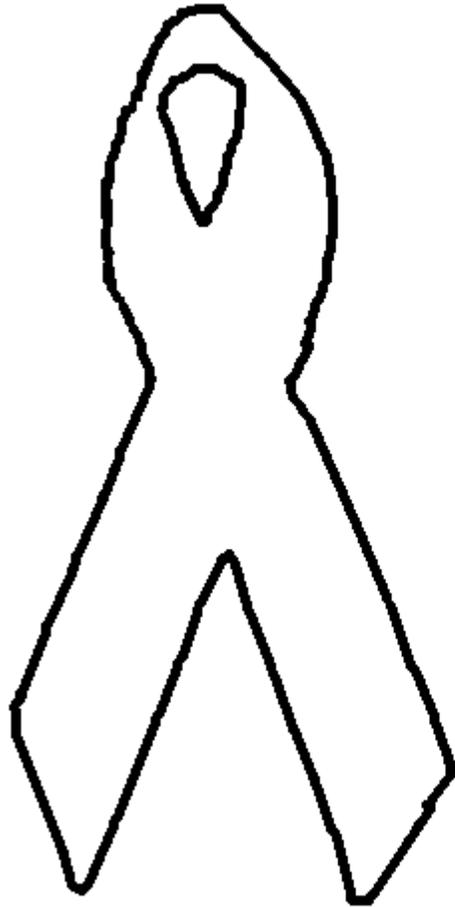


2004 Epidemiologic Profiles of HIV/AIDS in Michigan



Michigan Department of Community Health

HIV/STD & Bloodborne Infections Surveillance Section / Bureau of Epidemiology
<http://www.michigan.gov/mdch>

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2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Executive Summary

At the end of 2003, a total of 11,527 persons were known to be living with HIV/AIDS in Michigan, nearly half (48 percent) of whom had a diagnosis of AIDS. Currently, there are persons living with HIV in all but 3 counties in the state, and the number continues to increase each year. Declines in the number of deaths of persons with AIDS since 1995 were caused primarily by the slower progression of HIV-associated immune deficiency among persons who used highly active antiretroviral therapy (HAART).

HIV disease is distributed disproportionately in Michigan. Most HIV/AIDS cases continue to be diagnosed in the Detroit Metropolitan Area, where 45 percent of the state's population lives, but where two-thirds (67 percent) of all persons currently living with HIV in Michigan reside. HIV positive residents of this area continue to be predominantly men who have sex with men, black, and ages 25-44 years old at time of diagnosis.

The proportion of persons diagnosed each year with HIV between 1998 and 2002 has not changed significantly for any race/sex group. Although the trend in new HIV infections among blacks is level, this group is still impacted disproportionately compared to the general population. Black males and females make up 14 percent of the general population in Michigan, but 58 percent of persons living with HIV/AIDS. The rate of HIV infection is currently 8.5 times higher in the black population than in the white population.

Among men in all racial groups, male-male sex is the predominant mode of exposure. For women in all racial groups, high-risk heterosexual sex is the predominant mode of exposure. However, injection drug use is still a concern for both sexes. Since 1998, however, the number of cases among injecting drug users has declined substantially.

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Introduction

This year the HIV/STD & Bloodborne Infections Surveillance Section is providing prevention and care planning groups with the epidemiologic profiles for the State of Michigan, the Detroit Metropolitan Area, and Out-State Michigan (including the upper peninsula and the balance of the lower peninsula). The profiles use a simplified method of ranking the priority of behavioral groups. The rank was based on 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 would ideally be followed over time. Methods for measuring new infections are currently being developed, however, since surveillance is not yet able to do this, trends are analyzed among those newly diagnosed with HIV disease between 1998 and 2002. In addition, the HIV/STD & Bloodborne Infections Surveillance Section will continue to track trends for AIDS cases since these trends measure changes in treatment effectiveness and access to care.

The HIV/STD & Bloodborne Infections Surveillance Section creates these profiles every other year, however, statewide and some county statistical analyses are created and disseminated on a quarterly basis. When reading either of these documents, the reader must keep in mind that they are based on two different populations. The HIV/AIDS Quarterly Analyses use cases of HIV/AIDS whose **residence at diagnosis** was Michigan (cases that were diagnosed in Michigan can presently be living elsewhere). The Epidemiologic Profiles of HIV/AIDS in Michigan use cases of HIV/AIDS that are **currently living** in Michigan. There are 382 more persons included when we use the HIV infected population **currently living** in Michigan. The reason for this difference is to satisfy questions on both populations. Therefore, there may be differences in numbers, percents, and rates when comparing the two documents.

In 2003, the Centers for Disease Control and Prevention (CDC) developed guidelines to help in the creation of the profiles. The purpose was to facilitate combining Care and Prevention information nationally. Michigan has been creating a combined Care and Prevention Profile since 1998. This year, we have followed these guidelines where information was available and time allowed for thoughtful integration. They will be incorporated more fully in the next publication (Profiles 2006).

There are many new additions to the profiles this year, we have increased the number of data sources and provided a detailed description of each one. We have provided a listing of all tables and figures, and finally, we are providing a feedback form in order to evaluate our efforts in serving the consumers of the profiles. Ideas on ways to improve the profiles are always welcome.

Staff from the MDCH HIV/STD & Bloodborne Infections Surveillance Section are available to assist in interpretation of these profiles as well as to provide additional analyses. Questions or comments about these profiles should be either returned using the feedback form, or directed to your county contacts. With your assistance, surveillance data will continue to guide HIV prevention strategies and resource allocation for care services in Michigan. For the statewide and Out-State profiles, please call (517) 335-8165. For the statewide and Detroit Metro Area profiles, please call (313) 876-0353.

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Profiles Strengths and Limitations

When making planning decisions, it is important to consider the overall strengths and limitations of this document. Although the profile is comprehensive and draws from a number of data sources, there are many things that the profile cannot explain.

Although the HIV/AIDS surveillance system in Michigan is extensive, it is based on data on people who have been tested confidentially for HIV. Consequently, infected persons who have not been tested, are tested anonymously, or are tested by name but not reported are not included. Therefore, HIV infections are under-detected and underreported. However, HIV/AIDS Surveillance data are considered to be among the most complete, compared with other notifiable diseases and infections. In order to compensate for these uncounted infections, estimates are provided in several tables.

The data presented in this report do not necessarily represent the characteristics of persons who have been recently infected with HIV, nor do they provide a true measure of HIV incidence because persons are tested at differing times after they become infected, and many persons are not tested until HIV infection has progressed to AIDS.

Analyses of many different data sets are presented to provide robust representations of particular subpopulations. However, demographic and geographic subpopulations are disproportionately sensitive to differences and changes in access to health care, HIV testing patterns, and specific prevention programs and services. All of these issues must be carefully considered when interpreting HIV data. Therefore, it is important to make comparisons across data sources to get the most complete picture.

The most current analysis available is presented for each source of data; however, the most recent data differ from one source to another. For example, the most recent data available for SHAS are from 2003, whereas some data (e.g., CITY) were collected in 1999. In addition, more detailed analyses are available for some sources. The information in this report is for statewide planning, but some local data are presented.

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Data Sources

Data were compiled from a variety of sources to provide the most complete picture possible. When interpreting the data, keep in mind that each of the data sources has strengths and limitations. A brief description of each of the data sources follows.

Core HIV/AIDS Surveillance

HIV/AIDS Surveillance Data

In 1983, the Michigan Department of Community Health (MDCH) established a surveillance system to track newly diagnosed AIDS cases. This surveillance system was expanded in 1989 to include confidential name-based HIV reporting. Standardized case report forms are used to collect sociodemographic information, mode of exposure, laboratory and clinical information, vital status (i.e., living or dead), and referrals for treatment or services. HIV surveillance data may underestimate the number of recently infected persons because some infected persons either have not been tested or have been tested, but not yet reported to MDCH. Persons who tested positive at an anonymous test site and have not sought medical care (where they would probably be confidentially tested) are not included in HIV surveillance statistics because cases without names cannot be unduplicated. Therefore, HIV infection data provide minimum estimates of the number of persons known to be HIV infected. In addition, newly diagnosed cases may be reported to the health department at any point along the clinical spectrum of disease. Consequently, HIV infection data do not necessarily represent characteristics of persons who have been recently infected with HIV. In order to provide a more concise measure of the impact of HIV, MDCH provides an estimate of the prevalence of HIV. This estimate includes measures of those HIV infected individuals who have been tested, but not reported to the health department, as well as those HIV infected individuals who have not yet been diagnosed and represents all infected persons regardless of whether they have been tested or reported.

Supplemental HIV/AIDS Surveillance Projects

Adult/Adolescent Spectrum of HIV Disease (ASD) Study

The Adult/Adolescent Spectrum of Disease (ASD) was a multi-site national surveillance project sponsored by the Centers for Disease Control and Prevention (CDC). ASD collected data in six-month follow-up intervals from the medical records of HIV-infected persons in care, from the time they first contacted an ASD site until they died or were lost to follow-up. The behaviors reported by these interviewed individuals may differ from those who do not report for care or are uninfected. Michigan ASD includes data on a representative sample of HIV-infected persons who presented for care at the Henry Ford Health System, Detroit campus (HFHS) or at the Detroit Medical Center (DMC). Michigan participated in ASD from its inception in 1990 through its closure in 2004. More than 5500 patients were enrolled in Michigan ASD, and at the end of the project 2667 patients had died, 1492 had moved or were otherwise lost to follow-up, and 1392 were still living. ASD collected data on demographics, opportunistic illnesses, other infections such as Hepatitis B and C, other conditions such as depression and hypertension, CD4+ T-cell counts, viral load measurements, prescription of medications, substance abuse, mental illness, and many other variables. Although data collection for ASD will be complete by the end of 2004, analyses of the ASD database are in progress and will continue for at least the next two years. Understanding the specific behaviors of infected persons can help with understanding risk and make for a more targeted prevention intervention.

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Data Sources (Continued)

Supplement to HIV/AIDS Surveillance (SHAS) Project

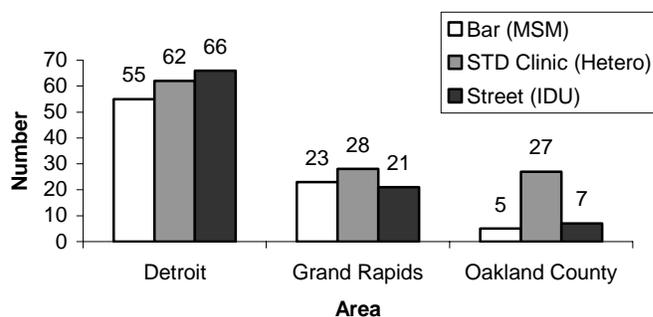
Supplement to HIV/AIDS Surveillance is a one-time, cross-sectional interview project that collected self-reported behavioral information from individuals infected with HIV and/or AIDS who present for care. The behaviors reported by these interviewed individuals may differ from those who do not report for care or are uninfected. Data have been collected since 1990 among persons 18 years of age and older. Individuals who present for care at one of three entities at five Detroit locations - two large tertiary medical centers, two neighborhood clinic systems, and one health care center are eligible for an interview. Data were 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. SHAS data are useful for informing health department policymakers, HIV community planning groups, and enhancing public health prevention programs and services. Understanding the specific behaviors of infected persons can help with understanding risk and make for a more targeted prevention intervention. Prevention and care planning groups are encouraged to contact the MDCH HIV/STD & Bloodborne Infections Surveillance Section for additional data from this project. Summaries of the 1990-2000 SHAS data (2,205 interviews) and 2000-2004 SHAS data (SHAS II, 1,174 interviews) are available on-line at: www.michigan.gov/mdch.

HIV Testing Survey (HITS)

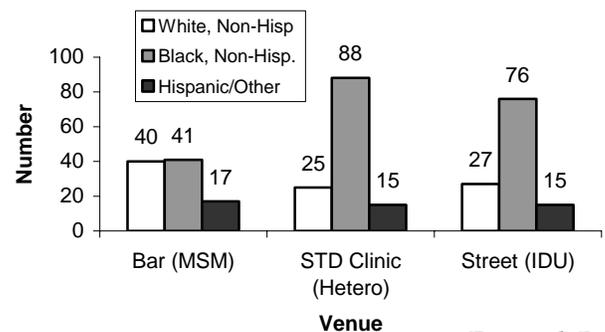
In 2002, as part of behavioral HIV/AIDS surveillance efforts, the Centers for Disease Control and Prevention (CDC) funded an interview survey for uninfected persons at risk of HIV, living in Michigan. This multi-site project, the HIV Testing Survey (HITS), was conducted in fifteen cities or states across the country, using a standard protocol that had been used successfully in other cities in the United States. In this state, the project was conducted in Detroit (183) and Oakland (Cities of Pontiac, Southfield, and Royal Oak, 39 surveys) and Kent (City of Grand Rapids, 72 surveys) counties. Data from these areas are left combined in the Detroit Metro Area and Out-State Michigan profiles to maintain statistical power.

The participants for this survey were recruited from three types of public venues: street locations for injection drug users (including needle exchange venues), public health sexually transmitted disease (STD) clinics for high-risk heterosexuals, and bars for men who have sex with men. Before the survey began formative research was conducted. The objectives of the formative research were to better understand the demographic characteristics of the populations at risk who were included in the study, and to identify the sites (i.e., clinics, bars, street settings) where the interviews were conducted.

Geographic and Venue Breakdown of HITS



Race Breakdown for each Venue, HITS



2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Data Sources (Continued)

Behavioral Surveys

Family of Seroprevalence Surveys

The Family of HIV Seroprevalence Surveys monitored HIV prevalence among high-risk populations in southeastern Michigan. These surveys were administered from 1988 through 1999 in various public health clinics and facilities. Survey data were collected annually and consisted of demographics, sexual risk behaviors, clinical diagnosis, illicit drug use, and laboratory results. Data were abstracted from patient files and no additional information was asked for the purpose of the survey. The surveys were blinded. Only remnant sera from routine collected sera were tested for HIV antibodies after personal identifiers were removed. Data were used to monitor trends in HIV infection, assess changes in risk behaviors and assist in the planning and evaluation of prevention programs. These specimens were used in the early 2000s to estimate HIV incidence in selected populations by applying the STARHS algorithm to the stored specimens that were previously collected. (STARHS testing on unblinded routine specimens collected for HIV testing is scheduled to begin in late 2004).

Community Intervention Trial for Youth (CITY)

During the summer of 1999, the Center for AIDS Intervention Research at the Medical College of Wisconsin in collaboration with the Midwest AIDS Prevention Project conducted a survey in Milwaukee, Wisconsin and Detroit, Michigan. The survey was called the Community Intervention Trial for Youth (CITY) and aimed to collect baseline behavior data from young men who have sex with men. Men were randomly recruited outside of venues frequented by young men who have sex with men (i.e. bars, coffee shops, cruising areas). A total of 547 men were interviewed, 48.3% were from Detroit. The mean age was 21, with a range of 15 to 25 years old. Topics of interview questions were basic demographics, sexual identity, female partners, male partners (main and non-main), drug use, condom use, social support, anti-retroviral knowledge, and exposure to interventions.

Job Corps

Job Corps is a federally funded jobs training program for socially and economically disadvantaged out-of-school youth. This study sought to describe HIV infection demographic characteristics of youth, aged 16 through 21 years, who entered the U.S. Job Corps from January 1988 through December 1998. Nationally, 357,443 entrants residing at Job Corps centers during their training were tested for HIV infection. The results indicate that more than 2 per 1,000 were HIV-infected. From the beginning of the study period to the end, HIV prevalence among young people in the Job Corps was cut in half, however, rates of HIV infection among Job Corps participants are more than 2 times higher than rates among youth seen in adolescent health clinics and more than 8 times higher than among young people of the same age applying for military service. The system for collecting Job Corp data underwent numerous changes in the years after 1996 that precluded these types of analyses. A new system was implemented in 2002-2003. These data are currently being examined.

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Data Sources (Continued)

Youth Risk Behavior Survey (YRBS)

The Youth Risk Behavior Survey (YRBS) is conducted every other year in Michigan and assesses a broad range of health practices among a representative sample of the state's students in grades 9 through 12. Data are weighted so that survey results can be generalized to all high school students in the state. Michigan is one of only a handful of states with high enough response rates on four consecutive YRBS survey administrations (1997, 1999, 2001 and 2003) to have scientific trend data. The YRBS collects information on six categories of behaviors related to the leading causes of mortality and morbidity among both youth and adults. Sexual behaviors that contribute to unintended pregnancy and STDs including HIV infection constitute one of the six categories. Questions in this category ask about HIV prevention education, sexual activity (age at initiation, number of partners, condom use, past drug or alcohol use, forced sex), contraceptive use, and pregnancy history. The YRBS is a standardized questionnaire, so comparisons can be made between states, participating cities, and the nation on core questions. States and cities may also add questions of local interest. Michigan has added two questions to the sexual behavior section: one on parent-child communication and the other on age of first sexual partner. Because the YRBS relies upon self-reported information, sensitive behavioral information may be underreported or over-reported. Also, because the YRBS questionnaire is administered in school, the data are representative only of adolescents who are enrolled in school and cannot be generalized to all adolescents. For example, students at highest risk, who may be more likely to be absent from school or to drop out of school, may be underrepresented in this survey, especially those in upper grades. The Michigan questionnaire does not include questions about sexual orientation or gender of sexual partner.

The Bureau of Juvenile Justice Youth Risk Behavior Survey (YRBS)

The BJJ Youth Risk Behavior Survey (BJJ YRBS) is an expansion of the Youth Risk Behavior Survey surveying effort that is conducted every other year in Michigan and assesses a broad range of health practices among a representative sample of the state's students in grades 9 through 12. The one time BJJ administration occurred was in the spring of 2002. Unlike the general education YRBS, which uses a two stage sampling process, the BJJ YRBS was a census of youth in state-operated residential Bureau of Juvenile Justice facilities (9 sites within 6 centers). A total of 470 youth were eligible to participate. All sites, centers, and classrooms participated. A total of 418 usable questionnaires were analyzed, for a final student participation rate of 89%. The results of the BJJ YRBS should be compared with the Michigan general education YRBS with caution because the students may not be comparable in age, race/ethnicity, and gender. However, the BJJ respondents were roughly the same age as their general education counterparts in grades 9-12, with 83% between the ages of 15 and 18. The BJJ used the core general education Michigan YRBS survey instrument with some questions omitted, added, and adapted to better meet the needs of the youth in the residential facilities. Questions assessing the incidence of risk behaviors "in the past 30 days," were modified to say, "in the 30 days before you entered the facility." The instrument included questions in all six categories of behaviors included on the main YRBS. Additional questions in the sexual behavior section assessed sexual orientation, gender of sexual partner, and history of HIV testing. The survey provides a picture of the behaviors of a sub-population of youth who are at considerably greater risk than their counterparts in school.

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Data Sources (Continued)

Communicable Disease Surveillance

TB Registry

All TB cases reported in the State of Michigan are reported using the CDC Report of a Verified Case of Tuberculosis (RVCT) form. Surveillance information and laboratory reports on active TB cases and TB suspects are maintained in the Tuberculosis Information Management System (TIMS) database. Surveillance data are analyzed to monitor statewide tuberculosis trends, including HIV/TB co-infection, as well as to determine appropriate treatment regimen, drug susceptibility results and completion of TB therapy status. TIMS is also currently utilized to report the State's verified TB cases to the Centers for Disease Control and Prevention (CDC). Each year, the TB registry is matched to the HIV/AIDS surveillance data. Outcomes from the match include documenting progression from HIV to AIDS, completing TB infections reported directly to HIV surveillance and, occasionally, new HIV cases.

STD Reporting System

The Michigan Department of Community Health, Division of HIV/AIDS and STD conducts statewide surveillance to determine the number of reported cases of STDs, monitor trends, provide partner counseling, and referral services for examination and treatment. All of these objectives aim at reducing the spread of STDs in the community. In Michigan, gonorrhea, chlamydia, syphilis, lymphogranuloma venereum, chancroid, and granuloma inguinale are reportable by physicians and laboratories. There are significant variations in the completeness of data coming from public and private providers. Approximately 77% of female cases and 49% of male cases come from private providers. Among public providers, only 10% of race data is missing. However, 63% of race data is missing in reports from private providers. Gonorrhea is the third most frequently reported communicable disease in Michigan, while chlamydia is the second most frequently reported, second only to influenza-like-illness. Michigan does not collect standardized sexual orientation data or site of specimen (pharyngeal, rectal, genital) for gonorrhea or chlamydia cases. However, these data are collected for syphilis cases. For data on STD cases in Michigan, by age, race, and sex, please refer to http://www.mdch.state.mi.us/PHA/OSR/chi/std_h/frame.html

Vital Statistics Data

Birth and Death Data

The National Center for Health Statistics receives information on births and deaths in the United States through a program of voluntary cooperation with state government agencies (i.e., state departments of health, state offices of vital statistics) called the Vital Statistics Cooperative Program. States use standard forms to collect birth and death data. The birth certificate form includes demographic information on the newborn and the parents, insurance status, prenatal care, prenatal risk factors, maternal morbidity, mode of delivery, pregnancy history, and clinical characteristics of the newborn. Death certificates include demographics, underlying cause of death, and contributions of selected factors to the death (i.e., smoking, accident, or injury) of all deceased persons. Reporting is virtually 100% complete for births and deaths. Therefore, inferences can be made concerning the number of live births in a service area. The data can also be used to determine the effect of deaths related to HIV infection in a service area. The data on birth certificates that are obtained from patient medical records (i.e., smoking history, morbidity) may be incomplete. In addition, deaths resulting from, or whose underlying cause was, HIV infection may be underreported on a death certificate. Clinical information related to HIV or AIDS may be missing.

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Data Sources (Continued)

Population Data

U.S. Bureau of the Census (Census Bureau)

The Census Bureau collects and provides timely information about the people and economy of the United States every 10 years. The Census Bureau's Web site (<http://www.census.gov>) includes data on demographic characteristics (e.g., age, race, Hispanic ethnicity, sex) of the population, family structure, educational attainment, income level, housing status, and the proportion of persons who live at or below the poverty level. Summaries of the most requested information for states and counties are provided, as well as analytical reports on population changes, age, race, family structure, and apportionment. State- and county-specific data are easily accessible, and links to other Web sites with census information are included. The Michigan-specific Census data used in these profiles was obtained using the American Fact Finder (<http://www.census.gov/main/www/cen2000.html>), supported by the U.S. Census Bureau. This website is a user-friendly way to obtain Census data. The data used in these profiles are from the 2000 census.

Ryan White CARE Act Data

Ryan White CARE Act Data: The State of Michigan Uniform Reporting System Data Collection Process

The Michigan Department of Community Health (MDCH), Division HIV/AIDS-STD (DHAS), HIV/AIDS Prevention & Intervention Section (HAPIS), has had Title II Grantees to collect data for the current client-level Uniform Reporting System (URS) demonstration project in the state of Michigan for ten (10) years. Beginning in 1994, MDCH successfully collaborated with the HIV/AIDS Program of the City of Detroit Department of Health and Wellness Promotion (DHWP), the Title I Grantee, to establish a statewide client-level data system in the state and the Detroit Eligible Metropolitan Area (DEMA). Michigan's client-level data system currently encompasses all Title I and Title II providers in the state (including the Drug Assistance Program) as well as all Title IV-funded programs. In addition, three of the four service organizations funded through Title III collect and submit URS data. The Ryan White (RW) CARE Act was enacted in 1990 to provide medical and supportive services to low-income HIV positive individuals who are uninsured or under-insured. Clients may be eligible to receive RW services if they do not have another private or public source to provide those services. Eligible services may vary by jurisdiction, and may include primary out patient medical care, medications, case management, transportation, mental health services and other supportive services.

Client data are collected and entered into the electronic data collection tool program by the direct service worker. Annual client data elements are reviewed and updated at least once a year; quarterly data elements are entered each quarter. Service data are entered at least on a monthly basis or in "real time" as services take place. These electronic files contain descriptive and service data for each client served during the quarter and use the encrypted Unique Record Number (URN) as the only client identifier. The URS staff, for completeness and to ensure data consistency, generates a Quality Assurance Report and a Summary Report for each HIV service provider. The data are combined and unduplicated across all providers, using the data collection tool's unduplication module. The unduplicated statewide data file is exported and sent to Health Resources and Services Administration (HRSA) according to their established schedule. Reports are generated based on unduplicated statewide and local data. Reports and analyses are made available to providers and local consortia for planning and evaluation purposes.

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

The Michigan Department of Community Health is constantly striving to deliver important and useful information to our wide array of consumers. To help us find out if we have served you adequately, please take a few moments to complete the survey below. Please answer 1 through 5 to best describe your experience (1 = Strongly Agree, 2 = Agree, 3 = Neither agree or disagree, 4 = Disagree, & 5 = Strongly Disagree). **See reverse side for mailing instructions.**

	<i>Example</i>	Forward	State of Michigan	Detroit Metro Area	Out-State Michigan
Language was clear and topics were adequately explained	1				
Use of numbers, percents, and rates were clear and appropriate	2				
Tables & Figures were easy to read and understand	1				
Information about the following topics was adequately discussed:					
Summary of the Epidemic	2				
Distribution of HIV/AIDS by Mode of Transmission	1				
Distribution of HIV/AIDS by Race and Sex	2				
Trends in HIV	2				
Use of Care Services	1				
Focus on Kent County	1				
Focus on Berrien County	1				
Sexually Transmitted Diseases	1				
HIV/Hepatitis Co-Infection	1				
HIV/TB Co-infection	1				
Male-Male Sex	1				
Injecting Drug Use	1				
Heterosexual Sex	1				
Race/Sex	2				
Children	1				
Teens and Young Adults	1				
50 Years and Older	2				
Rural Areas	2				
Arabic Populations	1				
Prison Populations	1				

Was there any grouping or population you would like to have seen discussed?

Other Comments:

2004 Epidemiologic Profiles of HIV/AIDS in Michigan

Thank you for taking the time to give us feedback on the 2004 Epidemiologic Profiles of HIV/AIDS in Michigan! Your comments will help us to make improvements for the next publication. Please tear out this form and return to the Michigan Department of Community Health.

Instructions for mailing:

- If provided, please use the self-addressed, stamped envelope to return your form (envelopes were included in all printed copies).
- If there is no envelope, please tri-fold the form along the dotted lines (with the form-side in and address-side out), tape it closed, stamp, and mail.

“2004 Epidemiologic Profile Feedback Form”
Michigan Department of Community Health
3423 N. MLK Blvd, Room 302
PO BOX 30195
Lansing, MI 48909

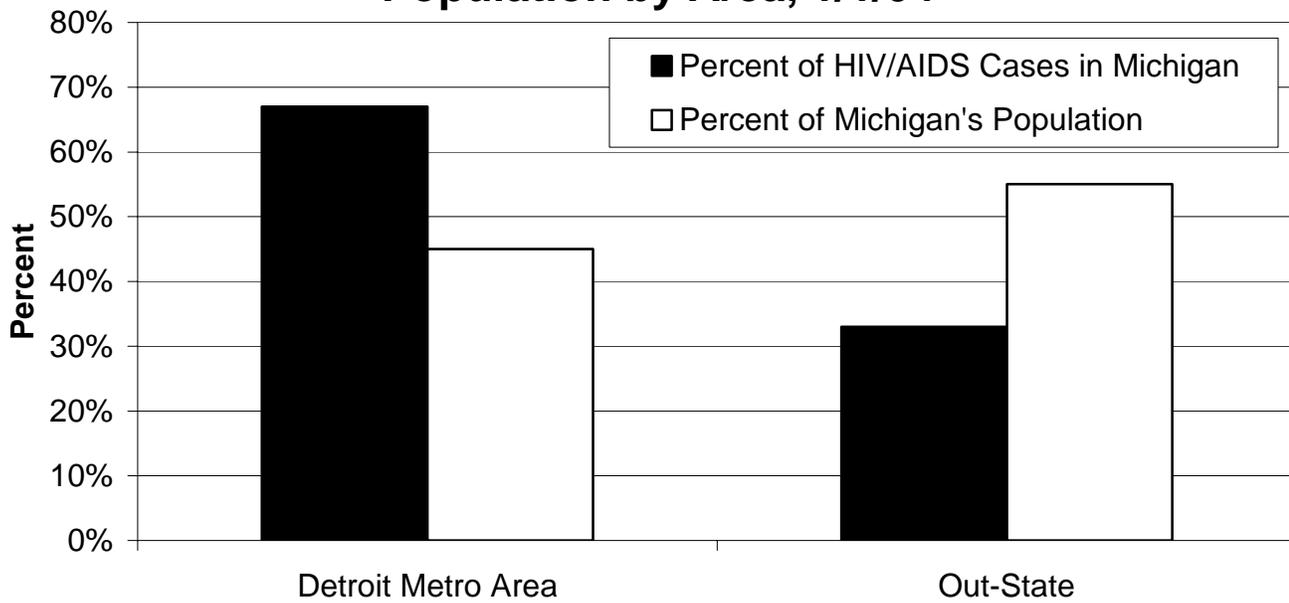


“2004 Epidemiologic Profile Feedback Form”
Attn: Elizabeth Hamilton, M.P.H.
Michigan Department of Community Health
3423 N. MLK Blvd, Room 302
PO BOX 30195
Lansing, MI 48909

2004 Profile of HIV/AIDS in Michigan



Figure1: Michigan Living HIV/AIDS Cases and Population by Area, 1/1/04



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

2004 Profile of HIV/AIDS in Michigan

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Statewide Summary of Epidemic for Michigan

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 16,200 people currently living with HIV/AIDS in the state, of which 11,527 were reported as of January 1, 2004. Incidence of HIV (the number of new HIV infections) was roughly level at around 900 cases each year between 1998 and 2002. The number of HIV-related deaths declined significantly in 1996 and 1997, likely due to effective therapies that prolong life but do not eliminate HIV infection. From 1998-2002, however, the number of HIV related deaths did not decline significantly. (See Figure 8, page 2-11) The prevalence of HIV disease (all persons living with HIV infection or AIDS, whether diagnosed recently or years ago) is increasing because new cases are still being diagnosed and infected persons are living longer.
- **How are the cases geographically distributed?** HIV disease is distributed disproportionately in Michigan. The Detroit Metro Area has 64 percent of those living with HIV (7,337 of the 11,527 cases reported statewide), but only 45 percent of the general population (Figure 1, page 2-1). The rest of the state has fewer cases compared with the general population distribution.
- **How does the epidemic in Michigan compare with national and worldwide statistics?** According to the Joint United Nations Programme on HIV/AIDS, an estimated 5 million new HIV infections and 3 million AIDS deaths occurred during 2003 worldwide, bringing the total persons infected with HIV to 40 million. There have been a cumulative total of 31 million deaths since the beginning of the epidemic. About three-quarters of new cases and deaths were in Sub-Saharan Africa, where transmission is predominately heterosexual. (Joint United Nations Programme on HIV/AIDS. *AIDS epidemic update: December 2003*. Available at http://www.unaids.org/resources/publications/Corporate_Publications.pdf)
- The number of new diagnoses of HIV/AIDS per year in the 30 areas of the U.S. with confidential-name-based HIV infection reporting in place since 1998 increased steadily from 1999 to 2002 to about 26,500 new HIV cases in 2002. The number of AIDS deaths per year in all 50 states and territories declined to about 16,400 in 2002. Through December 2002, 859,000 adult/adolescents in all 50 states, territories, and Puerto Rico had been reported as having AIDS; of these, 501,669 (58 percent) had died. Michigan is ranked approximately 17th in total number of cases and 30th by cumulative rate per 100,000 population. (Centers for Disease Control and Prevention, *HIV/AIDS Surveillance Report*, Volume 14, October 2003. Available at <http://www.cdc.gov/hiv/stats/harslink/htm>)

2004 Profile of HIV/AIDS in Michigan

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities, the MDCH HIV/STD & Bloodborne Infections 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, IDU, and heterosexual.

- **Men Who Have Sex With Men (MSM)*:** MSM make up 62 percent of all HIV/AIDS cases with a known mode of transmission (5,951 out of 9,557). The MSM behavioral group continues to be the most affected behavioral group statewide even though the number of new cases indicates a level trend.
- **Injecting Drug Users (IDU)*:** Of all HIV/AIDS cases with a known mode of transmission, 25 percent are IDU (2,365 out of 9,557). Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend in IDU behavior in persons diagnosed each year with HIV infection between 1998 and 2002 decreased significantly from 16 percent to 9 percent (143 to 79 cases).
- **High Risk Heterosexuals (HRH):** Heterosexual cases constitute 17 percent of the total number of cases with a known mode of transmission (1,585 out of 9,557) and are defined as HIV-infected persons whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals. The trend in heterosexual transmission also appears to be level.

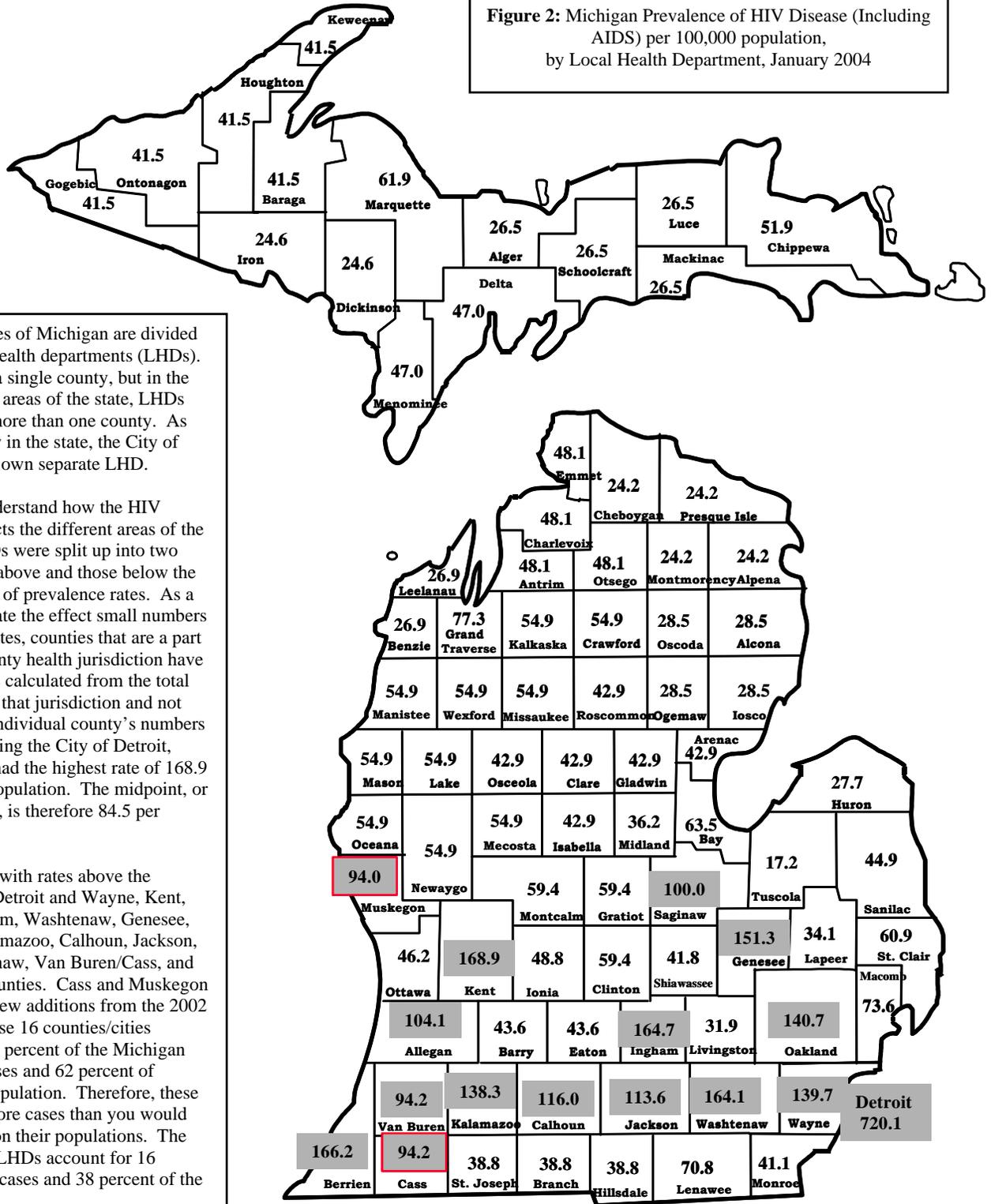
**These numbers include MSM/IDU in totals and percent calculations.*

2004 Profile of HIV/AIDS in Michigan

Distribution of HIV/AIDS Prevalence by Local Health Jurisdiction

Data from HIV/AIDS Reporting System

Figure 2: Michigan Prevalence of HIV Disease (Including AIDS) per 100,000 population, by Local Health Department, January 2004



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

In order to understand how the HIV epidemic affects the different areas of the state, the LHDs were split up into two groups, those above and those below the 50th percentile of prevalence rates. As a way to moderate the effect small numbers can have on rates, counties that are a part of a multi-county health jurisdiction have rates that were calculated from the total numbers from that jurisdiction and not based on the individual county's numbers alone. Excluding the City of Detroit, Kent County had the highest rate of 168.9 per 100,000 population. The midpoint, or 50th percentile, is therefore 84.5 per 100,000.

The 15 LHDs with rates above the midpoint are Detroit and Wayne, Kent, Berrien, Ingham, Washtenaw, Genesee, Oakland, Kalamazoo, Calhoun, Jackson, Allegan, Saginaw, Van Buren/Cass, and Muskegon Counties. Cass and Muskegon Counties are new additions from the 2002 rankings. These 16 counties/cities account for 84 percent of the Michigan HIV/AIDS cases and 62 percent of Michigan's population. Therefore, these LHDs have more cases than you would expect based on their populations. The remaining 30 LHDs account for 16 percent of the cases and 38 percent of the population.

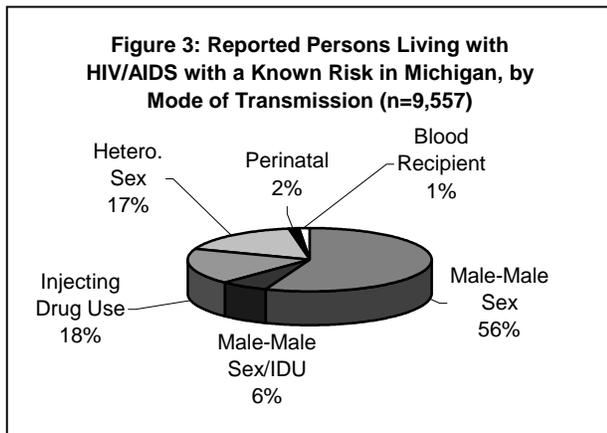
2004 Profile of HIV/AIDS in Michigan

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

Data from HIV/AIDS Reporting System (HARS)

Current surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Although case reporting includes ascertainment of many behaviors associated with HIV transmission, for the purposes of analysis and interpretation, cases are assigned to a risk hierarchy designated by the Centers for Disease Control and Prevention. This hierarchy takes into account the efficiency of HIV transmission associated with each behavior as well as the probability of exposure to an infected person within the population. The adult/adolescent categories, in order, are as follows: (1) men who have sex with men (MSM), (2) injecting drug users (IDU), (3) men who have sex with men and inject drugs (MSM/IDU), (4) hemophilia/coagulation disorders, (5) heterosexual (see glossary for more in-depth description), (6) receipt of HIV-infected blood or blood components, and (7) no identified risk (NIR). This hierarchy is currently being re-examined by a national workgroup.

Figure 3 indicates persons living with HIV/AIDS in Michigan by mode of transmission for the 9,557 cases for which the risk was identifiable.



- This chart demonstrates that over half (62 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including six percent who also injected drugs (MSM/IDU).
- One fourth (25 percent) are injecting drug users, including six percent who are also MSM (MSM/IDU). Forty-seven percent of non-MSM IDUs also have high-risk heterosexual sex partners (IDU w/ hetero). See Table 5, page 2-45.
- Seventeen percent of the total had high-risk heterosexual sex partners as their only mode of transmission.

Discussion of Persons with 'No Identified Risk':

The 'No Identified Risk' (NIR) category is the only transmission category with a significant trend increase from 1998 to 2002. MDCH does not believe this increase is due to previously unrecognized modes of transmission because cases are investigated where this is suspected. NIRs make up 17 percent of the HIV-infection population in Michigan and are 65 percent male and 35 percent female. Those persons in the NIR category are 69 percent black, 21 percent white, and 10 percent other races. Almost three-quarters of the NIRs fall under the 'presumed heterosexual' subcategory. Presumed Heterosexual accounts for nine percent of men living with HIV and 22 percent of women living with HIV. See Table 6, page 2-47.

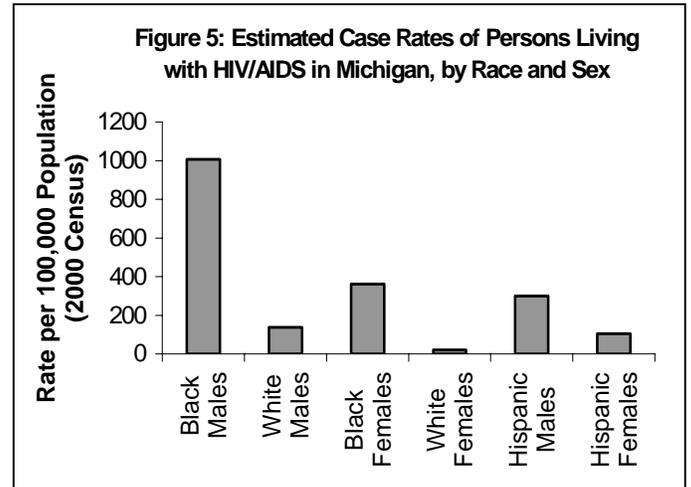
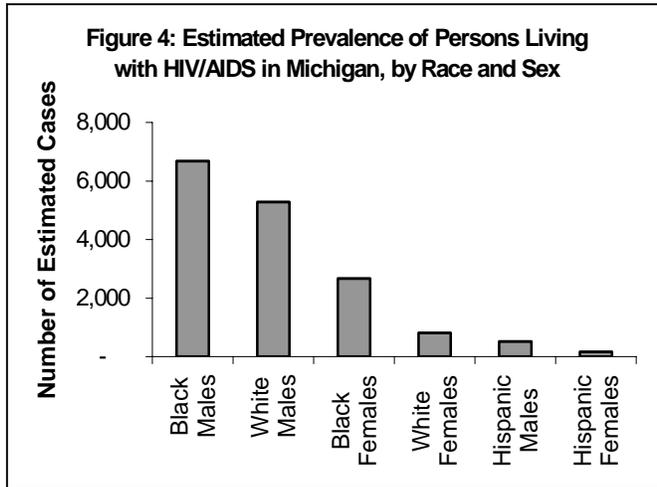
There are many reasons why risk is not reported to the Michigan Department of Community Health on the initial care report form. Lack of provider elicitation and patient denial, as well as, patients truly not knowing their risks and the risks of their partners, are reasons why there is a growing proportion of NIRS.

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Distribution of Estimated HIV/AIDS Cases by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

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



- Black males have both the highest rate per 100,000 population (1,011) and the highest estimated number (6,710) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Black females have the second highest rate (363) and the third highest estimated number (2,680) of cases of HIV/AIDS.
- Hispanic males have the third highest rate (299) and the fifth highest estimated number (510) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- White males have the fourth highest rate (138) and the second highest estimated number (5,300) of cases.
- Hispanic females have the fifth highest rate (104) and the lowest estimated number (160) of HIV/AIDS.
- White females have the lowest rate (20) and the fourth highest estimated number (810) of HIV/AIDS cases.

2004 Profile of HIV/AIDS in Michigan

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)

- Transmission of HIV 1998-2002:** Figure 6 shows that the proportion of persons diagnosed each year with HIV infection between 1998 and 2002 decreased significantly in IDUs from 16 percent to nine percent (143 to 79 cases) and MSM/IDUs from four percent to two percent (32 to 17 cases) and increased significantly in the No Identifiable Risks (NIRs) from six percent to 10 percent (52 to 84 cases). Before adjusting cases for those reported without risk we expect cases diagnosed and reported more recently to be less likely to have a known mode of transmission. However, since these data were adjusted for the trend, the fact that we still see a significant increase in the proportion of NIRs means that this increase cannot be attributed to this expected pattern in risk classification.

Of the 836 new HIV infections diagnosed in 2002, there were 341 (41 percent) diagnoses among MSM, 306 (37 percent) among heterosexuals, 84 (10 percent) among NIRs, 79 (9 percent) among IDUs, 17 (2 percent) among MSM/IDUs, and 9 (1 percent) among persons with other risks. This year the heterosexual category is made up of two subgroups: 'high risk' heterosexuals and 'presumed' heterosexuals. A 'high risk' heterosexual is an HIV-infected person whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals. A 'presumed' heterosexual is someone who reported heterosexual sex as their only risk but their partner's risk is unknown. 'Presumed Heterosexual' is a sub-category of NIRs and this is the first year "presumed" heterosexuals and the "high risk" heterosexuals are combined into one category for the purpose of measuring trend over time. The trend in heterosexual transmission appears to be level. Other risks include transmission from blood products and perinatal exposures.

Figure 6: Number of New HIV Diagnoses in 2002 and Trends 1998-2002, by Mode of Transmission

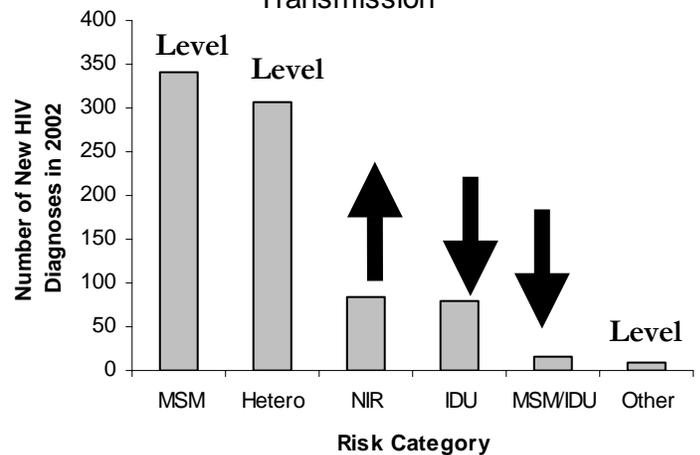
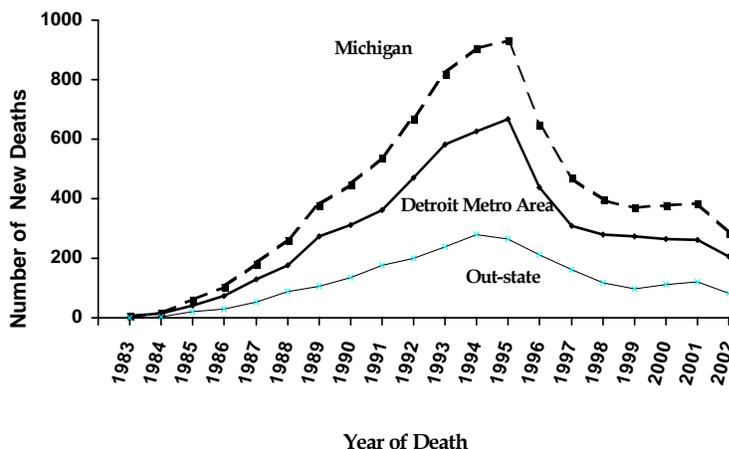


Figure 7: HIV Related Deaths in Michigan, by area



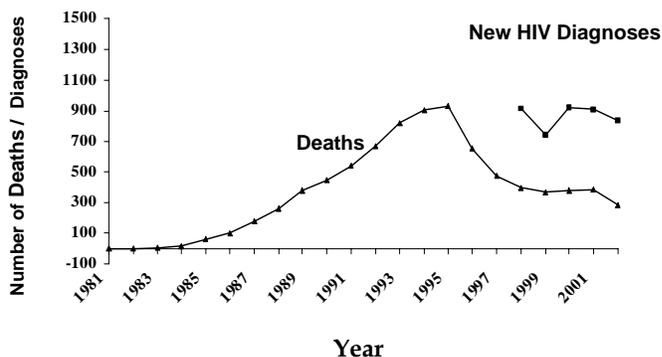
- The number of HIV related deaths decreased 66 percent between 1995 and 2002. In Figure 7, the top line reflects the total HIV related deaths for the state of Michigan (the sum of the two lower lines). The second line represents the Detroit Metro Area and the third line consists of the balance of Michigan (Out-state).

2004 Profile of HIV/AIDS in Michigan

Trends in HIV/AIDS Data (Continued)

Data from HIV/AIDS Reporting System (HARS)

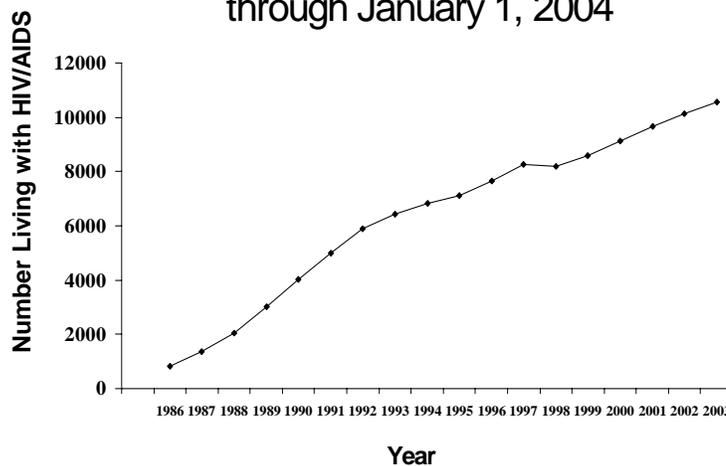
Figure 8: New Diagnoses of HIV Infection and HIV Deaths in Michigan



- *New HIV diagnoses (HIV incidence) and deaths are statistically level 1998-2002.* HIV incidence and HIV related deaths are shown in Figure 8. The overall decrease in deaths is likely due to the more effective treatments available in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. The number of persons newly diagnosed with HIV each year was roughly level at about 900 cases between 1998 and 2002.

- The total number of persons living with HIV/AIDS has reached an all-time high and continues to increase because new HIV infections continue to occur but HIV related deaths are dropping. Figure 9 shows this increase using reported HIV and AIDS cases. These cases comprise everyone reported with HIV in Michigan with a name or other identifier, 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.

Figure 9: Michigan Residents Reported Living with HIV or AIDS, through January 1, 2004



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Number of People Accessing Services vs. Reported Cases

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

Table 1: Comparing Services with Cases		
Group	Services	Cases
Males	73%	77%
Females	27%	23%
White	32%	37%
Black	60%	57%
Hispanic	4%	4%
Other Minorities	2%	1%
Unknown Race	2%	1%
White Males	27%	32%
Black Males	40%	41%
Hispanic Males	3%	3%
Other Minority Males	1%	<1%
Unknown Race Males	1%	1%
White Females	5%	5%
Black Females	20%	16%
Hispanic Females	1%	1%
Other Minority Females	1%	<1%
Unknown Race Females	<1%	<1%
0-12 Years*	1%	1%
13-19 Years*	1%	1%
20-24 Years*	3%	2%
25-44 Years*	58%	56%
45+ Years*	36%	40%
Infants: 0-1 Years*	<1%	<1%
Children: 2-12 Years*	1%	1%
Youth: 12-24 Years*	5%	3%
Women: 25 Years*+	25%	21%
Total HIV Infected	100% (N=6,952)	100% (N=11,527)

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 2003, 6,952 HIV-infected persons were reported receiving Ryan White services in the state of Michigan. Since it is likely that most of these individuals receiving services are reported cases, when comparing their number to that of the total number of reported cases (11,527), it is apparent that not all reported persons are receiving RWCA-funded services. A comparison also shows that persons receiving Ryan White services were more likely than the reported population to be female or black.

The Ryan White CARE Act puts a priority on providing services to women, infants, children and youth (WICY) with HIV infection. As a result, the proportion of youth age 12 to 24, and women age 25 or older receiving care is somewhat higher than in reported cases.

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

2004 Profile of HIV/AIDS in Michigan

Estimates of At-Risk Populations

Data from Holtgrave D, et al

Sexual Activity:

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

Substance Abuse:

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

Tuberculosis and HIV

Data from TB Registry & HIV/AIDS Reporting System (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 total of 145 persons known to be living, definitively co-infected, with HIV and Tuberculosis (TB). These include:

- 112 males (77 percent) and 33 females.
- 113 Non-Hispanic Black (78 percent), 20 Non-Hispanic White (14 percent), 11 Hispanic, and 1 Asian/Hawaiian/Pacific Islander.
- Cumulatively, a total of 548 have ever been definitively co-infected with HIV and TB, of which 403 (74 percent) have died.
- Age at diagnosis of HIV: Three (2 percent) were 0 - 9 years, 2 (1 percent) were 10-19 years, 35 (24 percent) were in their 20s, 68 (47 percent) were in their 30s, 26 (18 percent) were in their 40s, and 11 (8 percent) were 50+ years.
- Residence at diagnosis of HIV: Sixty-eight percent lived in the Detroit Metro Area. Areas with the majority of diagnoses are as follows: 75 City of Detroit (52 percent), 12 Wayne County, 9 Kent County, 9 Oakland County, 7 Berrien County, 5 Ingham County, 4 Jackson County, 3 Calhoun County, 3 Washtenaw County, 2 Genesee County, and one each in Macomb County, St. Clair County, and Wexford County. Thirteen had no county listed or were diagnosed with HIV in another state.
- Of the 145 HIV positive persons currently living in Michigan who had been co-infected with tuberculosis, 112 (77 percent) were infected with pulmonary tuberculosis and 33 (23 percent) were infected with extra-pulmonary tuberculosis (outside of the lung).

2004 Profile of HIV/AIDS in Michigan

Sexually Transmitted Diseases

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

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

During 2003 alone, there were over 32,000 cases of chlamydia and nearly 14,000 cases of gonorrhea reported in Michigan. See Table 10, page 2-51. For both diseases, the highest rates of infection were among persons age 15-24. This age group comprises 14 percent of the Michigan population but accounted for 59 percent of gonorrhea and 72 percent of chlamydia cases. The rates of chlamydia and gonorrhea among blacks were much higher than among whites. Even though 40 percent of gonorrhea cases and approximately one-half of chlamydia cases were missing race information, the rates (number of cases per population) among blacks remain higher even if all unknown cases were among whites.

Syphilis was diagnosed much less frequently than gonorrhea and chlamydia (249 syphilis cases) in 2003. Reported syphilis cases have increased each year in Michigan since 1997, peaking in 2002, with 486 cases. There was a steady and statistically significant downward trend in reported cases during the 2002 and 2003 calendar years, resulting in a nearly 50 percent decrease in reported cases compared to 2002. Approximately 54 percent of cases were reported in the 30-49 year age group, representing an older at-risk population (as shown in Table 10 on page 2-51). Syphilis cases reported in 2003 were 81 percent black.

Forty-four percent of gonorrhea cases and 62 percent of syphilis cases were male. However, approximately 80 percent of reported chlamydia cases were female. This is likely because more women than men are screened for chlamydia.

Nationwide, there have been increases in STD cases among men who have sex with men. Michigan does not collect standardized sexual orientation data or site of specimen (pharyngeal, rectal, genital) for gonorrhea or chlamydia cases. However, these data are collected for syphilis cases, and approximately 10 percent of male syphilis cases in Detroit are men who have sex with men and just over 30 percent of male syphilis cases in the rest of the state are men who have sex with men. Most states do not collect sexual orientation for gonorrhea and chlamydia cases, however, some use cases of rectal gonorrhea as a proxy for the prevalence of gonorrhea among men who have sex with men. This data source will likely become part of standard STD surveillance in Michigan in the coming year.

There were fourteen cases (2.5 percent of submitted isolates) of quinolone-resistant *Neisseria gonorrhoea* (QRNG) discovered in Michigan in 2003. Several local health departments and private laboratories send their gonorrhea samples to the State Laboratories for susceptibility testing as part of surveillance for QRNG. Enhanced surveillance information such as sexual orientation, symptoms, and STD history are collected to compare quinolone-resistant and susceptible gonorrhea cases. Cases were clustered in Ingham (7) and Kent (4) counties. Three cases were attributed to travel to endemic areas such as Hawaii, California, or Asia. Gonorrhea cases were more likely to have QRNG if they were white, older than 30 years, or a man who has sex with men. QRNG prevalence among men who have sex with men was 14 percent of gonorrhea cases versus two percent in heterosexual males and just under one percent for females.

There are several areas in Michigan that consistently report high rates of STDs. For gonorrhea, there are nine areas with rates above the HM 2010 goal of 180 gonorrhea cases per 100,000. The five areas with the highest rate per 100,000 persons are the City of Detroit (584), Genesee County (421), Saginaw County (335), Calhoun County (296), and Berrien County (257). For chlamydia, there are 13 areas with rates above the HM 2010 goal of 215 cases of chlamydia per 100,000. The five areas with the highest rate per 100,000 persons are the City of Detroit (1,092), Berrien County (593), Genesee County (589), Calhoun County (567) and Muskegon and Kent Counties (both have a rate of 512). For primary and secondary syphilis, the Healthy Michigan 2010 goal is 0.2 cases per 100,000 persons. There are five areas with the highest rates are the City of Detroit (19.4), Monroe County (2.7), Jackson County (2.5), Muskegon County (2.4), and Kalamazoo County (1.3). Although there are counties that report more cases than these counties, when you control for the population, it is evident that the STD burden in these areas is quite large. See Table 11 on page 2-52.

2004 Profile of HIV/AIDS in Michigan

Hepatitis and HIV

Data from Adult and Adolescent Spectrum of Disease (ASD)

The Adult and Adolescent Spectrum of Disease project (ASD) is a supplemental surveillance project that collects data from the medical records of HIV-infected patients at two major medical centers in the Detroit Metropolitan Area. Medical records are reviewed every six months, from the time the patients first contact either site, until they die or are lost to follow-up. The proportion of males in ASD is lower than in the HIV-infected population overall, because ASD includes all the females, but only 40 percent of the males who present for HIV care at ASD sites. Thus, females are purposely over-sampled.

Hepatitis C (HCV) is the most common type of hepatitis among HIV-infected persons. Of the 1,902 persons included in ASD who were in care in 2000-2002, 384 (19 percent) had a diagnosis of HCV, while 184 (10 percent) had a diagnosis of hepatitis B (HBV), and 62 (3 percent) had a diagnosis of hepatitis A (HAV) (Table 10). The proportion of HIV-infected persons who were co-infected with HCV was higher among injecting drug users (IDU) and blood recipients than among persons in other HIV transmission risk groups. It was also higher among persons 40 or more years of age than among persons under 40. The rate of HCV co-infection was slightly higher among females than among males, and higher among persons of black or other race than among whites. The proportion co-infected with HBV or HAV varied less than HCV among the demographic and HIV transmission risk groups.

The impact of HCV co-infection on the health of HIV-infected persons is increasing, especially among those with a history of injecting drug use and persons over the age of 40. The total numbers of new HCV cases in the U.S. increased in the 1970's and 1980's, and dropped precipitously in the early 1990's.¹ These changes created a cohort of HCV-infected persons in the population, and as this cohort ages, the number of persons with HCV-related late stage liver disease is expected to increase through 2015.² Because HIV/HCV co-infected persons have a higher risk of liver disease than persons infected with HCV alone,³ they will be impacted even more. Planning for the care of HIV-infected persons needs to take into account the increasing numbers of HIV-HCV co-infected persons who are expected to develop late stage liver disease over the next decade or more.

The HIV/Hepatitis Co-Infection data are displayed in Table 12 on page 2-53.

References:

¹Centers for Disease Control and Prevention. Hepatitis Surveillance Report No. 58. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2003.

²Armstrong GL, et al. 2000. Hepatology 31:777-782.

³Graham CS, et al. 2001. Clin Infect Disease 33:562-569.

2004 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 for HIV infection. 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 8,520 MSM living with HIV disease in Michigan. This includes an estimated 880 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Prevalence:

From 1993 to 1999, the percent of MSM who were HIV infected and attended the sexually transmitted diseases (STD) clinics at local health departments in southeast Michigan was 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 in the City of Detroit (average 1993-1999). Although data from 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 of these proportions. This under-reporting leads to a small number of known MSM being included in these surveys annually (an average of 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. HIV seroprevalence ranged from 13 to 54 percent during these years, declining in the early years, and peaking in 1995 and then falling again to its lowest level in 1999. These clinic-based surveys were discontinued in 1999.

Statewide Counseling and Testing data showed that HIV seroprevalence was the highest among black MSM and, in 2002, was 6 times higher than that of white MSM and 4 times that of Hispanic MSM. Seroprevalence also increased among black MSM, from 8 percent in 1999 to 11 percent in 2002, but was more stable among white and Hispanic MSM.

Incidence:

Archived serum from HIV-infected clients tested at HIV Counseling, Testing & Referral (CTR) sites throughout Michigan from 1993-2002 was tested using the less sensitive assay (STARHS) to determine whether HIV infection was recently acquired (in the 4-6 months prior to the blood draw). During this time period, approximately 58,000 and 68,000 HIV tests were performed annually. The number of incident infections ranged from 22-54 (13 to 24 percent of HIV-positive persons tested). Overall HIV incidence was stable throughout most of the study period, reaching a low of 0.17 percent in 2000 and then rising to the highest level during this study period at 0.41 percent in 2002. MSM accounted for almost half of incident HIV infections. Incidence among MSM was stable through the 1990s then dipped and rose, settling at 3 percent in 2002. MSM/IDU had many high peaks, but did drop below that of MSM.

The racial distribution of MSM with newly acquired HIV shifted over time. Whites accounted for the majority of newly acquired infections among MSM (61 percent) in the first 5 study years, but 46 percent in the last 5 years, while the proportion of blacks increased from 34 percent to 47 percent during that same time period. Black MSM had higher incidence compared with the other MSM and had greater increases in incidence in recent years. Incidence increased from two percent in 1999 to seven percent in 2002 among black MSM whereas incidence among white MSM increased from 1.1 percent to 1.6 percent over this same time period. HIV incidence among Hispanic MSM was more erratic due to smaller numbers in this population.

Increases in recent years were most apparent among MSM in the 30-39 year and 40-49 year age groups. Among MSM in their 30s, incidence increased from 1.1 percent in 1998 to 2.6 percent in 2002. The increase was greater still among MSM in their 40s, from 0.8 percent in 1999 to 5.3 percent in 2002.

2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM (continued)

Race/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 of all races (total cases equaling 5,951), white males (3,031) comprise the majority (51 percent) of men in this combined category; blacks (2,655) account for more than a third (45 percent). See Table 6, page 2-47.

Age:

Among those reporting male-male sex, the highest percent of all living cases of HIV/AIDS is found among those aged 30-39 (42 percent). MSM is the predominant mode of transmission for males aged 13 and up. See Table 7, page 2-48.

Geographic Distribution:

Just under two-thirds (64 percent) of HIV-infected MSM statewide reside in the Detroit Metro Area. In both the high and low HIV/AIDS prevalence areas (see map on page 2-7), MSM comprise the single largest mode of transmission. Within high prevalence counties MSM comprise over half of the cases with a known risk (61 percent) while in the lower prevalence counties two-thirds (69 percent) of reported persons living with HIV/AIDS are MSM. These percentages include MSM who are also IDU.

Trends and Conclusions:

MDCH estimates that there were about 340 new HIV infections in the year 2002 among men who have sex with men. In 2002, there were twice as many black MSM as there were white MSM. These numbers were level from 1998-2002, however, men who have sex with men will likely continue to be the largest behavioral group affected by the HIV epidemic.

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

2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM: Discussion of Behaviorally Bisexual Men

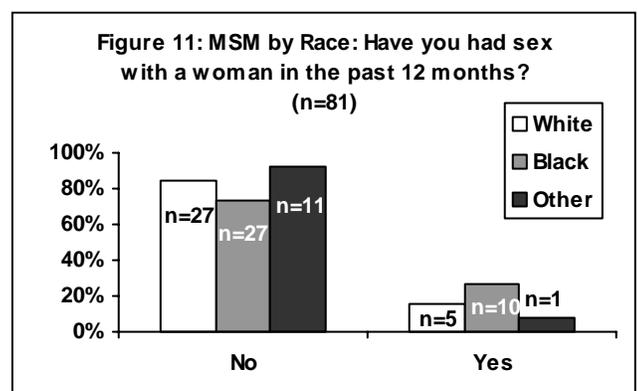
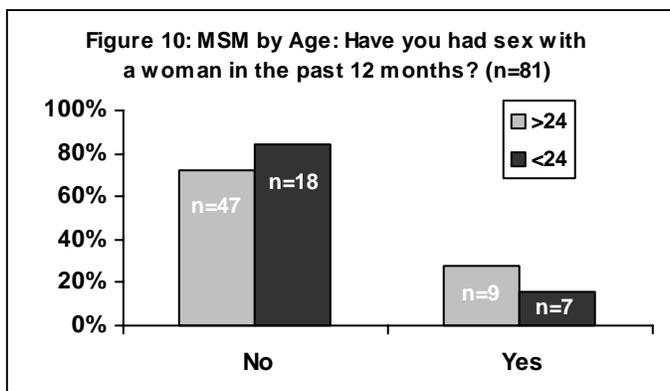
Data from Supplement to HIV/AIDS Surveillance Project (SHAS), HIV Testing Survey (HITS), & HIV/AIDS Reporting System (HARS)

Case reporting data are collected statewide but have only limited information on male bisexual behavior. Case reports are usually completed by health care providers and surveillance staff reviewing medical records rather than through extensive interviews of the infected person. Only 53 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, 44 percent of all MSM reported also having sex with women since 1977. These more complete forms also show that three percent of women report having sex with behaviorally bisexual men. These data from case reporting should be viewed as minimum estimates of these behaviors. Nonetheless, they suggest that more women have sex with behaviorally bisexual men than the surveillance system collects. There have been no changes over time.

In an effort to help focus prevention activities, we present the data that are available on bisexual behavior among HIV-infected men in southeast (SE) Michigan from the Supplement to HIV/AIDS Surveillance Project (SHAS). The SHAS interview asks HIV-infected persons directly about specific behaviors. It is conducted only in SE Michigan; therefore, is not representative of all HIV-infected persons in the state. Please see the Data Sources Section (page 1-5) to learn more about SHAS. Of all male SHAS respondents who reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview (530), 63 percent (332) reported having sex with other men* in the 12 months prior to the interview; 254 (77 percent) were black and 72 (22 percent) were white. Of these 332 men, 10 percent (33) also reported having sex with women in the 12 months prior to the interview; 12 percent (30) were black, and three percent (2) were white.

**MSM/IDU are also included in these totals*

During the HIV Testing Survey (HITS) HIV-negative MSM were interviewed in Detroit (55 MSM), Oakland County (5 MSM) and Grand Rapids (23 MSM). The mean age of the respondents sampled at these bars was 30 years. Please see the Data Sources Section (page 1-5) to learn more about HITS. This section describes behaviorally bisexual activity among this group. Among the 81 respondents interviewed in gay bars, the question "Have you had sex with a woman in the past 12 months?" was asked. As can be seen in Figures 10 and 11, men older than 24 years (28 percent) and black men (27 years) were more likely to report bisexual behavior.



2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM: A Look at Condom Usage

Data from Community Intervention Trial for Youth (CITY),
Data Supplement to HIV/AIDS Surveillance Project (SHAS), & HIV Testing Survey (HITS)

A survey of sexual risk and preventive behavior among young men who have sex with men was conducted in the summer of 1999 in Milwaukee, Wisconsin and Detroit called the Community Intervention Trial for Youth (CITY). Men were randomly recruited outside of venues frequented by young men who have sex with men in the two cities. A total of 547 men were surveyed, 48 percent were from Detroit. The mean age from the two cities was 21.2 years. Data specific to Detroit was not yet available, so provisional data from Detroit and Milwaukee combined are presented. The survey shows that 1 in 5 men (20 percent) reported not using a condom during insertive and/or receptive anal sex. Non-white participants were more likely to report insertive anal sex with a condom than white participants. More than half of the total sample (55 percent) had non-main partners in addition to main partners. Almost one-third (32 percent) reported that drugs or alcohol was a factor for having sex with their last non-main partner, while less than a quarter (22 percent) reporting being high on drugs or alcohol during sex with their main partner.

This section discusses questions from interviews with infected MSM regarding condom use with male partners from the SHAS project. Among the 332 men who report having sex with a man in the 12 months prior to the interview, 65 percent (216) reported being in a steady relationship with a man. Fifty-six percent (184) reported having sex with a non-steady man during the 12 months prior to the interview. As shown in Figures 12 and 13, of the 111 male respondents who reported having insertive anal sex with a steady male partner, 28 percent reported not using condoms the last time they had sex. Of the 103 male respondents who reported having receptive anal sex with a steady male partner, 22 percent reported that their partner did not use a condom. The percentages of condom use are similar for most recent non-steady partners the last time they had sex.

Figure 12: Condom Usage During Insertive Anal Sex Among HIV Infected MSM SHAS (n=111)

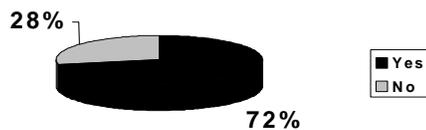
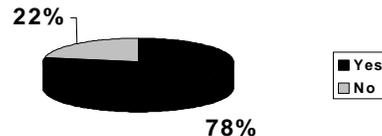


Figure 13: Partners Condom Usage During Receptive Anal Sex Among HIV Infected MSM in SHAS (n=103)



2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

During the HIV Testing Survey (HITS) HIV-negative MSM were interviewed in Detroit (55 MSM), Oakland County (5 MSM) and Grand Rapids (23 MSM). Use of condoms with male partners was assessed and indicated inconsistent condom usage. Condom use was more frequent among those who reported being the insertive partner. Figure 14 shows that of 40 respondents reporting a “primary” partner who participated in receptive anal sex, 13 (32 percent) reported that their partner used condoms “Always” in the past year. Figure 15 shows that of the 47 respondents reporting a “primary” male partner who participated in insertive anal sex, 22 (47 percent) reported using a condom “Always”.

Figure 14: In the past 12 months, when you had receptive anal sex with a primary male partner, how often did he use a condom? (n=40)

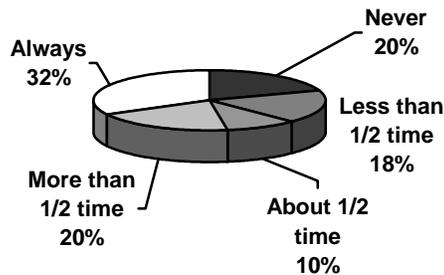


Figure 15: In the past 12 months, when you had insertive anal sex with a primary male partner, how often did you use a condom? (n=47)

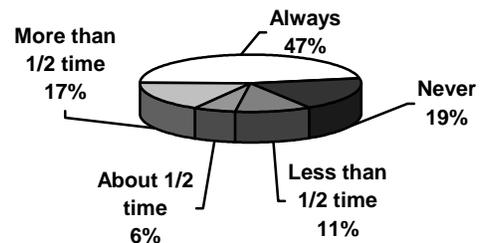


Figure 16 shows that among the 19 respondents with a “non-primary” male partner, 7 (37 percent) reported that their partner used condoms “Always” in the past year when they participated in receptive anal sex. Figure 17 shows that of the 32 respondents who participated in insertive anal sex with a non-primary male partner, 19 (60 percent) reported that they used a condom “Always”.

Figure 16: In the past 12 months, when you had receptive anal sex with a non-primary male partner, how often did he use a condom? (n=19)

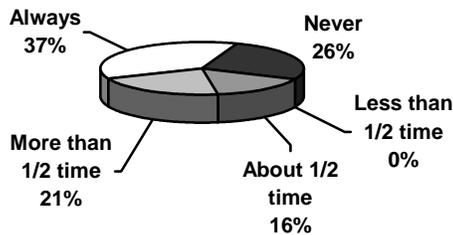
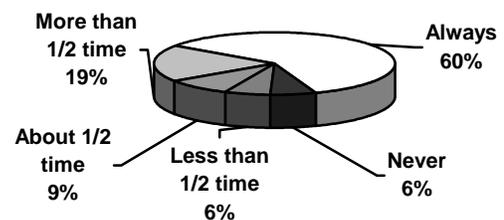


Figure 17: In the past 12 months, when you had insertive anal sex with a non-primary male partner, how often did you use a condom? (n=32)



2004 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 and account for one quarter of reported infected persons with a known risk (including MSM/IDU). MDCH estimates there are approximately 3,390 IDUs living with HIV disease in Michigan. This estimate includes 880 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs (MSM/IDU).

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. Almost half (47 percent) of the reported cases among non-MSM IDUs also had high-risk heterosexual sex partners. Additionally, of the 1,585 cases with reported high-risk heterosexual risk, 489 individuals (31 percent) also reported having IDUs as partners. Fifty-four percent of perinatally infected infants (infants infected at birth) have mothers who are IDU or have a mother whose partner was an IDU. When these linked populations are considered, IDU-related transmission accounts for 31 percent (2,978 cases) of people reported with HIV disease and having a known risk in Michigan. This is similar to the nationwide picture of 24 percent IDU.

Prevalence:

The Family of Seroprevalence Surveys measured HIV seroprevalence among non-injecting drug users (NIDU) and IDUs in treatment. From 1988 to 1999, the percent of IDU who were HIV infected and attended the Detroit Central Diagnostics and Referral Services (CDRS) declined over time, peaking at 10 percent in 1991 and falling to three percent in 1999. In addition, the proportion of heroin injectors with HIV decreased over time (11 percent in 1988 to 3 percent in 1999), while the proportion of cocaine injectors increased (11 percent in 1993 to 40 percent in 1998).

HIV seroprevalence from the Detroit CDRS varied by race, sex, and age. Prevalence among black males declined over time from 15 percent in 1998 to two percent in 1995. HIV prevalence in black females also declined over time after peaking at 14 percent in 1990. Whites comprised a smaller proportion of clients at the treatment center and no consistent trends were observed. Seroprevalence decreased in every age group. The only age group for which seroprevalence increased during the last years of the survey was 25-29 year olds, two percent in 1997 to six percent in 1999. Although data from seroprevalence surveys provide valuable information about treatment center attendees, the results cannot be generalized to all IDU. Please refer to the Data Sources section of this profile for more information on the Family of Seroprevalence Surveys.

Incidence:

In the early 2000s, a less sensitive EIA assay was used to measure incidence (recently acquired infections) by testing stored specimens from the Family of Seroprevalence Surveys that were collected between 1988 and 1999. A total of 20 persons were identified during the period as having recently acquired HIV infection, with the annual number of incident infections ranging from zero-seven (0 to 9 percent of HIV-positive) persons tested. The small number of recently infected persons tested limits the generalizability of the trends. Overall HIV incidence ranged from zero percent in 1988, 1989, and 1993 to two percent in 1992. In the most recent survey years, incidence increased from a low of 0.15 percent in 1997 to 0.62 percent in 1999. Because the number of recent infections identified each year was small, data were pooled in 3-year intervals to get more stable estimates of incidence over time. The pooled estimates show a peak in incidence between 1990-1992 at 0.82 percent and then a decline over the years. Again, in the later years, incidence began to increase, but it did not reach the levels seen from 1990-92.

2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: IDU (Continued)

Incidence (continued):

Black males and black females were the only groups with recently acquired infections. Incidence was highest in these two groups in the early 1990s, peaking for black males in 1992 at 2.82 percent and for black females in 1999 at 2.68 percent. Incident infections occurred more often among older age groups in the early years and occurred in the latter part of the decade in younger persons. For instance, incidence peaked in 1999 for persons 25-29 years (3.34 percent) and 30-34 years (1.58 percent), but the highest incidence occurred in 1992 among persons 40-44 years (6 percent).

IDU and NIDU were the only risk groups with recently acquired infections. HIV incidence was higher among IDU than NIDU in the early years of the survey, peaking at three percent in 1992, but there were no recently acquired infections among IDU after 1996. New infections were identified in NIDU from 1994 onward, with incidence ranging from 0.1 percent in 1996 to 0.88 percent in 1998-99. Among IDU, recently acquired infections were only identified among persons whose primary drug was heroin. Among NIDU, new infections were found primarily among crack cocaine users, and incidence increased among crack users from 1997 (0.4 percent) to 1999 (1.4 percent). None of the newly infected clients chose to be HIV tested at intake. Please refer to the Data Sources section of this profile for more information on the Family of Seroprevalence Surveys.

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 Western Michigan. 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 and the largest proportion of IDU who share needles.

Of the 1,120 persons in the study, 825 persons were tested for hepatitis C virus (HCV), and 202 (25 percent) were positive. Of the 14 HIV-infected persons who were tested, 8 (57 percent) were co-infected with HCV. HCV seroprevalence was much higher among persons who had injected drugs (61 percent) than among persons using non-injected drugs (14 percent).

Race/Ethnicity and Sex:

Of the 2,365 IDU and MSM/IDU HIV/AIDS cases, 1,119 are black men (47 percent), 550 are black women (23 percent), 429 are white men (18 percent), 136 are white women (6 percent), 87 are Hispanic men (4 percent) and 21 are Hispanic women (1 percent). In total, nearly three quarters (1,669 cases) of the cases occur in black IDU. Approximately two-thirds of the cases are men (70 percent) and one-third are women (30 percent). Among the 712 women whose HIV infection has been attributed to IDU, over half (56 percent) were also reported with high-risk heterosexual sex partners. See Table 6, page 2-47.

Additional behavioral data on HIV infected IDUs and other drug users in southeast Michigan is known from the SHAS interview project. Of the 1,174 persons interviewed in SHAS, 15 percent (177) injected drugs at some time during their lives.

2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: IDU (Continued)

Race/Ethnicity and Sex (continued):

This 15 percent (177) was mostly comprised of males (63 percent). Of all injection drug users, 51 percent (90) reported ever being told by a doctor or health care provider that they had hepatitis C; this was 58 percent of males (53) and 71 percent of females (37). One hundred and seventy-four (98 percent) of injection drug users have ever used some kind of non-injection drugs in the past. When injection drug users were asked about ever being in a drug or alcohol treatment program, 135 persons (76 percent) responded in the affirmative. Forty-two percent (74) of injection drug users are potential alcoholics-17 percent of males (44) and 28 percent of females (30).

Other drug use information shows 770 (66 percent) of all respondents (1171) have ever used some kind of non-injection drugs in the past. Among non-injection drug users, the primary non-injected drug for men and women was marijuana, followed by crack for both men and women.

Questions used to screen respondents for potential alcoholism reveal that 32 percent (371) of all respondents are potential alcoholics-31 percent of males (263) and 33 percent of females (108). Further SHAS data describing the drug use behaviors of participants in this project are available online at www.michigan.gov/mdch.

Age:

Among men with a known risk in each age group from 20-59 years at HIV diagnosis, IDU is the second most common mode of transmission. Forty-one percent of all the male IDU cases are recorded among men who were diagnosed with HIV in their thirties (41 percent of these were MSM/IDU), and 32 percent of all the male IDU cases are recorded among men who were diagnosed with HIV in their forties (25 percent of these were MSM/IDU).

Among women with a known risk in each age group from 13-39 years at HIV diagnosis, IDU is the second most common mode of transmission. Over age 50, high-risk heterosexual sex becomes the primary mode of transmission for women. Half of women aged 40-49 years at the time of their HIV diagnosis report IDU behavior (56 percent also had high-risk heterosexual behavior), while the other 50 percent are high-risk heterosexual.

There are very few cases of HIV/AIDS attributed to IDU among persons who were teenagers at the time of their HIV diagnosis (29) and over one third of those are among MSM/IDU; the proportion among those in their twenties is also small (16 percent of cases with a known risk). See Table7, page 2-48.

Geographic Distribution:

IDU is a more common mode of transmission in the higher prevalence areas of the state (see Figure 2 on page 2-7). Within high prevalence counties, just under a quarter of cases with a known risk are IDU (24 percent), while in the lower prevalence counties 17 percent of persons living with HIV/AIDS are IDU. These percentages include those male IDUs who are also MSM.

Trends and Conclusions:

The proportion of persons diagnosed each year with HIV infection between 1998 and 2002 decreased significantly in IDUs from 16 percent to 9 percent (143 to 79 cases) and MSM/IDUs from four percent to two percent (32 to 17 cases). Some of these persons were likely exposed heterosexually because IDUs are more likely to have IDU sex partners than are persons who do not inject drugs. IDU becomes a more primary mode of transmission as people get older. 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.

2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: IDU: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

The HITS survey assessed behaviors in HIV-negative IDUs. This section includes data from Detroit (66 IDUs), Oakland County (7 IDUs), and Grand Rapids (21 IDUs). Figure 18 shows approximately three in ten respondents reporting use of non-sterile needles at least some of the time during the 12 months prior to the survey. Figure 19 shows that 62 percent reported injecting only heroin on a “Daily” basis.

Figure 18: In the last 12 months, how often have you used a dirty needle? (n=94)

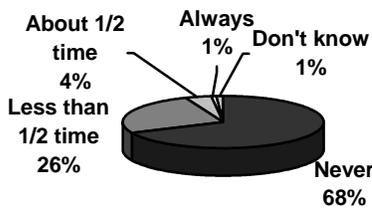
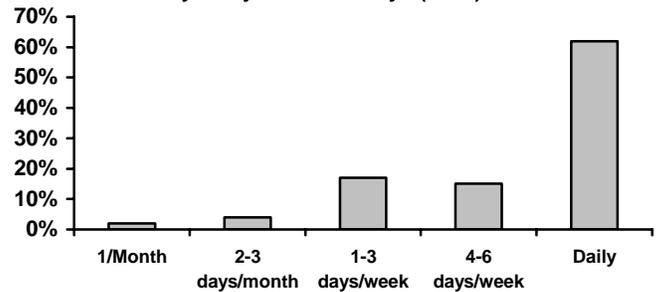


Figure 19: In the past 12 months, how often did you inject heroin only? (n=94)



Inconsistent condom use among female injection drug users is higher with primary male sex partners. Among female IDUs reporting “primary” male sex partners, 57 percent reported “Never” using a condom (Figure 20). Among female IDUs reporting “non-primary” male sex partners, 18 percent reported “Never” using a condom (Figure 21).

Figure 20: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=23)

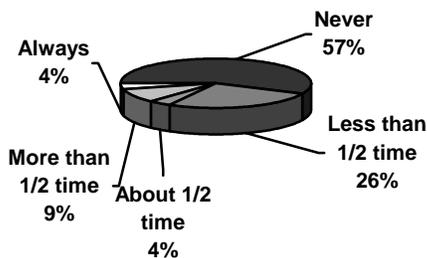
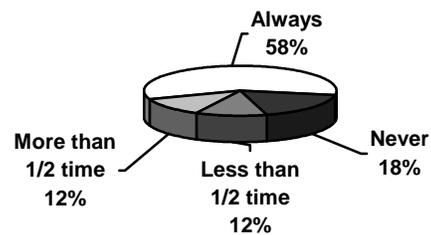


Figure 21: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=17)



Male injection drug users reported comparable condom usage rates with their female partners. Among those reporting a “primary” female sex partner, 57 percent reported “Never” using a condom with the primary female partner (Figure 22). Fifteen percent of male respondents reported “Never” using a condom with their female non-primary partner (Figure 23).

Figure 22: Men: In the past 12 months, when you had vaginal sex with a primary female partner, how often did you use a condom? (n=37)

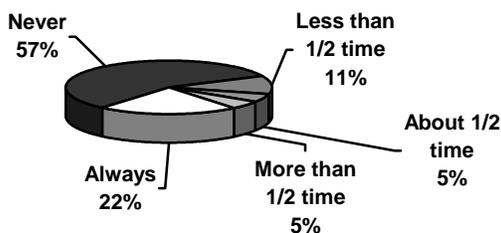
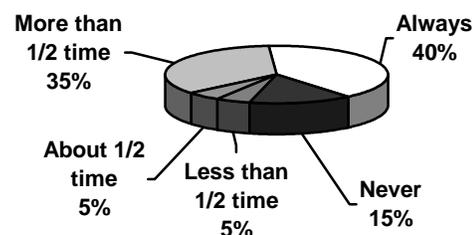


Figure 23: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=20)



2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: High-Risk Heterosexuals

Data from HIV/AIDS Reporting System (HARS) & Family of HIV Seroprevalence Surveys

Number of Cases:

Heterosexual transmission is the number-three ranked behavioral group in Michigan. Heterosexual sex accounts for 17 percent of reported infected persons with a known risk. MDCH estimates that 2,270 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 IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals (these are referred to as high-risk heterosexual partners).

Currently there are an estimated 1,190 infected persons who are classified as IDUs and also had one or more high-risk heterosexual sex partner(s). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. Among reported cases, the dual risk IDU/heterosexual cases comprise 9 percent of all reported HIV/AIDS cases with a known risk and are 48 percent women and 52 percent men.

Prevalence:

The rate of HIV positives measured among heterosexual attendees of the Detroit Health Department's STD clinic, who were likely among the highest risk heterosexuals in the state, averaged less than one percent in the annual seroprevalence surveys done from 1993 to 1999. Seroprevalence surveys done in 1996 at the Berrien and Saginaw counties STD clinics 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.

Incidence:

In the early 2000s, a less sensitive EIA assay, was used to measure incidence (recently acquired infections) by testing stored specimens from the Family of Seroprevalence Surveys that were collected between 1988 and 1999. At Michigan HIV counseling, testing, & referral centers incidence ranged from 22-54 cases (13 to 24 percent) annually. Overall HIV incidence was stable throughout most of the study period, reaching a low of 0.17 percent in 2000 and then rising to the highest level during this study period at 0.41 percent in 2002,. Specifically, heterosexuals were represented by two groups: a person engaging in only heterosexual sex, with no other risk and a person whose sex partner was at risk for HIV. Each of these groups accounted for 14 percent of recently acquired HIV infection during this period. The majority of recently acquired infections in the heterosexual group were black, and the proportion of blacks increased in the later study years, with the greatest increase seen among black females (from 29 to 44 percent).

Race/Ethnicity and Sex:

Among females reported with HIV/AIDS and a known risk, over half (58 percent) of these cases contracted heterosexually. Just over a third of females, 37 percent, were infected through IDU. Among women with a known risk, 21 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 1,585 men and women living with HIV/AIDS and infected heterosexually, 31 percent reported their heterosexual partner as injecting drug users, five percent as behaviorally bisexual men (this applies to women only) and two percent as persons infected through blood products. Almost two thirds (62 percent) reported their partner(s) as HIV-infected without reporting the partner(s) risk for contracting HIV.

While women account for 23 percent of all reported HIV/AIDS cases in Michigan, they have consistently accounted for over two-thirds of heterosexually acquired infections -- currently 70 percent. Just over half of all black women were infected heterosexually (55 percent). Sixty-four percent of white women and 68 percent of Hispanic women, nearly two-thirds of each group, were infected through heterosexual sex.

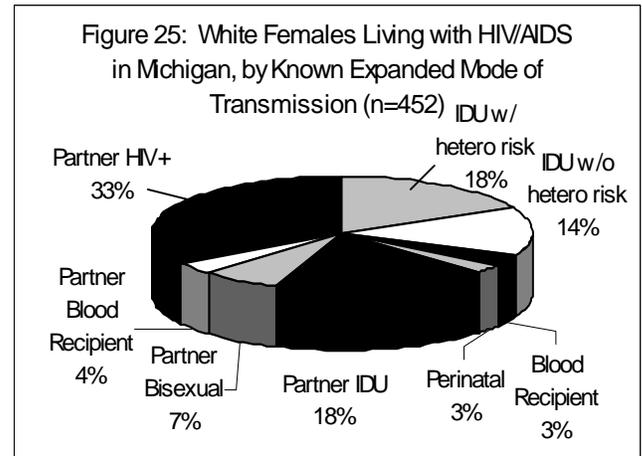
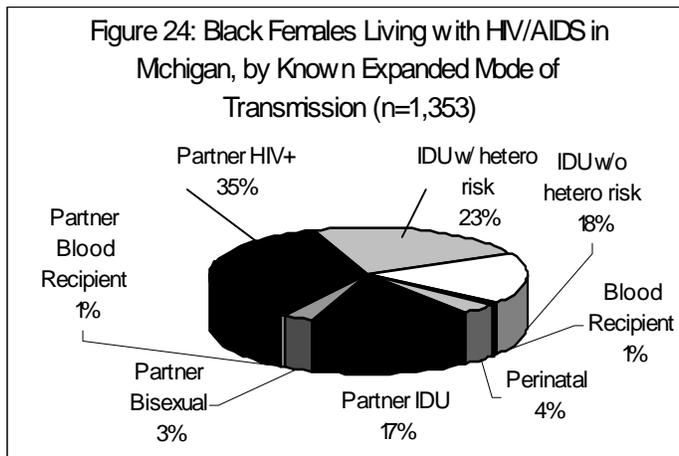
2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: High-Risk Heterosexuals (Continued)

Race/Ethnicity and Sex (continued):

Most heterosexual cases of HIV/AIDS are black--67 percent of female and 71 percent of male. It should be noted that the percent of men infected heterosexually is low--six percent of cases among men of all races with a known risk. See Table 6, page 2-47.

The heterosexual transmission category includes sub-categories to describe mode of transmission in more detail. This is especially helpful for women since they make up most (70 percent) of the heterosexually transmitted cases. To be reported as a heterosexual transmission case, a female must have a male partner who is an IDU, behaviorally bisexual man, blood recipient known to be HIV +, and/or HIV positive. Heterosexual and IDU modes of transmission and associated sub-categories for infected black and white women with known risk are shown in Figures 24 and 25.



Age:

High-risk heterosexual transmission is the predominant mode of HIV transmission for females who were 13-39 and 50 years of age and older at the time of their HIV diagnosis. Among women 40-49, the proportions of IDU and heterosexual transmissions are equal at 50 percent each. See Table 7, page 2-48.

Geographic Distribution:

The 1,090 persons living with HIV/AIDS who acquired HIV heterosexually (prisoners excluded) are located proportionately throughout the state. In the high and low prevalence areas (Figure 2 on page 2-7), they comprise 15 percent and 14 percent, respectively, of cases in these areas reported with a known risk.

Trends and Conclusions:

The proportion of persons diagnosed each year with HIV infection between 1998 and 2002 decreased significantly in high-risk heterosexuals from 17 percent to 12 percent (155 to 101 cases). At the same time, the proportion of cases attributable to presumed heterosexuals, someone who had heterosexual sex as their only risk but their partner's risk is unknown, increased significantly from 16 percent to 25 percent (150 to 205 cases). When 'presumed heterosexuals' are included in the heterosexual category, the proportion with heterosexually acquired infection exceeds the number of cases attributed to IDU.

2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: High-Risk Heterosexuals (Continued)

Trends and Conclusions (continued):

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 men who have sex with men, 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 the total number of heterosexually acquired cases will equal or surpass those classified as IDU in the future.

Ranked Behavioral Group: High-Risk Heterosexuals: Condom Usage

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

In SHAS, 64 percent (212) of female respondents reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview. Of these, most (207 or 98 percent) reported having sex with a man in the 12 months prior to the interview. We asked these 207 women questions about use of a barrier with their steady (someone they feel committed to above anyone else and have sex with) partners. Eighty-five percent (175) of the (207) women report being in a steady relationship with a man during the 12 months prior to interview. Use of a barrier with these partners is displayed in Table 2.

Sixty-three percent (529) of male SHAS respondents reported having vaginal, oral, and/or anal sex during the 12 months prior to the interview. Of these 529, 228 men (43 percent) report having had sex with a woman in the 12 months prior to the interview. Sixty-five percent (148) of these men reported being in a steady relationship with a woman in the 12 months prior to interview. Condom use at that sexual contact with these partners is displayed in Table 2.

Table 2: Barrier/Condom Use with Steady Partner, Among Heterosexuals

	Females (n=175) Percent (barrier use/sexual activity)	Males (n=148) Percent (condom use/sexual activity)
Sexual Activity*		
Vaginal sex	69% (118/172)	78% (113/145)
**Oral sex	22% (7/32)	40% (16/40)

*Categories are not mutually exclusive

**Oral sex: mouth-vagina and penis-mouth

In addition, we asked women and men, questions regarding barrier/condom use with their most recent other male and female partners. Among the female SHAS respondents, 68 (33 percent) report having sex with a man other than a steady male partner in the 12 months prior to interview. While among the male SHAS respondents, 115 (50 percent) report having sex with a woman other than a steady female partner in the 12 months prior to interview. Barrier/condom use at last sexual contact with these partners is displayed in Table 3.

Table 3: Barrier/Condom Use with Most Recent Non-Steady Partner, Among Heterosexuals

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

*Categories are not mutually exclusive

**Oral sex: mouth-vagina and penis-mouth

2004 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: High-Risk Heterosexuals: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

High-risk HIV-negative heterosexuals were interviewed as a part of HITS at the sexually transmitted disease clinics of the Detroit City (62), Oakland County (27), and Kent County (28) Health Departments. Men interviewed reported “Never” using a condom 45 percent of the time with their primary female partner and “Never” using a condom 19 percent of the time with a non-primary female partner (Figures 26 and 27). Women interviewed in the STD clinics reported “Never” using a condom 38 percent of the time with their primary male partners, and “Never” using a condom 42 percent with the non-primary male partners (Figures 28 and 29).

Figure 26: Men: In the past 12 months, when you had vaginal sex with a primary female partner, how often did you use a condom? (n=48)

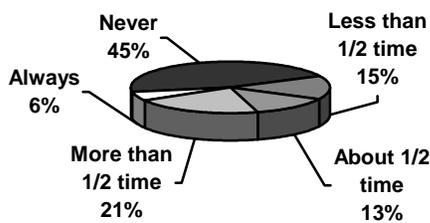


Figure 27: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=37)

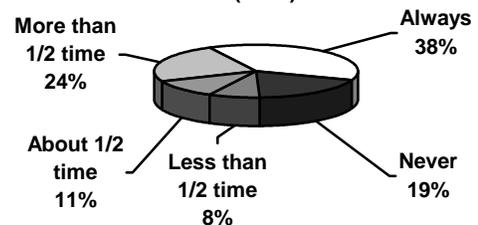


Figure 28: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=50)

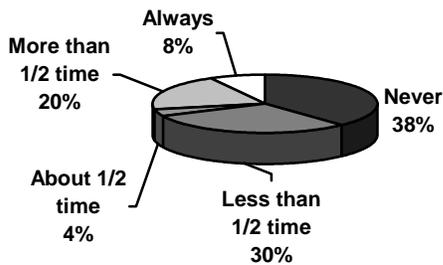
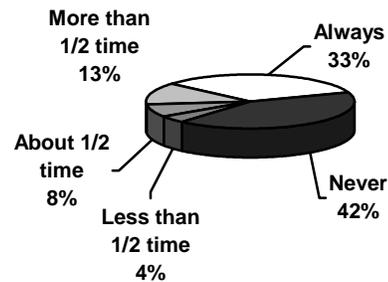


Figure 29: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=24)



2004 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 (57 percent) of the cases of HIV/AIDS. MDCH estimates 9,390 blacks are living with HIV/AIDS in Michigan. The rate of HIV infection among blacks is 670 per 100,000 population, eight and a half times higher than the rate among whites. MDCH estimates that as many as one out of 100 black males and one out of 280 black females may be HIV-infected.

White persons comprise over a third (37 percent) of reported HIV/AIDS cases and 79 percent of Michigan's population. MDCH estimates 6,110 whites are living with HIV/AIDS in the state. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection (78 per 100,000 population) than blacks or Hispanics. MDCH estimates that as many as one out of 720 white males and one out of 4,900 white females may be HIV-infected.

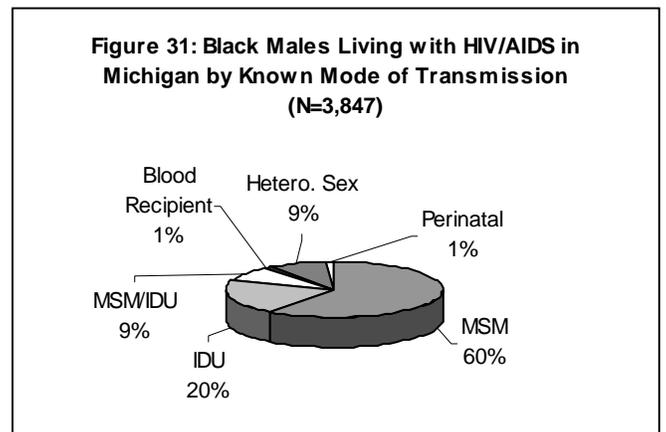
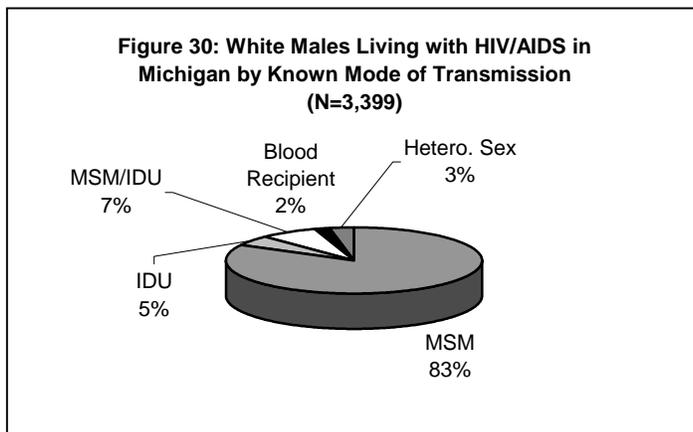
Hispanics comprise four percent of cases and three percent of the population. MDCH estimates 670 Hispanics are living with HIV/AIDS in Michigan. However, the relatively few cases are spread out among a small population and therefore they have a higher rate (207 per 100,000 population) than that among whites. MDCH estimates that as many as one out of 330 Hispanic males and one out of 960 Hispanic females may be HIV-infected.

Most persons living with HIV/AIDS in Michigan are male (77 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 23 percent of the infected population in Michigan.

The majority of the 8,918 male HIV/AIDS cases are black (53 percent), 42 percent white, four percent Hispanic and two percent are other or unknown race. The majority of the 2,609 female HIV/AIDS cases are black (72 percent), almost one-quarter (22 percent) are white, four percent are Hispanic and two percent are other or unknown race.

Mode of Transmission:

Figures 30 and 31 display the proportion of black and white male cases by mode of transmission among those with known transmission.



Refer to Figures 24 and 25, page 2-26 for black and white female distributions).

2004 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution of Cases:

Looking at the proportions of cases by race in a particular area of the state (e.g., 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 (e.g., number of black cases/total number of blacks living in that area). Figure 32 shows that the HIV/AIDS case rate among blacks is six to eight times higher than the rate among whites in both high and low prevalence areas of the state, even though there are 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. Also, the HIV/AIDS case rate among Hispanics is two to three times higher than the rate among whites in both high and low prevalence areas of the state.

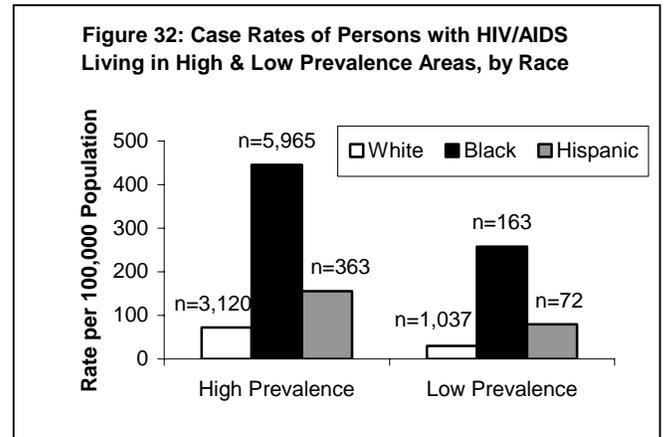
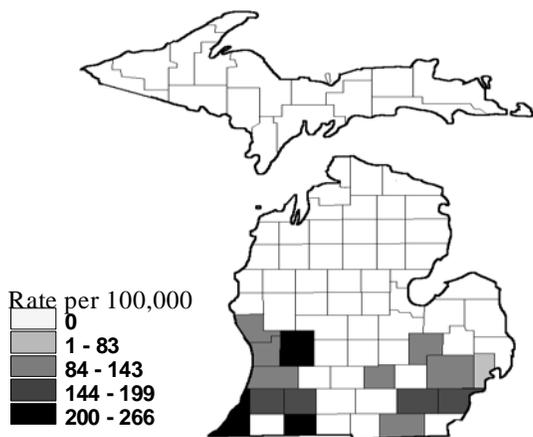


Figure 33: Prevalence Rates for Hispanics Living with HIV



Hispanics comprise four percent of all persons living with HIV/AIDS. Figure 33 shows the rate per 100,000 of Hispanics living with HIV/AIDS in counties across Michigan. The counties with five or more cases are included in the map. The areas with the highest case rates for Hispanics (7 of the 14 counties that meet this definition) are either on the Lake Michigan shoreline or just to the east of it. This is most likely due to the large population of migrant workers in this area. Although Wayne County has the largest number of cases, its rate (175 per 100,000) is actually lower than the statewide rate of 207 per 100,000. The individual county rates include Allegan (99), Berrien (266), Genesee (89), Ingham (130), Kalamazoo (158), Kent (202), Lenawee (87), Macomb (64), Muskegon (117), Oakland (138), Ottawa (102), St. Joseph (201), Van Buren (177), and Washtenaw (170).

2004 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Race and Sex (Continued)

Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks has remained level at 530 in 2002. During this same time period, the estimated annual number among whites has remained stable at 260 persons in 2002. New HIV infections diagnosed among Hispanic and other races/ethnicities increased significantly from 1998 to 2002 (38 to 49 cases).

Trends in new HIV diagnoses among males and females show similar patterns. The number of males newly diagnosed with HIV each year is stable at about 620 new infections (74 percent of cases) in the year 2002. Among females the number appears to also be stable at 200 (26 percent cases) in the year 2002.

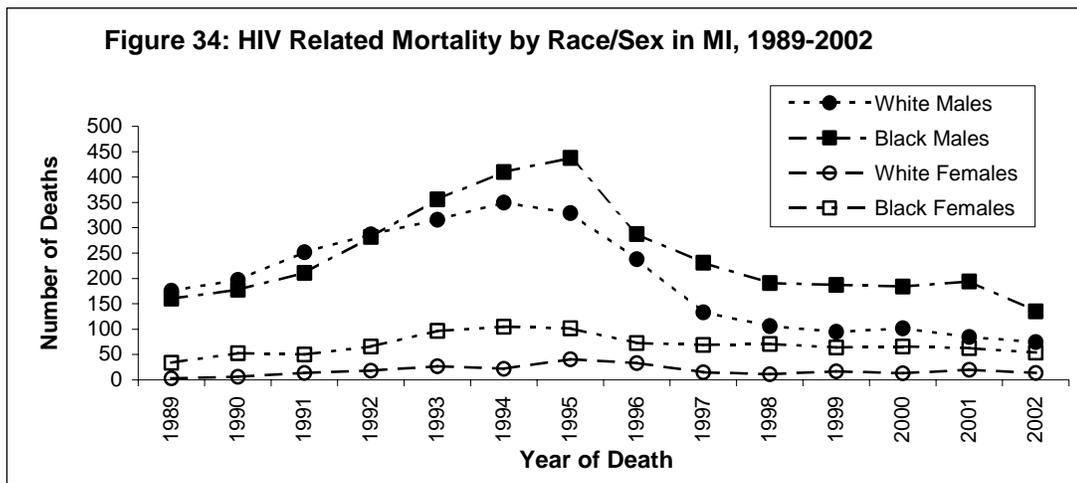


Figure 34 shows that HIV related mortality dropped for the four race and sex groups shown. There was a statistical difference in the 1995-2001 declines among white men (79 percent), black men (65 percent), and women (47 percent). From 2001 to 2002 there was also a 30 percent decline in deaths among black men. The number of deaths among Hispanics was too small to appear on this graph.

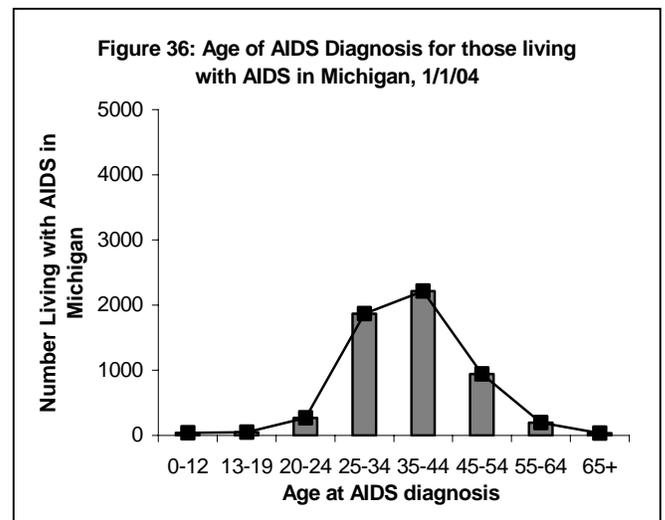
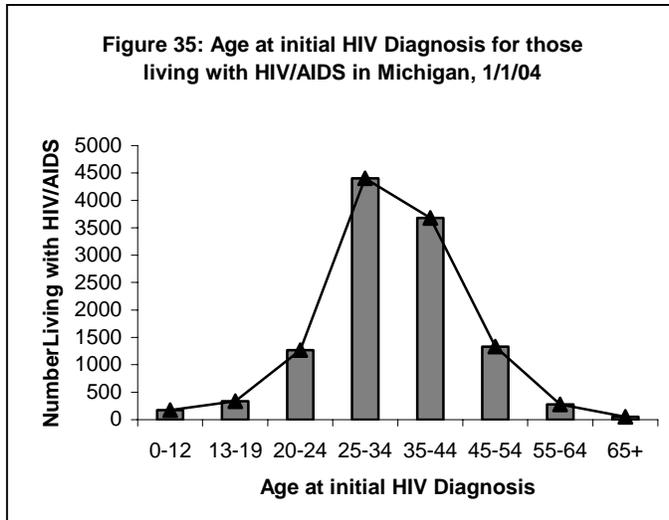
When all the data are considered, the consistent impact across transmission behaviors and geographic areas that this epidemic is having on blacks is apparent. The rate of HIV infection among blacks is nine times higher than the rate among whites.

2004 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age

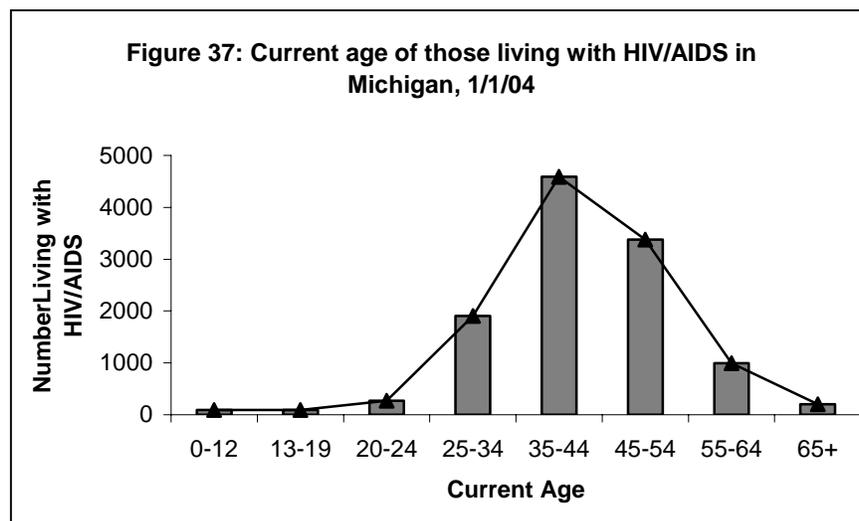
Age at Diagnosis:

The proportion of persons diagnosed with HIV infection each year from 1998 to 2002 only changed significantly among those diagnosed at 20-24 years of age from 8 percent to 10 percent (72 to 86 cases). Figure 35 shows that persons who were between the ages of 25 and 34 at their initial diagnosis of HIV make up the majority of those living with HIV/AIDS (38 percent), while those between the ages 35-44 at their initial diagnosis of HIV are the second largest group (32 percent). Figure 36 shows this latter group is the largest age group at AIDS diagnosis (39 percent).



Current Age:

Since the start of widespread use of Highly Active Anti-Retroviral Therapy (HAART) in 1996, persons infected with HIV have been living longer. Evidence of this is shown in Figure 37, which displays the current ages of those living with HIV in Michigan. Those currently ages 35 to 44 years make up the largest group of those living with HIV (40 percent). While persons who were ages 55 and older at AIDS diagnosis made up only four percent of those diagnosed with AIDS (Figure 36), persons in this age group make up 10 percent of persons living with HIV/AIDS.



2004 Profile of HIV/AIDS in Michigan

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

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

MDCH estimates that there are 240 children living with HIV, who were ages 0-12 when they were diagnosed. They comprise 1.5 percent of the reported infected persons. Most of them (85 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding). Of the remaining children, nine percent were infected via blood exposure before 1985 and six percent have an unknown risk.

No children aged 0-12 at HIV diagnosis with known risk have been infected through sexual behavior or injection drug use and two percent of those with an unknown risk were probably due to perinatal transmission or receipt of blood products in other countries.

Description of Cases in Children:

Of the 171 children who were ages 0-12 when diagnosed with HIV/AIDS, living in Michigan, 56 percent are male and 44 percent are female; about two thirds are black (65 percent), over one quarter are white (26 percent) and eight percent are Hispanic or of unknown race. See Table 7, page 48.

Of the 146 children infected perinatally, 51 percent male and 49 percent female; 71 percent were black, 20 percent were white, and nine percent were Hispanic or other races. Fifty-four percent of the HIV infections in these children were IDU related (16 percent of these had a mother was not known to be an IDU but one or more of her sex partners were IDUs). An additional 25 percent had mothers with HIV-infected sex partners. For 21 percent all that was known about the mother is that she was HIV-infected with no additional maternal risk information.

Geographic Distribution of Infected Children:

Eighty-four percent of the 171 children diagnosed and reported with HIV/AIDS between the ages of 0 and 12 years are located in high prevalence counties. The remaining 16 percent are located in low prevalence counties. Sixty-seven percent of HIV cases that were diagnosed as children in Michigan are currently residents of the Detroit Metro Area.

Trends and Conclusions:

The best measurable success in reducing HIV transmission has been among 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 who become infected has dropped precipitously, from 28 percent in 1992 to two percent in 2003. As of January 1, 2004, seven of the 66 children born in 2001, three of the 54 children born in 2002, and one of the 49 children born in 2003 to HIV-infected women were diagnosed with HIV infection. Also, one of the 66 children born in 2001 to an HIV-infected woman was diagnosed with AIDS.

For further discussion please see: Mokotoff, ED, Malamud BH, Kent JB, Kowalczyk, RJ, Scott LJ, Hammett TA, Lindegren, ML. Progress Towards Elimination of Perinatal HIV Infection-Michigan, 1993-2000, MMWR, 2002;51:5: 93-97.

2004 Profile of HIV/AIDS in Michigan

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

Data from HIV/AIDS Reporting System (HARS), Family of HIV Seroprevalence Surveys,
Data from STD Reporting System, Job Corps, Youth Risk Behavior Survey,
& Bureau of Juvenile Justice Youth Risk Behavior Survey

Number of Cases:

MDCH estimates that there are about 2,300 persons currently living in Michigan who were ages 13-24 years when they were diagnosed with HIV. They comprise 14 percent of all persons reported with HIV/AIDS in Michigan (3 percent age 13-19 years; 11 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 25-39 years. However, some young people are at particularly high risk. Specifically these are male youth who live in areas with high HIV prevalence and have male sex partners who are age 20 or older.

STD rates are highest in these age groups. The STD data are shown on Tables 10 and 11 (pages 2-51-52). In persons age 15-24 years, the rate of chlamydia is over two times higher and the rate of gonorrhea is over one and a half times higher than the rate among persons age 25-29 years (please refer to the Sexually Transmitted Diseases section on page 2-14 for further discussion of these high rates). While rates of STDs among 15-19 year olds are quite high, the rates of HIV in this demographic group are comparably low. This is due to the fact that risk factors for STD acquisition are very broad, specifically multiple sex partners and unprotected sexual intercourse, in comparison to the more specific risk factors of injection drug use or homosexual sex for HIV.

The Job Corps training program for disadvantaged youth performs HIV testing for all entrants (for the years 1988-1998). 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 was no increase over time. All but one of the positives were in black youth and, the geographic distribution is 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 and decreased significantly from 1998 to 2002. Wayne County and the City of Detroit had the highest teen pregnancy rates in the state in 2002 (83 per 1,000 in Wayne County outside of Detroit and 115 in the City of Detroit). The 2002 rates among teens in Detroit were almost equal to the rates among women age 15-44 years in that same area (115 vs. 114). However, in 2000, the rates among teens in Detroit had exceeded the rates among women aged 15-44. The statewide teen pregnancy rate in 2002 was 56 pregnancies per 1,000 females aged 15-19 years. In Out-State Michigan, the 2002 rates range from 20-80 pregnancies per 1,000 females aged 15-19 and in the Detroit Metro Area, the 2002 rates ranged from 35-115 pregnancies per 1,000 females aged 15-19.

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 area and the state. They lived in Wayne County, including Detroit (the county with the highest rate of HIV), and most were sexually active and some were homeless. Therefore, fewer positives would be expected among youth that live in other areas of the state.

2004 Profile of HIV/AIDS in Michigan

Additional Discussions: Teens and Young Adults (Continued)

Numbers of Cases (continued):

Every two years a Youth Risk Behavior Survey is conducted in Michigan high schools using a nationally standardized survey. This captures behaviors in children grade 9- 12. In an attempt to report on behaviors of children not in mainstream high schools, Michigan was one of the first states to conduct a Youth Risk Behavior Survey in the juvenile justice population (ages 12-21). This Bureau of Juvenile Justice Youth Risk Behavior Survey (BJJ) had 89 percent completion rate and 83 percent were between the ages of 15 and 18 (similar to ages found in YRBS). It showed that 23 percent of females had ever injected drugs, compared with 12 percent of males. Eighty-nine percent had reported ever having sex and 42 percent had sex for the first time at 11 years of age or younger. When comparing BJJ surveys to those taken by mainstream high schoolers, 16 percent of BJJ youth had reported ever injecting drugs, compared with two percent from the mainstream youths. Sixty-two percent of BJJ youths started having sex before age 13 compared with 5 percent of mainstream youths. Fifty-four percent of BJJ youths reported using no form of birth control at their last sexual encounter, compared with five percent of mainstream youths. Finally, 23 percent fit under the umbrella category of sexual minority youth (SMY) due to self-identifying as gay, lesbian, or bisexual, or participating in same-sex behavior. SMY were at higher risk than their mainstream counterparts: 21 percent had ever used injection drugs, 73 percent had sex before age 13, and 86 percent had four or more sexual partners in their lifetime.

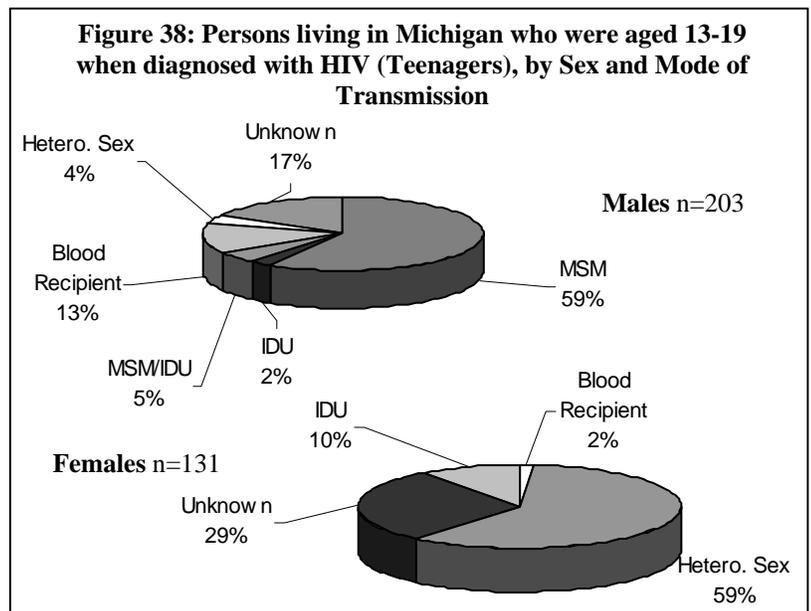
Race/Ethnicity:

Sixty-three percent of persons aged 13-19 at the time of HIV diagnosis are black, thirty-one percent are white, and five percent are Hispanic or other race. Sixty percent of persons aged 20-24 at the time of HIV diagnosis are black, 35 percent are white, and five percent are Hispanic or other race.

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. Therefore, the percentages discussed in this section will not match those seen on Table 7. 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.

Figure 38 shows that among the 334 persons living with HIV in Michigan who were ages 13-19 at time of diagnosis, 203 (61 percent) are male. Among these male cases, about two-thirds had sex with other males (64 percent) which includes the MSM/IDU cases while 13 percent had been infected with HIV through blood products before 1985. Seven percent could be attributed to IDU (including MSM/IDU) and four percent to heterosexual transmission. Teenage males have the largest proportion of unidentified risk (17 percent) 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.



2004 Profile of HIV/AIDS in Michigan

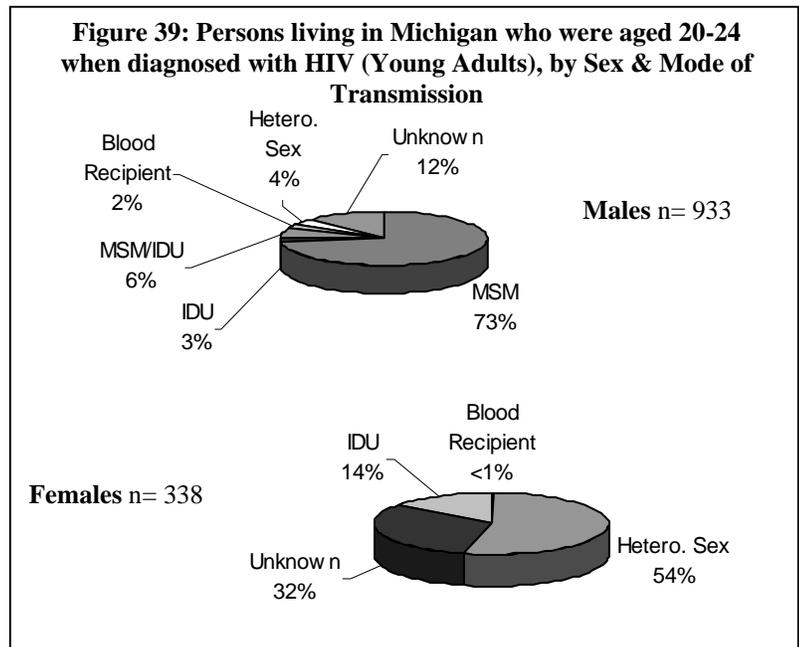
Additional Discussions: Teens and Young Adults (Continued)

Mode of Transmission (continued):

Teenagers (continued): Figure 38 also shows that among the 131 females living with HIV in Michigan who were ages 13-19 at time of diagnosis, just under two-thirds (59 percent) were infected through heterosexual sex; 10 percent were IDUs. Similar to males of this age, there is a large proportion that did not report a mode of transmission (29 percent). Experience with investigating such persons shows that it is likely that most of these females were infected heterosexually.

Young Adults: Figure 39 shows that among the 1,271 persons living with HIV in Michigan who were ages 20-24 at time of diagnosis, almost three quarters (73 percent) are male. Seventy-nine percent of male young adults reported sex with other males (including those MSM who also are IDU); 12 percent did not report a mode of transmission. Many of these were likely infected through sex with other men.

Figure 39 also shows that among the 338 women living with HIV who were ages 20-24 at time of diagnosis, over half (54 percent) were infected heterosexually and 14 percent were IDUs. Just under a third (32 percent) did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually. Women aged 20-24 at the time of HIV diagnosis have the highest proportion of unknown risk compared with all HIV infected women under 60.



Geographic Distribution of Teens and Young Adults Cases:

The 1,605 persons diagnosed and reported with HIV/AIDS between the ages 13-24 are located proportionately throughout the state. In the high and low prevalence areas (Figure 2 on page 2-7) they comprise 14 percent of reported cases in each area.

Trends and Conclusions:

The number of cases diagnosed among persons aged 13-24 years increased significantly from 1998 to 2002 (85 to 112 cases). Although this group comprises 16 percent of those living with HIV/not AIDS and five percent of persons living with AIDS, this is likely a reflection that HIV is generally diagnosed before AIDS. Consequently you would expect those with an HIV diagnosis to be younger than those with AIDS. This does not necessarily mean that age of initial HIV infection is decreasing over time. Given the small number of infected teenagers in these age groups, it is likely most are infected by older partners (25+).

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

2004 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age: 50 years and older

Data from HIV/AIDS Reporting System (HARS)

Number:

MDCH estimates there are 1,160 persons living in Michigan, who were 50 years and older when they were diagnosed with HIV. They comprise seven percent of all reported infected persons. This population was mainly infected through sexual contact (either men having sex with men or heterosexually), however those who were in their fifties when diagnosed with HIV have a substantial proportion infected through injection drug use. Three-quarters of this population is male.

Mode of Transmission:

When discussing mode of transmission in other sections, those individuals with unknown risk were left out of percentage calculations. However, the unknown category for this population is too large to omit. Additionally, those who were in their fifties at the time of HIV diagnosis have different transmission mode proportions than those who were aged 60 or older. Therefore, these two populations are discussed separately.

Description of Cases aged 50-59 at the time of diagnosis: Persons who were in their fifties when first diagnosed with HIV are 76 percent male and 24 percent female. Among these 674 persons reported with HIV/AIDS about just under two-thirds are black (60 percent), one third are white (34 percent) and 6 percent are Hispanic or of unknown race.

Figure 40: Males Aged 50-59 at Time of Diagnosis, Living with HIV/AIDS in Michigan by Mode of Transmission (N=515)

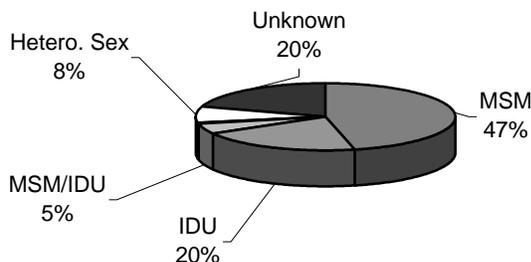
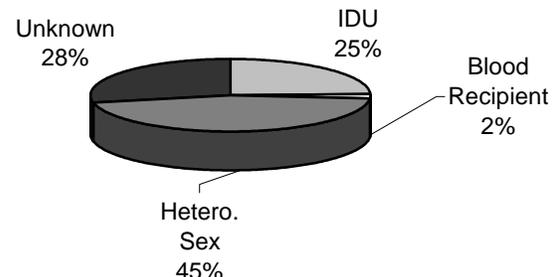


Figure 40 shows that over half of the 515 males in their fifties at time of HIV diagnosis and currently living with HIV (52 percent) reported having sex with other males (including those MSM who also are IDU). One quarter reported injection drug use (including those IDU who were also MSM). Less than eight percent were infected heterosexually. Twenty percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 41 shows that among the 159 females who were in their fifties at time of HIV diagnosis and currently living with HIV, just under half (45 percent) were infected heterosexually and 25 percent were IDUs. Just over a quarter (28 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 41: Females Aged 50-59 at Time of Diagnosis Living with HIV/AIDS in Michigan by Mode of Transmission (N=159)



2004 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age: 50 years and older (continued)

Description of Cases 60 years and older at the time of diagnosis: Persons who were 60 years and older when first diagnosed with HIV are 73 percent male and 27 percent female. Among these 138 persons reported with HIV/AIDS over half are black (56 percent), one third are white (34 percent) and 10 percent are Hispanic or of unknown race.

Figure 42: Males Aged 60 and older at Time of Diagnosis Living with HIV/AIDS in Michigan by Mode of Transmission (N=101)

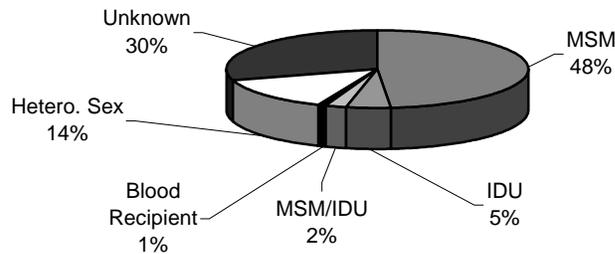
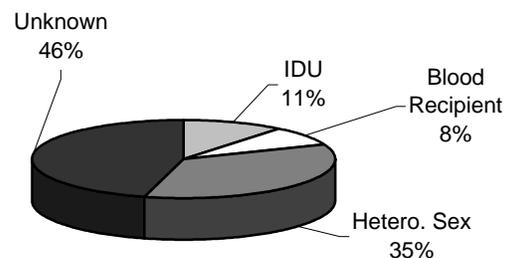


Figure 42 shows that over half of the 101 males who were 60 years and older at time of HIV diagnosis and currently living with HIV (50 percent) reported sex with other males (including those MSM who also are IDU). Less than seven percent reported injection drug use (including those IDU who were also MSM). Fourteen percent were infected heterosexually. Thirty percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 43 shows that among the 37 females who were 60 and older at the time of HIV diagnosis and currently living with HIV, just over a third (35 percent) were infected heterosexually and 11 percent were IDUs. Just under a half (46 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 43: Females Aged 60 and older at Time of Diagnosis, Living with HIV/AIDS in Michigan by Mode of Transmission (N=37)



2004 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age: 50 years and older (continued)

Trends and Conclusions: Persons currently age 50 and older, living with HIV/AIDS

As of January 1, 2004 there are 2,394 persons who are **currently** age 50 or older and living with HIV/AIDS in Michigan. This represents 21 percent of the 11,145 persons diagnosed in and living with HIV/AIDS in Michigan as of the first of this year. Data in this section were analyzed differently then for the rest of the profiles. All numbers used in the 2004 Profile of HIV/AIDS in Michigan represent those HIV infected persons currently living in Michigan. This section discusses those HIV infected persons who were initially diagnosed in Michigan, and may currently be living in other states.

These persons are comparable to the population of persons of all ages living with HIV/AIDS in Michigan with regards to sex and race. However, persons in the 50 and older age category are more likely to have been infected by injecting drugs than the total population of HIV infected persons- 28 vs. 15 percent.

The proportion of persons “currently” age 50+ in Michigan has increased over the last five years. This can be attributed, at least in part, to the more effective anti-retroviral medications that became available in 1996. As a result, infected persons are living longer with the infection and are, therefore, getting older. Table 4 shows the percent of persons who were age 50+ at the beginning of each of the six years listed.

Table 4: Percent of Persons aged 50 and older living in Michigan by ‘Year End’

	Number	Percent
1/1/1999	1135	13%
1/1/2000	1347	15%
1/1/2001	1638	17%
1/1/2002	1986	19%
1/1/2003	2047	19%
1/1/2004	2394	21%

Almost half of these persons were not 50+ at the time of diagnosis. However, if persons in this age group have sex with others in their age group, they can infect others their own age. In order to minimize transmission among this age group, sexually active persons of all ages should be offered HIV testing when they present for medical care and given risk reduction messages.

2004 Profile of HIV/AIDS in Michigan

Special Populations: Rural HIV

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

Using this definition, the reported cases were divided into rural or urban categories. Rural cases constitute nine percent of reported cases (1,023); 21 percent of Michigan's population lives in these counties. The estimated rate of infection in rural areas is 67 per 100,000. Urban areas account for 91 percent of cases and have a rate that is almost three times higher, 184 per 100,000. (Figure 44)

Data from HIV/AIDS Reporting System (HARS)

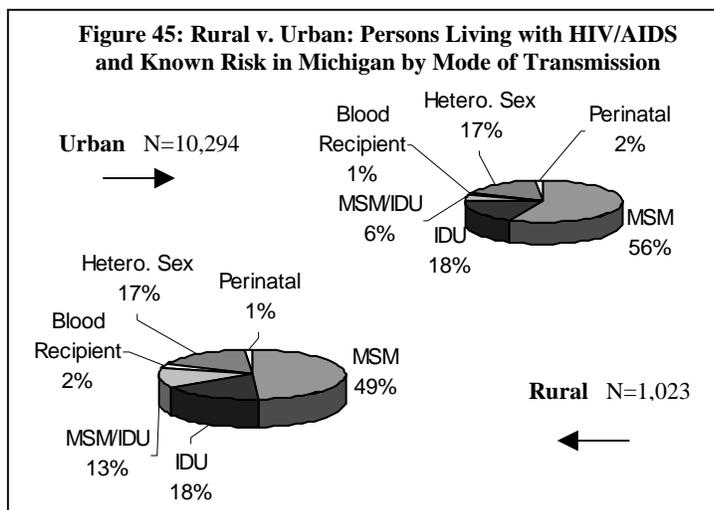
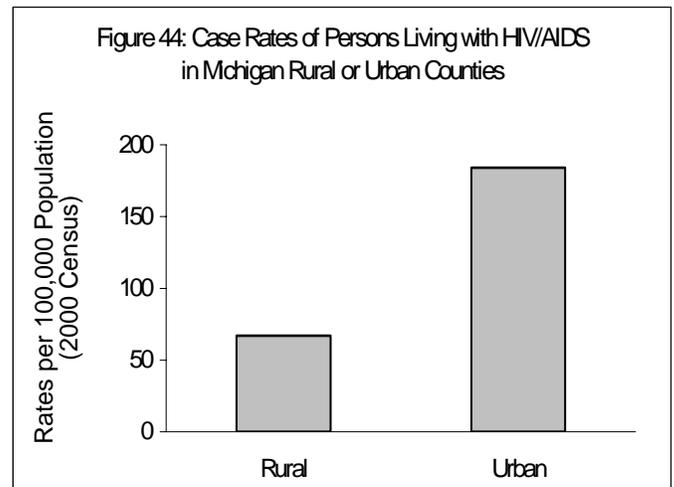


Figure 45 shows that in Michigan's rural communities, HIV is more likely to be attributable to men who have sex with men and less likely to be attributed to injecting drug use when compared with urban areas. There is little to no difference between rural and urban communities with respect to the relative proportion of heterosexual cases.

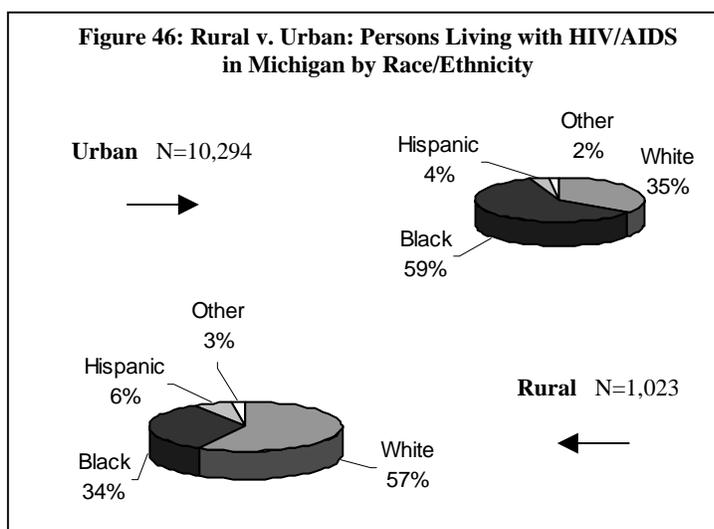


Figure 46 shows that in urban counties of Michigan, the greatest proportion of HIV/AIDS cases occurs among blacks. In rural communities, although, the largest proportion of cases occurs among whites, the rates are higher among blacks (See Figure 32, page 2-30).

2004 Profile of HIV/AIDS in Michigan

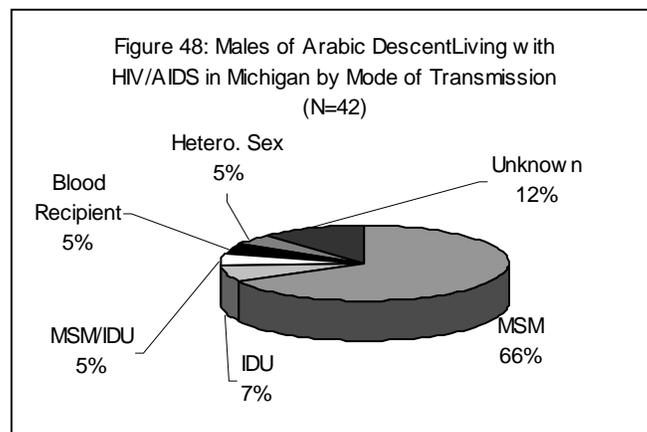
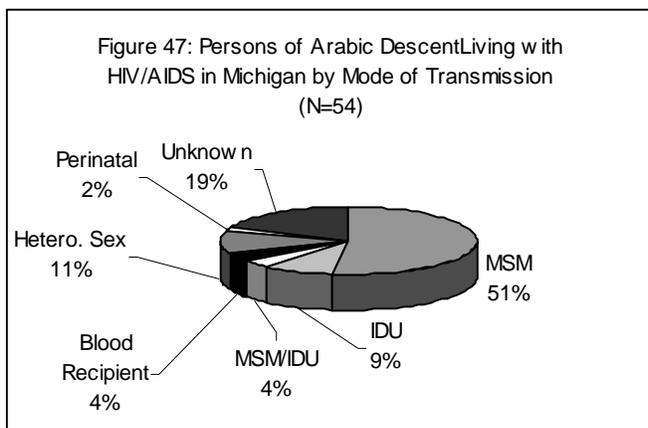
Special Populations: Arab-American Community

Data from HIV/AIDS Reporting System (HARS)

In response to requests from an Arab-American community based organization, we began reviewing the size of the epidemic in this community. Arabic is considered an ethnicity and not a racial category and has not been routinely collected by the surveillance system. Consequently, the numbers presented here may be undercounted. Beginning in the year 2001 a question was added about Arabic ethnicity on the HIV/AIDS Case Report Form.

In Michigan, the largest concentration of Arab-Americans is in Southeastern Michigan, where most of these HIV/AIDS cases were diagnosed. Of the 54 known cases, 35 percent were HIV not AIDS and 65 percent were AIDS. The counties where persons were initially diagnosed with HIV included Wayne, including Detroit city (46 percent), Oakland (33 percent), Macomb (13 percent), St. Clair (2 percent), Kalamazoo (2 percent), and 'Other' (4 percent).

Seventy-eight percent (42) of the cases are among males, 22 percent (12) among females. Among the 12 females, one-third were infected heterosexually and 42 percent had no reported mode of transmission. Among the 42 male cases, over two-thirds were attributed to MSM (including MSM/IDU) and 12 percent had no reported mode of transmission. See Figures 47 and 48. The age at HIV diagnosis (including AIDS) is similar to the age distribution for all cases in Michigan, with six percent, ages 0-19, 26 percent (14) ages 20-29, 34 percent (18) ages 30-39, 23 percent (12) ages 40-49, 11 percent (6) ages 50 and older, and one with an unknown age at diagnosis.



2004 Profile of HIV/AIDS in Michigan

Special Population: Incarcerated Population

Data from HIV/AIDS Reporting System (HARS) , Michigan Department of Corrections & Family of Seroprevalence Surveys

Number of Cases:

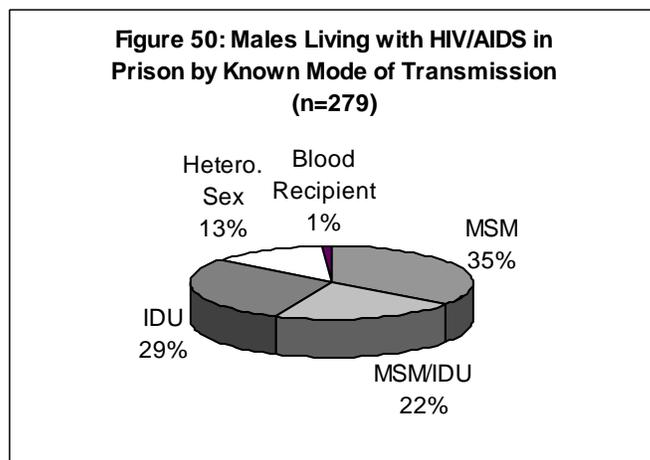
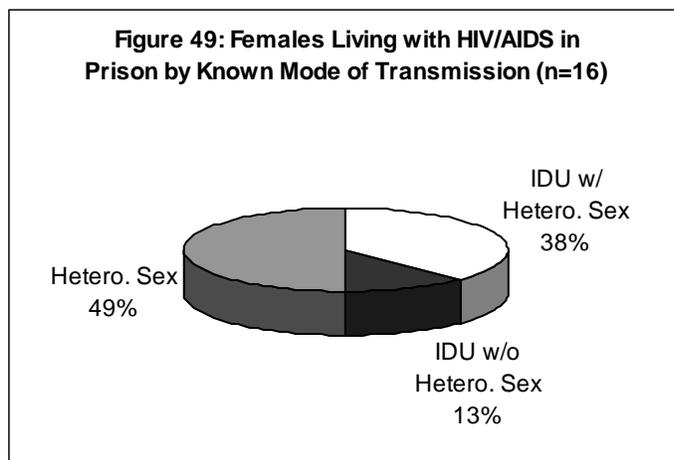
From 1989 to present, a cumulative total of 1,611 prisoners have been confirmed with HIV infection. Many were first diagnosed upon intake to prison, some were diagnosed while in prison, and others diagnosed prior to incarceration. A total of 549 are known to have died inside or outside of prison. The Detroit Metro Area and Out-State Michigan profiles include ex-prisoners, but not persons still in prison. This section on the Michigan Department of Corrections describes the 374 inmates known to be incarcerated at state facilities, as of January 2004.

Race/Ethnicity and Sex:

Ninety-five percent of HIV-infected prisoners are male and five percent are female. Most (76 percent) are black, 17 percent are white, and five percent are Hispanic. Please see Table 13, page 2-54 for more information.

Among the 17 females currently in prison living with HIV, less than three-quarters are black and less than 24 percent are white. Figure 49 shows that of those with known risk behavior histories, half give a history of injecting drug use and the other half report a history of high-risk heterosexual behavior (i.e., partner was HIV-infected or who was an injecting drug use).

Among the 357 males currently in prison living with HIV, 77 percent are black. Among the 207 black males with known risk, 34 percent are men who have sex with men, 32 percent have injected drugs, and 20 percent have had both behaviors. Another 14 percent indicate they had a heterosexual sex partner who was HIV-infected or who was an injecting drug user. Among the 53 white males with a known risk, a higher proportion is attributed to men having sex with men (51 percent), 15 percent have injected drugs, and 25 percent have had both behaviors. See Table 14, page 2-55.



Prison Populations:

As of January 1, 2004, there are 48,968 prisoners in MDOC correction facilities, 1,040 of these prisoners are less than 20 years old. Since 1989, all prisoners have been tested for HIV infection and other infectious diseases upon intake to state correctional facilities. This testing shows that among both men and women, approximately three percent of all prisoners are HIV-infected. Among young men under age 20, the proportion is lower (1.5 percent). See Table 14, page 2-55. The three percent of overall HIV infection in the prison population is an increase from the one percent reported in 2002. These data are often collected at the time of incarceration, although there are occasional updates.

2004 Profile of HIV/AIDS in Michigan

Special Population: Incarcerated Population (Continued)

Data from HIV/AIDS Reporting System (HARS) , Michigan Department of Corrections & Family of HIV Seroprevalence Surveys

Wayne County Jail HIV Anonymous Unlinked Serosurvey, 1999

Prevalence:

From March-August 1999, an anonymous, unlinked HIV seroprevalence study was conducted among 5,556 persons who were incoming prisoners to the Wayne County Jail. From these participants, 4,909 HIV test results were available and revealed an overall seroprevalence of 1.7 percent (85 persons). Most of the incoming prisoners were residents of Wayne County (94.1 percent), and most were male (87.8 percent), black (75.5 percent) and had previously been incarcerated (86 percent). MSM had the highest HIV seroprevalence (13 percent), followed by persons exchanging money or drugs for sex (5 percent) and then IDU (4 percent). This population of incoming prisoners had an HIV seroprevalence rate (1.7 percent) comparable to the rate of those who utilize voluntary HIV counseling and testing services in Wayne county (1.2 percent) and higher than the general Michigan population (0.14 percent).

Incidence:

Specimens from the study mentioned above that had adequate samples were tested using the STARHS algorithm for determining recent infections. Of the 85 prisoners that tested positive for HIV, about half had adequate specimens (44), and of these, 5 (11 percent) were determined to be recently acquired infections. After adjustments, overall HIV incidence was 0.4 percent. Incidence was highest among IDU (2.4 percent), followed by persons who exchanged money or drugs for sex (1.8 percent), and persons using non-injecting drugs (0.5 percent). More than a quarter (28 percent) of HIV-infected IDU had recently acquired infections, as did 17 percent of persons exchanging money or drugs for sex and 15 percent of HIV infection non-injecting drug users.

2004 Profile of HIV/AIDS in Michigan

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Table 5: Statewide Distribution of HIV/AIDS: Prevalence Estimates, Reported Cases, and Population currently living within Michigan

Prisoners and persons with unknown residence are included

January 1, 2004

Statewide Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	2000 Census	
		Reported Cases	%			%
Male	12,770	8,918	77%	262.1	4,873,095	49%
<i>White, Non-Hispanic Males</i>	5,300	3,703	32%	138.2	3,836,091	39%
<i>Black, Non-Hispanic Males</i>	6,710	4,686	41%	1011.4	663,406	7%
<i>Hispanic Males</i>	510	356	3%	299.0	170,555	2%
<i>Asian, Hawaiian, Pacific Islander Males</i>	50	34	0%	56.6	88,314	1%
<i>American Indian Males</i>	30	23	0%	113.0	26,537	0%
<i>Other/Multi Race Males</i>	N/A	116	1%	*	88,192	N/A
Female	3,730	2,609	23%	73.6	5,065,349	51%
<i>White, Non-Hispanic Females</i>	810	568	5%	20.4	3,970,600	40%
<i>Black, Non-Hispanic Females</i>	2,680	1,873	16%	362.8	738,641	7%
<i>Hispanic Females</i>	160	109	1%	104.4	153,322	2%
<i>Asian, Hawaiian, Pacific Islander Females</i>	20	11	0%	22.4	89,142	1%
<i>American Indian Females</i>	20	13	0%	74.4	26,884	0%
<i>Other/Multi Race Females</i>	N/A	35	0%	*	86,760	N/A
White, Non-Hispanic	6,110	4,271	37%	78.3	7,806,691	79%
Black, Non-Hispanic	9,390	6,559	57%	669.7	1,402,047	14%
Hispanic	670	465	4%	206.9	323,877	3%
Asian, Hawaiian, Pacific Islander	60	45	0%	33.8	177,456	2%
American Indian	50	36	0%	93.6	53,421	1%
Other/Multi Race	N/A	151	1%	*	174,952	N/A
Male-Male Sex[#]	7,640	5,336	56%[^]	N/A		
Injecting Drug Use[#]	2,510	1,750	18%[^]	N/A		
<i>IDU w/ heterosexual</i>	1,190	828	9% [^]	N/A		
<i>IDU w/o heterosexual</i>	1,320	922	10% [^]	N/A		
Male-Male Sex/IDU[#]	880	615	6%[^]	N/A		
Blood Recipients[#]	180	125	1%[^]	N/A		
Perinatal	210	146	2%[^]	N/A		
Heterosexual[#]	2,270	1,585	17%[^]	N/A		
<i>Partner IDU</i>	700	489	5% [^]	N/A		
<i>Partner Bisexual</i>	110	74	1% [^]	N/A		
<i>Partner Rec'd Bld</i>	50	36	0% [^]	N/A		
<i>Partner HIV +</i>	1,410	986	10% [^]	N/A		
Known Risk Total	13,680	9,557	100%[^]	N/A		
Unknown Risk[#]	N/A	1,970	17%	N/A		
<i>Presumed Heterosexual</i>	N/A	1,433	12%	N/A		
<i>Other</i>	N/A	537	5%	N/A		
0 - 4 years^x	170	120	1%	25.3	672,005	7%
5 - 9 years^x	50	37	0%	6.7	745,181	7%
10-12 years^x	20	14	0%	4.4	454,587	5%
13-19 years^x	480	334	3%	47.4	1,012,292	10%
20-24 years^x	1,820	1,271	11%	282.7	643,839	6%
25-29 years^x	2,930	2,044	18%	447.6	654,629	7%
30-34 years^x	3,380	2,360	20%	477.7	707,542	7%
35-39 years^x	3,140	2,193	19%	398.8	787,367	8%
40-44 years^x	2,130	1,488	13%	262.6	811,006	8%
45-49 years^x	1,220	851	7%	166.0	734,905	7%
50-54 years^x	690	482	4%	109.0	633,034	6%
55-59 years^x	270	192	2%	55.6	485,895	5%
60-64 years^x	130	88	1%	34.5	377,144	4%
65 and older^x	70	50	0%	5.7	1,219,018	12%
Unknown Age	N/A	3	0%	N/A	0	N/A
Detroit Metropolitan Area	10,500	7,337	64%	236.4	4,441,551	45%
Out-State	5,160	3,606	31%	93.9	5,496,893	55%
Total both areas	15,660	10,943	95%	N/A		
<i>In Prison</i>	540	374	3%	N/A		
Total Known Residence	16,200	11,317	98%	163.0	9,938,444	100%
Unknown Residence	N/A	210	2%	N/A		
Statewide Total	16,200	11,527	100%	163.0	9,938,444	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

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

[#] Indicates an explanatory definition exists in Appendix B

^x Indicates age is at time of HIV diagnosis

¹ The minimum estimate is 10 cases.

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/04

³ Rate calculated (*Estimated HIV Infection/2000 Census*) * 100,000

Table 5a: Statewide Distribution of HIV/AIDS Prevalence Estimates by County⁴
Reported Cases, and Population Currently Living within Michigan

Prisoners and persons with unknown residence are included

Statewide Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	2000 Census	% ⁴	Statewide Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	2000 Census	% ⁴
		Reported Cases	% ⁴						Reported Cases	% ⁴			
ALCONA CO.	10	0	*	*	11,719	0%	LENAWEE CO.	70	44	0%	70.8	98,890	1%
ALGER	10	1	*	*	9,862	0%	LIVINGSTON CO.	50	31	0%	31.9	156,951	2%
ALLEGAN CO.	110	75	1%	104.1	105,665	1%	LUCE CO	10	0	*	*	7,024	0%
ALPENA CO.	10	5	0%	31.9	31,314	0%	MACKINAC CO.	10	1	*	*	11,943	0%
ANTRIM CO.	10	8	0%	43.3	23,110	0%	MACOMB CO.	580	392	4%	73.6	788,149	8%
ARENAC CO.	10	2	*	*	17,269	0%	MANISTEE CO.	20	12	0%	81.5	24,527	0%
BARAGA CO.	10	6	0%	114.3	8,746	0%	MARQUETTE CO.	40	26	0%	61.9	64,634	1%
BARRY CO.	30	17	0%	52.9	56,755	1%	MASON CO.	20	12	0%	70.7	28,274	0%
BAY CO.	70	49	0%	63.5	110,157	1%	MECOSTA CO.	20	12	0%	49.3	40,553	0%
BENZIE CO.	10	2	*	*	15,998	0%	MENOMINEE CO.	10	3	*	*	25,326	0%
BERRIEN CO.	270	185	2%	166.2	162,453	2%	MIDLAND CO.	30	22	0%	36.2	82,874	1%
BRANCH CO.	20	11	0%	43.7	45,787	0%	MISSAUKEE CO.	10	4	*	*	14,478	0%
CALHOUN CO.	160	111	1%	116.0	137,985	1%	MONROE CO.	60	43	0%	41.1	145,945	1%
CASS CO.	40	25	0%	78.3	51,104	1%	MONTCALM CO.	40	25	0%	65.3	61,266	1%
CHARLEVOIX CO.	10	9	0%	38.3	26,090	0%	MONTMORENCY CO.	10	1	*	*	10,315	0%
CHEBOYGAN CO.	10	5	0%	37.8	26,448	0%	MUSKEGON CO.	160	108	1%	94.0	170,200	2%
CHIPPEWA CO.	20	14	0%	51.9	38,543	0%	NEWAYGO CO.	20	15	0%	41.8	47,874	0%
CLARE CO.	20	12	0%	64.0	31,252	0%	OAKLAND CO.	1,680	1,134	10%	140.7	1,194,156	12%
CLINTON CO.	60	38	0%	92.7	64,753	1%	OCEANA CO.	10	7	0%	37.2	26,873	0%
CRAWFORD CO.	10	7	0%	70.1	14,273	0%	OGEMAW CO.	10	2	*	*	21,645	0%
DELTA CO.	20	16	0%	51.9	38,520	0%	ONTONAGON CO.	10	1	*	*	7,818	0%
DICKINSON CO.	10	6	0%	36.4	27,472	0%	OSCEOLA CO.	10	6	0%	43.1	23,197	0%
EATON CO.	50	31	0%	48.2	103,655	1%	OSCODA CO.	10	4	*	*	9,418	0%
EMMET CO.	10	9	0%	31.8	31,437	0%	OTSEGO CO.	10	7	0%	42.9	23,301	0%
GENESEE CO.	660	445	4%	151.3	436,141	4%	OTTAWA CO.	110	76	1%	46.2	238,314	2%
GLADWIN CO.	10	5	0%	38.4	26,023	0%	PRESQUE ISLE CO.	10	1	*	*	14,411	0%
GOGEBIC CO.	10	3	*	*	17,370	0%	ROSCOMMON CO.	20	12	0%	78.5	25,469	0%
GRAND TRAVERSE CO.	60	39	0%	77.3	77,654	1%	SAGINAW CO.	210	145	1%	100.0	210,039	2%
GRATIOT CO.	10	4	*	*	42,285	0%	SANILAC CO.	20	12	0%	44.9	44,547	0%
HILLSDALE CO.	10	8	0%	21.5	46,527	0%	SCHOOLCRAFT CO.	10	1	*	*	8,903	0%
HOUGHTON CO.	10	8	0%	27.8	36,016	0%	SHIAWASSEE CO.	30	21	0%	41.8	71,687	1%
HURON CO.	10	3	*	*	36,079	0%	ST CLAIR CO.	100	70	1%	60.9	164,235	2%
INGHAM CO.	460	314	3%	164.7	279,320	3%	ST JOSEPH CO.	30	22	0%	48.1	62,422	1%
IONIA CO.	30	18	0%	48.8	61,518	1%	TUSCOLA CO.	10	9	0%	17.2	58,266	1%
IOSCO CO.	10	5	0%	36.6	27,339	0%	VAN BUREN CO.	90	58	1%	118.0	76,263	1%
IRON CO.	10	1	*	*	13,138	0%	WASHTENAW CO.	530	355	3%	164.1	322,895	3%
ISABELLA CO.	20	15	0%	31.6	63,351	1%	WAYNE CO.	1,550	1,047	10%	139.7	1,109,892	11%
JACKSON CO.	180	123	1%	113.6	158,422	2%	DETROIT	6,850	4,629	42%	720.1	951,270	10%
KALAMAZOO CO.	330	226	2%	138.3	238,603	2%	WEXFORD CO.	20	14	0%	65.6	30,484	0%
KALKASKA CO.	10	4	*	*	16,571	0%							
KENT CO.	970	654	6%	168.9	574,335	6%							
KEWEENAW	10	0	*	*	2,301	0%	Total Known Res. (w/o Prison)	16,200	10,943	97%	163.0	9,938,444	100%
LAKE CO.	10	10	0%	88.2	11,333	0%	<i>In Prison</i>	540	374	4%	N/A	N/A	0%
LAPEER CO.	30	22	0%	34.1	87,904	1%	Total Known Residence	16,200	11,317	94%	N/A	N/A	0%
LEELANAU CO.	10	8	0%	47.4	21,119	0%	Unknown Residence	N/A	210	2%	N/A	N/A	0%
							Statewide Total	16,200	11,527	100%	163.0	9,938,444	100%

* Indicates there are fewer than five reported cases

⁴Indicates that '0%' is equivalent to '<1%'

¹ The minimum estimate is 10 cases.

² 'Total HIV+AIDS' refers to the number of reported cases alive as of 1/1/04

³ Rate calculated: (Estimated HIV Infection / 2000 Census) * 100,000

⁴ Totals for counties/areas includes infected prisoners who were discharged/paroled if no current residence is available.

**Table 6: Living HIV/AIDS Cases Currently Living in Michigan
Sex and Race by Risk
January 1, 2004**

Male Only MI	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Male-Male Sex[#]	2,783	82%	2,319	60%	169	57%	65	69%	5,336	70%
Injecting Drug Use[#]	181	5%	783	20%	64	22%	10	11%	1,038	14%
<i>IDU w/ heterosexual</i>	67	2%	330	9%	30	10%	1	1%	428	6%
<i>IDU w/o heterosexual</i>	114	3%	453	12%	34	11%	9	10%	610	8%
Male-Male Sex/IDU[#]	248	7%	336	9%	23	8%	8	9%	615	8%
Blood Recipients[#]	78	2%	22	1%	2	1%	2	2%	104	1%
Perinatal	16	0%	55	1%	2	1%	2	2%	75	1%
Heterosexual [#]	93	3%	332	9%	36	12%	7	7%	468	6%
<i>Partner IDU</i>	29	1%	108	3%	10	3%	2	2%	149	2%
<i>Partner Blood Recipient</i>	4	0%	6	0%	1	0%	0	0%	11	0%
<i>Partner HIV+</i>	60	2%	218	6%	25	8%	5	5%	308	4%
Total Known Risks	3,399	92%	3,847	82%	296	83%	94	54%	7,636	86%
Unknown Risk[#]	304	8%	839	18%	60	17%	79	46%	1,282	14%
<i>Presumed Heterosexual</i>	188	5%	606	13%	50	14%	24	14%	868	10%
<i>Other</i>	116	3%	233	5%	10	3%	55	32%	414	5%
Total All Cases	3,703	42%	4,686	53%	356	4%	173	2%	8,918	100%

Female Only MI	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Injecting Drug Use[#]	136	30%	550	41%	21	24%	5	18%	712	37%
<i>IDU w/ heterosexual</i>	73	16%	310	23%	14	16%	3	11%	400	21%
<i>IDU w/o heterosexual</i>	63	14%	240	18%	7	8%	2	7%	312	16%
Blood Recipients[#]	12	3%	9	1%	0	0%	0	0%	21	1%
Perinatal	13	3%	49	4%	7	8%	2	7%	71	4%
Heterosexual [#]	291	64%	745	55%	60	68%	21	75%	1,117	58%
<i>Partner IDU</i>	90	20%	224	17%	18	20%	8	29%	340	18%
<i>Partner Bisexual</i>	33	7%	36	3%	4	5%	1	4%	74	4%
<i>Partner Blood Recipient</i>	15	3%	9	1%	1	1%	0	0%	25	1%
<i>Partner HIV+</i>	153	34%	476	35%	37	42%	12	43%	678	35%
Total Known Risks	452	80%	1,353	72%	88	81%	28	47%	1,921	74%
Unknown Risk[#]	116	20%	520	28%	21	19%	31	53%	688	26%
<i>Presumed Heterosexual</i>	100	18%	432	23%	19	17%	14	24%	565	22%
<i>Other</i>	16	3%	88	5%	2	2%	17	29%	123	5%
Total All Cases	568	22%	1,873	72%	109	4%	59	2%	2,609	100%

Male and Female MI	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Male-Male Sex[#]	2,783	72%	2,319	45%	169	44%	65	53%	5,336	56%
Injecting Drug Use[#]	317	8%	1,333	26%	85	22%	15	12%	1,750	18%
<i>IDU w/ heterosexual</i>	140	4%	640	12%	44	11%	4	3%	828	9%
<i>IDU w/o heterosexual</i>	177	5%	693	13%	41	11%	11	9%	922	10%
Male-Male Sex/IDU[#]	248	6%	336	6%	23	6%	8	7%	615	6%
Blood Recipients[#]	90	2%	31	1%	2	1%	2	2%	125	1%
Perinatal	29	1%	104	2%	9	2%	4	3%	146	2%
Heterosexual [#]	384	10%	1,077	21%	96	25%	28	23%	1,585	17%
<i>Partner IDU</i>	119	3%	332	6%	28	7%	10	8%	489	5%
<i>Partner Bisexual</i>	33	1%	36	1%	4	1%	1	1%	74	1%
<i>Partner Blood Recipient</i>	19	0%	15	0%	2	1%	0	0%	36	0%
<i>Partner HIV+</i>	213	6%	694	13%	62	16%	17	14%	986	10%
Total Known Risks	3,851	90%	5,200	79%	384	83%	122	53%	9,557	83%
Unknown Risk[#]	420	10%	1,359	21%	81	17%	110	47%	1,970	17%
<i>Presumed Heterosexual</i>	288	7%	1,038	16%	69	15%	38	16%	1,433	12%
<i>Other</i>	132	3%	321	5%	12	3%	72	31%	537	5%
Total All Cases	4,271	37%	6,559	57%	465	4%	232	2%	11,527	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

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

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

[#] Indicates an explanatory definition exists in Appendix B

**Table 7: Living HIV/AIDS Cases Currently Living in Michigan
Age[^] at Diagnosis by Risk
January 1, 2004**

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 [#]	0	0%	119	70%	676	83%	1,109	79%	2,233	72%	911	59%	239	58%	49	69%	5,336	70%
Injecting Drug Use [#]	0	0%	5	3%	25	3%	91	6%	406	13%	401	26%	104	25%	5	7%	1,037	14%
IDU w/ heterosexual	0	0%	2	1%	7	1%	44	3%	196	6%	151	7%	27	7%	1	1%	428	6%
IDU w/o heterosexual	0	0%	3	2%	18	2%	47	3%	210	7%	250	16%	77	19%	4	6%	609	8%
Male-Male Sex/IDU [#]	0	0%	11	7%	59	7%	103	7%	278	9%	135	9%	27	7%	2	3%	615	8%
Blood Recipients [#]	15	17%	26	15%	19	2%	15	1%	21	1%	5	0%	2	0%	1	1%	104	1%
Perinatal	75	83%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	75	1%
Heterosexual [#]	0	0%	8	5%	39	5%	94	7%	178	6%	95	6%	40	10%	14	20%	468	6%
Partner IDU	0	0%	1	1%	6	1%	35	2%	47	2%	38	2%	15	4%	7	10%	149	2%
Partner Blood Recipient	0	0%	0	0%	1	0%	3	0%	3	0%	2	0%	1	0%	1	1%	11	0%
Partner HIV+	0	0%	7	4%	32	4%	56	4%	128	4%	55	4%	24	6%	6	8%	308	4%
Total Known Risks	90	95%	169	83%	818	88%	1,412	89%	3,116	85%	1,547	84%	412	80%	71	70%	7,635	86%
Unknown Risk [#]	5	5%	34	17%	115	12%	179	11%	529	15%	286	16%	103	20%	30	30%	1,281	14%
Presumed Heterosexual	0	0%	21	10%	87	9%	122	8%	376	10%	171	9%	71	14%	20	20%	868	10%
Other	5	5%	13	6%	28	3%	57	4%	153	4%	115	6%	32	6%	10	10%	413	5%
Total All Cases	95	1%	203	2%	933	10%	1,591	18%	3,645	41%	1,833	21%	515	6%	101	1%	8,916	100%

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 [#]	0	0%	13	14%	49	21%	98	31%	310	46%	199	50%	39	34%	4	20%	712	37%
IDU w/ heterosexual	0	0%	7	8%	26	11%	53	17%	183	27%	111	28%	18	16%	2	10%	400	21%
IDU w/o heterosexual	0	0%	6	6%	23	10%	45	14%	127	19%	88	22%	21	18%	2	10%	312	16%
Blood Recipients [#]	0	0%	2	2%	1	0%	3	1%	6	1%	3	1%	3	3%	3	15%	21	1%
Perinatal	71	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	71	4%
Heterosexual [#]	0	0%	78	84%	180	78%	217	68%	359	53%	198	50%	72	63%	13	65%	1,117	58%
Partner IDU	0	0%	15	16%	39	17%	55	17%	117	17%	84	21%	25	22%	5	25%	340	18%
Partner Bisexual	0	0%	8	9%	10	4%	15	5%	28	4%	9	2%	4	4%	0	0%	74	4%
Partner Blood Recipient	0	0%	0	0%	6	3%	8	3%	9	1%	1	0%	0	0%	1	5%	25	1%
Partner HIV+	0	0%	55	59%	125	54%	139	44%	205	30%	104	26%	43	38%	7	35%	678	35%
Total Known Risks	71	93%	93	71%	230	68%	318	70%	675	74%	400	79%	114	72%	20	54%	1,921	74%
Unknown Risk [#]	5	7%	38	29%	108	32%	135	30%	233	26%	106	21%	45	28%	17	46%	687	26%
Presumed Heterosexual	1	1%	35	27%	97	29%	107	24%	198	22%	80	16%	34	21%	13	35%	565	22%
Other	4	5%	3	2%	11	3%	28	6%	35	4%	26	5%	11	7%	4	11%	122	5%
Total All Cases	76	3%	131	5%	338	13%	453	17%	908	35%	506	19%	159	6%	37	1%	2,608	100%

Male and 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 [^] years [^]	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex [#]	0	0%	119	45%	676	65%	1,109	64%	2,233	59%	911	47%	239	45%	49	54%	5,336	56%
Injecting Drug Use [#]	0	0%	18	7%	74	7%	189	11%	716	19%	600	31%	143	27%	9	10%	1,749	18%
IDU w/ heterosexual	0	0%	9	3%	33	3%	97	6%	379	10%	262	13%	45	9%	3	3%	828	9%
IDU w/o heterosexual	0	0%	9	3%	41	4%	92	5%	337	9%	338	17%	98	19%	6	7%	921	10%
Male-Male Sex/IDU [#]	0	0%	11	4%	59	6%	103	6%	278	7%	135	7%	27	5%	2	2%	615	6%
Blood Recipients [#]	15	9%	28	11%	20	2%	18	1%	27	1%	8	0%	5	1%	4	4%	125	1%
Perinatal	146	91%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	146	2%
Heterosexual [#]	0	0%	86	33%	219	21%	311	18%	537	14%	293	15%	112	21%	27	30%	1,585	17%
Partner IDU	0	0%	16	6%	45	4%	90	5%	164	4%	122	6%	40	8%	12	13%	489	5%
Partner Bisexual	0	0%	8	3%	10	1%	15	1%	28	1%	9	0%	4	1%	0	0%	74	1%
Partner Blood Recipient	0	0%	0	0%	7	1%	11	1%	12	0%	3	0%	1	0%	2	2%	36	0%
Partner HIV+	0	0%	62	24%	157	15%	195	11%	333	9%	159	8%	67	13%	13	14%	986	10%
Total Known Risks	161	94%	262	78%	1,048	82%	1,730	85%	3,791	83%	1,947	83%	526	78%	91	66%	9,556	83%
Unknown Risk [#]	10	6%	72	22%	223	18%	314	15%	762	17%	392	17%	148	22%	47	34%	1,968	17%
Presumed Heterosexual	1	1%	56	17%	184	14%	229	11%	574	13%	251	11%	105	16%	33	24%	1,433	12%
Other	9	5%	16	5%	39	3%	85	4%	188	4%	141	6%	43	6%	14	10%	535	5%
Total All Cases	171	1%	334	3%	1,271	11%	2,044	18%	4,553	40%	2,339	20%	674	6%	138	1%	11,524	100%

[^] Indicates there are fewer than five (n=1,2,3, or 4) reported cases

[#] Indicates percentage calculated from cases with *known risk for categorical break down*.

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

[#] Indicates an explanatory definition exists in Appendix B

^{*} Indicates age is at time of HIV diagnosis (Unknown age: Males=2, Females=1)

**Table 8: Living HIV/AIDS Cases Currently Living in Kent County, Michigan
Sex and Race by Risk
January 1, 2004**

Male Only MI	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Male-Male Sex [#]	233	85%	62	50%	26	54%	*	*	324	72%
Injecting Drug Use [#]	13	5%	27	22%	9	19%	0	0%	49	11%
Male-Male Sex/IDU [#]	16	6%	11	9%	5	10%	*	*	33	7%
Blood Recipients [#]	*	*	0	0%	0	0%	0	0%	*	*
Perinatal	*	*	*	*	0	0%	0	0%	*	*
Heterosexual [#]	9	3%	21	17%	8	17%	0	0%	38	8%
Total Known Risks	275	94%	123	82%	48	81%	*	*	450	89%
Unknown Risk [#]	18	6%	27	18%	11	19%	*	*	58	11%
Total All Cases	293	58%	150	30%	59	12%	6	1%	508	100%

Female Only MI	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Injecting Drug Use [#]	8	26%	12	25%	5	25%	0	0%	25	24%
Blood Recipients [#]	0	0%	0	0%	0	0%	0	0%	0	0%
Perinatal	0	0%	*	*	*	*	0	0%	*	*
Heterosexual [#]	23	74%	35	73%	14	70%	*	0%	76	74%
Total Known Risks	31	79%	48	59%	20	91%	*	*	103	71%
Unknown Risk [#]	8	21%	33	41%	*	*	0	0%	43	29%
Total All Cases	39	27%	81	55%	22	15%	*	*	146	100%

Male and Female MI	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Male-Male Sex [#]	233	76%	62	36%	26	38%	*	*	324	59%
Injecting Drug Use [#]	21	7%	39	23%	14	21%	0	0%	74	13%
Male-Male Sex/IDU [#]	16	5%	11	6%	5	7%	*	*	33	6%
Blood Recipients [#]	*	*	0	0%	0	0%	0	0%	*	*
Perinatal	*	*	*	*	*	*	0	0%	6	1%
Heterosexual [#]	32	10%	56	33%	22	32%	*	*	114	21%
Total Known Risks	306	92%	171	74%	68	84%	8	80%	553	85%
Unknown Risk [#]	26	8%	60	26%	13	16%	*	*	101	15%
Total All Cases	332	51%	231	35%	81	12%	10	2%	654	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

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

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

[#] Indicates an explanatory definition exists in Appendix B

**Table 9: Living HIV/AIDS Cases Currently Living in Berrien County, Michigan
Sex and Race by Risk
January 1, 2004**

Male Only MI	White		Black		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	29	76%	13	34%	*	*	46	55%
Injecting Drug Use [#]	*	*	11	29%	*	*	16	19%
Male-Male Sex/IDU [#]	5	13%	*	*	*	*	7	8%
Blood Recipients [#]	0	0%	*	*	0	0%	*	*
Perinatal	0	0%	*	*	0	0%	*	*
Heterosexual [#]	*	*	11	29%	0	0%	12	14%
Total Known Risks	38	88%	38	58%	7	58%	83	69%
Unknown Risk[#]	5	12%	27	42%	5	42%	37	31%
Total All Cases	43	36%	65	54%	12	10%	120	100%

Female Only MI	White		Black		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use [#]	*	*	5	19%	*	*	8	21%
Blood Recipients [#]	0	0%	0	0%	0	0%	0	0%
Perinatal	0	0%	*	*	0	0%	*	*
Heterosexual [#]	7	78%	20	74%	*	*	28	74%
Total Known Risks	9	75%	27	53%	*	*	38	58%
Unknown Risk[#]	*	*	24	47%	0	0%	27	42%
Total All Cases	12	18%	51	78%	*	*	65	100%

Male and Female MI	White		Black		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	29	62%	13	20%	*	*	46	38%
Injecting Drug Use [#]	5	11%	16	25%	*	*	24	20%
Male-Male Sex/IDU [#]	5	11%	*	*	*	*	7	6%
Blood Recipients [#]	0	0%	*	*	0	0%	*	*
Perinatal	0	0%	*	*	0	0%	*	*
Heterosexual [#]	8	17%	31	48%	*	*	40	33%
Total Known Risks	47	85%	65	56%	9	64%	121	65%
Unknown Risk[#]	8	15%	51	44%	5	36%	64	35%
Total All Cases	55	30%	116	63%	14	8%	185	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

^ Indicates percentage calculated from cases with *known risk*

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

Indicates an explanatory definition exists in Appendix B

**Table10: Gonorrhea, Syphilis, and Chlamydia by Sex
Race, and Age Group in Michigan
January 1, 2003 to December 31, 2003**

Patient Group	2000 Population	Gonorrhea			P&S Syphilis*			Chlamydia		
		Cases	Pct	Rate^	Cases	Pct	Rate^	Cases	Pct	Rate^
Male	4,873,095	6,142	44%	126	154	62%	3	6,657	20%	137
<i>White Males</i>	3,836,091	356	3%	9	30	12%	1	1,220	4%	32
<i>Black Males</i>	663,406	3,802	27%	573	121	49%	18	2,728	8%	411
<i>Hispanic Males</i>	170,555	59	0%	35	3	1%	2	146	0%	86
<i>Other Males</i>	203,043	100	1%	N/A	0	0%	N/A	172	1%	N/A
<i>Unk Males</i>	N/A	1,825	13%	N/A	0	0%	N/A	2,391	7%	N/A
Female	5,065,349	7,823	56%	154	95	38%	2	25,891	80%	511
<i>White Females</i>	3,970,600	810	6%	20	12	5%	0	4,694	14%	118
<i>Black Females</i>	738,641	2,840	20%	384	81	33%	11	7,255	22%	982
<i>Hispanic Females</i>	153,322	70	1%	46	1	0%	1	284	1%	185
<i>Other Females</i>	202,786	351	3%	N/A	1	0%	N/A	691	2%	N/A
<i>Unk Females</i>	N/A	3,752	27%	N/A	0	0%	N/A	12,967	40%	N/A
White	7,806,691	1,166	8%	15	42	17%	1	5,914	18%	76
Black	1,402,047	6,642	48%	474	202	81%	14	9,983	31%	712
Hispanic	323,877	129	1%	40	4	2%	1	430	1%	133
Other	405,829	451	3%	111	1	0%	0	863	3%	213
Unknown Race	N/A	5,577	40%	N/A	0	0%	N/A	15,358	47%	N/A
0-4 years	672,005	10	0%	1	0	0%	0	8	0%	1
5-9 years	745,181	11	0%	1	0	0%	0	11	0%	1
10-14 years	747,012	172	1%	23	0	0%	0	397	1%	53
15-19 years	719,867	3,718	27%	516	12	5%	2	11,251	35%	1563
20-24 years	643,839	4,431	32%	688	26	10%	4	11,996	37%	1863
25-29 years	654,629	2,371	17%	362	44	18%	7	4,803	15%	734
30-34 years	707,542	1,344	10%	190	34	14%	5	2,069	6%	292
35-39 years	787,367	788	6%	100	37	15%	5	874	3%	111
40-44 years	811,006	445	3%	55	26	10%	3	402	1%	50
45-54 years	1,367,939	391	3%	29	55	22%	4	315	1%	23
55-64 years	863,039	74	1%	9	13	5%	2	82	0%	10
65 and over	1,219,018	19	0%	2	2	1%	0	22	0%	2
Unknown Age	N/A	191	1%	N/A	0	0%	N/A	318	1%	N/A
Total	9,938,444	13,965	100%	141	249	100%	3	32,548	100%	327

* P&S: Primary and Secondary Syphilis

^ Rate per 100,000

Table 11: Gonorrhea, Syphilis, and Chlamydia by Area
and Local Health Department Jurisdiction
January 1, 2003 to December 31, 2003

Patient Group	2000 Population	Gonorrhea		P&S Syphilis*		Chlamydia	
		Cases	Rate^	Cases	Rate^	Cases	Rate^
Detroit EMA	4,441,551	7,225	163	222	5.0	16,096	362
Out-State	5,496,893	6,740	123	27	0.5	16,452	299
Allegan	105,665	24	23	0	0.0	102	97
Bay	110,157	28	25	0	0.0	253	230
Berrien	162,453	417	257	2	1.2	964	593
Barry/Eaton	160,410	13	8	0	0.0	112	70
Benzie/Leelanau	37,117	2	5	0	0.0	50	135
Br/Hills/St Joseph	154,736	39	25	0	0.0	170	110
Calhoun	137,985	408	296	0	0.0	782	567
Cass	51,104	31	61	0	0.0	107	209
Chippewa	38,543	2	5	0	0.0	53	138
Central MI Dist	186,561	33	18	0	0.0	339	182
Detroit	951,270	5,556	584	185	19.4	10,389	1092
Delta/Menominee	63,846	2	3	0	0.0	73	114
Dickinson/Iron	40,610	5	12	0	0.0	52	128
District #2	70,121	0	0	0	0.0	34	48
District #3	103,938	8	8	0	0.0	116	112
District #4	82,488	6	7	0	0.0	18	22
District #10	255,240	37	14	0	0.0	343	134
Genesee	436,141	1,838	421	0	0.0	2,570	589
Grand Traverse	77,654	1	1	0	0.0	139	179
Greater Thumb#	138,892	16	12	1	0.7	129	93
Ingham	279,320	515	184	1	0.4	1,364	488
Ionia	61,518	10	16	0	0.0	71	115
Jackson	158,422	291	184	4	2.5	570	360
Kalamazoo	238,603	575	241	3	1.3	1,346	564
Kent	574,335	957	167	6	1.0	2,943	512
Lapeer	87,904	17	19	0	0.0	76	86
Lenawee	98,890	37	37	0	0.0	161	163
Livingston	156,951	21	13	0	0.0	149	95
LMAS District	37,732	4	11	0	0.0	22	58
Macomb	788,149	196	25	3	0.4	834	106
Marquette	64,634	4	6	0	0.0	66	102
Midland	82,874	10	12	0	0.0	121	146
Monroe	145,945	73	50	4	2.7	198	136
Muskegon	170,200	391	230	4	2.4	871	512
Mid-MI District	168,304	31	18	0	0.0	193	115
Oakland	1,194,156	888	74	10	0.8	3,291	276
Ottawa	238,314	60	25	0	0.0	450	189
Saginaw	210,039	703	335	2	1.0	646	308
Shiawassee	71,687	6	8	0	0.0	123	172
St Clair	164,235	46	28	0	0.0	283	172
Van Buren	76,263	35	46	0	0.0	152	199
Washtenaw	322,895	177	55	4	1.2	765	237
Wayne exc Detroit	1,109,892	449	40	20	1.8	1,025	92
WestUpDist	72,251	3	4	0	0.0	33	46
Total	9,938,444	13,965	141	249	2.5	32,548	327

* P&S: Primary and Secondary Syphilis

^ Rate per 100,000

Greater Thumb includes Huron, Tuscola, and Sanilac Counties

Table 12: Characteristics of HIV/Hepatitis Co-Infected Persons in Care,
in Southeast Michigan Adult Spectrum of Disease, 2000-2002

	N	Proportion of Persons in the Sex, Race, Age, or HIV Transmission Risk Group Who Are Co-Infected with HAV, HBV, or HCV		
		HAV*	HBV*	HCV*
Overall	1,902	3%	10%	19%
Sex				
Male	1,103	4%	11%	17%
Female	799	3%	8%	21%
Race				
White	380	5%	8%	13%
Black	1,427	3%	11%	20%
Others	95	1%	2%	19%
Age**				
<20	19	***	***	***
20-29	209	4%	7%	5%
30-39	533	2%	11%	8%
40-49	742	4%	9%	23%
>=50	399	4%	11%	32%
HIV Transmission Risk****				
MSM	723	4%	12%	5%
IDU	552	3%	13%	49%
Blood Recipient	38	***	***	47%
High-Risk Heterosexual	399	2%	5%	5%
Presumed Heterosexual	171	3%	3%	4%
Unknown/Others	19	0%	0%	0%

* HAV = Hepatitis A Virus
 HBV = Hepatitis B Virus
 HCV = Hepatitis C Virus

**Table 13: Living HIV/AIDS Cases in Michigan
Sex and Race by Risk
Michigan Department of Corrections
January 1, 2004**

Male Only Prison	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Male-Male Sex [#]	27	51%	70	34%	0	0%	2	50%	99	35%
Injecting Drug Use [#]	8	15%	66	32%	8	53%	0	0%	82	29%
IDU w/ heterosexual	5	9%	39	19%	5	33%	0	0%	49	18%
IDU w/o heterosexual	3	6%	27	13%	3	20%	0	0%	33	12%
Male-Male Sex/IDU [#]	13	25%	42	20%	3	20%	1	25%	59	21%
Blood Recipients [#]	2	4%	0	0%	0	0%	0	0%	2	1%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual [#]	3	6%	29	14%	4	27%	1	25%	37	13%
Partner IDU	1	2%	17	8%	2	13%	0	0%	20	7%
Partner Blood Recipient	0	0%	0	0%	1	7%	0	0%	1	0%
Partner HIV+	2	4%	12	6%	1	7%	1	25%	16	6%
Total Known Risks	53	87%	207	76%	15	88%	4	80%	279	78%
Unknown Risk [#]	8	13%	67	24%	2	12%	1	20%	78	22%
Presumed Heterosexual	7	11%	57	21%	2	12%	1	20%	67	19%
Other	1	2%	10	4%	0	0%	0	0%	11	3%
Total All Cases	61	17%	274	77%	17	5%	5	1%	357	100%

Female Only Prison	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Injecting Drug Use [#]	2	50%	6	50%	0	N/A	0	N/A	8	50%
IDU w/ hetero risk	1	25%	5	42%	0	N/A	0	N/A	6	38%
IDU w/o hetero risk	1	25%	1	8%	0	N/A	0	N/A	2	13%
Blood Recipients [#]	0	0%	0	0%	0	N/A	0	N/A	0	0%
Perinatal	0	0%	0	0%	0	N/A	0	N/A	0	0%
Heterosexual [#]	2	50%	6	50%	0	N/A	0	N/A	8	50%
Partner IDU	1	25%	5	42%	0	N/A	0	N/A	6	38%
Partner Bisexual	0	0%	0	0%	0	N/A	0	N/A	0	0%
Partner Blood Recipient	0	0%	0	0%	0	N/A	0	N/A	0	0%
Partner HIV+	1	25%	1	8%	0	N/A	0	N/A	2	13%
Total Known Risks	4	100%	12	100%	0	N/A	0	0%	16	94%
Unknown Risk [#]	0	0%	0	0%	0	N/A	1	100%	1	6%
Presumed Heterosexual	0	0%	0	0%	0	N/A	1	100%	1	6%
Other	0	0%	0	0%	0	N/A	0	0%	0	0%
Total All Cases	4	24%	12	71%	0	N/A	1	6%	17	100%

Male and Female Prison	White		Black		Hispanic		Other		All Races	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Male-Male Sex [#]	27	47%	70	32%	0	0%	2	50%	99	34%
Injecting Drug Use [#]	10	18%	72	33%	8	53%	0	0%	90	31%
IDU w/ heterosexual	6	11%	44	20%	5	33%	0	0%	55	19%
IDU w/o heterosexual	4	7%	28	13%	3	20%	0	0%	35	12%
Male-Male Sex/IDU [#]	13	23%	42	19%	3	20%	1	25%	59	20%
Blood Recipients [#]	2	4%	0	0%	0	0%	0	0%	2	1%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual [#]	5	9%	35	16%	4	27%	1	25%	45	15%
Partner IDU	2	4%	22	10%	2	13%	0	0%	26	9%
Partner Bisexual	0	0%	0	0%	0	0%	0	0%	0	0%
Partner Blood Recipient	0	0%	0	0%	1	7%	0	0%	1	0%
Partner HIV+	3	5%	13	6%	1	7%	1	25%	18	6%
Total Known Risks	57	88%	219	77%	15	88%	4	67%	295	79%
Unknown Risk [#]	8	12%	67	23%	2	12%	2	33%	79	21%
Presumed Heterosexual	7	11%	57	20%	2	12%	2	33%	68	18%
Other	1	2%	10	3%	0	0%	0	0%	11	3%
Total All Cases	65	17%	286	76%	17	5%	6	2%	374	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

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

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

[#] Indicates an explanatory definition exists in Appendix B

**Table 14: Living HIV/AIDS Cases in Michigan
Age^x at HIV Diagnosis by Risk
Michigan Department of Corrections
January 1, 2004**

Male Only Prison	13-19 years		20-24 years		25-49 years		50+ years		All Ages [^]	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Male-Male Sex [#]	7	50%	21	53%	70	32%	1	14%	99	35%
Injecting Drug Use [#]	1	7%	4	10%	73	33%	4	57%	82	29%
IDU w/ heterosexual	1	7%	2	5%	45	21%	1	14%	49	18%
IDU w/o heterosexual	0	0%	2	5%	28	13%	3	43%	33	12%
Male-Male Sex/IDU [#]	3	21%	11	28%	43	20%	2	29%	59	21%
Blood Recipients [#]	1	7%	1	3%	0	0%	0	0%	2	1%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual [#]	2	14%	3	8%	32	15%	0	0%	37	13%
Partner IDU	1	7%	0	0%	19	9%	0	0%	20	7%
Partner Blood Recipient	0	0%	0	0%	1	0%	0	0%	1	0%
Partner HIV+	1	7%	3	8%	12	6%	0	0%	16	6%
Total Known Risks	14	88%	40	78%	218	78%	7	70%	279	78%
Unknown Risk [#]	2	13%	11	22%	62	22%	3	30%	78	22%
Presumed Heterosexual	2	13%	9	18%	53	19%	3	30%	67	19%
Other	0	0%	2	4%	9	3%	0	0%	11	3%
Total All Cases	16	4%	51	14%	280	78%	10	3%	357	100%

Female Only Prison	13-19 years		20-24 years		25-49 years		50+ years		All Ages [^]	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Injecting Drug Use [#]	0	0%	1	33%	7	64%	0	N/A	8	50%
IDU w/ hetero risk	0	0%	1	33%	5	45%	0	N/A	6	38%
IDU w/o hetero risk	0	0%	0	0%	2	18%	0	N/A	2	13%
Blood Recipients [#]	0	0%	0	0%	0	0%	0	N/A	0	0%
Perinatal	0	0%	0	0%	0	0%	0	N/A	0	0%
Heterosexual [#]	2	100%	2	67%	4	36%	0	N/A	8	50%
Partner IDU	1	50%	2	67%	3	27%	0	N/A	6	38%
Partner Bisexual	0	0%	0	0%	0	0%	0	N/A	0	0%
Partner Blood Recipient	0	0%	0	0%	0	0%	0	N/A	0	0%
Partner HIV+	1	50%	0	0%	1	9%	0	N/A	2	13%
Total Known Risks	2	100%	3	100%	11	92%	0	N/A	16	94%
Unknown Risk [#]	0	0%	0	0%	1	8%	0	N/A	1	6%
Presumed Heterosexual	0	0%	0	0%	1	8%	0	N/A	1	6%
Other	0	0%	0	0%	0	0%	0	N/A	0	0%
Total All Cases	2	12%	3	18%	12	71%	0	N/A	17	100%

Male and Female Prison	13-19 years		20-24 years		25-49 years		50+ years		All Ages [^]	
	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]	Cases	% [^]
Male-Male Sex [#]	7	44%	21	49%	70	31%	1	14%	99	34%
Injecting Drug Use [#]	1	6%	5	12%	80	35%	4	57%	90	31%
IDU w/ heterosexual	1	6%	3	7%	50	22%	1	14%	55	19%
IDU w/o heterosexual	0	0%	2	5%	30	13%	3	43%	35	12%
Male-Male Sex/IDU [#]	3	19%	11	26%	43	19%	2	29%	59	20%
Blood Recipients [#]	1	6%	1	2%	0	0%	0	0%	2	1%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual [#]	4	25%	5	12%	36	16%	0	0%	45	15%
Partner IDU	2	13%	2	5%	22	10%	0	0%	26	9%
Partner Bisexual	0	0%	0	0%	0	0%	0	0%	0	0%
Partner Blood Recipient	0	0%	0	0%	1	0%	0	0%	1	0%
Partner HIV+	2	13%	3	7%	13	6%	0	0%	18	6%
Total Known Risks	16	89%	43	80%	229	78%	7	70%	295	79%
Unknown Risk [#]	2	11%	11	20%	63	22%	3	30%	79	21%
Presumed Heterosexual	2	11%	9	17%	54	18%	3	30%	68	18%
Other	0	0%	2	4%	9	3%	0	0%	11	3%
Total All Cases	18	5%	54	14%	292	78%	10	3%	374	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

[^] Indicates percentage calculated from cases with *known risk* for categorical break down.

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

[#] Indicates an explanatory definition exists in Appendix B

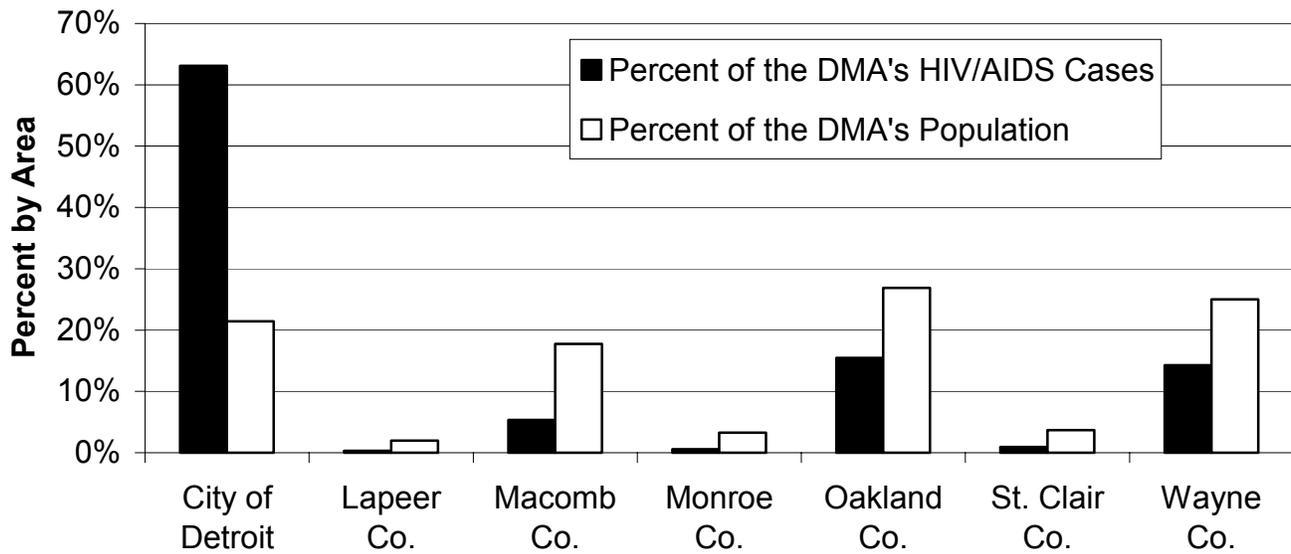
^x Indicates age at time of HIV diagnosis

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2004 Profile of HIV/AIDS: The Detroit Metro Area



Figure 1: Detroit Metro Area: Living HIV/AIDS Cases and Population by Local Health Jurisdiction, 1/1/04



2004 Profile of HIV/AIDS: The Detroit Metro Area

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2004 Profile of HIV/AIDS: The Detroit Metro Area

Summary of Epidemic for The Detroit Metro Area

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 10,500 people living with HIV/AIDS in the Detroit Metro Area, of which 7,337 were reported as of January 1, 2004. For this profile, the Detroit Metro Area is the Detroit Metropolitan Statistical Area as defined by the US Census. It contains the counties of Lapeer, Oakland, Macomb, Monroe, St. Clair, and Wayne, including the city of Detroit. The incidence of HIV (the number of new HIV infections) was roughly level at around 500 new cases each year between 1998 and 2002. The number of AIDS deaths annually in the Detroit Metro Area has remained roughly level at about 210 deaths each year between 1998 and 2002. However, the prevalence of HIV disease (all persons living with HIV infection or AIDS, whether diagnosed recently or years ago) is increasing because new cases are still being diagnosed and infected persons are living longer.
- **How are the cases geographically distributed?** HIV disease is distributed disproportionately in Michigan. The Detroit Metro Area has more cases (7,337 of the 11,527 cases reported in Michigan) when compared with the number of people who live there. Within the Detroit Metro Area, the City of Detroit has a higher proportion of cases than expected based on the percent of the population that lives there. Figure 1 displays the distribution of reported cases by local health jurisdictions within the Detroit Metro Area. Sixty-three percent of the reported cases within this area were among residents of Detroit.

The 83 counties of Michigan are divided into 45 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 Figure 2, page 3-6 of the Statewide profile for methodology used). Within the Detroit Metro Area, the City of Detroit and Oakland and Wayne counties are considered to be LHDs in high prevalence areas (93 percent of cases in the Detroit Metro Area), while Lapeer, Macomb, Monroe and St. Clair 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 local levels, the MDCH HIV/STD & Bloodborne Infections Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in the Detroit Metro Area. 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. Notice: The trends and rates reported in the Detroit Metro Area Profiles must be viewed with caution because they are based on 'statistically small' numbers.

- **Men Who Have Sex With Men (MSM)*:** MSM make up 61 percent of all HIV/AIDS cases with a known mode of transmission (3,741 out of 6,094). 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.
- **Injecting Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 25 percent are IDUs (1,535 out of 6,094). Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. IDU transmission decreased significantly between 1998 and 2002 from 16 percent to nine percent (143 to 79 cases).
- **High Risk Heterosexuals (HRH):** HRH cases constitute 16 percent of the total number of cases with a known mode of transmission (987 out of 6,094) and are defined as HIV-infected persons whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals. The trend for heterosexual transmission also appears to be level.

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

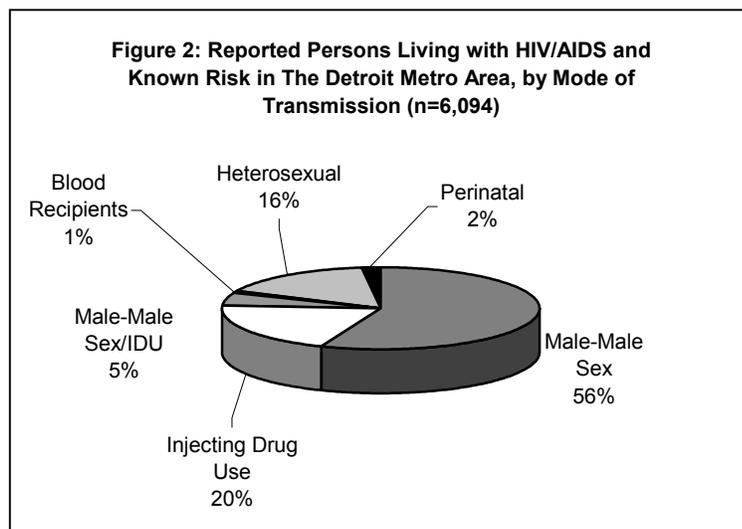
2004 Profile of HIV/AIDS: The Detroit Metro Area

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

Data from HIV/AIDS Reporting System

Current surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Although case reporting includes ascertainment of many behaviors associated with HIV transmission, for the purposes of analysis and interpretation, cases are assigned to a risk hierarchy designated by the Centers for Disease Control and Prevention. This hierarchy takes into account the efficiency of HIV transmission associated with each behavior as well as the probability of exposure to an infected person within the population. The adult/adolescent categories, in order, are as follows: (1) men who have sex with men (MSM), (2) injecting drug users (IDU), (3) men who have sex with men and inject drugs (MSM/IDU), (4) hemophilia/coagulation disorders, (5) heterosexual (see glossary for more in-depth description), (6) receipt of HIV-infected blood or blood components, and (7) no identified risk (NIR). The hierarchy is currently being re-examined by a national work group.

Figure 2 indicates persons living with HIV/AIDS in the Detroit Metro Area by mode of transmission among the 6,094 cases for which the risk was identifiable.



- This chart demonstrates that over half (61 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including five percent who also injected drugs.
- A quarter (25 percent) are injecting drug users, including five percent who are also MSM. Forty-eight percent of non-MSM IDUs also have high-risk heterosexual sex partners (IDU w/ hetero). See Table 4, page 3-31.
- Finally, 16 percent of the total had high-risk heterosexual sex partners as their only mode of transmission.

Discussion of Persons with 'No Identified Risk':

The 'No Identified Risk' (NIR) category is the only transmission category with a significant trend increase from 1998 to 2002. NIRs make up 17 percent of the HIV-infection population in the Detroit Metro Area and are 63 percent male and 37 percent female. Those persons in the NIR category are 77 percent black, 15 percent white, and eight percent other races. Almost three-quarters of the NIRs fall under the 'presumed heterosexual' subcategory. Presumed Heterosexual accounts for nine percent of men living with HIV and 21 percent of women living with HIV. See Table 5, page 3-32.

There are many reasons why risk is not reported to the Michigan Department of Community Health on the initial case report. Lack of provider elicitation and patient denial, as well as, patients truly not knowing their risks and the risks of their partner(s), are reasons why there is a growing proportion of NIRS.

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Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

Figures 3 and 4 show the impact of this epidemic on six race and sex groups.

Figure 3: Estimated Prevalence of Persons Living with HIV/AIDS in The Detroit Metro Area, by Race and Sex

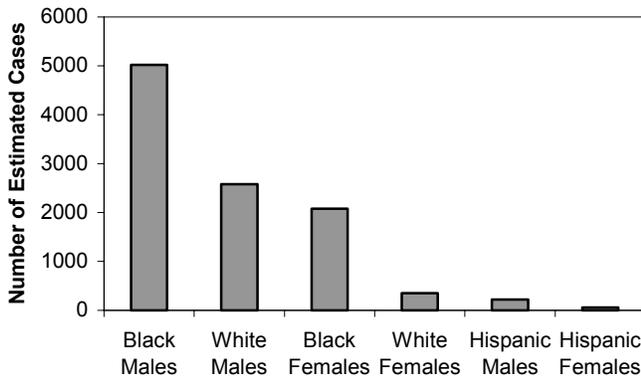
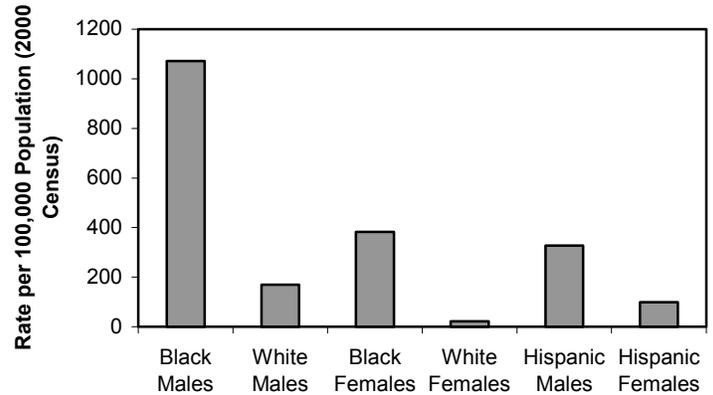


Figure 4: Estimated Case Rates of Persons Living with HIV/AIDS in The Detroit Metro Area, by Race and Sex

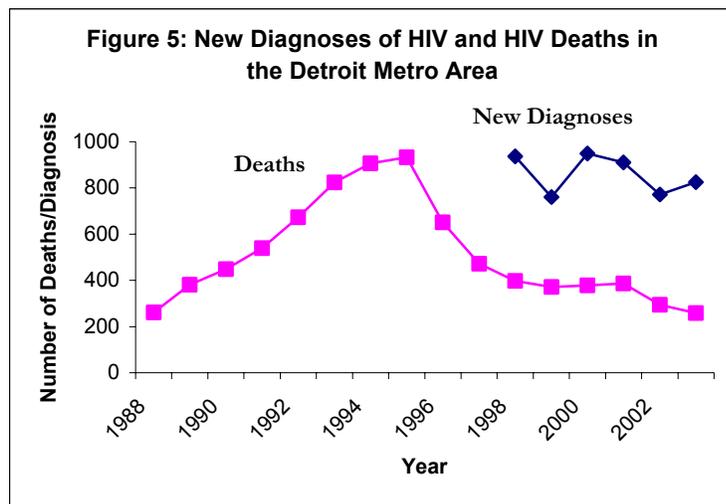


- Black males have both the highest rate per 100,000 population (1,069) and the highest estimated number (5,010) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Black females have the second highest rate (383) and the third highest estimated number (2,080) of cases of HIV/AIDS.
- Hispanic males have the third highest rate (327) and the fifth highest estimated number (220) of cases. This means that the impact of this epidemic is high on a relatively small demographic group.
- White males have the fourth highest rate (170) and the second highest estimated number (2,580) of cases.
- Hispanic females have the fifth highest rate (99) and the lowest estimated number (60) of HIV/AIDS.
- White females have the lowest rate (22) and the fourth highest estimated number (350) of HIV/AIDS cases.

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Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)

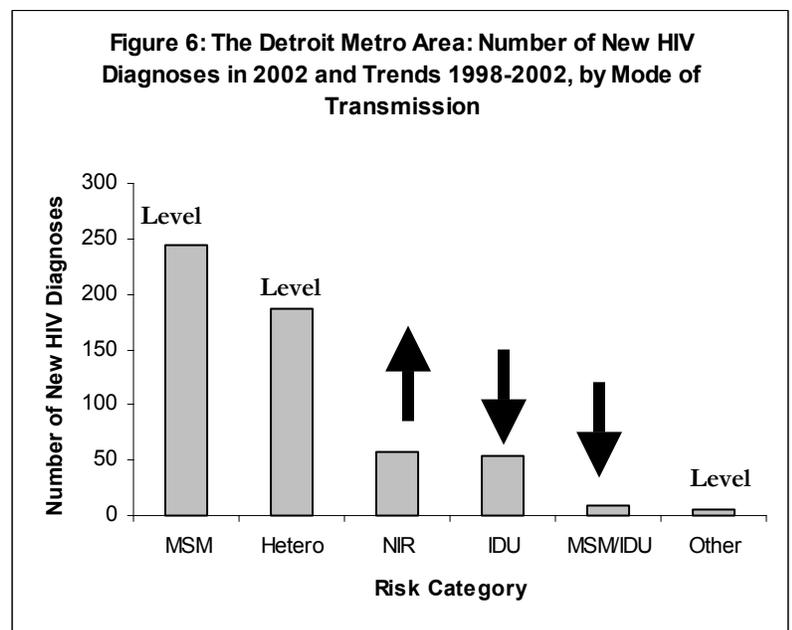


- *New HIV Diagnoses (HIV incidence) and deaths are statistically level 1996-2000.* HIV incidence and the HIV related deaths are shown in Figure 5. The overall decrease in deaths is likely due to the more effective treatments available in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. The number of persons newly diagnosed with HIV each year was roughly level at about 500 cases between 1998 and 2002. (the slight increase from 1999 to 2000 has shown no significant trend).

• *Risk Behaviors for HIV Infection, 1998-2002:*

The proportion of persons diagnosed each year with HIV infection between 1998 and 2002 decreased significantly in IDUs from 17 percent to 10 percent (109 to 54 cases) and MSM/IDUs from four percent to two percent (23 to 9 cases) and increased significantly in the No Identifiable Risks (NIRs) from six percent to 10 percent (39 to 58 cases).

Figure 6 shows that of the 558 new HIV infections diagnosed in 2002, there were 245 (44 percent) diagnoses among MSM, 186 (33 percent) among heterosexuals, 58 (10 percent) among NIRs, 54 (10 percent) among IDUs, 9 (2 percent) among MSM/IDUs, and 6 (1 percent) among other risk infections. This year the heterosexual category is made up of two subgroups: 'high risk' heterosexuals and 'presumed' heterosexuals. A 'high risk' heterosexual is categorized as an HIV-infected person whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals. A 'presumed' heterosexual is someone who had heterosexual sex as their only risk but their partner's risk is unknown. This is the first year we included "presumed" heterosexuals with the "high risk" heterosexuals in one category for the purpose of measuring trend over time. The trend for heterosexual transmission also appears to be level. Other risks include transmission from blood products and perinatal exposures.



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Number of People Accessing Services vs. Reported Cases

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

Group	Services	Cases
Males	71%	76%
Females	29%	24%
White	19%	28%
Black	75%	68%
Hispanic	3%	3%
Other Minorities	1%	1%
Unknown Race	2%	1%
White Males	17%	25%
Black Males	50%	48%
Hispanic Males	2%	2%
Other Minority Males	1%	<1%
Unknown Race Males	1%	1%
White Females	2%	3%
Black Females	25%	20%
Hispanic Females	1%	1%
Other Minority Females	1%	<1%
Unknown Race Females	<1%	<1%
0-12 Years*	1%	1%
13-19 Years*	1%	1%
20-24 Years*	3%	3%
25-44 Years*	56%	54%
45+ Years*	38%	42%
Infants: 0-1 Years*	<1%	<1%
Children: 2-12 Years*	1%	1%
Youth: 12-24 Years*	5%	3%
Women: 25 Years**	26%	23%
Total HIV Infected	100% (N=4,670)	100% (N=7,337)

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 2003, 4,670 HIV-infected persons were reported receiving Ryan White Services in the Detroit Metro Area. A comparison also shows that persons receiving these services were more likely than the reported population to be female and/or black.

Since it is likely that most of these individuals receiving services are reported cases, when comparing their number to that of the total number of reported cases (7,337), it is apparent that not all reported persons are receiving RWCA-funded services.

The Ryan White CARE Act puts a priority on providing services to women, infants, children and youth (WICY) with HIV infection. As a result, the proportion of youth age 12 to 24, and women age 25 or older receiving care is somewhat higher than in reported cases.

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

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Sexually Transmitted Diseases

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

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

During 2003, there were over 16,000 cases of chlamydia and over 7,000 cases of gonorrhea reported the Detroit Metro Area. See Table 7, page 3-34. For both diseases, the highest rates of infection were among persons age 20-24. This age group comprises six percent of the Detroit Metro Area population but accounted for 31 percent of gonorrhea and 35 percent of chlamydia cases. The rate of chlamydia among blacks was 10 times the rates among whites; and the rate of gonorrhea in blacks was 33 times that of whites. Similar to statewide data, 47 percent of gonorrhea cases are male and 53 percent are female, however, the majority of chlamydia cases are female (81 percent).

The majority of 2003 primary or secondary syphilis cases were reported in the Detroit Metro Area (222 of 249 cases). These cases were more likely to be male (62 percent) and older (42 percent over the age of 40). Eighty-four percent of these cases were black and 14 percent were white. Only one percent of primary or secondary syphilis cases were Hispanic.

Hepatitis and HIV

Data from Adult and Adolescent Spectrum of Disease (ASD)

The Adult and Adolescent Spectrum of Disease project (ASD) is a supplemental surveillance project that collects data from the medical records of HIV-infected patients at two major medical centers in the Detroit Metropolitan Area. Medical records are reviewed every six months, from the time the patients first contact either site, until they die or are lost to follow-up. The proportion of males in ASD is lower than in the HIV-infected population overall, because ASD includes all the females, but only 40 percent of the males who present for HIV care at ASD sites. Thus, females are purposely over-sampled.

Hepatitis C (HCV) is the most common type of hepatitis among HIV-infected persons. Of the 1,902 persons included in ASD who were in care in 2000-2002, 384 (19 percent) had a diagnosis of HCV, while 184 (10 percent) had a diagnosis of hepatitis B (HBV), and 62 (3 percent) had a diagnosis of hepatitis A (HAV) (Table 8). The proportion of HIV-infected persons who were co-infected with HCV was higher among injecting drug users (IDU) and blood recipients than among persons in other HIV transmission risk groups. It was also higher among persons 40 or more years of age than among persons under 40. The rate of HCV co-infection was slightly higher among females than among males, and higher among persons of black or other race than among whites. The proportion co-infected with HBV or HAV varied less than HCV among the demographic and HIV transmission risk groups.

The impact of HCV co-infection on the health of HIV-infected persons is increasing, especially among those with a history of injecting drug use and persons over the age of 40. The total numbers of new HCV cases in the U.S. increased in the 1970's and 1980's, and dropped precipitously in the early 1990's.¹ These changes created a cohort of HCV-infected persons in the population, and as this cohort ages, the number of persons with HCV-related late stage liver disease is expected to increase through 2015.² Because HIV/HCV co-infected persons have a higher risk of liver disease than persons infected with HCV alone,³ they will be impacted even more. Planning for the care of HIV-infected persons needs to take into account the increasing numbers of HIV-HCV co-infected persons who are expected to develop late stage liver disease over the next decade or more.

References:

¹Centers for Disease Control and Prevention. Hepatitis Surveillance Report No. 58. Atlanta, GA: HHS, CDC, 2003.

²Armstrong GL, et al. 2000. Hepatology 31:777-782.

³Graham CS, et al. 2001. Clin Infect Disease 33:562-569.

2004 Profile of HIV/AIDS: The Detroit Metro Area

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 the Detroit Metro Area. 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 5,360 MSM living with HIV disease in the Detroit Metro Area. This includes 480 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Prevalence:

From 1993 to 1999, the percent of MSM who were HIV infected and attended the sexually transmitted diseases (STD) clinics at local health departments in southeast Michigan was 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 in the City of Detroit (average 1993–1999). Although data from 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 of these proportions. This under-reporting leads to a small number of known MSM being included in these surveys annually (an average of 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. HIV seroprevalence ranged from 13 to 54 percent during these years, declining in the early years, and peaking in 1995 and then falling again to its lowest level in 1999. These clinic-based surveys were discontinued in 1999.

Statewide Counseling and Testing data showed that HIV seroprevalence was the highest among black MSM and, in 2002, was 6 times higher than that of white MSM and 4 times that of Hispanic MSM. Seroprevalence also increased among black MSM, from 8 percent in 1999 to 11 percent in 2002, but was more stable among white and Hispanic MSM.

Incidence:

Archived serum from HIV-infected clients tested at HIV Counseling, Testing & Referral (CTR) sites throughout Michigan from 1993–2002 was tested using the less sensitive assay (STARHS) to determine whether HIV infection was recently acquired (in the 4–6 months prior to the blood draw). During this time period, approximately 58,000 and 68,000 HIV tests were performed annually. The number of incident infections ranged from 22–54 (13 to 24 percent of HIV-positive persons tested). Overall HIV incidence was stable throughout most of the study period, reaching a low of 0.17 percent in 2000 and then rising to the highest level during this study period at 0.41 percent in 2002. MSM accounted for almost half of incident HIV infections. Incidence among MSM was stable through the 1990s then dipped and rose, settling at 3 percent in 2002. MSM/IDU had many high peaks, but did drop below that of MSM.

The racial distribution of MSM with newly acquired HIV shifted over time. Whites accounted for the majority of newly acquired infections among MSM (61 percent) in the first 5 study years, but 46 percent in the last 5 years, while the proportion of blacks increased from 34 percent to 47 percent during that same time period. Black MSM had higher incidence compared with the other MSM and had greater increases in incidence in recent years. Incidence increased from two percent in 1999 to seven percent in 2002 among black MSM whereas incidence among white MSM increased from 1.1 percent to 1.6 percent over this same time period. HIV incidence among Hispanic MSM was more erratic due to smaller numbers in this population.

Increases in recent years were most apparent among MSM in the 30–39 year and 40–49 year age groups. Among MSM in their 30s, incidence increased from 1.1 percent in 1998 to 2.6 percent in 2002. The increase was greater still among MSM in their 40s, from 0.8 percent in 1999 to 5.3 percent in 2002.

2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: MSM (Continued)

Race/Ethnicity:

Having sex with other men infected most males in the Detroit Metro Area. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 3,741), black males (2,110) account for more than a half (56 percent) while white males (1,504) comprise approximately 40 percent of men in this combined category (Refer to Table 5)

Age:

Among those reporting male-male sex, the highest percent of all living cases of HIV/AIDS is found among those aged 30-39 (42 percent). MSM is the predominant mode of transmission for males aged 13 and up (Refer to Table 6).

Geographic Distribution:

Just under two-thirds (63 percent) of HIV-infected MSM statewide reside in the Detroit Metro Area. Within high prevalence counties of the Detroit Metro Area, MSM are just under two-thirds of the cases with a known risk (60 percent) while in the lower prevalence counties almost three-quarters (73 percent) of reported persons living with HIV/AIDS are MSM.

Trends and Conclusions:

MDCH estimates that there were about 245 new HIV infections in the year 2002 among men who have sex with men. These numbers were level from 1998-2002. Men who have sex with men will likely continue to be the largest behavioral group affected by the HIV epidemic.

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

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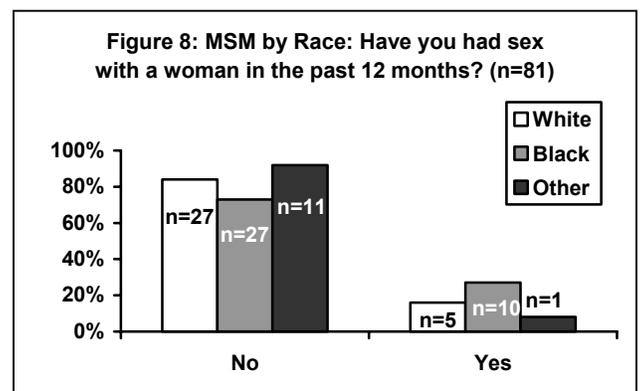
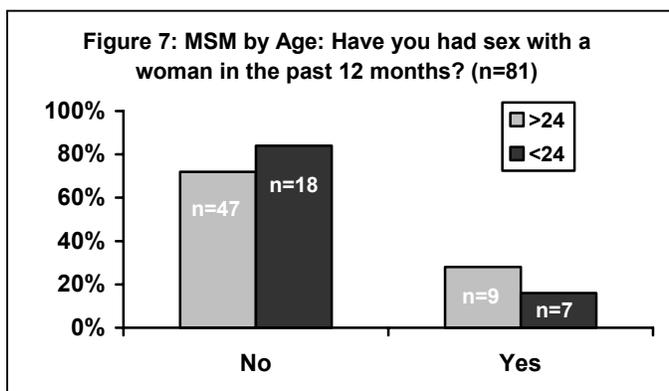
Ranked Behavioral Group: MSM: Discussion of Behaviorally Bisexual Men

Data from Supplement to HIV/AIDS Surveillance Project (SHAS), HIV Testing Survey (HITS), & HIV/AIDS Reporting System (HARS)

Case reporting data are collected statewide but have only limited information on male bisexual behavior. Case reports are usually completed by health care providers and surveillance staff reviewing medical records rather than through extensive interviews of the infected person. Only 53 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, 44 percent of all MSM reported also having sex with women since 1977. These more complete forms also show that three percent of women report having sex with behaviorally bisexual men. These data from case reporting should be viewed as minimum estimates of these behaviors. Nonetheless, they suggest that more women have sex with behaviorally bisexual men than the surveillance system collects. There have been no changes over time.

In an effort to help focus prevention activities, we present the data that are available on bisexual behavior among HIV-infected men in southeast (SE) Michigan from the Supplement to HIV/AIDS Surveillance Project (SHAS). The SHAS interview asks HIV-infected persons directly about specific behaviors. It is conducted only in SE Michigan; therefore, is not representative of all HIV-infected persons in the state. Please see the Data Sources Section (page 1-5) to learn more about SHAS. Of all male SHAS respondents who reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview (530), 63 percent (332) reported having sex with other men* in the 12 months prior to the interview; 254 (77 percent) were black and 72 (22 percent) were white. Of these 332 men, 10 percent (33) also reported having sex with women in the 12 months prior to the interview; 12 percent (30) were black, and three percent (2) were white. (*MSM/IDU are also included in these totals)

During the HIV Testing Survey (HITS) HIV-negative MSM were interviewed in Detroit (55 MSM), Oakland County (5 MSM) and Grand Rapids (23 MSM). Data from these areas are left combined to maintain statistical power. The mean age of the respondents sampled at these bars was 30 years. Please see the Data Sources Section (page 1-5) to learn more about HITS. This section describes bisexual activity among this group. Among the 81 respondents interviewed in gay bars, the question "Have you had sex with a woman in the past 12 months?" was asked. As can be seen in Figures 7 and 8, men older than 24 years (28 percent) and black men (27 years) were more likely to report bisexual behavior.



2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: MSM: A Look at Condom Usage

Data from Community Intervention Trial for Youth (CITY),
Data Supplement to HIV/AIDS Surveillance Project (SHAS), & HIV Testing Survey (HITS)

A survey of sexual risk and preventive behavior among young men who have sex with men was conducted in the summer of 1999 in Milwaukee, Wisconsin and Detroit called the Community Intervention Trial for Youth (CITY). Men were randomly recruited outside of venues frequented by young men who have sex with men in the two cities. A total of 547 men were surveyed, 48 percent were from Detroit. The mean age from the two cities was 21.2 years. Data specific to Detroit was not yet available, so provisional data from Detroit and Milwaukee combined are presented. The survey shows that 1 in 5 men (20 percent) reported not using a condom during insertive and/or receptive anal sex. Non-white participants were more likely to report insertive anal sex with a condom than white participants. More than half of the total sample (55 percent) had non-main partners in addition to main partners. Almost one-third (32 percent) reported that drugs or alcohol was a factor for having sex with their last non-main partner, while less than a quarter (22 percent) reporting being high on drugs or alcohol during sex with their main partner

This section discusses questions from interviews with infected MSM regarding condom use with male partners from the SHAS project. Among the 332 men who report having sex with a man in the 12 months prior to the interview, 65 percent (216) reported being in a steady relationship with a man. Fifty-six percent (184) reported having sex with a non-steady man during the 12 months prior to the interview. As shown in Figures 9 and 10, of the 111 male respondents who reported having insertive anal sex with a steady male partner, 28 percent reported not using condoms the last time they had sex. Of the 103 male respondents who reported having receptive anal sex with a steady male partner, 22 percent reported that their partner did not use a condom. The percentages of condom use are similar for most recent non-steady partners the last time they had sex.

Figure 9: Condom Usage During Insertive Anal Sex Among HIV Infected MSM SHAS (n=111)

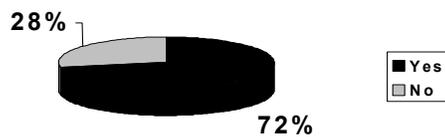
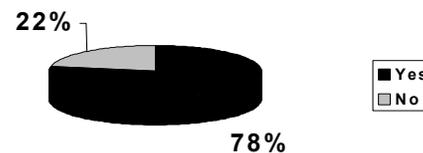


Figure 10: Partners Condom Usage During Receptive Anal Sex Among HIV Infected MSM in SHAS (n=103)



2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: MSM: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

During the HIV Testing Survey (HITS) HIV-negative MSM were interviewed in Detroit (55 MSM), Oakland County (5 MSM) and Grand Rapids (23 MSM). Data from these areas are left combined to maintain statistical power. Use of condoms with male partners was assessed and indicated inconsistent condom usage. Condom use was more frequent among those who reported being the insertive partner. Figure 11 shows that of 40 respondents reporting a “primary” partner who participated in receptive anal sex, 13 (32 percent) reported that their partner used condoms “Always” in the past year. Figure 12 shows that of the 47 respondents reporting a “primary” male partner who participated in insertive anal sex, 22 (47 percent) reported using a condom “Always”.

Figure 11: In the past 12 months, when you had receptive anal sex with a primary male partner, how often did he use a condom? (n=40)

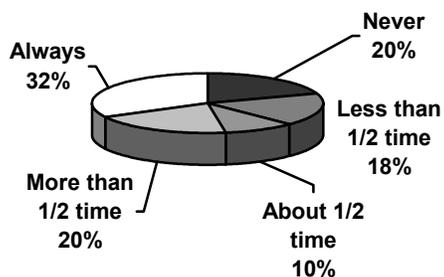


Figure 12: In the past 12 months, when you had insertive anal sex with a primary male partner, how often did you use a condom? (n=47)

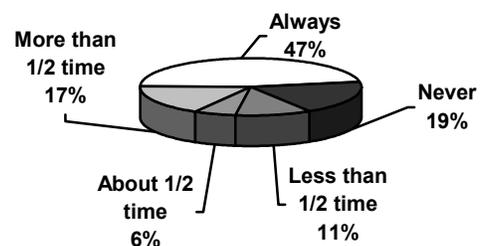


Figure 13 shows that among the 19 respondents with a “non-primary” male partner, 7 (37 percent) reported that their partner used condoms “Always” in the past year when they participated in receptive anal sex. Figure 14 shows that of the 32 respondents who participated in insertive anal sex with a non-primary male partner, 19 (60 percent) reported that they used a condom “Always”.

Figure 13: In the past 12 months, when you had receptive anal sex with a non-primary male partner, how often did he use a condom? (n=19)

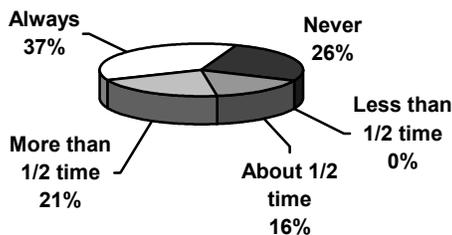
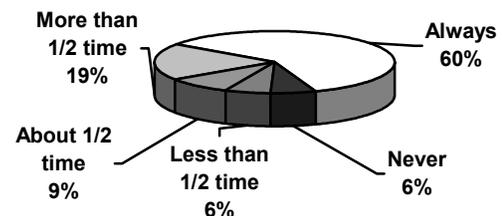


Figure 14: In the past 12 months, when you had insertive anal sex with a non-primary male partner, how often did you use a condom? (n=32)



2004 Profile of HIV/AIDS: The Detroit Metro Area

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 the Detroit Metro Area and account for almost a third of reported infected persons with a known risk. MDCH estimates there are approximately 2,200 IDUs living with HIV disease in the Detroit Metro Area. This estimate includes 480 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. Almost half (45 percent) of the reported cases among non-MSM IDUs also had high-risk heterosexual sex partners. Additionally, of the 987 cases with reported heterosexual risk, 306 individuals (31 percent) also reported having IDU as partners. Sixty-three percent of perinatally infected infants (infants infected at birth) have mothers who are IDU or have a mother whose partner is an IDU.

When these linked populations are considered, IDU-related transmission accounts for 21 percent (1,253 cases) of people reported with HIV disease and having a known risk in the Detroit Metro Area. This is similar to the nationwide picture of 24 percent IDU.

Prevalence:

The Family of Seroprevalence Surveys measured HIV seroprevalence among non-injecting drug users (NIDU) and IDUs in treatment. From 1988 to 1999, the percent of IDU who were HIV infected and attended the Detroit Central Diagnostics and Referral Services (CDRS) declined over time, peaking at 10 percent in 1991 and falling to three percent in 1999. In addition, the proportion of heroin injectors with HIV decreased over time (11 percent in 1988 to 3 percent in 1999), while the proportion of cocaine injectors increased (11 percent in 1993 to 40 percent in 1998).

HIV seroprevalence from the Detroit CDRS varied by race, sex, and age. Prevalence among black males declined over time from 15 percent in 1998 to two percent in 1995. HIV prevalence in black females also declined over time after peaking at 14 percent in 1990. Whites comprised a smaller proportion of clients at the treatment center and no consistent trends were observed. Seroprevalence decreased in every age group. The only age group for which seroprevalence increased during the last years of the survey was 25-29 year olds, two percent in 1997 to six percent in 1999. Although data from seroprevalence surveys provide valuable information about treatment center attendees, the results cannot be generalized to all IDU. Please refer to the Data Sources section of this profile for more information on the Family of Seroprevalence Surveys.

Incidence:

In the early 2000s, a less sensitive EIA assay was used to measure incidence (recently acquired infections) by testing stored specimens from the Family of Seroprevalence Surveys that were collected between 1988 and 1999 at the Detroit Central Diagnostic and Referral Services (CDRS). A total of 20 persons were identified during the period as having recently acquired HIV infection, with the annual number of incident infections ranging from zero-seven (0 to 9 percent of HIV-positive) persons tested. The small number of recently infected persons tested limits the generalizability of the trends. Overall HIV incidence ranged from zero percent in 1988, 1989, and 1993 to two percent in 1992. In the most recent survey years, incidence increased from a low of 0.15 percent in 1997 to 0.62 percent in 1999. Because the number of recent infections identified each year was small, data were pooled in 3-year intervals to get more stable estimates of incidence over time. The pooled estimates show a peak in incidence between 1990-1992 at 0.82 percent and then a decline over the years. Again, in the later years, incidence began to increase, but it did not reach the levels seen from 1990-92.

2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: IDU (Continued)

Incidence (continued):

Black males and black females were the only groups with recently acquired infections. Incidence was highest in these two groups in the early 1990s, peaking for black males in 1992 at 2.82 percent and for black females in 1999 at 2.68 percent. Incident infections occurred more often among older age groups in the early years and occurred in the latter part of the decade in younger persons. For instance, incidence peaked in 1999 for persons 25-29 years (3.34 percent) and 30-34 years (1.58 percent), but the highest incidence occurred in 1992 among persons 40-44 years (6 percent).

IDU and NIDU were the only risk groups with recently acquired infections. HIV incidence was higher among IDU than NIDU in the early years of the survey, peaking at three percent in 1992, but there were no recently acquired infections among IDU after 1996. New infections were identified in NIDU from 1994 onward, with incidence ranging from 0.1 percent in 1996 to 0.88 percent in 1998-99. Among IDU, recently acquired infections were only identified among persons whose primary drug was heroin. Among NIDU, new infections were found primarily among crack cocaine users, and incidence increased among crack users from 1997 (0.4 percent) to 1999 (1.4 percent). None of the newly infected clients chose to be HIV tested at intake. Please refer to the Data Sources section of this profile for more information on the Family of Seroprevalence Surveys.

Race/Ethnicity and Sex:

Of the 1,203 IDU HIV/AIDS cases, 541 are black men (45 percent), 460 are black women (38 percent), 84 are white men (7 percent), 71 are white women (6 percent), 30 are Hispanic men (2 percent) and 9 are Hispanic women (<1 percent). In total, 83 percent (1,001 cases) of the IDU cases occur in black men and women.

The HIV/AIDS cases attributed to IDU (excluding MSM/IDU) are relatively equally distributed between men (55 percent) and women (45 percent). Among the 542 women whose HIV infection has been attributed to IDU, over half (56 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 project. Of the 1,174 persons interviewed in SHAS, 15 percent (177) injected drugs at some time during their lives. This 15 percent (177) was mostly comprised of males (63 percent). Of all injection drug users, 51 percent (90) reported ever being told by a doctor or health care provider that they had hepatitis C; this was 58 percent of males (53) and 71 percent of females (37). One hundred and seventy-four (98 percent) of injection drug users have ever used some kind of non-injection drugs in the past. When injection drug users were asked about ever being in a drug or alcohol treatment program, 135 persons (76 percent) responded in the affirmative. Forty-two percent (74) of injection drug users are potential alcoholics-17 percent of males (44) and 28 percent of females (30).

Other drug use information shows 770 (66 percent) of all respondents (1171) have ever used some kind of non-injection drugs in the past. Among non-injection drug users, the primary non-injected drug for men and women was marijuana, followed by crack for both men and women.

Questions used to screen respondents for potential alcoholism reveal that 32 percent (371) of all respondents are potential alcoholics-31 percent of males (263) and 33 percent of females (108). Further SHAS data describing the drug use behaviors of participants in this project are available online at www.michigan.gov/mdch.

2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: IDU (Continued)

Age:

Among men with a known risk in each age group over 19 years, IDU (when combined with MSM/IDU) is the second most common mode of transmission. Seventy-eight percent of IDU cases are among men who were in their thirties, and forties at the time of HIV diagnosis (40 and 38 percent, respectively).

IDU is the predominant mode of transmission for women who were in their forties at the time of HIV diagnosis. Almost a third (31 percent) of all female, HIV infected IDUs were in this age group. IDU and HRH were extremely close for women in their thirties at the time of HIV diagnosis (49 and 50 percent, respectively). Among the 405 female IDUs who were in their thirties or forties at the time of HIV diagnosis, 56 percent of them also reported high risk heterosexual partners.

There are very few cases of HIV/AIDS attributed to IDU among teenagers (11); the proportion of IDU (including MSM/IDU) among those in their twenties is small (13 percent of cases).

Geographic Distribution:

Ninety-five percent of IDU cases were reported in the high prevalence areas of the Detroit Metro Area. Within high prevalence counties, just under a third of cases with a known risk (26 percent) are IDU, while in the low prevalence counties 16 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 (excluding MSM/IDU) decreased significantly between 1998 and 2002 (109 to 54 cases). Some of these persons were also likely exposed to HIV through heterosexual sex because 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.

2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: IDU: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

The HITS survey assessed behaviors in HIV-negative IDUs. This section includes data from Detroit (66 IDUs), Oakland County (7 IDUs), and Grand Rapids (21 IDUs). Data from these areas were left combined to maintain statistical power. Figure 15 shows approximately three in ten respondents reporting use of non-sterile needles at least some of the time during the 12 months prior to the survey. Figure 16 shows that 62 percent reported injecting only heroin on a “Daily” basis.

Figure 15: In the last 12 months, how often have you used a dirty needle? (n=94)

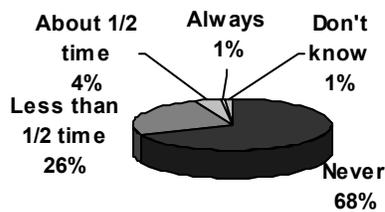
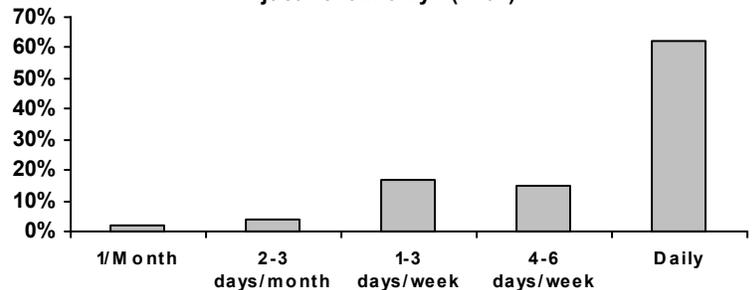


Figure 16: In the past 12 months, how often did you inject heroin only? (n=94)



Inconsistent condom use among female injection drug users is higher with primary male sex partners. Among female IDUs reporting “primary” male sex partners, 57 percent reported “Never” using a condom (Figure 17). Among female IDUs reporting “non-primary” male sex partners, 18 percent reported “Never” using a condom (Figure 18).

Figure 17: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=23)

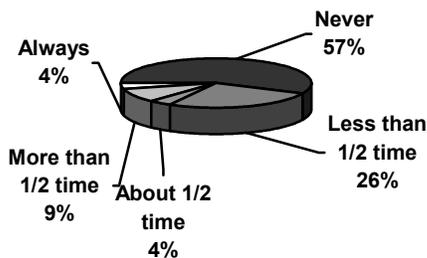
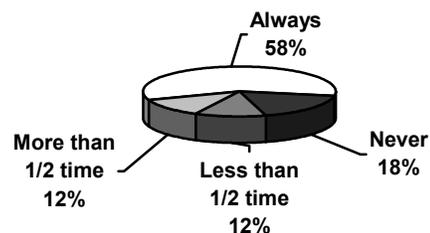


Figure 18: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=17)



Male injection drug users reported comparable condom usage rates with their female partners. Among those reporting a “primary” female sex partner, 57 percent reported “Never” using a condom with the primary female partner (Figure 19). Fifteen percent of male respondents reported “Never” using a condom with their female non-primary partner (Figure 20).

Figure 19: Men: In the past 12 months, when you had vaginal sex with a primary female partner, how often did you use a condom? (n=37)

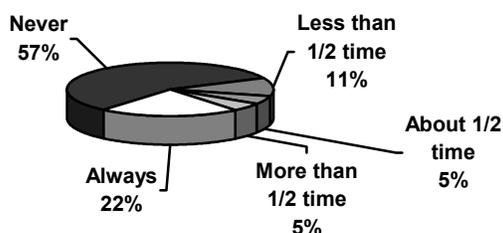
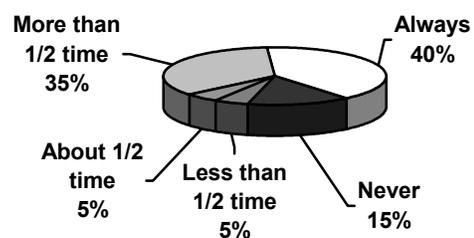


Figure 20: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=20)



2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: High-Risk Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number-three ranked behavioral group in the Detroit Metro Area. High-risk heterosexual sex accounts for 16 percent of reported infected persons with a known risk. MDCH estimates that 1,410 persons living with HIV disease in the Detroit Metro Area were infected through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals (these are referred to as high-risk heterosexual partners).

Currently there are an estimated 790 infected persons who are classified as IDUs but who also had one or more high-risk heterosexual sex partner(s). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. Among reported cases, the dual risk IDU/heterosexual cases comprise nine percent of all reported HIV/AIDS cases with a known risk and are 45 percent men and 55 percent women within the Detroit Metro Area.

Prevalence:

The rate of HIV positives measured among heterosexual attendees of the Detroit Health Department's STD clinic, who were likely among the highest risk heterosexuals in the state, averaged less than one percent in the annual seroprevalence surveys done from 1993 to 1999.

Incidence:

In the 2000s, a less sensitive EIA assay was used to measure incidence (recently acquired infections) by testing stored specimens from HIV Counseling, Testing, & Referral (CTR) sites throughout Michigan from 1993 to 2002. Incidence ranged from 22-54 cases (13 to 24 percent) annually. Overall HIV incidence was stable throughout most of the study period, reaching a low of 0.17 percent in 2000 and then rising to the highest level during this study period at 0.41 percent in 2002. Specifically, heterosexuals were represented by two groups: a person engaging in only heterosexual sex, with no other risk and a person whose sex partner was at risk for HIV. Each of these groups accounted for 14 percent of recently acquired HIV infection during this period. The majority of recently acquired infections in the heterosexual group were black, and the proportion of blacks increased in the later study years, with the greatest increase seen among black females (from 29 to 44 percent).

Race/Ethnicity and Sex:

Among females of all races reported with HIV/AIDS and a known risk, just over half (54 percent) of cases are contracted heterosexually. Forty-one percent were infected via IDU. Among women with a known risk, 23 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 987 men and women living with HIV/AIDS and infected heterosexually, 31 percent reported their heterosexual partner as injecting drug users, four percent as behaviorally bisexual men (this applies to women only) and two percent as persons infected through blood products. Just under two-thirds (63 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 the Detroit Metro Area, they have consistently accounted for almost three-fourths of heterosexually acquired infections -- currently 72 percent. Over half of black and white women were infected heterosexually (53 and 55 percent, respectively). Over two-thirds of Hispanic women were infected through heterosexual sex (69).

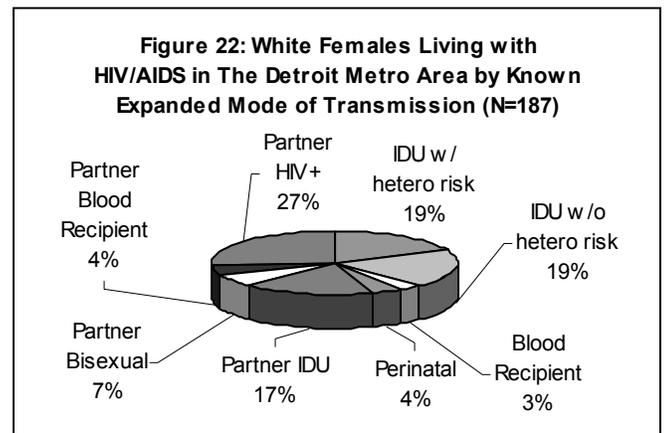
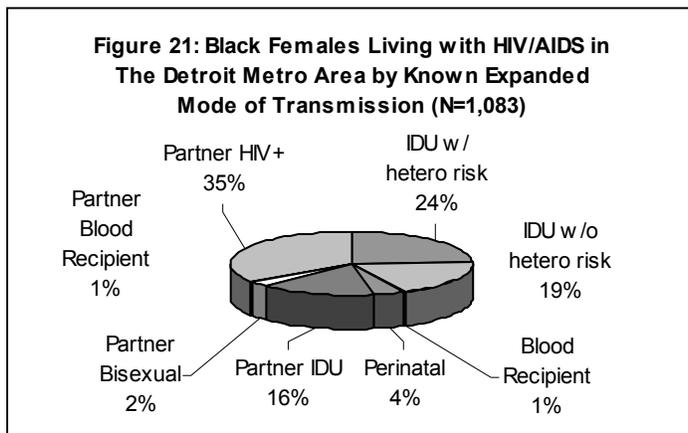
2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: High-Risk Heterosexuals (Continued)

Race/Ethnicity and Sex (continued):

Most heterosexual cases of HIV/AIDS are black--81 percent of female and 80 percent of male heterosexually transmitted HIV/AIDS cases were among blacks. The percent of men infected heterosexually is low--six percent of cases among men of all races with a known risk.

The heterosexual transmission category includes sub-categories to describe mode of transmission in more detail. This is especially helpful for women since they make up most (72 percent) of the heterosexually transmitted cases. To be reported as a heterosexual transmission case, a female must have a male partner who is an IDU, behaviorally bisexual man, blood recipient known to be HIV +, and/or HIV positive. Heterosexual and IDU modes of transmission and associated sub-categories for infected black and white women with known risk are shown in Figures 21 and 22.



Age:

For every age group of women who were over 12 at the time of their HIV diagnosis, heterosexual transmission is the predominant mode, except for women who were in their forties. The proportion of high-risk heterosexual transmission increases with age at HIV diagnosis, peaking at 24 percent for those 60 and older, but never surpasses that of MSM or IDU.

Geographic Distribution:

Ninety-four percent of the 987 cases attributed to heterosexual activity in the Detroit Metro Area were reported in high prevalence counties. Of all the cases within high prevalence counties in the Detroit Metro Area, heterosexual transmission constitutes 16 percent. Within low prevalence counties, heterosexual transmission constitutes 12 percent of the cases.

Trends and Conclusions:

MDCH estimates that the annual number of new HIV diagnoses attributable to heterosexual transmission has remained level from 1998 to 2002 with an estimated 63 new HIV cases in the year 2002. At the same time, the proportion of cases attributable to presumed heterosexuals, someone who had heterosexual sex as their only risk but their partner's risk is unknown, increased significantly from 15 percent to 22 percent (96 to 123 cases). When 'presumed heterosexuals' are included in the heterosexual category, the proportion with heterosexually acquired infection exceeds the number of cases attributed to IDU.

(Continued)

2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: High-Risk Heterosexuals (Continued)

Trends and Conclusions (Continued):

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 those classified as IDU in the future.

Ranked Behavioral Group: High-Risk Heterosexuals: Condom Usage

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

In SHAS, 64 percent (212) of female respondents reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview. Of these, most (207 or 98 percent) reported having sex with a man in the 12 months prior to the interview. We asked these 207 women questions about use of a barrier with their steady (someone they feel committed to above anyone else and have sex with) partners. Eighty-five percent (175) of the (207) women report being in a steady relationship with a man during the 12 months prior to interview. Use of a barrier with these partners is displayed in Table 2.

Sixty-three percent (529) of male SHAS respondents reported having vaginal, oral, and/or anal sex during the 12 months prior to the interview. Of these 529, 228 men (43 percent) report having had sex with a woman in the 12 months prior to the interview. Sixty-five percent (148) of these men reported being in a steady relationship with a woman in the 12 months prior to interview. Condom use during the last sexual contact with these partners is displayed in Table 2.

Table 2: Barrier/Condom Use with Steady Partner, Among Heterosexuals

	Females (n=175) Percent (barrier use/sexual activity)	Males (n=148) Percent (condom use/sexual activity)
Sexual Activity*		
Vaginal sex	69% (118/172)	78% (113/145)
**Oral sex	22% (7/32)	40% (16/40)

*Categories are not mutually exclusive

**Oral sex: mouth-vagina and penis-mouth

In addition, we asked women and men questions regarding barrier/condom use with their most recent other male and female partners. Among the female SHAS respondents, 68 (33 percent) report having sex with a man other than a steady male partner in the 12 months prior to interview. While among the male SHAS respondents, 115 (50 percent) report having sex with a woman other than a steady female partner in the 12 months prior to interview. Barrier/condom use during the last sexual contact with these partners is displayed in Table 3.

Table 3: Barrier/Condom Use with Most Recent Non-Steady Partner, Among Heterosexuals

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

*Categories are not mutually exclusive

**Oral sex: mouth-vagina and penis-mouth

2004 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: High-Risk Heterosexuals: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

High-risk HIV-negative heterosexuals were interviewed as a part of HITS at the sexually transmitted disease clinics of the Detroit City (62), Oakland County (27), and Kent County (28) Health Departments. Data from these three areas are left combined to maintain statistical power. Men interviewed reported “Never” using a condom 45 percent of the time with their primary female partner and “Never” using a condom 19 percent of the time with a non-primary female partner (Figures 23 and 24). Women interviewed in the STD clinics reported “Never” using a condom 38 percent of the time with their primary male partners, and “Never” using a condom 42 percent with the non-primary male partners (Figures 25 and 26).

Figure 23: Men: In the past 12 months, when you had vaginal sex with a primary female partner, how often did you use a condom? (n=48)

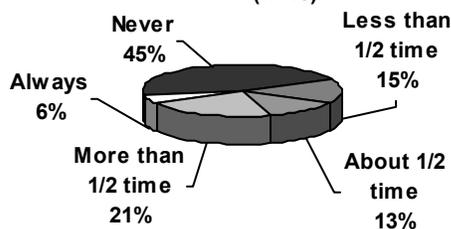


Figure 24: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=37)

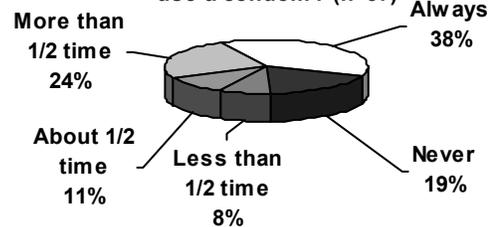


Figure 25: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=50)

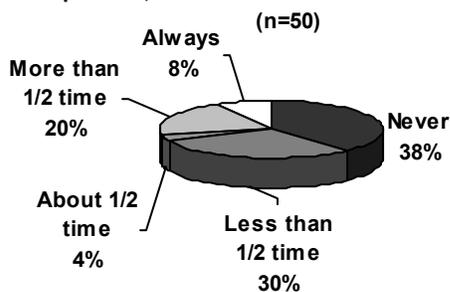
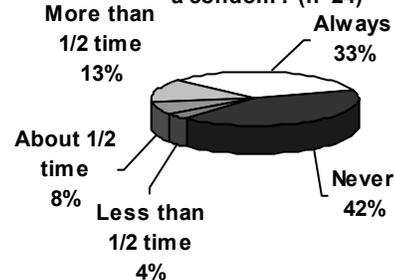


Figure 26: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=24)



2004 Profile of HIV/AIDS: The Detroit Metro Area

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 the Detroit Metro Area. This group comprises 23 percent of this area's population yet make up over two-thirds (68 percent) of the cases of HIV/AIDS. MDCH estimates 7,100 black persons live with HIV/AIDS in the Detroit Metro Area. The rate of HIV infection among blacks is 701 per 100,000 population, seven times higher than the rate among whites. MDCH estimates that as many as one out of 90 black males and one out of 260 black females may be HIV-infected.

White persons comprise almost three-quarters of the area's population (70 percent) but just over a quarter (28 percent) of reported HIV/AIDS cases. MDCH estimates 2,930 white persons live with HIV/AIDS in the Detroit Metro Area. However, since these cases are spread out among a much larger population they have a lower rate of HIV infection (95 per 100,000 population) than blacks or Hispanics. MDCH estimates that as many as one out of 590 white males and one out of 4,550 white females may be HIV-infected.

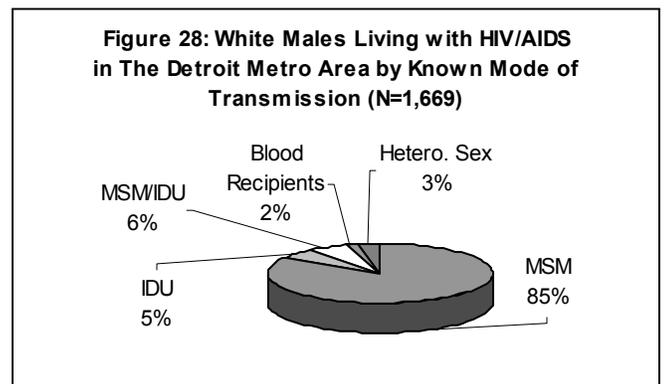
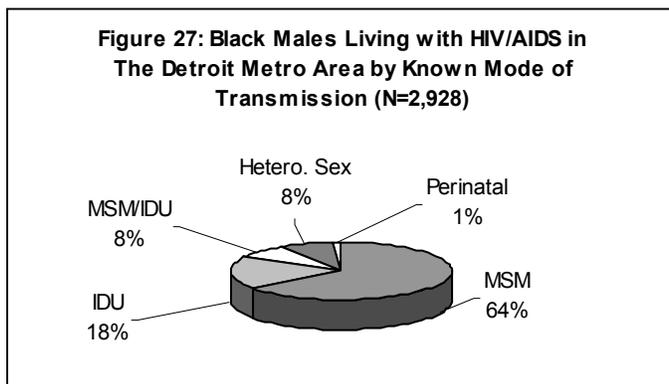
Hispanics comprise three percent of the population and three percent of the cases. MDCH estimates 280 Hispanics live with HIV/AIDS in the Detroit Metro Area. However, the relatively few cases are spread out among a small population and therefore they have a rate higher (219 per 100,000 population) than that among whites. MDCH estimates that as many as one out of 310 Hispanic males and one out of 1,010 Hispanic females may be HIV-infected.

Most persons living with HIV/AIDS in the Detroit Metro Area as of January 2004 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 area.

The majority of the 5,561 male HIV/AIDS cases are black (63 percent), 32 percent white, three percent Hispanic and two percent are other or unknown race. The majority of the 1,776 female HIV/AIDS cases are black (82 percent), under one-quarter (14 percent) white, three percent Hispanic and two percent other or unknown race.

Mode of Transmission:

Figures 30 and 31 display the proportion of black and white male cases by mode of transmission, among those with known transmission.



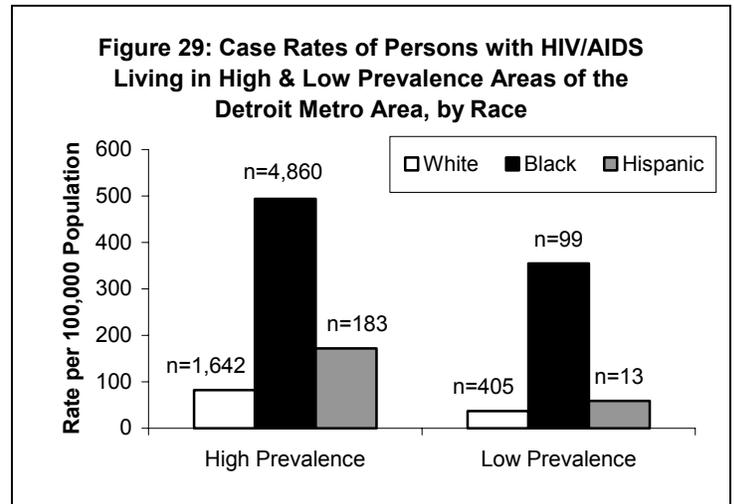
Please refer to Figures 21 and 22 on page 3-21 for black and white female distributions.

2004 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution:

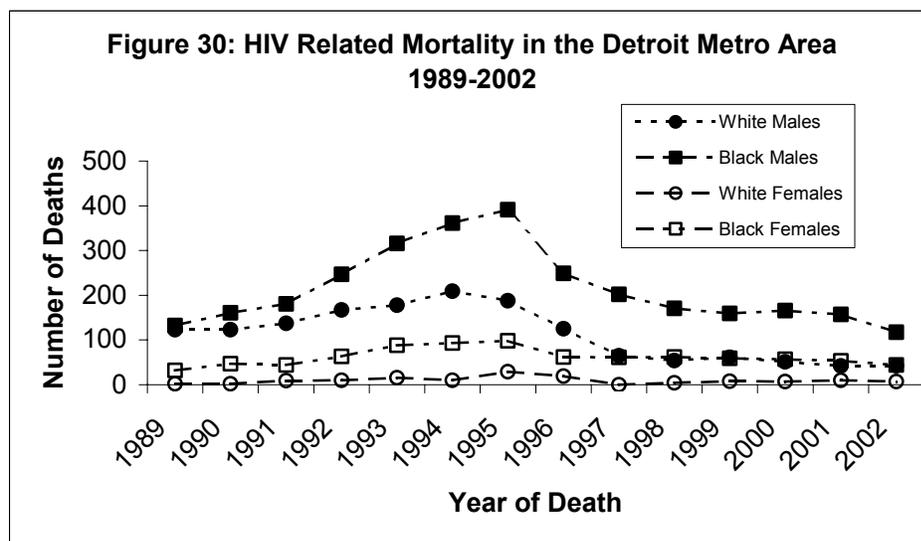
Looking at the proportions of cases by race (e.g., number of black cases/total number of cases) in a particular area of the Detroit Metro Area does not fully measure the impact of this disease. This is because the proportions of whites and blacks living in high and low prevalence areas are different. Therefore, instead of proportions, rates are used (e.g., number of black cases/total number of blacks living in that area). Figure 29 shows that among blacks, the rate is six to ten times higher than the rate among whites in both high and low prevalence areas of the Detroit Metro Area, 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 the Detroit Metro Area. Also, the HIV/AIDS case rate among Hispanics is one and a half to two times higher than the rate among whites in both high and low prevalence areas.



Conclusions:

Figure 30 shows that HIV related mortality dropped for all four race and sex groups from 1995 to 2001. The number of deaths among Hispanics was too small to appear on this graph. The decline in deaths from 1995 to 2001 was marked among whites (60 percent) and among men (37 percent). Blacks saw a slight decline (2 percent), and women experienced a marked increase (50 percent).

When all the data are considered, the consistent impact across transmission behaviors and geographic areas that this epidemic is having on blacks is apparent.

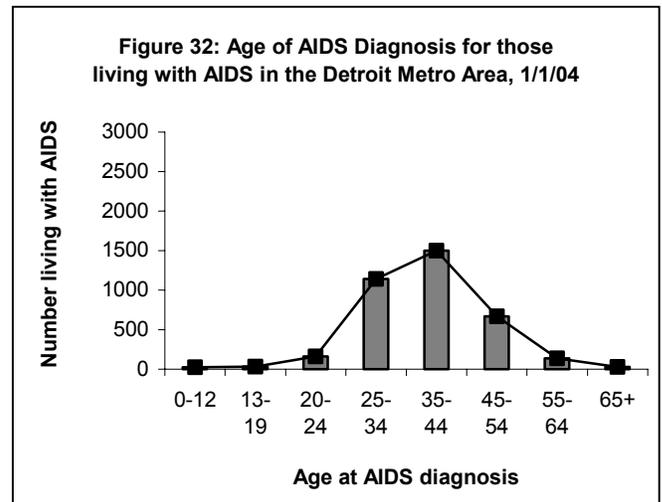
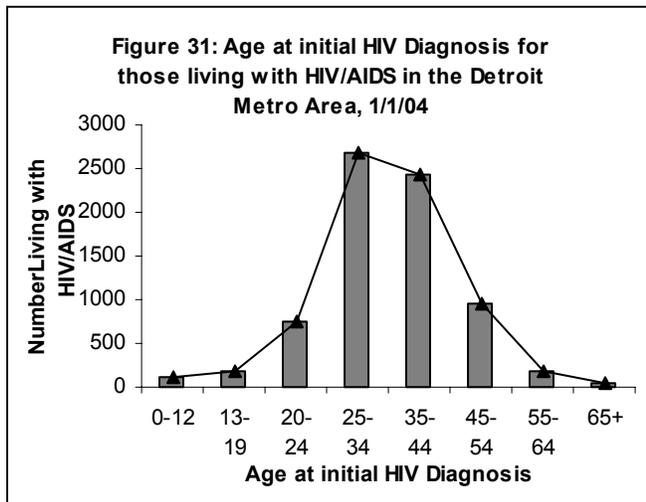


2004 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Age

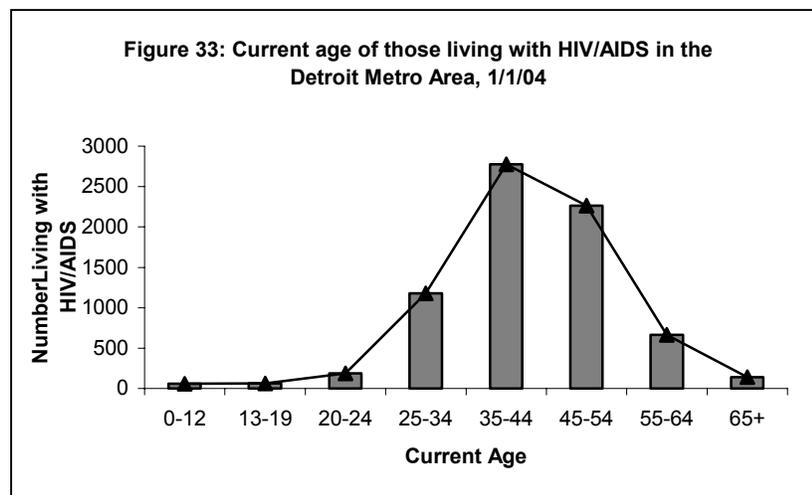
Age at Diagnosis:

The proportion of persons diagnosed with HIV infection each year between 1998 and 2002 only changed significantly among those diagnosed at 20-24 years of age from 8 percent to 10 percent (53 to 56 cases). Figure 31 shows that persons who were between the ages of 25 and 34 at their initial diagnosis of HIV make up the majority of those living with HIV/AIDS (36 percent). Those who were 35-44 years old make up the second largest group of age at initial HIV diagnosis, but are the largest age group at AIDS diagnosis (41 percent), shown in Figure 32.



Current Age:

Since the start of widespread use of Highly Active Anti-Retroviral Therapy (HAART) in 1996, persons infected with HIV have been living longer. Evidence of this is shown in Figure 33, which shows the current ages of those living with HIV in Michigan. Those currently ages 35 to 44 years make up the largest group of those living with HIV (38 percent). While persons who were ages 55 and older at the time of AIDS diagnosis made up only four percent of those diagnosed with AIDS (Figure 32), persons in this age group make up 11 percent of persons living with HIV/AIDS in the Detroit Metro Area.



2004 Profile of HIV/AIDS: The Detroit Metro Area

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

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

MDCH estimates that there are 160 people living in the Detroit Metro Area, who were ages 0-12 when they were diagnosed with HIV. They comprise 1.6 percent of reported infected persons. Most of them (89 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding). Of the remaining children, seven percent were infected via blood exposure before 1985 and four percent had unknown risks.

Description of Cases in Children:

Of the 114 children who were ages 0-12 years when diagnosed with HIV/AIDS, living in the Detroit Metro Area, 53 percent male and 47 percent female; 75 percent are black, 20 percent are white and four percent are Hispanic or of unknown race. See Table 6, page 33.

Of the 102 children infected perinatally, 49 percent had a mother who was an IDU, 14 percent of these had a mother who was not known to be an IDU but one or more of her sex partners were IDUs). Two percent had mothers with behaviorally bisexual sex partners. An additional 17 percent had mothers with HIV-infected sex partners but for whom additional risk information was unavailable. For 19 percent all that was known about the mother is that she was HIV-infected with no additional risk information.

Geographic Distribution of Infected Children:

Ninety-one percent of the 114 persons diagnosed and reported with HIV/AIDS between the ages of 0-12 are located in high prevalence counties. The remaining nine percent are located in low 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 January 1, 2004, two of the 39 children born in 2001, two of the 34 children born in 2002, and one of the 32 children born in 2003 to HIV-infected women living in the Detroit Metro Area were diagnosed with HIV infection. Also, one of the 39 children born in 2001 to an HIV-infected woman was diagnosed with AIDS.

For further discussion please see: Mokotoff, ED, Malamud BH, Kent JB, Kowalczyk, RJ, Scott LJ, Hammett TA, Lindegren, ML. Progress Towards Elimination of Perinatal HIV Infection-Michigan, 1993-2000, MMWR, 2002;51:5: 93-97.

2004 Profile of HIV/AIDS: The Detroit Metro Area

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

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

Number of Cases:

MDCH estimates that there are about 1,320 persons currently living in the Detroit Metro Area who were ages 13-24 years when they were diagnosed with HIV. Those ages 13-19 years comprise 2 percent; and age 20-24 years, 10 percent of the Detroit Metro Area total. The rate of HIV/AIDS among these young people is lower than the rate among those aged 25-44 years. The level of newly diagnosed 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 male youth who live in areas with high HIV prevalence and have male sex partners who are age 20 or older.

STD rates are highest in these age groups. The STD data are shown on Table 7, page 3-34. In the Detroit Metro Area, the rate of chlamydia in persons age 15-19 is over six times higher than the overall rate (among all persons in this area). The rate of gonorrhea in this same age group is just nearly three times that of overall rate. (Please refer to the Sexually Transmitted Diseases Section of the Statewide Profile (page 2-14) for a discussion of these high rates). While rates of STDs among 15-19 year olds are quite high, the rates of HIV in this demographic group are comparably low. This is due to the fact that risk factors for STD acquisition are very broad, specifically multiple sex partners and unprotected sexual intercourse, in comparison to the more specific risk factors of injection drug use or homosexual sex for HIV.

Teen pregnancy rates have shown decreases over time and decreased significantly from 1998 to 2002. Wayne County and the City of Detroit have the highest teen pregnancy rates in the state (83 per 1,000 in Wayne County outside of Detroit and 115 in the City of Detroit). The 2002 pregnancy rates among teens in Detroit were almost equal to the rates among women age 15-44 years in that same area (115 vs. 114). However, in 2000, the pregnancy rates among teens in Detroit had exceeded the rates among women aged 15-44.

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 area and the state. They lived in Wayne County, including Detroit (the county with the highest rate of HIV), and most were sexually active and some were homeless. Therefore, fewer positives would be expected among youth that live in other areas of the state.

Race/Ethnicity:

Eighty-one percent of persons aged 13-19 at the time of HIV diagnosis are black, 14 percent are white, and five percent are Hispanic or other race. Seventy-four percent of persons aged 20-24 at the time of HIV diagnosis are black, 22 percent are white, and four percent are Hispanic or other race.

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. Therefore, the percents discussed in this section will not match those found on Table 6. 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.

2004 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Age: Teens and Young Adults (Continued)

Mode of Transmission (continued):

Teenagers (continued):

Figure 34 shows that among the 183 persons living with HIV in the Detroit Metro Area who were ages 13-19 at time of diagnosis, 112 (61 percent) are male. Among these male cases, over two-thirds had sex with other males (67 percent) (there were no MSM/IDU), while 10 percent had been infected with HIV through blood products before 1985. Three percent could be attributed to IDU (there were no MSM/IDU) and three percent to heterosexual transmission for this age group within this area. Teenage males have the largest proportion of unidentified risk (18 percent) 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.

Figure 34 also shows that among the 71 females living with HIV in the Detroit Metro Area who were ages 13-19 at time of diagnosis, almost two-thirds (62 percent) were infected through heterosexual sex, while 11 percent were IDU. Similar to males of this age, there is a relatively large number who did not report a mode of transmission (25 percent). Most of these females were probably infected heterosexually.

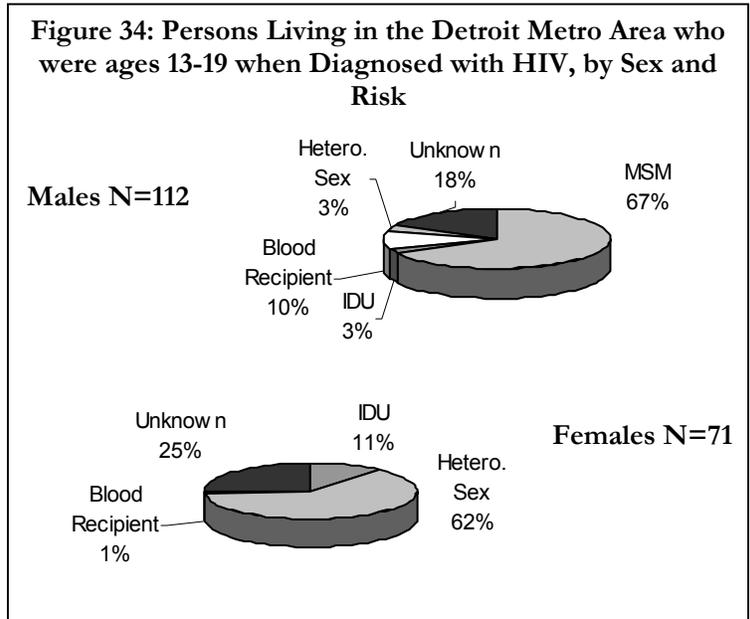
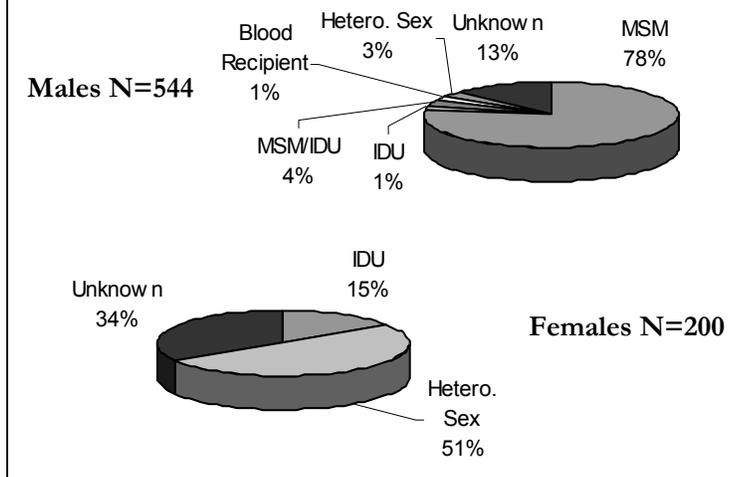


Figure 35: Persons Living in the Detroit Metro Area who were ages 20-24 when Diagnosed with HIV, by Sex and Risk



Young Adults:

Figure 35 shows that among the 544 persons living with HIV in the Detroit Metro Area who were ages 20-24 at time of diagnosis, almost three quarters (73 percent) are male. Over 80 percent 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.

Figure 35 also shows that among the 200 females living with HIV in the Detroit Metro Area who were ages 20-24 at time of diagnosis, just over half (51 percent) were infected heterosexually and 15 percent were IDUs; just over a third (34 percent) did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually.

2004 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Age: Teens and Young Adults (Continued)

Geographic Distribution of Youth and Teen Cases:

Ninety-three percent of the 927 persons diagnosed and reported with HIV/AIDS between the ages of 13-24 are located in high prevalence counties of the Detroit Metro Area. The remaining three percent are located in low prevalence counties.

Trends and Conclusions:

The number of new cases among persons aged 13-24 years has remained level. The Detroit Metro Area should consider both sexual 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 most are infected by older partners (25+).

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

**Table 4: Distribution of HIV/AIDS: Prevalence Estimates,
Reported Cases, and Population within the Detroit Metropolitan Area⁴**
Prisoners and persons with unknown residence are not included
January 1, 2004

Detroit Metro. Area Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	2000 Census	
		Reported Cases	%			%
Male	7,960	5,561	76%	369.0	2,157,470	49%
White, Non-Hispanic Males	2,580	1,804	25%	169.9	1,518,812	34%
Black, Non-Hispanic Males	5,010	3,504	48%	1,069.4	468,477	11%
Hispanic Males	220	151	2%	327.0	67,279	2%
Asian, Hawaiian, Pacific Islander Males	30	22	0%	57.8	51,874	1%
American Indian Males	10	7	0%	157.6	6,344	0%
Other/Multi Race Males	N/A	73	1%	*	44,684	N/A
Female	2,540	1,776	24%	111.2	2,284,081	51%
White, Non-Hispanic Females	350	243	3%	22.2	1,578,088	36%
Black, Non-Hispanic Females	2,080	1,455	20%	382.5	543,785	12%
Hispanic Females	60	45	1%	98.7	60,796	1%
Asian, Hawaiian, Pacific Islander Females	10	7	0%	19.4	51,416	1%
American Indian Females	10	*	*	*	6,736	0%
Other/Multi Race Females	N/A	22	0%	*	43,260	N/A
White, Non-Hispanic	2,930	2,047	28%	94.6	3,096,900	70%
Black, Non-Hispanic	7,100	4,959	68%	701.4	1,012,262	23%
Hispanic	280	196	3%	218.6	128,075	3%
Asian, Hawaiian, Pacific Islander	40	29	0%	38.7	103,290	2%
American Indian	20	11	0%	152.9	13,080	0%
Other/Multi Race	N/A	95	1%	*	87,944	N/A
Male-Male Sex[#]	4,880	3,409	56%	N/A		
Injecting Drug Use[#]	1,720	1,203	20%	N/A		
IDU w/ heterosexual	790	551	9%	N/A		
IDU w/o heterosexual	930	652	11%	N/A		
Male-Male Sex/IDU[#]	480	332	5%	N/A		
Blood Recipient[#]	90	61	1%	N/A		
Perinatal	150	102	2%	N/A		
Heterosexual[#]	1,410	987	16%	N/A		
Partner IDU	440	306	5%	N/A		
Partner Bisexual	60	40	1%	N/A		
Partner Rec'd Bld	30	20	0%	N/A		
Partner HIV +	890	621	10%	N/A		
Known Risk Total	8,720	6,094	100%	N/A		
Unknown Risk[#]	N/A	1,243	17%	N/A		
Presumed Heterosexual	N/A	891	12%	N/A		
Other	N/A	352	5%	N/A		
0 - 4 years^x	140	98	1%	45.1	310,638	7%
5 - 9 years^x	20	17	0%	5.8	346,656	8%
10-12 years^x	10	7	0%	4.8	206,214	5%
13-19 years^x	260	183	2%	62.0	419,442	9%
20-24 years^x	1,060	744	10%	416.6	254,469	6%
25-29 years^x	1,720	1,202	16%	554.4	310,242	7%
30-34 years^x	2,110	1,475	20%	625.3	337,435	8%
35-39 years^x	2,020	1,413	19%	557.4	362,411	8%
40-44 years^x	1,460	1,017	14%	395.1	369,557	8%
45-49 years^x	870	610	8%	264.0	329,490	7%
50-54 years^x	490	343	5%	171.8	285,289	6%
55-59 years^x	190	132	2%	88.8	213,932	5%
60-64 years^x	80	57	1%	50.2	159,475	4%
65 and older^x	60	39	1%	11.2	536,301	12%
Unknown Age	N/A	0	0%	N/A	0	N/A
DETROIT	6,850	4,629	63%	720.1	951,270	21%
LAPEER CO.	30	22	0%	34.1	87,904	2%
MACOMB CO.	580	392	5%	73.6	788,149	18%
MONROE CO.	60	43	1%	41.1	145,945	3%
OAKLAND CO.	1,680	1,134	15%	140.7	1,194,156	27%
ST CLAIR CO.	100	70	1%	60.9	164,235	4%
WAYNE CO. (not including Detroit)	1,550	1,047	14%	139.7	1,109,892	25%
Total Detroit Metropolitan Area	10,500	7,337	100%	236.4	4,441,551	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

^ Indicates percentage calculated from cases with *known risk*

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

^x Indicates age is at time of HIV diagnosis

¹ The minimum estimate is 10 cases.

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/04

³ Rate calculated (Estimated HIV Infection/2000 Census) * 100,000

⁴ Totals for counties/areas include infected prisoners who were discharged/paroled with no current residence available

Table 5: Living HIV/AIDS Cases Currently Living in the Detroit Metro Area
Sex and Race by Risk
January 1, 2004

Male Only MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex#	1,412	85%	1,883	64%	75	59%	39	74%	3,409	71%
Injecting Drug Use#	84	5%	541	18%	30	23%	6	11%	661	14%
IDU w/ heterosexual	24	1%	213	7%	12	9%	1	2%	250	5%
IDU w/o heterosexual	60	4%	328	11%	18	14%	5	9%	411	9%
Male-Male Sex/IDU#	92	6%	227	8%	10	8%	3	6%	332	7%
Blood Recipient#	32	2%	12	0%	2	2%	1	2%	47	1%
Perinatal	7	0%	42	1%	1	1%	0	0%	50	1%
Heterosexual#	42	3%	223	8%	10	8%	4	8%	279	6%
Partner IDU	15	1%	73	2%	4	3%	1	2%	93	2%
Partner Blood Recipient	1	0%	5	0%	0	0%	0	0%	6	0%
Partner HIV+	26	2%	145	5%	6	5%	3	6%	180	4%
Total Known Risks	1,669	93%	2,928	84%	128	85%	53	52%	4,778	86%
Unknown Risk#	135	7%	576	16%	23	15%	49	48%	783	14%
Presumed Heterosexual	91	5%	397	11%	19	13%	16	16%	523	9%
Other	44	2%	179	5%	4	3%	33	32%	260	5%
Total All Cases	1,804	32%	3,504	63%	151	3%	102	2%	5,561	100%

Female Only MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use#	71	38%	460	42%	9	25%	2	20%	542	41%
IDU w/ hetero risk	35	19%	259	24%	6	17%	1	10%	301	23%
IDU w/o hetero risk	36	19%	201	19%	3	8%	1	10%	241	18%
Blood Recipient#	6	3%	8	1%	0	0%	0	0%	14	1%
Perinatal	7	4%	42	4%	2	6%	1	10%	52	4%
Heterosexual#	103	55%	573	53%	25	69%	7	70%	708	54%
Partner IDU	32	17%	168	16%	10	28%	3	30%	213	16%
Partner Bisexual	13	7%	25	2%	2	6%	0	0%	40	3%
Partner Blood Recipient	8	4%	6	1%	0	0%	0	0%	14	1%
Partner HIV+	50	27%	374	35%	13	36%	4	40%	441	34%
Total Known Risks	187	77%	1,083	74%	36	80%	10	30%	1,316	74%
Unknown Risk#	56	23%	372	26%	9	20%	23	70%	460	26%
Presumed Heterosexual	48	20%	303	21%	7	16%	10	30%	368	21%
Other	8	3%	69	5%	2	4%	13	39%	92	5%
Total All Cases	243	14%	1,455	82%	45	3%	33	2%	1,776	100%

Male and Female MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex#	1,412	76%	1,883	47%	75	46%	39	62%	3,409	56%
Injecting Drug Use#	155	8%	1,001	25%	39	24%	8	13%	1,203	20%
IDU w/ heterosexual	59	3%	472	12%	18	11%	2	3%	551	9%
IDU w/o heterosexual	96	5%	529	13%	21	13%	6	10%	652	11%
Male-Male Sex/IDU#	92	5%	227	6%	10	6%	3	5%	332	5%
Blood Recipient#	38	2%	20	0%	2	1%	1	2%	61	1%
Perinatal	14	1%	84	2%	3	2%	1	2%	102	2%
Heterosexual#	145	8%	796	20%	35	21%	11	17%	987	16%
Partner IDU	47	3%	241	6%	14	9%	4	6%	306	5%
Partner Bisexual	13	1%	25	1%	2	1%	0	0%	40	1%
Partner Blood Recipient	9	0%	11	0%	0	0%	0	0%	20	0%
Partner HIV+	76	4%	519	13%	19	12%	7	11%	621	10%
Total Known Risks	1,856	91%	4,011	81%	164	84%	63	47%	6,094	83%
Unknown Risk#	191	9%	948	19%	32	16%	72	53%	1,243	17%
Presumed Heterosexual	139	7%	700	14%	26	13%	26	19%	891	12%
Other	52	3%	248	5%	6	3%	46	34%	352	5%
Total All Cases	2,047	28%	4,959	68%	196	3%	135	2%	7,337	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

^ Indicates percentage calculated from cases with *known risk*

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

Indicates an explanatory definition exists in Appendix B

**Table 6: Living HIV/AIDS Cases Currently Living in the Detroit Metro Area
Age^x at HIV Diagnosis by Risk
January 1, 2004**

Male Only	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	%
MI	0	0%	75	82%	422	89%	693	85%	1,417	73%	609	57%	160	55%	33	65%	3,409	71%
Male-Male Sex [#]	0	0%	3	3%	8	2%	39	5%	241	12%	289	27%	76	26%	4	8%	660	14%
Injecting Drug Use [#]	0	0%	0	0%	3	1%	17	2%	107	6%	102	10%	20	7%	1	2%	250	5%
IDU w/ heterosexual	0	0%	3	3%	5	1%	22	3%	134	7%	187	18%	56	19%	3	6%	410	9%
IDU w/o heterosexual	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Male-Male Sex/IDU [#]	0	0%	0	0%	20	4%	41	5%	157	8%	92	9%	20	7%	2	4%	332	7%
Blood Recipient [#]	8	14%	11	12%	8	2%	5	1%	10	1%	4	0%	1	0%	0	0%	47	1%
Perinatal	50	86%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	50	1%
Heterosexual [#]	0	0%	3	3%	17	4%	37	5%	111	6%	66	6%	33	11%	12	24%	279	6%
Partner IDU	0	0%	0	0%	3	1%	13	2%	30	2%	28	3%	12	4%	7	14%	93	2%
Partner Blood Recipient	0	0%	0	0%	0	0%	1	0%	2	0%	1	0%	1	0%	1	2%	6	0%
Partner HIV+	0	0%	3	3%	14	3%	23	3%	79	4%	37	3%	20	7%	4	8%	180	4%
Total Known Risks	58	97%	92	82%	475	87%	815	88%	1,936	86%	1,060	85%	290	82%	51	74%	4,777	86%
Unknown Risk [#]	2	3%	20	18%	69	13%	112	12%	303	14%	193	15%	65	18%	18	26%	782	14%
Presumed Heterosexual	0	0%	15	13%	55	10%	73	8%	208	9%	113	9%	46	13%	13	19%	523	9%
Other	2	3%	5	4%	14	3%	39	4%	95	4%	80	6%	19	5%	5	7%	259	5%
Total All Cases	60	1%	112	2%	544	10%	927	17%	2,239	40%	1,253	23%	355	6%	69	1%	5,559	100%

Female Only	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	%
MI	0	0%	8	15%	30	23%	61	31%	236	49%	169	56%	34	40%	4	27%	542	41%
Injecting Drug Use [#]	0	0%	5	9%	19	14%	33	17%	137	29%	91	30%	14	16%	2	13%	301	23%
IDU w/ hetero risk	0	0%	3	6%	11	8%	28	14%	99	21%	78	26%	20	23%	2	13%	241	18%
IDU w/o hetero risk	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Blood Recipient [#]	0	0%	1	2%	0	0%	3	2%	3	1%	3	1%	2	2%	2	13%	14	1%
Perinatal	52	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	52	4%
Heterosexual [#]	0	0%	44	83%	102	77%	134	68%	238	50%	131	43%	50	58%	9	60%	708	54%
Partner IDU	0	0%	6	11%	17	13%	28	14%	81	17%	56	18%	20	23%	5	33%	213	16%
Partner Bisexual	0	0%	4	8%	1	1%	10	5%	18	4%	6	2%	1	1%	0	0%	40	3%
Partner Blood Recipient	0	0%	0	0%	2	2%	6	3%	6	1%	0	0%	0	0%	0	0%	14	1%
Partner HIV+	0	0%	34	64%	82	62%	90	45%	133	28%	69	23%	29	34%	4	27%	441	34%
Total Known Risks	52	96%	53	75%	132	66%	198	72%	477	73%	303	81%	86	71%	15	54%	1,316	74%
Unknown Risk [#]	2	4%	18	25%	68	34%	77	28%	173	27%	73	19%	35	29%	13	46%	459	26%
Presumed Heterosexual	0	0%	17	24%	59	30%	55	20%	148	23%	52	14%	27	22%	10	36%	368	21%
Other	2	4%	1	1%	9	5%	22	8%	25	4%	21	6%	8	7%	3	11%	91	5%
Total All Cases	54	3%	71	4%	200	11%	275	15%	650	37%	376	21%	121	7%	28	2%	1,775	100%

Male and Female	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	%
MI	0	0%	75	52%	422	70%	693	68%	1,417	59%	609	45%	160	43%	33	50%	3,409	56%
Male-Male Sex [#]	0	0%	11	8%	38	6%	100	10%	477	20%	458	34%	110	29%	8	12%	1,202	20%
Injecting Drug Use [#]	0	0%	5	3%	22	4%	50	5%	244	10%	193	14%	34	9%	3	5%	551	9%
IDU w/ heterosexual	0	0%	6	4%	16	3%	50	5%	233	10%	265	19%	76	20%	5	8%	651	11%
IDU w/o heterosexual	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Male-Male Sex/IDU [#]	0	0%	0	0%	20	3%	41	4%	157	7%	92	7%	20	5%	2	3%	332	5%
Blood Recipient [#]	8	7%	12	8%	8	1%	8	1%	13	1%	7	1%	3	1%	2	3%	61	1%
Perinatal	102	93%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	102	2%
Heterosexual [#]	0	0%	47	32%	119	20%	171	17%	349	14%	197	14%	83	22%	21	32%	987	16%
Partner IDU	0	0%	6	4%	20	3%	41	4%	111	5%	84	6%	32	9%	12	18%	306	5%
Partner Bisexual	0	0%	4	3%	1	0%	10	1%	18	1%	6	0%	1	0%	0	0%	40	1%
Partner Blood Recipient	0	0%	0	0%	2	0%	7	1%	8	0%	1	0%	1	0%	1	2%	20	0%
Partner HIV+	0	0%	37	26%	96	16%	113	11%	212	9%	106	8%	49	13%	8	12%	621	10%
Total Known Risks	110	96%	145	79%	607	82%	1,013	84%	2,413	84%	1,363	84%	376	79%	66	68%	6,093	83%
Unknown Risk [#]	4	4%	38	21%	137	18%	189	16%	476	16%	266	16%	100	21%	31	32%	1,241	17%
Presumed Heterosexual	0	0%	32	17%	114	15%	128	11%	356	12%	165	10%	73	15%	23	24%	891	12%
Other	4	4%	6	3%	23	3%	61	5%	120	4%	101	6%	27	6%	8	8%	350	5%
Total All Cases	114	2%	183	2%	744	10%	1,202	16%	2,889	39%	1,629	22%	476	6%	97	1%	7,334	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases
[^] Indicates percentage calculated from cases with *known risk for categorical break down*.
 - Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases
[#] Indicates an explanatory definition exists in Appendix B
^x Indicates age at time of HIV diagnosis (Unknown age: Males=2, Females=1)

**Table 7: Gonorrhea, Syphilis, and Chlamydia by Sex
Race, and Age Group in The Detroit Metro Area
Reported January 1, 2003 to December 31, 2003**

Patient Group	2000 Det EMA Population	Gonorrhea			P&S Syphilis*			Chlamydia		
		Cases	Pct	Rate^	Cases	Pct	Rate^	Cases	Pct	Rate^
Male	2,157,470	3,382	47%	157	138	62%	6	3,031	19%	140
<i>White Males</i>	1,518,812	125	2%	8	22	10%	1	417	3%	27
<i>Black Males</i>	468,477	2,172	30%	464	114	51%	24	1,393	9%	297
<i>Hispanic Males</i>	67,279	5	0%	7	2	1%	3	20	0%	30
<i>Other Males</i>	102,902	49	1%	N/A	0	0%	N/A	111	1%	N/A
<i>Unk Males</i>	N/A	1,031	14%	N/A	0	0%	N/A	1,090	7%	N/A
Female	2,284,081	3,843	53%	168	84	38%	4	13,065	81%	572
<i>White Females</i>	1,578,088	219	3%	14	9	4%	1	1,447	9%	92
<i>Black Females</i>	543,785	1,502	21%	276	73	33%	13	4,810	30%	885
<i>Hispanic Females</i>	60,796	4	0%	7	1	0%	2	38	0%	63
<i>Other Females</i>	101,412	215	3%	N/A	1	0%	N/A	481	3%	N/A
<i>Unk Females</i>	N/A	1,903	26%	N/A	0	0%	N/A	6,289	39%	N/A
White	3,096,900	344	5%	11	31	14%	1	1,864	12%	60
Black	1,012,262	3,674	51%	363	187	84%	18	6,203	39%	613
Hispanic	128,075	9	0%	7	3	1%	2	58	0%	45
Other	204,314	264	4%	129	1	0%	0	592	4%	290
Unknown Race	N/A	2,934	41%	N/A	0	0%	N/A	7,379	46%	N/A
0-4 years	310,638	0	0%	0	0	0%	0	0	0%	0
5-9 years	346,656	7	0%	2	0	0%	0	8	0%	2
10-14 years	206,214	69	1%	33	0	0%	0	175	1%	85
15-19 years	419,442	1,858	26%	443	9	4%	2	5,513	34%	1314
20-24 years	254,469	2,229	31%	876	20	9%	8	5,581	35%	2193
25-29 years	310,242	1,274	18%	411	37	17%	12	2,432	15%	784
30-34 years	337,435	729	10%	216	30	14%	9	1,220	8%	362
35-39 years	362,411	430	6%	119	33	15%	9	499	3%	138
40-44 years	369,557	247	3%	67	24	11%	6	233	1%	63
45-54 years	614,779	207	3%	34	54	24%	9	171	1%	28
55-64 years	373,407	36	0%	10	13	6%	3	58	0%	16
65 and over	536,301	128	2%	24	2	1%	0	172	1%	32
Unknown Age	N/A	11	0%	N/A	0	0%	N/A	34	0%	N/A
Total	4,441,551	7,225	100%	163	222	100%	5	16,096	100%	362

* P&S: Primary and Secondary Syphilis

^ Rate per 100,000

Table 8: Characteristics of HIV/Hepatitis Co-Infected Persons in Care,
in Southeast Michigan Adult Spectrum of Disease, 2000-2002

	N	Proportion of Persons in the Sex, Race, Age, or HIV Transmission Risk Group Who Are Co- Infected with HAV, HBV, or HCV		
		HAV*	HBV*	HCV*
Overall	1,902	3%	10%	19%
Sex				
Male	1,103	4%	11%	17%
Female	799	3%	8%	21%
Race				
White	380	5%	8%	13%
Black	1,427	3%	11%	20%
Others	95	1%	2%	19%
Age**				
<20	19	***	***	***
20-29	209	4%	7%	5%
30-39	533	2%	11%	8%
40-49	742	4%	9%	23%
>=50	399	4%	11%	32%
HIV Transmission Risk****				
MSM	723	4%	12%	5%
IDU	552	3%	13%	49%
Blood Recipient	38	***	***	47%
High-Risk Heterosexual	399	2%	5%	5%
Presumed Heterosexual	171	3%	3%	4%
Unknown/Others	19	0%	0%	0%

*HAV = Hepatitis A Virus

HBV = Hepatitis B Virus

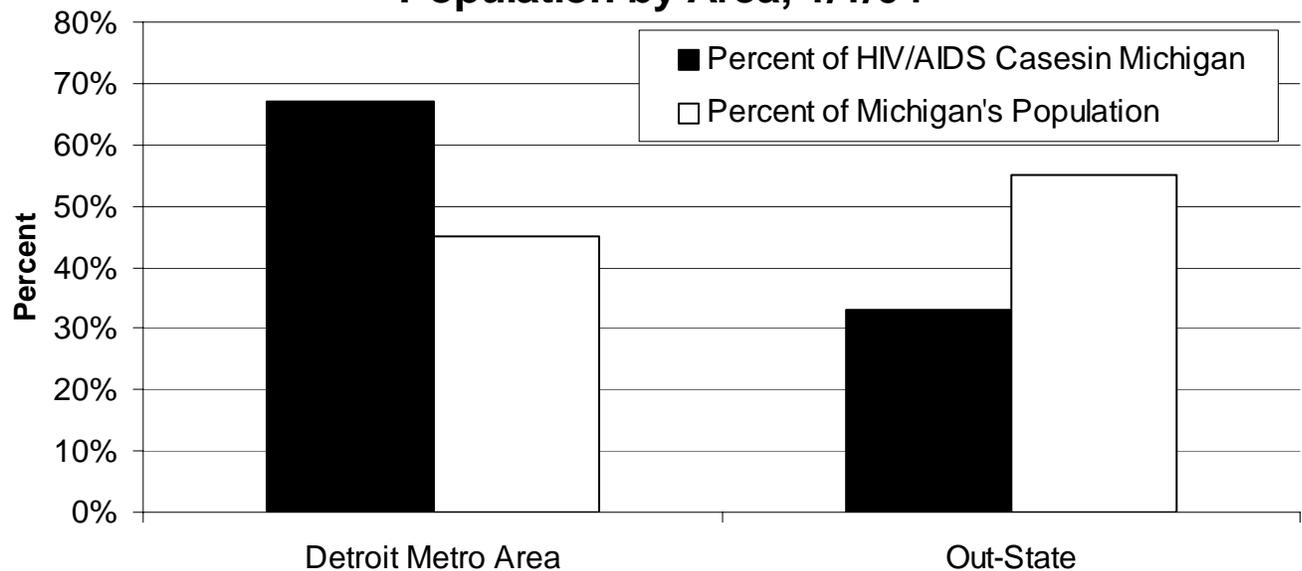
HCV = Hepatitis C Virus

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2004 Profile of HIV/AIDS in Out-State Michigan



Figure 1: Michigan Living HIV/AIDS Cases and Population by Area, 1/1/04



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

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2004 Profile of HIV/AIDS in Out-State Michigan

Summary of Epidemic for Out-State Michigan

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 5,160 people living with HIV/AIDS in Out-State Michigan, of which 3,606 were reported as of January 1, 2004. Out-State Michigan is defined as the 77 counties outside of the six Detroit Metro Area counties. Incidence of HIV (the number of new HIV infections) was roughly level at around 280 cases each year between 1998 and 2002. The number of AIDS deaths annually in Out-State Michigan has also remained roughly level at about 80 deaths each year between 1998 and 2002. 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. Out-State Michigan has fewer cases (3,606 of the 11,527 cases (13 percent) reported statewide) than would be expected compared with the general population that lives there (55 percent of the general population of Michigan). Figure 1 displays the distribution of reported cases for the Detroit Metro and the remaining Out-State areas of Michigan. Kent County has the largest number and proportion of cases reported in the Out-State Area (970 cases, 18 percent). See Table 2a, page 4-28.

The 83 counties of Michigan are divided into 45 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 Figure 2 of the Statewide profile for methodology used). Within Out-State Michigan, Allegan, Berrien, Calhoun, Cass, Genesee, Ingham, Jackson, Kalamazoo, Kent, Muskegon, Saginaw, Van Buren, and Washtenaw Counties are considered to be LHDs in high prevalence areas (78 percent of Out-State cases), while the remaining Out-State counties are considered to be LHDs in low prevalence areas.

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities, the MDCH HIV/STD & Bloodborne Infections Surveillance Section is charged with ranking the top three primary behavioral groups at risk for HIV disease in Out-State Michigan. 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. Notice: The trends and rates reported in the Out-State Profiles must be viewed with caution because they are based on 'statistically small' numbers.

- **Men Who Have Sex With Men (MSM)*:** MSM make up 66 percent of all HIV/AIDS cases with a known mode of transmission (1,976 out of 2,988). 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.
- **Injecting Drug Users (IDUs)*:** Of all HIV/AIDS cases with a known mode of transmission, 19 percent are IDUs (581 out of 2,988). 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.
- **High Risk Heterosexuals (HRH):** HRH cases constitute 18 percent of the total number of cases with a known mode of transmission (532 out of 2,988) and are defined as HIV-infected persons whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals. The trend in heterosexual transmission also appears to be level.

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

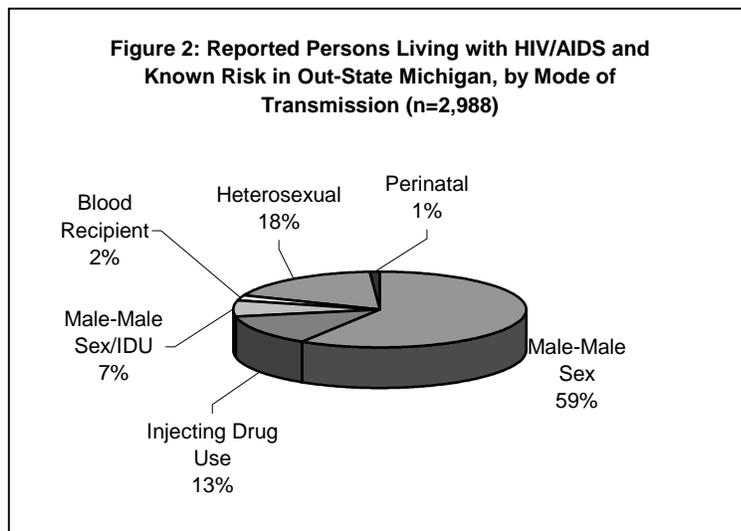
2004 Profile of HIV/AIDS in Out-State Michigan

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

Data from HIV/AIDS Reporting System

Current surveillance methods cannot distinguish the specific transmission route in individuals who have engaged in more than one transmission behavior. Although case reporting includes ascertainment of many behaviors associated with HIV transmission, for the purposes of analysis and interpretation, cases are assigned to a risk hierarchy designated by the Centers for Disease Control and Prevention. This hierarchy takes into account the efficiency of HIV transmission associated with each behavior as well as the probability of exposure to an infected person within the population. The adult/adolescent categories, in order, are as follows: (1) men who have sex with men (MSM), (2) injecting drug users (IDU), (3) men who have sex with men and inject drugs (MSM/IDU), (4) hemophilia/coagulation disorders, (5) heterosexual (see glossary for more in-depth description), (6) receipt of HIV-infected blood or blood components, and (7) no identified risk (NIR). The hierarchy is currently being re-examined by a national work group.

Figure 2 indicates the persons living with HIV/AIDS in Out-State Michigan by mode of transmission for the 2,988 cases for which the risk was identifiable.



- This chart demonstrates that over two-thirds (66 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including seven percent who also injected drugs.
- Almost a fifth (19 percent) are injecting drug users, including seven percent who are also MSM. Forty-eight percent of non-MSM IDUs also have high-risk heterosexual sex partners. (Table 2, page 4-27.)
- Eighteen percent of the total had high-risk heterosexual sex partners as their only mode of transmission.

Discussion of Persons with 'No Identified Risk':

The 'No Identified Risk' (NIR) category is the only transmission categories with a significant trend increase from 1998 to 2002. NIRs make up 17 percent of the HIV-infected population in Out-State Michigan and are 64 percent male and 36 percent female. Those persons in the NIR category are 58 percent black, 35 percent white, and 13 percent other races. Almost three-quarters of the NIRs fall under the 'presumed heterosexual' subcategory. Presumed Heterosexual accounts for nine percent of men living with HIV and 24 percent of women living with HIV. See Table 3, page 4-29.

There are many reasons why risk is not reported to the Michigan Department of Community Health on the initial case report. Lack of provider elicitation and patient denial, as well as, patients truly not knowing their risks and the risks of their partner(s), are reasons why there is a growing proportion of NIRS.

2004 Profile of HIV/AIDS in Out-State Michigan

Distribution of Estimated HIV/AIDS Cases by Race

Data from HIV/AIDS Reporting System

Figures 3 and 4 show the impact of this epidemic on six race and sex groups.

Figure 3: Estimated Prevalence of Persons Living with HIV/AIDS in Out-State Michigan, by Race and Sex

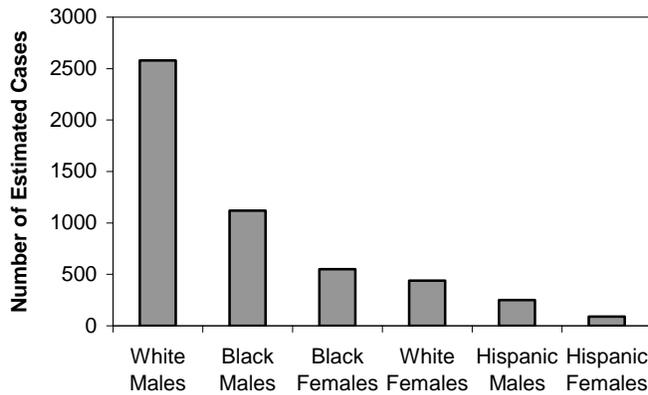
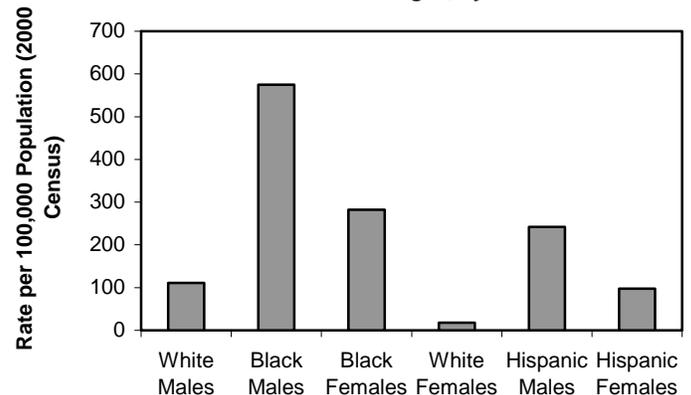


Figure 4: Estimated Case Rates of Persons Living with HIV/AIDS in Out-State Michigan, by Race and Sex



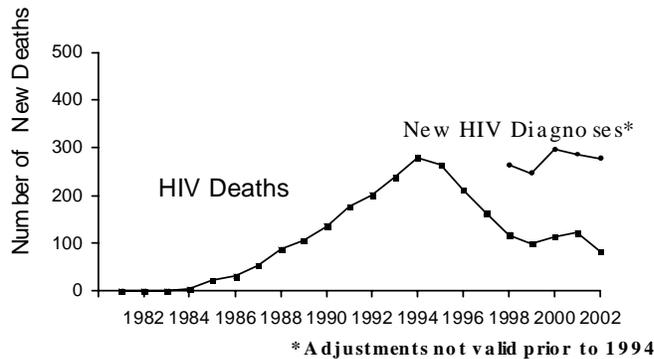
- Black males have the highest rate per 100,000 population (575) and the second highest estimated number (1,120) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Black Females have the second highest rate (282) and the third highest estimated number (550) of cases of HIV/AIDS.
- Hispanic males have the third highest rate (242) and the fifth highest estimated number (250) of cases. This means the impact of the epidemic is high on a relatively small population.
- White males have the fourth highest rate (111) and the highest estimated number (2,580) of cases of HIV/AIDS.
- Hispanic females have the fifth highest rate (97) and the lowest estimated number (90) of cases.
- White females have the lowest rate (18) and the fourth highest estimated number (440) of HIV/AIDS cases.

2004 Profile of HIV/AIDS in Out-State Michigan

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)

Figure 5: New Diagnoses of HIV Infection and HIV Deaths in Out-State Michigan

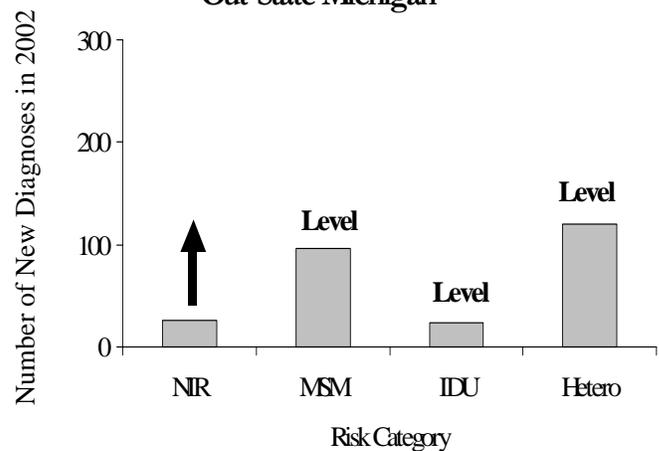


New HIV Diagnoses (HIV incidence) and deaths are statistically level 1998-2002. HIV incidence and the HIV related deaths are shown in Figure 5. The overall decrease in deaths is likely due to the more effective treatments available in 1996 that delay or prevent the onset of AIDS in HIV-infected persons. The number of persons newly diagnosed with HIV each year was about 280 cases between 1998 and 2002 in Out-State Michigan.

Transmission of HIV 1996-2000: *Risk Behaviors for HIV Infection, 1998-2002*: Figure 6 shows that the proportion of persons diagnosed each year with HIV infection between 1998 and 2002 increased significantly in the No Identifiable Risks (NIRs) from five percent to nine percent (13 to 26 cases). Before adjusting cases for those reported without risk we expect cases diagnosed and reported more recently to be less likely to have a known mode of transmission. However, since these data were adjusted for this trend, the fact that we still see a significant increase in the proportion of NIRs means that this increase cannot be attributed to this expected pattern in risk classification.

Of the 260 new HIV infections diagnosed in 2002, there were 96 (35 percent) diagnoses among MSM, 120 (43 percent) among heterosexuals, 26 (9 percent) among NIRs, 24 (9 percent) among IDUs, 8 (3 percent) among MSM/IDUs, and 3 (1 percent) among other risk infections. This year the heterosexual category is made up of two subgroups: 'high risk' heterosexuals and 'presumed' heterosexuals. A 'high risk' heterosexual is categorized as an HIV-infected person whose heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals. A 'presumed' heterosexual is someone who had heterosexual sex as their only risk but their partner's risk is unknown. This is the first year we included "presumed" heterosexuals with the "high risk" heterosexuals in one category for the purpose of measuring trend over time. The trend for heterosexual transmission also appears to be level. Other risks include transmission from blood products and perinatal exposures.

Figure 6: Number of New HIV Diagnoses in 2002 and Trends 1998-2002, by Mode of Transmission in Out-State Michigan



2004 Profile of HIV/AIDS in Out-State Michigan

Number of People Accessing Services vs. Reported Cases

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

Group	Services	Cases
Males	77%	78%
Females	23%	22%
White	58%	59%
Black	30%	32%
Hispanic	7%	7%
Other Minorities	3%	1%
Unknown Race	1%	1%
White Males	49%	50%
Black Males	19%	22%
Hispanic Males	6%	5%
Other Minority Males	2%	1%
Unknown Race Males	1%	1%
White Females	10%	9%
Black Females	10%	11%
Hispanic Females	2%	2%
Other Minority Females	1%	<1%
Unknown Race Females	<1%	<1%
0-12 Years*	1%	1%
13-19 Years*	1%	1%
20-24 Years*	3%	2%
25-44 Years*	63%	60%
45+ Years*	32%	36%
Infants: 0-1 Years*	<1%	<1%
Children: 2-12 Years*	1%	1%
Youth: 12-24 Years*	4%	3%
Women: 25 Years*+	21%	20%
Total HIV Infected	100% (N=2,282)	100% (N=3,606)

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).

In 2003, 2,282 HIV-infected persons were reported receiving Ryan White Services in Out-State Michigan. Since it is likely that most of these individuals receiving services are reported cases, when comparing their number to that of the total number of reported cases (3,606), it is apparent that not all persons reported are receiving RWCA-funded services.

The Ryan White CARE Act puts a priority on providing services to women, infants, children and youth (WICY) with HIV infection. As a result, the proportion of youth age 12 to 24, and women age 25 or older receiving services is somewhat higher than in reported cases.

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

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Sexually Transmitted Diseases

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

During 2003, there were over 16,000 cases of chlamydia and nearly 7,000 cases of gonorrhea reported in Out-State Michigan. See Table 5, page 4-31. For both diseases, the highest rates of infection were among persons age 15-19. This age group comprises six percent of the Out-State Michigan population but accounted for 28 percent of gonorrhea and 35 percent of chlamydia cases. Although there were significantly more cases reported among whites, the rates of chlamydia and gonorrhea among blacks were 45 times that of whites for gonorrhea and 11 times the rates among whites for chlamydia. By controlling for the population, the disparity of STD incidence between blacks and whites is more evident. Similar to statewide Michigan data, 41 percent of gonorrhea cases are male and 59 percent are female, however, the majority of chlamydia cases are female (78 percent).

There were 27 cases of primary or secondary syphilis reported in Out-State Michigan in 2003. These cases were more likely to be male (59 percent) and older (41 percent over the age of 30). Fifty-six percent of these cases were black, 41 percent were white, and four percent were Hispanic. Female cases were more likely to be black (73 percent vs. 27 percent white) when compared to male cases (44 percent black vs. 50 percent white).

2004 Profile of HIV/AIDS in Out-State Michigan

Focus on Kent County

Number of Cases and Mode of Transmission:

Based on the rate found on Table 2a (page 4-28), Kent County has the second highest rate of HIV infection in the state after Wayne County (including Detroit) at 169 per 100,000 population.

For persons with a known mode of transmission (553), 65 percent of HIV infected persons living in Kent County are classified as MSM (including MSM/IDU), compared with 62 percent statewide. Nineteen percent of HIV infected persons living in Kent County are classified as IDU (including MSM/IDU), compared to 25 percent statewide. Twenty-one percent are classified as high-risk heterosexual, compared to 17 percent statewide. HIV infected individuals living in Kent County are less likely to have been infected through injection drug use and more likely to have been infected through high-risk heterosexual sex and MSM behaviors, when compared to the entire state of Michigan.

Race/Ethnicity and Sex:

The HIV infected population in Kent County is 35 percent black and 51 percent white. This is the opposite of the statewide distribution of cases (57 percent black and 37 percent white). Twelve percent of the persons living with HIV in Kent County are Hispanics, compared to four percent statewide. The Hispanic population in Michigan is discussed on page 2-30.

Of the 654 HIV/AIDS cases living in Kent County, 78 percent are male and 22 percent are female. This is similar to the entire state (77 percent male and 23 percent female).

Please see Table 8, page 2-49 of the Michigan Profile or Table 6, page 4-32 of the Out-State Profiles for Kent County data.

Other Information:

There are 103 persons living with HIV/AIDS in Kent County who were born in another country. Twenty-one of these persons were diagnosed with HIV in another country, 51 were diagnosed with HIV in Michigan, and 31 were diagnosed in other states. Just less than half (49 percent) were born in Africa.

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Focus on Berrien County

Number of Cases and Mode of Transmission:

Based on the rate found in Table 2a (page 4-28), Berrien County has the third highest rate of HIV infection in the state after Wayne (including Detroit) and Kent Counties at 166 per 100,000 population, this is slightly greater than the statewide rate of 163 per 100,000.

Black males have a different risk pattern of transmission of HIV in Berrien County than the entire state of Michigan. Of black males with a known risk, 22 percent are MSM (including those who are MSM/IDU), compared with 62 percent statewide; 26 percent are IDU (including those who are MSM/IDU), compared with 25 percent statewide; and 48 percent are high-risk heterosexual, compared with 17 percent statewide. Black males in Berrien County are less likely to be infected through MSM behavior, and more likely to be infected through high-risk heterosexual sex.

Race/Ethnicity and Sex:

The HIV infected population in Berrien County is 30 percent white, 63 percent black, and seven percent Hispanic (which is almost double that of the Hispanic population statewide). The Hispanic population in Michigan is discussed on page 2-30.

Please see Table 9, page 2-50 of the Michigan Profile or Table 7, page 4-33 of the Out-State Profiles for Berrien County data.

Other Information:

There are 53 persons living with HIV/AIDS in Berrien County who were born in another country. Two of these persons were diagnosed with HIV in another country, 36 were diagnosed with HIV in Michigan, and the rest (15 persons) were diagnosed in other states. Eighty percent were born in Africa.

2004 Profile of HIV/AIDS in Out-State Michigan

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 Out-State Michigan. MSM remain the single largest behavioral group affected by this epidemic and account for two-thirds of all reported infected persons with a known risk. MDCH estimates that there are approximately 2,830 MSM living with HIV disease in Out-State Michigan. This includes an estimated 290 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race/Ethnicity:

Having sex with other men infected most males in Out-State Michigan. This is true for black, white and Hispanic men. In reviewing reported cases for MSM and MSM/IDU (total cases equaling 1,976), white males (1,463) account for almost three-quarters (74 percent) while black males (387) comprise approximately 20 percent of men in this combined category.

Age:

The largest percentage of living MSM cases (92 percent) were between the ages of 20-49 when diagnosed with HIV. MSM is the predominant mode of transmission for males aged 13 and up.

Geographic Distribution:

Thirty-three percent of all HIV-infected MSM statewide reside in Out-State Michigan. Within both high and low prevalence counties, MSMs constitute 66 percent of the cases with a known risk. (These percentages include MSM who are also IDU).

Trends and Conclusions:

MDCH estimates that there were about 96 new HIV infections in the year 2002 among men who have sex with men in Out-State Michigan. These numbers were statistically level from 1998-2002, however, men who have sex with men will likely continue to be the largest behavioral group affected by the HIV epidemic.

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

2004 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: MSM: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

During the HIV Testing Survey (HITS) HIV-negative MSM were interviewed in Detroit (55 MSM), Oakland County (5 MSM) and Grand Rapids (23 MSM). Data from these areas are left combined to maintain statistical power. Use of condoms with male partners was assessed and indicated inconsistent condom usage. Condom use was more frequent among those who reported being the insertive partner. Figure 7 shows that of 40 respondents reporting a “primary” partner who participated in receptive anal sex, 13 (32 percent) reported that their partner used condoms “Always” in the past year. Figure 8 shows that of the 47 respondents reporting a “primary” male partner who participated in insertive anal sex, 22 (47 percent) reported using a condom “Always”.

Figure 7: In the past 12 months, when you had receptive anal sex with a primary male partner, how often did he use a condom? (n=40)

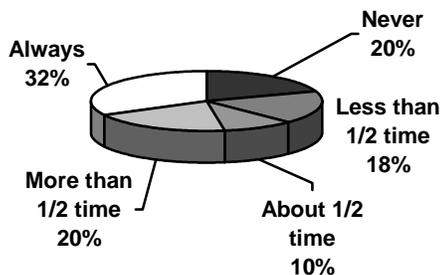


Figure 8: In the past 12 months, when you had insertive anal sex with a primary male partner, how often did you use a condom? (n=47)

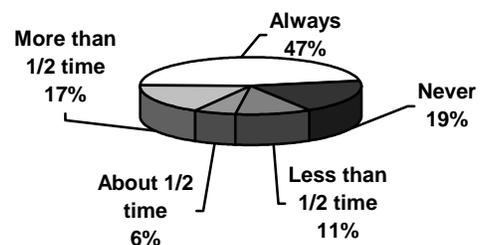


Figure 9 shows that among the 19 respondents with a “non-primary” male partner, 7 (37 percent) reported that their partner used condoms “Always” in the past year when they participated in receptive anal sex. Figure 10 shows that of the 32 respondents who participated in insertive anal sex with a non-primary male partner, 19 (60 percent) reported that they used a condom “Always”.

Figure 9: In the past 12 months, when you had receptive anal sex with a non-primary male partner, how often did he use a condom? (n=19)

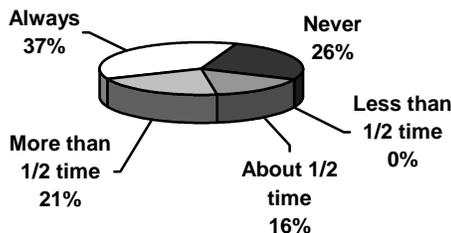
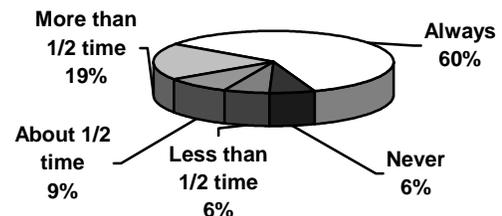


Figure 10: In the past 12 months, when you had insertive anal sex with a non-primary male partner, how often did you use a condom? (n=32)



2004 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: IDU

Data from HIV/AIDS Reporting System (HARS) &
Family of Seroprevalence Surveys

Number of Cases:

Injecting drug users (IDUs) are the number-two ranked behavioral group in Out-State Michigan and account for 19 percent of reported infected persons with a known risk. MDCH estimates there are approximately 830 IDUs living with HIV disease in Out-State Michigan. This estimate includes 290 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 (48 percent) of the reported cases among non-MSM IDUs also had high-risk heterosexual sex partners. Additionally, of the 532 cases with reported heterosexual risk, 145 individuals (27 percent) also reported having IDU as partners.

When these linked populations are considered, IDU-related transmission accounts for 24 percent (726 cases) of people reported with HIV disease and having a known risk in Out-State Michigan. This is on track with the nationwide picture of 24 percent IDU.

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 Western Michigan. 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 those interviewed at the IDU venue, including three HIV-infected IDUs, 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 and the largest proportion of IDU who share needles.

Of the 1,120 persons in the study, 825 persons were tested for Hepatitis C virus (HCV), and 202 (25 percent) were positive. Of the 14 HIV-infected persons who were tested, 8 (57 percent) were co-infected with HCV. HCV seroprevalence was much higher among persons who had injected drugs (61 percent) than among persons using non-injected drugs (14 percent).

Race/Ethnicity and Sex:

Of the 581 IDU and MSM/IDU HIV/AIDS cases, 223 are white men (38 percent), 175 are black men (30 percent), 73 are black women (13 percent), 59 are white women (10 percent), 30 are Hispanic males (5 percent), and 11 are Hispanic women (2 percent). In total, 43 percent (248) of the cases occur in black IDU.

Almost two-thirds of the cases are men (62 percent), while women constitute the remaining 38 percent. Among the 146 women whose HIV infection has been attributed to IDU, 57 percent also report high-risk heterosexual sex partners.

2004 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: IDU (continued)

Age:

Those who were 25-49 years old when diagnosed with HIV make up 83 percent (481) of all IDU (including those who are MSM/IDU) cases in Out-State Michigan. Among men with a known risk who were diagnosed with HIV between the ages of 20 and 59, IDU (including MSM/IDU) is the second most common mode of transmission. Forty-one percent of male IDU cases are among men who were diagnosed in their thirties (49 percent of these were MSM/IDU).

Among women with a known risk who were diagnosed with HIV between the ages of 13 and 59, IDU is the second most common mode of transmission. Forty percent of female IDU cases are among women who were diagnosed in their thirties (60 percent of these also reported having high-risk sexual partners).

Geographic Distribution:

Seventy-eight percent of IDU cases were reported in the high prevalence areas of Out-State Michigan. Within the high prevalence counties, IDUs constitute 20 percent of the cases with a known risk while in the lower prevalence counties 8 percent of reported 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 1998 and 2002, at approximately 25 new HIV infections in the year 2002. IDU cases in Out-State Michigan are more similar to IDU cases statewide among blacks than among whites. Some of these persons were likely exposed heterosexually because 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.

2004 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: IDU: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

The HITS survey assessed behaviors in HIV-negative IDUs. This section includes data from Detroit (66 IDUs), Oakland County (7 IDUs), and Grand Rapids (21 IDUs). Data from these areas are left combined to maintain statistical power. Figure 11 shows approximately three in ten respondents reporting use of non-sterile needles at least some of the time during the 12 months prior to the survey. Figure 12 shows that 62 percent reported injecting only heroin on a “Daily” basis.

Figure 11: In the last 12 months, how often have you used a dirty needle? (n=94)

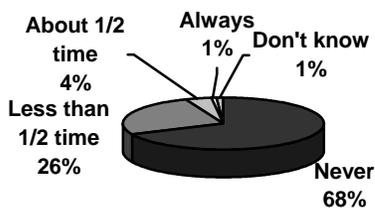
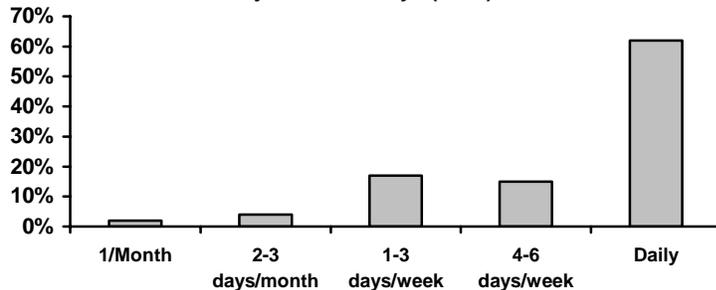


Figure 12: In the past 12 months, how often did you inject heroin only? (n=94)



Inconsistent condom use among female injection drug users is higher with primary male sex partners. Among female IDUs reporting “primary” male sex partners, 57 percent reported “Never” using a condom (Figure 13). Among female IDUs reporting “non-primary” male sex partners, 18 percent reported “Never” using a condom (Figure 14).

Figure 13: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=23)

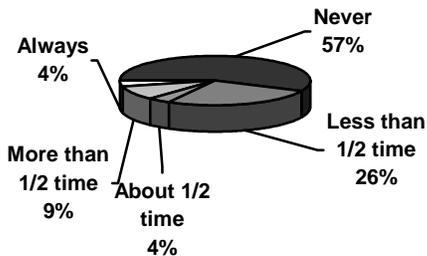
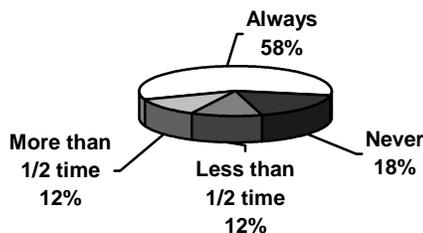


Figure 14: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=17)



Male injection drug users reported comparable condom usage rates with their female partners. Among those reporting a “primary” female sex partner, 57 percent reported “Never” using a condom with the primary female partner (Figure 15). Fifteen percent of male respondents reported “Never” using a condom with their female non-primary partner (Figure 16).

Figure 15: Men: In the past 12 months, when you had vaginal sex with a primary female partner, how often did you use a condom? (n=37)

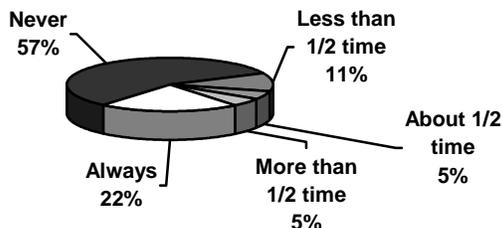
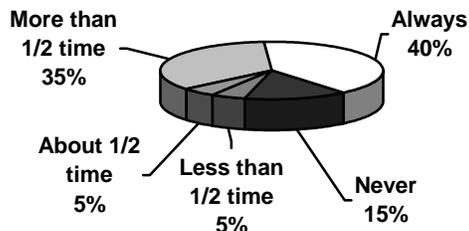


Figure 16: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=20)



2004 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: High-Risk Heterosexuals

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

Heterosexual transmission is the number-three ranked behavioral group in Out-State Michigan. Heterosexual sex accounts for 18 percent of reported infected persons with a known risk. MDCH estimates that 760 persons living with HIV disease in Out-State Michigan were infected with HIV through heterosexual sex. Transmission is classified as heterosexual when one or more heterosexual sex partners are known to be IDUs, behaviorally bisexual men, blood recipients known to be HIV +, and/or HIV+ individuals (these are referred to as high-risk heterosexual partners).

Currently there are an estimated 260 infected persons who are classified as IDUs but who also had one or more high-risk heterosexual sex partner(s). These persons may have been exposed to HIV heterosexually or through sharing injecting equipment. Among reported cases, the dual risk IDU/heterosexual cases comprise six percent of all reported HIV/AIDS cases with a known risk and are 55 percent men and 45 percent women within Out-State Michigan.

There are no seroprevalence surveys in this area to measure the HIV positive rate of higher risk heterosexuals attending STD clinics. However rates in Out-State Michigan are likely lower than those at the Detroit Health Department's STD clinic.

Prevalence:

Seroprevalence surveys done in 1996 at the Berrien and Saginaw counties STD clinics each measured 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 are likely even lower

Incidence:

In the early 2000s, a less sensitive EIA assay, was used to measure incidence (recently acquired infections) by testing stored specimens from the Family of Seroprevalence Surveys that were collected between 1988 and 1999. At Michigan HIV counseling, testing, & referral centers incidence ranged from 22-54 cases (13 to 24 percent) annually. Overall HIV incidence was stable throughout most of the study period, reaching a low of 0.17 percent in 2000 and then rising to the highest level during this study period at 0.41 percent in 2002. Specifically, heterosexuals were represented by two groups: a person engaging in only heterosexual sex, with no other risk and a person whose sex partner was at risk for HIV. Each of these groups accounted for 14 percent of recently acquired HIV infection during this period. The majority of recently acquired infections in the heterosexual group were black, and the proportion of blacks increased in the later study years, with the greatest increase seen among black females (from 29 to 44 percent).

Race/Ethnicity and Sex:

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, 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 532 men and women living with HIV/AIDS and infected heterosexually, 27 percent reported their heterosexual partner as injecting drug users, six percent as behaviorally bisexual men (this applies to women only) and three percent as persons infected through blood products. Almost two-thirds (64 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

While women account for 22 percent of HIV/AIDS cases in Out-State Michigan they have consistently accounted for over three-quarters of heterosexually acquired infections -- currently 73 percent. Two-thirds of black women were infected heterosexually (66 percent). Just under three-quarters of white women were infected through heterosexual sex (72 percent).

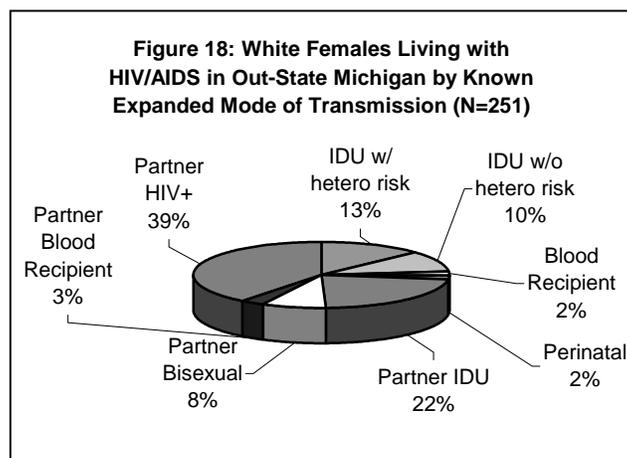
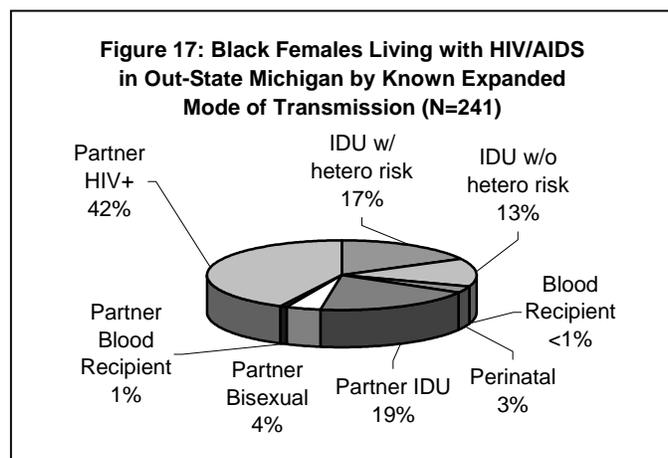
2004 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: High-Risk Heterosexuals (Continued)

Race/Ethnicity and Sex (Continued):

The number of black and white cases with a high-risk heterosexual risk are relatively equal (42 and 44 percent, respectively). The percent of men infected heterosexually is low--six percent of cases among men of all races with a known risk. See Table 3, page 4-29.

The heterosexual transmission category includes sub-categories to describe mode of transmission in more detail. This is especially helpful for women since they make up most (73 percent) of the heterosexually transmitted cases. To be reported as a heterosexual transmission case, a female must have a partner who is known to be an IDU, behaviorally bisexual man, blood recipient known to be HIV +, and/or HIV+ individual. Heterosexual and IDU modes of transmission and associated sub-categories for infected black and white women with known risk are shown in Figures 17 and 18.



Age:

For women who were 13 years or older at the time of their HIV diagnosis, high-risk heterosexual transmission is the predominant mode of HIV transmission.

Geographic Distribution:

Seventy-eight percent of the 532 cases in Out-State Michigan attributed to high-risk heterosexual activity were reported in high prevalence counties. Of all the cases with a known risk within high prevalence counties in Out-State Michigan, heterosexual transmission constitutes 18 percent. Within low prevalence counties, heterosexual transmission constitutes 17 percent of the cases.

Trends and Conclusions:

In Out-State Michigan, heterosexual transmission was roughly level at around 40 cases per year between 1998 and 2002. At the same time, the proportion of cases attributable to presumed heterosexuals, someone who had heterosexual sex as their only risk but their partner's risk is unknown, increased significantly from 20 percent to 29 percent (53 to 89 cases). When 'presumed heterosexuals' are included in the heterosexual category, the proportion with heterosexually acquired infection exceeds the number of cases attributed to IDU.

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 those classified as IDU in the future.

2004 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: High-Risk Heterosexuals: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

High-risk HIV-negative heterosexuals were interviewed as a part of HITS at the sexually transmitted disease clinics of the Detroit City (62), Oakland County (27), and Kent County (28) Health Departments. Data from these areas are left combined to maintain statistical power. Men interviewed reported “Never” using a condom 45 percent of the time with their primary female partner and “Never” using a condom 19 percent of the time with a non-primary female partner (Figures 19 and 20). Women interviewed in the STD clinics reported “Never” using a condom 38 percent of the time with their primary male partners, and “Never” using a condom 42 percent with the non-primary male partners (Figures 21 and 22).

Figure 19: Men: In the past 12 months, when you had vaginal sex with a primary female partner, how often did you use a condom? (n=48)

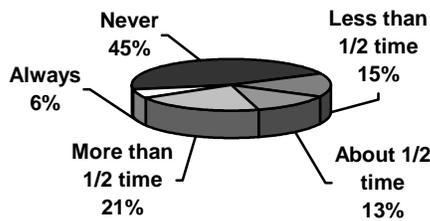


Figure 20: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=37)

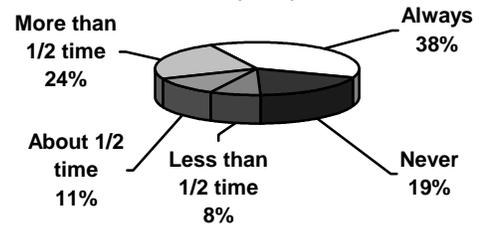


Figure 21: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=50)

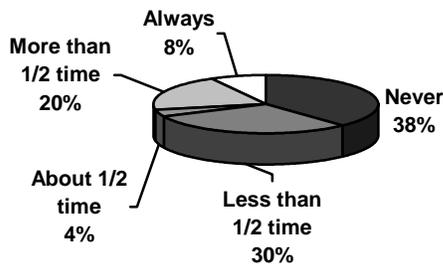
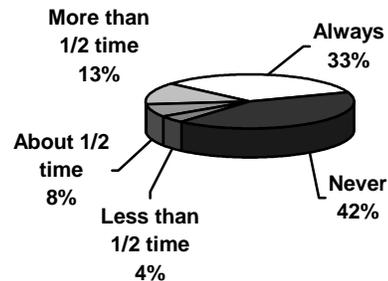


Figure 22: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=24)



2004 Profile of HIV/AIDS in Out-State Michigan

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 Out-State Michigan, there are a disproportionate number of black cases. Black persons comprise seven percent of the Out-State Michigan population yet make up a third (32 percent) of the cases of HIV/AIDS. MDCH estimates 1,670 blacks living with HIV/AIDS in Out-State Michigan. The rate of HIV infection among blacks is 428 per 100,000 population, almost seven times higher than the rate among whites. MDCH estimates that as many as one out of 170 black males and one out of 350 black females may be HIV-infected.

White persons comprise over half (59 percent) of reported HIV/AIDS cases, and 86 percent of the population. MDCH estimates there are 3,020 white persons living with HIV/AIDS in Out-State Michigan. However, since these cases are spread out among a much larger population they have a lower rate (64 per 100,000 population) of HIV infection than blacks or Hispanics. MDCH estimates that as many as one out of 900 white males and one out of 5,430 white females may be HIV-infected.

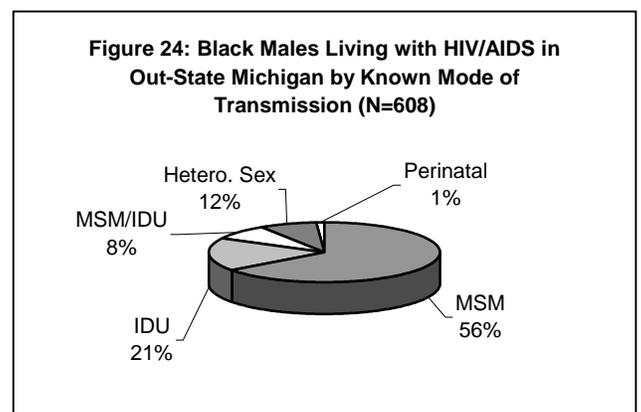
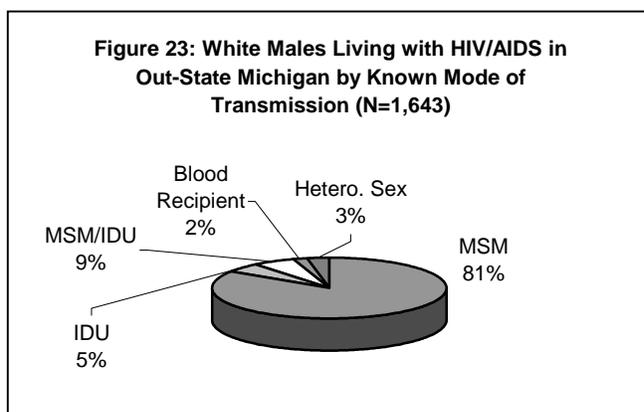
Hispanics comprise seven percent of cases and four percent of the population. This is in contrast to the state as a whole or the Detroit Metro Area alone where the percent of Hispanic cases and population are both three percent. MDCH estimates 340 Hispanics living with HIV/AIDS in Out-State Michigan. However, the relatively few cases are spread out among a small population and therefore they have a rate (174 per 100,000 population) higher than that among whites. MDCH estimates that as many as one out of 410 Hispanic males one out of 1,030 Hispanic females may be HIV-infected.

Most persons living with HIV/AIDS in Out-State Michigan are male (78 percent). 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 this area.

The majority of the 2,822 male HIV/AIDS cases are white (64 percent), 28 percent are black, six percent are Hispanic and two percent are other or unknown race. Almost half of the 784 female HIV/AIDS cases are black (49 percent), 40 percent are white, eight percent are Hispanic and three percent are other or unknown race.

Mode of Transmission:

Figures 23 and 24 display the proportion of black and white male cases by mode of transmission, among those with known transmission.



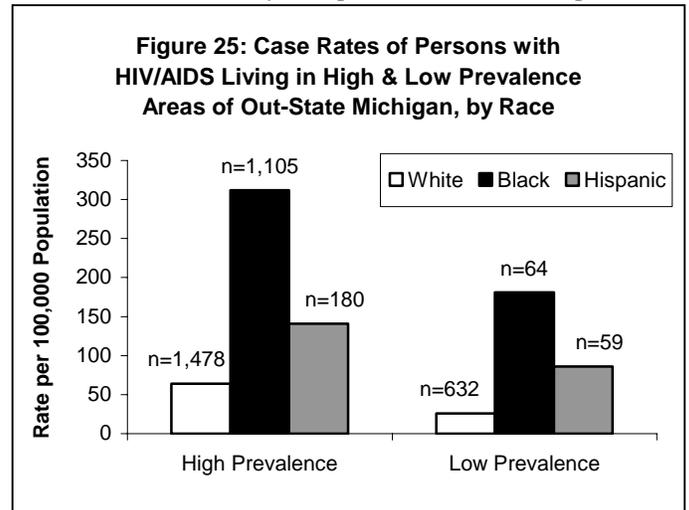
Please refer to Figures 17 and 18 (page 4-19) for break down of female transmissions.

2004 Profile of HIV/AIDS in Out-State Michigan

Description of the Epidemic by Race and Sex (Continued)

Geographic Distribution of Cases:

Ninety-five percent of all the black cases, seventy percent of white cases, and seventy-five percent of all the Hispanic cases in Out-State Michigan occur in high prevalence counties. Looking at the proportions of cases by race (e.g., number of black cases/total number of cases) in a particular area of Out-State Michigan 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 (e.g., number of black cases/total number of blacks living in that area). Figure 25 shows that among blacks, the rate is five to seven times higher than the rate among whites in both high and low prevalence areas of Out-State Michigan, even though there are many fewer cases among blacks (numbers are above the bars). This shows that this disease disproportionately affects blacks in both high and low prevalence areas of Out-State Michigan. Also, the HIV/AIDS case rate among Hispanics is two to three times higher than the rate among whites in both high and low prevalence areas.



Trends and Conclusions:

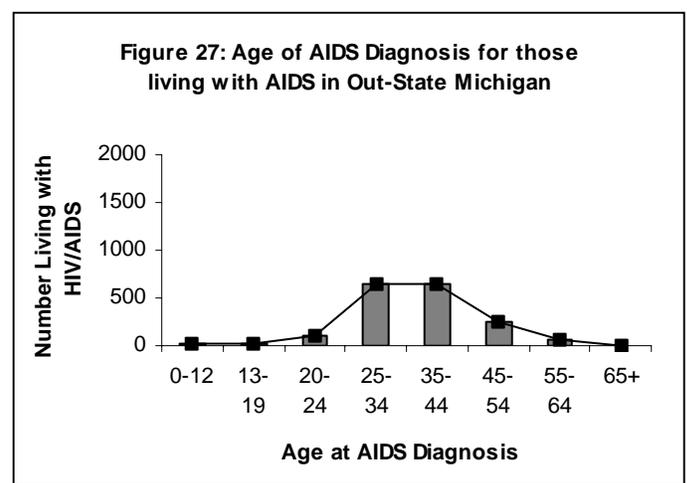
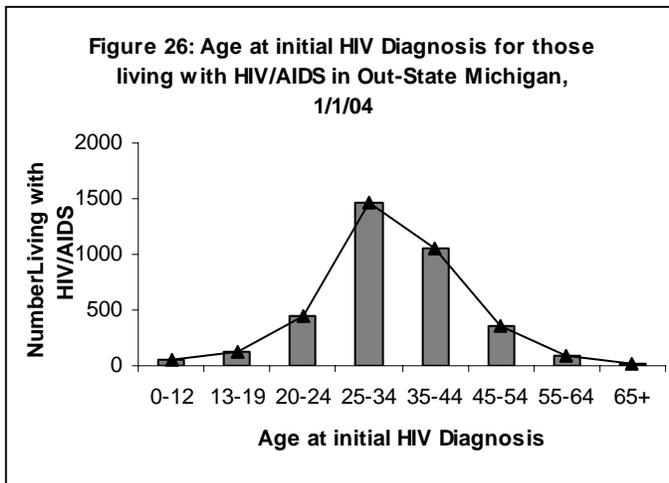
MDCH estimates that the number of new HIV infections annually among blacks has remained level at 550 in 2002. During this same time period, the estimated annual number among whites has remained stable at 250 persons in 2002. New HIV infections diagnosed among Hispanics is also level and remains under 50 persons in 2002.

2004 Profile of HIV/AIDS in Out-State Michigan

Description of the Epidemic by Age

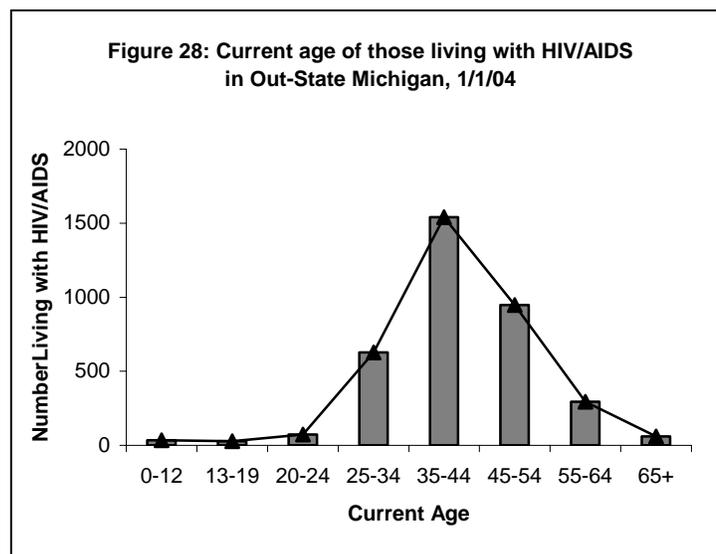
Age at Diagnosis:

There were no significant differences in the proportion of people diagnosed with HIV each year from 1998 to 2002 in any of the age at HIV diagnoses groups in Out-state Michigan. Figure 26 shows persons who were between the ages of 25 and 34 at their initial diagnosis of HIV make up the majority of those living with HIV/AIDS (41 percent) and those who were 35-44 years old make up the second largest age group at initial HIV diagnosis. These two groups make up equal proportions of age at AIDS diagnosis (Figure 27), and combined make up 74 percent of those currently living with AIDS.



Current Age:

Since the start of widespread use of Highly Active Anti-Retroviral Therapy (HAART) in 1996, persons infected with HIV have been living longer. Evidence of this is shown on Figure 28, which displays the current ages of those living with HIV in Michigan. Those currently ages 35 to 44 years make up the largest group of those living with HIV (43 percent) in Out-State Michigan. While persons who were ages 55 years and older at initial HIV diagnosis made up only four percent of those diagnosed with AIDS (Figure 27), persons in this age group make up 10 percent of persons living with HIV in Out-State Michigan.



2004 Profile of HIV/AIDS in Out-State Michigan

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

Data from HIV/AIDS Reporting System (HARS)

Number of Cases:

MDCH estimates that there are 80 people living in Out-State Michigan, who were ages 0-12 when they were diagnosed with HIV. They comprise 1.6 percent of reported infected persons. Most of them (77 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding). Of the remaining children, 12 percent were infected via blood exposure before 1985 and 11 percent had an unknown risk.

Description of Cases in Children:

Children, ages 0-12, infected with HIV are 61 percent male and 39 percent female. Among the 57 young children reported with HIV/AIDS 46 percent are black, 39 percent are white, 11 percent are Hispanic, and five percent are of unknown race.

Of the 44 children infected perinatally, 14 percent had a mother who was an IDU (20 percent of these had a mother who was not known to be an IDU, but one or more of her sex partners were IDUs). Nine percent had a mother who had behaviorally bisexual sex partners and two percent had a mother who had a hemophiliac sex partner. An additional 27 percent had mothers with HIV-infected sex partners but for whom additional risk information was unavailable. For another 27 percent all that was known about the mother is that she was HIV-infected with no additional risk information.

Geographic Distribution of Infected Children:

Thirty-three percent of all cases in children 0-12 are in Out-State Michigan. Within this area, 70 percent are located in 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 January 1, 2004, four of the 27 children born in 2001 and one of the 20 children born in 2002 to HIV-infected women in Out-State Michigan have been diagnosed with HIV infection.

For further discussion please see: Mokotoff, ED, Malamud BH, Kent JB, Kowalczyk, RJ, Scott LJ, Hammett TA, Lindegren, ML. Progress Towards Elimination of Perinatal HIV Infection-Michigan, 1993-2000, MMWR, 2002;51:5: 93-97.

2004 Profile of HIV/AIDS in Out-State Michigan

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

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

Number of Cases:

MDCH estimates that there are about 830 persons currently living in Out-State Michigan who were ages 13-24 years when they were diagnosed with HIV. Those ages 13-19 years comprise four percent; and age 20-24 years, 13 percent of the Out-State Michigan total. The rate of HIV/AIDS among these young people is lower than the rate among those aged 25-39 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 male youth who live in areas with high HIV prevalence and have male sex partners who are age 20 or older.

STD rates are highest in those who were 13 to 24 years old at the time of HIV diagnosis. The Out-State specific STD data are shown on Table 5 on page 4-31. In Out-State Michigan, the rate of chlamydia in persons age 15-19 is over six times higher than the overall rate (among all persons in this area). The rate of gonorrhea in this same age group is just over five times that of the overall rate. Please refer to the Sexually Transmitted Diseases Section of the Statewide Profile (page 1-14) for a discussion of these high rates. While rates of STDs among 15-19 year olds are quite high, the rates of HIV in this demographic group are comparably low. This is due to the fact that risk factors for STD acquisition are very broad, specifically multiple sex partners and unprotected sexual intercourse, in comparison to the more specific risk factors of injection drug use or homosexual sex for HIV.

Teen pregnancy rates have also shown decreases over time and decreased significantly from 1998 to 2002. Genesee (80.9 pregnancies per 100,000 persons aged 15-19), Muskegon (79.8), Calhoun (78.5), and Van Buren (77.7) Counties had the highest teen pregnancy rates in Out-State Michigan in 2002, with only Wayne County and the City of Detroit higher than them statewide.

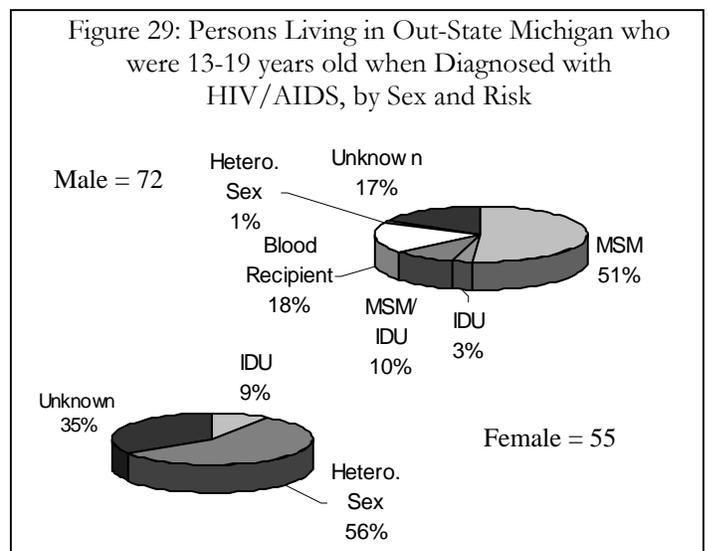
Race/Ethnicity:

Fifty-five percent of persons aged 13-19 at the time of HIV diagnosis are white, 36 percent are black, and 1 percent are Hispanic or other race. Fifty-seven percent of persons aged 20-24 at the time of HIV diagnosis are white, 34 percent are black, and two percent are Hispanic or other race.

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. Therefore, the percentages discussed in this section do not match those seen on Table 4. 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.

Figure 29 shows that among the 127 persons who were ages 13-19 at the time of HIV diagnosis and currently living with HIV in Out-State Michigan, 72 (57 percent) are male. Among these male cases, half had sex with other males (51 percent) including MSM/IDU; while 18 percent had been infected with HIV through blood products before 1985. One percent could be attributed to IDU (including MSM/IDU) and three percent to heterosexual transmission for this age group within this area. Teenage males have the largest proportion of unidentified risk (17 percent) of any 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.



2004 Profile of HIV/AIDS in Out-State Michigan

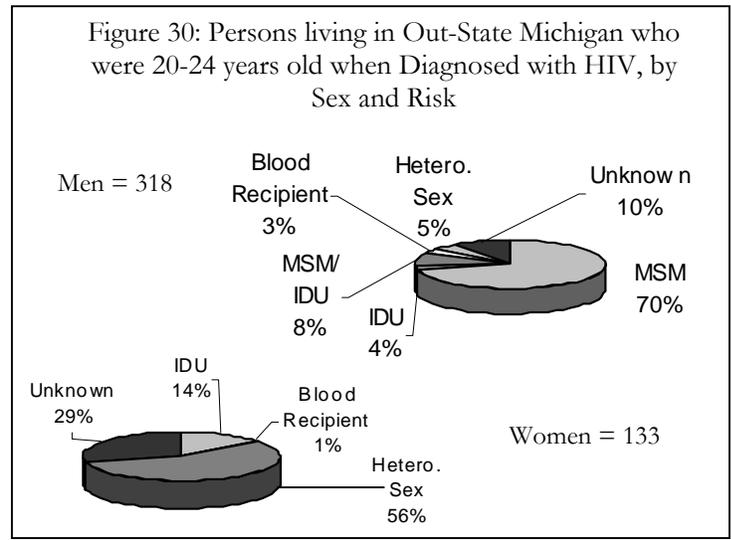
Description of the Epidemic Among Teens and Young Adults (Continued)

Mode of Transmission (continued):

Teenagers (continued): Figure 29 also shows that among the 55 females who were ages 13-19 at the time of HIV diagnosis and currently living with HIV in Out-State Michigan, over half (56 percent) were infected through heterosexual sex, while 9 percent were IDU. The proportion of NIRs among these teenage girls is twice as high (35 vs. 17 percent) as the proportion among teenage boys. Teenage females have the largest proportion of unidentified risk of any age group of women under 60. Most of these females were probably infected heterosexually.

Young Adults: Figure 30 shows that among the 451 persons who were ages 20-24 at time of HIV diagnosis, almost three quarters (71 percent) are male. Seventy-nine percent of them reported sex with other males (including those MSM who also are IDU); 10 percent did not report a mode of transmission. Many of these were likely infected through sex with other men.

Figure 30 also shows that among the 133 females who were ages 20-24 at time of HIV diagnosis, just under over half (56 percent) were infected heterosexually and 14 percent were IDUs; just under a third (29 percent) did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually.



Geographic Distribution of Youth and Teen Cases:

Eighty percent of the 578 persons diagnosed and reported with HIV/AIDS between the ages of 13-24 are located in high prevalence counties. The remaining 20 percent are located in low prevalence counties.

Trends and Conclusions:

The number of new cases among persons aged 13-24 years has remained level. Out-State Michigan should consider both of the sexual 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 most are infected by older partners (25+).

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

**Table 2: Distribution of HIV/AIDS Prevalence Estimates
Reported Cases, and Population within Out-State Michigan⁴**

Prisoners and persons with unknown residence are not included
January 1, 2004

Outstate Patient Group	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²		Rate per 100,000 ³	2000 Census	
		Reported Cases	%			%
Male	4,040	2,822	78.3%	148.8	2,715,625	49.4%
<i>White, Non-Hispanic Males</i>	2,580	1,800	50%	111.3	2,317,279	42%
<i>Black, Non-Hispanic Males</i>	1,120	782	22%	574.6	194,929	4%
<i>Hispanic Males</i>	250	177	5%	242.1	103,276	2%
<i>Asian, Hawaiian, Pacific Islander Males</i>	10	10	0%	27.4	36,440	1%
<i>American Indian Males</i>	20	13	0%	99.0	20,193	0%
<i>Other/Multi Race Males</i>	N/A	40	1%	*	43,508	N/A
Female	1,120	784	22%	40.3	2,781,268	51%
<i>White, Non-Hispanic Females</i>	440	310	9%	18.4	2,392,512	44%
<i>Black, Non-Hispanic Females</i>	550	387	11%	282.3	194,856	4%
<i>Hispanic Females</i>	90	62	2%	97.3	92,526	2%
<i>Asian, Hawaiian, Pacific Islander Females</i>	10	*	*	*	37,726	1%
<i>American Indian Females</i>	10	*	*	49.6	20,148	0%
<i>Other/Multi Race Females</i>	N/A	13	0%	*	43,500	N/A
White, Non-Hispanic	3,020	2,110	59%	64.1	4,709,791	86%
Black, Non-Hispanic	1,670	1,169	32%	428.4	389,785	7%
Hispanic	340	239	7%	173.6	195,802	4%
Asian, Hawaiian, Pacific Islander	20	14	0%	27.0	74,166	1%
American Indian	30	21	1%	74.4	40,341	1%
Other/Multi Race	N/A	53	1%	*	87,008	N/A
Male-Male Sex[#]	2,540	1,775	59%[^]	N/A		
Injecting Drug Use[#]	540	380	13%[^]	N/A		
<i> IDU w/ heterosexual</i>	260	183	6% [^]	N/A		
<i> IDU w/o heterosexual</i>	280	197	7% [^]	N/A		
Male-Male Sex/IDU[#]	290	201	7%[^]	N/A		
Blood Recipient[#]	80	56	2%[^]	N/A		
Perinatal	60	44	1%[^]	N/A		
Heterosexual[#]	760	532	18%[^]	N/A		
<i> Partner IDU</i>	210	145	5% [^]	N/A		
<i> Partner Bisexual</i>	50	33	1% [^]	N/A		
<i> Partner Rec'd Bld</i>	20	15	1% [^]	N/A		
<i> Partner HIV +</i>	490	339	11% [^]	N/A		
Known Risk Total	4,280	2,988	100%[^]	N/A		
Unknown Risk[#]	N/A	618	17%	N/A		
<i> Presumed Heterosexual</i>	N/A	450	12%	N/A		
<i> Other</i>	N/A	168	5%	N/A		
0 - 4 years^x	40	31	1%	11.1	361,367	7%
5 - 9 years^x	30	20	1%	7.5	398,525	7%
10-12 years^x	10	7	0%	4.0	248,373	5%
13-19 years^x	180	127	4%	30.4	592,850	11%
20-24 years^x	650	451	13%	166.9	389,370	7%
25-29 years^x	1,020	713	20%	296.2	344,387	6%
30-34 years^x	1,070	748	21%	289.1	370,107	7%
35-39 years^x	940	660	18%	221.2	424,956	8%
40-44 years^x	580	402	11%	131.4	441,449	8%
45-49 years^x	320	225	6%	78.9	405,415	7%
50-54 years^x	180	125	3%	51.8	347,745	6%
55-59 years^x	80	57	2%	29.4	271,963	5%
60-64 years^x	40	30	1%	18.4	217,669	4%
65 and older^x	10	10	0%	1.5	682,717	12%
Unknown Age	N/A	0	0%	N/A	0	N/A
Total Out-State	5,160	3,606	100%	93.9	5,496,893	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

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

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

^x Indicates age is at time of HIV diagnosis

¹ The minimum estimate is 10 cases.

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/04

³ Rate calculated (*Estimated HIV Infection/2000 Census*) * 100,000

⁴ Totals for counties/areas include infected prisoners who were discharged/paroled with no current residence available

Table 2a: Distribution of HIV/AIDS: Prevalence Estimates, Reported Cases, and Population within Out-State Michigan, by County⁴

Prisoners and persons with unknown residence are included

January 1, 2004

	Estimated HIV Infection ¹	Total HIV + AIDS Reported ²			2000 Census	%		Estimated HIV Infection ¹	Total HIV + AIDS Reported ²			2000 Census	%
		Reported Cases	%	Rate per 100,000 ³					Reported Cases	%	Rate per 100,000 ³		
ALLEGAN CO.	110	75	2%	104.1	105,665	1%	District #4	20	12	0%	24.2	82,488	1%
Barry/Eaton Co.	70	48	1%	43.6	160,410	2%	ALPENA CO.	10	5	0%	31.9	31,314	0%
BARRY CO.	30	17	0%	52.9	56,755	1%	CHEBOYGAN CO.	10	5	0%	37.8	26,448	0%
EATON CO.	50	31	1%	48.2	103,655	1%	MONTMORENCY CO.	10*	*	*	*	10,315	0%
BAY CO.	70	49	1%	63.5	110,157	1%	PRESQUE ISLE CO.	10*	*	*	*	14,411	0%
Benzie/Leelanau	10	10	0%	26.9	37,117	0%	GENESEE CO.	660	445	12%	151.3	436,141	4%
BENZIE CO.	10	*	*	*	15,998	0%	GRAND TRAVERSE CO.	60	39	1%	77.3	77,654	1%
LEELANAU CO.	10	8	0%	47.4	21,119	0%	HURON CO.	10*	*	*	*	36,079	0%
BERRIEN CO.	270	185	5%	166.2	162,453	2%	INGHAM CO.	460	314	9%	164.7	279,320	3%
Branch/Hillsdale/St. Joseph	60	41	1%	38.8	154,736	2%	IONIA CO.	30	18	0%	48.8	61,518	1%
BRANCH CO.	20	11	0%	43.7	45,787	0%	JACKSON CO.	180	123	3%	113.6	158,422	2%
HILLSDALE CO.	10	8	0%	21.5	46,527	0%	KALAMAZOO CO.	330	226	6%	138.3	238,603	2%
ST JOSEPH CO.	30	22	1%	48.1	62,422	1%	KENT CO.	970	654	18%	168.9	574,335	6%
CALHOUN CO.	160	111	3%	116.0	137,985	1%	LENAWEE CO.	70	44	1%	70.8	98,890	1%
Cass-Vanburen	120	83	2%	94.2	127,367	1%	LIVINGSTON CO.	50	31	1%	31.9	156,951	2%
CASS CO.	40	25	1%	78.3	51,104	1%	LMAS District	10*	*	*	*	37,732	1%
VAN BUREN CO.	90	58	2%	118.0	76,263	1%	ALGER CO.	10*	*	*	*	9,862	0%
Central Michigan District	80	52	1%	42.9	186,561	2%	LUCE CO.	10	0	0%	*	7,024	0%
ARENAC CO.	10	*	*	*	17,269	0%	MACKINAC CO.	10*	*	*	*	11,943	0%
CLARE CO.	20	12	0%	64.0	31,252	0%	SCHOOLCRAFT CO.	10*	*	*	*	8,903	0%
GLADWIN CO.	10	5	0%	38.4	26,023	0%	MARQUETTE CO.	40	26	1%	61.9	64,634	1%
ISABELLA CO.	20	15	0%	31.6	63,351	1%	Mid-Michigan Dist.	100	67	2%	59.4	168,304	2%
OSCEOLA CO.	10	6	0%	43.1	23,197	0%	CLINTON CO.	60	38	1%	92.7	64,753	1%
ROSCOMMON CO.	20	12	0%	78.5	25,469	0%	GRATIOT CO.	10*	*	*	*	42,285	0%
CHIPPEWA CO.	20	14	0%	51.9	38,543	0%	MONTCALM CO.	40	25	1%	65.3	61,266	1%
Delta-Menominee	30	19	1%	47.0	63,846	1%	MIDLAND CO.	30	22	1%	36.2	82,874	1%
DELTA CO.	20	16	0%	51.9	38,520	0%	MUSKOGON CO.	160	108	3%	94.0	170,200	2%
MENOMINEE CO.	10	3	0%	*	25,326	0%	Northwest Mich. Dist.	50	33	1%	48.1	103,938	1%
Dickinson-Iron	10	7	0%	24.6	40,610	1%	ANTRIM CO.	10	8	0%	43.3	23,110	0%
DICKINSON CO.	10	6	0%	36.4	27,472	0%	CHARLEVOIX CO.	10	9	0%	38.3	26,090	0%
IRON CO.	10	*	*	*	13,138	0%	EMMET CO.	10	9	0%	31.8	31,437	0%
District #10	140	97	3%	54.9	255,240	3%	OTSEGO CO.	10	7	0%	42.9	23,301	0%
CRAWFORD CO.	10	7	0%	70.1	14,273	0%	OTTAWA CO.	110	76	2%	46.2	238,314	2%
KALKASKA CO.	10	*	*	*	16,571	0%	SAGINAW CO.	210	145	4%	100.0	210,039	2%
LAKE CO.	10	10	0%	88.2	11,333	0%	SANILAC CO.	20	12	0%	44.9	44,547	0%
MANISTEE CO.	20	12	0%	81.5	24,527	0%	SHIAWASSEE CO.	30	21	1%	41.8	71,687	1%
MASON CO.	20	12	0%	70.7	28,274	0%	TUSCOLA CO.	10	9	0%	17.2	58,266	1%
MECOSTA CO.	20	12	0%	49.3	40,553	0%	WASHTENAW CO.	530	355	10%	164.1	322,895	3%
MISSAUKEE CO.	10	*	*	*	14,478	0%	Western UP Dist	30	18	0%	41.5	72,251	1%
NEVAYGO CO.	20	15	0%	41.8	47,874	0%	BARAGA CO.	10	6	0%	114.3	8,746	0%
OCEANA CO.	10	7	0%	37.2	26,873	0%	GOGEBIC CO.	10*	*	*	*	17,370	0%
WEXFORD CO.	20	14	0%	65.6	30,484	0%	HOUGHTON CO.	10	8	0%	27.8	36,016	0%
District #2	20	11	0%	28.5	70,121	1%	KEWEENAW CO.	10	0	0%	*	2,301	0%
ALCONA CO.	10	0	0%	*	11,719	0%	ONTONAGON CO.	10*	*	*	*	7,818	0%
IOSCO CO.	10	5	0%	36.6	27,339	0%							
OGEMAW CO.	10	*	*	*	21,645	0%							
OSCODA CO.	10	*	*	*	9,418	0%							
							Total Out-State	5,160	3,606	100%	93.9	5,496,893	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

¹The minimum estimate is 10 cases.

²Total HIV+AIDS refers to the number of reported cases alive as of 1/1/04

³Rate calculated (Estimated HIV Infection/2000 Census) * 100,000

⁴Totals for counties/areas include infected prisoners who were discharged/paroled with no current residence available

**Table 3: Living HIV/AIDS Cases Currently Living in Out-State Michigan
Sex and Race by Risk
January 1, 2004**

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex[#]	1,323	81%	339	56%	91	64%	22	65%	1,775	73%
Injecting Drug Use[#]	83	5%	127	21%	21	15%	3	9%	234	10%
<i>IDU w/ heterosexual</i>	35	2%	56	9%	9	6%	0	0%	100	4%
<i>IDU w/o heterosexual</i>	48	3%	71	12%	12	8%	3	9%	134	6%
Male-Male Sex/IDU[#]	140	9%	48	8%	9	6%	4	12%	201	8%
Blood Recipient[#]	41	2%	8	1%	0	0%	1	3%	50	2%
Perinatal	9	1%	13	2%	1	1%	2	6%	25	1%
Heterosexual[#]	47	3%	73	12%	20	14%	2	6%	142	6%
<i>Partner IDU</i>	12	1%	14	2%	3	2%	1	3%	30	1%
<i>Partner Blood Recipient</i>	3	0%	1	0%	0	0%	0	0%	4	0%
<i>Partner HIV+</i>	32	2%	58	10%	17	12%	1	3%	108	4%
Total Known Risks	1,643	91%	608	78%	142	80%	34	54%	2,427	86%
Unknown Risk[#]	157	9%	174	22%	35	20%	29	46%	395	14%
<i>Presumed Heterosexual</i>	88	5%	134	17%	29	16%	7	11%	258	9%
<i>Other</i>	69	4%	40	5%	6	3%	22	35%	137	5%
Total All Cases	1,800	64%	782	28%	177	6%	63	2%	2,822	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use[#]	59	24%	73	30%	11	22%	3	17%	146	26%
<i>IDU w/ hetero risk</i>	33	13%	41	17%	7	14%	2	11%	83	15%
<i>IDU w/o hetero risk</i>	26	10%	32	13%	4	8%	1	6%	63	11%
Blood Recipient[#]	5	2%	1	0%	0	0%	0	0%	6	1%
Perinatal	6	2%	7	3%	5	10%	1	6%	19	3%
Heterosexual[#]	181	72%	160	66%	35	69%	14	78%	390	70%
<i>Partner IDU</i>	56	22%	46	19%	8	16%	5	28%	115	20%
<i>Partner Bisexual</i>	20	8%	10	4%	2	4%	1	6%	33	6%
<i>Partner Blood Recipient</i>	7	3%	3	1%	1	2%	0	0%	11	2%
<i>Partner HIV+</i>	98	39%	101	42%	24	47%	8	44%	231	41%
Total Known Risks	251	81%	241	62%	51	82%	18	72%	561	72%
Unknown Risk[#]	59	19%	146	38%	11	18%	7	28%	223	28%
<i>Presumed Heterosexual</i>	51	16%	127	33%	11	18%	3	12%	192	24%
<i>Other</i>	8	3%	19	5%	0	0%	4	16%	31	4%
Total All Cases	310	40%	387	49%	62	8%	25	3%	784	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex[#]	1,323	70%	339	40%	91	47%	22	42%	1,775	59%
Injecting Drug Use[#]	142	7%	200	24%	32	17%	6	12%	380	13%
<i>IDU w/ heterosexual</i>	68	4%	97	11%	16	8%	2	4%	183	6%
<i>IDU w/o heterosexual</i>	74	4%	103	12%	16	8%	4	8%	197	7%
Male-Male Sex/IDU[#]	140	7%	48	6%	9	5%	4	8%	201	7%
Blood Recipient[#]	46	2%	9	1%	0	0%	1	2%	56	2%
Perinatal	15	1%	20	2%	6	3%	3	6%	44	1%
Heterosexual[#]	228	12%	233	27%	55	28%	16	31%	532	18%
<i>Partner IDU</i>	68	4%	60	7%	11	6%	6	12%	145	5%
<i>Partner Bisexual</i>	20	1%	10	1%	2	1%	1	2%	33	1%
<i>Partner Blood Recipient</i>	10	1%	4	0%	1	1%	0	0%	15	1%
<i>Partner HIV+</i>	130	7%	159	19%	41	21%	9	17%	339	11%
Total Known Risks	1,894	90%	849	73%	193	81%	52	59%	2,988	83%
Unknown Risk[#]	216	10%	320	27%	46	19%	36	41%	618	17%
<i>Presumed Heterosexual</i>	139	7%	261	22%	40	17%	10	11%	450	12%
<i>Other</i>	77	4%	59	5%	6	3%	26	30%	168	5%
Total All Cases	2,110	59%	1,169	32%	239	7%	88	2%	3,606	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

^ Indicates percentage calculated from cases with *known risk*

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

Indicates an explanatory definition exists in Appendix B

Table 4: Living HIV/AIDS Cases in Out-State Michigan
Age^x at HIV Diagnosis by Risk
January 1, 2004

Male Only	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 [#]	0	0%	37	62%	225	78%	368	74%	763	76%	289	69%	77	70%	13	81%	1,772	73%
Injecting Drug Use [#]	*	*	*	*	12	4%	33	7%	90	9%	75	18%	21	19%	0	0%	233	10%
IDU w/ heterosexual	0	0%	*	*	*	*	17	3%	42	4%	32	8%	6	5%	0	0%	100	4%
IDU w/o heterosexual	*	*	0	0%	10	3%	16	3%	48	5%	43	10%	15	14%	0	0%	133	5%
Male-Male Sex/IDU [#]	0	0%	7	12%	26	9%	45	9%	88	9%	31	7%	*	*	0	0%	201	8%
Blood Recipient [#]	7	21%	13	22%	9	3%	9	2%	9	1%	*	*	*	*	*	*	50	2%
Perinatal	25	76%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	25	1%
Heterosexual [#]	0	0%	*	*	15	5%	40	8%	51	5%	25	6%	7	6%	*	*	142	6%
Partner IDU	0	0%	0	0%	*	*	10	2%	10	1%	6	1%	*	*	0	0%	30	1%
Partner Blood Recipient	0	0%	0	0%	*	*	*	*	0	0%	*	*	0	0%	0	0%	*	*
Partner HIV+	0	0%	*	*	13	5%	28	6%	41	4%	18	4%	*	*	*	*	108	4%
Total Known Risks	33	92%	60	83%	287	90%	495	91%	1,001	85%	421	84%	110	76%	16	67%	2,423	86%
Unknown Risk [#]	*	*	12	17%	31	10%	46	9%	175	15%	83	16%	34	24%	8	33%	392	14%
Presumed Heterosexual	0	0%	*	*	19	6%	31	6%	127	11%	50	10%	21	15%	*	*	256	9%
Other	*	*	8	11%	12	4%	15	3%	48	4%	33	7%	13	9%	*	*	136	5%
Total All Cases	36	1%	72	3%	318	11%	541	19%	1,176	42%	504	18%	144	5%	24	1%	2,822	100%

Female Only	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 [#]	0	0%	5	14%	18	19%	35	30%	58	33%	25	28%	5	18%	0	0%	146	26%
IDU w/ hetero risk	0	0%	*	*	6	6%	18	16%	35	20%	18	20%	*	*	0	0%	83	15%
IDU w/o hetero risk	0	0%	*	*	12	13%	17	15%	23	13%	7	8%	*	*	0	0%	63	11%
Blood Recipient [#]	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	*	*	*	*	6	1%
Perinatal	19	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	19	3%
Heterosexual [#]	0	0%	31	86%	75	80%	80	70%	113	65%	65	72%	22	79%	*	*	389	69%
Partner IDU	0	0%	8	22%	20	21%	25	22%	30	17%	27	30%	5	18%	0	0%	115	21%
Partner Bisexual	0	0%	*	*	8	9%	5	4%	10	6%	*	*	*	*	0	0%	32	6%
Partner Blood Recipient	0	0%	0	0%	*	*	*	*	*	*	*	*	0	0%	*	*	11	2%
Partner HIV+	0	0%	20	56%	43	46%	48	42%	70	40%	34	38%	14	50%	*	*	231	41%
Total Known Risks	19	86%	36	65%	94	71%	115	67%	174	75%	90	73%	28	74%	*	*	560	71%
Unknown Risk [#]	*	*	19	35%	39	29%	57	33%	58	25%	33	27%	10	26%	*	*	223	28%
Presumed Heterosexual	*	*	17	31%	37	28%	51	30%	48	21%	28	23%	7	18%	*	*	192	24%
Other	*	*	*	*	*	*	6	3%	10	4%	5	4%	*	*	*	*	31	4%
Total All Cases	22	3%	55	7%	133	17%	172	22%	232	30%	123	16%	38	5%	8	1%	784	100%

Male and Female	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 [#]	0	0%	37	39%	225	59%	368	60%	763	65%	289	57%	77	56%	13	65%	1,772	59%
Injecting Drug Use [#]	*	*	6	6%	30	8%	68	11%	148	13%	100	20%	26	19%	0	0%	379	13%
IDU w/ heterosexual	0	0%	*	*	8	2%	35	6%	77	7%	50	10%	10	7%	0	0%	183	6%
IDU w/o heterosexual	*	*	*	*	22	6%	33	5%	71	6%	50	10%	16	12%	0	0%	196	7%
Male-Male Sex/IDU [#]	0	0%	7	7%	26	7%	45	7%	88	7%	31	6%	*	*	0	0%	201	7%
Blood Recipient [#]	7	13%	13	14%	10	3%	9	1%	12	1%	*	*	*	*	*	*	56	2%
Perinatal	44	85%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	44	1%
Heterosexual [#]	0	0%	33	34%	90	24%	120	20%	164	14%	90	18%	29	21%	5	25%	531	18%
Partner IDU	0	0%	8	8%	21	6%	35	6%	40	3%	33	6%	8	6%	0	0%	145	5%
Partner Bisexual	0	0%	*	*	8	2%	5	1%	10	1%	*	*	*	*	0	0%	32	1%
Partner Blood Recipient	0	0%	0	0%	5	1%	*	*	*	*	*	*	0	0%	*	*	15	1%
Partner HIV+	0	0%	22	23%	56	15%	76	12%	111	9%	52	10%	18	13%	*	*	339	11%
Total Known Risks	52	90%	96	76%	381	84%	610	86%	1,175	83%	511	81%	138	76%	20	63%	2,983	83%
Unknown Risk [#]	6	10%	31	24%	70	16%	103	14%	233	17%	116	19%	44	24%	12	38%	615	17%
Presumed Heterosexual	*	*	21	17%	56	12%	82	12%	175	12%	78	12%	28	15%	7	22%	448	12%
Other	5	9%	10	8%	14	3%	21	3%	58	4%	38	6%	16	9%	5	16%	167	5%
Total All Cases	58	2%	127	4%	451	13%	713	20%	1,408	39%	627	17%	182	5%	32	1%	3,606	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

[^] Indicates percentage calculated from cases with *known risk for categorical break down*.

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

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

^x Indicates age at time of HIV diagnosis (Unknown age: Males=7, Females=1)

**Table 5: Gonorrhea, Syphilis, and Chlamydia by Sex
Race, and Age Group in Out-State Michigan
Reported January 1, 2003 to December 31, 2003**

Patient Group	2000 Outstate Population	Gonorrhea			P&S Syphilis*			Chlamydia		
		Cases	Pct	Rate^	Cases	Pct	Rate^	Cases	Pct	Rate^
Male	2,715,625	2,760	41%	102	16	59%	1	3,626	22%	134
<i>White Males</i>	2,317,279	231	3%	10	8	30%	0	803	5%	35
<i>Black Males</i>	194,929	1,630	24%	836	7	26%	4	1,335	8%	685
<i>Hispanic Males</i>	103,276	54	1%	52	1	4%	1	126	1%	122
<i>Other Males</i>	100,141	51	1%	N/A	0	0%	N/A	61	0%	N/A
<i>Unk Males</i>	N/A	794	12%	N/A	0	0%	N/A	1,301	8%	N/A
Female	2,781,268	3,980	59%	143	11	41%	0	12,826	78%	461
<i>White Females</i>	2,392,512	591	9%	25	3	11%	0	3,247	20%	136
<i>Black Females</i>	194,856	1,338	20%	687	8	30%	4	2,445	15%	1255
<i>Hispanic Females</i>	92,526	66	1%	71	0	0%	0	246	1%	266
<i>Other Females</i>	101,374	136	2%	N/A	0	0%	N/A	210	1%	N/A
<i>Unk Females</i>	N/A	1,849	27%	N/A	0	0%	N/A	6,678	41%	N/A
White	4,709,791	822	12%	17	11	41%	0	4,050	25%	86
Black	389,785	2,968	44%	761	15	56%	4	3,780	23%	970
Hispanic	195,802	120	2%	61	1	4%	1	372	2%	190
Other	201,515	187	3%	93	0	0%	0	271	2%	134
Unknown Race	N/A	2,643	39%	N/A	0	0%	N/A	7,979	48%	N/A
0-4 years	361,367	0	0%	0	0	0%	0	0	0%	0
5-9 years	398,525	4	0%	1	0	0%	0	3	0%	1
10-14 years	540,798	103	2%	19	0	0%	0	222	1%	41
15-19 years	300,425	1,860	28%	619	3	11%	1	5,738	35%	1910
20-24 years	389,370	2,202	33%	566	6	22%	2	6,415	39%	1648
25-29 years	344,387	1,097	16%	319	7	26%	2	2,371	14%	688
30-34 years	370,107	615	9%	166	4	15%	1	849	5%	229
35-39 years	424,956	358	5%	84	4	15%	1	375	2%	88
40-44 years	441,449	198	3%	45	2	7%	0	169	1%	38
45-54 years	753,160	184	3%	24	1	4%	0	144	1%	19
55-64 years	489,632	38	1%	8	0	0%	0	24	0%	5
65 and over	682,717	73	1%	11	0	0%	0	131	1%	19
Unknown Age	N/A	8	0%	N/A	0	0%	N/A	11	0%	N/A
Total	5,496,893	6,740	100%	123	27	100%	0	16,452	100%	299

* P&S: Primary and Secondary Syphilis

^ Rate per 100,000

**Table 6: Living HIV/AIDS Cases Currently Living in Kent County, Michigan
Sex and Race by Risk
January 1, 2004**

Male Only MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	233	85%	62	50%	26	54%	*	*	324	72%
Injecting Drug Use [#]	13	5%	27	22%	9	19%	0	0%	49	11%
Male-Male Sex/IDU [#]	16	6%	11	9%	5	10%	*	*	33	7%
Blood Recipients [#]	*	*	0	0%	0	0%	0	0%	*	*
Perinatal	*	*	*	*	0	0%	0	0%	*	*
Heterosexual [#]	9	3%	21	17%	8	17%	0	0%	38	8%
Total Known Risks	275	94%	123	82%	48	81%	*	*	450	89%
Unknown Risk [#]	18	6%	27	18%	11	19%	*	*	58	11%
Total All Cases	293	58%	150	30%	59	12%	6	1%	508	100%

Female Only MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use [#]	8	26%	12	25%	5	25%	0	0%	25	24%
Blood Recipients [#]	0	0%	0	0%	0	0%	0	0%	0	0%
Perinatal	0	0%	*	*	*	*	0	0%	*	*
Heterosexual [#]	23	74%	35	73%	14	70%	*	0%	76	74%
Total Known Risks	31	79%	48	59%	20	91%	*	*	103	71%
Unknown Risk [#]	8	21%	33	41%	*	*	0	0%	43	29%
Total All Cases	39	27%	81	55%	22	15%	*	*	146	100%

Male and Female MI	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	233	76%	62	36%	26	38%	*	*	324	59%
Injecting Drug Use [#]	21	7%	39	23%	14	21%	0	0%	74	13%
Male-Male Sex/IDU [#]	16	5%	11	6%	5	7%	*	*	33	6%
Blood Recipients [#]	*	*	0	0%	0	0%	0	0%	*	*
Perinatal	*	*	*	*	*	*	0	0%	6	1%
Heterosexual [#]	32	10%	56	33%	22	32%	*	*	114	21%
Total Known Risks	306	92%	171	74%	68	84%	8	80%	553	85%
Unknown Risk [#]	26	8%	60	26%	13	16%	*	*	101	15%
Total All Cases	332	51%	231	35%	81	12%	10	2%	654	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

^ Indicates percentage calculated from cases with *known risk*

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

Indicates an explanatory definition exists in Appendix B

**Table 7: Living HIV/AIDS Cases Currently Living in Berrien County, Michigan
Sex and Race by Risk
January 1, 2004**

Male Only MI	White		Black		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	29	76%	13	34%	*	*	46	55%
Injecting Drug Use [#]	*	*	11	29%	*	*	16	19%
Male-Male Sex/IDU [#]	5	13%	*	*	*	*	7	8%
Blood Recipients [#]	0	0%	*	*	0	0%	*	*
Perinatal	0	0%	*	*	0	0%	*	*
Heterosexual [#]	*	*	11	29%	0	0%	12	14%
Total Known Risks	38	88%	38	58%	7	58%	83	69%
Unknown Risk[#]	5	12%	27	42%	5	42%	37	31%
Total All Cases	43	36%	65	54%	12	10%	120	100%

Female Only MI	White		Black		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use [#]	*	*	5	19%	*	*	8	21%
Blood Recipients [#]	0	0%	0	0%	0	0%	0	0%
Perinatal	0	0%	*	*	0	0%	*	*
Heterosexual [#]	7	78%	20	74%	*	*	28	74%
Total Known Risks	9	75%	27	53%	*	*	38	58%
Unknown Risk[#]	*	*	24	47%	0	0%	27	42%
Total All Cases	12	18%	51	78%	*	*	65	100%

Male and Female MI	White		Black		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	29	62%	13	20%	*	*	46	38%
Injecting Drug Use [#]	5	11%	16	25%	*	*	24	20%
Male-Male Sex/IDU [#]	5	11%	*	*	*	*	7	6%
Blood Recipients [#]	0	0%	*	*	0	0%	*	*
Perinatal	0	0%	*	*	0	0%	*	*
Heterosexual [#]	8	17%	31	48%	*	*	40	33%
Total Known Risks	47	85%	65	56%	9	64%	121	65%
Unknown Risk[#]	8	15%	51	44%	5	36%	64	35%
Total All Cases	55	30%	116	63%	14	8%	185	100%

* Indicates there are fewer than five (n=1,2,3, or 4) reported cases

^ Indicates percentage calculated from cases with *known risk*

-Percents for 'Total Known Risk', 'Unknown Risk', 'Presumed Heterosexual', 'Other', and 'Total All Cases' are calculated from all cases

Indicates an explanatory definition exists in Appendix B

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APPENDIX A: RURAL AND URBAN COUNTY GROUPINGS

Primary Metropolitan Statistical Area (PMSA): one or more counties that have a substantial commuting interchange

Urbanized Area (UA): An area consisting of a central place(s) and adjacent territory with a general population density of at least 1,000 people per square mile of land area that together have a minimum residential population of at least 50,000 people.

Metropolitan Statistical Area (MSA) requires the following:

- (1) the presence of a city with greater than 50,000 people or the presence of a UA and a total population of more than 100,000 people;
- (2) a PMSA; and
- (3) a UA

Urban County: any county containing a city of greater than 50,000 people or an area that has at least 100,000 people and has a substantial commuting interchange with a city of greater than 50,000 people.

Using these US Census Bureau's definitions, MDCH established a category of Urban Counties.

-e considered a county to be "Urban" if any part of the city or area as explained above was part of that county. (i.e., the city of Kalamazoo is in Kalamazoo County and also has substantial commuting interchange with Battle Creek, which is in Calhoun County; so the counties of Kalamazoo and Calhoun are considered to be "Urban").

Urban Counties:

- Detroit Metro Area (Wayne, Detroit, Macomb, Oakland, Lapeer, St. Clair, Monroe)
- Washtenaw
- Berrien
- Genesee
- Kent, Muskegon, Ottawa, Allegan
- Jackson
- Kalamazoo and Calhoun
- Ingham, Eaton, Clinton
- Saginaw, Bay, Midland

Rural Counties:

Alcona	Dickinson	Leelanau	Ontonagon
Alger	Emmet	Lenawee	Osceola
Alpena	Gladwin	Livingston	Oscoda
Antrim	Gogebic	Luce	Otsego
Arenac	Grand Traverse	Mackinac	Presque Isle
Baraga	Gratiot	Manistee	Roscommon
Barry	Hillsdale	Marquette	Sanilac
Benzie	Houghton	Mason	Schoolcraft
Branch	Huron	Mecosta	Shiawassee
Cass	Ionia	Menominee	St Joseph
Charlevoix	Iosco	Missaukee	Tuscola
Cheboygan	Iron	Montcalm	Van Buren
Chippewa	Isabella	Montmorency	Wexford
Clare	Kalkaska	Newaygo	
Crawford	Keweenaw	Oceana	
Delta	Lake	Ogemaw	

APPENDIX B: GLOSSARY OF COMMONLY USED TERMS

Blood Recipient: All hemophiliacs who received blood products prior to 1985 and recipients of transfused blood/organs known to have received the blood products prior to 1985.

Case: A person who is reported to the Michigan Department of Community Health as being infected with HIV or AIDS.

Heterosexual Risk: A person whose heterosexual partner is known to be HIV-infected or at high risk for HIV.
Expanded for women: A woman whose heterosexual partner is a man who has sex with men and women (behaviorally bisexual), is an injection drug user, is an HIV-positive blood recipient, or is known to be HIV-infected without a specified risk behavior.
Expanded for men: A man whose heterosexual partner is an injection drug user, is an HIV positive blood recipient, or is known to be HIV-infected without a specified risk behavior.

HIV Infection and AIDS Case Definitions: These are standard definitions and are used by all states. Specific 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 detects the HIV virus. Please see: *Guidelines for National HIV Case Surveillance, Including Monitoring for HIV Infection and AIDS*. Morbidity and Mortality Weekly Report, December 10, 1999, volume 48, number RR-13.

AIDS: The surveillance definition for AIDS includes a diagnosis of any of 25 different opportunistic diseases which are indicative of a severe immune deficiency, or a laboratory test demonstrating severe immune deficiency (i.e., CD4 count of < 200). Please see: *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.

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 900 persons per year.

Injecting Drug User (IDU) with Heterosexual Risk: A person who injects drugs AND meets the definition of heterosexual risk listed above.

Injecting Drug User (IDU) without Heterosexual Risk: A person who injects drugs and does NOT meet the definition of heterosexual risk listed above.

Male-Male Sex Risk: A man who has sex with other men. He may or may not also have sex with women.

Male-Male Sex/IDU: A man who has sex with other men who also injects drugs.

No Identified Risk: Please see *Unknown Risk*.

Partner Bisexual Risk : Applies to women who have one or more male partners who also have sex with men.

Prevalence: The total number of persons with HIV disease at one point in time is called **prevalence**. The estimate of this number for all of Michigan as of January 1, 2004 is 16,200. This estimate includes persons who

have AIDS, persons diagnosed with HIV infection without AIDS, an estimate of those who have tested positive for HIV but have not yet been reported, and persons with HIV infection who have not yet been diagnosed.

Seroprevalence: The frequency of individuals in a population that have a particular element (such as antibodies to HIV) in their blood serum

Unknown Risk: (*Also called "No Identified Risk"*). A case for which there has been no risk found consistent with the categories of MSM, IDU, high-risk heterosexual, or blood recipient. This category is further divided:

Presumed Heterosexual: This subset of 'Unknown Risk' includes persons who had heterosexual sex but their partners' risk and HIV status is unknown.

Other: This subset of 'Unknown Risk' persons not known to have had heterosexual sex as well as persons with confirmed exposure in the health care setting and pediatric sexual abuse cases.

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150 copies printed at \$8.59 each with a
total cost of \$1,288.07.

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of Community Health*



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