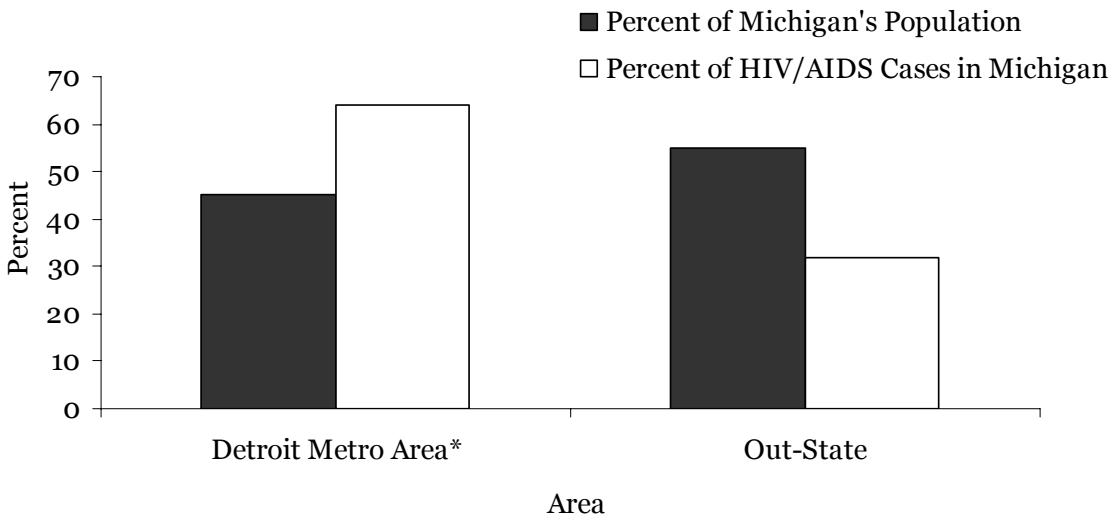
2008 Profile of HIV/AIDS in Michigan

Figure 1: Michigan Living HIV/AIDS Cases and Population by Area, January 2008



**Detroit Metro Area includes the City of Detroit, Lapeer County, Macomb County, Monroe County, Oakland County, St. Clair County, and Wayne County.*

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2008 Profile of HIV/AIDS in Michigan

Summary of HIV/AIDS Epidemic in Michigan

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 18,000 people currently living with HIV/AIDS in the state, of which 14, 341 were reported as of January 1, 2008. The rate of new HIV diagnoses increased by an average of four percent per year, from 7.8 per 100,000 in 2002 to 9.0 percent per 100,000 in 2006 (779 cases to 908 cases, average 890 cases), after peaking at 9.5 per 100,000 in 2005. The number of HIV-related deaths declined significantly in 1995 and 1998, likely due to effective therapies that prolong life but do not eliminate HIV infection. The prevalence of HIV disease (all persons living with HIV infection or AIDS, whether diagnosed recently or years ago) is increasing because new cases are still being diagnosed and infected persons are living longer.

- **How are the cases geographically distributed?** HIV disease is distributed disproportionately in Michigan. The Detroit Metro Area has 64 percent of those living with HIV (9,171 of the 14,341 cases reported statewide), but only 44 percent of the general population (Figure 1, page 3-1). The rest of the state has fewer cases compared with the general population distribution.

- **How does the epidemic in Michigan compare with national and worldwide statistics?** According to the Joint United Nations Programme on HIV/AIDS, an estimated 2.5 million new HIV infections and 2.1 million AIDS deaths occurred during 2007 worldwide, bringing the total persons infected with HIV to 33.2 million. This translates to 6,800 persons being newly infected with HIV and 5,700 persons dying from AIDS each day. Over two-thirds (68 percent) of new cases and three-quarters (76 percent) of deaths were in Sub-Saharan Africa, where transmission is predominately heterosexual.

  (Joint United Nations Programme on HIV/AIDS. *AIDS epidemic update: December 2007.* Available at http://data.unaids.org/pub/EPISlides/2007/2007_epiupdate_en.pdf)

  Nationally, the number of persons living with HIV/AIDS per year increased from 2003 through 2006 in the 33 states with established confidential, name-based HIV infection reporting. At the end of 2006, an estimated 491,727 persons were living with HIV/AIDS. In 2006, the estimated rate of HIV/AIDS cases in the 38 areas with confidential name-based HIV infection reporting since at least 2003 was 143.7 per 100,000. The number of AIDS deaths per year in the 50 states, District of Columbia, and U.S. territories, possessions, and associated nations decreased 17 percent from 2003 through 2006.

  (Centers for Disease Control and Prevention, *HIV/AIDS Surveillance Report 2006*, Volume 18. Atlanta: U.S. Department of Health and Human Services, Center for Disease Control and Prevention; 2008. Available at http://www.cdc.gov/hiv/topics/surveillance/resources/reports/2006report/default.htm)

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities, the MDCH HIV/STD/VH/TB Epidemiology Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Michigan. The guiding question used in this process is, "In which populations can strategies prevent the most infections from occurring?" Effectively reducing transmission in populations where most of the HIV transmission is taking place will have the greatest impact upon the overall epidemic. The percentage of cases for each behavioral group and trends over time were used to determine the ranked order of the following three behavioral groups: MSM, heterosexual, and IDU.

- **Men Who Have Sex With Men (MSM)*:** MSM make up 52 percent of all reported cases of HIV/AIDS (7,440 out of 14,341 cases). The MSM behavioral group continues to be the most affected behavioral group statewide. Between 2002 and 2006, the number of new diagnoses among MSM increased an average of four percent per year (340 to 405 cases).

- **Heterosexuals**: Heterosexual cases constitute 17 percent of the total number of reported cases (2,444 out of 14,341 cases) and are comprised of High-Risk Heterosexuals (HRH) and females who are presumed to have been infected heterosexually (PH-Fem). HRH are defined as HIV-infected persons whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals, and PH-Fem are defined as females whose only reported risk is heterosexual contact, and their male partner's risk and HIV status are unknown. The trend in persons reporting heterosexual transmission appears to be level from 2002 through 2006 with 135 cases diagnosed in 2006.

- **Injecting Drug Users (IDU)*:** Of all reported cases of HIV/AIDS, 17 percent are IDU (2,466 out of 14,341 cases). The trend in persons diagnosed with HIV and reporting IDU behavior between 2002 and 2006 have decreased an average of seven percent per year (71 to 50 cases). This is the third year in a row that Michigan trend analyses have shown a significant decrease among IDUs.

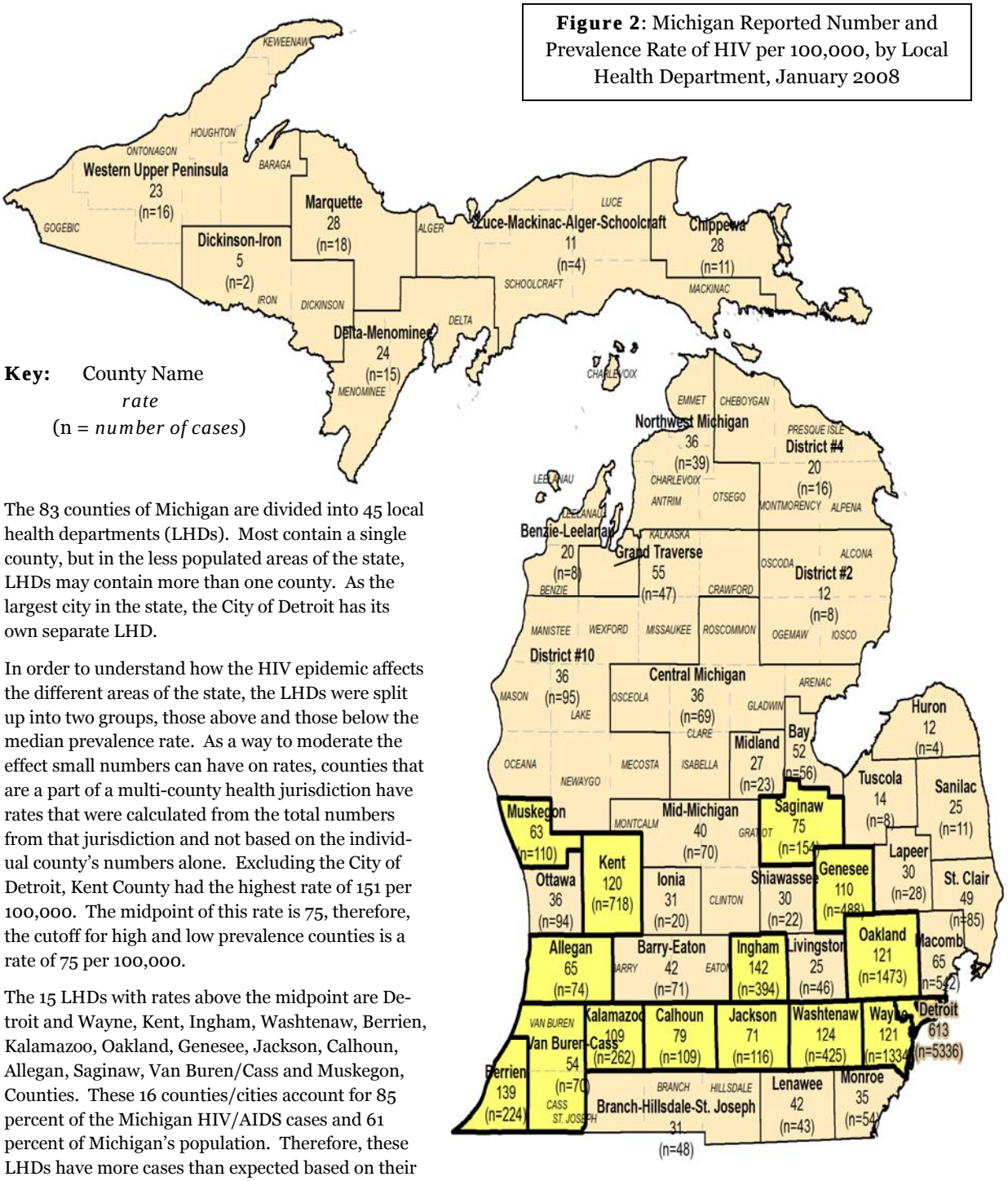
*****_These numbers include MSM/IDU in totals and percent calculations._

2008 Profile of HIV/AIDS in Michigan

Distribution of HIV/AIDS Cases by Local Health Jurisdiction

Data from HIV/AIDS Reporting System (eHARS)

Figure 2: Michigan Reported Number and Prevalence Rate of HIV per 100,000, by Local Health Department, January 2008



Key: County Name
rate
(n = *number of cases*)

The 83 counties of Michigan are divided into 45 local health departments (LHDs). Most contain a single county, but in the less populated areas of the state, LHDs may contain more than one county. As the largest city in the state, the City of Detroit has its own separate LHD.

In order to understand how the HIV epidemic affects the different areas of the state, the LHDs were split up into two groups, those above and those below the median prevalence rate. As a way to moderate the effect small numbers can have on rates, counties that are a part of a multi-county health jurisdiction have rates that were calculated from the total numbers from that jurisdiction and not based on the individual county's numbers alone. Excluding the City of Detroit, Kent County had the highest rate of 151 per 100,000. The midpoint of this rate is 75, therefore, the cutoff for high and low prevalence counties is a rate of 75 per 100,000.

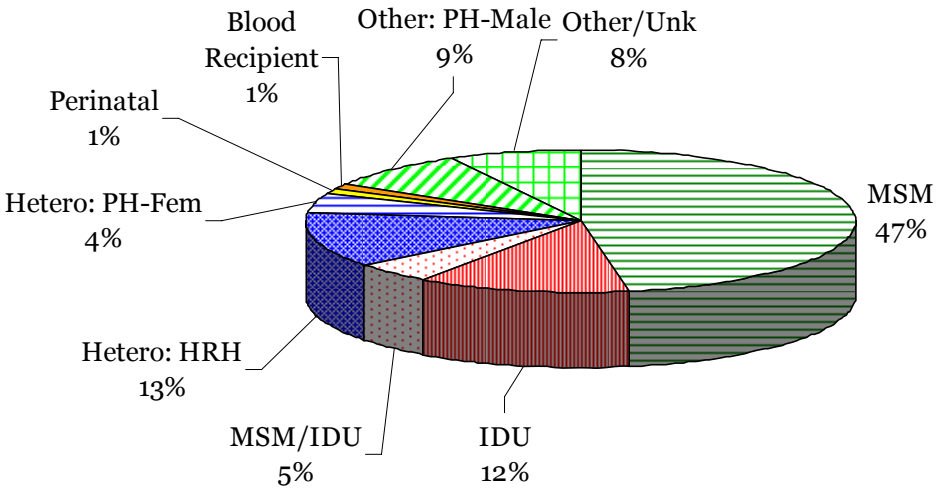
The 15 LHDs with rates above the midpoint are Detroit and Wayne, Kent, Ingham, Washtenaw, Berrien, Kalamazoo, Oakland, Genesee, Jackson, Calhoun, Allegan, Saginaw, Van Buren/Cass and Muskegon, Counties. These 16 counties/cities account for 85 percent of the Michigan HIV/AIDS cases and 61 percent of Michigan's population. Therefore, these LHDs have more cases than expected based on their populations. The remaining 30 LHDs account for 15 percent of the cases and 39 percent of the population.

Distribution of Living HIV/AIDS Cases by Mode of Transmission

Data from HIV/AIDS Reporting System (eHARS)

Current surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Although case reporting includes ascertainment of many behaviors associated with HIV transmission, for the purposes of analysis and interpretation, cases are assigned to a risk hierarchy designated by the Centers for Disease Control and Prevention. This hierarchy takes into account the efficiency of HIV transmission associated with each behavior as well as the probability of exposure to an infected person within the population. The adult/adolescent categories, in order, are as follows: (1) men who have sex with men (MSM), (2) injecting drug users (IDU), (3) men who have sex with men and inject drugs (MSM/IDU), (4) hemophilia/coagulation disorders, (5) heterosexual (HRH) (see glossary for more in-depth description), (6) receipt of HIV-infected blood or blood components, and (7) no identified risk (NIR). Michigan has further separated the NIR category, in an attempt to capture those persons whose only reported risk is heterosexual risk. Often times, partners are unaware of their partners' risky behaviors. For this reason, Michigan uses two additionally categories to help define the transmission pattern: Presumed Heterosexual (PH)-Female and PH-Male (please see the glossary in Appendix B for further explanation). Figure 3 indicates persons living with HIV/AIDS in Michigan by mode of transmission.

Figure 3: Reported Persons Living with HIV/AIDS Michigan, by Risk, January 2008 (N = 14,341)



- Over half (52 percent) of the people living with HIV/AIDS are MSM, including five percent who also injected drugs (MSM/IDU).
- Seventeen percent have a risk of heterosexual sex, including 13 percent HRH and four percent PH-Female.
- Seventeen percent are injecting drug users, including five percent who are also MSM (MSM/IDU).
- Sixteen percent have a categorical 'unknown' risk, including nine percent PH-Male and eight percent other or unknown.

Distribution of Reported Rate and Estimated Prevalence of HIV/AIDS Cases by Race and Sex

Data from HIV/AIDS Reporting System (eHARS)

Figures 4 and 5 show the impact of this epidemic on six race and sex groups.

Figure 4: Estimated Prevalence of Persons Living with HIV/AIDS in Michigan, by Race and Sex

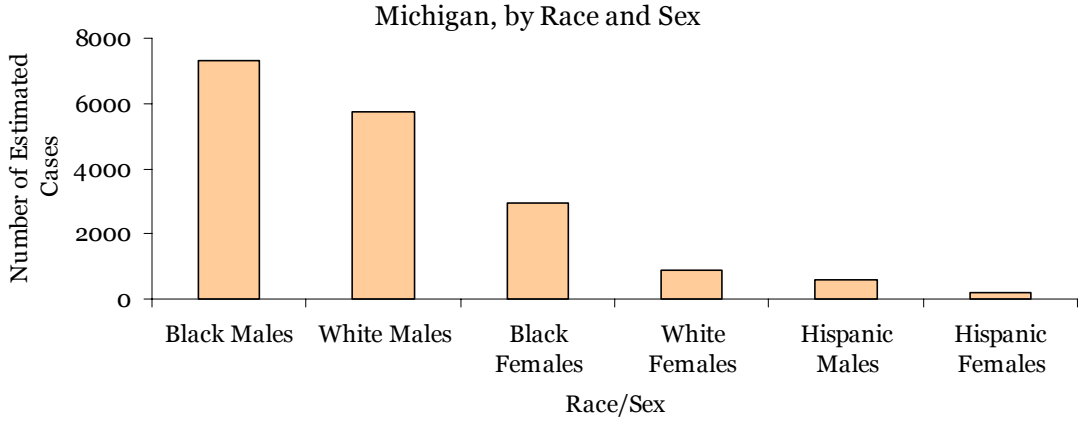
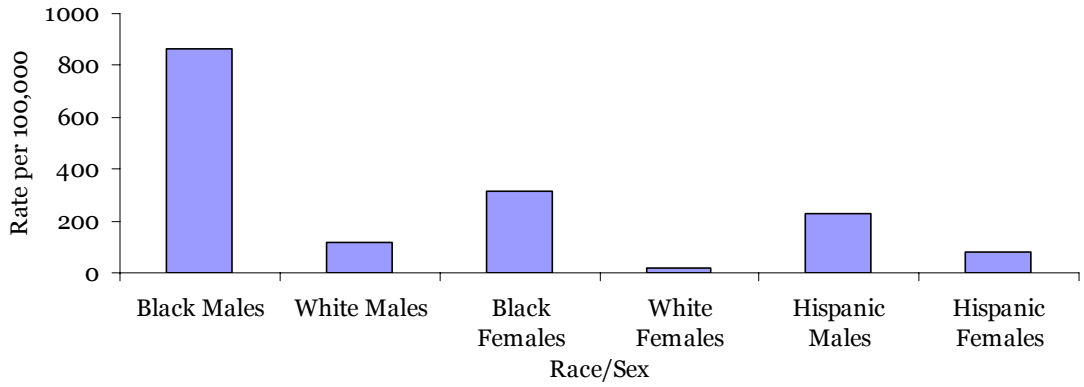


Figure 5: Reported Prevalence Rate of Persons Living with HIV/AIDS in Michigan, by Race and Sex



- Black males have both the highest rate per 100,000 (866) and the highest estimated number (7,330) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Black females have the second highest rate (314) and the third highest estimated number (2,960) of cases of HIV/AIDS.
- Hispanic males have the third highest rate (231) and the fifth highest estimated number (600) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- White males have the fourth highest rate (118) and the second highest estimated number (5,760) of cases.
- Hispanic females have the fifth highest rate (78) and the lowest estimated number (180) of HIV/AIDS.
- White females have the lowest rate (18) and the fourth highest estimated number (870) of HIV/AIDS cases.

Trends in HIV/AIDS Data

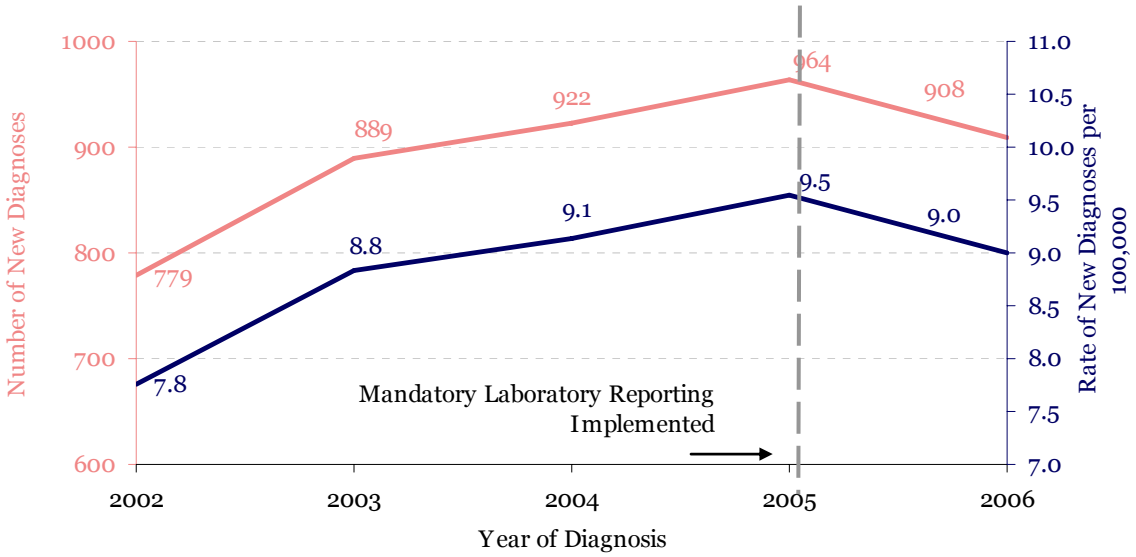
Data from HIV/AIDS Reporting System (eHARS)

To evaluate recent trends, we estimated the number of persons newly diagnosed with HIV infection each year by adjusting the number of reported cases diagnosed in 2002 through 2006. This adjustment was applied to account for those who may not have been reported to the health department by January 1, 2008. The adjustments are calculated by weighting the data. Please see Forward (Page 1-4) for further description on methods used to evaluate the trends.

New Diagnoses of HIV:

The rate of new HIV diagnoses increased by an average of four percent per year, from 7.8 per 100,000 in 2002 to 9.0 per 100,000 in 2006 (779 cases to 908 cases, average of 890 cases), after peaking at 9.5 per 100,000 in 2005 (Figure 6). The increasing trend and peak in 2005 are most likely due to the implementation of mandatory laboratory reporting in 2005. Prior to this, surveillance for HIV in Michigan relied on a few laboratories who voluntarily reported positive HIV-related test results and health care providers, who are required by law to report positive cases. The addition of mandatory laboratory reporting has increased the case reports received, and appears to be driving the upward trend described here.

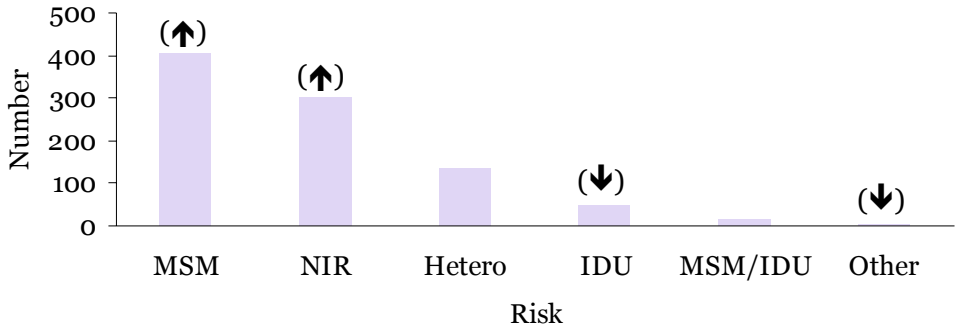
Figure 6: Number and Rate of New HIV Diagnoses in Michigan, 2002-2006



Transmission of HIV 2002-2006:

Between 2002 and 2006, the number of new diagnoses among MSM increased by an average four percent per year, whereas the number of new diagnoses among IDU decreased by an average of seven percent per year. Decreases among IDU have been noted for three consecutive years, most likely evidence of the success of programs like needle exchange. The increase among MSM, on the other hand, correspond to other data that show increases in new HIV diagnosis rates in black men and young adults.

Figure 7: Adjusted Number of New HIV Diagnoses in 2006 and Trend Between 2002 and 2006, by risk



The "Other" category includes perinatal and blood product transmission. The number of diagnoses in this category decreased by 21 percent. The magnitude of this decrease is so large because the number of diagnoses in this category are relatively small each year.

The numbers of new diagnosis with no identified risk is, on average, 11% higher each year than the year before. This is to be expected because there has been less time to investigate cases diagnosed more recently for risk information.

The unadjusted number of new HIV diagnoses, number of HIV-related deaths and HIV prevalence are presented in Figure 8. The trend among new HIV diagnoses reflects reported cases. These data were not adjusted for reporting delay, as in Figure 6 (p 3-18).

Figure 8: New Diagnoses, Deaths, and Prevalence of HIV/AIDS by Year

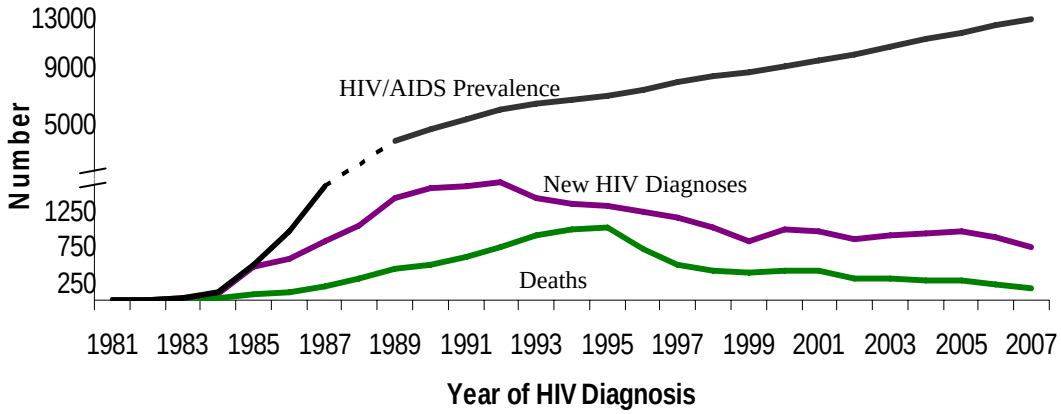
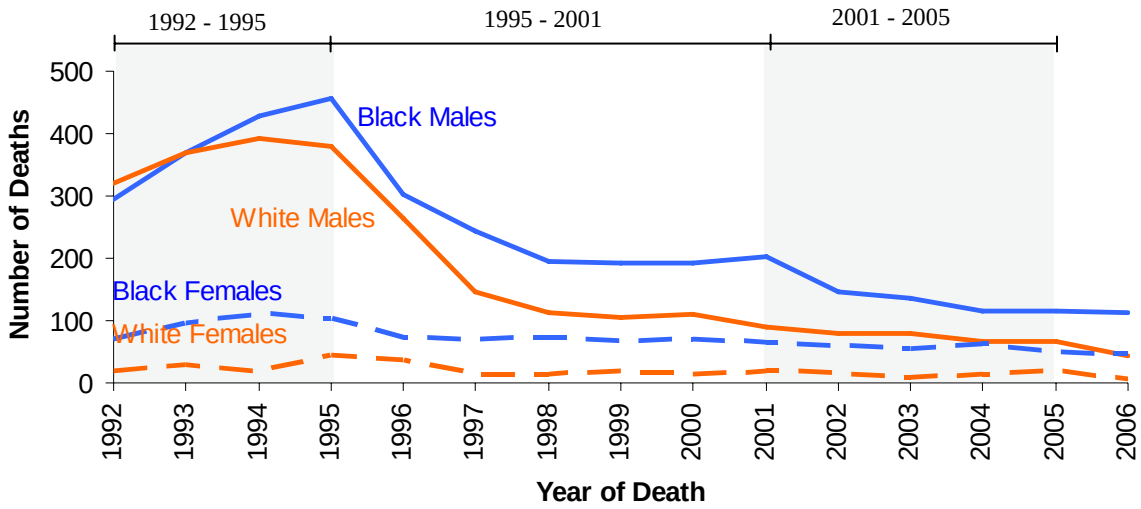


Figure 9: HIV/AIDS Deaths by Race/Sex



Deaths:

Figure 9 shows the number of HIV-infected Michigan residents who have been reported as deceased by a local health department, the Division of Vital Records via a data match or death certificate, or an alternate source. The number of deaths increased in all race/sex groups from the beginning of the epidemic through approximately 1994-1995. The number of deaths decreased markedly between 1995 and 1998 and then were relatively stable until 2001. It should be noted that the percent decrease in deaths among white males (76 percent) between 1995 and 2001 was more pronounced than the percent decrease among black males (56 percent), and the percent decrease among white females (57 percent) was larger than the percent decrease among black females (38 percent). Encouragingly, the number of deaths in black males has fallen substantially from 2001 to 2005 (43 percent), even in comparison to white males (26 percent), black females (25 percent), and white females (5 percent), but the number of deaths among black males still exceeds that of any other race/sex group. Also notable is the number of deaths among black females in 2006 surpassed the number of deaths among white males for that same year.

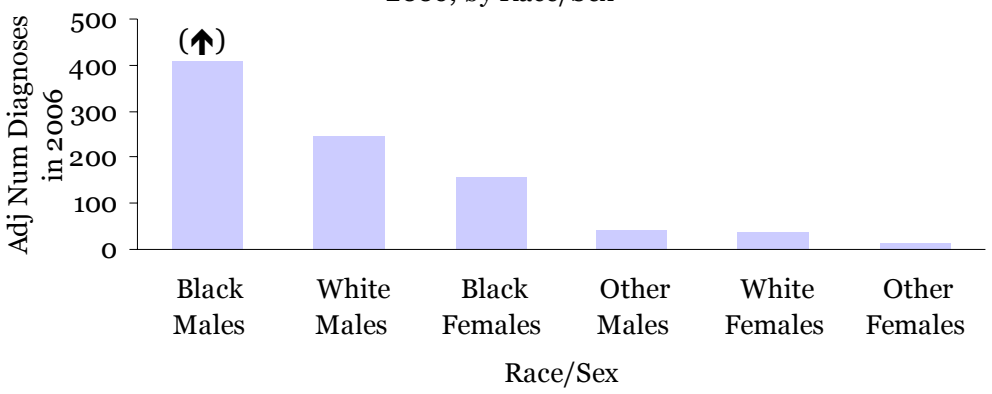
Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (eHARS)

Race and Sex 2002-2006 :

The rate of new diagnoses increased among all males (average 4 percent per year), among all black persons (average of 3 percent per year), and among black males (average 4 percent per year) between 2002 and 2006 (Figure 10). The rates among black males and females are troubling given that they are several times higher than other race/sex groups.

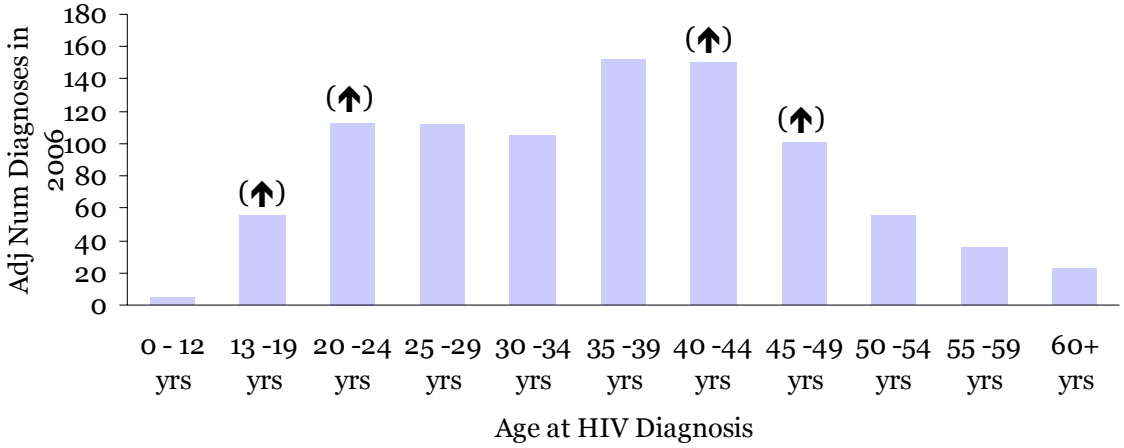
Figure 10: Number of New Diagnoses in 2006 and Trends 2002-2006, by Race/Sex



Age at HIV Diagnosis 2002-2006:

Between 2002 and 2006 the rate of new HIV diagnoses increased among teens and young adults, those who were 13-24 years of age at HIV diagnosis, and among persons in their forties at HIV diagnosis (Figure 11). Rates in all other age groups were stable. This is the third year in a row that Michigan trend analyses have shown a significant increase among teens and young adults. While the trends we are seeing may partially be attributed to heightened HIV testing efforts aimed at young persons, public testing data suggest that additional testing is not the sole explanation for the increases seen among teens and young adults. In fact, there seems to be a true increase in this group.

Figure 11: Number of New Diagnoses in 2006 and Trends 2002-2006, by Age at HIV Diagnosis



2008 Profile of HIV/AIDS in Michigan

Patterns of Service Utilization of HIV-infected Persons

Data from HIV/AIDS Reporting System (eHARS), Uniform Reporting System (URS) & Adult and Adolescent Spectrum of disease (ASD)

The *Ryan White HIV AIDS Treatment Modernization Act of 2006* (Ryan White), which replaced the *Ryan White Comprehensive AIDS Resources Emergency (CARE) Act*, provides federal funds to help communities and States increase the availability of primary health care and support services for people living with HIV/AIDS disease (PLWH/A). Ryan White Part A funds are allocated to Eligible Metropolitan Areas (EMA) heavily impacted by the epidemic, and in Michigan, the Detroit EMA receives Part A funds. States and U.S. Territories receive Ryan White Part B funds, including resources earmarked for AIDS Drug Assistance Programs (ADAP). Part C funds are allocated to local clinics for outpatient HIV early intervention services and Part D is used to coordinate and enhance services for women, infants, children and youth. Ryan White funds are funds of last resort.

Table 1: Comparing HIV Services with Reported Cases throughout Michigan, January 2008

Group	Services	Cases
White	34%	37%
Black	55%	57%
Hispanic	5%	4%
Other	3%	1%
Unknown	3%	<1%
Males	75%	77%
White Males	*29%*	*32%*
Black Males	*37%*	*41%*
Hispanic Males	*4%*	*3%*
Other Males	*2%*	*1%*
Unknown Males	*3%*	*<1%*
Females	25%	23%
White Females	*5%*	*5%*
Black Females	*17%*	*16%*
Hispanic Females	*1%*	*1%*
Other Females	*1%*	*<1%*
Unknown Females	*1%*	*<1%*
0-12 Years^	<1%	<1%
13-19 Years^	2%	1%
20-24 Years^	4%	3%
25-44 Years^	48%	47%
45+ Years^	46%	48%
Infants: 0-1 Years^	<1%	<1%
Children: 2-12 Years^	<1%	<1%
Youth: 13-24 Years^	6%	4%
Women 25+ Years^	24%	21%
Total	**100% (N = 7,420)**	**100% (N = 14,341)**

^*"Years" within this table refers to* ***current age****, not age at diagnosis*

The Uniform Reporting System (URS) is a statewide client-level data system designed to document the quantity and types of services provided by agencies receiving Ryan White funds, and to describe the populations receiving the services. A wide range of clinical and supportive services are reported in the URS including outpatient medical care, dental care, mental health services, case management, the AIDS Drug Assistance Program. URS data may include HIV/AIDS services that are not directly funded by Ryan White, as long as the reported service is eligible to be funded. However, most services reported in the URS are at least partially funded by Ryan White resources.

There are several client-level data systems in Michigan that collect URS data. Demographic and service data from all these systems were extracted into a standard format, and these data were then combined and unduplicated to produce a statewide URS dataset for analysis. The statewide dataset includes records from all Ryan White A-D funded programs in Michigan, including the AIDS Drug Assistance Program.

Tables 1 and 2 represent HIV+ male and female clients served by Ryan White funded HIV service programs during 2007 and reported through the HIV/AIDS surveillance system by December 31, 2007.

Patterns of Service Utilization of HIV-infected Persons

Table 1 compares Ryan White clients served to living cases reported through the HIV/AIDS surveillance system. In 2007 there were 7,420 HIV-infected persons who received Ryan White services in the state of Michigan. Ryan White clients represent 52 percent of the total reported living cases in Michigan.

URS data have a higher proportion of records with unreported race than surveillance data, and also more clients whose race is reported as "other minority". (This category in the URS includes persons reporting more than one race).

The Ryan White Treatment Modernization Act puts a priority on providing services to women, infants, children and youth (WICY) with HIV infection. As a result, the proportion of youth age 13 to 24, and women age 25 or older receiving care is somewhat higher than in reported cases.

Overall, the comparison table shows that persons receiving Ryan White care services are similar demographically to reported cases. In other words, on a statewide basis, it appears that Ryan White funded programs are serving clients who are representative of the general population of persons living with HIV/AIDS in Michigan.

Table 2: Core Services per Ryan White Client, Michigan Residents, 2007

	Outpatient Medical Care	Oral Health Care	Mental Health Care	Medical Case Management	DAP (Medication Assistance)
No. of providers supplying valid data*	23	8	13	19	1
No. of unduplicated clients served**	4,843	947	799	2,850	2,315
Percent receiving the service	1	0.128	0.108	0	0
Total Days of Service ***	23,211	3,674	3,551	51,455	75,335
Average no. of visits per client	4.8	3.9	4.4	18.1	32.5
Median no. of visits per client	4	3	2	11	25
Range of visits per client	1-47	1-45	1-51	1-286	1-231

* A provider may be included in more than one service category

** Clients are unduplicated for the service across all providers and may be counted in more than one service category.

*** The Drug Assistance service unit is a prescription filled rather than a visit or day of service.

Table 2 gives additional detail about the core services of outpatient medical care, oral health care, mental health care, medical case management and medication assistance delivered by Ryan White programs in 2007. Except for the Drug Assistance Program (DAP), which counts the number of prescriptions filled, the service counts in the table are visits, not units of time. Only one "visit" per day is counted for any service category in URS summary data.

Outpatient medical care services in this table are for outpatient medical care visits ranging from a complete physical with a physician to a brief visit with a nurse, drug review with a pharmacist, adherence counseling with a medical practitioner, or a visit for a blood draw or lab test. The average of 4.8 visits per client, with a median of 4, is consistent with HIV care standards that recommend monitoring of health status on a quarterly basis. (Table 2)

Oral health care services reported in the URS are primarily provided through the statewide Michigan Dental Program, administered by the Division of Health, Wellness and Disease Control of MDCH, and the University of Detroit/Mercy Dental School. Dental services for clients may be extensive, and require

multiple visits, but may also simply be for bi-annual or more frequent prophylaxis. The average of 3.9 visits per client is consistent with an initial exam to plan the care needed and two or more treatment visits following approval of the care plan. (Table 2)

Mental health care services encompass mental health assessments, individual counseling, and group sessions for HIV+ clients with a mental health diagnosis, and must be conducted by a licensed mental health professional. Mental health services do not include substance abuse treatment.

Medical case management visits include intake, assessments, care planning, medication adherence counseling, and monitoring of medical status, and may be conducted in person, by phone or by mail, with the goal of linking HIV+ clients to health care services, and assisting them to remain in care.

The Drug Assistance Program (DAP), administered by the Division of Health, Wellness and Disease Control of MDCH pays for medications dispensed to eligible HIV+ clients. The DAP covers all HIV medications and many other medications as well. The unit of service reported in Tables 2 and 3 is one prescription filled.

Table 3: Average Number of Visits/Prescriptions Filled per Client, by Type of CARE Act Service, Statewide 2003-2007

	Outpatient Medical Care	Oral Health Care	Mental Health Care	Medical Case Management	DAP (Medication Assistance)
2003	4.41	3.52	9.62	N/A	17.34
2004	4.7	2.69	6.53	N/A	17.18
2005	4.02	3.65	7.43	33.22	17.04
2006	4.27	3.67	4.44	33.15	16.15
2007	4.54	3.24	5.43	31.44	16.85

Table 3 compares core service averages over the last five years. For the years 2003 and 2004 the URS data included service records from all Ryan White funded programs in Michigan except for one. In 2005 and 2006, the URS data included records from all Part B, Part C and Part D funded providers, and 14 of 24 Part A funded programs. (Complete Part A data was not available for URS analysis due to incompatibility of data systems). In 2007, the URS data again include records from all Ryan White funded programs. In spite of the different provider combinations used for each year's dataset, the service averages are similar from year to year.

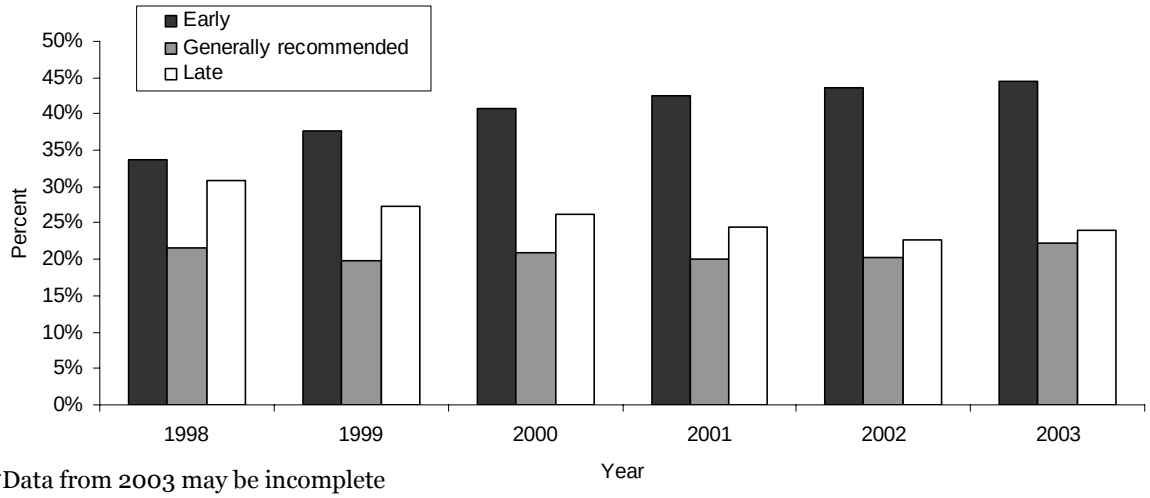
In 2007, using the most complete combination of Ryan White care data since 2004, the average number of medical case management visits went up 2 visits/person. This apparent increase in service utilization and delivery may be due to the fact that the data for 2007 are more complete than in previous years, or it may be the result of changes in reporting systems and reporting practices. For example, service category definitions were modified by the 2006 Ryan White legislation, so that medical HIV case management now includes treatment adherence activities. Treatment adherence had been reported as a separate service category in prior years, even when conducted during a medical case management visit. Not only have treatment adherence activities been incorporated into the medical case management services that are reported, but the standards of service for case management and the training curriculum for case managers have also been modified to emphasize the need for adherence support in this venue.

Patterns of Service Utilization of HIV-infected Persons

After 2003 the annual average per person for mental health services has generally been slightly more than four visits a year. The higher service average in 2003 is attributed to the fact that mental health service reporting at that time included services delivered to individuals who did not have an official mental health diagnosis. Beginning in 2004, following a change in federal guidance, mental health services were only reported if delivered by a professional to clients with a DSM IV diagnosis. As a result, some services previously reported as mental health are now reported in the support service category of psychosocial support services.

Although the average number of ADAP prescriptions filled per person declined slightly between 2003 and 2007, the number of clients receiving drugs through the program increased significantly during the same time frame. The total number of clients served by DAP in 2003 was 1,457 compared to 2,160 in 2005, an increase of 48% in just two years. In 2007, even more clients were served and the average number of prescriptions filled per person also increased. The need for DAP services continues to increase because more people are living with HIV each year, more are entering into care where drugs are prescribed to treat the disease, and each year it seems that fewer and fewer have access to prescription drug coverage through other sources.

Figure 12: Proportion of Patients who Received Antiretroviral Treatment Late, at the Recommended Time, or Early, ASD Study-Michigan, 1999-2003*



*Data from 2003 may be incomplete

Note. Late (CD4 count of less than 200 cells/µL), generally recommended time (CD4 count of greater than or equal to 200 µL, but less than 350 cells/µL), or early (CD4 count greater than or equal to 350 cells/µl).

Figure 12 shows the timing of the initiation of antiretroviral treatment and the proportions of patients whose treatments began at each three times (each time corresponds to a category of CD4 count). This analysis included only intervals during which the person had either an outpatient clinic visit or a hospitalization, and did not include intervals in which the person had only visited the ER or had telephone contact with the clinic staff. Of patients receiving care at the two health care systems included in the ASD study, the proportion whose antiretroviral treatment was begun late decreased from 31 percent in 1999 to 24 percent in 2003. Inversely, the proportion whose antiretroviral treatment was begun early increased from 34 percent in 1999 to 44 percent in 2003.

2008 Profile of HIV/AIDS in Michigan

Estimate of At-Risk Populations

Data from HIV/AIDS Reporting System (eHARS)

Sexual Activity:
A 2002 study by Emory University for the Michigan Department of Community Health estimated that there are 259,344 (range: +/- 1% of the relevant population) persons living in Michigan at continued sexual risk for the HIV infection (Holtgrave D., et al. *Phase I Report: Number of Persons at Risk of HIV Infection in the State of Michigan*, Emory University Center for AIDS Research. Nov 2002). This estimate was gained from compiling estimates from numerous sources and incorporates both homosexual and heterosexual behaviors.

Substance Abuse:
The study referenced above estimated that there are 229,000 (range: 183,000 - 283,000) persons living in Michigan at substance abuse risk for HIV. This estimate was gained from the 1999 National Household Survey of Drug Abuse and incorporates the use of both injection and non-injection drugs. Of these persons estimated to be at substance abuse risk for HIV, 38,000 are 12-17 years old, 65,000 are 18-25 years old, and 126,000 are 26 years or older. This report also shows that 3.3 percent of Michigan high school males and 1.4 percent of high school females have ever used illicit injection drugs.

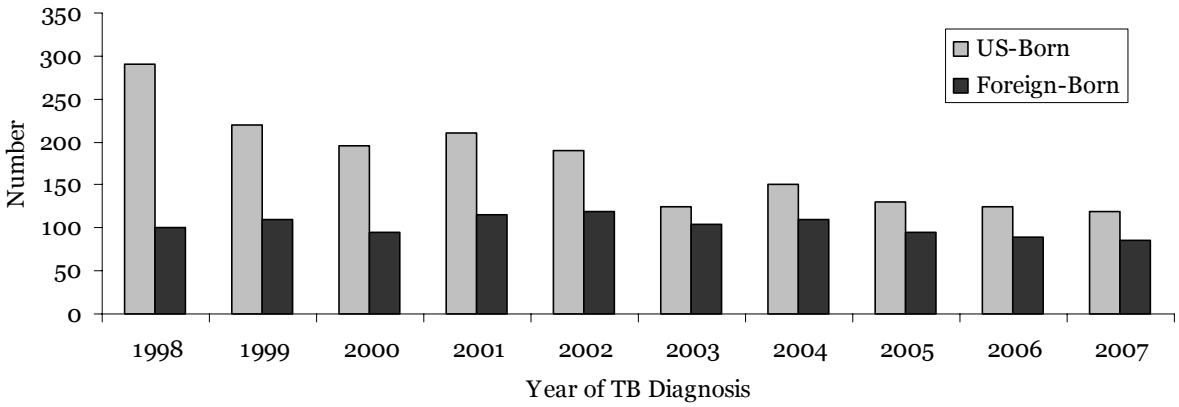
Tuberculosis

Data from TB Registry & HIV/AIDS Reporting System (eHARS)

Overview of Tuberculosis in Michigan:
The incidence rate for Tuberculosis (TB) in 2007 was 2.2 cases per 100,000. While Michigan is considered to have 'low incidence' of TB, the demographic characteristics warrant some attention.

Sixty-one percent of the 226 reported TB cases reside in the Detroit Metro Area (DMA). Of these, 46 percent (64 cases) are residents of the City of Detroit. These cases are managed and reported by the Detroit Department of Health and Wellness Promotion (DDHWP). Specifically, DDHWP manages and reports all TB cases that are residents of Detroit and its surrounding areas. The remaining cases in the DMA are residents of the following counties: Wayne County (excluding Detroit) (18 percent, 25 cases), Macomb County (16 percent, 22 cases), and Oakland County (20 percent, 28 cases).

Figure 13: TB Cases by National Origin, Michigan 1998-2007



2008 Profile of HIV/AIDS in Michigan

Tuberculosis and HIV

Data from TB Registry & HIV/AIDS Reporting System (eHARS)

National data show that the majority of TB cases are found in persons born outside the US, however this is not the case in Michigan. In 2007, 61 percent of Michigan cases were born in the US and 39 percent were foreign-born. Figure 13 shows that the number of TB cases in US-born persons has been declining since 1998, however, the number of TB cases in foreign-born persons has remained unchanged.

Racial Disparities Related to TB:
TB disease in Michigan currently faces the challenge of racial and ethnic disparities. The rate of TB disease among white and American Indian/Alaskan Native populations is quite low (0.89 per 100,000 and 0.77 per 100,000, respectively). The rate among black persons is higher (7.4 per 100,000), however most surprising is the rate among the Asian/Native Hawaiian/Pacific Islander population (77.4 per 100,000). This group comprises 19 percent of the TB cases, but only two percent of the general population. This demonstrates a need for targeted intervention and education in this population.

Co-Infection of TB and HIV:
As the HIV/AIDS epidemic continues to grow, there are indications of a correlation between those infected with HIV and TB, although TB cases have been declining in Michigan since the early 1990s. There are now a total of 184 persons known to be living and definitively co-infected with HIV and TB in Michigan.

Sex/Race:
Seventy-four percent of these cases are male and 26 percent are female. The majority are black (73 percent), 15 percent are white, nine percent are Hispanic, and the remaining two percent are made up of other race/ethnicities.

Age at HIV Diagnosis:
The largest proportion are in their thirties at HIV diagnosis (44 percent), followed by those in their forties (18 percent). Teens (13-19 years at HIV diagnosis) make up 10 percent and young adults (20-24 years at HIV diagnosis) make up 15 percent of these cases.

Residence at diagnosis of HIV:
Over half (57 percent) were residents of Wayne County (including the city of Detroit) at HIV diagnosis. Kent county represents the second highest proportion at seven percent, followed by Oakland county (6 percent), Berrien county (5 percent), Ingham county (3 percent), Jackson county (3 percent) and 10 percent other counties throughout Michigan. An additional 10 percent had no county listed or were diagnosed with HIV in another state.

Other information:
Cumulatively, a total of 635 have ever been definitively co-infected with HIV and TB, of which 451 (71 percent) have died.

Of the 184 HIV cases currently living in Michigan who had been co-infected with TB, 142 (77 percent) had pulmonary tuberculosis and 42 (23 percent) had extra-pulmonary tuberculosis (outside of the lung).

Twenty-one percent of the 184 co-infected with HIV and TB were born outside of the United States.

Tuberculosis

Conclusion:

Data on HIV/AIDS-TB co-infection are gained by matching the HIV surveillance data to the TB surveillance data, however these data could still be underreported. The HIV status of 37 percent of active TB cases in Michigan is unknown for 2007. Out of the these, 34 percent refused an HIV test, 57 percent were never offered an HIV test, and 7 percent were reported with an unknown HIV status. This demonstrates a need for education, not only for patients regarding their risk for HIV infection, but also for health care practitioners on the need for HIV testing in this population.

Sexually Transmitted Diseases

Data from STD Reporting System & HIV/AIDS Reporting System (eHARS)

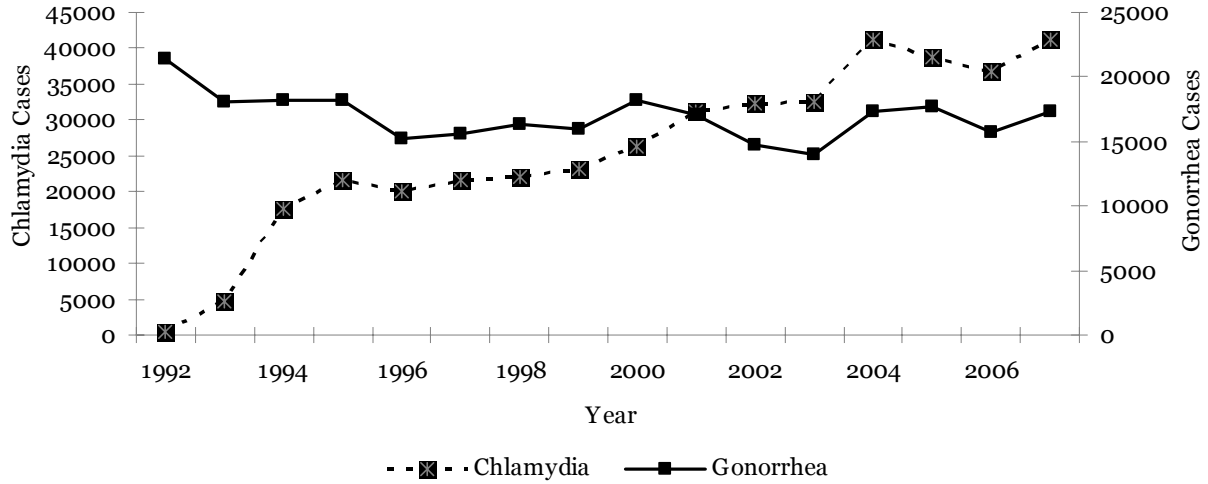
Several sexually transmitted diseases (STDs) are more common than HIV infection, have a short incubation period, and are curable. Reviewing their patterns of transmission can provide additional information regarding recent sexual behavior and potential risk, not available from HIV/AIDS data. Studies have shown that the risk of both acquiring and spreading HIV is two to five times greater in people with active STDs. Aggressive STD treatment in a community can help to reduce the rate of new HIV infections.

Gonorrhea and Chlamydia:

During 2007 alone, there were over 41,000 cases of chlamydia and over 17,000 cases of gonorrhea reported in Michigan (Figure 14). See Table 12, page 3-88. For both diseases, the highest rates of infection were among persons age 15-19. This age group comprises seven percent of the Michigan population but accounted for over one-third (34 percent) of gonorrhea and 41 percent of chlamydia cases. The rates of chlamydia and gonorrhea among black persons were much higher than among white persons. Even though 43 percent of gonorrhea cases and 47 percent of chlamydia cases were missing race information, the rates (number of cases per population) among black persons remain two to five times higher even if all unknown cases were among white persons.

In 2007, 41 percent of gonorrhea cases were male, however, over three-quarters (76 percent) of reported chlamydia cases were female. This is because chlamydia screening targets females specifically.

Figure 14: Michigan Gonorrhea and Chlamydia 1992-2007

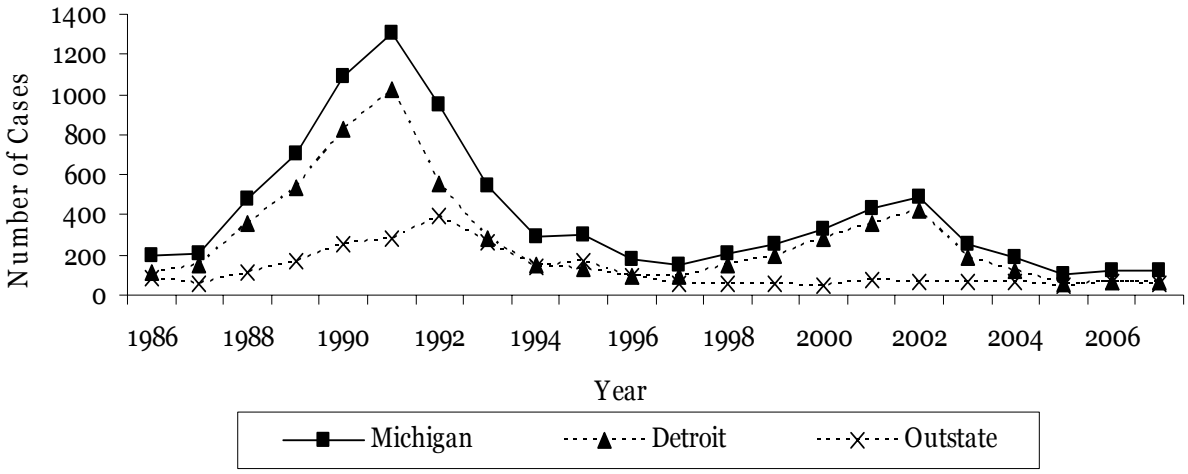


Sexually Transmitted Diseases (continued)

Syphilis

Figure 15 shows that infectious syphilis was diagnosed much less frequently than gonorrhea and chlamydia (123 primary and secondary syphilis cases) in 2007. Syphilis in Michigan and nationally has followed a cyclical trend, increasing every ten years. Major outbreaks peaked in 1991 and decreased until 1997. Reported syphilis cases have increased each year in Michigan since 1997, peaking in 2002, with 486 cases. There was a steady and statistically significant downward trend in reported cases during the 2002 and 2003 calendar years, resulting in a nearly 50 percent decrease in reported cases. This decrease has continued and cases reported in 2005 represented a 55 percent decrease from 2004. However, syphilis cases have remained steady since that time, with fewer than 200 cases per year. Approximately 54 percent of cases were reported in the 35-54 year age group, representing an older at-risk population than gonorrhea or chlamydia (as shown in Table 12 on page 3-88). Syphilis cases reported in 2007 were 58 percent black and 80 percent male. Unlike chlamydia, syphilis screening does not target one sex or the other.

Figure 15: Michigan Primary and Secondary Syphilis Cases, by Area, 1986-2007



Sexual Orientation

Nationwide, there have been increases in STD cases among self-identified men who have sex with men. Michigan does not collect data on sexual orientation for gonorrhea or chlamydia cases. Sexual orientation data are collected for syphilis cases. Approximately 28 percent of male syphilis cases in the city of Detroit are men who have sex with men compared with 71 percent of male syphilis cases in the rest of the state. Between 2001 and 2004, the syphilis epidemic in the city of Detroit was largely heterosexual with the male female ratio being closer to 1:1. Due to a national and statewide effort focusing on drug use and commercial sex workers, primary and secondary syphilis cases decreased starting in 2002. Recently, although numbers of primary and secondary cases are quite low, the percent of cases among MSM has increased. In 2005, the male to female ratio was 3.1:1 in the Detroit area and 6.3:1 in the out-state areas. In 2007, the male to female ratio was almost 3:1 in Detroit and almost 8:1 in the out-state areas. This is a trend that is mirrored nationally and is the focus of prevention efforts around the country.

Sexually Transmitted Diseases

Geographic Distribution

There are several areas in Michigan that consistently report high rates of STDs (See Table 11, page 3-87). For gonorrhea, there are nine areas with rates above the Healthy Michigan (HM) 2010 goal of 180 gonorrhea cases per 100,000. The five areas with the highest rates are the city of Detroit (908), Genesee County (414), Muskegon County (360), Berrien County (288), and Jackson County (230). For chlamydia, there are 13 areas with rates above the HM 2010 goal of 215 cases of chlamydia per 100,000. The five areas with the highest rate per 100,000 persons are the city of Detroit (1,568), Genesee County (747), Muskegon County (641), Ingham County (650), and Kent County (561). For primary and secondary syphilis, the HM 2010 goal is 0.2 cases per 100,000 persons. There are 21 health departments with rates higher than the HM 2010 goal. The four health departments reporting the highest rates are the city of Detroit (7.8/100,000), Wayne County (1.3/100,000), Genesee County (2.5/100,000), and Washtenaw County (1.7/100,000).

Racial Disparities

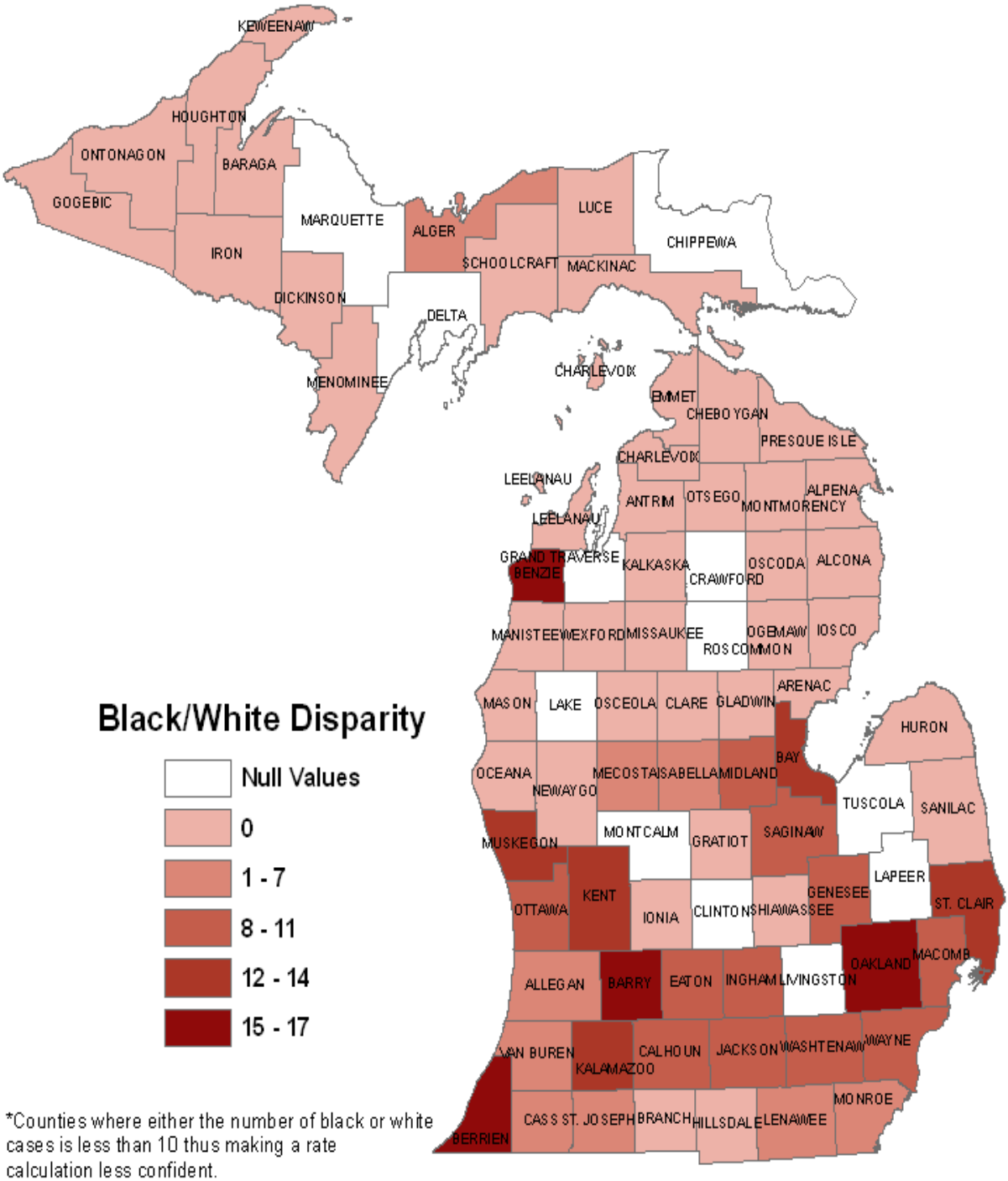
As with HIV, a disparity exists between black and white populations for other STDs. A disparity ratio was calculated for chlamydia and gonorrhea between black and white populations. This was done by dividing the rate of infection among the black population by the rate of infection among the white population. (See Figures 16 and 17 on the next two pages). This ratio is only presented for those counties that had at least 10 cases in **both** black and white populations. For example, the rate of chlamydia among blacks in Berrien county is 15-17 times higher than that of whites.

Looking at the data in this way can help to highlight true disparities. Although Wayne county has a large population of black persons, STD infections are not racially disparate because the rate among black persons is similar to the rate among white persons. However, areas with stronger social and economic disparities between these two populations do show large disparities. Berrien county has extremely large disparities between black and white populations for both chlamydia and gonorrhea.

The areas with the largest disparities in rates of chlamydia infection between black and white populations are Benzie (white: 60/100,000, black: 1,000/100,000), Barry (white: 47/100,000, black: 775/100,000), Berrien (white: 152/100,000, black: 2,266/100,000), and Oakland counties (white: 60/100,000, black: 878/100,000). The areas with the largest disparities in rates of gonorrhea infection between black and white populations are Berrien (white: 41/100,000, black: 1,641/100,000), Kent (white: 21/100,000, black: 834/100,000), Isabella (white: 19/100,000, black: 694/100,000), and Kalamazoo (white: 43/100,000, black: 1,454/100,000) counties.

Sexually Transmitted Diseases

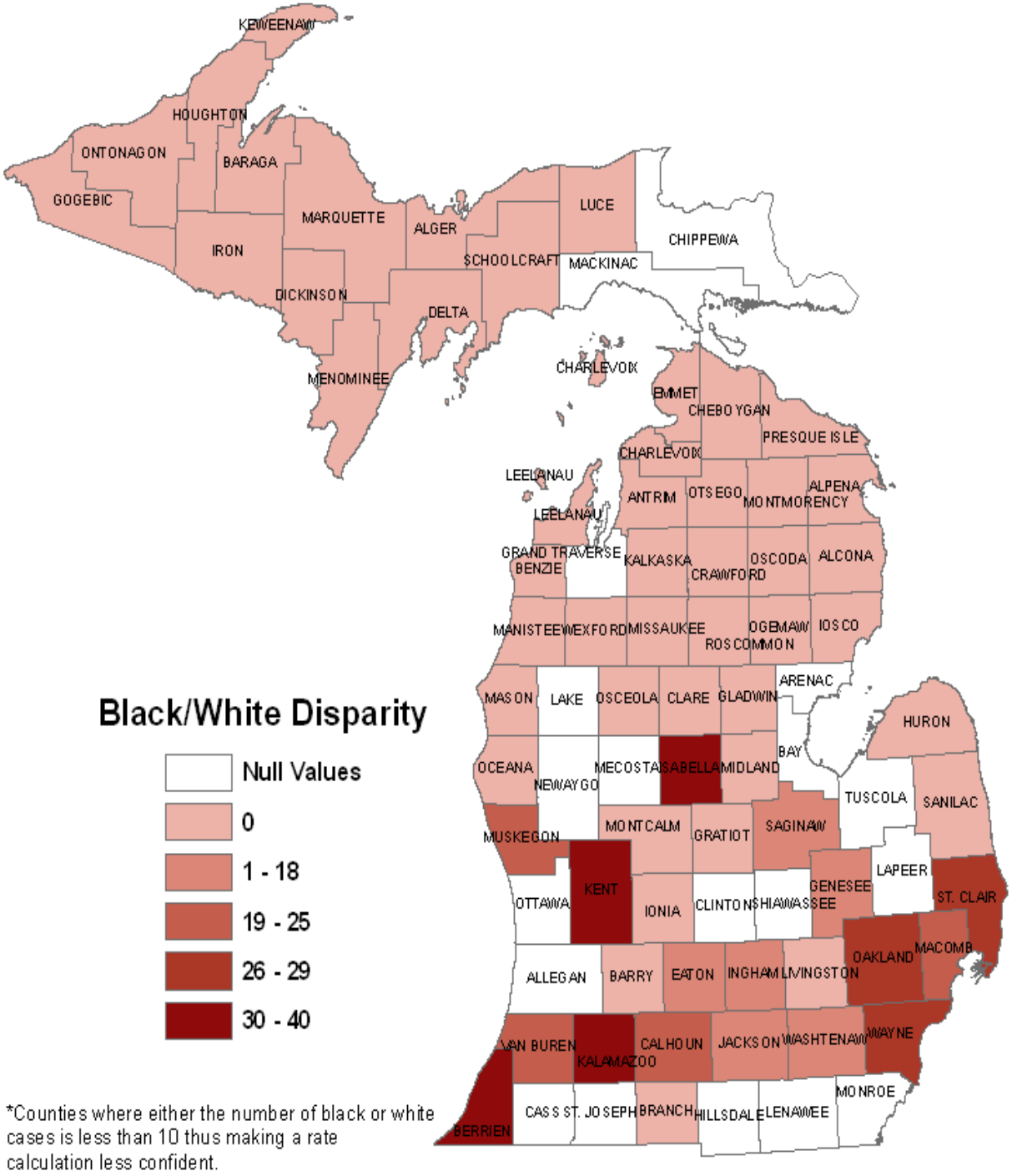
Figure 16: Disparity Ratio of Chlamydia Infection Rates Between Black and White Populations throughout Michigan, by County, 2007



*Counties where either the number of black or white cases is less than 10 thus making a rate calculation less confident.

Sexually Transmitted Diseases

Figure 17: Disparity ratio of Gonorrhea Infection Rates Between Black and White Populations throughout Michigan, by County, 2007



*Counties where either the number of black or white cases is less than 10 thus making a rate calculation less confident.

Hepatitis C

Data from Michigan Disease Surveillance System (MDSS)

Overview

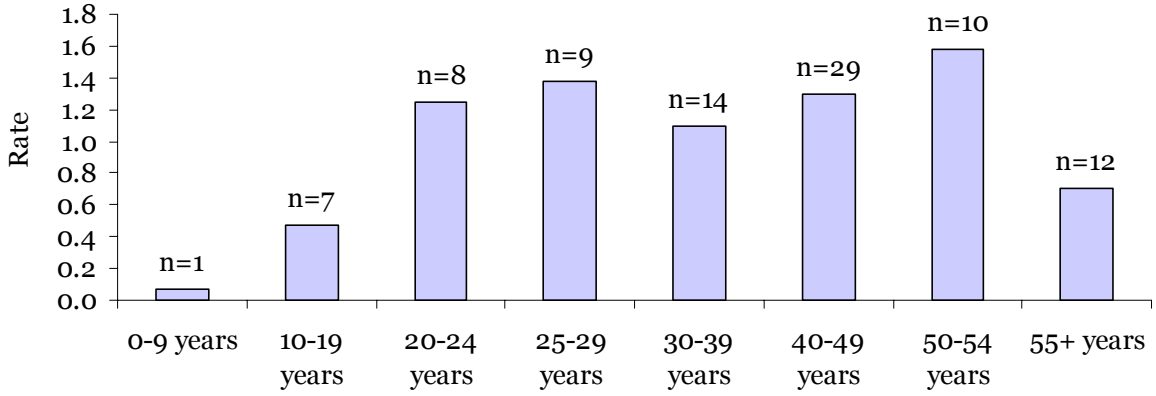
Hepatitis C is a disease of the liver caused by infection with the hepatitis C virus, in which the acute (or newly acquired) infection can progress to a chronic, long-term infection. Hepatitis C is the most common bloodborne infection in the United States and is the leading indicator for liver transplantation. Fifteen to 25 percent of those acutely infected will resolve the infection on their own. However, the majority of infected people, 75 to 85 percent, will develop chronic infection. Disease progression in those chronically infected is variable but can advance from fibrosis, to cirrhosis, to end-stage liver disease and death. Ten to 20 percent of those chronically infected will develop cirrhosis within 20 to 30 years after infection. An estimated 60 to 70 percent of hepatitis C-infected individuals are unaware of their infection.

Since 1992, the primary mode of transmission for the hepatitis C virus is through the sharing of needles, syringes, and other drug paraphernalia. An estimated 60 to 90 percent of injection drugs users are infected with the virus. Other routes of hepatitis C transmission include sexual contact, from mother to child during the birth process, and via occupational exposure to blood. In addition, the virus was transmitted through blood transfusions prior to 1992 and during receipt of blood products developed before 1987. No vaccine against hepatitis C infection exists.

Acute Hepatitis C

In 2007, 90 cases of acute hepatitis C were reported statewide in Michigan (Table 14, page 3-90). These reported cases correspond to a rate of 0.9 cases of acute hepatitis C per 100,000 Michigan residents. Fifty-nine percent of acute cases were among males, while 41 percent were among females. Ethnicity is not consistently collected for hepatitis C cases, therefore we cannot provide a measure of infection among Hispanic or non-Hispanic persons. The rate of acute hepatitis C in Michigan was 0.8 per 100,000 in black persons and 0.6 per 100,000 in white persons. However, these rates must be viewed with caution as the race/ethnicity of the client was unknown in 29 percent of reported acute cases. The highest rate of acute hepatitis C infection was found in the 50-54 year age group (Figure 18).

Figure 18: Rate of Acute Hepatitis C in Michigan Residents, by Age, 2007



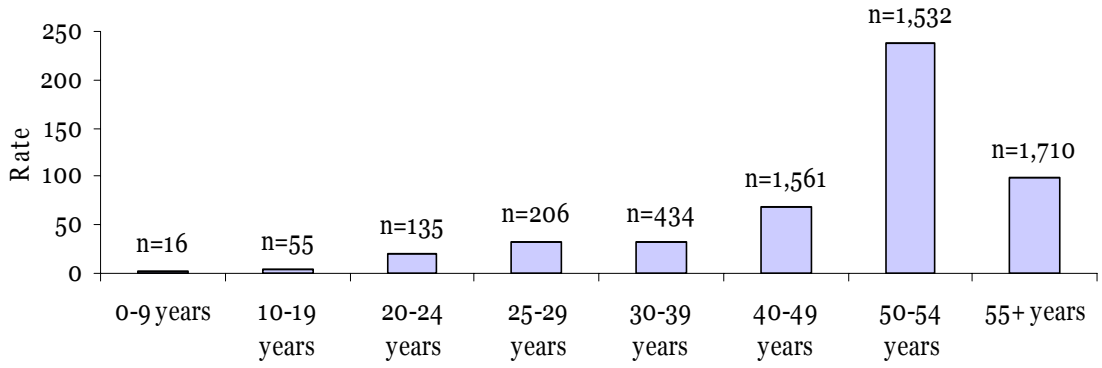
Hepatitis C

Chronic Hepatitis C

In 2007, 5,660 cases of chronic hepatitis C were reported statewide in Michigan (Table 14, page 3-90), a rate of 57 cases of chronic hepatitis C per 100,000 Michigan residents. Sixty-three percent of chronic cases were among males, while 37 percent were among females. The rate of chronic hepatitis C in Michigan was 63 per 100,000 in American Indian/Alaska Native persons, 57 per 100,000 in black persons and 24 per 100,000 in white persons. However, these rates must be viewed with caution as the race/ethnicity of the client was unknown in almost half (48 percent) of reported chronic cases. The highest rate of chronic hepatitis C was found in the 50-54 year age group (Figure 19).

Please note that chronic hepatitis C data must be interpreted with caution. Chronic hepatitis C data do not represent the incidence or prevalence of chronic hepatitis C in Michigan; rather the data represent an aggregate of newly diagnosed cases reported to local health departments by laboratories and healthcare providers. Although these cases were newly diagnosed in 2007, the patient may have been chronically infected with hepatitis C for years, but remained undiagnosed until 2007.

Figure 19: Rate of Chronic Hepatitis C in Michigan Residents, by Age, 2007



Limitations of the data

Since acute and chronic hepatitis C infections are often asymptomatic and can remain undetected and unreported for years, we often rely on estimates of hepatitis C infection rather than reported cases. Using data from the National Health and Nutrition Examination Survey (NHANES) gathered between 1999 and 2002, the Centers for Disease Control and Prevention (CDC) estimates that 1.6 percent of the population has ever been exposed to hepatitis C and 1.3 percent of the population has developed a chronic hepatitis C infection. However, NHANES does not include homeless, incarcerated, institutionalized, hospitalized or military populations and therefore under-estimates the percentage of the population who have ever been infected with hepatitis C or are chronically infected with hepatitis C, since these excluded populations are often at high risk for hepatitis C infection. While not perfect, we use these NHANES estimates to determine how many cases of chronic hepatitis C we may have in Michigan. According to these estimates, approximately 131,000 Michigan residents have been chronically infected with hepatitis C. See Table 13, page 3-89 for county estimates of how many Michigan residents have been infected with hepatitis C.

Hepatitis and HIV

Data from Adult and Adolescent Spectrum of Disease (ASD)

Data for this analysis were provided by a supplemental surveillance project, Adult and Adolescent Spectrum of Disease (ASD). ASD collected data from the medical records of HIV patients at two major medical centers in Detroit, between 1990 and 2004, from the time the persons first contacted either site, until they died or were lost to follow-up. The proportion of males in ASD was lower than in the HIV-infected population overall, because ASD included all the women, but only 40 percent of the men who presented for HIV care at ASD sites.

Hepatitis C (HCV) was the most common hepatitis co-infection among HIV-infected persons. Of the 1,790 persons in care and in ASD in 2001-2003, 353 (20 percent) had a diagnosis of HCV at some time during ASD follow-up, while 207 (12 percent) had a diagnosis of hepatitis B (HBV), and 64 (4 percent) of hepatitis A (HAV). The true rates of co-infection with HBV, and particularly with HCV, may be higher than these estimates because HBV and HCV infections are frequently asymptomatic, and only part of the persons in ASD were tested for HBV and HCV.

Table 15 (page 3-91) shows the demographic and HIV transmission risk profiles for all the persons in care and for the populations co-infected with HAV, HBV and HCV. Of persons co-infected with HCV, higher proportions were female and black, compared to the proportions among all persons in care, and a higher proportion were over 40 years of age. The predominance of blood transfer as the transmission mode for HCV was reflected in the higher proportions of HCV-co-infected persons who had a history of drug injection or other blood contact recorded as their HIV transmission risk. In contrast, the demographic and HIV transmission risk profiles of persons co-infected with HAV (predominantly oral-fecal transmission) did not differ significantly from the profiles of all the persons in care. Among persons co-infected with HBV, the only significant differences were that higher proportions were male and had MSM or drug injection recorded as their HIV transmission risk, reflecting the transmission modes for HBV (sexual contact and blood transfer).

The proportions of persons in care who were vaccinated against HAV and HBV were lower among persons co-infected with the respective viruses. These differences were expected because of the lack of need for immunization as a result of the long-term immunity (HAV and HBV) and chronic infection (HBV) that are associated with these viruses.

The impact of HCV co-infection on the health of HIV-infected persons is increasing. The numbers of new HCV cases in the U.S. increased in the 1970s and 1980s, and dropped precipitously in the early 1990s.[1] These changes created a cohort of HCV-infected persons in the population, and the aging of this cohort is expected to lead to an increase in the number of persons with HCV-related late stage liver disease through at least 2015.[2] HIV-infected persons will be impacted even more than the general population, because HIV/HCV co-infected persons have a higher risk of liver disease than persons infected with HCV alone.[3] Planning for the care of HIV-infected persons will need to consider the increasing numbers of HIV-HCV co-infected persons who are expected to develop late stage liver disease over the next decade or more.

[1]Centers for Disease Control and Prevention. Hepatitis Surveillance Report No. 58. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2003.
[2]Armstrong GL, et al. 2000. Hepatology 31:777-782.
[3]Graham CS, et al. 2001. Clin Infect Disease 33:562-569.

2008 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (eHARS) &
Supplement to HIV/AIDS Surveillance Project II (SHAS)

Overview:
Men who have sex with men (MSM) are the number-one ranked behavioral group in Michigan for HIV infection. MSM remain the single largest behavioral group affected by this epidemic, and account for over half (52 percent) of all reported infected persons, including MSM/IDU. MDCH estimates that there are approximately 9,340 MSM living with HIV disease in Michigan. This includes an estimated 850 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs. (See Table 7, page 3-81)

Race/Ethnicity:
MSM accounts for most HIV infection among men in Michigan. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU of all races (7,440 cases), white males comprise half of men in this combined category (50 percent, 3,686 cases); black males account for just under half (46 percent, 3,386 cases); and Hispanic males account for four percent (267 cases). See Table 8, page 3-84.

Age at HIV Diagnosis:
Among those reporting male-male sex (including MSM/IDU), the highest percent of all living cases of HIV/AIDS is found among those aged 30-39 at diagnosis (39 percent). MSM is the predominant mode of transmission for males aged 13 and up, accounting for 81 percent of infections among those aged 20-29 at diagnosis. See Table 9 and 10, pages 3-85—86.

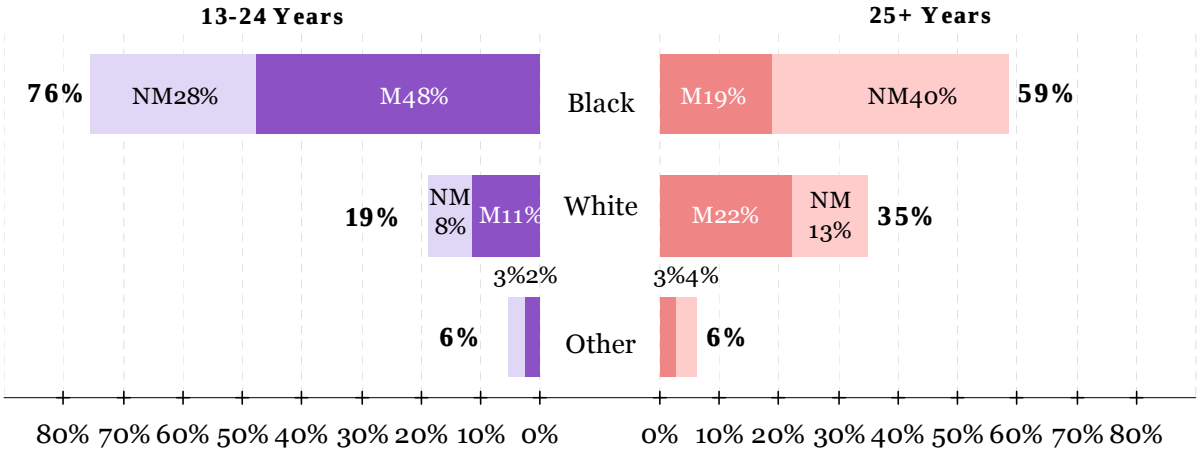
Concurrent Diagnoses:
Of the 14,341 persons living with HIV/AIDS in Michigan, 54 percent (7,691 cases) have progressed to AIDS. Of these, 3,434 (45 percent) had concurrent HIV and AIDS diagnoses. Fifty-three percent of these persons (1,826 cases) have reported MSM behavior, including MSM who were also IDU. MSMs make up the majority of those getting tested for HIV late in the course of the disease and are more likely to test later when compared to IDU and persons reporting heterosexual sex. See Table 7, page 3-81.

Geographic Distribution:
In both the high and low HIV/AIDS prevalence areas (see Figure 2, page 3-15), MSM comprise the single largest mode of transmission. Within high prevalence counties MSM comprise over half of reported cases (51 percent) while in the lower prevalence counties about two-thirds (60 percent) of reported persons living with HIV/AIDS are MSM. Just under two-thirds (63 percent) of HIV-infected MSM statewide reside in the Detroit Metro Area. These percentages include MSM who are also IDU. Data not shown in Tables.

Trends and Conclusions:
MDCH estimates that HIV infection increased significantly in men who have sex with men from 44 percent to 45 percent (340 to 405 cases) from 2002 to 2006. Also, the rate of infections in those who were 13-24 years old at the time of HIV diagnosis have significantly increased during this time period. Those in this age group are much more likely to be black MSM compared to adults 25 years and older (48 percent vs. 19 percent) (Figure 20).

Ranked Behavioral Group: MSM

Figure 20: Race/Ethnicity by Age at HIV Diagnosis, All Persons Living with HIV, 2002-2006



NM (lighter outside bars) = Not MSM (males and females)
M (darker inside bars) = MSM (males only)

Ranked Behavioral Group: MSM: A Look at Condom Usage

Data from Supplement to HIV/AIDS Surveillance Project II (SHAS)

This section discusses questions from interviews with infected MSM regarding condom use with male partners from the SHAS project. Among the 333 men who report having sex with a man in the 12 months prior to the interview, 65 percent (216) reported being in a steady relationship with a man. Fifty-six percent (187) reported having sex with a non-steady man during the 12 months prior to the interview. As shown in Figures 11 and 12, of the 111 male respondents who reported having insertive anal sex with a steady male partner, 28 percent reported using condoms the last time they had sex. Of the 119 male respondents who reported having receptive anal sex with a steady male partner, 30 percent reported that their partner used a condom. The percentages of condom use are similar for most recent non-steady partners the last time they had sex.

Figure 21: Condom Usage During Insertive Anal Sex Among HIV Infected MSM in SHAS (N = 111)

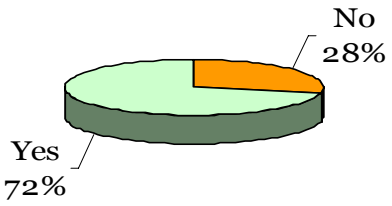
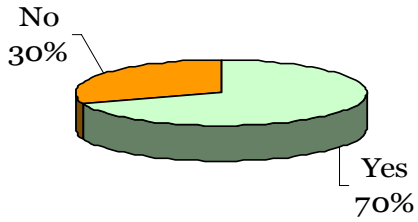


Figure 22: Partner's Condom Usage During Receptive Anal Sex Among HIV Infected MSM in SHAS (N = 119)



Ranked Behavioral Group: MSM: Discussion of Behaviorally Bisexual Men

Data from HIV/AIDS Reporting System (eHARS) & Supplement to HIV/AIDS Surveillance Project II (SHAS)

Case reporting data are collected statewide but have only limited information on male bisexual behavior. Case reports are usually completed by health care providers and surveillance staff reviewing medical records rather than through interviews with infected persons. Fifty-three percent of all completed case reports have complete 'yes or no' answers to both questions, "has the patient had sex with men," and "has the patient had sex with women." Based on these complete forms, 62 percent of all MSM (including MSM/IDU) reported also having sex with a woman. These more complete forms also show that five percent of women report having sex with behaviorally bisexual men. These data should be viewed as minimum estimates of these behaviors, because 38 percent of case reports did not have these two questions answered completely. Nonetheless, they suggest that more women are having sex with behaviorally bisexual men than the surveillance system collects.

In an effort to help focus prevention activities, we present the data that are available on bisexual behavior among HIV-infected men in southeast (SE) Michigan from the Supplement to HIV/AIDS Surveillance Project (SHAS), which was conducted in Michigan 1990-2004. The SHAS interview asked HIV-infected persons directly about specific behaviors. It was conducted only in SE Michigan; therefore, is not representative of all HIV-infected persons in the state. Please see the Data Sources Section (page 1-7) to learn more about SHAS. Of all male SHAS respondents who reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview (530 persons), 63 percent (333 persons) reported having sex with other men in the 12 months prior to the interview; 77 percent (254 persons) were black and 22 percent (72 persons) were white. Of these 332 men, 10 percent (33 persons) also reported having sex with women in the 12 months prior to the interview. This represents 12 percent (30 persons) of the 254 black men and three percent (2 persons) of the 72 white men who reported same-sex behavior.

2008 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM: Health Needs & Risk Perceptions

HIV/AIDS and Health Related Needs and Risk Perceptions Among African-American Men who Have Sex with Men in Michigan

In October of 2005, the health related needs and risk perceptions of HIV/AIDS among African-American men who have sex with other men were assessed by MDCH/HAPIS. Interviews (N=32) and/or focus groups (N = 6 with 37 participants) were conducted in six communities around Michigan: Benton Harbor, Detroit, Flint, Grand Rapids, Lansing, and Ypsilanti. Quota and network sampling methodology were used to access participants on streets, in parks, at clubs, and at community-based organizations known to serve MSM.

Few of the interview participants listed HIV/AIDS as their primary health concern (unless they reported being HIV positive), but many said they think HIV is the most important health issue facing African American men today, generally because most men perceived that African Americans are at higher risk for getting HIV. People did not see HIV as a personal risk factor, but as a risk for the larger African American community. However, when asked about the personal importance of HIV relative to other health risks, most rated it as more important or as important as other health issues. Further, most participants reported fear or negative emotion associated with hearing the term HIV.

Questions were asked concerning where participants would and would not feel comfortable going for information on HIV. When asked about the places they would *not* go for HIV information, there was a very consistent pattern to participants' responses. Specifically, many participants said they would not go to churches, clubs, bars, or parks, generally because of confidentiality concerns and fears about the type of information they would get from the sources in these places. There were a number of places people listed that they *would* go for HIV-related information including their private doctor, the internet, the health department, hospitals, and community-based organizations. The reasons people gave for choosing these particular organizations were because they were perceived as being open (one can "speak freely"), confidential, and comfortable. Importantly, concerns about going to particular places for information seemed to be largely related to stigma around gay sexual identity and HIV, rather than about concerns about racism. Agencies targeting African American MSM with prevention interventions should carefully consider the venue in which these services are provided. It appears that the public nature of bars and clubs in particular raises concerns among this population.

In this sample, people's perceptions of HIV risk and vulnerability did not seem to be closely tied with homosexuality. The MSM in this sample, who would not talk to others about their sexual orientation, were quite willing to talk with those same people about HIV (as long as they were talking about other people), and at community-based organizations known to serve MSM.

2008 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: Heterosexuals

Data from HIV/AIDS Reporting System (eHARS)

Overview:

Heterosexual transmission is the number-two ranked behavioral group in Michigan. Heterosexual sex accounts for 17 percent of reported infected persons. MDCH estimates that 3,070 persons living with HIV disease in Michigan were infected through heterosexual sex. Heterosexual transmission is comprised of High-Risk Heterosexuals (HRH) and females who are presumed to have heterosexual risk (PH-Fem). HRH are defined as HIV-infected persons whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals without additional behavioral information, and PH-Fem are defined as females whose only reported risk is heterosexual contact, and their male partner's risk and HIV status are unknown. Currently there are an estimated 2,280 infected persons who are classified as HRH and 780 who are PH-Fem. (See Table 7, page 3-81).

Race/Ethnicity and Sex:

Among the 2,444 men and women living with HIV/AIDS and infected heterosexually, under three-quarters (74 percent) are HRH and 26 percent are PH-Fem. Of the 1,820 HRH, 28 percent reported their heterosexual partner as injecting drug users (73 percent women, 27 percent men), six percent as behaviorally bisexual men (this applies to women only) and 11 percent as persons infected through blood products (75 percent women, 25 percent men). Two-thirds (63 percent; 67 women, 33 percent men) reported their partner(s) as HIV-infected without reporting the partner'(s') risk for contracting HIV. See Table 8, page 3-84.

While women account for 23 percent of all reported HIV/AIDS cases in Michigan, they have consistently accounted for over three-quarters of heterosexually acquired infections -- currently 78 percent. Over half of all black women were infected heterosexually (57 percent). Sixty-three percent of white women, 64 percent of Hispanic women, and 63 percent of women of other or unknown race, at least two-thirds of each group, were infected through heterosexual sex. Black women and women of other or unknown race have higher proportions of PH-Fem then white or Hispanic women (black-21 percent, other/unk-29 percent, white-14 percent,Hispanic-13 percent).

Most heterosexual cases of HIV/AIDS are among black persons--70 percent of both females and males. It should be noted that the overall proportion of men infected heterosexually is low--five percent of cases among men of all races. See Table 8, page 3-84.

As noted above, the HRH transmission category includes subcategories to describe mode of transmission in more detail. This is especially helpful for women since they make up most (78 percent) of the heterosexually transmitted cases. Risk breakdowns for black and white women living with HIV/AIDS are shown in Figures 23 and 24.

Ranked Behavioral Group: Heterosexuals

Figure 23: Black Females Living with HIV/AIDS in Michigan, by Expanded Mode of Transmission (N = 2,358)

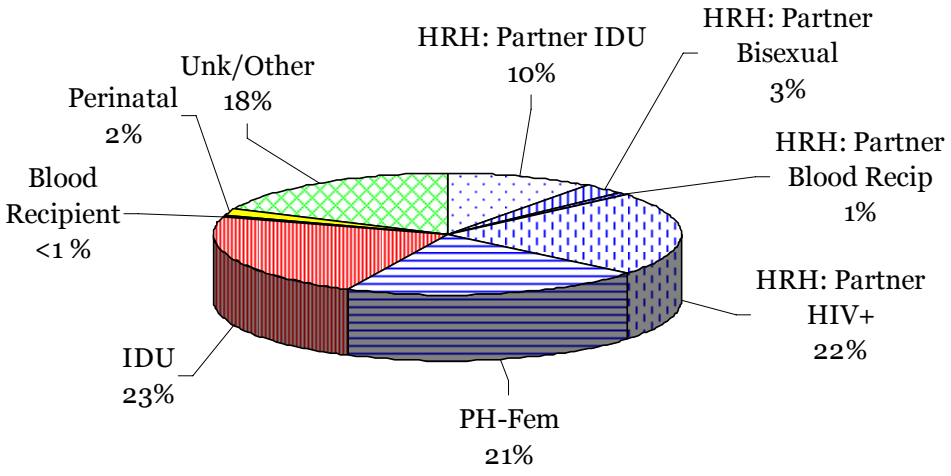
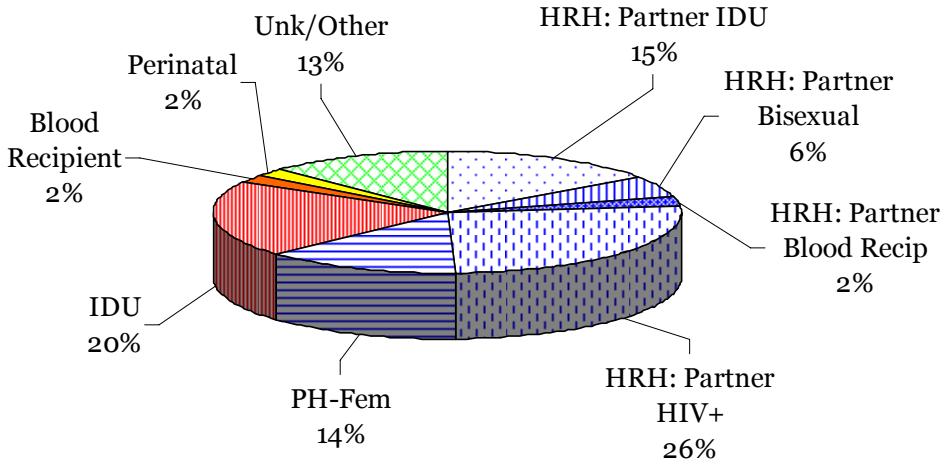


Figure 24: White Females Living with HIV/AIDS in Michigan, by Expanded Mode of Transmission (N = 696)



2008 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: Heterosexuals

Age at HIV Diagnosis:
Heterosexual transmission is the predominant mode of HIV transmission for females who were 13 years of age and older at the time of their HIV diagnosis. Three-quarters (76 percent) of those 13-19 at the time of HIV diagnosis report heterosexual sex (67 percent HRH, 33 percent PH-Fem). As age increases, the proportion made up by heterosexual sex decreases, but still remains higher than IDU for all age groups 13 years and older.

Among men, the percentage with heterosexual sex as the mode of HIV transmission remains low (5 percent). However as the age at diagnosis gets older, HRH makes up a larger proportion, but never surpasses 10 percent. See Tables 9 and 10, page 3-85—86.

Concurrent Diagnoses:
Of the 14,341 persons living with HIV/AIDS in Michigan, 54 percent (7,691 cases) have progressed to AIDS. Of these, 3,434 (45 percent) had concurrent HIV and AIDS diagnoses. Fifteen percent of these persons (508 cases) have been categorized as infected heterosexually, specifically, 10 percent as HRH and five percent as presumed heterosexual (among females). Overall, heterosexuals are equally as likely as IDUs and less likely then MSMs to get tested late in the progression of HIV disease. See Table 7, page 3-81.

Geographic Distribution:
In the high and low prevalence areas (Figure 2 on page 3-15), persons living with HIV/AIDS who acquired HIV heterosexually comprise 17 percent and 16 percent, respectively, of reported cases in these areas. Of these 2,444 persons 62 percent reside in the Detroit Metro Area. Data not included on Tables.

Trends and Conclusions:
Between 2002 and 2006, new HIV diagnoses attributed to heterosexual sex remained level and 135 cases were diagnosed in 2006. The data also show that although there is heterosexual transmission from women to men, it is a much smaller problem in Michigan (and the U.S.) than transmission from men to women. In light of the much lower seroprevalence rates among heterosexuals compared with men who have sex with men, this mode of transmission is unlikely to surpass that of MSM. However, recent trends show that heterosexually acquired cases have surpassed the proportion of cases attributed to IDU.

Ranked Behavioral Group: Heterosexuals: Condom Usage

Data from Supplement to HIV/AIDS Surveillance Project II (SHAS)

In SHAS, 64 percent (213) of female respondents reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview. Of these, most (208 or 98 percent) reported having sex with a man in the 12 months prior to the interview. We asked these 208 women questions about use of a barrier with their steady partners (someone they feel committed to above anyone else and have sex with). Eighty-five percent (176) of the (208) women reported being in a steady relationship with a man during the 12 months prior to interview. Use of a barrier with these partners is displayed in Table 4.

Sixty-three percent (529) of male SHAS respondents reported having vaginal, oral, and/or anal sex during the 12 months prior to the interview. Of these 529, 228 men (43 percent) reported having had sex with a woman in the 12 months prior to the interview. Sixty-five percent (148) of these men reported being in a steady relationship with a woman in the 12 months prior to interview. Condom use at that sexual contact with these partners is displayed in Table 4.

Table 4: Barrier/Condom Use with Steady Partner, Among Heterosexuals

	Females (n=176) Percent (barrier use/sexual activity)	**Males** (n=148) Percent (condom use/sexual activity)
Sexual Activity*		
Vaginal sex	69% (118/172)	78% (113/145)
#*Oral sex	22% (7/32)	40% (16/40)

**Categories are not mutually exclusive*
*#*Oral sex: mouth-vagina and penis-mouth*

In addition, we asked women and men questions regarding barrier/condom use with their most recent other male and female partners. Among the female SHAS respondents, 68 (33 percent) reported having sex with a man other than a steady male partner in the 12 months prior to interview. Among the male SHAS respondents, 115 (50 percent) reported having sex with a woman other than a steady female partner in the 12 months prior to interview. Barrier/condom use at last sexual contact with these partners is displayed in Table 5.

Table 5: Barrier/Condom Use with Most Recent Non-Steady Partner, Among Heterosexuals

	Females (n=68) Percent (barrier use/sexual activity)	**Males** (n=115) Percent (condom use/sexual activity)
Sexual Activity*		
Vaginal sex	70% (46/66)	78% (84/108)
#*Oral sex	35% (7/20)	29% (14/48)

**Categories are not mutually exclusive*
*#*Oral sex: mouth-vagina and penis-mouth*

2008 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (eHARS) &
Supplement to HIV/AIDS Surveillance Project II (SHAS)

Overview:
Injecting drug users (IDUs) are the number-three ranked behavioral group in Michigan and account for 17 percent (2,466 cases) of reported infected persons (including MSM/IDU). MDCH estimates there are 3,100 IDUs living with HIV in Michigan. This estimate includes 850 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs (MSM/IDU). (See Table 7, page 3-81).

Race/Ethnicity and Sex:
Of the 2,466 IDU and MSM/IDU persons living with HIV, 1,128 are black men (46 percent), 536 are black women (22 percent), 498 are white men (20 percent), 139 are white women (6 percent), 91 are Hispanic men (6 percent) and 30 are Hispanic women (1 percent). In total, over two-thirds (1,664 cases, 67 percent) of the IDU cases occur in black persons. Approximately three-quarters of the cases are among men (71 percent) and 29 percent are among women. See Table 8, page 3-84.

Additional behavioral data on HIV-infected IDUs and other drug users in southeast Michigan is known from the SHAS interview project. Of the 1,174 persons interviewed in SHAS between 2000 and 2004, 15 percent (178) injected drugs at some time during their lives. This 15 percent (178) was mostly comprised of males (63 percent). Of all injection drug users, 51 percent (90) reported ever being told by a doctor or health care provider that they had hepatitis C; this was 59 percent of males (53) and 71 percent of females (37). See Table 8, page 3-84.

Non-injection drug use:
Among SHAS participants, 174 (98 percent) were injection drug users who had ever used some kind of non-injection drugs in the past. When injection drug users were asked about ever being in a drug or alcohol treatment program, 135 persons (76 percent) responded in the affirmative. Forty-two percent (74 persons) of injection drug users are potential alcoholics—17 percent of males (44 persons) and 28 percent of females (30 persons). A 'potential alcoholic' is defined as a person who answered 'Yes' to two or more of the following questions on the SHAS II questionnaire: 1) Have you ever felt you ought to cut down on your drinking?, 2) Have people ever annoyed you by criticizing your drinking?, 3) Have you ever felt bad or guilty about your drinking?, and 4) Have you ever had a drink first thing in the morning to steady your nerves or rid yourself of a hangover?

Asking these screening questions of all respondents revealed that 32 percent (371) are potential alcoholics-31 percent of males (263) and 32 percent of females (108). Other drug use information shows 772 (66 percent) of all respondents (1,174) have ever used some kind of non-injection drugs in the past. Among non-injection drug users, the primary non-injected drug for men and women was marijuana, followed by crack cocaine for both men and women. Further SHAS data describing the drug use behaviors of participants in this project are available online at www.michigan.gov/hivstd.

Ranked Behavioral Group: IDU

Age at HIV Diagnosis:

Among men in their 40s and 50s at the time of HIV diagnosis, IDU (including MSM/IDU) is the second most common mode of transmission (24 and 23 percent, respectively). For men in their thirties IDU is tied with Unknown risk for the second most common mode (16 percent). Overall, as age at diagnosis increases, the proportion attributed to IDU behavior increases (as opposed to MSM behavior, where the proportion decreases with age). However, this proportion peaks with persons 50-59 and then begins to decrease.

Overall, IDU is the second most common risk for women. However, this is true only for women in their 30s and 40s at the time of HIV diagnosis (27 and 31 percent, respectively). For women who were diagnosed with HIV in their fifties, IDU is tied with Unknown risk for the second most common mode (14 percent). For all other age groups, 13 years and older, the proportion classified as unknown risk is higher than those classified as IDU.

There are very few cases of HIV/AIDS attributed to IDU among persons who were teenagers at the time of their HIV diagnosis (six percent) and about half of those are among MSM/IDU; the proportion among those in their twenties is also small (11 percent). See Tables 9 and 10, page 3-85—86.

Concurrent Diagnoses:

Of the 14,341 persons living with HIV/AIDS in Michigan, 54 percent (7,691 cases) have progressed to AIDS. Of these, 3,434 (45 percent) had concurrent HIV and AIDS diagnoses. Fifteen percent of these persons (513 cases) have reported IDU (including MSM/IDU). Overall, IDUs are equally likely as heterosexuals and less likely then MSMs to get tested late in the progression of HIV disease. See Table 7, page 3-81.

Geographic Distribution:

IDU is a more common mode of transmission in the higher prevalence areas of the state (see Figure 2 on page 3-15). Within high prevalence counties, 17 percent of reported cases are IDU, while in the lower prevalence counties 13 percent of persons living with HIV/AIDS are IDU. These percentages include those male IDUs who are also MSM. Data not included in Tables.

Trends and Conclusions:

The proportion of persons diagnosed each year with HIV infection between 2002 and 2006 decreased significantly in IDUs by an average of seven percent per year. Decreases among IDU have been noted for the past three years that MDCH has analyzed trends in new HIV diagnoses. This provides evidence of the success of programs like needle exchange.

2008 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (eHARS)

Overview:

Black persons comprise the majority of those living with HIV/AIDS in Michigan. They comprise 14 percent of Michigan's population yet make up over half (57 percent) of the cases of HIV/AIDS. MDCH estimates 10,280 black persons are living with HIV/AIDS in Michigan. The rate of HIV infection among black persons is 575 per 100,000, almost nine times higher than the rate among white persons. As many as one out of 120 black males and one out of 320 black females are living with HIV.

White persons comprise over a third (37 percent) of reported HIV/AIDS cases and 78 percent of Michigan's population. MDCH estimates 6,630 whites are living with HIV/AIDS in the state. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection (67 per 100,000) than black or Hispanic persons. As many as one out of 840 white males and one out of 5,710 white females are living with HIV.

Hispanic persons comprise four percent of cases and four percent of the population. MDCH estimates 780 Hispanic persons are living with HIV/AIDS in Michigan. However, the relatively few cases are spread out among a small population and therefore they have a higher rate (159 per 100,000) than that among white persons. As many as one out of 430 Hispanic males and one out of 1,280 Hispanic females are living with HIV.

Most persons living with HIV/AIDS in Michigan are male (77 percent). The majority of the 11,081 male HIV/AIDS cases are black (53 percent), 41 percent white, four percent Hispanic and two percent are other or unknown race. The majority of the 3,260 female HIV/AIDS cases are also black (72 percent), almost one-quarter (21 percent) are white, four percent are Hispanic and three percent are other or unknown race.

Please refer to Table 7, page 3-81 for the data discussed in the above section.

Concurrent Diagnoses:

Of the 14,341 persons living with HIV/AIDS in Michigan, 54 percent (7,691 cases) have progressed to AIDS. Of these, 3,434 (45 percent) had concurrent HIV and AIDS diagnoses. Eighty-one percent are male and 19 percent are female; males are disproportionately represented. This likely means they are tested later and/or present for care later then females.

Over half (55 percent) of people diagnosed with HIV and AIDS concurrently are black, 38 percent are white, and five percent are Hispanic. Black males make up the majority at 41 percent, followed by white males (35 percent) and black females (14 percent). The remainder of the race-sex groups are all below five percent. See Table 7, page 3-81.

Trends and Conclusions:

The rate of new diagnoses increased among all males (average 4 percent per year), among all black persons (average 3 percent per year), and among black males (average 4 percent per year) between 2002 and 2006. The rates among black males and females are troubling, given that they are several times higher than other race/sex groups.

Description of the Epidemic by Race and Sex (continued)

Mode of Transmission:

Figures 25 and 26 display the proportion of black and white male cases by mode of transmission.

Figure 25: Black Males Living with HIV/AIDS in Michigan, by Expanded Mode of Transmission (N = 5,836)

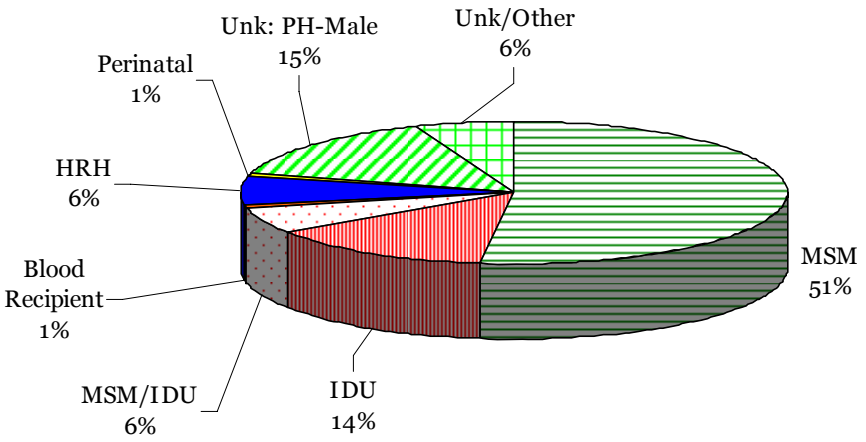
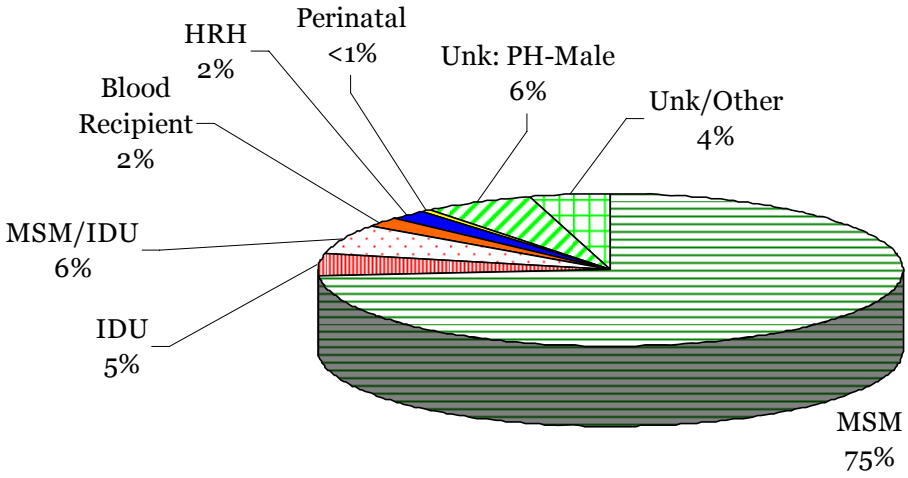


Figure 26: White Males Living with HIV/AIDS in Michigan, by Expanded Mode of Transmission (N = 4,589)



Refer to Figures 23 and 24, page 3-41 for black and white female distributions.

Description of the Epidemic by Race and Sex

Geographic Distribution:

Looking at the proportions of cases by race (e.g., number of black cases/total number of cases) in a particular area of the state does not fully measure the impact of this disease. This is because the proportions of white and black persons living in high and low prevalence areas are different. See page 3-15 for high and low prevalence areas. Therefore, instead of proportions, rates are used (e.g., number of black cases/total number of blacks living in that area). Figure 27 shows that the HIV/AIDS case rate among black persons is six to seven times higher than the rate among white persons in both high and low prevalence areas of the state, even though there are fewer cases among black persons in the low prevalence areas. This shows that this disease disproportionately affects black persons in both high and low prevalence areas of Michigan. Also, the HIV/AIDS case rate among Hispanic persons is two to three times higher than the rate among white persons in both high and low prevalence areas of the state, even though there are fewer cases among Hispanic persons in the low prevalence areas.

Figure 27: Case Rates of Persons with HIV/AIDS Living in High & Low Prevalence Areas by Race, 2008

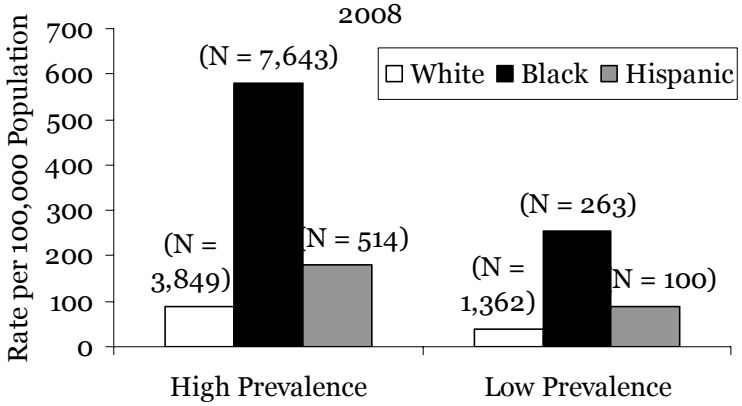
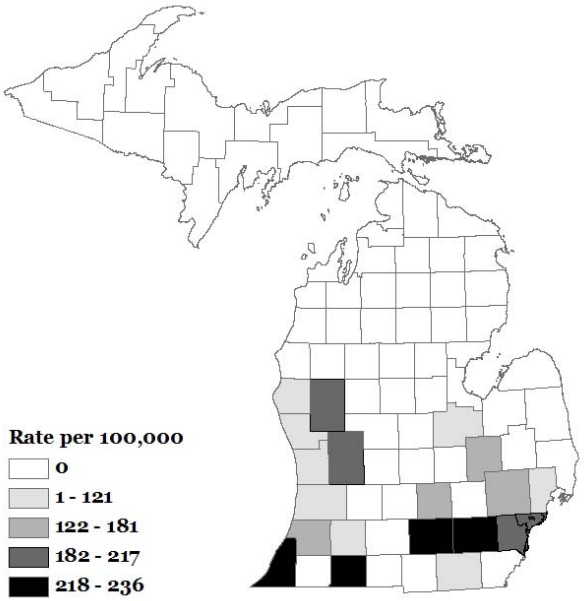


Figure 28: Prevalence Rates for Hispanic Persons Living with HIV



Focus on Hispanics:

Hispanic persons comprise four percent of all persons living with HIV/AIDS. Figure 28 shows the rate per 100,000 of Hispanic persons living with HIV/AIDS in counties across Michigan. Counties with five or more reported Hispanic cases are included in the map. Ten of the 20 counties that meet this definition are either on the Lake Michigan shoreline or just east of it. This is most likely due to the large population of migrant workers in this area. Although Wayne County has the largest number of cases, it has the seventh highest rate (203 per 100,000). The individual county rates include Washtenaw (236), Jackson (235), St. Joseph (232), Berrien (223), Kent (218), Newaygo (210), Wayne (203), Genesee (181), Ingham (174), Oakland (153), Van Buren (152), Oceana (122), Kalamazoo (119), Muskegon (110), Allegan (110), Macomb (89), Saginaw (88), Ottawa (85) and Lenawee (67).

Race and Ethnic Health Disparities

Data from HIV/AIDS Reporting System (eHARS) & MDCH Vital Statistics

Comparison by race/ethnicity:
The state of Michigan is similar to the rest of the country in that large racial and ethnic disparities are seen in HIV/AIDS rates. The epidemic disproportionately impacts black and Latino/Hispanic populations. In the black community HIV/AIDS has had the most devastating effect, with 57 percent of the HIV/AIDS cases occurring in this population. In addition to the black community, the Latino/Hispanic population is also disproportionately impacted with four percent of the reported cases occurring in this demographic. To put this in perspective, the state of Michigan's population is currently 79 percent white, non-Hispanic, 14 percent black, non-Hispanic, four percent Latino/Hispanic, and three percent Asian American/Pacific Islander/Native American, with the percentage of racial/ethnic minorities increasing each year. The black population is Michigan's largest minority group and the Latino/Hispanic population is one of Michigan's fastest growing; the importance of eliminating disparities is evident.

Death rates:
The epidemic is of special concern in the black community where the death rate from AIDS is 10.2 per 100,000; this towers above the rate for whites at 0.5 AIDS deaths per 100,000. If we separate the black rate by sex, black males have a death rate of 15.8 per 100,000 and the black female rate is 5.6 per 100,000. The black male rate is alarming because black males make up only seven percent of the total population, yet constitute 41 percent of the epidemic. The main mode of transmission in this group is MSM, however, IDU and heterosexual transmission also play a significant role. HIV/AIDS is also a serious area of concern for black women. The main modes of transmission for this group are heterosexual transmission and IDU.

Age (Impact on Young Black MSM):
The fastest growing population of HIV-infected persons are young black males. As previously reported in this document, significant increases in the rates of HIV infection were measured among 13-19 year olds and 20-24 year olds, black males, all males, all black persons, and MSM. Special analyses (Figure 20, page 3-37) show that of all teens and young adults diagnosed from 2002 through 2006, 76 percent are black, compared to 59 percent of persons diagnosed at age 25 years and older. Furthermore, young adults are much more likely to be black MSM compared to adults 25 years and older (48 percent v 19 percent). This continues to underscore a need for prevention campaigns tailored to these groups, as the differences we are now seeing in this young group will likely widen the already large racial gap among persons living with HIV.

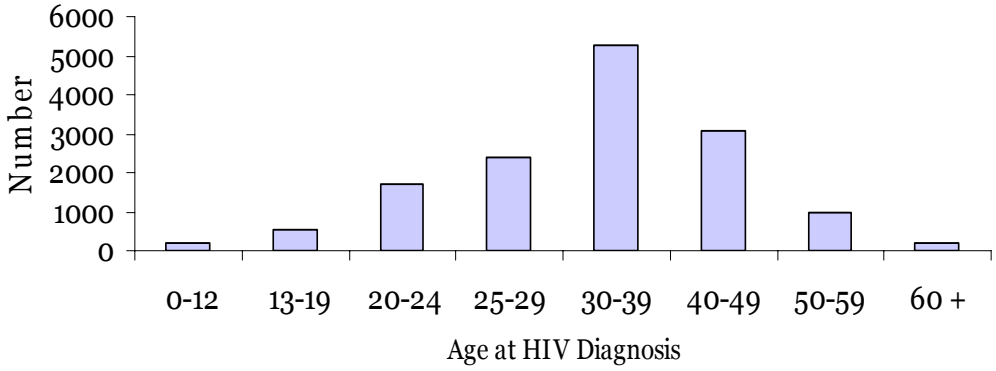
Description of the Epidemic by Age

Data from HIV/AIDS Reporting System (eHARS)

Age at Diagnosis:

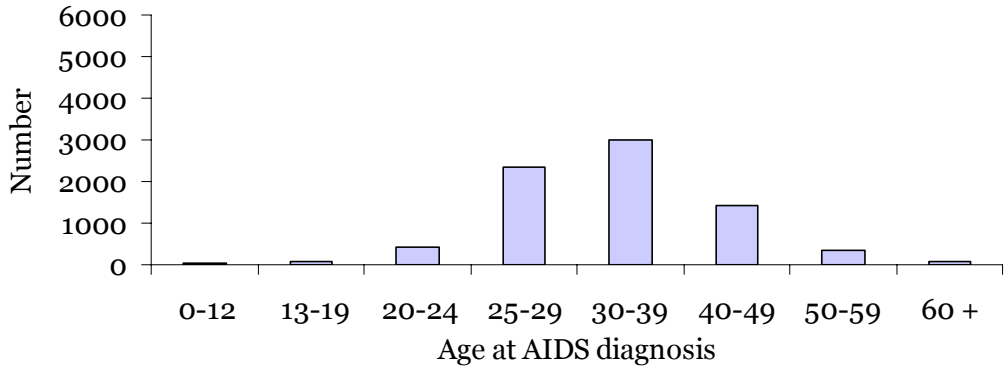
From 2002 to 2006, the rate of new diagnoses increased among young adults 13-24 years old at the time of diagnosis and among persons in their forties (Figure 11, page 3-21). In all other age groups, the trends in new diagnoses are level. Figure 29 shows that persons who were in their thirties at their initial diagnosis of HIV make up the majority of those living with HIV/AIDS (37 percent), while those who were in their forties at their initial diagnosis of HIV are the second largest group (21 percent). Similar proportions are seen when looking at age at AIDS diagnosis (39 percent in their thirties and 30 percent in their forties), Figure 30. Although persons in their thirties and forties make up the largest group at initial AIDS diagnosis, the proportion of persons diagnosed with AIDS in their twenties is much higher than the proportion diagnosed with HIV in their twenties. This discrepancy is seen because of the time lag in progression of HIV to AIDS.

Figure 29: Age at HIV Diagnosis for Those Living with HIV/AIDS in Michigan, 2008 (N = 14,338*)



*Not included are 3 HIV/AIDS cases with missing age information

Figure 30: Age at AIDS Diagnosis for Those Living with AIDS in Michigan, 2008 (N = 7,691)

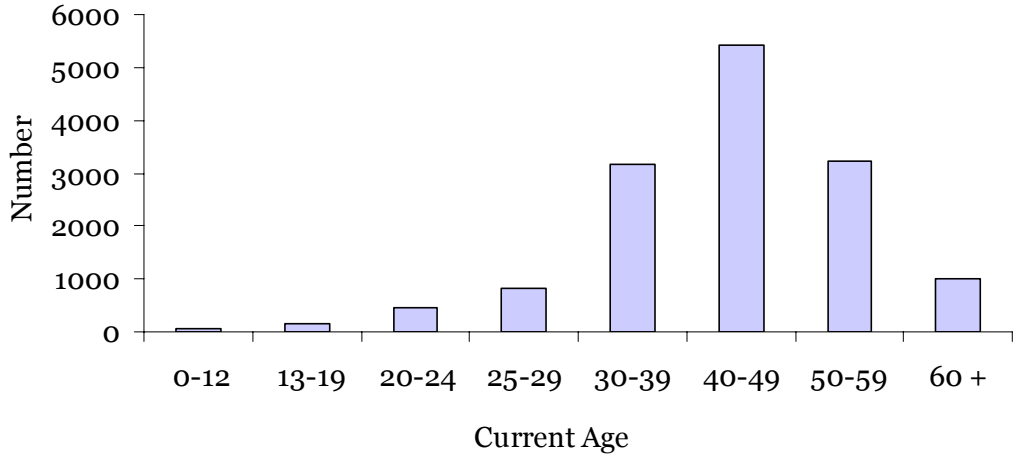


Description of the Epidemic by Age

Current Age:

Since the start of widespread use of Highly Active Anti-Retroviral Therapy (HAART) in 1996, persons infected with HIV have been living longer. Evidence of this is shown in Figure 31, which displays the current ages of those living with HIV in Michigan. Those currently in their forties make up the largest group of those living with HIV (38 percent). This age group represented the second and third highest proportions of persons at HIV diagnosis and AIDS diagnosis, respectively. While persons who were 50 years and older at the time of their HIV diagnosis represent only seven percent (Figure 29), persons who are currently in this age group make up almost one-third (30 percent) of persons living with HIV/AIDS.

Figure 31: Current Age of Those Living with HIV/AIDS in Michigan, 2008 (N = 14,341*)



*Not included are 7 HIV/AIDS cases with missing age information

2008 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age: Children (0-12)

Data from HIV/AIDS Reporting System (eHARS)

Overview:

MDCH estimates that there are 230 individuals living with HIV who were ages 0-12 when they were diagnosed. They comprise one percent of reported persons. Most of them (86 percent) were infected perinatally, i.e., before, during or shortly after birth. Those infected after birth would be infected via breastfeeding. Of the remaining individuals, eight percent were infected via blood exposure before 1985 and six percent have an unknown risk. No individuals currently living with HIV and aged 0-12 at the time of HIV diagnosis have been infected through sexual behavior or injection drug use.

Demographic Description:

Of the 182 individuals living in Michigan who were ages 0-12 when diagnosed with HIV, 57 percent are male and 43 percent are female; about two thirds are black (64 percent), about one quarter are white (26 percent) and 10 percent are Hispanic or of unknown race. See Table 9, page 3-85.

Of the 157 individuals who were ages 0-12 when diagnosed with HIV and perinatally infected, 54 percent are male and 46 percent are female; 69 percent are black, 21 percent are white, and 10 percent are Hispanic or other races. Less than one percent of the HIV infections in these children are known to be IDU-related (i.e., mothers who were IDUs). For the majority (99 percent) all that was known about the mother is that she was HIV-infected with no additional maternal risk information.

Geographic Distribution:

Eighty-one percent of the 182 children diagnosed and reported with HIV between the ages of 0 and 12 years are residents of high prevalence counties (See Figure 2, page 3-15). The remaining 19 percent are living in low prevalence counties. Sixty-four percent of HIV cases that were diagnosed as children in Michigan are currently residents of the Detroit Metro Area.

Trends and Conclusions:

The best measurable success in reducing HIV transmission has been among those infected perinatally. Without Zidovudine (ZDV) prophylaxis, about 25 percent of children born to HIV-infected women could expect to become HIV-infected. In Michigan, the proportion of these children who become infected has dropped precipitously, from 12 percent in 1996 to one percent in 2007. As of January 1, 2008, one of the 71 children born in 2005, one of the 48 children born in 2006, and one of the 15 children born in 2007 to HIV-infected women were diagnosed with HIV infection. In addition, a second child born in 2005 to an HIV-infected woman has been diagnosed with AIDS.

2008 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age: Children: Focus on Screening Tests During Prenatal Care, Labor & Delivery and Newborns

Data from Assessment of HIV and other Recommended Perinatal Screening Tests Project

Overview:

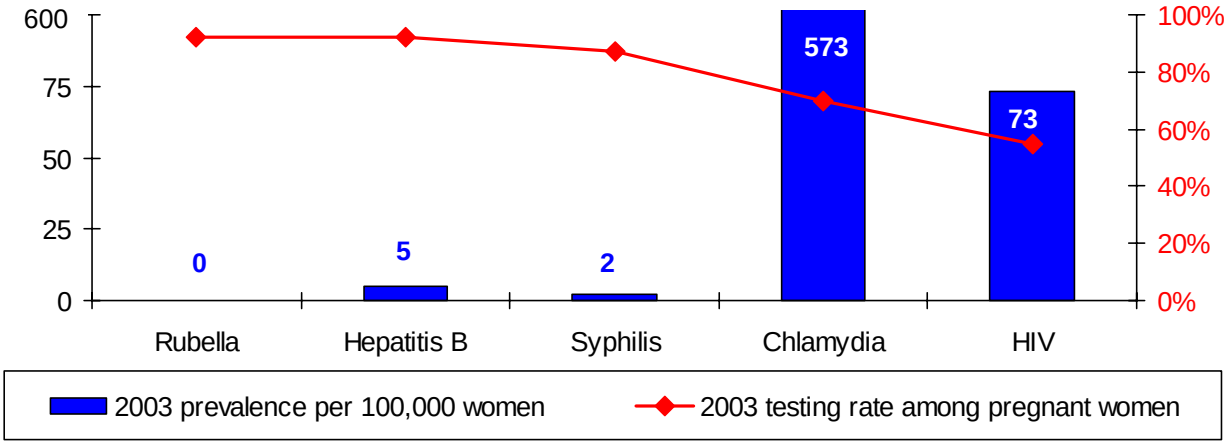
This evaluation assessed perinatal screening for HIV, group B streptococcus, hepatitis B surface antigen, rubella, syphilis, and chlamydia in all live births that occurred between January 1, 2003 and December 31, 2003 in delivery hospitals in selected counties. Delivery hospitals that delivered 20 or more babies in 2003 were eligible for this project. The assessment protocol was developed for 13 prevention areas (selected counties in the states of California, Connecticut, District of Columbia, Delaware, Florida, Georgia, Illinois, South Carolina, Tennessee, New Jersey, Maryland, Pennsylvania, and Michigan). The prevention areas in each state were selected because they met one or more of the following criteria: (1) high prevalence of HIV among women of childbearing age, (2) high numbers of cumulative pediatric AIDS cases, and (3) state policies likely to have an important impact on screening rates. The Michigan counties chosen were Wayne, Oakland, Kent, Kalamazoo, and Grand Traverse.

Analysis:

Women with known HIV/AIDS diagnoses prior to pregnancy were excluded from the HIV testing analysis. Figure 33 shows that among the 1,886 women included in the study, about half received HIV screening at their first prenatal test (965 women, 51 percent). Figure 34 shows that among the 932 women that did not receive prenatal screening, nine percent (108 women) received HIV screening at delivery. Figure 35 shows that among the mother-infant pairs, at least one HIV screening test was documented during prenatal, delivery or the neonatal period for over half of the pairs (1,075 pairs, 55 percent). In all three tables, the testing rates for non-HIV infections well exceeded the HIV screening rates found and show room for improvement throughout Michigan. Among the 10 areas included in this project, Michigan had the second lowest HIV testing rates among pregnant women

Anecdotally, physicians report that they don't screen for HIV because they don't believe that their patients are infected with or at risk for HIV. However, the infections with the lowest prevalence among pregnant women have the highest testing rates. Figure 32 shows that Rubella, Hepatitis B and syphilis

Figure 32: Testing and Prevalence Rates of Selected STDs/Other Infections among Women in Michigan, 2003



Description of the Epidemic by Age: Children: Focus on Screening Tests During Prenatal Care, Labor & Delivery and Newborns

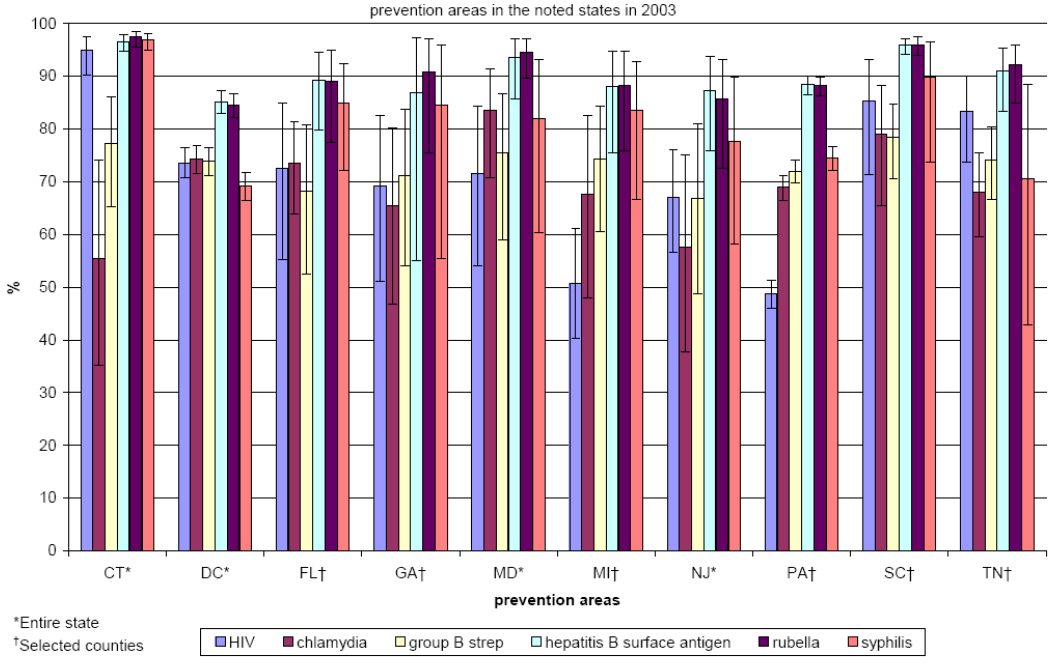
had 2003 prevalence rates of between zero and five cases per 100,000 women. Corresponding testing rates were 87 to 92 percent. The chlamydia and HIV 2003 prevalence rates were 511 and 73 per 100,000 women respectively. The chlamydia and HIV testing rates were 70 percent and 55 percent respectively.

Summary and Recommendations:

These data should be used to assess perinatal screening rates in Michigan and work toward improving them. In light of that effort, these data were shared with the MDCH AIDS Steering Committee. In response, the MDCH Division of Health, Wellness and Disease Control (DHWDC) is addressing the poor rates of HIV testing of pregnant women in Michigan. These data and additional education materials have been mailed to the chief executive officers and obstetrical nurse managers of Michigan's 91 birthing hospitals to assist them in implementing HIV testing in labor and delivery. This information will also be sent to Michigan's 500 prenatal care providers. Technical assistance on implementing HIV testing will be provided to any facility and/or prenatal care provider requesting it. Additionally, the DHWDC has shared these data with the Michigan Hospital Association (MHA), and is in the process of determining the best way to educate their constituents. Furthermore, the DHWDC will partner with the Michigan Council of Maternal and Child Health to improve maternal HIV testing rates in the state of Michigan.

Figure 33: Received First Prenatal Test (All Women)

Proportion of women with documentation of a first prenatal test for selected infections, in selected prevention areas in the noted states in 2003



Description of the Epidemic by Age: Children: Focus on Screening Tests During Prenatal Care, Labor & Delivery and Newborns

Figure 34: Received Labor and Delivery Test (Eligible Women)

Proportion of eligible women (e.g., women without documentation of a prenatal test) with documentation of a labor and delivery test for selected infections, in selected prevention areas in the noted states in 2003

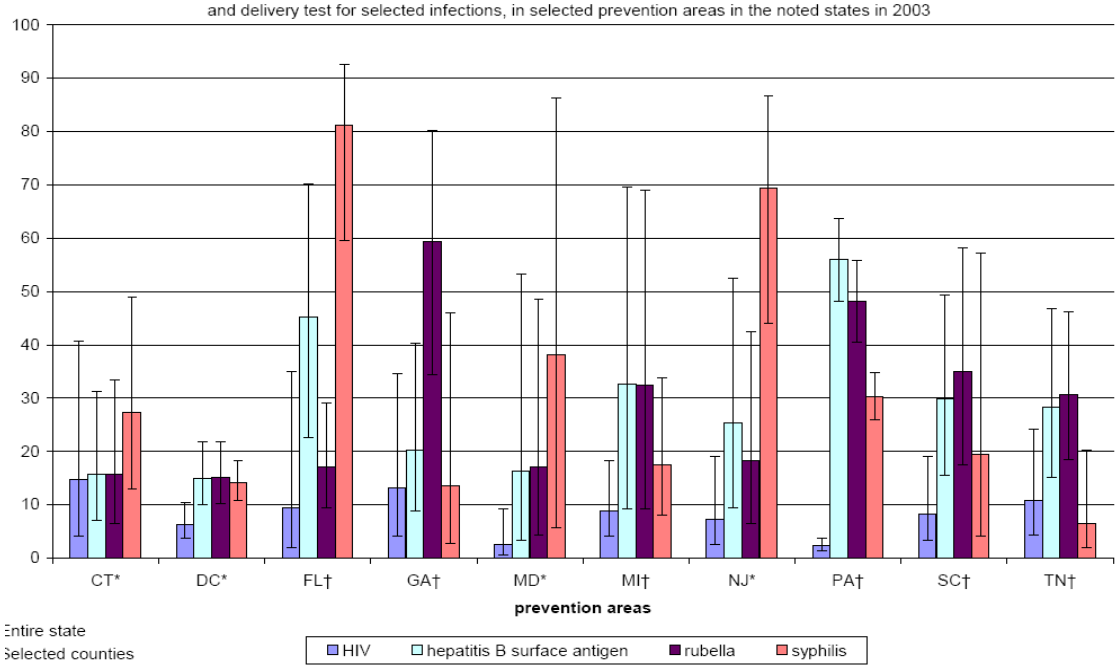
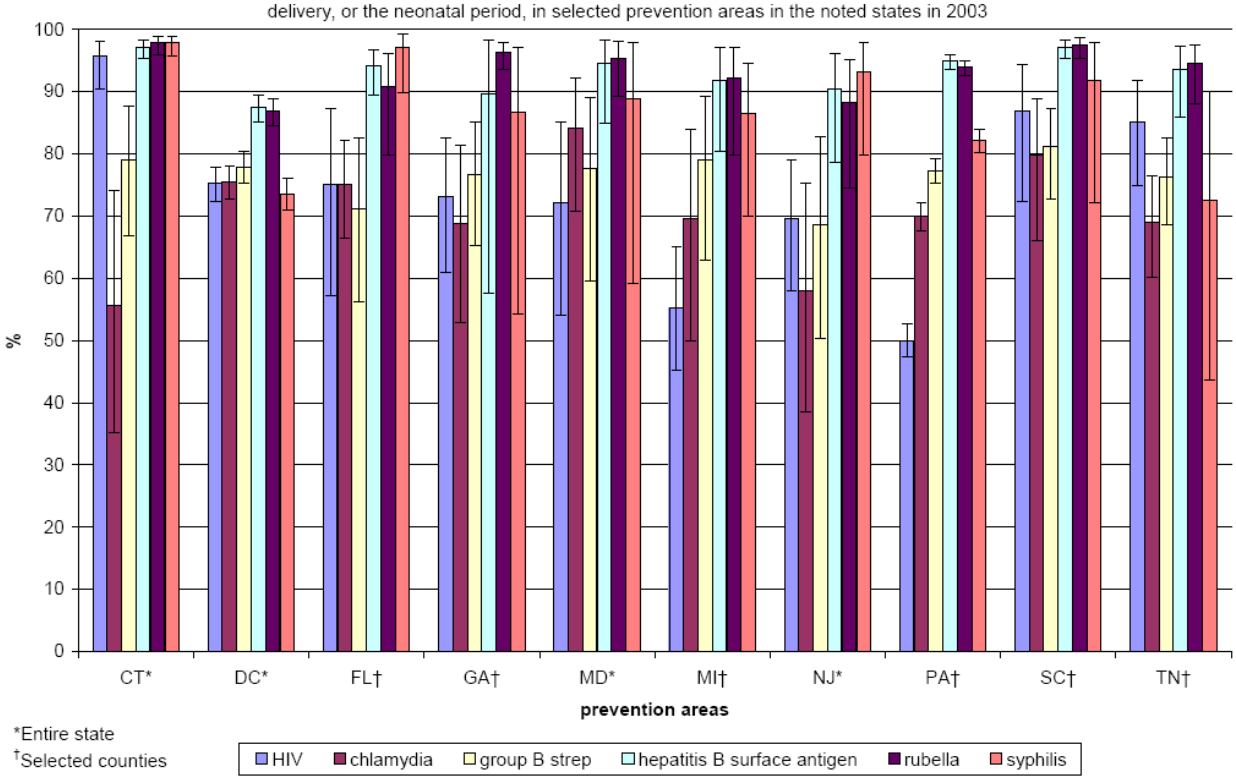


Figure 35: Received at Least One Test

Proportion of mother-infant pairs with documentation of at least one test for selected infections during pregnancy, delivery, or the neonatal period, in selected prevention areas in the noted states in 2003



2008 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age: Children (0-12): Focus on Missed Opportunities

Data from HIV/AIDS Reporting System (eHARS)

Overview:

Since 1989, Michigan law requires health care providers to test pregnant women for HIV or an antibody to HIV, unless the woman refuses consent for testing, or if the health care provider determines the tests are medically inadviseable.[1] Health care providers are required to test pregnant women in three instances: 1) at the time of a pregnant woman's initial examination, 2) if a pregnant woman presents at a health care facility to deliver her infant and no record of test results is readily available, nor is there a record of the woman's refusal to test, and 3) if the pregnant woman presents for care in the immediate postpartum period, having recently delivered an infant outside a health care facility and there is no record of test results readily available, nor is there record of the woman's refusal to test. HIV testing is required at the initial prenatal care visit and is strongly recommended to be performed again in the third trimester before 36 weeks gestation.[2]

In 1994, the Centers for Disease Control and Prevention issued a report indicating that zidovudine (ZDV) be given to HIV positive pregnant mothers in three therapeutic arms: 1) prenatally, 2) during delivery and 3) to the infant neonatally, in order to reduce transmission of HIV from mother to child. When one of these three arms is missed the birth is referred to as a "missed opportunity".

Description:

As of January 1, 2006, the Michigan Department of Community Health has received reports on 1,070 cases of births to HIV-positive mothers. Since 1994, 308 births to HIV-positive mothers have occurred in which a lapse in one of the three therapeutic arms occurred. Seventeen percent (52 children) of these "missed opportunity" births have since tested HIV positive compared to only two percent of births that were not "missed opportunities".

The race/ethnicity of missed opportunity births (76 percent black, non-Hispanic, 16 percent white, non-Hispanic, and 4 percent Hispanic) was similar to non-missed opportunity births (75 percent black, non-Hispanic, 19 percent white, non-Hispanic, and five percent Hispanic) and the distribution of women currently living with HIV in Michigan.

The majority of "missed opportunity" births (N = 104, 34 percent) were characterized as such because there was no/unknown documentation of administration of ZDV for all three arms of therapy. Furthermore, 69 of the 308 missed opportunities since 1994 had "no's" documented in each of the three arms.

Three-quarters of missed opportunity births are to mothers diagnosed with HIV before or during pregnancy. These women must have had contact with the health care system to have been tested. Furthermore, 106 of the 308 missed opportunities had prenatal care and no/unknown documentation for receipt of prenatal ZDV (defined as "prenatal missed opportunities"). The majority of these women initiated their prenatal care in the first or second trimester.

Women of childbearing age that test HIV positive should be counseled about what steps are be taken if/when they become pregnant. Prenatal care visits offer the ideal opportunity to test and counsel pregnant women for HIV in order to avoid potential perinatal transmission. Mothers of the majority of prenatal and delivery/neonatal missed opportunities were residing in Southeast Michigan at the time of birth, which is similar to that of all currently living HIV positive women.

[1] MCL 333.5123 Public Act 491 of 1998, as amended by Act 200 of 1994.

[2] State of Michigan Guidelines to Reduce the Transmission of Perinatal HIV, Hepatitis B, and Syphilis, 2003.

2008 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 2,830 persons currently living in Michigan who were ages 13-24 years when they were diagnosed with HIV. They comprise 16 percent of all persons reported with HIV/AIDS in Michigan (four percent age 13-19 years; 12 percent age 20-24 years). The number of prevalent cases among persons age 13-24 years is not as high as the level among persons age 25-39 years.

General Risk Behaviors:

Every two years the Youth Risk Behavior Survey (YRBS) is conducted in Michigan high schools using a nationally standardized survey. This captures behaviors of youth in grades 9-12. 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 11 and 12 (pages 3-87–88). In persons age 15-24 years, the rate of chlamydia is nearly two-and-a-half times higher and the rate of gonorrhea is nearly two times higher than the rate among persons age 25-29 years (please refer to the Sexually Transmitted Diseases section on page 3-28—32 for further discussion of these high rates). 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 introduced into the population less often.

2008 Profile of HIV/AIDS in Michigan

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

Teen Pregnancy:

Teen (ages 15-19) pregnancy rates have shown decreases over time and decreased significantly since 2000. The city of Detroit had the highest teen pregnancy rate in the state in 2006 (124 per 1,000), followed by Calhoun County (77 per 1,000). The 2006 rate among teens in Detroit exceeds the rate among women age 15-44 years in that area (124 vs. 99). This gap is wider than the rates in 2004 (111 vs. 100). The statewide teen pregnancy rate in 2006 was 54 pregnancies per 1,000 females aged 15-19 years. In Out-State Michigan, the 2006 rates range from 17-77 pregnancies per 1,000 females aged 15-19 and in the Detroit Metro Area, the 2006 rates ranged from 33-124 pregnancies per 1,000 females aged 15-19.

Race/Ethnicity:

Seventy-four percent of persons aged 13-19 at the time of HIV diagnosis are black, 21 percent are white, and six percent are Hispanic or other race. Sixty-two percent of persons aged 20-24 at the time of HIV diagnosis are black, 32 percent are white, and six 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 9, page 3-85.

Geographic Distribution:

The 2,252 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 four and 12 percent of reported cases, respectively. In the low prevalence areas they compromise three and 12 percent of reported cases, respectively. (Figure 2 on page 3-15).

Mode of Transmission:

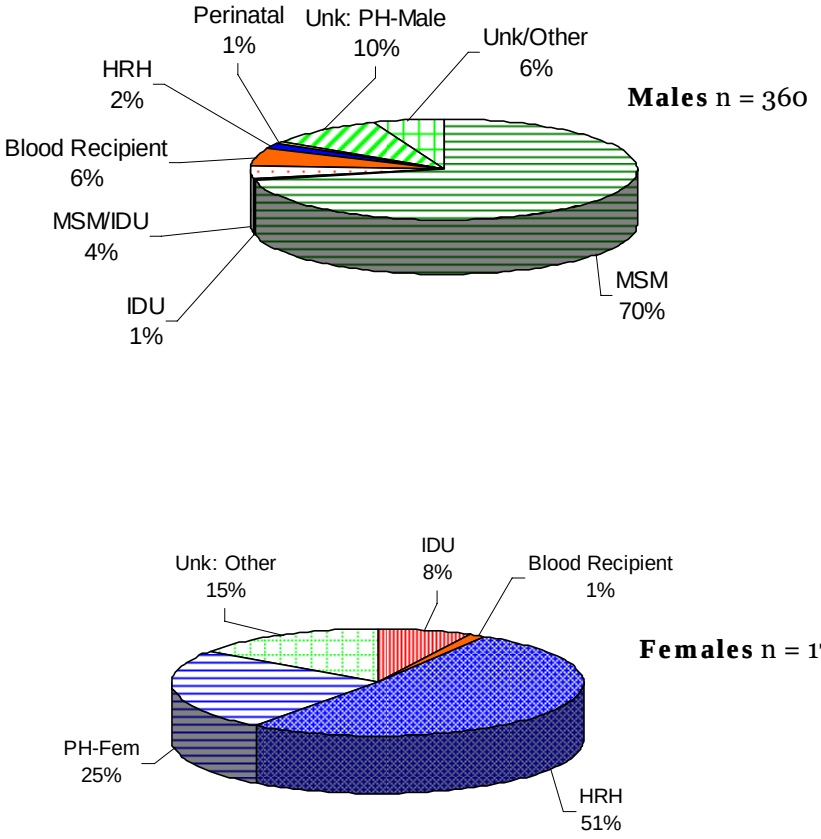
Teenagers: In the 1980s, most infected teenagers were recipients of HIV-infected blood or blood products. However, since screening of all blood products began in 1985 this proportion has steadily declined.

Figure 36 (next page) shows that among the 533 persons living with HIV in Michigan who were ages 13-19 at time of diagnosis, 360 (68 percent) are male. Among these male cases, three-quarters had sex with other males (74 percent) which includes the MSM/IDU cases, while six percent had been infected with HIV through blood products before 1985. Five percent could be attributed to IDU (including MSM/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 36 (next page) also shows that among the 533 persons living with HIV in Michigan who were ages 13-19 at the time of diagnosis, 173 (32 percent) are female. This is considerably higher then 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, 51 percent reporting HRH and 25 percent reporting PH-Fem); eight percent were IDUs. Similar to males of this age and females of any age, 15 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.

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

Figure 36: Persons Living in Michigan who were 13-19 Years Old when diagnosed with HIV (Teenagers), by Sex and Mode of Transmission (N = 533)

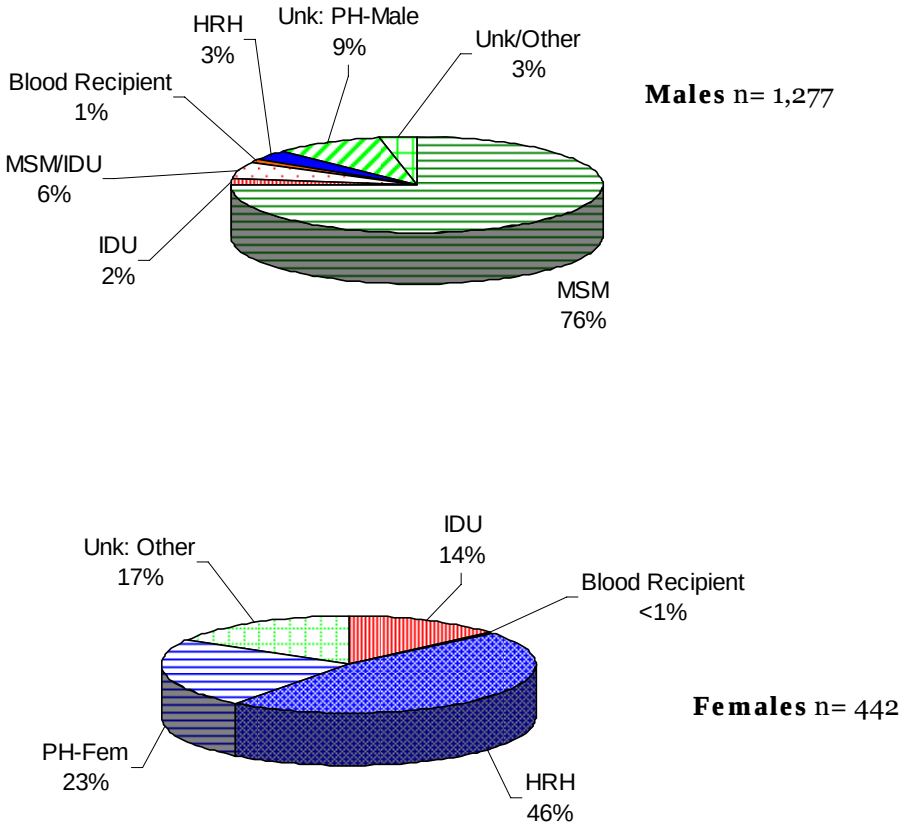


Young Adults: Figure 37 (next page) shows that among the 1,719 persons living with HIV in Michigan who were ages 20-24 at time of diagnosis, almost three-quarters (74 percent) are male. Eighty-two percent of male young adults reported sex with other males (including MSM/IDU); 12 percent did not have an identified mode of transmission; and eight percent reported IDU (including MSM/IDU).

Figure 37 (next page) also shows that among the 442 women living with HIV who were ages 20-24 at time of diagnosis, over two-thirds (69 percent) were infected heterosexually (overall, 46 percent HRH and 23 percent PH-Fem) and 14 percent were IDU. Seventeen percent of women in this age group have an unknown risk, however this is consistent with females across all age groups.

Additional Discussions: Teens and Young Adults

Figure 37: Persons Living in Michigan who were 20-24 Years Old when Diagnosed with HIV (Young Adults), by Sex & Mode of Transmission (N = 1,719)



Trends and Conclusions:

The rate of persons diagnosed each year between 2002 and 2006 with HIV infection increased significantly among those diagnosed between 13 and 24 years of age. This is the third year in a row that Michigan trend analyses have shown these increases. While the trends we are seeing may partially be attributed to targeted HIV testing efforts aimed at young persons, public testing data suggest that additional testing is not the sole explanation for the increases seen among teens and young adults. In fact, there appears to be a true increase in this group.

2008 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age: 50 years and older

Data from HIV/AIDS Reporting System (eHARS)

Overview:
MDCH estimates there are 1,480 persons living in Michigan, who were 50 years and older when they were diagnosed with HIV. They comprise eight percent of all reported infected persons and over three-quarters (77 percent) are male. This population was mainly infected through sexual contact (either men having sex with men or heterosexually), however those who were in their fifties when diagnosed with HIV have a substantial proportion infected through injection drug use and with an unknown risk. See Table 10, page 3-86.

Mode of Transmission:
When discussing mode of transmission, those who were in their fifties at the time of HIV diagnosis have different transmission mode proportions than those who were aged 60 or older. Therefore, these two populations are discussed separately on the following two pages. See Table 10, page 3-86.

National Overview:
Nationally, the number of persons living with HIV, who were 50 years and older at HIV diagnosis have been increasing in recent years. In 2005, persons who were 50 years and older at HIV diagnosis accounted for almost a quarter (24 percent) of persons living with HIV nationwide; this was an increase from 17 percent in 2001. The rates of HIV/AIDS among persons 50 and older at HIV diagnosis were 12 times as high among black persons (52 cases per 100,000) and five times as high among Hispanic persons (21 cases per 100,000) compared with white persons (4 cases per 100,000). Data are not included in the Tables.

Persons Currently aged 50 and older:
As of January 1, 2008 there are 4,239 persons who are **currently** age 50 or older and living with HIV/AIDS in Michigan. This represents 38 percent of the 14,341 persons living with HIV/AIDS in Michigan.

These persons are comparable to the population of persons of all ages living with HIV/AIDS in Michigan with regard to sex and race. However, when comparing the populations of persons currently 50 years and older to persons who were 50 years and older at the time of diagnosis, the former are less likely to have been infected by injecting drugs (17 vs. 20 percent) and have an unknown risk (16 vs. 25 percent). Seventy-two percent of persons currently 50 years and older were less then 50 years old at the time of HIV diagnosis. Data are not included in Tables.

Trends and Conclusions:
In Michigan, the rate of persons who were 50 years and older at the time of diagnosis has remained level from 2002 through 2006. As the persons living with HIV continue to age, it is important to be aware of specific challenges faced by older Americans and to ensure they get information and services to help protect them from infection.

Men who were 60 years and older at HIV diagnosis have the highest proportion of heterosexual cases of men in any age group. This is an important distinction when preparing targeting prevention and interventions.

Description of the Epidemic by Age: Mode of Transmission for those 50 –59 at time of HIV Diagnosis

Persons who were in their fifties when first diagnosed with HIV are 77 percent male and 23 percent female. Among these 974 persons reported with HIV/AIDS, under two-thirds are black (60 percent), 35 percent are white and five percent are Hispanic or of unknown race.

Figure 38 shows that among the 746 males in their fifties at time of HIV diagnosis, about half (51 percent) reported having sex with other males (including those MSM who also are IDU). Less than one-quarter (23 percent) reported injection drug use (including those IDU who were also MSM). Six percent were infected heterosexually and twenty-four percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 38: Males 50-59 Years Old at HIV Diagnosis, Living with HIV/AIDS in Michigan, by Risk (N = 746)

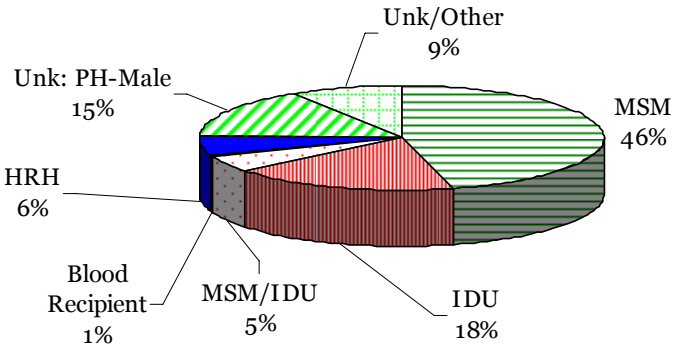
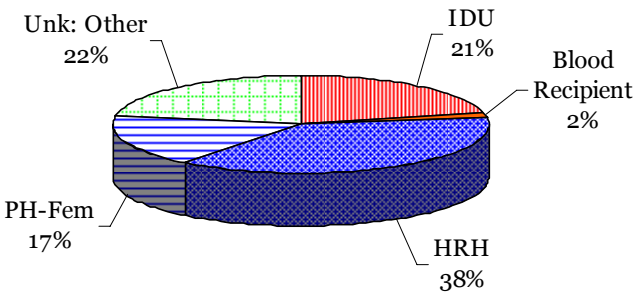


Figure 39 shows that among the 228 females who were in their fifties at time of HIV diagnosis, over half (55 percent) were infected heterosexually (overall, 38 percent HRH and 17 percent PH-Fem) and 21 percent were IDU. Twenty-two percent did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 39: Females 50-59 Years Old at HIV Diagnosis, Living with HIV/AIDS in Michigan, by Risk (N = 228)



Description of the Epidemic by Age: Mode of Transmission for those 60 and older at time of HIV Diagnosis

Persons who were 60 years and older when first diagnosed with HIV are 79 percent male and 21 percent female. Among these 210 persons reported with HIV/AIDS, half are black (50 percent), 42 percent are white and eight percent are Hispanic or of unknown race.

Figure 40 shows that among the 166 males who were 60 and older at time of HIV diagnosis, about half (49 percent) reported having sex with other males (including those MSM who also are IDU). Ten percent reported injection drug use (including those IDU who were also MSM). Seven percent were infected heterosexually and thirty-five percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 40: Males 60 Years and Older at HIV Diagnosis, Living with HIV/AIDS in Michigan, by Risk (N = 166)

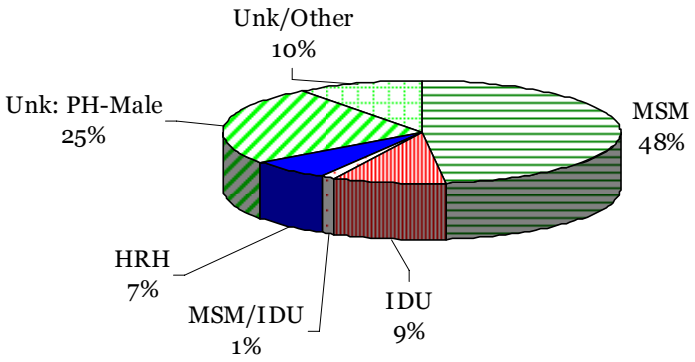
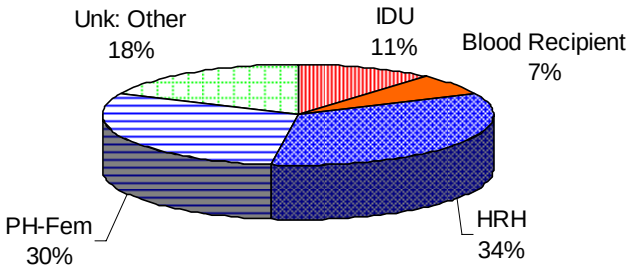


Figure 41 shows that among the 44 females who were 60 and older at the time of HIV infection, two-thirds (64 percent) were infected heterosexually (overall, 34 percent HRH and 30 percent PH-Fem) and 11 percent were IDU. Eighteen percent did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 41: Females 60 Years and Older at HIV Diagnosis, Living with HIV/AIDS in Michigan, by Risk (N = 44)

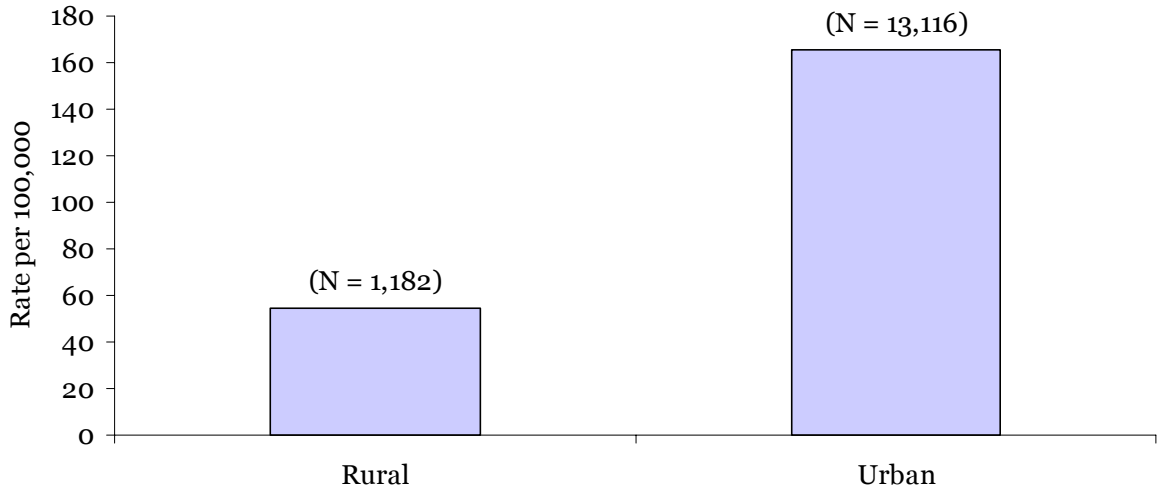


Special Populations: Rural HIV

Data from HIV/AIDS Reporting System (eHARS)

Using the U.S. Census Bureau's definitions, MDCH established a category of Urban Counties. For the purpose of this publication, we considered a county to be "Urban" if any part of the city or area was part of that county. For example, the city of Kalamazoo is in Kalamazoo County and also has substantial commuting interchange with Battle Creek, which is in Calhoun County. Therefore, the counties of Kalamazoo and Calhoun are considered to be "Urban". Please see Appendix A for a more detailed definition of 'Urban County' and the rural/urban categorization of Michigan counties.

Figure 42: Case Rates of Persons Living with HIV/AIDS in Michigan Rural or Urban Counties



Using this definition, the reported cases were divided into rural or urban categories. Rural cases constitute eight percent of reported cases (1,182); 21 percent of Michigan's population lives in these counties. The estimated rate of infection in rural areas is 55 per 100,000. Urban areas account for 92 percent of cases while 79 percent of Michigan's population lives in these areas. The estimated rate for the urban counties is three times higher than rural areas, 165 per 100,000. (Figure 42)

Mode of Transmission and Race/Ethnicity:

Figure 43 shows that in Michigan's rural and urban communities, there is little to no difference with respect to the relative proportion of cases reported with MSM, IDU, heterosexual, or an unknown risk.

Figure 44 shows that in urban counties of Michigan, the greatest proportion of HIV/AIDS cases occurs among black persons. In rural communities, although the largest proportion of cases occurs among white persons, the rates are higher among black persons.

Special Populations: Rural HIV

Data from HIV/AIDS Reporting System (eHARS)

Figure 43: Rural v. Urban: Persons Living with HIV/AIDS in Michigan by Mode of Transmission

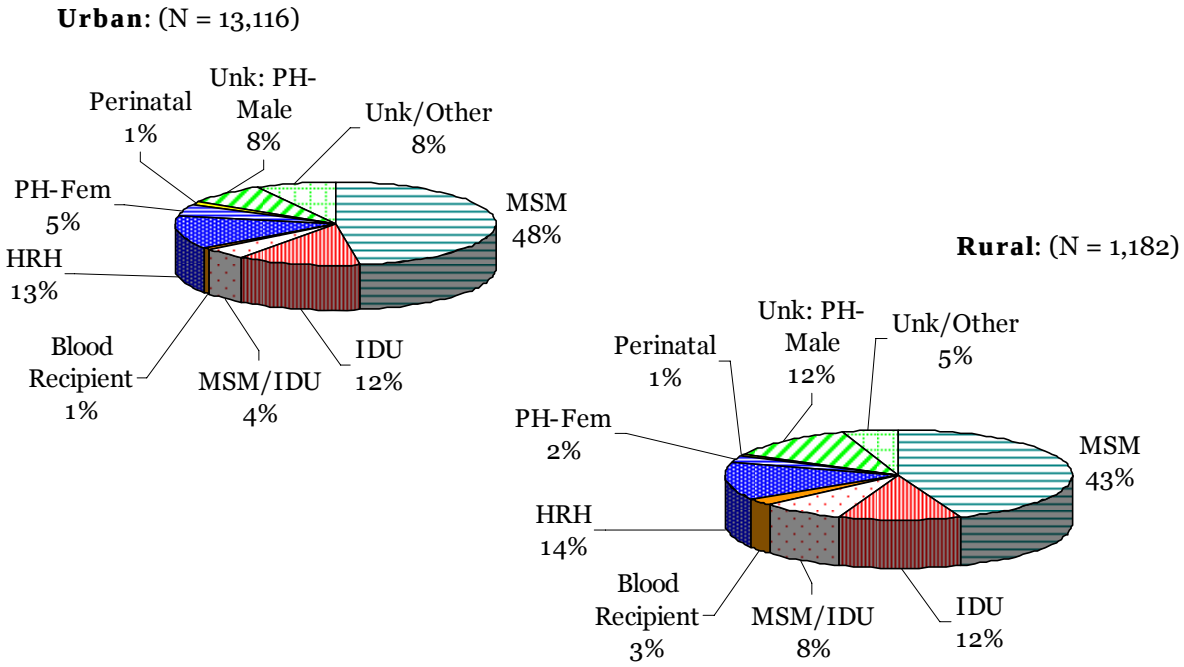
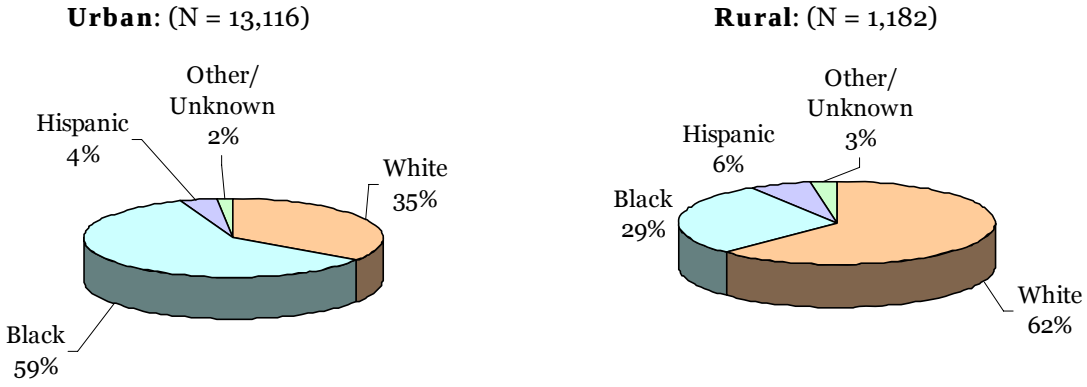


Figure 44: Rural v. Urban: Persons Living with HIV/AIDS in Michigan by Race/Ethnicity



2008 Profile of HIV/AIDS in Michigan

Special Populations: Incarcerated Population

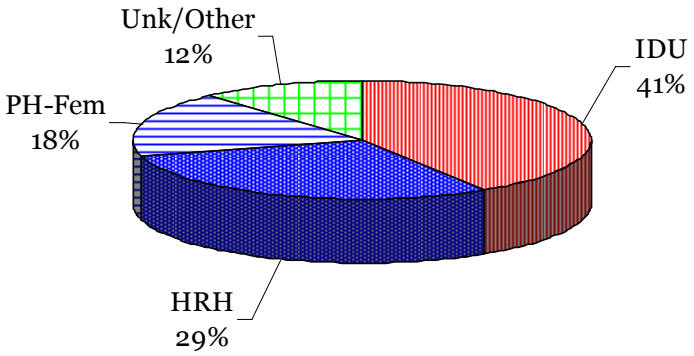
Data from HIV/AIDS Reporting System (eHARS) & Michigan Department of Corrections

Overview:
From 1989 to present, a cumulative total of 1,742 prisoners have been confirmed with HIV infection. Many were first diagnosed upon intake to prison, some were diagnosed while in prison, and others diagnosed prior to incarceration. A total of 645 (37 percent) are known to have died either inside or outside of prison. This section on the Michigan Department of Corrections describes the 336 HIV-infected inmates known to be incarcerated at state facilities, as of January 2008.

Race/Ethnicity and Sex, Mode of Transmission and Age at HIV Diagnosis:
Ninety-five percent of HIV-infected prisoners are male and five percent are female. Most (77 percent) are black, 19 percent are white, two percent are Hispanic, and two percent are another race/ethnicity. Please see Tables 16-17, pages 3-92—93 for more information.

Among the 17 females currently in prison living with HIV, 65 percent are black and 29 percent are white. Figure 45 shows that just less than half (47 percent) were infected through heterosexual sex (overall, 29 percent HRH and 18 percent PH-Fem). Forty-one were infected through injection drug use and 12 percent have an unknown risk.

Figure 45: Females living with HIV/AIDS in Prison by Mode of Transmission (N = 17)



Among the 319 males currently in prison living with HIV, 78 percent are black. Figure 46 shows that among the 248 black males, 38 percent are men who have sex with men (including MSM/IDU) and 28 percent have injected drugs (including MSM/IDU). Another 11 percent indicate they had high-risk heterosexual sex. Thirty-one percent have an unknown risk. Figure 47 shows that among the 58 white males, 57 percent are men who have sex with men (including MSM/IDU) and 28 percent have injected drugs (including MSM/IDU). Another seven percent indicate they had high-risk heterosexual sex. Fourteen percent have an unknown risk. See Table 16, page 3-92.

Age at HIV Diagnosis
The majority of males currently in prison living with HIV were in their twenties and thirties at HIV diagnosis (82 percent). This group of males also make up 89 percent of males infected through MSM behavior. Interestingly, males in their thirties, forties, and fifties at HIV diagnosis and currently in

Special Populations: Incarcerated Population

prison have higher proportions of persons with unknown mode of transmission than MSM behavior (See Table 18, page 3-94).

However, females currently in prison living with HIV were slightly older than males at HIV diagnosis, 74 percent of females were from 25 to 49 years old at HIV diagnosis. Most of these females were infected heterosexually, however three-fourths of females who were in their forties at HIV diagnosis were infected through IDU behavior. See Tables 17-18, pages 3-93—94.

Figure 46: Black Males Living with HIV/AIDS in Prison by Mode of Transmission (N = 248)

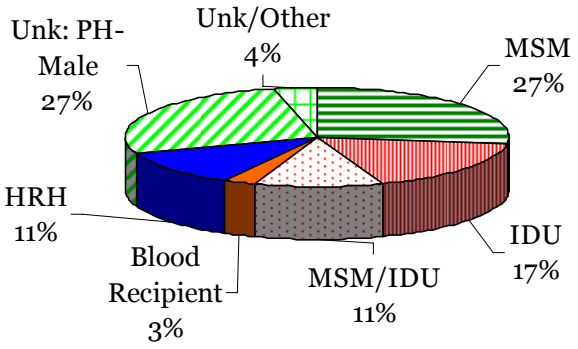
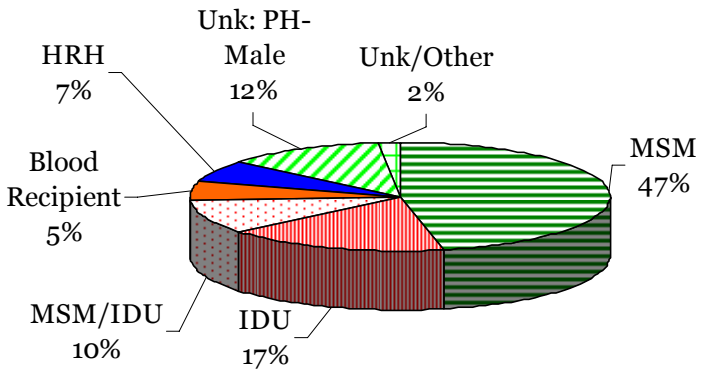


Figure 47: White Males Living with HIV/AIDS in Prison by Mode of Transmission (N = 58)



General Prison Population:

As of January 1, 2008, there were 50,203 prisoners in MDOC facilities, 1,114 (two percent) of these prisoners were less than 20 years old. Since 1989, all prisoners have been tested for HIV infection and other infectious diseases upon intake to state correctional facilities. This testing shows that among both men and women, 0.6 percent of all prisoners are HIV-infected; among young prisoners under age 20, the proportion is higher (1.3 percent). The one percent of overall HIV infection in the prison population is a decrease from three percent reported in 2004. These data are often collected at the time of incarceration, although there are occasional updates.

2008 Profile of HIV/AIDS in Michigan

Highlight on Formerly Incarcerated Persons

Data from the report on HIV/AIDS and Health Related Needs of Formerly Incarcerated Persons in Michigan

In August of 2006, a study was conducted by the Michigan Department of Community Health (MDCH) to determine the HIV prevention-related needs of formerly incarcerated persons (FIPs) in the State of Michigan. The State has no previous needs assessment data from this population; therefore, the goal of this project was to determine if, where, and how to target HIV prevention-related services to this population. The study involved 104 structured interviews with people who self-reported as recently released from prison or jail. It is important to note that HIV status of participants was unknown at the start of their interviews. Participants were sampled from five communities around Michigan: Ypsilanti, Muskegon, Detroit, Flint, and Grand Rapids. A quota sampling methodology was employed based on prisoner release data from the Michigan Department of Corrections (MDOC).

All of the participants reported being incarcerated in the year prior to completing the survey, reporting having been incarcerated from 1 to 26 times (mean = 6.54). Eighty percent of the participants reported being on parole at the time of the interview.

Most participants did not see HIV/AIDS as a primary concern, as 'finding employment' was reported as the primary concern since their release or parole. The second most frequently mentioned concern was housing, followed by concerns with their finances and worries about drug use. None of the respondents mentioned HIV/AIDS when asked about their biggest worries or concerns; the only health issues mentioned were mental health, drug use and access to health insurance.

When asked specifically about their health concerns, three participants listed HIV/AIDS as a primary health concern. The health concerns mentioned most frequently were Hepatitis C, not having medical insurance, dental health, mental health, diabetes and problems with their legs.

Fifty-seven percent mentioned having visited a health care provider since their release or parole. Of these, 32 percent reported having been offered an HIV test at their last visit. All participants were asked about HIV testing since their release/parole. Almost half (49 percent) reporting having been tested for HIV; three reported that their test was positive.

Sexual activity among this group is fairly high, with 75 percent reported being sexually active at the time of the interview. However condom use was low as nearly half were engaged with a primary partner and rarely used condoms. Fourteen percent of all respondents reporting exchanging sex for money or drugs; most often participants reported buying rather than selling sex.

Substance use among participants was relatively low with 60 percent of participants reporting they were enrolled in a drug treatment plan. Few (10 percent) reported IDU behavior and most of these indicated knowing where to access clean needles.

Social networks did not appear to play a critical role in HIV sexual risk behaviors for this group. The number of persons with whom participants communicated while inside or outside was not associated with perceived risk for HIV or sexual risk behaviors since their release or parole. Drug use behaviors were associated with social networks. Family networks tended to be negatively associated with drug use (that is, the more family one communicated with, the less drug use). Most of these relationships were not statistically significant due to small sample size, and merit additional research.

2008 Profile of HIV/AIDS in Michigan

Special Populations: Arab-American Community

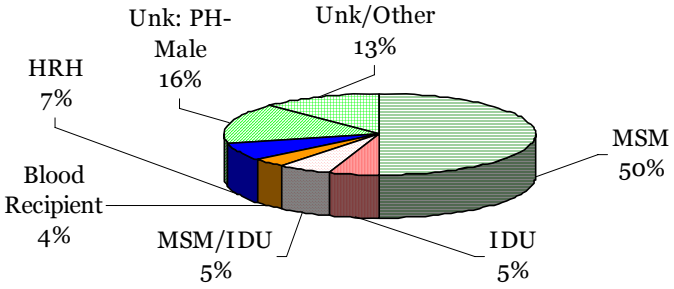
Data from HIV/AIDS Reporting System (eHARS)

Arabic is considered an ethnicity and not a racial category and has not been routinely collected by the HIV surveillance system. Consequently, the numbers presented here are an underestimate. Beginning in the year 2001 and at the request of an Arabic community-based organization, a question was added about Arabic ethnicity on the HIV/AIDS Case Report Form that reads "Does this patient consider him or herself Arabic?".

In Michigan the largest concentration of Arab-Americans is in Southeastern Michigan where most of these HIV/AIDS cases were diagnosed. A total of 96 persons of Arabic descent have ever been diagnosed with HIV and confidentially reported to MDCH. Of these, 71 persons are living; 37 percent are living with HIV, not AIDS and 63 percent have progressed to AIDS. The counties where persons of Arabic descent were living when initially diagnosed with HIV include Wayne (42 percent), Oakland (24 percent), Macomb (18 percent), Kent (3 percent), Genesee (1 percent), Ingham (1 percent), Kalamazoo (1 percent), Ottawa (1 percent), St. Clair (1 percent), and six percent were diagnosed while living in another state.

The age at HIV diagnosis (including those with AIDS) is similar to the age distribution for all cases in Michigan, with four percent ages 0-19, six percent ages 20-24, 18 percent ages 25-29, 39 percent ages 30-39, 23 percent ages 40-49, four percent ages 50 –59, and four percent age 60 and older.

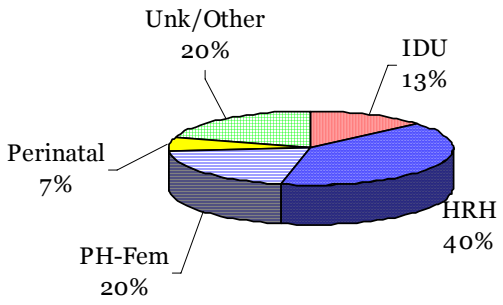
Figure 48: Males of Arabic Descent, Living with HIV/AIDS in Michigan, by Mode of Transmission (N = 56)



Seventy-nine percent of the cases are among males and 21 percent are among females. Figure 48 shows that among the 56 male cases, over half (55 percent) were attributed to MSM (including MSM/IDU) and 10 percent reported behavior of injection drug use. Twenty-nine percent have an unknown mode of transmission.

Figure 49 shows that among the 15 females, 60 percent were infected heterosexually (overall, 40 percent HRH and 20 percent PH-Fem) and 13 percent reported a risk of injection drug use. Seven percent were infected perinatally and another 20 percent had no reported mode of transmission.

Figure 49: Females of Arabic Descent, Living with HIV/AIDS in Michigan, by Mode of Transmission (N = 15)



Special Populations: Arab-American Community: Focus on Identifying Community Need

Data from Census Bureau & ACCESS, Community Health & Research Center

Within the US, the largest concentration of Arab-Americans lives in Dearborn, Michigan. This group constitutes five percent of the Michigan population and 30 percent of the Dearborn population. Because approximately 40 percent of this group was born outside of the US, there are many barriers to services.

From October 2003 through July 2005 the Arab Community Center for Economic and Social Services (ACCESS) conducted 15 rounds of focus groups on men in the Arab-American community identifying as gay or bisexual. Approximately 95 percent of attendees were Arab/Chaldean and were residents of Detroit, Dearborn and other areas of Metro Detroit, however a few were residents of Toledo, OH and Toronto, ON. The ages of the attendees ranged from 13 to 58. The majority of attendees were older than 25 from October 2002 through September 2004, however from October 2004 through July 2005 the majority were men under 25 years.

These focus groups allowed participants to freely discuss concerns surrounding being a gay or bisexual male in the Arab community. About 80 percent of attendees rarely negotiated safer sex practices with their partners, stating that barriers to this are a lack of negotiating skills and exchanging sex for money, drugs or gifts. The attendees were also afraid of getting tested for HIV for fear of the results and backlash from family and community. This discussion uncovered a belief that if men only have sex with other Arabic/Chaldean men, they have no risk for contracting HIV.

Additionally, these participants discussed their desire for more social networks among gay Arab males, which they felt would allow for more opportunities to deliver prevention, education and counseling on risky behaviors.

Special Populations: Asians, Native Hawaiians & Pacific Islanders

Data from HIV/AIDS Reporting System (eHARS)

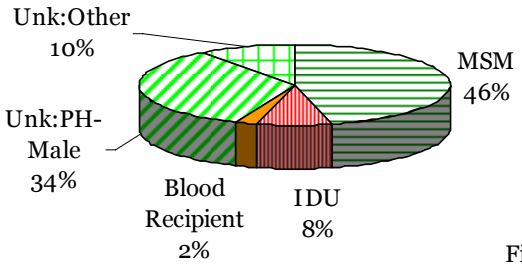
In this report Asians, Native Hawaiians and Pacific Islanders (A/NH/PI) have been combined into one race/ethnicity category. This group makes up less than one percent of those living with HIV in Michigan and two percent of the general population of Michigan. (Table 7, page 3-81)

In Michigan, the largest concentration of A/NH/PI living with HIV/AIDS is in Southeastern Michigan (66 percent), where most of these cases were diagnosed. Of the 65 known cases, 48 percent are HIV, not AIDS and 52 percent are AIDS. Of those who have progressed to AIDS, 68 percent were concurrently diagnosed with AIDS at the same time as their initial HIV diagnosis. This is higher than the proportion of all concurrent AIDS diagnosis (45 percent), indicating that A/NH/PI persons test later than the general population.

The counties where A/NH/PI were initially diagnosed with HIV include Wayne (29 percent), Oakland (25 percent), Macomb (6 percent), Kent (6 percent), Genesee (5 percent), Ingham (3 percent), Saginaw (3 percent), Barry (2 percent), Bay (2 percent), Calhoun (2 percent), Eaton (2 percent), Jackson (2 percent), Kalamazoo (2 percent), Ottawa (2 percent), Washtenaw (2 percent), Unknown (8 percent) and three percent were diagnosed while living in another state.

The age at HIV diagnosis (including those with AIDS) is similar to the age distribution for all cases in Michigan, with three percent ages 0-19, six percent ages 20-24, 29 percent ages 25-29, 35 percent ages 30-39, 22 percent ages 40-49, five percent ages 50 –59, and none age 60 and older. The main difference is that more HIV-infected A/NH/PI persons are aged 25-29 (29 percent A/NH/PI v 17 percent all cases) and fewer are aged 19-24 (6 percent A/NH/AI v 12 percent all cases).

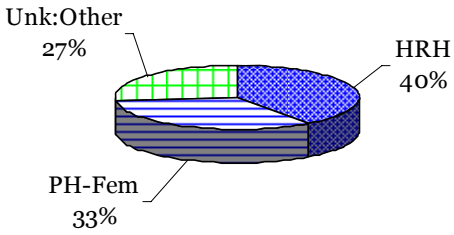
Figure 50: Asian/Pacific Islander/Native Hawaiian Males, Living with HIV/AIDS in Michigan, by Mode of Transmission (N = 50)



Seventy-seven percent of the cases are among males and 23 percent are among females. Among the 50 male cases, less than half (46 percent) were attributed to MSM and eight percent attributed to injection drug use. Forty-four percent have an unknown mode of transmission. See Figure 50.

Among the 15 females, about three-quarters were infected heterosexually (overall, 40 percent HRH and 33 percent PH-Fem) . None were attributed to injection drug use and 27 percent had an unknown mode of transmission. See Figure 51.

Figure 51: Asian/Pacific Islander/Native Hawaiian Females, Living with HIV/AIDS in Michigan, by Mode of Transmission (N = 15)



2008 Profile of HIV/AIDS in Michigan

Special Populations: American Indians & Alaskan Natives

Data from HIV/AIDS Reporting System (eHARS)

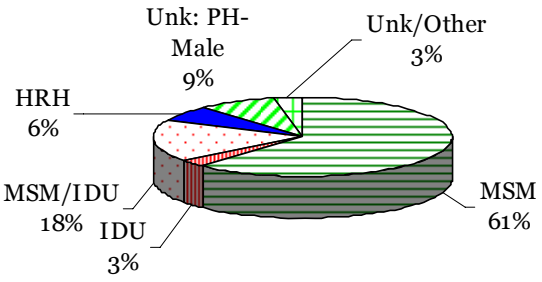
In this report American Indians & Alaskan Natives (AI/AN) have been combined into one race/ethnicity category. This group makes up less than one percent of those living with HIV in Michigan and one percent of the general population of Michigan. (Table 7, page 3-81)

In Michigan, the largest concentration of AI/AN living with HIV/AIDS is in Out-State Michigan (58 percent), where most of these cases were diagnosed. Of the 50 known cases, 60 percent are HIV, not AIDS and 40 percent are AIDS. The proportion of AI/AN who have progressed to AIDS (40 percent) is lower than the proportion diagnosed with AIDS in the general population (54 percent). Of those who have progressed to AIDS, 25 percent were concurrently diagnosed with AIDS at the same time as their initial HIV diagnosis.

The counties where AI/AN were initially diagnosed with HIV include Wayne (28 percent), Kent (10 percent), Ingham (8 percent), Oakland (6 percent), Chippewa (4 percent), Grand Traverse (4 percent), Macomb (4 percent), Bay (2 percent), Eaton (2 percent), Isabella (2 percent), Jackson (2 percent), Mackinac (2 percent), Menominee (2 percent), Monroe (2 percent), Muskegon (2 percent), Newaygo (2 percent), Shiawassee (2 percent), St. Clair (2 percent), Tuscola (2 percent), and 12 percent were diagnosed while living in another state.

The age at HIV diagnosis (including those with AIDS) is similar to the age distribution for all cases in Michigan, with two percent ages 0-19, 26 percent ages 20-24, 14 percent ages 25-29, 38 percent ages 30-39, 12 percent ages 40-49, six percent ages 50 –59, and two percent age 60 and older. The main difference is that more HIV-infected AI/AN persons are aged 20-24 (26 percent AI/AN v 12 percent all cases) and fewer are in their forties (12 percent AI/AN v 21 percent all cases).

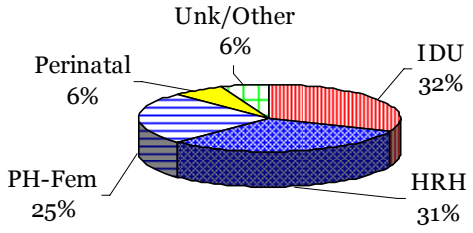
Figure 52: American Indian and Alaskan Native Males, Living with HIV/AIDS in Michigan, by Mode of Transmission (N = 34)



Sixty-eight percent of the cases are among males and 32 percent are among females. Among the 34 male cases, over three-quarters (79 percent) were attributed to MSM (including MSM/IDU) and 21 percent attributed to injection drug use (including MSM/IDU). Six percent report HRH and 12 percent have an unknown mode of transmission. See Figure 52.

Among the 16 females, over half (56 percent) were infected heterosexually (overall, 31 percent HRH and 25 percent PH-Fem) . Thirty-two percent have reported a risk of injection drug use, six percent were infected through perinatal transmission, and six percent had an unknown mode of transmission. See Figure 53.

Figure 53: American Indian & Alaskan Native Females, Living with HIV/AIDS in Michigan, by Mode of Transmission (N = 16)



2008 Profile of HIV/AIDS in Michigan

Special Populations: Foreign Born

Data from HIV/AIDS Reporting System (eHARS)

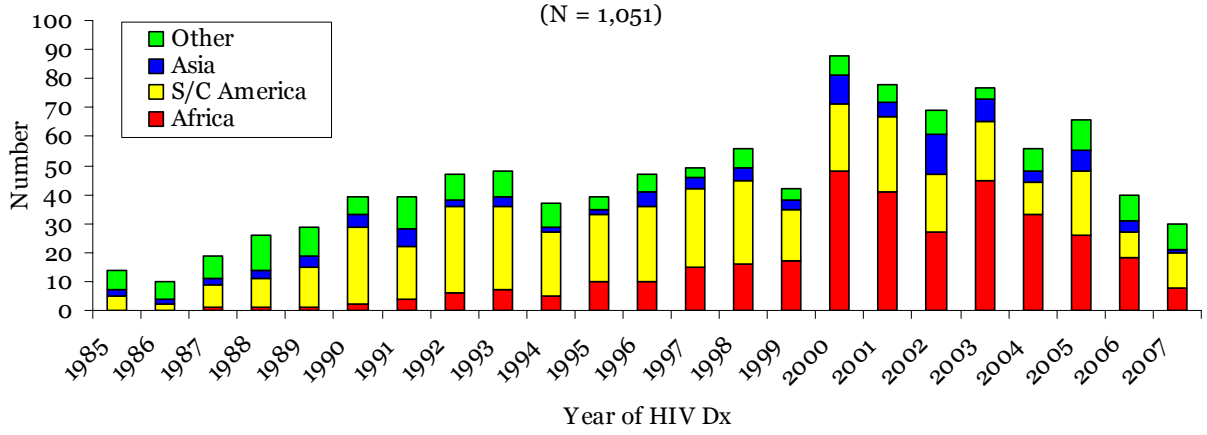
Introduction:

While the majority of HIV infection in Michigan is in persons born in the US (71 percent), almost one-quarter (24 percent) have a missing or unknown country of birth. Five percent (768 cases) of the total number of HIV/AIDS cases in Michigan were born in a country other than the US (foreign-born, FB). Because of the high proportion of missing data, information reported on FB individuals must be interpreted with caution.

Trends:

The Immigration and Nationality Act was updated in 1999. This allowed HIV positive refugees to enter the US. From 1999 to 2000 Michigan experienced a 110 percent increase in HIV diagnoses among FB individuals, which was mostly likely an effect of the updated Act. The number of HIV infections diagnosed in Michigan among FB individuals increased from 14 cases in 1985 to 30 cases in 2007, with a peak of 88 cases in 2000. (Figure 54). The majority of these persons were born in Africa and South and Central America, including Mexico (S/C America). In Michigan, these persons may be migrant farm workers, who are mainly from S/C America, and African-born individuals, who are participants in refugee resettlement programs.

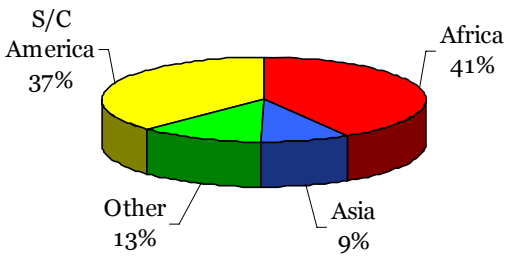
Figure 54: All HIV Cases Ever Diagnosed in Foreign-Born Individuals, Michigan 2008 (N = 1,051)



Country of Origin:

Figure 55 shows that 41 percent of FB individuals living with HIV in Michigan were born in Africa; 37 percent were born in S/C America; nine percent were born in Asia; and 13 percent were born in other countries.

Figure 55: Country of Birth for Foreign-Born Persons Living with HIV/AIDS in MIchigan, 2008 (N = 768)



Special Populations: Foreign Born

Data from HIV/AIDS Reporting System (eHARS)

Sex:
Overall, 64 percent of FB persons are male and 36 percent are female. This is quite different from the proportion seen among all persons living with HIV in Michigan (77 percent male and 23 percent female). Those born in Africa also have different proportions of males and females (42 percent male and 58 percent female) while those born in S/C America and Asia are closer to the proportion seen among all persons living with HIV (80 percent male and 20 percent female).

Race:
As would be expected, the racial breakdown among FB individuals is different depending on the country of origin. African born individuals are almost entirely black (98 percent). Persons born in S/C America are 83 percent Hispanic, 12 percent black and five percent white, while persons born in Asia are 48 percent Asian/Pacific Islander/Native Hawaiian, 42 percent white, three percent black and seven percent other or unknown race.

Geographical Distribution:
The highest proportion of African-born cases were diagnosed while living in Kent county (19 percent); 16 percent while living in Berrien county, 16 percent while living in Wayne county, nine percent while living in Ingham county, nine percent while living in Oakland county and the rest were diagnosed while living throughout the remainder of Michigan.

The highest proportion of S/C American-born cases were diagnosed among residents of Wayne and Kent Counties (21 and 20 percent, respectively). Twelve percent were diagnosed in a state other than Michigan, nine percent were diagnosed in an unknown location, and the rest were diagnosed while living throughout the remainder of Michigan.

Over half of Asian-born cases were among residents of southeast Michigan (29 percent in Wayne county and 28 percent in Oakland county). Seven percent were among residents of Kent county and the rest were diagnosed while living throughout the remainder of Michigan.

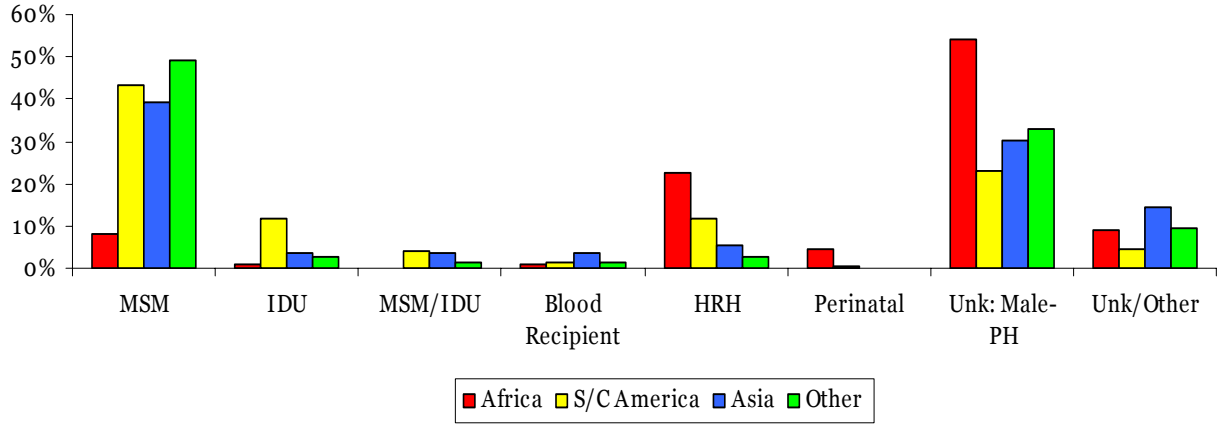
Persons diagnosed in other foreign countries follow a similar pattern to Asian-born cases: 27 percent were living in Oakland county, 25 percent in Wayne county, 13 percent in Kent county and the rest were diagnosed while living throughout the remainder of Michigan.

Mode of Transmission:
As with race, mode of transmission differs for FB persons by country of origin. Figure 56 (next page) demonstrates that males born in Africa are almost one-quarter (23 percent) HRH and two-thirds unknown (63 percent). Most were likely infected via heterosexual sex. Males born in S/C America are largely MSM (47 percent - including MSM/IDU). Sixteen percent are IDU (including MSM/IDU) and 27 percent have an unknown risk. Males born in Asia have similar risk pattern as those from S/C America, however men born in Asia are less likely to be IDU (8 v 16 percent).

Special Populations: Foreign Born

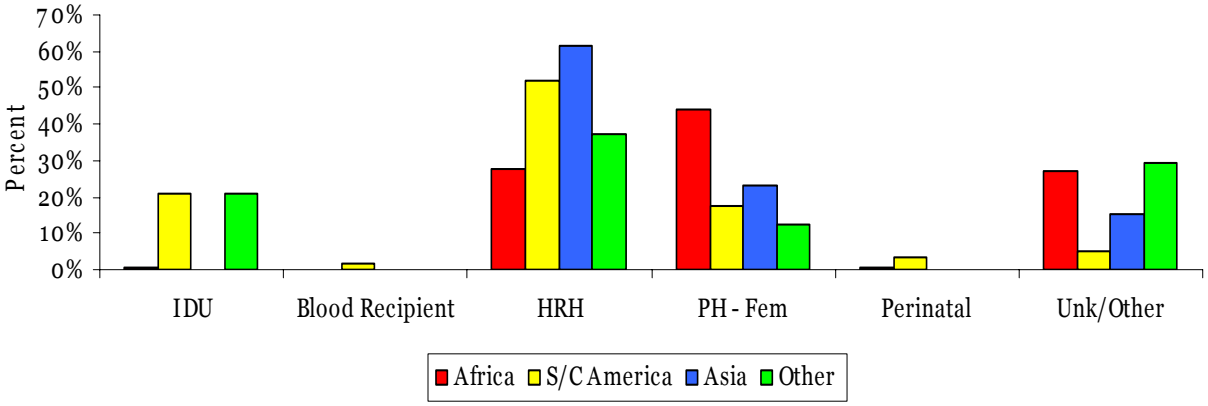
Data from HIV/AIDS Reporting System (eHARS)

Figure 56: Foreign-Born Males Living with HIV in Michigan, by Mode of Transmission and Country of Origin (N = 489)



As with males, the risk pattern among female FB persons differs based on country of origin. Figure 57 shows that females born in African countries are almost three-quarters heterosexual (overall—28 percent HRH; 44 percent PH-Fem). Just over one-quarter (27 percent) have an unknown risk. Females born in S/C America also have a large proportion infected through heterosexual sex (69 percent: overall—52 percent HRH; 17 percent PH-Fem). These females also have a considerable proportion infected from IDU (23 percent) and less than five percent have an unknown risk. Females born in Asian countries are almost entirely infected through heterosexual sex (85 percent; overall—62 percent HRH; 23 percent PH-Fem). The remainder of cases (15 percent) have an unknown risk.

Figure 57: Foreign-Born Females Living with HIV in Michigan, by Mode of Ttransmission and Country of Origin (N = 279)



Special Populations: Foreign Born: Focus on Persons Born in Ethiopia

Data from HIV/AIDS Reporting System (eHARS)

In December, 2007, the National Alliance of State and Territorial AIDS Directors requested that Michigan enter into a "twinning" relationship with the HIV Prevention and Control Office in the Amhara Province of Ethiopia. The purpose was to establish a meaningful bi-directional exchange of information, knowledge, technical assistance and collaboration and identify areas of common interest and/or concern. One of the initial objectives in the workplan for this project was to conduct an epi profile of HIV positive Ethiopian nationals living in Michigan.

Overview of Country Statistics:

Ethiopia is located in the eastern region of Africa. The United Nations estimates that there are between 79,000,000 and 89,500,000 persons living in Ethiopia as of 2006 (http://esa.un.org/unpp/). This population is approximately 50 percent male and 50 percent female, with about a quarter of the population between the ages of five and 14 and about 20 percent of the population between the ages of 15 and 24.

The Ethiopian Federal HIV/AIDS Prevention and Control Office estimates that approximately 977,000 persons were living with HIV as of June 2007 (http://www.etharc.org/). Seven percent of this population are children (0 to 14 years old).

Demographic Characteristics:

There have been 26 Ethiopian-born persons ever diagnosed with HIV in Michigan, 25 of these persons are still living. Of these 25 persons living with HIV, 56 percent (14 cases) are living with HIV, not AIDS; and 44 percent (11 cases) have progressed to AIDS. Forty percent are male and 60 percent are female. This is similar to the proportion seen for all other African-born persons living with HIV in Michigan (see page 3-74).

Residence at HIV Diagnosis:

The majority of those Ethiopian-born persons living with HIV in Michigan were residents of Kent county at HIV diagnosis (40 percent). Twenty-four percent were residents of the Detroit Metro Area, and the remaining 36 percent were residents of Eaton, Ingham, Muskegon, Saginaw or Washtenaw counties.

Mode of Transmission:

Figure 59 (next page) shows that almost three-quarters of Ethiopian-born females living with HIV in Michigan were infected through heterosexual sex (73 percent); 40 percent were HRH and 33 percent were PH-Fem. An additional 20 percent have an unknown mode of transmission. This is similar to other African-born women living with HIV in Michigan.

Figure 58 (next page) shows that 60 percent of Ethiopian-born males living with HIV in Michigan have an unknown mode of transmission, however two-thirds have been categorized as PH-Male. Twenty percent were infected through heterosexual sex and only two cases (eight percent) were infected through MSM or IDU behaviors. This is also similar to other African-born males living with HIV in Michigan.

Special Populations: Foreign Born: Focus on Persons Born in Ethiopia

Figure 58: Ethiopian-Born Males, Living with HIV/AIDS in Michigan by Risk
(N = 10)

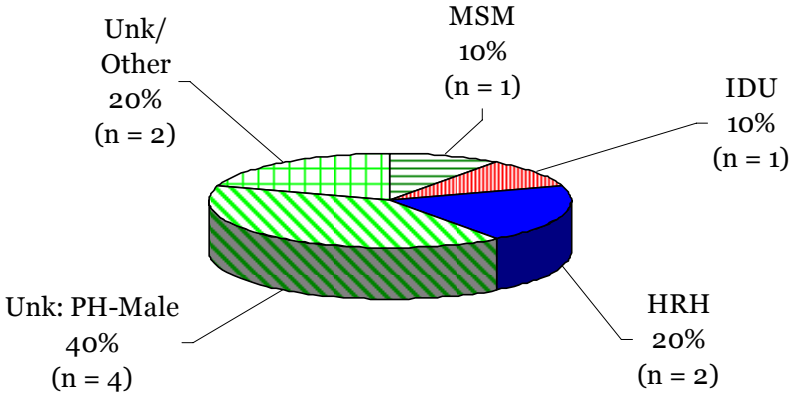
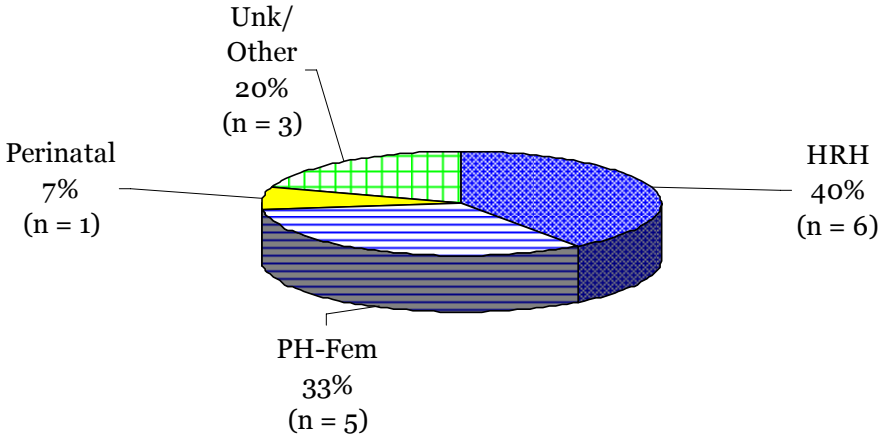


Figure 59: Ethiopian-Born Females, Living with HIV/AIDS in Michigan by Risk
(N = 15)



2008 Profile of HIV/AIDS in Michigan

Special Populations: Homeless Community

Data from HIV/AIDS and Health Related Needs Among Homeless Persons in Michigan

In January of 2006, a study was conducted by the Michigan Department of Community Health (MDCH) to determine the HIV prevention-related needs of homeless persons in the state of Michigan. The state has no previous needs assessment data from this population; therefore, the goal of this project was to determine if, where, and how to target HIV prevention-related services to this population. The study involved 98 structured interviews with people who self-reported as homeless. Participants included those accessing food banks and shelters in six communities around Michigan: Ann Arbor, Benton Harbor, Detroit, Flint, Grand Rapids, and Lansing.

Few sample participants reported sexual activity, with a quarter of participants reporting no sexual activity in the year prior to the survey. Similarly, few reported injecting drug use (five percent). Participants also exhibited low perceived susceptibility to HIV and few perceived barriers to risk reduction, possibly because low perceived susceptibility is grounded in participants' reality. That is, many of these participants do not report behaviors that put them at risk for HIV. This population seems to have limited need for HIV prevention activities because they are not highly sexually active and few are IDUs. However, about 12 percent reported engaging in "survival sex" in order to get access to things to meet their basic needs, drugs, or money. This minority might benefit carefully targeted HIV prevention services that are sensitive to the challenges faced by this population. Despite this information, only one person identified homelessness as a barrier to taking steps to reduce risks for HIV.

Most participants in the sample did not see HIV/AIDS as a primary concern in their lives. Not surprisingly, it appears that the problems related to being homeless (i.e., access to food, clothes, and shelter) are the most salient issues to these participants along with other, more pressing health issues. Thus, getting participants access to adequate housing and health care (including dental care) should be a priority for providers. To the extent that HIV prevention staff can facilitate this process, this addresses an important need for members of this community. A number of people reported misconceptions about HIV risk reduction behaviors. It appears that among a small segment of this sample, knowledge of HIV transmission risk is very low.

Less than one-third of participants in the sample were either receiving mental health services at the time of the interview or had received such service in the past. Further, 16 percent of participants reported substance use. These issues present important challenges for HIV prevention and suggest members of this population are likely to face a number of issues that are more pressing than concerns about HIV. Addressing these issues should be a priority before initiation of prevention activities.

Many reported going to several places consistently, primarily hospitals (particularly emergency rooms) and shelters. Both of these places provide venues for recruitment of homeless persons into prevention activities. In general, it is known that private doctors, hospitals, and health departments are trusted sources of HIV information as are people with HIV, however homeless persons are not seeking services from these sources. This suggests that to reach the homeless population, further engagement with private providers and persons working in hospitals is critical, as these venues could provide an opportunity for engagement with this population.

Special Populations: Commercial Sex Workers

Data from HIV/AIDS and Health Related Needs Among Commercial Sex Workers in Michigan

In December of 2004, a study was conducted by the Michigan Department of Community Health (MDCH) to fill a gap in existing knowledge in the State of Michigan on the needs of a population known to be at high risk for HIV/AIDS: commercial sex workers (CSWs). The study involved 59 structured interviews with people who self-reported exchanging sex for money, drugs, or other goods on a regular basis. Participants included CSWs from five communities around Michigan: Benton Harbor, Detroit, Flint, Grand Rapids, and Ypsilanti.

The participants mentioned a variety of health concerns, including asthma and high blood pressure. However, the primary concern was transmission of sexually transmitted diseases (STDs) and HIV. Importantly, HIV or AIDS was the most frequently mentioned health concern by participants (22 percent), followed by equal proportions concerned with getting sexually transmitted diseases and dying or getting killed on the streets (14 percent, each). Most participants indicated that they do not or only infrequently use HIV risk reduction strategies with what they considered to be primary or secondary non-paying sex partners. All of those who reported using a risk reduction strategy reported using male condoms.

About 25 percent of participants reported injecting drugs in the year prior to the interview. Of those, 86 percent injected drugs (heroin only) within the week prior to the interview. After heroin, alcohol and crack/cocaine were the drugs most frequently used by respondents. The range of number of times participants used crack/cocaine within the week prior to the interview was fairly wide with some indicating they used only once, while others saying they used all day, every day. One CSW estimated she had smoked crack about 240 times in the week prior to the interview. For many participants, commercial sex work was initiated and continued because of drug dependency. It was common for participants to indicate that they had considered stopping commercial sex work, but had to continue in order to obtain drugs; they needed money and felt like they did not have the skills to do other jobs.

Ninety-eight percent of respondents reported that they have been tested for HIV at some time in their lives. When asked their reason for testing the last time they tested, participants indicated that they “just wanted to know” or “wanted peace of mind”. Other reasons cited frequently by participants included that they habitually test, were pregnant or incarcerated at the time they were tested.

The majority of the participants indicated consistent condom use with clients for both oral and vaginal sex. When asked if they do anything to protect themselves from HIV when having sex with clients, 66 percent said they “always” use condoms, 30 percent said “sometimes” and only four percent said they “never” use condoms. Participants indicated a variety of other HIV risk reduction strategies with clients including keeping clean through rinsing, washing, or occasionally bleaching their body parts after sex with clients. Visual inspection of clients for signs of disease was also a common strategy reported by participants.

Twenty-nine percent of the participants indicated that they don’t talk to anyone about HIV or AIDS. Additionally, about 50 percent indicated they had never specifically sought HIV information from an agency, such as a local health department or community-based organization. Of those who reported seeking information about HIV, most went to their private doctor (30 percent), health department (20 percent), or family member, significant other, and customers (eight percent). The organizations that participants mentioned going to most often for HIV-related information were local health departments, clinics, or other local community-based organizations.

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Table 7: Demographic Information on HIV/AIDS Cases Currently Living in Michigan, 2008

	EST PREV*	REPORTED PREVALENCE									CENSUS 2006 ESTIMATES[£]	
		HIV, not AIDS		AIDS		TOTAL			CONCURRENT AIDS			
	Number	Num	%	Num	%	Num	%	Rate per 100,000	Num	%	Num	%
RACE/ ETHNICITY[§]												
White	6,630	2,397	36%	2,888	38%	5,285	37%	67	1,322	38%	7,846,335	78%
Black	10,280	3,860	58%	4,334	56%	8,194	57%	575	1,885	55%	1,424,394	14%
Hispanic	780	267	4%	358	5%	625	4%	159	185	5%	393,281	4%
Asian/PI	80	31	0%	34	0%	65	0%	27	23	1%	237,073	2%
Am Indian/AN	60	30	0%	20	0%	50	0%	92	5	0%	54,231	1%
Multi/Unk/Other	150	65	1%	57	1%	122	1%	N/A	14	0%	140,329	1%
SEX & RACE												
Males	13,910	4,980	75%	6,101	79%	11,081	77%	223	2,787	81%	4,969,692	49%
White Males	*5,760*	*2,026*	*30%*	*2,563*	*33%*	*4,589*	*32%*	*118*	*1,195*	*35%*	*3,873,261*	*38%*
Black Males	*7,330*	*2,666*	*40%*	*3,170*	*41%*	*5,836*	*41%*	*866*	*1,404*	*41%*	*673,766*	*7%*
Hispanic Males	*600*	*198*	*3%*	*283*	*4%*	*481*	*3%*	*231*	*156*	*5%*	*208,505*	*2%*
Other Males	*220*	*90*	*1%*	*85*	*1%*	*175*	*1%*	*82*	*32*	*1%*	*214,160*	*2%*
Females	4,090	1,670	25%	1,590	21%	3,260	23%	64	647	19%	5,125,951	51%
White Females	*870*	*371*	*6%*	*325*	*4%*	*696*	*5%*	*18*	*127*	*4%*	*3,973,074*	*39%*
Black Females	*2,960*	*1,194*	*18%*	*1,164*	*15%*	*2,358*	*16%*	*314*	*481*	*14%*	*750,628*	*7%*
Hispanic Fmls	*180*	*69*	*1%*	*75*	*1%*	*144*	*1%*	*78*	*29*	*1%*	*184,776*	*2%*
Other Females	*80*	*36*	*1%*	*26*	*0%*	*62*	*0%*	*29*	*10*	*0%*	*217,473*	*2%*
RISK*												
Male-Male Sex	8,490	2,971	45%	3,794	49%	6,765	47%	N/A	1,702	50%	N/A	N/A
Injection Drug Use	2,250	732	11%	1,059	14%	1,791	12%	N/A	389	11%	N/A	N/A
MSM/IDU	850	276	4%	399	5%	675	5%	N/A	124	4%	N/A	N/A
Blood Products	180	54	1%	91	1%	145	1%	N/A	29	1%	N/A	N/A
Heterosexual	3,070	1,211	18%	1,233	16%	2,444	17%	N/A	508	15%	N/A	N/A
HRH	*2,280*	*861*	*13%*	*959*	*12%*	*1,820*	*13%*	*N/A*	*345*	*10%*	*N/A*	*N/A*
PH-Female	*780*	*350*	*5%*	*274*	*4%*	*624*	*4%*	*N/A*	*163*	*5%*	*N/A*	*N/A*
Perinatal	200	113	2%	48	1%	161	1%	N/A	26	1%	N/A	N/A
Undetermined	2,960	1,293	19%	1,067	14%	2,360	16%	N/A	656	19%	N/A	N/A
PH-Male	*1,540*	*590*	*9%*	*640*	*8%*	*1,230*	*9%*	*N/A*	*396*	*12%*	*N/A*	*N/A*
Unknown	*1,420*	*703*	*11%*	*427*	*6%*	*1,130*	*8%*	*N/A*	*260*	*8%*	*N/A*	*N/A*
AGE AT HIV DIAGNOSIS												
0 - 12 years	230	124	2%	58	1%	182	1%	N/A	23	1%	N/A	N/A
13 - 19 years	670	324	5%	209	3%	533	4%	N/A	42	1%	N/A	N/A
20 - 24 years	2,160	960	14%	759	10%	1,719	12%	N/A	171	5%	N/A	N/A
25 - 29 years	3,020	1,142	17%	1,267	16%	2,409	17%	N/A	390	11%	N/A	N/A
30 - 39 years	6,600	2,308	35%	2,947	38%	5,255	37%	N/A	1,320	38%	N/A	N/A
40 - 49 years	3,840	1,292	19%	1,764	23%	3,056	21%	N/A	1,039	30%	N/A	N/A
50 - 59 years	1,220	408	6%	566	7%	974	7%	N/A	366	11%	N/A	N/A
60 years and over	260	89	1%	121	2%	210	1%	N/A	83	2%	N/A	N/A
Unspecified	10	3	0%	0	0%	3	0%	N/A	0	0%	N/A	N/A
AREA OF RESIDENCE AT DIAGNOSIS[¥]												
Detroit Metro	11,560	4,186	63%	4,985	65%	9,171	64%	207	2,283	66%	4,439,490	44%
Out-State	6,040	2,246	34%	2,545	33%	4,791	33%	85	1,102	32%	5,656,153	56%
TOTAL: Both Areas	17,610	6,432	97%	7,530	98%	13,962	97%	138	3,385	99%	10,095,643	100%
Prison	*340*	*188*	*3%*	*148*	*2%*	*336*	*2%*	*N/A*	*43*	*1%*	*N/A*	*N/A*
TOTAL: Known Residence	17,950	6,620	100%	7,678	100%	14,298	100%	N/A	3,428	100%	N/A	N/A
Unknown	*50*	*30*	*0%*	*13*	*0%*	*43*	*0%*	*N/A*	*6*	*0%*	*N/A*	*N/A*
STATEWIDE TOTAL	***18,000***	***6,650***	***100%***	***7,691***	***100%***	***14,341***	***100%***	***142***	***3,434***	***100%***	***10,095,643***	***100%***

**See page 1-3 for descriptions of prevalence estimate calculations and pages 6-7,8 for risk category groupings. Risk categories used in Michigan are newly defined as of July 2007.*

[§] In this report, persons described as white, black, Asian/Pacific Islander (PI) or American Indian/Alaskan Native (AN) are all non-Hispanic. Persons described as Hispanic could be of any race.

[¥] The Detroit Metro Area consists of Oakland, Monroe, Lapeer, Macomb, St. Clair, and Wayne Counties. The remaining counties comprise the Out-State Area.

[£] Census values in the age category are available, however they have been excluded because Census data presents the Michigan population at their 'current age' and Michigan's HIV data presents those persons living with HIV at their age at HIV diagnosis.

Table 7a: HIV/AIDS Cases Currently Living in Michigan, by County of Residence, 2008

COUNTY	EST PREV*	REPORTED PREVALENCE									CENSUS 2006 ESTIMATES	
		HIV, not AIDS		AIDS		TOTAL			CONCURRENT AIDS			
	Num	Num	%	Num	%	Num	%	Rate per 100,000	Num	%	Num	%
Alcona	10	0	0%	1	0%	1	0%	9	1	0%	11,759	0%
Alger	10	0	0%	5	0%	5	0%	52	1	0%	9,665	0%
Allegan	120	39	1%	59	1%	98	1%	86	22	1%	113,501	1%
Alpena	10	1	0%	7	0%	8	0%	27	2	0%	30,067	0%
Antrim	10	5	0%	4	0%	9	0%	37	1	0%	24,463	0%
Arenac	10	2	0%	1	0%	3	0%	18	1	0%	17,024	0%
Baraga	10	1	0%	5	0%	6	0%	69	4	0%	8,742	0%
Barry	20	5	0%	14	0%	19	0%	32	8	0%	59,899	1%
Bay	90	36	1%	33	0%	69	0%	64	11	0%	108,390	1%
Benzie	10	2	0%	1	0%	3	0%	17	0	0%	17,652	0%
Berrien	290	96	1%	135	2%	231	2%	143	59	2%	161,705	2%
Branch	20	10	0%	2	0%	12	0%	26	1	0%	45,875	0%
Calhoun	170	62	1%	73	1%	135	1%	98	23	1%	137,991	1%
Cass	40	12	0%	20	0%	32	0%	62	9	0%	51,329	1%
Charlevoix	20	6	0%	11	0%	17	0%	64	6	0%	26,422	0%
Cheboygan	10	3	0%	4	0%	7	0%	26	1	0%	27,282	0%
Chippewa	30	13	0%	12	0%	25	0%	65	3	0%	38,674	0%
Clare	20	10	0%	8	0%	18	0%	57	3	0%	31,307	0%
Clinton	50	18	0%	19	0%	37	0%	53	5	0%	69,909	1%
Crawford	10	1	0%	5	0%	6	0%	40	4	0%	14,928	0%
Delta	20	8	0%	8	0%	16	0%	42	1	0%	38,156	0%
Dickinson	10	1	0%	5	0%	6	0%	22	2	0%	27,447	0%
Eaton	60	23	0%	27	0%	50	0%	47	8	0%	107,237	1%
Emmet	20	6	0%	8	0%	14	0%	42	4	0%	33,607	0%
Genesee	710	253	4%	307	4%	560	4%	127	121	4%	441,966	4%
Gladwin	10	2	0%	4	0%	6	0%	22	3	0%	27,008	0%
Gogebic	10	2	0%	0	0%	2	0%	12	0	0%	16,524	0%
Grand Traverse	60	20	0%	31	0%	51	0%	60	14	0%	84,952	1%
Gratiot	10	4	0%	5	0%	9	0%	21	3	0%	42,107	0%
Hillsdale	10	4	0%	3	0%	7	0%	15	3	0%	47,206	0%
Houghton	20	7	0%	5	0%	12	0%	34	4	0%	35,334	0%
Huron	10	2	0%	3	0%	5	0%	15	1	0%	34,143	0%
Ingham	520	214	3%	200	3%	414	3%	150	85	2%	276,898	3%
Ionia	30	12	0%	14	0%	26	0%	40	10	0%	64,821	1%
Iosco	10	3	0%	2	0%	5	0%	19	1	0%	26,831	0%
Iron	10	0	0%	1	0%	1	0%	8	0	0%	12,377	0%
Isabella	40	16	0%	13	0%	29	0%	44	6	0%	65,818	1%
Jackson	260	98	1%	111	1%	209	1%	128	36	1%	163,851	2%
Kalamazoo	370	145	2%	145	2%	290	2%	120	61	2%	240,720	2%
Kalkaska	10	3	0%	1	0%	4	0%	23	0	0%	17,330	0%
Kent	1,140	426	6%	477	6%	903	6%	151	212	6%	599,524	6%
Keweenaw	10	0	0%	0	0%	0	0%	0	0	0%	2,183	0%
Lake	10	4	0%	6	0%	10	0%	85	4	0%	11,793	0%
Lapeer	40	15	0%	20	0%	35	0%	37	9	0%	93,761	1%
Leelanau	10	3	0%	6	0%	9	0%	41	4	0%	22,112	0%
Lenawee	70	26	0%	29	0%	55	0%	54	12	0%	102,191	1%
Livingston	70	25	0%	28	0%	53	0%	29	13	0%	184,511	2%
Luce	10	1	0%	0	0%	1	0%	15	0	0%	6,684	0%

Table 7a: HIV/AIDS Cases Currently Living in Michigan, by County of Residence, 2008

COUNTY	EST PREV*	REPORTED PREVALENCE									CENSUS 2006 ESTIMATES	
		HIV, not AIDS		AIDS		TOTAL			CONCURRENT AIDS			
	Num	Num	%	Num	%	Num	%	Rate per 100,000	Num	%	Num	%
Mackinac	10	1	0%	0	0%	1	0%	9	0	0%	11,050	0%
Macomb	730	272	4%	304	4%	576	4%	69	158	5%	832,861	8%
Manistee	20	3	0%	10	0%	13	0%	52	4	0%	25,067	0%
Marquette	40	17	0%	15	0%	32	0%	49	11	0%	64,675	1%
Mason	10	3	0%	7	0%	10	0%	34	6	0%	29,045	0%
Mecosta	20	8	0%	5	0%	13	0%	31	3	0%	42,252	0%
Menominee	10	4	0%	1	0%	5	0%	20	1	0%	24,696	0%
Midland	30	6	0%	17	0%	23	0%	27	7	0%	83,792	1%
Missaukee	10	2	0%	3	0%	5	0%	33	1	0%	15,197	0%
Monroe	70	24	0%	35	0%	59	0%	38	19	1%	155,035	2%
Montcalm	30	9	0%	15	0%	24	0%	38	4	0%	63,977	1%
Montmorency	10	0	0%	4	0%	4	0%	38	2	0%	10,478	0%
Muskegon	170	69	1%	69	1%	138	1%	79	30	1%	175,231	2%
Newaygo	30	8	0%	14	0%	22	0%	44	5	0%	49,840	0%
Oakland	1,910	710	11%	803	10%	1,513	11%	125	366	11%	1,214,255	12%
Oceana	10	6	0%	5	0%	11	0%	38	4	0%	28,639	0%
Ogemaw	10	2	0%	2	0%	4	0%	18	1	0%	21,665	0%
Ontonagon	10	1	0%	1	0%	2	0%	28	1	0%	7,202	0%
Osceola	10	3	0%	3	0%	6	0%	25	1	0%	23,584	0%
Oscoda	10	0	0%	3	0%	3	0%	33	1	0%	9,140	0%
Otsego	10	4	0%	7	0%	11	0%	45	5	0%	24,711	0%
Ottawa	120	43	1%	53	1%	96	1%	37	26	1%	257,671	3%
Presque Isle	10	1	0%	2	0%	3	0%	21	2	0%	14,144	0%
Roscommon	20	7	0%	12	0%	19	0%	73	6	0%	26,064	0%
Saginaw	230	89	1%	96	1%	185	1%	90	47	1%	206,300	2%
Sanilac	20	4	0%	11	0%	15	0%	34	6	0%	44,448	0%
Schoolcraft	10	2	0%	0	0%	2	0%	23	0	0%	8,744	0%
Shiawassee	30	11	0%	11	0%	22	0%	30	6	0%	72,912	1%
St. Clair	110	48	1%	41	1%	89	1%	52	25	1%	171,725	2%
St. Joseph	30	10	0%	17	0%	27	0%	43	6	0%	62,777	1%
Tuscola	20	5	0%	7	0%	12	0%	21	4	0%	57,878	1%
Van Buren	90	37	1%	34	0%	71	0%	90	13	0%	79,018	1%
Washtenaw	640	255	4%	252	3%	507	4%	147	122	4%	344,047	3%
Wayne Total	8,700	3,117	47%	3,782	49%	6,899	48%	350	1,706	50%	1,971,853	20%
Wayne, excl. Detroit	*1,740*	*611*	*9%*	*769*	*10%*	*1,380*	*10%*	*125*	*357*	*10%*	*1,100,732*	*11%*
Detroit	*6,960*	*2,506*	*38%*	*3,013*	*39%*	*5,519*	*38%*	*634*	*1,349*	*39%*	*871,121*	*9%*
Wexford	20	6	0%	11	0%	17	0%	53	4	0%	31,994	0%
FOCUS AREAS¥												
Detroit Metro	11,560	4,186	63%	4,985	65%	9,171	64%	207	2,283	66%	4,439,490	44%
Out-State	6,040	2,246	34%	2,545	33%	4,791	33%	85	1,102	32%	5,656,153	56%
Total: Both Areas	17,610	6,432	97%	7,530	98%	13,962	97%	138	3,385	99%	10,095,643	100%
Prison	*340*	*188*	*3%*	*148*	*2%*	*336*	*2%*	*N/A*	*43*	*1%*	*N/A*	*N/A*
Total: Known Residence	17,950	6,620	100%	7,678	100%	14,298	100%	N/A	3,428	100%	N/A	N/A
Unknown	*50*	*30*	*0%*	*13*	*0%*	*43*	*0%*	*N/A*	*6*	*0%*	*N/A*	*N/A*
STATEWIDE TOTAL	***18,000***	***6,650***	***100%***	***7,691***	***100%***	***14,341***	***100%***	***142***	***3,434***	***100%***	***10,095,643***	***100%***

**See page 1-3 for descriptions of prevalence estimate calculations and pages 6-7,8 for risk category groupings. Risk categories used in Michigan are newly defined as of July 2007.*

¥ The Detroit Metro Area consists of Oakland, Monroe, Lapeer, Macomb, St. Clair, and Wayne Counties. The remaining counties comprise the Out-State Area.

Table 8: Sex, Race, and Risk Among HIV/AIDS Cases Currently Living in Michigan, 2008

MALES	**White**		**Black**		**Hispanic**		**Other or Unknown**		**Male Subtotal**	
Male-Male sex	3,395	74%	3,038	52%	241	50%	91	52%	6,765	61%
Injecting Drug Use	207	5%	790	14%	65	14%	14	8%	1,076	10%
Male-Male Sex/IDU	291	6%	348	6%	26	5%	10	6%	675	6%
Blood Products	81	2%	32	1%	5	1%	2	1%	120	1%
Heterosexual*	108	2%	372	6%	44	9%	7	4%	531	5%
Perinatal	21	0%	61	1%	3	1%	3	2%	88	1%
Undetermined	486	11%	1,195	20%	97	20%	48	27%	1,826	16%
PH-Male	*284*	*6%*	*847*	*15%*	*74*	*15%*	*25*	*14%*	*1,230*	*11%*
Unknown	*202*	*4%*	*348*	*6%*	*23*	*5%*	*23*	*13%*	*596*	*5%*
Male Subtotal	**4,589**	**41%**	**5,836**	**53%**	**481**	**4%**	**175**	**2%**	**11,081**	**100%**

FEMALES	**White**		**Black**		**Hispanic**		**Other or Unknown**		**Female Subtotal**	
Injecting Drug Use	139	20%	536	23%	30	21%	10	16%	715	22%
Blood Products	15	2%	7	0%	2	1%	1	2%	25	1%
Heterosexual	439	63%	1,343	57%	92	64%	39	63%	1,913	59%
HRH	*344*	*49%*	*851*	*36%*	*73*	*51%*	*21*	*34%*	*1,289*	*40%*
PH-Female	*95*	*14%*	*492*	*21%*	*19*	*13%*	*18*	*29%*	*624*	*19%*
Perinatal	14	2%	49	2%	8	6%	2	3%	73	2%
Undetermined*	89	13%	423	18%	12	8%	10	16%	534	16%
Female Subtotal	**696**	**21%**	**2,358**	**72%**	**144**	**4%**	**62**	**2%**	**3,260**	**100%**

TOTAL	**White**		**Black**		**Hispanic**		**Other or Unknown**		**Risk Total**	
Male-Male sex	3,395	64%	3,038	37%	241	39%	91	38%	6,765	47%
Injecting Drug Use	346	7%	1,326	16%	95	15%	24	10%	1,791	12%
Male-Male Sex/IDU	291	6%	348	4%	26	4%	10	4%	675	5%
Blood Products	96	2%	39	0%	7	1%	3	1%	145	1%
Heterosexual	547	10%	1,715	21%	136	22%	46	19%	2,444	17%
HRH	*452*	*9%*	*1,223*	*15%*	*117*	*19%*	*28*	*12%*	*1,820*	*13%*
PH-Female	*95*	*2%*	*492*	*6%*	*19*	*3%*	*18*	*8%*	*624*	*4%*
Perinatal	35	1%	110	1%	11	2%	5	2%	161	1%
Undetermined	575	11%	1,618	20%	109	17%	58	24%	2,360	16%
PH-Male	*284*	*5%*	*847*	*10%*	*74*	*12%*	*25*	*11%*	*1,230*	*9%*
Unknown	*291*	*6%*	*771*	*9%*	*35*	*6%*	*33*	*14%*	*1,130*	*8%*
RACE TOTAL	***5,285***	***37%***	***8,194***	***57%***	***625***	***4%***	***237***	***2%***	***14,341***	***100%***

**In the male subset all cases in the heterosexual category are HRH because the PH-Female category is not applicable to males. Likewise, in the female subset, all cases in the undetermined category are of unknown risk because the PH-Male category is not applicable to females.*

Table 9: Sex, Race, and Age at HIV Diagnosis Among HIV/AIDS Cases Currently Living in Michigan, 2008

MALES	White		Black		Hispanic		Other or Unknown		Male Subtotal	
0 - 12 years	33	1%	64	1%	3	1%	4	2%	104	1%
13 - 19 years	65	1%	278	5%	14	3%	3	2%	360	3%
20 - 24 years	422	9%	777	13%	55	11%	23	13%	1,277	12%
25 - 29 years	779	17%	950	16%	97	20%	37	21%	1,863	17%
30 - 39 years	1,858	40%	2,048	35%	188	39%	68	39%	4,162	38%
40 - 49 years	1,052	23%	1,233	21%	85	18%	31	18%	2,401	22%
50 - 59 years	301	7%	410	7%	28	6%	7	4%	746	7%
60 years and over	79	2%	74	1%	11	2%	2	1%	166	1%
Unknown	0	0%	2	0%	0	0%	0	0%	2	0%
Male Subtotal	**4,589**	**41%**	**5,836**	**53%**	**481**	**4%**	**175**	**2%**	**11,081**	**100%**

FEMALES	White		Black		Hispanic		Other or Unknown		Female Subtotal	
0 - 12 years	15	2%	53	2%	8	6%	2	3%	78	2%
13 - 19 years	45	6%	114	5%	11	8%	3	5%	173	5%
20 - 24 years	128	18%	288	12%	21	15%	5	8%	442	14%
25 - 29 years	136	20%	374	16%	25	17%	11	18%	546	17%
30 - 39 years	218	31%	802	34%	47	33%	26	42%	1,093	34%
40 - 49 years	101	15%	524	22%	22	15%	8	13%	655	20%
50 - 59 years	42	6%	172	7%	8	6%	6	10%	228	7%
60 years and over	10	1%	31	1%	2	1%	1	2%	44	1%
Unknown	1	0%	0	0%	0	0%	0	0%	1	0%
Female Subtotal	**696**	**21%**	**2,358**	**72%**	**144**	**4%**	**62**	**2%**	**3,260**	**100%**

TOTAL	White		Black		Hispanic		Other or Unknown		Age Total	
0 - 12 years	48	1%	117	1%	11	2%	6	3%	182	1%
13 - 19 years	110	2%	392	5%	25	4%	6	3%	533	4%
20 - 24 years	550	10%	1,065	13%	76	12%	28	12%	1,719	12%
25 - 29 years	915	17%	1,324	16%	122	20%	48	20%	2,409	17%
30 - 39 years	2,076	39%	2,850	35%	235	38%	94	40%	5,255	37%
40 - 49 years	1,153	22%	1,757	21%	107	17%	39	16%	3,056	21%
50 - 59 years	343	6%	582	7%	36	6%	13	5%	974	7%
60 years and over	89	2%	105	1%	13	2%	3	1%	210	1%
Unknown	1	0%	2	0%	0	0%	0	0%	3	0%
RACE TOTAL	***5,285***	***37%***	***8,194***	***57%***	***625***	***4%***	***237***	***2%***	***14,341***	***100%***

Table 10: Sex, Risk and Age at HIV Diagnosis Among HIV/AIDS Cases Currently Living in Michigan, 2008

MALES	**0 - 12 years**		**13 - 19 years**		**20 - 24 years**		**25 - 29 years**		**30 - 39 years**		**40 - 49 years**		**50 - 59 years**		**60 years and over**		**Male Subtotal**	
Male-Male sex	0	0%	257	71%	953	75%	1,312	70%	2,592	62%	1,229	51%	342	46%	80	48%	6,765	61%
Injecting Drug Use	0	0%	3	1%	28	2%	86	5%	383	9%	424	18%	136	18%	15	9%	1,075	10%
Male-Male Sex/IDU	0	0%	14	4%	76	6%	116	6%	283	7%	147	6%	37	5%	2	1%	675	6%
Blood Products	14	13%	20	6%	16	1%	21	1%	32	1%	11	0%	6	1%	0	0%	120	1%
Heterosexual*	0	0%	6	2%	41	3%	95	5%	213	5%	121	5%	44	6%	11	7%	531	5%
Perinatal	84	81%	4	1%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	88	1%
Undetermined	6	6%	56	16%	163	13%	233	13%	659	16%	469	20%	181	24%	58	35%	1,825	16%
PH-Male	*0*	*0%*	*35*	*10%*	*120*	*9%*	*151*	*8%*	*474*	*11%*	*295*	*12%*	*114*	*15%*	*41*	*25%*	*1,230*	*11%*
Unknown	*6*	*6%*	*21*	*6%*	*43*	*3%*	*82*	*4%*	*185*	*4%*	*174*	*7%*	*67*	*9%*	*17*	*10%*	*595*	*5%*
Male Subtotal^	**104**	**1%**	**360**	**3%**	**1,277**	**12%**	**1,863**	**17%**	**4,162**	**38%**	**2,401**	**22%**	**746**	**7%**	**166**	**1%**	**11,079**	**100%**

FEMALES	**0 - 12 years**		**13 - 19 years**		**20 - 24 years**		**25 - 29 years**		**30 - 39 years**		**40 - 49 years**		**50 - 59 years**		**60 years and over**		**Female Subtotal**	
Injecting Drug Use	0	0%	13	8%	60	14%	94	17%	295	27%	200	31%	48	21%	5	11%	715	22%
Blood Products	0	0%	2	1%	2	0%	2	0%	9	1%	3	0%	4	2%	3	7%	25	1%
Heterosexual	0	0%	132	76%	307	69%	350	64%	621	57%	350	53%	125	55%	28	64%	1,913	59%
HRH	*0*	*0%*	*89*	*51%*	*205*	*46%*	*244*	*45%*	*413*	*38%*	*237*	*36%*	*86*	*38%*	*15*	*34%*	*1,289*	*40%*
PH-Female	*0*	*0%*	*43*	*25%*	*102*	*23%*	*106*	*19%*	*208*	*19%*	*113*	*17%*	*39*	*17%*	*13*	*30%*	*624*	*19%*
Perinatal	73	94%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	73	2%
Undetermined*	5	6%	26	15%	73	17%	100	18%	168	15%	102	16%	51	22%	8	18%	533	16%
Female Subtotal^	**78**	**2%**	**173**	**5%**	**442**	**14%**	**546**	**17%**	**1,093**	**34%**	**655**	**20%**	**228**	**7%**	**44**	**1%**	**3,259**	**100%**

TOTAL	**0 - 12 years**		**13 - 19 years**		**20 - 24 years**		**25 - 29 years**		**30 - 39 years**		**40 - 49 years**		**50 - 59 years**		**60 years and over**		**Age Total**	
Male-Male sex	0	0%	257	48%	953	55%	1,312	54%	2,592	49%	1,229	40%	342	35%	80	38%	6,765	47%
Injecting Drug Use	0	0%	16	3%	88	5%	180	7%	678	13%	624	20%	184	19%	20	10%	1,790	12%
Male-Male Sex/IDU	0	0%	14	3%	76	4%	116	5%	283	5%	147	5%	37	4%	2	1%	675	5%
Blood Products	14	8%	22	4%	18	1%	23	1%	41	1%	14	0%	10	1%	3	1%	145	1%
Heterosexual	0	0%	138	26%	348	20%	445	18%	834	16%	471	15%	169	17%	39	19%	2,444	17%
HRH	*0*	*0%*	*95*	*18%*	*246*	*14%*	*339*	*14%*	*626*	*12%*	*358*	*12%*	*130*	*13%*	*26*	*12%*	*1,820*	*13%*
PH-Female	*0*	*0%*	*43*	*8%*	*102*	*6%*	*106*	*4%*	*208*	*4%*	*113*	*4%*	*39*	*4%*	*13*	*6%*	*624*	*4%*
Perinatal	157	86%	4	1%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	161	1%
Undetermined	11	6%	82	15%	236	14%	333	14%	827	16%	571	19%	232	24%	66	31%	2,358	16%
PH-Male	*0*	*0%*	*35*	*7%*	*120*	*7%*	*151*	*6%*	*474*	*9%*	*295*	*10%*	*114*	*12%*	*41*	*20%*	*1,230*	*9%*
Unknown	*11*	*6%*	*47*	*9%*	*116*	*7%*	*182*	*8%*	*353*	*7%*	*276*	*9%*	*118*	*12%*	*25*	*12%*	*1,128*	*8%*
AGE TOTAL ^	***182***	***1%***	***533***	***4%***	***1,719***	***12%***	***2,409***	***17%***	***5,255***	***37%***	***3,056***	***21%***	***974***	***7%***	***210***	***1%***	***14,338***	***100%***

Table 11: Gonorrhea, Syphilis, and Chlamydia by Area and Local Health Department Jurisdiction, January 1, 2007 to December 31, 2007

Local Health Department Jurisdiction	Gonorrhea		P&S Syphilis*		Chlamydia		Census 2006 Estimate
	Cases	Rate^	Cases	Rate^	Cases	Rate^	
Allegan	39	34.4	2	1.8	216	190.3	113,501
Barry/Eaton	83	49.7	0	0.0	379	226.8	167,136
Bay	39	36.0	1	0.9	212	195.6	108,390
Benzie/Leelanau	4	10.1	0	0.0	40	100.6	39,764
Berrien	466	288.2	0	0.0	858	530.6	161,705
Br/Hills/St Joseph	23	14.8	0	0.0	263	168.7	155,858
Calhoun	317	229.7	2	1.4	611	442.8	137,991
Chippewa	2	5.2	1	2.6	46	118.9	38,674
Central MI Dist	47	24.6	1	0.5	343	179.8	190,805
Delta/Menominee	3	4.8	0	0.0	80	127.3	62,852
Dickinson/Iron	4	10.0	0	0.0	40	100.4	39,824
District #2	6	8.6	0	0.0	32	46.1	69,395
District #4	5	6.1	0	0.0	44	53.7	81,971
District #10	35	13.2	0	0.0	407	153.0	266,085
Genesee	1,829	413.8	11	2.5	3,302	747.1	441,966
Grand Traverse	11	12.9	1	1.2	141	166.0	84,952
Huron	3	8.8	0	0.0	26	76.2	34,143
Ingham	567	204.8	1	0.4	1,800	650.1	276,898
Ionia	17	26.2	0	0.0	92	141.9	64,821
Jackson	376	229.5	1	0.6	728	444.3	163,851
Kalamazoo	449	186.5	0	0.0	1,303	541.3	240,720
Kent	1,142	190.5	4	0.7	3,363	560.9	599,524
Lapeer	14	14.9	0	0.0	93	99.2	93,761
Lenawee	28	27.4	0	0.0	149	145.8	102,191
Livingston	22	11.9	0	0.0	144	78.0	184,511
LMAS District	2	5.5	1	2.8	31	85.8	36,143
Macomb	449	53.9	2	0.2	1,646	197.6	832,861
Marquette	7	10.8	0	0.0	114	176.3	64,675
Midland	16	19.1	0	0.0	114	136.1	83,792
Monroe	34	21.9	1	0.6	231	149.0	155,035
Muskegon	631	360.1	0	0.0	1,123	640.9	175,231
Mid-MI District	55	31.3	1	0.6	268	152.3	175,993
NW Michigan	23	21.1	0	0.0	157	143.8	109,203
Oakland	997	82.1	3	0.2	3,373	277.8	1,214,255
Ottawa	58	22.5	0	0.0	479	185.9	257,671
Saginaw	343	166.3	0	0.0	1,078	522.5	206,300
Sanilac	6	13.5	0	0.0	42	94.5	44,448
Shiawassee	18	24.7	1	1.4	119	163.2	72,912
St Clair	76	44.3	1	0.6	332	193.3	171,725
Tuscola	7	12.1	0	0.0	71	122.7	57,878
Van Buren/Cass	66	50.6	1	0.8	279	214.0	130,347
Washtenaw	316	91.8	6	1.7	1,037	301.4	344,047
Wayne excl Detroit	779	70.8	14	1.3	2,355	213.9	1,100,732
City of Detroit	7,912	908.3	68	7.8	13,657	1567.8	871,121
WestUpDist	1	1.4	0	0.0	73	104.3	69,985
Detroit Metro Area#	10,261	231.1	88	2.0	21,687	488.5	4,439,490
Out-State	7,069	125.0	35	0.6	19,604	346.6	5,656,153
Total	***17,330***	***171.7***	***123***	***1.2***	***41,291***	***409.0***	***10,095,643***

#Detroit Metro Area includes Lapeer, Monroe, Macomb, Oakland, St. Clair, and Wayne Counties

* P&S: Primary and Secondary Syphilis

^ Rate per 100,000

Table 12: Gonorrhea, Syphilis, and Chlamydia Case by Sex, Race and Age Group, Michigan, 2007

	Gonorrhea			P&S Syphilis*			Chlamydia			Census 2006 Estimate
	Num	%	Rate^	Num	%	Rate^	Num	%	Rate^	
RACE/ ETHNICITY										
White	1,553	9%	19.8	42	34%	0.5	7,433	18%	94.7	7,846,335
Black	7,880	45%	553.2	71	58%	5.0	12,781	31%	897.3	1,424,394
Hispanic	177	1%	45.0	8	7%	2.0	785	2%	199.6	393,281
Other/Multi	228	1%	52.8	0	0%	0.0	742	2%	171.9	431,633
Unknown Race	7,492	43%	N/A	2	2%	N/A	19,550	47%	N/A	N/A
SEX & RACE										
Males	7,142	41%	143.7	99	80%	2.0	9,534	23%	191.8	4,969,692
White Males	*410*	*2%*	*10.6*	*37*	*30%*	*1.0*	*1,592*	*4%*	*41.1*	*3,873,261*
Black Males	*3,772*	*22%*	*559.8*	*57*	*46%*	*8.5*	*3,964*	*10%*	*588.3*	*673,766*
Hispanic Males	*60*	*0%*	*28.8*	*4*	*3%*	*1.9*	*235*	*1%*	*112.7*	*208,505*
Other Males	*86*	*0%*	*N/A*	*1*	*1%*	*N/A*	*168*	*0%*	*N/A*	*214,160*
Unknown Males	*2,053*	*12%*	*N/A*	*0*	*0%*	*N/A*	*3,575*	*9%*	*N/A*	*N/A*
Females	10,131	58%	197.6	24	20%	0.0	31,582	76%	616.1	5,125,951
White Females	*1,188*	*7%*	*29.9*	*8*	*7%*	*0.2*	*5,839*	*14%*	*147.0*	*3,973,074*
Black Females	*3,701*	*21%*	*493.1*	*14*	*11%*	*1.9*	*8,803*	*21%*	*1172.8*	*750,628*
Hispanic Fem.	*115*	*1%*	*62.2*	*4*	*3%*	*2.2*	*550*	*1%*	*297.7*	*184,776*
Other Females	*156*	*1%*	*N/A*	*0*	*0%*	*N/A*	*573*	*1%*	*N/A*	*217,473*
Unknown Fem.	*3,900*	*23%*	*N/A*	*2*	*2%*	*N/A*	*15,817*	*38%*	*N/A*	*N/A*
Unknown Sex - All Races	57	0%	N/A	0	0%	N/A	175	0%	N/A	N/A
Age										
0-4 years	10	0%	1.6	0	0%	0.0	22	0%	3.4	638,195
5-9 years	14	0%	2.1	0	0%	0.0	21	0%	3.2	664,169
10-14 years	238	1%	33.2	0	0%	0.0	722	2%	100.7	717,303
15-19 years	5,815	34%	779.6	4	3%	0.5	16,769	41%	2248.1	745,908
20-24 years	4,986	29%	716.8	14	11%	2.0	13,696	33%	1968.9	695,604
25-29 years	2,703	16%	416.9	13	11%	2.0	5,611	14%	865.4	648,347
30-34 years	1,371	8%	219.5	19	15%	3.0	2,177	5%	348.6	624,512
35-39 years	927	5%	131.8	23	19%	3.3	1,144	3%	162.6	703,352
40-44 years	532	3%	70.1	17	14%	2.2	467	1%	61.5	758,900
45-54 years	518	3%	33.8	26	21%	1.7	414	1%	27.0	1,530,887
55-64 years	134	1%	12.1	6	5%	0.5	95	0%	8.6	1,107,602
65 and over	37	0%	2.9	1	1%	0.1	19	0%	1.5	1,260,864
Unknown Age	45	0%	N/A	0	0%	N/A	134	0%	N/A	N/A
Total	***17,330***	***100%***	***174.4***	***123***	***100%***	***1.2***	***41,291***	***100%***	***415.5***	***10,095,643***

* P&S: Primary and Secondary Syphilis
^ Rate per 100,000

Table 13: County Estimates* for Hepatitis C, Michigan 2007

	Ever infected with HCV (estimated 1.6% of population)	Chronically infected with HCV (estimated 1.3% of population)	Census 2006 Estimate
Allegan	1,816	1,476	113,501
Barry/Eaton	2,674	2,173	167,136
Bay	1,734	1,409	108,390
Benzie/Leelanau	636	517	39,764
Berrien	2,587	2,102	161,705
Br/Hills/St Joseph	2,494	2,026	155,858
Calhoun	2,208	1,794	137,991
Chippewa	619	503	38,674
Central MI Dist	3,053	2,480	190,805
Delta/Menominee	1,006	817	62,852
Dickinson/Iron	637	518	39,824
District #2	1,110	902	69,395
District #4	1,312	1,066	81,971
District #10	4,257	3,459	266,085
Genesee	7,071	5,746	441,966
Grand Traverse	1,359	1,104	84,952
Huron	546	444	34,143
Ingham	4,430	3,600	276,898
Ionia	1,037	843	64,821
Jackson	2,622	2,130	163,851
Kalamazoo	3,852	3,129	240,720
Kent	9,592	7,794	599,524
Lapeer	1,500	1,219	93,761
Lenawee	1,635	1,328	102,191
Livingston	2,952	2,399	184,511
LMAS District	578	470	36,143
Macomb	13,326	10,827	832,861
Marquette	1,035	841	64,675
Midland	1,341	1,089	83,792
Monroe	2,481	2,015	155,035
Muskegon	2,804	2,278	175,231
Mid-MI District	2,816	2,288	175,993
NW Michigan	1,747	1,420	109,203
Oakland	19,428	15,785	1,214,255
Ottawa	4,123	3,350	257,671
Saginaw	3,301	2,682	206,300
Sanilac	711	578	44,448
Shiawassee	1,167	948	72,912
St Clair	2,748	2,232	171,725
Tuscola	926	752	57,878
Van Buren/Cass	2,086	1,695	130,347
Washtenaw	5,505	4,473	344,047
Wayne excl Detroit	17,612	14,310	1,100,732
City of Detroit	13,938	11,325	871,121
WestUpDist	1,120	910	69,985
Detroit Metro Area[δ]	71,032	57,713	4,439,490
Out-State	90,498	73,530	5,656,153
Total	**161,530**	**131,243**	**10,095,643**

*Estimates are based on NHANES, see page 3-34 for more detail.

Table 14: Reported Cases of Acute and Chronic Hepatitis C by Sex, Race and Age Group, Michigan, 2007

	Acute hepatitis C			Chronic hepatitis C			Census 2006 Estimate
	Num	%	Rate	Num	%	Rate	
SEX							
Male	53	59%	1.1	3,550	63%	71.4	4,969,692
Female	37	41%	0.7	2,020	37%	39.4	5,125,951
RACE[§]							
White	50	56%	0.6	1,933	34%	23.6	8,198,927
Black	11	12%	0.8	819	14%	56.7	1,444,451
Asian	0	0%	0.0	29	1%	12.2	237,389
Native Hawaiian/ Pacific Islander	0	0%	0.0	3	0%	79.9	3,757
American Indian/ Alaska Native	1	1%	1.6	38	1%	62.5	60,820
Other	2	2%	1.3	121	2%	80.5	150,299
Unknown Race	26	29%	N/A	2,716	48%	N/A	N/A
AGE							
0-4 years	1	1%	0.2	11	0%	1.7	638,195
5-9 years	0	0%	0.0	5	0%	0.8	664,169
10-14 years	0	0%	0.0	1	0%	0.1	717,303
15-19 years	7	8%	0.9	54	1%	7.2	745,908
20-24 years	8	9%	1.2	135	2%	19.4	695,604
25-29 years	9	10%	1.4	206	4%	31.8	648,347
30-34 years	8	9%	1.3	150	3%	24.0	624,512
35-39 years	6	7%	0.9	284	5%	40.4	703,352
40-44 years	10	11%	1.3	547	10%	72.1	758,900
45-49 years	19	21%	1.2	1,014	18%	66.2	1,530,887
50-54 years	10	11%	1.6	1,532	27%	238.4	642,566
55-64 years	8	9%	1.7	1,316	23%	283.0	465,036
65 and over	4	4%	0.3	394	7%	31.2	1,260,864
Unknown Age	0	0%	N/A	11	0%	N/A	N/A
Total	***90***	***100%***	***0.9***	***5,660***	***100%***	***56.1***	***10,095,643***

[§]Hispanic ethnicity is not categorized due to incomplete data. Each racial category includes both Hispanic and non-Hispanic persons

Table 15: Characteristics of HIV/Hepatitis Co-Infected Persons in Care, in Southeast Michigan, Adult/Adolescent Spectrum of Disease (ASD), 2001-2003

	ALL (N = 1,790)	HAV/HIV Co-infected (N = 64)	HBV/HIV Co-infected (N = 207)	HCV/HIV Co-infected (N = 353)
SEX			*	
Male	58%	66%	68%	50%
Female	42%	34%	32%	50%
RACE/ETHNICITY				*
White	20%	30%	17%	13%
Black	75%	67%	80%	83%
Other/Multi	5%	3%	2%	4%
AGE				*
<20	1%	0%	0%	0%
20-29	10%	11%	5%	3%
30-39	27%	14%	29%	9%
40-49	38%	39%	38%	43%
50 and older	24%	36%	28%	44%
RISK FOR HIV			*	*
MSM	38%	45%	45%	10%
IDU	30%	34%	41%	78%
Blood Exposure	2%	5%	1%	5%
High-Risk Heterosexual	21%	8%	8%	6%
Presumed Heterosexual	8%	8%	3%	1%
Unknown/Other	1%	0%	<1%	0%
HAV Vaccination	14%	5%*	13%	23%*
HBV Vaccination	21%	24%	4%*	14%*

*Proportions significantly different from the proportions among all the persons in care, $p<0.05$ in Chi square test comparing the distribution of co-infected patients among the categories of the demographic, vaccination or transmission risk factor to the distribution of all the persons in care.

NOTE: Hepatitis A (HAV), Hepatitis B (HBV), or Hepatitis C (HCV) co-infection is defined as diagnosis of HAV, HBV (acute or chronic) or HCV, recorded in ASD at any time in the past. Age is the age as of the last care recorded in 2001-2003. HAV and HBV Vaccination include vaccinations recorded in ASD at any time in the past.

Table 16: Sex, Race, and Risk Among Currently Incarcerated HIV/AIDS Cases, Michigan, 2008

MALES	**White**		**Black**		**Hispanic**		**Other or Unknown**		**Male Subtotal**	
Male-Male sex	27	47%	67	27%	1	13%	3	60%	98	31%
Injecting Drug Use	10	17%	43	17%	3	38%	2	40%	58	18%
Male-Male Sex/IDU	6	10%	27	11%	2	25%	0	0%	35	11%
Blood Products	3	5%	7	3%	0	0%	0	0%	10	3%
Heterosexual*	4	7%	28	11%	1	13%	0	0%	33	10%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined	8	14%	76	31%	1	13%	0	0%	85	27%
PH-Male	*7*	*12%*	*67*	*27%*	*1*	*13%*	*0*	*0%*	*75*	*24%*
Unknown	*1*	*2%*	*9*	*4%*	*0*	*0%*	*0*	*0%*	*10*	*3%*
Male Subtotal	**58**	**18%**	**248**	**78%**	**8**	**3%**	**5**	**2%**	**319**	**100%**

FEMALES	**White**		**Black**		**Hispanic**		**Other or Unknown**		**Female Subtotal**	
Injecting Drug Use	1	20%	6	55%	0	0%	0	0%	7	41%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual	2	40%	5	45%	0	0%	1	100%	8	47%
HRH	*0*	*0%*	*5*	*45%*	*0*	*0%*	*0*	*0%*	*5*	*29%*
PH-Female	*2*	*40%*	*0*	*0%*	*0*	*0%*	*1*	*100%*	*3*	*18%*
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined*	2	40%	0	0%	0	0%	0	0%	2	12%
Female Subtotal	**5**	**29%**	**11**	**65%**	**0**	**0%**	**1**	**6%**	**17**	**100%**

TOTAL	**White**		**Black**		**Hispanic**		**Other or Unknown**		**Risk Total**	
Male-Male sex	27	43%	67	26%	1	13%	3	50%	98	29%
Injecting Drug Use	11	17%	49	19%	3	38%	2	33%	65	19%
Male-Male Sex/IDU	6	10%	27	10%	2	25%	0	0%	35	10%
Blood Products	3	5%	7	3%	0	0%	0	0%	10	3%
Heterosexual	6	10%	33	13%	1	13%	1	17%	41	12%
HRH	*4*	*6%*	*33*	*13%*	*1*	*13%*	*0*	*0%*	*38*	*11%*
PH-Female	*2*	*3%*	*0*	*0%*	*0*	*0%*	*1*	*17%*	*3*	*1%*
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined	10	16%	76	29%	1	13%	0	0%	87	26%
PH-Male	*7*	*11%*	*67*	*26%*	*1*	*13%*	*0*	*0%*	*75*	*22%*
Unknown	*3*	*5%*	*9*	*3%*	*0*	*0%*	*0*	*0%*	*12*	*4%*
RACE TOTAL	***63***	***19%***	***259***	***77%***	***8***	***2%***	***6***	***2%***	***336***	***100%***

**In the male subset all cases in the heterosexual category are HRH because the PH-Female category is not applicable to males. Likewise, in the female subset, all cases in the undetermined category are of unknown risk because the PH-Male category is not applicable to females.*

Table 17: Sex, Race, and Age at HIV Diagnosis Among Currently Incarcerated HIV/AIDS Cases, Michigan, 2008

MALES	White		Black		Hispanic		Other or Unknown		Male Subtotal	
0 - 12 years	0	0%	0	0%	0	0%	0	0%	0	0%
13 - 19 years	2	3%	11	4%	0	0%	0	0%	13	4%
20 - 24 years	12	21%	41	17%	1	13%	2	40%	56	18%
25 - 29 years	11	19%	57	23%	5	63%	0	0%	73	23%
30 - 39 years	22	38%	106	43%	1	13%	2	40%	131	41%
40 - 49 years	8	14%	24	10%	1	13%	1	20%	34	11%
50 - 59 years	2	3%	9	4%	0	0%	0	0%	11	3%
60 years and over	1	2%	0	0%	0	0%	0	0%	1	0%
Male Subtotal	**58**	**18%**	**248**	**78%**	**8**	**3%**	**5**	**2%**	**319**	**100%**

FEMALES	White		Black		Hispanic		Other or Unknown		Female Subtotal	
0 - 12 years	0	0%	0	0%	0	0%	0	0%	0	0%
13 - 19 years	0	0%	1	9%	0	0%	0	0%	1	6%
20 - 24 years	2	40%	0	0%	0	0%	0	0%	2	12%
25 - 29 years	1	20%	4	36%	0	0%	1	100%	6	35%
30 - 39 years	0	0%	3	27%	0	0%	0	0%	3	18%
40 - 49 years	1	20%	3	27%	0	0%	0	0%	4	24%
50 - 59 years	1	20%	0	0%	0	0%	0	0%	1	6%
60 years and over	0	0%	0	0%	0	0%	0	0%	0	0%
Female Subtotal	**5**	**29%**	**11**	**65%**	**0**	**0%**	**1**	**6%**	**17**	**100%**

TOTAL	White		Black		Hispanic		Other or Unknown		Age Total	
0 - 12 years	0	0%	0	0%	0	0%	0	0%	0	0%
13 - 19 years	2	3%	12	5%	0	0%	0	0%	14	4%
20 - 24 years	14	22%	41	16%	1	13%	2	33%	58	17%
25 - 29 years	12	19%	61	24%	5	63%	1	17%	79	24%
30 - 39 years	22	35%	109	42%	1	13%	2	33%	134	40%
40 - 49 years	9	14%	27	10%	1	13%	1	17%	38	11%
50 - 59 years	3	5%	9	3%	0	0%	0	0%	12	4%
60 years and over	1	2%	0	0%	0	0%	0	0%	1	0%
RACE TOTAL	***63***	***19%***	***259***	***77%***	***8***	***2%***	***6***	***2%***	***336***	***100%***

Table 18: Sex, Risk and Age at HIV Diagnosis Among Currently Incarcerated HIV/AIDS Cases, Michigan, 2008

MALES	**0 - 12 years**		**13 - 19 years**		**20 - 24 years**		**25 - 29 years**		**30 - 39 years**		**40 - 49 years**		**50 - 59 years**		**60 years and over**		**Male Subtotal**	
Male-Male sex	0	0%	5	38%	33	59%	28	38%	29	22%	3	9%	0	0%	0	0%	98	31%
Injecting Drug Use	0	0%	0	0%	4	7%	8	11%	32	24%	10	29%	3	27%	1	100%	58	18%
Male-Male Sex/IDU	0	0%	2	15%	8	14%	7	10%	13	10%	4	12%	1	9%	0	0%	35	11%
Blood Products	0	0%	2	15%	0	0%	0	0%	6	5%	1	3%	1	9%	0	0%	10	3%
Heterosexual*	0	0%	2	15%	2	4%	12	16%	10	8%	5	15%	2	18%	0	0%	33	10%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined	0	0%	2	15%	9	16%	18	25%	41	31%	11	32%	4	36%	0	0%	85	27%
PH-Male	*0*	*0%*	*1*	*8%*	*9*	*16%*	*18*	*25%*	*34*	*26%*	*9*	*26%*	*4*	*36%*	*0*	*0%*	*75*	*24%*
Unknown	*0*	*0%*	*1*	*8%*	*0*	*0%*	*0*	*0%*	*7*	*5%*	*2*	*6%*	*0*	*0%*	*0*	*0%*	*10*	*3%*
Male Subtotal	**0**	**0%**	**13**	**4%**	**56**	**18%**	**73**	**23%**	**131**	**41%**	**34**	**11%**	**11**	**3%**	**1**	**0%**	**319**	**100%**

FEMALES	**0 - 12 years**		**13 - 19 years**		**20 - 24 years**		**25 - 29 years**		**30 - 39 years**		**40 - 49 years**		**50 - 59 years**		**60 years and over**		**Female Subtotal**	
Injecting Drug Use	0	0%	0	0%	1	50%	2	33%	1	33%	3	75%	0	0%	0	0%	7	41%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual	0	0%	1	100%	1	50%	3	50%	2	67%	1	25%	0	0%	0	0%	8	47%
HRH	*0*	*0%*	*1*	*100%*	*0*	*0%*	*2*	*33%*	*2*	*67%*	*0*	*0%*	*0*	*0%*	*0*	*0%*	*5*	*29%*
PH-Female	*0*	*0%*	*0*	*0%*	*1*	*50%*	*1*	*17%*	*0*	*0%*	*1*	*25%*	*0*	*0%*	*0*	*0%*	*3*	*18%*
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined*	0	0%	0	0%	0	0%	1	17%	0	0%	0	0%	1	100%	0	0%	2	12%
Female Subtotal	**0**	0%	**1**	6%	**2**	12%	**6**	35%	**3**	18%	**4**	24%	**1**	6%	**0**	0%	**17**	100%

TOTAL	**0 - 12 years**		**13 - 19 years**		**20 - 24 years**		**25 - 29 years**		**30 - 39 years**		**40 - 49 years**		**50 - 59 years**		**60 years and over**		**Age Total**	
Male-Male sex	0	0%	5	36%	33	57%	28	35%	29	22%	3	8%	0	0%	0	0%	98	29%
Injecting Drug Use	0	0%	0	0%	5	9%	10	13%	33	25%	13	34%	3	25%	1	100%	65	19%
Male-Male Sex/IDU	0	0%	2	14%	8	14%	7	9%	13	10%	4	11%	1	8%	0	0%	35	10%
Blood Products	0	0%	2	14%	0	0%	0	0%	6	4%	1	3%	1	8%	0	0%	10	3%
Heterosexual	0	0%	3	21%	3	5%	15	19%	12	9%	6	16%	2	17%	0	0%	41	12%
HRH	*0*	*0%*	*3*	*21%*	*2*	*3%*	*14*	*18%*	*12*	*9%*	*5*	*13%*	*2*	*17%*	*0*	*0%*	*38*	*11%*
PH-Female	*0*	*0%*	*0*	*0%*	*1*	*2%*	*1*	*1%*	*0*	*0%*	*1*	*3%*	*0*	*0%*	*0*	*0%*	*3*	*1%*
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined	0	0%	2	14%	9	16%	19	24%	41	31%	11	29%	5	42%	0	0%	87	26%
PH-Male	*0*	*0%*	*1*	*7%*	*9*	*16%*	*18*	*23%*	*34*	*25%*	*9*	*24%*	*4*	*33%*	*0*	*0%*	*75*	*22%*
Unknown	*0*	*0%*	*1*	*7%*	*0*	*0%*	*1*	*1%*	*7*	*5%*	*2*	*5%*	*1*	*8%*	*0*	*0%*	*12*	*4%*

AGE TOTAL	***0***	***0%***	***14***	***4%***	***58***	***17%***	***79***	***24%***	***134***	***40%***	***38***	***11%***	***12***	***4%***	***1***	***0%***	***336***	***100%***

**In the male subset all cases in the heterosexual category are HRH because the PH-Female category is not applicable to males. Likewise, in the female subset, all cases in the undetermined category are of unknown risk because the PH-Male category is not applicable to females.*