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AIDS Activities Coordinating Office (AACO) Surveillance Report 2011

HIV/AIDS in Philadelphia

~Cases Reported through June 2012~

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Surveillance Unit

To Our Readers:

The AACO Surveillance Unit of the Philadelphia Department of Public Health, which conducts HIV/AIDS surveillance for the City of Philadelphia, produces this report. The data in this report reflect cases diagnosed through December 2011 and reported through June 2012.

HIV/AIDS surveillance is the ongoing and systematic collection, analysis, and dissemination of population-based information on HIV/AIDS. There are two basic types of surveillance; active and passive. **Passive surveillance** is a process whereby diagnosing physicians voluntarily submit reports to the Department of Health. **Active surveillance** employs strategies intended to identify unreported cases, and depends on secondary information sources for leads. Information from laboratories, death certificates, direct contact with health care providers and review of medical records, initiate the follow-up investigations. The HIV/AIDS case count in Philadelphia results from a combination of active and passive surveillance. Physicians began reporting AIDS cases to the Department of Health in 1983. Name-based HIV reporting began in October, 2005.

Cases can be reported on a standard CDC report form to our unit by contacting (215) 685-4781 during the day or by mailing the completed form to:

City of Philadelphia Department of Public Health
Post Office Box #58909
Philadelphia, PA 19102-8909

Security and Confidentiality

All information about HIV/AIDS patients is strictly confidential and is collected solely for epidemiologic purposes. Confidentiality of HIV/AIDS case reports is of critical importance to maintaining effective HIV/AIDS surveillance. Federal, state and local health departments have implemented procedures and policies to assure the confidentiality and security of HIV/AIDS data. CDC is prohibited from accepting patient names, and before records are transmitted electronically, all information is encrypted by a computer program. In addition, strict guidelines govern the release of reports similar to this one, which ensure that HIV/AIDS data are not presented in such a way as to possibly identify any individual with HIV/AIDS. **Maintenance of confidentiality and security safeguards are criteria for federal funding and are a top priority within the Philadelphia HIV/AIDS Surveillance Unit.**

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Philadelphia Diagnoses (Diagnosed Through December 31, 2011)

	HIV (Non-AIDS)		AIDS		HIV/AIDS	
	N	%	N	%	N	%
Total	7,396	100.0 %	21,743	100.0 %	29,139	100.0 %
Race						
Black	4,662	63.0 %	14,145	65.0 %	18,807	64.5 %
White	1,462	19.7 %	4,689	21.5 %	6,151	21.1 %
Hispanic	1,047	14.1 %	2,455	11.2 %	3,502	12.0 %
Multi-race	145	1.9 %	349	1.6 %	494	1.6 %
Asian	58	0.7 %	88	0.4 %	146	0.5 %
Other/Unk	22	0.2 %	17	0.0 %	39	0.1 %
Gender						
Female	2,331	31.5 %	5,165	23.7 %	7,496	25.7 %
Male	5,065	68.4 %	16,578	76.2 %	21,643	74.2 %
Age Category						
Unknown	0	0	2,565	11.7 %	2,565	8.8 %
13-19	423	5.7 %	514	2.3 %	937	3.2 %
20-29	2,156	29.1 %	4,473	20.5 %	6,629	22.7 %
30-39	2,275	30.7 %	7,117	32.7 %	9,392	32.2 %
40-49	1,712	23.1 %	4,678	21.5 %	6,390	21.9 %
50+	830	11.2 %	2,396	11.0 %	3,226	11.0 %
Transmission Risk						
MSM	2,387	32.2 %	7,659	35.2 %	10,046	34.4 %
IDU	1,659	22.4 %	7,307	33.6 %	8,966	30.7 %
Heterosexual	2,991	40.4 %	5,422	24.9 %	8,413	28.8 %
MSM/IDU	138	1.8 %	949	4.3 %	1,087	3.7 %
Pediatric	*	0.0 %	0	0	*	0.0 %
Other	*	0.0 %	71	0.3 %	76	0.2 %
No Risk Reported	215	2.9 %	335	1.5 %	550	1.8 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

Table 2. Cumulative Adult HIV/AIDS Cases by HIV Diagnosis Year and Selected Characteristics
Philadelphia Diagnoses (Diagnosed Through December 31, 2011)

	1980-2008		2009		2010		2011		Total	
	N	%	N	%	N	%	N	%	N	%
Total	26,787	100.0 %	908	100.0 %	732	100.0 %	712	100.0 %	29,139	100.0 %
Race										
Black	17,286	64.5 %	542	59.6 %	482	65.8 %	497	69.8 %	18,807	64.5 %
White	5,806	21.6 %	128	14.0 %	107	14.6 %	110	15.4 %	6,151	21.1 %
Hispanic	3,066	11.4 %	214	23.5 %	126	17.2 %	96	13.4 %	3,502	12.0 %
Multi-race	472	1.7 %	12	1.3 %	6	0.8 %	*	0.5 %	494	1.6 %
Asian	122	0.4 %	10	1.1 %	9	1.2 %	*	0.7 %	146	0.5 %
Other/Unk	35	0.1 %	*	0.2 %	*	0.2 %	0	0	39	0.1 %
Gender										
Female	6,892	25.7 %	242	26.6 %	194	26.5 %	168	23.5 %	7,496	25.7 %
Male	19,895	74.2 %	666	73.3 %	538	73.4 %	544	76.4 %	21,643	74.2 %
Age Category										
Unknown	2,565	9.5 %	0	0	0	0	0	0	2,565	8.8 %
13-19	808	3.0 %	48	5.2 %	42	5.7 %	39	5.4 %	937	3.2 %
20-29	5,872	21.9 %	307	33.8 %	220	30.0 %	230	32.3 %	6,629	22.7 %
30-39	8,857	33.0 %	200	22.0 %	180	24.5 %	155	21.7 %	9,392	32.2 %
40-49	5,836	21.7 %	218	24.0 %	161	21.9 %	175	24.5 %	6,390	21.9 %
50+	2,849	10.6 %	135	14.8 %	129	17.6 %	113	15.8 %	3,226	11.0 %
Transmission Risk										
MSM	9,101	33.9 %	346	38.1 %	303	41.3 %	296	41.5 %	10,046	34.4 %
IDU	8,731	32.5 %	102	11.2 %	79	10.7 %	54	7.5 %	8,966	30.7 %
Heterosexual	7,504	28.0 %	251	27.6 %	316	43.1 %	342	48.0 %	8,413	28.8 %
MSM/IDU	1,063	3.9 %	9	0.9 %	7	0.9 %	8	1.1 %	1,087	3.7 %
Pediatric	0	0	0	0	0	0	*	0.1 %	*	0.0 %
Other	76	0.2 %	0	0	0	0	0	0	76	0.2 %
No Risk Reported	312	1.1 %	200	22.0 %	27	3.6 %	11	1.5 %	550	1.8 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

Table 3. Newly-diagnosed HIV by Year and Selected Characteristics, Philadelphia Residents, 2007-2011

	Year of Dx									
	2007		2008		2009		2010		2011	
	N	Col %	N	Col %	N	Col %	N	Col %	N	Col %
Total	918	100.0 %	921	100.0 %	893	100.0 %	729	100.0 %	712	100.0 %
Race										
Black	575	62.6 %	594	64.4 %	534	59.7 %	479	65.7 %	498	69.9 %
Hispanic	133	14.4 %	146	15.8 %	210	23.5 %	127	17.4 %	95	13.3 %
White	171	18.6 %	142	15.4 %	127	14.2 %	106	14.5 %	110	15.4 %
Multi-race	27	2.9 %	30	3.2 %	10	1.1 %	6	0.8 %	*	0.5 %
Asian	11	1.1 %	7	0.7 %	10	1.1 %	9	1.2 %	*	0.7 %
Other/Unk	*	0.1 %	*	0.2 %	*	0.2 %	*	0.2 %	0	0
Gender										
Female	265	28.8 %	288	31.2 %	242	27.0 %	194	26.6 %	170	23.8 %
Male	653	71.1 %	633	68.7 %	651	72.9 %	535	73.3 %	542	76.1 %
Age Category										
< 13	*	0.2 %	10	1.0 %	*	0.3 %	*	0.6 %	*	0.1 %
13-19	68	7.4 %	64	6.9 %	46	5.1 %	42	5.7 %	39	5.4 %
20-29	251	27.3 %	255	27.6 %	306	34.2 %	217	29.7 %	230	32.3 %
30-39	232	25.2 %	192	20.8 %	197	22.0 %	180	24.6 %	154	21.6 %
40-49	237	25.8 %	232	25.1 %	209	23.4 %	160	21.9 %	175	24.5 %
50+	128	13.9 %	168	18.2 %	132	14.7 %	125	17.1 %	113	15.8 %
Transmission Risk										
MSM	281	30.6 %	304	33.0 %	337	37.7 %	299	41.0 %	295	41.4 %
IDU	150	16.3 %	126	13.6 %	101	11.3 %	77	10.5 %	54	7.5 %
Heterosexual	457	49.7 %	444	48.2 %	244	27.3 %	314	43.0 %	342	48.0 %
MSM/IDU	15	1.6 %	13	1.4 %	9	1.0 %	7	0.9 %	8	1.1 %
Pediatric	*	0.2 %	9	0.9 %	*	0.4 %	*	0.6 %	*	0.2 %
No Risk Reported	13	1.4 %	25	2.7 %	198	22.1 %	27	3.7 %	11	1.5 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

Table 4. AIDS Diagnoses by Year and Selected Characteristics, Philadelphia Residents, 2007-2011

	Year of Dx									
	2007		2008		2009		2010		2011	
	N	Col %	N	Col %	N	Col %	N	Col %	N	Col %
Total	652	100.0 %	452	100.0 %	221	100.0 %	239	100.0 %	176	100.0 %
Race										
Black	410	62.8 %	300	66.3 %	128	57.9 %	166	69.4 %	128	72.7 %
White	132	20.2 %	65	14.3 %	26	11.7 %	21	8.7 %	18	10.2 %
Hispanic	73	11.1 %	55	12.1 %	56	25.3 %	49	20.5 %	26	14.7 %
Multi-race	32	4.9 %	28	6.1 %	9	4.0 %	*	0.8 %	*	1.1 %
Asian	*	0.6 %	*	0.6 %	*	0.9 %	*	0.4 %	*	1.1 %
Other/Unk	*	0.1 %	*	0.2 %	0	0	0	0	0	0
Gender										
Female	209	32.0 %	141	31.1 %	49	22.1 %	55	23.0 %	39	22.1 %
Male	443	67.9 %	311	68.8 %	172	77.8 %	184	76.9 %	137	77.8 %
Age Category										
< 13	0	0	*	0.4 %	0	0	*	0.4 %	0	0
13-19	6	0.9 %	12	2.6 %	9	4.0 %	*	1.2 %	*	1.7 %
20-29	97	14.8 %	66	14.6 %	51	23.0 %	45	18.8 %	40	22.7 %
30-39	152	23.3 %	107	23.6 %	48	21.7 %	57	23.8 %	45	25.5 %
40-49	240	36.8 %	133	29.4 %	61	27.6 %	73	30.5 %	53	30.1 %
50+	157	24.0 %	132	29.2 %	52	23.5 %	60	25.1 %	35	19.8 %
Transmission Risk										
MSM	187	28.6 %	124	27.4 %	75	33.9 %	76	31.7 %	61	34.6 %
IDU	153	23.4 %	85	18.8 %	24	10.8 %	33	13.8 %	13	7.3 %
Heterosexual	298	45.7 %	217	48.0 %	75	33.9 %	113	47.2 %	99	56.2 %
MSM/IDU	9	1.3 %	13	2.8 %	*	1.3 %	*	1.2 %	*	0.5 %
Pediatric	0	0	*	1.1 %	0	0	*	0.4 %	0	0
No Risk Reported	*	0.7 %	8	1.7 %	44	19.9 %	13	5.4 %	*	1.1 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

Table 5. Persons Living with AIDS by Selected Characteristics
Philadelphia Residents, 2011

	Total	
	N	Col %
Total	11,583	100.0 %
Race		
Black	7,379	63.7 %
White	2,235	19.2 %
Hispanic	1,615	13.9 %
Multi-race	270	2.3 %
Asian	73	0.6 %
Other/Unk	11	0.0 %
Gender		
Female	3,175	27.4 %
Male	8,408	72.5 %
Age Category		
Unknown	37	0.3 %
< 13	14	0.1 %
13-19	70	0.6 %
20-29	594	5.1 %
30-39	1,490	12.8 %
40-49	4,035	34.8 %
50+	5,343	46.1 %
Transmission Risk		
MSM	3,680	31.7 %
IDU	3,442	29.7 %
Heterosexual	3,678	31.7 %
MSM/IDU	436	3.7 %
Pediatric	156	1.3 %
Other	15	0.1 %
No Risk Reported	176	1.5 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office
†Age as of December 31, 2011

Table 6. Persons Living with AIDS by Race and Selected Characteristics*
Philadelphia Residents, 2011

	Race					
	Black		White		Hispanic	
	N	Col %	N	Col %	N	Col %
Total	7,379	100.0 %	2,235	100.0 %	1,615	100.0 %
Gender						
Female	2,317	31.3 %	315	14.0 %	458	28.3 %
Male	5,062	68.6 %	1,920	85.9 %	1,157	71.6 %
Age Category						
Unknown	18	0.2 %	8	0.3 %	6	0.3 %
< 13	14	0.1 %	0	0	0	0
13-19	59	0.7 %	*	0.0 %	9	0.5 %
20-29	431	5.8 %	56	2.5 %	85	5.2 %
30-39	1,004	13.6 %	207	9.2 %	210	13.0 %
40-49	2,552	34.5 %	748	33.4 %	597	36.9 %
50+	3,301	44.7 %	1,214	54.3 %	708	43.8 %
Transmission Risk						
MSM	1,952	26.4 %	1,290	57.7 %	315	19.5 %
IDU	2,202	29.8 %	486	21.7 %	660	40.8 %
Heterosexual	2,724	36.9 %	323	14.4 %	511	31.6 %
MSM/IDU	261	3.5 %	95	4.2 %	66	4.0 %
Pediatric	120	1.6 %	13	0.5 %	23	1.4 %
Other	6	0.0 %	6	0.2 %	*	0.1 %
No Risk Reported	114	1.5 %	22	0.9 %	38	2.3 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office
*Age as of December 31, 2011

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Table 7. Persons Living with AIDS by Gender and Selected Characteristics*
Philadelphia Residents, 2011

	Gender			
	Female		Male	
	N	Col %	N	Col %
Total	3,175	100.0 %	8,408	100.0 %
Race				
Black	2,317	72.9 %	5,062	60.2 %
White	315	9.9 %	1,920	22.8 %
Hispanic	458	14.4 %	1,157	13.7 %
Multi-race	72	2.2 %	198	2.3 %
Asian	11	0.3 %	62	0.7 %
Other/Unk	*	0.0 %	9	0.1 %
Age Category				
Unknown	6	0.1 %	31	0.3 %
< 13	7	0.2 %	7	0.0 %
13-19	33	1.0 %	37	0.4 %
20-29	153	4.8 %	441	5.2 %
30-39	497	15.6 %	993	11.8 %
40-49	1,265	39.8 %	2,770	32.9 %
50+	1,214	38.2 %	4,129	49.1 %
Transmission Risk				
MSM	0	0	3,680	43.7 %
IDU	1,080	34.0 %	2,362	28.0 %
Heterosexual	1,966	61.9 %	1,712	20.3 %
MSM/IDU	0	0	436	5.1 %
Pediatric	72	2.2 %	84	0.9 %
Other	*	0.1 %	11	0.1 %
No Risk Reported	53	1.6 %	123	1.4 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office
*Age as of December 31, 2011

Table 8. Persons Living with HIV/AIDS by Selected Characteristics*
Philadelphia Residents, 2011

	Total	
	N	Col %
Total	19,157	100.0 %
Race		
Black	12,061	62.9 %
White	3,713	19.3 %
Hispanic	2,770	14.4 %
Multi-race	446	2.3 %
Asian	136	0.7 %
Other/Unk	31	0.1 %
Gender		
Female	5,567	29.0 %
Male	13,590	70.9 %
Age Category		
Unknown	56	0.2 %
< 13	60	0.3 %
13-19	179	0.9 %
20-29	1,844	9.6 %
30-39	3,080	16.0 %
40-49	6,345	33.1 %
50+	7,593	39.6 %
Transmission Risk		
MSM	6,230	32.5 %
IDU	4,995	26.0 %
Heterosexual	6,637	34.6 %
MSM/IDU	582	3.0 %
Pediatric	291	1.5 %
Other	19	0.0 %
No Risk Reported	403	2.1 %

Source: Philadelphia Department of Public Health,
AIDS Activities Coordinating Office
*Age as of December 31, 2011

Table 9. Persons Living with HIV/AIDS by Race and Selected Characteristics*
Philadelphia Residents, 2011

	Race					
	Black		White		Hispanic	
	N	Col %	N	Col %	N	Col %
Total	12,061	100.0 %	3,713	100.0 %	2,770	100.0 %
Gender						
Female	4,033	33.4 %	585	15.7 %	782	28.2 %
Male	8,028	66.5 %	3,128	84.2 %	1,988	71.7 %
Age Category						
Unknown	26	0.2 %	10	0.2 %	15	0.5 %
< 13	48	0.3 %	*	0.0 %	7	0.2 %
13-19	133	1.1 %	11	0.2 %	33	1.1 %
20-29	1,332	11.0 %	209	5.6 %	235	8.4 %
30-39	1,939	16.0 %	508	13.6 %	505	18.2 %
40-49	3,901	32.3 %	1,249	33.6 %	972	35.0 %
50+	4,682	38.8 %	1,723	46.4 %	1,003	36.2 %
Transmission Risk						
MSM	3,329	27.6 %	2,094	56.3 %	591	21.3 %
IDU	3,049	25.2 %	764	20.5 %	1,029	37.1 %
Heterosexual	4,870	40.3 %	629	16.9 %	929	33.5 %
MSM/IDU	333	2.7 %	142	3.8 %	85	3.0 %
Pediatric	208	1.7 %	25	0.6 %	54	1.9 %
Other	9	0.0 %	7	0.1 %	*	0.0 %
No Risk Reported	263	2.1 %	52	1.4 %	80	2.8 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office
*Age as of December 31, 2011

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Table 10. Persons Living with HIV/AIDS by Gender and Selected Characteristics*
Philadelphia Residents, 2011

	Gender			
	Female		Male	
	N	Col %	N	Col %
Total	5,567	100.0 %	13,590	100.0 %
Race				
Black	4,033	72.4 %	8,028	59.0 %
White	585	10.5 %	3,128	23.0 %
Hispanic	782	14.0 %	1,988	14.6 %
Multi-race	129	2.3 %	317	2.3 %
Asian	27	0.4 %	109	0.8 %
Other/Unk	11	0.1 %	20	0.1 %
Age Category				
Unknown	14	0.2 %	42	0.3 %
< 13	32	0.5 %	28	0.2 %
13-19	81	1.4 %	98	0.7 %
20-29	455	8.1 %	1,389	10.2 %
30-39	1,008	18.1 %	2,072	15.2 %
40-49	2,098	37.6 %	4,247	31.2 %
50+	1,879	33.7 %	5,714	42.0 %
Transmission Risk				
MSM	0	0	6,230	45.8 %
IDU	1,600	28.7 %	3,395	24.9 %
Heterosexual	3,681	66.1 %	2,956	21.7 %
MSM/IDU	0	0	582	4.2 %
Pediatric	137	2.4 %	154	1.1 %
Other	*	0.0 %	14	0.1 %
No Risk Reported	144	2.5 %	259	1.9 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office
*Age as of December 31, 2011

Figure 1. Actual and Predicted Values of Persons Living with AIDS in Philadelphia, 1998-2017

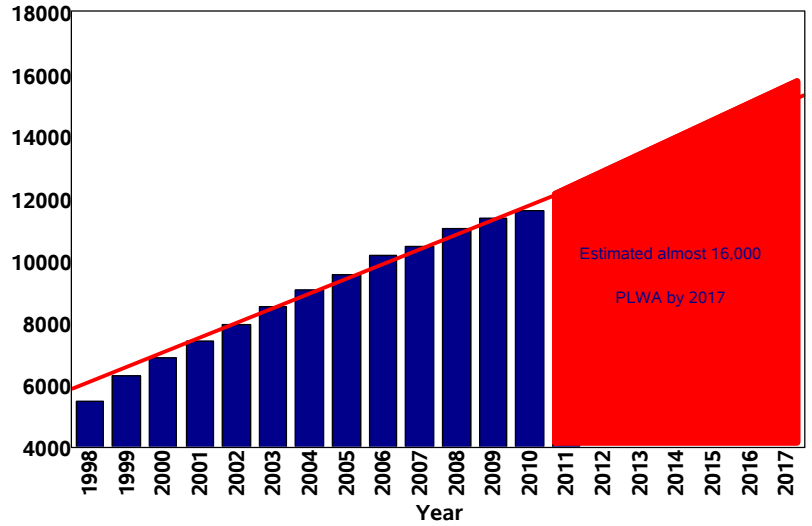


Figure 2. First Reported CD4 Value by Age at HIV Diagnosis

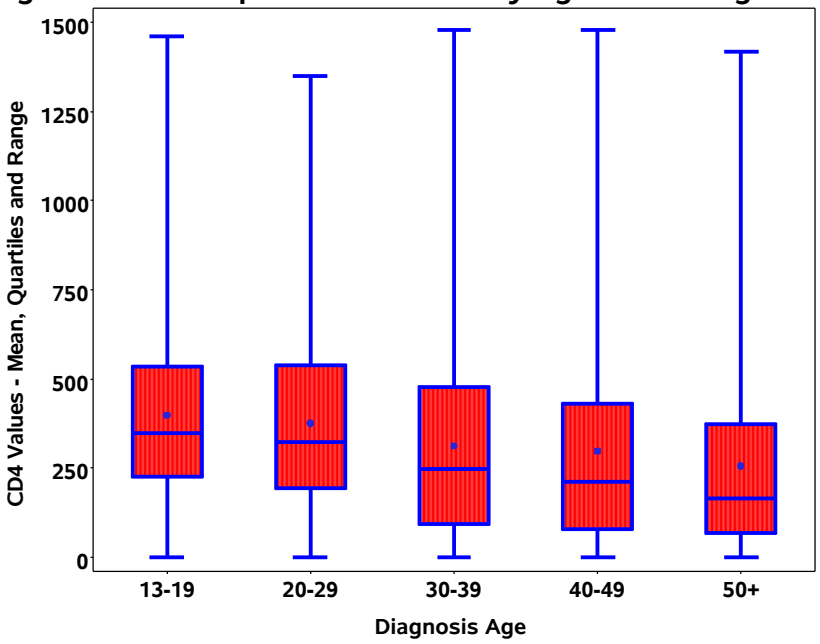
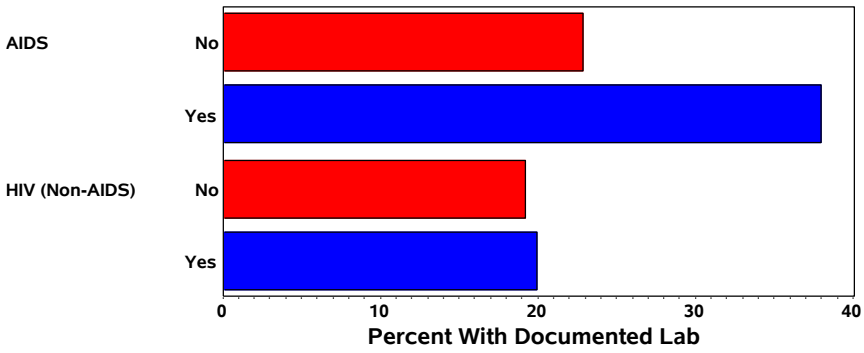


Figure 3. Documented Lab Data For Persons Living with HIV/AIDS



Advances in HIV diagnosis and treatment continue to help persons diagnosed with HIV to live longer, healthier lives. In Philadelphia, it is estimated that by 2017 there will be almost 16,000 persons living with AIDS. This statistic continues to be impacted by the widespread use of highly active antiretroviral therapy (HAART), as well as the diagnosis of approximately 800-900 new HIV cases each year in the City of Philadelphia.

A diagnosis of AIDS is indicated when CD4 values drop below 200 (or 14%). Data from HIV cases diagnosed since 2006 (the first year in which name-based reporting was in place), indicate that there is an inverse relationship between age at diagnosis and the first reported CD4 count. The initial CD4 count decreases as the persons age at diagnosis increases, indicating that HIV testing and diagnosis at an earlier age may improve disease outcomes and prolong a diagnosis of AIDS.

The enhanced HIV/AIDS Reporting System (eHARS) is now able to store and report on an unlimited number of laboratory test results for each documented case of HIV. Since conversion to this new SQLServer database, AACO surveillance staff have been working to import labs previously stored in a separate, stand-alone database. Newly reported CD4 and VL for existing cases, are immediately matched and stored with case data allowing for more detailed analyses of persons living with HIV in Philadelphia.

Figure 4. Risk Category Trend by Year: All Cases, 2006-2011

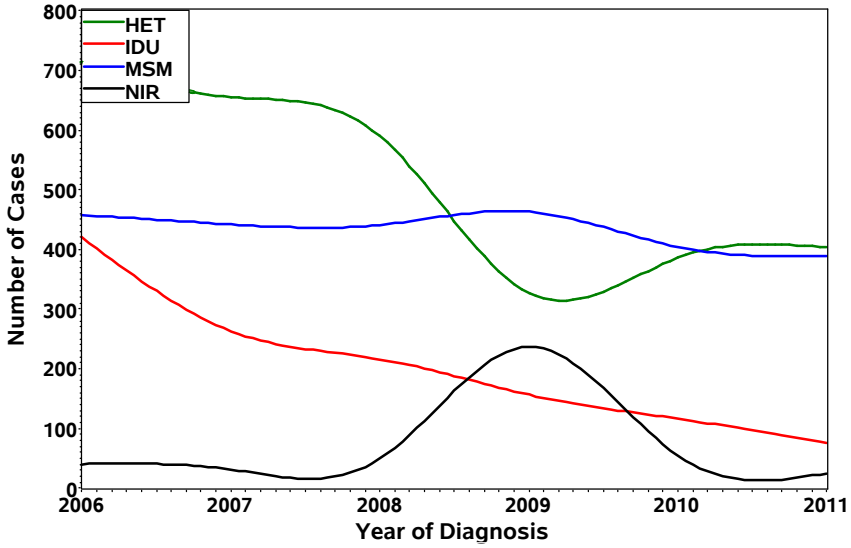


Figure 5. Risk Category Trend by Year: Males, 2006-2011

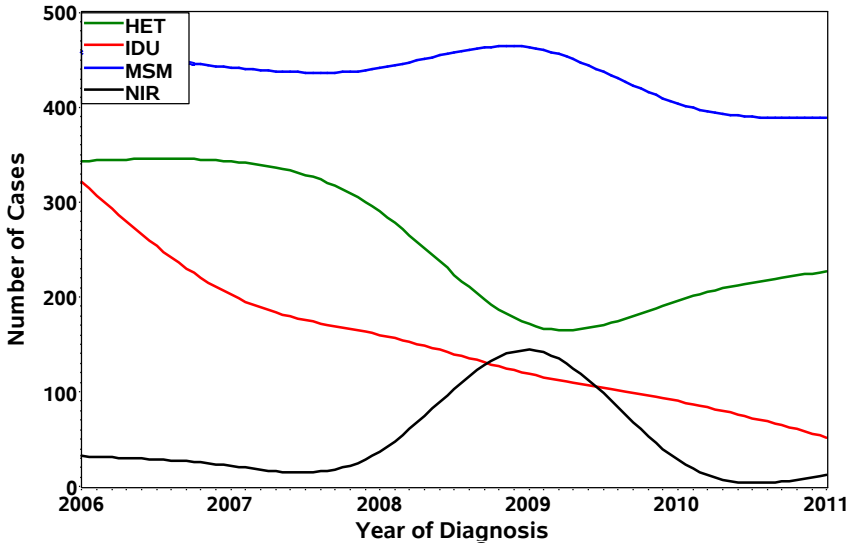
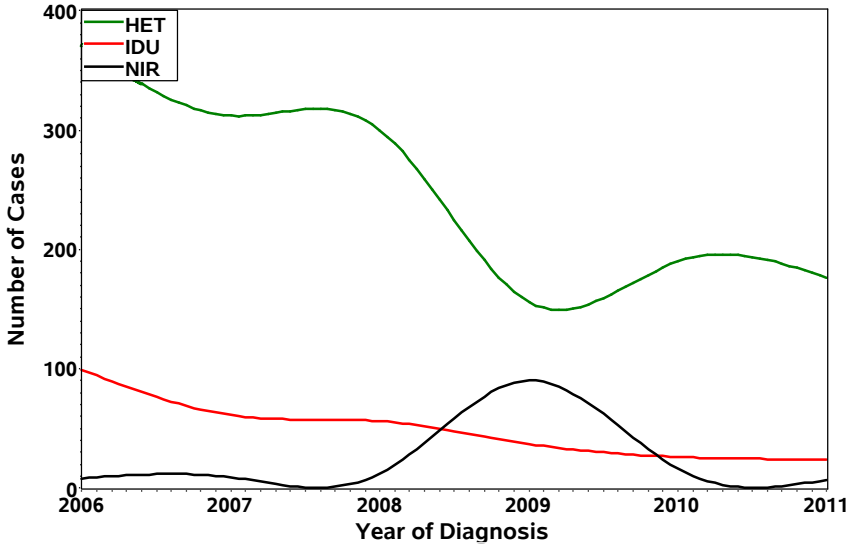


Figure 6. Risk Category Trend by Year: Females, 2006-2011

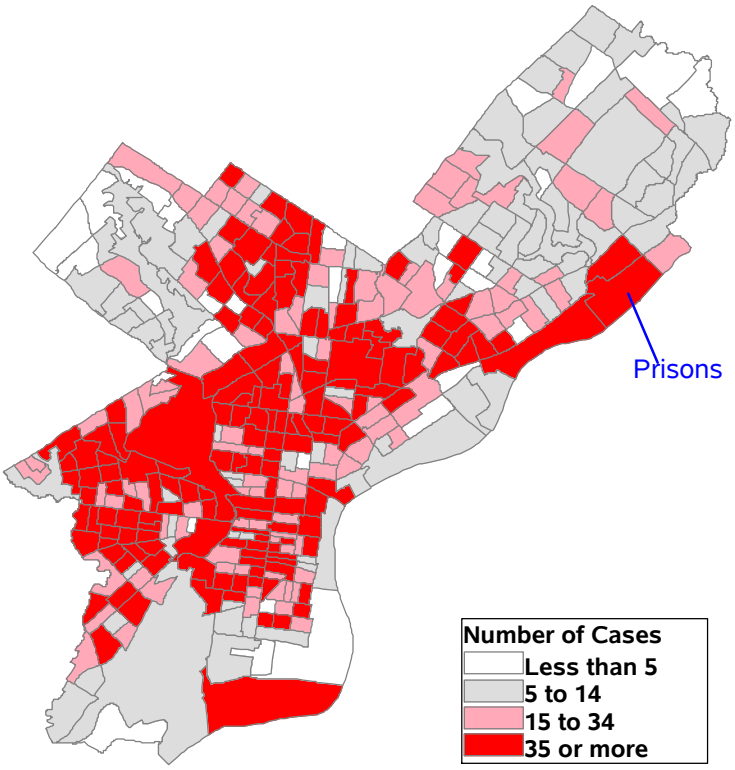


Trends in HIV/AIDS transmission risk continue to show a decline in cases associated with injection drug use(IDU), possibly due to the success of needle exchange and other risk-reduction programs in the City of Philadelphia. Cases associated with male-to-male sexual contact (MSM) have remained constant over the past six years. In 2009, after conversion to a new database classification algorithm, a decrease was seen in heterosexual transmission, along with an increase in those cases classified as NIR - No Identified Risk. Increased investigation by surveillance staff has resulted in more accurate documentation of heterosexual risk, resulting in a reduction of the number of cases classified as NIR.

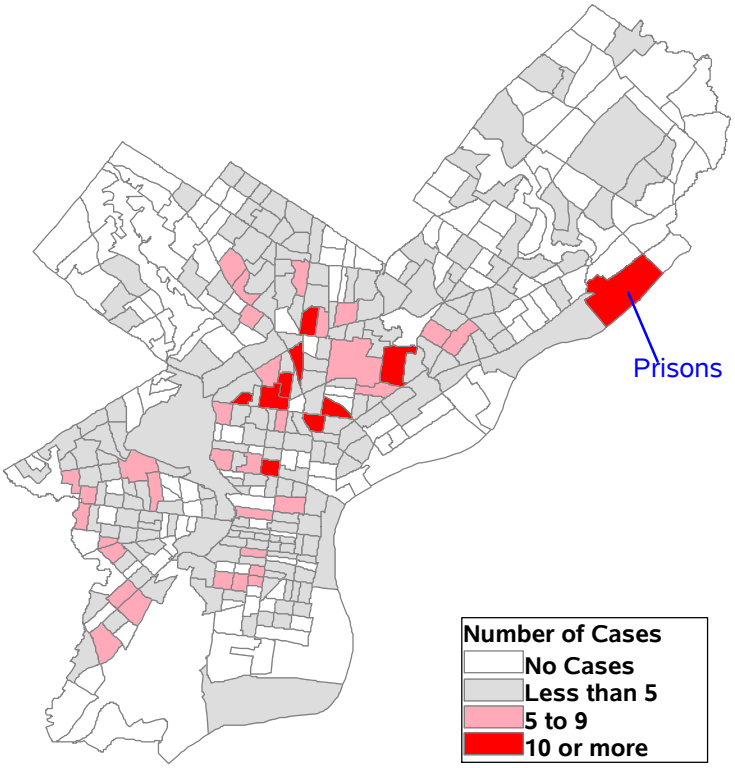
Among males, the majority of HIV/AIDS cases are associated with male-to-male sexual contact (MSM). This has been the case over the course of the epidemic, however recent trends indicate a larger proportion of male cases associated with heterosexual contact.

Heterosexual contact continues to be the most commonly reported risk factor among female HIV/AIDS cases. Factors associated with heterosexual contact include the number of partners, presence of other sexually transmitted infections, and partner non-disclosure of risk factors (e.g. injection drug use and men who who have sex with men).

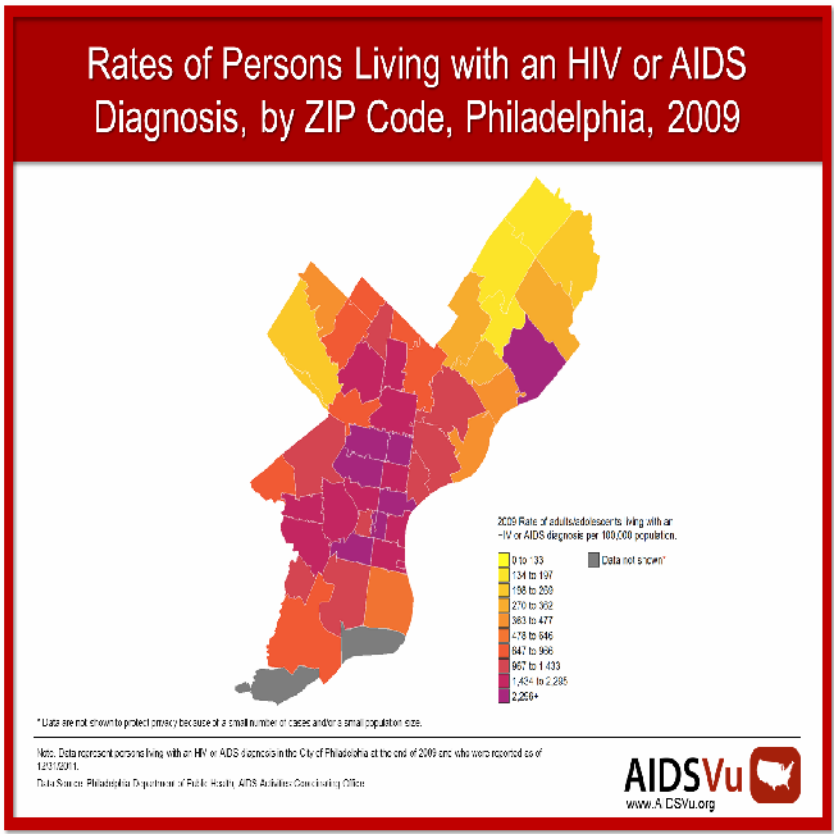
Map 1. Persons Living With HIV/AIDS by Census Tract, Philadelphia, 2011



Map 2. Newly Diagnosed HIV by Census Tract, Philadelphia, 2011



AIDSVu.org is a national resource for geographic data about HIV/AIDS. The website was created by Emory University with funding from Gilead Pharmaceuticals. Philadelphia is one of only two cities that have agreed to provide data at the zipcode AND census tract level for this project. Additional maps of Philadelphia and other participating jurisdictions can be found at http://www.aidsvu.org.



From the latest AIDSVu Press Release: AIDSVu is a free tool that provides the most detailed publicly available view of HIV prevalence in the United States. The data on AIDSVu pinpoint areas of the country where the rates of people living with an HIV diagnosis are the highest – such as in urban centers, and in the Northeast and the South – and where the needs for prevention, testing and treatment services are most urgent. AIDSVu is the first interactive online mapping tool to display HIV prevalence data at ZIP code and census tract levels, allowing users to better understand the impact of HIV where they live. AIDSVu also provides local information about HIV testing and treatment site locations, state AIDS Drug Assistance Programs, and the estimated percentage of HIV diagnoses that are made late in the course of the disease. AIDSVu is updated regularly as new data and information become available. The complete AIDSVu press release is available here: http://aidsvu.org/web-assets/AIDSVu-2012-Update-National-Release.pdf .

Table 11. Prevalence Rates of HIV/AIDS in Philadelphia, 2011

Category	Population	PLWHA	Rate per 100,000
Total	1,526,006	19,157	1,255.4
Female	806,193	5,567	690.5
Male	719,813	13,590	1,888.0
Hispanic	187,611	2,770	1,476.5
Black	644,287	12,061	1,872.0
White	562,585	3,713	660.0
Asian	95,521	136	142.4
AIAN	3,498	20	571.8
NHPI	457	10	2,188.2
Other Race	4,105	.	.
Multi-racial	27,942	446	1,596.2
Hispanic Female	94,484	782	827.7
Black Female	353,319	4,033	1,141.5
White Female	290,025	585	201.7
Asian Female	49,137	27	54.9
AIAN Female	1,882	7	371.9
NHPI Female	237	.	.
Other race Female	2,014	0	0.0
Multi-racial Female	15,095	129	854.6
Hispanic Male	93,127	1,988	2,134.7
Black Male	290,968	8,028	2,759.1
White Male	272,560	3,128	1,147.6
Asian Male	46,384	109	235.0
AIAN Male	1,616	13	804.5
NHPI Male	220	6	2,727.3
Other race Male	2,091	.	.
Multi-racial Male	12,847	317	2,467.5

Note: Rates were calculated using the 2010 decennial census data.

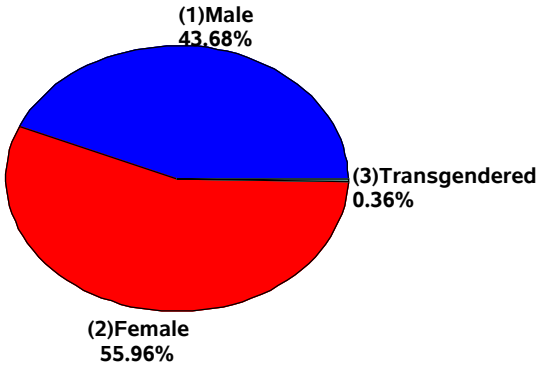
National HIV/AIDS Behavioral Surveillance (NHBS)

In 2003, CDC created NHBS for conducting behavioral surveillance among persons at high risk for HIV infection. Surveillance is conducted in rotating annual cycles in three different populations at high risk for HIV: men who have sex with men (MSM), injection drug users (IDUs), and heterosexuals at increased risk for HIV infection (HET). Before each NHBS cycle, formative research is conducted to learn more about the populations and collect data to help with sampling procedures. MSM are sampled using venue-based, time-space sampling methods.

Health department staff members first identify venues frequented by MSM (e.g., bars, clubs, organizations, and street locations) and days and times when men frequent those venues. Venues (and specific day/time periods) for recruitment are chosen randomly each month. IDUs and heterosexuals are recruited using respondent-driven sampling, a type of chain referral sampling. Health department staff members select a small number of initial participants, or 'seeds', who complete the survey and recruit their peers to participate. Recruitment and interviewing continue until the target sample size is reached.

Trained interviewers in all NHBS jurisdictions use a standardized anonymous questionnaire to collect information on HIV-related risk behaviors, HIV testing, and use of HIV prevention services. HIV testing is also offered to all participants. During each cycle, a minimum of 450 (for heterosexuals) to 500 (for MSM and IDUs) eligible persons from each participating jurisdiction are interviewed and tested for HIV infection. The first full round of NHBS, comprised all three cycles (MSM, IDU, and HET), was conducted during 2003–2007. The second round was conducted during 2008–2010, and the third round began in January 2011. As of 2011, 20 jurisdictions with high AIDS prevalence are funded to conduct NHBS. Many of the health department grantees subcontract with local health departments, universities, or community-based organizations to implement NHBS activities.

Figure 8. NHBS - Heterosexual Cycle 2, Philadelphia PA, 2010
Gender of Eligible Participants



The data presented here are for the second heterosexual cycle of NHBS which included 552 participants. Interviews were conducted between August and November of 2010. Sampled participants for this cycle were predominantly African American (84%) or Hispanic (13%). Nearly half reported being unemployed (44%), and nearly one-fourth reported working either full-time (10%) or part-time (13%). The remainder were either students (8%), homemakers (5%), retired (1%), or disabled (15%).

Figure 7. NHBS - Heterosexual Cycle 2, Philadelphia PA, 2010
Annual Income of Eligible Participants

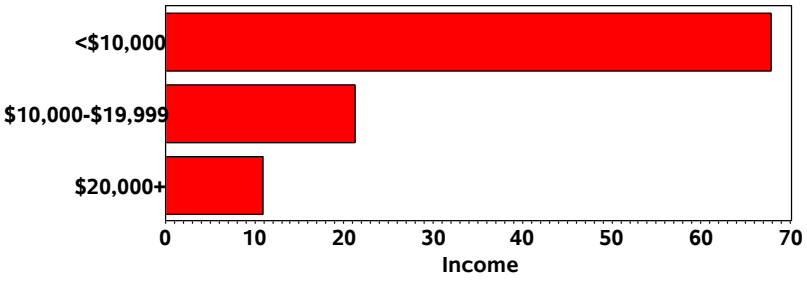
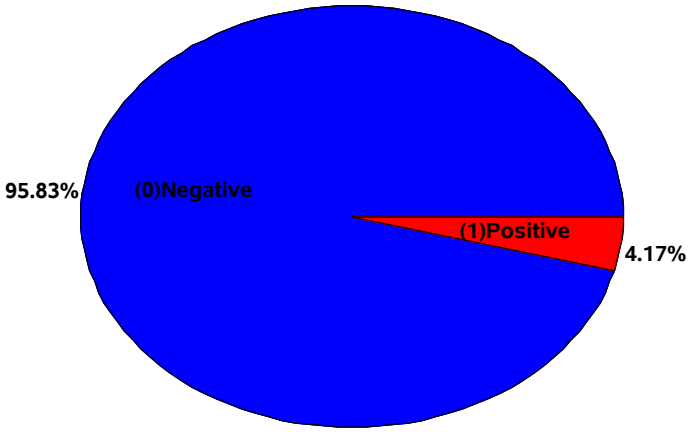


Figure 9. NHBS - Heterosexual Cycle 2, Philadelphia PA, 2010
HIV+ - Among Presumed Negative and Unknown Status



The majority of persons interviewed were never married (72%), with the remainder either married (5%), living together as married (7%), separated or divorced (15%), or widowed (2%). Most had a high school education or less (84%) and 16% had some college or a college degree. Participant ages ranged from 18-60, and 41% were between 25 and 44 years of age at time of interview. More than three-quarters of all participants (76%) reported at least one prior HIV test, and one person reported a previous HIV positive test result.

The positivity rate among heterosexuals sampled for this cycle was approximately 4.2%, which is higher than the overall prevalence rate for the City of Philadelphia (see page 18), but is likely influenced by the sampling method and the population at risk.

NHBS data are used locally to inform outreach and prevention efforts, and to estimate unmet need measures and the percent of persons unaware of their HIV status.

Table 12. Concurrent* HIV/AIDS, Demographics and Transmission Risk Among Incident HIV Diagnoses, Philadelphia Residents, 2010

	Non-concurrent		Concurrent HIV/AIDS		Total	
	N	Row %	N	Row %	N	Col %
Total	515	70.6 %	214	29.3 %	729	100.0 %
Sex						
Female	138	71.1 %	56	28.8 %	194	26.6 %
Male	377	70.4 %	158	29.5 %	535	73.3 %
Race/Ethnicity						
Black	328	68.4 %	151	31.5 %	479	65.7 %
Hispanic	84	66.1 %	43	33.8 %	127	17.4 %
White	89	83.9 %	17	16.0 %	106	14.5 %
Asian	8	88.8 %	*	11.1 %	9	1.2 %
Multi-race	*	66.6 %	*	33.3 %	6	0.8 %
Other/Unk	*	100.0 %	0	0	*	0.2 %
Age at HIV Dx						
< 13	*	80.0 %	*	20.0 %	*	0.6 %
13-19	37	88.0 %	*	11.9 %	42	5.7 %
20-29	179	82.4 %	38	17.5 %	217	29.7 %
30-39	125	69.4 %	55	30.5 %	180	24.6 %
40-49	96	60.0 %	64	40.0 %	160	21.9 %
50+	74	59.2 %	51	40.8 %	125	17.1 %
Transmission Risk						
MSM	231	77.2 %	68	22.7 %	299	41.0 %
IDU	55	71.4 %	22	28.5 %	77	10.5 %
Heterosexual	202	64.3 %	112	35.6 %	314	43.0 %
MSM/IDU	6	85.7 %	*	14.2 %	7	0.9 %
Pediatric	*	80.0 %	*	20.0 %	*	0.6 %
No Risk Reported	17	62.9 %	10	37.0 %	27	3.7 %

Source: Philadelphia Department of Public Health, AIDS Activities Coordinating Office
*Diagnosis of AIDS within 365 days of initial diagnosis of HIV

Concurrent HIV/AIDS diagnosis indicates a missed opportunity to diagnose and treat HIV disease at its earliest stages. Early diagnosis and treatment of HIV has been shown to increase survival time and reduce co-morbidities associated with chronic HIV infection.

The proportion of new cases diagnosed with AIDS within one year of HIV diagnosis has fluctuated in recent years, from 35% in 2007 to 19% in 2008. The data presented here indicate that 29% of newly diagnised HIV cases in 2010 could have been identified sooner, allowing for earlier intervention with anitretroviral therapy and delays in AIDS diagnosis.

DEFINITIONS

AACO (AIDS Activities Coordinating Office): The office within the Philadelphia Department of Public Health responsible for administering the city's HIV/AIDS Programs.

AIDS (Acquired Immune Deficiency Syndrome): A result of Human Immunodeficiency Virus (HIV) infection, which disables the immune system from effectively fighting numerous opportunistic infections and cancers.

CDC (Centers for Disease Control and Prevention): A federal disease prevention agency, which is part of the U.S. Department of Health and Human Services, that provides national laboratory and health and safety guidelines and recommendations; tracks diseases throughout the world; and performs basic research involving laboratory, behavioral science, epidemiology and other studies of disease.

Confidentiality: Keeping medical information confidential or private.

Diagnosis: Determination of the nature of a case of a disease based on signs, symptoms, and laboratory findings during life. A diagnosis of AIDS for an adult is being HIV antibody-positive in addition to having one opportunistic infection, condition, or disease (e.g. wasting syndrome, PCP, Kaposi's sarcoma, CD4 T-lymphocyte count below 200 or 14%).

Epidemiology: The branch of medical science that deals with the study of incidence, distribution and control of a disease in a population.

HIV (Human Immunodeficiency Virus): The retrovirus that causes AIDS by infecting the T-helper cells.

IDU (Injection Drug Use): An HIV/AIDS transmission category.

MSM (Men who have sex with men): An HIV/AIDS transmission category.

MSM/IDU (Men who have sex with men who are also injection drug users): An HIV/AIDS transmission category.

NIR (No Identified Risk): Indicates when documentation is insufficient to assign an HIV/AIDS transmission category based on CDC guidelines.

Perinatal Transmission of HIV: Term used to describe the spread of HIV/AIDS from a mother to her baby that can occur during pregnancy, labor, delivery or breastfeeding; also known as vertical transmission.

Prevalence: Total number of cases of a disease in a population over a period of time.

Risk Behavior: Used here to describe activities that put people at risk of contracting HIV/AIDS.

Sexual Orientation: The sexual attraction people feel for others, whether of their own sex, the opposite sex, or both sexes.

Transmission Category: A system that classifies cases by possible HIV transmission risk factors or mode(s) of infection; e.g. IDU, MSM/IDU, perinatal transmission, heterosexual contact.

City of Philadelphia ~ Board of Health Reporting Regulations

In April 2012, the Board of Health of the City of Philadelphia issued an amendment to the regulations governing the control of communicable and non-communicable diseases and conditions related to HIV. According to the amendment, health care providers and laboratories are required to do the following:

- **Report all positive results of all tests used as a part of the HIV testing algorithm that is approved by the CDC, the APHL and CLSI, or the FDA to establish the presence of HIV including preliminary test results if no supplemental/confirmatory test was performed.**

- **Change CD4 reporting from results less than 350 cells/uL and/or 25% total lymphocytes to reporting of all CD4 results regardless of the level.**

- **Submit specimens for HIV Incidence Testing (STARHS). (Exemptions for submission of specimens for STARHS testing may be requested from the Philadelphia Health Commissioner.)**

- **Submit genotype results containing the nucleotide sequence data.**

There has been no change in reporting of all confirmatory Western Blot tests, viral loads (including both detectable and undetectable results), and opportunistic infections such as tuberculosis, etc.

Any questions about this report should be directed to:

Michael Eberhart, MPH

AACOEPI@PHILA.GOV

To be added or removed from the Epidemiological Update mailing list, to request data from the AIDS Activities Coordinating Office, or to make suggestions for future Epidemiological Updates please email your request to aacoepi@phila.gov.

Please allow at least 10 business days for all data requests.

If you would like more information, surveillance staff may be available to make presentations of up-todate surveillance data for Philadelphia or your hospital/reporting site/geographic area or presentations regarding the importance and methods of reporting AIDS cases. If interested, please contact Kathleen A. Brady, M.D. at (215) 685-4778 to schedule a meeting time.

Cover photograph by B. Krist for Greater Philadelphia Tourism Marketing Corporation.