

BIANNUAL HIV SURVEILLANCE REPORT

GENESEE COUNTY

January 2013

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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 ≥ 500 CD4 cells/ μ l.

Stage 2: A case has no AIDS-defining condition, but the level of CD4 cells has fallen to 200-499 cells/ μ 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/ μ 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 GENESEE 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 GENESEE CO. at Diagnosis**REPORTED PREVALENCE[†]**

	EST PREV*	HIV Infection Non-Stage 3		HIV Infection Stage 3 (AIDS)		Total		Rate per 100,000[§]	CENSUS 2011 ESTIMATES	
	Num	Num	Percent	Num	Percent	Num	Percent		Num	Percent
RACE/ ETHNICITY[‡]										
White	300	110	42%	113	44%	223	43%	72.7	306,674	73%
Black	340	139	53%	119	46%	258	50%	296.6	86,972	21%
Hispanic	20	7	3%	11	4%	18	3%	137.9	13,049	3%
Asian/PI	10	0	0%	<5	**	<5	**	**	4,003	1%
Am Indian/AN	0	0	0%	0	0%	0	0%	**	1,967	<1%
Multi/Other/Unk	20	<5	**	14	5%	18	3%	N/A	9,415	2%
SEX & RACE										
Male	540	190	73%	217	84%	407	79%	200.1	203,421	48%
White Male	250	86	33%	101	39%	187	36%	125.4	149,147	35%
Black Male	260	98	38%	95	37%	193	37%	477.7	40,398	10%
Hispanic Male	20	5	2%	8	3%	13	3%	201.2	6,462	2%
Other Male	20	<5	**	13	5%	14	3%	188.8	7,414	2%
Female	150	70	27%	41	16%	111	21%	50.8	218,659	52%
White Female	50	24	9%	12	5%	36	7%	22.9	157,527	37%
Black Female	90	41	16%	24	9%	65	13%	139.6	46,574	11%
Hispanic Female	10	<5	**	<5	**	5	1%	---	6,587	2%
Other Female	10	<5	**	<5	**	5	1%	---	7,971	2%
RISK*										
Male-Male Sex (MSM)	350	120	46%	141	55%	261	50%	--	--	--
Injection Drug Use (IDU)	30	13	5%	12	5%	25	5%	--	--	--
MSM/IDU	30	8	3%	11	4%	19	4%	--	--	--
Blood Products	10	<5	**	<5	**	<5	**	--	--	--
Heterosexual Contact (HC)	110	47	18%	38	15%	85	16%	--	--	--
HCFR (Males)	20	5	2%	8	3%	13	3%	--	--	--
HCM (Females)	100	42	16%	30	12%	72	14%	--	--	--
Perinatal	10	<5	**	0	0%	<5	**	--	--	--
Undetermined	160	67	26%	55	21%	122	24%	--	--	--
AGE AT HIV DIAGNOSIS										
0 - 12 years	10	<5	**	0	0%	<5	**	--	--	--
13 - 19 years	50	22	8%	14	5%	36	7%	--	--	--
20 - 24 years	120	55	21%	33	13%	88	17%	--	--	--
25 - 29 years	120	41	16%	46	18%	87	17%	--	--	--
30 - 39 years	230	69	27%	104	40%	173	33%	--	--	--
40 - 49 years	130	50	19%	44	17%	94	18%	--	--	--
50 - 59 years	40	17	7%	13	5%	30	6%	--	--	--
60 years and over	10	<5	**	<5	**	6	1%	--	--	--
Unspecified	0	0	0%	0	0%	0	0%	--	--	--
TOTAL	690	260	100%	258	100%	518	100%	123	422,080	100%

*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).

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

[‡] To calculate "1 out of x" statements, divide the census number by total reported prevalence. For example, for non-Hispanic whites: 306,674 / 223 = 1,375. Thus, 1 out of every 1,375 non-Hispanic white persons in GENESEE 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 "---".

[§] Rates are not reported for risk categories and age at diagnosis because no reliable denominator data exist for these groups.

[‡] 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 GENESEE CO. at Diagnosis

MALE	White		Black		Hispanic		Other or Unknown		All Male	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Male-Male sex	120	64%	123	64%	11	85%	7	50%	261	64%
Injection Drug Use	7	4%	<5	**	0	0%	<5	**	12	3%
MSM/IDU	11	6%	7	4%	0	0%	<5	**	19	5%
Blood Products	<5	**	0	0%	0	0%	0	0%	<5	**
Heterosexual Contact (HCFR)	<5	**	8	4%	<5	**	0	0%	13	3%
Perinatal	0	0%	<5	**	0	0%	0	0%	<5	**
Undetermined	43	23%	49	25%	<5	**	5	36%	98	24%
Male Subtotal	187	46%	193	47%	13	3%	14	3%	407	100%

FEMALE	White		Black		Hispanic		Other or Unknown		All Female	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Injection Drug Use	<5	**	10	15%	0	0%	0	0%	13	12%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual Contact (HCM)	25	69%	37	57%	5	100%	5	100%	72	65%
Perinatal	0	0%	<5	**	0	0%	0	0%	<5	**
Undetermined	8	22%	16	25%	0	0%	0	0%	24	22%
Female Subtotal	36	32%	65	59%	5	5%	5	5%	111	100%

ALL	White		Black		Hispanic		Other or Unknown		Risk All	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Male-Male sex	120	54%	123	48%	11	61%	7	37%	261	50%
Injection Drug Use	10	4%	14	5%	0	0%	<5	**	25	5%
MSM/IDU	11	5%	7	3%	0	0%	<5	**	19	4%
Blood Products	<5	**	0	0%	0	0%	0	0%	<5	**
Heterosexual Contact (HC)	29	13%	45	17%	6	33%	5	26%	85	16%
<i>HCFR (Males)</i>	<5	**	8	3%	<5	**	0	0%	13	3%
<i>HCM (Females)</i>	25	11%	37	14%	5	28%	5	26%	72	14%
Perinatal	0	0%	<5	**	0	0%	0	0%	<5	**
Undetermined	51	23%	65	25%	<5	**	5	26%	122	24%
RACE ALL	223	43%	258	50%	18	3%	19	4%	518	100%

TABLE 3. New Diagnoses, Deaths, and Prevalence of HIV Infection in GENESEE CO., by Year

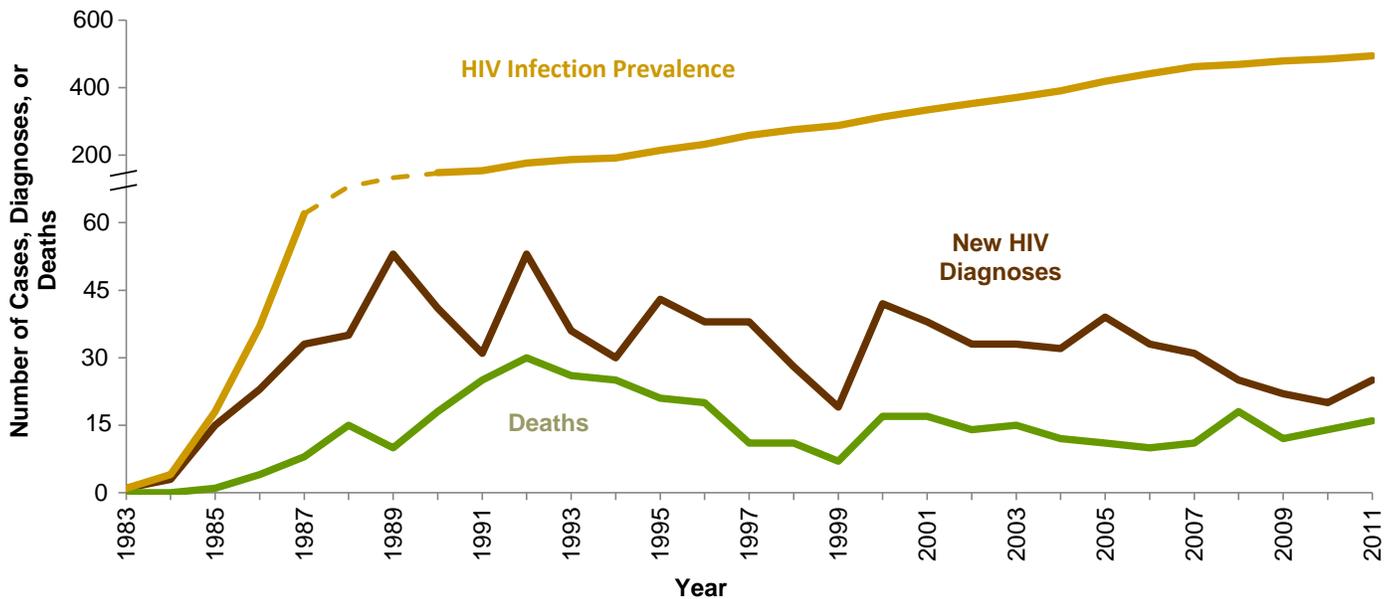
Year	<i>HIV Infection (all stages)</i>			<i>HIV Infection Stage 3 (AIDS)</i>		
	New HIV Diagnoses	Deaths	Prevalence	New Stage 3 Diagnoses	Deaths	Prevalence
1983	1	0	1	1	0	1
1984	3	0	4	1	0	2
1985	15	1	18	2	1	3
1986	23	4	37	5	4	4
1987	33	8	62	19	7	16
1988	35	15	82	20	13	23
1989	53	10	125	30	10	43
1990	41	18	148	29	18	54
1991	31	25	154	23	25	52
1992	53	30	177	31	28	55
1993	36	26	187	24	22	57
1994	30	25	192	27	19	65
1995	43	21	214	29	15	79
1996	38	20	232	28	16	91
1997	38	11	259	26	10	107
1998	28	11	276	25	11	121
1999	19	7	288	19	5	135
2000	42	17	313	20	15	140
2001	38	17	334	13	11	142
2002	33	14	353	25	9	158
2003	33	15	371	16	9	165
2004	32	12	391	11	5	171
2005	39	11	419	30	7	194
2006	33	10	442	27	6	215
2007	31	11	462	31	7	239
2008	25	18	469	15	14	240
2009	22	12	479	13	11	242
2010	20	14	485	9	9	242
2011	25	16	494	19	14	247
2012	29	5	518	15	4	258
TOTAL	922	404		583	325	

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 4, 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 GENESEE CO. is 518. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 258.

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 GENESEE CO., by Year**TABLE 4. Comparison of HIV Infection Prevalence in GENESEE 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>	
Genesee Co.	690	260	258	518	123	583
Michigan Total	19,800	7,169	7,912	15,081	153	18,130