

BIANNUAL HIV SURVEILLANCE REPORT BAY & SAGINAW COUNTIES 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 BAY & SAGINAW 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.

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 BAY & SAGINAW CO. at Diagnosis

	REPORTED PREVALENCE [†]								CENSUS 2011 ESTIMATES	
	EST PREV*	HIV Infection Non-Stage 3		HIV Infection Stage 3 (AIDS)		Total		Rate per 100,000 [§]	Num	Percent
		Num	Num	Percent	Num	Percent	Num			
RACE/ ETHNICITY[‡]										
White	150	58	39%	52	40%	110	40%	46.2	237,898	78%
Black	190	76	51%	63	48%	139	50%	358.8	38,742	13%
Hispanic	20	9	6%	8	6%	17	6%	82.4	20,636	7%
Asian/PI	10	0	0%	<5	**	<5	**	**	2,819	1%
Am Indian/AN	0	0	0%	0	0%	0	0%	**	1,154	<1%
Multi/Other/Unk	10	5	3%	5	4%	10	4%	N/A	4,949	2%
SEX & RACE										
Male	280	120	81%	94	72%	214	77%	143.8	148,809	49%
White Male	130	48	32%	46	35%	94	34%	81.0	115,991	38%
Black Male	130	61	41%	39	30%	100	36%	542.0	18,451	6%
Hispanic Male	10	7	5%	<5	**	11	4%	108.7	10,116	3%
Other Male	10	<5	**	5	4%	9	3%	---	4,251	1%
Female	90	28	19%	36	28%	64	23%	40.7	157,389	51%
White Female	20	10	7%	6	5%	16	6%	13.1	121,907	40%
Black Female	50	15	10%	24	18%	39	14%	192.2	20,291	7%
Hispanic Female	10	<5	**	<5	**	6	2%	---	10,520	3%
Other Female	10	<5	**	<5	**	<5	**	**	4,671	2%
RISK*										
Male-Male Sex (MSM)	180	76	51%	58	45%	134	48%	--	--	--
Injection Drug Use (IDU)	20	7	5%	9	7%	16	6%	--	--	--
MSM/IDU	10	<5	**	6	5%	10	4%	--	--	--
Blood Products	10	<5	**	0	0%	<5	**	--	--	--
Heterosexual Contact (HC)	70	24	16%	26	20%	50	18%	--	--	--
HCFR (Males)	20	8	5%	<5	**	12	4%	--	--	--
HCM (Females)	50	16	11%	22	17%	38	14%	--	--	--
Perinatal	10	<5	**	<5	**	<5	**	--	--	--
Undetermined	90	35	24%	29	22%	64	23%	--	--	--
AGE AT HIV DIAGNOSIS										
0 - 12 years	10	<5	**	<5	**	5	2%	--	--	--
13 - 19 years	20	13	9%	<5	**	16	6%	--	--	--
20 - 24 years	60	30	20%	12	9%	42	15%	--	--	--
25 - 29 years	60	22	15%	24	18%	46	17%	--	--	--
30 - 39 years	110	44	30%	42	32%	86	31%	--	--	--
40 - 49 years	90	29	20%	36	28%	65	23%	--	--	--
50 - 59 years	20	6	4%	9	7%	15	5%	--	--	--
60 years and over	10	<5	**	<5	**	<5	**	--	--	--
Unspecified	0	0	0%	0	0%	0	0%	--	--	--
TOTAL	370	148	100%	130	100%	278	100%	91	306,198	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: 237,898 / 110 = 2,163. Thus, 1 out of every 2,163 non-Hispanic white persons in BAY & SAGINAW 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 BAY & SAGINAW CO. at Diagnosis

	White		Black		Hispanic		Other or Unknown		All Male	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
MALE										
Male-Male sex	66	70%	58	58%	7	64%	<5	**	134	63%
Injection Drug Use	<5	**	5	5%	0	0%	0	0%	8	4%
MSM/IDU	5	5%	<5	**	0	0%	<5	**	10	5%
Blood Products	0	0%	<5	**	0	0%	0	0%	<5	**
Heterosexual Contact (HCFR)	<5	**	5	5%	<5	**	<5	**	12	6%
Perinatal	0	0%	<5	**	0	0%	0	0%	<5	**
Undetermined	16	17%	26	26%	<5	**	<5	**	48	22%
Male Subtotal	94	44%	100	47%	11	5%	9	4%	214	100%
FEMALE										
Injection Drug Use	<5	**	<5	**	0	0%	<5	**	8	13%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual Contact (HCM)	10	63%	23	59%	5	83%	0	0%	38	59%
Perinatal	<5	**	<5	**	0	0%	0	0%	<5	**
Undetermined	<5	**	12	31%	<5	**	<5	**	16	25%
Female Subtotal	16	25%	39	61%	6	9%	<5	**	64	100%
ALL										
Male-Male sex	66	60%	58	42%	7	41%	<5	**	134	48%
Injection Drug Use	7	6%	8	6%	0	0%	<5	**	16	6%
MSM/IDU	5	5%	<5	**	0	0%	<5	**	10	4%
Blood Products	0	0%	<5	**	0	0%	0	0%	<5	**
Heterosexual Contact (HC)	14	13%	28	20%	7	41%	<5	**	50	18%
HCFR (Males)	<5	**	5	4%	<5	**	<5	**	12	4%
HCM (Females)	10	9%	23	17%	5	29%	0	0%	38	14%
Perinatal	<5	**	<5	**	0	0%	0	0%	<5	**
Undetermined	17	15%	38	27%	<5	**	6	50%	64	23%
RACE ALL	110	40%	139	50%	17	6%	12	4%	278	100%

**TABLE 3. Prevalent HIV Infection Cases in BAY & SAGINAW CO.
According to County of Residence at Diagnosis**

COUNTY OF RESIDENCE AT DIAGNOSIS	EST PREV*	REPORTED PREVALENCE[†]			
		HIV Infection Non-Stage 3	HIV Infection Stage 3	Total	
				Number	Percent
Bay Co.	80	35	26	61	(22%)
Saginaw Co.	290	113	104	217	(78%)
TOTAL	370	148	130	278 (100%)	

*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 BAY & SAGINAW 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	0	1	0	0	1	0
1985	5	1	4	1	1	0
1986	5	0	9	1	0	1
1987	9	2	16	3	2	2
1988	19	7	28	9	6	5
1989	14	5	37	8	5	8
1990	19	5	51	6	5	9
1991	31	8	74	15	8	16
1992	25	9	90	26	8	34
1993	20	11	99	20	11	43
1994	16	14	101	11	14	40
1995	25	17	109	19	17	42
1996	26	10	125	19	9	52
1997	21	9	137	13	9	56
1998	18	7	148	10	6	60
1999	16	4	160	16	4	72
2000	12	9	163	9	8	73
2001	11	8	166	8	6	75
2002	10	4	172	9	3	81
2003	7	8	171	6	6	81
2004	13	8	176	8	6	83
2005	9	4	181	6	4	85
2006	17	6	192	9	4	90
2007	12	5	199	9	3	96
2008	24	4	219	13	4	105
2009	24	3	240	7	1	111
2010	24	9	255	14	7	118
2011	12	2	265	9	2	125
2012	14	1	278	6	1	130
TOTAL	459	181		291	161	

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 BAY & SAGINAW CO is 278. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 130.

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 BAY & SAGINAW CO., by Year

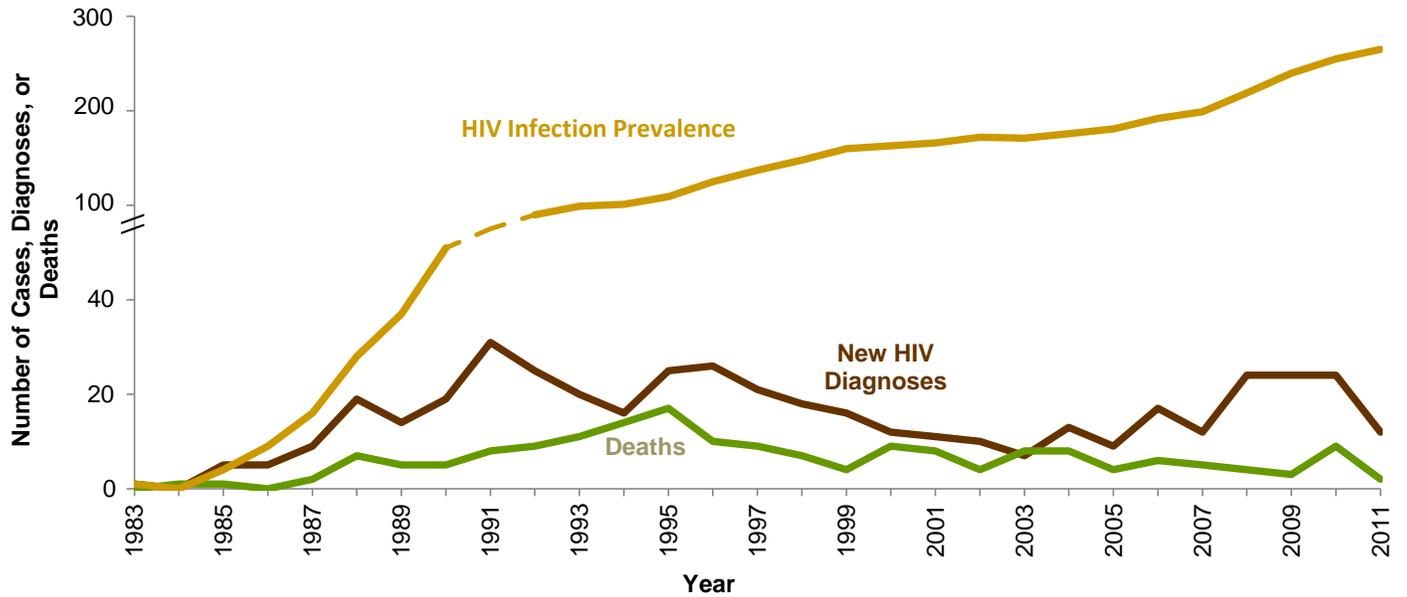


TABLE 5. Comparison of HIV Infection Prevalence in BAY & SAGINAW CO. to State

<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>	
Bay Co.	80	35	26	61	57	66
Saginaw Co.	290	113	104	217	109	225
Michigan Total	19,800	7,169	7,912	15,081	153	18,130