

# BIANNUAL HIV SURVEILLANCE REPORT MACOMB COUNTY January 2013

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**\*\*WEBSITE\*\***



## General HIV

### AIDS (Acquired Immune Deficiency Syndrome)

Now referred to as stage 3 HIV infection (see "HIV Infection Stages" below).

### HIV (Human Immunodeficiency Virus)

Diagnosis with HIV requires both a positive HIV screening and positive supplemental antibody test or detectable quantity on a virologic test. A standard case definition for HIV infection is used by all states for surveillance. Specific information is required in order to count a case of HIV infection, including a method to uniquely identify an individual. Each case is classified in a HIV infection stage (see below). Once a case reaches stage 3 (AIDS), the case is always considered stage 3 for surveillance purposes, even if his/her health improves (MMWR; December 5, 2008 / Vol. 57 / No. RR--10 / Pg. 1 - 12).

### HIV Infection Stages

*Stage 1:* A case does not have any of the conditions associated with severe HIV infection (called an AIDS-defining condition) and has  $\geq 500$  CD4 cells/ $\mu$ l.

*Stage 2:* A case has no AIDS-defining condition, but the level of CD4 cells has fallen to 200-499 cells/ $\mu$ l.

*Stage 3:* Diagnosis with any one of 26 AIDS-defining conditions which are indicative of a severe immune deficiency, or a laboratory test demonstrating severe immune deficiency: CD4 count  $<200$  cells/ $\mu$ l or CD4 percent  $<14\%$ . **Previously referred to as AIDS.**

*Stage unknown:* A case of HIV without information available on CD4 levels or AIDS-defining conditions.

## Prevalence Estimate Calculations

HIV prevalence estimates include all persons living in MACOMB CO. at diagnosis of HIV Infection (any stage) and incorporates an approximation of those not reported or not yet diagnosed. All estimates are rounded to the nearest ten, and the minimum estimate given is 10. Prevalence estimates were most recently revised in January 2013, so the estimates in this report may vary in comparison to reports published before the revision.

## Risk Transmission Categories - Definitions

### Blood Recipients

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 Contact (HC):

*Heterosexual Contact w/ Female Risk (HCFR):* Males whose female sexual partners are known to be HIV-infected or at high risk for HIV. These partners meet one of the following criteria: IDU, hemophiliac, HIV infected transfusion recipient, or other HIV infected person of unknown risk.

*Heterosexual Contact w/ Male (HCM):* Females who have had sex with a male regardless of what is known about the male's HIV status or behaviors.

### Please note:

-Males whose only documented risk is sex with a female, and their female partner's risk and HIV status is unknown fall into the undetermined risk category.

-Exposure categories are only calculated at the state level due to small numbers at the county and city level. For more information regarding exposure categories, and how they differ from transmission categories, please refer to the statewide statistics.

### Injection Drug Users (IDU)

Persons who have a history of injection drug use.

### Men who have sex with men (MSM)

Males who have a history of sexual contact with other men.

### MSM/IDU

MSM who also have a history of injection drug use.

### Perinatal

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

### Undetermined

Males and females with no identified risk.

Michigan Department  
of Community Health



Rick Snyder, Governor  
James K. Haveman, Director

**TABLE 1. Demographic Information on Prevalent HIV Infection Cases Living in MACOMB CO. at Diagnosis****REPORTED PREVALENCE<sup>†</sup>**

	<b>EST PREV*</b>		<b>HIV Infection Non-Stage 3</b>		<b>HIV Infection Stage 3 (AIDS)</b>		<b>Total</b>		<b>CENSUS 2011 ESTIMATES</b>		
	<b>Num</b>		<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Rate per 100,000<sup>§</sup></b>	<b>Num</b>	<b>Percent</b>
<b>RACE/ ETHNICITY<sup>‡</sup></b>											
White	550		201	56%	217	63%	418	59%	60	700,688	83%
Black	310		135	38%	99	29%	234	33%	304	77,096	9%
Hispanic	30		17	5%	9	3%	26	4%	131	19,902	2%
Asian/PI	10		<5	**	0	0%	<5	**	**	26,324	3%
Am Indian/AN	10		<5	**	<5	**	<5	**	**	2,424	<1%
Multi/Other/Unk	30		5	1%	18	5%	23	3%	N/A	15,711	2%
<b>SEX &amp; RACE</b>											
Male	780		300	83%	294	85%	594	84%	145	409,226	49%
White Male	490		175	49%	199	58%	374	53%	109	342,340	41%
Black Male	230		105	29%	71	21%	176	25%	499	35,290	4%
Hispanic Male	30		14	4%	8	2%	22	3%	218	10,075	1%
Other Male	30		6	2%	16	5%	22	3%	102	21,521	3%
Female	150		60	17%	50	15%	110	16%	25	432,919	51%
White Female	60		26	7%	18	5%	44	6%	12	358,348	43%
Black Female	80		30	8%	28	8%	58	8%	139	41,806	5%
Hispanic Female	10		<5	**	<5	**	<5	**	**	9,827	1%
Other Female	10		<5	**	<5	**	<5	**	**	22,938	3%
<b>RISK*</b>											
Male-Male Sex (MSM)	540		199	55%	208	60%	407	58%	--	--	--
Injection Drug Use (IDU)	60		18	5%	24	7%	42	6%	--	--	--
MSM/IDU	20		9	3%	6	2%	15	2%	--	--	--
Blood Products	10		<5	**	5	1%	8	1%	--	--	--
Heterosexual Contact (HC)	100		35	10%	38	11%	73	10%	--	--	--
HCFR (Males)	20		6	2%	6	2%	12	2%	--	--	--
HCM (Females)	80		29	8%	32	9%	61	9%	--	--	--
Perinatal	10		<5	**	<5	**	7	1%	--	--	--
Undetermined	200		92	26%	60	17%	152	22%	--	--	--
<b>AGE AT HIV DIAGNOSIS</b>											
0 - 12 years	10		<5	**	5	1%	9	1%	--	--	--
13 - 19 years	40		25	7%	8	2%	33	5%	--	--	--
20 - 24 years	140		67	19%	40	12%	107	15%	--	--	--
25 - 29 years	160		69	19%	54	16%	123	17%	--	--	--
30 - 39 years	290		107	30%	114	33%	221	31%	--	--	--
40 - 49 years	200		65	18%	86	25%	151	21%	--	--	--
50 - 59 years	60		17	5%	28	8%	45	6%	--	--	--
60 years and over	20		6	2%	9	3%	15	2%	--	--	--
Unspecified	0		0	0%	0	0%	0	0%	--	--	--
<b>TOTAL</b>	<b>930</b>	<b>360</b>	<b>100%</b>		<b>344</b>	<b>100%</b>	<b>704</b>	<b>100%</b>	<b>84</b>	<b>842,145</b>	<b>100%</b>

\*See front matter page i for descriptions of prevalence estimate calculations and risk category groupings. Risk categories used in Michigan are redefined as of January 2012. NOTE: Heterosexual contact for males includes only males whose sexual partners are known to be HIV infected or at high risk for HIV (HCFR). Heterosexual contact for females includes all females who have had sex with a male regardless of what is known about the male's HIV status or behaviors (HCM).

<sup>†</sup> Includes reports that contain patient name or are otherwise unduplicated. <5 and "\*\*" = 1, 2, 3, or 4 cases.

<sup>‡</sup> To calculate "1 out of x" statements, divide the census number by total reported prevalence. For example, for non-Hispanic whites: 700,688 / 418 = 1,676. Thus, 1 out of every 1,676 non-Hispanic white persons in MACOMB CO. are living with HIV. Rates and "1 out of x" statements are not reliable for <10 cases. Thus, rates for <10 cases are shown as "--".

<sup>§</sup> Rates are not reported for risk categories and age at diagnosis because no reliable denominator data exist for these groups.

<sup>¶</sup> 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.

**TABLE 2. Sex, Race, and Risk Among Prevalent HIV Infection Cases Living in MACOMB CO. at Diagnosis**

	White		Black		Hispanic		Other or Unknown		All Male	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
<b>MALE</b>										
Male-Male sex	260	70%	111	63%	19	86%	17	77%	407	69%
Injection Drug Use	16	4%	6	3%	<5	**	<5	**	25	4%
MSM/IDU	14	4%	<5	**	0	0%	0	0%	15	3%
Blood Products	8	2%	0	0%	0	0%	0	0%	8	1%
Heterosexual Contact (HCFR)	9	2%	<5	**	0	0%	0	0%	12	2%
Perinatal	<5	**	<5	**	0	0%	0	0%	5	1%
Undetermined	66	18%	51	29%	<5	**	<5	**	122	21%
<b>Male Subtotal</b>	<b>374</b>	<b>63%</b>	<b>176</b>	<b>30%</b>	<b>22</b>	<b>4%</b>	<b>22</b>	<b>4%</b>	<b>594</b>	<b>100%</b>
<b>FEMALE</b>										
Injection Drug Use	8	18%	7	12%	<5	**	<5	**	17	15%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual Contact (HCM)	26	59%	31	53%	<5	**	<5	**	61	55%
Perinatal	<5	**	<5	**	0	0%	0	0%	<5	**
Undetermined	9	20%	19	33%	0	0%	<5	**	30	27%
<b>Female Subtotal</b>	<b>44</b>	<b>40%</b>	<b>58</b>	<b>53%</b>	<b>&lt;5</b>	<b>**</b>	<b>&lt;5</b>	<b>**</b>	<b>110</b>	<b>100%</b>
<b>ALL</b>										
Male-Male sex	260	62%	111	47%	19	73%	17	65%	407	58%
Injection Drug Use	24	6%	13	6%	<5	**	<5	**	42	6%
MSM/IDU	14	3%	<5	**	0	0%	0	0%	15	2%
Blood Products	8	2%	0	0%	0	0%	0	0%	8	1%
Heterosexual Contact (HC)	35	8%	34	15%	<5	**	<5	**	73	10%
HCFR (Males)	9	2%	<5	**	0	0%	0	0%	12	2%
HCM (Females)	26	6%	31	13%	<5	**	<5	**	61	9%
Perinatal	<5	**	5	2%	0	0%	0	0%	7	1%
Undetermined	75	18%	70	30%	<5	**	5	19%	152	22%
<b>RACE ALL</b>	<b>418</b>	<b>59%</b>	<b>234</b>	<b>33%</b>	<b>26</b>	<b>4%</b>	<b>26</b>	<b>4%</b>	<b>704</b>	<b>100%</b>

**TABLE 3. Prevalent HIV Infection Cases in MACOMB CO. According to City of Residence at Diagnosis**

CITY OF RESIDENCE AT DIAGNOSIS	EST PREV*	REPORTED PREVALENCE †			
		HIV Infection Non-Stage 3	HIV Infection Stage 3	Total	
				Number	Percent
Armada	10	0	<5	<5	**
Center Line	10	<5	<5	5	1%
Chesterfield	10	6	<5	9	1%
Clinton Township	130	53	44	97	14%
Eastpointe	60	25	22	47	7%
Fraser	10	6	5	11	2%
Grosse Pointe	10	<5	<5	5	1%
Harrison Township	30	8	15	23	3%
Lenox Township	10	0	<5	<5	**
Macomb Township	20	8	10	18	3%
Mount Clemens	70	28	23	51	7%
New Baltimore	20	10	7	17	2%
New Haven	10	<5	<5	5	1%
Richmond	10	<5	<5	<5	**
Romeo	10	<5	5	6	1%
Roseville	60	27	22	49	7%
Shelby Township	10	<5	<5	8	1%
St. Clair Shores	60	21	24	45	6%
Sterling Heights	120	45	44	89	13%
Utica	40	11	16	27	4%
Warren	240	92	87	179	25%
Washington	10	<5	<5	6	1%
Unknown	10	<5	<5	<5	**
<b>TOTAL</b>	<b>930</b>	<b>360</b>	<b>344</b>	<b>704</b>	<b>100%</b>

\*See front matter page i for descriptions of prevalence estimate calculations.

† Includes reports that contain patient name or are otherwise unduplicated. <5 and \*\* = 1, 2, 3, or 4 cases.

**TABLE 4. New Diagnoses, Deaths, and Prevalence of HIV Infection in MACOMB CO., by Year**

Year	<i>HIV Infection (all stages)</i>			<i>HIV Infection Stage 3 (AIDS)</i>		
	New HIV Diagnoses	Deaths	Prevalence	New Stage 3 Diagnoses	Deaths	Prevalence
1983	1	0	1	1	0	1
1984	2	1	2	2	1	2
1985	22	3	21	2	3	1
1986	21	2	40	7	2	6
1987	22	7	55	10	7	9
1988	32	8	79	18	8	19
1989	49	14	114	30	14	35
1990	59	18	155	35	18	52
1991	51	24	182	43	24	71
1992	58	29	211	48	29	90
1993	48	29	230	47	29	108
1994	43	29	244	35	28	115
1995	40	42	242	51	40	126
1996	40	21	261	29	21	134
1997	32	13	280	24	11	147
1998	29	14	295	22	13	156
1999	26	14	307	19	14	161
2000	35	5	337	13	3	171
2001	34	11	360	21	8	184
2002	34	19	375	18	16	186
2003	33	10	398	21	9	198
2004	36	13	421	19	8	209
2005	35	7	449	23	7	225
2006	44	9	484	36	8	253
2007	38	17	505	26	13	266
2008	48	9	544	30	7	289
2009	53	13	584	16	9	296
2010	49	11	622	32	11	317
2011	55	17	660	28	16	329
2012	50	6	<b>704</b>	21	6	<b>344</b>
<b>TOTAL</b>	<b>1,119</b>	<b>415</b>		<b>727</b>	<b>383</b>	

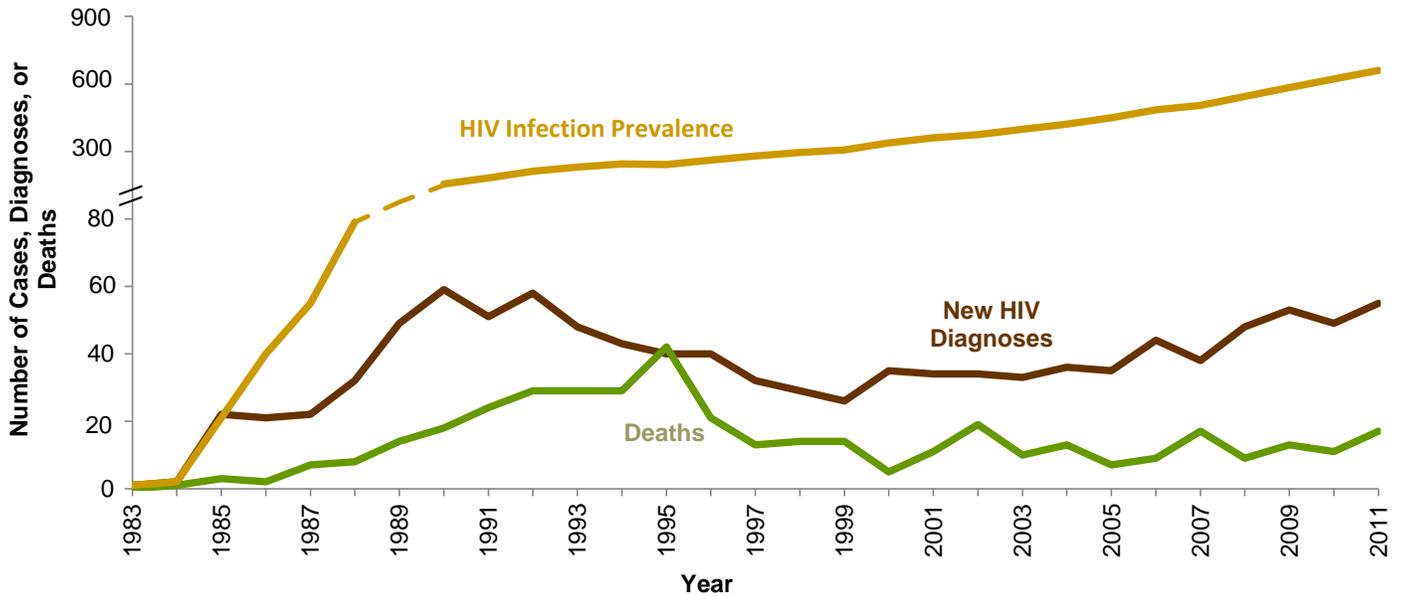
The prevalence of HIV in Michigan has steadily increased, since persons with HIV are living longer. This is largely due to improved anti-retroviral therapy.

The increase in HIV prevalence is also reflected in Figure 1 on page 5, 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 infection in MACOMB CO is 704. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 344.

As implied, the HIV infection section displays data on all persons with HIV, including those with Stage 3 infection, as well as those who have not progressed to Stage 3. Thus, persons represented in the Stage 3 section are also represented in the HIV infection section. The number of reported deaths includes deaths directly attributable to presence of HIV infection 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 1. New Diagnoses, Deaths, and Prevalence of HIV Infection in MACOMB CO., by Year**



**TABLE 5. Comparison of HIV Infection Prevalence in MACOMB CO. to State**

<i>Residence at Diagnosis</i>	<i>Estimated Prevalence</i>	<i>Reported Prevalence</i>				<i>Cumulative Stage 3</i>
		<i>HIV Infection Non-Stage 3</i>	<i>HIV Infection Stage 3 (AIDS)</i>	<i>Total</i>	<i>Rate</i>	
<b>Macomb Co.</b>	930	360	344	704	84	727
<b>Michigan Total</b>	19,800	7,169	7,912	15,081	153	18,130