

**TABLE 1: Characteristics of Michigan Residents Living with HIV or AIDS
 as of July 1, 2003**

	Estimate of HIV Prevalence ¹	Estimated Prevalence Rate ²	Reported Living with AIDS ³		Reported Living with HIV not AIDS ³	
			Number	Percent ⁴	Number	Percent ⁴
MICHIGAN TOTAL	15,500	156	5,238	100%	5,622	100%
SEX						
Male	11,940	245	4,192	80%	4,204	75%
Female	3,570	70	1,046	20%	1,418	25%
BEHAVIOR						
Male-Male Sex	8,530	N/A	2589	57%	2399	54%
Injecting Drug Use ⁵	2,950	N/A	888	20%	801	18%
IDU w/ heterosexual	<i>1,400</i>	<i>N/A</i>	422	9%	379	8%
IDU w/o heterosexual	<i>1,550</i>	<i>N/A</i>	466	10%	422	9%
Male-Male Sex/IDU	930	N/A	288	6%	284	6%
Blood Products	160	N/A	77	2%	51	1%
Heterosexual ⁶	2,640	N/A	677	15%	843	19%
Partner IDU	<i>780</i>	<i>N/A</i>	215	5%	264	6%
Partner Bisexual	<i>160</i>	<i>N/A</i>	31	1%	41	1%
Partner Rec'd Bld	<i>60</i>	<i>N/A</i>	15	0%	21	0%
Partner HIV +	<i>1,550</i>	<i>N/A</i>	416	9%	517	12%
Perinatal	160	N/A	33	1%	102	2%
Undetermined ⁴	Not Applicable	N/A	686	(13%)	1142	(20%)
Presumed Heterosexual ⁷	<i>Not Applicable</i>	<i>N/A</i>	543	(10%)	772	(14%)
Other ⁸	<i>Not Applicable</i>	<i>N/A</i>	143	(3%)	370	(7%)
AGE AT DIAGNOSIS						
0 -12 years	160	9	34	1%	118	2%
13 -19 years	310	31	45	1%	188	3%
20 -24 years	1,400	217	237	5%	735	13%
25 -29 years	2,480	379	622	12%	1076	19%
30 -34 years	3,260	461	1113	21%	1136	20%
35 -39 years	3,100	394	1163	22%	1021	18%
40 -44 years	2,330	287	940	18%	651	12%
45 -49 years	1,400	191	569	11%	359	6%
50 -54 years	780	123	308	6%	195	3%
55 -59 years	310	64	121	2%	87	2%
60 -64 years	160	42	55	1%	37	1%
65 years and over	70	6	31	1%	19	0%
Unspecified ⁴	Not Applicable		0	(0%)	0	(0%)
RACE / ETHNICITY						
White, Non-Hisp.	5,740	74	2,023	39%	1,959	36%
Black, Non-Hisp.	8,990	641	2,969	57%	3,307	60%
Hispanic	620	191	209	4%	177	3%
Asian	60	34	25	0%	14	0%
American Indian	50	94	11	0%	25	0%
Unspecified/Multi-race ⁴	Not Applicable	N/A	1	(0%)	140	(2%)

* See Technical Notes for footnotes to Table 1.

**TABLE 2a: Michigan Residents Living with HIV or AIDS by County, as of 7/1/03
 and Residents Ever Diagnosed with AIDS, 1981 to Date**

Residence at Time of Diagnosis	Estimate of HIV Prevalence ¹	Estimated Prevalence Rate ²	Persons Living with AIDS ³	Persons Living with HIV not AIDS ³	Persons Ever Diagnosed with AIDS
Total Michigan	15,500	156.0	5,238	5,622	12,918
Alcona	10	----	1	0	3
Alger	10	----	1	0	1
Allegan	100	94.6	41	23	80
Alpena	10	----	1	2	8
Antrim	10	----	2	1	6
Arenac	10	----	0	2	2
Baraga	10	----	4	3	8
Barry	30	52.9	12	5	24
Bay	80	72.6	20	30	52
Benzie	10	----	0	1	2
Berrien	260	160.0	87	82	174
Branch	10	----	1	8	13
Calhoun	140	101.5	38	56	96
Cass	40	78.3	9	14	18
Charlevoix	10	----	3	6	5
Cheboygan	10	----	2	0	5
Chippewa	10	----	2	5	4
Clare	20	64.0	4	6	9
Clinton	40	61.8	17	11	28
Crawford	10	----	2	0	4
Delta	20	51.9	6	7	7
Dickinson	10	----	2	2	5
Eaton	40	38.6	14	14	32
Emmet	10	----	5	3	9
Genesee	590	135.3	171	216	411
Gladwin	10	----	3	1	5
Gogebic	10	----	1	3	7
Grand Traverse	60	77.3	17	23	35
Gratiot	10	----	2	2	8
Hillsdale	10	----	3	5	15
Houghton	10	----	4	3	8
Huron	10	----	2	0	8
Ingham	430	153.8	120	164	330
Ionia	20	32.5	10	4	19
Iosco	10	----	1	2	2
Iron	10	----	0	1	2
Isabella	20	31.6	8	5	19
Jackson	140	88.3	41	52	94
Kalamazoo	330	138.3	111	104	234
Kalkaska	10	----	1	3	4
Kent	810	141.0	268	264	622
Keweenaw	10	----	0	0	0

1. This estimate includes all persons living with HIV or AIDS, including those not yet diagnosed. The minimum estimate given is 10 persons.
2. Rates are calculated per 100,000 population in 2000. Rates are unreliable for counties with the minimum estimated prevalence of 10, and are therefore not listed.
3. Includes reports of HIV infection or AIDS that contain patient name or are otherwise unduplicated.

**TABLE 2b: Michigan Residents Living with HIV or AIDS by County, as of 7/1/03
 and Residents Ever Diagnosed with AIDS, 1981 to Date**

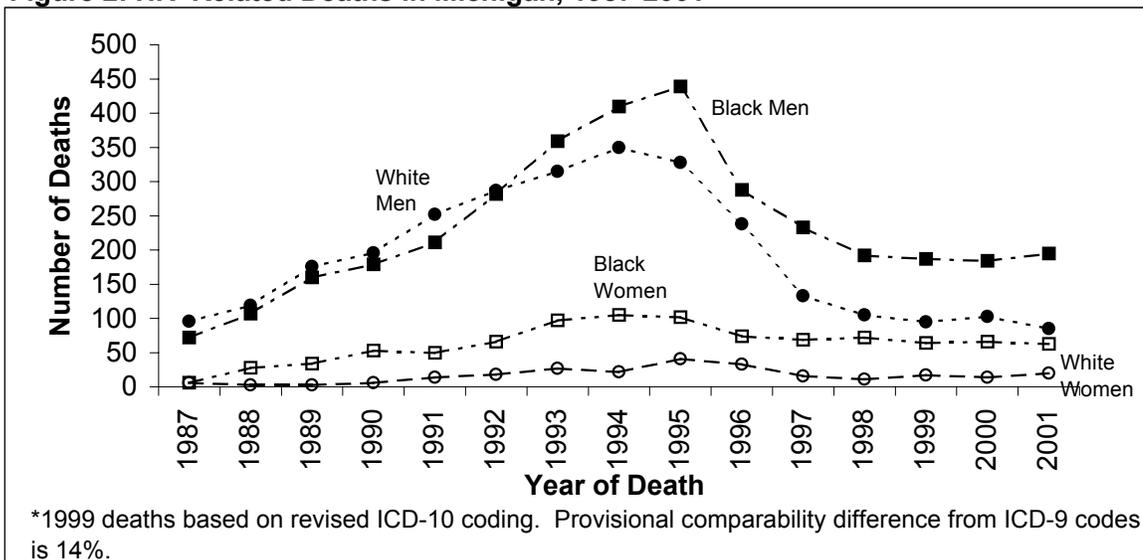
Residence at Time of Diagnosis	Estimate of HIV Prevalence ¹	Estimated Prevalence Rate ²	Persons Living with AIDS ³	Persons Living with HIV not AIDS ³	Persons Ever Diagnosed with AIDS
TOTAL MICHIGAN	15,500	156.0	5,238	5,622	12,918
Lake	10	----	6	3	10
Lapeer	20	22.8	4	11	13
Leelanau	10	----	5	0	13
Lenawee	60	60.7	19	21	41
Livingston	40	25.5	12	14	31
Luce	10	----	0	0	1
Mackinac	10	----	1	0	2
Macomb	570	72.3	186	188	480
Manistee	20	81.5	7	4	10
Marquette	20	30.9	4	10	17
Mason	20	70.7	8	4	11
Mecosta	20	49.3	4	7	11
Menominee	10	----	0	4	3
Midland	30	36.2	14	8	25
Missaukee	10	----	1	5	3
Monroe	60	41.1	28	13	64
Montcalm	30	49.0	11	11	21
Montmorency	10	----	2	0	3
Muskegon	130	76.4	36	50	84
Newaygo	20	41.8	8	5	22
Oakland	1,650	138.2	517	566	1,177
Oceana	10	----	3	4	9
Ogemaw	10	----	1	1	3
Ontonagon	10	----	0	1	0
Osceola	10	----	3	2	8
Oscoda	10	----	0	1	2
Otsego	10	----	5	3	8
Ottawa	100	42.0	39	26	95
Presque Isle	10	----	0	0	2
Roscommon	10	----	6	3	13
Saginaw	200	95.2	63	69	156
Sanilac	10	----	5	4	12
Schoolcraft	10	----	1	1	3
Shiawassee	30	65.9	10	7	18
St. Clair	100	60.9	25	38	69
St. Joseph	40	55.8	14	9	35
Tuscola	20	34.3	6	5	14
Van Buren	70	91.8	24	25	46
Washtenaw	500	154.8	165	166	362
Wayne	1,520	73.7	534	461	1,234
City of Detroit	6,790	713.8	2,193	2,263	5,870
Wexford	10	----	2	6	4
PRISONS ⁴	700	N/A	228	466	493
Unknown	10	N/A	1	4	2

1. This estimate includes all persons living with HIV or AIDS, including those not yet diagnosed. The minimum estimate given is 10 persons.
2. Rates are calculated per 100,000 population in 2000. Rates are unreliable for counties with the minimum estimated prevalence of 10, and are therefore not listed.
3. Includes reports of HIV infection or AIDS that contain patient name or are otherwise unduplicated.
4. The category PRISONS includes those persons who were in prison at the time of their HIV or AIDS

TABLE 3: Michigan Residents Reported Living with HIV or AIDS: Sex by Race by Behavior

MALES:	White		Black		Hispanic		Other/Unknown or Multi-race		TOTAL	
Male-Male Sex	2,582	75%	2,202	49%	139	46%	65	39%	4,988	59%
Injecting Drug Use	176	5%	774	17%	57	19%	7	4%	1,014	12%
Male-Male Sex/IDU	221	6%	329	7%	15	5%	7	4%	572	7%
Blood Recipient	81	2%	23	1%	1	0%	2	1%	107	1%
Heterosexual	89	3%	321	7%	32	11%	6	4%	448	5%
Perinatal	12	0%	54	1%	2	1%	2	1%	70	1%
Undetermined	289	8%	779	17%	53	18%	76	46%	1,197	14%
<i>Presumed Heterosexual</i>	178	5%	553	12%	43	14%	24	15%	798	10%
<i>Other</i>	111	3%	226	5%	10	3%	52	32%	399	5%
Male Subtotal	3,450	(41%)	4,482	(53%)	299	(4%)	165	(2%)	8,396	100%
FEMALES:	White		Black		Hispanic		Other/Unknown or Multi-race		TOTAL	
Injecting Drug Use	129	24%	526	29%	13	15%	7	14%	675	27%
Blood Recipient	13	2%	8	0%	0	0%	0	0%	21	1%
Heterosexual	276	52%	725	40%	52	60%	19	37%	1072	44%
Perinatal	12	2%	47	3%	5	6%	1	2%	65	3%
Undetermined	102	19%	488	27%	17	20%	24	47%	631	26%
<i>Presumed Heterosexual</i>	89	17%	402	22%	16	18%	10	20%	517	21%
<i>Other</i>	13	2%	86	5%	1	1%	14	27%	114	5%
Female Subtotal	532	(22%)	1,794	(73%)	87	(4%)	51	(2%)	2,464	100%
GRAND TOTAL	3,982	37%	6,276	58%	386	4%	216	2%	10,860	100%

Figure 2: HIV-Related Deaths in Michigan, 1987-2001



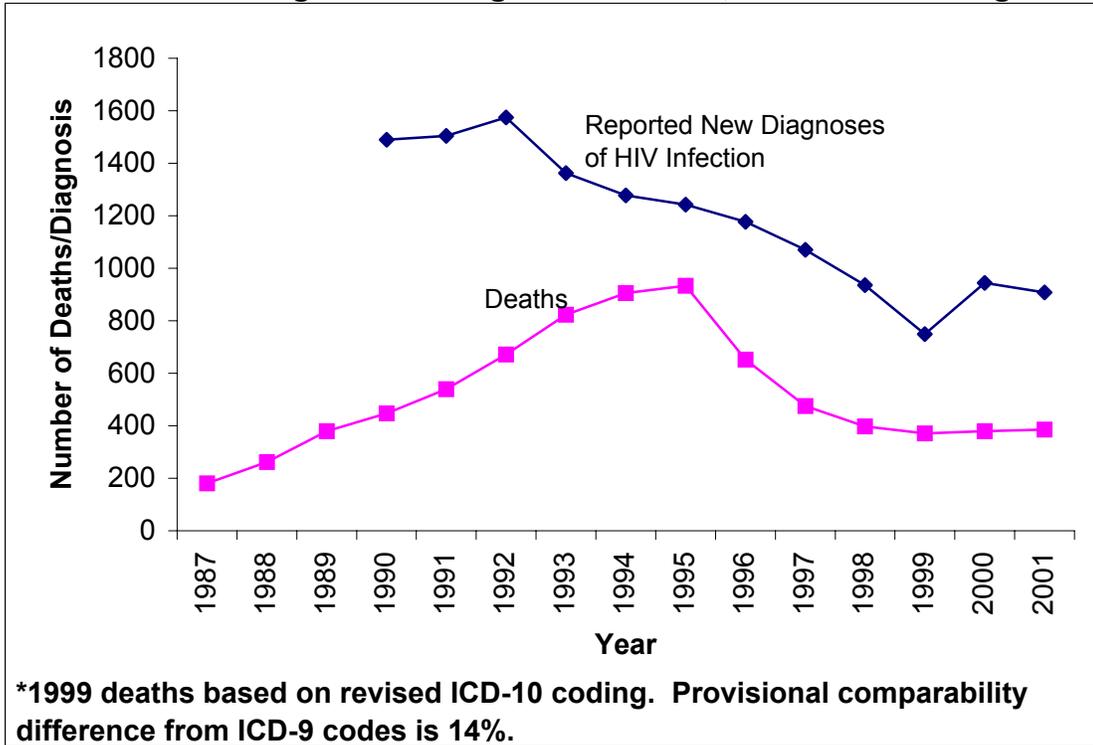
Mortality Trends
 HIV-related deaths declined sharply among all groups between 1995 and 1997, and less sharply between 1998 and 2000. These data (MDCH HIV/AIDS reporting system) show the trend among white men, black men, black women, and white women. There was a statistical difference in the 1995-2001 declines among white men (79%), black men (65%), and women (47%). There were too few deaths to show other groups.

TABLE 4: States and Territories With Most AIDS Cases Ever Reported to CDC, 1981-12/31/01

State	Cases	Rate ¹	State	Cases	Rate ¹	State	Cases	Rate ¹	State	Cases	Rate ¹
1. NY	142,164	749.2	6. IL	25,009	201.4	11. MA	16,247	255.9	16. OH	11,394	100.4
2. CA	119,828	353.8	7. PR ²	24,883	653.3	12. DC ²	13,100	2,290.0	17. MI ³	11,322	113.9
3. FL	80,416	503.2	8. PA	24,660	200.8	13. VA	13,088	184.9	18. NC	10,436	129.7
4. TX	53,987	258.9	9. GA	22,837	279.0	14. LA	12,645	283.0	19. WA	9,533	161.7
5. NJ	42,143	500.8	10. MD	21,601	407.8	15. CT	11,571	339.8	20. SC	9,527	237.5

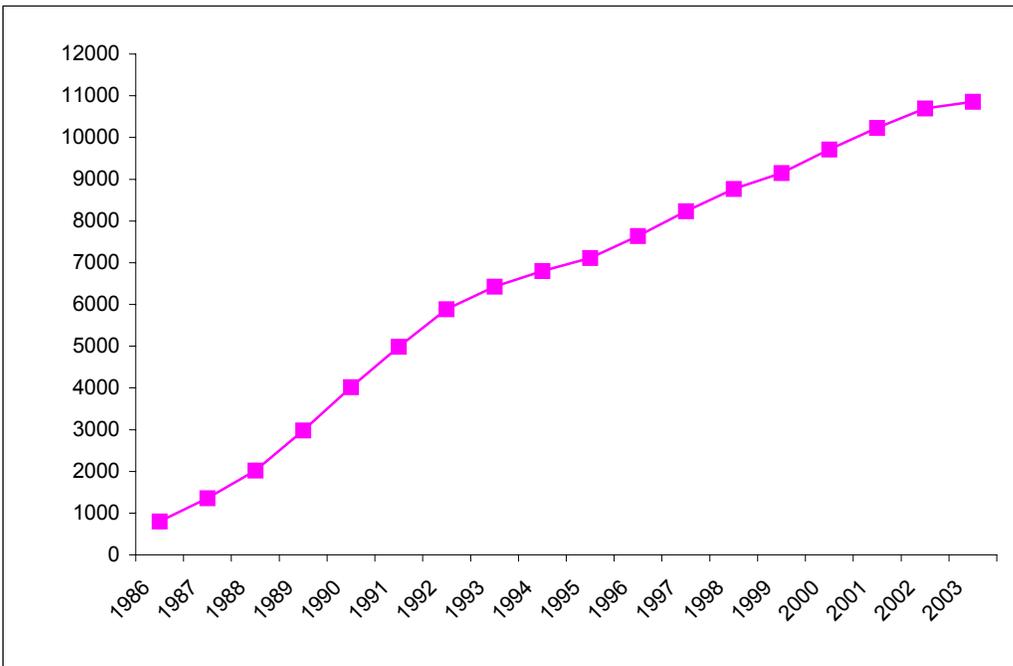
1. Cumulative Rate per 100,000 Population, 2000 Census. The average U.S. rate was 299.30.
 2. Abbreviations include PR for Puerto Rico, and DC for District of Columbia.
 3. Michigan annual rate per 100,000 population ranks 31st among U.S. states and territories.

Figure 3: Michigan HIV Deaths, and New HIV Diagnoses, by Year



Deaths and Diagnoses
 The numbers of deaths due to HIV infection and AIDS have declined 60 percent in 1995-97 and an additional 10 percent in 1998-2001, primarily due to effective therapies. Meanwhile, the number of persons diagnosed with HIV infection each year was roughly level between 1995-1997 at 1,100 persons, but has since declined to 908 cases.

Figure 4: Reported Number of Michigan Residents Living with HIV or AIDS



Number of Infected Persons Is Increasing
 The total number of persons reported with a diagnosis of HIV infection or AIDS is increasing. This is caused by the two factors shown in Figure 3: the number of persons diagnosed exceeds the number who die each year, leading to increased prevalence. Currently we estimate there are about 15,500 persons living with HIV or AIDS in Michigan. This graph shows 10,860 living cases who have been diagnosed and reported.

TABLE 5: Characteristics of Michigan and U.S. Residents Ever Diagnosed with AIDS, 1981 to Date

	MI AIDS : 1981-7/1/2003			U.S. AIDS : 1981-12/1/2001 ¹		
	Cases	Percent	Rate ²	Cases	Percent	Rate ²
TOTAL	12,918	100%	130.0	816,149	100%	290.0
SEX						
Male	10,705	83%	219.7	670,687	82%	485.8
Female	2,213	17%	43.7	145,461	18%	101.5
Unknown	0	0%	---	1	0%	---
TRANSMISSION						
Male-Male Sex	6,379	49%	N/A	368,971	45%	N/A
Injecting Drug Use	2,846	22%	N/A	201,326	25%	N/A
Male-Male Sex/IDU	850	7%	N/A	51,293	6%	N/A
Blood Products ³	293	2%	N/A	14,880	2%	N/A
Heterosexual ⁴	1,219	9%	N/A	90,131	11%	N/A
Perinatal ⁵	94	1%	N/A	8,284	1%	N/A
Undetermined ⁶	1,237	10%	N/A	81,264	10%	N/A
AGE AT DIAGNOSIS						
0 - 4 years	71	1%	10.6	6,975	1%	36.4
5 -12 years	39	0%	3.3	2,099	0%	6.4
13 -19 years	85	1%	8.4	4,428	1%	15.7
20 -24 years	478	4%	74.2	28,665	4%	151.2
25 -29 years	1,657	13%	253.1	105,060	13%	542.1
30 -34 years	2,606	20%	368.3	179,164	22%	873.5
35 -39 years	2,853	22%	362.3	182,857	22%	805.3
40 -44 years	2,281	18%	281.3	136,145	17%	606.7
45 -49 years	1,393	11%	189.5	80,242	10%	399.4
50 -54 years	767	6%	121.2	42,780	5%	243.3
55 -59 years	346	3%	71.2	23,280	3%	172.8
60 -64 years	187	1%	49.6	12,898	2%	119.4
65 and over	155	1%	12.7	11,555	1%	33.0
Unknown	---	---	---	1	0%	---
RACE/ETHNICITY						
White, Non-Hisp.	5,165	40%	66.2	343,889	42%	176.8
Black, Non-Hisp.	7,288	56%	519.8	313,180	38%	922.5
Hispanic	388	3%	119.8	149,752	18%	424.2
Asian	38	0%	21.4	6,157	1%	60.8
American Indian	35	0%	65.5	2,537	0%	122.6
Unknown	4	0%	2.3	634	0%	11.7

1. U.S. figures are produced by the federal Centers for Disease Control and Prevention. Additional detail is available through the CDC web page at www.cdc.gov/nchstp/hiv_aids/stats/hasrlinc.htm.

2. Cumulative rates per 100,000 population are calculated using 2000 Census figures. Populations and rates are not available (N/A) for behaviors.

3. Blood products received for coagulation disorder (224 MI; 5,528 U.S.) or transfusion (69 MI; 9,352 U.S.).

4. A heterosexual partner is known to be: an injecting drug user (453 MI; 31,557 U.S.), a bisexual man (62 MI; 3,801 U.S.), a recipient of infected blood products (32 MI; 1,559 U.S.), or HIV positive with unknown behavior history (672 MI; 53,214 U.S.)

5. Perinatal transmission occurs from HIV-infected mothers to infants before or at birth, or from breast milk.

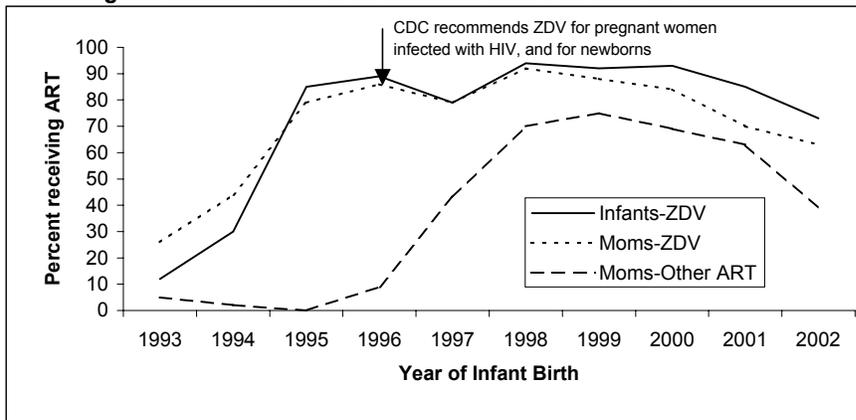
6. Patient risks are under investigation, or no risk was identified. Included are persons with documented exposure in the health care setting (2 MI; 137 U.S.), or receipt of donor products other than blood (13 U.S.).

Table 6: Michigan Infants Born to HIV-Infected Mothers

Year of Birth	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 ²
TOTAL										
Total Infants Reported	57	52	57	75	67	62	70	66	54	20
Total Mothers Reported	56	52	57	74	67	61	69	64	53	19
RESIDENCE AT TIME OF BIRTH¹										
Detroit MSA	43	32	44	53	47	39	52	39	34	18
Outside the Detroit MSA	14	20	13	22	20	23	18	27	20	2
RACE OF CHILD										
White, Non-Hisp.	10	10	8	16	13	11	13	10	10	3
Black, Non-Hisp.	45	42	47	57	50	45	50	48	38	17
Hispanic, Asian, Am. Indian, Unk.	2	0	2	2	4	6	7	8	6	0

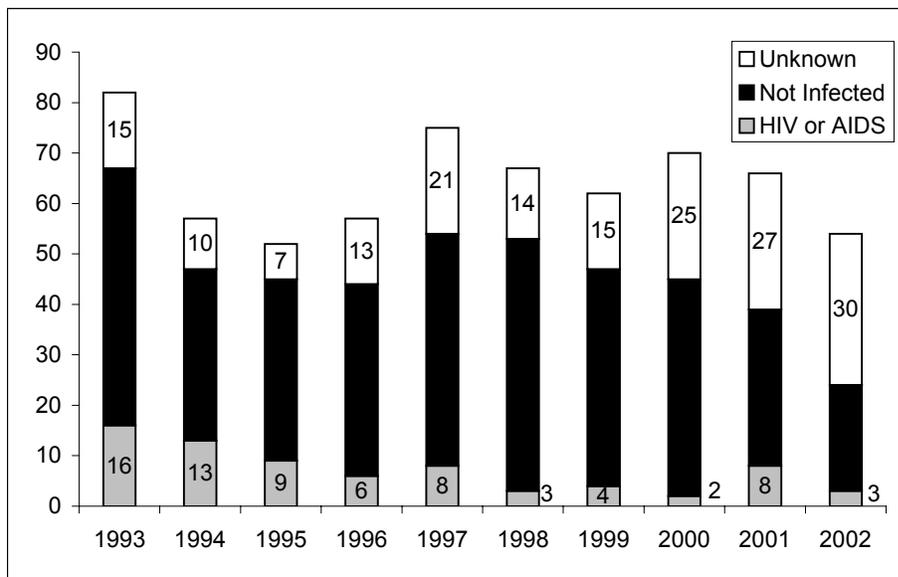
1- Detroit Metropolitan Statistical Area includes Wayne, Oakland, Macomb, Monroe, Lapeer, and St. Clair counties.
 2- Data for 2003 is incomplete at this time.

Figure 5: Efforts to Prevent HIV Transmission to Infants



This graph shows that an increasing proportion of mothers and infants receive therapies that reduce HIV transmission to infants since 1993. The number of mothers receiving ZDV any time during pregnancy, labor, and delivery has increased markedly since the July 1994 CDC recommendations to provide this treatment. The number of infants receiving ADV within 72 hours of birth has increased almost as fast. The number of mothers receiving other antiretroviral therapies increased beginning in 1996. There appears to be a dramatic decrease in mothers and infants who received anti-retroviral therapy (ART) in 2001-2002. This is the result of reporting lag. These data will be more complete later in 2003.

Figure 6: Confirmed Infection Status Among Infants Born to HIV-Infected Mothers



The bars show the current reported status of children born to HIV-infected mothers. The bottom bar shows the number who are known to be infected with HIV or have AIDS. The middle bar shows the number who are confirmed (through laboratory testing) not to be infected. The upper bar shows the number whose HIV infection status is unknown because the child has been lost to follow up or the status has not yet been reported to surveillance.

TECHNICAL NOTES

Reports of HIV infection and AIDS are submitted to state and local health departments under Michigan law by providers making the diagnoses. Confidential case reports have been actively solicited for AIDS since 1986 and for HIV infection since April 1992. HIV reports passively collected between April 1989 and March 1992 are also included in these calculations. Anonymous HIV reports (without name or other identifier) are excluded from the calculations because we cannot estimate duplication, update status, or obtain missing data. A total of 1,313 complete anonymous reports are currently in our database.

Footnotes for Table 1:

1. This estimate includes all persons living in Michigan at diagnosis of HIV or AIDS, including those not reported or not yet diagnosed. All estimates are rounded to the nearest ten, and the minimum estimate given is 10. See below for explanation of this estimate.
2. Rates are calculated per 100,000 population in 2000.
3. Includes reports that contain patient name or are otherwise unduplicated.
4. Age, sex, race, and behavior percentages are calculated excluding missing data. The percentages of total cases missing this demographic information are given in parentheses.
5. The IDU risk category is further sub-divided to indicate the number and percentage of persons who also had a sexual partner who is considered to be a "high risk" heterosexual, (i.e., partner is an IDU, a bisexual male (for females), a recipient of HIV infected blood or blood products or a person who is known to be infected with HIV).
6. The heterosexual category includes only those persons with "high risk" heterosexual partners as defined in footnote 5.
7. This subset of undetermined includes persons who had heterosexual sex but their partner(s) risk is unknown. This includes unconfirmed exposures in the healthcare setting (1).
8. Includes persons with confirmed exposure in the health care setting (2) and pediatric cases with probable sexual mode of transmission (2).

HIV Prevalence Estimates for Michigan

MDCH estimates that there are up to 15,500 HIV-infected persons (including those with AIDS) living in Michigan. This estimate is based on adding the following three components and rounding: 1) the number of cases living with HIV/AIDS as of 01/01/03 (10,517), 2) the number of known HIV+ cases not yet reported, estimated at 20 percent of the reported living HIV/AIDS cases, and 3) the number of HIV+ cases that have not yet been tested, estimated at 30 percent of the total cases living with HIV/AIDS (identical to the CDC estimate). The estimate of HIV-infected persons is identical to the estimate given in January of 2002. This is the result of 1) MDCH adding over 700 deaths to the HIV/AIDS Reporting System, from a match with the Division of Vital Statistics and 2) increased case finding activities due to the filling of surveillance positions.

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 15,500. For example, 77 percent of combined HIV and AIDS reports are among men. Therefore, with rounding, the number of HIV-infected men in Michigan is estimated to be 11,940 = (77% X 15,500). Since the estimates are rounded to the nearest 10, totals may not equal 15,500. The minimum estimate is 10.

TECHNICAL NOTES (Continued)

TABLES 1, 2, 3 AND FIGURE 1: HIV AND AIDS AMONG MICHIGAN RESIDENTS

These tables describe Michigan residents living with HIV infection or AIDS, by sex, mode of transmission, age, race, and residence. For tables 1 and 2, the estimated total number of HIV-infected persons is shown in column 2, the rate is shown in column 3, the numbers of persons reported living with AIDS is in column 4, and the number reported living with HIV infection is in column 5. The estimated number living with HIV or AIDS for each county (from column 2) is shown in Figure 1. In Michigan, there have been two cases in which exposure to HIV has been confirmed by the CDC to have occurred in the health care setting. There has been one case which was unable to be confirmed by the CDC so is considered to be a possible exposure in the health care setting.

TABLES 2 and 5: PERSONS EVER DIAGNOSED WITH AIDS

These tables describe all Michigan residents who were diagnosed with AIDS, most of whom have died. The final column of Table 2 (Cumulative AIDS) shows these cases by residence. Table 5 shows sex, race, mode of transmission, and age when diagnosed for Michigan and the U.S.

FIGURES 2 AND 3: HIV-RELATED DEATHS IN MICHIGAN, 1984-2001

The number of Michigan residents whose underlying cause of death is HIV or AIDS is shown, by race and sex (Figure 2), and total only (Figure 3). Deaths occurring from 1999 to 2001 are based on revised ICD-10 coding. The ICD-9/ICD-10 comparability ratio is 1.14. Being that the codings are not 100% comparable, any changes in HIV/AIDS mortality between 1998 and 1999 should be interpreted with caution, because a portion of the change in mortality is directly attributable to changes in the coding (Grigg et al. [Coding Changes and Apparent HIV/AIDS Mortality Trends in Florida, 1999](#). JAMA 2001; 286(15): 1839).

FIGURE 3: HIV INFECTIONS BY YEAR OF DIAGNOSIS

Figure 3 shows the estimated number of persons diagnosed with HIV infection each year, adjusted for reporting delays. The number of persons diagnosed with HIV infection was roughly level between 1995 and 1997 at 1,100 cases. Data before 1994 (a compressed reporting period) and after 1998 (too incomplete) are not reliable for making these estimates.

FIGURE 4: REPORTED NUMBER OF MICHIGAN RESIDENTS WITH HIV INFECTION OR AIDS

The total number of living persons with a diagnosis of HIV infection changes as some persons are newly diagnosed and some persons die (see Figure 3).

TABLE 6: PERINATAL DATA

Infants born to HIV-infected mothers are described, first by residence and race. Prevention efforts to identify infected women during pregnancy and to treat with ZDV are listed next. Most of these infants are not themselves infected. Finally, the graph shows the confirmed infection status of these children.