

# BIANNUAL HIV SURVEILLANCE REPORT, KENT COUNTY January 2012

## Table of Contents: HIV Surveillance Statistics of Persons Diagnosed in Kent 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
<b>Section 2: New Diagnoses, Deaths, and Prevalence</b>	
Table 3. New Diagnoses, Deaths, and Prevalence of HIV Infection, by Year	3
Figure 1. New Diagnoses, Deaths, and Prevalence of HIV Infection, by Year	4
Table 4. Comparison of HIV Infection Prevalence to Michigan	4

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 Kent County 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 2011, 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.

### 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 KENT CO. at Diagnosis****REPORTED PREVALENCE<sup>†</sup>**

	<b>EST PREV*</b>	<b>HIV Infection Non-Stage 3</b>		<b>HIV Infection Stage 3 (AIDS)</b>		<b>Total</b>		<b>CENSUS 2010</b>		
	<b>Num</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Num</b>	<b>Percent</b>	<b>Rate per 100,000<sup>‡§</sup></b>	<b>Num</b>	<b>Percent</b>
<b>RACE/ ETHNICITY<sup>‡</sup></b>										
White	540	185	51%	218	47%	403	49%	88.0	457,769	76%
Black	380	127	35%	160	35%	287	35%	509.1	56,372	9%
Hispanic	140	38	11%	69	15%	107	13%	183.1	58,437	10%
Asian/PI	10	5	1%	6	1%	11	1%	78.0	14,095	2%
Am Indian/AN	10	<5	**	<5	**	<5	**	**	2,075	<1%
Multi/Other/Unk	10	5	1%	5	1%	10	1%	---	13,874	2%
<b>SEX &amp; RACE</b>										
Male	840	257	71%	372	81%	629	77%	213.1	295,102	49%
White Male	480	160	44%	205	45%	365	44%	163.3	223,462	37%
Black Male	210	61	17%	100	22%	161	20%	586.9	27,430	5%
Hispanic Male	120	30	8%	58	13%	88	11%	295.2	29,813	5%
Other Male	20	6	2%	9	2%	15	2%	77.3	19,397	3%
Female	250	104	29%	88	19%	192	23%	62.4	307,520	51%
White Female	50	25	7%	13	3%	38	5%	16.2	234,307	39%
Black Female	170	66	18%	60	13%	126	15%	435.4	28,942	5%
Hispanic Female	30	8	2%	11	2%	19	2%	66.4	28,624	5%
Other Female	10	5	1%	<5	**	9	1%	---	15,647	3%
<b>RISK*</b>										
Male-Male Sex (MSM)	570	187	52%	242	53%	429	52%	--	--	--
Injection Drug Use (IDU)	50	13	4%	23	5%	36	4%	--	--	--
MSM/IDU	50	20	6%	14	3%	34	4%	--	--	--
Blood Products	10	0	0%	<5	**	<5	**	--	--	--
Heterosexual Contact (HC)	250	90	25%	96	21%	186	23%	--	--	--
HCFR (Males)	50	9	2%	25	5%	34	4%	--	--	--
HCM (Females)	200	81	22%	71	15%	152	19%	--	--	--
Perinatal	10	7	2%	<5	**	11	1%	--	--	--
Undetermined	160	44	12%	79	17%	123	15%	--	--	--
<b>AGE AT HIV DIAGNOSIS</b>										
0 - 12 years	20	8	2%	<5	**	12	1%	--	--	--
13 - 19 years	60	17	5%	25	5%	42	5%	--	--	--
20 - 24 years	150	65	18%	49	11%	114	14%	--	--	--
25 - 29 years	190	72	20%	70	15%	142	17%	--	--	--
30 - 39 years	370	109	30%	171	37%	280	34%	--	--	--
40 - 49 years	220	69	19%	95	21%	164	20%	--	--	--
50 - 59 years	70	18	5%	37	8%	55	7%	--	--	--
60 years and over	20	<5	**	9	2%	12	1%	--	--	--
Unspecified	0	0	0%	0	0%	0	0%	--	--	--
<b>TOTAL</b>	<b>1,090</b>	<b>361</b>	<b>100%</b>	<b>460</b>	<b>100%</b>	<b>821</b>	<b>100%</b>	<b>136</b>	<b>602,622</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: 457,769 / 403 = 1,136. Thus, 1 out of every 1,136 non-Hispanic white persons in KENT CO. 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 KENT CO. 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	299	82%	74	46%	50	57%	6	40%	429	68%
Injection Drug Use	<5	**	12	7%	5	6%	0	0%	21	3%
MSM/IDU	21	6%	9	6%	<5	**	<5	**	34	5%
Blood Products	<5	**	0	0%	0	0%	0	0%	<5	**
Heterosexual Contact (HCFR)	6	2%	18	11%	7	8%	<5	**	34	5%
Perinatal	<5	**	5	3%	0	0%	0	0%	7	1%
Undetermined	31	8%	43	27%	24	27%	<5	**	102	16%
<b>Male Subtotal</b>	<b>365</b>	<b>58%</b>	<b>161</b>	<b>26%</b>	<b>88</b>	<b>14%</b>	<b>15</b>	<b>2%</b>	<b>629</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	<5	**	10	8%	<5	**	<5	**	15	8%
Blood Products	0	0%	0	0%	0	0%	0	0%	0	0%
Heterosexual Contact (HCM)	33	87%	97	77%	14	74%	8	89%	152	79%
Perinatal	0	0%	<5	**	<5	**	0	0%	<5	**
Undetermined	<5	**	17	13%	0	0%	0	0%	21	11%
<b>Female Subtotal</b>	<b>38</b>	<b>20%</b>	<b>126</b>	<b>66%</b>	<b>19</b>	<b>10%</b>	<b>9</b>	<b>5%</b>	<b>192</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	299	74%	74	26%	50	47%	6	25%	429	52%
Injection Drug Use	5	1%	22	8%	8	7%	<5	**	36	4%
MSM/IDU	21	5%	9	3%	<5	**	<5	**	34	4%
Blood Products	<5	**	0	0%	0	0%	0	0%	<5	**
Heterosexual Contact (HC)	39	10%	115	40%	21	20%	11	46%	186	23%
<i>HCFR (Males)</i>	6	1%	18	6%	7	7%	<5	**	34	4%
<i>HCM (Females)</i>	33	8%	97	34%	14	13%	8	33%	152	19%
Perinatal	<5	**	7	2%	<5	**	0	0%	11	1%
Undetermined	35	9%	60	21%	24	22%	<5	**	123	15%
<b>RACE ALL</b>	<b>403</b>	<b>49%</b>	<b>287</b>	<b>35%</b>	<b>107</b>	<b>13%</b>	<b>24</b>	<b>3%</b>	<b>821</b>	<b>100%</b>

**TABLE 3. New Diagnoses, Deaths, and Prevalence of HIV Infection in KENT CO., 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
1983	1	0	1	1	0	1
1984	3	1	3	2	1	2
1985	22	3	22	7	3	6
1986	25	3	44	3	3	6
1987	39	5	78	10	5	11
1988	47	10	115	18	9	20
1989	66	20	161	35	20	35
1990	64	16	209	33	16	52
1991	77	28	258	53	26	79
1992	59	29	288	67	28	118
1993	50	47	291	52	47	123
1994	48	43	296	52	43	132
1995	48	37	307	48	36	144
1996	43	33	317	36	30	150
1997	34	28	323	37	27	160
1998	34	18	339	23	17	166
1999	45	13	371	25	12	179
2000	53	14	410	32	12	199
2001	41	14	437	29	10	218
2002	54	10	481	27	9	236
2003	50	9	522	31	6	261
2004	54	10	566	31	8	284
2005	59	14	611	42	10	316
2006	52	17	646	45	13	348
2007	47	14	679	38	14	372
2008	37	7	709	24	7	389
2009	55	7	757	36	5	420
2010	37	7	787	25	5	440
2011	36	2	<b>821</b>	22	2	<b>460</b>
<b>TOTAL</b>	<b>1,280</b>	<b>459</b>		<b>884</b>	<b>424</b>	

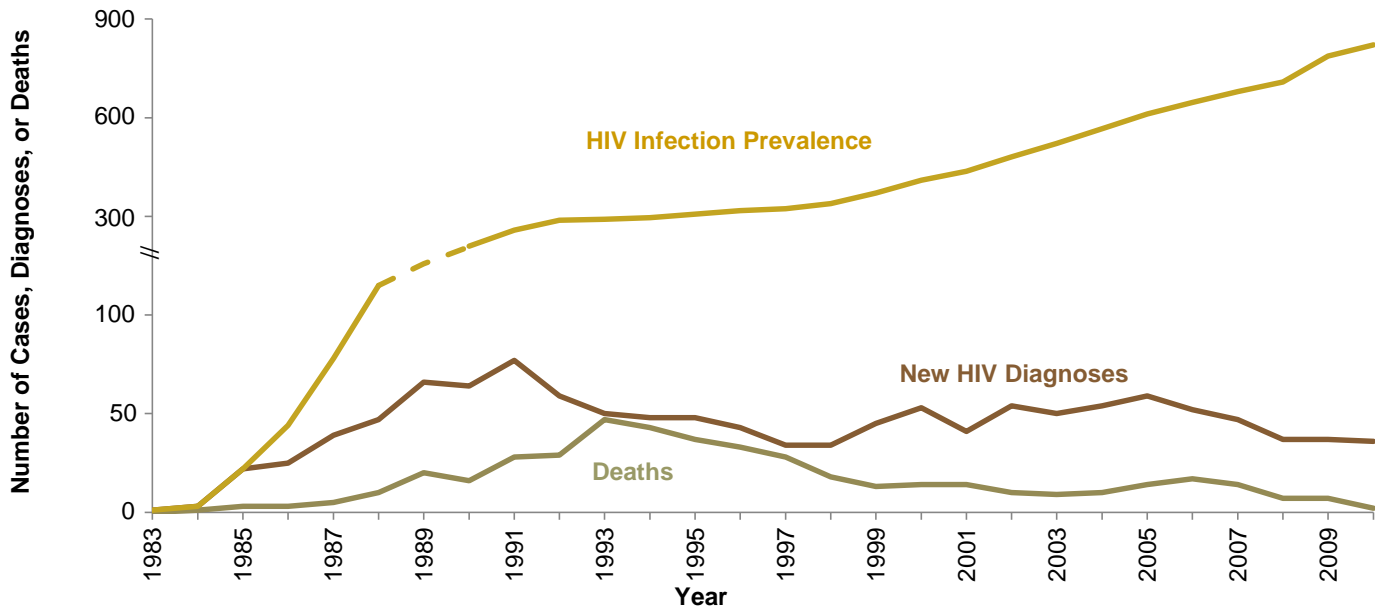
The prevalence of HIV in Michigan has steadily increased, since persons with HIV are living longer. This is largely due to improved anti-retroviral therapy.

The increase in HIV prevalence is also reflected in Figure 1 on page 4, 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 KENT CO. is 821. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 460.

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 KENT CO., by Year**



**TABLE 4. Comparison of HIV Infection Prevalence in KENT 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>	
<b>Kent Co.</b>	1,090	361	460	821	136	884
<b>Michigan Total</b>	19,300	6,860	7,855	14,715	149	17,669



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

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