

# BIANNUAL HIV SURVEILLANCE REPORT, WASHTENAW COUNTY July 2012

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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  $\geq 500$  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 WASHTENAW 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 WASHTENAW 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>Rate per 100,000<sup>§</sup></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>Num</b>	<b>Percent</b>
<b>RACE/ ETHNICITY<sup>‡</sup></b>										
White	320	132	52%	115	48%	247	50%	99.3	248,675	72%
Black	270	102	40%	109	46%	211	43%	489.0	43,152	13%
Hispanic	30	16	6%	9	4%	25	5%	180.4	13,860	4%
Asian/PI	10	0	0%	<5	**	<5	**	**	27,123	8%
Am Indian/AN	0	0	0%	0	0%	0	0%	**	976	<1%
Multi/Other/Unk	10	6	2%	5	2%	11	2%	N/A	11,005	3%
<b>SEX &amp; RACE</b>										
Male	530	214	84%	197	82%	411	83%	241.6	170,132	49%
White Male	290	121	47%	106	44%	227	46%	184.6	122,968	36%
Black Male	200	76	30%	80	33%	156	32%	746.9	20,887	6%
Hispanic Male	30	13	5%	7	3%	20	4%	285.8	6,998	2%
Other Male	10	<5	**	<5	**	8	2%	---	19,279	6%
Female	110	42	16%	42	18%	84	17%	48.1	174,659	51%
White Female	30	11	4%	9	4%	20	4%	15.9	125,707	36%
Black Female	70	26	10%	29	12%	55	11%	247.0	22,265	6%
Hispanic Female	10	<5	**	<5	**	5	1%	---	6,862	2%
Other Female	10	<5	**	<5	**	<5	**	**	19,825	6%
<b>RISK*</b>										
Male-Male Sex (MSM)	400	176	69%	137	57%	313	63%	--	--	--
Injection Drug Use (IDU)	30	7	3%	15	6%	22	4%	--	--	--
MSM/IDU	30	9	4%	13	5%	22	4%	--	--	--
Blood Products	10	0	0%	<5	**	<5	**	--	--	--
Heterosexual Contact (HC)	100	40	16%	38	16%	78	16%	--	--	--
HCFR (Males)	10	<5	**	6	3%	10	2%	--	--	--
HCM (Females)	90	36	14%	32	13%	68	14%	--	--	--
Perinatal	10	0	0%	<5	**	<5	**	--	--	--
Undetermined	70	24	9%	32	13%	56	11%	--	--	--
<b>AGE AT HIV DIAGNOSIS</b>										
0 - 12 years	10	0	0%	<5	**	<5	**	--	--	--
13 - 19 years	20	10	4%	<5	**	14	3%	--	--	--
20 - 24 years	90	40	16%	31	13%	71	14%	--	--	--
25 - 29 years	150	67	26%	47	20%	114	23%	--	--	--
30 - 39 years	210	82	32%	82	34%	164	33%	--	--	--
40 - 49 years	130	45	18%	55	23%	100	20%	--	--	--
50 - 59 years	30	12	5%	14	6%	26	5%	--	--	--
60 years and over	10	0	0%	<5	**	<5	**	--	--	--
Unspecified	0	0	0%	0	0%	0	0%	--	--	--
<b>TOTAL</b>	<b>640</b>	<b>256</b>	<b>100%</b>	<b>239</b>	<b>100%</b>	<b>495</b>	<b>100%</b>	<b>144</b>	<b>344,791</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: 248,675 / 247 = 1,007. Thus, 1 out of every 1,007 non-Hispanic white persons in WASHTENAW 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 3. Prevalent HIV Infection Cases in WASHTENAW CO. According to City of Residence at Diagnosis**

<i>CITY OF RESIDENCE AT DIAGNOSIS</i>	<i>EST PREV*</i>	<i>REPORTED PREVALENCE<sup>†</sup></i>			
		<i>HIV Infection Non-Stage 3</i>	<i>HIV Infection Stage 3</i>	<i>Total</i>	
				<i>Number</i>	<i>Percent</i>
Ann Arbor	280	115	102	217	(44%)
Chelsea	10	<5	<5	<5	**
Dexter	10	<5	<5	7	(1%)
Manchester	10	0	<5	<5	**
Milan	10	<5	<5	5	(1%)
Plymouth	10	<5	<5	7	(1%)
Saline	10	<5	7	10	(2%)
Whitmore Lake	10	0	<5	<5	**
Willis	10	<5	0	<5	**
Ypsilanti	310	124	115	239	(48%)
<b>TOTAL</b>	<b>640</b>	<b>256</b>	<b>239</b>	<b>495</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 WASHTENAW CO., by Year**

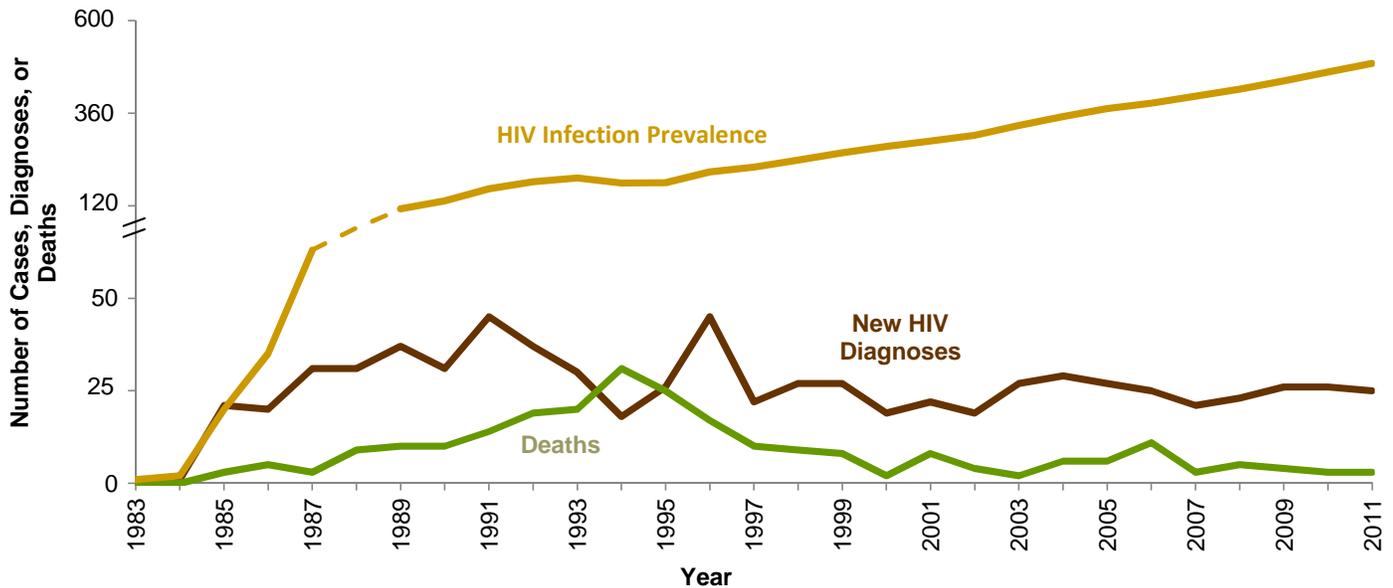
Year	<i>HIV Infection (all stages)</i>			<i>HIV Infection Stage 3 (AIDS)</i>		
	New HIV Diagnoses	Deaths	Prevalence	New Stage 3 Diagnoses	Deaths	Prevalence
1983	1	0	1	0	0	0
1984	1	0	2	0	0	0
1985	21	3	20	7	3	4
1986	20	5	35	6	5	5
1987	31	3	63	13	3	15
1988	31	9	85	18	9	24
1989	37	10	112	20	10	34
1990	31	10	133	22	10	46
1991	45	14	164	31	14	63
1992	37	19	182	38	19	82
1993	30	20	192	33	20	95
1994	18	31	179	21	31	85
1995	26	25	180	33	25	93
1996	45	17	208	25	14	104
1997	22	10	220	17	10	111
1998	27	9	238	18	8	121
1999	27	8	257	17	7	131
2000	19	2	274	12	2	141
2001	22	8	288	15	7	149
2002	19	4	303	13	4	158
2003	27	2	328	12	2	168
2004	29	6	351	17	5	180
2005	27	6	372	20	5	195
2006	25	11	386	14	8	201
2007	21	3	404	11	4	208
2008	23	5	422	15	4	219
2009	26	4	444	8	3	224
2010	26	3	467	8	3	229
2011	25	3	489	10	0	239
2012	6	0	495	0	0	239
<b>TOTAL</b>	<b>739</b>	<b>250</b>		<b>474</b>	<b>235</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 WASHTENAW CO is 495. The prevalence of Stage 3 infection, which is a subset of the overall HIV infection prevalence, is 239.

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 WASHTENAW CO., by Year****TABLE 5. Comparison of HIV Infection Prevalence in WASHTENAW 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>	
Washtenaw Co.	640	256	239	495	144	474
Michigan Total	19,300	7,057	7,966	15,023	152	17,891