

BIANNUAL HIV SURVEILLANCE REPORT SOUTHEAST MICHIGAN 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 SOUTHEAST MICHIGAN 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 SOUTHEAST MICHIGAN[#] 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	Percent			
RACE/ ETHNICITY[‡]										
White	3,410	1,225	27%	1,344	26%	2,569	26%	89	2,871,108	67%
Black	8,760	3,117	68%	3,481	67%	6,598	67%	679	972,221	23%
Hispanic	410	149	3%	161	3%	310	3%	178	173,748	4%
Asian/PI	60	21	<1%	23	<1%	44	<1%	30	146,779	3%
Am Indian/AN	20	10	<1%	3	**	13	<1%	105	12,418	<1%
Multi/Other/Unk	320	89	2%	153	3%	242	2%	N/A	79,396	2%
SEX & RACE										
Male	9,970	3,521	76%	3,985	77%	7,506	77%	364	2,061,831	48%
White Male	3,020	1,055	23%	1,223	24%	2,278	23%	162	1,409,277	33%
Black Male	6,320	2,257	49%	2,500	48%	4,757	49%	1,062	448,095	11%
Hispanic Male	320	117	3%	122	2%	239	2%	272	87,845	2%
Other Male	310	92	2%	140	3%	232	2%	199	116,614	3%
Female	3,010	1,090	24%	1,180	23%	2,270	23%	103	2,193,839	52%
White Female	390	170	4%	121	2%	291	3%	20	1,461,831	34%
Black Female	2,440	860	19%	981	19%	1,841	19%	351	524,126	12%
Hispanic Female	90	32	1%	39	1%	71	1%	83	85,903	2%
Other Female	90	28	1%	39	1%	67	1%	55	121,979	3%
RISK*										
Male-Male Sex (MSM)	6,550	2,311	50%	2,623	51%	4,934	50%	--	--	--
Injection Drug Use (IDU)	1,130	321	7%	527	10%	848	9%	--	--	--
MSM/IDU	420	128	3%	190	4%	318	3%	--	--	--
Blood Products	60	12	<1%	30	1%	42	<1%	--	--	--
Heterosexual Contact (HC)	2,250	763	17%	933	18%	1,696	17%	--	--	--
HCFR (Males)	390	118	3%	174	3%	292	3%	--	--	--
HCM (Females)	1,860	645	14%	759	15%	1,404	14%	--	--	--
Perinatal	150	67	1%	48	1%	115	1%	--	--	--
Undetermined	2,420	1,009	22%	814	16%	1,823	19%	--	--	--
AGE AT HIV DIAGNOSIS										
0 - 12 years	170	71	2%	54	1%	125	1%	--	--	--
13 - 19 years	740	347	8%	207	4%	554	6%	--	--	--
20 - 24 years	1,900	862	19%	569	11%	1,431	15%	--	--	--
25 - 29 years	2,130	827	18%	776	15%	1,603	16%	--	--	--
30 - 39 years	4,220	1,319	29%	1,856	36%	3,175	32%	--	--	--
40 - 49 years	2,660	790	17%	1,212	23%	2,002	20%	--	--	--
50 - 59 years	960	319	7%	403	8%	722	7%	--	--	--
60 years and over	210	73	2%	88	2%	161	2%	--	--	--
Unspecified	10	3	**	0	0%	3	**	--	--	--
TOTAL	12,980	4,611	100%	5,165	100%	9,776	100%	230	4,255,670	100%

[#]Southeast Michigan includes Lapeer, Macomb, Monroe, Oakland, St. Clair, and Wayne Counties

^{*}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).

[‡]To calculate "1 out of x" statements, divide the census number by total reported prevalence. For example, for non-Hispanic whites: 2,871,108 / 2,569 = 1,118. Thus, 1 out of every 1,118 non-Hispanic white persons in Southeast Michigan 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 SOUTHEAST MICHIGAN at Diagnosis

MALE	White		Black		Hispanic		Other or Unknown		All Male	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Male-Male sex	1,725	76%	2,915	61%	146	61%	148	64%	4,934	66%
Injection Drug Use	77	3%	346	7%	22	9%	14	6%	459	6%
MSM/IDU	111	5%	188	4%	2	**	17	7%	318	4%
Blood Products	27	1%	5	<1%	1	**	1	**	34	<1%
Heterosexual Contact (HCFR)	49	2%	230	5%	10	4%	3	**	292	4%
Perinatal	6	<1%	51	1%	2	**	6	3%	65	1%
Undetermined	283	12%	1,022	21%	56	23%	43	19%	1,404	19%
Male Subtotal	2,278	30%	4,757	63%	239	3%	232	3%	7,506	100%
FEMALE	White		Black		Hispanic		Other or Unknown		All Female	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Injection Drug Use	56	19%	308	17%	12	17%	13	19%	389	17%
Blood Products	4	**	3	**	1	**	0	0%	8	<1%
Heterosexual Contact (HCM)	182	63%	1,134	62%	48	68%	40	60%	1,404	62%
Perinatal	4	**	41	2%	2	**	3	**	50	2%
Undetermined	45	15%	355	19%	8	11%	11	16%	419	18%
Female Subtotal	291	13%	1,841	81%	71	3%	67	3%	2,270	100%
ALL	White		Black		Hispanic		Other or Unknown		Risk All	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Male-Male sex	1,725	67%	2,915	44%	146	47%	148	49%	4,934	50%
Injection Drug Use	133	5%	654	10%	34	11%	27	9%	848	9%
MSM/IDU	111	4%	188	3%	2	**	17	6%	318	3%
Blood Products	31	1%	8	<1%	2	**	1	**	42	<1%
Heterosexual Contact (HC)	231	9%	1,364	21%	58	19%	43	14%	1,696	17%
HCFR (Males)	49	2%	230	3%	10	3%	3	**	292	3%
HCM (Females)	182	7%	1,134	17%	48	15%	40	13%	1,404	14%
Perinatal	10	<1%	92	1%	4	**	9	3%	115	1%
Undetermined	328	13%	1,377	21%	64	21%	54	18%	1,823	19%
RACE ALL	2,569	26%	6,598	67%	310	3%	299	3%	9,776	100%

**TABLE 3. Prevalent HIV Infection Cases in SOUTHEAST MICHIGAN
According to Residence at Diagnosis**

RESIDENCE AT DIAGNOSIS	EST PREV*	REPORTED PREVALENCE			
		HIV Infection Non-Stage 3	HIV Infection Stage 3	Total	
				Number	Percent
Lapeer Co.	50	15	19	34	<1%
Macomb Co.	930	360	344	704	7%
Monroe Co.	100	35	39	74	1%
Oakland Co.	2,370	899	888	1,787	18%
St. Clair Co.	120	51	41	92	1%
Wayne Co.	9,410	3,251	3,834	7,085	72%
<i>Out-Wayne</i>	<i>1,980</i>	<i>662</i>	<i>832</i>	<i>1,494</i>	<i>15%</i>
<i>Detroit</i>	<i>7,420</i>	<i>2,589</i>	<i>3,002</i>	<i>5,591</i>	<i>57%</i>
TOTAL	12,980	4,611	5,165	9,776	100%

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

TABLE 4. New Diagnoses, Deaths, and Prevalence of HIV Infection in SOUTHEAST MICHIGAN 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
1981	3	2	1	3	2	1
1982	2	0	3	2	0	3
1983	20	5	18	16	5	14
1984	38	14	42	35	14	35
1985	233	42	233	68	42	61
1986	288	73	448	113	70	104
1987	430	130	748	223	124	203
1988	555	178	1125	333	174	362
1989	809	277	1657	475	269	568
1990	937	317	2277	543	304	807
1991	955	368	2864	659	352	1114
1992	1055	469	3450	868	447	1535
1993	917	594	3773	780	561	1754
1994	882	634	4021	724	594	1884
1995	828	672	4177	738	622	2000
1996	755	433	4499	571	405	2166
1997	732	311	4920	493	273	2386
1998	633	292	5261	455	254	2587
1999	504	284	5481	410	250	2747
2000	629	283	5827	462	244	2965
2001	593	276	6144	387	230	3122
2002	508	269	6383	388	229	3281
2003	580	265	6698	422	221	3482
2004	588	250	7036	400	202	3680
2005	608	262	7382	494	217	3957
2006	548	251	7679	405	214	4148
2007	545	226	7998	374	198	4324
2008	545	254	8289	366	203	4487
2009	560	206	8643	323	166	4644
2010	543	194	8992	349	162	4831
2011	545	188	9349	315	148	4998
2012	495	68	9,776	225	58	5,165
TOTAL	17,863	8,087		12,419	7,254	

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 SOUTHEAST MICHIGAN is 9,776. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 5,165.

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 SOUTHEAST MICHIGAN, by Year

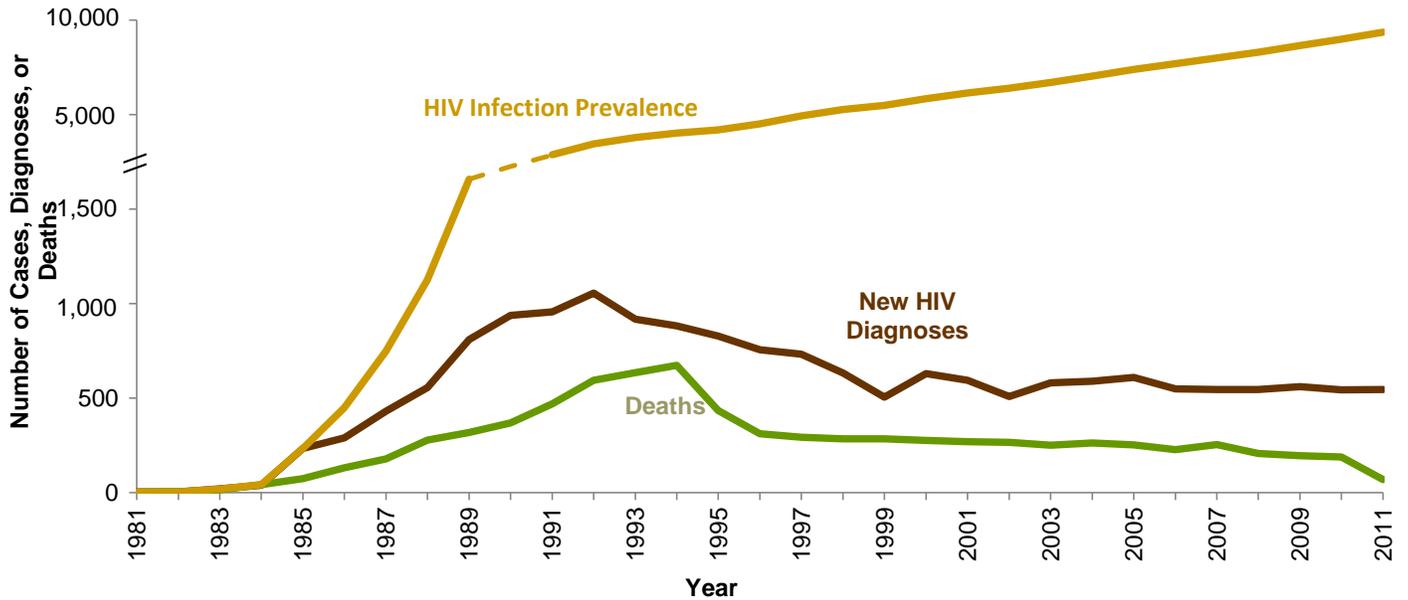


TABLE 5. Comparison of HIV Infection Prevalence in SOUTHEAST MICHIGAN to State

<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>	
Southeast Michigan	12,980	4,611	5,165	9,776	230	12,419
Michigan Total	19,800	7,169	7,912	15,081	153	18,130



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