

# BIANNUAL HIV SURVEILLANCE REPORT, WAYNE COUNTY July 2012

## Table of Contents: HIV Surveillance Statistics of Persons Diagnosed in Wayne County

Front Matter	Page
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 City 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

Detroit - HIV Surveillance Office  
1151 Taylor St., Room 211B  
Detroit, MI 48202  
313-876-0353

**\*\*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 WAYNE CO. 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 2012, 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.

**TABLE 1. Demographic Information on Prevalent HIV Infection Cases Living in WAYNE CO. at Diagnosis**

	REPORTED PREVALENCE <sup>†</sup>								CENSUS 2010	
	EST PREV*	HIV Infection Non-Stage 3		HIV Infection Stage 3 (AIDS)		Total		Rate per 100,000 <sup>‡§</sup>	Num	Percent
	Num	Num	Percent	Num	Percent	Num	Percent			
<b>RACE/ ETHNICITY*</b>										
White	930	308	48%	411	50%	719	49%	84.9	846,576	76%
Black	850	293	46%	358	43%	651	45%	445.2	146,228	13%
Hispanic	50	17	3%	24	3%	41	3%	88.0	46,581	4%
Asian/PI	10	<5	**	7	1%	11	1%	28.7	38,376	3%
Am Indian/AN	0	0	0%	0	0%	0	0%	**	3,708	<1%
Multi/Other/Unk	50	16	3%	24	3%	40	3%	N/A	25,338	2%
<b>SEX &amp; RACE</b>										
Male	1,510	497	78%	668	81%	1165	80%	217.2	536,482	48%
White Male	830	261	41%	379	46%	640	44%	154.7	413,798	37%
Black Male	590	207	32%	244	30%	451	31%	676.7	66,648	6%
Hispanic Male	40	14	2%	19	2%	33	2%	143.1	23,054	2%
Other Male	50	15	2%	26	3%	41	3%	124.3	32,982	3%
Female	390	141	22%	156	19%	297	20%	52.1	570,325	52%
White Female	100	47	7%	32	4%	79	5%	18.3	432,778	39%
Black Female	260	86	13%	114	14%	200	14%	251.3	79,580	7%
Hispanic Female	10	<5	**	5	1%	8	1%	---	23,527	2%
Other Female	10	5	1%	5	1%	10	1%	29.0	34,440	3%
<b>RISK*</b>										
Male-Male Sex (MSM)	1,020	337	53%	448	54%	785	54%	--	--	--
Injection Drug Use (IDU)	140	41	6%	63	8%	104	7%	--	--	--
MSM/IDU	80	19	3%	43	5%	62	4%	--	--	--
Blood Products	10	<5	**	5	1%	9	1%	--	--	--
Heterosexual Contact (HC)	300	93	15%	139	17%	232	16%	--	--	--
HCFR (Males)	50	11	2%	27	3%	38	3%	--	--	--
HCM (Females)	250	82	13%	112	14%	194	13%	--	--	--
Perinatal	10	5	1%	6	1%	11	1%	--	--	--
Undetermined	340	139	22%	120	15%	259	18%	--	--	--
<b>AGE AT HIV DIAGNOSIS</b>										
0 - 12 years	20	6	1%	7	1%	13	1%	--	--	--
13 - 19 years	80	43	7%	18	2%	61	4%	--	--	--
20 - 24 years	220	103	16%	65	8%	168	11%	--	--	--
25 - 29 years	330	113	18%	141	17%	254	17%	--	--	--
30 - 39 years	660	185	29%	323	39%	508	35%	--	--	--
40 - 49 years	400	119	19%	189	23%	308	21%	--	--	--
50 - 59 years	160	56	9%	67	8%	123	8%	--	--	--
60 years and over	30	10	2%	14	2%	24	2%	--	--	--
Unspecified	10	<5	**	0	0%	<5	**	--	--	--
<b>TOTAL</b>	<b>1,900</b>	<b>638</b>	<b>100%</b>	<b>824</b>	<b>100%</b>	<b>1,462</b>	<b>100%</b>	<b>132</b>	<b>1,106,807</b>	<b>100%</b>

\*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> Includes reports that contain patient name or are otherwise unduplicated. <5 and \*\* = 1, 2, 3, or 4 cases.

<sup>‡</sup> To calculate "1 out of x" statements, divide the census number by total reported prevalence. For example, for non-Hispanic whites: 846,576 / 719 = 1,177. Thus, 1 out of every 1,177 non-Hispanic white persons in WAYNE CO. (excluding Detroit) 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 3. Prevalent HIV Infection Cases in WAYNE CO. (excluding Detroit) According to City of Residence at Diagnosis**

CITY OF RESIDENCE AT DIAGNOSIS	EST PREV*	REPORTED PREVALENCE <sup>†</sup>			
		HIV Infection Non-Stage 3	HIV Infection Stage 3	Total	
				Number	Percent
Allen Park	20	10	8	18	(1%)
Belleville	80	28	37	65	(4%)
Brownstown Township	10	<5	5	8	(1%)
Canton	80	34	27	61	(4%)
Dearborn	130	47	52	99	(7%)
Dearborn Heights	80	31	31	62	(4%)
Ecorse	40	14	18	32	(2%)
Flat Rock	10	<5	5	6	(<1%)
Garden City	20	9	9	18	(1%)
Gibraltar	10	0	<5	<5	**
Grosse Ile	10	<5	<5	<5	**
Grosse Pointe	30	8	16	24	(2%)
Grosse Pointe Farms	10	<5	<5	5	(<1%)
Grosse Pointe Park	10	<5	0	<5	**
Grosse Pointe Woods	10	<5	<5	5	(<1%)
Hamtramck	70	24	32	56	(4%)
Harper Woods	30	9	14	23	(2%)
Highland Park	220	75	91	166	(11%)
Inkster	180	52	88	140	(10%)
Lincoln Park	60	20	27	47	(3%)
Livonia	90	32	37	69	(5%)
Melvindale	20	6	6	12	(1%)
New Boston	10	<5	<5	5	(<1%)
Northville	20	9	7	16	(1%)
Plymouth	20	11	6	17	(1%)
Redford Township	120	38	53	91	(6%)
River Rouge	40	16	14	30	(2%)
Riverview	10	5	6	11	(1%)
Rockwood	10	<5	<5	<5	**
Romulus	70	25	26	51	(3%)
Southgate	30	15	11	26	(2%)
Taylor	110	30	56	86	(6%)
Trenton	20	<5	11	13	(1%)
Wayne	30	5	21	26	(2%)
Westland	170	55	73	128	(9%)
Woodhaven	10	<5	<5	<5	**
Wyandotte	40	10	20	30	(2%)
Unknown	10	<5	<5	<5	**
<b>TOTAL</b>	<b>1,900</b>	<b>638</b>	<b>824</b>	<b>1462</b>	<b>(100%)</b>

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

<sup>†</sup> Includes reports that contain patient name or are otherwise unduplicated. <5 and "\*\*" = 1, 2, 3, or 4 cases.

**TABLE 4. New Diagnoses, Deaths, and Prevalence of HIV Infection in WAYNE CO. (excluding Detroit) 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	1	1	0	1	1	0
1982	0	0	0	0	0	0
1983	3	0	3	3	0	3
1984	5	1	7	4	1	6
1985	36	4	39	11	4	13
1986	47	14	72	14	14	13
1987	61	16	117	25	15	23
1988	89	23	183	49	21	51
1989	127	42	268	78	42	87
1990	139	40	367	77	38	126
1991	127	51	443	94	51	169
1992	135	61	517	117	58	228
1993	105	84	538	102	79	251
1994	127	84	581	100	78	273
1995	138	102	617	113	94	292
1996	73	63	627	67	60	299
1997	103	40	690	68	33	334
1998	87	31	746	69	26	377
1999	71	32	785	50	27	400
2000	92	31	846	67	26	441
2001	91	36	901	53	28	466
2002	67	30	938	57	23	500
2003	80	32	986	58	25	533
2004	96	32	1,050	60	25	568
2005	80	28	1,102	69	24	613
2006	74	37	1,139	64	34	643
2007	93	31	1,201	66	28	681
2008	69	38	1,232	57	32	706
2009	78	30	1,280	49	29	726
2010	93	11	1,362	54	7	773
2011	71	11	1,422	43	7	809
2012	42	2	1,462	17	2	824
<b>TOTAL</b>	<b>2,500</b>	<b>1,038</b>		<b>1,739</b>	<b>930</b>	

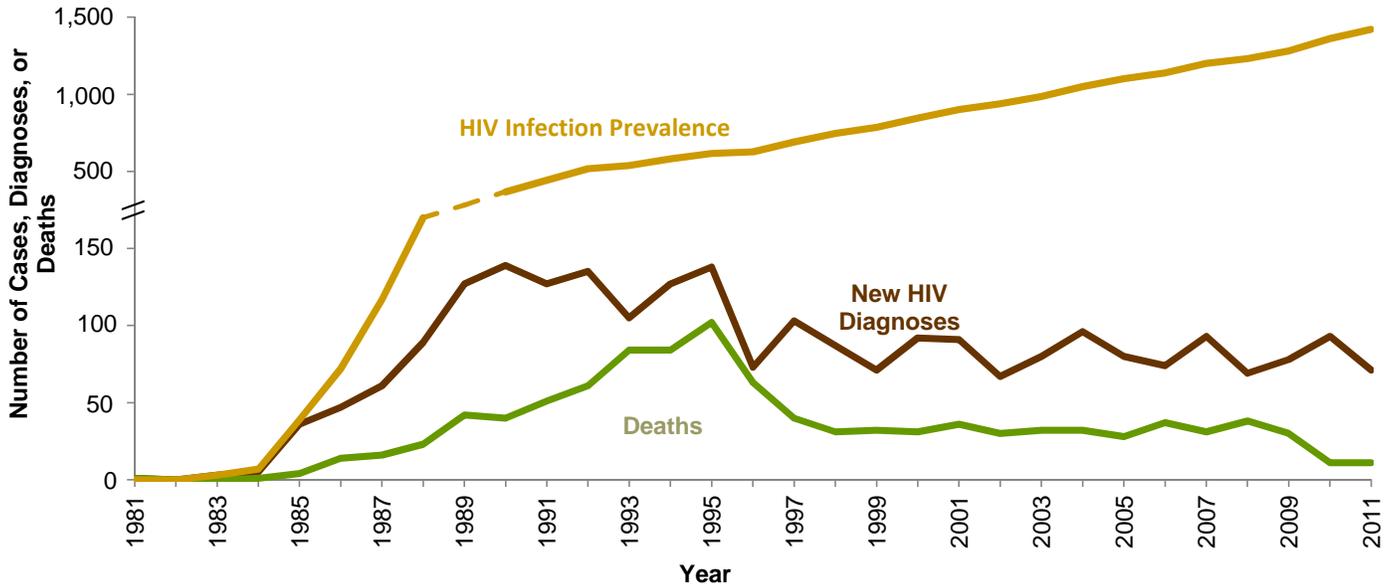
The prevalence of HIV in Michigan has steadily increased, since persons with HIV are living longer. This is largely due to improved anti-retroviral therapy.

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 WAYNE CO (excluding Detroit) is 1,462. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 824.

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 WAYNE CO., by Year**



**TABLE 5. Comparison of HIV Infection Prevalence in WAYNE CO. 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>	
Wayne Co.	1,900	638	824	1,462	132	49
Michigan Total	19,300	7,057	7,966	15,023	152	17,891