

Table of Contents: HIV/AIDS Statistics of Persons Diagnosed in Michigan

	Page
Front Matter	
Acronyms and Definitions	i
Risk Transmission and Exposure Categories	ii
Surveillance in Michigan	iii
Section 1: Data on Prevalent Cases	
Table 1. Demographic Information on Prevalent HIV/AIDS Cases	1
Table 2. Risk Transmission and Exposure Categories for HIV on Prevalent HIV/AIDS Cases, by Sex	2
Table 3. Sex, Race, and Risk Among Prevalent HIV/AIDS Cases	3
Figure 1. Mode of HIV Transmission Among Prevalent HIV/AIDS Cases by Race	3
Table 4. Sex, Race, and Age at HIV Diagnosis Among Prevalent HIV/AIDS Cases	4
Figure 2. Age at HIV Diagnosis Among Prevalent HIV/AIDS Cases by Race	4
Section 2: New Diagnoses, Deaths, Prevalence	
Table 5. New Diagnoses, Deaths, and Prevalence of HIV/AIDS by Year	5
Figure 3. New Diagnoses, Deaths, and Prevalence of HIV/AIDS by Year	6
Figure 4. HIV/AIDS Deaths by Race/Sex	6
Section 3: Data on Newly Diagnosed Cases	
Table 6. Demographic Information on Persons Ever Diagnosed with HIV	7
Section 4: Geographic Distribution of HIV/AIDS	
Table 7. Prevalent HIV/AIDS Cases According to County of Residence at Diagnosis	8
Figure 5. Reported HIV Prevalence and Prevalence Rates by Residence at Diagnosis	9
Section 5: Data on Perinatally HIV Exposed Infants	
Table 8. Perinatal HIV Exposures, 2005 - 2011	10
Figure 6. Infection Status of Perinatal HIV Exposures, 2005 - 2011	10

HIV/STD/VH/TB Epidemiology Section
Division of Communicable Disease
Bureau of Epidemiology
Michigan Department of Community Health

Lansing - HIV Surveillance Office
201 Townsend St., 5th Floor
Lansing, MI 48913
517-335-8165



Detroit - HIV Surveillance Office
1151 Taylor St., Room 211B
Detroit, MI 48202
313-876-0353

General HIV

AIDS (Acquired Immune Deficiency Syndrome)

Diagnosis with any one of 26 different opportunistic illnesses which are indicative of a severe immune deficiency, or a laboratory test demonstrating severe immune deficiency (i.e. CD4 count <200 or CD4 percent <14%)

Case Definitions for HIV and AIDS

Standard definitions 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, this person is always counted as an AIDS case, even if his/her health improves.

HAART

Highly Active Antiretroviral Therapy

HIV (Human Immunodeficiency Virus)

Diagnosis with HIV by positive HIV screening and confirmatory test or positive result or detectable quantity on virologic test

Pediatric Cases

Children < 13 years at the time of diagnosis

Epidemiology Terms

Epidemiology

The study of the distribution, determinates, and frequency of disease in humans.

GIS (Geographic Information System)

The display and analysis of geographic data in map format.

Incidence

Number of persons who become infected with a disease in a certain period of time, usually a year.

New Diagnoses

Number of cases newly diagnosed over a given period of time, usually a year. In HIV surveillance, new diagnoses do not necessarily represent new infections, as newly diagnosed cases may have been infected for many years. Thus, only some newly diagnosed cases are also incident cases.

Prevalence

Total number of persons currently living with a disease at one point in time. See page iii for a description of estimated prevalence in Michigan.

Public Health Surveillance

The ongoing collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons with a condition or risk factor of public health concern.

Rate

Count of infected cases divided by the number of persons in the population (infected and uninfected). This calculation is multiplied by a multiple of 10, usually 1,000 or 100,000. Allows one to weigh the relationship between prevalence or number of new diagnoses and population.

Administrative Info

CDC

U.S. Centers for Disease Control and Prevention

eHARS (HIV/AIDS Reporting System)

A standardized database developed by CDC for national reporting of HIV/AIDS

HAPIS

HIV/AIDS Prevention and Intervention Section

MDCH

Michigan Department of Community Health

Michigan HIV Surveillance Activities

Core HIV Surveillance

Population-based surveillance system of diagnosed adult, adolescent, and pediatric HIV/AIDS cases.

MMP (Medical Monitoring Project)

Project providing information on needs, risk behaviors, barriers to utilization of services, and quality of care, as well as other data, among HIV-positive persons in care in Michigan.

Michigan MMP Coordinator, Meosia Lee-Turner. Call (313) 876-0117

NHBS (National HIV Behavioral Surveillance)

Surveillance system to monitor selected behaviors and access to prevention services among groups of uninfected persons at highest risk for HIV infection: MSM, IDU, and Heterosexuals Living in High Risk Areas.

Michigan NHBS Coordinator, Emily Higgins (313) 876-0176

STARHS (Serologic Testing Algorithm for Recent HIV Seroconversion)

HIV Incidence Surveillance that will enable estimation of new HIV infections in Michigan.

Michigan STARHS Coordinator, Marianne O'Connor (313) 876-0854

VARHS (Variant, Atypical, and Resistant HIV Surveillance)

Surveillance of drug-resistant and sub-type HIV strains using viral genotyping of remnant sera.

Michigan VARHS Coordinator, Mary-Grace Brandt (313) 876-4115

Risk & Exposure Categories

Blood Recipient

Hemophiliacs, blood transfusion recipients, and organ recipients who received blood products prior to 1985 & persons documented to have ever received an infected organ or unit of blood

Heterosexual

HRH (High Risk Heterosexuals)

Males and females whose sexual partners are known to be HIV-infected or at high risk for HIV. The partners meet one of the following criteria: a history of sexual contact with bi-sexual males (for females), IDU, hemophiliacs, HIV+ transfusion recipients, or other HIV+ persons of unknown risk

PH (Presumed Heterosexual)-Female

Females with no documented risk for IDU, and whose only documented risk is heterosexual contact, and their male partners' risk and HIV status is unknown

IDU (Injection Drug User)

Persons who have a history of injecting drugs

Perinatal

HIV transmission from mother to child during birth or through breastfeeding.

MSM (Men who have sex with men)

Males who have a history of sexual contact with other men or with both men and women

MSM & Sex with Female (not HRH)

Males who have a history of sexual contact with other men and women, however, they do not know the risk of their female partner.

MSM/IDU

MSM who also have a history of injecting drugs

Behaviorally Bisexual Men

MSM who also have a history of sexual contact with a woman.

Undetermined

PH (Presumed Heterosexual)-Male

Males whose only documented risk is heterosexual contact, and their female partners' risk and HIV status is unknown

Unknown

Males and females with no identified risk

Risk Transmission and Exposure Categories

Risk Transmission Categories

Risk transmission categories are the hierarchical risk categories that have been used for displaying HIV transmission risk in the Michigan and national HIV/AIDS statistics since the 1980's. When the transmission categories were created, the order from top to bottom was meant to represent the most likely route through which HIV was transmitted, and thus implies that some modes of transmission are more efficient than others. The hierarchy was established based on what was known at the beginning of the epidemic about how HIV was transmitted, when almost all cases were among men and there was little documented heterosexual transmission. Since then, the hierarchy has not changed appreciably even though our understanding of the most efficient HIV transmission routes has changed.

Background on Hierarchy

The hierarchy algorithm is calculated using data provided on the case report form on the individual risk factor questions. In this hierarchy, all cases are assigned a single mode of transmission, with the exception of men who have reported sex with other men as well as injection of drugs. These men are categorized as Men who Have Sex with Men/Injection Drug Users (MSM/IDU). Over time, concerns have been raised that use of hierarchical categories masks the identification of cases with multiple risks. For example, consider a woman whose risk is documented as both injecting drugs and sex with a male partner who has injected drugs. This case would be assigned a risk of injecting drug use (IDU), rather than both IDU + HRH category, because the IDU category is ranked higher in the risk hierarchy than the high-risk heterosexual (HRH) category. Therefore, this woman's risk of HRH would not be represented.

There is a national effort toward representing mode of HIV transmission more comprehensively. However, the use of "multiple risk" or "combination risk" categories has not yet been implemented nationally, partly because many organizations that use HIV surveillance data still rely on the traditional transmission categories. Beginning in January 2009, Michigan will present data on mode of transmission in two ways. The traditional risk categories will continue to be used in the same tables in which they previously appeared. In addition, a new table (Table 2 on page 2) will display Exposure Categories, which will present mode of transmission in a manner that allows more complete presentation of the reported risk factor information.

Exposure Categories

The 'Exposure Categories' shown on page 2 convey all risks that a person is documented to have engaged in that could have exposed him or her to HIV. Like the traditional risk hierarchy categories, the Exposure Categories are mutually exclusive, meaning that each person is only included in one category. However, the categories, as presented, allow readers to see all the ways in which a person may have been infected with HIV and, with the exception of undetermined risk, are displayed in decreasing order of frequency. In order to display the most accurate information possible, we request that persons who fill out case report forms complete a 'Yes', 'No' or 'Unknown' answer to all the risk factor questions in Section VII Patient History.

HIV Surveillance in Michigan

Background

Reports of HIV infection and AIDS are submitted to state and local health departments under Michigan law by providers making the diagnoses or treating previously diagnosed persons. In addition, MDCH implemented PA 514 in April 2005, requiring laboratories to report HIV test results. The addition of laboratory reporting to the HIV surveillance system increased the case reports received and improved reporting completeness. Anonymous HIV reports (without name or other identifier) are excluded from this report because we cannot estimate duplication, update status, or obtain missing data. A total of 2,016 complete anonymous reports have been reported in Michigan.

HIV Surveillance in Michigan (Continued)

HIV Prevalence Estimates for Michigan

HIV prevalence estimates in this report are updated annually in the January edition of this quarterly analysis. These estimates are based on adding the following three components and rounding: 1) the number of reported cases living with HIV/AIDS, 2) the number of known HIV+ cases not yet reported, estimated at 10 percent of the reported living HIV/AIDS cases, and 3) the number of HIV+ cases that have not yet been tested, estimated at 21 percent of the total cases living with HIV/AIDS (identical to the CDC estimate).

Categorical estimates of HIV infection are calculated from the distribution of reported cases among each group of confidentially-reported persons living with HIV or AIDS. The proportion of total cases is multiplied by 19,500. For example, 78 percent of combined HIV and AIDS reports are among men. Therefore, the number of HIV-infected men in Michigan is estimated to be 15,120 (77.54% X 19,500). Since the estimates are rounded to the nearest 10, totals may not equal 19,500. The minimum estimate is 10.

Prison estimates of HIV infection are calculated differently than the above mentioned categorical estimates. Because all prisoners are tested for HIV upon entry to prison, there is no need to apply estimates to account for unreported and untested cases to the reported prison cases. Therefore, the prison prevalence estimate is calculated by rounding the reported number of persons living with HIV/AIDS who were diagnosed in prison to the nearest 10.

County estimates of HIV infection are calculated similarly to the categorical estimates; however, for county calculations the proportion of cases in a particular county is multiplied by the statewide estimate minus the prison estimate (19,500 - 770 = 18,730). For example, 12 percent of HIV/AIDS cases (not including prison and cases with unknown residence) were living in Oakland county at diagnosis. Therefore, the number of HIV-infected persons who were living in Oakland county at the time of diagnosis is estimated to be 2,259 (12.06% x 18,730). Since the estimates are rounded to the nearest 10, the county totals may not equal 18,730. The method of calculating prevalence estimates for county of residence was revised as of April 2008, and thus county estimates presented prior to this date may differ from current and future estimates.

HIV Surveillance Staff Contacts

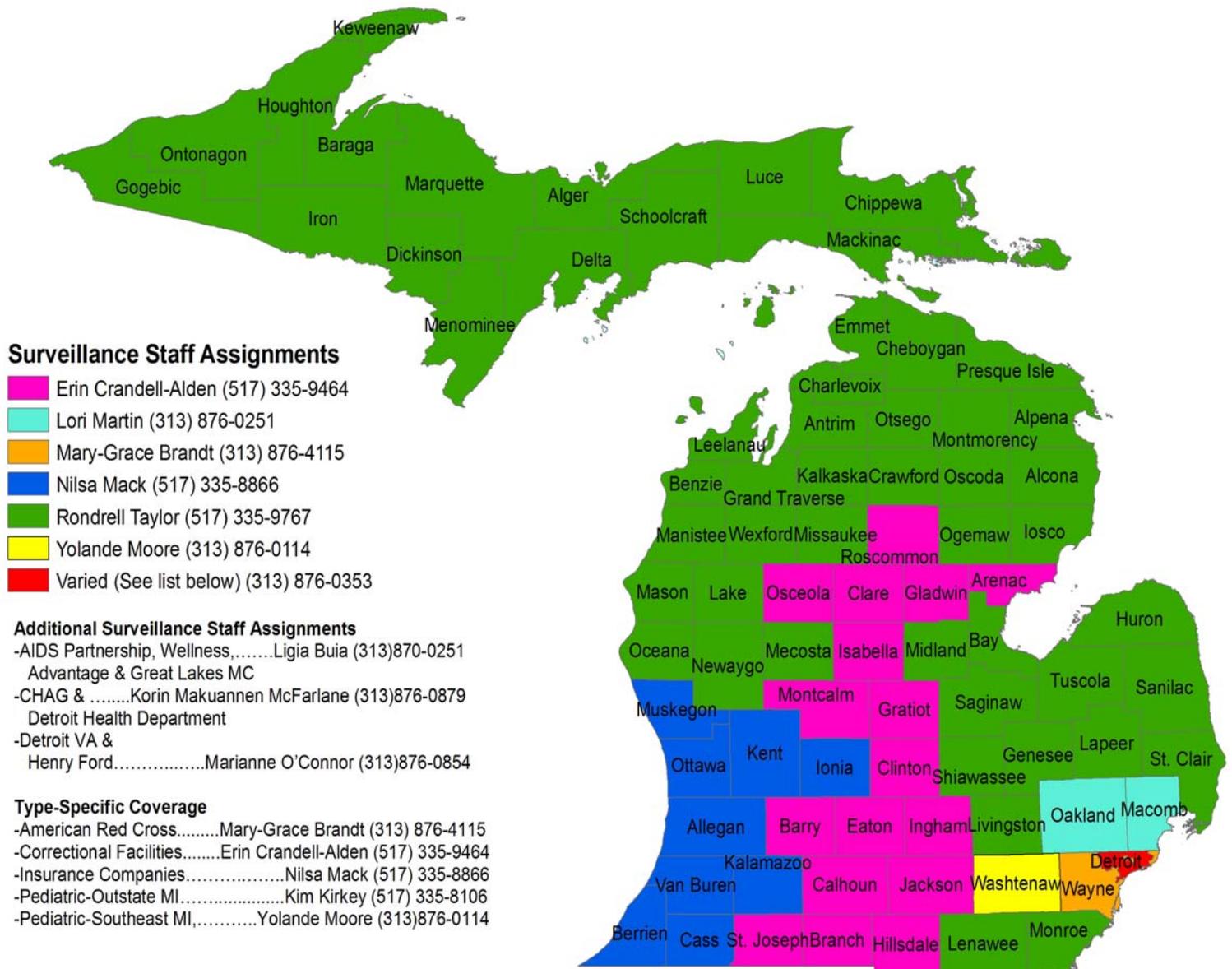


TABLE 1. Demographic Information on Prevalent HIV/AIDS Cases

	<i>EST PREV*</i>	<i>REPORTED PREVALENCE</i>						<i>CENSUS 2008 ESTIMATES</i>			
		<i>HIV, not AIDS</i>		<i>AIDS</i>		<i>Total</i>		<i>Rate per 100,000†</i>	<i>Number Percent</i>		
	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>			<i>Number</i>	<i>Percent</i>
<i>RACE/ETHNICITY[§]</i>											
White	6,720	2,384	34%	2,787	35%	5,171	34%	67	7,750,818	77%	
Black	11,450	4,096	59%	4,708	58%	8,804	59%	627	1,403,051	14%	
Hispanic	820	279	4%	355	4%	634	4%	153	413,827	4%	
Asian/PI	100	34	0%	43	1%	77	1%	33	236,236	2%	
Am Indian/AN	50	24	0%	15	0%	39	0%	71	54,714	1%	
Multi/Unk/Other	360	118	2%	157	2%	275	2%	N/A	144,776	1%	
<i>SEX & RACE</i>											
Males	15,120	5,261	76%	6,370	79%	11,631	78%	236	4,923,929	49%	
White Males	5,870	2,026	29%	2,488	31%	4,514	30%	118	3,825,990	38%	
Black Males	8,220	2,894	42%	3,430	43%	6,324	42%	954	662,992	7%	
Hispanic Males	640	215	3%	280	3%	495	3%	227	217,942	2%	
Other Males	390	126	2%	172	2%	298	2%	137	217,005	2%	
Females	4,380	1,674	24%	1,695	21%	3,369	22%	66	5,079,493	51%	
White Females	850	358	5%	299	4%	657	4%	17	3,924,828	39%	
Black Females	3,220	1,202	17%	1,278	16%	2,480	17%	335	740,059	7%	
Hispanic Fmls	180	64	1%	75	1%	139	1%	71	195,885	2%	
Other Females	120	50	1%	43	1%	93	1%	43	218,721	2%	
<i>RISK*</i>											
Male-Male Sex	9,480	3,323	48%	3,971	49%	7,294	49%	N/A	N/A	N/A	
Injection Drug Use	1,970	593	9%	919	11%	1,512	10%	N/A	N/A	N/A	
MSM/IDU	810	262	4%	361	4%	623	4%	N/A	N/A	N/A	
Blood Products	120	31	0%	61	1%	92	1%	N/A	N/A	N/A	
Heterosexual	3,460	1,277	18%	1,384	17%	2,661	18%	N/A	N/A	N/A	
HRH	2,360	806	12%	1,006	12%	1,812	12%	N/A	N/A	N/A	
PH-Female	1,100	471	7%	378	5%	849	6%	N/A	N/A	N/A	
Perinatal	220	102	1%	64	1%	166	1%	N/A	N/A	N/A	
Undetermined	3,450	1,347	19%	1,305	16%	2,652	18%	N/A	N/A	N/A	
PH-Male	1,800	592	9%	796	10%	1,388	9%	N/A	N/A	N/A	
Unknown	1,640	755	11%	509	6%	1,264	8%	N/A	N/A	N/A	
<i>AGE AT HIV DIAGNOSIS</i>											
0 - 12 years	250	118	2%	73	1%	191	1%	N/A	N/A	N/A	
13 - 19 years	960	447	6%	295	4%	742	5%	N/A	N/A	N/A	
20 - 24 years	2,650	1,168	17%	873	11%	2,041	14%	N/A	N/A	N/A	
25 - 29 years	3,220	1,229	18%	1,249	15%	2,478	17%	N/A	N/A	N/A	
30 - 39 years	6,690	2,163	31%	2,986	37%	5,149	34%	N/A	N/A	N/A	
40 - 49 years	4,050	1,276	18%	1,842	23%	3,118	21%	N/A	N/A	N/A	
50 - 59 years	1,350	439	6%	597	7%	1,036	7%	N/A	N/A	N/A	
60 years and over	310	92	1%	150	2%	242	2%	N/A	N/A	N/A	
Unspecified	10	3	0%	0	0%	3	0%	N/A	N/A	N/A	
<i>AREA OF RESIDENCE AT DIAGNOSIS*</i>											
Detroit Metro	12,780	4,421	64%	5,295	66%	9,716	65%	221	4,395,484	44%	
Out-State	5,950	2,145	31%	2,376	29%	4,521	30%	81	5,607,938	56%	
Prison/Unknown	780	369	5%	394	5%	763	5%	N/A	N/A	N/A	
TOTAL	19,500	6,935	100%	8,065	100%	15,000	100%	150	10,003,422	100%	

*See pages i and ii for descriptions of prevalence estimate calculations and risk category groupings. Risk categories used in Michigan are newly defined as of the July 2007 quarter.

† To calculate "1 out of x" statements for rate, divide the census number by the total reported prevalence. For example, for non-Hispanic whites: 7,750,818 / 5,171 = 1,499. Thus, 1 out of every 1,499 non-Hispanic white persons in Michigan are living with HIV.

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

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

TABLE 2. Risk Transmission* and Exposure Categories* for HIV on Prevalent HIV/AIDS Cases, by Sex

	REPORTED HIV/AIDS PREVALENCE					
	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
RISK TRANSMISSION CATEGORIES (CDC Hierarchy)[§]						
(Mutually Exclusive: one case is represented in ONLY one category)						
Male-Male Sex	7,294	63%	N/A	--	7,294	49%
Injection Drug Use	891	8%	621	18%	1,512	10%
MSM/IDU	623	5%	N/A	--	623	4%
Blood Products	78	1%	14	0%	92	1%
Heterosexual	526	5%	2,135	63%	2,661	18%
HRH	526	5%	1,286	38%	1,812	12%
PH-Female	N/A	--	849	25%	849	6%
Perinatal	95	1%	71	2%	166	1%
Undetermined	2,124	18%	528	16%	2,652	18%
PH-Male	1,388	12%	N/A	--	1,388	9%
Unknown	736	6%	528	16%	1,264	8%
EXPOSURE CATEGORIES[†]						
(Mutually Exclusive: one case is represented in ONLY one category)						
Male-Male Sex	6,813	59%	N/A	--	6,813	45%
MSM - ONLY	4,664	40%	N/A	--	4,664	31%
MSM & Sex with Female (not HRH)	2,149	18%	N/A	--	2,149	14%
MSM & HRH	477	4%	N/A	--	477	3%
MSM & IDU	441	4%	N/A	--	441	3%
MSM & IDU & HRH	182	2%	N/A	--	182	1%
MSM & Blood Products	4	0%	N/A	--	4	0%
Heterosexual - ONLY	526	5%	2,135	63%	2,661	18%
HRH	526	5%	1,286	38%	1,812	12%
PH-Female	N/A	--	849	25%	849	6%
HRH & IDU	349	3%	338	10%	687	5%
Injection Drug Use - ONLY	537	5%	280	8%	817	5%
IDU & Blood Products	5	0%	3	0%	8	0%
Perinatal Exposure	96	1%	72	2%	168	1%
Exposure to Blood Products - ONLY	78	1%	14	0%	92	1%
Undetermined	2,123	18%	527	16%	2,650	18%
PH-Male Only	1,387	12%	N/A	--	1,387	9%
Unknown	736	6%	527	16%	1,263	8%
TOTAL	11,631	100%	3,369	100%	15,000	100%
SUMMARIZED EXPOSURE CATEGORIES*						
(NOT Mutually Exclusive: one case can be represented in multiple categories)						
Any MSM	7,917	68%	N/A	--	7,917	53%
Behaviorally Bisexual Men	2,808	24%	N/A	--	2,808	19%
Any Heterosexual	3,683	32%	2,473	73%	6,156	41%
Any HRH	1,534	13%	1,624	48%	3,158	21%
Any IDU	1,514	13%	621	18%	2,135	14%

*See page ii for descriptions of risk category groupings.

[§] Risk categories are grouped based on hierarchical categories as set by the CDC. Any one person with multiple risks may only be represented in the highest category (based on the hierarchical algorithm).

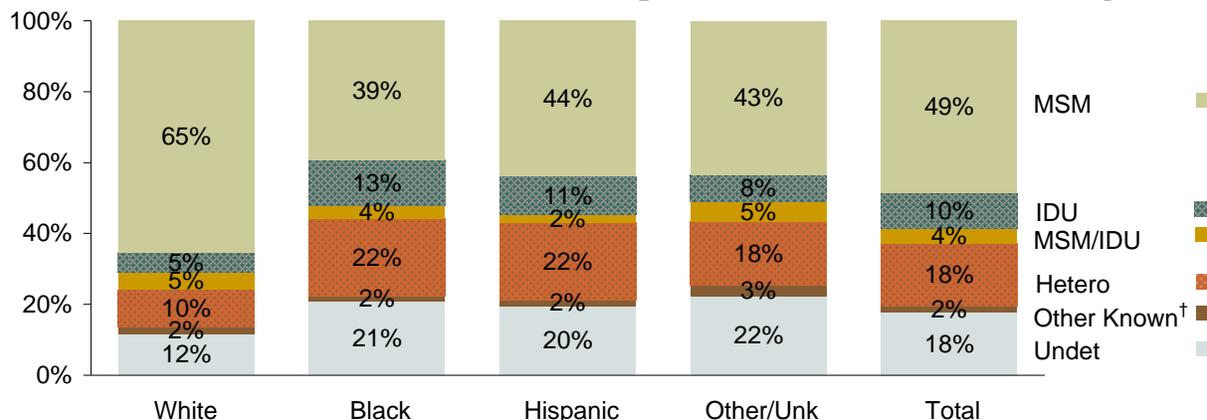
[†] Exposure Categories are mutually exclusive and grouped by allowing all possible combinations of risks that any one person may have. Any one person may have any combination of risks and is not assigned to a single risk category, as in the hierarchical groupings.

*These groups presented are NOT mutually exclusive, meaning a case can be represented in multiple groupings. These summarized categories are meant to give a broader picture of the exposure categories and will NOT add up to the overall total number of persons living with HIV/AIDS.

TABLE 3. Sex, Race, and Risk Among Prevalent HIV/AIDS Cases

MALES	White		Black		Hispanic		Other or Unknown		Male Subtotal	
Male-Male sex	3,384	75%	3,461	55%	279	56%	170	57%	7,294	63%
Injecting Drug Use	169	4%	658	10%	47	9%	17	6%	891	8%
Male-Male Sex/IDU	255	6%	333	5%	14	3%	21	7%	623	5%
Blood Products	61	1%	14	0%	1	0%	2	1%	78	1%
Heterosexual*	101	2%	381	6%	35	7%	9	3%	526	5%
Perinatal	16	0%	71	1%	2	0%	6	2%	95	1%
Undetermined	528	12%	1,406	22%	117	24%	73	24%	2,124	18%
<i>PH-Male</i>	306	7%	946	15%	88	18%	48	16%	1,388	12%
<i>Unknown</i>	222	5%	460	7%	29	6%	25	8%	736	6%
Male Subtotal	4,514	39%	6,324	54%	495	4%	298	3%	11,631	100%
FEMALES	White		Black		Hispanic		Other or Unknown		Female Subtotal	
Injecting Drug Use	115	18%	472	19%	21	15%	13	14%	621	18%
Blood Products	9	1%	4	0%	1	1%	0	0%	14	0%
Heterosexual	439	67%	1,530	62%	104	75%	62	67%	2,135	63%
<i>HRH</i>	318	48%	857	35%	77	55%	34	37%	1,286	38%
<i>PH-Female</i>	121	18%	673	27%	27	19%	28	30%	849	25%
Perinatal	12	2%	49	2%	6	4%	4	4%	71	2%
Undetermined*	82	12%	425	17%	7	5%	14	15%	528	16%
Female Subtotal	657	20%	2,480	74%	139	4%	93	3%	3,369	100%
TOTAL	White		Black		Hispanic		Other or Unknown		Risk Total	
Male-Male sex	3,384	65%	3,461	39%	279	44%	170	43%	7,294	49%
Injecting Drug Use	284	5%	1,130	13%	68	11%	30	8%	1,512	10%
Male-Male Sex/IDU	255	5%	333	4%	14	2%	21	5%	623	4%
Blood Products	70	1%	18	0%	2	0%	2	1%	92	1%
Heterosexual	540	10%	1,911	22%	139	22%	71	18%	2,661	18%
<i>HRH</i>	419	8%	1,238	14%	112	18%	43	11%	1,812	12%
<i>PH-Female</i>	121	2%	673	8%	27	4%	28	7%	849	6%
Perinatal	28	1%	120	1%	8	1%	10	3%	166	1%
Undetermined	610	12%	1,831	21%	124	20%	87	22%	2,652	18%
<i>PH-Male</i>	306	6%	946	11%	88	14%	48	12%	1,388	9%
<i>Unknown</i>	304	6%	885	10%	36	6%	39	10%	1,264	8%
RACE TOTAL	5,171	34%	8,804	59%	634	4%	391	3%	15,000	100%

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

FIGURE 1. Mode of HIV Transmission Among Prevalent HIV/AIDS Cases by Race

†The 'Other Known' category in Figure 1 is a combination of 'Blood Products' and 'Perinatal' from Table 3

TABLE 4. Sex, Race, and Age at HIV Diagnosis Among Prevalent HIV/AIDS Cases

MALES	White		Black		Hispanic		Other or Unknown		Male Subtotal	
0 - 12 years	25	1%	79	1%	2	0%	7	2%	113	1%
13 - 19 years	76	2%	450	7%	17	3%	15	5%	558	5%
20 - 24 years	420	9%	1,059	17%	58	12%	41	14%	1,578	14%
25 - 29 years	739	16%	1,006	16%	101	20%	61	20%	1,907	16%
30 - 39 years	1,751	39%	1,982	31%	194	39%	109	37%	4,036	35%
40 - 49 years	1,072	24%	1,259	20%	81	16%	46	15%	2,458	21%
50 - 59 years	339	8%	407	6%	29	6%	16	5%	791	7%
60 years and over	92	2%	80	1%	13	3%	3	1%	188	2%
Total*	4,514	39%	6,322	54%	495	4%	298	3%	11,629	100%

FEMALES	White		Black		Hispanic		Other or Unknown		Female Subtotal	
0 - 12 years	13	2%	55	2%	6	4%	4	4%	78	2%
13 - 19 years	41	6%	130	5%	11	8%	2	2%	184	5%
20 - 24 years	116	18%	315	13%	20	14%	12	13%	463	14%
25 - 29 years	130	20%	406	16%	19	14%	16	17%	571	17%
30 - 39 years	205	31%	818	33%	50	36%	40	43%	1,113	33%
40 - 49 years	97	15%	531	21%	20	14%	12	13%	660	20%
50 - 59 years	45	7%	185	7%	9	6%	6	6%	245	7%
60 years and over	9	1%	40	2%	4	3%	1	1%	54	2%
Total*	656	19%	2,480	74%	139	4%	93	3%	3,368	100%

TOTAL	White		Black		Hispanic		Other or Unknown		Age Total	
0 - 12 years	38	1%	134	2%	8	1%	11	3%	191	1%
13 - 19 years	117	2%	580	7%	28	4%	17	4%	742	5%
20 - 24 years	536	10%	1,374	16%	78	12%	53	14%	2,041	14%
25 - 29 years	869	17%	1,412	16%	120	19%	77	20%	2,478	17%
30 - 39 years	1,956	38%	2,800	32%	244	38%	149	38%	5,149	34%
40 - 49 years	1,169	23%	1,790	20%	101	16%	58	15%	3,118	21%
50 - 59 years	384	7%	592	7%	38	6%	22	6%	1,036	7%
60 years and over	101	2%	120	1%	17	3%	4	1%	242	2%
RACE TOTAL *	5,170	34%	8,802	59%	634	4%	391	3%	14,997	100%

*Not included in this table are one white female and two black male cases of unknown age at diagnosis

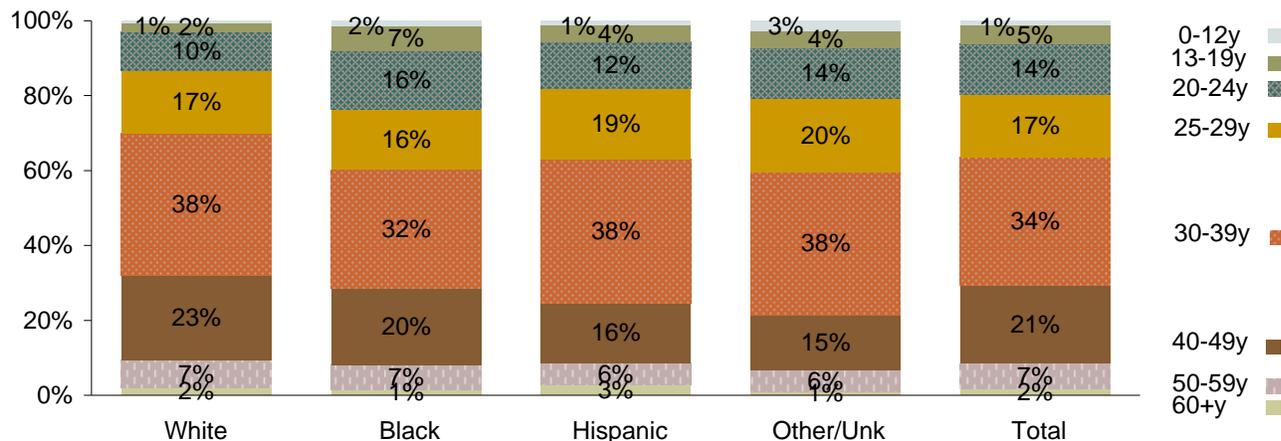
FIGURE 2. Age at HIV Diagnosis Among Prevalent HIV/AIDS Cases by Race

TABLE 5. New Diagnoses, Deaths, and Prevalence of HIV/AIDS by Year

Year	<i>HIV/AIDS</i>			<i>AIDS</i>		
	New HIV Diagnoses	Deaths	Prevalence	New AIDS Diagnoses	Deaths	Prevalence
1981	4	2	2	3	2	1
1982	3	0	5	2	0	3
1983	29	5	29	22	5	20
1984	70	17	82	50	17	53
1985	382	63	401	98	63	88
1986	489	102	788	168	99	157
1987	720	182	1,326	318	174	301
1988	905	263	1,968	493	254	540
1989	1,301	380	2,889	689	370	859
1990	1,441	453	3,877	795	433	1,221
1991	1,444	536	4,785	962	515	1,668
1992	1,492	662	5,615	1,232	630	2,270
1993	1,299	823	6,091	1,126	777	2,619
1994	1,213	900	6,404	1,014	843	2,790
1995	1,192	912	6,684	1,064	843	3,011
1996	1,118	632	7,170	858	583	3,286
1997	1,044	469	7,745	737	419	3,604
1998	902	398	8,249	649	350	3,903
1999	747	368	8,628	574	321	4,156
2000	923	381	9,170	651	330	4,477
2001	879	389	9,660	575	321	4,731
2002	769	340	10,089	579	301	5,009
2003	871	317	10,643	600	265	5,344
2004	891	305	11,229	563	249	5,658
2005	895	319	11,805	736	267	6,127
2006	813	296	12,322	613	247	6,493
2007	799	276	12,845	589	242	6,840
2008	789	273	13,361	546	238	7,148
2009	820	225	13,956	480	193	7,435
2010	770	144	14,582	511	131	7,815
2011	462	44	15,000	287	37	8,065
TOTAL	25,476	10,476		17,584	9,519	

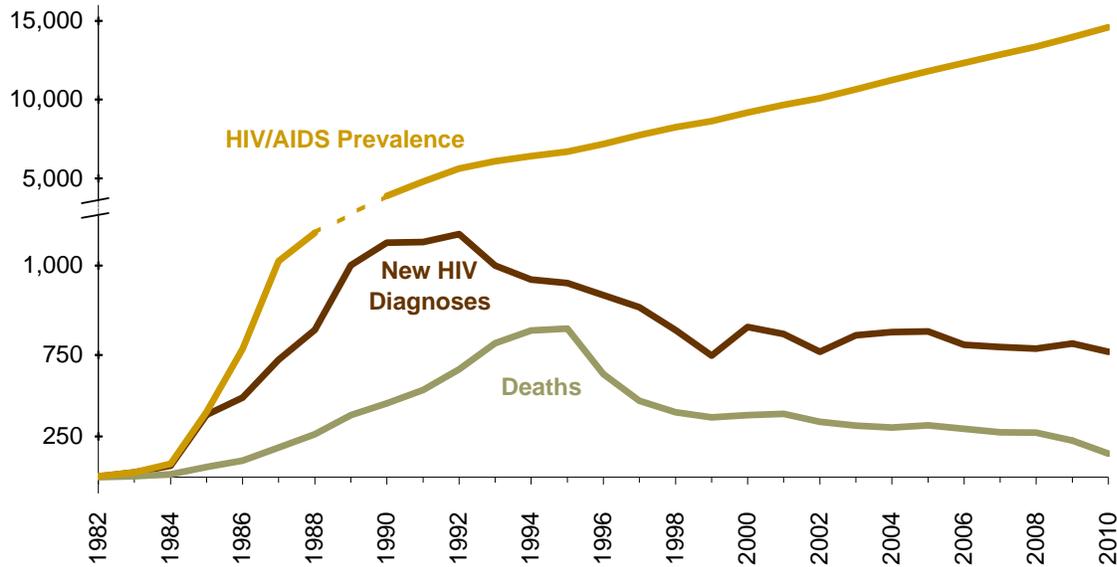
The prevalence of HIV in Michigan has steadily increased, since persons with HIV are living longer. This is largely due to improved anti-retroviral therapy.

The increase in HIV prevalence is also reflected in Figure 3 on page 6, which shows that the number of persons diagnosed, while stable for the last several years, is greater than the number of deaths each year. This directly contributes to the increase in prevalence. The current reported prevalence of HIV/AIDS in Michigan is 15,000. The prevalence of AIDS, which is a subset of HIV/AIDS prevalence, is 8,065.

As implied, the HIV/AIDS section displays data on all persons with HIV, including those with AIDS, as well as those who have not been diagnosed with AIDS. Thus, persons represented in the AIDS section are also represented in the HIV/AIDS section. The number of reported deaths includes deaths directly attributable to presence of HIV/AIDS as well as deaths due to other causes.

NOTE: Reporting for recent years may not be complete. Data are not adjusted to account for reporting delays.

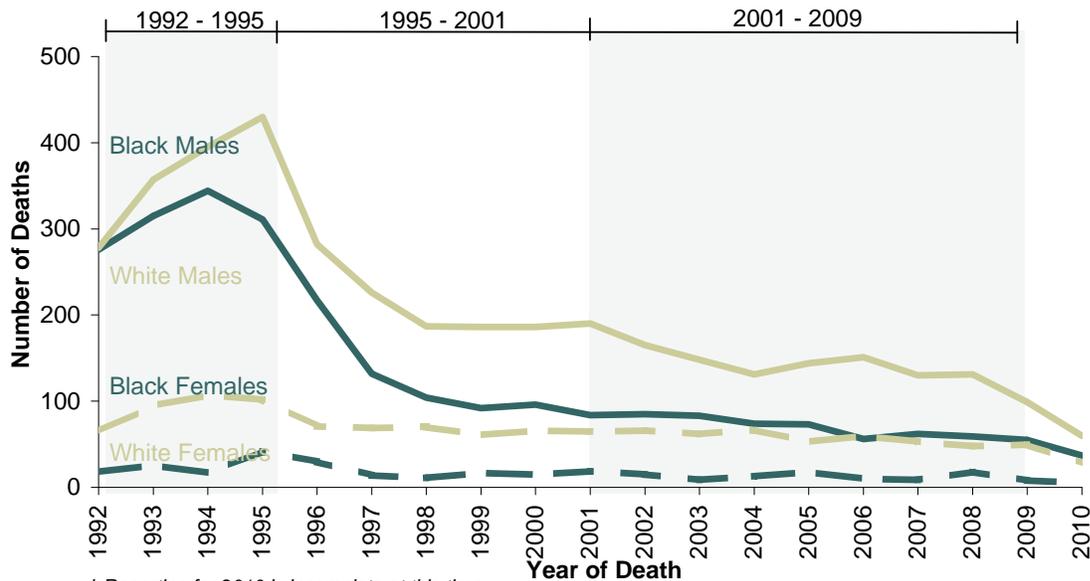
FIGURE 3. New Diagnoses[†], Deaths, and Prevalence of HIV/AIDS by Year



[†] Reporting for 2010 is incomplete at this time.

Figure 4 (below) shows the number of HIV-infected Michigan residents who have been reported as deceased by a local health department, the department of vital records via a data match or death certificate, or an alternate source. The number of deaths increased in all race/sex groups from the beginning of the epidemic through approximately 1994-1995. The number of deaths decreased markedly between 1995 and 1998 and then were relatively stable until 2001. It should be noted that the percent decrease in deaths among white males (73%) between 1995 and 2001 was more pronounced than the percent decrease among black males (56%), and the percent decrease among white females (55%) was larger than the percent decrease among black females (36%). Encouragingly, the number of deaths in black males has fallen substantially from 2001 to 2009 (48%), as have the number of deaths in white males (35%), black females (23%) and white females (58%).

FIGURE 4. HIV/AIDS Deaths[†] by Race/Sex



[†] Reporting for 2010 is incomplete at this time.

TABLE 6. Demographic Information on Persons Ever Diagnosed* with HIV

RACE/ETHNICITY	2011 [†]						CUMULATIVE (through 2011)					
	Male		Female		Total		Male		Female		Total	
White	125	33%	19	23%	144	31%	8,008	40%	1,008	19%	9,016	35%
Black	222	59%	59	70%	281	61%	11,022	55%	3,929	75%	14,951	59%
Hispanic	23	6%	4	5%	27	6%	760	4%	191	4%	951	4%
Asian/HI/PI	3	1%	1	1%	4	1%	68	0%	23	0%	91	0%
Am In/AK Nat	1	0%	1	1%	2	0%	45	0%	16	0%	61	0%
Multi/Unk	4	1%	0	0%	4	1%	309	2%	97	2%	406	2%
RISK[§]												
Male-Male Sex	233	62%	N/A	--	233	50%	11,951	59%	N/A	--	11,951	47%
Injection Drug Use	8	2%	3	4%	11	2%	2,701	13%	1,584	30%	4,285	17%
MSM/IDU	12	3%	N/A	--	12	3%	1,361	7%	N/A	--	1,361	5%
Blood Products	0	0%	0	0%	0	0%	306	2%	38	1%	344	1%
Heterosexual	10	3%	53	63%	63	14%	802	4%	2,851	54%	3,653	14%
HRH	10	3%	16	19%	26	6%	802	4%	1,838	35%	2,640	10%
PH-Female	N/A	--	37	44%	37	8%	N/A	--	1,013	19%	1,013	4%
Perinatal	3	1%	0	0%	3	1%	136	1%	103	2%	239	1%
Undetermined	112	30%	28	33%	140	30%	2,955	15%	688	13%	3,643	14%
PH-Male	53	14%	N/A	--	53	11%	1,890	9%	N/A	--	1,890	7%
Unknown	59	16%	28	33%	87	19%	1,065	5%	688	13%	1,753	7%
AGE AT HIV DIAGNOSIS												
0 - 12 years	3	1%	0	0%	3	1%	181	1%	109	2%	290	1%
13 - 19 years	35	9%	3	4%	38	8%	644	3%	224	4%	868	3%
20 - 24 years	93	25%	10	12%	103	22%	2,042	10%	577	11%	2,619	10%
25 - 29 years	49	13%	11	13%	60	13%	3,213	16%	807	15%	4,020	16%
30 - 39 years	72	19%	28	33%	100	22%	7,396	37%	1,826	35%	9,222	36%
40 - 49 years	78	21%	12	14%	90	19%	4,666	23%	1,172	22%	5,838	23%
50 - 59 years	35	9%	13	15%	48	10%	1,600	8%	420	8%	2,020	8%
60 years and over	13	3%	7	8%	20	4%	468	2%	128	2%	596	2%
Unspecified	0	0%	0	0%	0	0%	2	0%	1	0%	3	0%
DISEASE STATUS[¶]												
HIV, not AIDS	286	76%	57	68%	343	74%	5,963	30%	1,929	37%	7,892	31%
AIDS - Same time	70	19%	19	23%	89	19%	7,626	38%	1,486	28%	9,112	36%
AIDS - Short lag	22	6%	8	10%	30	6%	1,566	8%	438	8%	2,004	8%
AIDS - Long lag	0	0%	0	0%	0	0%	5,057	25%	1,411	27%	6,468	25%
AREA OF RESIDENCE AT DIAGNOSIS[£]												
Detroit Metro	241	64%	56	67%	297	64%	13,302	66%	3,806	72%	17,108	67%
Out-State	132	35%	27	32%	159	34%	5,805	29%	1,352	26%	7,157	28%
Prison/Unknown	5	1%	1	1%	6	1%	1,105	5%	106	2%	1,211	5%
TOTAL	378	82%	84	18%	462	100%	20,212	79%	5,264	21%	25,476	100%

*Includes deceased cases

†Data for cases diagnosed in 2011 may be incomplete at this time

§ See page ii for description of risk category groupings. Risk categories used in Michigan are newly defined as of the July 2007 quarter.

¶ The definitions of disease status are as follows:

HIV, not AIDS = Has not been diagnosed with AIDS

AIDS - Same time = Concurrent HIV and AIDS diagnoses (diagnoses within the same month)

AIDS - Short lag = AIDS diagnosed 1 month to 12 months after HIV diagnosis

AIDS - Long lag = AIDS diagnosed more than 12 months after HIV diagnosis

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

TABLE 7. Prevalent HIV/AIDS Cases According to County of Residence at Diagnosis

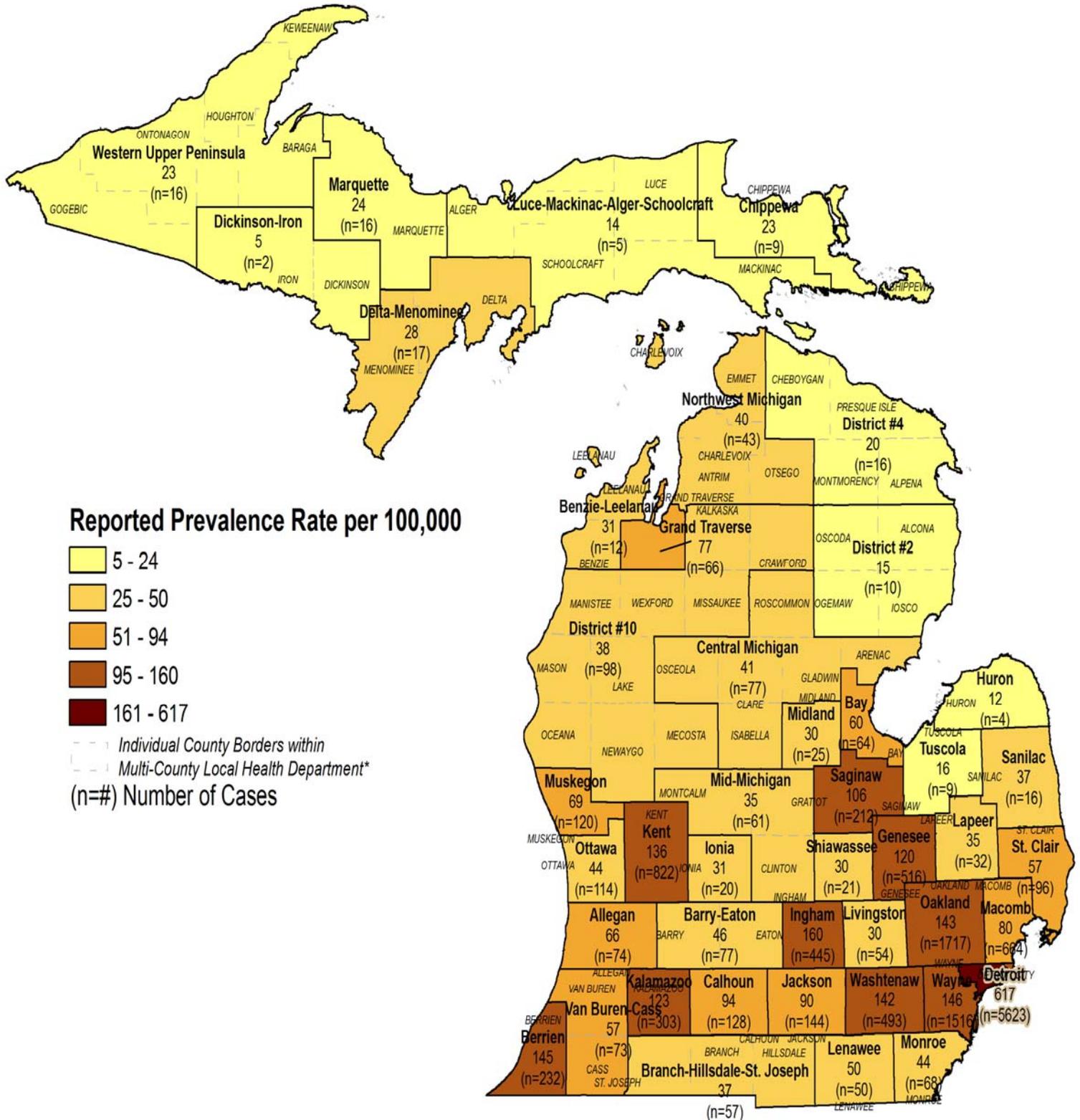
COUNTY	EST PREV Number	REPORTED PREVALENCE				CENSUS 2008 EST	COUNTY	EST PREV Number	REPORTED PREVALENCE				CENSUS 2008 EST
		HIV, Not AIDS	AIDS	Total	Rate*				HIV, Not AIDS	AIDS	Total	Rate*	
Alcona	10	0	0	0	0	11,556	Livingston	70	21	33	54	30	182,575
Alger	10	0	1	1	11	9,438	Luce	10	0	0	0	0	6,614
Allegan	100	26	48	74	66	112,975	Mackinac	10	2	1	3	28	10,624
Alpena	10	1	2	3	10	29,520	Macomb	870	320	344	664	80	830,663
Antrim	10	4	6	10	41	24,109	Manistee	20	5	7	12	49	24,640
Arenac	10	1	1	2	12	16,361	Marquette	20	7	9	16	24	65,492
Baraga	10	1	4	5	59	8,528	Mason	10	4	6	10	35	28,782
Barry	30	9	15	24	41	58,890	Mecosta	20	10	5	15	36	41,562
Bay	80	35	29	64	60	107,495	Menominee	10	3	1	4	17	24,202
Benzie	10	2	3	5	29	17,396	Midland	30	12	13	25	30	82,605
Berrien	310	92	140	232	145	159,481	Missaukee	10	3	4	7	47	15,001
Branch	20	12	3	15	33	45,726	Monroe	90	29	39	68	44	152,949
Calhoun	170	62	66	128	94	135,861	Montcalm	30	8	14	22	35	62,971
Cass	40	15	15	30	60	50,185	Montmorency	10	0	3	3	29	10,335
Charlevoix	20	5	8	13	50	25,936	Muskegon	160	62	58	120	69	174,344
Cheboygan	10	2	6	8	30	26,354	Newaygo	20	7	9	16	33	48,897
Chippewa	10	6	3	9	23	38,971	Oakland	2,260	838	879	1,717	143	1,202,174
Clare	20	3	10	13	43	30,312	Oceana	10	7	4	11	40	27,598
Clinton	40	20	11	31	44	69,726	Ogemaw	10	1	3	4	19	21,016
Crawford	10	1	3	4	28	14,463	Ontonagon	10	1	2	3	44	6,819
Delta	20	5	8	13	35	37,179	Osceola	10	1	3	4	17	22,930
Dickinson	10	0	1	1	4	26,812	Oscoda	10	1	0	1	11	8,836
Eaton	70	23	30	53	50	106,781	Otsego	10	4	7	11	46	23,808
Emmet	10	3	6	9	27	33,535	Ottawa	150	50	64	114	44	260,364
Genesee	680	262	254	516	120	428,790	Presque Isle	10	0	2	2	15	13,650
Gladwin	10	3	5	8	31	25,920	Roscommon	20	3	10	13	52	25,042
Gogebic	10	1	1	2	12	16,043	Saginaw	280	109	103	212	106	200,745
Grand Traverse	90	33	33	66	77	86,071	Sanilac	20	8	8	16	37	43,024
Gratiot	10	4	4	8	19	42,245	Schoolcraft	10	1	0	1	12	8,220
Hillsdale	10	3	5	8	17	46,212	Shiawassee	30	8	13	21	30	70,880
Houghton	10	3	3	6	17	35,174	St. Clair	130	49	47	96	57	168,894
Huron	10	2	2	4	12	32,805	St. Joseph	40	15	19	34	55	62,232
Ingham	590	240	205	445	160	277,528	Tuscola	10	4	5	9	16	56,187
Ionia	30	9	11	20	31	63,833	Van Buren	60	19	24	43	55	77,801
Iosco	10	4	1	5	19	25,932	Washtenaw	650	246	247	493	142	347,376
Iron	10	0	1	1	8	12,001	Wayne Total	9,390	3,172	3,967	7,139	366	1,949,929
Isabella	50	19	18	37	55	66,778	Wayne, excl. Detroit	1,990	655	861	1,516	146	1,037,867
Jackson	190	71	73	144	90	160,180	Detroit	7,400	2,517	3,106	5,623	617	912,062
Kalamazoo	400	151	152	303	123	245,912	Wexford	10	3	5	8	25	31,673
Kalkaska	10	4	0	4	23	17,066							
Kent	1,080	358	464	822	136	605,213	Detroit Metro[†]	12,780	4,421	5,295	9,716	221	4,395,484
Keweenaw	10	0	0	0	0	2,202	Out-State[†]	5,950	2,145	2,376	4,521	81	5,607,938
Lake	10	4	7	11	100	11,014							
Lapeer	40	13	19	32	35	90,875	Prisons[‡]	770	368	393	761	N/A	N/A
Leelanau	10	0	7	7	32	21,783	Unknown	10	1	1	2	N/A	N/A
Lenawee	70	21	29	50	50	100,801	TOTAL	19,500	6,935	8,065	15,000	150	10,003,422

*Rate is reported prevalence per 100,000 and is not an estimate

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

[‡] The Prevalence Estimate for prisons is calculated differently from the remainder of the state. Please see the Front Matter (p. iii) for a further explanation.

FIGURE 5. Reported HIV Prevalence and Prevalence Rates by Residence at Diagnosis



*To mitigate the effect of small numbers of cases, reported HIV prevalence rates and case numbers for multi-county health departments are listed for the health department as a whole and not the individual counties.

TABLE 8. Perinatal HIV Exposures by Year of Birth, 2005 - 2011

	2005		2006		2007		2008		2009		2010		2011 [†]	
NUMBER DELIVERIES/BIRTHS														
Infants	72		50		54		39		40		37		12	
Mothers	66		48		47		38		35		37		12	
RESIDENCE AT BIRTH														
	Num.	%	Num.	%										
Southeast Michigan	42	58%	30	60%	35	65%	28	72%	23	58%	25	68%	6	50%
Out-State Michigan	30	42%	20	40%	19	35%	11	28%	17	43%	12	32%	6	50%
INFANTS' RACE														
White, Non-Hispanic	9	13%	6	12%	6	11%	8	21%	9	23%	1	3%	1	8%
Black, Non-Hispanic	58	81%	35	70%	42	78%	27	69%	28	70%	26	70%	11	92%
Other	5	7%	9	18%	6	11%	4	10%	3	8%	10	27%	0	0%
MOTHERS' MODE OF TRANSMISSION														
Injecting Drug Use	7	11%	2	4%	2	4%	1	3%	8	23%	3	8%	0	0%
High Risk Heterosexual	33	50%	18	38%	17	36%	8	21%	13	37%	18	49%	6	50%
Undetermined	26	39%	28	58%	28	60%	29	76%	14	40%	16	43%	6	50%

[†] Reporting for 2011 is incomplete at this time.

Table 8 displays the characteristics of all infants born to HIV positive women as well as characteristics of their mothers. Figure 6 indicates the current infection status of these infants -- the bottom portion of the bars showing number confirmed to be infected with HIV and/or diagnosed with AIDS; the middle portion showing those not to be infected with HIV or AIDS through laboratory testing or physician exam; and the top portion showing the number whose HIV infection status is unknown due to loss to follow up or infection status reporting delay.

Since 1994, the CDC and other organizations involved in perinatal HIV transmission have recommended that HIV-positive pregnant women receive doses of zidovudine (ZDV or AZT) prenatally and at labor and delivery and that children born to these women receive ZDV neonatally. Despite these recommendations, only 57% of births to HIV-positive women are documented by MDCH to have received all three arms of therapy.

FIGURE 6. Infection Status of Perinatal HIV Exposures, 2005 - 2011