

2000 Epidemiologic Profiles of HIV/AIDS in Michigan



HIV/AIDS Surveillance Section / Bureau of Epidemiology
Michigan Department of Community Health

STATE OF MICHIGAN



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To: Readers of the 2000 HIV/AIDS Epidemiologic Profiles

From: HIV/AIDS Surveillance Section Staff
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Bureau of Epidemiology

Winter 2001

This year the HIV/AIDS Surveillance Section is providing prevention and care planning groups with epidemiologic profiles of the State of Michigan, the eight regions and the Department of Corrections. These profiles review the key epidemiologic points in the state and each of the eight regions. In this year's profiles the term HIV disease is used to mean all HIV infected persons, including those who have AIDS.

This year's profiles use a simplified method for ranking the priority of behavioral groups. The rank was based solely upon the percentage of total reported HIV/AIDS cases for each behavioral group.

In order to measure prevention achievements, the number of persons who become newly infected ideally would be followed over time. Since surveillance is unable to measure new infections, trends are analyzed among those newly diagnosed with HIV disease between 1994 and 1998. In addition, the HIV/AIDS Surveillance Section will continue to track trends in new AIDS cases since these trends measure changes in treatment effectiveness and access.

A main focus of this year's profile has been readability and ease of use. To assist readers in finding the information they are seeking, a table of contents is available for each profile and material has been divided into sections. Other additions this year include a small section on bisexual behaviors and rural vs. urban in the statewide profile. Updated data from the Supplement to HIV/AIDS Project (SHAS) is available in the Statewide and Region 1 profiles. SHAS is an interview study that collects additional information that many planning groups find useful. STD data are in the statewide profile only.

Staff from the MDCH HIV/AIDS Surveillance Section are available to assist the regions in interpretation of these profiles as well as to provide additional analyses. Questions or comments about these profiles should be directed to your regional contact. Ideas on ways to improve them are always welcome. With your assistance, surveillance data will continue to guide HIV prevention strategies and resource allocation in Michigan. For the statewide profile and Regions 1, please call (313) 876-0353. For Regions 2-8, please call (517) 335-8165.

Region 1

Region 2

Region 3

Region 4

Region 5

Region 6

Region 7

Region 8

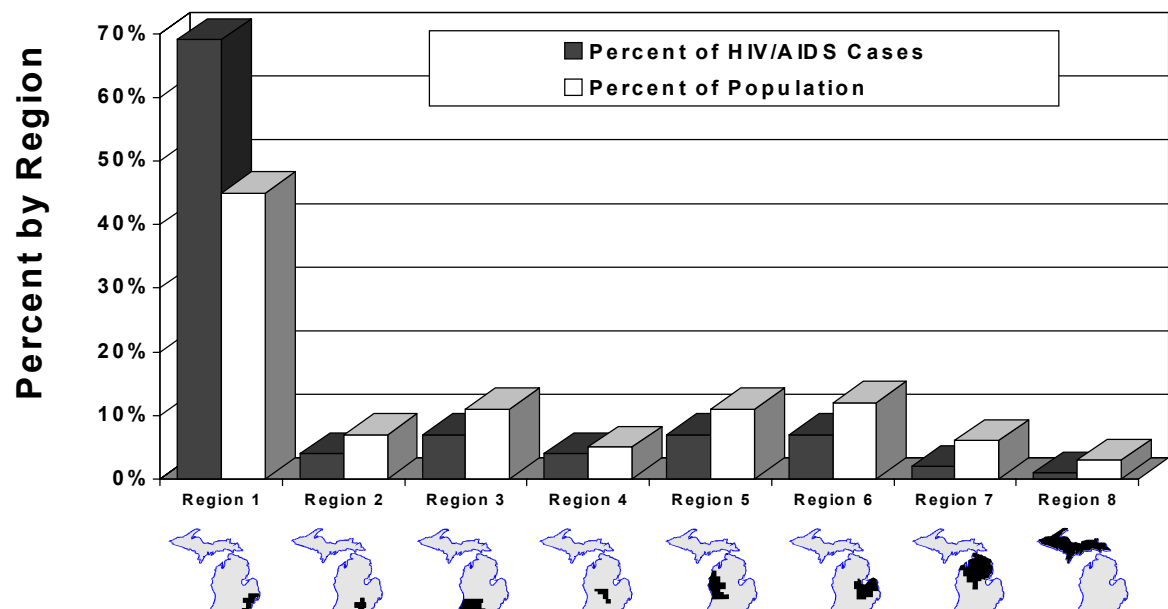
Other Sections Statewide

Statewide

Glossary



Michigan Live HIV/AIDS Cases and Population by Region





2000 Profile of HIV/AIDS in Michigan

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2000 Profile of HIV/AIDS in Michigan

Statewide Summary of Epidemic for Michigan

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 13,000 people living with HIV/AIDS in the state, of which 9,301 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 1,100 new cases annually. The number of AIDS deaths dropped 66 percent between 1995 and 1998. 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. Region 1 has more cases (of the 9,301 cases reported statewide) compared with the general population that lives there as expressed in the bar graph on the cover page for this profile. Each of the other seven regions has fewer cases compared with the general population distribution.
- **How does the epidemic in Michigan compare with national and worldwide statistics?** Approximately 850,000 persons in the United States are believed infected with HIV, including 40,000 new infections during 1999. The number living with HIV has increased because of new treatments that prolong life. In addition, more than 420,000 persons have died from this epidemic since 1980. Michigan is ranked approximately 15th in total number of cases.

As of December 1999, the Joint United Nations Programme on HIV/AIDS estimated there are 34 million persons worldwide infected with HIV, including one million children. An estimated 5.6 million new infections occurred in 1999, of which 95 percent were in developing nations. Most new infections worldwide are heterosexually transmitted, and about half are among women. There were 2.6 million deaths in 1999, bringing the cumulative total to 16 million deaths since the beginning of the epidemic.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance 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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM)*:** MSMs make up 59 percent of all HIV/AIDS cases with a known mode of transmission (4,599 out of 7,832). The MSM behavioral group continues to be the most affected behavioral group statewide even though the number of new cases indicates a level trend.
- **Intravenous Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 30 percent are IDUs. Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend in IDU transmission also appears to be level.
- **Heterosexuals:** Heterosexual cases constitute 15 percent of the total number of cases with a known mode of transmission. *High risk heterosexuals* (HRH) are HIV-infected persons whose heterosexual sex partners are IDUs, bisexual men and/or HIV+ individuals. Heterosexual transmission, although increasing, is unlikely to surpass MSM as a mode of HIV transmission in Michigan.

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



Data from HIV/AIDS Reporting System

MI Prevalence of HIV Disease (Including AIDS)
per 100,000 population,
by Local Health Jurisdiction, January 2000

Local Health Jurisdiction	HIV Prevalence (per 100,000 population)
Keweenaw	27.8
Houghton	27.8
Gogebic	27.8
Ontonagon	27.8
Baraga	27.8
Marquette	14.1
Iron	25.0
Dickinson	25.0
Delta	31.9
Alger	29.7
Schoolcraft	29.7
Luce	29.7
Mackinac	29.7
Chippewa	57.8
Manominee	31.9
Emmet	48.4
Cheboygan	13.4
Presque Isle	13.4
Charlevoix	48.4
Antrim	48.4
Otsego	13.4
Montmorency	13.4
Alpena	13.4
Leelanau	69.6
Benzie	69.6
Grand Traverse	62.2
Kalkaska	31.1
Crawford	31.1
Oscoda	29.9
Alcona	29.9
Manistee	52.2
Wexford	31.1
Missaukee	31.1
Roscommon	32.0
Ogemaw	29.9
Iosco	29.9
Mason	52.2
Lake	52.2
Osceola	32.0
Clare	32.0
Gladwin	32.0
Arenac	32.0
Oceana	52.2
Mecosta	52.2
Isabela	32.0
Midland	39.7
Bay	71.6
Newaygo	62.9
Montcalm	33.4
Gratiot	33.4
Saginaw	89.6
Muskegon	62.9
Ottawa	37.3
Kent	131.8
Ionia	35.1
Clinton	33.4
Shiawassee	28.7
Tuscola	116.2
Sanilac	26.7
Lapeer	48.1
Macomb	65.5
Oakland	119.0
Allegan	88.4
Barry	35.0
Eaton	35.0
Ingham	149.0
Livingston	17.3
Van Buren	114.2
Kalamazoo	129.8
Calhoun	103.0
Jackson	66.8
Washtenaw	148.4
Wayne	114.4
Berrien	111.5
Cass	60.6
St. Joseph	34.8
Branch	34.8
Hillsdale	34.8
Lenawee	43.7
Monroe	29.9
Detroit	567.1

The 14 LHDs with rates above the midpoint are Detroit and Wayne, Oakland, Kent, Ingham, Genesee, Washtenaw, Kalamazoo, Berrien, Calhoun, Jackson, Allegan, Saginaw and Van Buren counties. These 14 LHDs account for 88 percent of the Michigan HIV/AIDS cases but only 62 percent of Michigan population. These LHDs have more cases than you would expect based upon the population. The remaining 34 LHDs account for 12 percent of cases and 38 percent of the population.



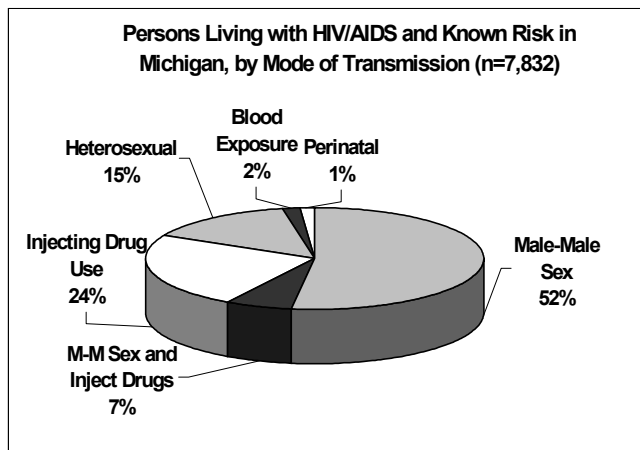
2000 Profile of HIV/AIDS in Michigan

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Surveillance is only able to determine the most likely mode. However, if information on the multiple risk of men who have sex with men (MSM) and injecting drug use (IDU) is available from a case report form, both risks are reported together.

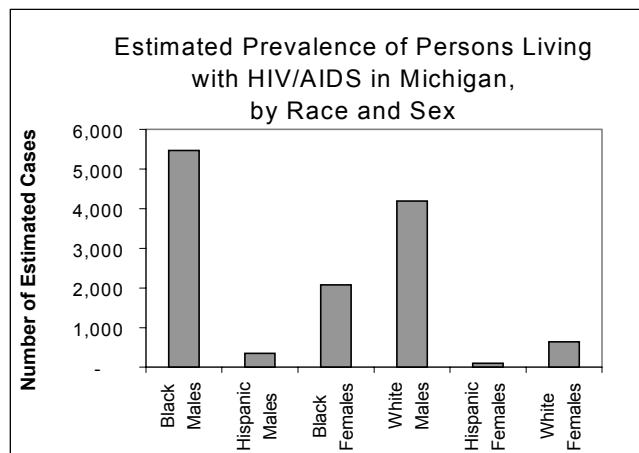
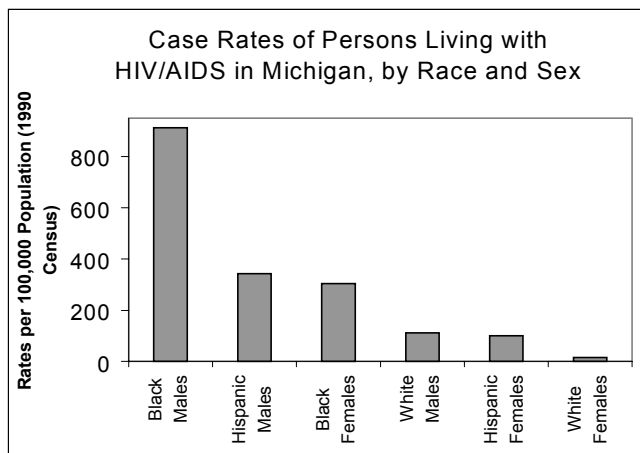
The pie chart indicates the number of people living with HIV/AIDS in Michigan by mode of transmission for the 7,832 cases for which the risk was identifiable.



- This chart demonstrates that over half (59 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including 7 percent who also injected drugs.
- Almost a third (31 percent) are injecting drug users, including 7 percent who are also MSM. Forty-one percent of non-MSM IDUs also have high risk heterosexual sex partners. (See Table 1, page 21.)
- Finally, 15 percent of the total had high risk heterosexual sex partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System



These bar graphs show the impact of this epidemic on six race and sex groups.

- Black males have both the highest rate per 100,000 population (912) and the highest estimated number (5,470) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Hispanic males have the second highest rate (344) and the fifth highest estimated number (350) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- Black females have the third highest rate (304) and the third highest estimated number (2,080) of cases of HIV/AIDS.
- White males have the fourth highest rate (112) and the second highest estimated number (4,190) of cases.
- Hispanic females have the fifth highest rate (100) and the lowest estimated number (100) of HIV/AIDS.
- White females have the lowest rate (16) and the fourth highest estimated number (640) of HIV/AIDS cases.

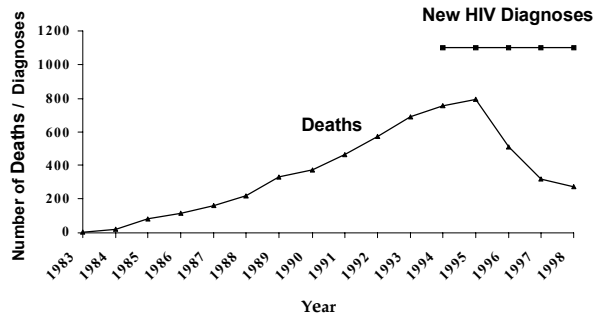


2000 Profile of HIV/AIDS in Michigan

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)

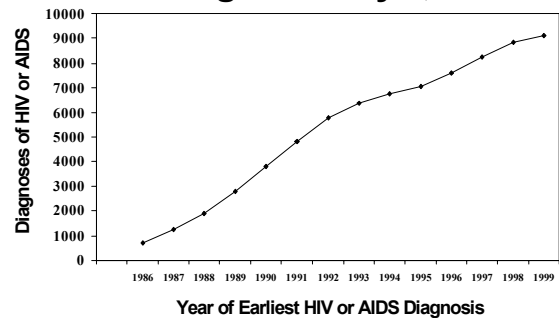
New Diagnoses of HIV and AIDS Deaths in Michigan



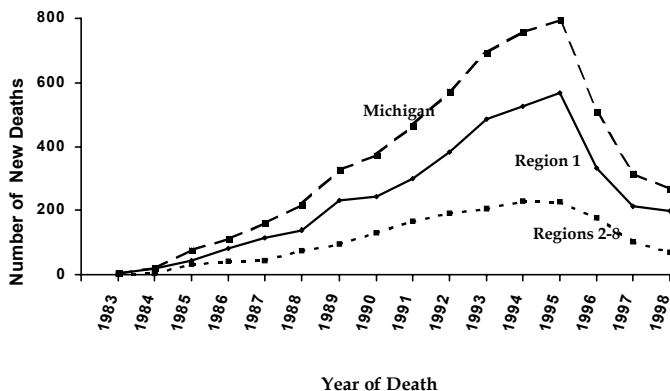
- *New HIV diagnoses (HIV incidence) are level while deaths are declining.* HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 1,100 persons were newly infected each year between 1994 and 1998.

- *The total number of persons living with HIV/AIDS has reached an all-time high and may still be increasing even though new HIV infections are stable and AIDS deaths are dropping.* The graph to the right shows this increase using reported HIV and AIDS cases. These cases comprise everyone reported with HIV in Michigan, including those who also meet the AIDS case definition. Persons who were reported anonymously or those who have not been diagnosed are not represented in this graph.

Michigan Residents Reported Living with HIV or AIDS, through January 1, 2000



AIDS Deaths in Michigan and Regions

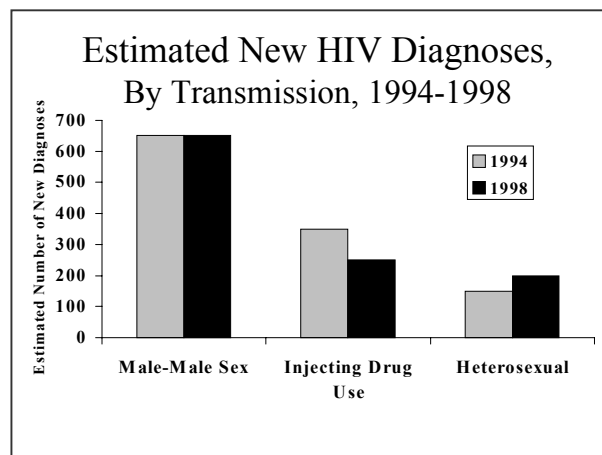


- *The number of HIV related deaths decreased 66 percent between 1995 and 1998.* In the graph to the left, the top line reflects the total deaths for the state of Michigan (the sum of the two lower lines). The middle line represents the number of deaths in Region 1 while the bottom line consists of the deaths from the remaining Regions (2-8).



2000 Profile of HIV/AIDS in Michigan

Transmission of HIV 1994-98: The estimated number of new diagnoses among persons infected heterosexually increased from 150 to 200. New diagnoses among men who have sex with men are stable at 650 persons annually, and diagnoses among injection drug users decreased from 350 to 250 persons. About 50 men who have sex with men also inject drugs and are not included in this graph. There were fewer than 10 persons diagnosed each year who acquired infection from blood products received before 1985, and fewer than 10 infants infected at birth each year.



Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	75%	78%
Females	25%	22%
Whites	32%	37%
Blacks	64%	59%
Hispanics	4%	4%
Other	1%	1%
White Males	27%	32%
Black Males	45%	42%
Hispanic Males	3%	3%
Other Males	0%	0%
White Females	5%	5%
Black Females	19%	16%
Hispanic Females	1%	1%
Other Females	0%	0%
0-12 years	1%	1%
13-19 years	1%	1%
20-24 years	3%	3%
25-44 years	66%	66%
45+ years	29%	30%
HIV+ (Not AIDS)	59%	52%
AIDS	41%	48%
Total HIV Infected	6,558	9,301

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act (RWCA) and related sources.

In 1999, 6,558 HIV-infected persons were reported receiving Ryan White services in the state of Michigan. A comparison also shows that persons receiving Ryan White services were significantly more likely than the reported population to be female, black, or have a diagnosis of HIV not AIDS.

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (9,301), it is apparent that not all persons reported are receiving RWCA-funded services.

“Years” within this table refers to current age, not age at diagnosis.



2000 Profile of HIV/AIDS in Michigan

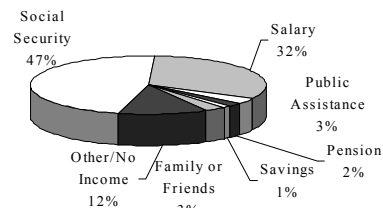
Information from Interviews with HIV-Infected Persons in SE Michigan

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

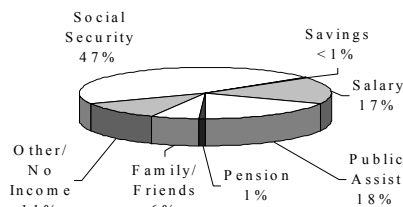
Data presented in this section are from the Supplement to HIV/AIDS Surveillance Project (SHAS). HIV-infected persons in Region 1 who present for care at one of two large tertiary medical centers or one neighborhood clinic system are eligible for a one-time interview. Data are collected on demographic and socioeconomic factors, drug use (alcohol, ingested or injected drugs) needle sharing and cleaning, access to drug treatment, sexual behaviors, condom use, medical and social services, compliance with drug therapies and, for women, reproductive history and child health. Prevention and care planning groups are encouraged to contact the MDCH HIV/AIDS Surveillance Section for data from this project. An analysis of trends among the 2,012 patients interviewed reveals no changes over time.

- At the time of the interview 58 percent had AIDS and 42 percent had HIV/not AIDS; 76 percent are male and 75 percent are black.
- Among the 1,532 male interviewees, 80 percent had greater than or equal to 12 years of education, 36 percent were employed at the time of interview, and 56 percent had an income of \$10,000 or more.
- Among the 480 female interviewees, 59 percent had greater than or equal to 12 years of education, 18 percent were employed at the time of interview and 35 percent had an income of \$10,000 or more.

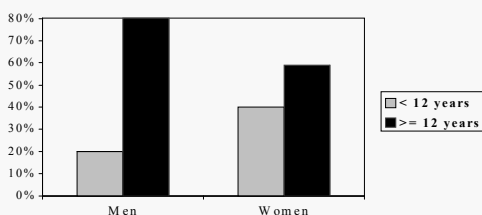
Primary Source of Income Among HIV Infected Men in SE Michigan (n=1,532)



Primary Source of Income Among HIV Infected Women in SE Michigan (n=480)

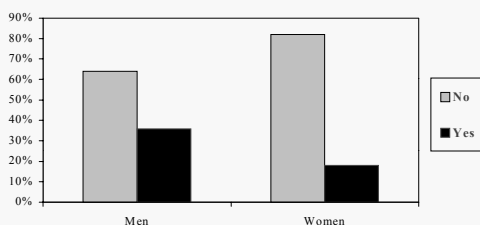


Education Level Among HIV Infected Persons in SE Michigan



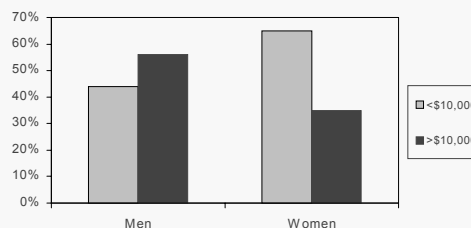
MDCH/Bureau of Epidemiology/Communicable Disease Epidemiology Division/HIV/AIDS Surveillance Section

Employment Among HIV Infected Persons in SE Michigan



MDCH/Bureau of Epidemiology/Communicable Disease Epidemiology Division/HIV/AIDS Surveillance Section

Annual Household Income of HIV- Infected Persons in SE MI



MDCH/Bureau of Epidemiology/Communicable Disease Epidemiology Division/HIV/AIDS Surveillance Section



2000 Profile of HIV/AIDS in Michigan

Sexually Transmitted Diseases

Data from HIV & STD Surveillance

Several sexually transmitted diseases (STDs) are more common than HIV infection and, therefore, reviewing their patterns of transmission can provide additional information regarding sexual behavior and potential risk not available from HIV/AIDS data. Since STDs are usually diagnosed within weeks or months of transmission, diagnosed individuals are more likely to recall and report their recent behaviors.

Several studies have shown that the risk of both acquiring and spreading HIV is two to five times greater in people with STDs. Aggressive STD treatment in a community can help to reduce the rate of new HIV infections.

During 1999 alone, there were over 23,100 cases of chlamydia and 15,900 cases of gonorrhea reported in Michigan. For both diseases, the highest rates of infection are among persons age 15-24. This age group accounts for 15 percent of the Michigan population but roughly 55 percent of gonorrhea and three quarters of chlamydia cases.

Syphilis is diagnosed much less frequently (249 cases in 1999). It is evenly spread among age groups with approximately equal proportions diagnosed and reported among the 5-year age groups between ages 20 and 54 years of age as shown in Table 4 on Page 26.

The rates of these STDs among blacks are much higher than among whites. Even though over one-third of gonorrhea cases and more than one-half of chlamydia cases are missing race information, the rates (number of cases per population) among blacks remain high even if all unknown cases are among whites. Among the syphilis cases reported in 1999, for which almost all cases had race reported, 85 percent were among blacks.

Roughly half of gonorrhea cases and 62 percent of the syphilis cases are among males. However, 82 percent of reported chlamydia cases are among females. This is likely because women are tested more often for chlamydia.

The STD data are displayed in Tables 4 and 5 on pages 26 and 27.

TB and HIV

Data from TB Registry & HARS

As the HIV/AIDS epidemic continues to grow, there are indications of a correlation between those infected with HIV and the resurgence of tuberculosis. There are now a cumulative total of 409 persons known to be co-infected with HIV and TB. These include:

- 334 males (82 percent) and 75 females.
- 331 blacks (81 percent), 54 whites (13 percent), 22 Hispanics, and 2 Asians.
- 251 (61 percent) of the persons have died.
- Age at diagnosis of TB: Four were 0-10 years, one was 10-19 years, 51 were in their 20s, 176 were in their 30s, 135 were in their 40s, 32 were in their 50s, 9 were in their 60s, and one was 70+ years.
- Residence at diagnosis of TB: Eighty-one percent were in Region 1. More specifically, these were: 285 Detroit (70 percent), 23 Wayne, 18 Oakland, 15 Jackson, 14 Kent, nine Washtenaw, eight Berrien, seven Genesee, six Macomb, six Ingham, five Calhoun, four St. Clair, two Saginaw, and one each Allegan, Branch, Chippewa, Grand Traverse, Hillsdale, Kalamazoo, and Muskegon.
- 280 (68 percent) with pulmonary tuberculosis alone, 82 (20 percent) with only extrapulmonary tuberculosis, and 47 (11 percent) with both pulmonary and extrapulmonary tuberculosis.



2000 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys
& Supplement to HIV/AIDS Surveillance Project (SHAS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Michigan. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons with a known risk. MDCH estimates that there are approximately 6,430 MSM living with HIV disease in Michigan. This includes 710 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

The percent of MSM who attended the Sexually Transmitted Diseases (STD) clinics at local health departments in southeast Michigan and who were found to be HIV-infected has been quite high. These rates are 10 percent in Wayne County outside of Detroit (average 1993 –1996), 24 percent in Oakland County (average 1991-1993) and 29 percent (average 1993-1998) in the City of Detroit. Although data from these seroprevalence surveys provide valuable information about clinic attendees, the results can not be generalized to all MSM. The findings are based on a select group of men at the highest risk for contracting HIV — MSM who engage in unprotected sex and have contracted other STDs. In addition, this behavior is likely under-reported at STD clinics, complicating the implications of these rates. This under-reporting leads to a small number of known MSM being tested annually (an average approximately 25 for Detroit and under 20 each for Wayne and Oakland County clinics). Even so, these results suggest that the percent of MSM who are HIV positive is higher than any other behavioral group discussed in these profiles.

Race or Ethnicity:

Having sex with other men infected most males in Michigan. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 4,599), white males (2,396) comprise the majority (52 percent) of men in this combined category; blacks (2,035) account for more than a third (44 percent).

Age: Among those reporting male-male sex, the highest percent of all living cases of HIV/AIDS is found among those aged 30-39 (45 percent). MSM is the predominant mode of transmission for males aged 13 and up.

Geographic Distribution:

Just under two-thirds (63 percent) of HIV-infected MSM statewide reside in Region 1. In both the high and low HIV/AIDS prevalence areas (see map on Page 2), MSM comprise the single largest mode of transmission. Within high prevalence counties MSM are over half of the cases with a known risk (59 percent) while in the lower prevalence counties two-thirds (66 percent) of reported persons living with HIV/AIDS are MSM.

Trends and Conclusions:

MDCH estimates that there are about 650 new HIV infections annually among men who have sex with men. These cases are equally divided between white and black MSM. These numbers were level from 1994-1998.

Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic.

The data also suggest that prevention activities among teenagers and young adults should be geared towards males having sex with other males. These activities should recognize that adolescents at highest risk are those males whose sex partners are older. Older men are more likely to be HIV-infected than are younger males.

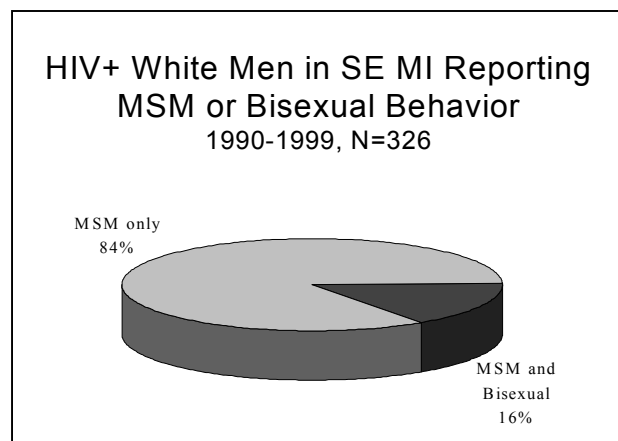
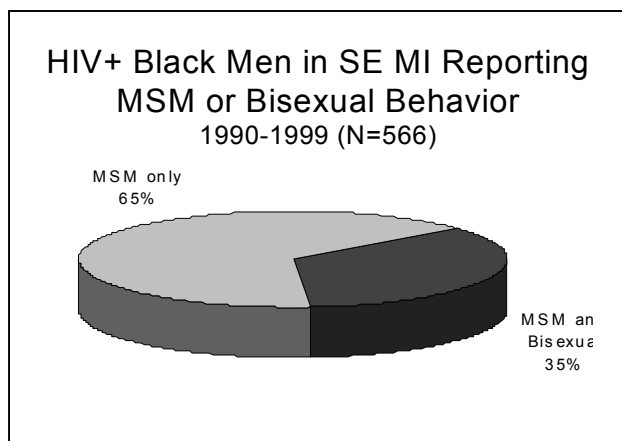


2000 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM (Discussion of Bisexuals)

Data Supplement to HIV/AIDS Surveillance Project (SHAS)
& HIV/AIDS Reporting System (HARS)

In an effort to help focus prevention activities, we present the data which are available on bisexual behavior among HIV-infected persons in Michigan. Detailed behavioral data on MSM in southeast Michigan is available from the SHAS interview study (described on page 6). The SHAS interview asks HIV-infected persons directly about specific behaviors. It is conducted only in SE Michigan and therefore is not representative of all HIV-infected persons in the state. Of all male SHAS respondents, 59 percent report having sex with other men in the five years prior to the interview. This reinforces the ranking of MSM as the number one behavior risk for HIV in Michigan. As shown in the graphs below, 35 percent of black MSM also report having sex with women; while 16 percent of white MSM report having sex with women.



Case reporting data is collected statewide but has only limited information on bisexual behaviors. Case reports are usually completed by health care providers reviewing medical records rather than through interviews of the infected person. Only 59 percent of all case reports have complete answers to both questions, "has the patient had sex with men," and "has the patient had sex with women." Based on these complete forms, 35 percent of all MSM reported also having sex with women since 1977. These complete forms also show that 4 percent of women report having sex with bisexual men. There are no changes over time. These data from case reporting should be viewed as minimum estimates of these behaviors.



2000 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys
& Supplement to HIV/AIDS Surveillance Project (SHAS)

Number of Cases

Injecting drug users (IDUs) are the number two ranked behavioral group in Michigan. IDU are the second largest behavioral group affected by this epidemic and account for almost a third of reported infected persons with a known risk. MDCH estimates there are approximately 3,300 IDUs living with HIV disease in Michigan. This estimate includes 710 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals, infants, and MSM. Over one-third (41 percent) of the reported cases among non-MSM IDUs also had high risk heterosexual sex partners. Additionally, of the 1,138 cases with reported heterosexual risk, 437 individuals (38 percent) also reported having IDU as partners. Sixty-two percent of perinatally infected infants (infants infected at birth) have an IDU as a mother or have a mother whose partner is an IDU.

When these linked populations are considered, IDU-related transmission accounts for 37 percent (2,871 cases) of people reported with HIV disease and having a known risk in Michigan. This is similar to the nationwide picture.

Western Michigan Drug Treatment HIV Seroprevalence Study

From June 1998 to March 1999 an anonymous, unlinked HIV seroprevalence study was conducted among 1,120 persons receiving drug treatment through a drug and alcohol treatment center in Kent County. From these participants 1,115 HIV test results were available and revealed an overall seroprevalence of 1.3 percent (15 persons).

One-fifth of all clients had ever injected drugs, and 61 percent of IDUs had injected in the last 12 months, with heroin being the primary drug injected. Six HIV-infected persons (40 percent) had ever injected drugs, and three of these had injected in the last 12 months. One-third of IDU, including three HIV-infected IDU, had shared works since 1978.

HIV seroprevalence was higher among IDU than non-IDU (2.6 percent versus 1 percent), but the majority of the HIV-infected (60 percent) did not report injecting drugs and their risk factors were not known. Although HIV seroprevalence among white males was low in this population, they accounted for the largest proportion of IDU

Race or Ethnicity, and Gender:

Of the 2,363 IDU HIV/AIDS cases, 1,177 are black men (50 percent), 573 are black women (24 percent), 384 are white men (16 percent), 121 are white women (5 percent), 69 are Hispanic men (3 percent) and 22 are Hispanic women (1 percent). In total, nearly three quarters (1,750 cases) of the cases occur in black IDU. (Thirteen cases were of unknown race. Refer to Table 2, page 24.)

Approximately two-thirds of the cases are men (69 percent) and one-third are women (31 percent). Among the 723 women whose HIV infection has been attributed to IDU, almost half (49 percent) also report high-risk heterosexual sex partners.

Additional behavioral data on IDUs and other drug users in southeast Michigan is known from the SHAS interview (described on page 6 and displayed on graphs on page 11). Of the 2,012 persons interviewed in SHAS, 25 percent injected drugs at some time during their lives and 10 percent injected in the five years prior to interview. Of these recent injectors, 82 or 40 percent reported sharing needles in the last five years. Questions used to screen interviewees for potential alcoholism reveal that 22 percent of female and 20 percent of male interviewees are potential alcoholics.

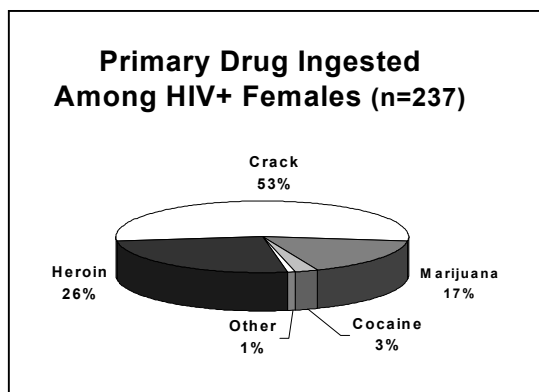
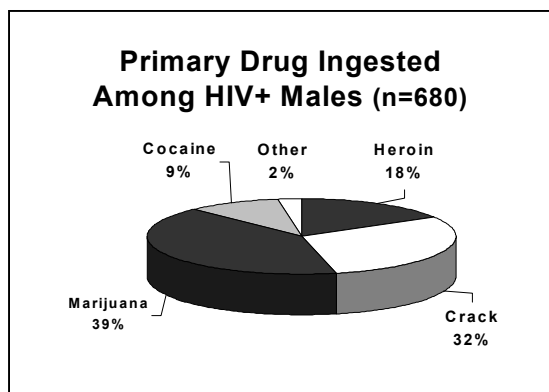


2000 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: IDU (Continued)

Race or Ethnicity, and Gender (Continued):

Other drug use information shows that 67 percent of females and 55 percent of males used some kind of illegal drug in the past. Among these respondents, the non-injected primary drug for women was crack cocaine and for men marijuana, followed closely by crack. These are shown in the pie charts below.



Age:

Among men with a known risk in each age group over 19 years, IDU is the second most common mode of transmission. Forty percent of all the male IDU cases are recorded among men in their forties (20 percent of these were MSM/IDU).

IDU is the predominant mode of transmission for women aged 30-49 years (57 percent of cases with known risk). Among the 570 females IDUs in this age group, 49 percent of them also reported high risk heterosexual partners.

There are very few cases of HIV/AIDS attributed to IDU among teenagers (10) and half of those are among MSM/IDU; the proportion among those in their twenties is small (15 percent of cases with a known risk).

Geographic Distribution:

IDU is a more common mode of transmission in the higher prevalence areas of the state (see map on page 2). Within high prevalence counties, just under a third of cases with a known risk (30 percent) are IDU, while in the lower prevalence counties 20 percent of persons living with HIV/AIDS are IDU. These percentages include IDU males who are also MSM.

Trends and Conclusions:

The number of new HIV diagnoses among IDUs (including MSM/IDU) decreased between 1994 and 1998, from approximately 350 to 250 new HIV infections annually. Some of these persons also have heterosexual exposures, since IDUs are more likely to have IDU sex partners than are persons who do not inject drugs. In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.

Between 5 percent and 8 percent of IDUs referred through the Detroit Health Department drug treatment Central Intake Facility test positive for HIV. This has not changed statistically over time. The infection rate among IDUs who are not in treatment is unknown.



2000 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group/Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three-ranked behavioral group in Michigan. Heterosexual sex accounts for 15 percent of reported infected persons with a known risk. MDCH estimates that 1,590 persons living with HIV disease in Michigan were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

Currently there are an estimated 1,060 infected persons who are classified as IDUs but who also had one or more heterosexual sex partner(s) who engaged in high risk behaviors (i.e., IDU, bisexual). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. Among reported cases, the dual risk IDU/heterosexual cases comprise 10 percent of all reported HIV/AIDS cases with a known risk and are 54 percent men and 46 percent women.

The rate of HIV positives measured among heterosexual attendees of the Detroit STD clinic, who are likely among the highest risk heterosexuals in the state, averaged under 1 percent (0.8 percent) positive in the annual seroprevalence surveys done 1993-1998. Seroprevalence surveys done in 1996 at the Berrien and Saginaw counties STD clinics (Regions 3 and 6 respectively) each measured lower seropositive rates of 0.2 percent with the few positives being among black women at each clinic. Rates of HIV infection among heterosexuals outside of these two counties and the Detroit metropolitan area are likely even lower.

Race or Ethnicity, and Gender:

Among females reported with HIV/AIDS and a known risk, half (50 percent) of cases are contracted heterosexually. Virtually the same proportion, 45 percent, were infected through IDU. Among women with a known risk, 22 percent are IDUs who also had high risk heterosexual sex partners. These data underscore the point that these two modes of transmission are closely intertwined for women.

Among the 1,138 men and women living with HIV/AIDS and infected heterosexually, 38 percent reported their heterosexual partner as injecting drug users, 5 percent as bisexual men (this applies to women only) and 3 percent as persons infected through blood products. Over half (54 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

While women account for 22 percent of all reported HIV/AIDS cases in Michigan, they have consistently accounted for over two-thirds of heterosexually acquired infections -- currently 70 percent.

Nearly one half of black women were infected heterosexually (45 percent). Among Hispanic and white women, nearly two-thirds of each group were infected through heterosexual sex (Hispanic women 63 percent, white women 62 percent).

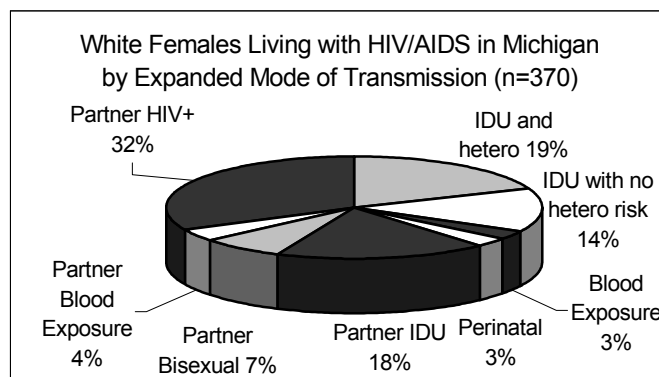
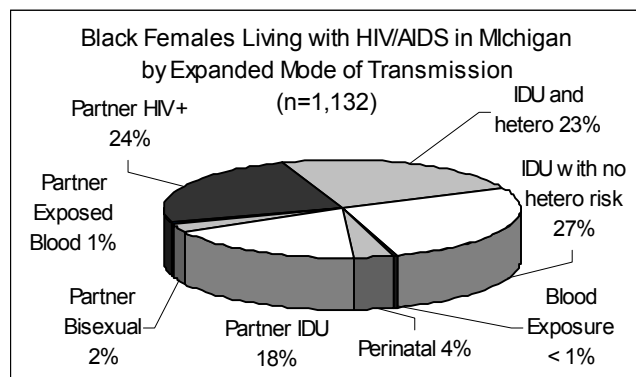
Most heterosexual cases of HIV/AIDS are black--65 percent of female and 72 percent of male heterosexually transmitted HIV/AIDS cases. The percent of men infected heterosexually is low--5 percent of cases among men of all races with a known risk.



2000 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: Heterosexuals (Continued)

The definition for heterosexual transmission for females includes sub-categories to help better describe risk to women. To be reported as a heterosexual transmission case, a female must have a male partner who is HIV-infected, a bisexual, or an IDU. Heterosexual and IDU modes of transmission and associated sub-categories for infected black and white women with known risk are shown in the two pie charts below.



Age:

For women between the ages of 13 and 29, heterosexual transmission is the predominant mode. Among women 30-49, IDU supercedes heterosexual transmission.

Geographic Distribution:

The 1,090 persons living with HIV/AIDS who acquired HIV heterosexually (prisoners excluded) are located proportionately throughout the state. In both the high and low prevalence areas (see map on page 2), they comprise 15 percent of cases reported with a known risk.

Trends and Conclusions:

Heterosexual transmission is the sole mode of transmission with a definite upward trend. MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission increased from 150 to 200 annually from 1994 to 1998. Although the proportion of cases attributable to heterosexual transmission is increasing, from 14 percent in 1994 to 19 percent in 1999, it is still a lower proportion of cases than among MSMs (52 percent) and IDUs (24 percent).

The data 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 high risk heterosexuals compared with MSMs, this mode of transmission is unlikely to surpass that of MSM. However, the overlapping risk of high risk heterosexuals with IDU makes it difficult to predict whether heterosexually acquired cases will equal or surpass, in the future, those classified as IDU.



2000 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

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 (58 percent) of the cases of HIV/AIDS. MDCH estimates 7,560 blacks live with HIV/AIDS in Michigan. The rate of HIV infection among blacks is 589 per 100,000 population, nine times higher than the rate among whites. MDCH estimates that as many as one out of 110 black males and one out of 330 black females may be HIV-infected.

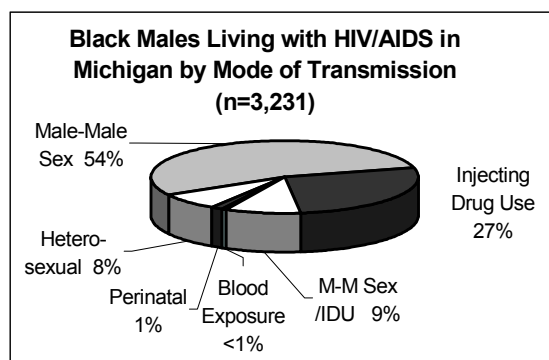
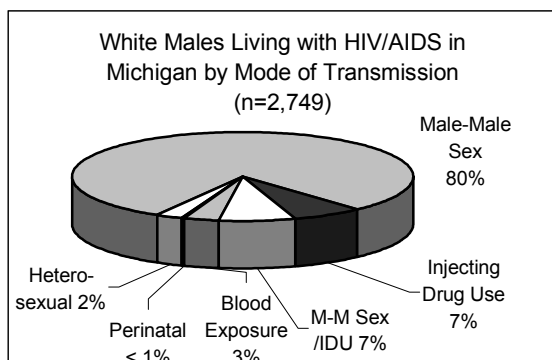
White persons comprise over a third (37 percent) of reported HIV/AIDS cases and 82 percent of Michigan's population. MDCH estimates 4,830 whites live with HIV/AIDS in the state. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than blacks or Hispanics (63 per 100,000 population). MDCH estimates that as many as one out of 890 white males and one out of 6,130 white females may be HIV-infected.

Hispanics comprise 3 percent of cases and 2 percent of the population. MDCH estimates 450 Hispanics live with HIV/AIDS in Michigan. However, the relatively few cases are spread out among a small population and therefore they have a rate higher than that among whites (223 per 100,000 population). MDCH estimates that as many as one out of 290 Hispanic males and one out of 1,000 Hispanic females may be HIV-infected.

Most persons living with HIV/AIDS in Michigan in 1998 are male (78 percent) and this proportion has decreased over time from 85 percent in 1991. Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 22 percent of the infected population in Michigan.

Mode of Transmission:

The following pie charts display the proportion of black and white male cases by mode of transmission among those with known transmission (refer to page 13 for black and white female distributions).



- The majority of the 6,242 male HIV/AIDS cases are black (52 percent), 44 percent white, 3 percent Hispanic and 1 percent are other or unknown race with known risk.
- The majority of the 2,053 female HIV/AIDS cases with known risk are black (73 percent), just under one-quarter (22 percent) are white, four percent are Hispanic and one percent are other or unknown race (refer to page 13 for female heterosexual transmission breakdown.)

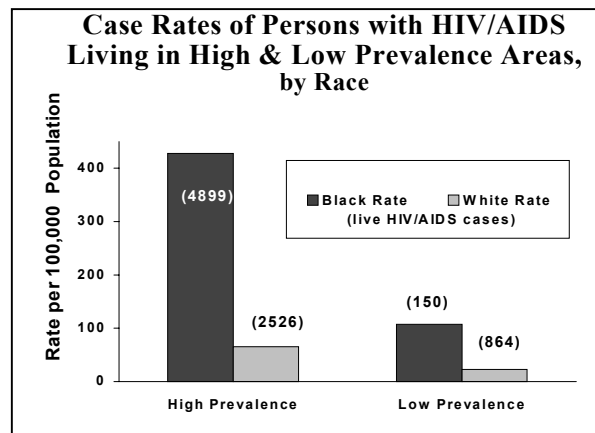


2000 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Race and Sex (Continued)

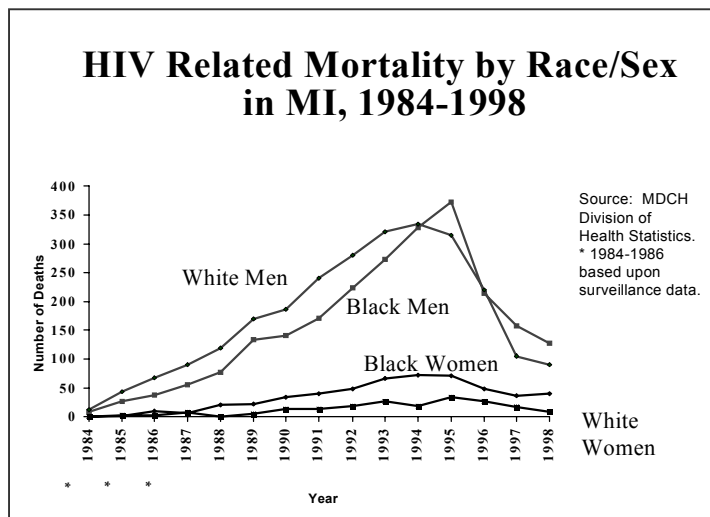
Geographic Distribution of Cases by Race:

Looking at the proportions of cases by race in a particular area of the state (i.e., number of black cases/total number of cases) does not fully measure the impact of this disease. This is because the proportions of whites and blacks living in high and low prevalence areas are different. Therefore, instead of proportions, rates are used (number of black cases/total number of blacks living in that area). The bar graph shows that the HIV/AIDS case rate among blacks is five to seven times higher than the rate among whites in both high and low prevalence areas of the state, even though there are many fewer cases among blacks in the low prevalence areas. This shows that this disease disproportionately affects blacks in both high and low prevalence areas of Michigan.



Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks has increased from 700 to 750 between 1994 and 1998. During this same time period, the estimated annual number among whites has decreased from 400 to 300. New HIV infections diagnosed among Hispanics has increased but remains under 50 persons annually.



Trends in new HIV diagnoses among males and females do show different patterns. The number of males newly diagnosed with HIV each year is decreasing from about 900 new infections a year to 850. Among females the number appears to have increased from 200 to 250.

The proportion of new cases among men has decreased from 80 percent to 76 percent of new HIV diagnoses between 1994 and 1998.

The graph on the left shows that HIV related mortality dropped for all four race and sex groups. The number of deaths among Hispanics was too small to appear on this graph. The decline in deaths was marked in all groups, but was more rapid among whites (71 percent) compared with

blacks (62 percent), and among men (68 percent) compared with women (51 percent).

When all the data are considered for the three behavioral groups discussed in this document, the consistent impact across transmission behaviors that this epidemic is having on blacks is apparent. The number of new HIV diagnoses among blacks is increasing and their HIV/AIDS rate is still nine times higher than the rate among whites. Every region in Michigan should look closely at its own data to discern whether this disproportionate impact on blacks holds true for its area as well.



2000 Profile of HIV/AIDS in Michigan

Description of the Epidemic Among Children (0-12)

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

MDCH estimates that there are 190 children, ages 0-12, living with HIV/AIDS in Michigan. Children in this age group comprise 1.4 percent of the reported infected persons. Most of them (87 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding. There have not been any documented cases of this kind of transmission in Michigan). Of the remaining children, 9 percent were infected via blood exposure before 1985. (Although blood products are relatively safe, prior to 1985, this was not the case. The 0-12 age group describes age at the diagnosis of HIV/AIDS, not current age. Therefore, these blood exposure cases are all likely pre-1985.)

Fewer than 2 percent of children 0-12 with known risk have been infected sexually.

Description of Cases in Children:

Children, ages 0-12, infected with HIV are 56 percent male and 44 percent female. Among the 123 young children reported with HIV/AIDS about three quarters are black, one quarter are white and 2 percent are Hispanic or of unknown race.

Of the 114 children infected perinatally, 47 percent had a mother who was an IDU, and 17 percent the mother was not known to be an IDU but one or more of her sex partners were IDUs. An additional 18 percent had mothers with HIV-infected sex partners but for whom additional risk information was unavailable. For 17 percent all that was known about the mother is that she was HIV-infected with no additional risk information.

Geographic Distribution of Infected Children:

Most (76 percent) young children infected with HIV in Michigan (perinatal cases) are residents of southeast Michigan.

Trends and Conclusions:

The best measurable success in reducing HIV transmission has been among the perinatally infected cases. 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 becoming infected has dropped from 25 percent in 1992 to 3 percent in 1998. As of April 1, 2000, two of the 62 children born to HIV-infected women in 1998 in Michigan have been diagnosed with HIV infection.



2000 Profile of HIV/AIDS in Michigan

Description of the Epidemic Among Teens and Young Adults (13-24)

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys
& Data from HIV & STD Surveillance, & Job Corps

Number of Cases:

MDCH estimates that there are about 1,420 persons currently living in Michigan who were ages 13-24 years when they were diagnosed with HIV. They comprise 11 percent of all persons reported with HIV/AIDS in Michigan (2 percent age 13-19 years; 9 percent age 20-24 years). The rate of HIV/AIDS among these young people is lower than the rate among those aged 25-44 years. The level of incident and prevalent cases among persons age 13-24 years is not as high as the level among persons age 25-44 years. However, some young people are at particularly high risk. Specifically these are youth who live in areas with high HIV prevalence and who have sex partners who are age 20 or older.

STD rates are highest in these age groups. The STD data are shown on pages 26 and 27. In persons age 15-24 years, the rate of chlamydia is almost three times higher and the rate of gonorrhea is two times higher than as among persons age 25-29 years (please refer to the Sexually Transmitted Diseases section for a discussion of these high rates).

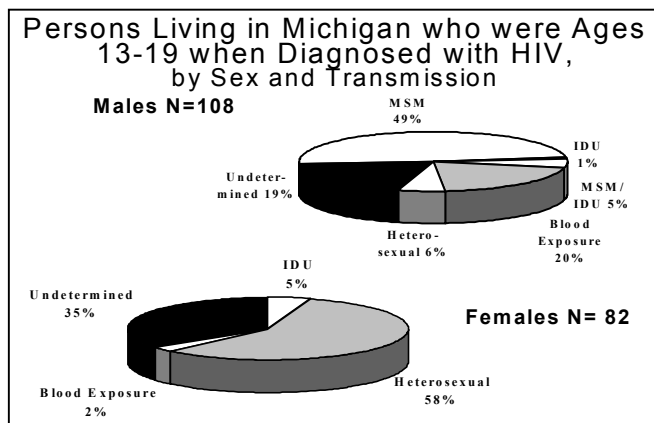
The Job Corps training program for disadvantaged youth performs HIV testing for all entrants. Since testing began in 1988 there have been 24 positives out of over 12,000 tests among Michigan residents (less than one quarter of one percent) and there is no increase over time. All but one of the positives were in black youth and, proportional to the epidemic in Michigan, 79 percent were from the Detroit Metro Area; most (17 or 71 percent) were among males.

Teen pregnancy rates have shown decreases over time. The Kids Count project reports that the number of teenagers aged 15-19 years in Detroit who gave birth dropped nearly 40 percent between 1991 and 1996 from 5,425 births in 1991 to 3,315 in 1996. However, in Wayne County and the City of Detroit, the areas with the highest teen pregnancy rates in the state (103 per 1,000 in Wayne County outside of Detroit and 139 in the City of Detroit), the 1997 rates among teens actually exceeded the rates among persons age 15-44 years. The statewide teen rate in 1997 was about 74 pregnancies per 1,000 females aged 15-19 years. In Regions 2-7, the 1997 rates are about 60-80; in Region 8, about 40 and in Region 1, a high of 93. In each region as a whole the rate among teens is lower than the rates among persons age 15-44 years.

MDCH conducted adolescent seroprevalence surveys in Detroit/Wayne County between 1990 and 1995. These surveys were conducted at two adolescent health care clinics and one youth detention facility where HIV seroprevalence was measured in homeless youth. These three surveys all showed extremely low numbers of HIV-infected youth; eight infected youth out of more than 3,000 tested (less than one quarter of one percent positive). These youth were among the highest risk youth in the region and the state. They lived in the county with the highest rate of HIV (Wayne County including Detroit), most were sexually active and some were homeless. Therefore, fewer positives would be expected among youth that live in other areas of the state.

Mode of Transmission:

Teenagers: When discussing mode of transmission in other sections, those individuals with unknown risk were left out of percentage calculations. However, the unknown category for teenagers and young adults is too large to omit. Historically, 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.





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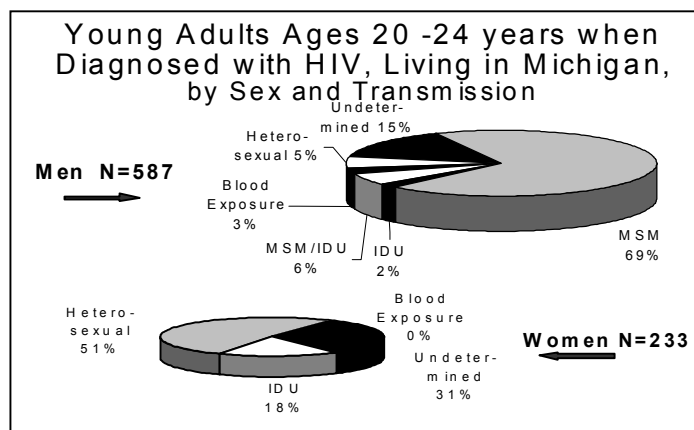
Additional Discussions: Teens and Young Adults (Continued)

Among the 190 teenagers (13-19) living with HIV in Michigan, 108 (57 percent) are male. Among these male cases, over half had sex with other males (54 percent) which includes the MSM/IDU cases while 20 percent had been infected with HIV through blood products before 1985. Only 6 percent could be attributed to IDU (including MSM/IDU) and 7 percent to heterosexual transmission. Teenage males have the largest proportion of unidentified risk compared with any other age group of men under age 60. Experience with investigating such persons shows that it is likely that many of these males were infected through having sex with other males.

Among the 82 teenage females living with HIV in Michigan, over half (57 percent) were infected through heterosexual sex; 5 percent (<5 females) were IDUs. Similar to males of this age, there is a relatively large number who did not report a mode of transmission (29 females or 35 percent). Most of these females were probably infected heterosexually.

Young Adults: Among the 820 young adults ages 20-24 years infected with HIV, almost three quarters (72 percent) are male. Three quarters of them reported sex with other males (including those MSM who also are IDU); 15 percent did not report a mode of transmission. Many of these were likely infected through sex with other men.

Among the 233 young women living with HIV, over half (51 percent) were infected heterosexually and 18 percent were IDUs; just under a third did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually.



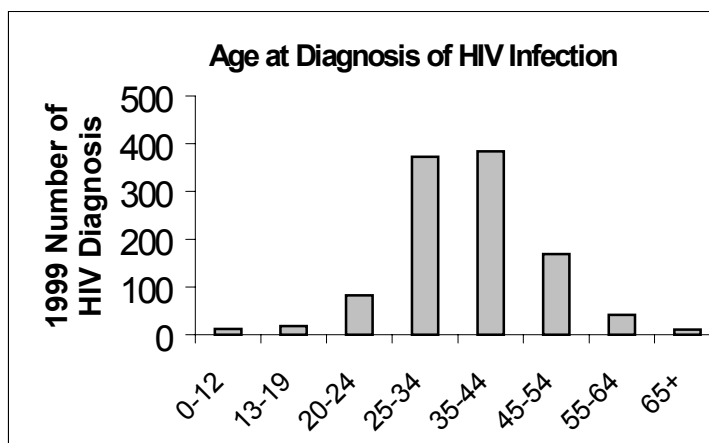
Geographic Distribution of Youth and Teen Cases:

The 1,010 persons diagnosed and reported with HIV/AIDS in these age groups (13-24) are located proportionately throughout the state. In the high and low prevalence areas (see map on Page 3) they comprise 10 percent and 12 percent of reported cases respectively.

Trends and Conclusions:

The number of new cases among person age 13-24 years has remained level. Although this group comprises 5 percent of persons living with AIDS and 16 percent of those living with HIV/not AIDS, this is likely a reflection that HIV is generally diagnosed before AIDS. Consequently you would expect those without an AIDS diagnosis to be younger than those with AIDS.

Each region should consider both the behaviors of youth that increase the risk of HIV transmission and the likelihood that their partners for these behaviors are HIV-infected. Given the small number of infected persons in these age groups, it is likely that most are infected by older partners (25+).





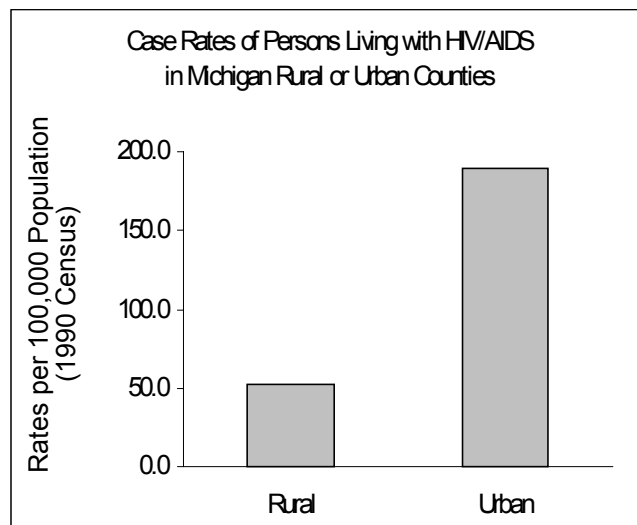
2000 Profile of HIV/AIDS in Michigan

Additional Discussions: Rural Issues

Data from HIV/AIDS Reporting System (HARS)

In an effort to help to identify needs within the HIV/AIDS epidemic specific to rural localities, the Michigan HIV/AIDS Council (MHAC) has formed a Rural HIV Prevention Work Group. This group defines rural as non-metropolitan counties that contain cities and towns with a population less than 50,000. In addition to these areas, the following counties are included because of their social, geographic and service availability issues: Bay, Berrien, Calhoun, Clinton, Eaton, Jackson, Kalamazoo, Lapeer, Lenawee, Livingston, Midland, Monroe, Muskegon, Ottawa, St. Clair and Van Buren.

Using this definition, the reported cases were divided into rural or urban categories. Rural cases constitute 40 percent of reported cases (1,920). The estimated rate of infection in rural areas is 52 per 100,000. However, the rate for urban areas is three and one half times higher (189 per 100,000).



Due to low numbers, useful findings can not be provided through the further breakdown of rural cases by other categories.

Table 1: Statewide Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan
Prisoners and persons with unknown residence are included
January 1, 2000

Statewide Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% ⁴			% ⁴
Male	10,130	7,248	77.9%	224.5	4,512,730	49%
White Males	4,190	3,000	32.3%	112.2	3,735,020	40%
Black Males	5,470	3,916	42.1%	912.4	599,497	6%
Hispanic Males	350	249	2.7%	343.8	101,804	1%
Asian Males	10	9	0.1%	19.8	50,499	1%
American Indian Males	30	21	0.2%	115.8	25,910	0%
Unknown Race Males	N/A	53	0.6%	N/A	0	N/A
Female	2,870	2,053	22.1%	60.0	4,782,567	51%
White Females	640	456	4.9%	16.3	3,918,879	42%
Black Females	2,080	1,490	16.0%	303.6	685,071	7%
Hispanic Females	100	75	0.8%	100.2	99,794	1%
Asian Females	10	8	0.1%	19.2	52,138	1%
American Indian Females	20	11	0.1%	74.9	26,685	0%
Unknown Race Females	N/A	13	0.1%	N/A	0	N/A
White	4,830	3,456	37.2%	63.1	7,653,899	82%
Black	7,560	5,406	58.1%	588.5	1,284,568	14%
Hispanic	450	324	3.5%	223.2	201,598	2%
Asian	20	17	0.2%	19.5	102,637	1%
American Indian	40	32	0.3%	76.1	52,595	1%
Unknown Race	N/A	66	0.7%	N/A	0	N/A
Male-Male Sex	5,720	4,089	52.2% [^]	N/A		
Injecting Drug Use	2,590	1,853	23.7% [^]	N/A		
<i>IDU with heterosexual risk[#]</i>	<i>1,060</i>	<i>760</i>	<i>9.7%</i> [^]	<i>N/A</i>		
<i>IDU without heterosexual risk[#]</i>	<i>1,530</i>	<i>1,093</i>	<i>14.0%</i> [^]	<i>N/A</i>		
M-M Sex and Inject Drugs	710	510	6.5% [^]	N/A		
Blood Exposure[†]	180	128	1.6% [^]	N/A		
Heterosexual	1,590	1,138	14.5% [^]	N/A		
<i>Partner IDU</i>	<i>610</i>	<i>437</i>	<i>5.6%</i> [^]	<i>N/A</i>		
<i>Partner Bisexual[#]</i>	<i>80</i>	<i>57</i>	<i>0.7%</i> [^]	<i>N/A</i>		
<i>Partner Blood Exp</i>	<i>40</i>	<i>31</i>	<i>0.4%</i> [^]	<i>N/A</i>		
<i>Partner HIV+</i>	<i>860</i>	<i>613</i>	<i>7.8%</i> [^]	<i>N/A</i>		
Perinatal	160	114	1.5% [^]	N/A		
Known Risk Total	10,950	7,832	100.0% [^]	N/A		
Unknown Risk	N/A	1,469	15.8% [^]	N/A		
0 - 4 years	130	94	1.0%	18.2	713,578	8%
5 - 9 years	40	26	0.3%	5.8	690,138	7%
10-12 years	20	11	0.1%	4.9	409,042	4%
13 -19 years	270	190	2.0%	28.2	956,731	10%
20 -24 years	1,150	820	8.8%	162.8	706,575	8%
25 -29 years	2,090	1,495	16.1%	273.5	764,264	8%
30 -34 years	2,820	2,019	21.7%	348.0	810,420	9%
35 -39 years	2,560	1,829	19.7%	343.7	744,802	8%
40 -44 years	1,960	1,399	15.0%	298.1	657,391	7%
45 -49 years	1,070	768	8.3%	205.7	520,093	6%
50 -54 years	520	372	4.0%	122.6	424,090	5%
55 -59 years	220	160	1.7%	56.2	391,190	4%
60 -64 years	90	67	0.7%	22.3	402,882	4%
65 and over	70	49	0.5%	6.3	1,104,101	12%
Unknown Age	N/A	*	*	N/A	0	N/A
REGION 1	8,940	6,088	68.8%	213.3	4,191,886	45%
REGION 2	580	397	4.5%	90.7	639,814	7%
REGION 3	910	616	7.0%	89.4	1,017,599	11%
REGION 4	470	318	3.6%	108.8	431,836	5%
REGION 5	930	630	7.1%	87.9	1,057,755	11%
REGION 6	880	596	6.7%	79.7	1,104,694	12%
REGION 7	200	135	1.5%	37.2	537,798	6%
REGION 8	100	68	0.8%	31.9	313,915	3%
Total for Regions 1- 8	12,450	8,848	95.8%	N/A		
In Prison⁵	550	390	4.2%	N/A		
Total Known Residence	13,000	9,238	100.0%	139.9	9,295,297	100%
Unknown Residence	N/A	63	0.7%	N/A		
Statewide Total	13,000	9,301	100.0%	139.9	9,295,297	100%

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

⁴ Totals for counties or regions includes infected prisoners redistributed to their county or region of origin

⁵ Estimated HIV Infection *In Prison*, included in the above total

Table 1a : Statewide Distribution of HIV/AIDS Prevalence Estimates by County
Reported Cases, and Population Within Michigan
Prisoners and persons with unknown residence are included
January 1, 2000

Statewide Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% ^			% ^
ALCONA CO.	10	*	*	*	10,145	0.1%
ALGER CO.	10	*	*	*	8,972	0.1%
ALLEGAN CO.	80	55	0.6%	88.4	90,509	1.0%
ALPENA CO.	10	5	0.1%	32.7	30,605	0.3%
ANTRIM CO.	10	*	*	*	18,185	0.2%
ARENAC CO.	10	*	*	*	14,931	0.2%
BARAGA CO.	10	7	0.1%	125.7	7,954	0.1%
BARRY CO.	20	12	0.1%	40.0	50,057	0.5%
BAY CO.	80	53	0.6%	71.6	111,723	1.2%
BENZIE CO.	10	*	*	*	12,200	0.1%
BERRIEN CO.	180	121	1.4%	111.5	161,378	1.7%
BRANCH CO.	10	7	0.1%	24.1	41,502	0.4%
CALHOUN CO.	140	97	1.1%	103.0	135,982	1.5%
CASS CO.	30	19	0.2%	60.6	49,477	0.5%
CHARLEVOIX CO.	10	9	0.1%	46.6	21,468	0.2%
CHEBOYGAN CO.	10	*	*	*	21,398	0.2%
CHIPPEWA CO.	20	13	0.1%	57.8	34,604	0.4%
CLARE CO.	10	10	0.1%	40.1	24,952	0.3%
CLINTON CO.	20	16	0.2%	34.6	57,883	0.6%
CRAWFORD CO.	10	5	0.1%	81.6	12,260	0.1%
DELTA CO.	10	9	0.1%	26.5	37,780	0.4%
DETROIT	5,830	3969	44.9%	567.1	1,027,974	11.1%
DICKINSON CO.	10	8	0.1%	37.3	26,831	0.3%
EATON CO.	30	22	0.2%	32.3	92,879	1.0%
EMMET CO.	10	6	0.1%	39.9	25,040	0.3%
GENESEE CO.	500	337	3.8%	116.2	430,459	4.6%
GLADWIN CO.	10	*	*	*	21,896	0.2%
GOGEBIC CO.	10	*	*	*	18,052	0.2%
GRAND TRAVERSE CO.	40	26	0.3%	62.2	64,273	0.7%
GRATIOT CO.	10	*	*	*	38,982	0.4%
HILLSDALE CO.	10	7	0.1%	23.0	43,431	0.5%
HOUGHTON CO.	10	5	0.1%	28.2	35,446	0.4%
HURON CO.	10	*	*	*	34,951	0.4%
INGHAM CO.	410	282	3.2%	145.4	281,912	3.0%
IONIA CO.	20	16	0.2%	35.1	57,024	0.6%
IOSCO CO.	10	6	0.1%	33.1	30,209	0.3%
IRON CO.	10	*	*	*	13,175	0.1%
ISABELLA CO.	10	10	0.1%	18.3	54,624	0.6%
JACKSON CO.	100	70	0.8%	66.8	149,756	1.6%
KALAMAZOO CO.	290	198	2.2%	129.8	223,411	2.4%
KALKASKA CO.	10	*	*	*	13,497	0.1%
KENT CO.	660	449	5.1%	131.8	500,631	5.4%
KEWEENAW CO.	10	*	*	*	1,701	0.0%
LAKE CO.	10	7	0.1%	116.5	8,583	0.1%
LAPEER CO.	20	16	0.2%	26.7	74,768	0.8%
LEELANAU CO.	10	10	0.1%	60.5	16,527	0.2%
LENAWEE CO.	40	29	0.3%	43.7	91,476	1.0%
LIVINGSTON CO.	20	14	0.2%	17.3	115,645	1.2%
LUCE CO.	10	*	*	*	5,763	0.1%
MACKINAC CO.	10	*	*	*	10,674	0.1%
MACOMB CO.	470	318	3.6%	65.5	717,400	7.7%
MANISTEE CO.	10	7	0.1%	47.0	21,265	0.2%
MARQUETTE CO.	30	19	0.2%	42.3	70,887	0.8%
MASON CO.	20	11	0.1%	78.3	25,537	0.3%
MECOSTA CO.	10	9	0.1%	26.8	37,308	0.4%
MENOMINEE CO.	10	*	*	*	24,920	0.3%
MIDLAND CO.	30	21	0.2%	39.7	75,651	0.8%
MISSAUKEE CO.	10	*	*	*	12,147	0.1%
MONROE CO.	40	28	0.3%	29.9	133,600	1.4%
MONTCALM CO.	30	18	0.2%	56.5	53,059	0.6%
MONTMORENCY CO.	10	*	*	*	8,936	0.1%
MUSKEGON CO.	100	68	0.8%	62.9	158,983	1.7%
NEWAYGO CO.	20	11	0.1%	52.4	38,202	0.4%

* Indicates there are fewer than five reported cases

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (Estimated HIV Infection/1990 Census) * 100,000

Table 1a: Statewide Distribution of HIV/AIDS Prevalence Estimates by County (Continued)
Reported Cases, and Population Within Michigan
Prisoners and persons with unknown residence are included
January 1, 2000

Statewide Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% ⁴			% ⁴
OAKLAND CO.	1,290	879	9.9%	119.0	1,083,592	11.7%
OCEANA CO.	10	6	0.1%	44.5	22,454	0.2%
OGEMAW CO.	10	*	*	*	18,681	0.2%
ONTONAGON CO.	10	*	*	*	8,854	0.1%
OSCEOLA CO.	10	*	*	*	20,146	0.2%
OSCODA CO.	10	*	*	*	7,842	0.1%
OTSEGO CO.	10	6	0.1%	55.7	17,957	0.2%
OTTAWA CO.	70	46	0.5%	37.3	187,768	2.0%
PRESQUE ISLE CO.	10	*	*	*	13,743	0.1%
ROSCOMMON CO.	10	7	0.1%	50.6	19,776	0.2%
SAGINAW CO.	190	131	1.5%	89.6	211,946	2.3%
SANILAC CO.	10	8	0.1%	25.0	39,928	0.4%
SCHOOLCRAFT CO.	10	*	*	*	8,302	0.1%
SHIAWASSEE CO.	20	17	0.2%	28.7	69,770	0.8%
ST CLAIR CO.	70	51	0.6%	48.1	145,607	1.6%
ST JOSEPH CO.	30	23	0.3%	50.9	58,913	0.6%
TUSCOLA CO.	10	9	0.1%	18.0	55,498	0.6%
VAN BUREN CO.	80	55	0.6%	114.2	70,060	0.8%
WASHTENAW CO.	420	284	3.2%	148.4	282,937	3.0%
WAYNE CO.	1,240	843	9.5%	114.4	1,083,713	11.7%
WEXFORD CO.	10	7	0.1%	37.9	26,360	0.3%
Total for Regions 1- 8⁴	13,000	8,807	95.3%	139.9	9,295,297	100%⁴
<i>In Prison⁵</i>	440	390	4.2%	N/A		
Total Known Residence	13,000	9,238	100%	N/A		
Unknown Residence	N/A	63	0.7%	N/A		
Statewide Total	13000	9,301	100%	139.9	9,295,297	100%

* Indicates there are fewer than five reported cases

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (Estimated HIV Infection/1990 Census) * 100,000

⁴ Totals for counties or regions includes infected prisoners redistributed to their county or region of origin

⁵ Estimated HIV Infection *In Prison*, included in the above total

Table 2: Statewide Living HIV/AIDS Cases in Michigan
Sex and Race by Risk
January 1, 2000

Male Only MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	2,196	80%	1,746	54%	110	52%	37	73%	4,089	66%
Injecting Drug Use	184	7%	888	27%	52	25%	6	12%	1,130	18%
IDU w/ hetero risk [#]	66	2%	316	10%	24	11%	*	*	408	7%
IDU w/o hetero risk [#]	118	4%	572	18%	28	13%	*	*	722	12%
M-M Sex /IDU	200	7%	289	9%	17	8%	*	*	510	8%
Blood Exposure	94	3%	17	1%	*	*	*	*	114	2%
Perinatal	10	0%	47	1%	*	*	*	*	59	1%
Heterosexual	65	2%	244	8%	28	13%	*	*	340	5%
Partner IDU	21	1%	108	3%	10	5%	*	*	141	2%
Partner Blood Exposure	6	0%	*	*	*	*	*	*	9	0%
Partner HIV+	38	1%	133	4%	18	9%	*	*	190	3%
Total Known Risks	2,749	100%	3,231	100%	211	100%	51	100%	6,242	100%
Undetermined	251		685		38		32		1,006	
Total All Cases	3,000		3,916		249		83		7,248	

Female Only MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use	121	33%	573	51%	22	32%	7	35%	723	45%
IDU w/ hetero risk [#]	70	19%	265	23%	14	21%	*	*	352	22%
IDU w/o hetero risk [#]	51	14%	308	27%	8	12%	*	*	371	23%
Blood Exposure [#]	11	3%	*	*	*	*	*	*	14	1%
Perinatal	10	3%	41	4%	*	*	*	*	55	3%
Heterosexual	228	62%	515	45%	43	63%	12	60%	798	50%
Partner IDU	68	18%	206	18%	17	25%	5	25%	296	19%
Partner Bisexual [#]	26	7%	28	2%	*	*	*	*	57	4%
Partner Blood Exposure	15	4%	6	1%	*	*	*	*	22	1%
Partner HIV+	119	32%	275	24%	23	34%	6	30%	423	27%
Total Known Risks	370	100%	1,132	100%	68	100%	20	100%	1,590	100%
Undetermined	86		358		7		12		463	
Total All Cases	456		1,490		75		32		2,053	

Male & Female MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	2,196	70%	1,746	40%	110	39%	37	52%	4,089	52%
Injecting Drug Use	305	10%	1,461	33%	74	27%	13	18%	1,853	24%
IDU w/ hetero risk [#]	136	4%	581	13%	38	14%	5	7%	760	10%
IDU w/o hetero risk [#]	169	5%	880	20%	36	13%	8	11%	1,093	14%
M-M Sex /IDU	200	6%	289	7%	17	6%	*	*	510	7%
Blood Exposure [#]	105	3%	20	0%	*	*	*	*	128	2%
Perinatal	20	1%	88	2%	5	2%	*	*	114	1%
Heterosexual	293	9%	759	17%	71	25%	15	21%	1,138	15%
Partner IDU	89	3%	314	7%	27	10%	7	10%	437	6%
Partner Bisexual [#]	26	1%	28	1%	*	*	*	*	57	1%
Partner Blood Exposure	21	1%	9	0%	*	*	*	*	31	0%
Partner HIV+	157	5%	408	9%	41	15%	7	10%	613	8%
Total Known Risks	3,119	100%	4,363	100%	279	100%	71	100%	7,832	100%
Undetermined	337		1,043		45		44		1,469	
Total All Cases	3,456		5,406		324		115		9,301	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Statewide Living HIV/AIDS Cases in Michigan

Age by Risk

January 1, 2000

Male Only MI	0-12 years		13-19 years		20-24 years		25-29 years		30-39 years		40-49 years		50-59 years		60+ years		All Ages	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	*	*	53	61%	405	81%	811	79%	1,812	69%	784	52%	186	53%	38	62%	4,089	66%
Injecting Drug Use	*	*	*	*	10	2%	68	7%	410	16%	518	34%	112	32%	10	16%	1,129	18%
IDU w/ hetero risk [#]	*	*	*	*	*	*	27	3%	174	7%	176	12%	25	7%	*	*	408	7%
IDU w/o hetero risk [#]	*	*	*	*	6	1%	41	4%	236	9%	342	23%	87	25%	8	13%	721	12%
M-M Sex /IDU	*	*	5	6%	35	7%	67	7%	252	10%	131	9%	18	5%	*	*	510	8%
Blood Exposure	11	16%	22	25%	18	4%	23	2%	25	1%	9	1%	*	*	*	*	114	2%
Perinatal	59	84%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	59	1%
Heterosexual	*	*	6	7%	32	6%	52	5%	136	5%	72	5%	34	10%	8	13%	340	5%
Partner IDU	*	*	*	*	10	2%	20	2%	48	2%	41	3%	16	5%	*	*	141	2%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9	0%
Partner HIV+	*	*	*	*	22	4%	30	3%	85	3%	29	2%	18	5%	*	*	190	3%
Total Known Risks	70	100%	87	100%	500	100%	1,021	100%	2,635	100%	1,514	100%	353	100%	61	100%	6,241	100%
Undetermined	*	*	21	*	87	*	149	*	421	*	220	*	82	*	23	*	1,005	*
Total All Cases	72		108		587		1,170		3,056		1,734		435		84		7,246	

Female Only MI	0-12 years		13-19 years		20-24 years		25-29 years		30-39 years		40-49 years		50-59 years		60+ years		All Ages	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use	*	*	*	*	41	26%	72	31%	342	55%	228	60%	32	44%	*	*	723	45%
IDU w/ hetero risk [#]	*	*	*	*	19	12%	35	15%	166	27%	114	30%	15	21%	*	*	352	22%
IDU w/o hetero risk [#]	*	*	*	*	22	14%	37	16%	176	28%	114	30%	17	24%	*	*	371	23%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14	1%
Perinatal	55	100%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	55	3%
Heterosexual	*	*	47	89%	119	74%	158	68%	275	44%	148	39%	40	56%	11	61%	798	50%
Partner IDU	*	*	8	15%	35	22%	50	22%	110	18%	76	20%	14	19%	*	*	296	19%
Partner Bisexual [#]	*	*	*	*	6	4%	11	5%	25	4%	8	2%	*	*	*	*	57	4%
Partner Blood Exposure	*	*	*	*	*	*	7	3%	7	1%	*	*	*	*	*	*	22	1%
Partner HIV+	*	*	35	66%	74	46%	90	39%	133	21%	62	16%	23	32%	6	33%	423	27%
Total Known Risks	55	100%	53	100%	160	100%	232	100%	621	100%	379	100%	72	100%	18	100%	1,590	100%
Undetermined	*	*	29	*	73	*	93	*	171	*	54	*	25	*	14	*	463	*
Total All Cases	59		82		233		325		792		433		97		32		2,053	

Male & Female MI	0-12 years		13-19 years		20-24 years		25-29 years		30-39 years		40-49 years		50-59 years		60+ years		All Ages	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	*	*	53	38%	405	61%	811	65%	1,812	56%	784	41%	186	44%	38	48%	4,089	52%
Injecting Drug Use	*	*	5	4%	51	8%	140	11%	752	23%	746	39%	144	34%	14	18%	1,852	24%
IDU w/ hetero risk [#]	*	*	*	*	23	3%	62	5%	340	10%	290	15%	40	9%	*	*	760	10%
IDU w/o hetero risk [#]	*	*	*	*	28	4%	78	6%	412	13%	456	24%	104	24%	11	14%	1,092	14%
M-M Sex /IDU	*	*	5	4%	35	5%	67	5%	252	8%	131	7%	18	4%	*	*	510	7%
Blood Exposure [#]	11	9%	24	17%	18	3%	25	2%	29	1%	12	1%	*	*	6	8%	128	2%
Perinatal	114	91%	*	*	*	*	*	*	*	*	*	*	*	*	*	*	114	1%
Heterosexual	*	*	53	38%	151	23%	210	17%	411	13%	220	12%	74	17%	19	24%	1,138	15%
Partner IDU	*	*	11	8%	45	7%	70	6%	158	5%	117	6%	30	7%	6	8%	437	6%
Partner Bisexual [#]	*	*	*	*	6	1%	11	1%	25	1%	8	0%	*	*	*	*	57	1%
Partner Blood Exposure	*	*	*	*	*	*	9	1%	10	0%	*	*	*	*	*	*	31	0%
Partner HIV+	*	*	38	27%	96	15%	120	10%	218	7%	91	5%	41	10%	9	11%	613	8%
Total Known Risks	125	100%	140	100%	660	100%	1,253	100%	3,256	100%	1,893	100%	425	100%	79	100%	7,831	100%
Undetermined	6		50		160		242		592		274		107		37		1,468	
Total All Cases	131		190		820		1,495		3,848		2,167		532		116		9,299	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile

**Table 4: Gonorrhea, Syphilis, and Chlamydia by Sex
Race, and Age Group in Michigan
January 1, 1999 to December 31, 1999**

Patient Group	1990 Population	Gonorrhea			P&S Syphilis*			Chlamydia		
		Cases	Pct	Rate#	Cases	Pct	Rate#	Cases	Pct	Rate#
Male	4,512,730	8,136	51%	180	154	62%	3	4,237	18%	94
<i>White Males</i>	<i>3,735,020</i>	<i>324</i>	<i>2%</i>	<i>9</i>	<i>18</i>	<i>7%</i>	<i>0</i>	<i>647</i>	<i>3%</i>	<i>17</i>
<i>Black Males</i>	<i>599,497</i>	<i>5,050</i>	<i>32%</i>	<i>842</i>	<i>133</i>	<i>53%</i>	<i>22</i>	<i>1,837</i>	<i>8%</i>	<i>306</i>
<i>Hispanic Males</i>	<i>101,804</i>	<i>55</i>	<i>0%</i>	<i>54</i>	<i>1</i>	<i>0%</i>	<i>1</i>	<i>74</i>	<i>0%</i>	<i>73</i>
<i>Other Males</i>	<i>76,409</i>	<i>2,707</i>	<i>17%</i>	<i>N/A</i>	<i>2</i>	<i>1%</i>	<i>N/A</i>	<i>1,679</i>	<i>7%</i>	<i>N/A</i>
Female	4,782,567	7,771	49%	162	95	38%	2	18,870	82%	395
<i>White Females</i>	<i>3,918,879</i>	<i>676</i>	<i>4%</i>	<i>17</i>	<i>14</i>	<i>6%</i>	<i>0</i>	<i>3,644</i>	<i>16%</i>	<i>93</i>
<i>Black Females</i>	<i>685,071</i>	<i>2,911</i>	<i>18%</i>	<i>425</i>	<i>79</i>	<i>32%</i>	<i>12</i>	<i>4,274</i>	<i>18%</i>	<i>624</i>
<i>Hispanic Females</i>	<i>99,794</i>	<i>38</i>	<i>0%</i>	<i>38</i>	<i>0</i>	<i>0%</i>	<i>0</i>	<i>128</i>	<i>1%</i>	<i>128</i>
<i>Other Females</i>	<i>78,823</i>	<i>4,146</i>	<i>26%</i>	<i>N/A</i>	<i>2</i>	<i>1%</i>	<i>N/A</i>	<i>10,824</i>	<i>47%</i>	<i>N/A</i>
White	7,653,899	1,000	6%	13	32	13%	0	4,291	19%	56
Black	1,284,568	7,961	50%	620	212	85%	17	6,111	26%	476
Hispanic	201,598	93	1%	46	1	0%	0	202	1%	100
Asian	102,637	17	0%	17	1	0%	1	40	0%	39
Amerian Indian	52,595	8	0%	15	0	0%	0	34	0%	65
Unknown Race	0	6,828	43%	N/A	3	1%	N/A	12,429	54%	N/A
0 - 4 years	713,578	11	0%	2	0	0%	0	38	0%	5
5 - 9 years	690,138	21	0%	3	0	0%	0	22	0%	3
10-14 years	665,572	208	1%	31	0	0%	0	391	2%	59
15 -19 years	700,201	3,918	25%	560	12	5%	2	8,447	37%	1206
20 -24 years	706,575	4,750	30%	672	36	14%	5	8,223	36%	1164
25 -29 years	764,264	2,774	17%	363	33	13%	4	3,244	14%	424
30 -34 years	810,420	1,567	10%	193	39	16%	5	1,267	5%	156
35 -39 years	744,802	1,076	7%	144	36	14%	5	563	2%	76
40 -44 years	657,391	639	4%	97	42	17%	6	264	1%	40
45 -54 years	944,183	505	3%	53	35	14%	4	186	1%	20
55 -64 years	794,072	128	1%	16	13	5%	2	40	0%	5
65 and over	1,104,101	39	0%	4	3	1%	0	26	0%	2
Unknown Age	0	271	2%	N/A	0	0%	N/A	396	2%	N/A
Total	9,295,297	15,907	100%	171	249	100%	3	23,107	100%	249

*Primary and Secondary Syphilis

Rate per 100,000

**Table 5: Gonorrhea, Syphilis, and Chlamydia by Region
and Local Health Department Jurisdiction
January 1, 1999 to December 31, 1999**

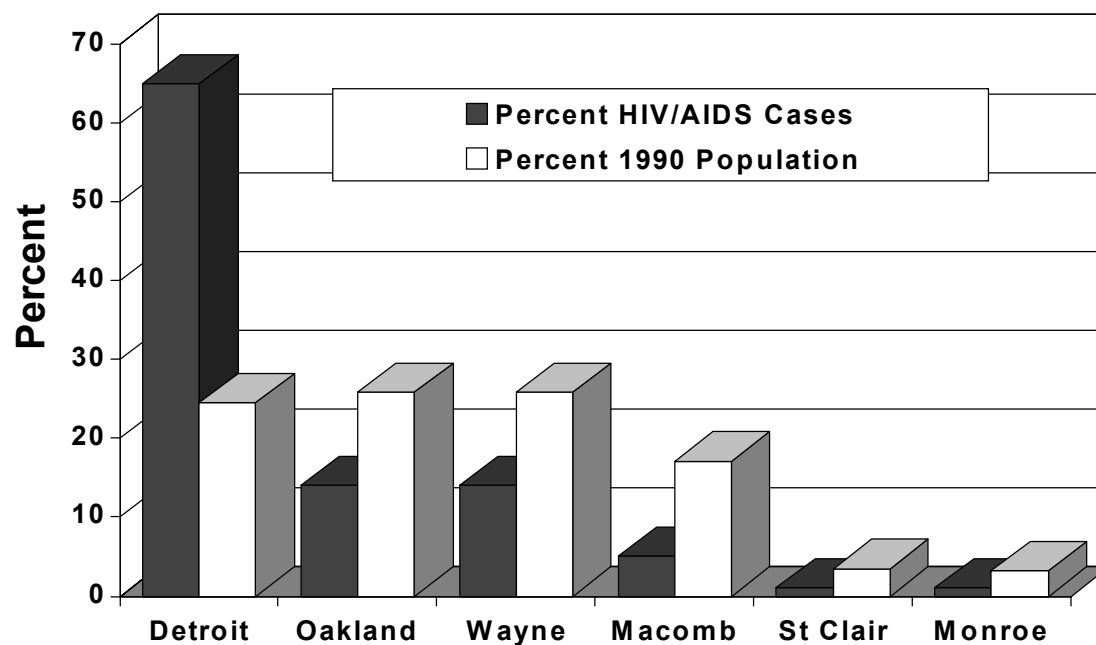
Patient Group	1990 Population	Gonorrhea		P&S Syphilis		Chlamydia	
		Cases	Rate	Cases	Rate	Cases	Rate
REGION 1	4,191,886	9,661	230	230	5.5	11,088	265
REGION 2	639,814	398	62	2	0.3	1,255	196
REGION 3	1,017,599	1,176	116	3	0.3	2,423	238
REGION 4	431,836	436	101	9	2.1	939	217
REGION 5	1,057,755	1,924	182	2	0.2	3,327	315
REGION 6	1,104,694	2,242	203	2	0.2	3,340	302
REGION 7	537,798	47	9	1	0.2	495	92
REGION 8	313,915	22	7	0	0.0	240	76
Allegan	90,509	12	13	0	0.0	106	117
Bay	111,723	57	51	0	0.0	180	161
Berrien	161,378	443	275	1	0.6	522	323
Barry/Eaton	142,936	24	17	0	0.0	89	62
Benzie/Leelanau	28,727	3	10	0	0.0	22	77
Br/Hills/St Joseph	143,846	43	30	0	0.0	200	139
Calhoun	135,982	193	142	0	0.0	427	314
Cass	49,477	18	36	0	0.0	67	135
Chippewa	34,604	3	9	0	0.0	50	144
Central MI District	156,325	28	18	0	0.0	203	130
Detroit	1,027,974	7,900	769	189	18.4	7,754	754
Delta/Menominee	62,700	1	2	0	0.0	44	70
Dickinson/Iron	40,006	0	0	0	0.0	4	10
District #2	66,877	1	1	1	1.5	54	81
District #3	82,650	0	0	0	0.0	48	58
District #4	74,682	0	0	0	0.0	43	58
District #10 Total	217,613	29	13	1	0.5	285	131
Dist #10 in Reg 5	153,349	26	17	1	0.7	215	140
Dist #10 in Reg 7	64,264	3	5	0	0.0	70	109
Genesee	430,459	1,618	376	1	0.2	1,953	454
Grand Traverse	64,273	12	19	0	0.0	82	128
Greater Thumb	130,377	7	5	0	0.0	93	71
Ingham	281,912	429	152	9	3.2	827	293
Ionia	57,024	7	12	0	0.0	41	72
Jackson	149,756	127	85	1	0.7	429	286
Kalamazoo	223,411	392	175	2	0.9	881	394
Kent	500,631	1,383	276	1	0.2	2,053	410
Lapeer	74,768	9	12	0	0.0	41	55
Lenawee	91,476	28	31	0	0.0	114	125
Livingston	115,645	9	8	0	0.0	64	55
LMAS District	33,711	5	15	0	0.0	27	80
Macomb	717,400	204	28	11	1.5	557	78
Marquette	70,887	4	6	0	0.0	59	83
Midland	75,651	6	8	0	0.0	62	82
Monroe	133,600	41	31	0	0.0	122	91
Muskegon	158,983	459	289	0	0.0	739	465
Mid-MI District	149,924	7	5	0	0.0	112	75
Oakland	1,083,592	895	83	17	1.6	1,615	149
Ottawa	187,768	49	26	0	0.0	279	149
Saginaw	211,946	542	256	1	0.5	943	445
Shiawassee	69,770	3	4	0	0.0	68	97
St Clair	145,607	24	16	0	0.0	157	108
Van Buren	70,060	51	73	0	0.0	131	187
Washtenaw	282,937	234	83	1	0.4	648	229
Wayne exc Detroit	1,083,713	597	55	13	1.2	883	81
Western U.P. District	72,007	9	12	0	0.0	29	40
Total	9,295,297	15,906	171	249	2.7	23,107	249

*Primary and Secondary Syphilis

Rate per 100,000



Region 1 Live HIV/AIDS Cases and Population by Local Health Department Jurisdiction





2000 Profile of HIV/AIDS in Region 1

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2000 Profile of HIV/AIDS in Region 1

Summary of Epidemic for Region 1

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 8,940 people living with HIV/AIDS in Region 1, of which 6,088 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 760 new cases annually. The number of AIDS deaths dropped 65 percent between 1995 and 1998. 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. Region 1 has more cases (of the 9,301 cases reported) when compared with the general population that lives there. The graph on the previous page displays the distribution of reported cases by local health department within Region 1. Sixty-five percent of the reported cases within this region were recorded in the local health department of Detroit.

The 83 counties of Michigan are divided into 48 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county, however most contain a single county. All LHDs have been labeled as either being in a high or low HIV prevalence area (please refer to page 2 of the Statewide profile for methodology used). Within Region 1, Detroit, Macomb Co. and Oakland Co. are considered to be LHDs in high prevalence areas, while Monroe Co. and St. Clair Co. are considered to be LHDs in low prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Region 1. The guiding question used in this process has been, “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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM):** MSMs make up 57 percent of all HIV/AIDS cases with a known mode of transmission (2,918 out of 5,130). The MSM behavioral group continues to be the most affected behavioral group even though the number of new cases indicates a level (non-increasing, non-decreasing) trend.
- **Intravenous Drug Users (IDUs):** Of all HIV/AIDS cases with a known mode of transmission, 32 percent are IDUs. Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend in IDU transmission also appears to be level.
- **Heterosexuals:** Heterosexual cases constitute 14 percent of the total number of cases with a known mode of transmission. High risk heterosexuals (HRH) are HIV-infected persons whose heterosexual sex partners are 1) IDUs, 2) bisexual men and/or 3) HIV+ individuals. Heterosexual transmission, although increasing, is unlikely to surpass MSM as a mode of HIV transmission in Region 1.

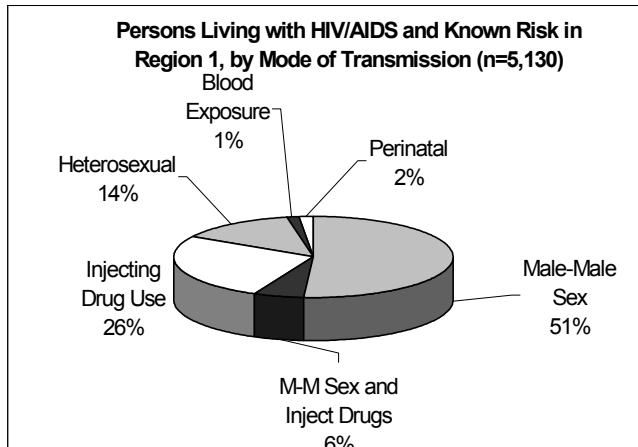


2000 Profile of HIV/AIDS in Region 1

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route for individuals who have engaged in more than one behavior. Surveillance data only determines the most likely mode. However, we do show the multiple risks of men who have sex with men (MSM) who also are injection drug users (IDU) when that data is available to us.



The pie chart indicates the number of people living with HIV/AIDS in Region 1 by mode of transmission among the 5,130 cases for which the risk was identifiable.

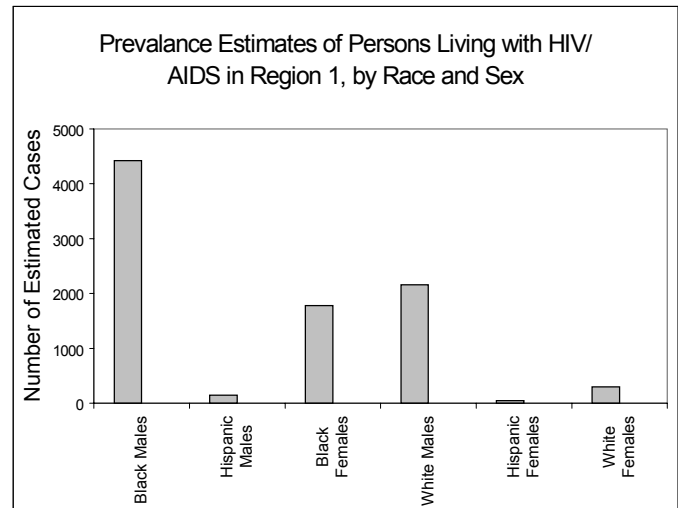
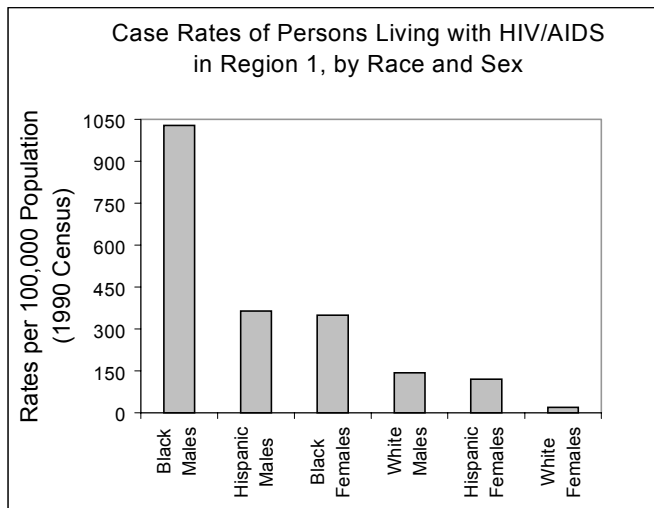
- This chart demonstrates that over half (57 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including 6 percent who also injected drugs.
- Almost a third (32 percent) are injecting drug users, including 6 percent who are also MSM. Thirty-eight percent of non-MSM IDUs also have high risk heterosexual sex partners. (See Table 1, page 17.)

- Finally, 14 percent of the total had high risk heterosexual sex partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

The bar graphs below show the impact of this epidemic on six race and sex groups.



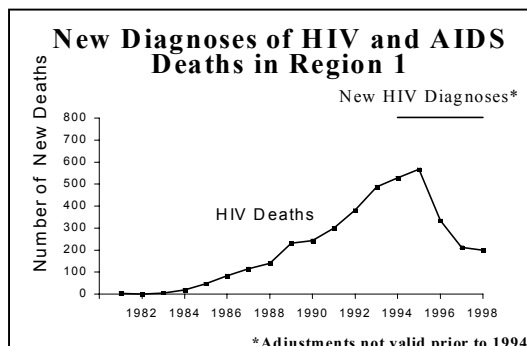
- Black males have both the highest rate per 100,000 population (1,029) and the highest estimated number (4,420) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Hispanic males have the second highest rate (364) and the fifth highest estimated number (150) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- Black females have the third highest rate (350) and the third highest estimated number (1,780) of cases of HIV/AIDS.
- White males have the fourth highest rate (143) and the second highest estimated number (2,160) of cases.
- Hispanic females have the fifth highest rate (120) and the lowest estimated number (50) of HIV/AIDS.
- White females have the lowest rate (19) and the fourth highest estimated number (300) of HIV/AIDS cases.



2000 Profile of HIV/AIDS in Region 1

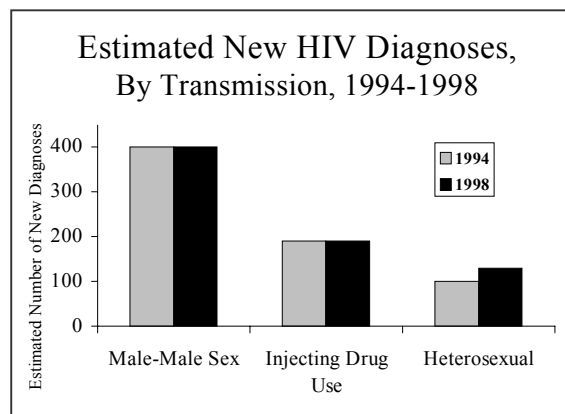
Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)



- *New HIV Diagnoses (HIV incidence) are level while deaths are declining.* HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 800 persons were newly infected each year between 1994 and 1998 in Region 1.

- *Transmission of HIV 1994-98:* The estimated number of new diagnoses among persons infected heterosexually increased from 100 to 130 between 1994 and 1998. Meanwhile, new diagnoses among men who have sex with men are stable at 400 persons annually, and diagnoses among injection drug users stayed level at 190 new infections annually. New infections are decreasing among MSM who also inject drugs, however they are not shown in this graph. There were fewer than 10 persons diagnosed each year who acquired infection from blood products received before 1985, and fewer than 10 infants infected at birth each year.



Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	72%	76%
Females	28%	24%
Whites	20%	28%
Blacks	76%	70%
Hispanics	3%	2%
Other	0%	0%
White Males	17%	24%
Black Males	53%	49%
Hispanic Males	2%	2%
Other Males	0%	0%
White Females	3%	5%
Black Females	23%	20%
Hispanic Females	1%	1%
Other Females	0%	0%
0-12 years	1%	1%
13-19 years	1%	1%
20-24 years	3%	3%
25-44 years	64%	63%
45+ years	31%	33%
HIV+ (Not AIDS)	59%	51%
AIDS	41%	49%
Total HIV Infected	4,615	6,162

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act and related sources (RWCA).

In 1999, 4,615 HIV-infected persons were reported receiving Ryan White Services in Region 1. A comparison also shows that persons receiving Ryan White services were significantly more likely than the reported population to be female, black or Hispanic, or have a diagnosis of HIV not AIDS.

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (6,162), it is apparent that not all persons reported are receiving RWCA-funded services.

“Years” within this table refer to current age, not age at diagnosis.



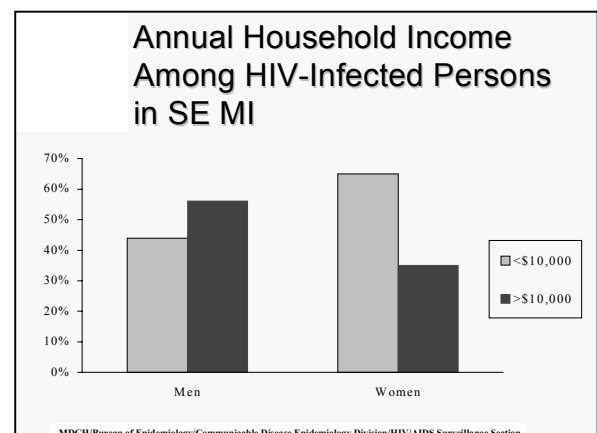
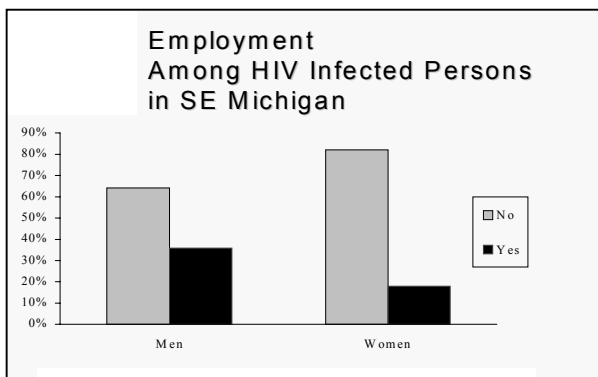
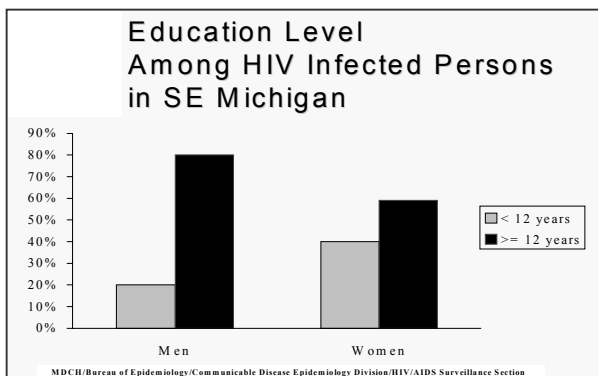
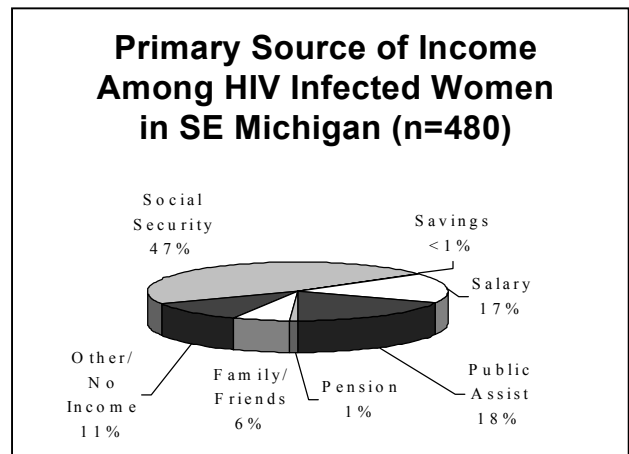
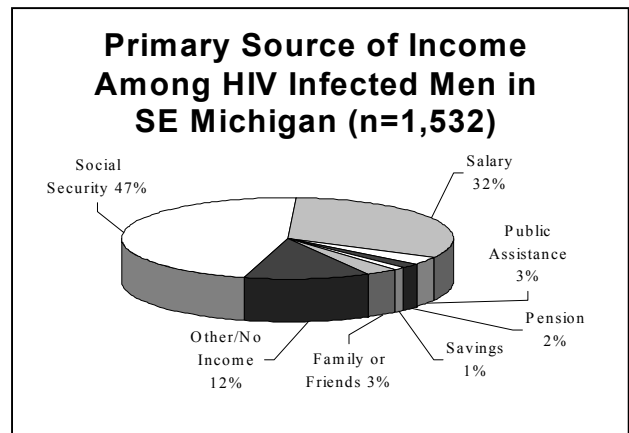
2000 Profile of HIV/AIDS in Region 1

Information from Interviews with HIV-Infected Persons in SE Michigan

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

Data presented in this section are from the Supplement to HIV/AIDS Surveillance Project (SHAS). HIV-infected persons in Region 1 who present for care at one of two large tertiary medical centers or one neighborhood clinic system are eligible for a one-time interview. Data are collected on demographic and socioeconomic factors, drug use (alcohol, ingested and/or injected drugs) needle sharing and cleaning, access to drug treatment, sexual behaviors, condom use, medical and social services, compliance with drug therapies and, for women, reproductive history and child health. Prevention and care planning groups are encouraged to contact the MDCH HIV/AIDS Surveillance Section for data from this project. An analysis of trends among the 2,012 patients interviewed reveals no changes over time.

- At the time of the interview 58 percent had AIDS and 42 percent had HIV/not AIDS; 76 percent are male and 75 percent are black.
- Among the 1,532 male interviewees, 80 percent had greater than or equal to 12 years of education, 36 percent were employed at the time of interview, and 56 percent had an income of \$10,000 or more.
- Among the 480 female interviewees, 59 percent had greater than or equal to 12 years of education, 18 percent were employed at the time of interview and 35 percent had an income of \$10,000 or more.





2000 Profile of HIV/AIDS in Region 1

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys
& Supplement to HIV/AIDS Surveillance Project (SHAS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Region 1. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons with a known risk. MDCH estimates that there are approximately 4,290 MSM living with HIV disease in Region 1. This includes 440 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

The percent of MSM who are HIV positive and attended the Sexually Transmitted Diseases (STD) clinics at local health departments in southeast Michigan is quite high. These rates are 10 percent in Wayne County outside of Detroit (average 1993–1996), 24 percent in Oakland County (average 1991–1993) and 29 percent (average 1993–1998) in the City of Detroit. Although data from these seroprevalence surveys provide valuable information about clinic attendees, the results cannot be generalized to all MSM. The findings are based on a select group of men at the highest risk for contracting HIV — MSM who engage in unprotected sex and have contracted other STDs. In addition, this behavior is likely under-reported at STD clinics, complicating the implications for these rates. This under-reporting leads to a small number of known MSM being tested annually (approximately 25 for Detroit and under 20 each for Wayne and Oakland County clinics). However, even though these results can not be generalized, the magnitude of these proportions suggest that the percent of MSM who are HIV positive is likely higher than any other behavioral group discussed in these profiles.

Race or Ethnicity:

Having sex with other men infected most males in Region 1. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 2,918), black males (1,657) account for more than a half (57 percent) while white males (1,184) comprise approximately 41 percent of men in this combined category.

Age: Among those reporting male-male sex, the highest percent of all living cases of HIV/AIDS is found among those aged 30–39 (44 percent). MSM is the predominant mode of transmission for males aged 13 and up.

Geographic Distribution:

Just under two-thirds (63 percent) of HIV-infected MSM statewide reside in Region 1. Within high prevalence counties, MSMs are over half of the cases with a known risk (57 percent) while in the lower prevalence counties 59 percent of reported persons living with HIV/AIDS are MSM.

Trends and Conclusions:

MDCH estimates that there are about 400 new HIV infections annually among men who have sex with men. These cases are divided between white and black MSM 35 percent and 65 percent respectively. These numbers were level from 1994–1998.

Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic.

The data also suggest that prevention activities among teenagers and young adults should be geared towards males having sex with other males. These activities should recognize that adolescents at highest risk are those males whose sex partners are older. Older men are more likely to be HIV-infected than are younger males.



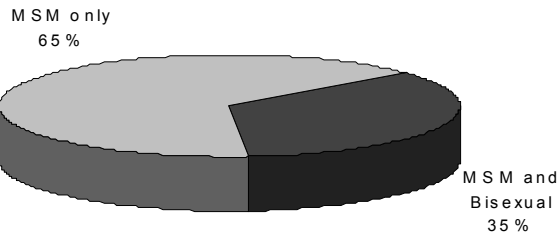
2000 Profile of HIV/AIDS in Region 1

Ranked Behavioral Group: MSM (Bisexual Men)

Additional behavioral data on MSM in southeast Michigan is available from the SHAS interview study described on page 4 of this profile. The SHAS interview is conducted in SE Michigan and asks HIV-infected persons directly about specific behaviors. Of all SHAS respondents, 59 percent report having sex with other men, reinforcing the number one ranking of MSM behavior. As shown in the graphs below, 35 percent of black MSM also report having sex with women; while 16 percent of white MSM report having sex with women.

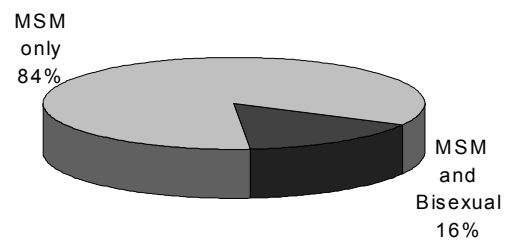
HIV+ Black Men in SE MI Reporting MSM or Bisexual Behavior

1990-1999 (N=566)



HIV+ White Men in SEMI Reporting MSM or Bisexual Behavior,

1990-1999 (N=326)





2000 Profile of HIV/AIDS in Region 1

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys
& Supplement to HIV/AIDS Surveillance Project (SHAS)

Number of Cases:

Injecting drug users (IDUs) are the number two ranked behavioral group in Region 1. IDU are the second largest behavioral group affected by this epidemic and account for almost a third of reported infected persons with a known risk. MDCH estimates there are approximately 2,430 IDUs living with HIV disease in Region 1. This estimate includes 440 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals, infants, and MSM. Over one-third (38 percent) of the reported cases among non-MSM IDUs also had high risk heterosexual sex partners. Additionally, of the 707 cases with reported heterosexual risk, 283 individuals (40 percent) also reported having IDU as partners. Sixty-eight percent of perinatally infected infants (infants infected at birth) have an IDU as a mother or have a mother whose partner is an IDU.

When these linked populations are considered, IDU-related transmission accounts for 39 percent (1,995 cases) of people reported with HIV disease and having a known risk in Region 1. This is similar to the nationwide picture.

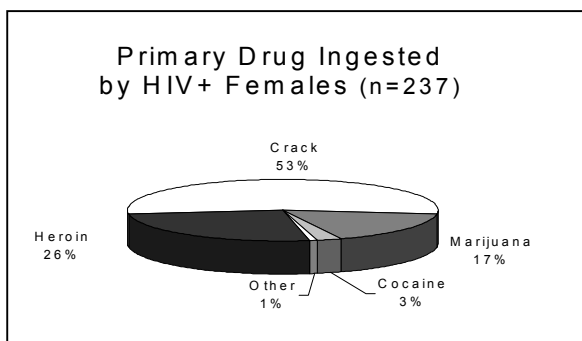
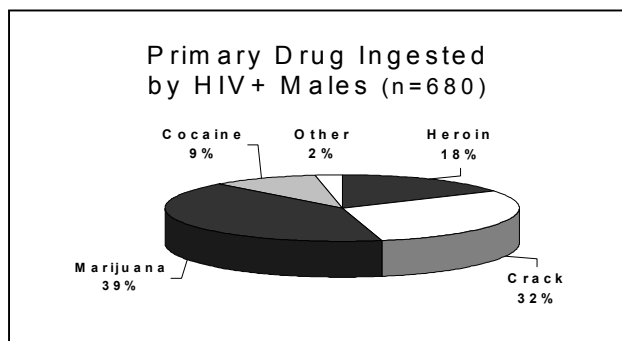
Race or Ethnicity and Gender:

Of the 1,652 IDU HIV/AIDS cases, 870 are black men (53 percent), 497 are black women (30 percent), 166 are white men (10 percent), 70 are white women (4 percent), 32 are Hispanic men (2 percent) and 11 are Hispanic women (>1 percent). In total, 83 percent (1,367 cases) of the cases occur in black IDU.

Approximately two-thirds of the cases are men (65 percent) and one-third are women (35 percent). Among the 582 women whose HIV infection has been attributed to IDU, almost half (48 percent) report high-risk heterosexual sex partners.

Additional behavioral data on IDUs and other drug users in southeast Michigan is known from the SHAS interview (See graphs below). Of the 2,012 persons interviewed in SHAS, 25 percent injected drugs at some time during their lives and 10 percent injected in the five years prior to interview. Of these recent injectors, 82 or 40 percent reported sharing needles in the last five years. Questions used to screen interviewees for potential alcoholism reveal that 22 percent of female and 20 percent of male interviewees are potential alcoholics.

Other drug use information shows that 67 percent of females and 55 percent of males used some kind of illegal drug in the past. Among these respondents, the non-injected primary drug for women was crack cocaine and for men marijuana, followed closely by crack. These are shown in the pie charts below.





2000 Profile of HIV/AIDS in Region 1

d Behavioral Group: IDU (Continued)

Age:

Among men with a known risk in each age group over 19 years, IDU is the second most common mode of transmission. Forty-five percent of IDU cases are among men in their forties (20 percent of these were MSM/IDU).

IDU is the predominant mode of transmission for women aged 30-49 years (81 percent of cases with known risk). Among the 471 females IDUs in this age group, 47 percent of them also reported high risk heterosexual partners.

There are very few cases of HIV/AIDS attributed to IDU among teenagers (5); the proportion of IDU among those in their twenties is small (13 percent of cases with a known risk).

Geographic Distribution:

Ninety-nine percent of IDU cases were reported in the higher prevalence areas of Region 1. Within high prevalence counties, just under a third of cases with a known risk (32 percent*) are IDU, while in the lower prevalence counties 16 percent* of persons living with HIV/AIDS are IDU. (* These percentages include IDU males who are also MSM).

Trends and Conclusions:

Between 5 percent and 8 percent of IDUs referred through the Detroit Health Department drug treatment Central Intake Facility test positive for HIV. This has not changed statistically over time. The infection rate among IDUs who are not in treatment is unknown.

The number of new HIV diagnoses among IDUs (including MSM/IDU) decreased between 1994 and 1998, from approximately 250 to 210 new HIV infections annually. Some of these persons also have heterosexual exposures, since IDUs are more likely to have IDU sex partners than are persons who do not inject drugs. In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.



2000 Profile of HIV/AIDS in Region 1

Ranked Behavioral Group/Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three ranked behavioral group in Region 1. Heterosexual sex accounts for 14 percent of reported infected persons with a known risk. MDCH estimates that 1,040 persons living with HIV disease in Region 1 were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

Currently there are an estimated 750 infected persons who are classified as IDUs but who also had one or more heterosexual sex partner(s) who engaged in high risk behaviors (i.e., IDU, bisexual). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. Among reported cases, the dual risk IDU/heterosexual cases comprise 10 percent of all reported HIV/AIDS cases with a known risk and are 46 percent men and 54 percent women within Region 1.

The rate of HIV positives measured among heterosexual attendees of the Detroit STD clinic, who are likely among the highest risk heterosexuals in the state, averaged under 1 percent (0.8 percent) positive in the annual seroprevalence surveys done 1993-1998.

Race/Ethnicity and Gender:

Most heterosexual cases of HIV/AIDS are black--79 percent of female and 81 percent of male heterosexually transmitted HIV/AIDS cases. The percent of men infected heterosexually is low--5 percent of cases among men of all races with a known risk.

Over one-third of black women were infected heterosexually (42 percent). Among Hispanic and white women, over half of each group were infected through heterosexual sex (Hispanic women 57 percent, white women 51 percent).

Among females reported with HIV/AIDS and a known risk, just under half (44 percent) of cases are contracted heterosexually. Virtually the same proportion, 51 percent, were infected through IDU. Among women with a known risk, 24 percent are IDUs who also had high risk heterosexual sex partners. These data underscore the point that these two modes of transmission are closely intertwined for women.

Among the 707 men and women living with HIV/AIDS and infected heterosexually, 40 percent reported their heterosexual partner as injecting drug users, 5 percent as bisexual men (this applies to women only) and 2 percent as persons infected through blood products. Over half (53 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

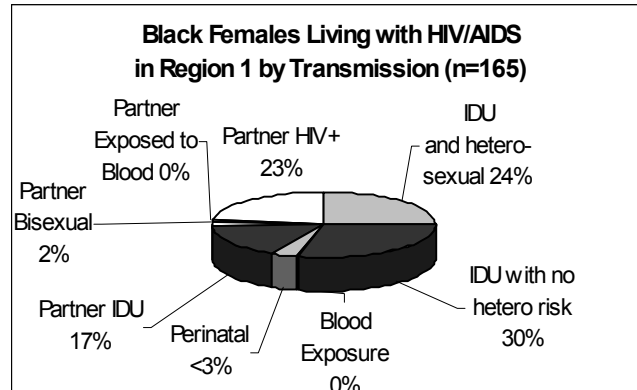
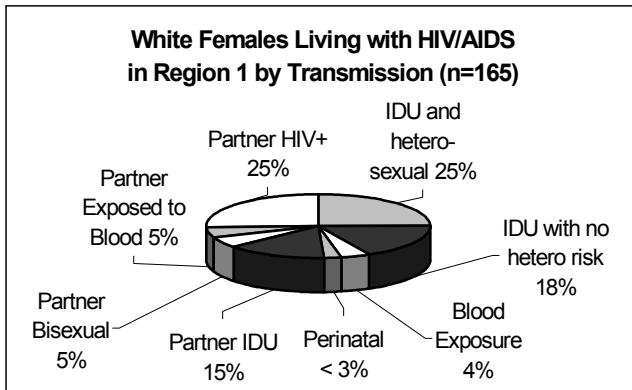
While women account for 24 percent of HIV/AIDS cases in Region 1, they have consistently accounted for over two-thirds of heterosexually acquired infections -- currently 71 percent.



2000 Profile of HIV/AIDS in Region 1

Ranked Behavioral Group: Heterosexuals (Continued)

The definition for heterosexual transmission for females includes sub-categories to help better describe risk to women. To be reported as a heterosexual transmission case, a female must have a partner who is HIV infected, bisexual, or an IDU. Heterosexual and IDU modes of transmission and associated sub-categories for infected black and white women with known risk are shown in the two pie charts below.



Age:

For women between the ages of 13 and 29, heterosexual transmission is the predominant mode. Among women 30-49, IDU supercedes heterosexual transmission.

Geographic Distribution:

Ninety-eight percent of the 707 cases attributed to heterosexual activity were reported in high prevalence counties. Of all the cases within high prevalence counties in Region 1, heterosexual transmission constitutes 14 percent. Within low prevalence counties, heterosexual transmission constitutes 23 percent of the cases.

Trends and Conclusions:

Heterosexual transmission is the sole ranked behavioral group with a definite upward trend. MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission increased from 100 to 300 annually from 1994 to 1998. Although the proportion of cases attributable to heterosexual transmission is increasing, from 13 percent in 1994 to 14 percent in 1999, it is still a lower proportion of cases than among MSMs (51 percent) and IDUs (26 percent).

The data 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 high risk heterosexuals compared with MSMs, this mode of transmission is unlikely to surpass that of MSM. However, the overlapping risk of high risk heterosexuals with IDU makes it difficult to predict whether heterosexually acquired cases will equal or surpass, in the future, those classified as IDU.



2000 Profile of HIV/AIDS in Region 1

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Black persons comprise the majority of those living with HIV/AIDS in Region 1. They comprise 22 percent of this region's population yet make up over two-thirds (69 percent) of the cases of HIV/AIDS. MDCH estimates 6,200 blacks live with HIV/AIDS in Region 1. The rate of HIV infection among blacks is 660 per 100,000 population, eight times higher than the rate among whites. MDCH estimates that as many as one out of 100 black males and one out of 290 black females may be HIV-infected.

White persons comprise over a quarter (27 percent) of reported HIV/AIDS cases and three-quarters of the region's population. MDCH estimates 2,460 whites live with HIV/AIDS in Region 1. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than blacks or Hispanics (79 per 100,000 population). MDCH estimates that as many as one out of 700 white males and one out of 5,320 white females may be HIV-infected.

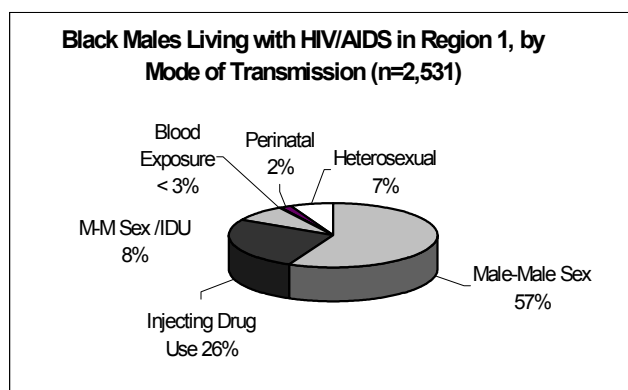
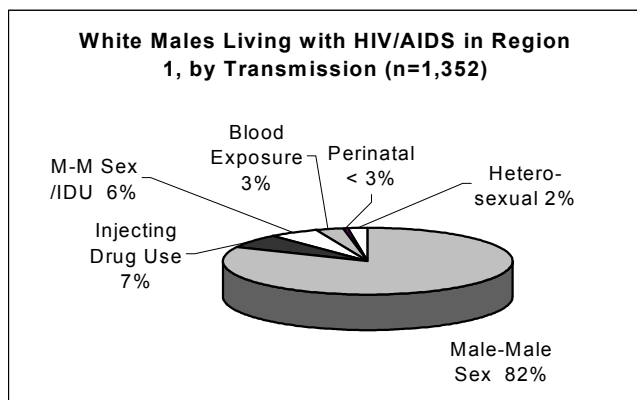
Hispanics comprise 2 percent of cases and 2 percent of the population. MDCH estimates 200 Hispanics live with HIV/AIDS in this region. However, the relatively few cases are spread out among a small population and therefore they have a rate higher than that among whites (242 per 100,000 population). MDCH estimates that as many as one out of 280 Hispanic males and one out of 830 Hispanic females may be HIV-infected.

Most persons living with HIV/AIDS in Region 1 in 1998 are male (76 percent) and this proportion has decreased over time from 79 percent in 1994. Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 21 percent of the infected population in this region.

Mode of Transmission:

The following pie charts display the proportion of black and white male cases by mode of transmission, among those with known transmission (refer to page 10 for black and white female distributions).

- The majority of the 3,998 male HIV/AIDS cases are black (63 percent), 34 percent white, 2 percent Hispanic and <1 percent are other or unknown race with known risk.



- The majority of the 1,132 female HIV/AIDS cases are black (82 percent), just under one-quarter (15 percent) are white, two percent are Hispanic and one percent are other or unknown race (refer to page 10 for graphs).

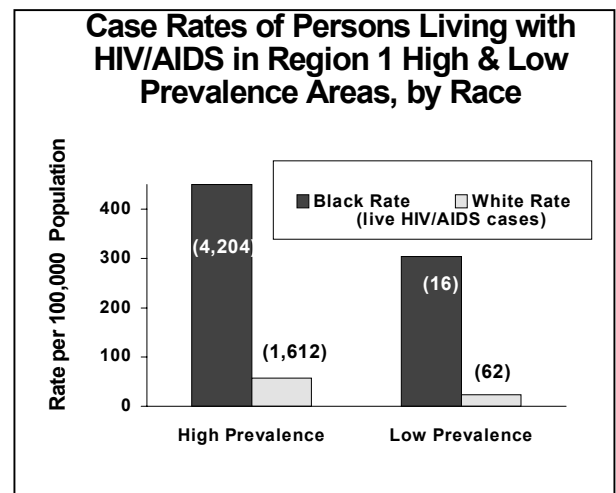


2000 Profile of HIV/AIDS in Region 1

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution of cases by Race:

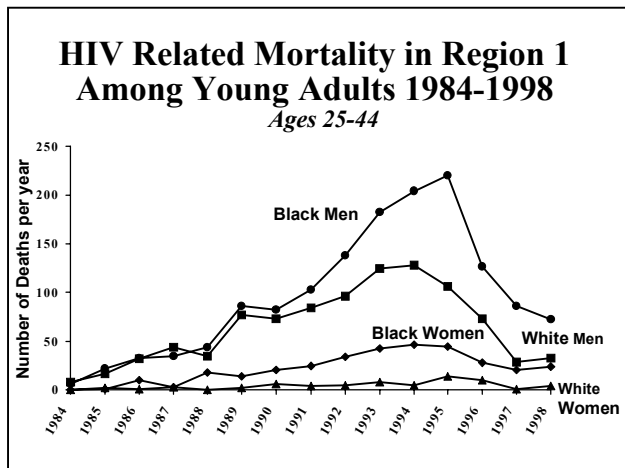
Looking at the proportions of cases by race in a particular area of the region (i.e., number of black cases/total number of cases) does not fully measure the impact of this disease. This is because the proportions of whites and blacks living in high and low prevalence areas are different. Therefore, instead of proportions, rates are used (number of black cases/total number of blacks living in that area). The bar graph shows these rates and establishes that the HIV/AIDS case rate among blacks is 8-13 times higher than the rate among whites in both high and low prevalence areas of the region, even though there are many fewer cases among blacks in the low prevalence areas. This shows that this disease disproportionately affects blacks in both high and low prevalence areas of Region 1.



Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks has increased from 550 to 600 between 1994 and 1998. During this same time period, the estimated annual number among whites has decreased from 200 to 150. New HIV infections diagnosed among Hispanics is level at about 20 persons annually.

Trends in new HIV diagnoses among males and females do show different patterns. The number of males newly diagnosed with HIV each year is level at 500 new infections. Among females the number appears to have increased from 200 to 250.



The graph on the left shows that HIV related mortality dropped for all four race and sex groups. The number of deaths among Hispanics was too small to appear on this graph. The decline in deaths was marked in all groups, but was more rapid among whites (69 percent) compared with blacks (64 percent), and among men (68 percent) compared with women (53 percent).

When all the data are considered for the three behavioral groups discussed in this document, the consistent impact across transmission behaviors that this epidemic is having on blacks is apparent. The number of new HIV diagnoses among blacks is increasing and their HIV/AIDS rate is still nine times higher than the rate among whites. Every region in Michigan should look closely at their own data to discern whether this disproportionate impact on blacks holds true for their area as well.



2000 Profile of HIV/AIDS in Region 1

Description of the Epidemic Among Children (0-12)

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

MDCH estimates that there are 140 children, ages 0-12, living with HIV/AIDS in this region. Children in this age group comprise 1.3 percent of the reported infected persons. Most of them (95 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding. There have not been any documented cases of this kind of transmission in Michigan). Of the remaining children, 5 percent were infected via blood exposure before 1985. Although blood products are relatively safe, prior to 1985, this was not the case. The 0-12 age group describes age at the diagnosis of HIV/AIDS, not current age. Therefore, these blood exposure cases are all likely pre-1985.

A very small number of children 0-12 with known risk have been infected sexually.

Description of Cases in Children:

Children, ages 0-12, infected with HIV are 55 percent male and 45 percent female. Among the 95 young children reported with HIV/AIDS 78 percent are black, 17 percent are white and 4 percent are Hispanic or of unknown race.

Of the 87 children infected perinatally, 47 percent had a mother who was an IDU, and 17 percent the mother was not known to be an IDU but one or more of her sex partners were IDUs. An additional 18 percent had mothers with HIV-infected sex partners but for whom additional risk information was unavailable. For 17 percent all that was known about the mother is that she was HIV-infected with no additional risk information.

Geographic Distribution of Infected Children:

All young children infected with HIV in Region 1 (perinatal cases) are residents within high prevalence counties.

Trends and Conclusions:

The best measurable success in reducing HIV transmission has been among the perinatally infected cases. Without Zidovudine (ZDV) prophylaxis, about 25 percent of children born to HIV-infected women could expect to become HIV-infected. As of April 1, 2000, two of the 46 children born to HIV-infected women in 1998 in Region 1 have been diagnosed with HIV infection.



2000 Profile of HIV/AIDS in Region 1

Description of the Epidemic Among Teens and Young Adults (13-24)

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys
& Data from HIV & STD Surveillance, & Job Corp

Number of Cases:

MDCH estimates that there are about 870 persons currently living in Region 1 who were ages 13-24 years when they were diagnosed with HIV. Those age 13-19 year comprise 2 percent; and age 20-24 years, 8 percent of the Region 1 total. The rate of HIV/AIDS among these young people is lower than the rate among those aged 25-44 years. The level of incident and prevalent cases among persons 13-24 years is not as high as the level among persons 25-44 years. However, some young people are at particularly high risk. Specifically these are youth who live in areas with high HIV prevalence and who have sex partners who are age 20 or older.

STD rates are highest in these age groups. The STD data for the state are shown on pages 25 and 26 of the Michigan Profile. In persons age 15-24 years, the rate of chlamydia is almost three times higher and the rate gonorrhea is two times higher than among persons age 25-29 years (please refer to the Sexually Transmitted Diseases Section of the Statewide Profile for a discussion of these high rates).

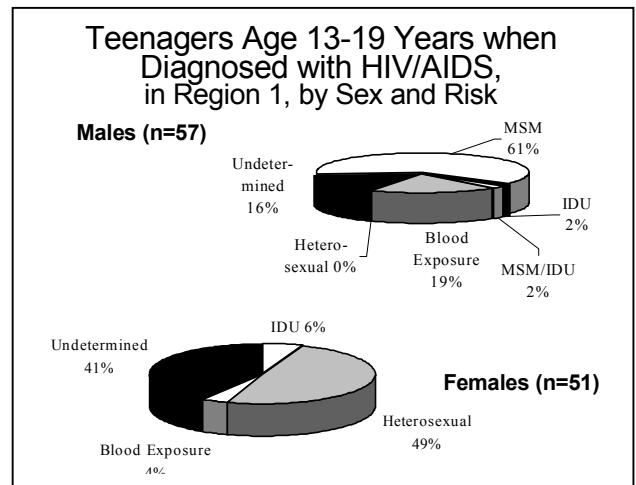
Job Corps is a job training program for disadvantaged youth that performs HIV testing for all entrants. Since testing began in 1988 there have been 24 positives out of over 12,000 tests among Michigan residents (less than one quarter of one percent) and there is no increase over time. All but one of the positives were in black youth and, proportional to the epidemic in Michigan, 79 percent were from the Detroit Metro Area; most (17 out of 24 or 71 percent) were among males.

Teen pregnancy rates have shown decreases over time. The Kids Count project reports that the number of teenagers aged 15-19 years in Detroit who gave birth dropped nearly 40 percent between 1991 and 1996 from 5,425 births in 1991 to 3,315 in 1996. However, in Wayne County and the City of Detroit, the areas with the highest teen pregnancy rates in the state (103 per 1,000 in Wayne County outside of Detroit and 139 in the City of Detroit), the 1997 rates among teens actually exceeded the rates among persons age 15-44 years. The statewide teen rate in 1997 was about 74 pregnancies per 1,000 females age 15-19 years. In Regions 2-7, the 1997 rates are about 60-80; in Region 8, about 40 and in Region 1, a high of 93. In each region as a whole the rate among teens is lower than the rates among persons age 15-44 years.

MDCH conducted adolescent seroprevalence surveys in Detroit/Wayne County between 1990 and 1995. These surveys were conducted at two adolescent health care clinics and one youth detention facility where HIV seroprevalence was measured in homeless youth. These three surveys all showed extremely low numbers of HIV-infected youth; eight infected youth out of more than 3,000 tested (less than one quarter of one percent positive). These youth were among the highest risk youth in the region and the state. They lived in the county with the highest rate of HIV (Wayne County including Detroit), most were sexually active and some were homeless. Therefore, fewer positives would be expected among youth who live in other areas of the state.

Mode of Transmission:

Teenagers: When discussing mode of transmission in other sections, those individuals with unknown risk were left out of percentage calculations. However, the unknown category for teenagers and young adults is too large to omit. Historically, 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.





2000 Profile of HIV/AIDS in Region 1

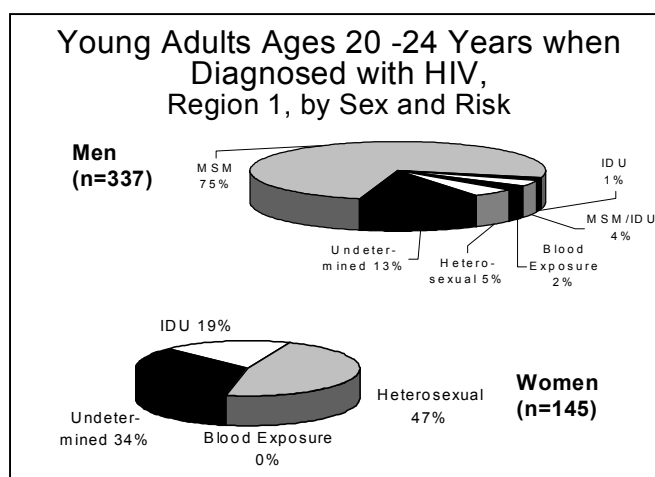
Additional Discussions: Teens and Young Adults (Continued)

Among the 108 teenagers (13-19) living with HIV in Region 1, 57 (53 percent) are male. Among these male cases, over half had sex with other males (63 percent) which includes the MSM/IDU cases while 19 percent had been infected with HIV through blood products before 1985. Only 2 percent could be attributed to IDU. There were no cases attributable to heterosexual transmission for this age group within this region. Teenage males have the largest proportion of unidentified risk compared with any other age group of men under age 50. Experience with investigating such persons shows that it is likely that many of these males were infected through having sex with other males.

Among the 51 teenage females living with HIV in Region 1, just under half (49 percent) were infected through heterosexual sex; 6 percent (<5 females) were IDUs. Similar to males of this age, there is a relatively large number who did not report a mode of transmission (21 females or 41 percent). Most of these females were probably infected heterosexually.

Young Adults: Among the 482 young adults ages 20-24 years infected with HIV, almost three quarters (70 percent) are male. Over three quarters of them reported sex with other males (including those MSM who also are IDU); 13 percent did not report a mode of transmission. Many of these were likely infected through sex with other men.

Among the 145 young women living with HIV, just under half (47 percent) were infected heterosexually and 19 percent were IDUs; just over a third did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually.



Geographic Distribution of Youth and Teen Cases:

Ninety-eight percent of the 590 persons diagnosed and reported with HIV/AIDS in these age groups (13-24) are located in high prevalence counties. The remaining 2 percent were reported in low prevalence counties.

Trends and Conclusions:

The number of new cases among person age 13-24 years has remained level.

Region 1 should consider both the behaviors of youth that increase the risk of HIV transmission and the likelihood that their partners for these behaviors are HIV-infected. Given the small number of infected persons in these age groups, it is likely that most are infected by older partners (25+).

**Table 1: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan**

Region 1

Prisoners and persons with unknown residence are included

January 1, 2000

Region 1 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% [^]			%
Male	6,790	4,625	76.0%	337.3	2,013,166	48%
White Males	2,160	1,471	24.2%	143.3	1,507,632	36%
Black Males	4,420	3,011	49.5%	1028.5	429,759	10%
Hispanic Males	150	105	1.7%	363.9	41,218	1%
Asian Males	10	*	*	*	27,431	1%
American Indian Males	10	5	0.1%	140.3	7,126	0%
Unknown Race Males	N/A	29	0.5%	N/A	0	0%
Female	2,150	1,463	24.0%	98.7	2,178,720	52%
White Females	300	203	3.3%	18.8	1,592,246	38%
Black Females	1,780	1,209	19.9%	349.7	509,070	12%
Hispanic Females	50	33	0.5%	120.4	41,533	1%
Asian Females	10	5	0.1%	35.4	28,232	1%
American Indian Females	10	*	*	*	7,639	0%
Unknown Race Females	N/A	9	0.1%	N/A	0	0%
White	2,460	1,674	27.5%	79.4	3,099,878	74%
Black	6,200	4,220	69.3%	660.4	938,829	22%
Hispanic	200	138	2.3%	241.7	82,751	2%
Asian	10	9	0.1%	18.0	55,663	1%
American Indian	10	9	0.1%	67.7	14,765	0%
Unknown Race	N/A	38	0.6%	N/A	0	0%
Male-Male Sex	3,850	2,619	51.1% [^]	N/A		
Injecting Drug Use	1,990	1,353	26.4% [^]	N/A		
<i>IDU with heterosexual risk</i> [#]	750	514	10.0% [^]	N/A		
<i>IDU without heterosexual risk</i> [#]	1,230	839	16.4% [^]	N/A		
M-M Sex and Inject Drugs	440	299	5.8% [^]	N/A		
Blood Exposure [#]	100	65	1.3% [^]	N/A		
Heterosexual	1,040	707	13.8% [^]	N/A		
<i>Partner IDU</i>	420	283	5.5% [^]	N/A		
<i>Partner Bisexual</i> [#]	50	32	0.6% [^]	N/A		
<i>Partner Blood Exp</i>	20	15	0.3% [^]	N/A		
<i>Partner HIV+</i>	550	377	7.3% [^]	N/A		
Perinatal	130	87	1.7% [^]	N/A		
Known Risk Total	7,530	5,130	100.0% [^]	N/A		
Unknown Risk	N/A	958	15.7%	N/A		
0 - 4 years	110	76	1.2%	33.9	324,337	8%
5 - 9 years	20	14	0.2%	6.7	377,988	9%
10-12 years	10	5	0.1%	5.6	225,148	5%
13 -19 years	160	108	1.8%	38.6	531,035	13%
20 -24 years	710	482	7.9%	236.0	300,831	7%
25 -29 years	1,310	892	14.7%	367.8	356,136	8%
30 -34 years	1,840	1,253	20.6%	487.9	377,152	9%
35 -39 years	1,780	1,215	20.0%	525.1	338,951	8%
40 -44 years	1,480	1,010	16.6%	488.6	302,935	7%
45 -49 years	830	562	9.2%	346.8	239,322	6%
50 -54 years	390	265	4.4%	202.1	192,934	5%
55 -59 years	180	121	2.0%	100.1	179,763	4%
60 -64 years	70	45	0.7%	37.0	189,236	5%
65 and over	60	38	0.6%	12.0	500,214	12%
Unknown Age	N/A	*	*	N/A	0	0%
DETROIT	5,830	3,969	65.2%	567.1	1,027,974	25%
MACOMB CO.	470	318	5.2%	65.5	717,400	17%
MONROE CO.	40	28	0.5%	29.9	133,600	3%
OAKLAND CO.	1,290	879	14.4%	119.0	1,083,592	26%
ST CLAIR CO.	70	51	0.8%	48.1	145,607	3%
WAYNE CO.	1,240	843	13.8%	114.4	1,083,713	26%
Total Region 1	8,940	6,088	100.0%	213.3	4,191,886	100%

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

Table 2: Living HIV/AIDS Cases in Michigan

Region 1

Sex and Race by Risk

January 1, 2000

Male Only Region 1	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Male-Male Sex	1,108	82%	1,443	57%	47	52%	21	84%	2,619	66%
Injecting Drug Use	90	7%	656	26%	24	27%	*	*	771	19%
IDU w/ hetero risk [#]	29	2%	200	8%	8	9%	*	*	237	6%
IDU w/o hetero risk [#]	61	5%	456	18%	16	18%	*	*	534	13%
M-M Sex /IDU	76	6%	214	8%	8	9%	*	*	299	7%
Blood Exposure	42	3%	10	0%	*	*	*	*	55	1%
Perinatal	6	0%	39	2%	*	*	*	*	46	1%
Heterosexual	30	2%	169	7%	8	9%	*	*	208	5%
Partner IDU	10	1%	74	3%	5	6%	*	*	90	2%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	18	1%	93	4%	*	*	*	*	114	3%
Total Known Risks	1,352	100%	2,531	100%	90	100%	25	100%	3,998	100%
Undetermined	119		480		15		13		627	
Total All Cases	1,471		3,011		105		38		4,625	

Female Only Region 1	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Injecting Drug Use	70	42%	497	54%	11	39%	*	*	582	51%
IDU w/ hetero risk [#]	41	25%	226	24%	9	32%	*	*	277	24%
IDU w/o hetero risk [#]	29	18%	271	29%	*	*	*	*	305	27%
Blood Exposure [#]	7	4%	*	*	*	*	*	*	10	1%
Perinatal	*	*	35	4%	*	*	*	*	41	4%
Heterosexual	84	51%	393	42%	16	57%	6	55%	499	44%
Partner IDU	24	15%	155	17%	10	36%	*	*	193	17%
Partner Bisexual [#]	9	5%	21	2%	*	*	*	*	32	3%
Partner Blood Exposure	9	5%	*	*	*	*	*	*	11	1%
Partner HIV+	42	25%	215	23%	*	*	*	*	263	23%
Total Known Risks	165	100%	928	100%	28	100%	11	100%	1,132	100%
Undetermined	38		281		5		7		331	
Total All Cases	203		1,209		33		18		1,463	

Male & Female Region 1	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Male-Male Sex	1,108	73%	1,443	42%	47	40%	21	58%	2,619	51%
Injecting Drug Use	160	11%	1,153	33%	35	30%	5	14%	1,353	26%
IDU w/ hetero risk [#]	70	5%	426	12%	17	14%	*	*	514	10%
IDU w/o hetero risk [#]	90	6%	727	21%	18	15%	*	*	839	16%
M-M Sex /IDU	76	5%	214	6%	8	7%	*	*	299	6%
Blood Exposure [#]	49	3%	13	0%	*	*	*	*	65	1%
Perinatal	10	1%	74	2%	*	*	*	*	87	2%
Heterosexual	114	8%	562	16%	24	20%	7	19%	707	14%
Partner IDU	34	2%	229	7%	15	13%	5	14%	283	6%
Partner Bisexual [#]	9	1%	21	1%	*	*	*	*	32	1%
Partner Blood Exposure	11	1%	*	*	*	*	*	*	15	0%
Partner HIV+	60	4%	308	9%	7	6%	*	*	377	7%
Total Known Risks	1,517	100%	3,459	100%	118	100%	36	100%	5,130	100%
Undetermined	157		761		20		20		958	
Total All Cases	1,674		4,220		138		56		6,088	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Living HIV/AIDS Cases in Michigan

Age by Risk

Region 1

January 1, 2000

Male Only Region 1	0-12 years Cases %^	13-19 years Cases %^	20-24 years Cases %^	25-29 years Cases %^	30-39 years Cases %^	40-49 years Cases %^	50-59 years Cases %^	60+ years Cases %^	All Ages Cases %^
Male-Male Sex	*	35 73%	252 86%	514 85%	1,147 70%	525 49%	117 47%	29 64%	2,619 66%
Injecting Drug Use	*	*	5 2%	24 4%	258 16%	386 36%	88 35%	8 18%	770 19%
IDU w/ hetero risk [#]	*	*	*	8 1%	94 6%	109 10%	22 9%	*	237 6%
IDU w/o hetero risk [#]	*	*	*	16 3%	164 10%	277 26%	66 26%	6 13%	533 13%
M-M Sex /IDU	*	*	12 4%	30 5%	141 9%	97 9%	16 6%	*	299 7%
Blood Exposure	5 10%	11 23%	8 3%	10 2%	14 1%	5 0%	*	*	55 1%
Perinatal	46 90%	*	*	*	*	*	*	*	46 1%
Heterosexual	*	*	16 5%	26 4%	79 5%	54 5%	28 11%	5 11%	208 5%
Partner IDU	*	*	*	10 2%	27 2%	33 3%	14 6%	*	90 2%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	13 4%	15 2%	51 3%	21 2%	14 6%	*	114 3%
Total Known Risks	51 100%	48 100%	293 100%	604 100%	1,639 100%	1,067 100%	250 100%	45 100%	3,997 100%
Undetermined	*	9	44	85	258	159	57	13	626
Total All Cases	52	57	337	689	1,897	1,226	307	58	4,623

Female Only Region 1	0-12 years Cases %^	13-19 years Cases %^	20-24 years Cases %^	25-29 years Cases %^	30-39 years Cases %^	40-49 years Cases %^	50-59 years Cases %^	60+ years Cases %^	All Ages Cases %^
Injecting Drug Use	*	*	27 28%	50 35%	272 60%	199 66%	27 47%	*	582 51%
IDU w/ hetero risk [#]	*	*	14 15%	28 19%	125 28%	96 32%	11 19%	*	277 24%
IDU w/o hetero risk [#]	*	*	13 14%	22 15%	147 33%	103 34%	16 28%	*	305 27%
Blood Exposure [#]	*	*	*	*	*	*	*	*	10 1%
Perinatal	41 100%	*	*	*	*	*	*	*	41 4%
Heterosexual	*	25 83%	68 72%	92 64%	175 39%	101 33%	30 53%	8 62%	499 44%
Partner IDU	*	*	17 18%	28 19%	75 17%	54 18%	12 21%	*	193 17%
Partner Bisexual [#]	*	*	*	5 3%	16 4%	5 2%	*	*	32 3%
Partner Blood Exposure	*	*	*	*	*	*	*	*	11 1%
Partner HIV+	*	19 63%	48 51%	55 38%	80 18%	41 14%	16 28%	*	263 23%
Total Known Risks	41 100%	30 100%	95 100%	144 100%	450 100%	302 100%	57 100%	13 100%	1,132 100%
Undetermined	*	21	50	59	121	44	22	12	331
Total All Cases	43	51	145	203	571	346	79	25	1,463

Male & Female Region 1	0-12 years Cases %^	13-19 years Cases %^	20-24 years Cases %^	25-29 years Cases %^	30-39 years Cases %^	40-49 years Cases %^	50-59 years Cases %^	60+ years Cases %^	All Ages Cases %^
Male-Male Sex	*	35 45%	252 65%	514 69%	1,147 55%	525 38%	117 38%	29 50%	2,619 51%
Injecting Drug Use	*	*	32 8%	74 10%	530 25%	585 43%	115 37%	12 21%	1,352 26%
IDU w/ hetero risk [#]	*	*	16 4%	36 5%	219 10%	205 15%	33 11%	*	514 10%
IDU w/o hetero risk [#]	*	*	16 4%	38 5%	311 15%	380 28%	82 27%	9 16%	838 16%
M-M Sex /IDU	*	*	12 3%	30 4%	141 7%	97 7%	16 5%	*	299 6%
Blood Exposure [#]	5 5%	13 17%	8 2%	12 2%	17 1%	7 1%	*	*	65 1%
Perinatal	87 95%	*	*	*	*	*	*	*	87 2%
Heterosexual	*	25 32%	84 22%	118 16%	254 12%	155 11%	58 19%	13 22%	707 14%
Partner IDU	*	*	20 5%	38 5%	102 5%	87 6%	26 8%	6 10%	283 6%
Partner Bisexual [#]	*	*	*	5 1%	16 1%	5 0%	*	*	32 1%
Partner Blood Exposure	*	*	*	5 1%	5 0%	*	*	*	15 0%
Partner HIV+	*	19 24%	61 16%	70 9%	131 6%	62 5%	30 10%	*	377 7%
Total Known Risks	92 100%	78 100%	388 100%	748 100%	2,089 100%	1,369 100%	307 100%	58 100%	5,129 100%
Undetermined	*	30	94	144	379	203	79	25	957
Total All Cases	95	108	482	892	2,468	1,572	386	83	6,086

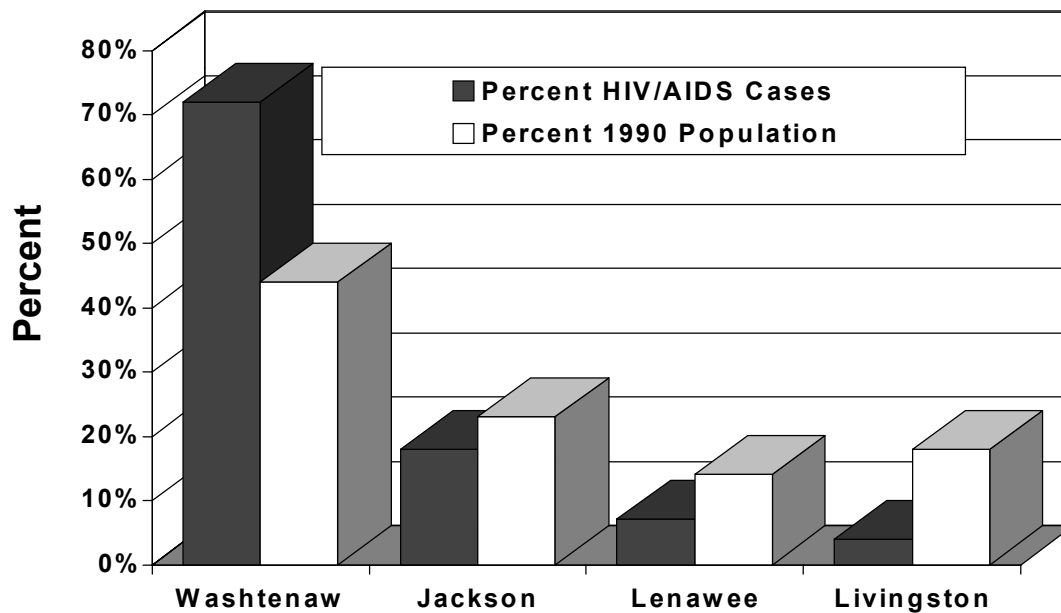
* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile



Region 2 Live HIV/AIDS Cases and Population by Local Health Department Jurisdiction





2000 Profile of HIV/AIDS in Region 2

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2000 Profile of HIV/AIDS in Region 2

Summary of Epidemic for Region 2

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 580 people living with HIV/AIDS in Region 2, of which 397 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 40 new cases annually. The number AIDS deaths dropped 76 percent between 1995 and 1998 in this region. 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. Region 2 has fewer cases (of the 9,301 cases reported statewide) than would be expected compared with the general population that lives there. The graph on the previous page displays the distribution of reported cases by local health departments within Region 2. Seventy-two percent of the reported cases within this region were recorded in Washtenaw County.

The 83 counties of Michigan are divided into 48 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county, however most contain a single county. All LHDs have been labeled as either being in a HI or and LOW HIV prevalence area (refer to page 2 of the Statewide profile for methodology used). Within Region 2, Jackson County, and Washtenaw County are considered to be LHDs in HI prevalence areas, while Lenawee County and Livingston County are considered to be LHDs in LOW prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Region 2. The guiding question used in this process has been, “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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM)*:** MSMs make up 69 percent of all HIV/AIDS cases with a known mode of transmission (246 out of 358). The MSM behavioral group continues to be the most affected behavioral group even though the number of new cases indicates a level (non-increasing, non-decreasing) trend.
- **Intravenous Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 23 percent are IDUs. Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend in IDU transmission also appears to be level.
- **Heterosexuals:** Heterosexual cases constitute 13 percent of the total number of cases with a known mode of transmission. *High risk heterosexuals* (HRH) are HIV-infected persons whose heterosexual sex partners are 1) IDUs, 2) bisexual men and/or 3) HIV+ individuals. The trend in heterosexual transmission is level in Region 2.

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

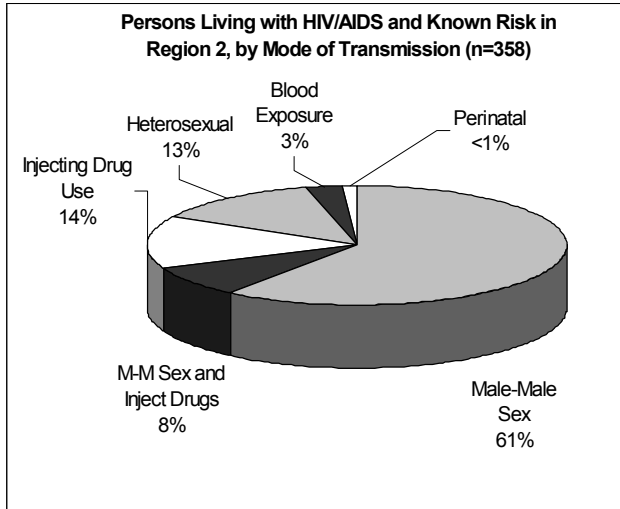


2000 Profile of HIV/AIDS in Region 2

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Surveillance is only able to determine the most likely mode. However, if information on the multiple risk of men who have sex with men (MSM) and injecting drug use (IDU) is available from a case report form, both risks are reported together.



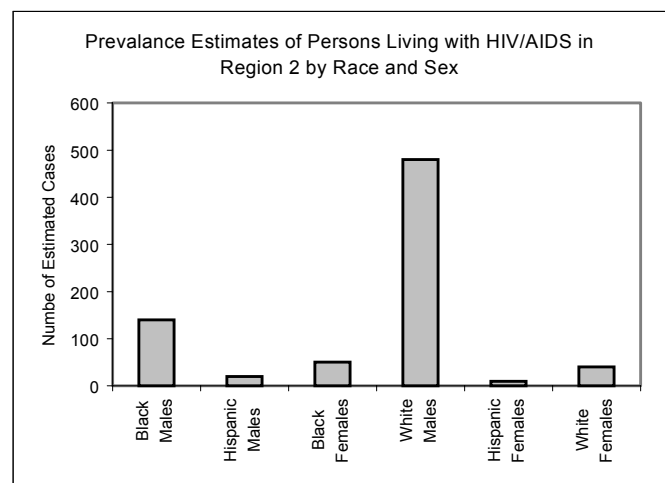
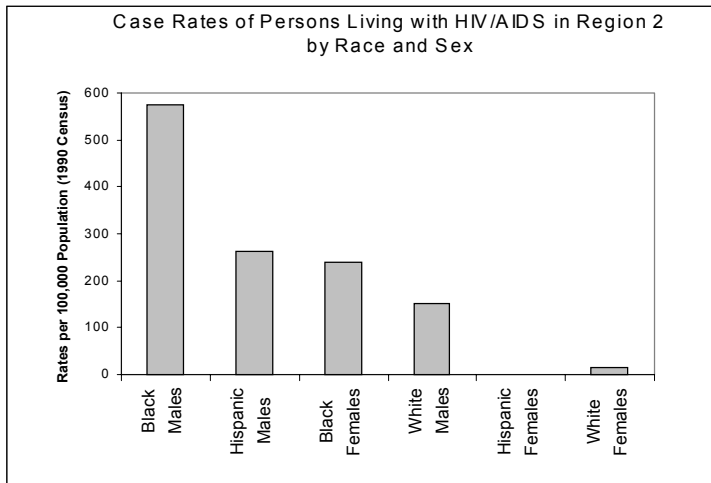
The pie chart indicates the number of people living with HIV/AIDS in Region 2 by mode of transmission for the 358 cases for which the risk was identifiable.

- This chart demonstrates that over two-thirds (69 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including 8 percent who also injected drugs.
- Almost a quarter (22 percent) are injecting drug users, including 8 percent who are also MSM. Thirty-three percent of non-MSM IDUs also have high risk heterosexual sex partners. (Table 1, page 11.)
- Finally, 14 percent of the total had high risk heterosexual sex partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

These bar graphs show the impact of this epidemic on six race and sex groups.



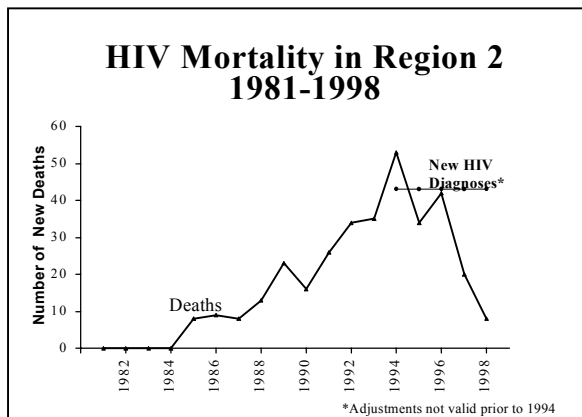
- Black males have the highest rate per 100,000 population (574) and the second highest estimated number (140) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Hispanic males have the second highest rate (261) and the fifth highest estimated number (20) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- Black females have the third highest rate (239) and the third highest estimated number (50) of cases of HIV/AIDS.
- White males have the fourth highest rate (111) and the highest estimated number (310) of cases.
- White females have the lowest rate (14) and the fourth highest estimated number (40) of HIV/AIDS cases.
- Hispanic females do not have enough cases to calculate a valid rate though they do have an estimate of 10 cases.



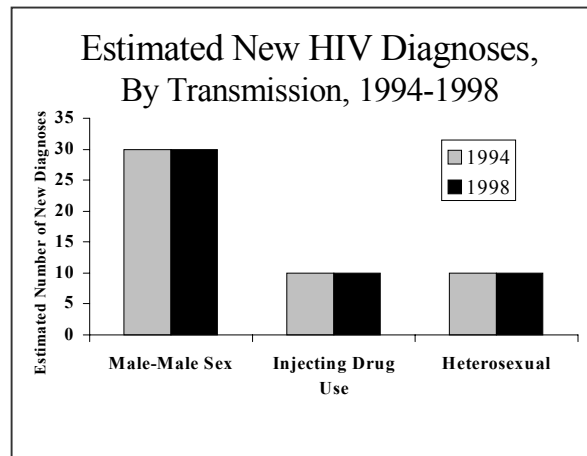
2000 Profile of HIV/AIDS in Region 2

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)



- New HIV diagnoses (HIV incidence) are level while deaths are declining. HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 40 persons were newly infected each year between 1994 and 1998 in Region 2.



- Transmission of HIV 1994-98:** The estimated number of new diagnoses among persons infected heterosexually has remained level at around 10 cases annually. New diagnoses among men who have sex with men are stable at 30 persons annually, and diagnoses among injection drug users is level at 10 new infections annually. There were fewer than 10 persons diagnosed each year who acquired infection from blood products received before 1985, and fewer than 10 infants infected at birth each year.

Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	80%	83%
Females	20%	17%
Whites	61%	62%
Blacks	34%	34%
Hispanics	4%	4%
Other	0%	1%
White Males	53%	55%
Black Males	26%	25%
Hispanic Males	2%	4%
Other Males	0%	1%
White Females	8%	7%
Black Females	9%	9%
Hispanic Females	2%	1%
Other Females	0%	0%
0-12 years	0%	1%
13-19 years	0%	2%
20-24 years	3%	9%
25-44 years	67%	75%
45+ years	30%	13%
HIV+ (Not AIDS)	57%	53%
AIDS	43%	47%
Total HIV Infected	223	397

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act and related sources (RWCA).

In 1999, 223 HIV-infected persons were reported receiving Ryan White Services in Region 2. A comparison also shows that persons receiving Ryan White services were significantly more likely than the reported population to be 45 years or older.

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (397), it is apparent that not all persons reported are receiving RWCA-funded services.

“Years” within this table refer to current age, not age at diagnosis.



2000 Profile of HIV/AIDS in Region 2

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Region 2. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons with a known risk. MDCH estimates that there are approximately 360 MSM living with HIV disease in Region 2. This includes 40 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race or Ethnicity:

Having sex with other men infected most males in Region 2. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 246), white males (185) account for three-quarters (75 percent) while black males (48) comprise approximately 20 percent of men in this combined category.

Age: Eighty-eight percent of all living cases are between the ages of 25-49 and reported male-male sex. MSM is the predominant mode of transmission for males aged 20 and up.

Geographic Distribution:

Just 5 percent of HIV-infected MSM statewide reside in Region 2. Within high prevalence counties, MSMs are over two-thirds (69 percent) within both high and low prevalence areas.

Trends and Conclusions:

MDCH estimates that there are about 30 new HIV infections annually among men who have sex with men. This number was level from 1994-1998 in Region 2.

Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic.

The data also suggest that prevention activities among teenagers and young adults should be geared towards males having sex with other males. These activities should recognize that adolescents at highest risk are those males whose sex partners are older. Older men are more likely to be HIV-infected than are younger males.

Region 2 should observe carefully to determine if the statewide trend of level number of cases among white and black MSM is occurring locally, especially in high prevalence areas.



2000 Profile of HIV/AIDS in Region 2

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Injecting drug users (IDUs) are the number two ranked behavioral group in Region 2. IDU are the second largest behavioral group affected by this epidemic and account for 22 percent of reported infected persons with a known risk. MDCH estimates there are approximately 110 IDUs living with HIV disease in Region 2. This estimate includes 40 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals, infants, and MSM. One-third (33 percent) of the reported cases among non-MSM IDUs also had high risk heterosexual sex partners. Additionally, of the 47 cases with reported heterosexual risk, 14 individuals (30 percent) also reported having IDU as partners.

When these linked populations are considered, IDU-related transmission accounts for 27 percent (95 cases) of people reported with HIV disease and having a known risk in Region 2. This is similar to the nationwide picture.

Race/Ethnicity and Gender:

Of the 81 IDU HIV/AIDS cases, 36 are black men (44 percent), seven are black women (9 percent), 31 are white men (38 percent), six are white women (7 percent), and one is a Hispanic male (1 percent). In total, 53 percent (43 cases) of the cases occur in black IDU.

More than three-quarters of the cases are men (84 percent), while women constitute the remaining 16 percent. Among the 13 women whose HIV infection has been attributed to IDU, 31 percent report high-risk heterosexual sex partners.

Age:

Among men with a known risk in each age group over 20 years, IDU is the second most common mode of transmission. Forty percent of IDU cases are among men in their thirties (56 percent of these were MSM/IDU).

Geographic Distribution:

Ninety-two percent of IDU cases were reported in the higher prevalence areas of the region. Within high prevalence counties, just under a quarter of cases with a known risk (23 percent*) are IDU, while in the lower prevalence counties 22 percent* of persons living with HIV/AIDS are IDU. However, there are fewer than 10 cases of IDU in lower prevalence counties. (* These percentages include IDU males who are also MSM).

Trends and Conclusions:

The number of new HIV diagnoses among IDUs (including MSM/IDU) has remained level between 1994 and 1998, at approximately 10 new HIV infections annually. Some of these persons also have heterosexual exposures, since IDUs are more likely to have IDU sex partners than are persons who do not inject drugs. In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.



2000 Profile of HIV/AIDS in Region 2

Ranked Behavioral Group/Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three-ranked behavioral group in Region 2. Heterosexual sex accounts for 13 percent of reported infected persons with a known risk. MDCH estimates that 70 persons living with HIV disease in Region 2 were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

There are an estimated 20 infected persons who are classified as IDUs but who also had one or more heterosexual sex partner(s) who engaged in high risk behaviors (i.e., IDU, bisexual). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. These dual risk IDU/heterosexual cases comprise 5 percent of all reported HIV/AIDS cases with a known risk and are 76 percent men and 24 percent women within Region 2.

There are no seroprevalence surveys in this region to measure the HIV positive rate of higher risk heterosexuals attending STD clinics. However rates here are likely lower than those at the Detroit STD clinics.

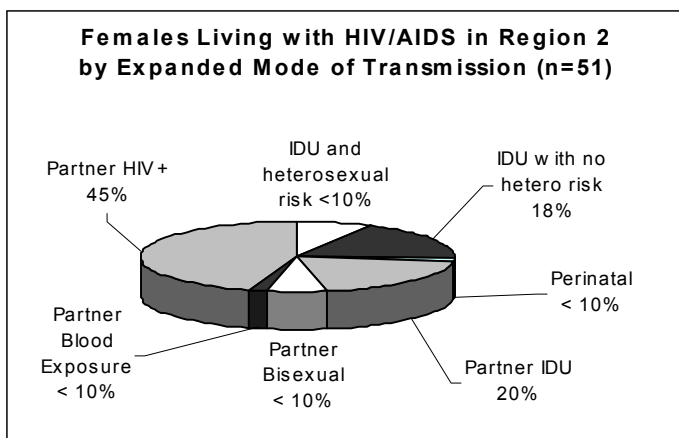
Race or Ethnicity and Gender:

Among females reported with a known risk for HIV/AIDS, three-quarters (73 percent) were infected heterosexually. Additionally, among women with a known risk, less than 8 percent are IDUs who also had high risk heterosexual sex partners. These data underscore the point that these two modes of transmission are closely intertwined for women.

Among the 47 men and women living with HIV/AIDS and infected heterosexually, 30 percent reported their heterosexual partner as injecting drug users, 6 percent as bisexual men (this applies to women only) and 2 percent as persons infected through blood products. Over half (62 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

While women account for 17 percent of HIV/AIDS cases in Region 2 they have consistently accounted for over three-quarters of heterosexually acquired infections -- currently 79 percent.

Nearly three-quarters of black women were infected heterosexually (72 percent). Of white women, over two-thirds were infected through heterosexual sex (68 percent).



Over half of the heterosexual cases of HIV/AIDS are black. The percent of men infected heterosexually is low--3 percent of cases among men of all races with a known risk.

The definition for heterosexual transmission for females includes sub-categories to help better describe risk to women. To be reported as a heterosexual transmission case, a female must have a partner who is: 1) HIV+, 2) HIV+ due to blood exposure, 3) bisexual, and/or 4) an IDU. Heterosexual and IDU modes of transmission and associated sub-categories for infected women with known risk are shown in the pie chart here.



2000 Profile of HIV/AIDS in Region 2

Ranked Behavioral Group: Heterosexuals (Continued)

Age:

For women between the ages of 25 and 49, heterosexual transmission is the predominant mode. (Most other age groups have <5 cases.)

Geographic Distribution:

Ninety-two percent of the 47 cases in Region 2 attributed to heterosexual activity were reported in high prevalence counties. Of all the cases within high prevalence counties in Region 2, heterosexual transmission constitutes 15 percent. Within low prevalence counties, heterosexual transmission constitutes 11 percent of the cases, although this percent reflects <5 actual cases.

Trends and Conclusions:

Heterosexual transmission within Region 2 is level. MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission was stable at 20 annually from 1994 to 1998.

The data 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 high risk heterosexuals compared with MSMs, this mode of transmission is unlikely to surpass that of MSM. However, the overlapping risk of high risk heterosexuals with IDU makes it difficult to predict whether heterosexually acquired cases will equal or surpass, in the future, those classified as IDU.



2000 Profile of HIV/AIDS in Region 2

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Although white persons comprise the majority of those living with HIV/AIDS in Region 2, there are a disproportionate number of black cases. Blacks comprise 7 percent of the Region 2 population yet make up a third (33 percent) of the cases of HIV/AIDS. MDCH estimates 190 blacks live with HIV/AIDS in Region 2. The rate of HIV infection among blacks is 420 per 100,000 population, seven times higher than the rate among whites. MDCH estimates that as many as one out of 170 black males and one out of 420 black females may be HIV-infected.

White persons comprise over half (61 percent) of reported HIV/AIDS cases, and over three-quarters of the population. MDCH estimates 350 whites live with HIV/AIDS in Region 2. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than blacks or Hispanics (62 per 100,000 population). MDCH estimates that as many as one out of 900 white males and one out of 7,140 white females may be HIV-infected.

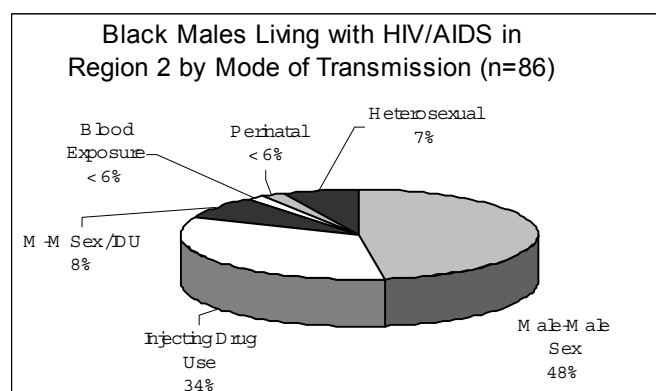
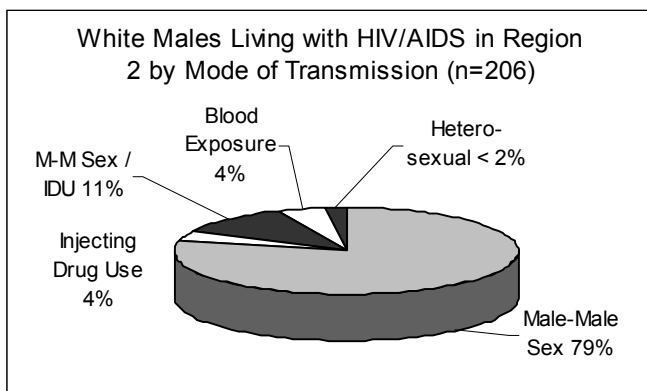
Hispanics comprise 4 percent of cases and 2 percent of the population. MDCH estimates 20 Hispanics live with HIV/AIDS in this region. However, the relatively few cases are spread out among a small population and therefore they have a rate higher than that among whites (138 per 100,000 population). MDCH estimates that as many as one out of 380 Hispanic males may be HIV-infected. (There are too few cases of Hispanic females to produce a valid estimate.)

Most persons living with HIV/AIDS in Region 2 in 1998 are male (83 percent). Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 17 percent of the infected population in this region.

Mode of Transmission:

The following pie charts display the proportion of black and white male cases by mode of transmission, among those with known transmission (refer to page 8 for female distributions).

- The majority of the 331 male HIV/AIDS cases are white (65 percent), 30 percent are black, 4 percent are Hispanic and 1 percent are other or unknown race.



- Over half of the 66 female HIV/AIDS cases are black (52 percent), 41 percent are white, 5 percent are Hispanic and 3 percent are other or unknown race. (Please refer back to page 8 for break down of female transmissions.)



2000 Profile of HIV/AIDS in Region 2

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution of Cases:

Ninety-nine percent of all the black cases occur in high prevalence counties. For whites, the distribution of cases is divided 84 percent and 16 percent between high and low prevalence counties respectively.

Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks in Region 2 has remained level at 10 cases. During this same time period, the estimated annual number among whites has also remained stable at 20 cases.

Trends in new HIV diagnoses among males and females both show level patterns. The number of males newly diagnosed with HIV each year is level at 30 new infections; among females there are 10 new infections annually.

Trends over time among the various race or sex groups in this region are difficult to discern due to sparse data. However similar to the state, the impact this epidemic is having on blacks is disproportionate.

Female cases in this region are divided between blacks and whites 52 and 41 percent respectively.

**Table 1: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan
Region 2**

Prisoners and persons with unknown residence are included

January 1, 2000

Region 2 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% [^]		Census	%
Male	480	331	83%	150.3	319,465	50%
White Males	310	215	54%	111.0	279,399	44%
Black Males	140	98	25%	574.3	24,376	4%
Hispanic Males	20	14	4%	261.1	7,659	1%
Asian Males	10	*	*	*	6,751	1%
American Indian Males	10	*	*	*	1,280	0%
Unknown Race Males	N/A	*	*	N/A	0	N/A
Female	100	66	17%	31.2	320,349	50%
White Females	40	27	7%	14.0	284,879	45%
Black Females	50	34	9%	239.2	20,900	3%
Hispanic Females	10	*	*	*	6,864	1%
Asian Females	10	*	*	*	6,451	1%
American Indian Females	10	*	*	*	1,255	0%
Unknown Race Females	N/A	*	*	N/A	0	N/A
White	350	242	61%	62.0	564,278	88%
Black	190	132	33%	419.6	45,276	7%
Hispanic	20	17	4%	137.7	14,523	2%
Asian	10	*	*	*	13,202	2%
American Indian	10	*	*	*	2,535	0%
Unknown Race	N/A	*	*	N/A	0	N/A
Male-Male Sex	320	216	60%[^]	N/A		
Injecting Drug Use	70	51	14%[^]	N/A		
<i>IDU with heterosexual risk[#]</i>	20	17	5% [^]	N/A		
<i>IDU without heterosexual risk[#]</i>	50	34	9% [^]	N/A		
M-M Sex and Inject Drugs	40	30	8%[^]	N/A		
Blood Exposure[#]	10	10	3%[^]	N/A		
Heterosexual	70	47	13%[^]	N/A		
<i>Partner IDU</i>	20	14	4% [^]	N/A		
<i>Partner Bisexual[#]</i>	10	*	* [^]	N/A		
<i>Partner Blood Exp</i>	10	*	* [^]	N/A		
<i>Partner HIV+</i>	40	29	8% [^]	N/A		
Perinatal	10	*	*[^]	N/A		
Known Risk Total	520	358	100%[^]	N/A		
Unknown Risk	N/A	39	10%[^]	N/A		
0 - 4 years	10	*	*[^]	*	46,097	7%
5 - 9 years	10	*	*[^]	*	44,645	7%
10-12 years	10	*	*[^]	*	26226	4%
13 -19 years	10	9	2%[^]	14.5	69,086	11%
20 -24 years	50	34	9%[^]	79.3	63,061	10%
25 -29 years	110	72	18%[^]	192.8	57,046	9%
30 -34 years	130	91	23%[^]	223.6	58,128	9%
35 -39 years	120	84	21%[^]	218.3	54,967	9%
40 -44 years	70	50	13%[^]	143.8	48,687	8%
45 -49 years	50	33	8%[^]	134.6	37,139	6%
50 -54 years	20	13	3%[^]	71.4	28,015	4%
55 -59 years	10	*	*[^]	*	23,788	4%
60 -64 years	10	*	*[^]	*	22,843	4%
65 and over	10	*	*[^]	*	60,086	9%
Unknown Age	N/A	*	*[^]	N/A	0	N/A
JACKSON CO.	100	70	18%	66.8	149,756	23%
LENAWEE CO.	40	29	7%	43.7	91,476	14%
LIVINGSTON CO.	20	14	4%	17.3	115,645	18%
WASHTENAW CO.	420	284	72%	148.4	282,937	44%
Total Region 2	580	397	100%	90.7	639,814	100%

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

Table 2: Living HIV/AIDS Cases in Michigan

Region 2
Sex and Race by Risk

January 1, 2000

Male Only Region 2	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Male-Male Sex	162	79%	41	48%	9	82%	*	*	216	70%
Injecting Drug Use	8	4%	29	34%	*	*	*	*	38	12%
IDU w/ hetero risk [#]	*	*	11	13%	*	*	*	*	13	4%
IDU w/o hetero risk [#]	6	3%	18	21%	*	*	*	*	25	8%
M-M Sex /IDU	23	11%	7	8%	*	*	*	*	30	10%
Blood Exposure	9	4%	*	*	*	*	*	*	10	3%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	6	7%	*	*	*	*	10	3%
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*	*	*	6	2%
Total Known Risks	206	100%	86	100%	11	100%	*	*	307	100%
Undetermined	9		12		*		*		24	
Total All Cases	215		98		14		*		331	

Female Only Region 2	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Injecting Drug Use	6	27%	7	28%	*	*	*	*	13	25%
IDU w/ hetero risk [#]	*	*	*	*	*	*	*	*	*	*
IDU w/o hetero risk [#]	*	*	6	24%	*	*	*	*	9	18%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	15	68%	18	72%	*	*	*	*	37	73%
Partner IDU	*	*	7	28%	*	*	*	*	10	20%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	10	45%	10	40%	*	*	*	*	23	45%
Total Known Risks	22	100%	25	100%	*	*	*	*	51	100%
Undetermined	5		9		*		*		15	
Total All Cases	27		34		*		*		66	

Male & Female Region 2	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Male-Male Sex	162	71%	41	37%	9	64%	*	*	216	60%
Injecting Drug Use	14	6%	36	32%	*	*	*	*	51	14%
IDU w/ hetero risk [#]	5	2%	12	11%	*	*	*	*	17	5%
IDU w/o hetero risk [#]	9	4%	24	22%	*	*	*	*	34	9%
M-M Sex /IDU	23	10%	7	6%	*	*	*	*	30	8%
Blood Exposure [#]	9	4%	*	*	*	*	*	*	10	3%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	19	8%	24	22%	*	*	*	*	47	13%
Partner IDU	5	2%	9	8%	*	*	*	*	14	4%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	12	5%	14	13%	*	*	*	*	29	8%
Total Known Risks	228	100%	111	100%	14	100%	5	100%	358	100%
Undetermined	14		21		*		*		39	
Total All Cases	242		132		17		6		397	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Living HIV/AIDS Cases in Michigan
Age by Risk
Region 2
January 1, 2000

Male Only Region 2	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Male-Male Sex	*	*	19	79%	191	72%	6	50%	216	70%
Injecting Drug Use	*	*	*	*	34	13%	*	*	38	12%
IDU w/ hetero risk [#]	*	*	*	*	12	5%	*	*	13	4%
IDU w/o hetero risk [#]	*	*	*	*	22	8%	*	*	25	8%
M-M Sex /IDU	*	*	*	*	25	9%	*	*	30	10%
Blood Exposure	*	*	*	*	6	2%	*	*	10	3%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	9	3%	*	*	10	3%
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	5	2%	*	*	6	2%
Total Known Risks	6	100%	24	100%	265	100%	12	100%	307	100%
Undetermined	*		*		19		*		24	
Total All Cases	7		25		284		15		331	

Female Only Region 2	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Injecting Drug Use	*	*	*	*	11	26%	*	*	13	25%
IDU w/ hetero risk [#]	*	*	*	*	*	*	*	*	*	*
IDU w/o hetero risk [#]	*	*	*	*	8	19%	*	*	9	18%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	5	83%	*	*	27	64%	*	*	37	73%
Partner IDU	*	*	*	*	9	21%	*	*	10	20%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	15	36%	*	*	23	45%
Total Known Risks	6	100%	*	*	42	100%	*	*	51	100%
Undetermined	*		6		8		*		15	
Total All Cases	7		9		50		*		66	

Male & Female Region 2	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Male-Male Sex	*	*	19	70%	191	60%	6	38%	216	60%
Injecting Drug Use	*	*	*	*	45	14%	*	*	51	14%
IDU w/ hetero risk [#]	*	*	*	*	15	5%	*	*	17	5%
IDU w/o hetero risk [#]	*	*	*	*	30	9%	*	*	34	9%
M-M Sex /IDU	*	*	*	*	25	8%	*	*	30	8%
Blood Exposure [#]	*	*	*	*	6	2%	*	*	10	3%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	5	42%	*	*	36	11%	5	31%	47	13%
Partner IDU	*	*	*	*	13	4%	*	*	14	4%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	20	6%	*	*	29	8%
Total Known Risks	12	100%	27	100%	319	100%	16	100%	358	100%
Undetermined	*		7		30		*		39	
Total All Cases	14		34		349		19		397	

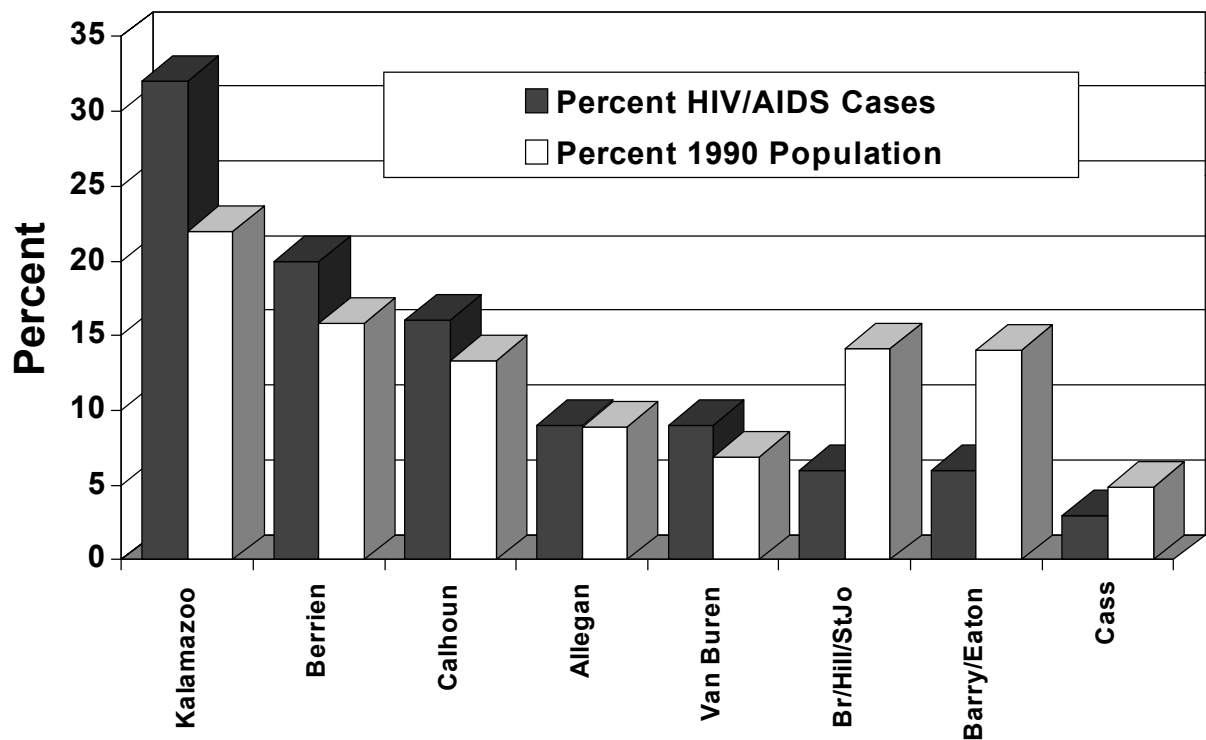
* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile



Region 3 Live HIV/AIDS Cases and Population by Local Health Department Jurisdiction





2000 Profile of HIV/AIDS in Region 3

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2000 Profile of HIV/AIDS in Region 3

Summary of Epidemic for Region 3

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 910 people living with HIV/AIDS in Region 3, of which 616 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 70 new cases annually. The number of AIDS deaths dropped 69 percent between 1995 and 1998 in this region. 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. Region 3 has fewer cases (of the 9,301 cases reported statewide) when compared with the general population that lives there (although there are a few LHDs which have more than an expected number of cases). The graph on the previous page displays the distribution of reported cases by local health department within Region 3. The greatest percent of cases within this region, thirty-two percent, was recorded in Kalamazoo County.

The 83 counties of Michigan are divided into 48 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county, however most contain a single county. All LHDs have been labeled as either being in a high or low HIV prevalence area (refer to page 2 of the statewide profile for methodology used). Within Region 3, Allegan, Berrien, Calhoun, Kalamazoo, and Van Buren counties are considered to be LHDs in high prevalence areas, while Barry, Branch, Cass, Eaton, and Hillsdale, and St. Joseph counties are considered to be LHDs in low prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Region 3. The guiding question used in this process has been, "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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM)*:** MSMs make up 61 percent of all HIV/AIDS cases with a known mode of transmission (324 out of 527). The MSM behavioral group continues to be the most affected behavioral group statewide even though the number of new cases indicates a level (non-increasing, non-decreasing) trend.
- **Intravenous Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 22 percent are IDUs. Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend in IDU transmission also appears to be level.
- **Heterosexuals:** Heterosexual cases constitute 20 percent of the total number of cases with a known mode of transmission. *High risk heterosexuals* (HRH) are HIV-infected persons whose heterosexual sex partners are 1) IDUs, 2) bisexual men and/or 3) HIV+ individuals. The trend in heterosexual transmission is level in Region 3.

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

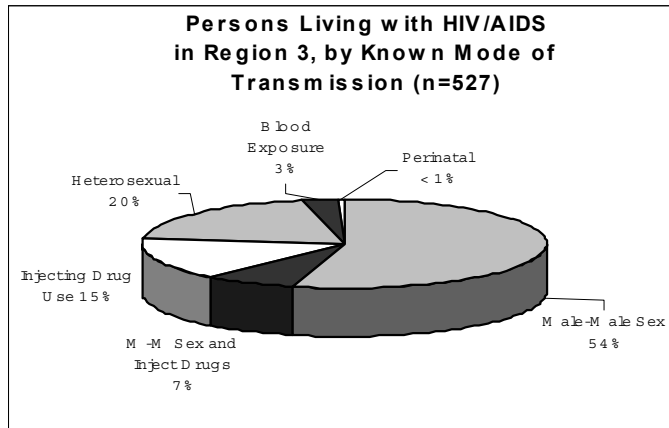


2000 Profile of HIV/AIDS in Region 3

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Surveillance is only able to determine the most likely mode. However, if information on the multiple risk of men who have sex with men (MSM) and injecting drug use (IDU) is available from a case report form, both risks are reported together.



The pie chart indicates the number of people living with HIV/AIDS in Region 3 by mode of transmission for the 527 cases for which the risk was identifiable.

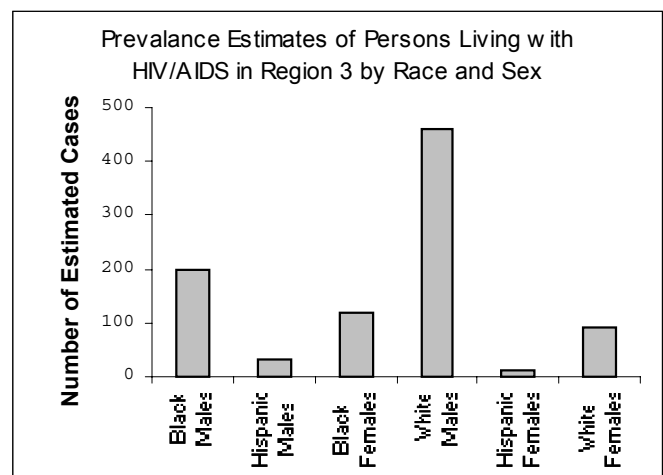
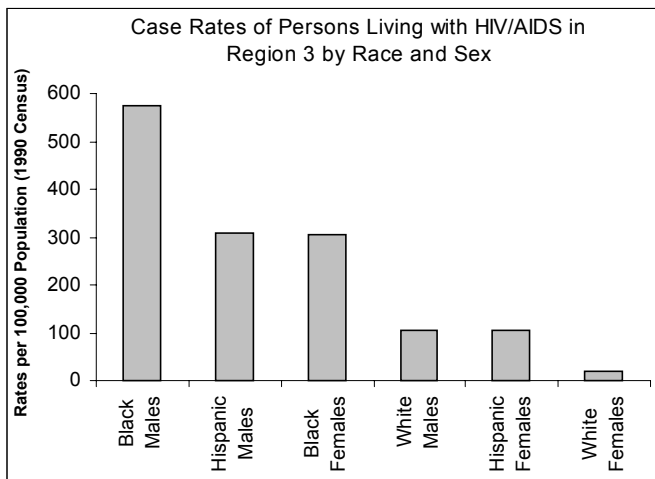
- This chart demonstrates that just under two-thirds (61 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including 7 percent who also injected drugs.
- Almost one quarter (22 percent) are injecting drug users, including 7 percent who are also MSM. Forty-nine percent of non-MSM IDUs also have high risk heterosexual sex partners. (Table 1, page 10.)

- Finally, 20 percent of the total had high risk heterosexual sex partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

These bar graphs show the impact of this epidemic on six race and sex groups.



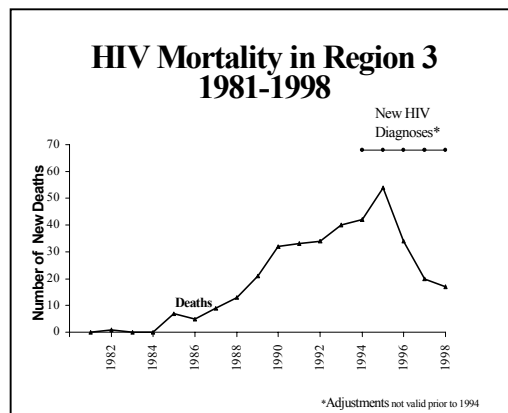
- Black males have both the highest rate per 100,000 population (574) and an estimated number (200) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Hispanic males have the second highest rate (308) and the fifth highest estimated number (30) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- Black females have the third highest rate (304) and the third highest estimated number (120) of cases of HIV/AIDS.
- Hispanic females have the fourth highest rate (106) and the sixth highest estimated number (10) of HIV/AIDS cases. However, this rate is based upon very few cases.
- White males have the fifth highest rate (104) and the highest estimated number (460) of cases.
- White females have the lowest rate (19) and the fourth highest estimated number (90) of HIV/AIDS cases.



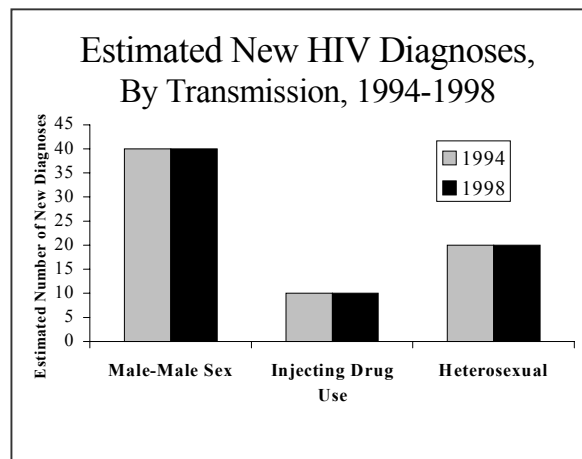
2000 Profile of HIV/AIDS in Region 3

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)



- New HIV diagnoses (HIV incidence) are level while deaths are declining.* HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 70 persons were newly infected each year between 1994 and 1998 in Region 3.



- Transmission of HIV 1994-98:* The estimated number of new diagnoses among persons infected heterosexually has remained level at around 20 cases annually. New diagnoses among men who have sex with men are stable at 40 persons annually, and diagnoses among injection drug users is level at 10 new infections annually. There were fewer than 10 persons diagnosed each year who acquired infection from blood products received before 1985, and fewer than 10 infants infected at birth each year.

Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	74%	76%
Females	26%	24%
Whites	57%	62%
Blacks	36%	34%
Hispanics	7%	4%
Other	1%	0%
White Males	47%	50%
Black Males	22%	22%
Hispanic Males	5%	3%
Other Males	1%	0%
White Females	10%	10%
Black Females	14%	13%
Hispanic Females	2%	1%
Other Females	0%	0%
0-12 years	1%	1%
13-19 years	1%	3%
20-24 years	3%	10%
25-44 years	72%	72%
45+ years	23%	14%
HIV+ (Not AIDS)	59%	48%
AIDS	41%	52%
Total HIV Infected	386	616

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act and related sources (RWCA).

In 1999, 386 HIV-infected persons were reported receiving Ryan White Services in Region 3. A comparison also shows that persons receiving Ryan White services were significantly more likely than the reported population to be 45 years or older, or HIV+(not AIDS).

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (616), it is apparent that not all persons reported are receiving RWCA-funded services.

“Years” within this table refer to current age, not age at diagnosis.



2000 Profile of HIV/AIDS in Region 3

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Region 3. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons with a known risk. MDCH estimates that there are approximately 480 MSM living with HIV disease in Region 3. This includes 60 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race or Ethnicity:

Having sex with other men infected most males in Region 3. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 324), white males (250) account for more than three-quarters (77 percent) while black males (62) comprise approximately 19 percent of men in this combined category.

Age: The largest percentage of living MSM cases are between the ages of 25-49 (91 percent). MSM is the predominant mode of transmission for males aged 20 and up.

Geographic Distribution:

Just seven percent of all HIV-infected MSM statewide reside in Region 3. Within high prevalence counties, MSMs constitute 62 percent of the cases with a known risk while in the lower prevalence counties 60 percent of reported persons living with HIV/AIDS are MSM. (* These percentages include MSM who are also are IDU).

Trends and Conclusions:

MDCH estimates that there are about 40 new HIV infections annually among men who have sex with men. This number was level from 1994-1998 in Region 3.

Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic.

The data also suggest that prevention activities among teenagers and young adults should be geared towards males having sex with other males. These activities should recognize that adolescents at highest risk are those males whose sex partners are older. Older men are more likely to be HIV-infected than are younger males.

Region 3 should recognize that there are an estimated 60 cases of MSM who additionally are IDUs. Prevention efforts targeting MSM should allow for an increased vision to encompass MSM/IDU who otherwise might be missed.

Region 3 should observe carefully to determine if the statewide trend of level number of cases among white and black MSM is occurring locally, especially in high prevalence areas.



2000 Profile of HIV/AIDS in Region 3

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Injecting drug users (IDUs) are the number two ranked behavioral group in Region 3. IDU are the second largest behavioral group affected by this epidemic and account for 22 percent of reported infected persons with a known risk. MDCH estimates there are approximately 180 IDUs living with HIV disease in Region 3. This estimate includes 60 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals and MSM. Nearly one-half (49 percent) of the reported cases among non-MSM IDUs also had high risk heterosexual sex partners. Additionally, of the 105 cases with reported heterosexual risk, 38 individuals (36 percent) also reported having IDU as partners.

When these linked populations are considered, IDU-related transmission accounts for 30 percent (157 cases) of people reported with HIV disease and having a known risk in Region 3. This is similar to the nationwide picture.

Race or Ethnicity and Gender:

Of the 119 IDU HIV/AIDS cases, 49 are black men (41 percent), 17 are black women (14 percent), 42 are white men (35 percent), eight are white women (7 percent), and two are a Hispanic males (2 percent). In total, 55 percent (66) of the cases occur in black IDU.

More than three-quarters of the cases are men (78 percent), while women constitute the remaining 22 percent. Among the 17 women whose HIV infection has been attributed to IDU, 53 percent report high-risk heterosexual sex partners.

Age:

Among men with a known risk in each age group over 25 years, IDU is the second most common mode of transmission. Thirty-four percent of IDU cases are among men in their thirties (50 percent of these were MSM/IDU).

Geographic Distribution:

Ninety-three percent of IDU cases were reported in the higher prevalence areas of the region. Within high prevalence counties, less than a quarter of cases with a known risk (23 percent*) are IDU, while in the lower prevalence counties 17 percent* of persons living with HIV/AIDS are IDU. (* These percentages include IDU males who are also MSM).

Trends and Conclusions:

The number of new HIV diagnoses among IDUs (including MSM/IDU) has remained level between 1994 and 1998, at approximately 10 new HIV infections annually. IDU cases in Region 3 are greater among blacks than among whites. Some of these persons also have heterosexual exposures, since IDUs are more likely to have IDU sex partners than are persons who do not inject drugs.

In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.



2000 Profile of HIV/AIDS in Region 3

Ranked Behavioral Group/Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three ranked behavioral group in Region 3. Heterosexual sex accounts for 20 percent of reported infected persons with a known risk. MDCH estimates that 160 persons living with HIV disease in Region 3 were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

Currently there are an estimated 60 infected persons who are classified as IDUs but who also had one or more heterosexual sex partner(s) who engaged in high risk behaviors (i.e., IDU, bisexual). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. Among reported cases, the dual risk IDU/heterosexual cases comprise 8 percent of all reported HIV/AIDS cases with a known risk and are 58 percent men and 42 percent women within Region 3.

There are no seroprevalence surveys in this region to measure the HIV positive rate of higher risk heterosexuals attending STD clinics. However rates here are likely lower than those at the Detroit STD clinics.

Race or Ethnicity and Gender:

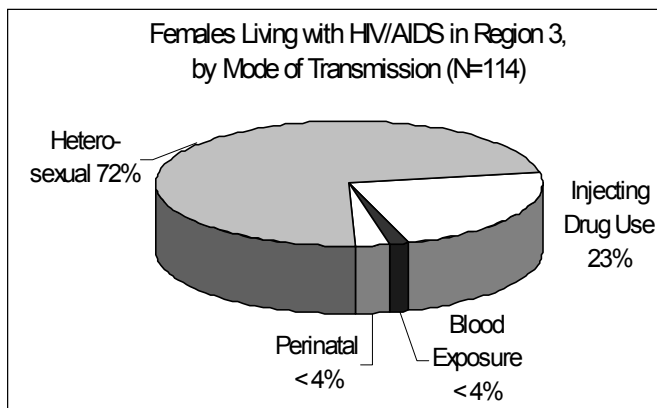
Among females reported with HIV/AIDS and a known risk, just under three-quarters (73 percent) of cases are contracted heterosexually. Additionally, among women with a known risk, 15 percent are IDUs who also had high risk heterosexual sex partners. These data underscore the point that these two modes of transmission are closely intertwined for women.

Among the 105 men and women living with HIV/AIDS and infected heterosexually, 36 percent reported their heterosexual partner as injecting drug users, 10 percent as bisexual men (this applies to women only) and 2 percent as persons infected through blood products. Over half (54 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

While women account for 24 percent of HIV/AIDS cases in Region 3 they have consistently accounted for over three-quarters of heterosexually acquired infections -- currently 79 percent.

Over two-thirds of black women were infected heterosexually (68 percent). Among white women, over three-quarters were infected through heterosexual sex (78 percent).

Half of the heterosexual cases of HIV/AIDS are black. The percent of men infected heterosexually is low--5 percent of cases among men of all races with a known risk.



The definition for heterosexual transmission for females includes sub-categories to help better describe risk to women. To be reported as a heterosexual transmission case, a female must have a partner who is: 1) HIV+, 2) HIV+ due to blood exposure, 3) bisexual, and/or 4) an IDU. Heterosexual and IDU modes of transmission and associated sub-categories for infected women with known risk are shown in the pie chart here.



2000 Profile of HIV/AIDS in Region 3

Ranked Behavioral Group: Heterosexuals (Continued)

Age:

For women between the ages of 13 and 49, heterosexual transmission is the predominant mode. (Most other age groups have <5 cases.)

Geographic Distribution:

Seventy-eight percent of the 105 cases in Region 3 attributed to heterosexual activity were reported in high prevalence counties. Of all the cases within high prevalence counties in Region 3, heterosexual transmission constitutes 12 percent. Within low prevalence counties, heterosexual transmission constitutes 19 percent of the cases.

Trends and Conclusions:

Heterosexual transmission is the only mode of transmission which is increasing statewide among infected persons. However, in Region 3, heterosexual transmission is level. MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission was stable at 20 annually from 1994 to 1998.

In Region 3 the number of heterosexual transmission cases may approach IDU cases over time, but it is important to remember that the seroprevalence rates are much lower. Therefore, interventions among a few IDUs may prevent more infections than among a large number of heterosexuals.

The data 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 high risk heterosexuals compared with MSMs, this mode of transmission is unlikely to surpass that of MSM. However, the overlapping risk of high risk heterosexuals with IDU makes it difficult to predict whether heterosexually acquired cases will equal or surpass, in the future, those classified as IDU.



2000 Profile of HIV/AIDS in Region 3

Description of the Epidemic by Race and Sex

Date from HIV/AIDS Reporting System (HARS)

Number of Cases:

Although white persons comprise the majority of those living with HIV/AIDS in Region 3, the number of black cases is still disproportionate. Blacks comprise 7 percent of this region's population yet make up a third (35 percent) of the cases of HIV/AIDS. MDCH estimates 320 blacks live with HIV/AIDS in Region 3. The rate of HIV infection among blacks is 431 per 100,000 population, seven times higher than the rate among whites. MDCH estimates that as many as one out of 170 black males and one out of 330 black females may be HIV-infected.

White persons comprise over half (60 percent) of reported HIV/AIDS cases and 90 percent of the region's population. MDCH estimates 550 whites live with HIV/AIDS in Region 3. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than blacks or Hispanics (60 per 100,000 population). MDCH estimates that as many as one out of 970 white males and one out of 5,210 white females may be HIV-infected.

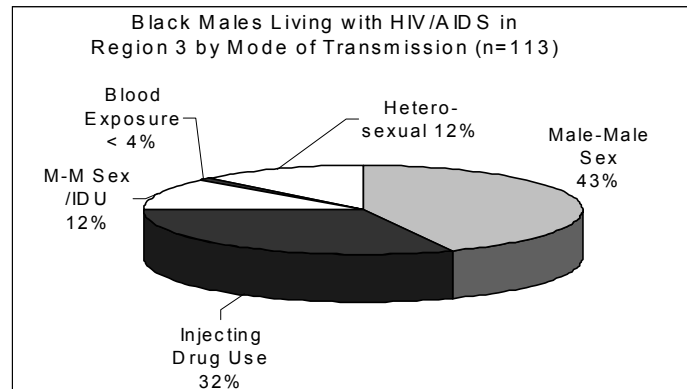
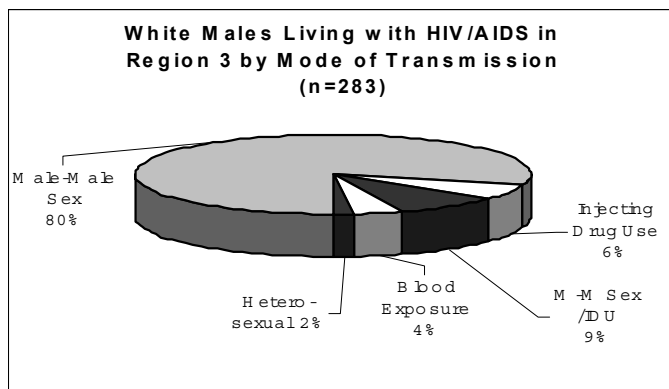
Hispanics comprise 4 percent of cases and 2 percent of the population. MDCH estimates 40 Hispanics live with HIV/AIDS in this region. However, the relatively few cases are spread out among a small population and therefore they have a rate higher than that among whites (209 per 100,000 population). MDCH estimates that as many as one out of 320 Hispanic males and one out of 940 Hispanic females may be infected.

Most persons living with HIV/AIDS in Region 3 in 1998 are male (76 percent). Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 24 percent of the infected population in this region.

Mode of Transmission:

The following pie charts display the proportion of black and white male cases by mode of transmission, among those with known transmission (Refer back to page 6 for female distributions).

- The majority of the 413 male HIV/AIDS cases are white (69 percent), 27 percent black, 4 percent Hispanic and <1 percent are other or unknown race.



- Just under half of the 114 female HIV/AIDS cases are black (49 percent), 45 percent are white, 5 percent are Hispanic and <1 percent are other or unknown race (refer to page 6 for female transmissions data).



2000 Profile of HIV/AIDS in Region 3

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution of Cases:

Ninety percent of all the black cases occur in high prevalence counties. For whites, the distribution of cases is divided 82 percent and 18 percent between high and low prevalence counties respectively.

Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks in Region 3 has remained level at 30 cases. During this same time period, the estimated annual number among whites has also remained stable at 40 cases.

Trends in new HIV diagnoses among males and females both show level patterns. The number of males newly diagnosed with HIV each year is level at 50 new infections; among females 20.

Trends over time among the various race or sex groups in this region are difficult to discern due to sparse data. However similar to the state, the impact this epidemic is having on blacks is disproportionate.

Female cases in this region are divided between blacks and whites 53 and 41 respectively.

**Table 1: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan**

Region 3

Prisoners and persons with unknown residence are included

January 1, 2000

Region 3 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% [^]			%
Male	690	467	76%	139.5	494,558	49%
White Males	460	308	50%	103.6	443,871	44%
Black Males	200	136	22%	573.8	34,856	3%
Hispanic Males	30	20	3%	308.4	9,729	1%
Asian Males	10	*	*	*	3,608	0%
American Indian Males	10	*	*	*	2,494	0%
Unknown Race Males	N/A	*	*	N/A	0	N/A
Female	220	149	24%	42.1	523,041	51%
White Females	90	61	10%	19.2	467,744	46%
Black Females	120	79	13%	304.3	39,429	4%
Hispanic Females	10	7	1%	106.2	9,416	1%
Asian Females	10	*	*	*	3,966	0%
American Indian Females	10	*	*	*	2,486	0%
Unknown Race Females	N/A	*	*	N/A	0	N/A
White	550	369	60%	60.3	911,615	90%
Black	320	215	35%	430.8	74,285	7%
Hispanic	40	27	4%	208.9	19,145	2%
Asian	10	*	*	*	7,574	1%
American Indian	10	*	*	*	4,980	0%
Unknown Race	N/A	*	*	N/A	0	N/A
Male-Male Sex	420	286	54%[^]	N/A		
Injecting Drug Use	120	81	15% [^]	N/A		
IDU with heterosexual risk [#]	60	40	8% [^]	N/A		
IDU without heterosexual risk [#]	60	41	8% [^]	N/A		
M-M Sex and Inject Drugs	60	38	7%[^]	N/A		
Blood Exposure [#]	20	14	3% [^]	N/A		
Heterosexual	160	105	20% [^]	N/A		
Partner IDU	60	38	7% [^]	N/A		
Partner Bisexual [#]	10	8	2% [^]	N/A		
Partner Blood Exposure	10	*	* [^]	N/A		
Partner HIV+	80	57	11% [^]	N/A		
Perinatal	10	*	* [^]	N/A		
Known Risk Total	780	527	100%[^]	N/A		
Unknown Risk	N/A	89	14%[^]	N/A		
0 - 4 years	10	*	*	*	77,450	8%
5 - 9 years	10	*	*	*	78,687	8%
10-12 years	10	*	*	*	46795	5%
13 -19 years	20	16	3%	18.6	107,477	11%
20 -24 years	90	63	10%	120.0	74,972	7%
25 -29 years	180	119	19%	231.4	77,786	8%
30 -34 years	200	134	22%	235.5	84,940	8%
35 -39 years	170	112	18%	209.6	81,124	8%
40 -44 years	120	81	13%	166.0	72,282	7%
45 -49 years	70	45	7%	121.3	57,730	6%
50 -54 years	30	22	4%	62.8	47,751	5%
55 -59 years	10	10	2%	23.0	43,384	4%
60 -64 years	10	5	1%	22.8	43,906	4%
65 and over	10	*	*	*	123,315	12%
Unknown Age	N/A	*	*	N/A	0	N/A
ALLEGAN CO.	80	55	9%	88.4	90,509	9%
BERRIEN CO.	180	121	20%	111.5	161,378	16%
Barry/Eaton	50	34	6%	35.0	142,936	14%
BARRY CO.	20	12	2%	40.0	50,057	5%
EATON CO.	30	22	4%	32.3	92,879	9%
Branch/Hillsdale/St. Joseph	50	37	6%	34.8	143,846	14%
BRANCH CO.	10	7	1%	24.1	41,502	4%
HILLSDALE CO.	10	7	1%	23.0	43,431	4%
ST JOSEPH CO.	30	23	4%	50.9	58,913	6%
CALHOUN CO.	140	97	16%	103.0	135,982	13%
CASS CO.	30	19	3%	60.6	49,477	5%
KALAMAZOO CO.	290	198	32%	129.8	223,411	22%
VAN BUREN CO.	80	55	9%	114.2	70,060	7%
Total Region 3	910	616	100%	89.4	1,017,599	100%

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

Table 2: Living HIV/AIDS Cases in Michigan

Region 3

Sex and Race by Risk

January 1, 2000

Male Only Region 3	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Male-Male Sex	225	80%	49	43%	11	69%	*	*	286	69%
Injecting Drug Use	17	6%	36	32%	*	*	*	*	55	13%
IDU w/ hetero risk [#]	6	2%	15	13%	*	*	*	*	23	6%
IDU w/o hetero risk [#]	11	4%	21	19%	*	*	*	*	32	8%
M-M Sex /IDU	25	9%	13	12%	*	*	*	*	38	9%
Blood Exposure	11	4%	*	*	*	*	*	*	12	3%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	5	2%	14	12%	*	*	*	*	22	5%
Partner IDU	*	*	*	*	*	*	*	*	8	2%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	10	9%	*	*	*	*	14	3%
Total Known Risks	283	100%	113	100%	16	100%	*	*	413	100%
Undetermined	25		23		*		*		54	
Total All Cases	308		136		20		*		467	

Female Only Region 3	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Injecting Drug Use	8	16%	17	30%	*	*	*	*	26	23%
IDU w/ hetero risk [#]	6	12%	10	18%	*	*	*	*	17	15%
IDU w/o hetero risk [#]	*	*	7	13%	*	*	*	*	9	8%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	40	78%	38	68%	*	*	*	*	83	73%
Partner IDU	15	29%	15	27%	*	*	*	*	30	26%
Partner Bisexual [#]	7	14%	*	*	*	*	*	*	8	7%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	17	33%	21	38%	*	*	*	*	43	38%
Total Known Risks	51	100%	56	100%	6	100%	*	*	114	100%
Undetermined	10		23		*		*		35	
Total All Cases	61		79		7		*		149	

Male & Female Region 3	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Male-Male Sex	225	67%	49	29%	11	50%	*	*	286	54%
Injecting Drug Use	25	7%	53	31%	*	*	*	*	81	15%
IDU w/ hetero risk [#]	12	4%	25	15%	*	*	*	*	40	8%
IDU w/o hetero risk [#]	13	4%	28	17%	*	*	*	*	41	8%
M-M Sex /IDU	25	7%	13	8%	*	*	*	*	38	7%
Blood Exposure [#]	13	4%	*	*	*	*	*	*	14	3%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	45	13%	52	31%	7	32%	*	*	105	20%
Partner IDU	19	6%	19	11%	*	*	*	*	38	7%
Partner Bisexual [#]	7	2%	*	*	*	*	*	*	8	2%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	18	5%	31	18%	7	32%	*	*	57	11%
Total Known Risks	334	100%	169	100%	22	100%	*	*	527	100%
Undetermined	35		46		5		*		89	
Total All Cases	369		215		27		5		616	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Living HIV/AIDS Cases in Michigan

Age by Risk

Region 3

January 1, 2000

Male Only Region 3	0-19 Cases	years % [^]	20-24 Cases	years % [^]	25-49 Cases	years % [^]	50+ Cases	years % [^]	All Ages Cases	% [^]
Male-Male Sex	6	55%	28	80%	237	69%	15	65%	286	69%
Injecting Drug Use	*	*	*	*	48	14%	6	26%	55	13%
IDU w/ hetero risk [#]	*	*	*	*	22	6%	*	*	23	6%
IDU w/o hetero risk [#]	*	*	*	*	26	8%	5	22%	32	8%
M-M Sex /IDU	*	*	*	*	34	10%	*	*	38	9%
Blood Exposure	*	*	*	*	6	2%	*	*	12	3%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	19	6%	*	*	22	5%
Partner IDU	*	*	*	*	7	2%	*	*	8	2%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	12	3%	*	*	14	3%
Total Known Risks	11	100%	35	100%	344	100%	23	100%	413	100%
Undetermined	*	*	*	*	43	*	7	*	54	*
Total All Cases	12		38		387		30		467	

Female Only Region 3	0-19 Cases	years % [^]	20-24 Cases	years % [^]	25-49 Cases	years % [^]	50+ Cases	years % [^]	All Ages Cases	% [^]
Injecting Drug Use	*	*	*	*	21	25%	*	*	26	23%
IDU w/ hetero risk [#]	*	*	*	*	14	17%	*	*	17	15%
IDU w/o hetero risk [#]	*	*	*	*	7	8%	*	*	9	8%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	5	56%	17	94%	56	67%	5	56%	83	73%
Partner IDU	*	*	8	44%	21	25%	*	*	30	26%
Partner Bisexual [#]	*	*	*	*	6	7%	*	*	9	8%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	7	39%	29	35%	*	*	43	38%
Total Known Risks	9	100%	18	100%	84	100%	9	100%	114	100%
Undetermined	*	*	7	*	27	*	*	*	35	*
Total All Cases	9		25		111		11		149	

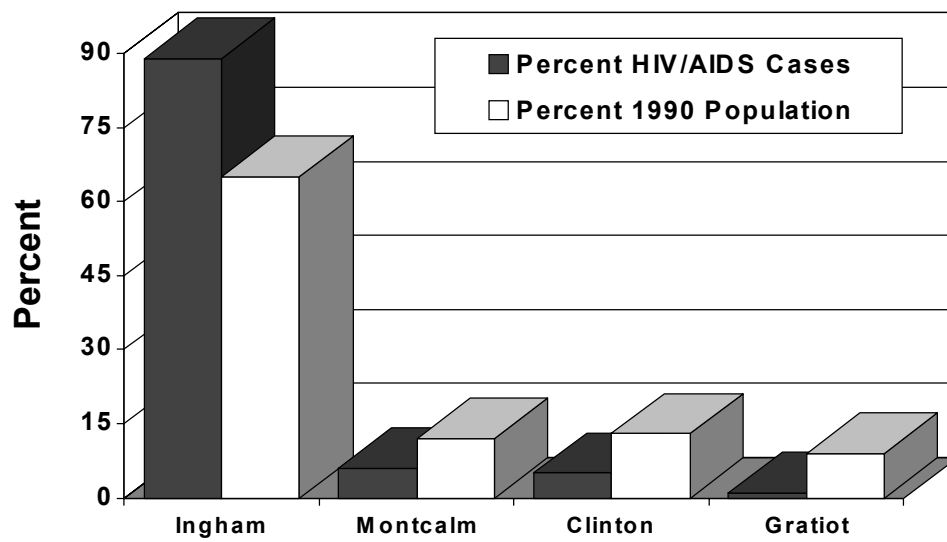
Male & Female Region 3	0-19 Cases	years % [^]	20-24 Cases	years % [^]	25-49 Cases	years % [^]	50+ Cases	years % [^]	All Ages Cases	% [^]
Male-Male Sex	6	30%	28	53%	237	53%	15	47%	286	54%
Injecting Drug Use	*	*	*	*	69	15%	9	28%	81	15%
IDU w/ hetero risk [#]	*	*	*	*	36	8%	*	*	40	8%
IDU w/o hetero risk [#]	*	*	*	*	33	7%	6	19%	41	8%
M-M Sex /IDU	*	*	*	*	34	8%	*	*	38	7%
Blood Exposure [#]	*	*	*	*	7	2%	*	*	14	3%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	5	25%	20	38%	75	17%	5	16%	105	20%
Partner IDU	*	*	9	17%	28	6%	*	*	38	7%
Partner Bisexual [#]	*	*	*	*	6	1%	*	*	9	2%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	9	17%	41	9%	*	*	57	11%
Total Known Risks	20	100%	53	100%	448	100%	32	100%	527	100%
Undetermined	*	*	10	*	75	*	9	*	89	*
Total All Cases	21		63		523		41		616	

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*[#] Indicates an explanatory definition exists in attached glossary at end of Profile



Region 4 Live HIV/AIDS Cases and Population by Local Health Department Jurisdiction





2000 Profile of HIV/AIDS in Region 4

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2000 Profile of HIV/AIDS in Region 4

Summary of Epidemic for Region 4

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 470 people living with HIV/AIDS in Region 4, of which 318 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 30 new cases annually. The number AIDS deaths dropped 63 percent between 1995 and 1998 in this region. 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. Region 4 has fewer cases (of the 9,301 cases reported statewide) when compared with the general population that lives there. Individually, however the Ingham County health department has more cases than would be expected. The graph on the previous page displays the distribution of reported cases by local health department within Region 4. The greatest percent of cases within this region, 89 percent, was recorded in the local health department of Ingham.

The 83 counties of Michigan are divided into 48 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county however most contain a single county. All LHDs have been labeled as either being in a high or low HIV prevalence area (refer to page 2 of the statewide profile for methodology used). Within Region 4, Ingham Co. is considered to be a LHD in a high prevalence area, while Clinton, Gratiot, and Montcalm counties are considered to be LHDs in low prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Region 4. The guiding question used in this process has been, "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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM)*:** MSMs make up 68 percent of all HIV/AIDS cases with a known mode of transmission (193 out of 284). The MSM behavioral group continues to be the most affected behavioral group even though the number of new cases indicates a level (non-increasing, non-decreasing) trend.
- **Intravenous Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 21 percent are IDUs. Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend in IDU transmission also appears to be level.
- **Heterosexuals:** Heterosexual cases constitute 15 percent of the total number of cases with a known mode of transmission. *High risk heterosexuals* (HRH) are HIV-infected persons whose heterosexual sex partners are 1) IDUs, 2) bisexual men or 3) HIV+ individuals. The trend in heterosexual transmission is level in Region 4.

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

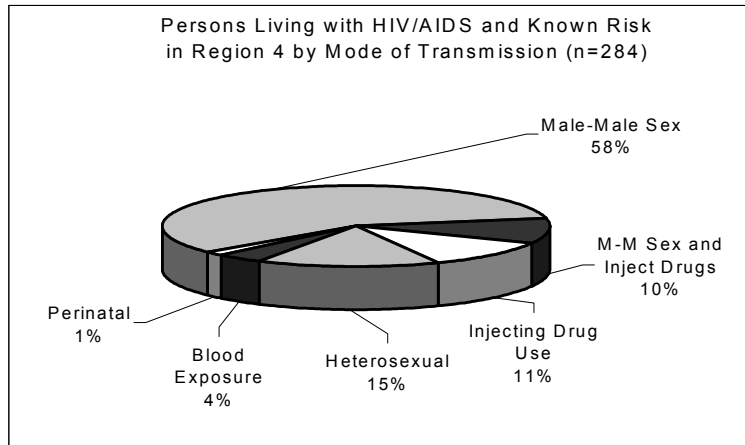


2000 Profile of HIV/AIDS in Region 4

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Surveillance is only able to determine the most likely mode. However, if information on the multiple risk of men who have sex with men (MSM) and injecting drug use (IDU) is available from a case report form, both risks are reported together.



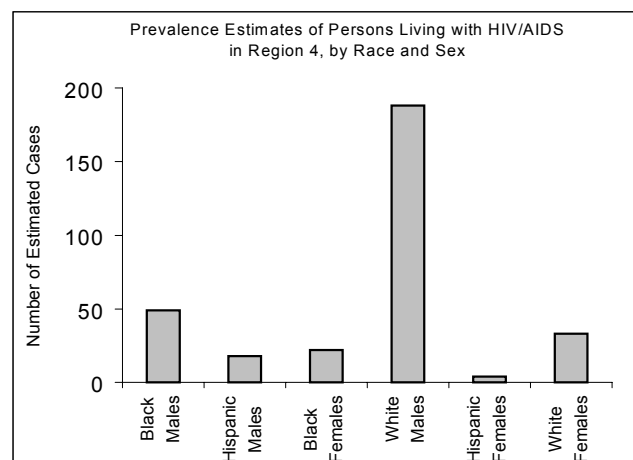
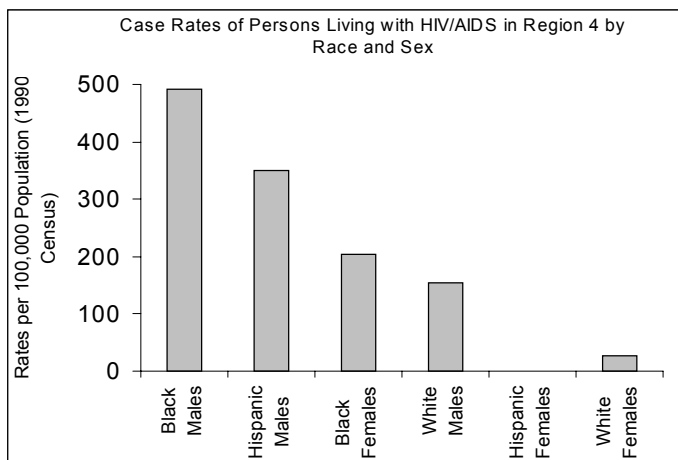
The pie chart indicates the number of people living with HIV/AIDS in Region 4 by mode of transmission for the 284 cases for which the risk was identifiable.

- This chart demonstrates that over two-thirds (68 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including 10 percent who also injected drugs.
- Almost one quarter (21 percent) are injecting drug users, including 10 percent who are also MSM. Forty-one percent of non-MSM IDUs also have high risk heterosexual sex partners. (Table 1, page 11.)

- Finally, 15 percent of the total had high risk heterosexual sex partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System



These bar graphs show the impact of this epidemic on six and sex groups:

- Black males have the highest rate per 100,000 population (492) and the second highest estimated number (70) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Hispanic males have the second highest rate (349) and an estimated number (30) of cases (tied with black females). This means that the impact of this epidemic is high on a relatively small demographic group.
- Black females have the third highest rate (205) and an estimated number (30) of cases of HIV/AIDS (tied with Hispanic males).
- White males have the fourth highest rate (154) and the highest estimated number (280) of cases.
- White females have the lowest rate (26) and the fourth highest estimated number (50) of HIV/AIDS cases.
- An accurate rate for Hispanic females can not be provided due to low number of cases. Hispanic females have an estimated number of 10 HIV/AIDS cases.

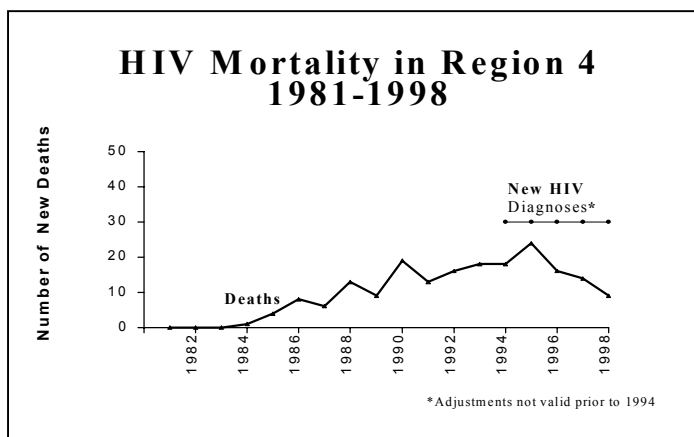
race

2000 Profile of HIV/AIDS in Region 4

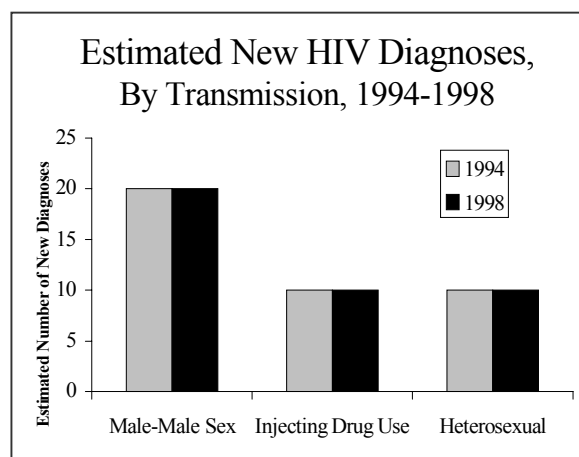


Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)



- New HIV diagnoses (HIV incidence) are level while deaths are declining. HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 30 persons were newly infected each year between 1994 and 1998 in Region 4.



- Transmission of HIV 1994-98:** The estimated number of new diagnoses among persons infected heterosexually has remained level at around 10 cases annually. New diagnoses among men who have sex with men are stable at 20 persons annually, and diagnoses among injection drug users is level at 10 new infections annually. There were fewer than 10 persons diagnosed each year who acquired infection from blood products received before 1985, and fewer than 10 infants infected at birth each year.

Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	75%	81%
Females	25%	19%
Whites	69%	70%
Blacks	23%	22%
Hispanics	6%	7%
Other	2%	1%
White Males	53%	59%
Black Males	15%	16%
Hispanic Males	6%	6%
Other Males	1%	1%
White Females	16%	10%
Black Females	8%	7%
Hispanic Females	0%	1%
Other Females	1%	0%
0-12 years	1%	1%
13-19 years	1%	1%
20-24 years	2%	1%
25-44 years	70%	74%
45+ years	26%	23%
HIV+ (Not AIDS)	52%	54%
AIDS	48%	46%
Total HIV Infected	194	318

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act (RWCA) and related sources.

In 1999, 194 HIV-infected persons were reported receiving Ryan White Services in Region 4. A comparison shows reported cases in Region 4 are **not** significantly different than those receiving services through RWCA.

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (318), it is apparent that not all persons reported are receiving RWCA-funded services.

"Years" within this table refer to current age, not age at diagnosis.



2000 Profile of HIV/AIDS in Region 4

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Region 4. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons with a known risk. MDCH estimates that there are approximately 280 MSM living with HIV disease in Region 4. This includes 40 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race or Ethnicity:

Having sex with other men infected most males in Region 4. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 193), white males (154) account for more than three-quarters (80 percent) while black males (24) comprise approximately 12 percent of men in this combined category.

Age: The largest percentage of living MSM cases are between the ages of 25-49 (80 percent). MSM is the predominant mode of transmission for males aged 20 and up.

Geographic Distribution:

Just 4 percent of HIV-infected MSM statewide reside in Region 4. Within high prevalence counties, MSMs are 70 percent of the cases with a known risk while in the lower prevalence counties 52 percent of reported persons living with HIV/AIDS are MSM.

Trends and Conclusions:

MDCH estimates that there are about 20 new HIV infections annually among men who have sex with men. This number was level from 1994-1998 in Region 4.

Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic.

The data also suggest that prevention activities among teenagers and young adults should be geared towards males having sex with other males. These activities should recognize that adolescents at highest risk are those males whose sex partners are older. Older men are more likely to be HIV-infected than are younger males.

Region 4 should observe carefully to determine if the statewide trend of level number of cases among white and black MSM is occurring locally, especially in high prevalence areas.



2000 Profile of HIV/AIDS in Region 4

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Injecting drug users (IDUs) are the number two ranked behavioral group in Region 4. IDU are the second largest behavioral group affected by this epidemic and account for 21 percent of reported infected persons with a known risk. MDCH estimates there are approximately 90 IDUs living with HIV disease in Region 4. This estimate includes 40 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals and MSM. Almost half (41 percent) of the reported cases among non-MSM IDUs also had high risk heterosexual sex partners. Additionally, of the 43 cases with reported heterosexual risk, 13 individuals (30 percent) also reported having IDU as partners.

When these linked populations are considered, IDU-related transmission accounts for 26 percent (73 cases) of people reported with HIV disease and having a known risk in Region 4. This is similar to the nationwide picture.

Race or Ethnicity and Gender:

Of the 60 IDU HIV/AIDS cases, 31 are white men (52 percent), 10 are black men (17 percent), <5 are black women (<8 percent), 6 are white women (10 percent), and six are Hispanic males (10 percent). In total, 62 percent (37) of the cases occur in black IDU.

More than three-quarters of the cases are men (80 percent), while women constitute the remaining 20 percent. Among the 12 women whose HIV infection has been attributed to IDU, 58 percent report high-risk heterosexual sex partners.

Age:

Among men with a known risk in each age group over 25 years, IDU is the second most common mode of transmission. Ninety-five percent of all the male IDU cases are recorded among men in the 25-49 age group (61 percent of these were MSM/IDU).

Geographic Distribution:

Ninety-three percent of IDU cases were reported in the higher prevalence areas of the region. Within high prevalence counties, just under a quarter of cases with a known risk (22 percent*) are IDU, while in the lower prevalence counties 12 percent* of persons living with HIV/AIDS are IDU. (* These percentages include IDU males who are also MSM).

Trends and Conclusions:

The number of new HIV diagnoses among IDUs (including MSM/IDU) has remained level between 1994 and 1998, at approximately 10 new HIV infections annually. IDU cases in Region 4 are greater among whites than among blacks. Some of these persons also have heterosexual exposures, since IDUs are more likely to have IDU sex partners than are persons who do not inject drugs.

In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.



2000 Profile of HIV/AIDS in Region 4

Ranked Behavioral Group Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three ranked behavioral group in Region 4. Heterosexual sex accounts for 15 percent of reported infected persons with a known risk. MDCH estimates that 60 persons living with HIV disease in Region 4 were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

Currently there are an estimated 20 infected IDUs who had one or more heterosexual sex partner(s) who engaged in high risk behaviors (i.e., IDU, bisexual). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. With regard to reported cases, the dual risk of IDU/heterosexual cases comprise 5 percent of all reported HIV/AIDS cases with a known risk and are 46 percent men and 54 percent women within Region 4.

There are no seroprevalence surveys in this region to measure the HIV positive rate of higher risk heterosexuals attending STD clinics. However rates here are likely lower than those at the Detroit STD clinics.

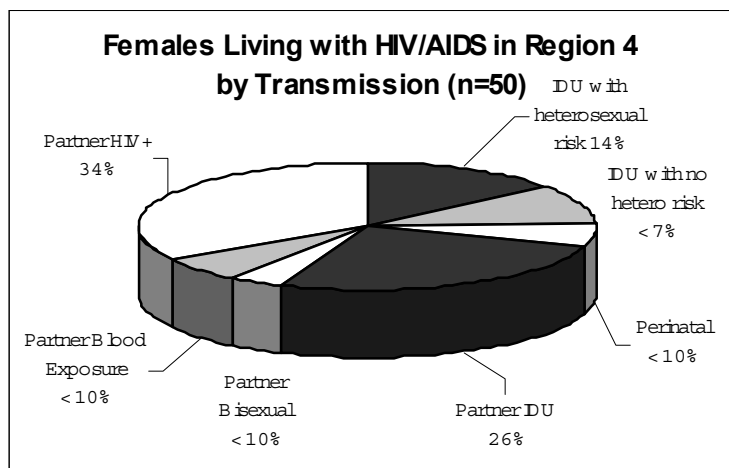
Race Ethnicity and Gender:

Among females reported with HIV/AIDS and a known risk, just under three-quarters (70 percent) of cases are contracted heterosexually. Additionally, among women with a known risk, 14 percent are IDUs who also had high risk heterosexual sex partners. These data underscore the point that these two modes of transmission are closely intertwined for women.

Among the 43 men and women living with HIV/AIDS and infected heterosexually, 30 percent reported their heterosexual partner as injecting drug users, < 5 percent as bisexual men (this applies to women only) and 12 percent as persons infected through blood products. Over half (53 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

While women account for 19 percent of HIV/AIDS cases in Region 4 they have consistently accounted for over three-quarters of heterosexually acquired infections -- currently 81 percent.

Just under three-quarters of both black and white women with known risk were infected heterosexually (71 percent and 73 percent, respectively).



Over half of the heterosexual cases of HIV/AIDS are white (60 percent). The percent of men infected heterosexually is low--3 percent of cases among men of all races with a known risk.

The definition for heterosexual transmission for females includes sub-categories to help better describe risk to women. To be reported as a heterosexual transmission case, a female must have a partner who is: 1) HIV+, 2) HIV+ due to blood exposure, 3) bisexual, or 4) an IDU. Heterosexual and IDU modes of transmission and associated sub-categories for infected women with known risk are shown in the pie chart here.



2000 Profile of HIV/AIDS in Region 4

Ranked Behavioral Group: Heterosexuals (Continued)

Age:

For women between the ages of 25 and 49, heterosexual transmission is the predominant mode. (Most other age groups have <5 cases.)

Geographic Distribution:

Seventy-seven percent of the 43 cases in Region 4 attributed to heterosexual activity were reported in high prevalence counties. Of all the cases within high prevalence counties in Region 4, heterosexual transmission constitutes 13 percent. Within low prevalence counties, heterosexual transmission constitutes 30 percent of the cases.

Trends and Conclusions:

Heterosexual transmission is the only mode of transmission which is increasing statewide among infected persons. However, in Region 4, heterosexual transmission is level. MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission was stable at 10 annually from 1994 to 1998.

In Region 4 the number of heterosexual transmission cases may approach IDU cases over time, but it is important to remember that the seroprevalence rates are much lower. Therefore, interventions among a few IDUs may prevent more infections than among a large number of heterosexuals.

The data 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 high risk heterosexuals compared with MSMs, this mode of transmission is unlikely to surpass that of MSM. However, the overlapping risk of high risk heterosexuals with IDU makes it difficult to predict whether heterosexually acquired cases will equal or surpass, in the future, those classified as IDU.



2000 Profile of HIV/AIDS in Region 4

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Although white persons comprise the majority of those living with HIV/AIDS in Region 4, the number of black cases is still disproportionate. Blacks comprise 7 percent of this region's population yet make up almost a quarter (22 percent) of the cases of HIV/AIDS. MDCH estimates 100 blacks live with HIV/AIDS in Region 4. The rate of HIV infection among blacks is 346 per 100,000 population, four times higher than the rate among whites. MDCH estimates that as many as one out of 200 black males and one out of 490 black females may be HIV-infected.

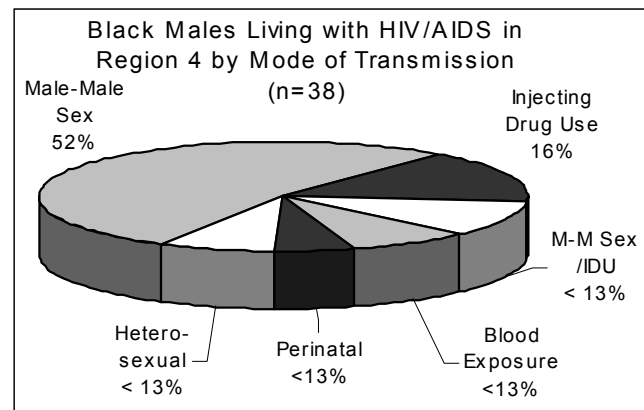
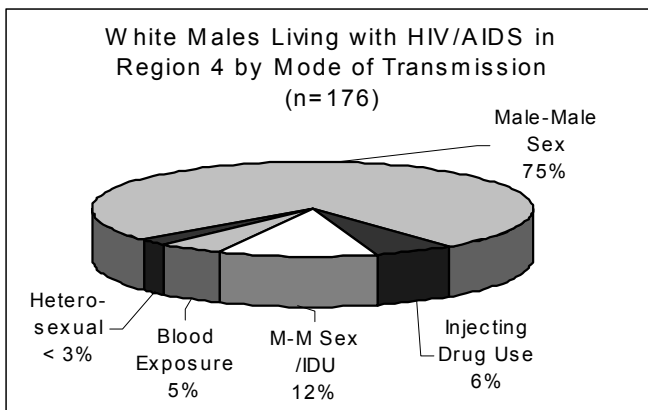
White persons, comprise over two-thirds (69 percent) of reported HIV/AIDS cases and over three-quarters of the region's population. MDCH estimates 330 whites live with HIV/AIDS in Region 4. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than blacks or Hispanics (88 per 100,000 population). MDCH estimates that as many as one out of 650 white males and one out of 3,860 white females may be HIV-infected.

Hispanics comprise 7 percent of cases and 2 percent of the population. MDCH estimates 30 Hispanics live with HIV/AIDS in this region. However, the relatively few cases are spread out among a small population and therefore they have a rate higher than that among whites (175 per 100,000 population). MDCH estimates that as many as one out of 290 Hispanic males may be HIV-infected. Low case numbers do not permit an accurate rate for Hispanic females.

Most persons living with HIV/AIDS in Region 4 in 1998 are male (81 percent). Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 19 percent of the infected population in this region.

Mode of Transmission:

The following pie charts display the proportion of black and white male cases by mode of transmission, among those with known transmission (Refer back to page 6 for female distributions).



- The majority of the 234 male HIV/AIDS cases are white (75 percent), 16 percent black, 7 percent Hispanic and <2 percent are other or unknown race.
- Just over half of the 50 female HIV/AIDS cases are white (60 percent), 34 percent are black, <10 percent are Hispanic and <10 percent are other or unknown race (refer to page 8 for break down of female transmissions).



2000 Profile of HIV/AIDS in Region 4

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution of Cases:

Ninety-seven percent of all the black cases occur in high prevalence counties. For whites, the distribution of cases is divided 86 percent and 14 percent between high and low prevalence counties respectively.

Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks in Region 4 has remained level at 10 cases. During this same time period, the estimated annual number among whites has also remained stable at 20 cases.

Trends in new HIV diagnoses among males and females both show level patterns. The number of males newly diagnosed with HIV each year is level at 30 new infections; among females 10.

Trends over time among the various race or sex groups in this region are difficult to discern due to sparse data. However similar to the state, the impact this epidemic is disproportionate on blacks.

Female cases in this region are divided between blacks and whites 60 and 34 percent respectively.

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**Table 1: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan
Region 4**

Prisoners and persons with unknown residence are included

January 1, 2000

Region 4 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% [^]		%	%
Male	380	259	81%	180.8	210,172	49%
White Males	280	188	59%	153.7	182,118	42%
Black Males	70	49	15%	492.1	14,225	3%
Hispanic Males	30	18	6%	349.4	8,586	2%
Asian Males	10	*	*	*	4,027	1%
American Indian Males	10	*	*	*	1,216	0%
Unknown Race Males	N/A	*	*	N/A	0	N/A
Female	90	59	19%	40.6	221,664	51%
White Females	50	33	10%	25.9	193,321	45%
Black Females	30	22	7%	204.7	14,658	3%
Hispanic Females	10	*	*	*	8,533	2%
Asian Females	10	*	*	*	3,851	1%
American Indian Females	10	*	*	*	1,301	0%
Unknown Race Females	N/A	*	*	N/A	0	N/A
White	330	221	69%	87.9	375,439	87%
Black	100	71	22%	346.2	28,883	7%
Hispanic	30	22	7%	175.2	17,119	4%
Asian	10	*	*	*	7,878	2%
American Indian	10	*	*	*	2,517	1%
Unknown Race	N/A	*	*	N/A	0	N/A
Male-Male Sex	240	165	58%[^]	N/A		
Injecting Drug Use	50	32	11%[^]	N/A		
<i>IDU with heterosexual risk[#]</i>	20	13	5% [^]	N/A		
<i>IDU without heterosexual risk[#]</i>	30	19	7% [^]	N/A		
M-M Sex and Inject Drugs	40	28	10%[^]	N/A		
Blood Exposure[#]	20	11	4%[^]	N/A		
Heterosexual	60	43	15%[^]	N/A		
<i>Partner IDU</i>	20	13	5% [^]	N/A		
<i>Partner Bisexual[#]</i>	10	*	* [^]	N/A		
<i>Partner Blood Exposure</i>	10	5	2% [^]	N/A		
<i>Partner HIV+</i>	30	23	8% [^]	N/A		
Perinatal	10	5	2%[^]	N/A		
Known Risk Total	420	284	100%[^]	N/A		
Unknown Risk	N/A	34	11%	N/A		
0 - 4 years	10	*	*	*	32,407	8%
5 - 9 years	10	*	*	*	31,803	7%
10-12 years	10	*	*	*	18613	4%
13 -19 years	10	6	2%	19.9	50,265	12%
20 -24 years	50	35	11%	103.2	48,469	11%
25 -29 years	80	56	18%	214.5	37,288	9%
30 -34 years	100	71	22%	268.4	37,252	9%
35 -39 years	100	71	22%	292.5	34,192	8%
40 -44 years	50	33	10%	168.6	29,657	7%
45 -49 years	30	17	5%	131.7	22,779	5%
50 -54 years	20	12	4%	149.9	13,340	3%
55 -59 years	10	8	3%	64.9	15,414	4%
60 -64 years	10	*	*	*	14,771	3%
65 and over	10	*	*	*	41,586	10%
Unknown Age	N/A	*	*	N/A	0	N/A
INGHAM CO.	420	282	89%	149.0	281,912	65%
Mid-MI District	50	36	11%	33.4	149,924	35%
CLINTON CO.	20	16	5%	34.6	57,883	13%
GRATIOT CO.	10	*	*	*	38,982	9%
MONTCALM CO.	30	18	6%	56.5	53,059	12%
Total Region 4	470	318	100%	108.8	431,836	100%

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

Table 2: Living HIV/AIDS Cases in Michigan
Region 4
Sex and Race by Risk
January 1, 2000

Male Only Region 4	White Cases	%[^]	Black Cases	%[^]	Hispanic Cases	%[^]	Other Cases	%[^]	All Races Cases	%[^]
Male-Male Sex	133	76%	20	53%	9	56%	*	*	165	71%
Injecting Drug Use	10	6%	6	16%	*	*	*	*	20	9%
IDU w/ hetero risk [#]	*	*	*	*	*	*	*	*	6	3%
IDU w/o hetero risk [#]	7	4%	5	13%	*	*	*	*	14	6%
M-M Sex /IDU	21	12%	*	*	*	*	*	*	28	12%
Blood Exposure	8	5%	*	*	*	*	*	*	11	5%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*	*	*	8	3%
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*	*	*	6	3%
Total Known Risks	176	100%	38	100%	16	100%	*	*	234	100%
Undetermined	12		11		*		*		25	
Total All Cases	188		49		18		*		259	

Female Only Region 4	White Cases	%[^]	Black Cases	%[^]	Hispanic Cases	%[^]	Other Cases	%[^]	All Races Cases	%[^]
Injecting Drug Use	6	20%	*	*	*	*	*	*	12	24%
IDU w/ hetero risk [#]	*	*	*	*	*	*	*	*	7	14%
IDU w/o hetero risk [#]	*	*	*	*	*	*	*	*	5	10%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	22	73%	12	71%	*	*	*	*	35	70%
Partner IDU	7	23%	5	29%	*	*	*	*	13	26%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	12	40%	5	29%	*	*	*	*	17	34%
Total Known Risks	30	100%	17	100%	*	*	*	*	50	100%
Undetermined	*		5		*		*		9	
Total All Cases	33		22		*		*		59	

Male & Female Region 4	White Cases	%[^]	Black Cases	%[^]	Hispanic Cases	%[^]	Other Cases	%[^]	All Races Cases	%[^]
Male-Male Sex	133	65%	20	36%	9	47%	*	*	165	58%
Injecting Drug Use	16	8%	10	18%	6	32%	*	*	32	11%
IDU w/ hetero risk [#]	7	3%	*	*	*	*	*	*	13	5%
IDU w/o hetero risk [#]	9	4%	7	13%	*	*	*	*	19	7%
M-M Sex /IDU	21	10%	*	*	*	*	*	*	28	10%
Blood Exposure [#]	8	4%	*	*	*	*	*	*	11	4%
Perinatal	*	*	*	*	*	*	*	*	5	2%
Heterosexual	26	13%	15	27%	*	*	*	*	43	15%
Partner IDU	7	3%	5	9%	*	*	*	*	13	5%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	5	2%
Partner HIV+	14	7%	8	15%	*	*	*	*	23	8%
Total Known Risks	206	100%	55	100%	19	100%	*	*	284	100%
Undetermined	15		16		*		*		34	
Total All Cases	221		71		22		*		318	

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Living HIV/AIDS Cases in Michigan
Region 4
Age by Risk
January 1, 2000

Male Only Region 4	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Male-Male Sex	*	*	22	92%	126	67%	16	89%	165	71%
Injecting Drug Use	*	*	*	*	18	10%	*	*	20	9%
IDU w/ hetero risk [#]	*	*	*	*	6	3%	*	*	6	3%
IDU w/o hetero risk [#]	*	*	*	*	12	6%	*	*	14	6%
M-M Sex /IDU	*	*	*	*	28	15%	*	*	28	12%
Blood Exposure	*	*	*	*	8	4%	*	*	11	5%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	7	4%	*	*	8	3%
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	5	3%	*	*	6	3%
Total Known Risks	5	100%	24	100%	187	100%	18	100%	234	100%
Undetermined	*		*		17		*		25	
Total All Cases	7		26		204		22		259	

Female Only Region 4	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Injecting Drug Use	*	*	*	*	8	22%	*	*	12	24%
IDU w/ hetero risk [#]	*	*	*	*	6	16%	*	*	7	14%
IDU w/o hetero risk [#]	*	*	*	*	*	*	*	*	5	10%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	28	76%	*	*	34	68%
Partner IDU	*	*	*	*	11	30%	*	*	13	26%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	13	35%	*	*	17	34%
Total Known Risks	5	100%	8	100%	37	100%	*	*	50	100%
Undetermined	*		*		8		*		9	
Total All Cases	5		9		45		*		59	

Male & Female Region 4	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Male-Male Sex	*	*	22	69%	126	52%	16	89%	165	58%
Injecting Drug Use	*	*	*	*	26	11%	*	*	32	11%
IDU w/ hetero risk [#]	*	*	*	*	12	5%	*	*	13	5%
IDU w/o hetero risk [#]	*	*	*	*	14	6%	*	*	19	7%
M-M Sex /IDU	*	*	*	*	28	12%	*	*	28	10%
Blood Exposure [#]	*	*	*	*	9	4%	*	*	12	4%
Perinatal	5	50%	*	*	*	*	*	*	5	2%
Heterosexual	*	*	5	16%	35	15%	*	*	42	15%
Partner IDU	*	*	*	*	11	5%	*	*	13	5%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	18	7%	*	*	23	8%
Total Known Risks	10	100%	32	100%	241	100%	18	100%	284	100%
Undetermined	*		*		27		5		34	
Total All Cases	12		35		268		23		318	

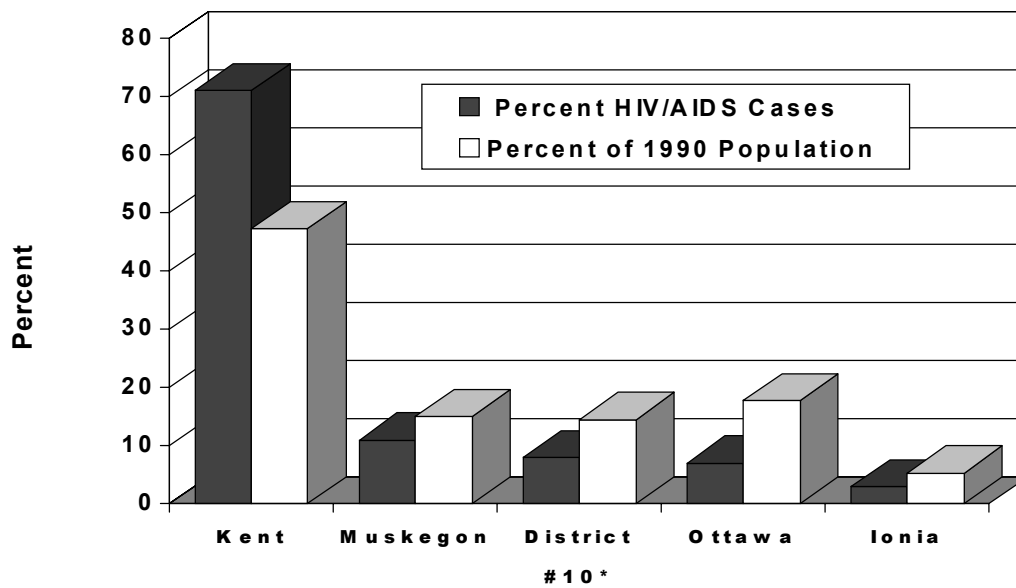
* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile



Region 5 Live HIV/AIDS Cases and Population by Local Health Department Jurisdiction



*District #10 in Region 5

Lake
Manistee
Mason
Mecosta
Newaygo
Oceana



2000 Profile of HIV/AIDS in Region 5

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2000 Profile of HIV/AIDS in Region 5

Summary of Epidemic for Region 5

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 930 people living with HIV/AIDS in Region 5, of which 630 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 70 new cases annually. The number AIDS deaths dropped 66 percent between 1995 and 1998 in this region. 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. Region 5 has fewer cases (of the 9,301 cases reported statewide) when compared with the general population that lives there. The graph on the previous page displays the distribution of reported cases by local health departments within Region 5. The greatest percent of cases within this region, 71 percent, was recorded in the local health department of Kent.

The 83 counties of Michigan are divided into 48 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county however most contain a single county. All LHDs have been labeled as either being in a HI or LOW HIV prevalence area (refer to page 2 of the statewide profile for methodology used). Within Region 5, Kent and Muskegon counties are considered to be LHDs in HI prevalence areas, while Ionia, Lake, Manistee, Mason, Mecosta, Newaygo, Oceana, and Ottawa counties are considered to be LHDs in LOW prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Region 5. The guiding question used in this process has been, “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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM)*:** MSMs make up 62 percent of all HIV/AIDS cases with a known mode of transmission (352 out of 565). The MSM behavioral group continues to be the most affected behavioral group even though the number of new cases indicates a level (non-increasing, non-decreasing) trend.
- **Intravenous Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 22 percent are IDUs. Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend in IDU transmission also appears to be level.
- **Heterosexuals:** Heterosexual cases constitute 19 percent of the total number of cases with a known mode of transmission. *High risk heterosexuals* (HRH) are HIV-infected persons whose heterosexual sex partners are 1) IDUs, 2) bisexual men or 3) HIV+ individuals. The trend in heterosexual transmission is level in Region 5.

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

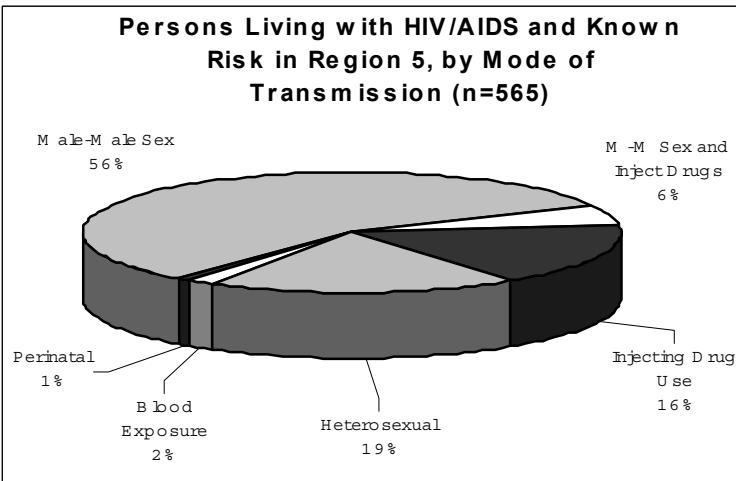


2000 Profile of HIV/AIDS in Region 5

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Surveillance is only able to determine the most likely mode. However, if information on the multiple risk of men who have sex with men (MSM) and injecting drug use (IDU) is available from a case report form, both risks are reported together.



The pie chart indicates the number of people living with HIV/AIDS in Region 5 by mode of transmission for the 565 cases for which the risk was identifiable.

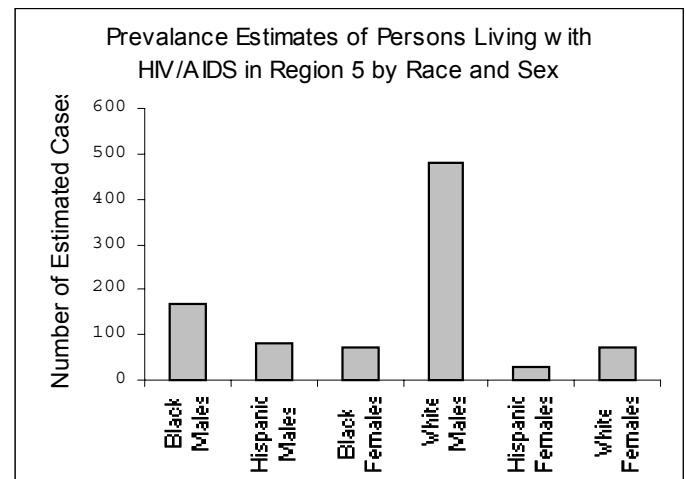
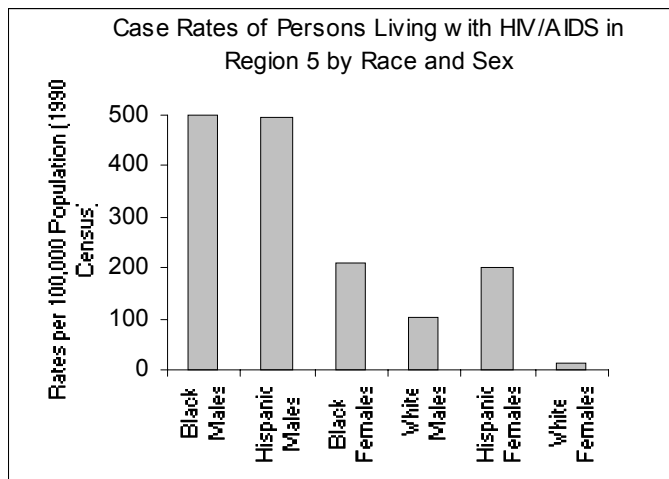
- This chart demonstrates that just under two-thirds (62 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including 6 percent who also injected drugs.
- Just under a quarter (22 percent) are injecting drug users, including 6 percent who are also MSM. Forty-four percent of non-MSM also have high risk heterosexual sex partners. (Table 1, page 11.)

- Finally, 19 percent of the total had high risk heterosexual sex partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

These bar graphs show the impact of this epidemic on six race and sex groups.



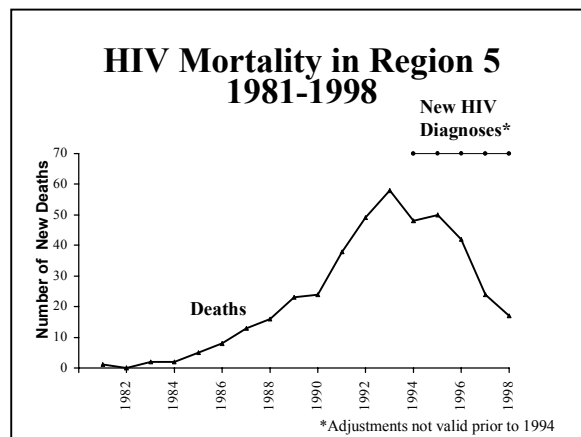
- Black males have the highest rate per 100,000 population (500) and the second highest estimated number (170) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Hispanic males have the second highest rate (496) and the third highest estimated number (80) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- Black females have the third highest rate (207) and fourth estimated number (70) of cases of HIV/AIDS (tied with white females).
- Hispanic females have the fourth highest rate (202) and the lowest estimated number (30) of HIV/AIDS cases.
- White males have the fifth highest rate (104) and the highest estimated number (480) of cases.
- White females have the lowest rate (14) and the fourth highest estimated number (70) of HIV/AIDS cases (tied with black females).



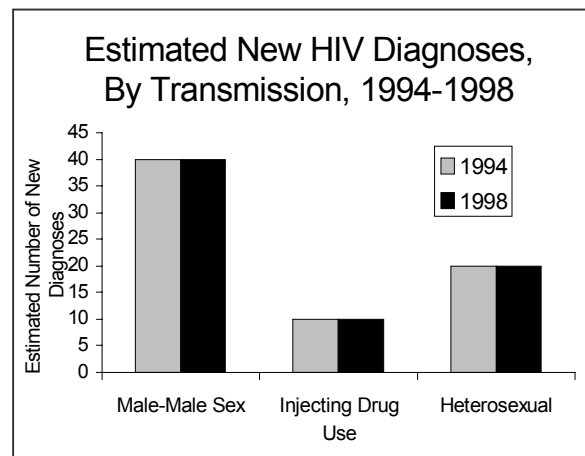
2000 Profile of HIV/AIDS in Region 5

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)



- New HIV diagnoses (HIV incidence) are level while deaths are declining.* HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 70 persons were newly infected each year between 1994 and 1998 in Region 5.



- Transmission of HIV 1994-98:* The estimated number of new diagnoses among persons infected heterosexually has remained level at around 20 cases annually. New diagnoses among men who have sex with men are stable at 40 persons annually, and diagnoses among injection drug users is level at 10 new infections annually. There were fewer than 10 persons diagnosed each year who acquired infection from blood products received before 1985, and fewer than 10 infants infected at birth each year.

Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	78%	81%
Females	22%	19%
Whites	61%	60%
Blacks	27%	26%
Hispanics	10%	12%
Other	2%	1%
White Males	51%	52%
Black Males	19%	19%
Hispanic Males	7%	9%
Other Males	1%	1%
White Females	10%	8%
Black Females	8%	7%
Hispanic Females	3%	4%
Other Females	1%	1%
0-12 years	1%	1%
13-19 years	1%	1%
20-24 years	2%	2%
25-44 years	77%	74%
45+ years	20%	22%
HIV+ (Not AIDS)	50%	51%
AIDS	50%	49%
Total HIV Infected	487	630

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act (RWCA) and related sources.

In 1999, 487 HIV-infected persons were reported receiving Ryan White Services in Region 5. A comparison also shows that persons reported as cases in Region 5 are not significantly different than those receiving services through RWCA.

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (630), it is apparent that not all persons reported are receiving RWCA-funded services.

“Years” within this table refer to current age, not age at diagnosis.



2000 Profile of HIV/AIDS in Region 5

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Region 5. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons with a known risk. MDCH estimates that there are approximately 520 MSM living with HIV disease in Region 5. This includes 50 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race or Ethnicity:

Having sex with other men infected most males in Region 5. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 352), white males (268) account for more than three-quarters (76 percent) while black males (61) comprise approximately 17 percent of men in this combined category.

Age: The largest percentage of living MSM cases are between the ages of 25-49 (85 percent). MSM is the predominant mode of transmission for males aged 20 and up.

Geographic Distribution:

Just 9 percent of all HIV-infected MSM statewide reside in Region 5. Within high prevalence counties, MSMs constitute 62 percent of the cases with a known risk.

Trends and Conclusions:

MDCH estimates that there are about 40 new HIV infections annually among men who have sex with men. This number was level from 1994-1998 in Region 5.

Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic.

The data also suggest that prevention activities among teenagers and young adults should be geared towards males having sex with other males. These activities should recognize that adolescents at highest risk are those males whose sex partners are older. Older men are more likely to be HIV-infected than are younger males.

Region 5 should observe carefully to determine if the statewide trend of level number of cases among white and black MSM is occurring locally, especially in high prevalence areas.



2000 Profile of HIV/AIDS in Region 5

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Injecting drug users (IDUs) are the number two ranked behavioral group in Region 5. IDU are the second largest behavioral group affected by this epidemic and account for 22 percent of reported infected persons with a known risk. MDCH estimates there are approximately 190 IDUs living with HIV disease in Region 5. This estimate includes 50 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals and MSM. Just under one-half (44 percent) of the reported cases among non-MSM IDUs also had high risk heterosexual sex partners. Additionally, of the 106 cases with reported heterosexual risk, 26 individuals (25 percent) also reported having IDU as partners.

When these linked populations are considered, IDU-related transmission accounts for 27 percent (153 cases) of people reported with HIV disease and having a known risk in Region 5. This is similar to the nationwide picture.

Race or Ethnicity and Gender:

Of the 127 IDU HIV/AIDS cases, 43 are black men (34 percent), 10 are black women (8 percent), 37 are white men (29 percent), 14 are white women (11 percent), and 15 are Hispanic males (12 percent). In total, 42 percent (53) of the cases occur in black IDU.

More than three-quarters of the cases are men (76 percent), while women constitute the remaining 24 percent. Among the 31 women whose HIV infection has been attributed to IDU, 48 percent report high-risk heterosexual sex partners.

Age:

Among men with a known risk in each age group over 25 years, IDU is the second most common mode of transmission. Nearly half, (48 percent) of IDU cases are among men in their thirties (37 percent of these were MSM/IDU).

Geographic Distribution:

Eighty-one percent of IDU cases were reported in the higher prevalence areas of the region. Within high prevalence counties, just under a quarter of cases with a known risk (22 percent) are IDU, while in the lower prevalence counties 24 percent of persons living with HIV/AIDS are IDU (these percentages include IDU males who are also MSM).

Trends and Conclusions:

The number of new HIV diagnoses among IDUs (including MSM/IDU) has remained level between 1994 and 1998, at approximately 10 new HIV infections annually. IDU cases in Region 5 are greater among blacks than among whites. Some of these persons also have heterosexual exposures, since IDUs are more likely to have IDU sex partners than are persons who do not inject drugs.

In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.



2000 Profile of HIV/AIDS in Region 5

Ranked Behavioral Group Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three ranked behavioral group in Region 5. Heterosexual sex accounts for 19 percent of reported infected persons with a known risk. MDCH estimates that 160 persons living with HIV disease in Region 5 were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

Currently there are an estimated 60 infected persons who are classified as IDUs but who also had one or more heterosexual sex partner(s) who engaged in high risk behaviors (i.e., IDU, bisexual). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. With regard to reported cases, the dual risk of IDU or heterosexual cases comprise 7 percent of all reported HIV/AIDS cases with a known risk and are 63 percent men and 37 percent women within Region 5.

There are no seroprevalence surveys in this region to measure the HIV positive rate of higher risk heterosexuals attending STD clinics. However rates here are likely lower than those at the Detroit STD clinics.

Race or Ethnicity and Gender:

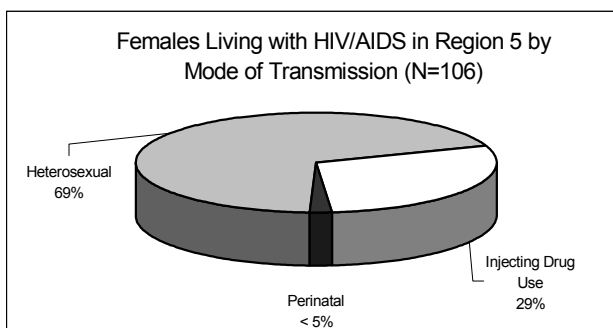
Among females reported with HIV/AIDS and a known risk, over two-thirds (69 percent) of cases are contracted heterosexually. Additionally, among women with a known risk, 14 percent are IDUs who also had high risk heterosexual sex partners. These data underscore the point that these two modes of transmission are closely intertwined for women.

Among the 106 men and women living with HIV/AIDS and infected heterosexually, 25 percent reported their heterosexual partner as injecting drug users, 7 percent as bisexual men (this applies to women only) and 3 percent as persons infected through blood products. Two-thirds (66 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

While women account for 19 percent of HIV/AIDS cases in Region 5 they have consistently accounted for over two-thirds of heterosexually acquired infections -- currently 69 percent.

Over two-thirds of both black and white women were infected heterosexually (69 percent and 67 percent, respectively).

In Region 5, 40 percent of the female heterosexual cases are white, 34 percent are black, and 22 percent are Hispanic. Blacks and whites each make up about one third of the heterosexual cases (33 percent and 37 percent, respectively). Hispanics constitute over one quarter (27 percent). The percent of men infected heterosexually is low—7 percent of cases among men of all races with a known risk.



The definition for heterosexual transmission for females includes sub-categories to help better describe risk to women. To be reported as a heterosexual transmission case, a female must have a partner who is: 1) HIV+, 2) HIV+ due to blood exposure, 3) bisexual, or 4) an IDU. Heterosexual and IDU modes of transmission and associated sub-categories for infected women with known risk are shown in the pie chart here.



2000 Profile of HIV/AIDS in Region 5

Ranked Behavioral Group: Heterosexuals (Continued)

Age:

For women between the ages of 20 and 49, heterosexual transmission is the predominant mode. (Most other age groups have <5 cases.)

Geographic Distribution:

Eighty-four percent of the 106 cases in Region 5 attributed to heterosexual activity were reported in high prevalence counties. Of all the cases within high prevalence counties in Region 5, heterosexual transmission constitutes 19 percent. Within low prevalence counties, heterosexual transmission constitutes 17 percent of the cases.

Trends and Conclusions:

Heterosexual transmission is the only mode of transmission which is increasing statewide among infected persons. However, in Region 5, heterosexual transmission is level. MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission was stable at 20 annually from 1994 to 1998.

In Region 5 the number of heterosexual transmission cases may approach IDU cases over time, but it is important to remember that the seroprevalence rates are much lower. Therefore, interventions among a few IDUs may prevent more infections than among a large number of heterosexuals.

The data 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 high risk heterosexuals compared with MSMs, this mode of transmission is unlikely to surpass that of MSM. However, the overlapping risk of high risk heterosexuals with IDU makes it difficult to predict whether heterosexually acquired cases will equal or surpass, in the future, those classified as IDU.



2000 Profile of HIV/AIDS in Region 5

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Although white persons comprise the majority of those living with HIV/AIDS in Region 5, the number of black cases is still disproportionate. Blacks comprise 6 percent of this region's population yet make up more than a quarter (26 percent) of the cases of HIV/AIDS. MDCH estimates 240 blacks live with HIV/AIDS in Region 5. The rate of HIV infection among blacks is 354 per 100,000 population, six times higher than the rate among whites. MDCH estimates that as many as one out of 200 black males and one out of 480 black females may be HIV-infected.

White persons, comprise over half (60 percent) of reported HIV/AIDS cases and over three-quarters of the region's population. MDCH estimates 560 whites live with HIV/AIDS in Region 5. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than blacks or Hispanics (59 per 100,000 population). MDCH estimates that as many as one out of 960 white males and one out of 6,900 white females may be HIV-infected.

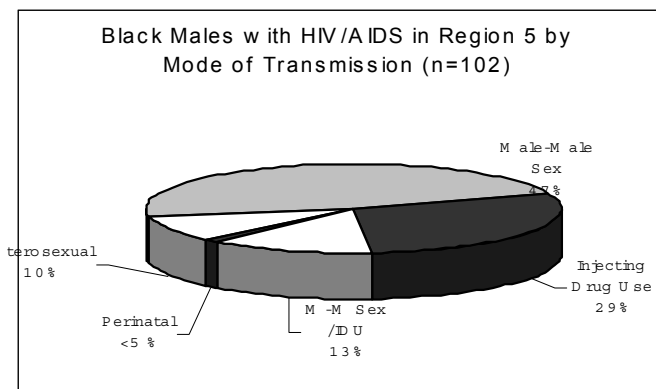
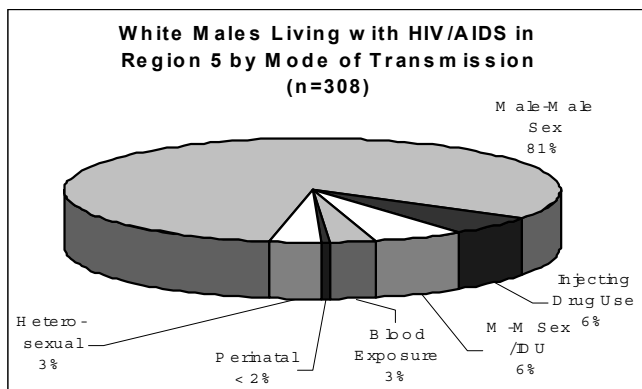
Hispanics comprise 12 percent of cases and 3 percent of the population. MDCH estimates 110 Hispanics live with HIV/AIDS in this region. However, the relatively few cases are spread out among a small population and therefore they have a rate higher than that among whites (355 per 100,000 population). MDCH estimates that as many as one out of 200 Hispanic males. And one out of 490 Hispanic females may be infected.

Most persons living with HIV/AIDS in Region 5 in 1998 are male (81 percent). Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 19 percent of the infected population in this region.

Mode of Transmission:

The following pie charts display the proportion of black and white male cases by mode of transmission, among those with known transmission (Refer back to page 6 for female distributions).

- The majority of the 459 male HIV/AIDS cases are white (67 percent), 22 percent black, 10 percent Hispanic and <1 percent are other or unknown race.



- Just under half of the 106 female HIV/AIDS cases are white (41 percent), 34 percent are black, 22 percent are Hispanic and <5 percent are other or unknown race. (Please refer back to page 6 for break down of female transmissions.)



2000 Profile of HIV/AIDS in Region 5

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution of Cases:

Eighty-nine percent of all the black cases occur in high prevalence counties. For whites, the distribution of cases is divided 87 percent and 13 percent between high and low prevalence counties respectively.

Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks in Region 5 has remained level at 20 cases. During this same time period, the estimated annual number among whites has also remained stable at 40 cases.

Trends in new HIV diagnoses among males and females both show level patterns. The number of males newly diagnosed with HIV each year is level at 60 new infections; among females 10.

Trends over time among the various race or sex groups in this region are difficult to discern due to sparse data. However similar to the state, the impact this epidemic is disproportionate on blacks.

Female cases in this region are divided between blacks and whites 34 and 41 percent respectively. Hispanic females make up 22 percent of the female cases with known risk in this region.

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**Table 1: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan
Region 5**

Prisoners and persons with unknown residence are included

January 1, 2000

Region 5 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% ^A			%
Male	750	508	81%	144.5	518,984	49%
White Males	480	327	52%	103.9	461,909	44%
Black Males	170	117	19%	499.8	34,016	3%
Hispanic Males	80	54	9%	495.9	16,131	2%
Asian Males	10	*	*	*	4,140	0%
American Indian Males	10	*	*	*	2,788	0%
Unknown Race Males	N/A	6	1%	N/A	0	N/A
Female	180	122	19%	33.4	538,771	51%
White Females	70	50	8%	14.5	482,722	46%
Black Females	70	45	7%	207.4	33,759	3%
Hispanic Females	30	23	4%	202.3	14,828	1%
Asian Females	10	*	*	*	4,593	0%
American Indian Females	10	*	*	*	2,869	0%
Unknown Race Females	N/A	*	*	N/A	0	N/A
White	560	377	60%	59.3	944,631	89%
Black	240	162	26%	354.1	67,775	6%
Hispanic	110	77	12%	355.3	30,959	3%
Asian	10	*	*	114.5	8,733	1%
American Indian	10	*	*	*	5,657	1%
Unknown Race	N/A	6	1%	N/A	0	N/A
Male-Male Sex	470	318	56%	N/A		
Injecting Drug Use	140	93	16%	N/A		
IDU with heterosexual risk [#]	60	41	7%	N/A		
IDU without heterosexual risk [#]	80	52	9%	N/A		
M-M Sex and Inject Drugs	50	34	6%	N/A		
Blood Exposure [#]	10	9	2%	N/A		
Heterosexual	160	106	19%	N/A		
Partner IDU	40	26	5%	N/A		
Partner Bisexual [#]	10	7	1%	N/A		
Partner Blood Exposure	10	*	*	N/A		
Partner HIV+	100	70	12%	N/A		
Perinatal	10	*	*	N/A		
Known Risk Total	830	565	100%	N/A		
Unknown Risk	N/A	65	10%	N/A		
0 - 4 years	10	*	*	*	89,180	8%
5 - 9 years	10	*	*	*	86,785	8%
10-12 years	10	*	*	*	48,904	5%
13 -19 years	20	11	2%	18.3	109,129	10%
20 -24 years	100	70	11%	120.9	82,743	8%
25 -29 years	180	125	20%	198.2	90,835	9%
30 -34 years	260	179	28%	280.4	92,720	9%
35 -39 years	130	91	14%	154.5	84,168	8%
40 -44 years	100	67	11%	142.6	70,140	7%
45 -49 years	70	47	7%	128.3	54,555	5%
50 -54 years	20	16	3%	45.0	44,474	4%
55 -59 years	20	13	2%	48.8	41,008	4%
60 -64 years	10	*	*	*	41,895	4%
65 and over	10	*	*	*	121,219	11%
Unknown Age	N/A	*	*	N/A	0	N/A
Dist#10 in Region 5	80	51	8%	52.2	153,349	14%
LAKE CO.	10	7	1%	116.5	8,583	1%
MANISTEE CO.	10	7	1%	47.0	21,265	2%
MASON CO.	20	11	2%	78.3	25,537	2%
MECOSTA CO.	10	9	1%	26.8	37,308	4%
NEWAYGO CO.	20	11	2%	52.4	38,202	4%
OCEANA CO.	10	6	1%	44.5	22,454	2%
MUSKEGON CO.	100	68	11%	62.9	158,983	15%
IONIA CO.	20	16	3%	35.1	57,024	5%
KENT CO.	660	449	71%	131.8	500,631	47%
OTTAWA CO.	70	46	7%	37.3	187,768	18%
Total Region 5	930	630	100%	87.9	1,057,755	100%

* Indicates there are fewer than five reported cases

^A Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

Table 2: Living HIV/AIDS Cases in Michigan
Region 5
Sex and Race by Risk
January 1, 2000

Male Only	White		Black		Hispanic		Other		All Races	
Region 5	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]
Male-Male Sex	250	81%	48	47%	17	38%	*	*	318	69%
Injecting Drug Use	19	6%	30	29%	12	27%	*	*	62	14%
<i>IDU w/ hetero risk[#]</i>	<i>6</i>	<i>2%</i>	<i>13</i>	<i>13%</i>	<i>6</i>	<i>13%</i>	*	*	<i>26</i>	<i>6%</i>
<i>IDU w/o hetero risk[#]</i>	<i>13</i>	<i>4%</i>	<i>17</i>	<i>17%</i>	<i>6</i>	<i>13%</i>	*	*	<i>36</i>	<i>8%</i>
M-M Sex /IDU	18	6%	13	13%	*	*	*	*	34	7%
Blood Exposure	9	3%	*	*	*	*	*	*	9	2%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	10	3%	10	10%	13	29%	*	*	33	7%
<i>Partner IDU</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	*	*	<i>6</i>	<i>1%</i>
<i>Partner Blood Exposure</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	*	*	<i>*</i>	<i>*</i>
<i>Partner HIV+</i>	<i>9</i>	<i>3%</i>	<i>6</i>	<i>6%</i>	<i>10</i>	<i>22%</i>	*	*	<i>25</i>	<i>5%</i>
Total Known Risks	308	100%	102	100%	45	100%	*	*	459	100%
Undetermined	19		15		9		6		49	
Total All Cases	327		117		54		10		508	

Female Only	White		Black		Hispanic		Other		All Races	
Region 5	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]
Injecting Drug Use	14	33%	10	28%	6	26%	*	*	31	29%
<i>IDU w/ hetero risk[#]</i>	<i>6</i>	<i>14%</i>	<i>7</i>	<i>19%</i>	*	*	*	*	<i>15</i>	<i>14%</i>
<i>IDU w/o hetero risk[#]</i>	<i>8</i>	<i>19%</i>	*	*	*	*	*	*	<i>16</i>	<i>15%</i>
Blood Exposure[#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	29	67%	25	69%	16	70%	*	*	73	69%
<i>Partner IDU</i>	<i>6</i>	<i>14%</i>	<i>8</i>	<i>22%</i>	<i>5</i>	<i>22%</i>	*	*	<i>20</i>	<i>19%</i>
<i>Partner Bisexual[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	*	*	<i>7</i>	<i>7%</i>
<i>Partner Blood Exposure</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	*	*	<i>*</i>	<i>*</i>
<i>Partner HIV+</i>	<i>19</i>	<i>44%</i>	<i>14</i>	<i>39%</i>	<i>10</i>	<i>43%</i>	*	*	<i>45</i>	<i>42%</i>
Total Known Risks	43	100%	36	100%	23	100%	*	*	106	100%
Undetermined	7		9		*		*		16	
Total All Cases	50		45		23		*		122	

Male & Female	White		Black		Hispanic		Other		All Races	
Region 5	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]
Male-Male Sex	250	71%	48	35%	17	25%	*	*	318	56%
Injecting Drug Use	33	9%	40	29%	18	26%	*	*	93	16%
<i>IDU w/ hetero risk[#]</i>	<i>12</i>	<i>3%</i>	<i>20</i>	<i>14%</i>	<i>8</i>	<i>12%</i>	*	*	<i>41</i>	<i>7%</i>
<i>IDU w/o hetero risk[#]</i>	<i>21</i>	<i>6%</i>	<i>20</i>	<i>14%</i>	<i>10</i>	<i>15%</i>	*	*	<i>52</i>	<i>9%</i>
M-M Sex /IDU	18	5%	13	9%	*	*	*	*	34	6%
Blood Exposure[#]	9	3%	*	*	*	*	*	*	9	2%
Perinatal	*	*	*	*	*	*	*	*	5	1%
Heterosexual	39	11%	35	25%	29	43%	*	*	106	19%
<i>Partner IDU</i>	<i>6</i>	<i>2%</i>	<i>11</i>	<i>8%</i>	<i>8</i>	<i>12%</i>	*	*	<i>26</i>	<i>5%</i>
<i>Partner Bisexual[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	*	*	<i>7</i>	<i>1%</i>
<i>Partner Blood Exposure</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	*	*	<i>*</i>	<i>*</i>
<i>Partner HIV+</i>	<i>28</i>	<i>8%</i>	<i>20</i>	<i>14%</i>	<i>20</i>	<i>29%</i>	*	*	<i>70</i>	<i>12%</i>
Total Known Risks	351	100%	138	100%	68	100%	8	100%	565	100%
Undetermined	26		24		9		6		65	
Total All Cases	377		162		77		14		630	

*Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Living HIV/AIDS Cases in Michigan

Region 5

Age by Risk

January 1, 2000

Male Only Region 5	0-19 Cases	years % [^]	20-24 Cases	years % [^]	25-49 Cases	years % [^]	50+ Cases	years % [^]	All Ages Cases	% [^]
Male-Male Sex	*	*	32	82%	270	70%	15	65%	318	69%
Injecting Drug Use	*	*	*	*	60	16%	*	*	62	14%
IDU w/ hetero risk [#]	*	*	*	*	26	7%	*	*	26	6%
IDU w/o hetero risk [#]	*	*	*	*	34	9%	*	*	36	8%
M-M Sex /IDU	*	*	*	*	29	7%	*	*	34	7%
Blood Exposure	*	*	*	*	*	*	*	*	9	2%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	24	6%	*	*	33	7%
Partner IDU	*	*	*	*	*	*	*	*	6	1%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	19	5%	*	*	25	5%
Total Known Risks	10	100%	39	100%	387	100%	23	100%	459	100%
Undetermined	*		5		40		*		49	
Total All Cases	10		44		427		27		508	

Female Only Region 5	0-19 Cases	years % [^]	20-24 Cases	years % [^]	25-49 Cases	years % [^]	50+ Cases	years % [^]	All Ages Cases	% [^]
Injecting Drug Use	*	*	*	*	27	34%	*	*	31	29%
IDU w/ hetero risk [#]	*	*	*	*	14	18%	*	*	15	14%
IDU w/o hetero risk [#]	*	*	*	*	13	16%	*	*	16	15%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	18	82%	48	61%	*	*	73	69%
Partner IDU	*	*	5	23%	14	18%	*	*	20	19%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	7	7%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	9	41%	30	38%	*	*	45	42%
Total Known Risks	5	100%	22	100%	79	100%	*	*	106	100%
Undetermined	*		*		8		*		16	
Total All Cases	9		26		87		5		122	

Male & Female Region 5	0-19 Cases	years % [^]	20-24 Cases	years % [^]	25-49 Cases	years % [^]	50+ Cases	years % [^]	All Ages Cases	% [^]
Male-Male Sex	*	*	32	52%	270	56%	15	56%	318	56%
Injecting Drug Use	*	*	*	*	87	18%	*	*	93	16%
IDU w/ hetero risk [#]	*	*	*	*	40	8%	*	*	41	7%
IDU w/o hetero risk [#]	*	*	*	*	47	10%	*	*	52	9%
M-M Sex /IDU	*	*	*	*	29	6%	*	*	34	6%
Blood Exposure [#]	*	*	*	*	*	*	*	*	9	2%
Perinatal	5	33%	*	*	*	*	*	*	5	1%
Heterosexual	5	33%	21	34%	72	15%	8	30%	106	19%
Partner IDU	*	*	6	10%	17	3%	*	*	26	5%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	7	1%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	11	18%	49	10%	6	22%	70	12%
Total Known Risks	15	100%	61	100%	486	100%	27	100%	565	100%
Undetermined	*		9		52		5		65	
Total All Cases	19		70		538		32		630	

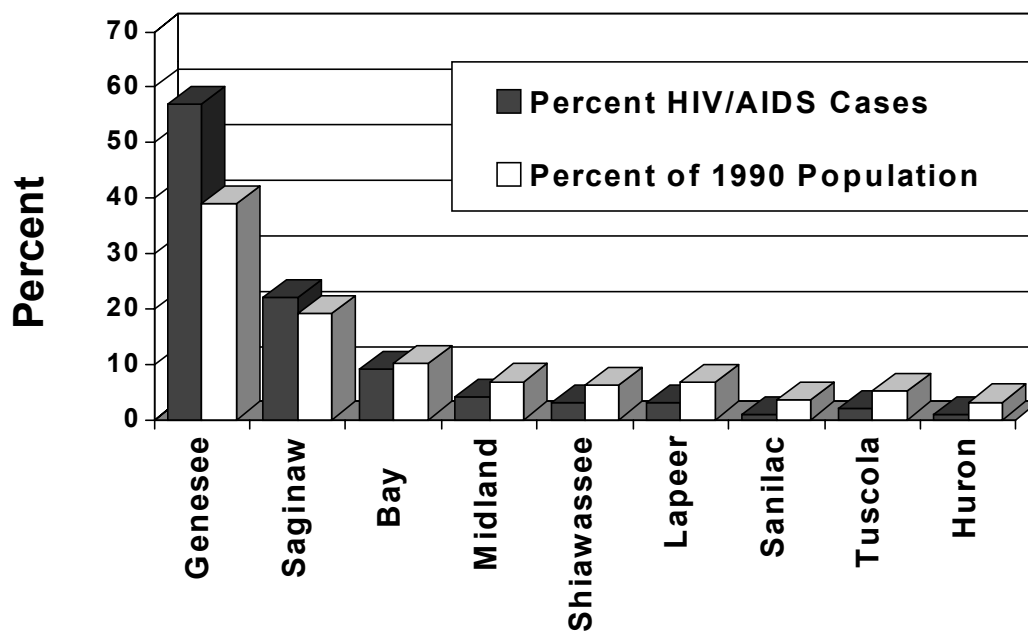
*Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile



Region 6 Live HIV/AIDS Cases and Population by Local Health Department Jurisdiction





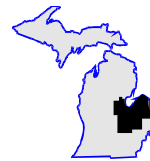
2000 Profile of HIV/AIDS in Region 6

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2000 Profile of HIV/AIDS in Region 6

Summary of Epidemic for Region 6

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 880 people living with HIV/AIDS in Region 6, of which 596 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 70 new cases annually. The number AIDS deaths dropped 73 percent between 1995 and 1998 in this region. 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. Region 6 has fewer cases (of the 9,301 cases reported statewide) when compared with the general population that lives there. The graph on the previous page displays the distribution of reported cases by local health department within Region 6. The greatest percent of cases within this region, 57 percent, was recorded in the local health department of Genesee.

The 83 counties of Michigan are divided into 48 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county however most contain a single county. All LHDs have been labeled as either being in a high or low HIV prevalence area (refer to page 2 of the statewide profile for methodology used). Within Region 6, Bay, Genesee and Saginaw counties are considered to be LHDs in high prevalence areas, while Huron, Lapeer, Midland, Sanilac, Shiawassee, and Tuscola counties are LHDs in low prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Region 6. The guiding question used in this process has been, "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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM)*:** MSMs make up 68 percent of all HIV/AIDS cases with a known mode of transmission (312 out of 460). The MSM behavioral group continues to be the most affected behavioral group even though the number of new cases indicates a level (non-increasing, non-decreasing) trend.
- **Intravenous Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 18 percent are IDUs. Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend in IDU transmission also appears to be level.
- **Heterosexuals:** Heterosexual cases constitute 14 percent of the total number of cases with a known mode of transmission. *High risk heterosexuals* (HRH) are HIV-infected persons whose heterosexual sex partners are 1) IDUs, 2) bisexual men or 3) HIV+ individuals. The trend in heterosexual transmission is level in Region 6.

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

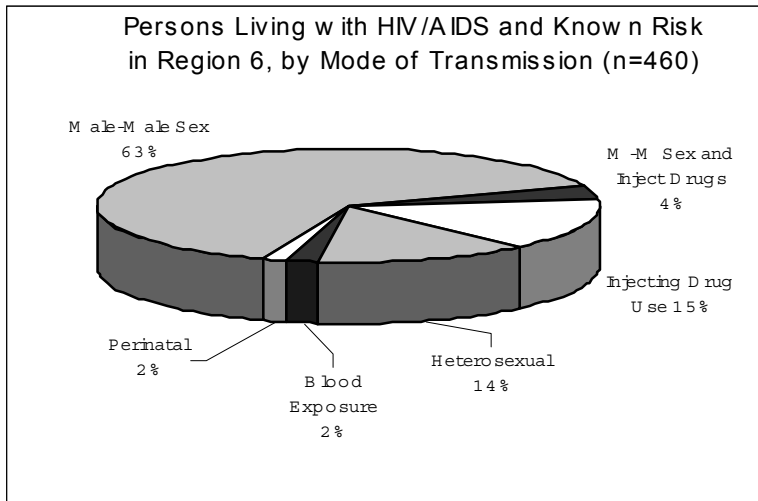


2000 Profile of HIV/AIDS in Region 6

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Surveillance is only able to determine the most likely mode. However, if information on the multiple risk of men who have sex with men (MSM) and injecting drug use (IDU) is available from a case report, both risks are reported together.



The pie chart indicates the number of people living with HIV/AIDS in Region 6 by mode of transmission for the 460 cases for which the risk was identifiable.

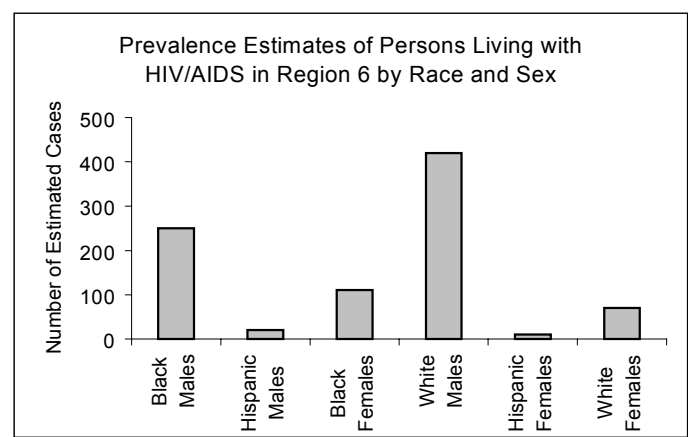
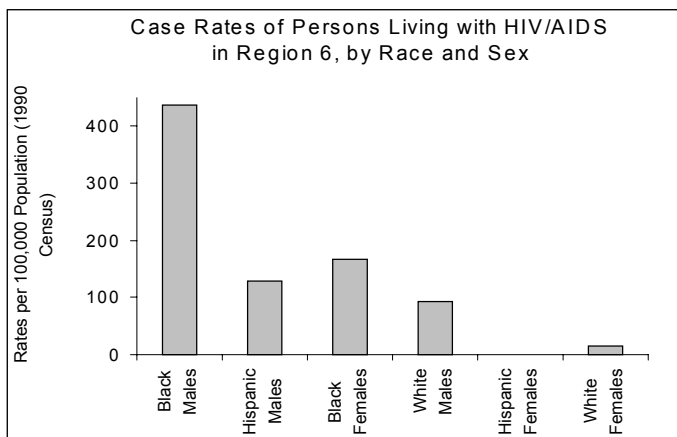
- This chart demonstrates that just over two-thirds (68 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including 4 percent who also injected drugs.
- Eighteen percent are injecting drug users, including 4 percent who are also MSM. Forty-two percent of non-MSM IDUs also have high risk heterosexual partners (refer to Table 1, page 11).

- Finally, 14 percent of the total had high risk heterosexual partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

These bar graphs show the impact of this epidemic on six race and sex groups.



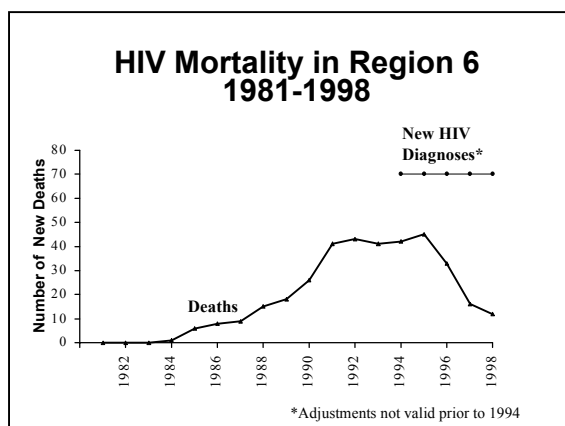
- Black males have the highest rate per 100,000 population (437) and the second highest estimated number (250) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Hispanic males have the third highest rate (129) and the fifth highest estimated number (20) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- Black females have the second highest rate (167) and the third highest estimated number (110) of cases of HIV/AIDS.
- White males have the fourth highest rate (92) and the highest estimated number (420) of cases.
- White females have the lowest rate (15) and the fourth highest estimated number (70) of HIV/AIDS cases.
- An accurate rate for Hispanic females cannot be calculated. The estimated number of HIV/AIDS cases is 10.



2000 Profile of HIV/AIDS in Region 6

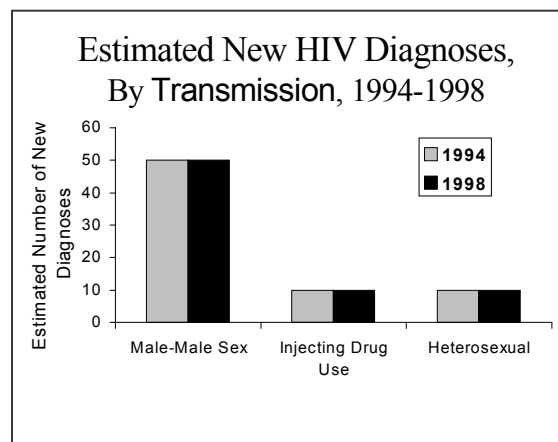
Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)



- New HIV diagnoses (HIV incidence) are level while deaths are declining.* HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 70 persons were newly infected each year between 1994 and 1998 in Region 6.

- Transmission of HIV 1994-98:* The estimated number of new diagnoses among persons infected heterosexually has remained level at around 10 cases annually. New diagnoses among men who have sex with men are stable at 50 persons annually, and diagnoses among injection drug users is level at 10 new infections annually. There were fewer than 10 persons diagnosed each year who acquired infection from blood products received before 1985, and fewer than 10 infants infected at birth each year.



Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	85%	77%
Females	15%	23%
Whites	61%	54%
Blacks	36%	39%
Hispanics	2%	6%
Other	1%	1%
White Males	55%	46%
Black Males	28%	27%
Hispanic Males	1%	2%
Other Males	1%	0%
White Females	7%	8%
Black Females	8%	12%
Hispanic Females	0%	4%
Other Females	0%	0%
0-12 years	2%	1%
13-19 years	0%	1%
20-24 years	3%	6%
25-44 years	71%	68%
45+ years	23%	25%
HIV+ (Not AIDS)	57%	54%
AIDS	43%	46%
Total HIV Infected	288	596

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act (RWCA) and related sources.

In 1999, 288 HIV-infected persons were reported receiving Ryan White Services in Region 6. A comparison also shows that persons reported as cases in Region 6 are significantly more likely to be white or male than those receiving services through RWCA.

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (596), it is apparent that not all persons reported are receiving RWCA-funded services.

“Years” within this table refer to current age, not age at diagnosis.



2000 Profile of HIV/AIDS in Region 6

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Region 6. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons with a known risk. MDCH estimates that there are approximately 460 MSM living with HIV disease in Region 6. This includes 30 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race or Ethnicity:

Having sex with other men infected most males in Region 6. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 312), white males (214) account for more than two-thirds (69 percent) while black males (84) comprise approximately 27 percent of men in this combined category.

Age: The largest percentage of living MSM cases are between the ages of 25-49 (85 percent). MSM is the predominant mode of transmission for males aged 20 and up.

Geographic Distribution:

Just 7 percent of all HIV-infected MSM statewide reside in Region 6. Within high prevalence counties, MSMs constitute 67 percent of the cases with a known risk.

Trends and Conclusions:

MDCH estimates that there are about 50 new HIV infections annually among men who have sex with men. This number was level from 1994-1998 in Region 6.

Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic.

The data also suggest that prevention activities among teenagers and young adults should be geared towards males having sex with other males. These activities should recognize that adolescents at highest risk are those males whose sex partners are older. Older men are more likely to be HIV-infected than are younger males.

Region 6 should observe carefully to determine if the statewide trend of level number of cases among white and black MSM is occurring locally, especially in high prevalence areas.



2000 Profile of HIV/AIDS in Region 6

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Injecting drug users (IDUs) are the number two ranked behavioral group in Region 6. IDU are the second largest behavioral group affected by this epidemic and account for 18 percent of reported infected persons with a known risk. MDCH estimates there are approximately 100 living with HIV disease in Region 6. This estimate includes 30 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals and MSM. One-third (33 percent) of the reported cases among non-MSM IDUs also had high risk heterosexual sex partners. Additionally, of the 65 cases with reported heterosexual risk, 20 individuals (31 percent) also reported having IDU as partners.

When these linked populations are considered, IDU-related transmission accounts for 23 percent (105 cases) of people reported with HIV disease and having a known risk in Region 6. This is similar to the nationwide picture.

Race or Ethnicity and Gender:

Of the 85 IDU HIV/AIDS cases, 27 are black men (32 percent), 20 are black women (24 percent), 29 are white men (34 percent), six are white women (7 percent), and three are Hispanic males (<6 percent). In total, 55 percent (47) of the cases occur in black IDU.

More than two-thirds of the cases are men (69 percent), while women constitute the remaining 31 percent. Among the 26 women whose HIV infection has been attributed to IDU, half report high-risk heterosexual sex partners.

Age:

Among men with a known risk in each age group over 25 years, IDU is the second most common mode of transmission. The highest proportion of IDU cases (66 percent), are among men in their thirties and forties (28 percent of these were MSM/IDU).

Geographic Distribution:

Ninety-two percent of IDU cases were reported in the higher prevalence areas of the region. Within high prevalence counties, just under a quarter of cases with a known risk (20 percent) are IDU, while in the lower prevalence counties 11 percent of persons living with HIV/AIDS are IDU. These percentages include IDU males who are also MSM).

Trends and Conclusions:

The number of new HIV diagnoses among IDUs (including MSM/IDU) has remained level between 1994 and 1998, at approximately 10 new HIV infections annually. IDU cases in Region 6 are greater among blacks than among whites. Some of these persons also have heterosexual exposures, since IDUs are more likely to have IDU sex partners than are persons who do not inject drugs.

In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.



2000 Profile of HIV/AIDS in Region 6

Ranked Behavioral Group Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three ranked behavioral group in Region 6. Heterosexual sex accounts for 14 percent of reported infected persons with a known risk. MDCH estimates that 100 persons living with HIV disease in Region 6 were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

Currently there are an estimated 40 infected persons who are classified as IDU but who also had one or more heterosexual sex partner(s) who engaged in high risk behaviors (i.e., IDU, bisexual). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. With regard to reported cases, the dual risk of IDU/heterosexual cases comprise 6 percent of all reported HIV/AIDS cases with a known risk and are 54 percent men and 46 percent women within Region 6.

There are no seroprevalence surveys in this region to measure the HIV positive rate of higher risk heterosexuals attending STD clinics. However rates here are likely lower than those at the Detroit STD clinics.

Race or Ethnicity and Gender:

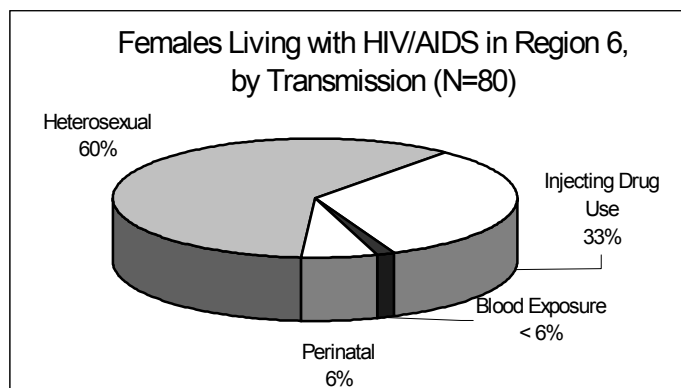
Among females reported with HIV/AIDS and a known risk, over two-thirds (60 percent) of cases are contracted heterosexually. Additionally, among women with a known risk, 16 percent are IDUs who also had high risk heterosexual sex partners. These data underscore the point that these two modes of transmission are closely intertwined for women.

Among the 65 men and women living with HIV/AIDS and infected heterosexually, 31 percent reported their heterosexual partner as injecting drug users. Over one half (58 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

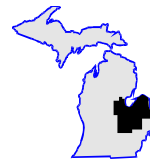
While women account for 21 percent of HIV/AIDS cases in Region 6, they have consistently accounted for almost three-quarters of heterosexually acquired infections -- currently 74 percent.

Just under one-half (49 percent) of black women and just under three-quarters (73 percent) of white women were infected heterosexually.

In Region 6, half of the female heterosexual cases are white and 46 percent are black. Fifty-one percent of all the heterosexual cases of HIV/AIDS are black. The percent of men infected heterosexually is low--4 percent of cases among men of all races with a known risk.



The definition for heterosexual transmission for females includes sub-categories to help better describe risk to women. To be reported as a heterosexual transmission case, a female must have a partner who is: 1) HIV+, 2) HIV+ due to blood exposure, 3) bisexual, or 4) an IDU. Heterosexual and IDU modes of transmission and associated sub-categories for infected women with known risk are shown in the pie chart here.



2000 Profile of HIV/AIDS in Region 6

Ranked Behavioral Group: Heterosexuals (Continued)

Age:

For women between the ages of 20 and 49, heterosexual transmission is the predominant mode. (All other age groups have <5 cases.)

Geographic Distribution:

Ninety-four percent of the 65 cases in Region 6 attributed to heterosexually activity were reported in high prevalence counties. Of all the cases within high prevalence counties in Region 6, heterosexual transmission constitutes 15 percent. Within low prevalence counties, heterosexual transmission constitutes 6 percent of the cases.

Trends and Conclusions:

Heterosexual transmission is the only mode of transmission which is increasing statewide among infected persons. However, in Region 6, heterosexual transmission is level. MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission was stable at 10 annually from 1994 to 1998.

In Region 6 the number of heterosexual transmission cases may approach IDU cases over time, but it is important to remember that the seroprevalence rates are much lower. Therefore, interventions among a few IDUs may prevent more infections than among a large number of heterosexuals.

The data 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 high risk heterosexuals compared with MSMs, this mode of transmission is unlikely to surpass that of MSM. However, the overlapping risk of high risk heterosexuals with IDU makes it difficult to predict whether heterosexually acquired cases will equal or surpass, in the future, those classified as IDU.



2000 Profile of HIV/AIDS in Region 6

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Although white persons comprise the majority of those living with HIV/AIDS in Region 6, the number of black cases is still disproportionate. Blacks comprise 11 percent of this region's population yet make up more than a third (40 percent) of the cases of HIV/AIDS. MDCH estimates 350 blacks live with HIV/AIDS in Region 6. The rate of HIV infection among blacks is 284 per 100,000 population, five times higher than the rate among whites. MDCH estimates that as many as one out of 230 black males and one out of 600 black females may be HIV-infected.

White persons comprise over half (55 percent) of reported HIV/AIDS cases and more than three-quarters of the region's population. MDCH estimates 490 whites live with HIV/AIDS in Region 6. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than blacks or Hispanics (52 per 100,000 population). MDCH estimates that as many as one out of 1,090 white males and one out of 6,900 white females may be HIV-infected.

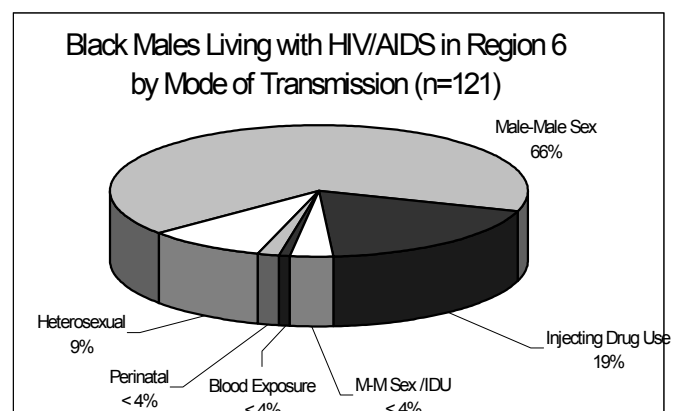
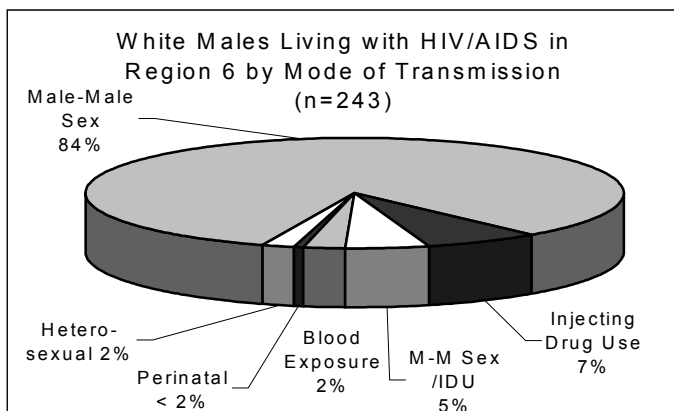
Hispanics comprise both 3 percent of cases and 3 percent of the population. MDCH estimates 20 Hispanics live with HIV/AIDS in this region. However, the relatively few cases are spread out among a small population and therefore they have a rate higher than that among whites (63 per 100,000 population). MDCH estimates that as many as one out of 780 Hispanic males may be HIV-infected. A rate can not be estimated for Hispanic females due to low number of cases.

Most persons living with HIV/AIDS in Region 6 in 1998 are male (79 percent). Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 21 percent of the infected population in this region.

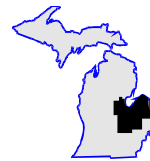
Mode of Transmission:

The following pie charts display the proportion of black and white male cases by mode of transmission, among those with known transmission (refer to page 6 for female distributions).

- The majority of the 380 male HIV/AIDS cases are white (64 percent), 32 percent black, 3 percent Hispanic and <1 percent are other or unknown race.



- Over half of the 80 female HIV/AIDS cases are black (56 percent), 41 percent are white, <6 percent are Hispanic and <6 percent are other or unknown race (refer to page 6 for breakdown of female transmissions).



2000 Profile of HIV/AIDS in Region 6

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution of Cases:

All the black cases occur in high prevalence counties. For whites, the distribution of cases is divided 79 percent and 21 percent between high and low prevalence counties respectively.

Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks in Region 6 has remained level at 30 cases. During this same time period, the estimated annual number among whites has also remained stable at 40 cases.

Trends in new HIV diagnoses among males and females both show level patterns. The number of males newly diagnosed with HIV each year is level at 60 new infections; among females 10.

Trends over time among the various race or sex groups in this region are difficult to discern due to sparse data. However similar to the state, the impact this epidemic is disproportionate on blacks.

Female cases in this region are divided between blacks and whites 56 and 41 percent respectively.

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**Table 1: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan
Region 6**

Prisoners and persons with unknown residence are included

January 1, 2000

Region 6 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% [^]			%
Male	700	473	79%	131.1	534,146	48%
White Males	420	283	47%	92.2	455,709	41%
Black Males	250	166	28%	437.4	57,156	5%
Hispanic Males	20	15	3%	128.3	15,587	1%
Asian Males	10	*	*	*	2,842	0%
American Indian Males	10	*	*	*	2,852	0%
Unknown Race Males	N/A	6	1%	N/A	0	N/A
Female	180	123	21%	31.5	570,548	52%
White Females	70	46	8%	14.5	482,298	44%
Black Females	110	73	12%	166.6	66,025	6%
Hispanic Females	10	*	*	*	15,978	1%
Asian Females	10	*	*	*	3,186	0%
American Indian Females	10	*	*	*	3,061	0%
Unknown Race Females	N/A	*	*	N/A	0	N/A
White	490	329	55%	52.2	938,007	85%
Black	350	239	40%	284.1	123,181	11%
Hispanic	20	16	3%	63.4	31,565	3%
Asian	10	*	*	*	6,028	1%
American Indian	10	*	*	*	5,913	1%
Unknown Race	N/A	8	1%	N/A	0	N/A
Male-Male Sex	430	294	64%[^]	N/A		
Injecting Drug Use	100	67	15%[^]	N/A		
<i>IDU with heterosexual risk[#]</i>	40	28	6% [^]	N/A		
<i>IDU without heterosexual risk[#]</i>	60	39	8% [^]	N/A		
MM Sex and Inject Drugs	30	18	4%[^]	N/A		
Blood Exposure[#]	10	8	2%[^]	N/A		
Heterosexual	100	65	14%[^]	N/A		
<i>Partner IDU</i>	30	20	4% [^]	N/A		
<i>Partner Bisexual[#]</i>	10	*	* [^]	N/A		
<i>Partner Blood Exposure</i>	10	*	* [^]	N/A		
<i>Partner HIV+</i>	60	38	8% [^]	N/A		
Perinatal	10	8	2%[^]	N/A		
Known Risk Total	680	460	100%[^]	N/A		
Unknown Risk	N/A	136	(23%)	N/A		
0 - 4 years	10	*	*	11.8	84,700	8%
5 - 9 years	10	*	*	*	85,961	8%
10-12 years	10	*	*	*	53,157	5%
13 -19 years	30	20	3%	25.0	120,146	11%
20 -24 years	90	64	11%	119.2	75,503	7%
25 -29 years	140	98	16%	163.9	85,407	8%
30 -34 years	190	131	22%	202.9	93,620	8%
35 -39 years	190	128	21%	218.6	86,927	8%
40 -44 years	100	69	12%	125.8	79,472	7%
45 -49 years	60	40	7%	91.7	65,408	6%
50 -54 years	30	23	4%	55.5	54,046	5%
55 -59 years	10	*	*	20.6	48,530	4%
60 -64 years	10	6	1%	21.4	46,663	4%
65 and over	10	*	*	*	125,154	11%
Unknown Age	N/A	*	*	N/A	0	N/A
BAY CO.	80	53	9%	71.6	111,723	10%
GENESEE CO.	500	337	57%	116.2	430,459	39%
HURON CO.	10	*	*	*	34,951	3%
LAPEER CO.	20	16	3%	26.7	74,768	7%
MIDLAND CO.	30	21	4%	39.7	75,651	7%
SAGINAW CO.	190	131	22%	89.6	211,946	19%
SANILAC CO.	10	8	1%	25.0	39,928	4%
SHIAWASSEE CO.	20	17	3%	28.7	69,770	6%
TUSCOLA CO.	10	9	2%	18.0	55,498	5%
Total Region 6	880	596	100%	79.7	1,104,694	100%

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection*/1990 Census) * 100,000

Table 2: Living HIV/AIDS Cases in Michigan

Region 6
Sex and Race by Risk
January 1, 2000

Male Only Region 6	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Male-Male Sex	202	83%	80	66%	9	69%	*	*	294	77%
Injecting Drug Use	17	7%	23	19%	*	*	*	*	41	11%
IDU w/ hetero risk [#]	8	3%	7	6%	*	*	*	*	15	4%
IDU w/o hetero risk [#]	9	4%	16	13%	*	*	*	*	26	7%
M-M Sex /IDU	12	5%	*	*	*	*	*	*	18	5%
Blood Exposure	6	2%	*	*	*	*	*	*	7	2%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	5	2%	11	9%	*	*	*	*	17	4%
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	9	7%	*	*	*	*	14	4%
Total Known Risks	243	100%	121	100%	13	100%	*	*	380	100%
Undetermined	40		45		*		6		93	
Total All Cases	283		166		15		9		473	

Female Only Region 6	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Injecting Drug Use	6	18%	20	44%	*	*	*	*	26	33%
IDU w/ hetero risk [#]	*	*	9	20%	*	*	*	*	13	16%
IDU w/o hetero risk [#]	*	*	11	24%	*	*	*	*	13	16%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	5	6%
Heterosexual	24	73%	22	49%	*	*	*	*	48	60%
Partner IDU	6	18%	11	24%	*	*	*	*	17	21%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	14	42%	8	18%	*	*	*	*	24	30%
Total Known Risks	33	100%	45	100%	*	*	*	*	80	100%
Undetermined	13		28		*		*		43	0%
Total All Cases	46		73		*		*		123	

Male & Female Region 6	White Cases	%^	Black Cases	%^	Hispanic Cases	%^	Other Cases	%^	All Races Cases	%^
Male-Male Sex	202	73%	80	48%	9	64%	*	*	294	64%
Injecting Drug Use	23	8%	43	26%	*	*	*	*	67	15%
IDU w/ hetero risk [#]	12	4%	16	10%	*	*	*	*	28	6%
IDU w/o hetero risk [#]	11	4%	27	16%	*	*	*	*	39	8%
M-M Sex /IDU	12	4%	*	*	*	*	*	*	18	4%
Blood Exposure [#]	7	3%	*	*	*	*	*	*	8	2%
Perinatal	*	*	5	3%	*	*	*	*	8	2%
Heterosexual	29	11%	33	20%	*	*	*	*	65	14%
Partner IDU	7	3%	13	8%	*	*	*	*	20	4%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	18	7%	17	10%	*	*	*	*	38	8%
Total Known Risks	276	100%	166	100%	14	100%	*	*	460	100%
Undetermined	53		73		*		8		136	
Total All Cases	329		239		16		12		596	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Living HIV/AIDS Cases in Michigan
Region 6
Age by Risk
January 1, 2000

Male Only Region 6	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Male-Male Sex	5	45%	30	75%	246	81%	13	54%	294	77%
Injecting Drug Use	*	*	*	*	32	10%	6	25%	41	11%
<i>IDU w/ hetero risk[#]</i>	*	*	*	*	12	4%	*	*	15	4%
<i>IDU w/o hetero risk[#]</i>	*	*	*	*	20	7%	5	21%	26	7%
M-M Sex /IDU	*	*	*	*	16	5%	*	*	18	5%
Blood Exposure	*	*	*	*	*	*	*	*	7	2%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	11	4%	*	*	17	4%
<i>Partner IDU</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner Blood Exposure</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner HIV+</i>	*	*	*	*	9	3%	*	*	14	4%
Total Known Risks	11	100%	40	100%	305	100%	24	100%	380	100%
Undetermined	5		11		67		10		93	
Total All Cases	16		51		372		34		473	

Female Only Region 6	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Injecting Drug Use	*	*	*	*	23	37%	*	*	26	33%
<i>IDU w/ hetero risk[#]</i>	*	*	*	*	11	18%	*	*	13	16%
<i>IDU w/o hetero risk[#]</i>	*	*	*	*	12	19%	*	*	13	16%
Blood Exposure[#]	*	*	*	*	*	*	*	*	*	*
Perinatal	5	56%	*	*	*	*	*	*	5	6%
Heterosexual	*	*	6	75%	38	61%	*	*	48	60%
<i>Partner IDU</i>	*	*	*	*	15	24%	*	*	17	21%
<i>Partner Bisexual[#]</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner Blood Exposure</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner HIV+</i>	*	*	*	*	17	27%	*	*	24	30%
Total Known Risks	9	100%	8	100%	62	100%	*	*	80	100%
Undetermined	5		5		33		*	*	43	
Total All Cases	14		13		95		*	*	123	

Male & Female Region 6	0-19 Cases	years %[^]	20-24 Cases	years %[^]	25-49 Cases	years %[^]	50+ Cases	years %[^]	All Ages Cases	%[^]
Male-Male Sex	5	25%	30	63%	246	66%	13	52%	294	64%
Injecting Drug Use	*	*	5	10%	55	15%	7	28%	67	15%
<i>IDU w/ hetero risk[#]</i>	*	*	*	*	23	6%	*	*	28	6%
<i>IDU w/o hetero risk[#]</i>	*	*	*	*	32	9%	5	20%	39	8%
M-M Sex /IDU	*	*	*	*	16	4%	*	*	18	4%
Blood Exposure[#]	*	*	*	*	*	*	*	*	8	2%
Perinatal	8	40%	*	*	*	*	*	*	8	2%
Heterosexual	5	25%	7	15%	49	13%	*	*	65	14%
<i>Partner IDU</i>	*	*	*	*	17	5%	*	*	20	4%
<i>Partner Bisexual[#]</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner Blood Exposure</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner HIV+</i>	*	*	5	10%	26	7%	*	*	38	8%
Total Known Risks	20	100%	48	100%	370	100%	25	100%	460	100%
Undetermined	10		16		104		11		136	
Total All Cases	30		64		474		36		596	

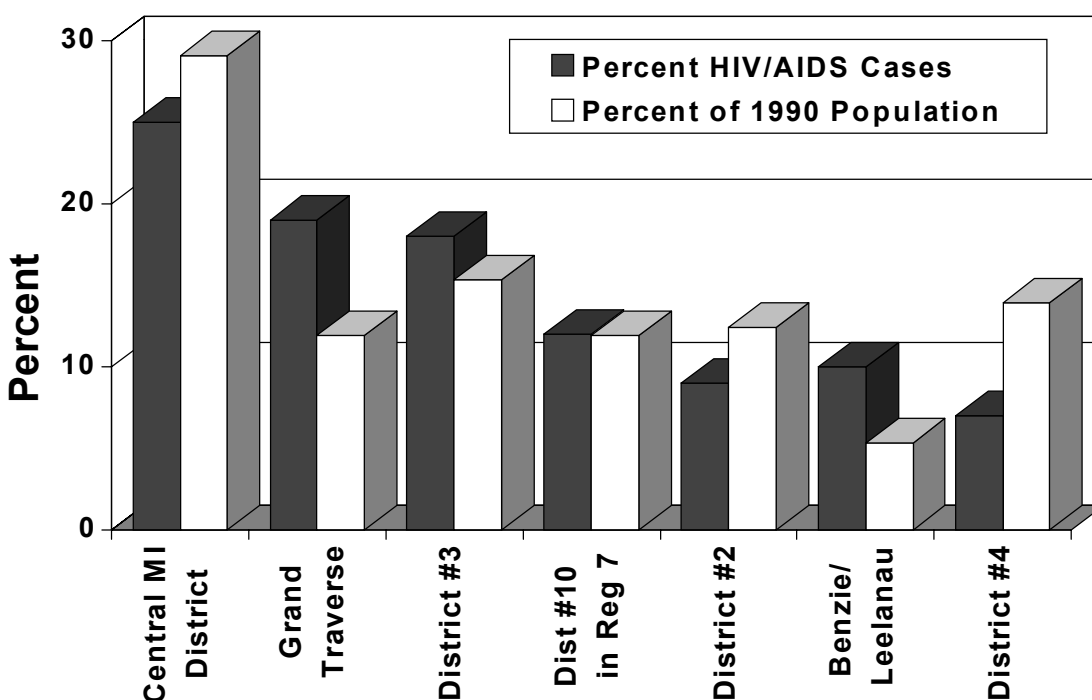
* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile



Region 7 Live HIV/AIDS Cases and Population by Local Health Department Jurisdiction



Central Michigan District: Arenac, Clare, Gladwin, Isabella, Osceola, Roscommon
District #2: Alcona, Iosco, Ogemaw, Oscoda
District #3: Antrim, Charlevoix, Emmet, Otsego
District #4: Alpena, Cheboygan, Montmorency, Presque Isle
District #10 in Region 7: Crawford, Kalkaska, Missaukee, Wexford



2000 Profile of HIV/AIDS in Region 7

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2000 Profile of HIV/AIDS in Region 7

Summary of Epidemic for Region 7

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 200 people living with HIV/AIDS in Region 7, of which 136 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 10 new cases annually. The number AIDS deaths dropped 29 percent between 1995 and 1998 in this region. 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. Region 7 has fewer cases (of the 9,301 cases reported statewide) when compared with the general population that lives there. The graph on the previous page displays the distribution of reported cases by local health department (LHD) within Region 7. The greatest percent of cases within this region, 25 percent, was recorded in the Central Michigan District health department.

The 83 counties of Michigan are divided into 48 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county however most contain a single county. All LHDs have been grouped as either being a high or low HIV prevalence area (refer to page 2 of the statewide profile for methodology used). Within Region 7, all LHDs are considered in low prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Region 7. The guiding question used in this process has been, "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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM)*:** MSMs make up 73 percent of all HIV/AIDS cases with a known mode of transmission (82 out of 113). Numbers of cases are too small for this behavioral group within this region to present trend information.
- **Intravenous Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 20 percent are IDUs. Numbers of cases are too small for this behavioral group within this region to present trend information.
- **Heterosexuals:** Heterosexual cases constitute 12 percent of the total number of cases with a known mode of transmission. *High risk heterosexuals* (HRH) are HIV-infected persons whose heterosexual sex partners are 1) IDUs, 2) bisexual men or 3) HIV+ individuals. Numbers of cases are too small for this behavioral group within this region to present trend information.

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

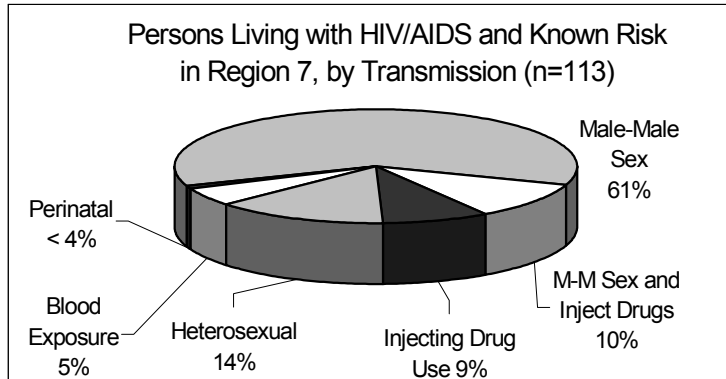


2000 Profile of HIV/AIDS in Region 7

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Surveillance is only able to determine the most likely mode. However, if information on the multiple risk of men who have sex with men (MSM) and injecting drug use (IDU) is available from a case report form, both risks are reported together.



The pie chart indicates the number of people living with HIV/AIDS in Region 7 by mode of transmission for the 113 cases for which the risk was identifiable.

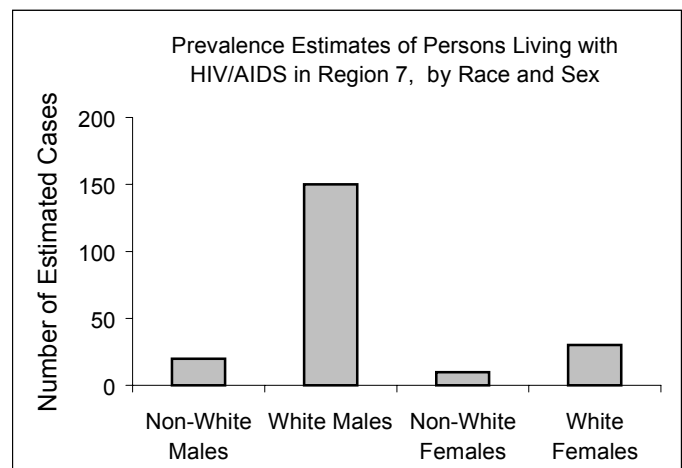
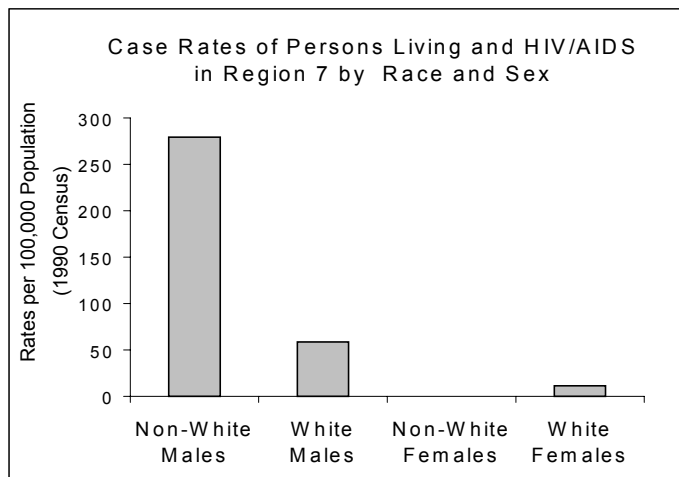
- This chart demonstrates that just under three-quarter (73 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including 11 percent who also injected drugs.
- Twenty percent are injecting drug users, including 11 percent who are also MSM.

- Finally, 12 percent of the total had high risk heterosexual sex partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

These bar graphs show the impact of this epidemic on whites and non-whites and sex groups.



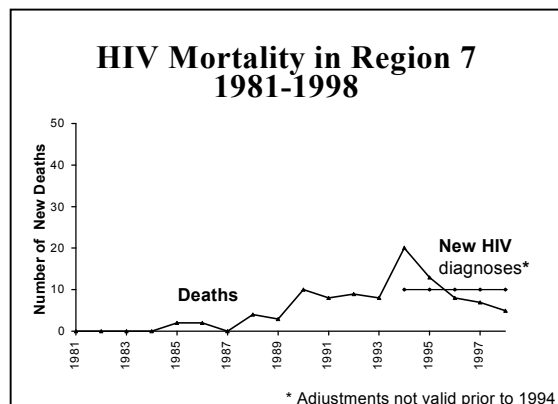
- Non-white males have the highest rate per 100,000 population (279) and the third highest estimated number (20) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- White males have the second highest rate (59) and the highest estimated number (150) of cases of HIV/AIDS.
- White females have the third highest rate (11) and the second estimated number (30) of HIV/AIDS cases.
- Non-white females have too few cases to provide a rate, however they are estimated to have 10 cases.



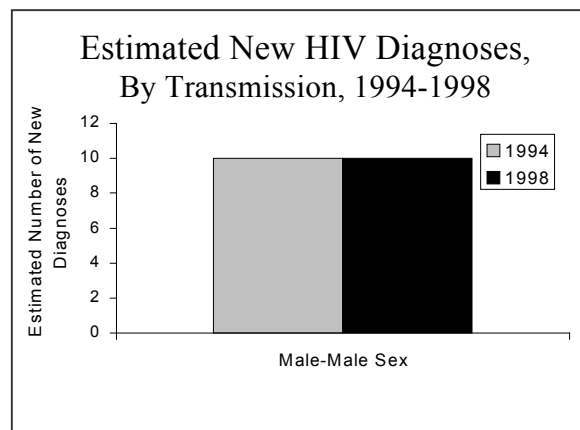
2000 Profile of HIV/AIDS in Region 7

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)



- *New HIV diagnoses (HIV incidence) are level while deaths are declining.* HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 10 persons were newly infected each year between 1994 and 1998 in Region 7.



- *Transmission of HIV 1994-98:* New diagnoses among men who have sex with men are stable at 10 persons annually. Trend information on new diagnoses among heterosexuals and injection drug users is difficult to determine due to low number of cases.

Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	81%	83%
Females	19%	17%
Whites	92%	89%
Blacks	4%	11%
Hispanics	1%	0%
Other	3%	0%
White Males	75%	74%
Black Males	3%	9%
Hispanic Males	1%	1%
Other Males	2%	0%
White Females	17%	15%
Black Females	1%	2%
Hispanic Females	0%	0%
Other Females	1%	0%
0-12 years	1%	1%
13-19 years	0%	0%
20-24 years	4%	4%
25-44 years	63%	70%
45+ years	31%	25%
HIV+ (Not AIDS)	62%	51%
AIDS	38%	49%
Total HIV Infected	104	135

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act (RWCA) and related sources.

In 1999, 104 HIV-infected persons were reported receiving Ryan White Services in Region 7. A comparison also shows that persons reported as cases in Region 7 are not significantly different than those receiving services through RWCA.

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (135), it is apparent that not all persons reported are receiving RWCA-funded services.

“Years” within this table refer to current age, not age at diagnosis.



2000 Profile of HIV/AIDS in Region 7

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Region 7. MSM remain the single largest behavioral group affected by this epidemic and account for over two-thirds of all reported infected persons with a known risk. MDCH estimates that there are approximately 120 MSM living with HIV disease in Region 7. This includes 20 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race or Ethnicity:

Having sex with other men infected most males in Region 7. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 82), white males (75) account for more than three-quarters (91 percent).

Age:

The largest percentage of living MSM cases are between the ages of 25-49 (83 percent). MSM is the predominant mode of transmission for males aged 20 and up.

Geographic Distribution:

All health department jurisdictions in Region 7 have reported cases of HIV among their residents, however, the numbers of cases are too small to provide a detailed analysis. Additionally, all counties within Region 7 are considered to be low prevalence areas.

Trends and Conclusions:

MDCH estimates that there are about 10 new HIV infections annually among men who have sex with men. This number was level 1994-1998 in Region 7. Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic. Region 7 should observe carefully to determine if the statewide trend of level number of cases among white and non-white MSM is occurring locally.



2000 Profile of HIV/AIDS in Region 7

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Injecting drug users (IDUs) are the number two ranked behavioral group in Region 7. IDU are the second largest behavioral group affected by this epidemic and account for 20 percent of reported infected persons with a known risk. MDCH estimates there are approximately 30 IDUs living with HIV disease in Region 7. This estimate includes 20 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals and MSM. Half of the reported cases among non-MSM IDUs also had high risk heterosexual sex partners (excluding MSM/IDUs). Additionally, of the 14 cases with reported heterosexual risk, six individuals (43 percent) also reported having IDU as partners.

When these linked populations are considered, IDU-related transmission accounts for 25 percent (28 cases) of people reported with HIV disease and having a known risk in Region 7. This is similar to the nationwide picture.

Race or Ethnicity and Gender:

Of the 22 IDU HIV/AIDS cases, 19 are white (86 percent). Also, 86 percent of the IDU cases are male.

Females and non-whites each make up <14 percent of the cases.

Age:

Among men with a known risk in the age group 25-49 years, IDU is the second most common mode of transmission; 23 percent of the cases in this age group.

Geographic Distribution:

All health department jurisdictions in Region 7 have reported cases of HIV among their residents, however, the numbers of cases are too small to provide a detailed analysis. Additionally, all counties within Region 7 are considered to be low prevalence areas.

Trends and Conclusions:

Estimating trends among IDUs (including MSM/IDU) in Region 7 is difficult due to low number of cases.

Although most cases are among whites, all IDUs would benefit from learning how the risk of HIV transmission increases through sex and sharing needles. In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.



2000 Profile of HIV/AIDS in Region 7

Ranked Behavioral Group Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three ranked behavioral group in Region 7. Heterosexual sex accounts for 14 percent of reported infected persons with a known risk. MDCH estimates that 20 persons living with HIV disease in Region 7 were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

Currently there are an estimated 10 infected persons who are classified as IDU but who also had one or more heterosexual sex partner who engaged in high risk behaviors (i.e., IDU, bisexual). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment.

There are no seroprevalence surveys in this region to measure the HIV positive rate of higher risk heterosexuals attending STD clinics. However rates here are likely lower than those at the Detroit STD clinics.

Race or Ethnicity and Gender:

Among females reported with HIV/AIDS and a known risk, over two-thirds (73 percent) of cases are contracted heterosexually. While women account for 17 percent of HIV/AIDS cases in Region 7, they have consistently accounted for over two-thirds of heterosexually acquired infections -- currently 79 percent. Of these, 91 percent are white females cases.

Among the 14 men and women living with HIV/AIDS and infected heterosexually, 43 percent reported their heterosexual partner as injecting drug users.

Age:

For women between the ages of 25 and 49, heterosexual transmission is the predominant mode. (Most other age groups have <5 cases.)

Geographic Distribution:

All health department jurisdictions in Region 7 have reported cases of HIV among their residents, however, the numbers of cases are too small to provide a detailed analysis. Additionally, all counties within Region 7 are considered to be low prevalence areas.

Trends and Conclusions:

Heterosexual transmission is the only mode of transmission which is increasing statewide among infected persons. However, there are not enough cases annually in Region 7 to determine a statistical trend. Heterosexual contact will remain a less common source of HIV transmission statewide than MSM or IDU behavior for the foreseeable future. In Region 7, heterosexual cases may approach IDU cases over time, but it is important to remember that the seroprevalence rates are much lower. Therefore, interventions among a few IDUs may prevent more infections than among a large number of heterosexuals.



2000 Profile of HIV/AIDS in Region 7

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

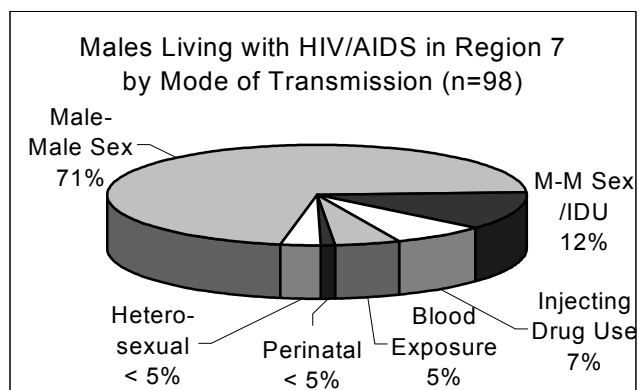
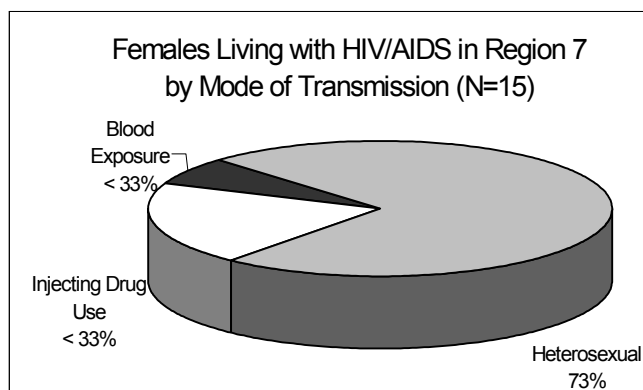
Although white persons comprise the majority of those living with HIV/AIDS in Region 7, the number of non-white cases is still disproportionate. Non-whites comprise 3 percent of this region's population yet make up 11 percent of the cases of HIV/AIDS. MDCH estimates 20 non-whites live with HIV/AIDS in Region 7. The rate of HIV infection among non-whites is 144 per 100,000 population, four times higher than the rate among whites. *MDCH estimates that as many as one out of 360 non-white males may be HIV-infected. A valid rate is not available for non-white females.*

White persons comprise over three-quarters (88 percent) of reported HIV/AIDS cases and over three-quarters of the population. MDCH estimates 180 whites live with HIV/AIDS in Region 7. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than non-whites (34 per 100,000 population). *MDCH estimates that as many as one out of 1,710 white males and one out of 8,930 white females may be HIV-infected.*

Most persons living with HIV/AIDS in Region 7 in 1998 are male (83 percent). Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 17 percent of the infected population in this region.

Mode of Transmission:

The following pie charts display the proportion of male and female cases by mode of transmission, among those with known transmission. Percents showing a < amount indicates areas where fewer than five cases were reported. Male and female cases are not subdivided by race because the numbers in these categories are too small.



Geographic Distribution of Cases:

All health department jurisdictions in Region 7 have reported cases of HIV among their residents; however, the numbers are too small to provide detailed analysis.

Trends and Conclusions:

Trends over time among the various race or sex groups in this region are difficult to discern due to sparse data. However, similar to the state, the disproportionate impact this epidemic is having on non-whites should be taken into account when designing prevention messages.

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**Table 1: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan
Region 7**

Prisoners and persons with unknown residence are included

January 1, 2000

Region 7 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% ^			%
Male	170	113	83%	64.6	263,292	49%
White Males	150	100	74%	58.6	256,128	48%
Non-White Males	20	12	9%	279.2	7,164	1%
Unknown Race Males	N/A	*	*	N/A	0	N/A
Female	30	23	17%	10.9	274,506	51%
White Females	30	20	15%	11.2	267,811	50%
Non-White Females	10	*	*	*	6,695	1%
Unknown Race Females	N/A	*	*	N/A	0	N/A
White	180	120	88%	34.4	523,939	97%
Non-White	20	15	11%	144.3	13,859	3%
Unknown Race	N/A	*	*	N/A	0	N/A
Male-Male Sex	100	70	62% ^	N/A		
Injecting Drug Use	10	10	9% ^	N/A		
IDU with heterosexual risk #	10	*	* ^	N/A		
IDU without heterosexual risk #	10	*	* ^	N/A		
M-M Sex and Inject Drugs	20	12	11% ^	N/A		
Blood Exposure [†]	10	6	5% ^	N/A		
Heterosexual	20	14	12% ^	N/A		
Partner IDU	10	6	5% ^	N/A		
Partner Bisexual [†]	10	*	* ^	N/A		
Partner Blood Exposure	10	*	* ^	N/A		
Partner HIV+	10	6	5% ^	N/A		
Perinatal	10	*	* ^	N/A		
Known Risk Total	170	113	100% ^	N/A		
Unknown Risk	N/A	22	(16%)	N/A		
0 - 4 years	10	*	*	*	38,836	7%
5 - 9 years	10	*	*	*	41,029	8%
10-12 years	10	*	*	*	24,107	4%
13 -19 years	10	*	*	*	53,920	10%
20 -24 years	20	11	8%	53.5	37,374	7%
25 -29 years	40	27	20%	106.4	37,589	7%
30 -34 years	50	37	27%	118.7	42,137	8%
35 -39 years	30	20	15%	74.7	40,171	7%
40 -44 years	20	16	12%	59.0	33,915	6%
45 -49 years	10	*	*	36.3	27,532	5%
50 -54 years	10	6	4%	39.6	25,244	5%
55 -59 years	10	*	*	*	25,669	5%
60 -64 years	10	*	*	*	28,817	5%
65 and over	10	*	*	*	81,458	15%
Unknown Age	N/A	*	*	N/A	0	N/A

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

Table 1: Distribution of HIV/AIDS Prevalence Estimates (Con't)
Reported Cases, and Population within Michigan
Region 7
Prisoners and persons with unknown residence are included
January 1, 2000

Reigon 7 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% [^]		%	%
Benzie-Leelanau District	20	13	10%	69.6	28,727	5%
BENZIE CO.	10	*	*	*	12,200	2%
LEELANAU CO.	10	10	7%	60.5	16,527	3%
Central Michigan District	50	34	25%	32.0	156,325	29%
ARENAC CO.	10	*	*	*	14,931	3%
CLARE CO.	10	10	7%	40.1	24,952	5%
GLADWIN CO.	10	*	*	*	21,896	4%
ISABELLA CO.	10	10	7%	18.3	54,624	10%
OSCEOLA CO.	10	*	*	*	20,146	4%
ROSCOMMON CO.	10	7	5%	50.6	19,776	4%
District #10 Region 7	20	16	12%	31.1	64,264	12%
CRAWFORD CO.	10	*	*	81.6	12,260	2%
KALKASKA CO.	10	*	*	*	13,497	3%
MISSAUKEE CO.	10	*	*	*	12,147	2%
WEXFORD CO.	10	7	5%	37.9	26,360	5%
District #2	20	12	9%	29.9	66,877	12%
ALCONA CO.	10	*	*	*	10,145	2%
IOSCO CO.	10	6	4%	33.1	30,209	6%
OGEMAW CO.	10	*	*	*	18,681	3%
OSCODA CO.	10	*	*	*	7,842	1%
District #3	40	25	18%	48.4	82,650	15%
ANTRIM CO.	10	*	*	*	18,185	3%
CHARLEVOIX CO.	10	9	7%	46.6	21,468	4%
EMMET CO.	10	6	4%	39.9	25,040	5%
OTSEGO CO.	10	6	4%	55.7	17,957	3%
District #4	10	9	7%	13.4	74,682	14%
ALPENA CO.	10	*	*	32.7	30,605	6%
CHEBOYGAN CO.	10	*	*	*	21,398	4%
MONTMORENCY CO.	10	*	*	*	8,936	2%
PRESQUE ISLE CO.	10	*	*	*	13,743	3%
GRAND TRAVERSE CO.	40	26	19%	62.2	64,273	12%
Total Region 7	200	136	100%	37.2	537,798	100%

Table 2: Living HIV/AIDS Cases in Michigan
Region 7
Sex and Race by Risk
January 1, 2000

Male Only Region 7	White Cases	%^	Non-White Cases	%^	All Races Cases	%^
Male-Male Sex	64	72%	6	67%	70	71%
Injecting Drug Use	6	7%	*	*	7	7%
<i>IDU w/ hetero risk[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
<i>IDU w/o hetero risk[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
M-M Sex /IDU	11	12%	*	*	12	12%
Blood Exposure	5	6%	*	*	5	5%
Perinatal	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*
<i>Partner IDU</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
<i>Partner Blood Exposure</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
<i>Partner HIV+</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
Total Known Risks	89	100%	9	100%	98	100%
Undetermined	11		*		14	
Total All Cases	100		12		112	

Female Only Region 7	White Cases	%^	Non-White Cases	%^	All Races Cases	%^
Injecting Drug Use	*	*	*	*	*	*
<i>IDU w/ hetero risk[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
<i>IDU w/o hetero risk[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
Blood Exposure[#]	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*
Heterosexual	10	77%	*	*	11	73%
<i>Partner IDU</i>	<i>6</i>	<i>46%</i>	<i>*</i>	<i>*</i>	<i>6</i>	<i>40%</i>
<i>Partner Bisexual[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
<i>Partner Blood Exposure</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
<i>Partner HIV+</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
Total Known Risks	13	100%	*	*	15	100%
Undetermined	7		*		8	
Total All Cases	20		*		23	

Male & Female Region 7	White Cases	%^	Non-White Cases	%^	All Races Cases	%^
Male-Male Sex	64	63%	6	55%	70	62%
Injecting Drug Use	8	8%	*	*	10	9%
<i>IDU w/ hetero risk[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>5</i>	<i>4%</i>
<i>IDU w/o hetero risk[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>5</i>	<i>4%</i>
M-M Sex /IDU	11	11%	*	*	12	11%
Blood Exposure[#]	6	6%	*	*	6	5%
Perinatal	*	*	*	*	*	*
Heterosexual	12	12%	*	*	14	12%
<i>Partner IDU</i>	<i>6</i>	<i>6%</i>	<i>*</i>	<i>*</i>	<i>6</i>	<i>5%</i>
<i>Partner Bisexual[#]</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
<i>Partner Blood Exposure</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>
<i>Partner HIV+</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>6</i>	<i>5%</i>
Total Known Risks	102	100%	11	100%	113	100%
Undetermined	18		*		22	
Total All Cases	120		15		135	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Living HIV/AIDS Cases in Michigan
Region 7
Age by Risk
January 1, 2000

Male Only	0-19 years		20-24 years		25-49 years		50+ years		All Ages	
Region 7	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]
Male-Male Sex	*	*	5	71%	57	73%	8	100%	70	71%
Injecting Drug Use	*	*	*	*	7	9%	*	*	7	7%
<i>IDU w/ hetero risk[#]</i>	*	*	*	*	*	*	*	*	*	*
<i>IDU w/o hetero risk[#]</i>	*	*	*	*	*	*	*	*	*	*
M-M Sex /IDU	*	*	*	*	11	14%	*	*	12	12%
Blood Exposure	*	*	*	*	*	*	*	*	5	5%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*	*	*	*	*
<i>Partner IDU</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner Blood Exposure</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner HIV+</i>	*	*	*	*	*	*	*	*	*	*
Total Known Risks	5	100%	7	100%	78	100%	8	100%	98	100%
Undetermined	*	*	*	*	10	*	*	*	14	*
Total All Cases	5		8		88		11		112	

Female Only	0-19 years		20-24 years		25-49 years		50+ years		All Ages	
Region 7	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]
Injecting Drug Use	*	*	*	*	*	*	*	*	*	*
<i>IDU w/ hetero risk[#]</i>	*	*	*	*	*	*	*	*	*	*
<i>IDU w/o hetero risk[#]</i>	*	*	*	*	*	*	*	*	*	*
Blood Exposure[#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	7	29%	*	*	11	73%
<i>Partner IDU</i>	*	*	*	*	*	*	*	*	6	40%
<i>Partner Bisexual[#]</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner Blood Exposure</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner HIV+</i>	*	*	*	*	*	*	*	*	*	*
Total Known Risks	*	*	*	*	24	100%	*	*	15	100%
Undetermined	*	*	*	*	16	*	*	*	8	*
Total All Cases	*		*		40		*		23	

Male & Female	0-19 years		20-24 years		25-49 years		50+ years		All Ages	
Region 7	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]	Cases	%[^]
Male-Male Sex	*	*	5	50%	57	29%	8	89%	70	62%
Injecting Drug Use	*	*	*	*	9	5%	*	*	10	9%
<i>IDU w/ hetero risk[#]</i>	*	*	*	*	5	3%	*	*	5	4%
<i>IDU w/o hetero risk[#]</i>	*	*	*	*	*	*	*	*	5	4%
M-M Sex /IDU	*	*	*	*	11	6%	*	*	12	11%
Blood Exposure[#]	*	*	*	*	*	*	*	*	6	5%
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	9	5%	*	*	14	12%
<i>Partner IDU</i>	*	*	*	*	*	*	*	*	6	5%
<i>Partner Bisexual[#]</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner Blood Exposure</i>	*	*	*	*	*	*	*	*	*	*
<i>Partner HIV+</i>	*	*	*	*	*	*	*	*	6	5%
Total Known Risks	7	100%	10	100%	200	100%	9	100%	113	100%
Undetermined	*	*	*	*	40	*	*	*	22	*
Total All Cases	7		11		240		12		135	

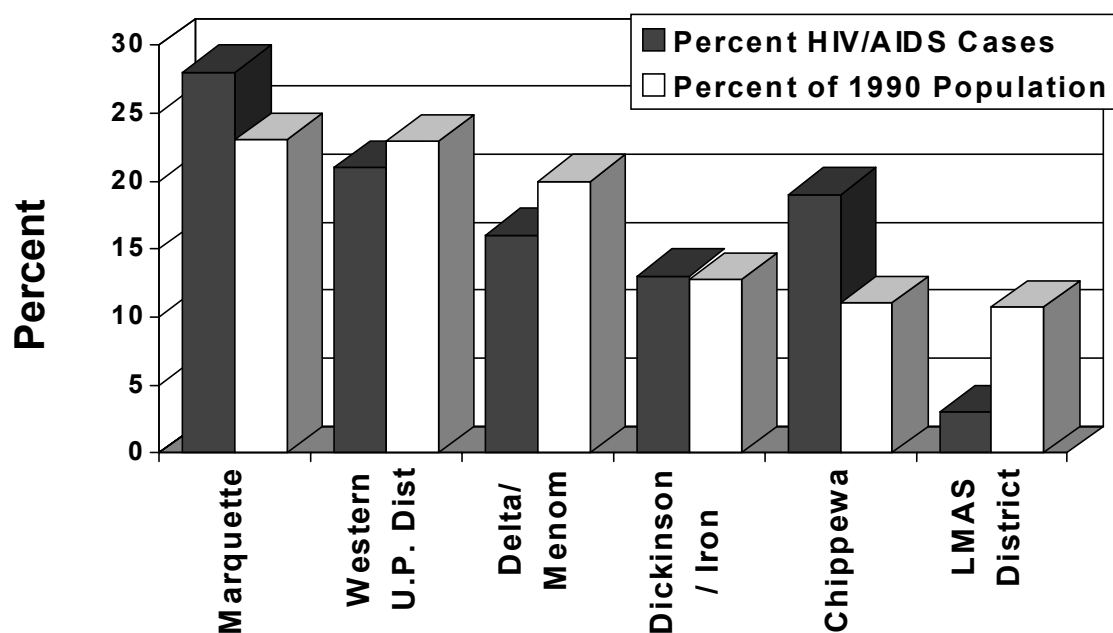
*Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile



Region 8 Live HIV/AIDS Cases and Population by Local Health Department Jurisdiction





2000 Profile of HIV/AIDS in Region 8

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2000 Profile of HIV/AIDS in Region 8

Summary of Epidemic for Region 8

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 100 people living with HIV/AIDS in Region 8, of which 68 were reported as of January 1, 2000. Incidence of HIV (the number of new HIV infections) is level at around 10 new cases annually. The number AIDS deaths dropped 57 percent between 1995 and 1998 in this region. 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. Region 8 has fewer cases (of the 9,301 cases reported statewide) when compared with the general population that lives there. The graph on the previous page displays the distribution of reported cases by local health department within Region 8. The greatest percent of cases within this region, 28 percent, was recorded in the local health department of Marquette.

The 83 counties of Michigan are organized into 48 local health departments (LHDs). In the less populated areas of the state LHDs may contain more than one county however most contain a single county. All LHDs have been labeled as either being in a high or low HIV prevalence area (refer to page 2 of the statewide profile for methodology used). Within Region 8, all LHDs are in low prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the regional levels, the MDCH HIV/AIDS Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Region 8. The guiding question used in this process has been, "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 was used in determining the ranked order of the following three behavioral groups: MSM, IDUs, and heterosexuals.

- **Men Who Have Sex With Men (MSM)*:** MSMs make up less than 71 percent of all HIV/AIDS cases with a known mode of transmission (37 plus a small number of MSM/IDU out of 59). Numbers of cases are too small for this behavioral group within this region to present trend information.
- **Intravenous Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, just over a quarter are IDUs. Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. Numbers of cases are too small for this behavioral group within this region to present trend information.
- **Heterosexuals:** Heterosexual cases constitute less than 8 percent of the total number of cases with a known mode of transmission. *High risk heterosexuals* (HRH) are HIV-infected persons whose heterosexual sex partners are 1) IDUs, 2) bisexual men or 3) HIV+ individuals. Numbers of cases are too small for this behavioral group within this region to present trend information.

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



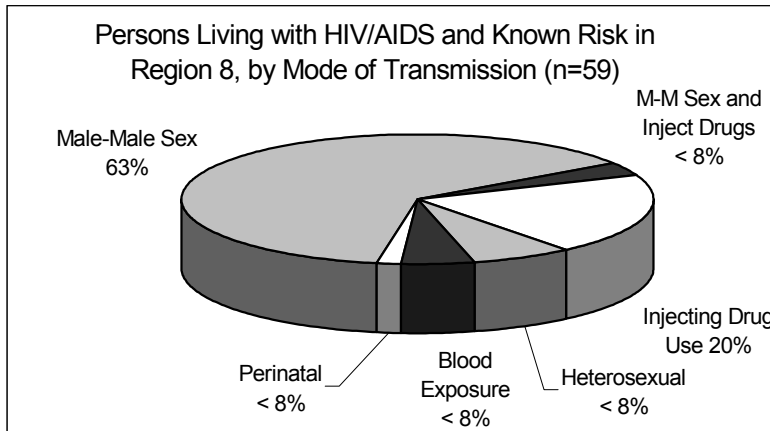
2000 Profile of HIV/AIDS in Region 8

Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

Data from HIV/AIDS Reporting System

Surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Surveillance is only able to determine the most likely mode. However, if information on the multiple risk of men who have sex with men (MSM) and injecting drug use (IDU) is available from a case report form, both risks are reported together.

The pie chart indicates the number of people living with HIV/AIDS in Region 8 by mode of transmission for the 59 cases for which the risk was identifiable.

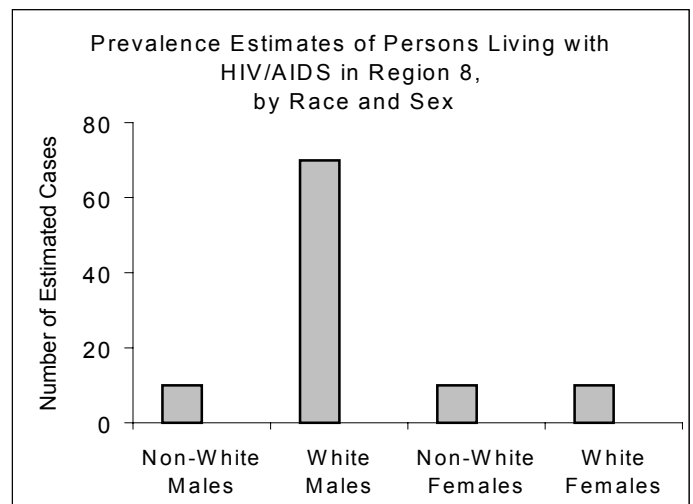
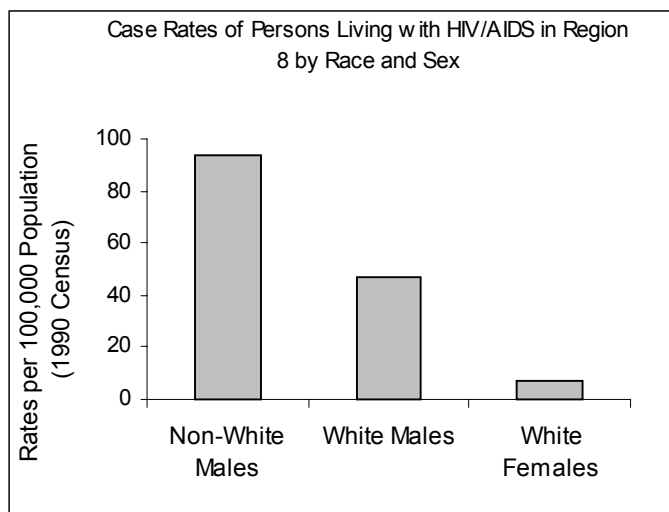


- This chart demonstrates that less than 71 percent of the people living with HIV/AIDS with a known mode of transmission are MSM, including < 8 percent who also injected drugs.
- Less than 28 percent are injecting drug users, including < 8 percent who are also MSM.
- Finally, less than 8 percent of the total cases had high risk heterosexual sex partners as their only mode of transmission.

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

These bar graphs show the impact of this epidemic on whites and non-whites and sex groups.



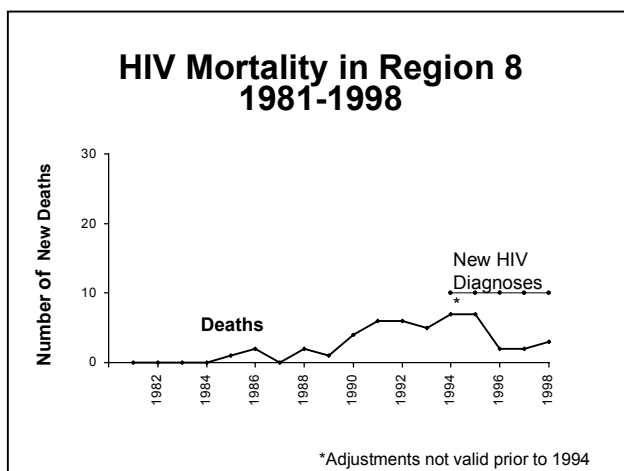
- Non-white males have the highest rate per 100,000 population (94) and they have an estimated 10 persons living with HIV/AIDS. This high rate means the impact of the epidemic is greatest on this demographic group.
- White males have the second highest rate (47) and the highest estimated number (70) of cases of HIV/AIDS.
- White females have the third highest rate (9) and an estimated 10 persons living with HIV/AIDS.
- Non-white females have too few cases to provide a rate, however they are estimated to have 10 cases.



2000 Profile of HIV/AIDS in Region 8

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)



- *New HIV diagnoses (HIV incidence) are level while deaths are declining.* HIV incidence and the drop in deaths are shown in the graph to the left. The drop in deaths is likely due to the more effective treatments introduced in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. MDCH estimates that about 10 persons were newly infected each year between 1994 and 1998 in Region 8.
- *Transmission of HIV 1994-98:* Trend information on new diagnoses among MSM, heterosexuals, and injection drug users is difficult to determine due to low number of cases.

Number of People Accessing Services vs. Reported Cases

Data from Uniform Reporting System (URS) & HIV/AIDS Reporting System (HARS)

Comparing Services with Cases		
Group	Services	Cases
Males	84%	85%
Females	16%	15%
Whites	79%	87%
Blacks	12%	13%
Hispanics	2%	0%
Other	7%	0%
White Males	67%	75%
Black Males	9%	10%
Hispanic Males	2%	0%
Other Males	5%	0%
White Females	12%	12%
Black Females	2%	3%
Hispanic Females	0%	0%
Other Females	2%	0%
0-12 years	2%	1%
13-19 years	0%	0%
20-24 years	5%	0%
25-44 years	65%	75%
45+ years	28%	24%
HIV+ (Not AIDS)	53%	50%
AIDS	47%	50%
Total HIV Infected	43	68

The Uniform Reporting System collects data on services that are provided to clients, including case-management, physician referrals, and assistance with housing and transportation needs. These services are funded through the Ryan White CARE Act (RWCA) and related sources.

In 1999, 43 HIV-infected persons were reported receiving Ryan White Services in Region 8. A comparison also shows that persons reported as cases in Region 8 are not significantly different than those receiving services through RWCA.

Since it is likely that most of these individuals are reported cases, when comparing their number to that of the total number of reported cases (68), it is apparent that not all persons reported are receiving RWCA-funded services.

“Years” within this table refer to current age, not age at diagnosis.



2000 Profile of HIV/AIDS in Region 8

Ranked Behavioral Group: MSM

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Men who have sex with men (MSM) are the number one ranked behavioral group in Region 8. MSM remain the single largest behavioral group affected by this epidemic and account for over half of all reported infected persons with a known risk. MDCH estimates that there are approximately 60 MSM living with HIV disease in Region 8. This includes 10 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race or Ethnicity:

Having sex with other men infected most males in Region 8. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 39), white males (36) account for approximately 92 percent of the cases.

Age:

The largest percentage of living MSM cases are between the ages of 25-49 (77 percent). MSM is the predominant mode of transmission for males aged 20 and up.

Geographic Distribution:

All health department jurisdictions in Region 8 have reported cases of HIV among their residents, however, the numbers of cases are too small to provide a detailed analysis. Additionally, all counties within Region 8 are considered to be low prevalence areas.

Trends and Conclusions:

MDCH estimates that there are about 10 new HIV infections annually among men who have sex with men. Men who have sex with men will continue to be the largest behavioral group affected by the HIV epidemic. Because low case numbers make trend determination difficult in Region 8, this region should observe carefully to determine if the statewide trend of level number of cases among white and black MSM is occurring locally.



2000 Profile of HIV/AIDS in Region 8

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Injecting drug users (IDUs) are the number two ranked behavioral group in Region 8. IDU are the second largest behavioral group affected by this epidemic and account for less than 28 percent of reported infected persons with a known risk. MDCH estimates there are approximately 30 IDUs living with HIV disease in Region 8. This estimate includes 10 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

The low number of cases makes it difficult to make determinations regarding the link between heterosexual transmission and IDU transmission. This region should look at the statewide profile to determine if similar issues exist.

Race or Ethnicity and Gender:

Of the 14 IDU HIV/AIDS cases, eight are white (57 percent) with non-whites making up the remaining 43 percent.

Sixty-four percent of the IDU cases are male and 36 percent are female.

Age:

Among all IDU, the majority of the cases are recorded among the 25-49 age group.

Geographic Distribution:

All health department jurisdictions in Region 8 have reported cases of HIV among their residents, however, the numbers of cases are too small to provide a detailed analysis. Additionally, all counties within Region 8 are considered to be low prevalence areas.

Trends and Conclusions:

Estimating trends among IDUs (including MSM/IDU) in Region 8 is difficult due to low number of cases.

Although most cases are among whites, all IDUs would benefit from learning how the risk of HIV transmission increases through sex and sharing needles. In addition, the impact of this transmission group on non-IDUs is important to recognize. Decreasing HIV among IDUs will decrease the number of cases attributed to heterosexual transmission as well as to their infants via perinatal transmission.



2000 Profile of HIV/AIDS in Region 8

Ranked Behavioral Group Discussion: Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number three ranked behavioral group in Region 8. Heterosexual sex accounts for less than 8 percent of reported infected persons with a known risk. MDCH estimates that 10 persons living with HIV disease in Region 8 were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDU, bisexual men or known to be HIV-infected (these are referred to as high risk heterosexual partners).

There are no seroprevalence surveys in this region to measure the HIV positive rate of higher risk heterosexuals attending STD clinics. However rates here are likely lower than those at the Detroit STD clinics.

Race or Ethnicity and Gender:

There are fewer than five cases of heterosexual transmission in Region 8. Of these, the majority are female.

Age:

There are too few cases of heterosexual transmission to make an analysis by age. However, there were no cases recorded for individuals less than 13 years old or greater than 40.

Geographic Distribution:

All health department jurisdictions in Region 8 have reported cases of HIV among their residents, however, the numbers of cases are too small to provide a detailed analysis. Additionally, all counties within Region 8 are considered to be low prevalence areas.

Trends and Conclusions:

Heterosexual transmission is the only mode of transmission which is increasing statewide among infected persons. However, there are not enough cases annually in Region 8 to determine a statistical trend. Heterosexual contact will remain a less common source of HIV transmission statewide than MSM or IDU behavior for the foreseeable future. In Region 8, cases may approach IDU cases over time, but it is important to remember that the seroprevalence rates are much lower. Therefore, interventions among a few IDUs may prevent more infections than among a large number of heterosexuals.



2000 Profile of HIV/AIDS in Region 8

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

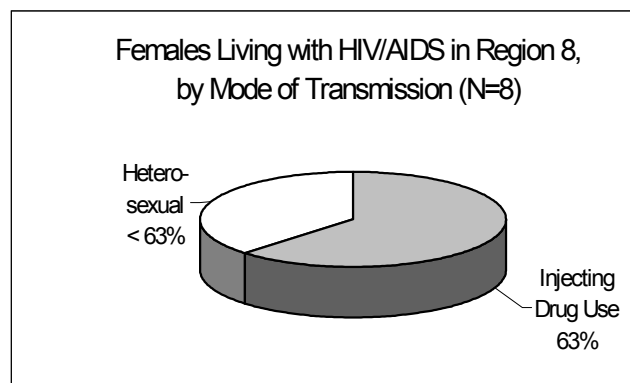
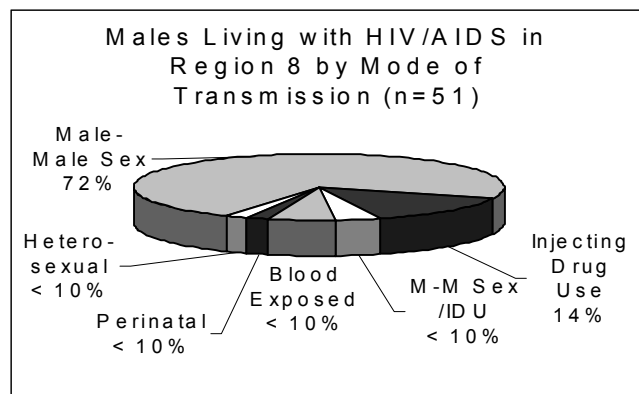
Although white persons comprise the majority of those living with HIV/AIDS in Region 8, the number of non-white cases is still disproportionate. Non-whites comprise 1 percent of this region's population yet make up 13 percent of the cases of HIV/AIDS. MDCH estimates 10 non-whites live with HIV/AIDS in Region 8. The rate of HIV infection among non-whites is 248 per 100,000 population, eight times higher than the rate among whites. *MDCH estimates that as many as one out of 1,070 non-white males may be HIV-infected. A valid rate is not available for non-white females.*

White persons comprise over three-quarters (85 percent) of reported HIV/AIDS cases and over three-quarters of the population. MDCH estimates 90 whites live with HIV/AIDS in Region 8. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection than non-whites (30 per 100,000 population). *MDCH estimates that as many as one out of 2,120 white males and one out of 14,710 white females may be HIV-infected.*

Most persons living with HIV/AIDS in Region 8 in 1998 are male (85 percent). Although women continue to be a smaller proportion of persons living with HIV/AIDS, their proportion has increased and they currently comprise 15 percent of the infected population in this region.

Mode of Transmission:

The following pie charts display the proportion of male and female cases by mode of transmission, among those with known transmission. Percents showing a < amount indicates areas where fewer than five cases were reported. Male and female cases are not subdivided by race because there are too few cases.



Geographic Distribution of Cases:

All health department jurisdictions in Region 8 have reported cases of HIV among their residents; however, the numbers are too small to provide detailed analysis.

Trends and Conclusions:

Trends over time among the various race or sex groups in this region are difficult to discern due to sparse data. However, similar to the state, the disproportionate impact this epidemic is having on non-whites should be taken into account when designing prevention messages.

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**Table 1: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population Within Michigan
Region 8**

Prisoners and persons with unknown residence are included

January 1, 2000

Region 8 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% [^]			%
Male	90	58	85%	56.6	158,947	51%
<i>White Males</i>	<i>70</i>	<i>50</i>	<i>74%</i>	<i>47.2</i>	<i>148,254</i>	<i>47%</i>
<i>Non-White Males</i>	<i>10</i>	<i>7</i>	<i>10%</i>	<i>93.5</i>	<i>10,693</i>	<i>3%</i>
<i>Unknown Race Males</i>	<i>N/A</i>	<i>*</i>	<i>*</i>	<i>N/A</i>	<i>0</i>	<i>N/A</i>
Female	10	10	15%	6.5	154,968	49%
<i>White Females</i>	<i>10</i>	<i>8</i>	<i>12%</i>	<i>6.8</i>	<i>147,858</i>	<i>47%</i>
<i>Non-White Females</i>	<i>10</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>7,110</i>	<i>2%</i>
<i>Unknown Race Females</i>	<i>N/A</i>	<i>*</i>	<i>*</i>	<i>N/A</i>	<i>0</i>	<i>N/A</i>
White	90	58	85%	30.4	296,112	94%
Non-White	10	9	13%	248.0	4,033	1%
Unknown Race	N/A	*	*	N/A	0	N/A
Male-Male Sex	50	37	63% [^]	N/A		
Injecting Drug Use	20	12	20% [^]	N/A		
<i>IDU with heterosexual risk[#]</i>	<i>10</i>	<i>*</i>	<i>* [^]</i>	<i>N/A</i>		
<i>IDU without heterosexual risk[#]</i>	<i>10</i>	<i>9</i>	<i>15% [^]</i>	<i>N/A</i>		
M-M Sex and Inject Drugs	10	*	* [^]	N/A		
Blood Exposure[#]	10	*	* [^]	N/A		
Heterosexual	10	*	* [^]	N/A		
<i>Partner IDU</i>	<i>10</i>	<i>*</i>	<i>* [^]</i>	<i>N/A</i>		
<i>Partner Bisexual[#]</i>	<i>10</i>	<i>*</i>	<i>* [^]</i>	<i>N/A</i>		
<i>Partner Blood Exposure</i>	<i>10</i>	<i>*</i>	<i>* [^]</i>	<i>N/A</i>		
<i>Partner HIV+</i>	<i>10</i>	<i>*</i>	<i>* [^]</i>	<i>N/A</i>		
Perinatal	10	*	* [^]	N/A		
Known Risk Total	90	59	100% [^]	N/A		
Unknown Risk	N/A	9	(13%)	N/A		
0 - 4 years	10	*	*	*	20,571	7%
5 - 9 years	10	*	*	*	22,576	7%
10-12 years	10	*	*	*	13879	4%
13 -19 years	10	*	*	*	32,646	10%
20 -24 years	10	6	9%	42.3	23,622	8%
25 -29 years	20	14	21%	90.2	22,177	7%
30 -34 years	20	11	16%	81.7	24,471	8%
35 -39 years	30	18	26%	123.4	24,302	8%
40 -44 years	10	8	12%	49.3	20,303	6%
45 -49 years	10	*	*	*	15,628	5%
50 -54 years	10	7	10%	70.0	14,286	5%
55 -59 years	10	*	*	*	13,634	4%
60 -64 years	10	*	*	*	14,751	5%
65 and over	10	*	*	*	51,069	16%
Unknown Age	N/A	*	*	N/A	0	N/A

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

Table 1: Distribution of HIV/AIDS Prevalence Estimates (Continued)
Reported Cases, and Population Within Michigan
Region 8

Prisoners and persons with unknown residence are included

January 1, 2000

Reigon 8 Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	1990 Census	
		Cases	% [^]			%
CHIPPEWA CO.	20	13	19%	57.8	34,604	11%
Delta-Menominee	20	11	16%	31.9	62,700	20%
DELTA CO.	10	9	13%	26.5	37,780	12%
MENOMINEE CO.	10	*	*	*	24,920	8%
Dickinson-Iron District	10	9	13%	75.9	13,183	4%
DICKINSON CO.	10	8	12%	37.3	8	0%
IRON CO.	10	*	*	*	13,175	4%
LMAS District	10	*	*	*	33,711	11%
LUCE	10	*	*	*	5,763	2%
MACKINAC CO.	10	*	*	*	10,674	3%
ALGER	10	*	*	*	8,972	3%
SCHOOLCRAFT CO.	10	*	*	*	8,302	3%
MARQUETTE CO.	30	19	28%	42.3	70,887	23%
Western U.P. District	20	14	21%	27.8	72,007	23%
BARAGA CO.	10	7	10%	125.7	7,954	3%
GOGEBIC CO.	10	*	*	*	18,052	6%
HOUGHTON CO.	10	*	*	28.2	35,446	11%
KEWEENAW	10	*	*	*	1,701	1%
ONTONAGON	10	*	*	*	8,854	3%
Total Region 8	100	68	100%	31.9	313,915	100%

* Indicates there are fewer than five reported cases

[^] Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

¹ The minimum estimate is 10 cases

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/00

³ Rate calculated (*Estimated HIV Infection/1990 Census*) * 100,000

Table 2: Living HIV/AIDS Cases in Michigan
Region 8
Sex and Race by Risk
January 1, 2000

Male Only Region 8	White		Non-White		All Races	
	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	34	79%	*	*	37	73%
Injecting Drug Use	*	*	*	*	7	14%
IDU w/ hetero risk [#]	*	*	*	*	*	*
IDU w/o hetero risk [#]	*	*	*	*	6	12%
M-M Sex /IDU	*	*	*	*	*	*
Blood Exposure	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*
Partner IDU	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*
Total Known Risks	43	100%	8	100%	51	100%
Undetermined	7		*		7	
Total All Cases	50		8		58	

Female Only Region 8	White		Non-White		All Races	
	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use	*	*	*	*	5	63%
IDU w/ hetero risk [#]	*	*	*	*	*	*
IDU w/o hetero risk [#]	*	*	*	*	*	*
Blood Exposure [#]	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*
Partner IDU	*	*	*	*	*	*
Partner Bisexual [#]	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*
Total Known Risks	6	2%	*	*	8	100%
Undetermined	*		*		*	
Total All Cases	8		*		10	

Male & Female Region 8	White		Non-White		All Races	
	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	34	69%	*	*	37	63%
Injecting Drug Use	6	12%	6	60%	12	20%
IDU w/ hetero risk [#]	*	*	*	*	*	*
IDU w/o hetero risk [#]	5	10%	*	*	9	15%
M-M Sex /IDU	*	*	*	*	*	*
Blood Exposure [#]	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*
Partner IDU	*	*	*	*	*	*
Partner Bisexual [#]	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*
Total Known Risks	49	100%	10	100%	59	100%
Undetermined	9		*		9	
Total All Cases	58		10		68	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

Table 3: Living HIV/AIDS Cases in Michigan

Region 8

Age by Risk

January 1, 2000

Male Only	0-19 years		20-24 years		25-49 years		50+ years		All Ages	
Region 8	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	*	*	*	*	29	76%	5	83%	37	73%
Injecting Drug Use	*	*	*	*	6	16%	*	*	7	14%
IDU w/ hetero risk [#]	*	*	*	*	*	*	*	*	*	*
IDU w/o hetero risk [#]	*	*	*	*	5	13%	*	*	6	12%
M-M Sex /IDU	*	*	*	*	*	*	*	*	*	*
Blood Exposure	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*	*	*	*	*
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*	*	*	*	*
Total Known Risks	*	*	5	100%	38	100%	6	100%	51	100%
Undetermined	*		*		6		*		7	
Total All Cases	*		5		44		7		58	

Female Only	0-19 years		20-24 years		25-49 years		50+ years		All Ages	
Region 8	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use	*	*	*	*	5	83%	*	*	5	63%
IDU w/ hetero risk [#]	*	*	*	*	*	*	*	*	*	*
IDU w/o hetero risk [#]	*	*	*	*	*	*	*	*	*	*
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*	*	*	*	*
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*	*	*	*	*
Total Known Risks	*	*	*	*	6	100%	*	*	8	100%
Undetermined	*		*		*		*		*	
Total All Cases	*		*		8		*		10	

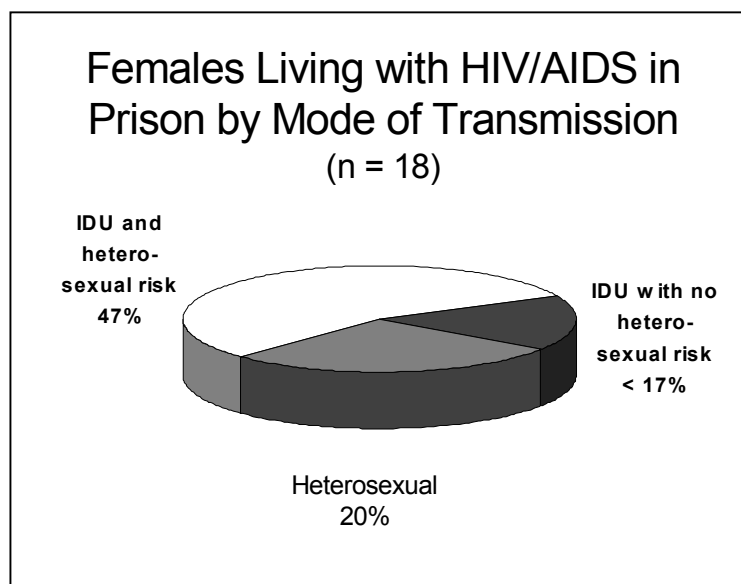
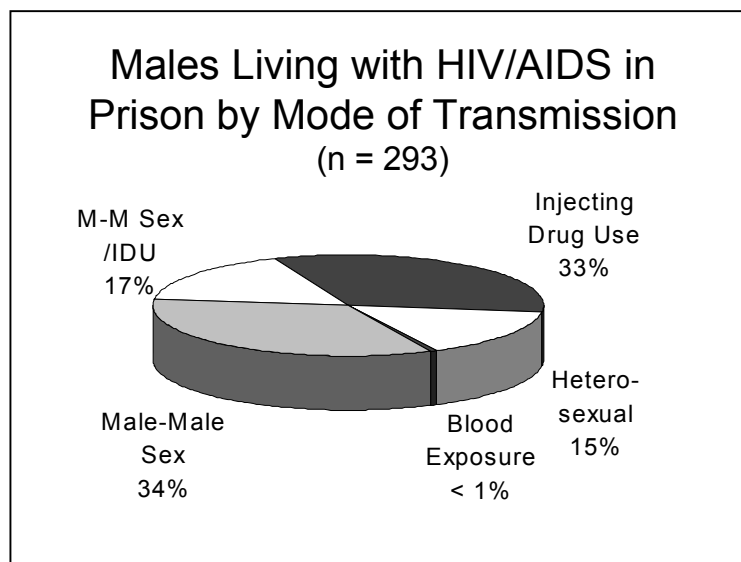
Male & Female	0-19 years		20-24 years		25-49 years		50+ years		All Ages	
Region 8	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	*	*	*	*	29	66%	5	83%	37	63%
Injecting Drug Use	*	*	*	*	11	25%	*	*	12	20%
IDU w/ hetero risk [#]	*	*	*	*	*	*	*	*	*	*
IDU w/o hetero risk [#]	*	*	*	*	8	18%	*	*	9	15%
M-M Sex /IDU	*	*	*	*	*	*	*	*	*	*
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	*	*	*	*	*	*	*	*
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*	*	*	*	*
Total Known Risks	*	*	6	100%	44	100%	6	100%	59	100%
Undetermined	*		*		8		*		9	
Total All Cases	*		6		52		7		68	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*[#] Indicates an explanatory definition exists in attached glossary at end of Profile



Michigan Department of Corrections HIV Infection within Michigan's Prison Population





2000 Profile of HIV/AIDS for Michigan Department of Corrections

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2000 Profile of HIV/AIDS for Michigan Department of Corrections

Statewide Summary of Epidemic Among Michigan's Prison Population

Data from HIV/AIDS Reporting System (HARS)

- **How many cases?** From 1983 to present, a cumulative total of 1,427 prisoners have been confirmed with HIV infection. Many were first diagnosed upon intake to prison, some were diagnosed while in prison, and some diagnosed prior to incarceration. A total of 434 are known to have died inside or outside of prison.

The regional profiles include ex-prisoners but not persons still in prison. This profile on the Michigan Department of Corrections includes the 390 inmates known to be incarcerated at state facilities, as of September 2000.

- **What are the demographics of these cases?** The remainder of this profile describes these inmates. Ninety-five percent of HIV-infected prisoners are male and 5 percent are female. Most (78 percent) are black, 14 percent are white, and 6 percent are Hispanic.

Among the 19 females, just under three-quarters are black and less than 16 percent are white. Among those with known behavior histories, 72 percent give a history of injecting drug use.

Among black males with known risk, 34 percent are men who have sex with men, 34 percent have injected drugs, and 15 percent have had both behaviors. Another 16 percent indicate they had a heterosexual sex partner who was HIV-infected or who was an injecting drug user. The acknowledged behaviors among white males are similar: 39 percent are men who have sex with men, 20 percent have injected drugs, and 30 percent have had both behaviors. Less than 9 percent of white men acknowledge a heterosexual sex partner who was HIV-infected or who was an injecting drug user.

- **How was this data collected?** Since 1989, all prisoners are tested for HIV infection and other infectious diseases upon intake to state correctional facilities. This testing shows that among both men and women, approximately 1 percent of all prisoners are HIV-infected. Among young men under age 21, the rate is much lower. These rates have not changed significantly over time.

The most current available surveillance data was reviewed to determine the progression of HIV disease among these prisoners. This data is often collected at the time of incarceration, although there are occasional updates.

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Table 1: Living HIV/AIDS Cases in Michigan

Michigan Department of Corrections

Sex and Race by Risk

September 2000

Male Only In Prisons	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	17	39%	77	34%	5	24%	*	*	99	34%
Injecting Drug Use	9	20%	77	34%	11	52%	*	*	97	33%
IDU w/ hetero risk [#]	7	16%	49	22%	8	38%	*	*	64	22%
IDU w/o hetero risk [#]	*	*	28	12%	*	*	*	*	33	11%
M-M Sex /IDU	13	30%	33	15%	*	*	*	*	50	17%
Blood Exposure	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	37	16%	*	*	*	*	45	15%
Partner IDU	*	*	27	12%	*	*	*	*	32	11%
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	10	4%	*	*	*	*	13	4%
Total Known Risks	44	100%	225	100%	21	100%	*	*	293	100%
Undetermined	9		66		*		*		78	
Total All Cases	53		291		24		*		371	

Female Only In Prisons	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use	*	*	9	64%	*	*	*	*	13	72%
IDU w/ hetero risk [#]	*	*	8	57%	*	*	*	*	10	56%
IDU w/o hetero risk [#]	*	*	*	*	*	*	*	*	*	*
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	5	36%	*	*	*	*	5	28%
Partner IDU	*	*	*	*	*	*	*	*	*	*
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	*	*	*	*	*	*	*	*
Total Known Risks	*	*	14	100%	*	*	*	*	18	100%
Undetermined	*		*		*		*		*	
Total All Cases	*		14		*		*		19	

Male & Female In Prisons	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex	17	36%	77	32%	5	23%	*	*	99	32%
Injecting Drug Use	12	26%	86	36%	12	55%	*	*	110	35%
IDU w/ hetero risk [#]	8	17%	57	24%	9	41%	*	*	74	24%
IDU w/o hetero risk [#]	*	*	29	12%	*	*	*	*	36	12%
M-M Sex /IDU	13	28%	33	14%	*	*	*	*	50	16%
Blood Exposure [#]	*	*	*	*	*	*	*	*	*	*
Perinatal	*	*	*	*	*	*	*	*	*	*
Heterosexual	*	*	42	18%	*	*	*	*	50	16%
Partner IDU	*	*	31	13%	*	*	*	*	36	12%
Partner Bisexual [#]	*	*	*	*	*	*	*	*	*	*
Partner Blood Exposure	*	*	*	*	*	*	*	*	*	*
Partner HIV+	*	*	11	5%	*	*	*	*	14	5%
Total Known Risks	47	100%	239	100%	22	100%	*	*	311	100%
Undetermined	9		66		*		*		79	
Total All Cases	56		305		25		*		390	

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

Indicates an explanatory definition exists in attached glossary at end of Profile

Table 2: Living HIV/AIDS Cases in Michigan
Michigan Department of Corrections
Sex and Age by Risk
September 2000

Male Only In Prisons	13-19 years Cases %^	20-24 years Cases %^	25-49 years Cases %^	50 + years Cases %^	All Ages years Cases %^
Male-Male Sex	6 67%	15 50%	78 32%	* *	99 34%
Injecting Drug Use	* *	* *	91 37%	* *	97 33%
IDU w/ hetero risk [#]	* *	* *	62 25%	* *	64 22%
IDU w/o hetero risk [#]	* *	* *	29 12%	* *	33 11%
M-M Sex /IDU	* *	5 17%	41 17%	* *	50 17%
Blood Exposure	* *	* *	* *	* *	* *
Perinatal	* *	* *	* *	* *	* *
Heterosexual	* *	6 20%	36 15%	* *	45 15%
Partner IDU	* *	* *	27 11%	* *	32 11%
Partner Blood Exposure	* *	* *	* *	* *	* *
Partner HIV+	* *	* *	9 4%	* *	13 4%
Total Known Risks	9 100%	30 100%	247 100%	5 100%	293 100%
Undetermined	*	17	55	*	78
Total All Cases	15	47	302	7	371

Female Only In Prisons	13-19 years Cases %^	20-24 years Cases %^	25-49 years Cases %^	50 + years Cases %^	All Ages years Cases %^
Injecting Drug Use	* *	* *	11 73%	* *	13 72%
IDU w/ hetero risk [#]	* *	* *	8 53%	* *	10 56%
IDU w/o hetero risk [#]	* *	* *	* *	* *	* *
Blood Exposure [#]	* *	* *	* *	* *	* *
Perinatal	* *	* *	* *	* *	* *
Heterosexual	* *	* *	* *	* *	5 28%
Partner IDU	* *	* *	* *	* *	* *
Partner Bisexual [#]	* *	* *	* *	* *	* *
Partner Blood Exposure	* *	* *	* *	* *	* *
Partner HIV+	* *	* *	* *	* *	* *
Total Known Risks	* *	* *	15 100%	* *	18 100%
Undetermined	*	*	*	*	*
Total All Cases	*	*	16	*	19

Male & Female In Prisons	13-19 years Cases %^	20-24 years Cases %^	25-49 years Cases %^	50 + years Cases %^	All Ages years Cases %^
Male-Male Sex	6 67%	15 50%	78 30%	* *	99 32%
Injecting Drug Use	* *	* *	102 39%	* *	110 35%
IDU w/ hetero risk [#]	* *	* *	70 27%	* *	74 24%
IDU w/o hetero risk [#]	* *	* *	32 12%	* *	36 12%
M-M Sex /IDU	* *	5 17%	41 16%	* *	50 16%
Blood Exposure [#]	* *	* *	* *	* *	* *
Perinatal	* *	* *	* *	* *	* *
Heterosexual	* *	6 20%	40 15%	* *	50 16%
Partner IDU	* *	* *	31 12%	* *	36 12%
Partner Bisexual [#]	* *	* *	* *	* *	* *
Partner Blood Exposure	* *	* *	* *	* *	* *
Partner HIV+	* *	* *	9 3%	* *	14 5%
Total Known Risks	9 100%	30 100%	262 100%	7 100%	311 100%
Undetermined	*	18	56	*	79
Total All Cases	15	48	318	9	390

* Indicates there are fewer than five reported cases

^ Indicates percentage calculated from cases with *known risk*

[#] Indicates an explanatory definition exists in attached glossary at end of Profile

2000 Profile of HIV/AIDS for Michigan

Definition of some terms

HIV Infection and AIDS Case Definitions: These are standard national definitions and are used by all states. A minimum amount of information is required in order to count a case of HIV infection or AIDS, including a method to uniquely identify an individual. Each person is counted as either HIV-infected without AIDS, or HIV-infected with AIDS. Once a person meets the AIDS case definition, surveillance always counts that case as AIDS even if his/her health status improves.

HIV infection: The surveillance definition for HIV infection was last updated in December 1999 and includes laboratory tests which detect antibody to HIV infection, or which directly detect the virus HIV.

AIDS: The surveillance definition for AIDS includes a diagnosis of any of 25 different opportunistic disease which are indicative of a severe immune deficiency, or a laboratory test demonstrating severe immune deficiency.

The above definitions are more fully described in the following references:

Guidelines for National HIV Case Surveillance, Including Monitoring for HIV Infection and AIDS, Morbidity and Mortality Weekly Report, December 10, 1999, vol 48, number RR-13.

1993 Revised Classification System for HIV Infection and Expanded Surveillance Case Definition for AIDS Among Adolescents and Adults, Morbidity and Mortality Weekly Report, December 18, 1992, volume 41, number RR-17.

Both of these references can be obtained through the CDC website www.cdc.gov/mmwr/mmwr_rr.html.

Heterosexual risk: A heterosexual partner is known to be HIV-infected, or is a man who has had sex with men, or is an injection drug user, or is a hemophiliac.

IDU with Heterosexual risk: A person who injects drugs AND has a heterosexual risk (see above).

IDU without Heterosexual risk: A person who injects drugs and does NOT have a heterosexual risk (see above).

Blood Exposure: Hemophilia and transfusions before 1986 are included in this category.

Partner Bisexual: Applies to women who have one or more male partners who also have sex with other men.

Prevalence: The total number of persons with HIV disease at one point in time is called the **prevalence**. This number for all of Michigan as of January 1, 2000, was 13,000 persons. This estimate includes persons who have AIDS, persons diagnosed with HIV infection without AIDS, and persons with HIV infection who have not yet been diagnosed.

Incidence: This is the number of persons who develop a disease or infection in a certain period of time, usually a year. The number of persons diagnosed with HIV infection in Michigan is about 1,100 persons per year.

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400 copies printed at \$5.64 each with a
total cost of \$2,256.