

HIV SURVEILLANCE REPORT, MUSKEGON COUNTY January 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 Muskegon 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 MUSKEGON 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	70	30	47%	24	41%	54	44%	40.6	133,132	77%
Black	70	26	41%	30	52%	56	46%	227.7	24,599	14%
Hispanic	10	5	8%	<5	**	6	5%	---	8,261	5%
Asian/PI	0	0	0%	0	0%	0	0%	**	937	1%
Am Indian/AN	10	0	0%	<5	**	<5	**	**	1,240	1%
Multi/Other/Unk	10	<5	**	<5	**	5	4%	---	4,019	2%
SEX & RACE										
Male	120	47	73%	43	74%	90	74%	105.3	85,451	50%
White Male	60	28	44%	19	33%	47	39%	71.4	65,866	38%
Black Male	40	13	20%	21	36%	34	28%	274.5	12,386	7%
Hispanic Male	10	<5	**	0	0%	<5	**	**	4,197	2%
Other Male	10	<5	**	<5	**	5	4%	---	3,002	2%
Female	40	17	27%	15	26%	32	26%	36.9	86,737	50%
White Female	10	<5	**	5	9%	7	6%	---	67,266	39%
Black Female	30	13	20%	9	16%	22	18%	180.1	12,213	7%
Hispanic Female	10	<5	**	<5	**	<5	**	**	4,064	2%
Other Female	10	<5	**	0	0%	<5	**	**	3,194	2%
RISK*										
Male-Male Sex (MSM)	70	31	48%	25	43%	56	46%	--	--	--
Injection Drug Use (IDU)	20	6	9%	8	14%	14	11%	--	--	--
MSM/IDU	10	<5	**	<5	**	8	7%	--	--	--
Blood Products	0	0	0%	0	0%	0	0%	--	--	--
Heterosexual Contact (HC)	30	16	25%	10	17%	26	21%	--	--	--
HCFR (Males)	10	<5	**	<5	**	<5	**	--	--	--
HCM (Females)	30	13	20%	9	16%	22	18%	--	--	--
Perinatal	10	<5	**	<5	**	5	4%	--	--	--
Undetermined	20	<5	**	9	16%	13	11%	--	--	--
AGE AT HIV DIAGNOSIS										
0 - 12 years	10	<5	**	<5	**	5	4%	--	--	--
13 - 19 years	10	<5	**	<5	**	6	5%	--	--	--
20 - 24 years	20	10	16%	<5	**	14	11%	--	--	--
25 - 29 years	30	14	22%	12	21%	26	21%	--	--	--
30 - 39 years	50	20	31%	18	31%	38	31%	--	--	--
40 - 49 years	30	10	16%	14	24%	24	20%	--	--	--
50 - 59 years	10	<5	**	<5	**	6	5%	--	--	--
60 years and over	10	<5	**	<5	**	<5	**	--	--	--
Unspecified	0		0%		0%	0	0%	--	--	--
TOTAL	160	64	100%	58	100%	122	100%	71	172,188	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: 133,132 / 54 = 2,465. Thus, 1 out of every 2,465 non-Hispanic white persons in MUSKEGON 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 MUSKEGON 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	36	77%	17	50%	<5	**	<5	**	56	62%
Injection Drug Use	<5	**	6	18%	<5	**	0	0%	8	9%
MSM/IDU	5	11%	<5	**	0	0%	<5	**	8	9%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual Contact (HCFR)	<5	**	<5	**	<5	**	0	0%	<5	**
Perinatal	0	0%	<5	**	0	0%	<5	**	<5	**
Undetermined	<5	**	6	18%	0	0%	<5	**	11	12%
Male Subtotal	47	52%	34	38%	<5	**	5	6%	90	100%
FEMALE										
	White		Black		Hispanic		Other or Unknown		All Female	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Injection Drug Use	<5	**	5	23%	0	0%	0	0%	6	19%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual Contact (HCM)	<5	**	15	68%	<5	**	<5	**	22	69%
Perinatal	<5	**	<5	**	0	0%	0	0%	<5	**
Undetermined	<5	**	<5	**	0	0%	0	0%	<5	**
Female Subtotal	7	22%	22	69%	<5	**	<5	**	32	100%
ALL										
	White		Black		Hispanic		Other or Unknown		Risk All	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Male-Male sex	36	67%	17	30%	<5	**	<5	**	56	46%
Injection Drug Use	<5	**	11	20%	<5	**	0	0%	14	11%
MSM/IDU	5	9%	<5	**	0	0%	<5	**	8	7%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual Contact (HC)	5	9%	17	30%	<5	**	<5	**	26	21%
HCFR (Males)	<5	**	<5	**	<5	**	0	0%	<5	**
HCM (Females)	<5	**	15	27%	<5	**	<5	**	22	18%
Perinatal	<5	**	<5	**	0	0%	<5	**	5	4%
Undetermined	5	9%	7	13%	0	0%	<5	**	13	11%
RACE ALL	54	44%	56	46%	6	5%	6	5%	122	100%

TABLE 3. New Diagnoses, Deaths, and Prevalence of HIV Infection in MUSKEGON 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	0	0	0	0	0	0
1984	1	0	1	0	0	0
1985	5	0	6	2	0	2
1986	2	1	7	2	1	3
1987	4	3	8	1	3	1
1988	5	3	10	3	2	2
1989	10	4	16	7	4	5
1990	8	4	20	5	4	6
1991	18	4	34	5	4	7
1992	8	5	37	4	5	6
1993	9	3	43	7	3	10
1994	9	3	49	8	3	15
1995	8	1	56	7	1	21
1996	5	5	56	8	5	24
1997	8	2	62	6	2	28
1998	4	2	64	1	2	27
1999	2	4	62	2	4	25
2000	4	0	66	3	0	28
2001	5	1	70	3	1	30
2002	8	2	76	5	2	33
2003	13	3	86	8	3	38
2004	6	3	89	2	3	37
2005	10	2	97	10	2	45
2006	6	3	100	8	3	50
2007	2	0	102	4	0	54
2008	11	3	110	2	3	53
2009	8	1	117	4	1	56
2010	3	1	119	0	1	55
2011	3	0	122	3	0	58
TOTAL	185	63	122	120	62	58

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 MUSKEGON CO. is 122. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 58.

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 MUSKEGON CO., by Year

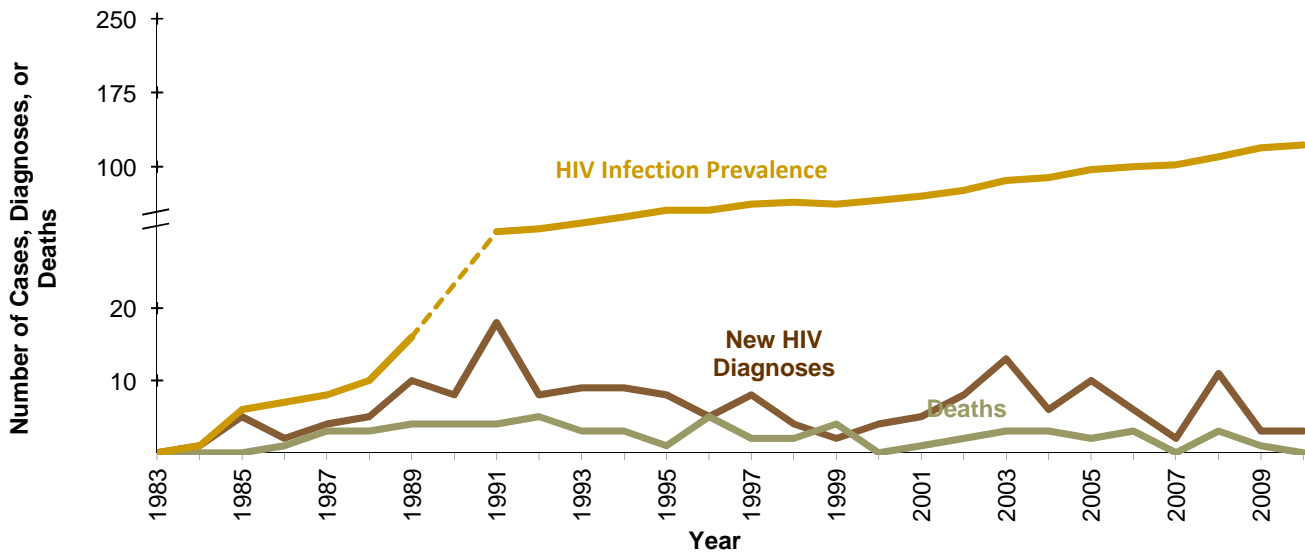


TABLE 4. Comparison of HIV Infection Prevalence in MUSKEGON CO. to State

<i>Residence at Diagnosis</i>	<i>Estimated Prevalence</i>	<i>Reported Prevalence</i>				<i>Cumulative Stage 3</i>
		HIV Infection Non-Stage 3	HIV Infection Stage 3 (AIDS)	Total	Rate	
Muskegon Co.	160	64	58	122	71	120
Michigan Total	19,300	6,860	7,855	14,715	149	17,669



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