

BIANNUAL HIV SURVEILLANCE REPORT, KALAMAZOO COUNTY July 2012

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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 Kalamazoo County 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 2011, 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.

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.

TABLE 1. Demographic Information on Prevalent HIV Infection Cases Living in KALAMAZOO CO. at Diagnosis

	REPORTED PREVALENCE [†]								CENSUS 2010	
	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	Percent			
RACE/ ETHNICITY[‡]										
White	210	81	50%	83	56%	164	53%	82.0	200,047	80%
Black	170	71	44%	58	39%	129	42%	483.6	26,677	11%
Hispanic	10	4	**	6	4%	10	3%	100.4	9,959	4%
Asian/PI	10	3	**	0	0%	<5	**	**	5,259	2%
Am Indian/AN	0	0	0%	0	0%	0	0%	**	923	<1%
Multi/Other/Unk	10	<5	**	<5	**	<5	**	N/A	7,466	3%
SEX & RACE										
Male	320	125	78%	122	82%	247	80%	201.5	122,569	49%
White Male	180	69	43%	72	49%	141	46%	144.1	97,854	39%
Black Male	120	50	31%	44	30%	94	30%	721.9	13,022	5%
Hispanic Male	10	3	**	6	4%	9	3%	---	5,051	2%
Other Male	10	3	**	0	0%	<5	**	**	6,642	3%
Female	80	36	22%	26	18%	62	20%	48.5	127,762	51%
White Female	20	12	7%	0	0%	12	4%	11.7	102,193	41%
Black Female	30	21	13%	0	0%	21	7%	153.8	13,655	5%
Hispanic Female	10	1	**	0	0%	<5	**	**	4,908	2%
Other Female	10	2	**	0	0%	<5	**	**	7,006	3%
RISK*										
Male-Male Sex (MSM)	200	81	50%	76	51%	157	51%	--	--	--
Injection Drug Use (IDU)	30	8	5%	15	10%	23	7%	--	--	--
MSM/IDU	20	9	6%	5	3%	14	5%	--	--	--
Blood Products	10	1	**	1	**	<5	**	--	--	--
Heterosexual Contact (HC)	0	0	0%	0	0%	0	0%	--	--	--
HCFR (Males)	10	4	**	2	**	6	2%	--	--	--
HCM (Females)	40	21	13%	12	8%	33	11%	--	--	--
Perinatal	10	1	**	1	**	<5	**	--	--	--
Undetermined	90	36	22%	36	24%	72	23%	--	--	--
AGE AT HIV DIAGNOSIS										
0 - 12 years	10	2	**	1	**	<5	**	--	--	--
13 - 19 years	30	14	9%	6	4%	20	6%	--	--	--
20 - 24 years	60	28	17%	17	11%	45	15%	--	--	--
25 - 29 years	80	35	22%	30	20%	65	21%	--	--	--
30 - 39 years	130	57	35%	44	30%	101	33%	--	--	--
40 - 49 years	70	21	13%	34	23%	55	18%	--	--	--
50 - 59 years	20	4	**	13	9%	17	6%	--	--	--
60 years and over	10	0	0%	3	**	<5	**	--	--	--
Unspecified	0	0	0%	0	0%	0	0%	--	--	--
TOTAL	400	161	100%	148	100%	309	100%	123	250,331	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: 200,047 / 164 = 1,220. Thus, 1 out of every 1,220 non-Hispanic white persons in KALAMAZOO 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 KALAMAZOO 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	98	70%	50	53%	6	67%	3	**	157	64%
Injection Drug Use	5	4%	7	7%	0	0%	0	0%	12	5%
MSM/IDU	8	6%	6	6%	0	0%	0	0%	14	6%
Blood Products	1	**	1	**	0	0%	0	0%	2	**
Heterosexual Contact (HCFR)	1	**	5	5%	0	0%	0	0%	6	2%
Perinatal	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined	28	20%	25	27%	3	**	0	0%	56	23%
Male Subtotal	141	57%	94	38%	9	4%	<5	**	247	100%
FEMALE										
Injection Drug Use	<5	**	8	23%	0	0%	0	0%	11	18%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual Contact (HCM)	13	57%	19	54%	1	**	0	0%	33	53%
Perinatal	1	**	0	0%	0	0%	1	**	2	**
Undetermined	6	26%	8	23%	0	0%	2	**	16	26%
Female Subtotal	23	37%	35	56%	<5	**	<5	**	62	100%
ALL										
Male-Male sex	98	60%	50	39%	6	60%	<5	**	157	51%
Injection Drug Use	8	5%	15	12%	0	0%	0	0%	23	7%
MSM/IDU	8	5%	6	5%	0	0%	0	0%	14	5%
Blood Products	<5	**	<5	**	0	0%	0	0%	<5	**
Heterosexual Contact (HC)	14	9%	24	19%	<5	**	0	0%	39	13%
HCFR (Males)	<5	**	5	4%	0	0%	0	0%	6	2%
HCM (Females)	13	8%	19	15%	<5	**	0	0%	33	11%
Perinatal	<5	**	0	0%	0	0%	<5	**	<5	**
Undetermined	34	21%	33	26%	<5	**	<5	**	72	23%
RACE ALL	164	53%	129	42%	10	3%	6	2%	309	100%

TABLE 3. New Diagnoses, Deaths, and Prevalence of HIV Infection in KALAMAZOO 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	0	3	0	0	1
1985	8	2	9	3	2	2
1986	9	1	17	1	1	2
1987	16	4	29	7	4	5
1988	14	4	39	10	4	11
1989	23	4	58	7	4	14
1990	39	10	87	21	10	25
1991	24	8	103	10	8	27
1992	22	7	118	14	7	34
1993	20	13	125	25	12	47
1994	21	14	132	22	13	56
1995	21	14	139	28	13	71
1996	26	12	153	21	12	80
1997	17	15	155	22	13	89
1998	15	3	167	12	2	99
1999	16	5	178	5	5	99
2000	10	8	180	9	8	100
2001	12	5	187	6	5	101
2002	9	5	191	1	5	97
2003	13	8	196	5	6	96
2004	25	3	218	7	2	101
2005	18	5	231	14	3	112
2006	13	4	240	7	3	116
2007	10	8	242	9	6	119
2008	15	4	253	11	4	126
2009	24	6	271	9	5	130
2010	14	2	283	9	2	137
2011	18	4	297	11	4	144
2012	12	0	309	4	0	148
TOTAL	475	178		307	163	

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 KALAMAZOO CO. is 309. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 148.

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 KALAMAZOO CO. by Year

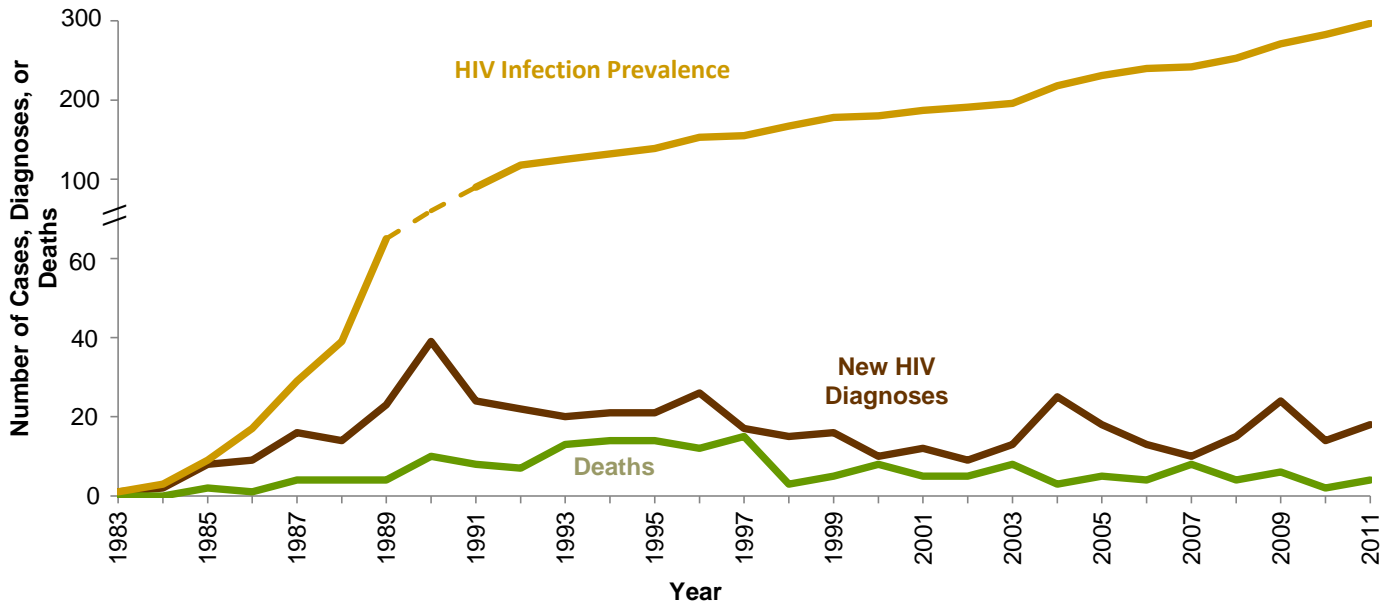


TABLE 4. Comparison of HIV Infection Prevalence in KALAMAZOO CO. to State

<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>	
Kalamazoo Co.	400	161	148	309	123	307
Michigan Total	19,300	7,057	7,966	15,023	152	17,891



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