

ANNUAL HIV SURVEILLANCE REPORT SOUTHEAST MICHIGAN January 2014

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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 2014, 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**

	EST PREV*	HIV Infection Non-Stage 3		HIV Infection Stage 3 (AIDS)		Total		CENSUS 2012 ESTIMATES		
	Num	Num	Percent	Num	Percent	Num	Percent	Rate per 100,000^{‡§}	Num	Percent
RACE/ ETHNICITY[¶]										
White	3,380	1,264	27%	1,370	26%	2,634	26%	92	2,864,772	67%
Black	8,720	3,166	67%	3,633	68%	6,799	67%	699	972,770	23%
Hispanic	410	156	3%	167	3%	323	3%	183	176,407	4%
Asian/PI	60	24	1%	24	<1%	48	<1%	31	152,847	4%
Am Indian/AN	20	10	<1%	4	**	14	<1%	112	12,467	<1%
Multi/Other/Unk	340	102	2%	164	3%	266	3%	N/A	81,007	2%
SEX & RACE										
Male	9,990	3,641	77%	4,145	77%	7,786	77%	377	2,064,378	48%
White Male	3,000	1,092	23%	1,244	23%	2,336	23%	166	1,406,602	33%
Black Male	6,340	2,320	49%	2,624	49%	4,944	49%	1,103	448,159	11%
Hispanic Male	320	124	3%	127	2%	251	2%	282	89,144	2%
Other Male	330	105	2%	150	3%	255	3%	212	120,473	3%
Female	2,950	1,081	23%	1,217	23%	2,298	23%	105	2,195,892	52%
White Female	380	172	4%	126	2%	298	3%	20	1,458,170	34%
Black Female	2,380	846	18%	1,009	19%	1,855	18%	354	524,611	12%
Hispanic Female	90	32	1%	40	1%	72	1%	83	87,263	2%
Other Female	90	31	1%	42	1%	73	1%	58	125,848	3%
RISK*										
Male-Male Sex (MSM)	6,770	2,506	53%	2,771	52%	5,277	52%	--	--	--
Injection Drug Use (IDU)	1,080	306	6%	535	10%	841	8%	--	--	--
MSM/IDU	400	125	3%	188	4%	313	3%	--	--	--
Blood Products	50	12	<1%	29	1%	41	<1%	--	--	--
Heterosexual Contact (HC)	2,350	811	17%	1,020	19%	1,831	18%	--	--	--
HCFR (Males)	470	151	3%	217	4%	368	4%	--	--	--
HCM (Females)	1,880	660	14%	803	15%	1,463	15%	--	--	--
Perinatal	150	68	1%	48	1%	116	1%	--	--	--
Undetermined	2,140	894	19%	771	14%	1,665	17%	--	--	--
AGE AT HIV DIAGNOSIS										
0 - 12 years	160	72	2%	54	1%	126	1%	--	--	--
13 - 19 years	760	362	8%	229	4%	591	6%	--	--	--
20 - 24 years	1,970	913	19%	624	12%	1,537	15%	--	--	--
25 - 29 years	2,140	849	18%	818	15%	1,667	17%	--	--	--
30 - 39 years	4,110	1,329	28%	1,873	35%	3,202	32%	--	--	--
40 - 49 years	2,590	789	17%	1,233	23%	2,022	20%	--	--	--
50 - 59 years	980	330	7%	435	8%	765	8%	--	--	--
60 years and over	220	75	2%	96	2%	171	2%	--	--	--
Unspecified	10	3	**	0	0%	3	**	--	--	--
TOTAL	12,940	4,722	100%	5,362	100%	10,084	100%	237	4,260,270	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: 2,864,772 / 2,634 = 1,088. Thus, 1 out of every 1,088 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 3. Prevalent HIV Infection Cases in SOUTHEAST MICHIGAN
According to Residence at Diagnosis**

<i>RESIDENCE AT DIAGNOSIS</i>	<i>EST PREV*</i>	<i>REPORTED PREVALENCE</i>			
		<i>HIV Infection Non-Stage 3</i>	<i>HIV Infection Stage 3</i>	<i>Total</i>	
				<i>Number</i>	<i>Percent</i>
Lapeer Co.	50	17	19	36	<1%
Macomb Co.	960	392	359	751	7%
Monroe Co.	100	38	37	75	1%
Oakland Co.	2,400	929	938	1,867	19%
St. Clair Co.	120	51	42	93	1%
Wayne Co.	9,320	3,295	3,967	7,262	72%
<i>Out-Wayne</i>	<i>2,000</i>	<i>694</i>	<i>868</i>	<i>1,562</i>	<i>15%</i>
<i>Detroit</i>	<i>7,310</i>	<i>2,601</i>	<i>3,099</i>	<i>5,700</i>	<i>57%</i>
<i>TOTAL</i>	<i>12,940</i>	<i>4,722</i>	<i>5,362</i>	<i>10,084</i>	<i>100%</i>

*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	432	130	750	223	124	203
1988	555	178	1127	333	174	362
1989	811	277	1661	476	269	569
1990	935	318	2278	543	305	807
1991	957	370	2865	659	354	1112
1992	1055	471	3449	867	449	1530
1993	916	596	3769	780	562	1748
1994	883	636	4016	724	595	1877
1995	830	674	4172	738	624	1991
1996	752	433	4491	571	405	2157
1997	734	312	4913	493	274	2376
1998	631	293	5251	453	254	2575
1999	503	285	5469	409	251	2733
2000	631	287	5813	463	245	2951
2001	594	279	6128	386	231	3106
2002	509	272	6365	387	231	3262
2003	581	268	6678	422	221	3463
2004	586	252	7012	400	202	3661
2005	610	264	7358	494	219	3936
2006	546	251	7653	406	214	4128
2007	547	227	7973	374	198	4304
2008	546	256	8263	370	203	4471
2009	560	206	8617	324	166	4629
2010	544	197	8964	350	164	4815
2011	535	214	9285	321	164	4972
2012	558	179	9664	292	147	5117
2013	462	42	10,084	280	35	5,362
TOTAL	18,387	8,303		12,775	7,413	

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 10,084. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 5,362.

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

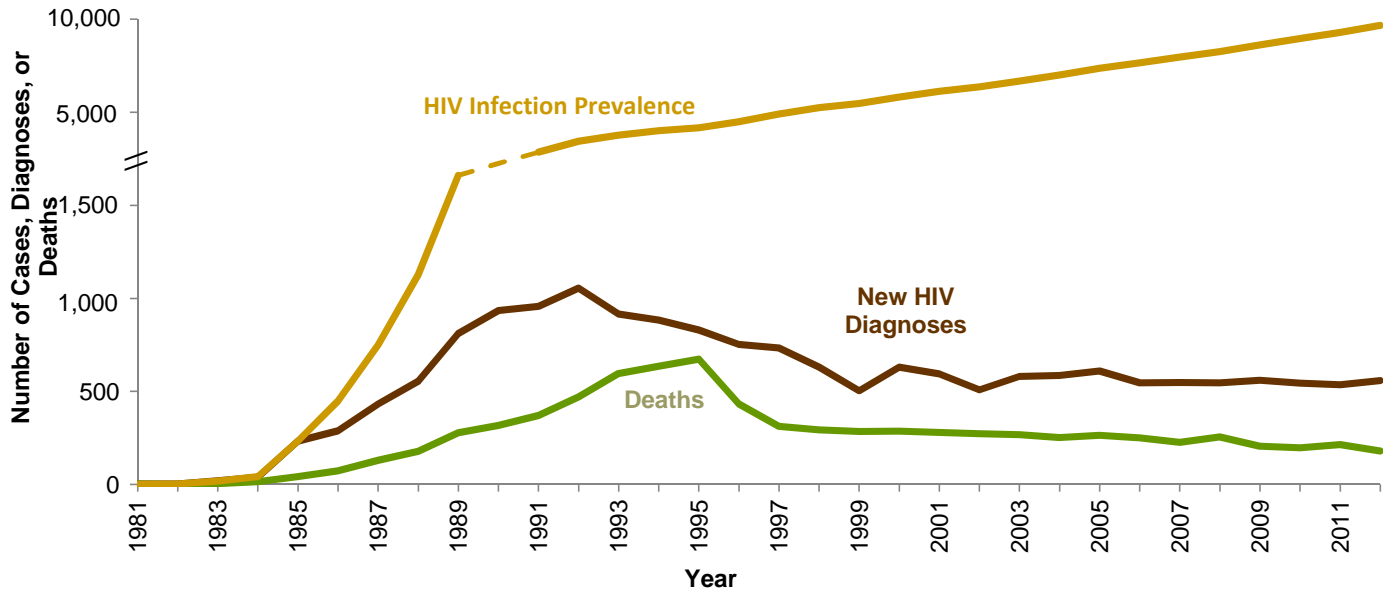


TABLE 5. Comparison of HIV Infection Prevalence in SOUTHEAST MICHIGAN to State

<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	12,940	4,722	5,362	10,084	237	12,775
Michigan Total	19,800	7,370	8,207	15,577	158	18,648



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