

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

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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

All hemophiliacs, blood transfusion recipients, and organ recipients who received blood products prior to 1985 and all 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 bisexual males (for females), IDU, hemophiliacs, HIV+ transfusion recipients, or other HIV+ persons of unknown risk

PH (Presumed Heterosexual)-Female

Females 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 1,989 complete anonymous reports have been reported in Michigan.

HIV Prevalence Estimates for Michigan

HIV prevalence estimates in this report 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 18,800. For example, 77 percent of combined HIV and AIDS reports are among men. Therefore, the number of HIV-infected men in Michigan is estimated to be 14,550 (77.38% X 18,800). Since the estimates are rounded to the nearest 10, totals may not equal 18,800. 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 (18,800 - 790 = 18,010). 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 2,150 (11.93% x 18,010). Since the estimates are rounded to the nearest 10, the county totals may not equal 18,010. 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

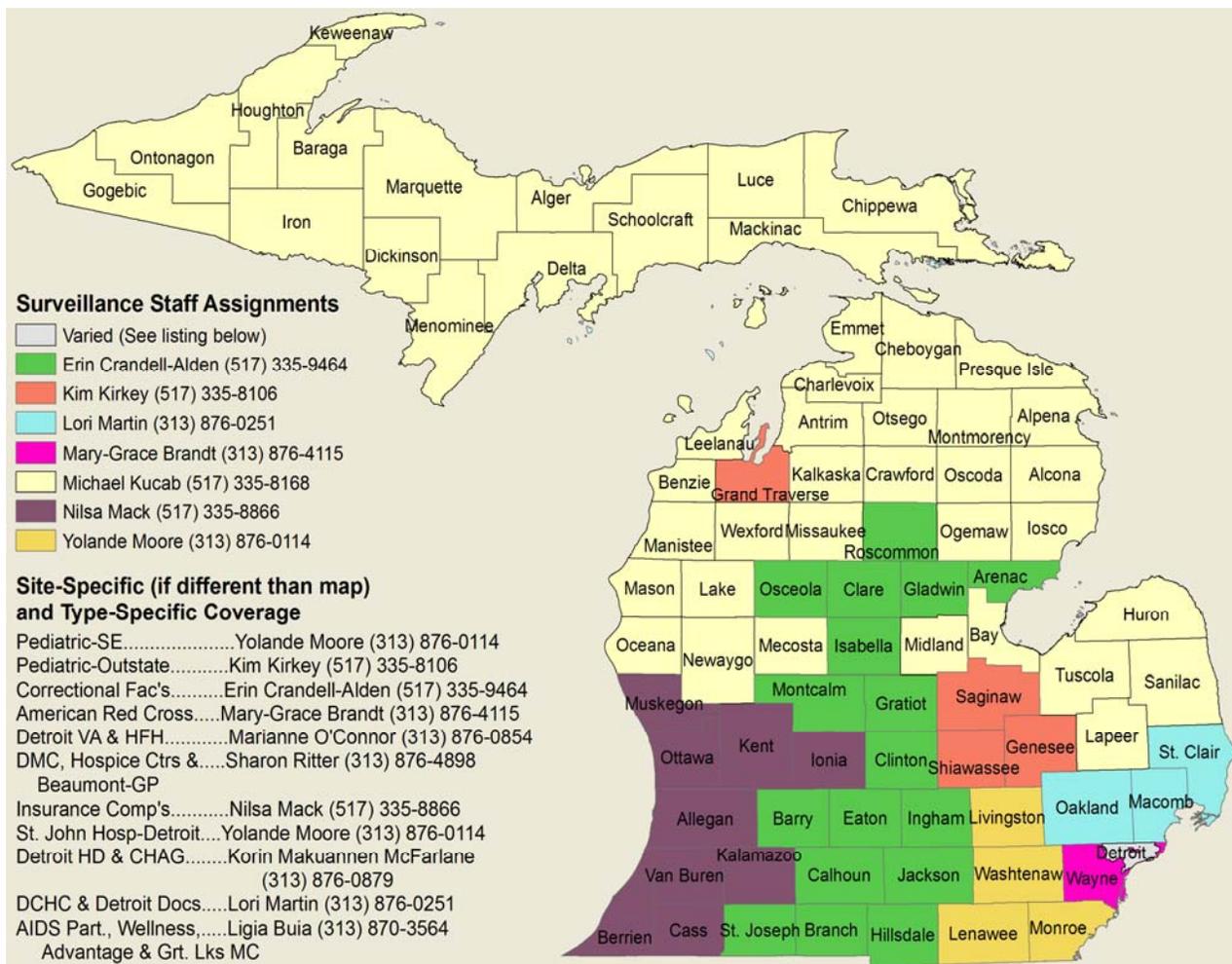


TABLE 1. Demographic Information on Prevalent HIV/AIDS Cases

	<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>RACE/ ETHNICITY‡</i>	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>			
White	6,490	2,354	35%	2,746	34%	5,100	35%	66	7,750,818	77%
Black	11,110	4,017	59%	4,721	59%	8,738	59%	623	1,403,051	14%
Hispanic	770	261	4%	343	4%	604	4%	146	413,827	4%
Asian/PI	90	35	1%	38	0%	73	0%	31	236,236	2%
Am Indian/AN	50	24	0%	18	0%	42	0%	77	54,714	1%
Multi/Unk/Other	280	100	1%	124	2%	224	2%	N/A	144,776	1%
<i>SEX & RACE</i>										
Males	14,550	5,114	75%	6,324	79%	11,438	77%	232	4,923,929	49%
<i>White Males</i>	5,680	2,005	30%	2,458	31%	4,463	30%	117	3,825,990	38%
<i>Black Males</i>	7,960	2,801	41%	3,454	43%	6,255	42%	943	662,992	7%
<i>Hispanic Males</i>	600	198	3%	273	3%	471	3%	216	217,942	2%
<i>Other Males</i>	320	110	2%	139	2%	249	2%	115	217,005	2%
Females	4,250	1,677	25%	1,666	21%	3,343	23%	66	5,079,493	51%
<i>White Females</i>	810	349	5%	288	4%	637	4%	16	3,924,828	39%
<i>Black Females</i>	3,160	1,216	18%	1,267	16%	2,483	17%	336	740,059	7%
<i>Hispanic FmIs</i>	170	63	1%	70	1%	133	1%	68	195,885	2%
<i>Other Females</i>	110	49	1%	41	1%	90	1%	41	218,721	2%
<i>RISK*</i>										
Male-Male Sex	9,010	3,161	47%	3,922	49%	7,083	48%	N/A	N/A	N/A
Injection Drug Use	2,060	633	9%	987	12%	1,620	11%	N/A	N/A	N/A
MSM/IDU	820	261	4%	384	5%	645	4%	N/A	N/A	N/A
Blood Products	120	32	0%	61	1%	93	1%	N/A	N/A	N/A
Heterosexual	3,330	1,263	19%	1,359	17%	2,622	18%	N/A	N/A	N/A
<i>HRH</i>	2,310	810	12%	1,009	13%	1,819	12%	N/A	N/A	N/A
<i>PH-Female</i>	1,020	453	7%	350	4%	803	5%	N/A	N/A	N/A
Perinatal	200	107	2%	54	1%	161	1%	N/A	N/A	N/A
Undetermined	3,250	1,334	20%	1,223	15%	2,557	17%	N/A	N/A	N/A
<i>PH-Male</i>	1,730	599	9%	763	10%	1,362	9%	N/A	N/A	N/A
<i>Unknown</i>	1,520	735	11%	460	6%	1,195	8%	N/A	N/A	N/A
<i>AGE AT HIV DIAGNOSIS</i>										
0 - 12 years	240	122	2%	64	1%	186	1%	N/A	N/A	N/A
13 - 19 years	880	420	6%	270	3%	690	5%	N/A	N/A	N/A
20 - 24 years	2,440	1,085	16%	832	10%	1,917	13%	N/A	N/A	N/A
25 - 29 years	3,090	1,191	17%	1,239	16%	2,430	16%	N/A	N/A	N/A
30 - 39 years	6,560	2,162	32%	2,999	38%	5,161	35%	N/A	N/A	N/A
40 - 49 years	3,970	1,284	19%	1,839	23%	3,123	21%	N/A	N/A	N/A
50 - 59 years	1,320	428	6%	608	8%	1,036	7%	N/A	N/A	N/A
60 years and over	300	96	1%	139	2%	235	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	12,400	4,357	64%	5,277	66%	9,634	65%	219	4,395,484	44%
Out-State	5,610	2,054	30%	2,305	29%	4,359	29%	78	5,607,938	56%
Prison/Unknown	800	380	6%	408	5%	788	5%	N/A	N/A	N/A
TOTAL	18,800	6,791	100%	7,990	100%	14,781	100%	148	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 x" statements for rate, divide the census number by the total reported prevalence. For example, for non-Hispanic whites: 7,750,818 / 5,100 = 1,520. Thus, 1 out of every 1,520 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

	<i>REPORTED HIV/AIDS PREVALENCE</i>					
	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
<i>RISK TRANSMISSION CATEGORIES (CDC Hierarchy)[§]</i>						
<i>(Mutually Exclusive: one case is represented in ONLY one category)</i>						
Male-Male Sex	7,083	62%	N/A	--	7,083	48%
Injection Drug Use	962	8%	658	20%	1,620	11%
MSM/IDU	645	6%	N/A	--	645	4%
Blood Products	79	1%	14	0%	93	1%
Heterosexual	531	5%	2,091	63%	2,622	18%
<i>HRH</i>	531	5%	1,288	39%	1,819	12%
<i>PH-Female</i>	N/A	--	803	24%	803	5%
Perinatal	92	1%	69	2%	161	1%
Undetermined	2,046	18%	511	15%	2,557	17%
<i>PH-Male</i>	1,362	12%	N/A	--	1,362	9%
<i>Unknown</i>	684	6%	511	15%	1,195	8%
<i>EXPOSURE CATEGORIES[†]</i>						
<i>(Mutually Exclusive: one case is represented in ONLY one category)</i>						
Male-Male Sex	6,581	58%	N/A	--	6,581	45%
<i>MSM - ONLY</i>	4,493	39%	N/A	--	4,493	30%
<i>MSM & Sex with Female (not HRH)</i>	2,088	18%	N/A	--	2,088	14%
MSM & HRH	498	4%	N/A	--	498	3%
MSM & IDU	445	4%	N/A	--	445	3%
MSM & IDU & HRH	200	2%	N/A	--	200	1%
MSM & Blood Products	4	0%	N/A	--	4	0%
Heterosexual - ONLY	531	5%	2,091	63%	2,622	18%
<i>HRH</i>	531	5%	1,288	39%	1,819	12%
<i>PH-Female</i>	N/A	--	803	24%	803	5%
HRH & IDU	376	3%	363	11%	739	5%
Injection Drug Use - ONLY	581	5%	292	9%	873	6%
IDU & Blood Products	5	0%	3	0%	8	0%
Perinatal Exposure	92	1%	70	2%	162	1%
Exposure to Blood Products - ONLY	79	1%	14	0%	93	1%
Undetermined	2,046	18%	510	15%	2,556	17%
<i>PH-Male Only</i>	1,362	12%	N/A	--	1,362	9%
<i>Unknown</i>	684	6%	510	15%	1,194	8%
TOTAL	11,438	100%	3,343	100%	14,781	100%
<i>SUMMARIZED EXPOSURE CATEGORIES*</i>						
<i>(NOT Mutually Exclusive: one case can be represented in multiple categories)</i>						
Any MSM	7,728	68%	N/A	--	7,728	52%
Behaviorally Bisexual Men	2,786	24%	N/A	--	2,786	19%
Any Heterosexual	3,693	32%	2,454	73%	6,147	42%
Any HRH	1,605	14%	1,651	49%	3,256	22%
Any IDU	1,607	14%	658	20%	2,265	15%

*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).

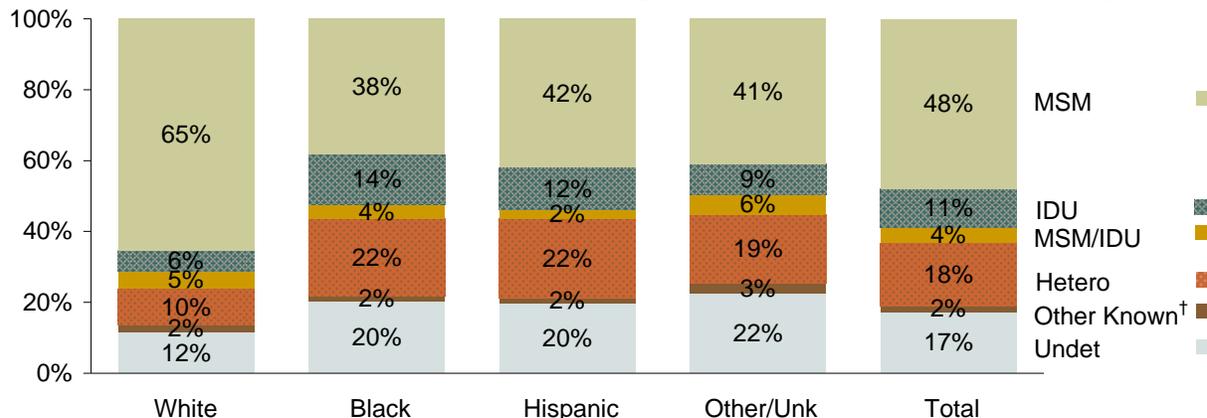
[†] Exposure Categories are mutually exclusive and grouped by allowing all possible combinations of risks that any one person may have. Any one person may have any combination of risks and is not assigned to a single risk category, as in the hierarchical groupings.

*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	3,339	75%	3,351	54%	254	54%	139	56%	7,083	62%
Injecting Drug Use	182	4%	714	11%	52	11%	14	6%	962	8%
Male-Male Sex/IDU	251	6%	360	6%	15	3%	19	8%	645	6%
Blood Products	61	1%	15	0%	1	0%	2	1%	79	1%
Heterosexual*	101	2%	387	6%	36	8%	7	3%	531	5%
Perinatal	16	0%	69	1%	2	0%	5	2%	92	1%
Undetermined	513	11%	1,359	22%	111	24%	63	25%	2,046	18%
<i>PH-Male</i>	302	7%	940	15%	79	17%	41	16%	1,362	12%
<i>Unknown</i>	211	5%	419	7%	32	7%	22	9%	684	6%
Male Subtotal	4,463	39%	6,255	55%	471	4%	249	2%	11,438	100%
FEMALES	White		Black		Hispanic		Other or Unknown		Female Subtotal	
Injecting Drug Use	116	18%	507	20%	20	15%	15	17%	658	20%
Blood Products	9	1%	4	0%	1	1%	0	0%	14	0%
Heterosexual	421	66%	1,512	61%	99	74%	59	66%	2,091	63%
<i>HRH</i>	310	49%	873	35%	73	55%	32	36%	1,288	39%
<i>PH-Female</i>	111	17%	639	26%	26	20%	27	30%	803	24%
Perinatal	12	2%	48	2%	6	5%	3	3%	69	2%
Undetermined*	79	12%	412	17%	7	5%	13	14%	511	15%
Female Subtotal	637	19%	2,483	74%	133	4%	90	3%	3,343	100%
TOTAL	White		Black		Hispanic		Other or Unknown		Risk Total	
Male-Male sex	3,339	65%	3,351	38%	254	42%	139	41%	7,083	48%
Injecting Drug Use	298	6%	1,221	14%	72	12%	29	9%	1,620	11%
Male-Male Sex/IDU	251	5%	360	4%	15	2%	19	6%	645	4%
Blood Products	70	1%	19	0%	2	0%	2	1%	93	1%
Heterosexual	522	10%	1,899	22%	135	22%	66	19%	2,622	18%
<i>HRH</i>	411	8%	1,260	14%	109	18%	39	12%	1,819	12%
<i>PH-Female</i>	111	2%	639	7%	26	4%	27	8%	803	5%
Perinatal	28	1%	117	1%	8	1%	8	2%	161	1%
Undetermined	592	12%	1,771	20%	118	20%	76	22%	2,557	17%
<i>PH-Male</i>	302	6%	940	11%	79	13%	41	12%	1,362	9%
<i>Unknown</i>	290	6%	831	10%	39	6%	35	10%	1,195	8%
RACE TOTAL	5,100	35%	8,738	59%	604	4%	339	2%	14,781	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%	77	1%	2	0%	6	2%	110	1%
13 - 19 years	72	2%	408	7%	15	3%	9	4%	504	4%
20 - 24 years	418	9%	964	15%	50	11%	32	13%	1,464	13%
25 - 29 years	726	16%	999	16%	92	20%	54	22%	1,871	16%
30 - 39 years	1,740	39%	2,025	32%	190	40%	94	38%	4,049	35%
40 - 49 years	1,060	24%	1,274	20%	83	18%	37	15%	2,454	21%
50 - 59 years	334	7%	422	7%	28	6%	14	6%	798	7%
60 years and over	88	2%	84	1%	11	2%	3	1%	186	2%
Total*	4,463	39%	6,253	55%	471	4%	249	2%	11,436	100%

FEMALES	White		Black		Hispanic		Other or Unknown		Female Subtotal	
0 - 12 years	13	2%	54	2%	6	5%	3	3%	76	2%
13 - 19 years	42	7%	131	5%	11	8%	2	2%	186	6%
20 - 24 years	117	18%	306	12%	19	14%	11	12%	453	14%
25 - 29 years	125	20%	400	16%	17	13%	17	19%	559	17%
30 - 39 years	202	32%	823	33%	50	38%	37	41%	1,112	33%
40 - 49 years	90	14%	548	22%	19	14%	12	13%	669	20%
50 - 59 years	40	6%	185	7%	7	5%	6	7%	238	7%
60 years and over	7	1%	36	1%	4	3%	2	2%	49	1%
Total*	636	19%	2,483	74%	133	4%	90	3%	3,342	100%

TOTAL	White		Black		Hispanic		Other or Unknown		Age Total	
0 - 12 years	38	1%	131	1%	8	1%	9	3%	186	1%
13 - 19 years	114	2%	539	6%	26	4%	11	3%	690	5%
20 - 24 years	535	10%	1,270	15%	69	11%	43	13%	1,917	13%
25 - 29 years	851	17%	1,399	16%	109	18%	71	21%	2,430	16%
30 - 39 years	1,942	38%	2,848	33%	240	40%	131	39%	5,161	35%
40 - 49 years	1,150	23%	1,822	21%	102	17%	49	14%	3,123	21%
50 - 59 years	374	7%	607	7%	35	6%	20	6%	1,036	7%
60 years and over	95	2%	120	1%	15	2%	5	1%	235	2%
RACE TOTAL *	5,099	35%	8,736	59%	604	4%	339	2%	14,778	100%

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

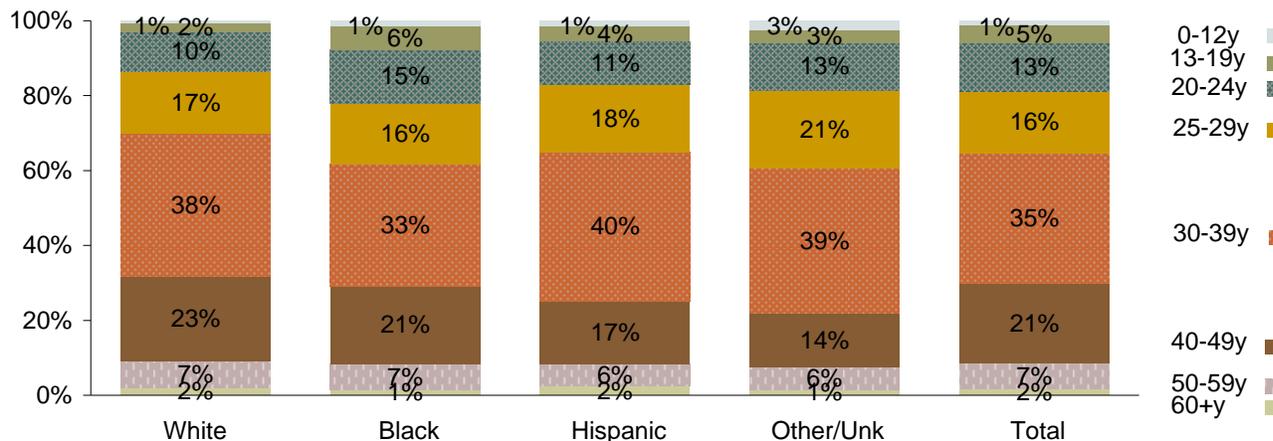
FIGURE 2. Age at HIV Diagnosis Among Prevalent HIV/AIDS Cases by Race

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	28	5	28	22	5	20
1984	70	17	81	50	17	53
1985	381	63	399	98	63	88
1986	488	102	785	168	99	157
1987	716	182	1,319	318	174	301
1988	903	263	1,959	493	254	540
1989	1,300	380	2,879	689	370	859
1990	1,440	453	3,866	795	433	1,221
1991	1,443	536	4,773	962	515	1,668
1992	1,487	662	5,598	1,231	630	2,269
1993	1,297	822	6,073	1,126	776	2,619
1994	1,204	899	6,378	1,013	842	2,790
1995	1,187	911	6,654	1,063	843	3,010
1996	1,123	632	7,145	858	583	3,285
1997	1,044	469	7,720	736	419	3,602
1998	899	398	8,221	649	350	3,901
1999	749	363	8,607	574	317	4,158
2000	920	379	9,148	650	328	4,480
2001	881	382	9,647	575	315	4,740
2002	763	299	10,111	577	270	5,047
2003	873	278	10,706	599	240	5,406
2004	886	270	11,322	559	224	5,741
2005	899	284	11,937	717	242	6,216
2006	815	251	12,501	621	209	6,628
2007	802	231	13,072	587	199	7,016
2008	782	199	13,655	543	180	7,379
2009	824	153	14,326	469	136	7,712
2010	521	66	14,781	338	60	7,990
TOTAL	24,732	9,951		17,085	9,095	

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 14,781. The prevalence of AIDS, which is a subset of HIV/AIDS prevalence, is 7,990.

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

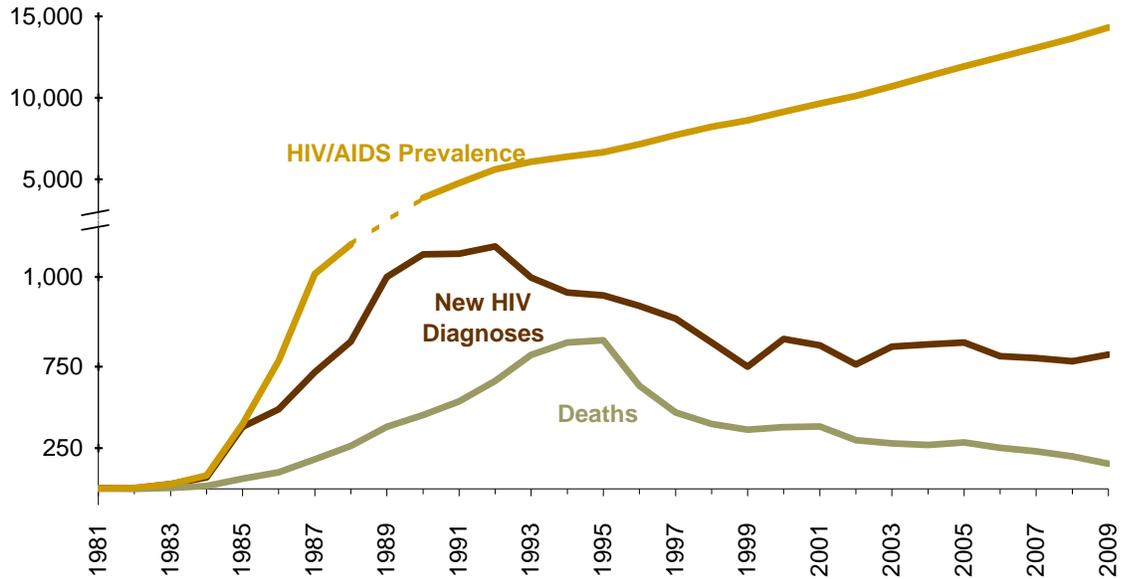


Figure 4 (below) shows the number of HIV-infected Michigan residents who have been reported as deceased by a local health department, the department of vital records via a data match or death certificate, or an alternate source. The number of deaths increased in all race/sex groups from the beginning 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 (57%), and the percent decrease among white females (55%) was larger than the percent decrease among black females (38%). Encouragingly, the number of deaths in black males has fallen substantially from 2001 to 2008 (50%), as have the number of deaths in white males (52%) and black females (46%). Compared to the other groups, the number of deaths in white females fell by a smaller amount between 2001 and 2008 (11%).

FIGURE 4. HIV/AIDS Deaths by Race/Sex

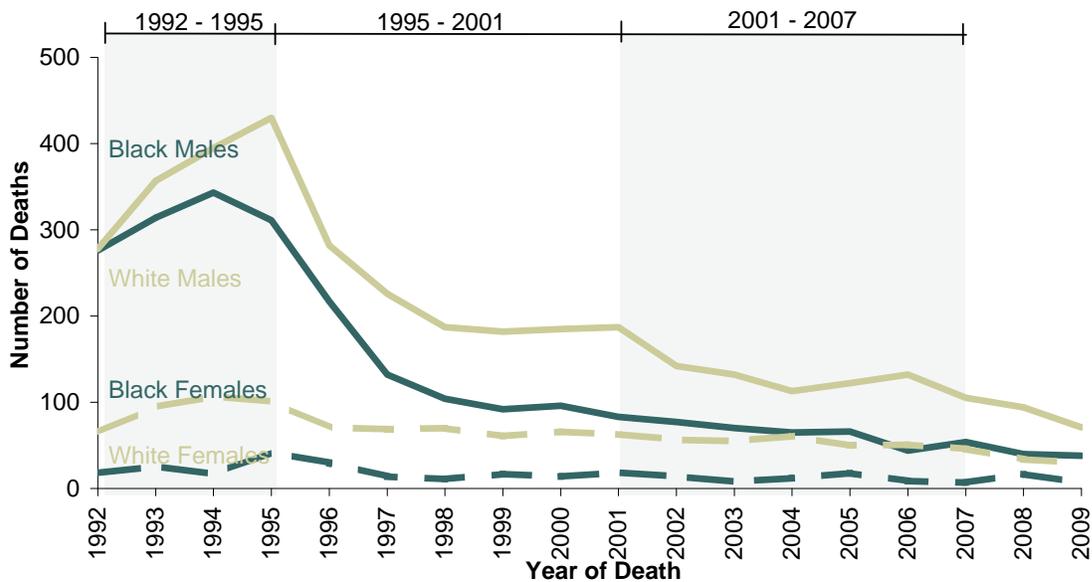


TABLE 6. Demographic Information on Persons Ever Diagnosed* with HIV

	2010 [†]						CUMULATIVE (through 2010)					
	Male		Female		Total		Male		Female		Total	
RACE/ETHNICITY												
White	158	(37%)	15	(16%)	173	(33%)	7,830	(40%)	975	(19%)	8,805	(36%)
Black	237	(56%)	75	(79%)	312	(60%)	10,704	(55%)	3,833	(75%)	14,537	(59%)
Hispanic	23	(5%)	3	(3%)	26	(5%)	716	(4%)	183	(4%)	899	(4%)
Asian/HI/PI	1	(0%)	0	(0%)	1	(0%)	64	(0%)	23	(0%)	87	(0%)
Am In/AK Nat	1	(0%)	1	(1%)	2	(0%)	47	(0%)	15	(0%)	62	(0%)
Multi/Unk	6	(1%)	1	(1%)	7	(1%)	256	(1%)	86	(2%)	342	(1%)
RISK[§]												
Male-Male Sex	249	(58%)	N/A	--	249	(48%)	11,555	(59%)	N/A	--	11,555	(47%)
Injection Drug Use	13	(3%)	17	(18%)	30	(6%)	2,685	(14%)	1,571	(31%)	4,256	(17%)
MSM/IDU	4	(1%)	N/A	--	4	(1%)	1,339	(7%)	N/A	--	1,339	(5%)
Blood Products	0	(0%)	0	(0%)	0	(0%)	303	(2%)	38	(1%)	341	(1%)
Heterosexual	7	(2%)	57	(60%)	64	(12%)	787	(4%)	2,748	(54%)	3,535	(14%)
HRH	7	(2%)	14	(15%)	21	(4%)	787	(4%)	1,799	(35%)	2,586	(10%)
PH-Female	N/A	--	43	(45%)	43	(8%)	N/A	--	949	(19%)	949	(4%)
Perinatal	3	(1%)	1	(1%)	4	(1%)	133	(1%)	101	(2%)	234	(1%)
Undetermined	150	(35%)	20	(21%)	170	(33%)	2,815	(14%)	657	(13%)	3,472	(14%)
PH-Male	80	(19%)	N/A	--	80	(15%)	1,820	(9%)	N/A	--	1,820	(7%)
Unknown	70	(16%)	20	(21%)	90	(17%)	995	(5%)	657	(13%)	1,652	(7%)
AGE AT HIV DIAGNOSIS												
0 - 12 years	3	(1%)	1	(1%)	4	(1%)	178	(1%)	107	(2%)	285	(1%)
13 - 19 years	31	(7%)	6	(6%)	37	(7%)	590	(3%)	220	(4%)	810	(3%)
20 - 24 years	83	(19%)	9	(9%)	92	(18%)	1,901	(10%)	558	(11%)	2,459	(10%)
25 - 29 years	62	(15%)	17	(18%)	79	(15%)	3,122	(16%)	782	(15%)	3,904	(16%)
30 - 39 years	111	(26%)	22	(23%)	133	(26%)	7,283	(37%)	1,785	(35%)	9,068	(37%)
40 - 49 years	76	(18%)	26	(27%)	102	(20%)	4,548	(23%)	1,147	(22%)	5,695	(23%)
50 - 59 years	48	(11%)	10	(11%)	58	(11%)	1,545	(8%)	398	(8%)	1,943	(8%)
60 years and over	12	(3%)	4	(4%)	16	(3%)	448	(2%)	117	(2%)	565	(2%)
Unspecified	0	(0%)	0	(0%)	0	(0%)	2	(0%)	1	(0%)	3	(0%)
DISEASE STATUS[‡]												
HIV, not AIDS	300	(70%)	73	(77%)	373	(72%)	5,741	(29%)	1,906	(37%)	7,647	(31%)
AIDS - Same time	94	(22%)	15	(16%)	109	(21%)	7,502	(38%)	1,459	(29%)	8,961	(36%)
AIDS - Short lag	32	(8%)	7	(7%)	39	(7%)	1,501	(8%)	414	(8%)	1,915	(8%)
AIDS - Long lag	0	(0%)	0	(0%)	0	(0%)	4,873	(25%)	1,336	(26%)	6,209	(25%)
AREA OF RESIDENCE AT DIAGNOSIS[§]												
Detroit Metro	283	(66%)	71	(75%)	354	(68%)	12,933	(66%)	3,715	(73%)	16,648	(67%)
Out-State	136	(32%)	24	(25%)	160	(31%)	5,584	(28%)	1,295	(25%)	6,879	(28%)
Prison/Unknown	7	(2%)	0	(0%)	7	(1%)	1,100	(6%)	105	(2%)	1,205	(5%)
TOTAL	426	(82%)	95	(18%)	521	(100%)	19,617	(79%)	5,115	(21%)	24,732	(100%)

*Includes deceased cases

†Data for cases diagnosed in 2010 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.

NOTE: <5 and ** = 1, 2, 3, or 4 cases

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	60	21	28	49	27	182,575
Alger	10	0	1	1	11	9,438	Luce	10	0	0	0	0	6,614
Allegan	100	27	49	76	67	112,975	Mackinac	10	2	2	4	38	10,624
Alpena	10	1	2	3	10	29,520	Macomb	810	305	325	630	76	830,663
Antrim	10	3	7	10	41	24,109	Manistee	20	6	7	13	53	24,640
Arenac	10	1	1	2	12	16,361	Marquette	20	7	9	16	24	65,492
Baraga	10	2	4	6	70	8,528	Mason	10	3	6	9	31	28,782
Barry	30	7	14	21	36	58,890	Mecosta	20	10	5	15	36	41,562
Bay	80	36	29	65	60	107,495	Menominee	10	3	1	4	17	24,202
Benzie	10	2	3	5	29	17,396	Midland	30	12	14	26	31	82,605
Berrien	290	88	140	228	143	159,481	Missaukee	10	5	2	7	47	15,001
Branch	20	12	3	15	33	45,726	Monroe	80	24	41	65	42	152,949
Calhoun	150	56	60	116	85	135,861	Montcalm	30	6	14	20	32	62,971
Cass	40	14	15	29	58	50,185	Montmorency	10	0	3	3	29	10,335
Charlevoix	20	5	8	13	50	25,936	Muskegon	150	62	55	117	67	174,344
Cheboygan	10	3	4	7	27	26,354	Newaygo	20	6	10	16	33	48,897
Chippewa	10	6	3	9	23	38,971	Oakland	2,150	811	858	1,669	139	1,202,174
Clare	20	5	8	13	43	30,312	Oceana	20	7	5	12	43	27,598
Clinton	40	19	13	32	46	69,726	Ogemaw	10	1	3	4	19	21,016
Crawford	10	0	3	3	21	14,463	Ontonagon	10	1	1	2	29	6,819
Delta	20	4	8	12	32	37,179	Osceola	10	2	3	5	22	22,930
Dickinson	10	0	1	1	4	26,812	Oscoda	10	1	0	1	11	8,836
Eaton	70	25	28	53	50	106,781	Otsego	10	4	7	11	46	23,808
Emmet	10	3	6	9	27	33,535	Ottawa	140	47	62	109	42	260,364
Genesee	660	260	256	516	120	428,790	Presque Isle	10	0	2	2	15	13,650
Gladwin	10	3	5	8	31	25,920	Roscommon	20	4	8	12	48	25,042
Gogebic	10	1	1	2	12	16,043	Saginaw	260	103	96	199	99	200,745
Grand Traverse	80	31	28	59	69	86,071	Sanilac	20	6	7	13	30	43,024
Gratiot	10	3	4	7	17	42,245	Schoolcraft	10	1	0	1	12	8,220
Hillsdale	10	4	3	7	15	46,212	Shiawassee	30	9	15	24	34	70,880
Houghton	10	2	4	6	17	35,174	St. Clair	120	49	45	94	56	168,894
Huron	10	2	2	4	12	32,805	St. Joseph	40	13	19	32	51	62,232
Ingham	560	232	200	432	156	277,528	Tuscola	10	4	5	9	16	56,187
Ionia	20	8	11	19	30	63,833	Van Buren	50	17	25	42	54	77,801
Iosco	10	3	1	4	15	25,932	Washtenaw	600	227	238	465	134	347,376
Iron	10	0	1	1	8	12,001	Wayne Total	9,190	3,153	3,992	7,145	366	1,949,929
Isabella	50	19	16	35	52	66,778	Wayne, excl. Detroit	1,900	639	838	1,477	142	1,037,867
Jackson	170	61	71	132	82	160,180	Detroit	7,290	2,514	3,154	5,668	621	912,062
Kalamazoo	370	143	145	288	117	245,912	Wexford	10	3	5	8	25	31,673
Kalkaska	10	4	1	5	29	17,066	Detroit Metro[†]	12,400	4,357	5,277	9,634	219	4,395,484
Kent	1,020	344	451	795	131	605,213	Out-State[†]	5,610	2,054	2,305	4,359	78	5,607,938
Keweenaw	10	0	0	0	0	2,202	Prisons[‡]	790	378	407	785	N/A	N/A
Lake	10	2	8	10	91	11,014	Unknown	10	2	1	3	N/A	N/A
Lapeer	40	15	16	31	34	90,875	TOTAL	18,800	6,791	7,990	14,781	148	10,003,422
Leelanau	10	0	6	6	28	21,783							
Lenawee	60	20	24	44	44	100,801							

*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.

TABLE 8. Perinatal HIV Exposures by Year of Birth, 2004 - 2010

	2004	2005	2006	2007	2008	2009	2010 [†]
NUMBER DELIVERIES/BIRTHS							
Infants	57	72	50	54	39	34	13
Mothers	53	66	48	47	38	29	10
RESIDENCE AT BIRTH							
Southeast Michigan	37 65%	42 58%	30 60%	35 65%	28 72%	21 62%	6 46%
Out-State Michigan	20 35%	30 42%	20 40%	19 35%	11 28%	13 38%	7 54%
INFANTS' RACE							
White, Non-Hispanic	9 16%	9 13%	6 12%	6 11%	8 21%	8 24%	0 0%
Black, Non-Hispanic	45 79%	58 81%	35 70%	42 78%	27 69%	23 68%	10 77%
Other	3 5%	5 7%	9 18%	6 11%	4 10%	3 9%	3 23%
MOTHERS' MODE OF TRANSMISSION							
Injecting Drug Use	3 6%	7 11%	2 4%	2 4%	1 3%	6 21%	0 0%
High Risk Heterosexual	15 28%	32 48%	18 38%	16 34%	8 21%	10 34%	5 50%
Undetermined	35 66%	27 41%	28 58%	29 62%	29 76%	13 45%	5 50%

[†] Reporting for 2010 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. For more information, please see the annual Missed Opportunity report, which can be found at: http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_2982_46000_46003-166892--,00.html

FIGURE 6. Infection Status of Perinatal HIV Exposures, 2004 - 2010