during their life. Four percent of 9-12th graders have used a needle to inject any illegal drug into their body one or more times during their life. Sixty-five percent of 12th graders report having had intercourse. Twenty-two 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, 25 percent drank alcohol or used drugs before their last sexual intercourse.

In an attempt to report on behaviors of youth not in mainstream high schools, in 2002 Michigan was one of the first states to conduct a YRBS with the juvenile justice population (ages 12-21). This Bureau of Juvenile Justice Youth Risk Behavior Survey (BJJ) had an 89 percent completion rate and 83 percent were between the ages of 15 and 18 (similar to ages found in YRBS). It showed that 23 percent of females had ever injected drugs, compared with 12 percent of males. Eighty-nine percent had reported ever having sex and 42 percent had sex for the first time at 11 years of age or younger. When comparing BJJ surveys to those taken by mainstream high schoolers, 16 percent of BJJ youth had reported ever injecting drugs, compared with two percent from the mainstream youths. Sixty-two percent of BJJ youths started having sex before age 13 compared with five percent of mainstream youths. Fifty-four percent of BJJ youths reported using no form of birth control at their last sexual encounter, compared with five percent of mainstream youths. Finally, 23 percent of BJJ youth fit under the umbrella category of sexual minority youth (SMY) due to self-identifying as gay, lesbian, or bisexual, or participating in same-sex behavior. SMY were at higher risk for HIV than their mainstream counterparts: 21 percent had ever used injection drugs, 73 percent had sex before age 13, and 86 percent had four or more sexual partners in their lifetime.

### STDs:

STD rates are highest in these age groups. The STD data are shown on Tables 12 and 13 (pages 3-93-94). In persons age 20-24 years, the rate of chlamydia is five times higher and the rate of gonorrhea is nearly five times higher than the rate among the general population. Although those age 15-24 make up

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only 18 percent of the population, they represent 66 percent of gonorrhea cases and 76% of chlamydia cases. In 2007, only 15 percent of primary and secondary syphilis cases were under the age of 24 compared to 27 percent in 2009, representing a younger at risk-group. While rates of STDs among 15-24 year olds are higher than any other age groups, the rates of HIV in this demographic group are comparably low. Also, since the rates of HIV among teens are very low, and because most teens have sex with other teens, the gonorrhea and chlamydia epidemic is perpetuated and HIV is rarely introduced into the general teen population. However, as discussed in other sections of this Profile, young black MSM are becoming HIV infected at an alarming rate.

### Teen Pregnancy:

Teen (ages 15-19) pregnancy rates have shown decreases over time and decreased significantly since 2000. The 2006 rate among teens in Detroit exceeded the rate among women age 15-44 years in that area (124 vs. 99). However, the 2008 rate among teens in Detroit is slightly lower than the rate among women 15-44 (112 per 1,000). The city of Detroit had the highest teen pregnancy rate in the state in 2008 (107 per 1,000), followed by Luce County (94 per 1,000).

The statewide teen pregnancy rate in 2008 was 54 pregnancies per 1,000 females aged 15-19 years. In Out-State Michigan, the 2008 rates range from 20-94 pregnancies per 1,000 females aged 15-19 and in the Detroit Metro Area, the 2008 rates ranged from 26-107 pregnancies per 1,000 females aged 15-19.

### Race/Ethnicity:

Seventy-six percent of persons aged 13-19 at the time of HIV diagnosis are black, 18 percent are white, and six percent are Hispanic or other race. Sixty-three percent of persons aged 20-24 at the time of HIV diagnosis are black, 30 percent are white, and seven percent are Hispanic or other race. Comparing these proportions with the racial/ethnic breakdown of those over 24 years (56 percent black, 38 percent white, and 6 percent Hispanic or other race), shows that these youth are disproportionately black. See Table 8, page 3-89.

### Geographic Distribution:

The 2,621 persons diagnosed and reported with HIV/AIDS between the ages 13-24 are located proportionately throughout the state. In the high prevalence areas, those who were 13-19 years and 20-24 years at the time of HIV diagnosis make up five and 13 percent of reported cases, respectively. In the low prevalence areas they comprise three and 13 percent of reported cases, respectively. (Figure 2 on page 3-15).

### Mode of Transmission:

Teenagers: In the 1980s, most infected 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.

Figure 45 (next page) shows that among the 673 persons living with HIV in Michigan who were ages 13-19 at time of diagnosis, 479 (71 percent) are male. Among these male cases, three-quarters had sex with other males (76 percent) which includes the MSM/IDU cases, while four percent had been infected with HIV through blood products before 1985. Four percent could be attributed to IDU (including MSM/

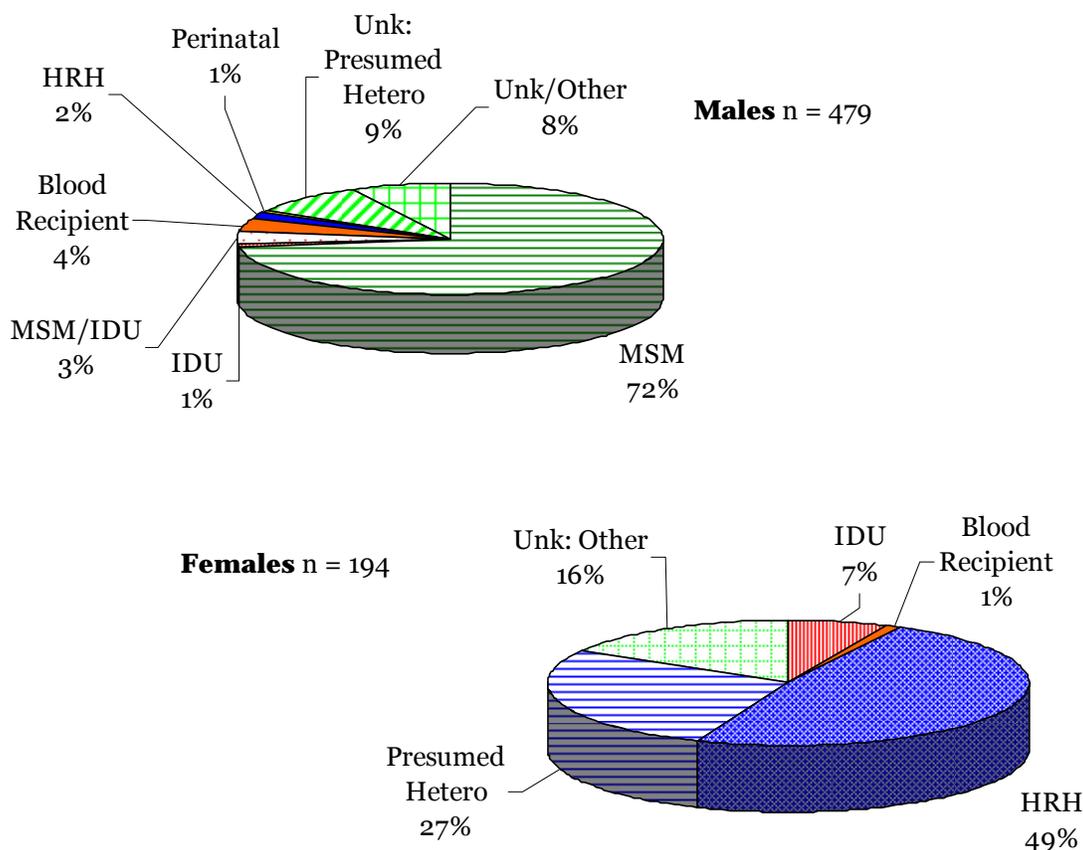
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IDU) and two percent to heterosexual transmission. Sixteen percent of teenage males had no identified risk. Experience with investigating such persons shows that it is likely that many of these males were infected through having sex with other males.

Figure 45 also shows that among the 673 persons living with HIV in Michigan who were ages 13-19 at the time of diagnosis, 194 (29 percent) are female. This is higher than the proportion of all infected persons who are female (23 percent). Of females who were 13-19 years at the time of diagnosis, three-quarters (76 percent) were infected through heterosexual sex (overall, 48 percent reporting HRH and 27 percent reporting PH-Fem); seven percent were IDUs. Similar to males of this age and females of any age, 16 percent do not have an identified mode of transmission. It is likely that most females above age 13 with an unknown risk were infected through heterosexual contact.

**Figure 45: Persons Living in Michigan who were 13-19 Years Old when diagnosed with HIV (Teenagers), by Sex and Mode of Transmission (N = 673)**



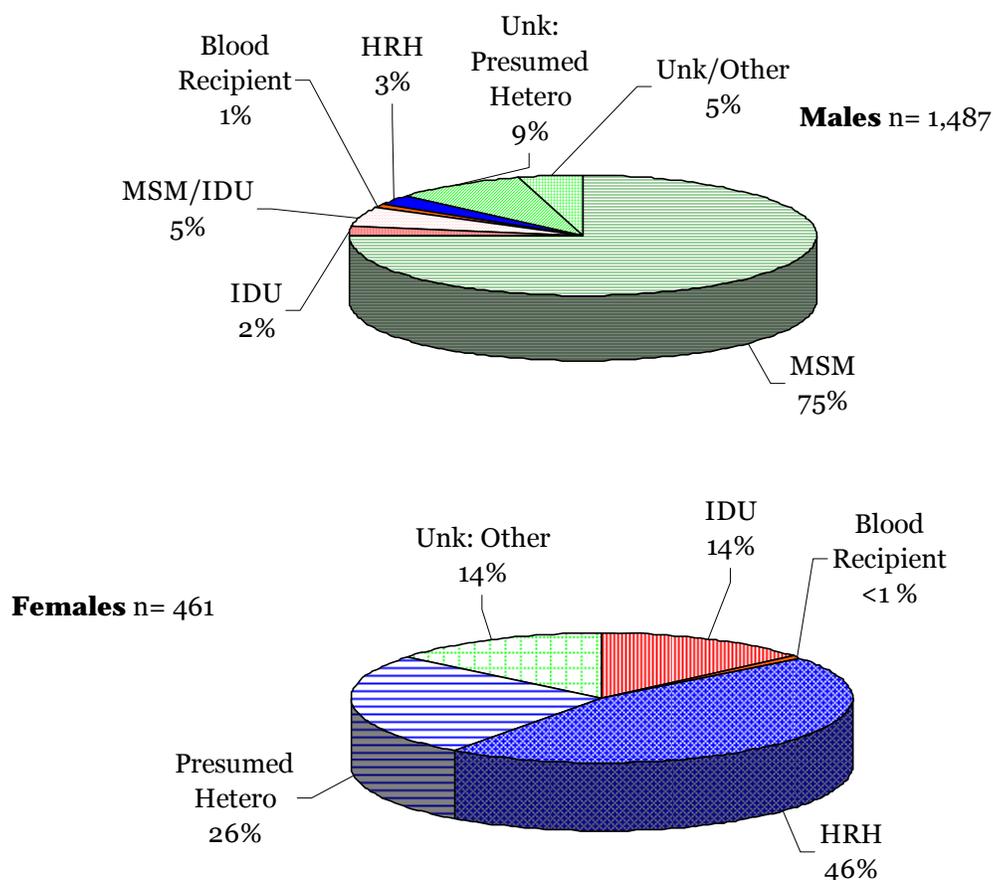
**Young Adults:** Figure 46 (next page) shows that among the 1,948 persons living with HIV in Michigan who were ages 20-24 at time of diagnosis, almost three-quarters (76 percent) are male. Eighty percent of male young adults reported sex with other males (including MSM/IDU); 14 percent did not have an identified mode of transmission; and seven percent reported IDU (including MSM/IDU).

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## Additional Discussions: Teens and Young Adults

Figure 46 also shows that among the 461 women living with HIV who were ages 20-24 at time of diagnosis, almost three-quarters (72 percent) were infected heterosexually (overall, 46 percent HRH and 26 percent PH-Fem) and 14 percent were IDU. Fourteen percent of women in this age group have an unknown risk, however this is consistent with females across all age groups.

**Figure 46: Persons Living in Michigan who were 20-24 Years Old when Diagnosed with HIV (Young Adults), by Sex & Mode of Transmission (N = 1,948)**



### Trends and Conclusions:

The rate of new diagnoses increased significantly among persons 13-19 years of age (average increase in rate of 23 percent per year). This is the fifth consecutive analysis showing a significant increases in new diagnoses among 13-19 year olds over five years. The rate of new diagnoses among 20-24 year olds remained stable for the second consecutive year, following three consecutive 5-year analyses showing increases. For more information on trends overtime, see the section on Trends in HIV/AIDS Data on pages 3-18–21.