

# ANNUAL HIV SURVEILLANCE REPORT SOUTHEAST MICHIGAN July 2014

## Table of Contents: HIV Surveillance Statistics of Persons Diagnosed in Southeast Michigan by January 1, 2014

	Page
<b>Front Matter</b>	
Acronyms and Definitions	i
Prevalence Estimate Calculations	i
Risk Transmission Categories	i
<b>Section 1: Data on Prevalent Cases</b>	
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
<b>Section 2: New Diagnoses, Deaths, and Prevalence</b>	
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/VH/TB Epidemiology Section  
Division of Communicable Disease  
Bureau of Disease Control, Prevention and Epidemiology  
Michigan Department of Community Health

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



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

**\*\*WEBSITE\*\***

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

**\*\*WEBSITE\*\***

## 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  $\geq 500$  CD4 cells/ $\mu$ l.

*Stage 2:* A case has no AIDS-defining condition, but the level of CD4 cells has fallen to 200-499 cells/ $\mu$ 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/ $\mu$ 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 Community Health



Rick Snyder, Governor  
James K. Haveman, Director

**TABLE 1. Demographic Information on Prevalent HIV Infection Cases Living in SOUTHEAST MICHIGAN<sup>#</sup> at Diagnosis**

	<b>REPORTED PREVALENCE</b>								<b>CENSUS 2013 ESTIMATES</b>	
	<b>EST PREV*</b>	<b>HIV Infection Non-Stage 3</b>		<b>HIV Infection Stage 3 (AIDS)</b>		<b>Total</b>		<b>Rate per 100,000<sup>§</sup></b>	<b>Num</b>	<b>Percent</b>
	<b>Num</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>			
<b>RACE/ ETHNICITY<sup>‡</sup></b>										
White	3,240	1,256	27%	1,382	25%	2,638	26%	92	2,860,490	67%
Black	8,420	3,148	67%	3,694	68%	6,842	67%	708	966,931	23%
Hispanic	410	156	3%	175	3%	331	3%	185	179,024	4%
Asian/PI	60	23	<1%	24	<1%	47	<1%	30	158,969	4%
Am Indian/AN	20	10	<1%	4	**	14	<1%	111	12,641	<1%
Multi/Other/Unk	350	105	2%	177	3%	282	3%	N/A	82,861	2%
<b>SEX &amp; RACE</b>										
Male	9,650	3,633	77%	4,213	77%	7,846	77%	380	2,065,949	48%
White Male	2,880	1,085	23%	1,255	23%	2,340	23%	166	1,405,968	33%
Black Male	6,120	2,318	49%	2,661	49%	4,979	49%	1,119	444,971	10%
Hispanic Male	320	124	3%	135	2%	259	3%	286	90,450	2%
Other Male	330	106	2%	162	3%	268	3%	215	124,560	3%
Female	2,840	1,065	23%	1,243	23%	2,308	23%	105	2,194,967	52%
White Female	370	171	4%	127	2%	298	3%	20	1,454,522	34%
Black Female	2,290	830	18%	1,033	19%	1,863	18%	357	521,960	12%
Hispanic Female	90	32	1%	40	1%	72	1%	81	88,574	2%
Other Female	90	32	1%	43	1%	75	1%	58	129,911	3%
<b>RISK*</b>										
Male-Male Sex (MSM)	6,560	2,516	54%	2,814	52%	5,330	52%	--	--	--
Injection Drug Use (IDU)	1,030	298	6%	541	10%	839	8%	--	--	--
MSM/IDU	390	128	3%	192	4%	320	3%	--	--	--
Blood Products	50	11	<1%	29	1%	40	<1%	--	--	--
Heterosexual Contact (HC)	2,270	807	17%	1,037	19%	1,844	18%	--	--	--
HCFR (Males)	460	147	3%	223	4%	370	4%	--	--	--
HCM (Females)	1,810	660	14%	814	15%	1,474	15%	--	--	--
Perinatal	140	66	1%	51	1%	117	1%	--	--	--
Undetermined	2,050	872	19%	792	15%	1,664	16%	--	--	--
<b>AGE AT HIV DIAGNOSIS</b>										
0 - 12 years	160	70	1%	57	1%	127	1%	--	--	--
13 - 19 years	740	366	8%	237	4%	603	6%	--	--	--
20 - 24 years	1,930	921	20%	645	12%	1,566	15%	--	--	--
25 - 29 years	2,060	841	18%	837	15%	1,678	17%	--	--	--
30 - 39 years	3,940	1,315	28%	1,890	35%	3,205	32%	--	--	--
40 - 49 years	2,500	784	17%	1,251	23%	2,035	20%	--	--	--
50 - 59 years	940	320	7%	444	8%	764	8%	--	--	--
60 years and over	210	78	2%	95	2%	173	2%	--	--	--
Unspecified	10	3	**	3	**	6	<1%	--	--	--
<b>TOTAL</b>	<b>12,490</b>	<b>4,698</b>	<b>100%</b>	<b>5,456</b>	<b>100%</b>	<b>10,154</b>	<b>100%</b>	<b>238</b>	<b>4,260,916</b>	<b>100%</b>

<sup>#</sup>Southeast Michigan includes Lapeer, Macomb, Monroe, Oakland, St. Clair, and Wayne Counties

<sup>\*</sup>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).

<sup>‡</sup>To calculate "1 out of x" statements, divide the census number by total reported prevalence. For example, for non-Hispanic whites: 2,860,490 / 2,638 = 1,084. Thus, 1 out of every 1,084 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 "---".

<sup>§</sup>Rates are not reported for risk categories and age at diagnosis because no reliable denominator data exist for these groups.

<sup>¶</sup>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**

<b>MALE</b>	<b>White</b>		<b>Black</b>		<b>Hispanic</b>		<b>Other or Unknown</b>		<b>All Male</b>	
	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>
Male-Male sex	1,802	77%	3,185	64%	165	64%	178	66%	5,330	68%
Injection Drug Use	82	4%	337	7%	20	8%	14	5%	453	6%
MSM/IDU	116	5%	186	4%	3	**	15	6%	320	4%
Blood Products	26	1%	5	<1%	1	**	1	**	33	<1%
Heterosexual Contact (HCFR)	67	3%	280	6%	17	7%	6	2%	370	5%
Perinatal	6	<1%	51	1%	3	**	6	2%	66	1%
Undetermined	241	10%	935	19%	50	19%	48	18%	1,274	16%
<b>Male Subtotal</b>	<b>2,340</b>	<b>30%</b>	<b>4,979</b>	<b>63%</b>	<b>259</b>	<b>3%</b>	<b>268</b>	<b>3%</b>	<b>7,846</b>	<b>100%</b>
<b>FEMALE</b>	<b>White</b>		<b>Black</b>		<b>Hispanic</b>		<b>Other or Unknown</b>		<b>All Female</b>	
	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>
Injection Drug Use	62	21%	299	16%	13	18%	12	16%	386	17%
Blood Products	4	**	2	**	1	**	0	0%	7	<1%
Heterosexual Contact (HCM)	190	64%	1,187	64%	49	68%	48	64%	1,474	64%
Perinatal	4	**	42	2%	2	**	3	**	51	2%
Undetermined	38	13%	333	18%	7	10%	12	16%	390	17%
<b>Female Subtotal</b>	<b>298</b>	<b>13%</b>	<b>1,863</b>	<b>81%</b>	<b>72</b>	<b>3%</b>	<b>75</b>	<b>3%</b>	<b>2,308</b>	<b>100%</b>
<b>ALL</b>	<b>White</b>		<b>Black</b>		<b>Hispanic</b>		<b>Other or Unknown</b>		<b>Risk All</b>	
	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>
Male-Male sex	1,802	68%	3,185	47%	165	50%	178	52%	5,330	52%
Injection Drug Use	144	5%	636	9%	33	10%	26	8%	839	8%
MSM/IDU	116	4%	186	3%	3	**	15	4%	320	3%
Blood Products	30	1%	7	<1%	2	**	1	**	40	<1%
Heterosexual Contact (HC)	257	10%	1,467	21%	66	20%	54	16%	1,844	18%
HCFR (Males)	67	3%	280	4%	17	5%	6	2%	370	4%
HCM (Females)	190	7%	1,187	17%	49	15%	48	14%	1,474	15%
Perinatal	10	<1%	93	1%	5	2%	9	3%	117	1%
Undetermined	279	11%	1,268	19%	57	17%	60	17%	1,664	16%
<b>RACE ALL</b>	<b>2,638</b>	<b>26%</b>	<b>6,842</b>	<b>67%</b>	<b>331</b>	<b>3%</b>	<b>343</b>	<b>3%</b>	<b>10,154</b>	<b>100%</b>

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

<b>RESIDENCE AT DIAGNOSIS</b>	<b>EST PREV*</b>	<b>REPORTED PREVALENCE</b>			
		<b>HIV Infection Non-Stage 3</b>	<b>HIV Infection Stage 3</b>	<b>Total</b>	
				<b>Number</b>	<b>Percent</b>
Lapeer Co.	40	17	19	36	<1%
Macomb Co.	930	393	364	757	7%
Monroe Co.	90	38	37	75	1%
Oakland Co.	2,320	940	950	1,890	19%
St. Clair Co.	120	53	43	96	1%
Wayne Co.	8,980	3,257	4,043	7,300	72%
<i>Out-Wayne</i>	<i>1,930</i>	<i>690</i>	<i>882</i>	<i>1,572</i>	<i>15%</i>
<i>Detroit</i>	<i>7,050</i>	<i>2,567</i>	<i>3,161</i>	<i>5,728</i>	<i>56%</i>
<b>TOTAL</b>	<b>12,490</b>	<b>4,698</b>	<b>5,456</b>	<b>10,154</b>	<b>100%</b>

\*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**

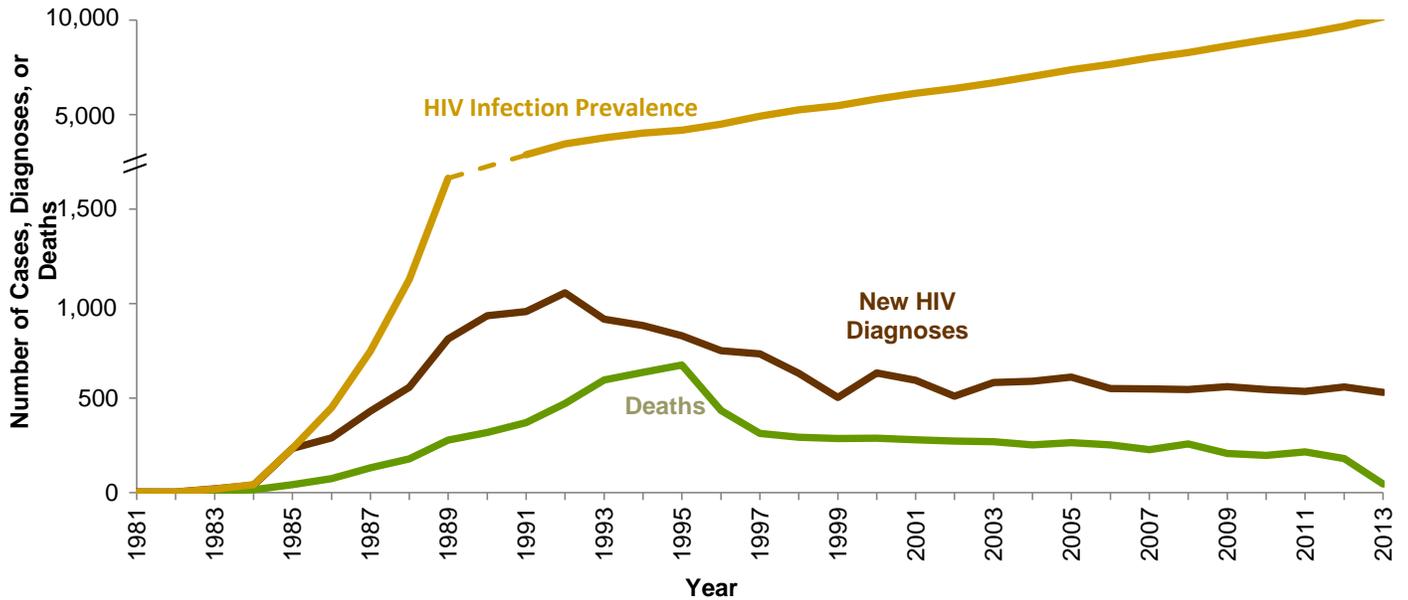
Year	<i>HIV Infection (all stages)</i>			<i>HIV Infection Stage 3 (AIDS)</i>		
	<b>New HIV Diagnoses</b>	<b>Deaths</b>	<b>Prevalence</b>	<b>New Stage 3 Diagnoses</b>	<b>Deaths</b>	<b>Prevalence</b>
1981	3	2	1	3	2	1
1982	2	0	3	2	0	3
1983	20	5	18	16	5	14
1984	38	14	42	35	14	35
1985	233	42	233	68	42	61
1986	288	73	448	113	70	104
1987	431	130	749	223	124	203
1988	556	178	1127	333	174	362
1989	812	277	1662	476	269	569
1990	936	318	2280	543	305	807
1991	957	370	2867	659	354	1112
1992	1056	471	3452	867	449	1530
1993	916	596	3772	780	562	1748
1994	883	636	4019	724	595	1877
1995	830	674	4175	738	624	1991
1996	750	433	4492	571	405	2157
1997	734	312	4914	493	274	2376
1998	630	293	5251	453	254	2575
1999	503	285	5469	409	251	2733
2000	632	287	5814	464	245	2952
2001	594	279	6129	386	231	3107
2002	510	272	6367	386	231	3262
2003	582	268	6681	422	221	3463
2004	588	252	7017	401	202	3662
2005	611	264	7364	494	219	3937
2006	549	251	7662	407	214	4130
2007	548	227	7983	374	198	4306
2008	545	256	8272	369	203	4472
2009	560	206	8626	324	166	4630
2010	544	196	8974	350	164	4816
2011	534	214	9294	321	164	4973
2012	558	179	9673	293	147	5119
2013	529	45	<b>10,157</b>	311	38	<b>5,392</b>
<b>TOTAL</b>	<b>18,462</b>	<b>8,305</b>		<b>12,808</b>	<b>7,416</b>	

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 10,157. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 5,392.

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>	
<b>Southeast Michigan</b>	12,490	4,698	5,456	10,154	238	12,808
<b>Michigan Total</b>	19,100	7,319	8,337	15,656	158	18,690



Michigan Department of Community Health  
 HIV/STD/VH/TB Epidemiology Section  
 Division of Communicable Disease  
 Bureau of Disease Control, Prevention and Epidemiology  
<http://www.michigan.gov/hivstd>

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

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