



ANNUAL HIV SURVEILLANCE REPORT SOUTHEAST MICHIGAN July 2015

Table of Contents: HIV Surveillance Statistics of Persons Diagnosed in Southeast Michigan by January 1, 2015

	Page
Front Matter	
Acronyms and Definitions	i
Prevalence Estimate Calculations	i
Risk Transmission Categories	i
Section 1: Data on Prevalent Cases	
Table 1. Demographic Information on Prevalent HIV Infection Cases	1
Table 2. Sex, Race, and Risk Among Prevalent HIV Infection Cases	2
Table 3. Prevalent HIV Infection Cases According to County of Residence at Diagnosis	3
Section 2: New Diagnoses, Deaths, and Prevalence	
Table 4. New Diagnoses, Deaths, and Prevalence of HIV Infection, by Year	4
Figure 1. New Diagnoses, Deaths, and Prevalence of HIV Infection, by Year	5
Table 5. Comparison of HIV Infection Prevalence to Michigan	5

HIV/STD, Body Art, Tuberculosis, and Viral Hepatitis Section
Division of Communicable Disease
Bureau of Disease Control, Prevention and Epidemiology
Michigan Department of Health and Human Services

Lansing - HIV Surveillance Office
201 Townsend St., 5th Floor
Lansing, MI 48913
517-335-8165



MDHHS - South Oakland Health Center
27725 Greenfield Rd, Office 57A
Southfield, MI 48076
248-424-7910

<http://www.michigan.gov/hivstd>

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 HIV diagnosis (any stage) who were diagnosed by January 1, 2014, and incorporates an approximation of those 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 July 2014.

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
Health & Human Services

RICK SNYDER, GOVERNOR
NICK LYON, DIRECTOR

TABLE 1. Demographic Information on Prevalent HIV Infection Cases Living in SOUTHEAST MICHIGAN[#] at Diagnosis

	REPORTED PREVALENCE								CENSUS 2014 ESTIMATES	
	EST PREV* Num	HIV Infection Non-Stage 3		HIV Infection Stage 3 (AIDS)		Total		Rate per 100,000 [§]	Num	Percent
RACE/ ETHNICITY[‡]										
White	3,170	1,328	27%	1,384	25%	2,712	26%	95	2,850,398	67%
Black	8,290	3,367	67%	3,724	68%	7,091	68%	736	963,956	23%
Hispanic	420	172	3%	187	3%	359	3%	197	181,872	4%
Asian/PI	70	30	1%	27	<1%	57	1%	34	166,786	4%
Am Indian/AN	20	12	<1%	4	**	16	<1%	125	12,768	<1%
Multi/Other/Unk	280	89	2%	152	3%	241	2%	N/A	85,059	2%
SEX & RACE										
Male	9,480	3,879	78%	4,234	77%	8,113	77%	393	2,066,604	49%
White Male	2,810	1,145	23%	1,260	23%	2,405	23%	172	1,402,005	33%
Black Male	6,050	2,492	50%	2,685	49%	5,177	49%	1,168	443,419	10%
Hispanic Male	330	141	3%	144	3%	285	3%	311	91,569	2%
Other Male	290	101	2%	145	3%	246	2%	190	129,611	3%
Female	2,760	1,119	22%	1,244	23%	2,363	23%	108	2,194,235	51%
White Female	360	183	4%	124	2%	307	3%	21	1,448,393	34%
Black Female	2,240	875	18%	1,039	19%	1,914	18%	368	520,537	12%
Hispanic Female	90	31	1%	43	1%	74	1%	82	90,303	2%
Other Female	80	30	1%	38	1%	68	1%	50	135,002	3%
RISK*										
Male-Male Sex (MSM)	6,560	2,762	55%	2,856	52%	5,618	54%	--	--	--
Injection Drug Use (IDU)	950	296	6%	521	10%	817	8%	--	--	--
MSM/IDU	370	129	3%	190	3%	319	3%	--	--	--
Blood Products	50	11	<1%	29	1%	40	<1%	--	--	--
Heterosexual Contact (HC)	2,240	862	17%	1,051	19%	1,913	18%	--	--	--
HCFR (Males)	440	152	3%	224	4%	376	4%	--	--	--
HCM (Females)	1,800	710	14%	827	15%	1,537	15%	--	--	--
Perinatal	140	68	1%	51	1%	119	1%	--	--	--
Undetermined	1,930	870	17%	780	14%	1,650	16%	--	--	--
AGE AT HIV DIAGNOSIS										
0 - 12 years	150	71	1%	57	1%	128	1%	--	--	--
13 - 19 years	730	381	8%	241	4%	622	6%	--	--	--
20 - 24 years	1,970	1,015	20%	667	12%	1,682	16%	--	--	--
25 - 29 years	2,060	923	18%	843	15%	1,766	17%	--	--	--
30 - 39 years	3,810	1,362	27%	1,895	35%	3,257	31%	--	--	--
40 - 49 years	2,400	827	17%	1,228	22%	2,055	20%	--	--	--
50 - 59 years	930	342	7%	457	8%	799	8%	--	--	--
60 years and over	190	74	1%	90	2%	164	2%	--	--	--
Unspecified	10	3	**	0	0%	3	**	--	--	--
TOTAL	12,240	4,998	100%	5,478	100%	10,476	100%	246	4,260,839	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: 2,850,398 / 2,712 = 1,051. Thus, 1 out of every 1,051 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	1,863	77%	3,400	66%	192	67%	163	66%	5,618	69%
Injection Drug Use	82	3%	326	6%	18	6%	12	5%	438	5%
MSM/IDU	117	5%	182	4%	3	**	17	7%	319	4%
Blood Products	26	1%	5	<1%	1	**	1	**	33	<1%
Heterosexual Contact (HCFR)	68	3%	284	5%	19	7%	5	2%	376	5%
Perinatal	6	<1%	53	1%	3	**	6	2%	68	1%
Undetermined	243	10%	927	18%	49	17%	42	17%	1,261	16%
Male Subtotal	2,405	30%	5,177	64%	285	4%	246	3%	8,113	100%
FEMALE	White		Black		Hispanic		Other or Unknown		All Female	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Injection Drug Use	58	19%	295	15%	14	19%	12	18%	379	16%
Blood Products	4	**	2	**	1	**	0	0%	7	<1%
Heterosexual Contact (HCM)	202	66%	1,244	65%	50	68%	41	60%	1,537	65%
Perinatal	4	**	42	2%	2	**	3	**	51	2%
Undetermined	39	13%	331	17%	7	9%	12	18%	389	16%
Female Subtotal	307	13%	1,914	81%	74	3%	68	3%	2,363	100%
ALL	White		Black		Hispanic		Other or Unknown		Risk All	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Male-Male sex	1,863	69%	3,400	48%	192	53%	163	52%	5,618	54%
Injection Drug Use	140	5%	621	9%	32	9%	24	8%	817	8%
MSM/IDU	117	4%	182	3%	3	**	17	5%	319	3%
Blood Products	30	1%	7	<1%	2	**	1	**	40	<1%
Heterosexual Contact (HC)	270	10%	1,528	22%	69	19%	46	15%	1,913	18%
<i>HCFR (Males)</i>	68	3%	284	4%	19	5%	5	2%	376	4%
<i>HCM (Females)</i>	202	7%	1,244	18%	50	14%	41	13%	1,537	15%
Perinatal	10	<1%	95	1%	5	1%	9	3%	119	1%
Undetermined	282	10%	1,258	18%	56	16%	54	17%	1,650	16%
RACE ALL	2,712	26%	7,091	68%	359	3%	314	3%	10,476	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.	40	17	20	37	<1%
Macomb Co.	940	435	367	802	8%
Monroe Co.	90	39	38	77	1%
Oakland Co.	2,300	1,005	960	1,965	19%
St. Clair Co.	110	54	43	97	1%
Wayne Co.	8,760	3,448	4,050	7,498	72%
<i>Out-Wayne</i>	<i>1,920</i>	<i>753</i>	<i>891</i>	<i>1,644</i>	<i>16%</i>
<i>Detroit</i>	<i>6,840</i>	<i>2,695</i>	<i>3,159</i>	<i>5,854</i>	<i>56%</i>
TOTAL	12,240	4,998	5,478	10,476	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	39	14	43	35	14	35
1985	236	42	237	68	42	61
1986	289	73	453	113	70	104
1987	433	130	756	223	124	203
1988	558	178	1136	332	174	361
1989	811	277	1670	476	269	568
1990	938	318	2290	544	305	807
1991	961	370	2881	660	354	1113
1992	1053	471	3463	870	449	1534
1993	917	596	3784	782	562	1754
1994	884	636	4032	722	595	1881
1995	829	674	4187	737	624	1994
1996	751	433	4505	572	405	2161
1997	733	312	4926	492	274	2379
1998	629	293	5262	453	254	2578
1999	499	286	5475	407	252	2733
2000	630	287	5818	462	245	2950
2001	594	279	6133	386	231	3105
2002	509	274	6368	389	232	3262
2003	582	270	6680	423	223	3462
2004	586	253	7013	401	203	3660
2005	611	264	7360	497	219	3938
2006	547	251	7656	406	214	4130
2007	548	227	7977	375	198	4307
2008	545	256	8266	371	203	4475
2009	558	206	8618	324	166	4633
2010	539	196	8961	350	164	4819
2011	535	215	9281	320	165	4974
2012	551	230	9602	294	186	5082
2013	523	126	9999	309	106	5285
2014	535	58	10,476	238	45	5,478
TOTAL	18,978	8,502		13,052	7,574	

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 10,476. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 5,478.

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.

FIGURE 1. New Diagnoses, Deaths, and Prevalence of HIV Infection in SOUTHEAST MICHIGAN, by Year

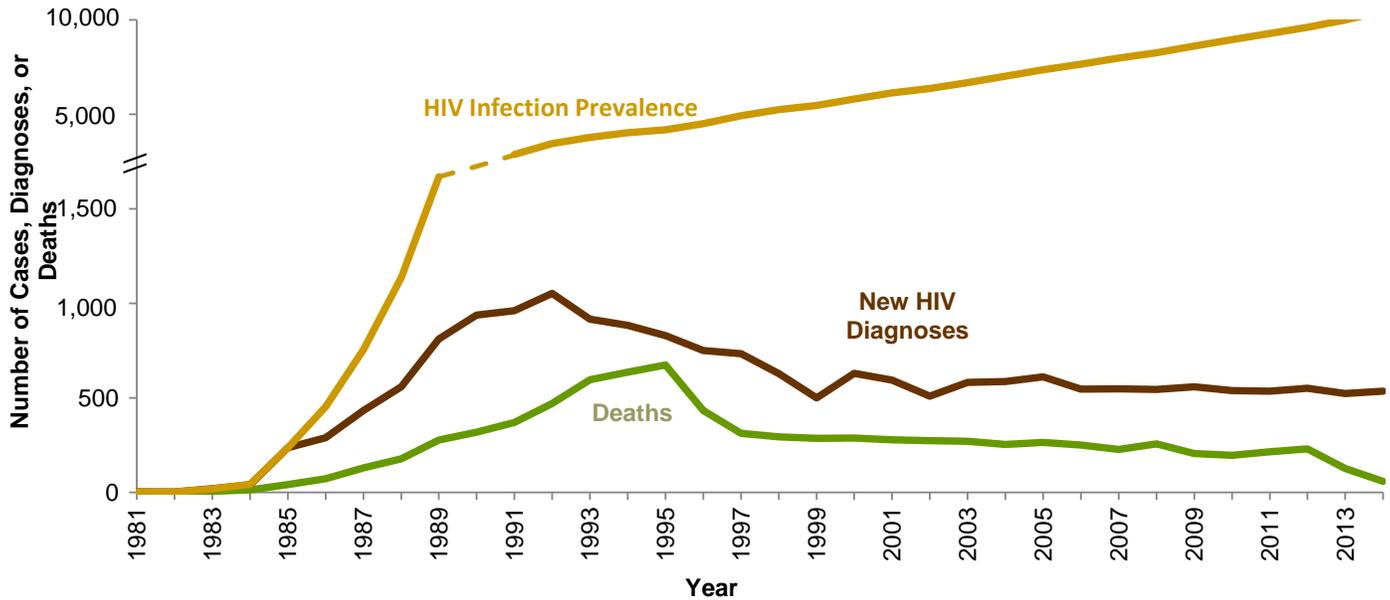


TABLE 5. Comparison of HIV Infection Prevalence in SOUTHEAST MICHIGAN to State

<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	12,240	4,998	5,478	10,476	246	13,052
Michigan Total	18,800	7,799	8,391	16,190	163	18,232



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