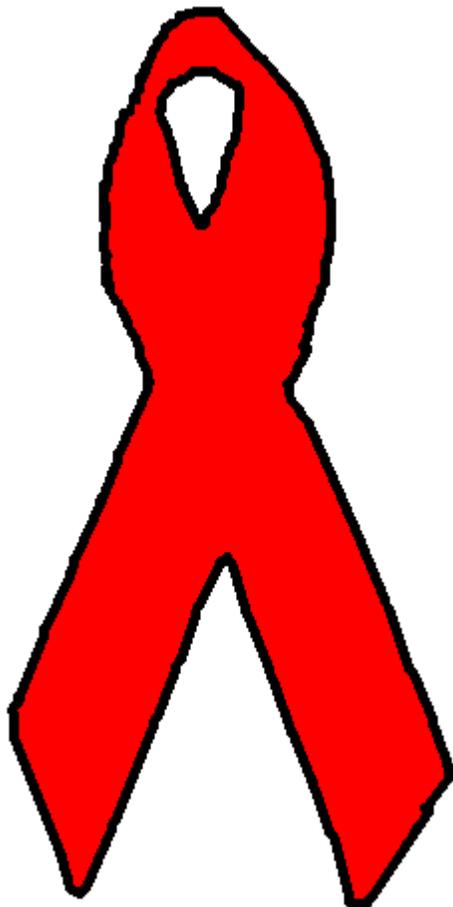


2006 Epidemiologic Profile of HIV/AIDS in Michigan



Michigan Department of Community Health

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

2006 Profile of HIV/AIDS in Michigan

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2006 Profile of HIV/AIDS in Michigan

Executive Summary

At the end of 2006, a total of 12,972 persons were known to be living with HIV/AIDS in Michigan, over half (52 percent) of whom have a diagnosis of AIDS. Currently, there are persons living with HIV in all but 4 counties in the state. 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 approximately two-thirds (64 percent) of all persons currently living with HIV in Michigan reside. HIV positive residents of this the Detroit Metro 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 2000 and 2004 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 57 percent of persons living with HIV/AIDS. The rate of HIV infection is currently 8.6 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 2000, however, the number of cases among injecting drug users has declined substantially.

The proportion of persons diagnosed each year with HIV infection increased significantly among those diagnosed at 13-19 years of age from 2 percent to 4 percent (22 to 43 cases) and also increased significantly among those diagnosed at 20-24 years of age from 7 percent to 15 percent (61 to 142 cases). In all other age groups, the trends in new diagnoses are level.

In 2005, Michigan implemented laboratory reporting of HIV test results, including positive western blots, all HIV viral loads, and CD4s on infected individuals. With this additional method of obtaining new cases, we expect to see an increase in the number of reported cases living with HIV/AIDS in Michigan, due to more accurate counting of cases. This also creates the need for Michigan to update the calculations used to form the estimated prevalence of HIV, which will be further assessed in late 2006.

2006 Profile of HIV/AIDS in Michigan

Introduction

This year the HIV/STD & Other 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 2000 and 2004. The date of new HIV *diagnosis* does not tell us when persons were first *infected*, because their HIV diagnosis may take place months or years after infection. However, this is the best current measure of how fast the epidemic is spreading among different populations. To evaluate trends over time, we approximated the number of persons newly diagnosed with HIV infection each year and determine if there was a statistically significant change from 2000 through 2004. Numbers are approximated by adjusting the number of reported cases diagnosed in 2000-2004 to account for those who may not have been reported to the health department by January 1, 2006. These adjustments are calculated by weighting the data. Over this time period No Identifiable Risk (NIR) cases were also redistributed to other risk categories based on past patterns of NIR reclassification. This method of adjustment was used to evaluate Statewide trends and also trends in the Detroit Metro Area. Numbers of reported HIV and AIDS cases in Out-State Michigan were insufficient to apply this methodology. Because trends cannot be reported for Out-State Michigan, the chapter dedicated to this geographic area presents figures created using raw numbers instead of trends. Be sure not to compare trends in the Statewide or Detroit Metro Area chapters with raw numbers in the Out-State chapter. In addition, the HIV/STD & Other 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 presentation of risk or transmission percentages is different in this document than in past Epidemiologic Profiles of HIV in Michigan. Historically, this was presented as the number that makes up a group, for example men who have sex with men, divided by those with a known risk. This year, that number is divided by all cases in order to show the number and percent without an known risk. It may appear that proportions have decreased when comparing to the 2002 Epidemiologic Profile of HIV/AIDS in Michigan, however, that is untrue.

The HIV/STD & Other 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 (statewide and county) 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 991 more persons included when we use the HIV infected population **currently living** in Michigan. The reason different populations are used is to satisfy questions on both populations. Therefore, there may be differences in numbers, percents, and rates when comparing the two types of documents.

2006 Profile of HIV/AIDS in Michigan

Introduction (continued)

There are many new additions to the profiles this year, including an increase in the number of data sources. Descriptions on the general population of Michigan have been added, as well as discussions on special populations such as foreign born, homeless, commercial sex workers, rural, and incarcerated. Additionally, a section highlighting health disparities has been added. Finally, discussions on individuals who were diagnosed with HIV and AIDS at the same time (concurrent diagnoses) were added. As always, ideas on ways to improve the profiles are welcome.

Staff from the MDCH HIV/STD & Other 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 directed to your county contact. 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.

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 for persons who have been confidentially tested for HIV. Consequently, infected persons who have not been tested, have tested anonymously, or have 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 (concurrent diagnoses).

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/AIDS 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 Supplement to HIV/AIDS Surveillance Project (SHAS) are from 2004, whereas some data (e.g., Community Intervention Trial for Youth (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. Strengths and limitations are further discussed in the Data Sources section.

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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 is managed by the HIV/STD & Other Bloodborne Infections Surveillance Section and was expanded in 1989 to include confidential name-based HIV reporting. Finally, in 2005, laboratory reporting was added to the surveillance system. Standardized case report forms and laboratory reports 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. These data are obtained from medical record abstractions. Patients are NOT interviewed. 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). The HIV/STD & Other Bloodborne Infections Surveillance Section collected ASD 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 information collected from these medical records may differ from those who do not report for care. 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 5,500 patients were enrolled in Michigan ASD, and at the end of the project 2,667 patients had died, 1,492 had moved or were otherwise lost to follow-up, and 1,392 were still living. ASD collected data on demographics, opportunistic illnesses, other infections such as Hepatitis B and C, other conditions such as cancers, depression, hypertension, substance abuse, mental illness, and other variables such as CD4+ T-cell counts, viral load measurements, prescription of medications, and many others.

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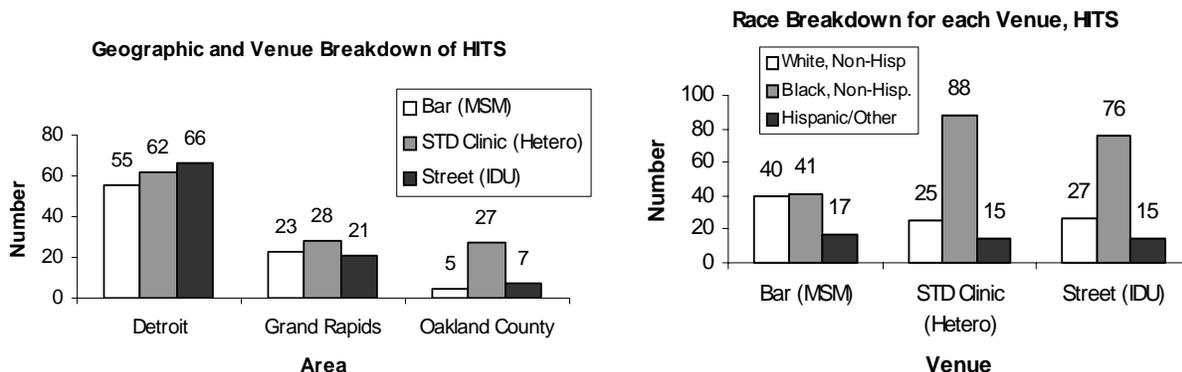
Data Sources (continued)

Supplement to HIV/AIDS Surveillance (SHAS) Project

Supplement to HIV/AIDS Surveillance was 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. This project was managed by the HIV/STD & Other Bloodborne Infections Surveillance Section. The behaviors reported by these interviewed individuals may differ from those who do not report for care or are uninfected. Data were collected from 1990 to 2004 among persons 18 years of age and older. Individuals who presented for care at one of three entities at five Detroit locations - two large tertiary medical centers, two neighborhood clinics, and one health care center were 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 & Other Bloodborne Infections Surveillance Section for additional data from this project. Summaries of the 1990-2000 SHAS data (SHAS I 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 Michigan's HIV/STD & Other Bloodborne Infections Surveillance Section to do an interview survey for uninfected persons at risk for HIV. 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 Michigan, the project was conducted in Detroit (183 surveys) 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 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.



2006 Profile 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 and was managed by the HIV/STD & Other Bloodborne Infections Surveillance Section. 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. 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 (See Appendix B) to the stored specimens that were previously collected. (STARHS testing on routine specimens collected for HIV testing began March 2005 at two pilot sites and is currently being expanded statewide for newly reported cases.)

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 Michigan-based 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.

Youth Risk Behavior Survey (YRBS)

The Youth Risk Behavior Survey (YRBS) is conducted every other year in Michigan by the Department of Education 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 five consecutive YRBS survey administrations (1997, 1999, 2001, 2003 and 2005) 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.

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Data Sources (continued)

Behavioral Sources (continued):

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 that is conducted every other year in Michigan by the Department of Education. The BJJ assesses a broad range of health practices among a representative sample of the state's students in state-operated residential Bureau of Juvenile Justice facilities attending grades 9 through 12. The one time BJJ administration occurred 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 these 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 percent. 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 percent 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. A second BJJ YRBS will be conducted in 2006.

HIV/AIDS and Health Related Needs Among Commercial Sex Workers in Michigan—December 2004

This study was conducted by the Midwest AIDS Prevention Project to fill a gap in existing knowledge in the State of Michigan on the needs of a population known to be at high risk for HIV/AIDS: commercial sex workers (CSWs). The study involved 59 structured interviews with people who self-reported exchanging sex for money, drugs, or other goods on a regular basis. Participants included CSWs from five communities around Michigan: Benton Harbor, Detroit, Flint, Grand Rapids, and Ypsilanti. Quota and network sampling methodology were used to access participants on streets, around drug access points, and in drug treatment centers.

HIV/AIDS and Health Related Needs Among Homeless Persons in Michigan—January 2006

This study was conducted by the Midwest AIDS Prevention Project to determine the HIV prevention-related needs of homeless persons in the state of Michigan. The state has no previous needs assessment data from this population; therefore, the goal of this project was to determine if, where, and how to target HIV prevention-related services to this population. The study involved 98 structured interviews with people who self-reported as homeless. Participants included those accessing food banks and shelters in six communities around Michigan: Ann Arbor, Benton Harbor, Detroit, Flint, Grand Rapids, and Lansing. A quota sampling methodology was employed.

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Data Sources (continued)

Behavioral Sources (continued):

HIV/AIDS and Health Related Needs and Risk Perceptions Among African-American Men who Have Sex with Men in Michigan —October 2005

This study was conducted by the Midwest AIDS Prevention Project to understand the needs of African American men who have sex with men (MSM). The study involved 32 structured interviews and 6 focus groups ($N = 37$) with people who self-reported as male or transgendered, African American, and behaviorally homosexual or bisexual. The interviews and focus groups covered many of the same issues, but the protocols were different. Participants were from six communities around Michigan: Benton Harbor, Detroit, Flint, Grand Rapids, Lansing, and Ypsilanti. Quota and network sampling methodology were used to access participants on streets, in parks, at clubs, and at community-based organizations known to serve MSM.

Communicable Disease Surveillance

TB Registry

The Michigan Department of Community Health, Section of Communicable Diseases conducts statewide surveillance of cases of tuberculosis. 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 and suspect TB cases 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 Michigan'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 Health Wellness and Disease Control 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 67 percent of female cases and 43 percent of male cases come from private providers. Among public providers, only 5 percent of race data is missing, however, 58 percent of race data is missing in reports from private providers. Gonorrhea is the second most frequently reported communicable disease in Michigan, while chlamydia is the most frequently reported of all reportable communicable diseases. Michigan does not collect standardized sexual orientation data for gonorrhea or chlamydia cases. However, these data are collected for syphilis cases. For data on STD cases in Michigan, by age and sex, please refer to http://www.mdch.state.mi.us/PHA/OSR/chi/std_h/frame.html

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Data Sources (continued)

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 percent 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.

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.

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Data Sources (continued)

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

The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act, first enacted in 1990, provides federal funds to help communities and States increase the availability of primary health care and support services for people living with HIV/AIDS disease (PLWH/A). CARE Act funds are allocated to Title I (for Eligible Metropolitan Areas heavily impacted by the epidemic), Title II (for States and U.S. Territories) which includes funding earmarked for AIDS Drug Assistance Programs (ADAP), Title III (for outpatient HIV early intervention services) and Title IV (to coordinate and enhance services for women, infants, children and youth). CARE Act funds are funds of last resort.

Available CARE Act services vary by jurisdiction, but usually include primary out-patient medical care, medications, case management, mental health services, transportation, and other supportive services. The Michigan Department of Community Health (MDCH), Division of Health, Wellness and Disease Control, HIV/AIDS Prevention & Intervention Section (HAPIS), is the Grantee for the Title II, ADAP and Title IV resources allocated to Michigan through the CARE Act. The City of Detroit Department of Health and Wellness Promotion (DHWP) is the Title I Grantee, and there were four Title III funded programs in Michigan in 2005: Wayne State University's Adult HIV/AIDS Clinic at the Detroit Medical Center, the Detroit Community Health Connection, the University of Michigan's HIV/AIDS Program in Ann Arbor, and St. Mary's McAuley Health Center in Grand Rapids.

MDCH also coordinates a statewide client-level data system, known as the Uniform Reporting System (URS), developed by the Health Resources Services Administration (HRSA) to document the services delivered and describe the populations being served by the Ryan White CARE Act. Michigan received demonstration project funding to establish and maintain the URS data system between October 1994 and September 2003. During the demonstration project, MDCH collaborated with the Title I Grantee, to establish and maintain the URS and to promote its use across all CARE Act Titles in Michigan. Until 2005, the URS data included records from all programs funded by Title I, Title II, and Title IV of the CARE Act, and three of the four Title III programs. In 2004 and 2005 the DHWP implemented a new data system for Title I funded programs while MDCH continued collecting data with its existing system. Differences between the two systems made it difficult to assemble compatible data, so the 2005 annual URS data include only partial representation of Title I funded programs (14 of 24).

The URS data files submitted to MDCH by individual service agencies are combined and unduplicated across all providers using an encrypted client identifier, so that all services received by a client are combined into a single client record. All HIV+ clients served by funded providers are included in the URS, even if the CARE Act did not directly fund the reported service. Services reported in the URS include outpatient medical care, dental care, mental health services, case management, and a wide range of support services. The URS data also include records from the AIDS Drug Assistance Program (ADAP) and the Michigan Dental Program (MDP).

URS data are collected, compiled, and unduplicated on a quarterly basis and at the end of each calendar year. The data are used to prepare the annual CARE Act Data Reports (CADR) for each funded provider, reports that must be submitted each year to HRSA, the Federal agency charged with administering the Ryan White CARE Act. In addition to satisfying these CARE Act reporting requirements, the URS data are regularly used for local program planning and evaluation.

2006 Profile of HIV/AIDS in Michigan

Sociodemographic Characteristics of Michigan

SUMMARY

Population:

According to the 2000 census, Michigan had the 8th largest population in the US, with a total population of 9,938,444 persons. Michigan is made up of 83 counties which are divided into 45 local health departments (LHD). County populations ranged from a low of 2,301 persons (Keweenaw County) to over 2 million persons in Wayne County. The Detroit Metropolitan Area (DMA) (Wayne, Macomb, Oakland, Monroe, St. Clair, and Lapeer Counties) represented 45 percent of Michigan's population. Michigan cities with populations over 100,000, in order of descending population, are Detroit, Grand Rapids, Warren, Flint, Sterling Heights, Lansing, Ann Arbor, and Livonia with populations ranging from 951,270 to 100,545. These cities make up 19 percent of the state's population and those that are part of the DMA represent 30 percent of the state's population.

Local Health Jurisdiction Structure:

Michigan is divided into 45 local health departments (see map on page 3-9). Because many areas of the state are spread out, some district LHDs are made up of multiple counties. These district LHDs each contain 2 to 9 counties and can deliver services more efficiently than single county LHDs in the more rural areas of the state. LHD activities include clinical services for family planning, STD screening and treatment, maternal and child health, special health care services for children, nutrition programs, and immunizations. Services also include sanitation, environmental monitoring, and epidemiologic investigations.

Demographic Composition:

According to the 2000 census, the racial and ethnic composition of the state was estimated to be 79 percent white, 14 percent black, three percent Hispanic, two percent Asian, Hawaiian, Pacific Islander; and one percent Native American.

Age and Sex:

In 2000, the median age of Michigan residents was 35.5 years. Thirty percent of the population were younger than 20 years of age (with 10 percent of the population between 13-19 years); 12 percent of the population were 65 or older. The proportion of males in the overall population was lower than the proportion of females (10 percent vs. 14 percent). These ratios vary by race/ethnicity. Among blacks, males are 47 percent of the population; among whites, males are 49 percent of the population and among Hispanics males are 53 percent of the population.

Poverty, Income, and Education:

In 2000, the median household income in Michigan was \$44,667. According to the 2000 census, over 1,000,000 residents (10 percent of the population) for whom poverty status was determined had incomes that fell below the federally defined poverty level, compared with 13 percent nationally. Fourteen percent of all children in Michigan were living in poverty in 2000. Among families, 7 percent had incomes below the poverty level, however in families with a female head-of-household and no husband present, 24 percent had incomes below the poverty level. The proportion reporting unemployment as of January 2006 is 6.7 percent statewide (http://www.michigan.gov/cis/0,1607,7-154-10573_11472-134417--M_2006_1,00.html).

Twelve percent of Michigan's population has no health insurance, compared to 17 percent nationally. While Michigan has high numbers of persons with insurance coverage, many residents are uninsured or underinsured and are unable to consistently access quality healthcare. In the 2000 census, 55 percent of Michigan residents aged 25 years and older reported educational attainment of high school diploma or higher. In 2000, approximately 10 percent of Michigan population was covered by Medicaid.

2006 Profile of HIV/AIDS in Michigan

Sociodemographic Characteristics of Michigan

DEMOGRAPHICS

In 2000, the population of the state of Michigan was 9,938,444 persons (Table 1). The largest proportion of the population were 25–44 years of age (30 percent overall), and nearly 50 percent of the population were in the combined age groups 13–24 and 25–44 years. The age distribution among males and females was similar; however, a slightly higher proportion of women, compared with men, were 65 years and older.

Table 1. Percentage distribution of the general population, by age group and sex, Michigan, 2000

Source. Census 2000, US Bureau of the Census.

Note. Percentages may not add to 100% because of rounding.

Age Group (yrs)	Males % (N = 4,873,095)	Females% (N = 5,065,349)	Total Population % (N = 9,938,444)
<2	3	3	3
2-12	17	15	16
13-24	17	16	17
25-44	30	29	30
45-64	22	24	22
65 and older	10	14	12

Overall, the race distribution among males and females follows the trend among the general population (Table 2). Non-Hispanic whites make up 79 percent of the population, Non-Hispanic blacks make up 14 percent, Hispanics make up 3 percent, and Asians, Hawaiian, & Pacific Islanders and Native American total 2 percent and 1 percent, respectively.

Table 2. Percentage distribution of the general population, by race/ethnicity and sex, Michigan, 2000

Race/Ethnicity	Males % (N = 4,873,095)	Females% (N = 5,065,349)	Total Population % (N = 9,938,444)
White, Non-Hispanic	79	78	79
Black, Non-Hispanic	14	15	14
Hispanic, all races	3	3	3
Asian, Hawaiian, Pacific Islander	2	2	2
Native American	1	1	1
Other	2	2	2

Source. Census 2000, US Bureau of the Census.

Note. Percentages may not add to 100% because of rounding.

2006 Profile of HIV/AIDS in Michigan

Sociodemographic Characteristics of Michigan

The race distribution in the Detroit Metro Area and Out-State Michigan are very different (Table 3). In the Detroit Metro Area, Non-Hispanic whites make up 70 percent of the population, while in Out-State Michigan, this group represents 86 percent. However, the largest difference between the two areas of Michigan is apparent when looking at non-Hispanic blacks, which make up 23 percent in the Detroit Metro Area and 7 percent in Out-State Michigan. The Hispanic population is slightly higher in Out-State Michigan (4 percent) when compared to the Detroit Metro Area (3 percent), and Asians, Hawaiian, & Pacific Islanders and Native American have relatively equal representation throughout the state.

Table 3. Percentage distribution of the general population, by race/ethnicity, sex, and area, Michigan, 2000

Detroit Metro Area	Males %	Females%	Total Population %
Race/Ethnicity	(N = 2,157,470)	(N = 2,284,081)	(N = 4,441,551)
White, Non-Hispanic	70	69	70
Black, Non-Hispanic	22	24	23
Hispanic, all races	3	3	3
Asian, Hawaiian, Pacific Islander	2	2	2
Native American	<1	<1	<1
Other	2	2	2
Outstate Michigan	Males %	Females%	Total Population %
Race/Ethnicity	(N = 2,715,625)	(N = 2,781,268)	(N = 5,496,893)
White, Non-Hispanic	85	86	86
Black, Non-Hispanic	7	7	7
Hispanic, all races	4	3	4
Asian, Hawaiian, Pacific Islander	1	1	1
Native American	1	1	1
Other	2	2	2

Source. Census 2000, US Bureau of the Census.

Note. Percentages may not add to 100% because of rounding.

2006 Profile of HIV/AIDS in Michigan

Sociodemographic Characteristics of Michigan

SOCIOECONOMIC STATUS

According to the 2000 Census, there was no difference in unemployment between the Detroit Metro Area and the rest of Michigan (Table 4). There were more men unemployed throughout Michigan than women.

Table 4. Percentage distribution of persons unemployed during the past 12 months, by sex and area, Michigan, 2000

Area	Males % (N = 4,873,095)	Females % (N = 5,065,349)	Total Population % (N = 9,938,444)
Detroit Metro Area	2	1	3
Outstate	2	1	3
Michigan	2	1	3

Source. Census 2000, US Bureau of the Census.

Note. Percentages may not add to 100% because of rounding.

The most common level of educational attainment among persons 25 years and older, regardless of location or sex, was a high school diploma or its equivalent (Table 5). Statewide, 30 percent of men and 33 percent of women had earned a high school diploma or its equivalent. Similar percentages were observed in the Detroit metro area and Out-State. However, males in the DMA had the lowest proportion attaining a high school diploma. Also, in the Detroit metro area, slightly higher proportions of men reported completing graduate degree compared with statewide estimates or those in Out-State area. Fewer than 5 percent of men or women received less than a 9th grade education in the Detroit Metro Area or statewide.

Table 5. Percentage distribution of the population 25 years or older, by educational attainment and sex, Michigan, 2000

	Detroit Metro Area		OutState		Total Population	
	Males (N=1,373,100)	Females (N=1,534,252)	Males (N=1,697,588)	Females (N=1,811,001)	Males (N=3,070,688)	Females (N=3,345,253)
< 9 th Grade	5	5	5	4	5	5
High School, no diploma	13	13	11	11	12	12
High School, diploma	27	31	32	34	30	33
Some college	24	23	23	23	23	23
Associate's or Bachelor's degree	21	20	20	21	20	21
Graduate or professional degree	10	7	9	7	9	7

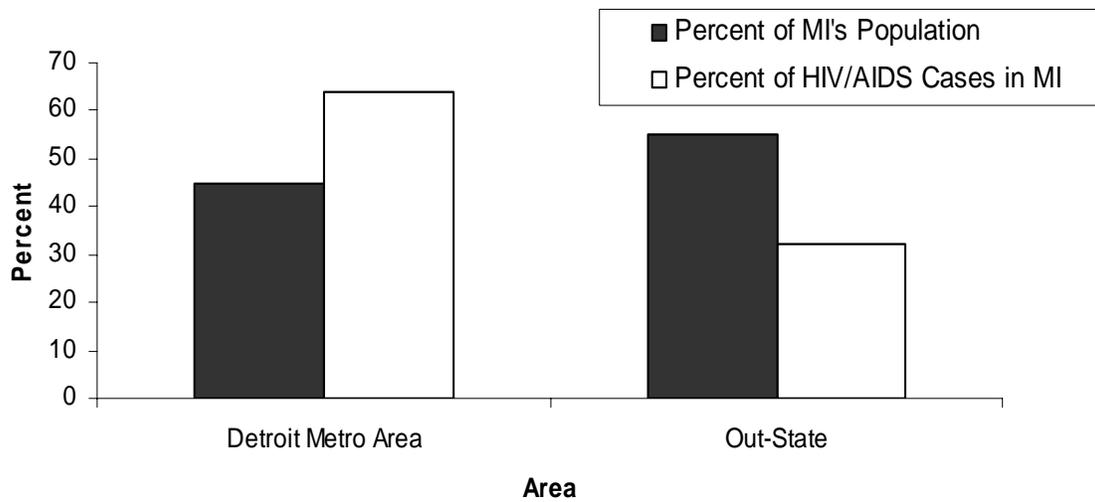
Source. Census 2000, US Bureau of the Census.

Note. Percentages may not add to 100% because of rounding.

2006 Profile of HIV/AIDS in Michigan



Figure 1: Michigan Living HIV/AIDS Cases and Population by Area, 1/1/06



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

2006 Profile of HIV/AIDS in Michigan

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2006 Profile of HIV/AIDS in Michigan

Statewide Summary of HIV/AIDS Epidemic in 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 12,972 were reported as of January 1, 2006. Incidence of HIV (the number of newly diagnosed HIV infections) was roughly level at around 890 cases each year between 2000 and 2004. 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 1998-2004, however, the number of HIV related deaths did not decline significantly. (See Figure 8, page 3-13) 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 (8,286 of the 12,972 cases reported statewide), but only 45 percent of the general population (Figure 1, page 3-1). The rest of the state has fewer cases compared with the general population distribution.
- **How does the epidemic in Michigan compare with national and worldwide statistics?** According to the Joint United Nations Programme on HIV/AIDS, an estimated 4.9 million new HIV infections and 3.1 million AIDS deaths occurred during 2005 worldwide, bringing the total persons infected with HIV to 40.3 million. There have been more than 25 million deaths since the beginning of the epidemic. Nearly two-thirds of new cases and three-quarters of deaths were in Sub-Saharan Africa, where transmission is predominately heterosexual.
(Joint United Nations Programme on HIV/AIDS. *AIDS epidemic update: December 2005*. Available at http://www.unaids.org/resources/publications/Corporate_Publications.pdf)

The number of new diagnoses of HIV/AIDS per year decreased slightly from 2001 to 2004 in the 35 areas of the U.S. with confidential, name-based, integrated HIV and AIDS infection reporting in place since 2000. At the end of 2004, an estimated 462,792 persons in the 35 areas were living with HIV/AIDS. The number of AIDS deaths per year in the 50 states, District of Columbia, and U.S. territories, possessions, and associated nations decreased eight percent from 2000 through 2004, with 15,798 occurring in 2004. Through December 2004, an estimated 944,306 adult/adolescents have been diagnosed with AIDS; of these, 529,113 (56 percent) have died. (Centers for Disease Control and Prevention, *HIV/AIDS Surveillance Report 2004*, Volume 16, 2005. Available at <http://www.cdc.gov/hiv/stats/harslink/htm>)

2006 Profile of HIV/AIDS in Michigan

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities, the MDCH HIV/STD & Other 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 high-risk heterosexual.

- **Men Who Have Sex With Men (MSM)*:** MSM make up 52 percent of all HIV/AIDS reported (6,725 out of 12,972). The MSM behavioral group continues to be the most affected behavioral group statewide. The proportion of persons reporting MSM behavior has significantly increased from 2000 to 2004 from 51 percent to 57 percent (461 to 550 cases).
- **Injecting Drug Users (IDU)*:** Of all HIV/AIDS reported cases, 19 percent are IDU (2,420 out of 12,972). 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 2000 and 2004 decreased significantly from 17 percent to 12 percent (150 to 120 cases).
- **High Risk Heterosexuals (HRH):** Heterosexual cases constitute 13 percent of the total number of reported cases (1,690 out of 12,972) 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 appears to be level.

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

Future Changes Expected in the Rankings of Behavioral Groups:

This year, the proportion of new cases among IDUs has shown a significant decrease. The proportion among HRHs was level. In addition, when reported cases are adjusted for cases reported without risk, over twice as many HRHs as IDUs were reported (246 HRH, 120 IDU) in 2004. These data point to the conclusion that HRH are likely to surpass IDUs in the near future.

2006 Profile of HIV/AIDS in Michigan

Distribution of HIV/AIDS Prevalence by Local Health Jurisdiction

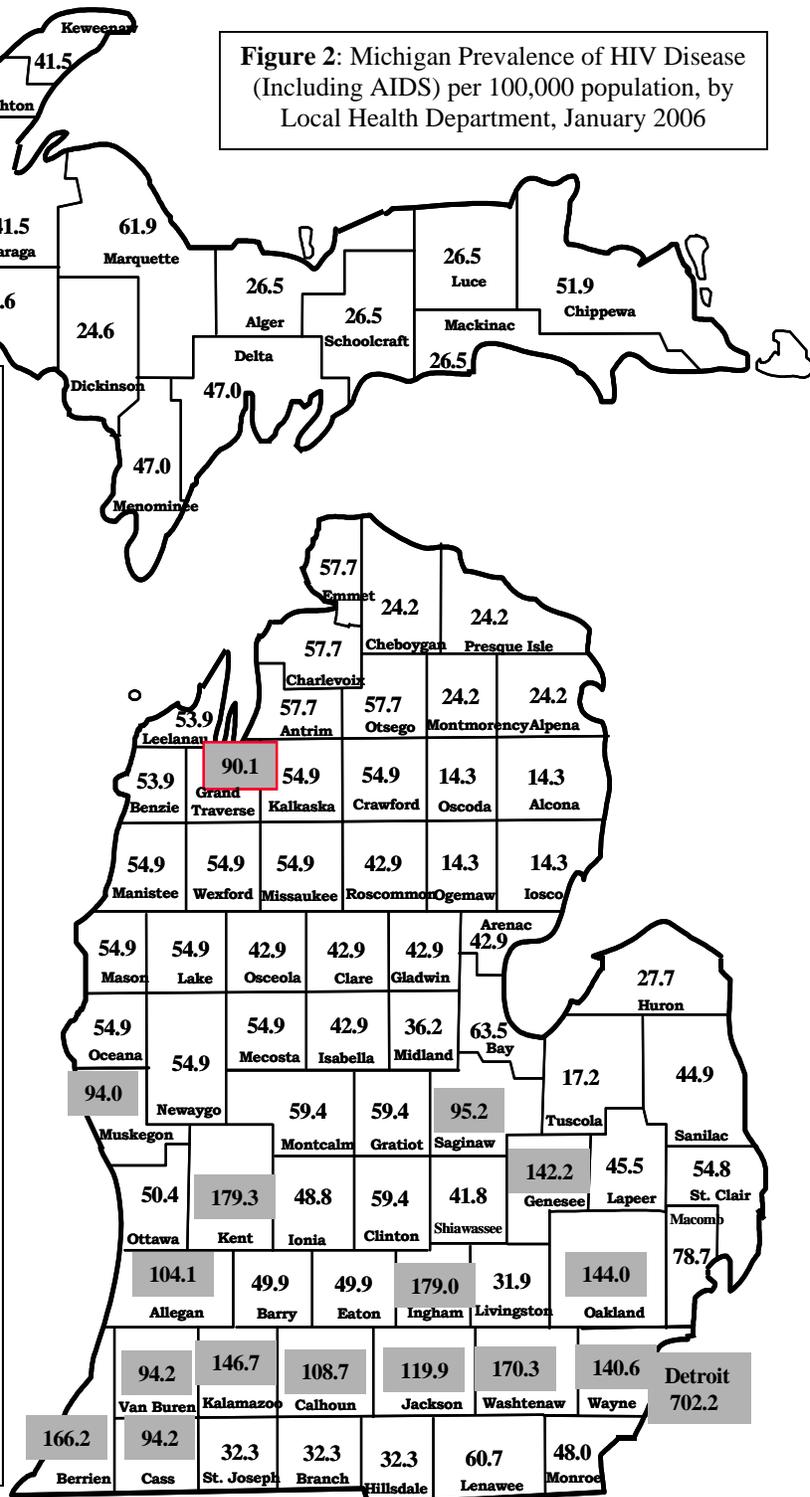
Data from HIV/AIDS Reporting System (HARS)

Figure 2: Michigan Prevalence of HIV Disease (Including AIDS) per 100,000 population, by Local Health Department, January 2006

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 179.3 per 100,000 population. The midpoint, or 50th percentile, is therefore 89.65 per 100,000.

The 16 LHDs with rates above the midpoint are Detroit and Wayne, Kent, Ingham, Washtenaw, Berrien, Kalamazoo, Oakland, Genesee, Jackson, Calhoun, Allegan, Saginaw, Van Buren/Cass, Muskegon, and Grand Traverse Counties. Grand Traverse county has been newly added since the 2004 rankings. These 17 counties/cities account for 88 percent of the Michigan HIV/AIDS cases and 63 percent of Michigan's population. Therefore, these LHDs have more cases than you would expect based on their populations. The remaining 29 LHDs account for 12 percent of the cases and 37 percent of the population.



NOTE: These data are generated using statewide prevalence estimates. The calculation for this estimate has not been adjusted since the implementation of laboratory-based reporting (April 2005).

2006 Profile of HIV/AIDS in Michigan

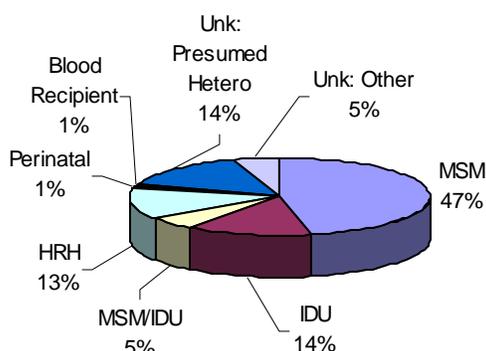
Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

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 (HRH) (see glossary for more in-depth description), (6) receipt of HIV-infected blood or blood components, and (7) no identified risk (NIR). However, the recent publication of CDC's Technical Guidance for HIV/AIDS Surveillance Programs—Risk Factor Ascertainment also explains categorization of risk, called the exposure category. This term summarizes the multiple risk factors that an individual may have had by including combination of categories of the three most common ones (MSM, IDU, HRH). Exposure categories are mutually exclusive and are not hierarchical. These categories are not currently in use in Michigan.

Figure 3 indicates persons living with HIV/AIDS in Michigan by mode of transmission for the 10,435 reported cases.

Figure 3: Reported Persons Living with HIV/AIDS Michigan, by Risk, 1/1/06 (N = 12,972)



- This chart demonstrates that over half (52 percent) of the people living with HIV/AIDS are MSM, including five percent who also injected drugs (MSM/IDU).

- Nineteen percent are injecting drug users, including five percent who are also MSM (MSM/IDU).

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

- Twenty percent of the total had unknown risk or no risk reported.

Discussion of Persons with 'No Identified Risk':

Persons in the 'No Identified Risk' (NIR) category make up 20 percent of the HIV-infection population in Michigan and are 62 percent male and 38 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 includes infected persons with no recognized risk that have reported heterosexual sex with a man or a woman (not including male-male sex) and accounts for 11 percent of men living with HIV and 33 percent of women living with HIV. See Table 8, page 3-66.

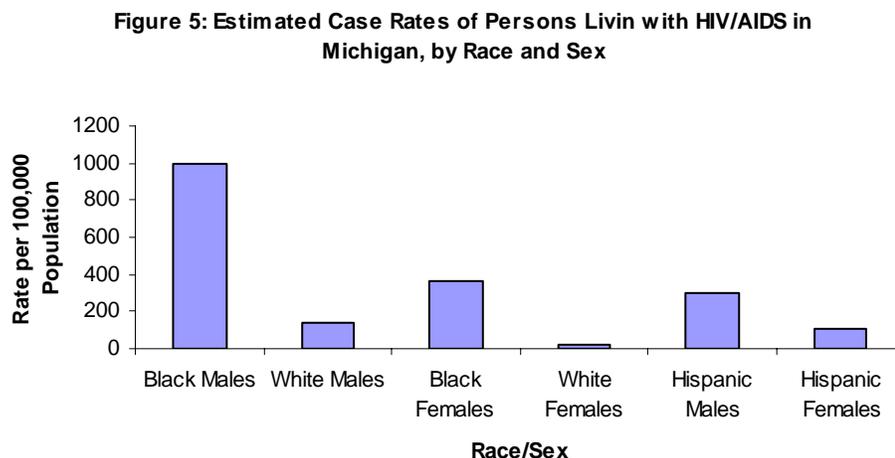
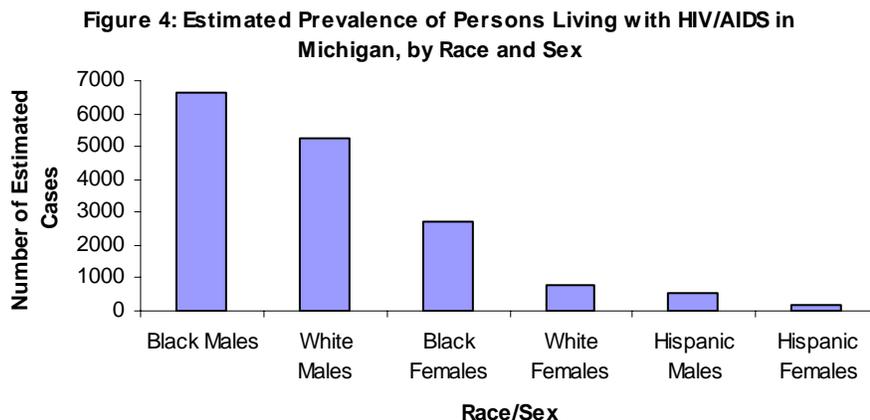
There are many reasons why risk is not reported to the Michigan Department of Community Health on the initial case report form. Lack of provider elicitation and patient denial, as well as patients truly not knowing their risks and the risks of their partners, are reasons why there is a growing proportion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

2006 Profile of HIV/AIDS in Michigan

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 (999) and the highest estimated number (6,630) 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 (368) and the third highest estimated number (2,720) of cases of HIV/AIDS.
- Hispanic males have the third highest rate (305) and the fifth highest estimated number (520) 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 (137) and the second highest estimated number (5,260) of cases.
- Hispanic females have the fifth highest rate (111) and the lowest estimated number (170) of HIV/AIDS.
- White females have the lowest rate (20) and the fourth highest estimated number (790) of HIV/AIDS cases.

2006 Profile of HIV/AIDS in Michigan

Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)

- Transmission of HIV 2000-2004:** Figure 6 shows that the proportion of persons diagnosed each year with HIV infection between 2000 and 2004 increased significantly in men who have sex with men (MSM) from 51 percent to 57 percent (461 to 550 cases) whereas the proportion decreased significantly in Injection Drug Users (IDU) from 17 percent to 12 percent (150 to 120 cases). The proportion of new diagnoses remained level in all the other risk groups, including High Risk Heterosexuals (HRH). HRH are persons who knew they had one or more partners that were an IDU, bisexual (for females), a recipient of HIV infected blood, or a person infected with HIV.

Of the 971 new HIV diagnoses in 2004, there were 550 (57 percent) among MSM, 246 (25 percent) among HRHs, 120 (12 percent) among IDUs, 41 (4 percent) among MSM/IDUs, and 14 (1 percent) among persons with other risks. Other risks include transmission from blood product exposure, perinatal exposure, and those with no identified risk. One percent of diagnoses were among persons who first acquired infection from blood products received either before 1985 in the U.S. or in other countries. Less than 1 percent of diagnoses were among infants born to HIV-infected mothers.

Figure 6: Number of New Diagnoses in 2004 and Trends 2000-2004, by Mode of Transmission

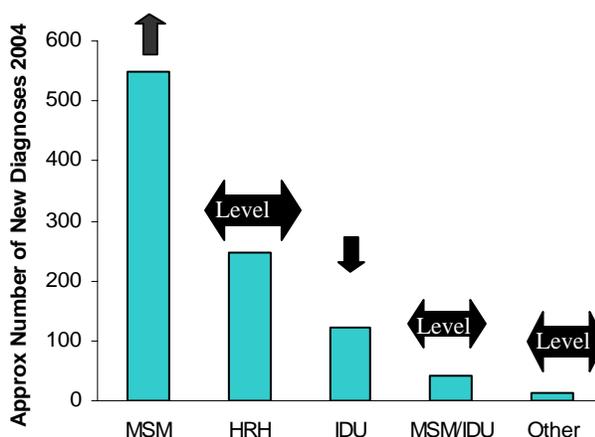
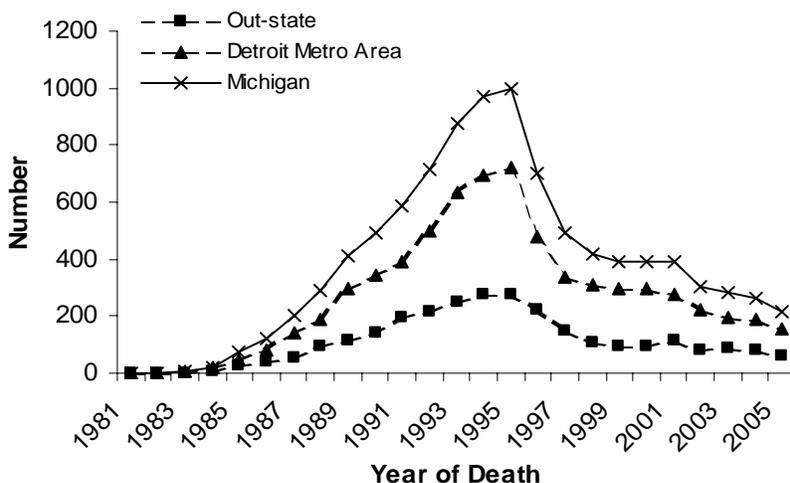


Figure 7: HIV Related Deaths in Michigan, by Area



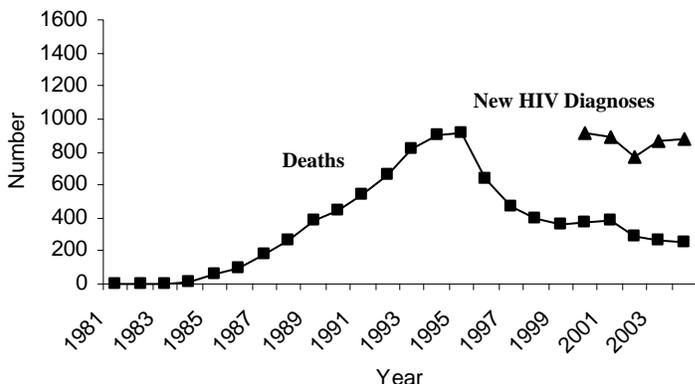
- The number of HIV related deaths decreased 45 percent between 2001 and 2005.** In Figure 7, the top line reflects the total HIV related deaths for the state of Michigan (the sum of the two lower lines). The second line represents the Detroit Metro Area and the third line consists of the balance of Michigan (Out-state).

2006 Profile of HIV/AIDS in Michigan

Trends in HIV/AIDS Data (Continued)

Data from HIV/AIDS Reporting System (HARS)

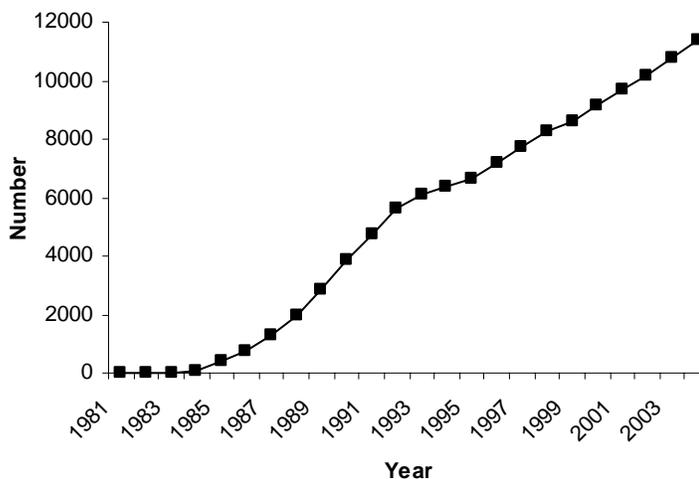
Figure 8: New diagnoses of HIV infection and HIV deaths in Michigan, 1/1/06



- New HIV diagnoses (HIV incidence) and deaths are level 2000-2004. 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 since 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 890 cases between 2000 and 2004.

- 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, 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/AIDS through January 1, 2006



2006 Profile of HIV/AIDS in Michigan

Trends in HIV/AIDS Data (Continued)

Data from HIV/AIDS Reporting System (HARS)

Race and Sex 2000-2004: The proportion of persons diagnosed each year with HIV infection between 2000 and 2004 was stable across race/sex groups. Figure 10 shows that in 2004, there were 395 (41 percent) diagnoses in black males, 276 (28 percent) in white males, 207 (21 percent) in black females, 50 (5 percent) in non-white/non-black males, 31 (3 percent) in white females, and 12 (1 percent) in non-white/non-black females. Although the trends in new HIV diagnoses among black males and females are level, they are still impacted disproportionate to their numbers in the population. Black persons make up 14 percent of the general population of Michigan, but accounted for 62 percent of new HIV diagnoses in 2004 and 58 percent of persons living with HIV/AIDS.

Figure 10: Number of New Diagnoses in 2004 and Trends 2000-2004 According to Race/Sex

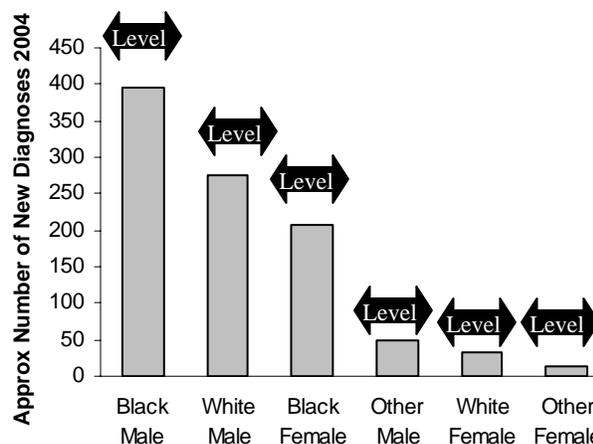
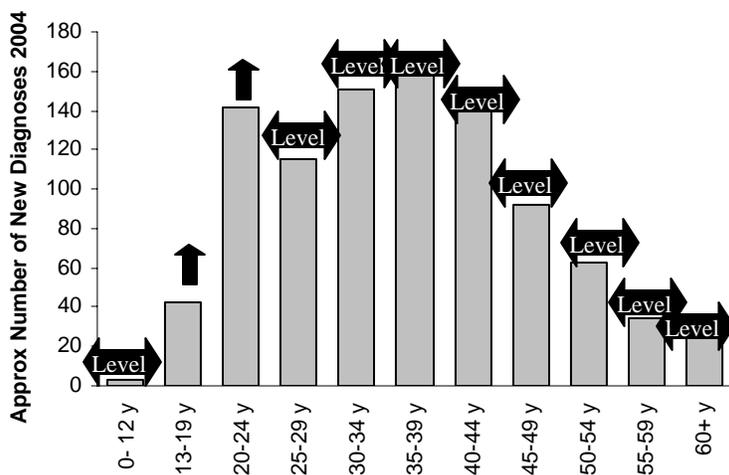


Figure 11: Number of New Diagnoses in 2004 and Trends 2000-2004 According to Age at HIV Diagnosis



45-49 years, 63 (6 percent) 50-54 years, 35 (4 percent) 55-59 years, and 30 (3 percent) 60+ years. (To account for reporting delays, weights are applied to the data. (The number of new diagnoses in each age group do not sum up to 971 due to rounding error)

Age at HIV Diagnosis 2000-2004: Figure 11 shows that the proportion of persons diagnosed each year with HIV infection increased significantly among those diagnosed at 13-19 years from two percent to four percent (22 to 43 cases) and also increased significantly among those diagnosed at 20-24 years of age from seven percent to 15 percent (61 to 142 cases). In all other age groups, the trends in new diagnoses are level. In 2004, there were 3 (<1 percent) persons diagnosed at 0-12 years of age, 43 (4 percent) 13-19 years, 142 (15 percent) 20-24 years, 116 (12 percent) 25-29 years, 150 (15 percent) 30-34 years, 159 (16 percent) 35-39 years, 140 (14 percent) 40-44 years, 92 (9 percent)

2006 Profile of HIV/AIDS in Michigan

Patterns of Service Utilization of HIV-infected Persons

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

The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act provides federal funds to help communities and States increase the availability of primary health care and support services for people living with HIV/AIDS (PLWH/A). CARE Act funds are allocated to Title I (for Eligible Metropolitan Areas heavily impacted by the epidemic), Title II (for States and U.S. Territories) which includes funding earmarked for AIDS Drug Assistance Programs (ADAP), Title III (for outpatient HIV early intervention services) and Title IV (to coordinate and enhance services for women, infants, children and youth). CARE Act funds are funds of last resort.

Group	Services	Cases
Males	74%	77%
Females	26%	23%
White	35%	37%
Black	56%	57%
Hispanic	5%	4%
Other Minorities	2%	1%
Unknown Race	2%	2%
White Males	30%	32%
Black Males	38%	40%
Hispanic Males	4%	3%
Other Minority Males	1%	1%
Unknown Race Males	1%	1%
White Females	5%	5%
Black Females	19%	17%
Hispanic Females	1%	1%
Other Minority Females	1%	<1%
Unknown Race Females	<1%	<1%
0-12 Years*	1%	1%
13-19 Years*	2%	1%
20-24 Years*	4%	3%
25-44 Years*	53%	52%
45+ Years*	40%	44%
Infants: 0-1 Years*	<1%	<1%
Children: 2-12 Years*	1%	<1%
Youth: 12-24 Years*	6%	4%
Women: 25 Years*	24%	21%
Total	100% (N = 6,867)	100% (N = 12,972)

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

The Uniform Reporting System (URS) is a statewide client-level data system designed to document the quantity and types of services provided by agencies receiving Ryan White CARE Act funds, and to identify and describe the populations receiving the services. All HIV+ clients served by funded providers are included in the URS, even if the CARE Act did not directly fund the reported service. The URS data files submitted by individual service agencies are combined and unduplicated across all providers using an encrypted client identifier, so that all services received by a client are combined into a single client record. Until 2005 Michigan has been able to combine and de-duplicate URS data across all Titles of the CARE Act but recent changes in data systems reduced the number of Title I programs whose data could be included in 2005. Services reported in the URS include outpatient medical care, dental care, mental health services, case management, drug assistance and a wide range of support services.

Tables 1 and 2 represent all HIV+ clients served between January 1, 2005 and December 31, 2005, by the 30 CARE Act programs that submitted URS data to the Michigan Department of Community Health (MDCH). All providers that received CARE Act funding from Titles II, III, and IV are included in the data and most (58 percent) of the service providers funded by Title I. Because data from some Title I funded agencies are not included, these tables represent the minimum number of clients served and services delivered in 2005 by Michigan's CARE Act programs.

2006 Profile of HIV/AIDS in Michigan

Patterns of Service Utilization of HIV-infected Persons

Table 1 (previous page) shows that in 2005, 6,867 HIV-infected persons were reported receiving Ryan White services in the state of Michigan. Clients served by CARE Act programs represent more than half (53 percent) of the total of known cases in Michigan. A comparison also shows that persons receiving services from CARE Act providers were more likely than the reported population to be female, specifically black females and less likely to be 45 years or older.

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.

Table 2 gives additional detail about the core services of medical care, dental care, mental health care, case management and medication assistance delivered by the 30 CARE Act programs that reported URS data in 2005. The service units in the table are not units of time (e.g. 15 minutes, or 1 hour) but are “visits” (or a day in which the service occurred). Only one “visit” per day is counted for any service category except for case management which can have up to 2 per day. However, the unit of service for the AIDS Drug Assistance program is one prescription filled, rather than a day of service.

Table 2: Core services per CARE Act client, Statewide, 2005

	Medical Care	Dental Care	Mental Health services	HIV/AIDS Drug Assistance	Case Mgt
No. of providers supplying valid data*	16	8	13	1	17
No. of unduplicated clients served**	3,840	835	817	2,160	2,898
Total Days of Service***	17,427	2,709	4,439	67,912	48,818
Average no. of visits per client	4.54	3.24	5.43	31.44	16.85
Median no. of visits per client	3	3	3	24	10
Range of visits per client	1-77	1 - 18	1 - 81	1 - 224	1-125

* Data based on the number of CARE Act providers in Michigan that reported URS data for the service in CY 2005.

* A provider may be included in more than 1 service category

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

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

Medical care services in this table are for outpatient medical care visits ranging from a complete physical with a physician to a brief check-up with a nurse, drug review with a pharmacist, or a visit for a blood draw or lab test. The average of 4.54 visits per client, with a median of 3, is consistent with HIV care standards that recommend monitoring of health status on a quarterly basis. (Table 2)

Dental care services reported in the URS are primarily provided through the statewide Michigan Dental Program, administered by the Division of Health, Wellness and Disease Control of MDCH. Dental services for clients may be extensive, and require multiple visits, but may also simply be for annual prophylaxis. The average of 3.24 visits per client is consistent with an initial exam to plan the care needed and two or more treatment visits following approval of the care plan. (Table 2)

2006 Profile of HIV/AIDS in Michigan

Patterns of Service Utilization of HIV-infected Persons

Mental Health services encompass mental health assessments, individual counseling, and group sessions for HIV+ clients with a mental health diagnosis, and must be conducted by a licensed mental health professional. Mental health services do not include substance abuse treatment. Case management services include both face-to-face contacts and other contacts (by phone or mail) with or on behalf of the client, with the goal of linking HIV+ clients to care services, especially health care services.

The AIDS Drug Assistance Program (ADAP), administered by the Division of Health, Wellness and Disease Control of MDCH pays for medications dispensed to eligible HIV+ clients. The ADAP covers all HIV medications and many other medications as well. The unit of service for the Drug Assistance Program is a prescription filled, rather than a day of service

Table 3: Average number of visits per client, by type of CARE Act service, Statewide 2001 - 2005

Year of Service	Medical Care	Dental Care	Mental Health Services	Drug Assistance Program	HIV/AIDS Case Mgt
2001	4.41	3.52	9.62	N/A	17.34
2002	4.7	2.69	6.53	N/A	17.18
2003	4.02	3.65	7.43	33.22	17.04
2004	4.27	3.67	4.44	33.15	16.15
2005	4.54	3.24	5.43	31.44	16.85

Table 3 summarizes service averages over the last 5 years. For the years 2001 through 2004 the URS data included service records from all CARE Act funded programs in Michigan except for services from one Title III provider. In 2005, data from all Title II, III, and IV providers are included in the URS, but only 14 of the 24 Title I funded programs. Title I data are incomplete due to the introduction of a new data system in the DEMA. Analysis of the 2005 annual Title I provider reports (the CARE Act Data Reports) indicates that the 2005 URS data include 76 percent of Title I medical clients and services, 95 percent of Title I case management clients, and 100 percent of Title I mental health and dental care clients and services.

This table also illustrates that the average number of services reported for medical and dental care has been reasonably consistent from year to year. However, the per person average for mental health services has decreased, going from 9.62 visits a person in 2001 to 5.43 visits a person in 2005. This decrease is attributed to stricter standards for mental health services, which now require clients to have an official mental health diagnosis. As a result, services to clients without an official DSM IV diagnosis were reported in the more general service category of psychosocial support services and are not reported in Table 3.

The average number of case management services per client has decreased slightly over the last five years, going from 17.34 per client in 2001 to 16.85 in 2005. In the years 1995 to 2000, case management services were reported for about 4,000 clients a year, but in 2001 through 2005 the number of clients receiving case management services was closer to 3,000 a year. This difference is partly the result of changes in reporting practices so that clients who only receive short-term assistance or information

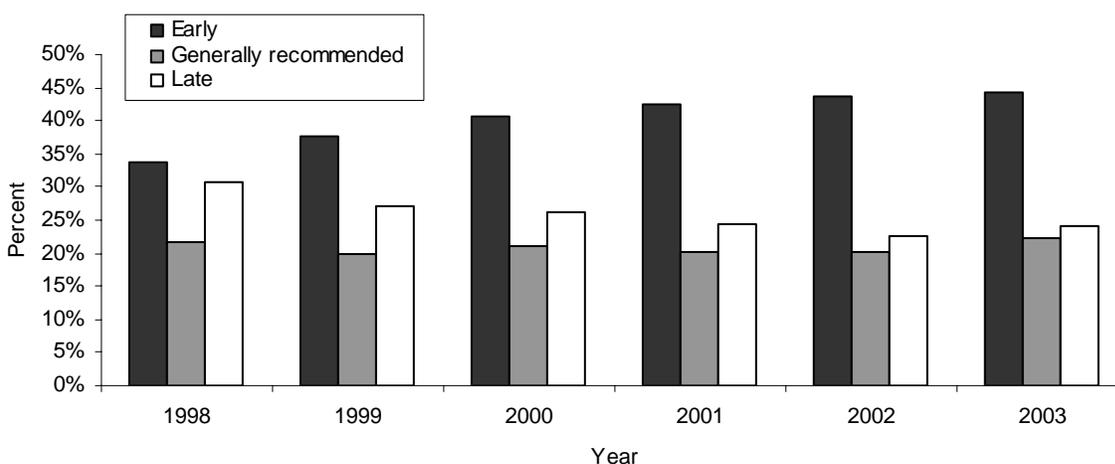
2006 Profile of HIV/AIDS in Michigan

Patterns of Service Utilization of HIV-infected Persons

and referral are more accurately reported in another service category. Also, fewer agencies are funded to deliver case management: 17 providers reported case management in 2005 compared to 29 in 1995.

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

Figure 12: Proportion of patients who received antiretroviral treatment late, at the recommended time, or early, ASD Study-Michigan, 1999-2003*



*Data from 2003 may be incomplete

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

Figure 12 shows the timing of the initiation of antiretroviral treatment and the proportions of patients whose treatments began at each 3 times (each time corresponds to a category of CD4 count). This analysis included only intervals during which the person had either an outpatient clinic visit or a hospitalization, and did not include intervals in which the person had only visited the ER or had telephone contact with the clinic staff. Of patients receiving care at the two health care systems included in the ASD study, the proportion whose antiretroviral treatment was begun late decreased from 31 percent in 1999 to 24 percent in 2003. Inversely, the proportion whose antiretroviral treatment was begun early has increased from 34 percent in 1999 to 44 percent in 2003.

2006 Profile of HIV/AIDS in Michigan

Estimate 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 tuberculosis, although TB cases have been declining in Michigan since the early 1990s. There are now a total of 174 persons known to be living and definitively co-infected, with HIV and Tuberculosis (TB). These include:

- 128 males (74 percent) and 46 females.
- 132 Non-Hispanic Black (76 percent), 25 Non-Hispanic White (14 percent), 15 Hispanic, 1 Asian/Hawaiian/Pacific Islander, and 1 Multi-racial person.
- Age at diagnosis of HIV: Four (2 percent) were 0 - 9 years, 2 (1 percent) were 10-19 years, 42 (24 percent) were in their 20s, 82 (47 percent) were in their 30s, 29 (17 percent) were in their 40s, and 15 (8 percent) were 50+ years.
- Residence at diagnosis of HIV: Sixty-three percent lived in the Detroit Metro Area. Areas with the majority of diagnoses are as follows: 81 City of Detroit (47 percent), 16 Wayne County, 13 Kent County, 11 Oakland County, 9 Berrien County, 4 Ingham County, 4 Jackson County, 3 Calhoun County, 3 Genesee County, 2 Washtenaw County, and one each in Kalamazoo County, Macomb County, Mecosta County, St. Clair County, St. Joseph County, and Wexford County. Twenty-two had no county listed or were diagnosed with HIV in another state.
- Cumulatively, a total of 614 have ever been definitively co-infected with HIV and TB, of which 440 (72 percent) have died.
- Of the 174 HIV positive persons currently living in Michigan who had been co-infected with tuberculosis, 137 (79 percent) were infected with pulmonary tuberculosis and 37 (21 percent) were infected with extra-pulmonary tuberculosis (outside of the lung).
- Twenty percent of the 174 co-infected with HIV and TB were born outside of the United States.

2006 Profile of HIV/AIDS in Michigan

Sexually Transmitted Diseases

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

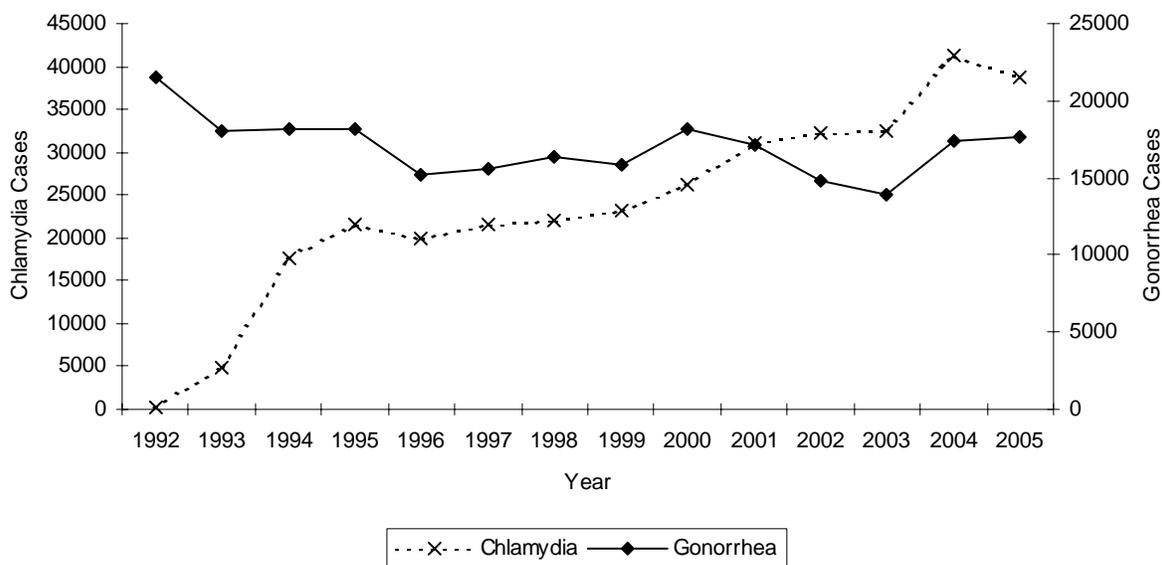
Several sexually transmitted diseases (STDs) are more common than HIV infection, have a short incubation period, and are curable. Reviewing their patterns of transmission can provide additional information regarding recent sexual behavior and potential risk, not available from HIV/AIDS data. Studies 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.

Gonorrhea and Chlamydia

During 2005 alone, there were nearly 39,000 cases of chlamydia and over 17,000 cases of gonorrhea reported in Michigan (Figure 13). See Table 11, page 3-69. For both diseases, the highest rates of infection were among persons age 20-24. This age group comprises 6 percent of the Michigan population but accounted for 30 percent of gonorrhea and 35 percent of chlamydia cases. The rates of chlamydia and gonorrhea among blacks were much higher than among whites. Even though 49 percent of gonorrhea cases and 47 percent 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.

Forty-two percent of gonorrhea cases were male, however, approximately 78 percent of reported chlamydia cases were female. This is likely because more women than men are screened for chlamydia.

Figure 13: Michigan Gonorrhea and Chlamydia 1992-2005



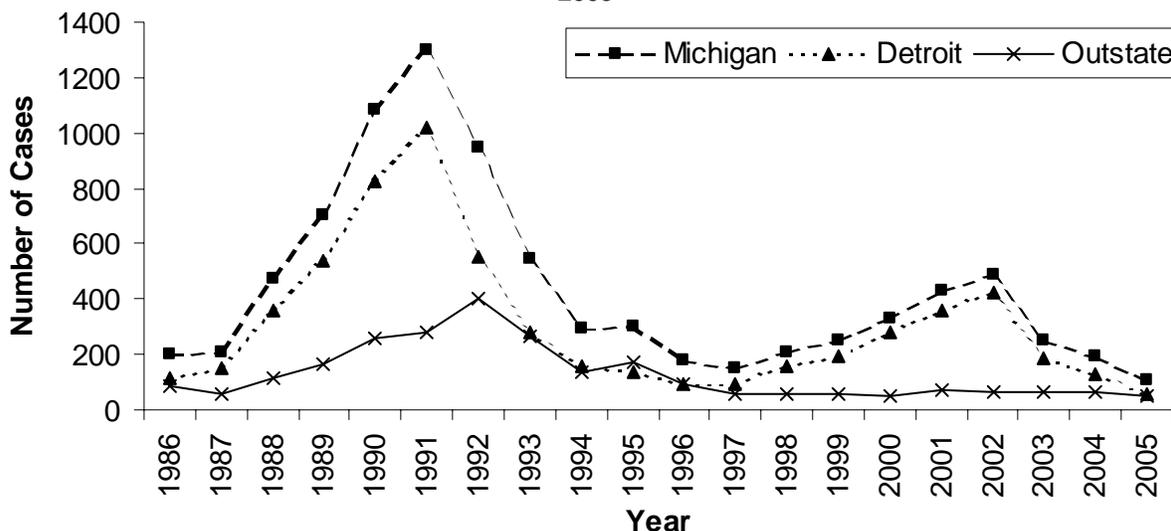
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Sexually Transmitted Diseases (continued)

Syphilis

Figure 14 shows that infectious syphilis was diagnosed much less frequently than gonorrhea and chlamydia (105 infectious syphilis cases) in 2005. Syphilis in Michigan and nationally has followed a cyclical trend, increasing every ten years. Major outbreaks peaked in 1991 and decreased until 1997. Reported syphilis cases have increased each year in Michigan since 1997, peaking in 2002, with 486 cases. There was a steady and statistically significant downward trend in reported cases during the 2002 and 2003 calendar years, resulting in a nearly 50 percent decrease in reported cases compared to 2002. This decrease has continued and cases reported in 2005 represent a 55 percent decrease from 2004. Approximately 24 percent of cases were reported in the 45-54 year age group, representing an older at-risk population than gonorrhea or chlamydia (as shown in Table 11 on page 3-69). Syphilis cases reported in 2005 were 66 percent black and 81 percent male.

Figure 14: Michigan Primary and Secondary Syphilis Cases, by Area 1986-2005



Sexual Orientation

Nationwide, there have been increases in STD cases among self-identified men who have sex with men. Michigan recently began collecting site of specimen data for gonorrhea and chlamydia cases but does not collect data on sexual orientation for these cases. In 2005, one percent of male gonorrhea cases were collected from a rectal or pharyngeal site and .02 percent of chlamydia cases were collected from a rectal or pharyngeal site. These data can be used as a proxy for the number of MSM with STDs, although they are certainly an underestimate. Sexual orientation data are collected for syphilis cases. Approximately 37 percent of male syphilis cases in Detroit are men who have sex with men and nearly 60 percent of male syphilis cases in the rest of the state are men who have sex with men. Between 2001 and 2004, the syphilis epidemic in Detroit was largely heterosexual with the male:female ratio being closer to 1:1. Due to a national and statewide effort focusing on drug use and commercial sex workers, primary and secondary syphilis cases decreased starting in 2002. Recently, although numbers of primary and secondary cases are quite low, the percent of cases among MSM has increased. In 2005, the male:female ratio for primary and secondary syphilis was 4:1 Statewide, ranging from 3.6:1 in the Detroit area to 8:1 in the out-state areas. This is a trend that is mirrored nationally and is the focus of prevention efforts around the country.

2006 Profile of HIV/AIDS in Michigan

Sexually Transmitted Diseases (continued)

Quinolone-resistant *Neisseria gonorrhoea*

There were 33 cases (five percent of submitted isolates) of quinolone-resistant *Neisseria gonorrhoea* (QRNG) diagnosed in Michigan in 2005. This was an increase of 69 percent compared to 2004. 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, travel, symptoms, and STD history are collected to compare quinolone-resistant and susceptible gonorrhea cases. In 2005, cases were clustered in Oakland (12) and Kent (11) counties. Two cases were attributed to travel in endemic areas such as Hawaii, California, or Asia and/or heterosexual sex. 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 23 percent of gonorrhea cases versus one percent in heterosexual males and just under one percent for females.

Geographic Distribution

There are several areas in Michigan that consistently report high rates of STDs. For gonorrhea, there are nine areas with rates above the Healthy Michigan (HM) 2010 goal of 180 gonorrhea cases per 100,000. The five areas with the highest rate per 100,000 persons are the City of Detroit (879), Muskegon County (363), Genesee County (346), Calhoun County (260), and Berrien County (263). For chlamydia, there are 15 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 (1,411), Muskegon County (673), Genesee County (615), Ingham County (572) and Saginaw County (561). For primary and secondary syphilis, the HM 2010 goal is 0.2 cases per 100,000 persons. There are 11 counties with rates higher than the HM 2010 goal. The four areas with the highest rates are the City of Detroit (5.7), Grand Traverse County (2.6), Ingham County (2.1), and Washtenaw County (1.5). See Table 10 on page 3-68.

2006 Profile of HIV/AIDS in Michigan

Hepatitis and HIV

Data from Adult and Adolescent Spectrum of Disease (ASD)

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

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

Table 12 (page 3-70) shows the demographic and HIV transmission risk profiles for all the persons in care and for the populations co-infected with HAV, HBV and HCV. Of persons co-infected with HCV, higher proportions were female and black, compared to the proportions among all persons in care, and a higher proportion were over 40 years of age. The predominance of blood transfer as the transmission mode for HCV was reflected in the higher proportions of HCV-co-infected persons who had a history of drug injection or other blood contact recorded as their HIV transmission risk. In contrast, the demographic and HIV transmission risk profiles of persons co-infected with HAV (predominantly oral-fecal transmission) did not differ significantly from the profiles of all the persons in care. Among persons co-infected with HBV, the only significant differences were that higher proportions were male and had MSM or drug injection recorded as their HIV transmission risk, reflecting the transmission modes for HBV (high-risk sexual contact and blood transfer).

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

The impact of HCV co-infection on the health of HIV-infected persons is increasing. The numbers of new HCV cases in the U.S. increased in the 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 the aging of this cohort is expected to lead to an increase in the number of persons with HCV-related late stage liver disease through at least 2015.² HIV-infected persons will be impacted even more than the general population, because HIV/HCV co-infected persons have a higher risk of liver disease than persons infected with HCV alone.³ Planning for the care of HIV-infected persons will need to 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.

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.

2006 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 II (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. MDCH estimates that there are approximately 8,510 MSM living with HIV disease in Michigan. This includes an estimated 840 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs. (See Table 7, page 3-64)

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 among all persons tested 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.

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 6,707), white males (3,386) comprise half of men in this combined category; blacks (3,004) account for just under half (45 percent). See Table 8, page 3-66.

2006 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM (continued)

Concurrent Diagnoses:

Of the 12,972 persons living with HIV/AIDS in Michigan, 2,578 (20 percent) had concurrent HIV and AIDS diagnoses. Of these, 1,396 (54 percent) reported MSM behavior, including MSM who were also IDU. MSMs make up the majority of those getting tested for HIV late in the course of the disease. See Table 7, page 3-64.

Age:

Among those reporting male-male sex (including MSM/IDU), the highest percent of all living cases of HIV/AIDS is found among those aged 30-39 at diagnosis (41 percent). MSM is the predominant mode of transmission for males aged 13 and up, accounting for over 75 percent of infections among those aged 20-29 at diagnosis. See Table 9, page 3-67.

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 3-9), MSM comprise the single largest mode of transmission. Within high prevalence counties MSM comprise over half of reported cases (51 percent) while in the lower prevalence counties about two-thirds (61 percent) of reported persons living with HIV/AIDS are MSM. These percentages include MSM who are also IDU.

Trends and Conclusions:

MDCH estimates that HIV infection increased significantly in men who have sex with men (MSM) from 51 percent to 57 percent (461 to 550 cases) from 2000 to 2004.

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.

2006 Profile of HIV/AIDS in Michigan

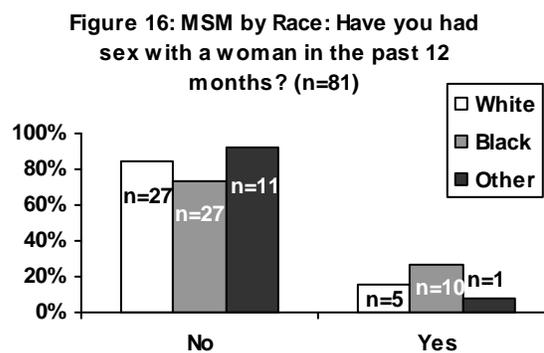
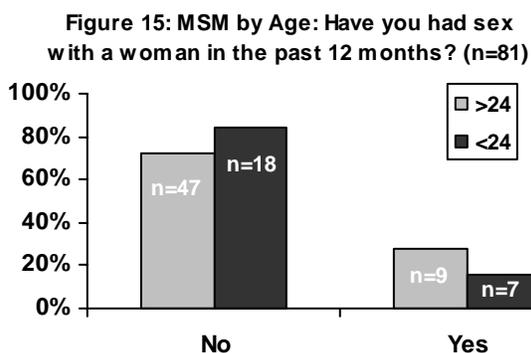
Ranked Behavioral Group: MSM: Discussion of Behaviorally Bi-sexual Men

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

Case reporting data are collected statewide but have only limited information on male bisexual behavior. Case reports are usually completed by health care providers and surveillance staff reviewing medical records rather than through extensive interviews of the infected person. Only 52 percent of all case reports have complete 'yes or no' answers to both questions, "has the patient had sex with men," and "has the patient had sex with women." Based on these complete forms, 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), which was conducted in MI 1990-2004. The SHAS interview asked HIV-infected persons directly about specific behaviors. It was conducted only in SE Michigan; therefore, is not representative of all HIV-infected persons in the state. Please see the Data Sources Section (page 1-7) to learn more about SHAS. Of all male SHAS respondents who reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview (530), 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. This represents 12 percent (30) of the 254 black men and three percent (2) of the 72 white men who reported same-sex behavior.

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 9 and 10, men older than 24 years (28 percent) and black men (27 percent) were more likely to report bisexual behavior.



2006 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM: A Look at Condom Usage

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

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 provided are combined from Detroit and Milwaukee. 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 SHAS interviews with infected MSM regarding condom use with male partners. Among the 333 men who report having sex with a man in the 12 months prior to the interview, 65 percent (216) reported being in a steady relationship with a man. Fifty-six percent (187) reported having sex with a non-steady man during the 12 months prior to the interview. As shown in Figures 17 and 18, 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 119 male respondents who reported having receptive anal sex with a steady male partner, 30 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 17: Condom Usage During Insertive Anal Sex Among HIV Infected MSM in SHAS (N = 111)

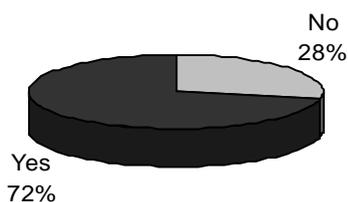
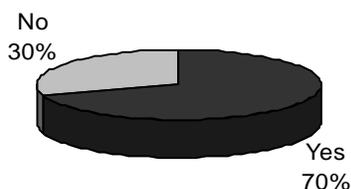


Figure 18: Partner's Condom Usage During Receptive Anal Sex Among HIV Infected MSM in SHAS (N = 119)



2006 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 19 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 20 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 19: 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)

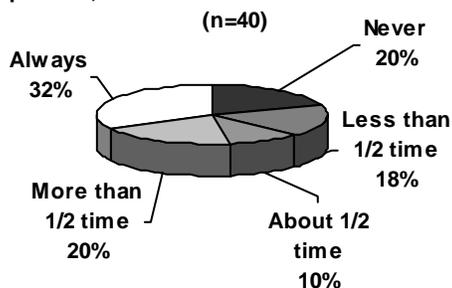


Figure 20: In the past 12 months, when you had insertive anal sex with a primary male partner, how often did you use a condom? (n=47)

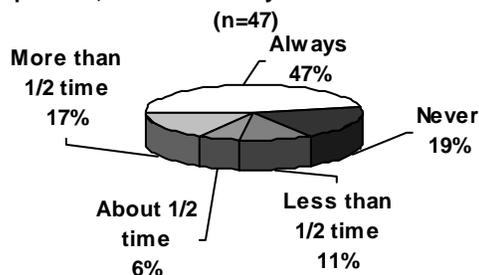


Figure 21 shows that among the 19 respondents with a “non-primary” male partner, 7 (37 percent) reported that their partner used condoms “Always” in the past year when they participated in receptive anal sex. Figure 22 shows that of the 32 respondents who participated in insertive anal sex with a non-primary male partner, 19 (60 percent) reported that they used a condom “Always”.

Figure 21: 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)

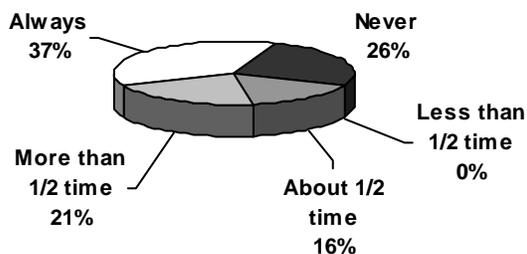
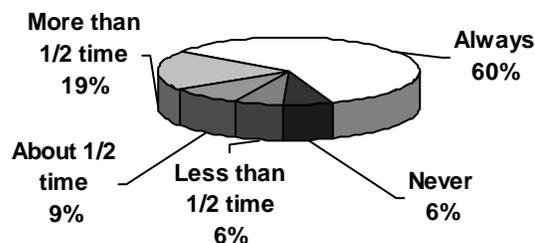


Figure 22: In the past 12 months, when you had insertive anal sex with a non-primary male partner, how often did you use a condom? (n=32)



2006 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: MSM: Health Needs & Risk Perceptions

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

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

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

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

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

2006 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 II (SHAS)

Number of Cases

Injecting drug users (IDUs) are the number-two ranked behavioral group in Michigan and account for under one fifth of reported infected persons (including MSM/IDU). MDCH estimates there are approximately 3,070 IDUs living with HIV disease in Michigan. This estimate includes 840 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 1,690 cases with reported high-risk heterosexual risk, 495 individuals (29 percent) reported having a partner who was an IDU. Fifty 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 23 percent (3,002 cases) of people reported with HIV disease in Michigan. This is similar to the nationwide picture of 24 percent IDU.

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 to seven (0 to 9 percent are 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.

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).

2006 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: IDU (continued)

Incidence (continued):

IDU and NIDU (non-injecting drug use) 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 to substance abuse services. Please refer to the Data Sources section of this profile for more information on the Family of Seroprevalence Surveys (page 1-8).

Race/Ethnicity and Sex:

Of the 2,420 IDU and MSM/IDU HIV/AIDS cases, 1,122 are black men (46 percent), 540 are black women (22 percent), 481 are white men (20 percent), 138 are white women (6 percent), 85 are Hispanic men (4 percent) and 25 are Hispanic women (1 percent). In total, nearly three quarters (1,662 cases) of the IDU cases occur in black persons. Approximately two-thirds of the cases are men (71 percent) and one-third are women (29 percent). Among the 710 women who's HIV infection has been attributed to IDU, over half (56 percent) were also reported with high-risk heterosexual sex partners. See Table 8, page 3-66.

Additional behavioral data on HIV infected IDUs and other drug users in southeast Michigan is known from the SHAS interview project. Of the 1,174 persons interviewed in SHAS between 2000 and 2004, 15 percent (178) injected drugs at some time during their lives. This 15 percent (178) was mostly comprised of males (63 percent). Of all injection drug users, 51 percent (90) reported ever being told by a doctor or health care provider that they had hepatitis C; this was 59 percent of males (53) and 71 percent of females (37). One hundred and seventy-four (98 percent) 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). A 'potential alcoholic' is defined as a person who answered 'Yes' to 2 or more of the following questions on the SHAS II questionnaire: 1) Have you ever felt you ought to cut down on your drinking?, 2) Have people ever annoyed you by criticizing your drinking?, 3) Have you ever felt bad or guilty about your drinking?, and 4) Have you ever had a drink first thing in the morning to steady your nerves or rid yourself of a hangover?

Other drug use information shows 772 (66 percent) of all respondents (1,174) have ever used some kind of non-injection drugs in the past. Among non-injection drug users, the primary non-injected drug for men and women was marijuana, followed by crack cocaine for both men and women.

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 32 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.

2006 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: IDU (continued)

Concurrent Diagnoses:

Of the 12,972 persons living with HIV/AIDS in Michigan, 2,578 (20 percent) had concurrent HIV and AIDS diagnoses. Of these, 420 (15 percent) reported IDU behavior, including IDU who were also MSM. Of those reporting IDU with no MSM behavior, 36 percent also reported high-risk heterosexual sex, while 64 percent reported no sexual behavior of any kind. IDUs are less likely than MSMs to get tested late in the progression of HIV disease. See Table 7, page 3-64.

Age:

Among men 20 and older at the time of HIV diagnosis, IDU (including MSM/IDU) is the second most common mode of transmission. Thirty-nine percent of all the male IDU cases are among men who were diagnosed with HIV in their thirties (42 percent of these were MSM/IDU), and 30 percent of all the male IDU cases are recorded among men who were diagnosed with HIV in their forties (28 percent of these were MSM/IDU).

Among women aged 13 and older at the time of HIV diagnosis, IDU is the second most common mode of transmission. For women who were diagnosed with HIV in their thirties and forties, high-risk heterosexual and IDU are very close. For women in their thirties, IDU makes up 56 percent while HRH makes up 43 percent. For women in their forties, IDU makes up 51 percent while HRH makes up 48 percent.

There are very few cases of HIV/AIDS attributed to IDU among persons who were teenagers at the time of their HIV diagnosis (N=31) and less than half of those are among MSM/IDU; the proportion among those in their twenties is also small (13 percent of cases with a known risk). See Table 9, page 3-67.

Geographic Distribution:

IDU is a more common mode of transmission in the higher prevalence areas of the state (see Figure 2 on page 3-9). Within high prevalence counties, 18 percent of reported cases are IDU, while in the lower prevalence counties 14 percent of persons living with HIV/AIDS are IDU. These percentages include those male IDUs who are also MSM.

Trends and Conclusions:

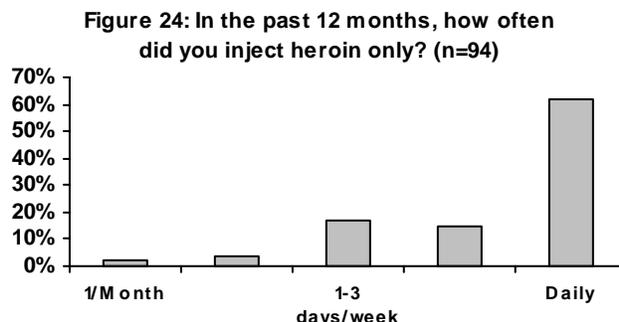
The proportion of persons diagnosed each year with HIV infection between 2000 and 2004 decreased significantly in IDUs from 17 percent to 12 percent (150 to 120 cases). Some of these persons were likely exposed heterosexually because IDUs are more likely to have IDU sex partners than are persons who 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.

2006 Profile of HIV/AIDS in Michigan

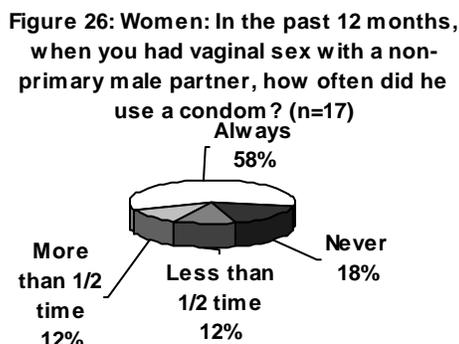
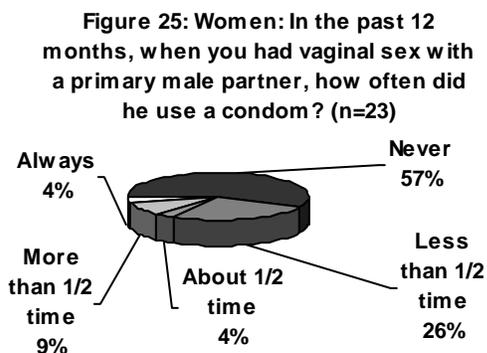
Ranked Behavioral Group: IDU: HIV Negative, At-Risk Persons

Data from HIV Testing Survey (HITS)

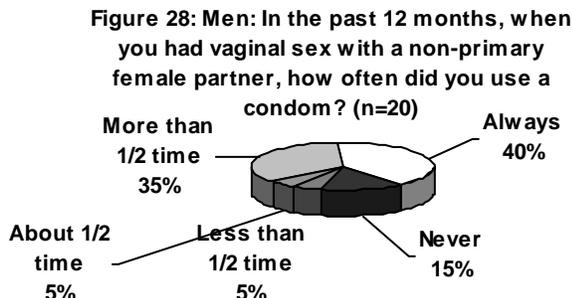
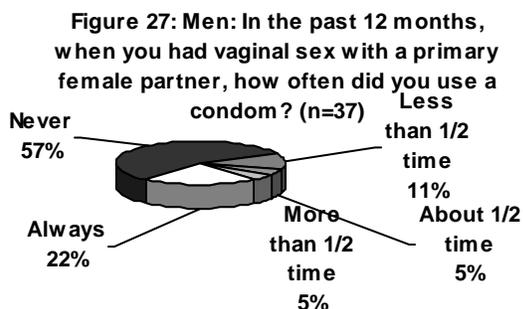
The HITS survey assessed behaviors in HIV-negative IDUs. This section includes data from Detroit (66 IDUs), Oakland County (7 IDUs), and Grand Rapids (21 IDUs). Figure 23 shows approximately three in ten respondents reporting use of non-sterile needles at least some of the time during the 12 months prior to the survey. Figure 24 shows that 62 percent reported injecting only heroin on a “Daily” basis.



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 25). Among female IDUs reporting “non-primary” male sex partners, 18 percent reported “Never” using a condom (Figure 26).



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 27). Fifteen percent of male respondents reported “Never” using a condom with their female non-primary partner (Figure 28).



2006 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 13 percent of reported infected persons. MDCH estimates that 2,140 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 1,050 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 six percent of all reported HIV/AIDS cases and are 48 percent women and 52 percent men.

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) of HIVpositive persons tested annually. Overall HIV incidence among all persons tested 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 (29 to 44 percent).

Race/Ethnicity and Sex:

Among females reported with HIV/AIDS, over one-third (40 percent) of these cases contracted HIV heterosexually. About one-quarter of females, 24 percent, were infected through IDU. Thirteen percent of women reported with HIV/AIDS 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 1,690 men and women living with HIV/AIDS and infected heterosexually, 29 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. Two thirds (63 percent) reported their partner(s) as HIV-infected without reporting the partner(s) risk for contracting HIV.

2006 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: High-Risk Heterosexuals (continued)

Race/Ethnicity and Sex (continued):

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 71 percent. Just over one-third of all black women were infected heterosexually (37 percent). Fifty percent of white women and 53 percent of Hispanic women, half of each group, were infected through heterosexual sex.

Most heterosexual cases of HIV/AIDS are black--66 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. See Table 8, page 3-66.

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 (71 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 are shown in Figures 29 and 30.

Figure 29: Black Females Living with HIV/AIDS in Michigan, by Expanded Mode of Transmission (N = 2,143)

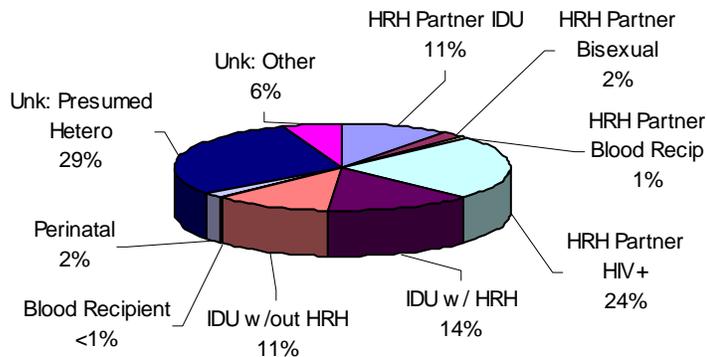
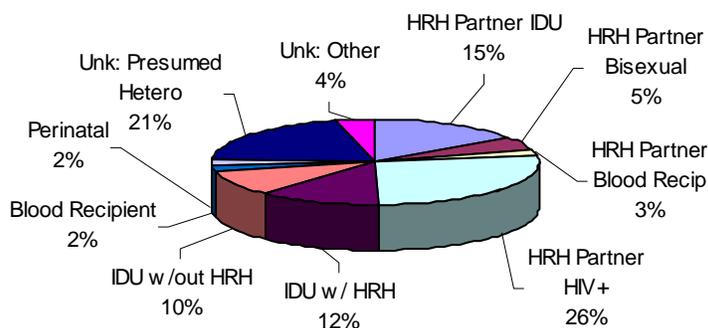


Figure 30: White Females Living with HIV/AIDS in Michigan, by Expanded Mode of Transmission (N = 623)



2006 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: High-Risk Heterosexuals (continued)

Concurrent Diagnoses:

Of the 12,972 persons living with HIV/AIDS in Michigan, 2,578 (20 percent) had concurrent HIV and AIDS diagnoses. Of these, 284 (11 percent) reported high-risk heterosexual behavior. HRH are as likely as IDUs, and less likely as MSM to get tested late for HIV. See Table 7, page 3-64.

Age:

High-risk heterosexual transmission is the predominant mode of HIV transmission for females who were 13 years of age and older at the time of their HIV diagnosis. However, among women 40-49, the proportions of high-risk heterosexual and IDU transmissions are very close at 34 and 37 percent, respectively. Among men, the percentage with high-risk heterosexual sex as the mode of HIV transmission remains low. However as the age at diagnosis gets older, HRH makes up a larger proportion, but never surpasses 10 percent. See Table 9, page 3-67.

Geographic Distribution:

The 1,690 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 3-9), they comprise 13 percent and 12 percent, respectively, of reported cases in these areas.

Trends and Conclusions:

New HIV diagnoses that are high-risk heterosexual remained level at 246 (25 percent of all new HIV diagnoses) during 2004. 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, recent trends show that heterosexually acquired cases are likely to surpass the proportion of cases attributed to IDU in the coming years.

2006 Profile of HIV/AIDS in Michigan

Ranked Behavioral Group: High-Risk Heterosexuals: Condom Usage

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

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

Sixty-three percent (529) of male SHAS respondents reported having vaginal, oral, and/or anal sex during the 12 months prior to the interview. Of these 529, 228 men (43 percent) 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 4.

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

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

*Categories are not mutually exclusive

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

In addition, we asked women and men, questions regarding barrier/condom use with their most recent other male and female partners. Among the female SHAS respondents, 68 (33 percent) 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 5.

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

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

*Categories are not mutually exclusive

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

2006 Profile of HIV/AIDS in Michigan

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

Data from HIV Testing Survey (HITS)

In 2002, 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 31 and 32). 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 33 and 34).

Figure 31: 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)

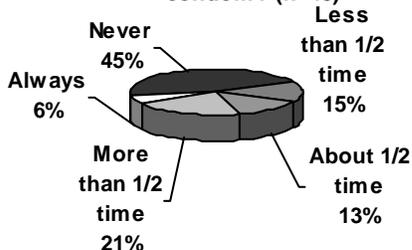


Figure 32: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=37)

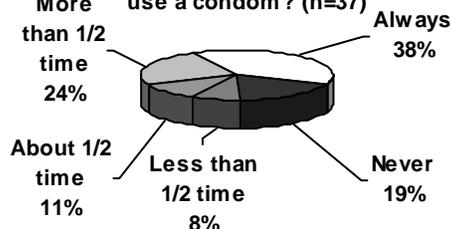


Figure 33: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=50)

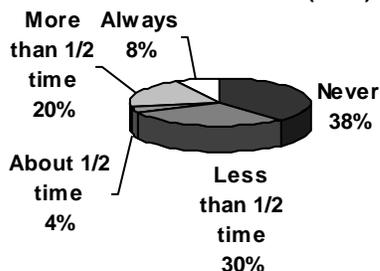
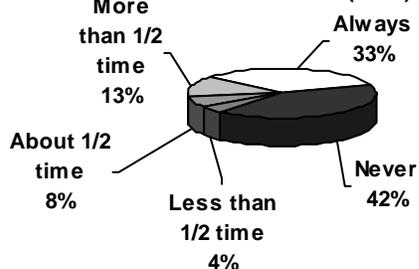


Figure 34: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=24)



2006 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 9,340 black persons are living with HIV/AIDS in Michigan. The rate of HIV infection among blacks is 670 per 100,000 population, eight times higher than the rate among whites. MDCH estimates that as many as one out of 100 black males and one out of 260 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 6,050 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 730 white males and one out of 5,030 white females may be HIV-infected.

Hispanics comprise four percent of cases and three percent of the population. MDCH estimates 680 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 (210 per 100,000 population) than that among whites. MDCH estimates that as many as one out of 330 Hispanic males and one out of 900 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 10,001 male HIV/AIDS cases are black (52 percent), 41 percent white, four percent Hispanic and two percent are other or unknown race. The majority of the 2,971 female HIV/AIDS cases are black (72 percent), almost one-quarter (21 percent) are white, four percent are Hispanic and three percent are other or unknown race.

Concurrent Diagnoses:

Of the 12,972 persons living with HIV/AIDS in Michigan, 2,578 (20 percent) had concurrent HIV and AIDS diagnoses. Of these, 81 percent are male and 19 percent are female; males are disproportionately represented. This likely means they are tested later and/or present for care later than females.

Over half (56 percent) are black, 38 percent are white, and 5 percent are Hispanic. Black males make up the majority at 42 percent, followed by white males (35 percent) and black females (14 percent). The remainder of the race-sex groups are all below 5 percent. See Table 7, page 3-64.

2006 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Race and Sex (continued)

Mode of Transmission:

Figures 35 and 36 display the proportion of black and white male cases by mode of transmission.

Figure 35: Black Males Living with HIV/AIDS in Michigan, by Expanded Mode of Transmission (N = 5,222)

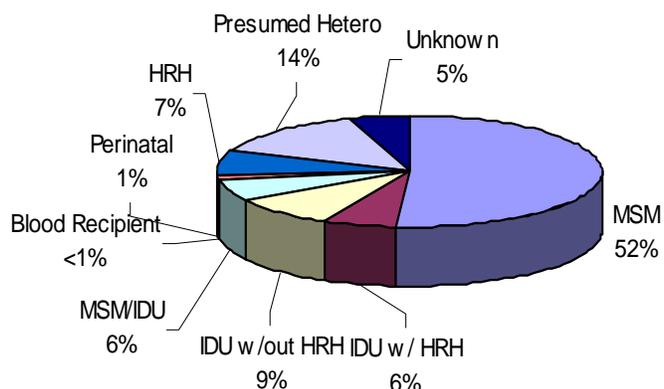
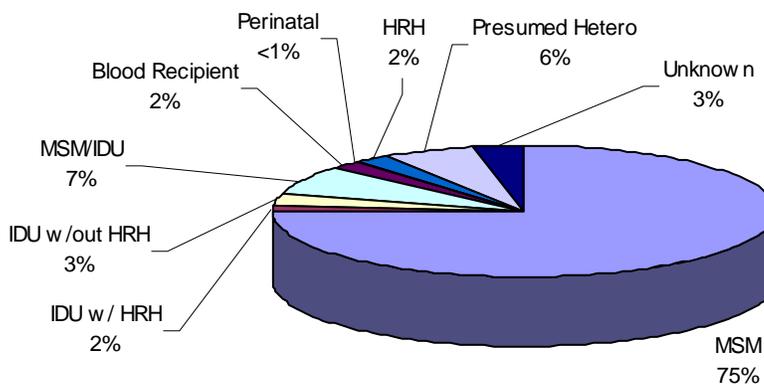


Figure 36: White Males Living with HIV/AIDS in Michigan, by Expanded Mode of Transmission (N = 4,147)



Refer to Figures 29 and 30, page 3-35 for black and white female distributions.

2006 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. See page 3-9 for high and low prevalence areas.

Therefore, instead of proportions, rates are used (e.g., number of black cases/total number of blacks living in that area). Figure 37 shows that the HIV/AIDS case rate among blacks is six to nine 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, even though there are fewer cases among Hispanics in the low prevalence areas.

Figure 37: Case Rates of Persons with HIV/AIDS Living in High & Low Prevalence Areas by Race, 2006

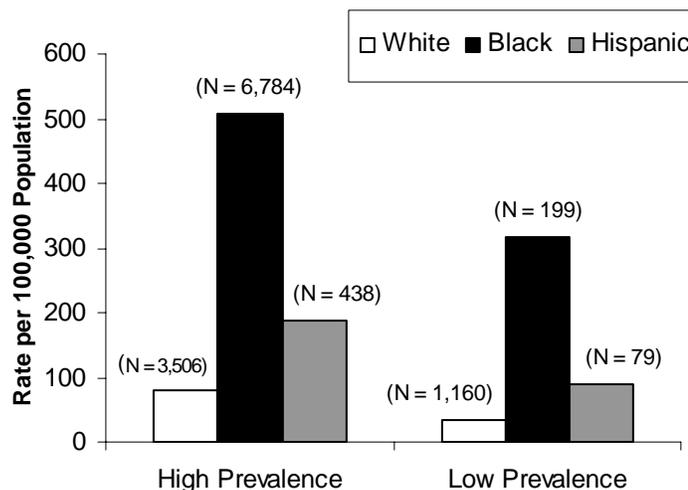
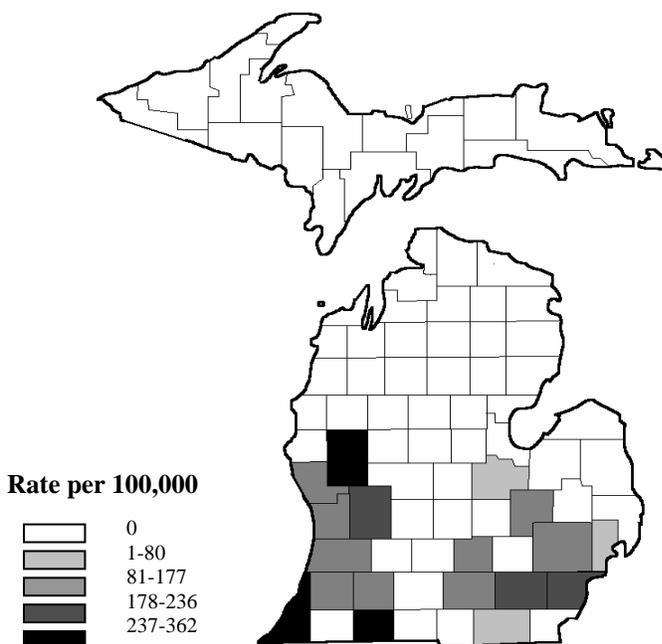


Figure 38: Prevalence Rates for Hispanics Living with HIV



Hispanics comprise four percent of all persons living with HIV/AIDS. Figure 38 shows the rate per 100,000 of Hispanics living with HIV/AIDS in counties across Michigan.

Counties with five or more reported Hispanic cases are included in the map. The areas with the highest case rates for Hispanics (9 of the 18 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, it has the fifth highest rate (219 per 100,000). The individual county rates include St. Joseph (326), Berrien (286), Newaygo (271), Kent (236), Wayne (219), Washtenaw (215), Van Buren (177), Ingham (173), Oakland (166), Kalamazoo (158), Jackson (143), Muskegon (133), Allegan (132), Genesee (118), Ottawa (96), Macomb (80), Lenawee (73), and Saginaw (50).

2006 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 from 2000 through 2004 and was at 602 in 2004. During this same time period, the estimated annual number among whites has remained level at 307 persons in 2004, and the estimated annual number among Hispanic and other races/ethnicities has remained level at 62 cases in 2004.

Trends in new HIV diagnoses among males and females show similar patterns. The number of males newly diagnosed with HIV each year is level at about 721 new infections (74 percent of cases) in the year 2004. Among females the number appears to also be stable at 250 (26 percent cases) in the year 2004.

Mortality:

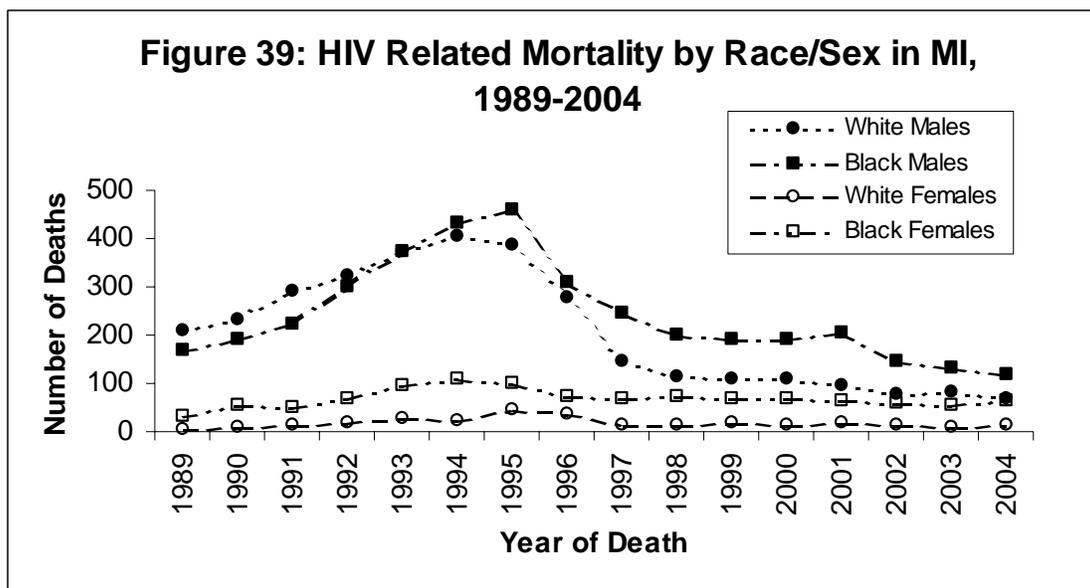


Figure 39 shows that HIV related mortality dropped for the four race and sex groups shown. There was a statistical difference in the 1995-2001 declines among white men (79 percent), black men (65 percent), and women (47 percent). From 2001 to 2004 there was also a 43 percent decline in deaths among black 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.

2006 Profile of HIV/AIDS in Michigan

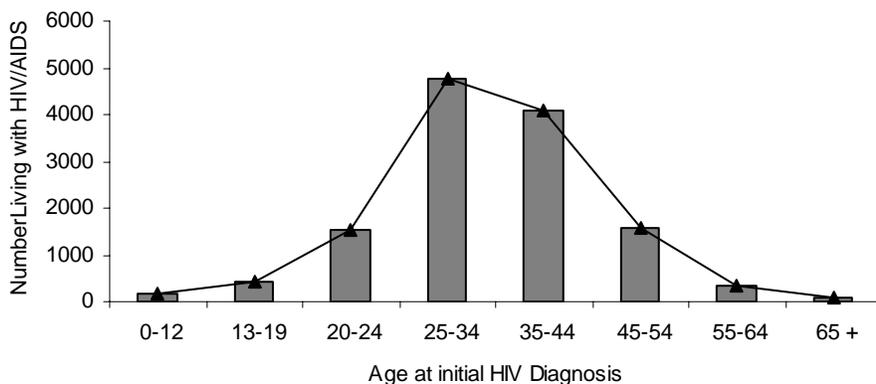
Description of the Epidemic by Age

Data from HIV/AIDS Reporting System (HARS)

Age at Diagnosis:

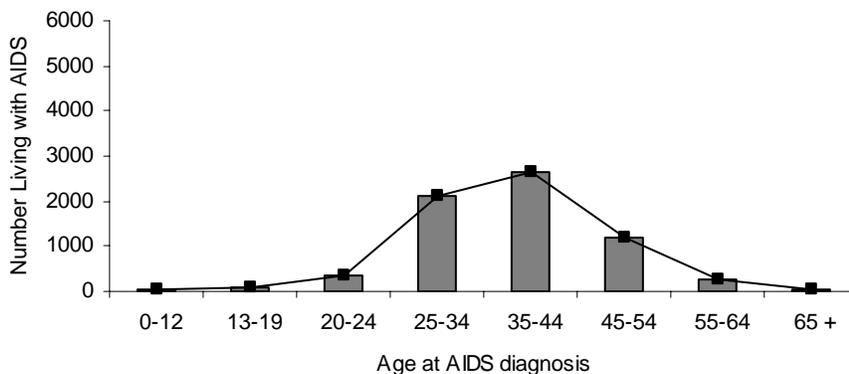
From 2000 to 2004, the proportion of persons diagnosed each year with HIV infection increased significantly among those diagnosed at 13-19 years from two percent to four percent (22 to 43 cases) and also increased significantly among those diagnosed at 20-24 years of age from seven percent to 15 percent (61 to 142 cases). In all other age groups, the trends in new diagnoses are level. Figure 40 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 (37 percent), while those between the ages 35-44 at their initial diagnosis of HIV are the second largest group (31 percent). Figure 41 shows this latter group is the largest age group at AIDS diagnosis (39 percent).

Figure 40: Age at initial HIV Diagnosis for those living with HIV/AIDS in Michigan, 1/1/06



Not included are 3 HIV/AIDS cases with missing information

Figure 41: Age of AIDS Diagnosis for those living with AIDS in Michigan, 1/1/06



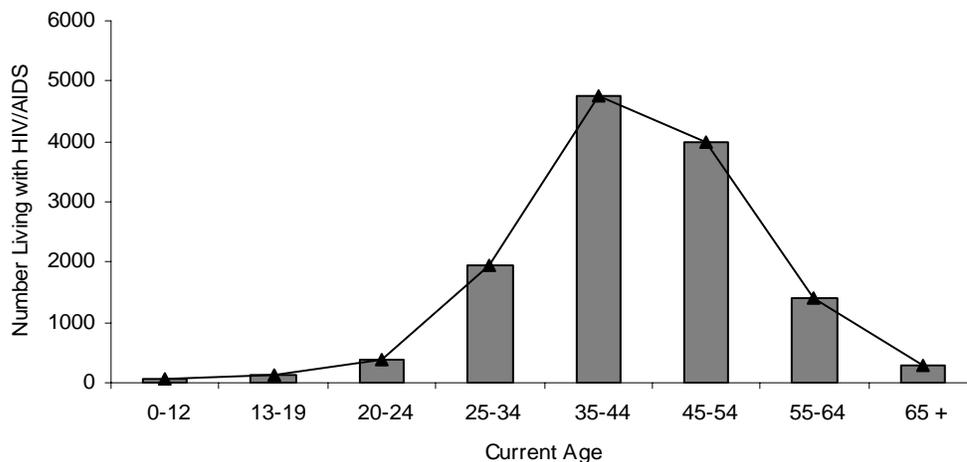
2006 Profile of HIV/AIDS in Michigan

Description of the Epidemic by Age

Current Age:

Since the start of widespread use of Highly Active Anti-Retroviral Therapy (HAART) in 1996, persons infected with HIV have been living longer. Evidence of this is shown in Figure 42, 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 (37 percent). While persons who were ages 55 and older at AIDS diagnosis made up only five percent of those diagnosed with AIDS (Figure 41), persons in this age group make up 13 percent of persons living with HIV/AIDS.

Figure 42: Current age of those living with HIV/AIDS in Michigan, 1/1/06



Not included are 7 HIV/AIDS cases with missing information

2006 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 220 individuals living with HIV, who were ages 0-12 when they were diagnosed. They comprise 1.2 percent of the reported infected persons. Most of them (82 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding). Of the remaining individuals, 14 percent were infected via blood exposure before 1985 and four percent have an unknown risk.

No individuals aged 0-12 at the time of HIV diagnosis have been infected through sexual behavior or injection drug use. Five percent have an unknown risk, of which one percent (N=2) are further categorized as presumed heterosexual, unfortunately, these cases were infected as a result of sexual abuse. The remainder were probably due to perinatal transmission or receipt of blood products in other countries.

Demographic Description of Cases:

Of the 176 individuals who were ages 0-12 when diagnosed with HIV/AIDS, living in Michigan, 57 percent were male and 43 percent were female; about two thirds were black (65 percent), under one quarter were white (24 percent) and 10 percent were Hispanic or of unknown race. See Table 9, page 3-67.

Of the 153 individuals infected perinatally, 54 percent were male and 46 percent were female; 70 percent were black, 19 percent were white, and 11 percent were Hispanic or other races. Fifty-seven percent of the HIV infections in these children were IDU related (41 percent had mothers who were IDUs and 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 17 percent had mothers with HIV-infected sex partners. For 20 percent all that was known about the mother is that she was HIV-infected with no additional maternal risk information.

Geographic Distribution of Infected Cases:

Eighty-two percent of the 176 children diagnosed and reported with HIV/AIDS between the ages of 0 and 12 years are located in high prevalence counties (See page 3-9). The remaining 17 percent are located in low prevalence counties. Sixty-four percent of HIV cases that were diagnosed as children in Michigan are currently residents of the Detroit Metro Area.

Trends and Conclusions:

The best measurable success in reducing HIV transmission has been among those infected perinatally. Without Zidovudine (ZDV) prophylaxis, about 25 percent of children born to HIV-infected women could expect to become HIV-infected. In Michigan, the proportion of these children who become infected has dropped precipitously, from 12 percent in 1996 to four percent in 2005. As of January 1, 2006, one of the 49 children born in 2003, one of the 53 children born in 2004, and two of the 54 children born in 2005 to HIV-infected women were diagnosed with HIV infection. In addition, a third child born in 2005 to an HIV-infected woman was diagnosed with AIDS.

2006 Profile of HIV/AIDS in Michigan

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

Data from HIV/AIDS Reporting System (HARS)

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

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

As of January 1, 2006, the Michigan Department of Community Health has received reports on 1,070 cases of births to HIV-positive mothers. Since 1994, 308 births to HIV-positive mothers have occurred in which a lapse in one of the three therapeutic arms occurred. Seventeen percent (52 children) of these "missed opportunity" births have since tested HIV positive compared to only 2 percent of births that were not "missed opportunities".

The race/ethnicity of missed opportunity births (76 percent black, non-Hispanic, 16 percent white, non-Hispanic, and 4 percent Hispanic) was similar to non-missed opportunity births (75 percent black, non-Hispanic, 19 percent white, non-Hispanic, and 5 percent Hispanic) and the distribution of women currently living with HIV in Michigan.

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

Three-quarters of missed opportunity births are to mothers diagnosed with HIV before or during pregnancy. These women must have had contact with the health care system in order to have been tested. Furthermore, 106 of the 308 missed opportunities had prenatal care and no/unknown documentation for receipt of prenatal ZDV (defined as "prenatal missed opportunities"). The majority of these women initiated their prenatal care in the first or second trimester. This suggests that women of childbearing age that test HIV positive should be counseled about what steps are to be taken if/when they become pregnant. Prenatal care visits offer the ideal opportunity to test and counsel pregnant women for HIV in order to avoid potential perinatal transmission. Mothers of the majority of prenatal and delivery/neonatal missed opportunities were residing in Southeast Michigan at the time of birth, which is similar to that of all currently living HIV positive women.

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

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

2006 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), STD Reporting System, Youth Risk Behavior Survey, & Bureau of Juvenile Justice Youth Risk Behavior Survey

Number of Cases:

MDCH estimates that there are 2,460 persons currently living in Michigan who were ages 13-24 years when they were diagnosed with HIV. They comprise 15 percent of all persons reported with HIV/AIDS in Michigan (3 percent age 13-19 years; 12 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 number of 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 teens who live in areas with high HIV prevalence and have male sex partners who are age 20 or older.

Every two years a Youth Risk Behavior Survey is conducted in Michigan high schools using a nationally standardized survey. This captures behaviors in children grades 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 an 89 percent completion rate and 83 percent were between the ages of 15 and 18 (similar to ages found in YRBS). It showed that 23 percent of females had ever injected drugs, compared with 12 percent of males. Eighty-nine percent had reported ever having sex and 42 percent had sex for the first time at 11 years of age or younger. When comparing BJJ surveys to those taken by mainstream high schoolers, 16 percent of BJJ youth had reported ever injecting drugs, compared with two percent from the mainstream youths. Sixty-two percent of BJJ youths started having sex before age 13 compared with 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 of BJJ youth fit under the umbrella category of sexual minority youth (SMY) due to self-identifying as gay, lesbian, or bisexual, or participating in same-sex behavior. SMY were at higher risk for HIV than their mainstream counterparts: 21 percent had ever used injection drugs, 73 percent had sex before age 13, and 86 percent had four or more sexual partners in their lifetime.

STDs:

STD rates are highest in these age groups. The STD data are shown on Tables 10 and 11 (pages 3-68-69). In persons age 15-24 years, the rate of chlamydia is over two and a half times higher and the rate of gonorrhea is nearly two times half times higher than the rate among persons age 25-29 years (please refer to the Sexually Transmitted Diseases section on page 3-20-22 for further discussion of these high rates). While rates of STDs among 15-24 year olds are higher than any other age groups, the rates of HIV in this demographic group are comparably low. Also, since the rates of HIV among teens are very low, and because most teens have sex with other teens, the gonorrhea and chlamydia epidemic is perpetuated and HIV is rarely introduced into the population.

2006 Profile of HIV/AIDS in Michigan

Additional Discussions: Teens and Young Adults (continued)

Teen Pregnancy:

Teen (ages 15-19) pregnancy rates have shown decreases over time and decreased significantly from 2000 to 2004. Lake County had the highest teen pregnancy rate in the state in 2004 (114 per 1,000), followed by the city of Detroit (111 per 1,000). The 2004 rate among teens in Detroit exceeded the rate among women age 15-44 years in that same area (111 vs. 100). However, in 2002, the rate among teens in Detroit was equal to the rate among women aged 15-44. The statewide teen pregnancy rate in 2004 was 55 pregnancies per 1,000 females aged 15-19 years. In Out-State Michigan, the 2004 rates range from 17-114 pregnancies per 1,000 females aged 15-19 and in the Detroit Metro Area, the 2004 rates

Race/Ethnicity:

Sixty-eight percent of persons aged 13-19 at the time of HIV diagnosis are black, 26 percent are white, and six percent are Hispanic or other race. Sixty-one percent of persons aged 20-24 at the time of HIV diagnosis are black, 33 percent are white, and six percent are Hispanic or other race.

Geographic Distribution of Teens and Young Adults Cases:

The 1,937 persons diagnosed and reported with HIV/AIDS between the ages 13-24 are located disproportionately throughout the state. In the high prevalence areas, those who were 13-19 years and 20-24 years at the time of HIV diagnosis make up 85 and 84 percent of reported cases, respectively. In the low prevalence areas they comprise 10 and 11 percent of reported cases, respectively. (Figure 2 on page 3-9)

Mode of Transmission:

Teenagers: The unknown category for teenagers and young adults is quite large. 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.

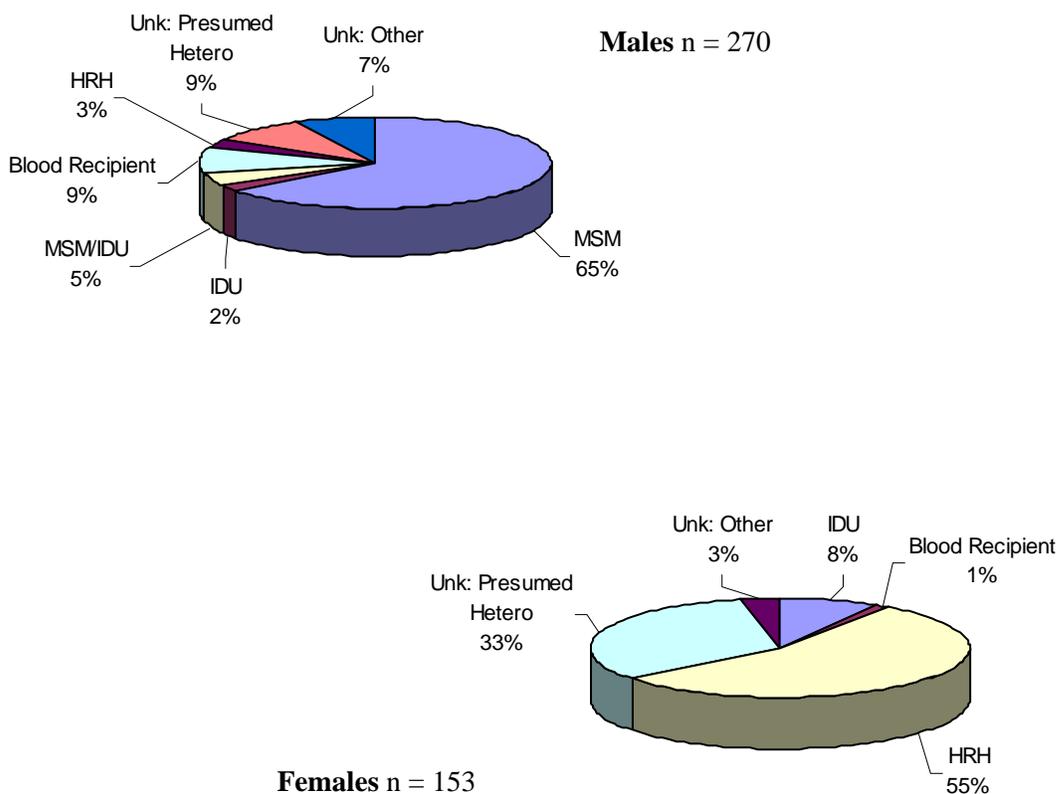
Figure 43 (next page) shows that among the 423 persons living with HIV in Michigan who were ages 13-19 at time of diagnosis, 270 (64 percent) are male. Among these male cases, over two-thirds had sex with other males (69 percent) which includes the MSM/IDU cases, while 9 percent had been infected with HIV through blood products before 1985. Seven percent could be attributed to IDU (including MSM/IDU) and three 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 40. Experience with investigating such persons shows that it is likely that many of these males were infected through having sex with other males.

Figure 43 (next page) also shows that among the 423 persons living with HIV in Michigan who were ages 13-19 at the time of diagnosis, 153 (36 percent) are female. This is considerably higher than the proportion of all infected persons who are female (23 percent). Of females who were 13-19 years at the time of diagnosis, over half (55 percent) were infected through heterosexual sex; eight percent were IDUs. Similar to males of this age, there is a large proportion that did not report a mode of transmission (36 percent), however this proportion of cases with an unknown mode of transmission is consistent with females of any age. It is likely that most females above age 13 with an unknown risk were infected through heterosexual contact.

2006 Profile of HIV/AIDS in Michigan

Additional Discussions: Teens and Young Adults (continued)

Figure 43: Persons living in Michigan who were aged 13-19 when diagnosed with HIV (Teenagers), by Sex and Mode of Transmission (N = 423)



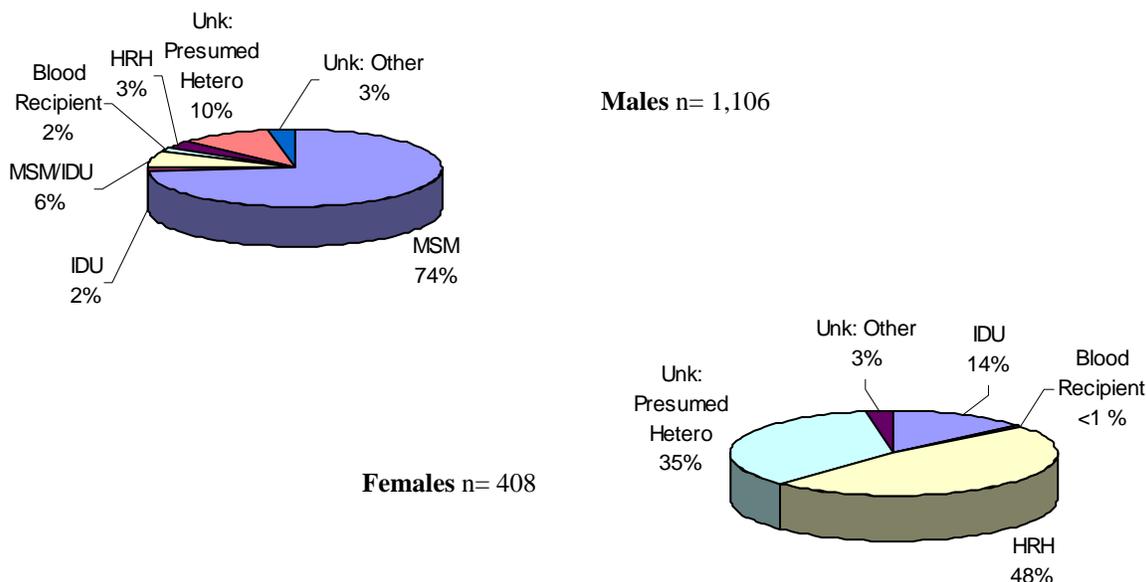
2006 Profile of HIV/AIDS in Michigan

Additional Discussions: Teens and Young Adults (continued)

Young Adults: Figure 44 shows that among the 1,514 persons living with HIV in Michigan who were ages 20-24 at time of diagnosis, almost three quarters (73 percent) are male. Eighty-one percent of male young adults reported sex with other males (including those MSM who also are IDU); 13 percent did not report a mode of transmission.

Figure 44 also shows that among the 408 women living with HIV who were ages 20-24 at time of diagnosis, just less than half (48 percent) were infected heterosexually and 14 percent were IDUs. Over one-third (38 percent) did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually. Women aged 20-29 at the time of HIV diagnosis have the highest proportion of unknown risk compared with all HIV infected women under 60.

Figure 44: Persons living in Michigan who were aged 20-24 when diagnosed with HIV (Young Adults), by Sex & Mode of Transmission (N = 1,514)



Trends and Conclusions:

The proportion of persons diagnosed each year between 2000 and 2004 with HIV infection increased significantly among those diagnosed at 13-19 years from 2 percent to 4 percent (22 to 43 cases) and also increased significantly among those diagnosed at 20-24 years of age from 7 percent to 15 percent (61 to 142 cases). In all other age groups, the trends in new diagnoses are level.

The data also suggest that prevention activities among teenagers and young adults of both sexes should be geared towards those 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.

2006 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 1,270 persons living in Michigan, who were 50 years and older when they were diagnosed with HIV. They comprise eight percent of all reported infected persons. This population was mainly infected through sexual contact (either men having sex with men or heterosexually), however those who were in their fifties when diagnosed with HIV have a substantial proportion infected through injection drug use and with an unknown risk. Three-quarters of this population is male.

Mode of Transmission:

When discussing mode of transmission, those who were in their fifties at the time of HIV diagnosis have different transmission mode proportions than those who were aged 60 or older. Therefore, these two populations are discussed separately.

Description of Cases aged 50-59 at the time of diagnosis: Persons who were in their fifties when first diagnosed with HIV are 77 percent male and 23 percent female. Among these 826 persons reported with HIV/AIDS about just under two-thirds are black (59 percent), one third are white (34 percent) and 7 percent are Hispanic or of unknown race.

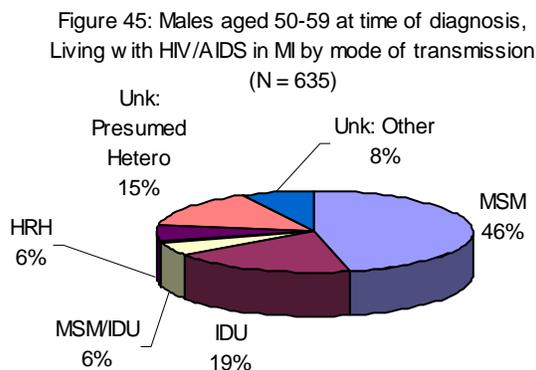
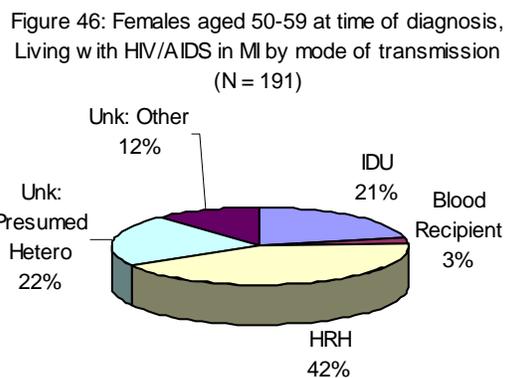


Figure 45 shows that over half of the 635 males in their fifties at time of HIV diagnosis and currently living with HIV (53 percent) reported having sex with other males (including those MSM who also are IDU). One quarter reported injection drug use (including those IDU who were also MSM). Six percent were infected heterosexually. Twenty-two percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 46 shows that among the 191 females who were in their fifties at time of HIV diagnosis and currently living with HIV, just under half (42 percent) were infected heterosexually and 21 percent were IDUs. Just over one-third (34 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.



2006 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 78 percent male and 22 percent female. Among these 182 persons reported with HIV/AIDS over half are black (52 percent), over one-third are white (39 percent) and nine percent are Hispanic or of unknown race.

Figure 47: Males aged 60 and older at time of diagnosis, Living with HIV/AIDS in MI by mode of transmission (N = 142)

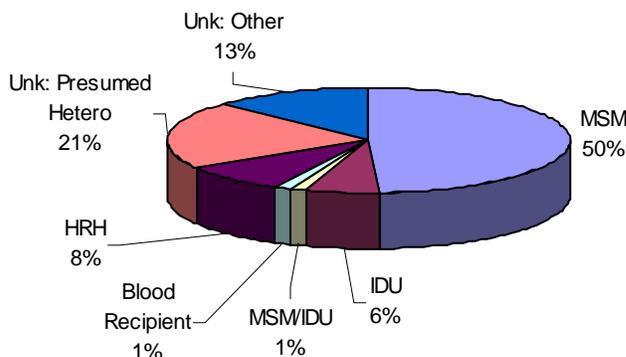
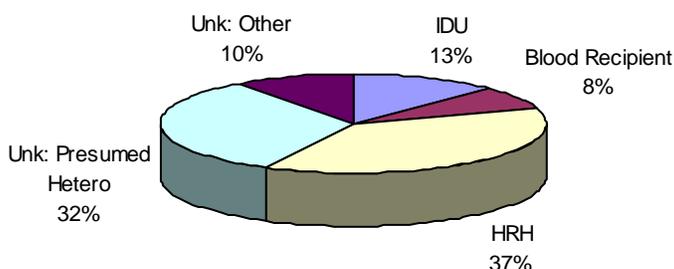


Figure 47 shows that over half of the 142 males who were 60 years and older at time of HIV diagnosis and currently living with HIV (51 percent) reported sex with other males (including those MSM who also are IDU). Seven percent reported injection drug use (including those IDU who were also MSM). Eight percent were infected heterosexually. Thirty-four percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 48 shows that among the 40 females who were 60 and older at the time of HIV diagnosis and currently living with HIV, more than a third (37 percent) were infected heterosexually and 13 percent were IDUs. Just under a half (42 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 48: Females aged 60 and older at time of diagnosis, Living with HIV/AIDS in MI by mode of transmission (N = 40)



2006 Profile of HIV/AIDS in Michigan

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

Trends and Conclusions:

The proportion of persons who were 50 years and older at the time of diagnosis has remained level from 2000 through 2004. There were 128 persons diagnosed with HIV and 2,456 who are currently this age living with HIV in 2004. As treatment for HIV allows infected persons to live longer, persons in this age group may be a source of infections for their peers and others. Therefore, it is important for prevention programs to include this age group when designing prevention activities.

Description of the Epidemic by Age: Persons Currently Aged 50 Years and Older

As of January 1, 2006 there are 3,224 persons who are **currently** age 50 or older and living with HIV/AIDS in Michigan. This represents 25 percent of the 12,972 persons diagnosed in and living with HIV/AIDS in Michigan as of the first of this year. Data in this section were analyzed differently than for the rest of the profiles. All numbers used in the 2006 Profile of HIV/AIDS in Michigan represent those HIV infected persons currently living in Michigan, regardless of where they were initially diagnosed.

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 who were 50 years and older at the time of diagnosis are more likely to have been infected by injecting drugs than the total population of HIV infected persons- 27 vs. 14 percent.

The proportion of persons **currently** age 50 and older in Michigan has increased over the last five years. This can be attributed, at least in part, to the more effective anti-retroviral medications have been available since 1996. As a result, infected persons are living longer and are, therefore, getting older. Table 6 shows the percent of persons who were age 50 and older at the beginning of each of the seven years listed.

Table 6: Percent of Persons aged 50 and older living in Michigan by ‘Year End’

	Number	Percent
1/1/2000	1,245	13%
1/1/2001	1,524	15%
1/1/2002	1,803	17%
1/1/2003	2,108	19%
1/1/2004	2,456	21%
1/1/2005	2,821	23%
1/1/2006	3,224	25%

Nearly 70 percent of persons 50 years and older who are currently living were less than 50 years at the time of HIV 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 given risk reduction messages and offered HIV testing when they present for medical care.

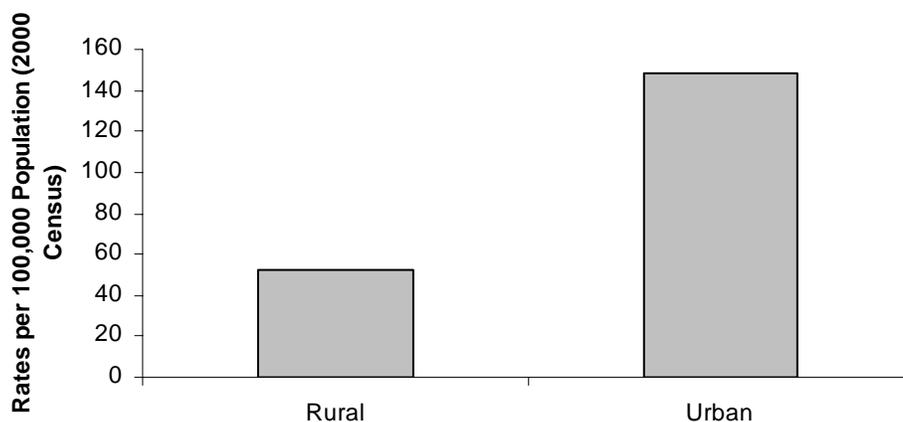
2006 Profile of HIV/AIDS in Michigan

Special Populations: Rural HIV

Data from HIV/AIDS Reporting System (HARS)

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.

Figure 49: Case rates of persons living with HIV/AIDS in Michigan Rural or Urban Counties, 1/1/06



Using this definition, the reported cases were divided into rural or urban categories. Rural cases constitute eight percent of reported cases (1,061); 21 percent of Michigan's population lives in these counties. The estimated rate of infection in rural areas is 52 per 100,000. Urban areas account for 90 percent of cases while 79 percent of Michigan's population lives in these areas. The estimated rate for the urban counties is almost three times higher than rural areas, 148 per 100,000. (Figure 49)

2006 Profile of HIV/AIDS in Michigan

Special Populations: Rural HIV (continued)

Data from HIV/AIDS Reporting System (HARS)

Figure 50 shows that in Michigan's rural communities, HIV is more likely to be attributable to injecting drug (including MSM/IDU) use when compared with urban areas primarily due to a larger proportion of MSM/IDU. There is little to no difference between rural and urban communities with respect to the relative proportion of cases reported with MSM, heterosexual, and an unknown risk.

Figure 50: Rural v. Urban: Persons living with HIV/AIDS in Michigan by mode of transmission

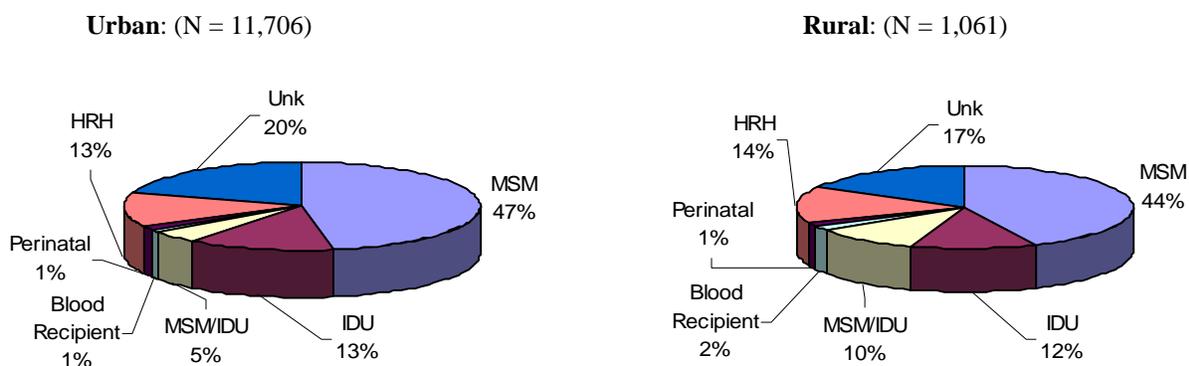
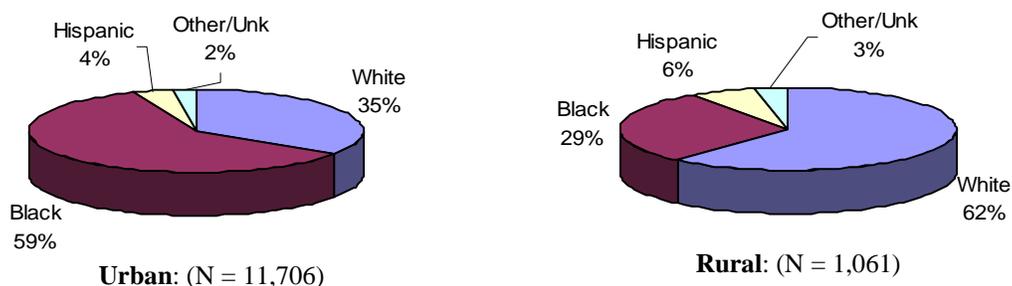


Figure 51 shows that in urban counties of Michigan, the greatest proportion of HIV/AIDS cases occurs among blacks. In rural communities although the largest proportion of cases occurs among whites, the rates are higher among blacks (See Figure 37, page 3-41).

Figure 51: Rural v. Urban: Persons living with HIV/AIDS in Michigan by race/ethnicity



2006 Profile of HIV/AIDS in Michigan

Special Populations: Arab-American Community

Data from HIV/AIDS Reporting System (HARS)

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 an undercount. Beginning in the year 2001 a question was added about Arabic ethnicity on the HIV/AIDS Case Report Form that reads “Does this patient consider him-/her-self Arabic?”.

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, 31 percent were HIV not AIDS and 69 percent were AIDS. The counties where persons of Arabic descent were initially diagnosed with HIV include Wayne, including Detroit city (48 percent), Oakland (22 percent), Macomb (13 percent), St. Clair (2 percent), Kalamazoo (2 percent), Ingham (2 percent), Ottawa (2 percent), Kent (2 percent), and ‘out of state’ (6 percent).

Eighty percent (43) of the cases are among males, 20 percent (11) among females. Among the 11 females, over half were infected heterosexually and 27 percent had no reported mode of transmission. Among the 43 male cases, over two-thirds were attributed to MSM (including MSM/IDU) and 19 percent had no reported mode of transmission. See Figures 52 and 53. The age at HIV diagnosis (including those with AIDS) is similar to the age distribution for all cases in Michigan, with six percent (3), ages 0-19, 24 percent (13) ages 20-29, 37 percent (20) ages 30-39, 20 percent (11) ages 40-49, 11 percent (6) ages 50 and older, and one with an unknown age at diagnosis.

Figure 52: Persons of Arabic Descent, Living with HIV/AIDS in Michigan by Mode of Transmission, as of 1/1/06 (N=54)

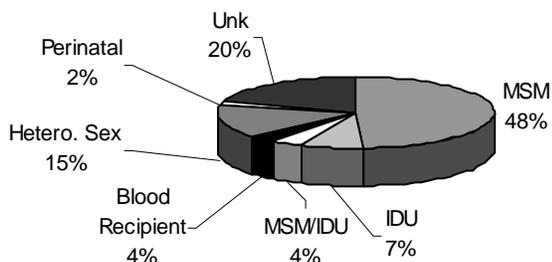
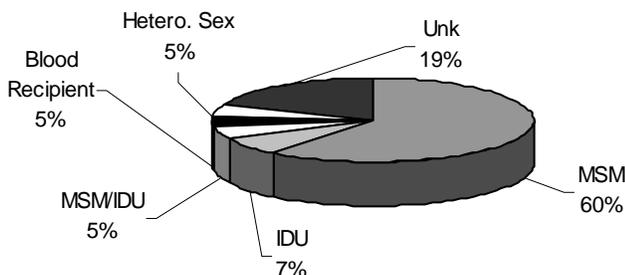


Figure 53: Males of Arabic Descent, Living with HIV/AIDS in Michigan by Mode of Transmission, as of 1/1/06 (N=43)



2006 Profile of HIV/AIDS in Michigan

Special Populations: Homeless Community

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

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

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

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

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

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

2006 Profile of HIV/AIDS in Michigan

Special Populations: 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 1,699 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 610 are known to have died both inside and outside of prison. This section on the Michigan Department of Corrections describes the 310 HIV infected inmates known to be incarcerated at state facilities, as of January 2006.

Race/Ethnicity and Sex:

Ninety-six percent of HIV-infected prisoners are male and four percent are female. Most (78 percent) are black, 16 percent are white, and five percent are Hispanic or other race/ethnicity. Please see Table 13, page 3-71 for more information.

Among the 13 females currently in prison living with HIV, 62 percent are black and 31 percent are white. Figure 54 shows that half were infected through injecting drug use, one-third report a history of high-risk heterosexual behavior (e.g., partner was HIV-infected or was an injecting drug user), and 15 percent have an unknown risk.

Among the 297 males currently in prison living with HIV, 79 percent are black. Figure 55 shows that among the 207 black males, 29 percent are men who have sex with men, 18 percent have injected drugs, and 15 percent have had both behaviors. Another 12 percent indicate they had a heterosexual sex partner who was HIV-infected or who was an injecting drug user. Among the 47 white males 43 percent are attributed to men having sex with men, 17 percent have injected drugs, and 21 percent have had both behaviors. See Table 13, page 3-71.

Figure 54: Females living with HIV/AIDS in prison by mode of transmission (N = 13)

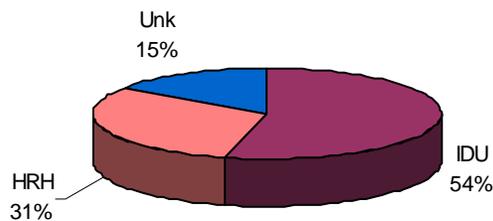
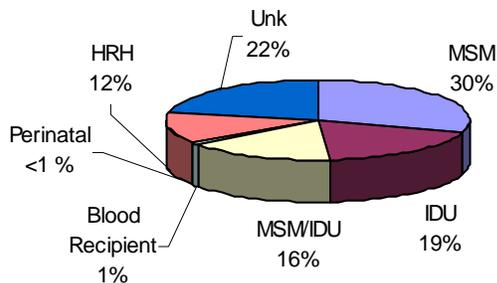


Figure 55: Males living with HIV/AIDS in prison by mode of transmission (N = 297)



2006 Profile of HIV/AIDS in Michigan

Special Populations: Incarcerated Population (continued)

Prison Populations:

As of January 1, 2006, there are 49,377 prisoners in MDOC correction facilities, 931 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 one percent of all prisoners are HIV-infected; among young men under age 20, the proportion is higher (1.6 percent). See Table 14, page 3-72. The one percent of overall HIV infection in the prison population is a decrease from the three percent reported in 2004. These data are often collected at the time of incarceration, although there are occasional updates.

Wayne County Jail HIV Anonymous Unlinked Serosurvey, 1999

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).

Specimens from this unlinked serosurvey 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 HIV-infected persons exchanging money or drugs for sex and 15 percent of HIV infected non-injecting drug users.

2006 Profile of HIV/AIDS in Michigan

Special Populations: Commercial Sex Workers

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

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

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

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

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

The majority of the participants indicated consistent condom use with clients for both oral and vaginal sex. When asked if they do anything to protect themselves from HIV when having sex with clients, 66 percent said they “always” use condoms, 30 percent said “sometimes” and only 4 percent said they “never” use condoms. Participants indicated a variety of other HIV risk reduction strategies with clients including keeping clean through rinsing, washing, or occasionally bleaching their body parts after sex with clients. Visual inspection of clients for signs of disease was also a common strategy reported by participants.

Twenty-nine percent of the participants indicated that they don't talk to anyone about HIV or AIDS. Additionally, about 50 percent indicated they had never specifically sought HIV information from an agency, such as a local health department or community-based organization. Of those who reported seeking information about HIV, most went to their private doctor (30 percent), health department (20 percent), or family member, significant other, and customers (8 percent). The organizations that participants mentioned going to most often for HIV-related information were local health departments, clinics, or other local community-based organizations.

2006 Profile of HIV/AIDS in Michigan

Special Populations: Foreign Born

Data from HIV/AIDS Reporting System (HARS)

Trends:

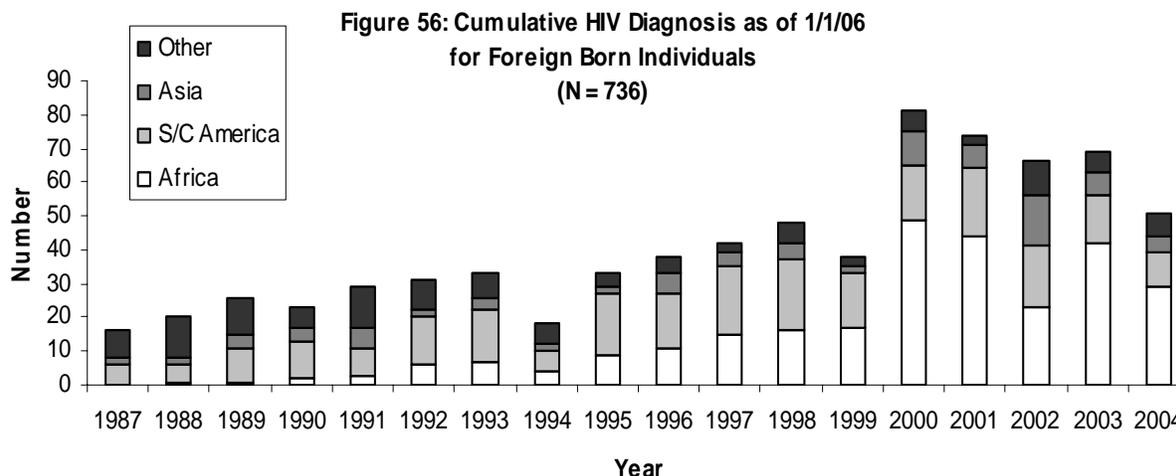
HIV infection in foreign-born individuals accounts for 4 percent (N = 736) of the total number of HIV/AIDS cases in Michigan, however, in recent years, the number of newly diagnosed cases in this group has increased. The majority of these persons were born in Africa and South & Central America (including Mexico). In Michigan, these persons may be migrant farm workers, who are mainly from South & Central America, and African-born individuals, who are participants in refugee resettlement programs. As can be seen in Figure 56, cases among foreign-born individuals have been climbing over time, but experienced a large jump in the year 2000. The number of HIV infections diagnosed in Michigan among foreign-born individuals has increased from 13 cases in 1987 to 51 cases in 2004, with a peak of 81 cases in 2000.

Geographical Distribution:

One quarter of the African-born cases were diagnosed in Berrien County, 18 percent were diagnosed in Kent County, 14 percent were diagnosed in the city of Detroit, and the rest were diagnosed throughout the remainder of Michigan. Twenty-two percent of the South & Central America-born cases were diagnosed in Kent County, 18 percent were diagnosed in the city of Detroit, and the rest were diagnosed throughout the remainder of Michigan.

Conclusion:

This is an under-estimate of these populations as they can be hard to contact. Notification about resettlement programs and migrant worker networks would be essential to ensure that reporting from these populations is complete. This could be accomplished by linking or networking with organizations that provide assistance to refugees and immigrants. This effort would identify and address barriers to health care among foreign-born HIV-infected persons and data obtained would assist in monitoring the specific health needs of these special populations.



2006 Profile of HIV/AIDS in Michigan

Special Focus: Health Disparities

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

The epidemic is of special concern in the black community where the death rate from AIDS is 10.2 per 100,000; this towers above the rate for whites at 0.8 AIDS deaths per 100,000. If we separate the black rate by sex, black males have a death rate of 14.7 per 100,000 and the black female rate is 6.3 per 100,000. The black male rate is alarming because black males make up only seven percent of the state of Michigan's total population, yet constitute 40 percent of the epidemic. The main mode of transmission in this group is MSM, however, IDU and high-risk heterosexual transmission also play a significant role. HIV/AIDS is also a serious area of concern for black women. The main modes of transmission for this group are high-risk heterosexual transmission and IDU.

Footnotes for Michigan, Tables 7 through 9 and 13 through 14

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

Indicates an explanatory definition exists in Appendix B

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

¹ The minimum estimate is 10 cases.

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/06

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

⁴ This is a subset of all HIV/AIDS cases reported alive as of 1/1/06

⁵ Totals for counties/areas includes infected prisoners who were discharged/paroled if no current residence is available.

**Table 7: 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, 2006

	Estimated HIV Infection ¹	Estimated Rate per 100,000 ³	Total HIV + AIDS Reported ²		Initial HIV diagnosis at same time as AIDS diagnosis ⁴		2000 Census	
			Reported Cases	%	Reported AIDS Cases	%		%
Male	12,690	260.4	10,001	77%	2,101	81%	4,873,095	49%
<i>White, Non-Hispanic Males</i>	5,260	137.1	4,147	32%	895	35%	3,836,091	39%
<i>Black, Non-Hispanic Males</i>	6,630	999.4	5,222	40%	1,077	42%	663,406	7%
<i>Hispanic Males</i>	520	304.9	407	3%	111	4%	170,555	2%
<i>Asian, Hawaiian, Pacific Islander Males</i>	60	67.9	46	<1%	11	<1%	88,314	1%
<i>American Indian Males</i>	40	150.7	28	<1%	2	<1%	26,537	<1%
<i>Other/Multi Race Males</i>	N/A	*	151	1%	5	<1%	88,192	N/A
Female	3,770	74.4	2,971	23%	477	19%	5,065,349	51%
<i>White, Non-Hispanic Females</i>	790	19.9	623	5%	82	3%	3,970,600	40%
<i>Black, Non-Hispanic Females</i>	2,720	368.2	2,142	17%	366	14%	738,641	7%
<i>Hispanic Females</i>	170	110.9	131	1%	23	1%	153,322	2%
<i>Asian, Hawaiian, Pacific Islander Females</i>	20	22.4	14	<1%	3	<1%	89,142	1%
<i>American Indian Females</i>	20	74.4	13	<1%	1	<1%	26,884	<1%
<i>Other/Multi Race Females</i>	N/A	*	48	<1%	2	<1%	86,760	N/A
White, Non-Hispanic	6,050	77.5	4,770	37%	977	38%	7,806,691	79%
Black, Non-Hispanic	9,340	666.2	7,364	57%	1,443	56%	1,402,047	14%
Hispanic	680	210.0	538	4%	134	5%	323,877	3%
Asian, Hawaiian, Pacific Islander	80	45.1	60	<1%	14	1%	177,456	2%
American Indian	50	93.6	41	<1%	3	<1%	53,421	1%
Other/Multi Race	N/A	*	199	2%	7	<1%	174,952	N/A
Male-Male Sex[#]	7,670	N/A	6,046	47%	1,295	50%		
Injecting Drug Use[#]	2,230	N/A	1,759	14%	319	12%		
<i>IDU with heterosexual risk</i>	1,050	N/A	824	6%	115	4%		
<i>IDU without heterosexual risk</i>	1,190	N/A	935	7%	204	8%		
M-M Sex and Inject Drugs[#]	840	N/A	661	5%	101	4%		
Blood Recipients[#]	160	N/A	126	1%	23	1%		
Perinatal	190	N/A	153	1%	22	1%		
Heterosexual[#]	2,140	N/A	1,690	13%	284	11%		
<i>Partner IDU</i>	630	N/A	495	4%	79	3%		
<i>Partner Bisexual</i>	110	N/A	87	1%	7	<1%		
<i>Partner Blood Recipient</i>	50	N/A	42	<1%	8	<1%		
<i>Partner HIV+</i>	1,350	N/A	1,066	8%	190	7%		
Known Risk Total	13,240	N/A	10,435	80%	2,044	79%		
Unknown Risk[#]	N/A	N/A	2,537	20%	534	21%		
<i>Presumed Heterosexual</i>	N/A	N/A	1,875	14%	435	17%		
<i>Other</i>	N/A	N/A	662	5%	99	4%		
0 - 4 years^x	150	22.3	121	1%	16	1%	672,005	7%
5 - 9 years^x	50	6.7	41	<1%	5	<1%	745,181	7%
10-12 years^x	20	4.4	14	<1%	1	<1%	454,587	5%
13-19 years^x	540	53.3	423	3%	25	1%	1,012,292	10%
20-24 years^x	1,920	298.2	1,514	12%	131	5%	643,839	6%
25-29 years^x	2,810	429.3	2,216	17%	310	12%	654,629	7%
30-34 years^x	3,250	459.3	2,559	20%	501	19%	707,542	7%
35-39 years^x	3,030	384.8	2,387	18%	535	21%	787,367	8%
40-44 years^x	2,150	265.1	1,691	13%	432	17%	811,006	8%
45-49 years^x	1,260	171.5	995	8%	305	12%	734,905	7%
50-54 years^x	730	115.3	578	4%	179	7%	633,034	6%
55-59 years^x	310	63.8	248	2%	75	3%	485,895	5%
60-64 years^x	140	37.1	112	1%	33	1%	377,144	4%
65 and older^x	90	7.4	70	1%	30	1%	1,219,018	12%
Unknown Age	N/A	N/A	3	<1%	-	0%	0	N/A
Detroit Metropolitan Area	10,510	236.6	8,286	64%	1,745	68%	4,441,551	45%
Out-State	5,290	96.2	4,171	32%	782	30%	5,496,893	55%
Total both areas	15,810	N/A	12,457	96%	2,527	98%		
<i>In Prison</i>	390	N/A	310	2%	30	1%		
Total Known Residence	16,200	163.0	12,767	98%	2,557	99%	9,938,444	100%
Unknown Residence	N/A	N/A	205	2%	21	1%		
Statewide Total	16,200	163.0	12,972	100%	2,578	100%	9,938,444	100%

Table 7a: Statewide Distribution of HIV/AIDS Prevalence Estimates by County⁵
Reported Cases, and Population Currently Living within Michigan
 Prisoners and persons with unknown residence are included

	Estimated HIV Infection ¹	Rate per 100,000 ³	Total HIV + AIDS Reported ²		Initial HIV diagnosis at same time as AIDS diagnosis ⁴		Census 2000	%		Estimated HIV Infection ¹	Rate per 100,000 ³	Total HIV + AIDS Reported ²		Initial HIV diagnosis at same time as AIDS diagnosis ⁴		Census 2000	%
			Reported Cases	%	Reported AIDS Cases	%						Reported Cases	%	Reported AIDS Cases	%		
ALCONA CO.	10	*	0	0%	0	0%	11,719	<1%	LENAWEE CO.	60	60.7	46	<1%	9	<1%	98,890	1%
ALGER	10	*	1	<1%	0	0%	9,862	<1%	LIVINGSTON CO.	50	31.9	39	<1%	10	<1%	156,951	2%
ALLEGAN CO.	110	104.1	86	1%	19	1%	105,665	1%	LUCE CO	10	*	0	0%	0	0%	7,024	<1%
ALPENA CO.	10	31.9	5	<1%	1	<1%	31,314	<1%	MACKINAC CO.	10	*	1	<1%	0	0%	11,943	<1%
ANTRIM CO.	10	43.3	9	<1%	1	<1%	23,110	<1%	MACOMB CO.	620	78.7	479	4%	118	5%	788,149	8%
ARENAC CO.	10	*	2	<1%	1	<1%	17,269	<1%	MANISTEE CO.	20	81.5	13	<1%	3	<1%	24,527	<1%
BARAGA CO.	10	114.3	7	<1%	3	<1%	8,746	<1%	MARQUETTE CO.	40	61.9	33	<1%	8	<1%	64,634	1%
BARRY CO.	30	52.9	20	<1%	7	<1%	56,755	1%	MASON CO.	20	70.7	13	<1%	6	<1%	28,274	<1%
BAY CO.	70	63.5	56	<1%	9	<1%	110,157	1%	MECOSTA CO.	20	49.3	14	<1%	2	<1%	40,553	<1%
BENZIE CO.	10	*	3	<1%	0	0%	15,998	<1%	MENOMINEE CO.	10	*	3	<1%	0	0%	25,326	<1%
BERRIEN CO.	270	166.2	211	2%	46	2%	162,453	2%	MIDLAND CO.	30	36.2	24	<1%	5	<1%	82,874	1%
BRANCH CO.	10	21.8	10	<1%	0	0%	45,787	<1%	MISSAUKEE CO.	10	*	4	<1%	0	0%	14,478	<1%
CALHOUN CO.	150	108.7	112	1%	16	1%	137,985	1%	MONROE CO.	70	48.0	51	<1%	13	1%	145,945	1%
CASS CO.	40	78.3	28	<1%	9	<1%	51,104	1%	MONTCALM CO.	30	49.0	24	<1%	2	<1%	61,266	1%
CHARLEVOIX CO.	20	76.7	14	<1%	3	<1%	26,090	<1%	MONTMORENCY CO.	10	*	3	<1%	0	0%	10,315	<1%
CHEBOYGAN CO.	10	37.8	6	<1%	1	<1%	26,448	<1%	MUSKEGON CO.	160	94.0	120	1%	20	1%	170,200	2%
CHIPPEWA CO.	20	51.9	17	<1%	2	<1%	38,543	<1%	NEWAYGO CO.	30	62.7	20	<1%	3	<1%	47,874	<1%
CLARE CO.	20	64.0	12	<1%	1	<1%	31,252	<1%	OAKLAND CO.	1,720	144.0	1,323	10%	259	10%	1,194,156	12%
CLINTON CO.	50	77.2	42	<1%	5	<1%	64,753	1%	OCEANA CO.	10	37.2	9	<1%	3	<1%	26,873	<1%
CRAWFORD CO.	10	70.1	5	<1%	2	<1%	14,273	<1%	OGEMAW CO.	10	*	2	<1%	0	0%	21,645	<1%
DELTA CO.	20	51.9	17	<1%	1	<1%	38,520	<1%	ONTONAGON CO.	10	*	2	<1%	1	<1%	7,818	<1%
DICKINSON CO.	10	*	4	<1%	1	<1%	27,472	<1%	OSCEOLA CO.	10	43.1	6	<1%	1	<1%	23,197	<1%
EATON CO.	60	57.9	44	<1%	4	<1%	103,655	1%	OSCODA CO.	10	*	3	<1%	1	<1%	9,418	<1%
EMMET CO.	10	31.8	11	<1%	2	<1%	31,437	<1%	OTSEGO CO.	10	42.9	10	<1%	3	<1%	23,301	<1%
GENESEE CO.	620	142.2	473	4%	85	3%	436,141	4%	OTTAWA CO.	120	50.4	92	1%	21	1%	238,314	2%
GLADWIN CO.	10	38.4	5	<1%	2	<1%	26,023	<1%	PRESQUE ISLE CO.	10	*	3	<1%	2	<1%	14,411	<1%
GOGEBIC CO.	10	*	2	<1%	0	0%	17,370	<1%	ROSCOMMON CO.	20	78.5	18	<1%	4	<1%	25,469	<1%
GRAND TRAVERSE CO.	70	90.1	52	<1%	10	<1%	77,654	1%	SAGINAW CO.	200	95.2	153	1%	33	1%	210,039	2%
GRATIOT CO.	10	23.6	9	<1%	3	<1%	42,285	<1%	SANILAC CO.	20	44.9	13	<1%	4	<1%	44,547	<1%
HILLSDALE CO.	10	21.5	8	<1%	2	<1%	46,527	<1%	SCHOOLCRAFT CO.	10	*	1	<1%	0	0%	8,903	<1%
HOUGHTON CO.	10	27.8	11	<1%	4	<1%	36,016	<1%	SHIAWASSEE CO.	30	41.8	22	<1%	4	<1%	71,687	1%
HURON CO.	10	*	4	<1%	1	<1%	36,079	<1%	ST CLAIR CO.	90	54.8	73	1%	17	1%	164,235	2%
INGHAM CO.	500	179.0	381	3%	67	3%	279,320	3%	ST JOSEPH CO.	30	48.1	24	<1%	3	<1%	62,422	1%
IONIA CO.	30	48.8	21	<1%	8	<1%	61,518	1%	TUSCOLA CO.	10	17.2	10	<1%	2	<1%	58,266	1%
IOSCO CO.	10	*	4	<1%	1	<1%	27,339	<1%	VAN BUREN CO.	90	118.0	68	1%	12	<1%	76,263	1%
IRON CO.	10	*	0	0%	0	0%	13,138	<1%	WASHTENAW CO.	550	170.3	425	3%	81	3%	322,895	3%
ISABELLA CO.	20	31.6	19	<1%	2	<1%	63,351	1%	WAYNE CO.	1,560	140.6	1,198	9%	255	10%	1,109,892	11%
JACKSON CO.	190	119.9	143	1%	20	1%	158,422	2%	DETROIT	6,680	702.2	5,135	40%	1,077	42%	951,270	10%
KALAMAZOO CO.	350	146.7	267	2%	41	2%	238,603	2%	WEXFORD CO.	20	65.6	16	<1%	4	<1%	30,484	<1%
KALKASKA CO.	10	60.3	5	<1%	0	0%	16,571	<1%									
KENT CO.	1,030	179.3	791	6%	148	6%	574,335	6%	Total Known Res. (w/o Prison)	390	N/A	310	2%	30	1%		
KEWEENAW	10	*	0	0%	0	0%	2,301	<1%	<i>In Prison</i>	16,200	N/A	12,767	98%	2,557.0	99%		
LAKE CO.	10	88.2	11	<1%	4	<1%	11,333	<1%	Total Known Residence	N/A	N/A	205	2%	21.0	1%		
LAPEER CO.	40	45.5	27	<1%	6	<1%	87,904	1%	Unknown Residence	16,200	163.0	12,972	100%	2,578.0	100%	9,938,444.0	100%
LEELANAU CO.	10	47.4	9	<1%	3	<1%	21,119	<1%	Statewide Total	16,200	163.0	11,527	100%	2,578	100%	9,938,444	100%

**Table 8: Living HIV/AIDS Cases Currently Living in Michigan
Sex and Race by Risk
January 1, 2006**

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex#	3,100	75%	2,665	51%	199	49%	82	36%	6,046	60%
Injecting Drug Use#	195	5%	783	15%	58	14%	13	6%	1,049	10%
<i>IDU w/ heterosexual</i>	70	2%	325	6%	28	7%	2	1%	425	4%
<i>IDU w/o heterosexual</i>	125	3%	458	9%	30	7%	11	5%	624	6%
Male-Male Sex/IDU#	286	7%	339	6%	27	7%	9	4%	661	7%
Blood Recipients#	77	2%	19	<1%	2	<1%	4	2%	102	1%
Perinatal	18	<1%	58	1%	2	<1%	4	2%	82	1%
Heterosexual#	96	2%	350	7%	38	9%	8	4%	492	5%
Partner IDU	29	1%	106	2%	9	2%	2	1%	146	1%
Partner Blood Recipient	4	<1%	6	<1%	1	<1%	0	0%	11	<1%
Partner HIV+	63	2%	238	5%	28	7%	6	3%	335	3%
Total Known Risks	3,772	91%	4,214	81%	326	80%	120	53%	8,432	84%
Unknown Risk#	375	9%	1,008	19%	81	20%	105	47%	1,569	16%
Presumed Heterosexual	234	6%	741	14%	65	16%	35	16%	1,075	11%
Other	141	3%	267	5%	16	4%	70	31%	494	5%
Total All Cases	4,147	41%	5,222	52%	407	4%	225	2%	10,001	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Injecting Drug Use#	138	22%	540	25%	25	19%	7	9%	710	24%
<i>IDU w/ heterosexual</i>	75	12%	306	14%	14	11%	4	5%	399	13%
<i>IDU w/o heterosexual</i>	63	10%	234	11%	11	8%	3	4%	311	10%
Blood Recipients#	13	2%	10	<1%	1	1%	0	0%	24	1%
Perinatal	11	2%	49	2%	8	6%	3	4%	71	2%
Heterosexual#	309	50%	796	37%	69	53%	24	32%	1,198	40%
Partner IDU	93	15%	227	11%	20	15%	9	12%	349	12%
Partner Bisexual	32	5%	48	2%	6	5%	1	1%	87	3%
Partner Blood Recipient	16	3%	13	1%	2	2%	0	0%	31	1%
Partner HIV+	168	27%	508	24%	41	31%	14	19%	731	25%
Total Known Risks	471	76%	1,395	65%	103	79%	34	45%	2,003	67%
Unknown Risk#	152	24%	747	35%	28	21%	41	55%	968	33%
Presumed Heterosexual	128	21%	624	29%	25	19%	23	31%	800	27%
Other	24	4%	123	6%	3	2%	18	24%	168	6%
Total All Cases	623	21%	2,142	72%	131	4%	75	3%	2,971	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex#	3,100	65%	2,665	36%	199	37%	82	27%	6,046	47%
Injecting Drug Use#	333	7%	1,323	18%	83	15%	20	7%	1,759	14%
<i>IDU w/ heterosexual</i>	145	3%	631	9%	42	8%	6	2%	824	6%
<i>IDU w/o heterosexual</i>	188	4%	692	9%	41	8%	14	5%	935	7%
Male-Male Sex/IDU#	286	6%	339	5%	27	5%	9	3%	661	5%
Blood Recipients#	90	2%	29	<1%	3	1%	4	1%	126	1%
Perinatal	29	1%	107	1%	10	2%	7	2%	153	1%
Heterosexual#	405	8%	1,146	16%	107	20%	32	11%	1,690	13%
Partner IDU	122	3%	333	5%	29	5%	11	4%	495	4%
Partner Bisexual	32	1%	48	1%	6	1%	1	<1%	87	1%
Partner Blood Recipient	20	<1%	19	<1%	3	1%	0	0%	42	<1%
Partner HIV+	231	5%	746	10%	69	13%	20	7%	1,066	8%
Total Known Risks	4,243	89%	5,609	76%	429	80%	154	51%	10,435	80%
Unknown Risk#	527	11%	1,755	24%	109	20%	146	49%	2,537	20%
Presumed Heterosexual	362	8%	1,365	19%	90	17%	58	19%	1,875	14%
Other	165	3%	390	5%	19	4%	88	29%	662	5%
Total All Cases	4,770	37%	7,364	57%	538	4%	300	2%	12,972	100%

Table 9: Living HIV/AIDS Cases Currently Living in Michigan
Age^x at Diagnosis by Risk
January 1, 2006

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%	175	65%	811	73%	1,194	70%	2,435	62%	1,067	51%	294	46%	70	49%	6,046	60%
Injecting Drug Use[#]	0	0%	5	2%	26	2%	91	5%	389	10%	409	19%	120	19%	8	6%	1,048	10%
<i>IDU w/ heterosexual</i>	0	0%	3	1%	6	1%	45	3%	180	5%	154	7%	32	5%	5	4%	425	4%
<i>IDU w/o heterosexual</i>	0	0%	2	1%	20	2%	46	3%	209	5%	255	12%	88	14%	3	2%	623	6%
Male-Male Sex/IDU[#]	0	0%	13	5%	70	6%	117	7%	282	7%	141	7%	36	6%	2	1%	661	7%
Blood Recipients[#]	14	14%	24	9%	18	2%	15	1%	23	1%	4	<1%	2	<1%	2	1%	102	1%
Perinatal	82	82%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	82	1%
Heterosexual[#]	0	0%	8	3%	38	3%	91	5%	195	5%	107	5%	41	6%	12	8%	492	5%
Partner IDU	0	0%	0	0%	6	1%	29	2%	58	1%	38	2%	11	2%	4	3%	146	1%
Partner Blood Recipient	0	0%	0	0%	1	<1%	3	<1%	3	<1%	2	<1%	1	<1%	1	1%	11	<1%
Partner HIV+	0	0%	8	3%	31	3%	59	3%	134	3%	67	3%	29	5%	7	5%	335	3%
Total Known Risks	96	96%	225	83%	963	87%	1,508	88%	3,324	85%	1,728	82%	493	78%	94	66%	8,431	84%
Unknown Risk[#]	4	4%	45	17%	143	13%	206	12%	609	15%	371	18%	142	22%	48	34%	1,568	16%
<i>Presumed Heterosexual</i>	1	1%	25	9%	110	10%	138	8%	440	11%	237	11%	94	15%	30	21%	1,075	11%
<i>Other</i>	3	3%	20	7%	33	3%	68	4%	169	4%	134	6%	48	8%	18	13%	493	5%
Total All Cases	100	1%	270	3%	1,106	11%	1,714	17%	3,933	39%	2,099	21%	635	6%	142	1%	9,999	100%

	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	8%	57	14%	91	18%	301	30%	202	34%	41	21%	5	13%	710	24%
<i>IDU w/ heterosexual</i>	0	0%	8	5%	31	8%	51	10%	178	18%	112	19%	18	9%	1	3%	399	13%
<i>IDU w/o heterosexual</i>	0	0%	5	3%	26	6%	40	8%	123	12%	90	15%	23	12%	4	10%	311	10%
Blood Recipients[#]	0	0%	2	1%	1	<1%	3	1%	7	1%	3	1%	5	3%	3	8%	24	1%
Perinatal	71	93%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	71	2%
Heterosexual[#]	0	0%	83	54%	196	48%	219	44%	389	38%	215	37%	81	42%	15	38%	1,198	40%
Partner IDU	0	0%	15	10%	40	10%	51	10%	124	12%	87	15%	27	14%	5	13%	349	12%
Partner Bisexual	0	0%	7	5%	13	3%	18	4%	31	3%	13	2%	5	3%	0	0%	87	3%
Partner Blood Recipient	0	0%	0	0%	8	2%	8	2%	12	1%	1	<1%	0	0%	2	5%	31	1%
Partner HIV+	0	0%	61	40%	135	33%	142	28%	222	22%	114	19%	49	26%	8	20%	731	25%
Total Known Risks	71	93%	98	64%	254	62%	313	62%	697	69%	420	72%	127	66%	23	58%	2,003	67%
Unknown Risk[#]	5	7%	55	36%	154	38%	189	38%	316	31%	167	28%	64	34%	17	43%	967	33%
<i>Presumed Heterosexual</i>	1	1%	50	33%	143	35%	155	31%	271	27%	125	21%	42	22%	13	33%	800	27%
<i>Other</i>	4	5%	5	3%	11	3%	34	7%	45	4%	42	7%	22	12%	4	10%	167	6%
Total All Cases	76	3%	153	5%	408	14%	502	17%	1,013	34%	587	20%	191	6%	40	1%	2,970	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%	175	41%	811	54%	1,194	54%	2,435	49%	1,067	40%	294	36%	70	38%	6,046	47%
Injecting Drug Use[#]	0	0%	18	4%	83	5%	182	8%	690	14%	611	23%	161	19%	13	7%	1,758	14%
<i>IDU w/ heterosexual</i>	0	0%	11	3%	37	2%	96	4%	358	7%	266	10%	50	6%	6	3%	824	6%
<i>IDU w/o heterosexual</i>	0	0%	7	2%	46	3%	86	4%	332	7%	345	13%	111	13%	7	4%	934	7%
Male-Male Sex/IDU[#]	0	0%	13	3%	70	5%	117	5%	282	6%	141	5%	36	4%	2	1%	661	5%
Blood Recipients[#]	14	8%	26	6%	19	1%	18	1%	30	1%	7	<1%	7	1%	5	3%	126	1%
Perinatal	153	87%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	153	1%
Heterosexual[#]	0	0%	91	22%	234	15%	310	14%	584	12%	322	12%	122	15%	27	15%	1,690	13%
Partner IDU	0	0%	15	4%	46	3%	80	4%	182	4%	125	5%	38	5%	9	5%	495	4%
Partner Bisexual	0	0%	7	2%	13	1%	18	1%	31	1%	13	<1%	5	1%	0	0%	87	1%
Partner Blood Recipient	0	0%	0	0%	9	1%	11	<1%	15	<1%	3	<1%	1	<1%	3	2%	42	<1%
Partner HIV+	0	0%	69	16%	166	11%	201	9%	356	7%	181	7%	78	9%	15	8%	1,066	8%
Total Known Risks	167	95%	323	76%	1,217	80%	1,821	82%	4,021	81%	2,148	80%	620	75%	117	64%	10,434	80%
Unknown Risk[#]	9	5%	100	24%	297	20%	395	18%	925	19%	538	20%	206	25%	65	36%	2,535	20%
<i>Presumed Heterosexual</i>	2	1%	75	18%	253	17%	293	13%	711	14%	362	13%	136	16%	43	24%	1,875	14%
<i>Other</i>	7	4%	25	6%	44	3%	102	5%	214	4%	176	7%	70	8%	22	12%	660	5%
Total All Cases	176	1%	423	3%	1,514	12%	2,216	17%	4,946	38%	2,686	21%	826	6%	182	1%	12,969	100%

Table 10: Gonorrhea, Syphilis, and Chlamydia by Area
and Local Health Department Jurisdiction
January 1, 2005 to December 31, 2005

Patient Group	2000 Population	Gonorrhea		P&S Syphilis*		Chlamydia	
		Cases	Rate^	Cases	Rate^	Cases	Rate^
Detroit EMA	4,441,551	10,795	243	78	1.8	20,580	463
Out-State	5,496,893	6,889	125	27	0.5	18,149	330
Allegan	105,665	29	27	0	0.0	185	175
Bay	110,157	44	40	0	0.0	164	149
Berrien	162,453	428	263	0	0.0	781	481
Barry/Eaton	160,410	82	51	1	0.6	361	225
Benzie/Leelanau	37,117	0	0	0	0.0	43	116
Br/Hills/St Joseph	154,736	36	23	0	0.0	258	167
Calhoun	137,985	359	260	0	0.0	719	521
Chippewa	38,543	2	5	0	0.0	75	195
Central MI Dist	186,561	67	36	0	0.0	397	213
Detroit	951,270	8,363	879	54	5.7	13,425	1411
Delta/Menominee	63,846	0	0	0	0.0	95	149
Dickinson/Iron	40,610	0	0	0	0.0	26	64
District #2	70,121	2	3	0	0.0	30	43
District #4	82,488	9	11	0	0.0	32	39
District #10	255,240	77	30	0	0.0	414	162
Genesee	436,141	1,511	346	1	0.2	2,684	615
Grand Traverse	77,654	15	19	2	2.6	162	209
Huron	36,079	1	3	0	0.0	44	122
Ingham	279,320	465	166	6	2.1	1,598	572
Ionia	61,518	12	20	0	0.0	91	148
Jackson	158,422	370	234	1	0.6	626	395
Kalamazoo	238,603	526	220	0	0.0	1,199	503
Kent	574,335	1,137	198	6	1.0	2,877	501
Lapeer	87,904	20	23	0	0.0	103	117
Lenawee	98,890	26	26	0	0.0	178	180
Livingston	156,951	19	12	0	0.0	146	93
LMAS District	37,732	3	8	0	0.0	36	95
Macomb	788,149	399	51	3	0.4	1,379	175
Marquette	64,634	9	14	0	0.0	131	203
Midland	82,874	23	28	0	0.0	115	139
Monroe	145,945	49	34	0	0.0	228	156
Muskegon	170,200	617	363	1	0.6	1,145	673
Mid-MI District	168,304	47	28	0	0.0	273	162
NW Michigan	103,938	20	19	1	1.0	116	112
Oakland	1,194,156	948	79	11	0.9	2,644	221
Ottawa	238,314	62	26	1	0.4	428	180
Saginaw	210,039	500	238	2	1.0	1,178	561
Sanilac	44,547	7	16	0	0.0	68	153
Shiawassee	71,687	14	20	0	0.0	100	139
St Clair	164,235	152	93	0	0.0	380	231
Tuscola	58,266	10	17	0	0.0	63	108
Van Buren/Cass	127,367	54	42	0	0.0	265	208
Washtenaw	322,895	304	94	5	1.5	996	308
Wayne exc Detroit	1,109,892	864	78	10	0.9	2,421	218
WestUpDist	72,251	2	3	0	0.0	50	69
Total	9,938,444	17,684	178	105	1.1	38,729	390

* P&S: Primary and Secondary Syphilis

^ Rate per 100,000 population

**Table 11: Gonorrhea, Syphilis, and Chlamydia by Sex
Race, and Age Group in Michigan
January 1, 2004 to December 31, 2005**

Patient Group	2000 Population	Gonorrhea			P&S Syphilis			Chlamydia		
		Cases	Pct	Rate	Cases	Pct	Rate	Cases	Pct	Rate
Male	4,873,095	7,469	42%	153	85	81%	2	8,525	22%	175
<i>White Males</i>	3,836,091	548	3%	14	27	26%	1	1,474	4%	38
<i>Black Males</i>	663,406	3,867	22%	583	51	49%	8	3,719	10%	561
<i>Hispanic Males</i>	170,555	69	0%	40	3	3%	2	203	1%	119
<i>Other Males</i>	203,043	73	0%	N/A	2	2%	N/A	220	1%	N/A
<i>Unk Males</i>	N/A	2,912	16%	N/A	2	2%	N/A	2,909	8%	N/A
Female	5,065,349	10,161	57%	201	20	19%	0	30,080	78%	594
<i>White Females</i>	3,970,600	1,212	7%	31	1	1%	0	5,827	15%	147
<i>Black Females</i>	738,641	3,015	17%	408	18	17%	2	7,537	19%	1020
<i>Hispanic Females</i>	153,322	101	1%	66	1	1%	1	498	1%	325
<i>Other Females</i>	202,786	181	1%	N/A	0	0%	N/A	850	2%	N/A
<i>Unk Females</i>	N/A	5,652	32%	N/A	0	0%	N/A	15,368	40%	N/A
White	7,806,691	1,759	10%	23	28	27%	0	7,301	19%	94
Black	1,402,047	6,886	39%	491	69	66%	5	11,264	29%	803
Hispanic	323,877	170	1%	52	4	4%	1	701	2%	216
Other	405,829	256	1%	63	2	2%	0	1,087	3%	268
Unknown Race	N/A	8,613	49%	N/A	2	2%	N/A	18,376	47%	N/A
0-4 years	672,005	24	0%	4	0	0%	0	49	0%	7
5-9 years	745,181	10	0%	1	0	0%	0	20	0%	3
10-14 years	747,012	240	1%	32	0	0%	0	650	2%	87
15-19 years	719,867	5,170	29%	718	0	0%	0	14,514	37%	2016
20-24 years	643,839	5,375	30%	835	10	10%	2	13,511	35%	2099
25-29 years	654,629	2,857	16%	436	13	12%	2	5,344	14%	816
30-34 years	707,542	1,614	9%	228	16	15%	2	2,399	6%	339
35-39 years	787,367	1,006	6%	128	13	12%	2	1,098	3%	139
40-44 years	811,006	571	3%	70	19	18%	2	492	1%	61
45-54 years	1,367,939	591	3%	43	25	24%	2	323	1%	24
55-64 years	863,039	103	1%	12	7	7%	1	67	0%	8
65 and over	1,219,018	53	0%	4	1	1%	0	70	0%	6
Unknown Age	N/A	70	0%	N/A	1	1%	N/A	192	0%	N/A
Total	9,938,444	17,684	100%	178	105	100%	1	38,729	100%	390

Table 12: Characteristics of HIV/Hepatitis Co-Infected Persons in Care, in Southeast Michigan ASD, 2001-2003.

	All (n=1790)	HAV Co-infected (n=64)	HBV Co-infected (n=207)	HCV Co-infected (n=353)
Sex			*	*
Male	58%	66%	68%	50%
Female	42%	34%	32%	50%
Race				*
White	20%	30%	17%	13%
Black	75%	67%	80%	83%
Others	5%	3%	2%	4%
Age				*
<20	1%	0%	0%	0%
20-29	10%	11%	5%	3%
30-39	27%	14%	29%	9%
40-49	38%	39%	38%	43%
>=50	24%	36%	28%	44%
HIV Transmission Risk			*	*
MSM	38%	45%	45%	10%
IDU	30%	34%	41%	78%
Blood Exposure	2%	5%	1%	5%
High-Risk Heterosexual	21%	8%	8%	6%
Presumed Heterosexual	8%	8%	3%	1%
Unknown/Others	1%	0%	<1%	0%
HAV Vaccination	14%	5%*	13%	23%*
HBV Vaccination	21%	24%	4%*	14%*

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

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

**Table 13: Living HIV/AIDS Cases in Michigan
Sex and Race by Risk
Michigan Department of Corrections
January 1, 2006**

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex[#]	20	43%	67	29%	0	0%	1	20%	88	30%
Injecting Drug Use[#]	8	17%	42	18%	5	45%	1	20%	56	19%
<i>IDU w/ heterosexual</i>	6	13%	26	11%	4	36%	1	20%	37	12%
<i>IDU w/o heterosexual</i>	2	4%	16	7%	1	9%	0	0%	19	6%
Male-Male Sex/IDU[#]	10	21%	34	15%	2	18%	1	20%	47	16%
Blood Recipients[#]	2	4%	1	<1%	0	0%	0	0%	3	1%
Perinatal	0	0%	1	<1%	0	0%	0	0%	1	<1%
Heterosexual[#]	3	6%	29	12%	3	27%	1	20%	36	12%
<i>Partner IDU</i>	1	2%	17	7%	1	9%	0	0%	19	6%
<i>Partner Blood Recipient</i>	0	0%	0	0%	1	9%	0	0%	1	<1%
<i>Partner HIV+</i>	2	4%	12	5%	1	9%	1	20%	16	5%
Total Known Risks	43	91%	174	74%	10	91%	4	80%	231	78%
Unknown Risk[#]	4	9%	60	26%	1	9%	1	20%	66	22%
<i>Presumed Heterosexual</i>	4	9%	50	21%	1	9%	1	20%	56	19%
<i>Other</i>	0	0%	10	4%	0	0%	0	0%	10	3%
Total All Cases	47	16%	234	79%	11	4%	5	2%	297	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Injecting Drug Use[#]	2	50%	5	63%	0	0%	0	0%	7	54%
<i>IDU w/ heterosexual</i>	2	50%	3	38%	0	0%	0	0%	5	38%
<i>IDU w/o heterosexual</i>	0	0%	2	25%	0	0%	0	0%	2	15%
Blood Recipients[#]	0	0%	0	0%	0	0%	0	0%	0	0%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual[#]	1	25%	3	38%	0	0%	0	0%	4	31%
<i>Partner IDU</i>	0	0%	1	13%	0	0%	0	0%	1	8%
<i>Partner Bisexual</i>	1	25%	0	0%	0	0%	0	0%	1	8%
<i>Partner Blood Recipient</i>	0	0%	0	0%	0	0%	0	0%	0	0%
<i>Partner HIV+</i>	0	0%	2	25%	0	0%	0	0%	2	15%
Total Known Risks	3	75%	8	100%	0	0%	0	0%	11	85%
Unknown Risk[#]	1	25%	0	0%	0	0%	1	100%	2	15%
<i>Presumed Heterosexual</i>	1	25%	0	0%	0	0%	1	100%	2	15%
<i>Other</i>	0	0%	0	0%	0	0%	0	0%	0	0%
Total All Cases	4	31%	8	62%	0	0%	1	8%	13	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex[#]	20	39%	67	28%	0	0%	1	17%	88	28%
Injecting Drug Use[#]	10	20%	47	19%	5	45%	1	17%	63	20%
<i>IDU w/ heterosexual</i>	8	16%	29	12%	4	36%	1	17%	42	14%
<i>IDU w/o heterosexual</i>	2	4%	18	7%	1	9%	0	0%	21	7%
Male-Male Sex/IDU[#]	10	20%	34	14%	2	18%	1	17%	47	15%
Blood Recipients[#]	2	4%	1	<1%	0	0%	0	0%	3	1%
Perinatal	0	0%	1	<1%	0	0%	0	0%	1	<1%
Heterosexual[#]	4	8%	32	13%	3	27%	1	17%	40	13%
<i>Partner IDU</i>	1	2%	18	7%	1	9%	0	0%	20	6%
<i>Partner Bisexual</i>	1	2%	0	0%	0	0%	0	0%	1	<1%
<i>Partner Blood Recipient</i>	0	0%	0	0%	1	9%	0	0%	1	<1%
<i>Partner HIV+</i>	2	4%	14	6%	1	9%	1	17%	18	6%
Total Known Risks	46	90%	182	75%	10	91%	4	67%	242	78%
Unknown Risk[#]	5	10%	60	25%	1	9%	2	33%	68	22%
<i>Presumed Heterosexual</i>	5	10%	50	21%	1	9%	2	33%	58	19%
<i>Other</i>	0	0%	10	4%	0	0%	0	0%	10	3%
Total All Cases	51	16%	242	78%	11	4%	6	2%	310	100%

**Table 14: Living HIV/AIDS Cases in Michigan
Age^x at HIV Diagnosis by Risk
Michigan Department of Corrections
January 1, 2006**

Male Only	0-12 years		13-19 years		20-24 years		25-49 years		50+ years		All Ages	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex [#]	0	0%	7	50%	24	48%	55	25%	2	20%	88	30%
Injecting Drug Use [#]	0	0%	1	7%	3	6%	49	22%	3	30%	56	19%
IDU w/ heterosexual	0	0%	1	7%	2	4%	32	14%	2	20%	37	12%
IDU w/o heterosexual	0	0%	0	0%	1	2%	17	8%	1	10%	19	6%
Male-Male Sex/IDU [#]	0	0%	2	14%	10	20%	33	15%	2	20%	47	16%
Blood Recipients [#]	0	0%	1	7%	1	2%	1	<1%	0	0%	3	1%
Perinatal	1	7%	0	0%	0	0%	0	0%	0	0%	1	<1%
Heterosexual [#]	0	0%	2	14%	4	8%	29	13%	1	10%	36	12%
Partner IDU	0	0%	0	0%	2	4%	17	8%	0	0%	19	6%
Partner Blood Recipient	0	0%	0	0%	0	0%	1	<1%	0	0%	1	<1%
Partner HIV+	0	0%	2	14%	2	4%	11	5%	1	10%	16	5%
Total Known Risks	1	7%	13	93%	42	84%	167	75%	8	80%	231	78%
Unknown Risk [#]	0	0%	1	7%	8	16%	55	25%	2	20%	66	22%
Presumed Heterosexual	0	0%	1	7%	7	14%	46	21%	2	20%	56	19%
Other	0	0%	0	0%	1	2%	9	4%	0	0%	10	3%
Total All Cases	1	0%	14	5%	50	17%	222	74%	10	3%	297	100%

Female Only	0-12 years		13-19 years		20-24 years		25-49 years		50+ years		All Ages	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Injecting Drug Use [#]	0	0%	0	0%	0	0%	7	70%	0	0%	7	54%
IDU w/ heterosexual	0	0%	0	0%	0	0%	5	50%	0	0%	5	38%
IDU w/o heterosexual	0	0%	0	0%	0	0%	2	20%	0	0%	2	15%
Blood Recipients [#]	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual [#]	0	0%	0	0%	1	50%	2	20%	1	100%	4	31%
Partner IDU	0	0%	0	0%	1	50%	0	0%	0	0%	1	8%
Partner Bisexual	0	0%	0	0%	0	0%	0	0%	1	100%	1	8%
Partner Blood Recipient	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Partner HIV+	0	0%	0	0%	0	0%	2	20%	0	0%	2	15%
Total Known Risks	0	0%	0	0%	1	50%	9	90%	1	100%	11	85%
Unknown Risk [#]	0	0%	0	0%	1	50%	1	10%	0	0%	2	15%
Presumed Heterosexual	0	0%	0	0%	1	50%	1	10%	0	0%	2	15%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total All Cases	0	0%	0	0%	2	15%	10	77%	1	8%	13	100%

Male and Female	0-12 years		13-19 years		20-24 years		25-49 years		50+ years		All Ages	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex [#]	0	0%	7	50%	24	46%	55	24%	2	18%	88	28%
Injecting Drug Use [#]	0	0%	1	7%	3	6%	56	24%	3	27%	63	20%
IDU w/ heterosexual	0	0%	1	7%	2	4%	37	16%	2	18%	42	14%
IDU w/o heterosexual	0	0%	0	0%	1	2%	19	8%	1	9%	21	7%
Male-Male Sex/IDU [#]	0	0%	2	14%	10	19%	33	14%	2	18%	47	15%
Blood Recipients [#]	0	0%	1	7%	1	2%	1	<1%	0	0%	3	1%
Perinatal	1	7%	0	0%	0	0%	0	0%	0	0%	1	<1%
Heterosexual [#]	0	0%	2	14%	5	10%	31	13%	2	18%	40	13%
Partner IDU	0	0%	0	0%	3	6%	17	7%	0	0%	20	6%
Partner Bisexual	0	0%	0	0%	0	0%	0	0%	1	9%	1	<1%
Partner Blood Recipient	0	0%	0	0%	0	0%	1	<1%	0	0%	1	<1%
Partner HIV+	0	0%	2	14%	2	4%	13	6%	1	9%	18	6%
Total Known Risks	1	7%	13	93%	43	83%	176	76%	9	82%	242	78%
Unknown Risk [#]	0	0%	1	7%	9	17%	56	24%	2	18%	68	22%
Presumed Heterosexual	0	0%	1	7%	8	15%	47	20%	2	18%	58	19%
Other	0	0%	0	0%	1	2%	9	4%	0	0%	10	3%
Total All Cases	1	0%	14	5%	52	17%	232	75%	11	4%	310	100%

2006 Profile of HIV/AIDS: The Detroit Metro Area

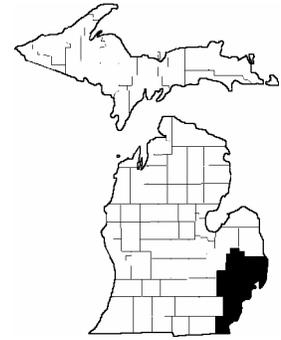
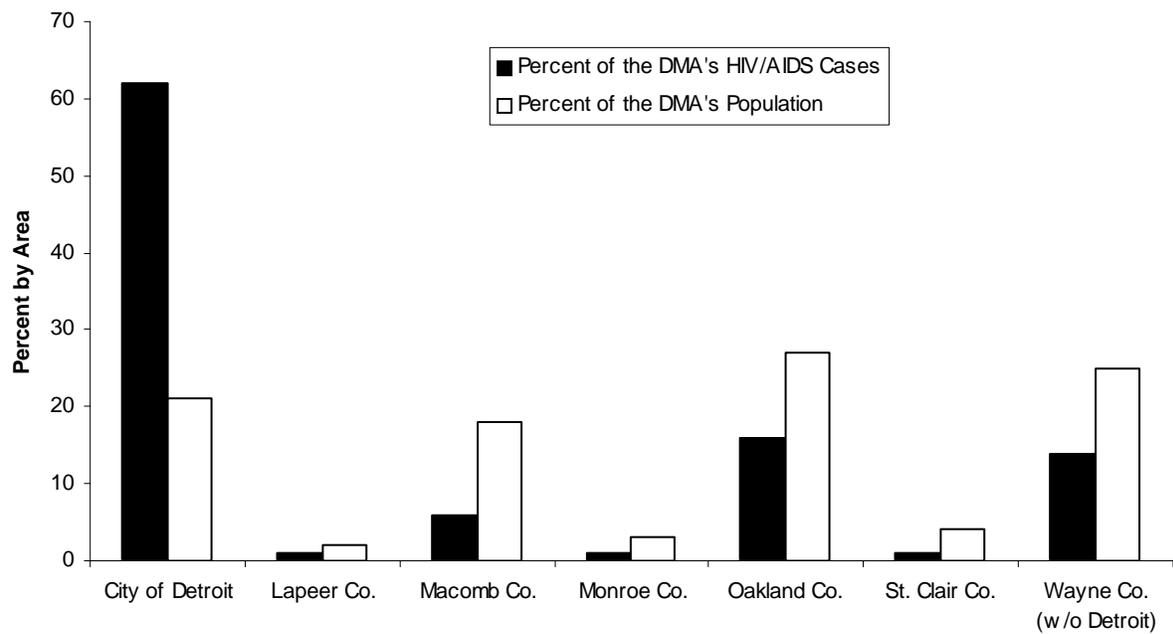


Figure 1: Detroit Metro Area (DMA): Living HIV/AIDS Cases and Population by Local Health Jurisdiction, 1/1/06



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Statewide Summary of HIV/AIDS Epidemic for the Detroit Metro Area

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 10,510 people living with HIV/AIDS in the Detroit Metro Area, of which 8,286 were reported as of January 1, 2006. 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 newly diagnosed HIV infections) was roughly level at around 600 new cases each year between 2000 and 2004. 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 than expected (8,286 of the 12,972 cases reported in Michigan) when compared with the percent 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-two percent of the reported cases within this area were among residents of the city of Detroit, while 21 percent were residents of the remaining Detroit Metro Area.

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. All LHDs have been labeled as either being in a high or low HIV prevalence area (please refer to Figure 2, page 3-9 of the State wide profile for methodology used). Within the Detroit Metro Area, the City of Detroit and Oakland and Wayne counties are considered to be LHDs in statistically high prevalence areas (92 percent of cases in the Detroit Metro Area), while Lapeer, Macomb, Monroe and St. Clair counties are considered to be LHDs in statistically low prevalence areas.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities at both the statewide and the local levels, the MDCH HIV/STD & Other 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.

- **Men Who Have Sex With Men (MSM)*:** MSM make up 51 percent of all reported HIV/AIDS cases (4,213 out of 8,286). The MSM behavioral group continues to be the most affected behavioral group and has an increasing trend from 2000 to 2004, 51 percent to 55 percent (314 to 349 cases).
- **Injecting Drug Users (IDUs)*:** Of all reported HIV/AIDS cases, 19 percent are IDUs (1,580 out of 8,286). Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups. The trend for IDU transmission is level.
- **High Risk Heterosexuals (HRH):** HRH cases constitute 13 percent of the total number of reported cases (1,051 out of 8,286) 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 is level.

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

Future Changes Expected in the Rankings of Behavioral Groups:

This year, the proportion of new cases among IDUs has shown a decrease. The proportion among HRHs was level. In addition, when reported cases are adjusted for cases reported without risk, almost twice as many HRHs as IDUs were reported (168 HRH, 93 IDU) in 2004. These data point to the conclusion that HRH are likely to surpass IDUs in the near future.

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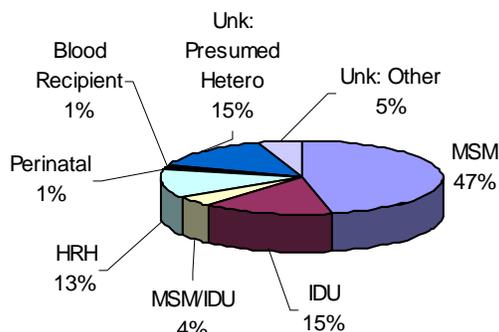
Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

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) high-risk heterosexual (see glossary for more in-depth description), (6) receipt of HIV-infected blood or blood components, and (7) no identified risk (NIR). However, the recent publication of CDC's Technical Guidance for HIV/AIDS Surveillance Programs—Risk Factor Ascertainment also explains categorization of risk, called the exposure category. This term summarizes the multiple risk factors that an individual may have had by including combination of categories of the three most common ones (MSM, IDU, HRH). Exposure categories are mutually exclusive and are not hierarchical. These categories are not currently in use in Michigan.

Figure 2 indicates persons living with HIV/AIDS in the Detroit Metro Area by mode of transmission among the 8,286 reported cases.

Figure 2: Reported Persons Living with HIV/AIDS in the Detroit Metro Area, by risk, 1/1/06 (N = 8,286)



- Half (51 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including four percent who also injected drugs.
- Nineteen percent are injecting drug users, including four percent who are also MSM.
- Thirteen percent had high-risk heterosexual sex partners as their only mode of transmission.
- Twenty percent had no risk identified.

Discussion of Persons with 'No Identified Risk':

Persons in the 'No Identified Risk' (NIR) category make up 20 percent of the HIV-infection population in the Detroit Metro Area and are 60 percent male and 40 percent female. Those persons in the NIR category are 77 percent black, 15 percent white, and nine percent other races. Almost three-quarters of the NIRs fall under the 'presumed heterosexual' subcategory. Presumed Heterosexual includes infected persons with no recognized risk that have reported heterosexual sex with a man or a woman (not including male-male sex) and accounts for 11 percent of men living with HIV and 26 percent of women living with HIV. See Table 7, page 4-43.

There are many reasons why risk is not reported to the Michigan Department of Community Health on the initial case 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.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Distribution of Estimated HIV/AIDS Cases by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

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

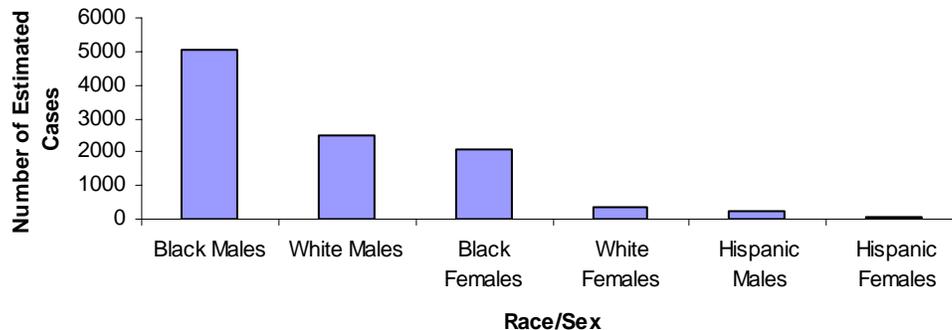
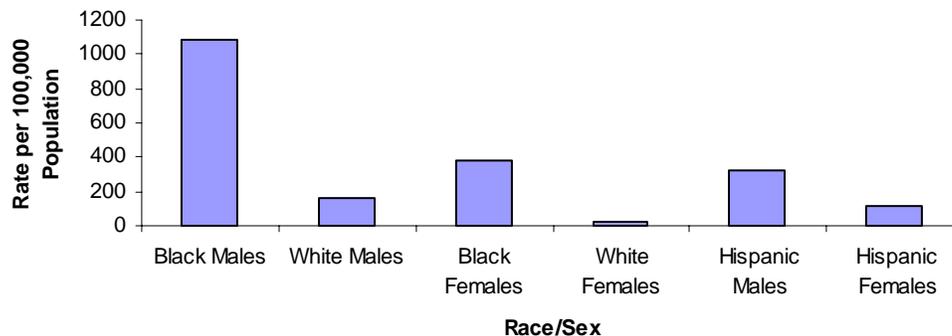


Figure 4: Estimated Case Rates of Persons Living with HIV/AIDS in the Detroit Metro Area by Race and Sex



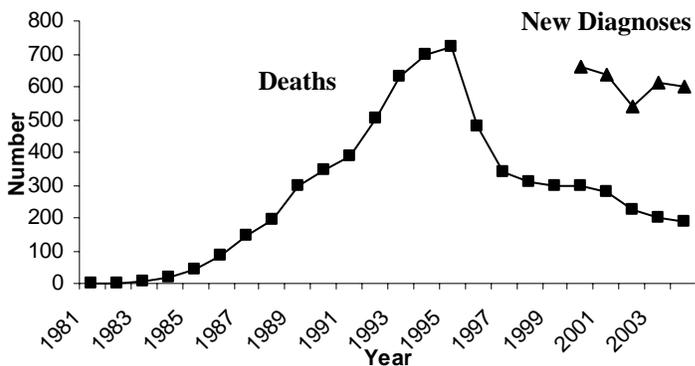
- Black males have both the highest rate per 100,000 population (1,080) and the highest estimated number (5,060) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Black females have the second highest rate (383) and the third highest estimated 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 (166) and the second highest estimated number (2,520) of cases.
- Hispanic females have the fifth highest rate (115) and the lowest estimated number (70) of HIV/AIDS.
- White females have the lowest rate (22) and the fourth highest estimated number (340) of HIV/AIDS cases.

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Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)

Figure 5: New diagnoses of HIV infection and HIV deaths in the Detroit Metro Area, 1/1/06

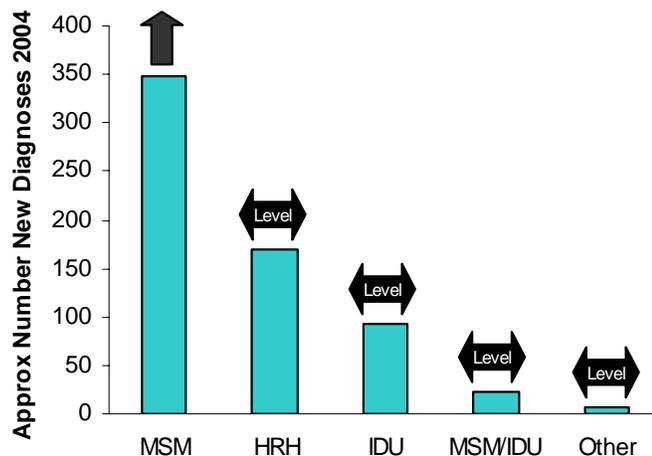


- New HIV Diagnoses (HIV incidence) and deaths are level 2000-2004. HIV incidence and the HIV related deaths are shown in Figure 5. The overall decrease in deaths is likely due to the more effective treatments available since 1996 that delay or prevent the onset of AIDS in HIV-infected persons. The number of persons newly diagnosed with HIV each year was roughly level at about 600 cases between 2000 and 2004.

• Risk Behaviors for HIV Infection, 2000-2004:

Figure 6 shows the proportion of persons diagnosed each year with HIV infection between 2000 and 2004 increased significantly in males who have sex with males (MSM) from 51 percent to 55 percent (314 to 349 cases). There was a decline in the proportion of new diagnoses seen in IDUs, from 18 percent to 15 percent (111 to 93 cases); however, the numbers did not reach statistical significance. The proportion of new diagnoses remained level in all the other risk groups, including High Risk Heterosexuals (HRH). HRH are persons who knew they had one or more partners that were an IDU, bisexual (for females), a recipient of HIV infected blood, or a person infected with HIV.

Figure 6: Number of New Diagnoses in 2004 and Trends 2000-2004 According to Risk



Of the 640 new HIV diagnoses in 2004, there were 349 (55 percent) diagnoses among MSM, 168 (26 percent) among HRHs, 93 (15 percent) among IDUs, 22 (4 percent) among MSM/IDUs, and 8 (1 percent) among persons with other risks. Other risks include transmission from blood product exposure, perinatal exposure, and those with no identified risk. One percent of diagnoses were among persons who first acquired infection from blood products received either before 1985 in the U.S. or in other countries. Less than 1 percent of diagnoses were among infants born to HIV-infected mothers.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Patterns of Service Utilization of HIV-infected Persons

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

The Uniform Reporting System (URS) is a statewide client-level data system designed to document the quantity and types of services provided by agencies receiving Ryan White CARE Act funds, as well as to identify and describe the populations receiving the services. All HIV+ clients served by funded providers are included in the data, even if the CARE Act did not directly fund the reported service. The client-level URS data files submitted by individual service agencies are combined and unduplicated across all providers using an encrypted client identifier, so that all services received by a client are combined into a single client record.

Group	Services	Cases
Males	72%	76%
Females	28%	24%
White	20%	27%
Black	73%	68%
Hispanic	3%	3%
Other Minorities	1%	2%
Unknown Race	3%	0%
White Males	18%	24%
Black Males	50%	48%
Hispanic Males	2%	2%
Other Minority Males	1%	2%
Unknown Race Males	2%	0%
White Females	2%	3%
Black Females	23%	20%
Hispanic Females	1%	1%
Other Minority Females	0%	< 1%
Unknown Race Females	<1%	0%
0-12 Years*	1%	1%
13-19 Years*	2%	1%
20-24 Years*	4%	3%
25-44 Years*	51%	50%
45+ Years*	41%	45%
Infants: 0-1 Years*	<1%	<1 %
Children: 2-12 Years*	1%	<1 %
Youth: 12-24 Years*	6%	4%
Women: 25 Years*+	25%	23%
Total HIV Infected	100% (N = 4,160)	100% (N = 8,826)

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

Tables 1 and 2 represent services delivered to Detroit EMA residents between January 1, 2005 and December 31, 2005, by the 30 CARE Act programs that submitted URS data to the Michigan Department of Community Health (MDCH). It is important to note that these data do not include all CARE Act funded programs serving DEMA residents because data from 10 of the Title I funded programs are not included. Consequently, the data do not represent all DEMA residents served or all services delivered to them by CARE Act programs during the 2005 calendar year. Analysis of the 2005 annual Title I provider reports (the CARE Act Data Reports) indicates that the 2005 URS data include 76 percent of Title I medical clients and services, 95 percent of Title I case management clients, and 100 percent of Title I mental health and dental care clients and services

Detroit area agencies whose clients and services are included in Tables 1 and 2 received 67 percent of the Title I funds allocated in 2005 and represent most of the largest Title I funded programs. They include the Wayne State University (WSU) Adult HIV/AIDS Clinic, the Horizon Project, Sinai Grace Hospital, Visiting Nurses Association (VNA), WSU Hutzel Perinatal Infectious Disease Clinic, AIDS Partnership Michigan (APM), Community Health Awareness Group (CHAG), Health Emergency Lifeline Program (HELP), Detroit Community Health Connection (DCHC), AIDS Consortium of Southeastern Michigan, WSU Psychiatry and Behavioral Professionals (PBMP), Michigan Protection and Advocacy Services (MPAS), and Detroit Human Services (DHS).

2006 Profile of HIV/AIDS: The Detroit Metro Area

Patterns of Service Utilization of HIV-infected Persons

Table 1 shows that in 2005, 4,160 HIV-infected residents of the Detroit Metro Area were reported served by the 30 CARE Act funded programs that submitted URS data to MDCH and represent 47 percent of the reported cases. The comparison shows that persons receiving these services were more likely than the reported population to be female or black, and less likely to be 45 years and older.

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.

Table 2 gives additional detail about the core services of medical care, dental care, mental health care, case management and medication assistance delivered to HIV+ clients who reside in the Detroit EMA by the 30 CARE Act programs that reported URS data in 2005. The service units in the table are not units of time (e.g. 15 minutes, or 1 hour) but are “visits” (or a day in which the service occurred). Only one “visit” per day is counted for any service category except for case management which can have up to 2 per day. However, the unit of service for the AIDS Drug Assistance program is one prescription filled, rather than a day of service.

Table 2: Core services per CARE Act client, Detroit Metro Area Residents, 2005

	Medical Care	Dental Care	Mental Health services	Drug Assistance Program	Case Mgt
No. of providers supplying valid data*	11	4	10	1	11
No. of unduplicated clients served**	2,468	448	434	1,154	1,381
Total Days of Service***	11,027	1,506	2,838	35,217	25,232
Average no. of visits per client***	4.47	3.36	6.54	30.52	18.27
Median no. of visits per client***	3	3	3	23	10
Range of visits per client***	1 - 65	1- 18	1 - 81	1-175	1 - 110

* Data based on number of CARE Act providers that submitted URS data and delivered services to residents of the Detroit EMA. Some providers served residents of both the Detroit EMA and the out-state area.

A provider may be included in more than 1 service category and may not be located in the Detroit Metro Area

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

*** Service unit for Drug Assistance is one prescription filled, not visits or days of service.

URS medical care services are for outpatient medical care visits ranging from a complete physical with a physician to a brief check-up with a nurse, drug review with a pharmacist, or a visit for a blood draw or lab test. The annual average of 4.47 visits per client, with a median of 3, is consistent with HIV care standards that recommend monitoring of health status on a quarterly basis. (Table 2)

Dental care services reported in the URS are primarily provided through the statewide Michigan Dental Program, administered by the Division of Health, Wellness and Disease Control of MDCH. Dental services for clients may be extensive, and require multiple visits, but may also simply be for annual prophylaxis. The annual average of 3.36 visits per client is consistent with an initial exam to plan the care needed and two or more treatment visits following approval of the care plan. (Table 2)

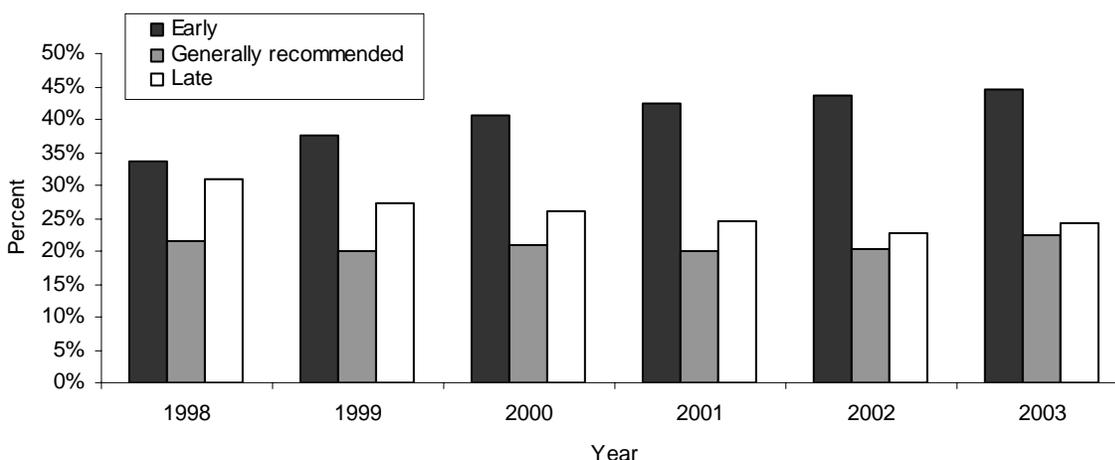
2006 Profile of HIV/AIDS: The Detroit Metro Area

Patterns of Service Utilization of HIV-infected Persons

Mental health services encompass mental health assessments, individual counseling, and group sessions for HIV+ clients with a mental health diagnosis, and must be conducted by a licensed mental health professional. Mental health services do not include substance abuse treatment. Case management services include both face-to-face contacts and other contacts (by phone or mail) with or on behalf of the client, with the goal of linking HIV+ clients to care services, especially health care services.

The AIDS Drug Assistance Program (ADAP), administered by the Division of Health, Wellness and Disease Control of MDCH pays for medications dispensed to eligible HIV+ clients. The ADAP covers all HIV medications and many other medications as well. In 2005 just over half of all Michigan ADAP clients (53 percent) and expenditures (51 percent) were on DEMA residents. However, since DEMA residents make up two thirds (68 percent) of people living with HIV/AIDS in Michigan, this is less than one would expect. The reason for this discrepancy is that a high proportion of DEMA residents are low income and eligible to receive their HIV medications either through Medicaid or Wayne County Plus Care. ADAP resources are funds of last resort and clients with eligibility for other prescription coverage cannot be accepted into the program.

Figure 7: Proportion of patients who received antiretroviral treatment late, at the recommended time, or early, ASD Study-Michigan, 1999-2003*



*Data from 2003 may be incomplete

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

Figure 7 shows the timing of the initiation of antiretroviral treatment and the proportions of patients whose treatments began at each 3 times (each time corresponds to a category of CD4 count). This analysis included only intervals during which the person had either an outpatient clinic visit or a hospitalization, and did not include intervals in which the person had only visited the ER or had telephone contact with the clinic staff. Of patients receiving care at the two Detroit health care systems included in ASD, the proportion whose antiretroviral treatment was begun late decreased from 31 percent in 1999 to 24 percent in 2003. Inversely, the proportion whose antiretroviral treatment was begun early has increased from 34 percent in 1999 to 44 percent in 2003.

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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.

Gonorrhea and Chlamydia

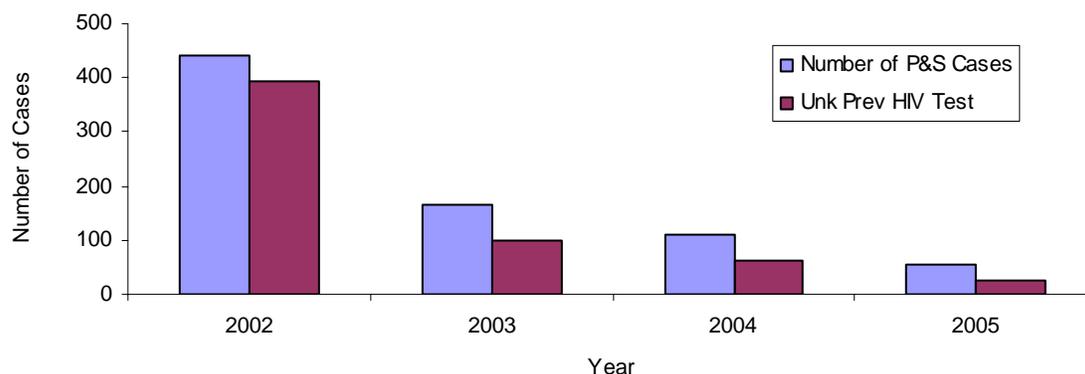
During 2005, there were over 20,000 cases of chlamydia and nearly 11,000 cases of gonorrhea reported the Detroit Metro Area. See Table 9, page 4-45. For both diseases, the highest rate of infection was among persons age 20-24. This age group comprises six percent of the Detroit Metro Area population but accounted for 30 percent of gonorrhea and 33 percent of chlamydia cases. The rate of chlamydia among blacks was 11 times the rate among whites; and the rate of gonorrhea in blacks was 24 times that of whites. Similar to statewide data, 43 percent of gonorrhea cases are male and 57 percent are female, however, the majority of chlamydia cases are female (79 percent). This is likely because more women than men are screened for chlamydia.

Syphilis

Nearly three-quarters (74 percent) of 2005 primary or secondary (P&S) infectious syphilis cases were reported in the Detroit Metro Area (78 of 105 cases). These cases were more likely to be male (78 percent) and older (47 percent over the age of 40) than persons with gonorrhea or chlamydia. Seventy-six percent of these cases were black and 18 percent were white. Five percent of primary or secondary syphilis cases were Hispanic.

Since 2002, the number of P&S infectious syphilis cases reported in the city of Detroit has declined from 443 to just 57 in 2005. There have also been decreases in the number of P&S syphilis cases who do not have a documented HIV test on record (Figure 8). In 2002, 88 percent of the cases did not have a documented HIV test and in 2005, 46 percent of cases lacked this data. This variable can be missing if cases have not had an HIV test or if the date of their test is unknown. However, the decrease in the percentage of those with an unknown test is statistically significant ($p=.00013$). This reflects both increased awareness of disease investigators to capture this information, as P&S syphilis is highly associated with HIV and men who have sex with men, as well as increased awareness of the public to know their HIV status.

Figure 8: Trend of Detroit Incident P&S Syphilis Cases with No HIV Test History



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Hepatitis and HIV

Data from Adult and Adolescent Spectrum of Disease (ASD)

Data for this analysis was provided by a supplemental surveillance project, Adult and Adolescent Spectrum of Disease (ASD). ASD collected data from the medical records of HIV patients at two major medical centers in Southeast Michigan (Region1), from the time the persons first contacted either site, until they died or were lost to follow-up. The proportion of males in ASD was lower than in the HIV-infected population overall, because ASD included all the women, but only 40 percent of the men who presented for HIV care at ASD sites.

Hepatitis C (HCV) was the most common hepatitis co-infection among HIV-infected persons. Of the 1790 persons in care in 2001-2003, 353 (20 percent) had a diagnosis of HCV at some time during ASD follow-up, while 207 (12 percent) had a diagnosis of hepatitis B (HBV), and 64 (4 percent) of hepatitis A (HAV). The true rates of co-infection with HBV, and particularly with HCV, may be higher than these estimates because HBV and HCV infections are frequently asymptomatic, and not all of the persons in ASD were tested for HBV and HCV.

Table 10, page 4-46 shows the demographic and HIV transmission risk profiles for all the persons in care and for the populations co-infected with HAV, HBV and HCV. Of persons co-infected with HCV, higher proportions were female and black, compared to the proportions among all persons in care, and a higher proportion were over 40 years of age. The predominance of blood transfer as the transmission mode for HCV was reflected in the higher proportions of HCV co-infected persons who had a history of drug injection or other blood contact recorded as their HIV transmission risk. In contrast, the demographic and HIV transmission risk profiles of persons co-infected with HAV (predominantly oral-fecal transmission) did not differ significantly from the profiles of all the persons in care. Among persons co-infected with HBV, the only significant differences were that higher proportions were male and had MSM or drug injection recorded as their HIV transmission risk, reflecting the transmission modes for HBV (high-risk sexual contact and blood transfer).

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

The impact of HCV co-infection on the health of HIV-infected persons is increasing. The numbers of new HCV cases in the U.S. increased in the 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 the aging of this cohort is expected to lead to an increase in the number of persons with HCV-related late stage liver disease through at least 2015.² HIV-infected persons will be impacted even more than the general population, because HIV/HCV co-infected persons have a higher risk of liver disease than persons infected with HCV alone.³ Planning for the care of HIV-infected persons will need to 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.

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.

2006 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 II (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. MDCH estimates that there are approximately 5,340 MSM living with HIV disease in the Detroit Metro Area. This includes 440 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs. See Table 6, page 4-42.

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 to 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 among all persons tested 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.

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 4,213), black males (2,413) account for more than a half (57 percent) while white males (1,651) comprise approximately 39 percent of men in this combined category (Refer to Table 7, page 4-43)

2006 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: MSM (continued)

Concurrent Diagnoses:

Of the 8,286 persons living with HIV/AIDS in the Detroit Metro Area, 1,745 (21 percent) had concurrent HIV and AIDS diagnoses. Of these, 941 (54 percent) reported MSM behavior, including MSM who were also IDU.

Age:

Among those reporting male-male sex, the highest percent of all living cases of HIV/AIDS is found among those aged 30-39 at the time of diagnosis (38 percent). MSM is the predominant mode of transmission for males aged 13 and up (Refer to Table 8, page 4-44).

Geographic Distribution:

Just under two-thirds (63 percent) of HIV-infected MSM statewide reside in the Detroit Metro Area. Within high prevalence counties (see map on page 3-9) of the Detroit Metro Area, half of the reported cases are MSM, while 63 percent of reported cases in the low prevalence areas are MSM (including MSM/IDU).

Trends and Conclusions:

MDCH estimates that HIV infections among men who have sex with men significantly increased from 2000-2004 from 51 percent to 55 percent (314 to 349 cases). 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.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: MSM: Discussion of Behaviorally Bi-sexual Men

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

Case reporting data are collected statewide but have only limited information on male bisexual behavior. Case reports are usually completed by health care providers and surveillance staff reviewing medical records rather than through extensive interviews of the infected person. Only 55 percent of all case reports have complete “yes or no” answers to both questions, “has the patient had sex with men,” and “has the patient had sex with women.” Based on these complete forms, 45 percent of all MSM reported also having sex with women since 1977. These more complete forms also show that two 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), which was conducted from 1990 through 2004. The SHAS interview asked HIV-infected persons directly about specific behaviors. It was conducted only in SE Michigan; therefore, is not representative of all HIV infected persons in the state. Please see the Data Sources Section (page 1-7) to learn more about SHAS. Of all male SHAS respondents who reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview (530), 63 percent (333) reported having sex with other men in the 12 months prior to the interview. Of the 333 men, 77 percent (254) were black and 22 percent (72) were white. Also, 34 of the 333 men (10 percent) reported having sex with women in the 12 months prior to the interview. Of these 34 men, 88 percent (30) were black and six percent (2) were white; the remaining six percent represented other races.

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 9 and 10, men younger than 24 years (28 percent) and black men (27 percent) were more likely to report bisexual behavior.

Figure 9: MSM by Age: Have you had sex with a woman in the past 12 months? (n=81)

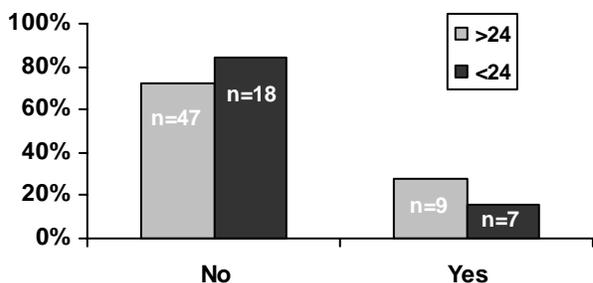
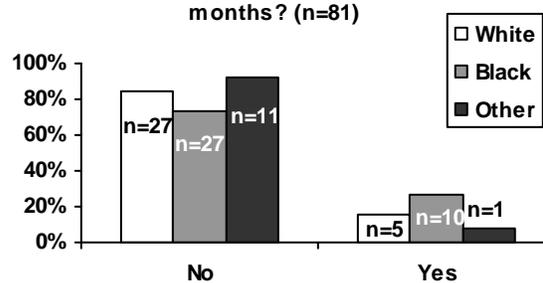


Figure 10: MSM by Race: Have you had sex with a woman in the past 12 months? (n=81)



2006 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), HIV Testing Survey (HITS), & Supplement to HIV/AIDS Surveillance Project II (SHAS)

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 provided are combined from Detroit and Milwaukee. 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 333 men who report having sex with a man in the 12 months prior to the interview, 65 percent (216) reported being in a steady relationship with a man. Fifty-six percent (187) reported having sex with a non-steady man during the 12 months prior to the interview. As shown in Figures 11 and 12, of the 111 male respondents who reported having insertive anal sex with a steady male partner, 28 percent reported not using condoms the last time they had sex. Of the 119 male respondents who reported having receptive anal sex with a steady male partner, 30 percent reported that their partner 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 11: Partners Condom Usage During Insertive Anal Sex Among HIV Infected MSM in SHAS (N = 111)

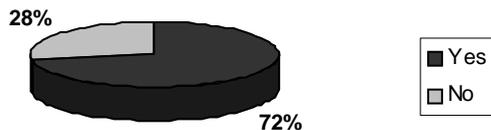


Figure 12: Partners Condom Usage During Receptive Anal Sex Among HIV Infected MSM in SHAS (N = 119)



2006 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). 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 13 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 14 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 13: 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)

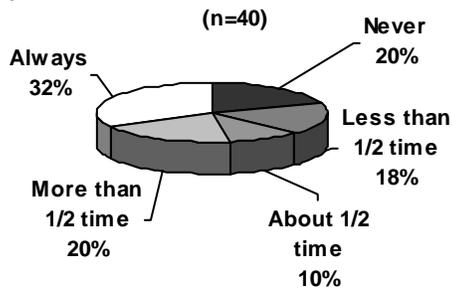


Figure 14: In the past 12 months, when you had insertive anal sex with a primary male partner, how often did you use a condom? (n=47)

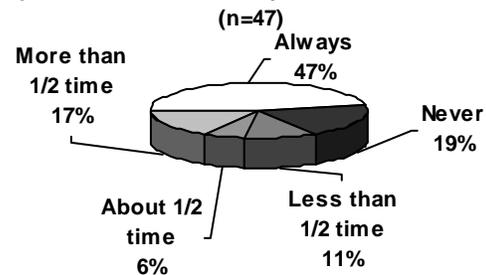


Figure 15 shows that among the 19 respondents with a “non-primary” male partner, 7 (37 percent) reported that their partner used condoms “Always” in the past year when they participated in receptive anal sex. Figure 16 shows that of the 32 respondents who participated in insertive anal sex with a non-primary male partner, 19 (60 percent) reported that they used a condom “Always”.

Figure 15: 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)

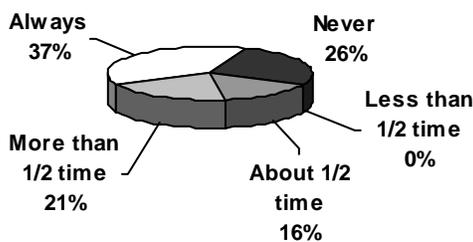
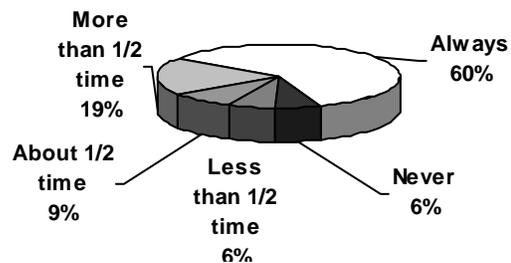


Figure 16: In the past 12 months, when you had insertive anal sex with a non-primary male partner, how often did you use a condom? (n=32)



2006 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 II (SHAS)

Number of Cases

Injecting drug users (IDUs) are the number-two ranked behavioral group in the Detroit Metro Area and account for less than a quarter (19 percent) of reported infected persons. MDCH estimates there are approximately 2,000 IDUs living with HIV disease in the Detroit Metro Area. This estimate includes 440 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals, infants, and MSM. Almost half (45 percent) of the reported cases among non-MSM IDUs also had high-risk heterosexual sex partners. Additionally, of the 1,051 cases with reported heterosexual risk, 313 individuals (30 percent) also reported having IDU as partners. Sixty-two 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 24 percent (1,961 cases) of people reported with HIV disease in the Detroit Metro Area. This is similar to the nationwide picture of 24 percent IDU.

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 are 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.

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).

2006 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: IDU (continued)

Incidence (continued):

IDU and NIDU (non-injecting drug use) 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 to substance abuse services. Please refer to the Data Sources section of this profile for more information on the Family of Seroprevalence Surveys (page 1-8).

Race/Ethnicity and Sex:

Of the 1,580 IDU HIV/AIDS cases (including MSM/IDUs), 806 are black men (51 percent), 448 are black women (28 percent), 192 are white men (12 percent), 70 are white women (4 percent), 39 are Hispanic men (2 percent) and 12 are Hispanic women (1 percent). In total, 80 percent (1,254 cases) of the IDU cases occur in black men and women. Approximately two-thirds of the cases are men (66 percent) and one-third are women (34 percent). Among the 533 women whose HIV infection has been attributed to IDU, over half (55 percent) were also reported with high-risk heterosexual sex partners. See Table 8, page 3-66.

Additional behavioral data on HIV infected IDUs and other drug users in southeast Michigan is known from the SHAS interview project. Of the 1,174 persons interviewed in SHAS between 2000 and 2004, 15 percent (178) injected drugs at some time during their lives. This 15 percent (178) was mostly comprised of males (63 percent). Of the 178 injection drug users, 51 percent (90) reported ever being told by a doctor or health care provider that they had hepatitis C. Of these 90 injection drug users with hepatitis C, 59 percent (53) were male and 41 percent (37) were female. 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 the 178 injection drug users are potential alcoholics; 59 percent (44) were male and 41 percent (30) were female. A 'potential alcoholic' is defined as a person who answered 'Yes' to 2 or more of the following questions on the SHAS II questionnaire: 1) Have you ever felt you ought to cut down on your drinking?, 2) Have people ever annoyed you by criticizing your drinking?, 3) Have you ever felt bad or guilty about your drinking?, and 4) Have you ever had a drink first thing in the morning to steady your nerves or rid yourself of a hangover?

Other drug use information shows 772 (66 percent) of all respondents (1,174) have ever used some kind of non-injection drugs in the past. Among non-injection drug users, the primary non-injected drug for men and women was marijuana, followed by crack cocaine for both men and women.

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 32 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.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: IDU (continued)

Concurrent Diagnoses:

Of the 8,286 persons living with HIV/AIDS in the Detroit Metro Area, 1,745 (21 percent) had concurrent HIV and AIDS diagnoses. Of these, 303 (17 percent) reported IDU behavior, including IDU who were also MSM. Of those reporting IDU with no MSM behavior, 36 percent also reported high-risk heterosexual sex, while 64 percent reported no sexual behavior of any kind.

Age:

Among men 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 (47 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 (32 percent) of all female, HIV infected IDUs were in this age group. The proportion of cases attributed to IDU and HRH were close for women in their thirties at the time of HIV diagnosis (32 and 36 percent, respectively). Among the 397 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 (7 percent); the proportion of IDU (including MSM/IDU) among those in their twenties is also small (10 percent).

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 one-fourth of cases (20 percent) are IDU, while in the low prevalence counties, 12 percent of persons living with HIV/AIDS are IDU. (These percentages include IDU males who are also MSM).

Trends and Conclusions:

MDCH estimates that the annual number of new HIV diagnoses attributable to IDU transmission has remained statistically level from 2000 to 2004 with an estimated 22 new HIV infections in the year 2004 (excluding MSM/IDU). However, there was a decline in the proportion of new diagnoses seen in IDUs, from 18 percent to 15 percent (111 to 93 cases); however, the numbers did not reach statistical significance. 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.

2006 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). Figure 217 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 18 shows that 62 percent reported injecting only heroin on a “Daily” basis.

Figure 17: In the last 12 months, how often have you used a dirty needle?

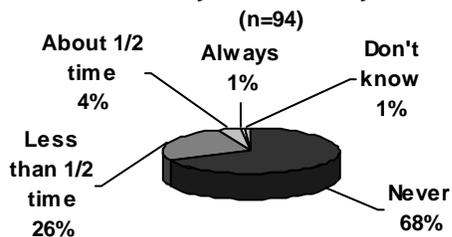
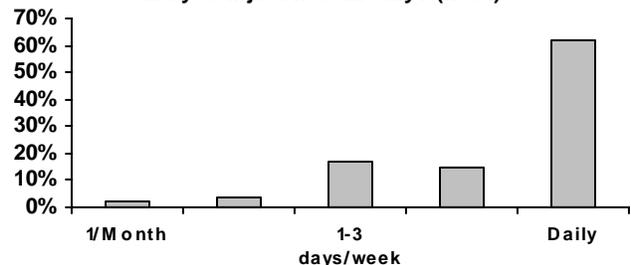


Figure 18: In the past 12 months, how often did you inject heroin only? (n=94)



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 19). Among female IDUs reporting “non-primary” male sex partners, 18 percent reported “Never” using a condom (Figure 20).

Figure 19: 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)

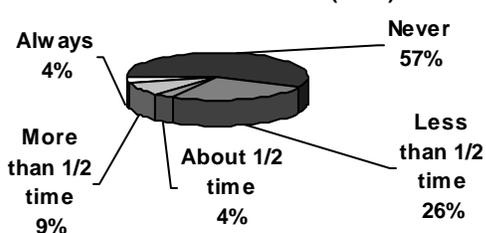
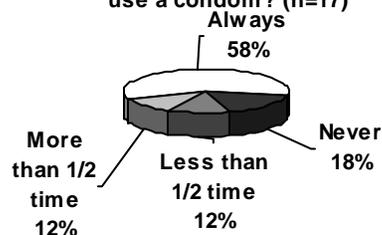


Figure 20: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=17)



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 21). Fifteen percent of male respondents reported “Never” using a condom with their female non-primary partner (Figure 22).

Figure 21: 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)

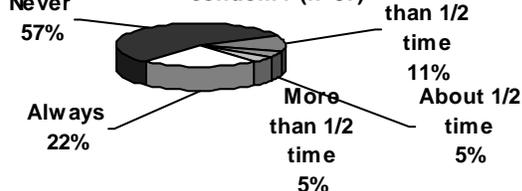
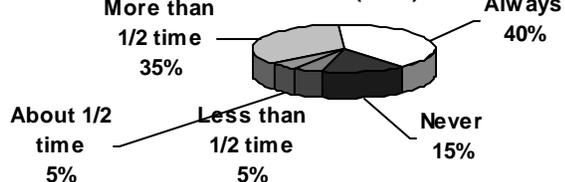


Figure 22: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=20)



2006 Profile of HIV/AIDS: The Detroit Metro Area

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 the Detroit Metro Area. High-risk heterosexual sex accounts for 13 percent of reported infected persons. MDCH estimates that 1,330 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). Please see Appendix B.

Currently there are an estimated 700 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 seven percent of all reported HIV/AIDS cases and are 47 percent men and 53 percent women within the Detroit Metro Area.

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) of HIV positive persons tested annually. Overall HIV incidence among all persons tested 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 (29 to 44 percent).

Race/Ethnicity and Sex:

Among females of all races reported with HIV/AIDS, 38 percent of cases are contracted heterosexually. Twenty-seven percent were infected via IDU. Among HIV infected women, 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 1,051 men and women living with HIV/AIDS and infected heterosexually, 30 percent reported their heterosexual partner as an injecting drug user, four percent as behaviorally bisexual men (this applies to women only) and two percent as persons infected through blood products. Just under two-thirds (64 percent) reported their partner(s) as HIV-infected without reporting the partner(s) mode of transmission.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: High-Risk Heterosexuals (continued)

Race/Ethnicity and Sex (continued):

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. Less than half of white and black women were infected heterosexually (42 and 37 percent, respectively). Over half of Hispanic women were infected through heterosexual sex (52 percent).

Most heterosexual cases of HIV/AIDS are black--80 percent of female and 80 percent of male heterosexually transmitted HIV/AIDS cases were among blacks. However, 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 are shown in Figures 23 and 24.

Figure 23: Black Females Living with HIV/AIDS in the Detroit Metro Area by Expanded Mode of Transmission (N = 1,637)

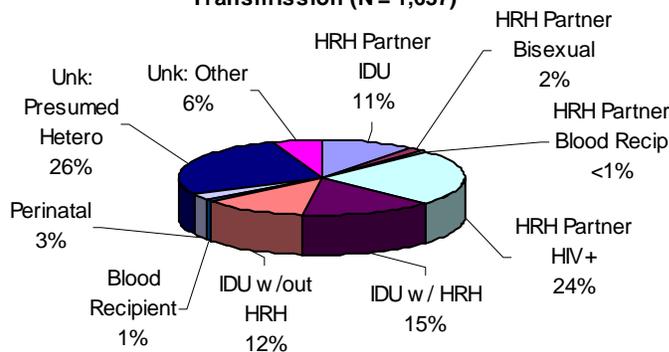
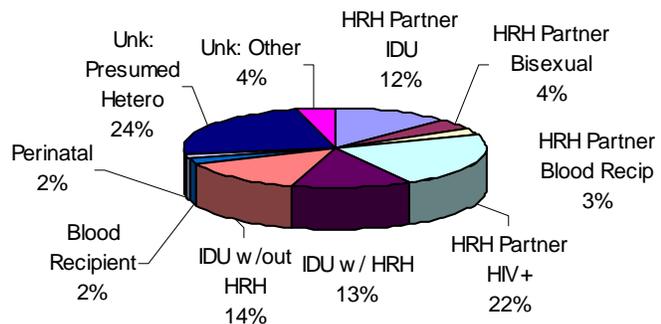


Figure 24: White Females Living with HIV/AIDS in the Detroit Metro Area by Expanded Mode of Transmission (N = 265)



2006 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: High-Risk Heterosexuals (continued)

Concurrent Diagnoses:

Of the 8,286 persons living with HIV/AIDS in the Detroit Metro Area, 1,745 (21 percent) had concurrent HIV and AIDS diagnoses. Of these, 201 (12 percent) reported high-risk heterosexual behavior.

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 in men increases with age at HIV diagnosis, peaking at 11 percent for those 60 and older, but never surpasses that of MSM or IDU.

Geographic Distribution:

Ninety-four percent of the 1,051 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 13 percent of the cases. Within low prevalence counties, heterosexual transmission constitutes nine 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 2000 to 2004 with an estimated 93 new HIV cases in the year 2004. 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, recent trends show that heterosexually acquired cases could surpass the proportion of cases attributed to IDU in the coming years.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Ranked Behavioral Group: High-Risk Heterosexuals: Condom Usage

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

In SHAS, 64 percent (213) of female respondents reported having vaginal, oral, and/or anal sex in the 12 months prior to the interview. Of these, most (208 or 98 percent) reported having sex with a man in the 12 months prior to the interview. We asked these 208 women questions about use of a barrier with their steady (someone they feel committed to above anyone else and have sex with) partners. Eighty-five percent (176) of the (208) 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 3.

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 3.

Table 3: Barrier/Condom Use with Steady Partner, Among Heterosexuals

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

*Categories are not mutually exclusive

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

In addition, we asked women and men, questions regarding barrier/condom use with their most recent other male and female partners. Among the female SHAS respondents, 68 (33 percent) 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 4.

Table 4: 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

2006 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. 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 25 and 26). 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 27 and 28).

Figure 25: 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)

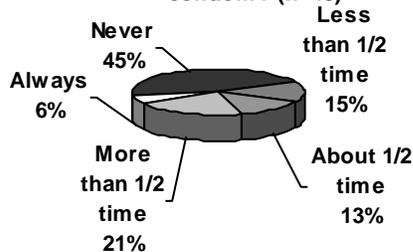


Figure 26: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=37)

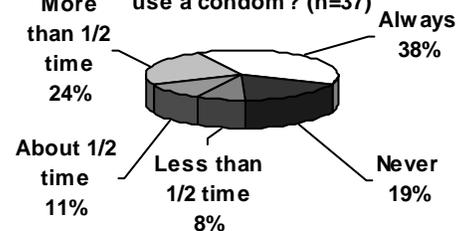


Figure 27: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=50)

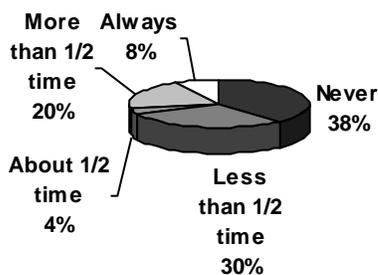
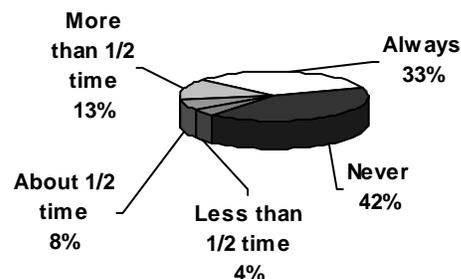


Figure 28: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=24)



2006 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Race and Sex

Data from HIV/AIDS Reporting System (HARS)

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 about two-thirds (68 percent) of the cases of HIV/AIDS. MDCH estimates 7,140 black persons live with HIV/AIDS in the Detroit Metro Area. The rate of HIV infection among blacks is 705 per 100,000 population, almost eight 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 (27 percent) of reported HIV/AIDS cases. MDCH estimates 2,860 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 (92 per 100,000 population) than blacks or Hispanics. MDCH estimates that as many as one out of 600 white males and one out of 4,650 white females may be HIV-infected.

Hispanics comprise three percent of the population and three percent of the cases. MDCH estimates 300 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 (234 per 100,000 population) than that among whites. MDCH estimates that as many as one out of 310 Hispanic males and one out of 870 Hispanic females may be HIV-infected.

Most persons living with HIV/AIDS in the Detroit Metro Area as of January 2006 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 6,286 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 2,000 female HIV/AIDS cases are black (82 percent), under one-quarter white (13 percent), three percent Hispanic and two percent other or unknown race.

Concurrent Diagnoses:

Of the 8,286 persons living with HIV/AIDS in the Detroit Metro Area, 1,745 (21 percent) had concurrent HIV and AIDS diagnoses. Of these, 79 percent are male and 21 percent are female.

Over two-thirds (67 percent) are black, 29 percent are white, and 3 percent are Hispanic. Black males make up the majority at 49 percent, followed by white males (27 percent) and black females (18 percent). The remainder of the race-sex groups are all below three percent. See Table 7, page 4-42 for more detail.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Race and Sex (continued)

Mode of Transmission:

Figures 29 and 30 display the proportion of black and white male cases by mode of transmission.

Figure 29: Black Males Living with HIV/AIDS in the Detroit Metro Area by Expanded Mode of Transmission (N = 3,990)

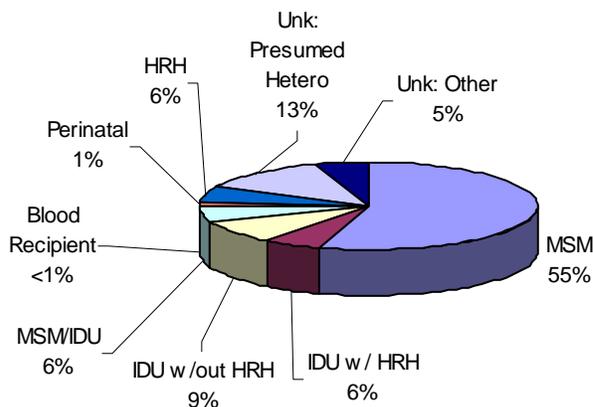
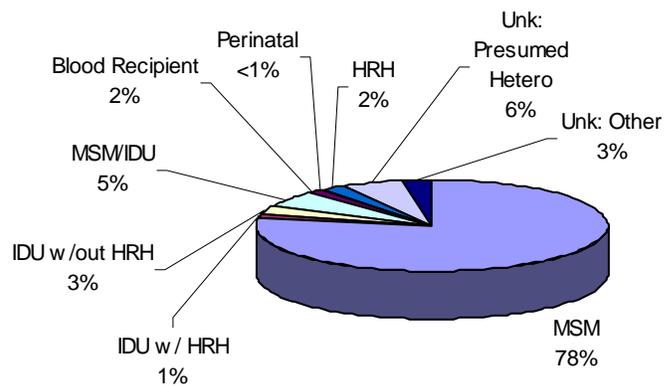


Figure 30: White Males Living with HIV/AIDS in the Detroit Metro Area by Expanded Mode of Transmission (N = 1,986)



Please refer to Figures 23 and 24 on page 4-25 for black and white female distributions.

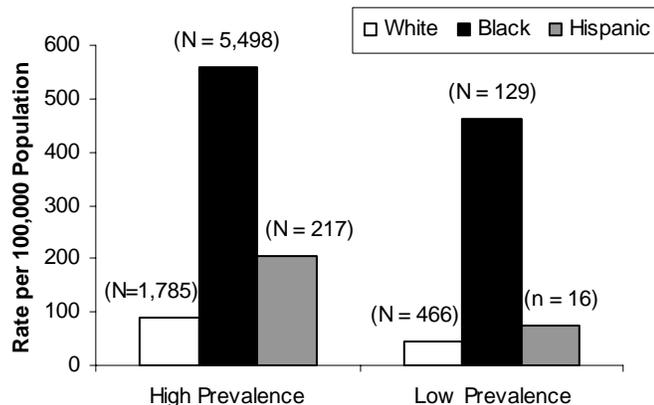
2006 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Race and Sex (continued)

Geographic Distribution of Cases:

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 (see page 3-9). Therefore, instead of proportions, rates are used (e.g., number of black cases/total number of blacks living in that area). Figure 31 shows that among blacks, the rate is six to 11 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.

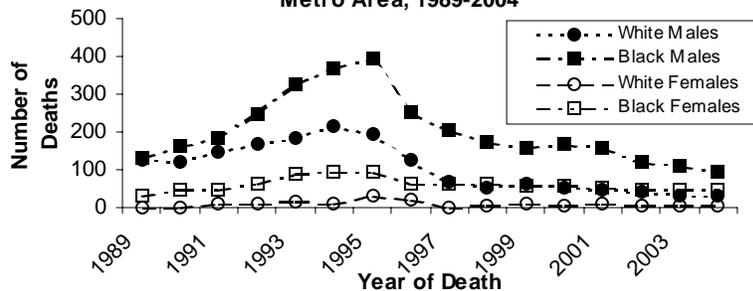
Figure 31: Case Rates of Persons with HIV/AIDS Living in High & Low Prevalence Areas of The Detroit Metro Area, by Race



Mortality:

Figure 32 shows that HIV related mortality dropped for all four race and sex groups from 1995 to 2004. The number of deaths among Hispanics was too small to appear on this graph. The decline in deaths from 2001 to 2004 was marked among white women (50 percent) and black men (40 percent). White men saw a moderate decline (30 percent), and black women experienced a slight decrease (8 percent).

Figure 32: HIV Related Mortality by Race/Sex in the Detroit Metro Area, 1989-2004



Trends and Conclusions:

MDCH estimates that the number of new HIV infections annually among blacks has remained level and was at 602 in 2004. During this same time period, the estimated annual number among whites has remained level at 307 persons in 2004, and the estimated annual number among Hispanic and other races/ethnicities has remained level at 62 cases in 2004.

Trends in new HIV diagnoses among males and females show similar patterns. The number of males newly diagnosed with HIV each year is level at about 721 new infections (74 percent of cases) in the year 2004. Among females the number appears to also be stable at 250 (26 percent cases) in the year 2004.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Age

Data from HIV/AIDS Reporting System (HARS)

Age at Diagnosis:

The proportion of persons diagnosed each year with HIV infection increased significantly among those diagnosed at 13-19 years of age, from one percent to five percent (9 to 30 cases) and among those diagnosed at 20-24 years of age, from seven percent to 15 percent (46 to 99 cases). Figure 33 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 (35 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 (40 percent), shown in Figure 34.

Figure 33: Age at initial HIV Diagnosis for those living with HIV/AIDS in the Detroit Metro Area, 1/1/06

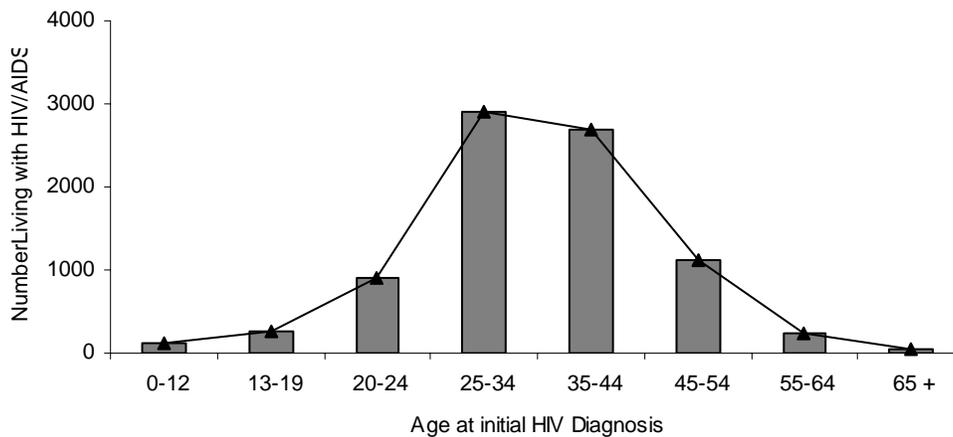
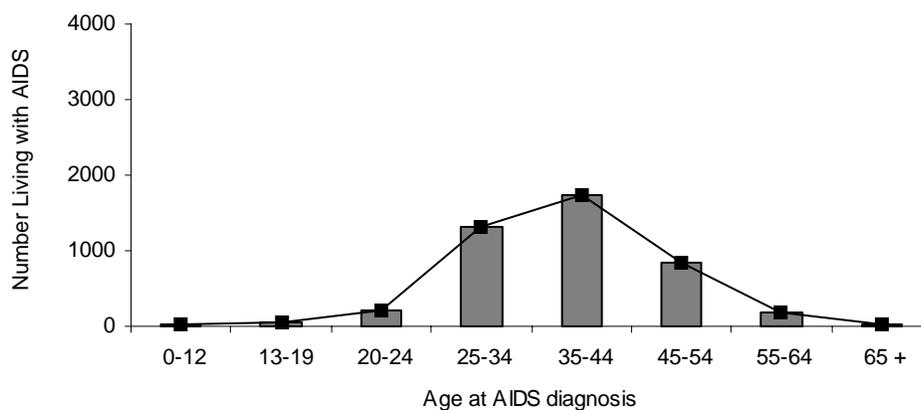


Figure 34: Age of AIDS Diagnosis for those living with AIDS in the Detroit Metro Area, 1/1/06



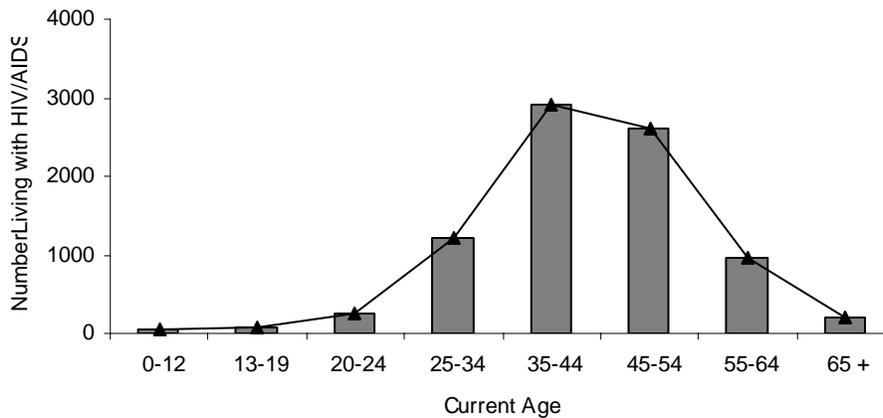
2006 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Age

Current Age:

Since the start of widespread use of Highly Active Anti-Retroviral Therapy (HAART) in 1996, persons infected with HIV have been living longer. Evidence of this is shown in Figure 35, 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 (35 percent), while those ages 45-44 make up the second largest group (31 percent). While persons who were ages 55 and older at the time of AIDS diagnosis made up only five percent of those diagnosed with AIDS (Figure 34), persons in this age group make up 14 percent of persons living with HIV/AIDS in the Detroit Metro Area.

Figure 35: Current age of those living with HIV/AIDS in the Detroit Metro Area, 1/1/06



2006 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 140 people living in the Detroit Metro Area, who were ages 0-12 when they were diagnosed with HIV. They comprise 1.4 percent of reported infected persons. Most of them (90 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding.). Of the remaining persons, six percent were infected via blood exposure before 1985 and four percent had unknown risks.

Demographic Description of Cases:

Of the 112 persons who were ages 0-12 years when diagnosed with HIV/AIDS, living in the Detroit Metro Area, 53 percent are male and 47 percent are female; 76 percent are black, 18 percent are white and six percent are Hispanic or of unknown race. See Table 9, page 4-44.

Of the 101 persons infected perinatally, 49 percent had a mother who was an IDU, 13 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 12 percent had mothers with HIV-infected sex partners but for whom additional risk information was unavailable. For 16 percent all that was known about the mother is that she was HIV-infected with no additional risk information. Six percent were hemophiliacs and 2 percent have unknown risks.

Geographic Distribution of Infected Cases:

Eighty-eight percent of the 112 persons diagnosed and reported with HIV/AIDS between the ages of 0-12 are located in high prevalence counties. The remaining 12 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, 2006, one of the 33 children born in 2003, one of the 34 children born in 2004, and none of the 33 children born in 2005 to HIV-infected women living in the Detroit Metro Area were diagnosed with HIV infection.

2006 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), STD Reporting System, Youth Risk Behavior Survey & Bureau of Juvenile Justice Youth Risk Behavior Survey

Number of Cases:

MDCH estimates that there are about 1,480 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 three percent; and age 20-24 years, 11 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 number 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 those who live in areas with high HIV prevalence and have male sex partners who are age 20 or older.

STDs:

STD rates are highest in these age groups. The STD data are shown on Table 9, page 4-45. 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 over five times that of overall rate. (Please refer to the Sexually Transmitted Diseases Section of the Statewide Profile (page 3-20) 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. Also, since the rates of HIV among teens are very low, and because most teens have sex with other teens, the gonorrhea and chlamydia epidemic is perpetuated and HIV is rarely introduced into the population.

Teen Pregnancy:

Teen (ages 15-19) pregnancy rates have shown decreases over time and decreased significantly from 2000 to 2004. The statewide teen pregnancy rate in 2004 was 55 pregnancies per 1,000 females aged 15-19 years. In the Detroit Metro Area, the 2004 rates ranged from 35-111 pregnancies per 1,000 females aged 15-19. The city of Detroit had the second highest rate of teen pregnancy statewide (111 per 1,000) in 2004. The 2004 rates among teens (15-19) in Detroit exceed the rates among women age 15-44 years in that same area (111 vs. 100). However, in 2002, the rates among teens in Detroit were equal to the rates among women aged 15-44.

Race/Ethnicity:

Eighty-three percent of persons aged 13-19 at the time of HIV diagnosis are black, 12 percent are white, and five percent are Hispanic or other race. Seventy-six percent of persons aged 20-24 at the time of HIV diagnosis are black, 20 percent are white, and four percent are Hispanic or other race.

Mode of Transmission:

Teenagers: 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 36 shows that among the 255 persons living with HIV in the Detroit Metro Area who were ages 13-19 at time of diagnosis, 171 (67 percent) are male. Among these male cases, just under three-quarters had sex with other males (73 percent), including MSM/IDU, while five percent had been infected with HIV through blood products before 1985. Four percent could be attributed to IDU, including MSM/IDU and two percent to heterosexual transmission for this age group within this area. Teenage males have the

2006 Profile of HIV/AIDS: The Detroit Metro Area

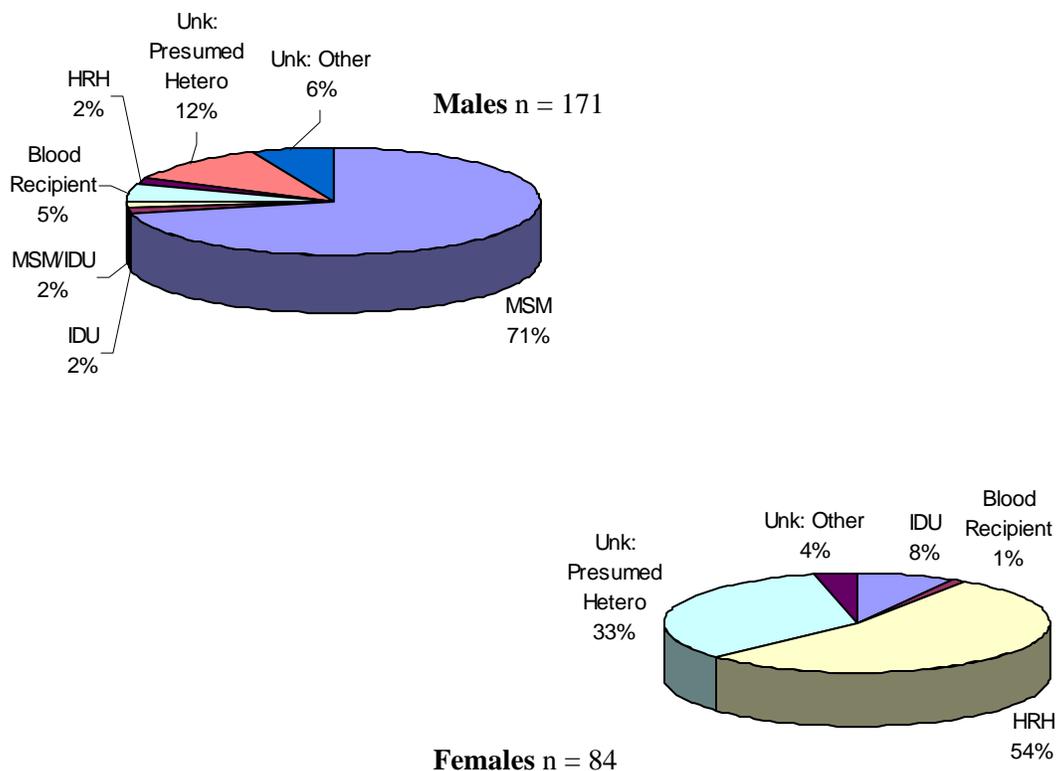
Additional Discussions: Teens and Young Adults (continued)

Mode of transmission (continued):

largest proportion of unidentified risk (18 percent) compared with any other age group of men under age 40. Experience with investigating such persons shows that it is likely that many of these males were infected through having sex with other males.

Figure 36 also shows that among the 84 females living with HIV in the Detroit Metro Area who were ages 13-19 at time of diagnosis, over half (54 percent) were infected through heterosexual sex; eight percent were IDUs. There is a large proportion that did not report a mode of transmission (37 percent), however this proportion of cases with an unknown mode of transmission is consistent with females of any age.

Figure 36: Persons living in the Detroit Metro Area who were aged 13-19 when diagnosed with HIV (Teenagers), by Sex and Mode of Transmission (N = 255)



2006 Profile of HIV/AIDS: The Detroit Metro Area

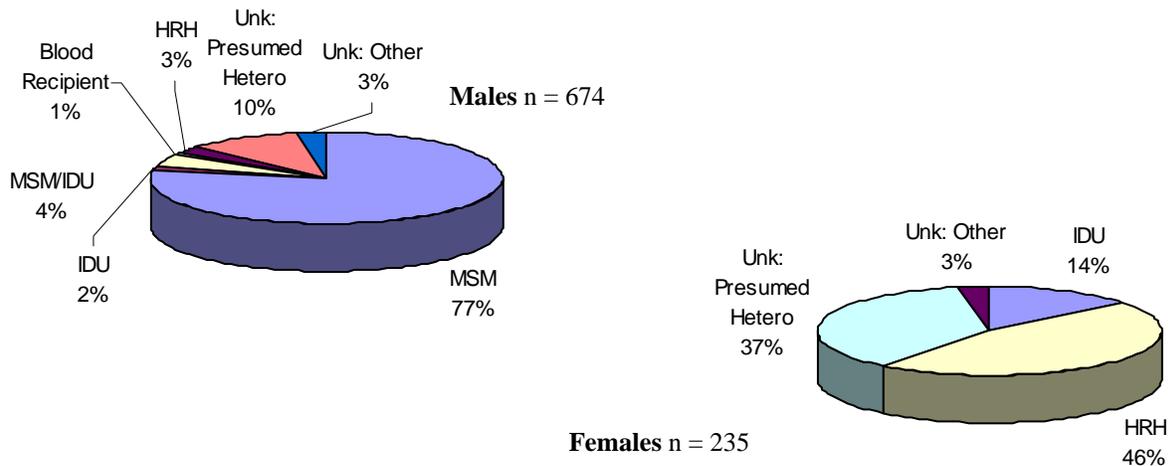
Additional Discussions: Teens and Young Adults (continued)

Young Adults:

Figure 37 shows that among the 909 persons living with HIV in the Detroit Metro Area who were ages 20-24 at time of diagnosis, almost three quarters (74 percent) are male. Of these, over 80 percent have 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 37 also shows that among the 235 females living with HIV in the Detroit Metro Area who were ages 20-24 at time of diagnosis, just under half (46 percent) were infected heterosexually and 14 percent were IDUs; just over a third (37 percent) did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually.

Figure 37: Persons living in the Detroit Metro Area who were aged 20-24 when diagnosed with HIV (Young Adults), by Sex and Mode of Transmission (N = 909)



Geographic Distribution of Youth and Teen Cases:

Ninety-three percent of the 1,164 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 seven percent are located in low prevalence counties.

Trends and Conclusions:

The proportion of persons diagnosed each year with HIV infection increased significantly among those diagnosed at 13-19 years of age, from one percent to five percent (9 to 30 cases) and among those diagnosed at 20-24 years of age, from seven percent to 15 percent (46 to 99 cases). 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. The data also suggest that prevention activities among teenagers and young adults of both sexes should be geared towards those 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.

2006 Profile of HIV/AIDS: The Detroit Metro Area

Description of the Epidemic by Age: 50 years and older

Data from HIV/AIDS Reporting System (HARS)

Number:

MDCH estimates there are 900 persons living in the Detroit Metro Area, who were 50 years and older when they were diagnosed with HIV. They comprise nine 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, 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 74 percent male and 26 percent female. Among these 587 persons reported with HIV/AIDS about just over three-fourths are black (71 percent), one-quarter are white (24 percent) and 6 percent are Hispanic or of unknown race.

Figure 38: Males aged 50-59 at time of diagnosis, Living with HIV/AIDS in the Detroit Metro Area by mode of transmission (N = 437)

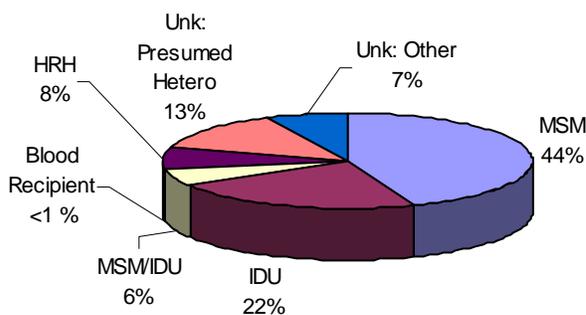
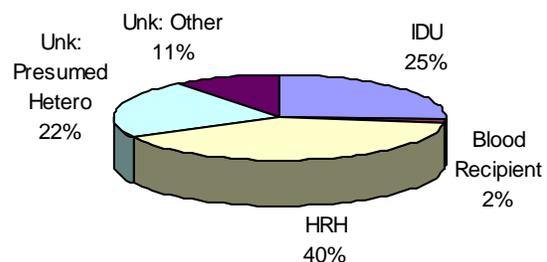


Figure 38 shows that half of the 437 males in their fifties at time of HIV diagnosis and currently living with HIV (50 percent) reported having sex with other males (including those MSM who also are IDU). Over one-quarter reported injection drug use (including those IDU who were also MSM). Eight percent were infected heterosexually. Twenty percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 39 shows that among the 150 females who were in their fifties at time of HIV diagnosis and currently living with HIV, less than half (40 percent) were infected heterosexually and 25 percent were IDUs. One-third (33 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 39: Females aged 50-59 at time of diagnosis, Living with HIV/AIDS in the Detroit Metro Area by mode of transmission (N = 150)



2006 Profile of HIV/AIDS: The Detroit Metro Area

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 75 percent male and 25 percent female. Among these 124 persons reported with HIV/AIDS two-thirds are black (64 percent), one-quarter are white (27 percent) and 10 percent are Hispanic or of unknown race.

Figure 40: Males aged 60 and older at time of diagnosis, Living with HIV/AIDS in the Detroit Metro Area by mode of transmission (N = 91)

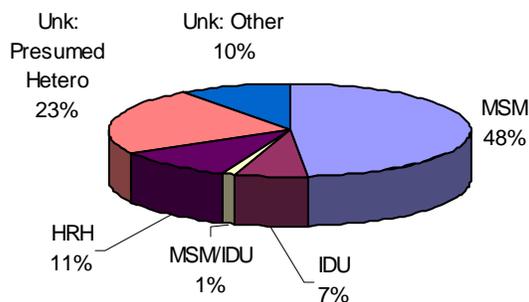
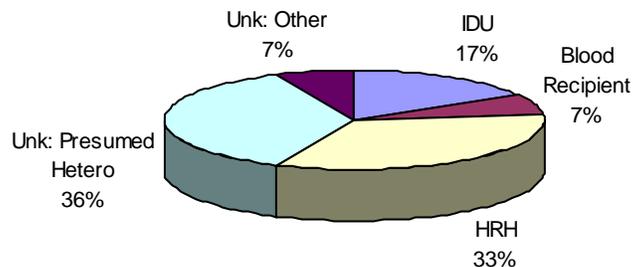


Figure 40 shows that less than half of the 91 males who were 60 years and older at time of HIV diagnosis and currently living with HIV (49 percent) reported sex with other males (including those MSM who also are IDU). Eight percent reported injection drug use (including those IDU who were also MSM). Eleven percent were infected heterosexually. Thirty-three 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 30 females who were 60 and older at the time of HIV diagnosis and currently living with HIV, one-third (33 percent) were infected heterosexually and 17 percent were IDUs. Just under a half (43 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 41: Females aged 60 and older at time of diagnosis, Living with HIV/AIDS in the Detroit Metro Area by mode of transmission (N = 30)



2006 Profile of HIV/AIDS: The Detroit Metro Area

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

Trends and Conclusions:

The proportion of persons who were 50 years and older at the time of diagnosis has remained level from 2000 through 2004. There were 84 persons diagnosed with HIV and 1,707 who are currently this age living with HIV in 2004. As treatment for HIV allows infected persons to live longer, persons in this age group may be a source of infections for their peers and others. Therefore, it is important for prevention programs to include this age group when designing prevention activities.

Description of the Epidemic by Age: Persons Currently Aged 50 Years and Older

As of January 1, 2006 there are 2,205 persons who are **currently** age 50 or older and living with HIV/AIDS in the Detroit Metro Area. This represents 27 percent of the 8,286 persons diagnosed in and living with HIV/AIDS in the Detroit Metro Area as of the first of this year. Data in this section were analyzed differently than for the rest of the profiles. All numbers used in the 2006 Profile of HIV/AIDS in Michigan represent those HIV infected persons currently living in Michigan, regardless of where they were initially diagnosed.

The proportion of persons **currently** age 50 and older in the Detroit Metro Area has increased over the last five years. This can be attributed, at least in part, to the more effective anti-retroviral medications have been available since 1996. As a result, infected persons are living longer and are, therefore, getting older. Table 5 shows the percent of persons who were age 50+ at the beginning of each of the seven years listed.

Table 5: Percent of Persons aged 50 and older living in Michigan by ‘Year End’

	Number	Percent
1/1/2000	857	14%
1/1/2001	1,041	16%
1/1/2002	1,242	18%
1/1/2003	1,444	20%
1/1/2004	1,707	23%
1/1/2005	1,943	25%
1/1/2006	2,205	27%

Nearly 70 percent of persons 50 years and older who are currently living were not 50 and older at the time of HIV 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.

Footnotes for the Detroit Metro Area, Tables 6 through 8

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

Indicates an explanatory definition exists in Appendix B

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

¹ The minimum estimate is 10 cases.

² Total HIV+AIDS refers to the number of reported cases alive as of 1/1/06

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

⁴ This is a subset of all HIV/AIDS cases reported alive as of 1/1/06

⁵ Totals for counties/areas includes infected prisoners who were discharged/paroled if no current residence is available.

**Table 6: Distribution of HIV/AIDS: Prevalence Estimates,
Reported Cases, and Population Currently Living within the Detroit Metropolitan Area⁵**
Prisoners and persons with unknown residence are not included
January 1, 2006

	Estimated HIV Infection ¹	Estimated Rate per 100,000 ³	Total HIV + AIDS Reported ²		Initial HIV diagnosis at same time as AIDS diagnosis ⁴		2000 Census	
			Reported Cases	%	Reported AIDS Cases	%		%
Male	7,970	369.4	6,286	76%	1,387	79%	2,157,470	49%
<i>White, Non-Hispanic Males</i>	2,520	165.9	1,986	24%	478	27%	1,518,812	34%
<i>Black, Non-Hispanic Males</i>	5,060	1,080.1	3,990	48%	854	49%	468,477	11%
<i>Hispanic Males</i>	220	327.0	175	2%	42	2%	67,279	2%
<i>Asian, Hawaiian, Pacific Islander Males</i>	40	77.1	31	<1%	9	1%	51,874	1%
<i>American Indian Males</i>	10	157.6	10	<1%	1	<1%	6,344	<1%
<i>Other Race Males</i>	N/A	*	94	1%	3	<1%	44,684	N/A
Female	2,540	111.2	2,000	24%	358	21%	2,284,081	51%
<i>White, Non-Hispanic Females</i>	340	21.5	265	3%	35	2%	1,578,088	36%
<i>Black, Non-Hispanic Females</i>	2,080	382.5	1,637	20%	309	18%	543,785	12%
<i>Hispanic Females</i>	70	115.1	58	1%	11	1%	60,796	1%
<i>Asian, Hawaiian, Pacific Islander Females</i>	10	19.4	9	<1%	2	<1%	51,416	1%
<i>American Indian Females</i>	10	148.5	5	<1%	0	0%	6,736	<1%
<i>Other Race Females</i>	N/A	*	26	<1%	1	<1%	43,260	N/A
White, Non-Hispanic	2,860	92.4	2,251	27%	513	29%	3,096,900	70%
Black, Non-Hispanic	7,140	705.4	5,627	68%	1,163	67%	1,012,262	23%
Hispanic	300	234.2	233	3%	53	3%	128,075	3%
Asian, Hawaiian, Pacific Islander	50	48.4	40	<1%	11	1%	103,290	2%
American Indian	20	152.9	15	<1%	1	<1%	13,080	<1%
Other Race	N/A	*	120	1%	4	<1%	87,944	N/A
Male-Male Sex[#]	4,900	N/A	3,864	47%	877	50%		
Injecting Drug Use[#]	1,560	N/A	1,231	15%	239	14%		
<i>IDU with heterosexual risk</i>	700	N/A	555	7%	85	5%		
<i>IDU without heterosexual risk</i>	860	N/A	676	8%	154	9%		
M-M Sex and Inject Drugs[#]	440	N/A	349	4%	64	4%		
Blood Recipients[#]	70	N/A	58	1%	13	1%		
Perinatal	130	N/A	101	1%	12	1%		
Heterosexual[#]	1,330	N/A	1,051	13%	201	12%		
<i>Partner IDU</i>	400	N/A	313	4%	58	3%		
<i>Partner Bisexual</i>	60	N/A	45	1%	5	<1%		
<i>Partner Blood Recipient</i>	30	N/A	23	<1%	7	<1%		
<i>Partner HIV+</i>	850	N/A	670	8%	131	8%		
Known Risk Total	8,440	N/A	6,654	80%	1,406	81%		
Unknown Risk[#]	N/A	N/A	1,632	20%	339	19%		
<i>Presumed Heterosexual</i>	N/A	N/A	1,213	15%	276	16%		
<i>Other</i>	N/A	N/A	419	5%	63	4%		
0 - 4 years^x	110	35.4	84	1%	10	1%	310,638	7%
5 - 9 years^x	30	8.7	21	<1%	1	<1%	346,656	8%
10-12 years^x	10	4.8	7	<1%	1	<1%	206,214	5%
13-19 years^x	320	76.3	255	3%	18	1%	419,442	9%
20-24 years^x	1,150	451.9	909	11%	86	5%	254,469	6%
25-29 years^x	1,670	538.3	1,316	16%	194	11%	310,242	7%
30-34 years^x	2,010	595.7	1,586	19%	332	19%	337,435	8%
35-39 years^x	1,940	535.3	1,532	18%	345	20%	362,411	8%
40-44 years^x	1,460	395.1	1,152	14%	306	18%	369,557	8%
45-49 years^x	900	273.1	713	9%	229	13%	329,490	7%
50-54 years^x	530	185.8	416	5%	126	7%	285,289	6%
55-59 years^x	220	102.8	171	2%	53	3%	213,932	5%
60-64 years^x	90	56.4	73	1%	22	1%	159,475	4%
65 and older^x	60	11.2	48	1%	22	1%	536,301	12%
Unknown Age	N/A	N/A	3	<1%	0	0%	0	N/A
DETROIT	6,680	702.2	5,135	62%	1,077	62%	951,270	21%
LAPEER CO.	40	45.5	27	<1%	6	<1%	87,904	2%
MACOMB CO.	620	78.7	479	6%	118	7%	788,149	18%
MONROE CO.	70	48.0	51	1%	13	1%	145,945	3%
OAKLAND CO.	1,720	144.0	1,323	16%	259	15%	1,194,156	27%
ST CLAIR CO.	90	54.8	73	1%	17	15%	164,235	4%
WAYNE CO. (not including Detroit)	1,560	140.6	1,198	14%	255	100%	1,109,892	25%
Total Detroit Metropolitan Area	10,510	236.6	8,286	100%	1,745	100%	4,441,551	100%

Table 7: Living HIV/AIDS Cases Currently Living in the Detroit Metro Area
Sex and Race by Risk
January 1, 2006

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex[#]	1,546	78%	2,182	55%	88	50%	48	36%	3,864	61%
Injecting Drug Use[#]	87	4%	575	14%	28	16%	8	6%	698	11%
<i>IDU w/ heterosexual</i>	23	1%	226	6%	12	7%	1	1%	262	4%
<i>IDU w/o heterosexual</i>	64	3%	349	9%	16	9%	7	5%	436	7%
Male-Male Sex/IDU[#]	105	5%	231	6%	11	6%	2	1%	349	6%
Blood Recipients[#]	31	2%	7	<1%	2	1%	2	1%	42	1%
Perinatal	7	<1%	41	1%	1	1%	1	1%	50	1%
Heterosexual[#]	42	2%	236	6%	13	7%	5	4%	296	5%
<i>Partner IDU</i>	14	1%	72	2%	4	2%	1	1%	91	1%
<i>Partner Blood Recipient</i>	1	<1%	5	<1%	0	0%	0	0%	6	<1%
<i>Partner HIV+</i>	27	1%	159	4%	9	5%	4	3%	199	3%
Total Known Risks	1,818	92%	3,272	82%	143	82%	66	49%	5,299	84%
Unknown Risk[#]	168	8%	718	18%	32	18%	69	51%	987	16%
<i>Presumed Heterosexual</i>	115	6%	518	13%	25	14%	26	19%	684	11%
<i>Other</i>	53	3%	200	5%	7	4%	43	32%	303	5%
Total All Cases	1,986	32%	3,990	63%	175	3%	135	2%	6,286	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Injecting Drug Use[#]	70	26%	448	27%	12	21%	3	8%	533	27%
<i>IDU w/ heterosexual</i>	34	13%	252	15%	6	10%	1	3%	293	15%
<i>IDU w/o heterosexual</i>	36	14%	196	12%	6	10%	2	5%	240	12%
Blood Recipients[#]	6	2%	9	1%	1	2%	0	0%	16	1%
Perinatal	5	2%	42	3%	2	3%	2	5%	51	3%
Heterosexual[#]	111	42%	604	37%	30	52%	10	25%	755	38%
<i>Partner IDU</i>	33	12%	174	11%	10	17%	5	13%	222	11%
<i>Partner Bisexual</i>	11	4%	32	2%	2	3%	0	0%	45	2%
<i>Partner Blood Recipient</i>	8	3%	8	<1%	1	2%	0	0%	17	1%
<i>Partner HIV+</i>	59	22%	390	24%	17	29%	5	13%	471	24%
Total Known Risks	192	72%	1,103	67%	45	78%	15	38%	1,355	68%
Unknown Risk[#]	73	28%	534	33%	13	22%	25	63%	645	32%
<i>Presumed Heterosexual</i>	62	23%	442	27%	10	17%	15	38%	529	26%
<i>Other</i>	11	4%	92	6%	3	5%	10	25%	116	6%
Total All Cases	265	13%	1,637	82%	58	3%	40	2%	2,000	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex[#]	1,546	69%	2,182	39%	88	38%	48	27%	3,864	47%
Injecting Drug Use[#]	157	7%	1,023	18%	40	17%	11	6%	1,231	15%
<i>IDU w/ heterosexual</i>	57	3%	478	8%	18	8%	2	1%	555	7%
<i>IDU w/o heterosexual</i>	100	4%	545	10%	22	9%	9	5%	676	8%
Male-Male Sex/IDU[#]	105	5%	231	4%	11	5%	2	1%	349	4%
Blood Recipients[#]	37	2%	16	<1%	3	1%	2	1%	58	1%
Perinatal	12	1%	83	1%	3	1%	3	2%	101	1%
Heterosexual[#]	153	7%	840	15%	43	18%	15	9%	1,051	13%
<i>Partner IDU</i>	47	2%	246	4%	14	6%	6	3%	313	4%
<i>Partner Bisexual</i>	11	<1%	32	1%	2	1%	0	0%	45	1%
<i>Partner Blood Recipient</i>	9	<1%	13	<1%	1	<1%	0	0%	23	<1%
<i>Partner HIV+</i>	86	4%	549	10%	26	11%	9	5%	670	8%
Total Known Risks	2,010	89%	4,375	78%	188	81%	81	46%	6,654	80%
Unknown Risk[#]	241	11%	1,252	22%	45	19%	94	54%	1,632	20%
<i>Presumed Heterosexual</i>	177	8%	960	17%	35	15%	41	23%	1,213	15%
<i>Other</i>	64	3%	292	5%	10	4%	53	30%	419	5%
Total All Cases	2,251	27%	5,627	68%	233	3%	175	2%	8,286	100%

Table 8: Living HIV/AIDS Cases Currently Living in the Detroit Metro Area
Age^x at HIV Diagnosis by Risk
January 1, 2006

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%	122	71%	523	78%	743	74%	1,529	64%	710	49%	193	44%	44	48%	3,864	61%
Injecting Drug Use [#]	0	0%	3	2%	11	2%	42	4%	237	10%	302	21%	96	22%	6	7%	697	11%
IDU w/ heterosexual	0	0%	1	1%	2	<1%	17	2%	106	4%	108	8%	25	6%	3	3%	262	4%
IDU w/o heterosexual	0	0%	2	1%	9	1%	25	2%	131	5%	194	14%	71	16%	3	3%	435	7%
Male-Male Sex/IDU [#]	0	0%	3	2%	27	4%	46	5%	151	6%	96	7%	25	6%	1	1%	349	6%
Blood Recipients [#]	7	12%	9	5%	7	1%	6	1%	10	<1%	2	<1%	1	<1%	0	0%	42	1%
Perinatal	50	85%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	50	1%
Heterosexual [#]	0	0%	3	2%	17	3%	38	4%	124	5%	71	5%	33	8%	10	11%	296	5%
Partner IDU	0	0%	0	0%	1	<1%	14	1%	38	2%	26	2%	8	2%	4	4%	91	1%
Partner Blood Recipient	0	0%	0	0%	0	0%	1	<1%	2	<1%	1	<1%	1	<1%	1	1%	6	<1%
Partner HIV+	0	0%	3	2%	16	2%	23	2%	84	3%	44	3%	24	5%	5	5%	199	3%
Total Known Risks	57	97%	140	82%	585	87%	875	87%	2,051	85%	1,181	82%	348	80%	61	67%	5,298	84%
Unknown Risk [#]	2	3%	31	18%	89	13%	135	13%	354	15%	256	18%	89	20%	30	33%	986	16%
Presumed Heterosexual	0	0%	20	12%	71	11%	90	9%	257	11%	167	12%	58	13%	21	23%	684	11%
Other	2	3%	11	6%	18	3%	45	4%	97	4%	89	6%	31	7%	9	10%	302	5%
Total All Cases	59	1%	171	3%	674	11%	1,010	16%	2,405	38%	1,437	23%	437	7%	91	1%	6,284	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%	7	8%	33	14%	53	17%	227	32%	170	40%	38	25%	5	17%	533	27%
IDU w/ heterosexual	0	0%	5	6%	20	9%	30	10%	132	19%	89	21%	16	11%	1	3%	293	15%
IDU w/o heterosexual	0	0%	2	2%	13	6%	23	8%	95	13%	81	19%	22	15%	4	13%	240	12%
Blood Recipients [#]	0	0%	1	1%	0	0%	3	1%	4	1%	3	1%	3	2%	2	7%	16	1%
Perinatal	51	96%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	51	3%
Heterosexual [#]	0	0%	45	54%	109	46%	136	44%	256	36%	139	32%	60	40%	10	33%	755	38%
Partner IDU	0	0%	6	7%	18	8%	30	10%	84	12%	56	13%	23	15%	5	17%	222	11%
Partner Bisexual	0	0%	2	2%	2	1%	13	4%	20	3%	8	2%	0	0%	0	0%	45	2%
Partner Blood Recipient	0	0%	0	0%	2	1%	6	2%	8	1%	0	0%	0	0%	1	3%	17	1%
Partner HIV+	0	0%	37	44%	87	37%	87	28%	144	20%	75	18%	37	25%	4	13%	471	24%
Total Known Risks	51	96%	53	63%	142	60%	192	63%	487	68%	312	73%	101	67%	17	57%	1,355	68%
Unknown Risk [#]	2	4%	31	37%	93	40%	114	37%	226	32%	116	27%	49	33%	13	43%	644	32%
Presumed Heterosexual	0	0%	28	33%	86	37%	90	29%	196	27%	85	20%	33	22%	11	37%	529	26%
Other	2	4%	3	4%	7	3%	24	8%	30	4%	31	7%	16	11%	2	7%	115	6%
Total All Cases	53	3%	84	4%	235	12%	306	15%	713	36%	428	21%	150	8%	30	2%	1,999	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%	122	48%	523	58%	743	56%	1,529	49%	710	38%	193	33%	44	36%	3,864	47%
Injecting Drug Use [#]	0	0%	10	4%	44	5%	95	7%	464	15%	472	25%	134	23%	11	9%	1,230	15%
IDU w/ heterosexual	0	0%	6	2%	22	2%	47	4%	238	8%	197	11%	41	7%	4	3%	555	7%
IDU w/o heterosexual	0	0%	4	2%	22	2%	48	4%	226	7%	275	15%	93	16%	7	6%	675	8%
Male-Male Sex/IDU [#]	0	0%	3	1%	27	3%	46	3%	151	5%	96	5%	25	4%	1	1%	349	4%
Blood Recipients [#]	7	6%	10	4%	7	1%	9	1%	14	<1%	5	<1%	4	1%	2	2%	58	1%
Perinatal	101	90%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	101	1%
Heterosexual [#]	0	0%	48	19%	126	14%	174	13%	380	12%	210	11%	93	16%	20	17%	1,051	13%
Partner IDU	0	0%	6	2%	19	2%	44	3%	122	4%	82	4%	31	5%	9	7%	313	4%
Partner Bisexual	0	0%	2	1%	2	<1%	13	1%	20	1%	8	<1%	0	0%	0	0%	45	1%
Partner Blood Recipient	0	0%	0	0%	2	<1%	7	1%	10	<1%	1	<1%	1	<1%	2	2%	23	<1%
Partner HIV+	0	0%	40	16%	103	11%	110	8%	228	7%	119	6%	61	10%	9	7%	670	8%
Total Known Risks	108	96%	193	76%	727	80%	1,067	81%	2,538	81%	1,493	80%	449	76%	78	64%	6,653	80%
Unknown Risk [#]	4	4%	62	24%	182	20%	249	19%	580	19%	372	20%	138	24%	43	36%	1,630	20%
Presumed Heterosexual	0	0%	48	19%	157	17%	180	14%	453	15%	252	14%	91	16%	32	26%	1,213	15%
Other	4	4%	14	5%	25	3%	69	5%	127	4%	120	6%	47	8%	11	9%	417	5%
Total All Cases	112	1%	255	3%	909	11%	1,316	16%	3,118	38%	1,865	23%	587	7%	121	1%	8,283	100%

**Table 9: Gonorrhea, Syphilis, and Chlamydia by Sex
Race, and Age Group in the Detroit Metro Area
January 1, 2004 to December 31, 2005**

Patient Group	2000 Det EMA Population	Gonorrhea			P&S Syphilis			Chlamydia		
		Cases	Pct	Rate	Cases	Pct	Rate	Cases	Pct	Rate
Male	2,157,470	4,665	43%	216	61	78%	3	4,274	21%	198
<i>White Males</i>	1,518,812	199	2%	13	14	18%	1	464	2%	31
<i>Black Males</i>	468,477	2,287	21%	488	43	55%	9	1,941	9%	414
<i>Hispanic Males</i>	67,279	15	0%	22	3	4%	4	28	0%	42
<i>Other Males</i>	102,902	37	0%	N/A	0	0%	N/A	99	0%	N/A
<i>Unk Males</i>	N/A	2,127	20%	N/A	1	1%	N/A	1,742	8%	N/A
Female	2,284,081	6,100	57%	267	17	22%	1	16,237	79%	711
<i>White Females</i>	1,578,088	309	3%	20	0	0%	0	1,285	6%	81
<i>Black Females</i>	543,785	1,540	14%	283	16	21%	3	4,283	21%	788
<i>Hispanic Females</i>	60,796	22	0%	36	1	1%	2	56	0%	92
<i>Other Females</i>	101,412	97	1%	N/A	0	0%	N/A	464	2%	N/A
<i>Unk Females</i>	N/A	4,132	38%	N/A	0	0%	N/A	10,149	49%	N/A
White	3,096,900	508	5%	16	14	18%	0	1,749	8%	56
Black	1,012,262	3,829	35%	378	59	76%	6	6,231	30%	616
Hispanic	128,075	37	0%	29	4	5%	3	84	0%	66
Other	204,314	134	1%	66	0	0%	0	573	3%	280
Unknown Race	N/A	6,287	58%	N/A	1	1%	N/A	11,943	58%	N/A
0-4 years	310,638	7	0%	2	0	0%	0	18	0%	6
5-9 years	346,656	7	0%	2	0	0%	0	15	0%	4
10-14 years	206,214	152	1%	74	0	0%	0	364	2%	177
15-19 years	419,442	3,181	29%	758	0	0%	0	7,871	38%	1877
20-24 years	254,469	3,268	30%	1284	8	10%	3	6,801	33%	2673
25-29 years	310,242	1,690	16%	545	8	10%	3	2,762	13%	890
30-34 years	337,435	992	9%	294	13	17%	4	1,346	7%	399
35-39 years	362,411	632	6%	174	12	15%	3	663	3%	183
40-44 years	369,557	355	3%	96	14	18%	4	307	1%	83
45-54 years	614,779	352	3%	57	16	21%	3	185	1%	30
55-64 years	373,407	61	1%	16	5	6%	1	42	0%	11
65 and over	536,301	42	0%	8	1	1%	0	56	0%	10
Unknown Age	N/A	56	1%	N/A	1	1%	N/A	150	1%	N/A
Total	4,441,551	10,795	100%	243	78	100%	2	20,580	100%	463

Table 10: Characteristics of HIV/Hepatitis Co-Infected Persons in Care, in Southeast Michigan ASD, 2001-2003.

	All (n=1790)	HAV Co-infected (n=64)	HBV Co-infected (n=207)	HCV Co-infected (n=353)
Sex			*	*
Male	58%	66%	68%	50%
Female	42%	34%	32%	50%
Race				*
White	20%	30%	17%	13%
Black	75%	67%	80%	83%
Others	5%	3%	2%	4%
Age				*
<20	1%	0%	0%	0%
20-29	10%	11%	5%	3%
30-39	27%	14%	29%	9%
40-49	38%	39%	38%	43%
>=50	24%	36%	28%	44%
HIV Transmission Risk			*	*
MSM	38%	45%	45%	10%
IDU	30%	34%	41%	78%
Blood Exposure	2%	5%	1%	5%
High-Risk Heterosexual	21%	8%	8%	6%
Presumed Heterosexual	8%	8%	3%	1%
Unknown/Others	1%	0%	<1%	0%
HAV Vaccination	14%	5%*	13%	23%*
HBV Vaccination	21%	24%	4%*	14%*

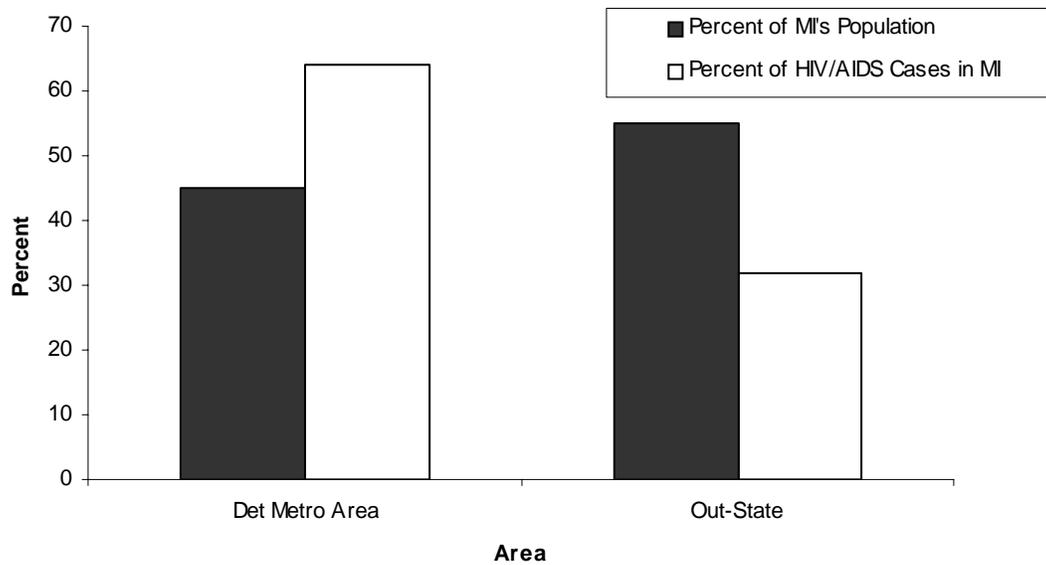
*Proportions significantly different from the proportions among all the persons in care, $p < 0.05$ in Chi square test comparing the distribution of co-infected patients among the categories of the demographic, vaccination or transmission risk factor to the distribution of all the persons in care.

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

2006 Profile of HIV/AIDS in Out-State Michigan



Figure 1: Michigan Living HIV/AIDS Cases and Population by Area, 1/1/06



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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Summary of HIV/AIDS Epidemic in Out-State Michigan

- **How many cases?** The Michigan Department of Community Health (MDCH) estimates that there are 5,290 people living with HIV/AIDS in Out-State Michigan, of which 4,171 were reported as of January 1, 2006. Out-State Michigan is defined as the 77 counties outside of the six Detroit Metro Area counties. Incidence of HIV (the number of newly diagnosed HIV infections) was roughly level at around 260 cases each year between 2000 and 2004. 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 (4,171, 32 percent) of the 12,972 cases 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 (791 cases, 19 percent). See Table 4a, page 5-40.

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 3-9 of the Statewide profile for methodology used). Within Out-State Michigan, Allegan, Berrien, Calhoun, Cass, Genesee, Grand Traverse, Ingham, Jackson, Kalamazoo, Kent, Muskegon, Saginaw, Van Buren, and Washtenaw Counties are considered to be LHDs in high prevalence areas (79 percent of Out-State cases), while the remaining Out-State counties are considered to be LHDs in low prevalence areas.

- **Out-State Trends:** In the Statewide and Detroit Metro Area Chapters of this profile, to evaluate trends over time, we approximated the number of persons newly diagnosed with HIV infection each year and determine if there was a statistically significant change from 2000 through 2004. Numbers of reported HIV and AIDS cases in Out-State Michigan were insufficient to apply this methodology. Because trends cannot be reported for Out-State Michigan, this chapter presents figures created using raw numbers instead of trends. Be sure not to compare trends in the Statewide or Detroit Metro Area chapters with raw numbers in this chapter.

2006 Profile of HIV/AIDS in Out-State Michigan

Recommendations: Ranking of Behavioral Groups

To assist in prioritizing prevention activities, the MDCH HIV/STD & Other 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 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 55 percent of all HIV/AIDS reported cases (2,285 out of 4,171). The MSM behavioral group continues to be the most affected behavioral group).

Injecting Drug Users (IDUs)*: Of all HIV/AIDS reported cases, 15 percent are IDUs (637 out of 4,171). Cases among IDUs are closely linked to HIV among women and their infants and the heterosexual groups.

High Risk Heterosexuals (HRH): HRH cases constitute 14 percent of the total number of reported cases (577 out of 4,171) 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.

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

2006 Profile of HIV/AIDS in Out-State Michigan

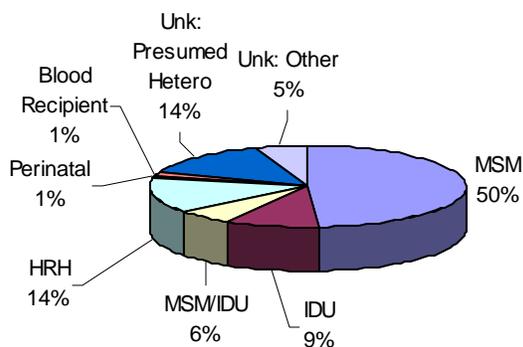
Distribution of HIV/AIDS (Living) Cases by Mode of Transmission

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). However, the recent publication of CDC's Technical Guidance for HIV/AIDS Surveillance Programs—Risk Factor Ascertainment also explains categorization of risk, called the exposure category. This term summarizes the multiple risk factors that an individual may have had by including combination of categories of the three most common ones (MSM, IDU, HRH). Exposure categories are mutually exclusive and are not hierarchical. These categories are not currently in use in Michigan.

Figure 2 indicates the persons living with HIV/AIDS in Out-State Michigan by mode of transmission for the 4,171 reported cases.

Figure 2: Reported Persons Living with HIV/AIDS in Out-State Michigan, by risk, 1/1/06 (N = 4,171)



- Over half (55 percent) of the people living with HIV/AIDS with a known mode of transmission are MSM, including six percent who also injected drugs.
- Fifteen percent are injecting drug users, including six percent who are also MSM.
- Fourteen percent of the total had high-risk heterosexual sex partners as their only mode of transmission.
- Nineteen percent had no risk identified.

Discussion of Persons with 'No Identified Risk':

Persons in the 'No Identified Risk' (NIR) category make up 19 percent of the HIV-infection population in Out-State Michigan and are 61 percent male and 39 percent female. Those persons in the NIR category are 52 percent black, 34 percent white, and 14 percent other races. Almost three-quarters of the NIRs fall under the 'presumed heterosexual' subcategory. Presumed Heterosexual includes infected persons with no recognized risk that have reported heterosexual sex with a man or a woman (not including male-male sex) and accounts for 10 percent of men living with HIV and 28 percent of women living with HIV. See Table 5, page 5-41

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 and Sex

Data from HIV/AIDS Reporting System (HARS)

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

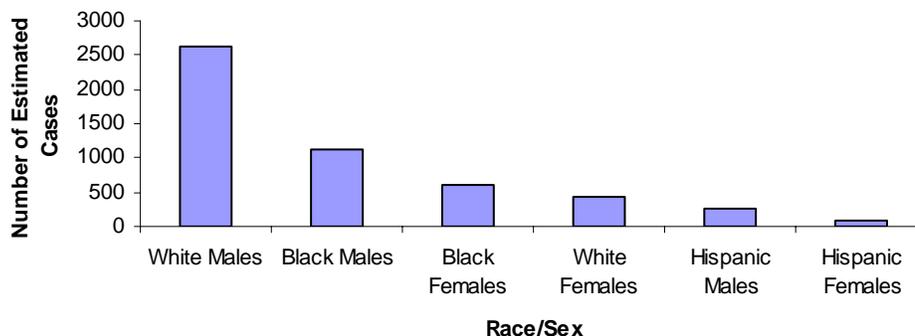
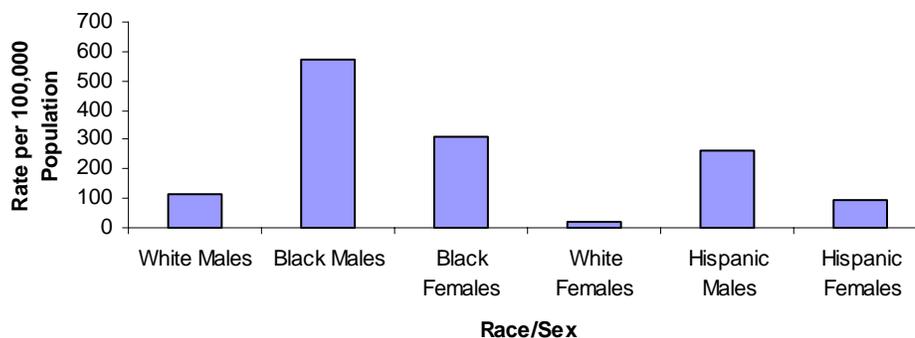


Figure 4: Estimated Case Rates of Persons Living with HIV/AIDS in Out-State Michigan by Race and Sex



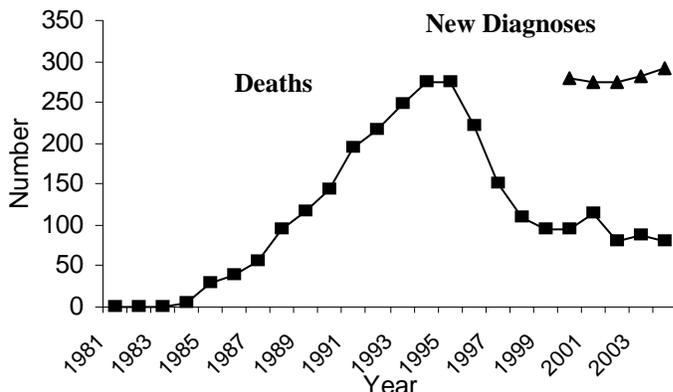
- Black males have the highest rate per 100,000 population (575) and the second highest estimated number (1,120) of HIV/AIDS cases. This high rate means the impact of the epidemic is greatest on this demographic group.
- Black females have the second highest rate (308) and the third highest estimated number (600) of cases of HIV/AIDS.
- Hispanic males have the third highest rate (261) and the fifth highest estimated number (270) of cases. This means the impact of the epidemic is high on a relatively small population.
- White males have the fourth highest rate (113) and the highest estimated number (2,620) 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.

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Trends in HIV/AIDS Data

Data from HIV/AIDS Reporting System (HARS)

Figure 5: New diagnoses of HIV and HIV deaths in Out-State Michigan



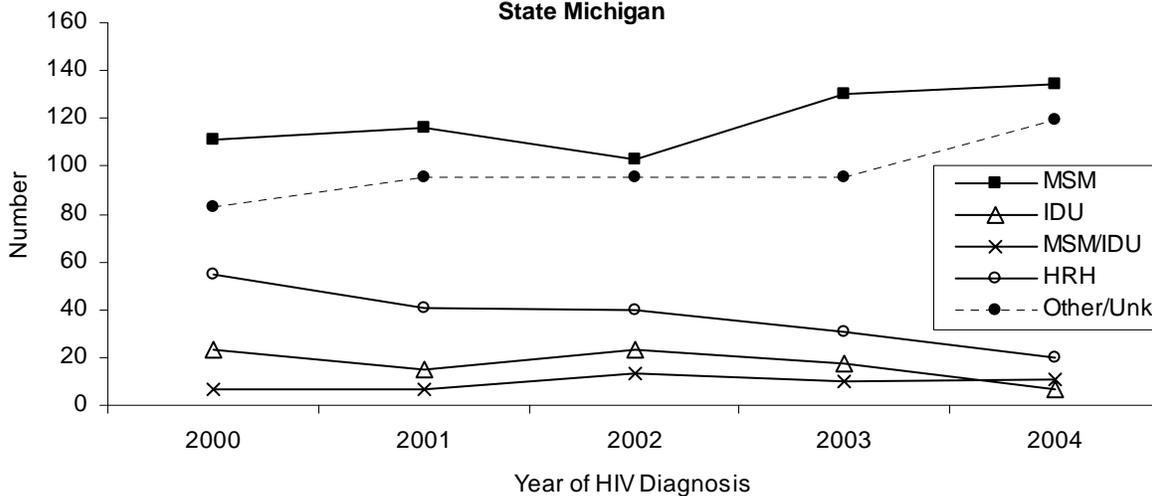
- Number of HIV related deaths and new HIV diagnoses:

The approximate number of new HIV diagnoses and number of HIV related deaths are shown in Figure 5. The overall decrease in deaths is likely due to the more effective treatments available since 1996 that delay or prevent the onset of AIDS in HIV-infected persons. Although Figure 5 shows an increase in the number of new HIV diagnoses in Out-State Michigan, this is only a four percent increase. MDCH will continue to monitor the number of new diagnoses in order to act upon any potentially significant increases.

Risk Behaviors of HIV Infection, 2000-2004:

Figure 6 shows the number of persons diagnosed with HIV each year from 2000 to 2004 for each of the major risk groups (MSM, IDU, MSM/IDU, and HRH). New diagnoses among MSM make up the largest proportion and have also increased from 2000 to 2004 (111 to 134 cases), while new diagnoses of HRH and IDU cases decreased during this same time period (55 to 20 HRH cases & 23 to 7 IDU cases). Finally diagnoses of HIV have increased in the ‘Other/Unknown’ risk category from 2000 to 2004 (83 to 119 cases).

Figure 6: Numbers of new HIV diagnosis from 2000 to 2004, by risk group, Out-State Michigan



2006 Profile of HIV/AIDS in Out-State Michigan

Patterns of Service Utilization of HIV-Infected Persons

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

The Uniform Reporting System (URS) is a statewide client-level data system designed to document the quantity and types of services provided by agencies receiving Ryan White CARE Act funds, as well as to identify and describe the populations receiving the services. All HIV+ clients served by funded providers are included in the data, even if the CARE Act did not directly fund the reported service. The client-level URS data files submitted by individual service agencies are combined and unduplicated across all providers using an encrypted client identifier, so that all services received by a client are combined into a single client record.

Group	Services	Cases
Males	76%	78%
Females	24%	22%
White	58%	58%
Black	30%	33%
Hispanic	7%	7%
Other Minorities	4%	3%
Unknown Race	1%	0%
White Males	49%	50%
Black Males	19%	21%
Hispanic Males	5%	5%
Other Minority Males	2%	2%
Unknown Race Males	0%	0%
White Females	9%	8%
Black Females	11%	11%
Hispanic Females	2%	2%
Other Minority Females	1%	1%
Unknown Race Females	<1%	0%
0-12 Years*	1%	1%
13-19 Years*	1%	1%
20-24 Years*	4%	2%
25-44 Years*	57%	55%
45+ Years*	38%	41%
Infants: 0-1 Years*	<1%	<1%
Children: 2-12 Years*	1%	1%
Youth: 12-24 Years*	5%	3%
Women: 25 Years*+	21%	20%
Total	100% (N = 2,707)	100% (N = 4,171)

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

Tables 1 and 2 (next page) represent services delivered in 2005 to HIV+ clients who reside outside of the Detroit Eligible Metropolitan Area (DEMA), also known as the Out-State area, as reported in the URS by 30 CARE Act funded programs. All providers that received CARE Act funding from Titles II, III, and IV are included in the data and most (58 percent) of the service providers funded by Title I. Because data from some Title I funded agencies are not included, these tables represent the minimum number of clients served and services delivered in 2005 by Michigan's CARE Act programs. However, the lack of complete Title I data is less significant in the Out-State tables because Title I funded providers serve Detroit EMA residents.

Table 1 shows that in 2005, 2,707 HIV-infected residents of Out-State Michigan received services from 30 CARE Act funded providers. This represents 65 percent of the total known cases in Out-State Michigan. The comparison also shows that persons receiving Ryan White CARE Act services were more likely than the reported population to be female and less likely to be black or 45 years or older.

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.

2006 Profile of HIV/AIDS in Out-State Michigan

Patterns of Service Utilization of HIV-Infected Persons

Table 2 gives additional detail about the core services of medical care, dental care, mental health care, case management and medication assistance delivered to Out-State residents by the 30 CARE Act programs that reported URS data in 2005. The service units in the table are not units of time (e.g. 15 minutes, or 1 hour) but are “visits” (or a day in which the service occurred). Only one “visit” per day is counted for any service category except for case management which can have up to 2 per day. However, the unit of service for the AIDS Drug Assistance program is one prescription filled, rather than a day of service.

URS medical care services are for outpatient medical care visits ranging from a complete physical with a physician to a brief check-up with a nurse, drug review with a pharmacist, or a visit for a blood draw or lab test. The annual average of 4.66 visits per client, with a median of 3, is consistent with HIV care standards that recommend monitoring of health status on a quarterly basis. (Table 2)

Table 2: Core services per CARE Act client, Out-state Residents, 2005

	Medical Care	Dental Care	Mental Health services	Drug Assistance Program	Case Mgt
No. of providers supplying valid data*	14	5	6	1	14
No. of unduplicated clients served**	1,372	387	383	1,006	1,517
Total Days of Service ***	6,400	1,203	1,601	32,695	23,586
Average no. of visits per client	4.66	3.11	4.18	32.5	15.55
Median no. of visits per client	3	2	3	25	10
Range of visits per client	1 - 57	1 - 14	1 - 37	1-224	1-125

* Data based on number of providers that reported URS data to MDCH and delivered the service to residents of the out-state area. Some providers served residents of both the Detroit EMA and the out-state area.

A provider may be included in more than 1 service category and may not be located in the out-state area.

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

*** Service unit for Drug Assistance is one prescription filled, not visits or days of service.

Dental care services reported in the URS are primarily provided through the statewide Michigan Dental Program, administered by the Division of Health, Wellness and Disease Control of MDCH. Dental services for clients may be extensive, and require multiple visits, but may also simply be for annual prophylaxis. The annual average of 3.11 visits per client is consistent with an initial exam to plan the care needed and two or more treatment visits following approval of the care plan. (Table 2) The annual median of visits per client is 2 compared to 3 for DEMA clients.

Mental Health services encompass mental health assessments, individual counseling, and group sessions for HIV+ clients with a mental health diagnosis, and must be conducted by a licensed mental health professional. Mental health services do not include substance abuse treatment. Case management services include both face-to-face contacts and other contacts (by phone or mail) with or on behalf of the client, with the goal of linking HIV+ clients to care services, especially health care services.

The AIDS Drug Assistance Program (ADAP), administered by the Division of Health, Wellness and Disease Control of MDCH pays for medications dispensed to eligible HIV+ clients. The ADAP covers

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Patterns of Service Utilization of HIV-Infected Persons

all HIV medications and many other medications as well. Residents of the Out-State area accounted for 47 percent of all ADAP clients served in 2005 with an average of 32.5 prescriptions filled in the year, compared to the annual average of 30.52 prescriptions for Detroit area residents. Since these Out-State residents make up one third of persons living with HIV in Michigan this is a higher proportion than would be expected. The reason for this discrepancy is that a higher proportion of Out-State residents are not eligible for Medicaid coverage and have no other prescription coverage program available (such as a county care plan)."

Service averages for medical care and dental care delivered to Out-State residents in 2005 are similar to service averages reported for DMA residents. The mental health service average of 4.18 visits per person for Out-State residents is considerably less than the average of 6.54 visits per person for DMA residents, but the median number of visits is the same (3), evidence of similar service patterns throughout the state.

More Out-State residents are reported with case management services than DMA residents, (1,517 compared to 1,381) probably because the 2005 URS data do not include services from all Title I funded programs. The annual case management service average was 15.6 visits per person for Out-State residents compared to 18.3 visits per person for DMA residents but the median for residents of each area was the same (10 visits per person), an indication that service patterns are essentially similar.

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.

Gonorrhea and Chlamydia:

During 2005, there were over 18,000 cases of chlamydia and nearly 7,000 cases of gonorrhea reported in Out-State Michigan. See Table 11, page 5-47. 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 29 percent of gonorrhea and 37 percent of chlamydia cases. For Chlamydia, although there were more cases reported among whites, the rates of chlamydia among blacks were 11 times that of whites. The numbers of cases reported were similar for gonorrhea among blacks and whites, however, the rate among blacks was 29 times the rates among whites. 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 (76 percent). This is likely because more women than men are screened for chlamydia.

Syphilis:

There were 27 cases of primary or secondary infectious syphilis reported in Out-State Michigan in 2005. These cases were more likely to be male (89 percent) and older than persons with the highest rates of gonorrhea and chlamydia (74 percent over the age of 30). Fifty-two percent of these cases were white, 37 percent were black, and zero percent were Hispanic. Female cases were more likely to be black (7 percent vs. 4 percent white) when compared to male cases (30 percent black vs. 48 percent white).

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Focus on Kent County

Data from HIV/AIDS Reporting System (HARS)

Number of Cases and Mode of Transmission:

Based on the rate found on Table 4a (page 5-40), Kent County has the highest rate of HIV infection in Out-State Michigan at 179.3 per 100,000 population. This is the second highest rate statewide.

For HIV infected persons currently living in Kent County (791), 56 percent are classified as MSM (including MSM/IDU), compared with 52 percent statewide. Fifteen percent of HIV infected persons living in Kent County are classified as IDU (including MSM/IDU), compared to 19 percent statewide. Fifteen percent are classified as high-risk heterosexual, compared to 13 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. See Table 7, page 5-43.

Race/Ethnicity and Sex:

The HIV infected population in Kent County is 37 percent black and 49 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 3-41.

Of the 791 HIV/AIDS cases living in Kent County, 79 percent are male and 21 percent are female. This is similar to the entire state (77 percent male and 23 percent female).

Please see Table 7, page 5-43 for Kent County data.

Other Information:

Statewide, there are 580 persons living with HIV/AIDS who were born in another country, 128 (22 percent) persons are currently living in Kent County. Fifty-three percent of those foreign-born individuals living in Kent County were born in Africa, compared with 49 percent statewide, 38 percent in the Detroit Metro Area, and 56 percent in Out-State Michigan. Also, 35 percent of those foreign-born individuals living in Kent County were born in South and Central America (including Mexico), compared with 32 percent statewide, 28 percent in the Detroit Metro Area, and 34 percent in Out-State Michigan. Finally, 12 percent of those foreign-born individuals living in Kent County were born in other countries, compared with 19 percent statewide, 34 percent in the Detroit Metro Area, and 10 percent in Out-State Michigan.

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Focus on Ingham County

Data from HIV/AIDS Reporting System (HARS)

Number of Cases and Mode of Transmission:

Based on the rate found on Table 4a (page 5-40), Ingham County has the second highest rate of HIV infection in Out-State Michigan at 179 per 100,000 population. This is the third highest rate statewide.

For HIV infected persons currently living in Ingham County (381), 57 percent are classified as MSM (including MSM/IDU), compared with 52 percent statewide. Seventeen percent of HIV infected persons living in Ingham County are classified as IDU (including MSM/IDU), compared to 19 percent statewide. Thirteen percent are classified as high-risk heterosexual, compared to 13 percent statewide. HIV infected individuals living in Ingham County are more likely to have been infected through MSM behaviors and just as likely to have been infected through injecting drug use and high-risk heterosexual sex, when compared to the entire state of Michigan.

Race/Ethnicity and Sex:

The HIV infected population in Ingham County is 36 percent black and 55 percent white. This is the opposite of the statewide distribution of cases (57 percent black and 37 percent white). Seven percent of the persons living with HIV in Ingham County are Hispanics, compared to four percent statewide. The Hispanic population in Michigan is discussed on page 3-41.

Of the 654 HIV/AIDS cases living in Ingham 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 5-44 for Ingham County data.

Other Information:

Statewide, there are 580 persons living with HIV/AIDS who were born in another country, 42 (7 percent) persons are currently living in Ingham County. Sixty-nine percent of those foreign-born individuals living in Ingham County were born in Africa, compared with 49 percent statewide, 38 percent in the Detroit Metro Area, and 56 percent in Out-State Michigan. Also, 17 percent of those foreign-born individuals living in Ingham County were born in South and Central America (including Mexico), compared with 32 percent statewide, 28 percent in the Detroit Metro Area, and 34 percent in Out-State Michigan. Finally, 14 percent of those foreign-born individuals living in Ingham County were born in other countries, compared with 19 percent statewide, 34 percent in the Detroit Metro Area, and 10 percent in Out-State Michigan.

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Focus on Washtenaw County

Data from HIV/AIDS Reporting System (HARS)

Number of Cases and Mode of Transmission:

Based on the rate found on Table 4a (page 5-40), Washtenaw County has the third highest rate of HIV infection in Out-State Michigan at 170 per 100,000 population. This is the fourth highest rate statewide.

For HIV infected persons currently living in Washtenaw County (425), 63 percent are classified as MSM (including MSM/IDU), compared with 52 percent statewide. Fifteen percent of HIV infected persons living in Washtenaw County are classified as IDU (including MSM/IDU), compared to 19 percent statewide. Thirteen percent are classified as high-risk heterosexual, compared to 13 percent statewide. HIV infected individuals living in Washtenaw County are more likely to have been infected through MSM behaviors, less likely to have been infected through injecting drug use and just as likely to have been infected through high-risk heterosexual sex, when compared to the entire state of Michigan.

Race/Ethnicity and Sex:

The HIV infected population in Washtenaw County is 39 percent black and 54 percent white. This is the opposite of the statewide distribution of cases (57 percent black and 37 percent white). Four percent of the persons living with HIV in Washtenaw County are Hispanics, compared to four percent statewide. The Hispanic population in Michigan is discussed on page 3-41.

Of the 425 HIV/AIDS cases living in Washtenaw County, 81 percent are male and 19 percent are female, compared to 77 percent male and 23 percent female throughout the entire state.

Please see Table 9, page 5-45 for Washtenaw County data.

Other Information:

Statewide, there are 580 persons living with HIV/AIDS who were born in another country, 36 (6 percent) persons are currently living in Washtenaw County. Fifty-eight percent of those foreign-born individuals living in Washtenaw County were born in Africa, compared with 49 percent statewide, 38 percent in the Detroit Metro Area, and 56 percent in Out-State Michigan. Also, 27 percent of those foreign-born individuals living in Washtenaw County were born in South and Central America (including Mexico), compared with 32 percent statewide, 28 percent in the Detroit Metro Area, and 34 percent in Out-State Michigan. Finally, 15 percent of those foreign-born individuals living in Washtenaw County were born in other countries, compared with 19 percent statewide, 34 percent in the Detroit Metro Area, and 10 percent in Out-State Michigan.

2006 Profile of HIV/AIDS in Out-State Michigan

Focus on Berrien County

Data from HIV/AIDS Reporting System (HARS)

Number of Cases and Mode of Transmission:

Based on the rate found on Table 4a (page 5-40), Berrien County has the fourth highest rate of HIV infection in Out-State Michigan at 166.2 per 100,000 population. This is the fifth highest rate statewide.

For HIV infected persons currently living in Berrien County (211), 33 percent are classified as MSM (including MSM/IDU), compared with 52 percent statewide. Fifteen percent of HIV infected persons living in Berrien County are classified as IDU (including MSM/IDU), compared to 19 percent statewide. Twenty-one percent are classified as high-risk heterosexual, compared to 13 percent statewide. Also, 34 percent have an unknown risk, compared with 20 percent statewide.

Black males have a different risk pattern of transmission of HIV in Berrien County than the entire state of Michigan. Of black males, 32 percent are MSM (including those who are MSM/IDU), compared with 58 percent statewide; 10 percent are IDU (including those who are MSM/IDU), compared with 21 percent statewide; and 15 percent are high-risk heterosexual, compared with seven percent statewide. Black males in Berrien County are less likely to be infected through MSM behavior and injecting drug use, and more likely to be infected through high-risk heterosexual sex.

Race/Ethnicity and Sex:

The HIV infected population in Berrien County is 31 percent white, 61 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 3-41.

Of the 211 HIV/AIDS cases living in Berrien County, 63 percent are male and 37 percent are female. This is different from that of the entire state (77 percent male and 23 percent female).

Please see Table 10, page 5-46 for Berrien County data.

Other Information:

Statewide, there are 580 persons living with HIV/AIDS who were born in another country, 59 (10 percent) persons are currently living in Berrien County. Seventy-six percent of those foreign-born individuals living in Berrien County were born in Africa, compared with 49 percent statewide, 38 percent in the Detroit Metro Area, and 56 percent in Out-State Michigan. Also, 14 percent of those foreign-born individuals living in Berrien County were born in South and Central America (including Mexico), compared with 32 percent statewide, 28 percent in the Detroit Metro Area, and 34 percent in Out-State Michigan. Finally, 10 percent of those foreign-born individuals living in Berrien County were born in other countries, compared with 19 percent statewide, 34 percent in the Detroit Metro Area, and 10 percent in Out-State Michigan.

2006 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 over half of all reported infected persons (55 percent). MDCH estimates that there are approximately 2,900 MSM living with HIV disease in Out-State Michigan. This includes an estimated 310 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

Race/Ethnicity:

Male-male sex is the primary mode of transmission for 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 2,285), white males (1,679) account for almost three-quarters (73 percent) while black males (446) comprise approximately 20 percent and Hispanic males (122) account for five percent of men in this combined category.

Concurrent Diagnoses:

Of the 4,171 persons living with HIV/AIDS in Out-State Michigan, 782 (19 percent) had concurrent HIV and AIDS diagnoses. Of these, 436 (56 percent) reported MSM behavior, including MSM who were also IDU.

Age:

Including MSM/IDUs, the largest percentage of living MSM cases (42 percent) were between the ages of 30-39 when diagnosed with HIV. MSM is the predominant mode of transmission for males aged 13 and up.

2006 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: MSM (continued)

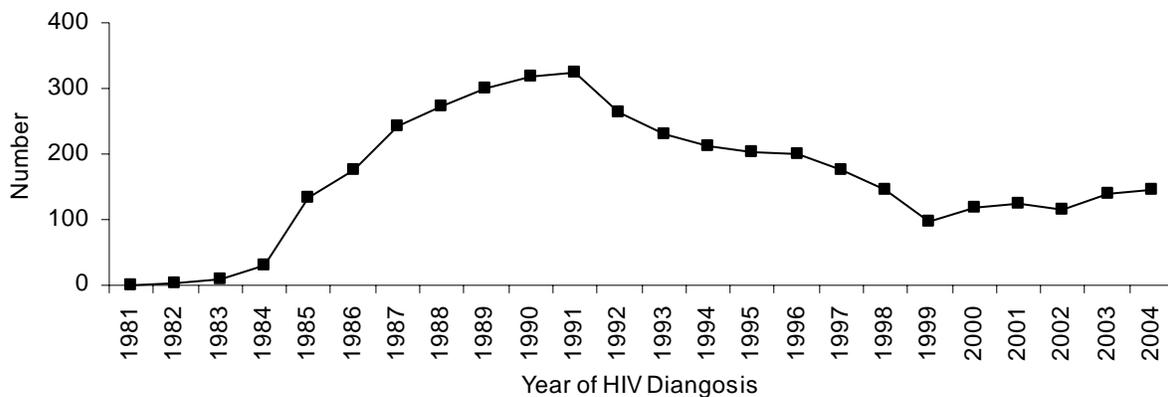
Geographic Distribution:

Thirty-four percent of all HIV-infected MSM statewide reside in Out-State Michigan. Within high prevalence counties MSM comprise over half of reported cases (54 percent) while in the lower prevalence counties 58 percent of reported persons living with HIV/AIDS are MSM. These percentages include MSM who are also IDU.

Conclusions:

Figure 7 shows that the number of reported HIV positive MSM cases in Out-State Michigan has been decreasing since the early 1990s, but has recently increased 23 percent between 1999 and 2004 (98 and 145 cases). The data 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.

Figure 7: Cumulative number of reported HIV + MSM cases (including MSM/IDU) in Out-State Michigan, by year of HIV diagnosis (N = 4,089)



2006 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). 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 8 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 9 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 8: 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)

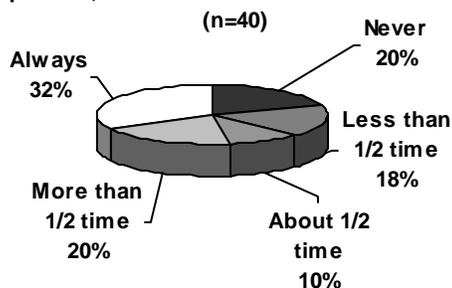


Figure 9: In the past 12 months, when you had insertive anal sex with a primary male partner, how often did you use a condom? (n=47)

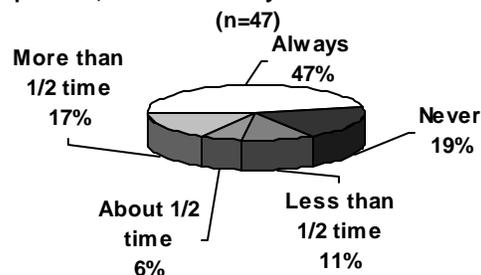


Figure 10 shows that among the 19 respondents with a “non-primary” male partner, 7 (37 percent) reported that their partner used condoms “Always” in the past year when they participated in receptive anal sex. Figure 11 shows that of the 32 respondents who participated in insertive anal sex with a non-primary male partner, 19 (60 percent) reported that they used a condom “Always”.

Figure 10: 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)

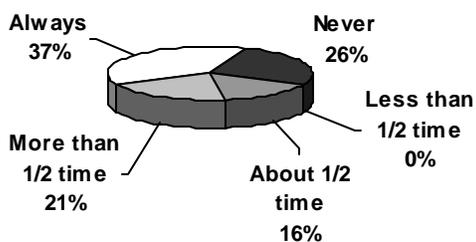
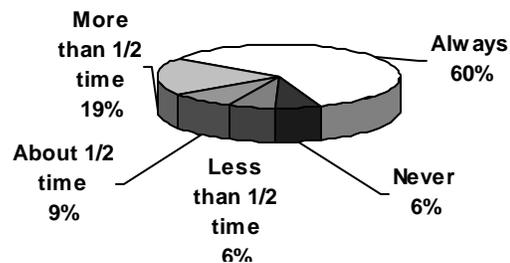


Figure 11: In the past 12 months, when you had insertive anal sex with a non-primary male partner, how often did you use a condom? (n=32)



2006 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: IDU

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

Number of Cases

Injecting drug users (IDUs) are the number-two ranked behavioral group in Out-State Michigan and account for 15 percent of reported infected persons. MDCH estimates there are approximately 810 IDUs living with HIV disease in Out-State Michigan. This estimate includes 310 HIV-infected men whose risk is a combination of having sex with other men and injecting drugs.

When considering the effect of IDU on the HIV/AIDS epidemic, it is important to note that this group is additionally linked to heterosexuals and MSM. Nearly one-half (49 percent) of the reported cases among non-MSM IDUs also had high-risk heterosexual sex partners. Additionally, of the 577 cases with reported heterosexual risk, 148 individuals (26 percent) also reported having IDU as partners.

When these linked populations are considered, IDU-related transmission accounts for 23 percent (785 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 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 637 IDU and MSM/IDU HIV/AIDS cases, 251 are white men (40 percent), 179 are black men (28 percent), 76 are black women (12 percent), 64 are white women (10 percent), 36 are Hispanic males (6 percent), and 12 are Hispanic women (2 percent). In total, 50 percent (315) of IDU cases occur in whites and 40 percent (255) of IDU cases occur in blacks.

Over three-quarters of the cases are men (76 percent), while women constitute the remaining 24 percent. Among the 156 women whose HIV infection has been attributed to IDU, 59 percent also report high-risk heterosexual sex partners.

2006 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: IDU (continued)

Concurrent Diagnoses:

Of the 4,171 persons living with HIV/AIDS in Out-State Michigan, 2,578 (20 percent) had concurrent HIV and AIDS diagnoses. Of these, 90 (12 percent) reported IDU behavior, including IDU who were also MSM. Of those reporting IDU with no MSM behavior, 37 percent also reported high-risk heterosexual sex, while 63 percent reported no sexual behavior of any kind.

Age:

Those who were 25-49 years old when diagnosed with HIV make up 83 percent (525) of all IDU (including those who are MSM/IDU) cases in Out-State Michigan. Among men who were diagnosed with HIV 20 years and older, 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 (41 percent of these were MSM/IDU).

Among women who were diagnosed with HIV between the ages of 13 and 59, IDU is the second most common mode of transmission. Thirty-eight percent of female IDU cases are among women who were diagnosed in their thirties (62 percent of these also reported having high-risk sexual partners).

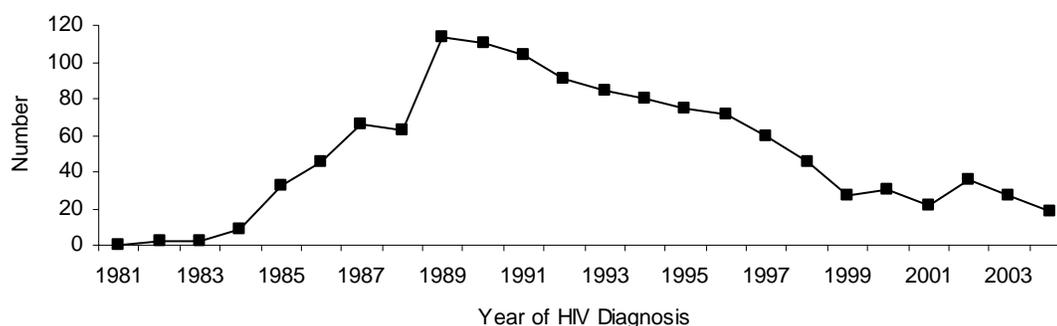
Geographic Distribution:

Seventy-eight percent of IDU cases were reported in the high prevalence areas of Out-State Michigan. Within the high prevalence counties, IDUs constitute 15 percent of reported cases while in the lower prevalence counties 16 percent of reported persons living with HIV/AIDS are IDU. (These percentages include IDU males who are also MSM).

Conclusions:

Figure 12 shows that the number of reported HIV positive IDU cases in Out-State Michigan has been decreasing since the early 1990s and after a small peak in 2002, continues to decrease into 2004. Some IDU cases were likely exposed heterosexually because IDUs are more likely to have sex partners who are IDUs 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.

Figure 12: Cumulative number of reported HIV + IDU cases (including MSM/IDU) in Out-State Michigan, by year of HIV diagnosis (N = 1,229)



2006 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). Figure 13 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 14 shows that 62 percent reported injecting only heroin on a “Daily” basis.

Figure 13: In the last 12 months, how often have you used a dirty needle?

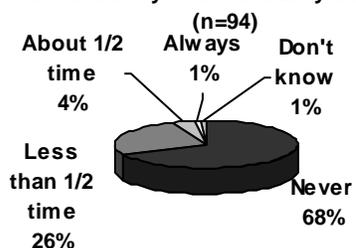
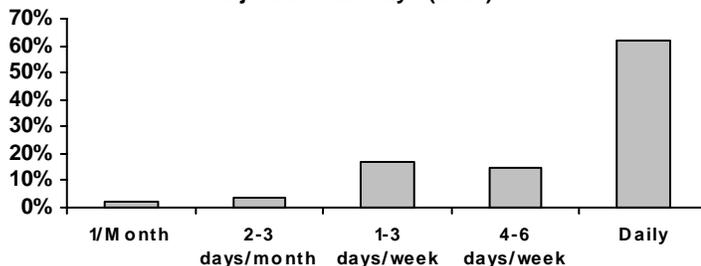


Figure 14: In the past 12 months, how often did you inject heroin only? (n=94)



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 15). Among female IDUs reporting “non-primary” male sex partners, 18 percent reported “Never” using a condom (Figure 16).

Figure 15: 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)

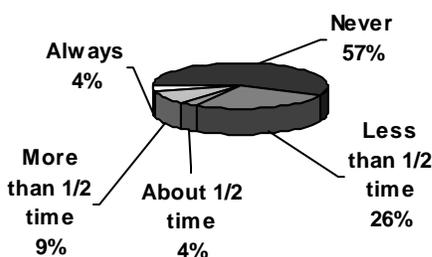
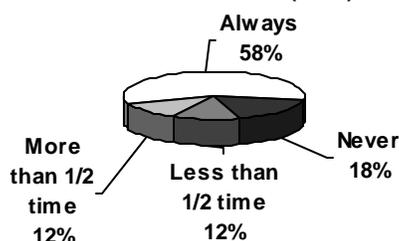


Figure 16: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=17)



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 17). Fifteen percent of male respondents reported “Never” using a condom with their female non-primary partner (Figure 18).

Figure 17: 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)

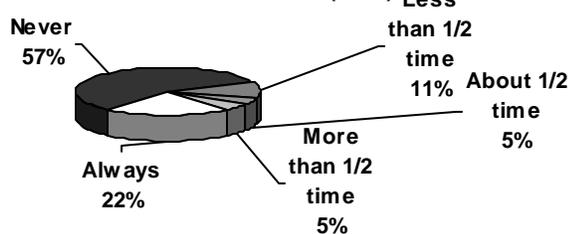
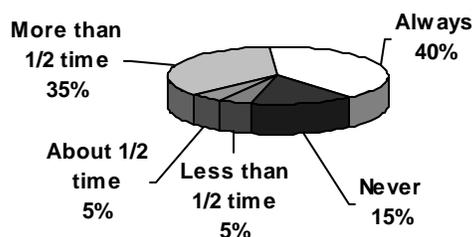


Figure 18: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=20)



2006 Profile of HIV/AIDS in Out-State 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 Out-State Michigan. Heterosexual sex accounts for 14 percent of reported infected persons with a known risk. MDCH estimates that 730 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 240 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 five percent of all reported HIV/AIDS cases and are 52 percent men and 48 percent women within Out-State Michigan.

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 the 924 females reported with HIV/AIDS just under half (46 percent) of cases are contracted heterosexually. Additionally, 10 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 577 men and women living with HIV/AIDS and infected heterosexually, 26 percent reported their heterosexual partner as injecting drug users, seven 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 three-quarters of heterosexually acquired infections -- currently 74 percent. Thirty-eight percent of black women were infected heterosexually; this is the same proportion who also fall into the presumed heterosexual category. Just over half of white women were infected through heterosexual sex (56 percent), while the proportion who fall under the presumed heterosexual category is three-times lower (18 percent).

2006 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: High-Risk Heterosexuals (continued)

Race/Ethnicity and Sex (continued):

The proportion of black cases with a high-risk heterosexual risk are approximately twice that of white cases (19 and 10 percent, respectively). The percent of men infected heterosexually is low--five percent of cases among men of all races. See Table 5, page 5-41.

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 (74 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 are shown in Figures 19 and 20.

Figure 19: Black Females Living with HIV/AIDS in Out-State Michigan by Expanded Mode of Transmission (N = 473)

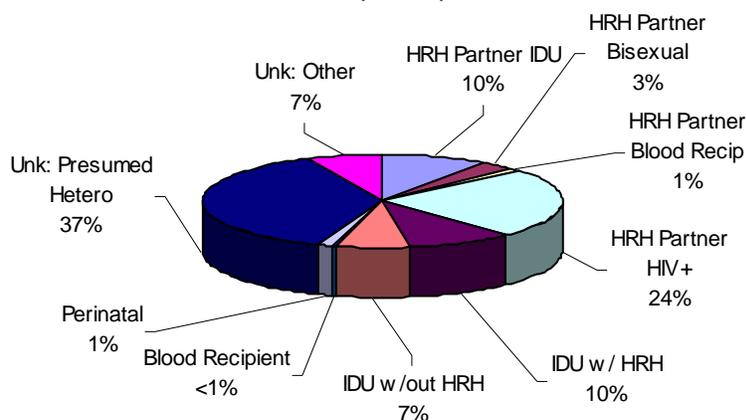
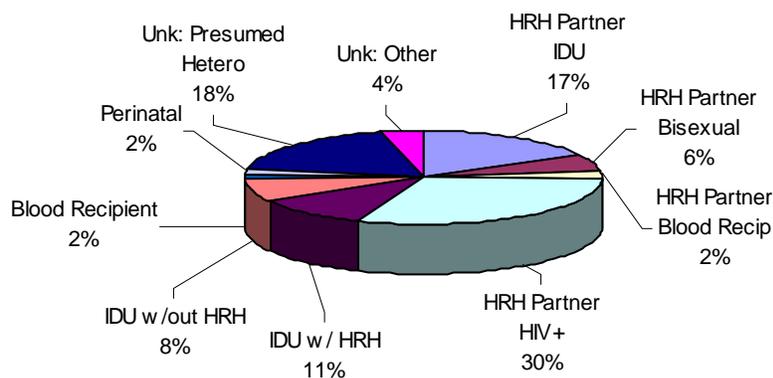


Figure 20: White Females Living with HIV/AIDS in Out-State Michigan by Expanded Mode of Transmission (N = 346)



2006 Profile of HIV/AIDS in Out-State Michigan

Ranked Behavioral Group: High-Risk Heterosexuals (continued)

Concurrent Diagnoses:

Of the 4,171 persons living with HIV/AIDS in Out-State Michigan, 782 (19 percent) had concurrent HIV and AIDS diagnoses. Of these, 81 (10 percent) reported high-risk heterosexual behavior.

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. Men who were 25 to 29 years at the time of diagnosis make up the largest proportion of high-risk heterosexual men (7 percent), but it is still quite low.

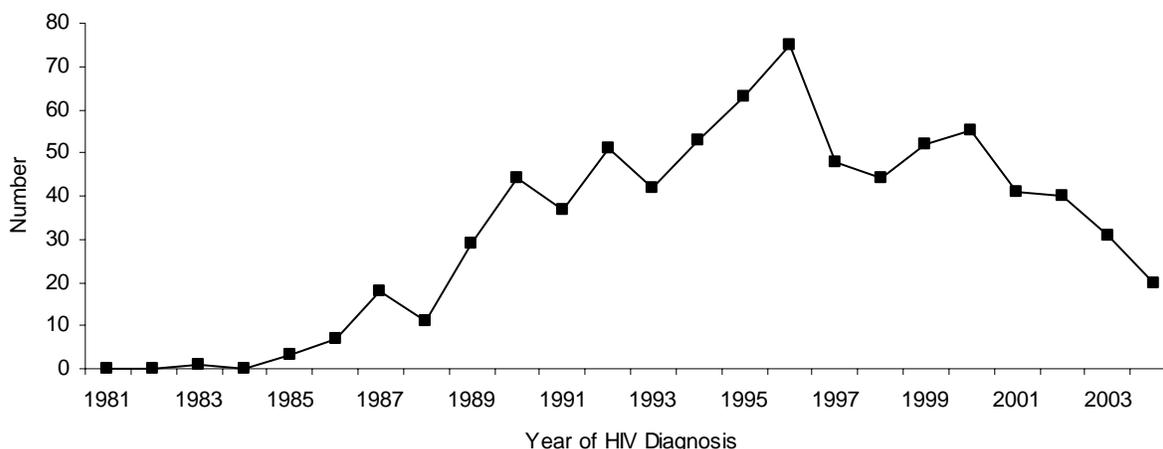
Geographic Distribution:

Seventy-nine percent of the 577 cases in Out-State Michigan attributed to high-risk heterosexual activity were reported in high prevalence counties. Of all reported cases within high and low prevalence counties in Out-State Michigan, heterosexual transmission constitutes 14 percent in both areas.

Conclusions:

Figure 21 shows that the number of reported HIV positive HRHs in Out-State Michigan has been decreasing since the peak in 1996 and has decreased 64 percent between 2000 and 2004 (55 to 20 cases). In light of the much lower prevalence 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.

Figure 21: Cumulative number of reported HIV + HRH cases in Out-State Michigan, by year of HIV diagnosis (N = 782)



2006 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. 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 22 and 23). 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 24 and 25).

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=48)

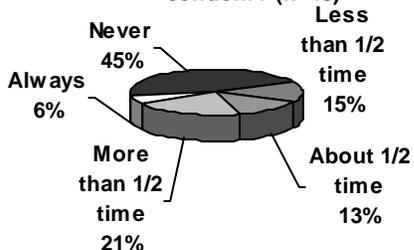


Figure 23: Men: In the past 12 months, when you had vaginal sex with a non-primary female partner, how often did you use a condom? (n=37)

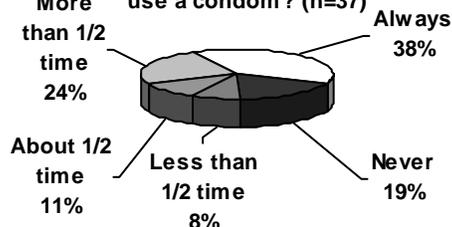


Figure 24: Women: In the past 12 months, when you had vaginal sex with a primary male partner, how often did he use a condom? (n=50)

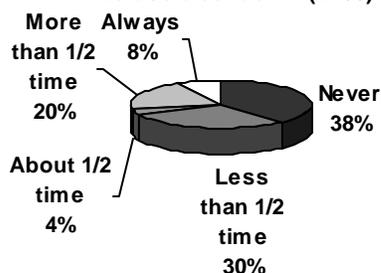
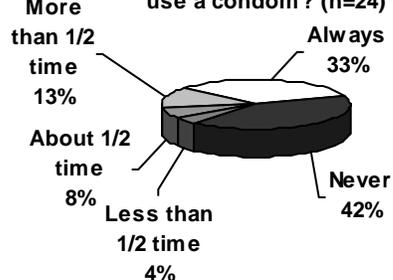


Figure 25: Women: In the past 12 months, when you had vaginal sex with a non-primary male partner, how often did he use a condom? (n=24)



2006 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 (33 percent) of the cases of HIV/AIDS. MDCH estimates 1,720 blacks living with HIV/AIDS in Out-State Michigan. The rate of HIV infection among blacks is 441 per 100,000 population, about seven times higher than the rate among whites. MDCH estimates that as many as one out of 170 black males and one out of 330 black females may be HIV-infected.

White persons comprise over half (58 percent) of reported HIV/AIDS cases, and 86 percent of the population. MDCH estimates there are 3,060 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 (65 per 100,000 population) of HIV infection than blacks or Hispanics. MDCH estimates that as many as one out of 890 white males and one out of 5,560 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 360 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 (184 per 100,000 population) almost three times higher than that among whites. MDCH estimates that as many as one out of 380 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 3,247 male HIV/AIDS cases are white (64 percent), 27 percent are black, seven percent are Hispanic and three percent are other or unknown race. Almost half of the 924 female HIV/AIDS cases are black (51 percent), 37 percent are white, eight percent are Hispanic and four percent are other or unknown race.

Concurrent Diagnoses:

Of the 4,171 persons living with HIV/AIDS in Out-State Michigan, 782 (19 percent) had concurrent HIV and AIDS diagnoses. Of these, 85 percent are male and 15 percent are female.

Over half (58 percent) are white, 31 percent are black, and 10 percent are Hispanic. White males make up the majority at 52 percent, followed by black males (24 percent). The remainder of the race-sex groups are all below eight percent. See Table 4, page 5-39 for more.

2006 Profile of HIV/AIDS in Out-State Michigan

Description of the Epidemic by Race and Sex (continued)

Mode of Transmission:

Figures 26 and 27 display the proportion of black and white male cases by mode of transmission.

Figure 26: Black Males Living with HIV/AIDS in Out-State Michigan by Expanded Mode of Transmission (N = 670)

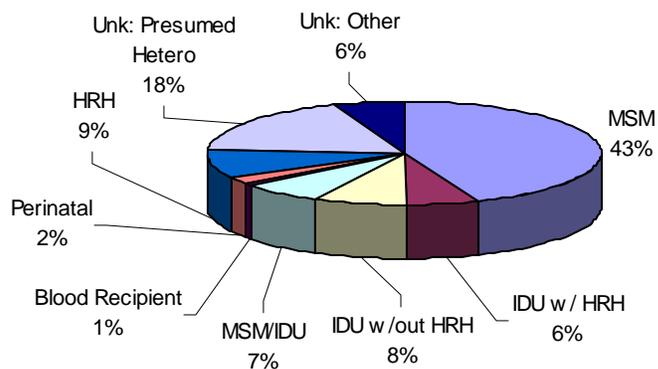
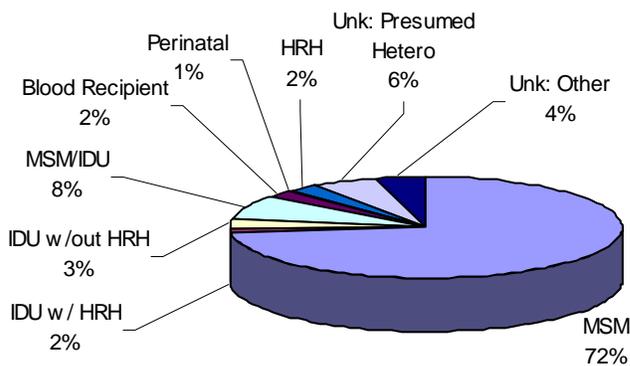


Figure 27: White Males Living with HIV/AIDS in Out-State Michigan by Expanded Mode of Transmission (N = 2,069)



Refer to Figures 19 and 20, page 5-22 for black and white female distributions.

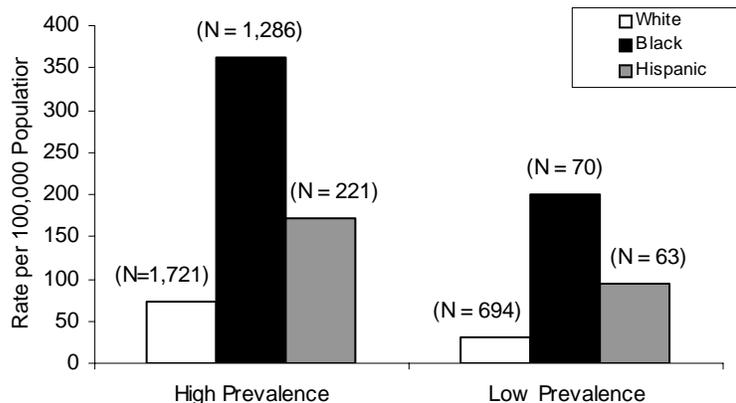
2006 Profile of HIV/AIDS in Out-State Michigan

Description of the Epidemic by Race and Sex (continued)

Geographic Distribution of Cases:

Ninety-five percent of all the black cases, 71 percent of white cases, and 78 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 28 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.

Figure 28: Case Rates of Persons with HIV/AIDS Living in High & Low Prevalence Areas of Out-State Michigan, by Race



Conclusions:

Figure 29: Cumulative number of reported HIV cases in males, by year of HIV diagnosis and race, Out-State Michigan

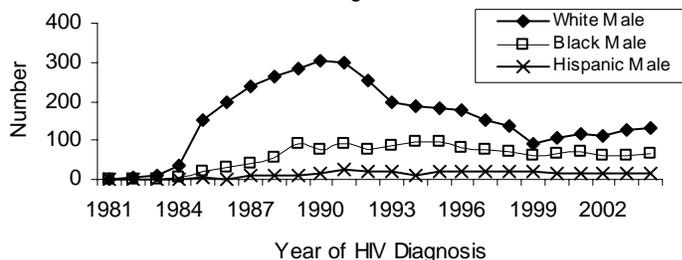
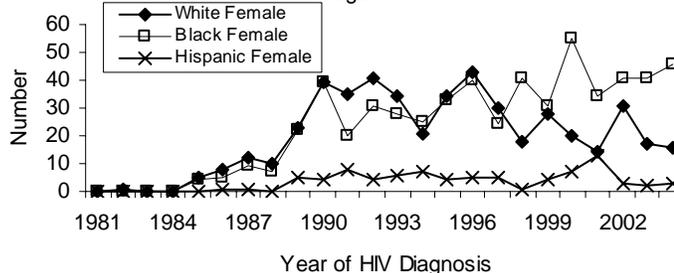


Figure 30 shows the reported number of HIV cases in females. The number of reported cases in black females has been increasing since the early 1990s, while reported cases in white females have decreased during the same time period. Reported numbers of Hispanic females experienced a small increase from 1999 to 2001, but in general have remained level since the early 1990s.

Figure 29 shows that reports of HIV infection in males in Out-State Michigan have decreased since the early 1990s. However, the number of reported white males has increased 42 percent from 1999 (93 cases) to 2004 (132 cases). Reported numbers in both black and Hispanic males have remained level since the early 1990s.

Figure 30: Cumulative number of reported HIV cases in females, by year of HIV diagnosis and race, Out-State Michigan



2006 Profile of HIV/AIDS in Out-State Michigan

Description of the Epidemic by Age

Data from HIV/AIDS Reporting System (HARS)

Age at Diagnosis:

Figure 31 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 (39 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 (39 percent), shown in Figure 32.

Figure 31: Age at initial HIV Diagnosis for those living with HIV/AIDS in Out-State Michigan, 1/1/06

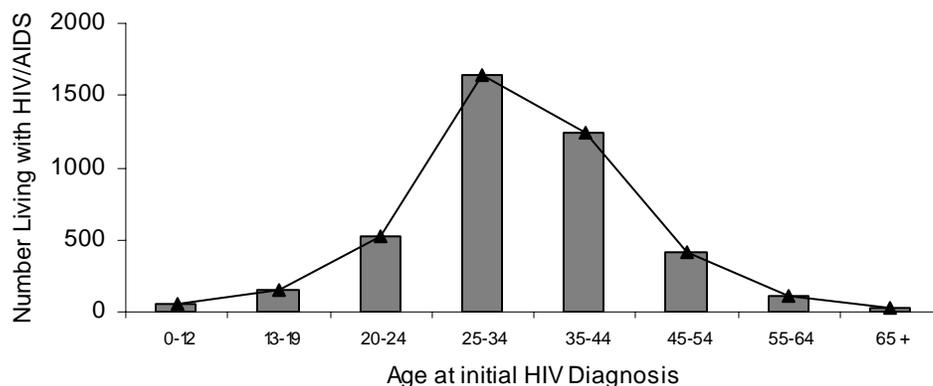
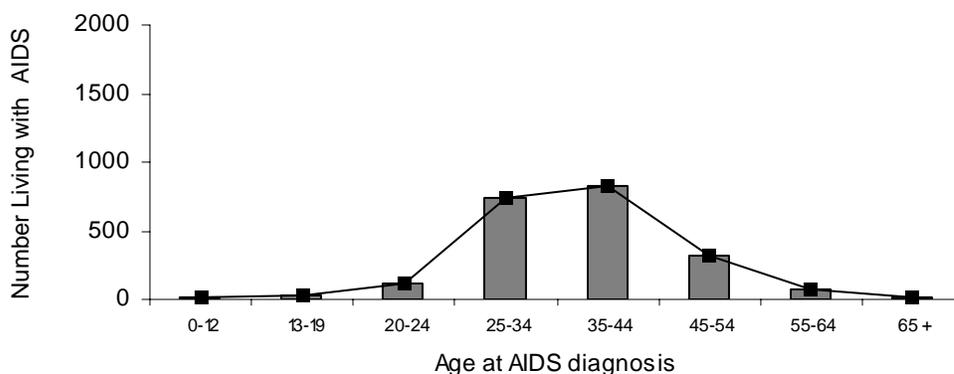


Figure 32: Age of AIDS Diagnosis for those living with AIDS in Out-State Michigan, 1/1/06

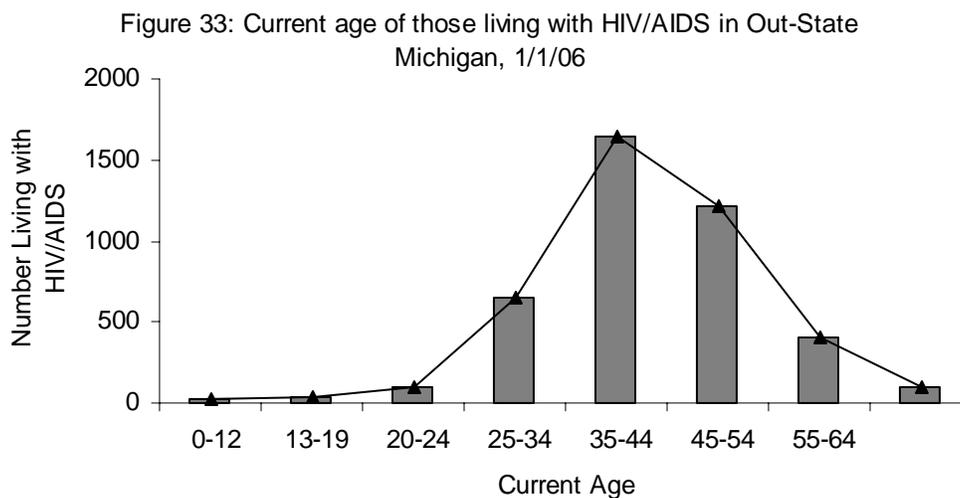


2006 Profile of HIV/AIDS in Out-State Michigan

Description of the Epidemic by Age

Current Age:

Since the start of widespread use of Highly Active Anti-Retroviral Therapy (HAART) in 1996, persons infected with HIV have been living longer. Evidence of this is shown on Figure 33, 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 (39 percent) in Out-State Michigan. While persons who were ages 55 years and older at initial HIV diagnosis made up only three percent of those diagnosed with AIDS (Figure 32), persons currently in this age group make up 12 percent of persons living with HIV in Out-State Michigan.



2006 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 1.3 percent of reported infected persons. Most of them (81 percent) were infected perinatally, i.e., before, during or shortly after birth. (Those infected after birth would be infected via breastfeeding.) Of the remaining people, 11 percent were infected via blood exposure before 1985 and eight percent had an unknown risk.

In Out-State Michigan, no children aged 0-12 at the time of HIV diagnosis have been infected through MSM, IDU, or HRH behaviors. Eight percent have an unknown risk, of which two cases are further categorized as presumed heterosexual, which means they were reported as having had heterosexual contact, but the risk of their partner was unknown. The remainder were due to perinatal transmission or receipt of blood products in other countries.

Demographic Description of Cases:

Of the 62 persons who were ages 0-12 years when diagnosed with HIV/AIDS, living in Out-State Michigan, 63 percent are male and 37 percent are female; 45 percent are black, 37 percent are white, and 18 percent are Hispanic or are of unknown race.

Of the 49 children infected perinatally, 14 percent had a mother who was an IDU and 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. Ten 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 Cases:

Thirty-five percent of all cases in children 0-12 are in Out-State Michigan. Within this area, 74 percent are located in high prevalence counties.

Trends and Conclusions:

The best measurable success in reducing HIV transmission has been among those infected perinatally. Without Zidovudine (ZDV) prophylaxis, about 25 percent of children born to HIV-infected women could expect to become HIV-infected. As of January 1, 2006, none of the 16 children born in 2003, none of 19 children born in 2004, and two of the 20 children born in 2005 to HIV-infected women in Out-State Michigan have been diagnosed with HIV infection. In addition, a third child born in 2005 to an HIV-infected woman was diagnosed with AIDS.

2006 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), STD Reporting System, Youth Risk Behavior Survey & Bureau of Juvenile Justice Youth Risk Behavior Survey

Number of Cases:

MDCH estimates that there are about 850 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 number 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 youth who live in areas with high HIV prevalence and have male sex partners who are age 20 or older.

STDs:

STD rates are highest in those who were 13 to 24 years old at the time of diagnosis. The Out-State specific STD data are shown on Table 10 on page 5-46. In Out-State Michigan, the rate of chlamydia in persons age 15-19 is over five times higher than the overall rate (among all persons in this area). The rate of gonorrhea in this same age group is just over four times that of the overall rate. Please refer to the Sexually Transmitted Diseases Section of the Statewide Profile (page 3-17) 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. Also, since the rates of HIV among teens are very low, and because most teens have sex with other teens, the gonorrhea and chlamydia epidemic is perpetuated and HIV is rarely introduced into the population.

Teen Pregnancy:

Teen (ages 15-19) pregnancy rates have also shown decreases over time and decreased significantly from 2000 to 2004. Lake County had the highest teen pregnancy rates in the state in 2004 (114 per 1,000), followed by the city of Detroit (111 per 1,000). In Out-State Michigan, the 2004 rates range from 17-114 pregnancies per 1,000 females aged 15-19. After Lake County, Wexford (86.3 pregnancies per 1,000 persons aged 15-19), Jackson (79.3), St. Joseph (79.3), Kalkaska (76.7), and Genesee (76.5) Counties had the highest teen pregnancy rates in Out-State Michigan in 2004.

Race/Ethnicity:

Among persons who were 13-19 years old at the time of HIV diagnosis in Out-State Michigan, 48 percent are white, 41 percent are black, and eight percent are Hispanic or other race. Among persons who were 20-24 years old at the time of HIV diagnosis in Out-State Michigan, 57 percent of persons are white, 34 percent are black, and three percent are Hispanic or other race.

2006 Profile of HIV/AIDS in Out-State Michigan

Additional Discussions: Teens and Young Adults (continued)

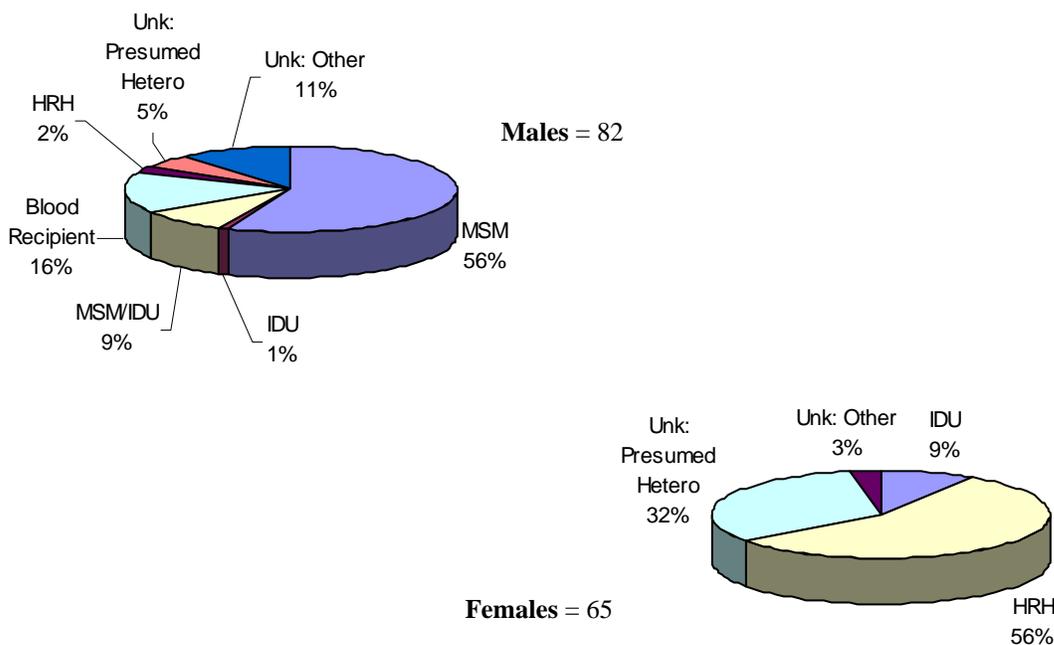
Mode of Transmission:

Teenagers: 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 34 shows that among the 147 persons who were ages 13-19 at the time of HIV diagnosis and currently living with HIV in Out-State Michigan, 82 (56 percent) are male. Among these male cases, two-thirds had sex with other males (65 percent) including MSM/IDU; while 16 percent had been infected with HIV through blood products before 1985. Ten percent could be attributed to IDU (including MSM/IDU) and two percent to heterosexual transmission for this age group within this area. Teenage males have the largest proportion of unidentified risk (16 percent) of any age group of men under age 40. 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 65 females who were ages 13-19 at the time of HIV diagnosis and currently living with HIV in Out-State Michigan, over half (55 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. 16 percent) as the proportion among teenage boys.

Figure 34: Persons living in Out-State Michigan who were aged 13-19 when diagnosed with HIV (Teenagers), by Sex and Mode of Transmission (N = 147)



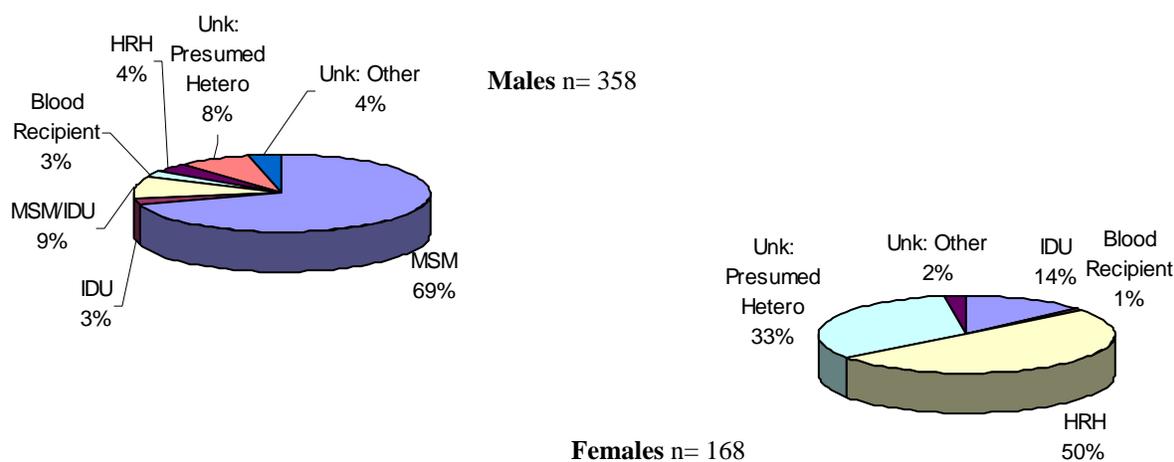
2006 Profile of HIV/AIDS in Out-State Michigan

Additional Discussions: Teens and Young Adults (continued)

Young Adults: Figure 35 shows that among the 526 persons who were ages 20-24 at time of HIV diagnosis, almost three quarters (68 percent) are male. Of these males, 79 percent of them reported sex with other males (including those MSM who also are IDU); 11 percent reported IDU behavior; and 11 percent did not report a mode of transmission.

Figure 35 also shows that among the 168 females who were ages 20-24 at time of HIV diagnosis, half (51 percent) were infected heterosexually and 14 percent were IDUs; just over a third (35 percent) did not report a mode of transmission. Like the teenage females, many were likely infected heterosexually.

Figure 35: Persons living in Out-State Michigan who were aged 20-24 when diagnosed with HIV (Young Adults), by Sex & Mode of Transmission (N = 526)



Geographic Distribution of Teens and Young Adults Cases:

Eighty-two percent of the 673 persons diagnosed and reported with HIV/AIDS between the ages of 13-24 are located in high prevalence counties. The remaining 18 percent are located in low prevalence counties.

Conclusions:

Out-State Michigan should consider both sexual behaviors of youth that increase the risk of HIV transmission (MSM and HRH) and the likelihood that their partners for these behaviors are HIV-infected.

2006 Profile of HIV/AIDS in Out-State Michigan

Description of the Epidemic by Age: 50 years and older

Data from HIV/AIDS Reporting System (HARS)

Number:

Persons who were 50 years or older at the time of HIV diagnosis comprise seven percent of all reported infected persons in Out-State Michigan. 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. Eighty-three percent of this population is male.

Mode of Transmission:

When discussing mode of transmission, those who were in their fifties at the time of HIV diagnosis have different transmission mode proportions than those who were aged 60 or older. Therefore, these two populations are discussed separately.

Description of Cases aged 50-59 at the time of diagnosis: Persons who were in their fifties when first diagnosed with HIV are 82 percent male and 18 percent female. Among these 222 persons reported with HIV/AIDS about two-thirds are white (63 percent), one-quarter are black (28 percent) and nine percent are Hispanic or of unknown race.

Figure 36: Males aged 50-59 at time of diagnosis, Living with HIV/AIDS in Out-State Michigan by mode of transmission (N = 183)

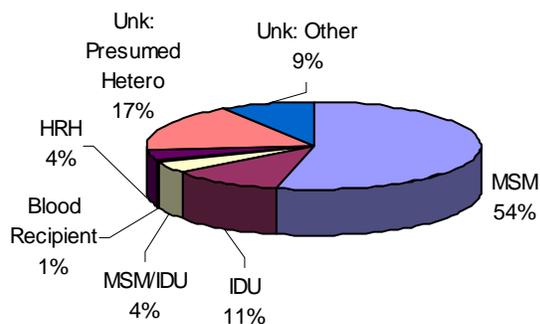
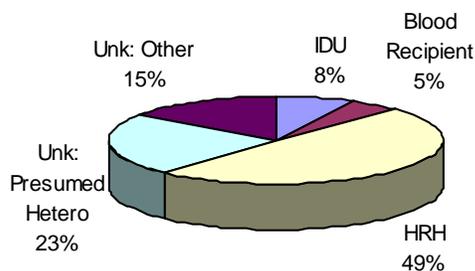


Figure 36 shows that over half of the 183 males in their fifties at time of HIV diagnosis and currently living with HIV (58 percent) reported having sex with other males (including those MSM who also are IDU). Fifteen percent reported injection drug use (including those IDU who were also MSM). Four percent were infected heterosexually. Twenty-seven percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 37 shows that among the 39 females who were in their fifties at time of HIV diagnosis and currently living with HIV, just under half (49 percent) were infected heterosexually and eight percent were IDUs. Just over a one-third (38 percent) did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 37: Females aged 50-59 at time of diagnosis, Living with HIV/AIDS in Out-State Michigan by mode of transmission (N = 39)



2006 Profile of HIV/AIDS in Out-State 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 83 percent male and 17 percent female. Among these 60 persons reported with HIV/AIDS over two-thirds are white (65 percent), one-quarter are black (27 percent) and eight percent are Hispanic or of unknown race.

Figure 38: Males aged 60 and older at time of diagnosis, Living with HIV/AIDS in Out-State Michigan by mode of transmission (N = 50)

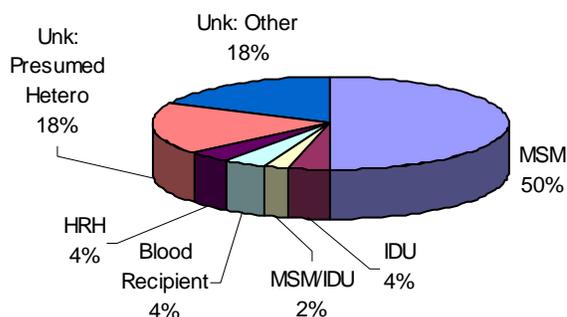
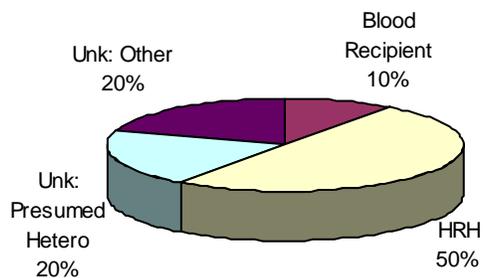


Figure 38 shows that over half of the 50 males who were 60 years and older at time of HIV diagnosis and currently living with HIV (52 percent) reported sex with other males (including those MSM who also are IDU). Six percent reported injection drug use (including those IDU who were also MSM). Four percent were infected heterosexually. Thirty-six percent did not report a mode of transmission; many of these were likely infected through sex with other men.

Figure 39 shows that among the 10 females who were 60 and older at the time of HIV diagnosis and currently living with HIV, half (50 percent) were infected heterosexually and 10 percent were infected through blood products. None reported IDU behavior. Forty percent did not report a mode of transmission; many of these were likely infected through heterosexual contact.

Figure 39: Females aged 60 and older at time of diagnosis, Living with HIV/AIDS in Out-State Michigan by mode of transmission (N = 10)



2006 Profile of HIV/AIDS in Out-State Michigan

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

Conclusions:

There were 42 persons who were 50 years and older diagnosed with HIV and 671 who are currently this age living with HIV in 2004. As treatment for HIV allows infected persons to live longer, persons in this age group may be a source of infections for their peers and others. Therefore, it is important for prevention programs to include this age group when designing prevention activities.

Description of the Epidemic by Age: Persons Currently Aged 50 Years and Older

As of January 1, 2006 there are 918 persons who are **currently** age 50 or older and living with HIV/AIDS in Out-State Michigan. This represents 22 percent of the 4,171 persons diagnosed in and living with HIV/AIDS in Out-State Michigan as of the first of this year. Data in this section were analyzed differently than for the rest of the profiles. All numbers used in the 2006 Profile of HIV/AIDS in Michigan represent those HIV infected persons currently living in Michigan, regardless of where they were initially diagnosed.

These persons are comparable to the population of persons of all ages living with HIV/AIDS in Out-State Michigan. Those 50 and older are slightly more likely to be white, non-Hispanic (64 percent versus 58 percent) and male (84 percent versus 78 percent). In addition, 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 (15 vs. 9 percent).

The proportion of persons **currently** age 50 and older in Out-State Michigan has increased over the last five years. This can be attributed, at least in part, to the more effective anti-retroviral medications have been available in 1996. As a result, infected persons are living longer and are, therefore, getting older. Table 3 shows the percent of persons who were age 50+ at the beginning of each of the seven years listed.

Table 3: Percent of Persons aged 50 and older living in Out-State Michigan by 'Year End'

	Number	Percent
1/1/2000	353	12%
1/1/2001	430	13%
1/1/2002	500	15%
1/1/2003	591	16%
1/1/2004	671	18%
1/1/2005	793	20%
1/1/2006	918	22%

Nearly 70 percent of persons 50 years and older who are currently living were under age 50 at the time of HIV 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.

Footnotes for Out-State Michigan, Tables 4 through 9

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

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 1/1/06

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

⁴ This is a subset of all HIV/AIDS cases reported alive as of 1/1/06

⁵ Totals for counties/areas includes infected prisoners who were discharged/paroled if no current residence is available.

**Table 4: Distribution of HIV/AIDS: Prevalence Estimates,
Reported Cases, and Population Currently Living within Out-State Michigan⁵**
Prisoners and persons with unknown residence are not included
January 1, 2006

	Estimated HIV Infection ¹	Estimated Rate per 100,000 ³	Total HIV + AIDS Reported ²		Initial HIV diagnosis at same time as AIDS diagnosis ⁴		2000 Census	%
			Reported Cases	%	Reported AIDS Cases	%		
Male	4,120	152	3,247	78%	667	85%	2,715,625	49.4%
<i>White, Non-Hispanic Males</i>	2,620	113	2,069	50%	406	52%	2,317,279	42%
<i>Black, Non-Hispanic Males</i>	1,120	575	883	21%	190	24%	194,929	4%
<i>Hispanic Males</i>	270	261	213	5%	66	8%	103,276	2%
<i>Asian, Hawaiian, Pacific Islander Males</i>	20	55	14	<1%	2	<1%	36,440	1%
<i>American Indian Males</i>	20	99	16	<1%	1	<1%	20,193	0%
<i>Other/Multi Race Males</i>	N/A	*	52	1%	2	0%	43,508	N/A
Female	1,170	42	924	22%	115	15%	2,781,268	51%
<i>White, Non-Hispanic Females</i>	440	18	346	8%	45	6%	2,392,512	44%
<i>Black, Non-Hispanic Females</i>	600	308	473	11%	55	7%	194,856	4%
<i>Hispanic Females</i>	90	97	71	2%	12	2%	92,526	2%
<i>Asian, Hawaiian, Pacific Islander Females</i>	10	27	5	<1%	1	<1%	37,726	1%
<i>American Indian Females</i>	10	50	7	<1%	1	<1%	20,148	0%
<i>Other/Multi Race Females</i>	N/A	*	22	1%	1	0%	43,500	N/A
White, Non-Hispanic	3,060	65	2,415	58%	451	58%	4,709,791	86%
Black, Non-Hispanic	1,720	441	1,356	33%	245	31%	389,785	7%
Hispanic	360	184	284	7%	78	10%	195,802	4%
Asian, Hawaiian, Pacific Islander	20	27	19	<1%	3	<1%	74,166	1%
American Indian	30	74	23	1%	2	<1%	40,341	1%
Other/Multi Race	N/A	*	74	2%	3	<1%	87,008	N/A
Male-Male Sex*	2,590	N/A	2,039	49%	408	52%		
Injecting Drug Use[†]	500	N/A	391	9%	62	8%		
<i>IDU with heterosexual risk</i>	240	N/A	190	5%	23	3%		
<i>IDU without heterosexual risk</i>	250	N/A	201	5%	39	5%		
M-M Sex and Inject Drugs[†]	310	N/A	246	6%	28	4%		
Blood Recipients[†]	70	N/A	59	1%	8	1%		
Perinatal	60	N/A	50	1%	9	1%		
Heterosexual[†]	730	N/A	577	14%	81	10%		
<i>Partner IDU</i>	190	N/A	148	4%	20	3%		
<i>Partner Bisexual</i>	50	N/A	39	1%	1	<1%		
<i>Partner Blood Recipient</i>	20	N/A	18	<1%	1	<1%		
<i>Partner HIV+</i>	470	N/A	372	9%	59	8%		
Known Risk Total	4,260	N/A	3,362	81%	596	76%		
Unknown Risk[†]	N/A	N/A	809	19%	186	24%		
<i>Presumed Heterosexual</i>	N/A	N/A	585	14%	152	19%		
<i>Other</i>	N/A	N/A	224	5%	34	4%		
0 - 4 years^x	50	14	36	1%	5	1%	361,367	7%
5 - 9 years^x	20	5	19	<1%	4	1%	398,525	7%
10-12 years^x	10	4	7	<1%	0	0%	248,373	5%
13-19 years^x	190	32	147	4%	5	1%	592,850	11%
20-24 years^x	670	172	526	13%	39	5%	389,370	7%
25-29 years^x	1,000	290	791	19%	109	14%	344,387	6%
30-34 years^x	1,080	292	853	20%	157	20%	370,107	7%
35-39 years^x	960	226	760	18%	184	24%	424,956	8%
40-44 years^x	610	138	482	12%	115	15%	441,449	8%
45-49 years^x	340	84	268	6%	74	9%	405,415	7%
50-54 years^x	190	55	147	4%	51	7%	347,745	6%
55-59 years^x	100	37	75	2%	21	3%	271,963	5%
60-64 years^x	50	23	39	1%	11	1%	217,669	4%
65 and older^x	30	4	21	1%	7	1%	682,717	12%
Unknown Age	N/A	N/A	0	0%	0	0%	0	N/A
Total Out-State	5,290	96	4,171	100%	782	100%	5,496,893	100%

Table 4a: Distribution of HIV/AIDS: Prevalence Estimates,
 Reported Cases, and Population Currently Living within Out-State Michigan, by County ⁵
 Prisoners and persons with unknown residence are included
 January 1, 2006

	Estimated HIV Infection ¹	Rate per 100,000 ³	Total HIV + AIDS Reported ²		Initial HIV diagnosis at same time as AIDS diagnosis ⁴		Census 2000	%		Estimated HIV Infection ¹	Rate per 100,000 ³	Total HIV + AIDS Reported ²		Initial HIV diagnosis at same time as AIDS diagnosis ⁴		Census 2000	%
			Reported Cases	%	Reported AIDS Cases	%						Reported Cases	%	Reported AIDS Cases	%		
ALLEGAN CO.	110	104.1	86	2%	19	2%	105,665	1%	District #10	140	54.9	110	3%	27	3%	255,240	3%
Barry/Eaton Co.	80	49.9	64	2%	11	1%	160,410	2%	CRAWFORD CO.	10	70.1	5	<1%	2	<1%	14,273	<1%
BARRY CO.	30	52.9	20	<1%	7	1%	56,755	1%	KALKASKA CO.	10	60.3	5	<1%	0	0%	16,571	<1%
EATON CO.	60	57.9	44	1%	4	1%	103,655	1%	LAKE CO.	10	88.2	11	<1%	4	1%	11,333	<1%
BAY CO.	70	63.5	56	1%	9	1%	110,157	1%	MANISTEE CO.	20	81.5	13	<1%	3	<1%	24,527	<1%
Benzie/Leelanau	20	53.9	12	<1%	3	<1%	37,117	0%	MASON CO.	20	70.7	13	<1%	6	1%	28,274	<1%
BENZIE CO.	10	*	3	<1%	0	0%	15,998	<1%	MECOSTA CO.	20	49.3	14	<1%	2	<1%	40,553	<1%
LEELANAU CO.	10	47.4	9	<1%	3	<1%	21,119	<1%	MISSAUKEE CO.	10	*	4	<1%	0	0%	14,478	<1%
BERRIEN CO.	270	166.2	211	5%	46	6%	162,453	2%	NEWAYGO CO.	30	62.7	20	<1%	3	<1%	47,874	<1%
Branch/Hillsdale/St. Jo.	50	32.3	42	1%	5	1%	154,736	2%	OCEANA CO.	10	37.2	9	<1%	3	<1%	26,873	<1%
BRANCH CO.	10	21.8	10	<1%	0	0%	45,787	<1%	WEXFORD CO.	20	65.6	16	<1%	4	1%	30,484	<1%
HILLSDALE CO.	10	21.5	8	<1%	2	<1%	46,527	<1%	JACKSON CO.	190	119.9	143	3%	20	3%	158,422	2%
ST JOSEPH CO.	30	48.1	24	1%	3	<1%	62,422	1%	KALAMAZOO CO.	350	146.7	267	6%	41	5%	238,603	2%
CALHOUN CO.	150	108.7	112	3%	16	2%	137,985	1%	KENT CO.	1,030	179.3	791	19%	148	19%	574,335	6%
Cass-Vanburen	120	94.2	96	2%	21	3%	127,367	1%	LENAWEE CO.	60	60.7	46	1%	9	1%	98,890	1%
CASS CO.	40	78.3	28	1%	9	1%	51,104	1%	LIVINGSTON CO.	50	31.9	39	1%	10	1%	156,951	2%
VAN BUREN CO.	90	118.0	68	2%	12	2%	76,263	1%	LMAS District	10	*	3	<1%	0	0%	37,732	1%
Central Michigan Dist.	80	42.9	62	1%	11	1%	186,561	2%	ALGER CO.	10	*	1	<1%	0	0%	9,862	<1%
ARENAC CO.	10	*	2	<1%	1	<1%	17,269	<1%	LUCE CO.	10	*	0	0%	0	0%	7,024	<1%
CLARE CO.	20	64.0	12	<1%	1	<1%	31,252	<1%	MACKINAC CO.	10	*	1	<1%	0	0%	11,943	<1%
GLADWIN CO.	10	38.4	5	<1%	2	<1%	26,023	<1%	SCHOOLCRAFT CO.	10	*	1	<1%	0	0%	8,903	<1%
ISABELLA CO.	20	31.6	19	<1%	2	<1%	63,351	1%	MARQUETTE CO.	40	61.9	33	1%	8	1%	64,634	1%
OSCEOLA CO.	10	43.1	6	<1%	1	<1%	23,197	<1%	Mid-Michigan District	100	59.4	75	2%	10	1%	168,304	2%
ROSCOMMON CO.	20	78.5	18	<1%	4	1%	25,469	<1%	CLINTON CO.	50	77.2	42	1%	5	1%	64,753	1%
CHIPPEWA CO.	20	51.9	17	<1%	2	<1%	38,543	<1%	GRATIOT CO.	10	23.6	9	<1%	3	<1%	42,285	<1%
Delta-Menominee	30	47.0	20	<1%	1	<1%	63,846	1%	MONTCALM CO.	30	49.0	24	1%	2	<1%	61,266	1%
DELTA CO.	20	51.9	17	<1%	1	<1%	38,520	<1%	MIDLAND CO.	30	36.2	24	1%	5	1%	82,874	1%
MENOMINEE CO.	10	*	3	<1%	0	0%	25,326	<1%	MUSKEGON CO.	160	94.0	120	3%	20	3%	170,200	2%
Dickinson-Iron	10	*	4	<1%	1	<1%	40,610	1%	Northwest Michigan Dist.	60	57.7	44	1%	9	1%	103,938	1%
DICKINSON CO.	10	*	4	<1%	1	<1%	27,472	<1%	ANTRIM CO.	10	43.3	9	<1%	1	<1%	23,110	<1%
IRON CO.	10	*	0	0%	0	0%	13,138	<1%	CHARLEVOIX CO.	20	76.7	14	<1%	3	<1%	26,090	<1%
District #2	10	14.3	9	<1%	2	<1%	70,121	1%	EMMET CO.	10	31.8	11	<1%	2	<1%	31,437	<1%
ALCONA CO.	10	*	0	0%	0	0%	11,719	<1%	OTSEGO CO.	10	42.9	10	<1%	3	<1%	23,301	<1%
IOSCO CO.	10	*	4	<1%	1	<1%	27,339	<1%	OTTAWA CO.	120	50.4	92	2%	21	3%	238,314	2%
OGEMAW CO.	10	*	2	<1%	0	0%	21,645	<1%	SAGINAW CO.	200	95.2	153	4%	33	4%	210,039	2%
OSCODA CO.	10	*	3	<1%	1	<1%	9,418	<1%	SANILAC CO.	20	44.9	13	<1%	4	1%	44,547	<1%
District #4	20	24.2	17	<1%	4	1%	82,488	1%	SHIAWASSEE CO.	30	41.8	22	1%	4	1%	71,687	1%
ALPENA CO.	10	31.9	5	<1%	1	<1%	31,314	<1%	TUSCOLA CO.	10	17.2	10	<1%	2	<1%	58,266	1%
CHEBOYGAN CO.	10	37.8	6	<1%	1	<1%	26,448	<1%	WASHTENAW CO.	550	170.3	425	10%	81	10%	322,895	3%
MONTMORENCY CO.	10	*	3	<1%	0	0%	10,315	<1%	Western Upper Pen. Dist	30	41.5	22	1%	8	1%	72,251	1%
PRESQUE ISLE CO.	10	*	3	<1%	2	<1%	14,411	<1%	BARAGA CO.	10	114.3	7	<1%	3	<1%	8,746	<1%
GENESEE CO.	620	142.2	473	11%	85	11%	436,141	4%	GOGEBIC CO.	10	*	2	<1%	0	0%	17,370	<1%
GRAND TRAVERSE CO.	70	90.1	52	1%	10	1%	77,654	1%	HOUGHTON CO.	10	27.8	11	<1%	4	1%	36,016	<1%
HURON CO.	10	*	4	<1%	1	<1%	36,079	<1%	KEWEENAW CO.	10	*	0	0%	0	0%	2,301	<1%
INGHAM CO.	500	179.0	381	9%	67	9%	279,320	3%	ONTONAGON CO.	10	*	2	<1%	1	<1%	7,818	<1%
IONIA CO.	30	48.8	21	1%	8	1%	61,518	1%	Total Out-State	5,290	96.2	4,171	100%	782	100%	5,496,893	100%

**Table 5: Living HIV/AIDS Cases Currently Living in Out-State Michigan
Sex and Race by Risk
January 1, 2006**

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex[#]	1,512	73%	387	44%	108	51%	32	39%	2,039	63%
Injecting Drug Use[#]	90	4%	120	14%	22	10%	3	4%	235	7%
<i>IDU w/ heterosexual</i>	36	2%	52	6%	10	5%	0	0%	98	3%
<i>IDU w/o heterosexual</i>	54	3%	68	8%	12	6%	3	4%	137	4%
Male-Male Sex/IDU[#]	167	8%	59	7%	14	7%	6	7%	246	8%
Blood Recipients[#]	41	2%	9	1%	0	0%	2	2%	52	2%
Perinatal	11	1%	15	2%	1	<1%	3	4%	30	1%
Heterosexual[#]	49	2%	80	9%	20	9%	2	2%	151	5%
Partner IDU	12	1%	14	2%	3	1%	1	1%	30	1%
Partner Blood Recipient	3	<1%	1	<1%	0	0%	0	0%	4	<1%
Partner HIV+	34	2%	65	7%	17	8%	1	1%	117	4%
Total Known Risks	1,870	90%	670	76%	165	77%	48	59%	2,753	85%
Unknown Risk[#]	199	10%	213	24%	48	23%	34	41%	494	15%
<i>Presumed Heterosexual</i>	114	6%	161	18%	39	18%	8	10%	322	10%
Other	85	4%	52	6%	9	4%	26	32%	172	5%
Total All Cases	2,069	64%	883	27%	213	7%	82	3%	3,247	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Injecting Drug Use[#]	64	18%	76	16%	12	17%	4	12%	156	17%
<i>IDU w/ heterosexual</i>	37	11%	45	10%	7	10%	3	9%	92	10%
<i>IDU w/o heterosexual</i>	27	8%	31	7%	5	7%	1	3%	64	7%
Blood Recipients[#]	6	2%	1	<1%	0	0%	0	0%	7	1%
Perinatal	6	2%	7	1%	6	8%	1	3%	20	2%
Heterosexual[#]	193	56%	180	38%	39	55%	14	41%	426	46%
Partner IDU	59	17%	45	10%	10	14%	4	12%	118	13%
Partner Bisexual	20	6%	14	3%	4	6%	1	3%	39	4%
Partner Blood Recipient	8	2%	5	1%	1	1%	0	0%	14	2%
Partner HIV+	106	31%	116	25%	24	34%	9	26%	255	28%
Total Known Risks	269	78%	264	56%	57	80%	19	56%	609	66%
Unknown Risk[#]	77	22%	209	44%	14	20%	15	44%	315	34%
<i>Presumed Heterosexual</i>	64	18%	178	38%	14	20%	7	21%	263	28%
Other	13	4%	31	7%	0	0%	8	24%	52	6%
Total All Cases	346	37%	473	51%	71	8%	34	4%	924	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male-Male Sex[#]	1,512	63%	387	29%	108	38%	32	28%	2,039	49%
Injecting Drug Use[#]	154	6%	196	14%	34	12%	7	6%	391	9%
<i>IDU w/ heterosexual</i>	73	3%	97	7%	17	6%	3	3%	190	5%
<i>IDU w/o heterosexual</i>	81	3%	99	7%	17	6%	4	3%	201	5%
Male-Male Sex/IDU[#]	167	7%	59	4%	14	5%	6	5%	246	6%
Blood Recipients[#]	47	2%	10	1%	0	0%	2	2%	59	1%
Perinatal	17	1%	22	2%	7	2%	4	3%	50	1%
Heterosexual[#]	242	10%	260	19%	59	21%	16	14%	577	14%
Partner IDU	71	3%	59	4%	13	5%	5	4%	148	4%
Partner Bisexual	20	1%	14	1%	4	1%	1	1%	39	1%
Partner Blood Recipient	11	<1%	6	<1%	1	<1%	0	0%	18	<1%
Partner HIV+	140	6%	181	13%	41	14%	10	9%	372	9%
Total Known Risks	2,139	89%	934	69%	222	78%	67	58%	3,362	81%
Unknown Risk[#]	276	11%	422	31%	62	22%	49	42%	809	19%
<i>Presumed Heterosexual</i>	178	7%	339	25%	53	19%	15	13%	585	14%
Other	98	4%	83	6%	9	3%	34	29%	224	5%
Total All Cases	2,415	58%	1,356	33%	284	7%	116	3%	4,171	100%

Table 6: Living HIV/AIDS Cases Currently Living in Out-State Michigan
Age^x at HIV Diagnosis by Risk
January 1, 2006

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%	46	56%	252	70%	410	68%	859	64%	349	58%	98	54%	25	50%	2,039	63%
Injecting Drug Use [#]	0	0%	1	1%	10	3%	35	6%	94	7%	73	12%	20	11%	2	4%	235	7%
IDU w/ heterosexual	0	0%	1	1%	2	1%	19	3%	38	3%	31	5%	5	3%	2	4%	98	3%
IDU w/o heterosexual	0	0%	0	0%	8	2%	16	3%	56	4%	42	7%	15	8%	0	0%	137	4%
Male-Male Sex/IDU [#]	0	0%	7	9%	31	9%	53	9%	107	8%	39	7%	8	4%	1	2%	246	8%
Blood Recipients [#]	7	18%	13	16%	9	3%	8	1%	11	1%	1	<1%	1	1%	2	4%	52	2%
Perinatal	30	77%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	30	1%
Heterosexual [#]	0	0%	2	2%	15	4%	39	7%	57	4%	29	5%	7	4%	2	4%	151	5%
Partner IDU	0	0%	0	0%	1	<1%	6	1%	14	1%	6	1%	3	2%	0	0%	30	1%
Partner Blood Recipient	0	0%	0	0%	1	<1%	2	<1%	0	0%	1	<1%	0	0%	0	0%	4	<1%
Partner HIV+	0	0%	2	2%	13	4%	31	5%	43	3%	22	4%	4	2%	2	4%	117	4%
Total Known Risks	37	95%	69	84%	317	89%	545	91%	1,128	84%	491	82%	134	73%	32	64%	2,753	85%
Unknown Risk [#]	2	5%	13	16%	41	11%	55	9%	210	16%	106	18%	49	27%	18	36%	494	15%
Presumed Heterosexual	1	3%	4	5%	28	8%	37	6%	148	11%	63	11%	32	17%	9	18%	322	10%
Other	1	3%	9	11%	13	4%	18	3%	62	5%	43	7%	17	9%	9	18%	172	5%
Total All Cases	39	1%	82	3%	358	11%	600	18%	1,338	41%	597	18%	183	6%	50	2%	3,247	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%	6	9%	23	14%	36	19%	60	22%	28	18%	3	8%	0	0%	156	17%
IDU w/ heterosexual	0	0%	3	5%	10	6%	19	10%	37	13%	21	14%	2	5%	0	0%	92	10%
IDU w/o heterosexual	0	0%	3	5%	13	8%	17	9%	23	8%	7	5%	1	3%	0	0%	64	7%
Blood Recipients [#]	0	0%	0	0%	1	1%	0	0%	3	1%	0	0%	2	5%	1	10%	7	1%
Perinatal	20	87%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	20	2%
Heterosexual [#]	0	0%	36	55%	85	51%	81	42%	125	45%	75	49%	19	49%	5	50%	426	46%
Partner IDU	0	0%	8	12%	21	13%	20	10%	34	12%	31	20%	4	10%	0	0%	118	13%
Partner Bisexual	0	0%	5	8%	10	6%	5	3%	11	4%	5	3%	3	8%	0	0%	39	4%
Partner Blood Recipient	0	0%	0	0%	6	4%	2	1%	4	1%	1	1%	0	0%	1	10%	14	2%
Partner HIV+	0	0%	23	35%	48	29%	54	28%	76	28%	38	25%	12	31%	4	40%	255	28%
Total Known Risks	20	87%	42	65%	109	65%	117	61%	188	68%	103	67%	24	62%	6	60%	609	66%
Unknown Risk [#]	3	13%	23	35%	59	35%	74	39%	87	32%	50	33%	15	38%	4	40%	315	34%
Presumed Heterosexual	1	4%	21	32%	55	33%	64	34%	72	26%	39	25%	9	23%	2	20%	263	28%
Other	2	9%	2	3%	4	2%	10	5%	15	5%	11	7%	6	15%	2	20%	52	6%
Total All Cases	23	2%	65	7%	168	18%	191	21%	275	30%	153	17%	39	4%	10	1%	924	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%	46	31%	252	48%	410	52%	859	53%	349	47%	98	44%	25	42%	2,039	49%
Injecting Drug Use [#]	0	0%	7	5%	33	6%	71	9%	154	10%	101	13%	23	10%	2	3%	391	9%
IDU w/ heterosexual	0	0%	4	3%	12	2%	38	5%	75	5%	52	7%	7	3%	2	3%	190	5%
IDU w/o heterosexual	0	0%	3	2%	21	4%	33	4%	79	5%	49	7%	16	7%	0	0%	201	5%
Male-Male Sex/IDU [#]	0	0%	7	5%	31	6%	53	7%	107	7%	39	5%	8	4%	1	2%	246	6%
Blood Recipients [#]	7	11%	13	9%	10	2%	8	1%	14	1%	1	<1%	3	1%	3	5%	59	1%
Perinatal	50	81%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	50	1%
Heterosexual [#]	0	0%	38	26%	100	19%	120	15%	182	11%	104	14%	26	12%	7	12%	577	14%
Partner IDU	0	0%	8	5%	22	4%	26	3%	48	3%	37	5%	7	3%	0	0%	148	4%
Partner Bisexual	0	0%	5	3%	10	2%	5	1%	11	1%	5	1%	3	1%	0	0%	39	1%
Partner Blood Recipient	0	0%	0	0%	7	1%	4	1%	4	<1%	2	<1%	0	0%	1	2%	18	<1%
Partner HIV+	0	0%	25	17%	61	12%	85	11%	119	7%	60	8%	16	7%	6	10%	372	9%
Total Known Risks	57	92%	111	76%	426	81%	662	84%	1,316	82%	594	79%	158	71%	38	63%	3,362	81%
Unknown Risk [#]	5	8%	36	24%	100	19%	129	16%	297	18%	156	21%	64	29%	22	37%	809	19%
Presumed Heterosexual	2	3%	25	17%	83	16%	101	13%	220	14%	102	14%	41	18%	11	18%	585	14%
Other	3	5%	11	7%	17	3%	28	4%	77	5%	54	7%	23	10%	11	18%	224	5%
Total All Cases	62	1%	147	4%	526	13%	791	19%	1,613	39%	750	18%	222	5%	60	1%	4,171	100%

**Table 7: Living HIV/AIDS Cases Currently Living in Kent County, Michigan
Sex and Race by Risk
January 1, 2006**

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	288	81%	76	41%	33	46%	<5	*	400	64%
Injecting Drug Use [#]	9	3%	27	15%	8	11%	0	0%	44	7%
Male-Male Sex/IDU [#]	20	6%	18	10%	6	8%	<5	*	45	7%
Blood Recipients [#]	<5	*	0	0%	0	0%	0	0%	<5	*
Perinatal	<5	*	<5	*	0	0%	0	0%	5	1%
Heterosexual [#]	9	3%	21	11%	7	10%	0	0%	37	6%
Total Known Risks	329	92%	145	78%	54	76%	<5	*	532	86%
Unknown Risk [#]	27	8%	41	22%	17	24%	5	56%	90	14%
Total All Cases	356	57%	186	30%	71	11%	9	1%	622	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use [#]	6	18%	16	15%	5	21%	<5	*	28	17%
Blood Recipients [#]	0	0%	0	0%	0	0%	0	0%	0	0%
Perinatal	0	0%	<5	*	2	8%	0	0%	<5	*
Heterosexual [#]	22	67%	47	43%	14	58%	<5	*	85	50%
Total Known Risks	28	85%	65	60%	21	88%	<5	*	117	69%
Unknown Risk [#]	5	15%	44	40%	3	13%	0	0%	52	31%
Total All Cases	33	20%	109	64%	24	14%	<5	*	169	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	288	74%	76	26%	33	35%	<5	*	400	51%
Injecting Drug Use [#]	15	4%	43	15%	13	14%	<5	*	72	9%
Male-Male Sex/IDU [#]	20	5%	18	6%	6	6%	<5	*	45	6%
Blood Recipients [#]	<5	*	0	0%	0	0%	0	0%	<5	*
Perinatal	<5	*	5	2%	2	2%	0	0%	9	1%
Heterosexual [#]	31	8%	68	23%	21	22%	<5	*	122	15%
Total Known Risks	357	92%	210	71%	75	79%	7	58%	649	82%
Unknown Risk [#]	32	8%	85	29%	20	21%	5	42%	142	18%
Total All Cases	389	49%	295	37%	95	12%	12	2%	791	100%

**Table 8: Living HIV/AIDS Cases Currently Living in Ingham County, Michigan
Sex and Race by Risk
January 1, 2006**

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	137	75%	36	42%	13	62%	<5	*	189	64%
Injecting Drug Use [#]	9	5%	8	9%	3	14%	<5	*	21	7%
Male-Male Sex/IDU [#]	21	12%	8	9%	0	0%	<5	*	30	10%
Blood Recipients [#]	5	3%	<5	*	0	0%	0	0%	8	3%
Perinatal	<5	*	<5	*	0	0%	0	0%	<5	*
Heterosexual [#]	<5	*	8	9%	0	0%	0	0%	10	3%
Total Known Risks	175	96%	64	74%	16	76%	5	71%	260	88%
Unknown Risk [#]	7	4%	22	26%	5	24%	<5	*	36	12%
Total All Cases	182	61%	86	29%	21	7%	7	2%	296	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use [#]	<5	*	5	10%	3	43%	0	0%	12	14%
Blood Recipients [#]	0	0%	<5	*	0	0%	0	0%	<5	*
Perinatal	<5	*	<5	*	0	0%	0	0%	<5	*
Heterosexual [#]	15	58%	21	42%	2	29%	0	0%	38	45%
Total Known Risks	20	77%	28	56%	5	71%	0	0%	53	62%
Unknown Risk [#]	6	*	22	44%	2	29%	<5	*	32	38%
Total All Cases	26	31%	50	59%	7	8%	<5	*	85	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	137	66%	36	26%	13	46%	<5	*	189	50%
Injecting Drug Use [#]	13	6%	13	10%	6	21%	<5	*	33	9%
Male-Male Sex/IDU [#]	21	10%	8	6%	0	0%	<5	*	30	8%
Blood Recipients [#]	5	2%	<5	*	0	0%	0	0%	9	2%
Perinatal	<5	*	<5	*	0	0%	0	0%	<5	*
Heterosexual [#]	17	8%	29	21%	2	7%	0	0%	48	13%
Total Known Risks	195	94%	92	68%	21	75%	5	56%	313	82%
Unknown Risk [#]	13	6%	44	32%	7	25%	<5	*	68	18%
Total All Cases	208	55%	136	36%	28	7%	9	2%	381	100%

**Table 9: Living HIV/AIDS Cases Currently Living in Washtenaw County, Michigan
Sex and Race by Risk
January 1, 2006**

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	161	78%	58	52%	11	73%	9	100%	239	70%
Injecting Drug Use [#]	6	3%	15	13%	<5	*	0	0%	22	6%
Male-Male Sex/IDU [#]	21	10%	7	6%	0	0%	0	0%	28	8%
Blood Recipients [#]	<5	*	0	0%	0	0%	0	0%	<5	*
Perinatal	0	0%	<5	*	<5	*	0	0%	<5	*
Heterosexual [#]	<5	*	10	9%	0	0%	0	0%	12	3%
Total Known Risks	194	94%	91	81%	13	87%	9	100%	307	90%
Unknown Risk [#]	13	6%	21	19%	<5	*	0	0%	36	10%
Total All Cases	207	60%	112	33%	15	4%	9	3%	343	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use [#]	5	24%	8	15%	0	0%	0	0%	13	16%
Blood Recipients [#]	<5	*	0	0%	0	0%	0	0%	<5	*
Perinatal	0	0%	0	0%	<5	*	0	0%	<5	*
Heterosexual [#]	12	57%	27	50%	<5	*	<5	*	43	52%
Total Known Risks	19	90%	35	65%	<5	*	<5	*	59	72%
Unknown Risk [#]	<5	*	19	35%	<5	*	<5	*	23	28%
Total All Cases	21	26%	54	66%	<5	*	<5	*	82	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	161	71%	58	35%	11	58%	9	75%	239	56%
Injecting Drug Use [#]	11	5%	23	14%	<5	5%	0	0%	35	8%
Male-Male Sex/IDU [#]	21	9%	7	4%	0	0%	0	0%	28	7%
Blood Recipients [#]	6	3%	0	0%	0	0%	0	0%	6	1%
Perinatal	0	0%	<5	*	<5	*	0	0%	<5	*
Heterosexual [#]	14	6%	37	22%	<5	*	<5	*	55	13%
Total Known Risks	213	93%	126	76%	16	84%	11	92%	366	86%
Unknown Risk [#]	15	7%	40	24%	<5	*	<5	*	59	14%
Total All Cases	228	54%	166	39%	19	4%	12	3%	425	100%

**Table 10: Living HIV/AIDS Cases Currently Living in Berrien County, Michigan
Sex and Race by Risk
January 1, 2006**

Male Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	36	69%	20	29%	<5	*	0	0%	60	45%
Injecting Drug Use [#]	<5	*	8	12%	<5	*	0	0%	13	10%
Male-Male Sex/IDU [#]	6	12%	<5	*	<5	*	0	0%	9	7%
Blood Recipients [#]	0	0%	<5	*	0	0%	0	0%	<5	*
Perinatal	0	0%	<5	*	0	0%	0	0%	<5	*
Heterosexual [#]	<5	*	9	13%	<5	*	0	0%	12	9%
Total Known Risks	47	90%	41	60%	8	67%	0	0%	96	72%
Unknown Risk [#]	5	10%	27	40%	<5	*	<5	*	37	28%
Total All Cases	52	39%	68	51%	12	9%	<5	*	133	100%

Female Only	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Injecting Drug Use [#]	<5	*	6	10%	<5	*	0	0%	9	12%
Blood Recipients [#]	0	0%	0	0%	0	0%	0	0%	0	0%
Perinatal	0	0%	<5	*	0	0%	0	0%	<5	*
Heterosexual [#]	9	64%	23	38%	<5	*	0	0%	33	42%
Total Known Risks	11	79%	30	49%	<5	*	0	0%	43	55%
Unknown Risk [#]	<5	*	31	51%	0	0%	<5	*	35	45%
Total All Cases	14	18%	61	78%	<5	*	<5	*	78	100%

Male and Female	White		Black		Hispanic		Other		All Races	
	Cases	%^	Cases	%^	Cases	%^	Cases	%^	Cases	%^
Male-Male Sex [#]	36	55%	20	16%	<5	*	0	0%	60	28%
Injecting Drug Use [#]	5	8%	14	11%	<5	*	0	0%	22	10%
Male-Male Sex/IDU [#]	6	9%	<5	*	<5	*	0	0%	9	4%
Blood Recipients [#]	0	0%	<5	*	0	0%	0	0%	<5	*
Perinatal	0	0%	<5	*	0	0%	0	0%	<5	*
Heterosexual [#]	11	17%	32	25%	<5	*	0	0%	45	21%
Total Known Risks	58	88%	71	55%	10	71%	0	0%	139	66%
Unknown Risk [#]	8	12%	58	45%	<5	*	<5	*	72	34%
Total All Cases	66	31%	129	61%	14	7%	<5	*	211	100%

**Table 11: Gonorrhea, Syphilis, and Chlamydia by Sex
Race, and Age Group in Out-State Michigan
January 1, 2004 to December 31, 2005**

Patient Group	2000 Outstate Population	Gonorrhea			P&S Syphilis			Chlamydia		
		Cases	Pct	Rate	Cases	Pct	Rate	Cases	Pct	Rate
Male	2,715,625	2,803	41%	103	24	89%	1	4,250	23%	157
<i>White Males</i>	2,317,279	348	5%	15	13	48%	1	1,010	6%	44
<i>Black Males</i>	194,929	1,580	23%	811	8	30%	4	1,777	10%	912
<i>Hispanic Males</i>	103,276	54	1%	52	0	0%	0	175	1%	169
<i>Other Males</i>	100,141	36	1%	N/A	2	7%	N/A	121	1%	N/A
<i>Unk Males</i>	N/A	785	11%	N/A	1	4%	N/A	1,167	6%	N/A
Female	2,781,268	4,061	59%	146	3	11%	0	13,843	76%	498
<i>White Females</i>	2,392,512	903	13%	38	1	4%	0	4,542	25%	190
<i>Black Females</i>	194,856	1,475	21%	757	2	7%	1	3,254	18%	1670
<i>Hispanic Females</i>	92,526	79	1%	85	0	0%	0	442	2%	478
<i>Other Females</i>	101,374	84	1%	N/A	0	0%	N/A	386	2%	N/A
<i>Unk Females</i>	N/A	1,520	22%	N/A	0	0%	N/A	5,219	29%	N/A
White	4,709,791	1,251	18%	27	14	52%	0	5,552	31%	118
Black	389,785	3,057	44%	784	10	37%	3	5,033	28%	1291
Hispanic	195,802	133	2%	68	0	0%	0	617	3%	315
Other	201,515	2,326	34%	1154	2	7%	1	514	3%	255
Unknown Race	N/A	122	2%	N/A	1	4%	N/A	6,433	35%	N/A
0-4 years	361,367	17	0%	5	0	0%	0	31	0%	9
5-9 years	398,525	3	0%	1	0	0%	0	5	0%	1
10-14 years	540,798	88	1%	16	0	0%	0	286	2%	53
15-19 years	300,425	1,989	29%	662	0	0%	0	6,643	37%	2211
20-24 years	389,370	2,106	31%	541	2	7%	1	6,710	37%	1723
25-29 years	344,387	1,167	17%	339	5	19%	1	2,582	14%	750
30-34 years	370,107	622	9%	168	3	11%	1	1,053	6%	285
35-39 years	424,956	374	5%	88	1	4%	0	435	2%	102
40-44 years	441,449	216	3%	49	5	19%	1	185	1%	42
45-54 years	753,160	239	3%	32	9	33%	1	138	1%	18
55-64 years	489,632	42	1%	9	2	7%	0	25	0%	5
65 and over	682,717	11	0%	2	0	0%	0	14	0%	2
Unknown Age	N/A	15	0%	N/A	0	0%	N/A	42	0%	N/A
Total	5,496,893	6,889	100%	125	27	100%	0	18,149	100%	330

APPENDIX A: RURAL AND URBAN COUNTY GROUPINGS

Data Source:www.census.gov

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:

- 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,
- a PMSA, and
- 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.

-a county was considered to be "Urban" if any part of a 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 the HIV virus.

Concurrent Diagnosis: An instance where a person is diagnosed with AIDS within one month of their initial diagnosis of HIV. In other words, the initial HIV diagnosis and then progression to AIDS is documented at the same time. This is indicative of a late tester.

Currently Living with HIV/AIDS: The most recent address information available. It is impossible to track ongoing residence changes among HIV infected persons.

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 injecting 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 one 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. For the purposes of HIV surveillance, 'incidence' refers to the number of newly diagnosed cases of HIV. The number of persons diagnosed with HIV infection in Michigan is about 890 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.

Presumed Heterosexual: A man who reported having sex with a woman or a woman who has reported having sex with a man, AND who has no other risk reported. This is a sub-category of the 'No Identified Risk' group. (*Also see 'Unknown Risk'*)

Prevalence: The total number of persons living with HIV disease at one point in time is called prevalence. The estimate of this number for all of Michigan as of January 1, 2006 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.

STARHS: Stands for "Serologic Testing Algorithm for Recent HIV Seroconversion". This is a project to measure new infections of HIV. STARHS testing on routine specimens collected for HIV testing began March 2005 at two pilot sites and is currently being expanded statewide for newly reported cases.

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' includes 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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