HIV SURVEILLANCE ANNUAL REPORT, 2014

NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE

EXECUTIVE SUMMARY

This report presents 2014 surveillance data on the HIV epidemic in New York City. It includes graphic trends in HIV diagnoses for key populations, maps displaying the distribution of HIV in NYC, and measures of key outcomes such as linkage to care, viral suppression, and mortality among people with HIV. New features include a section on HIV among transgender people, data on cigarette smoking rates among people with HIV compared with rates among the general NYC population, and measures of sexual risk behaviors among men and women with HIV.

The report shows continued progress in reducing HIV diagnoses and deaths in NYC, in line with key goals of New York State's *Ending the AIDS Epidemic*[1] initiative.

- New HIV and AIDS diagnoses and deaths among people with HIV/AIDS (PWHA) continued to decline. In 2014, 2,718 people were newly diagnosed with HIV in NYC, and 1,432 people were diagnosed with AIDS, compared to 2,832 and 1,784 people in 2013, respectively.[2]
- The proportion of people diagnosed concurrently with HIV and AIDS declined, from 20% in 2013[2] to 18% in 2014. As of the end of 2014, 119,550 people were diagnosed with HIV/AIDS, reported in NYC, and presumed to be living.
- There were fewer deaths among NYC PWHA in 2014, compared to in 2013 (1,473 compared to 1,527[2]).
- The proportion of people in HIV care who achieve viral suppression increased in 2014 (81% compared to 78% in 2013[2]).
- All-cause mortality rates among PWHA continued to fall dramatically since 2001, driven in large part by a decreasing number of deaths attributed to HIV infection.
- Perinatal HIV infections remained at historically low levels.

However, HIV and AIDS diagnoses, prevalence, care outcomes, and survival rates continue to disproportionately affect certain populations. In 2014, people newly diagnosed with HIV in NYC were predominantly male, Black or Latino/Hispanic, young, men who have sex with men (MSM), or people living in relatively high-poverty areas. HIV diagnosis rates continue to be strikingly high among Black and Latino/Hispanic men and women relative to other racial/ethnic groups. The majority of transgender people newly diagnosed with HIV in 2014 were young people of color. The proportion of people in HIV care who achieved viral suppression was lower among women, Blacks and Latinos/Hispanics, and young people. Short-term survival after HIV diagnosis was lowest for Blacks and Asian/Pacific Islanders.

Substantial proportions of people newly diagnosed with HIV and interviewed for partner services reported recent sexual risk behaviors, such as sex without a condom or sex with a person known to be HIV-infected. Smoking rates among HIV-infected people receiving care are substantially higher than rates among all New York City residents.

[1]New York State Department of Health. *2015 Blueprint to End the AIDS Epidemic.* State of New York: Albany, NY. March 2015.
[2]HIV Epidemiology and Field Services Program. *HIV Surveillance Annual Report, 2013*. New York City Department of Health and Mental Hygiene: New York, NY. December 2014.

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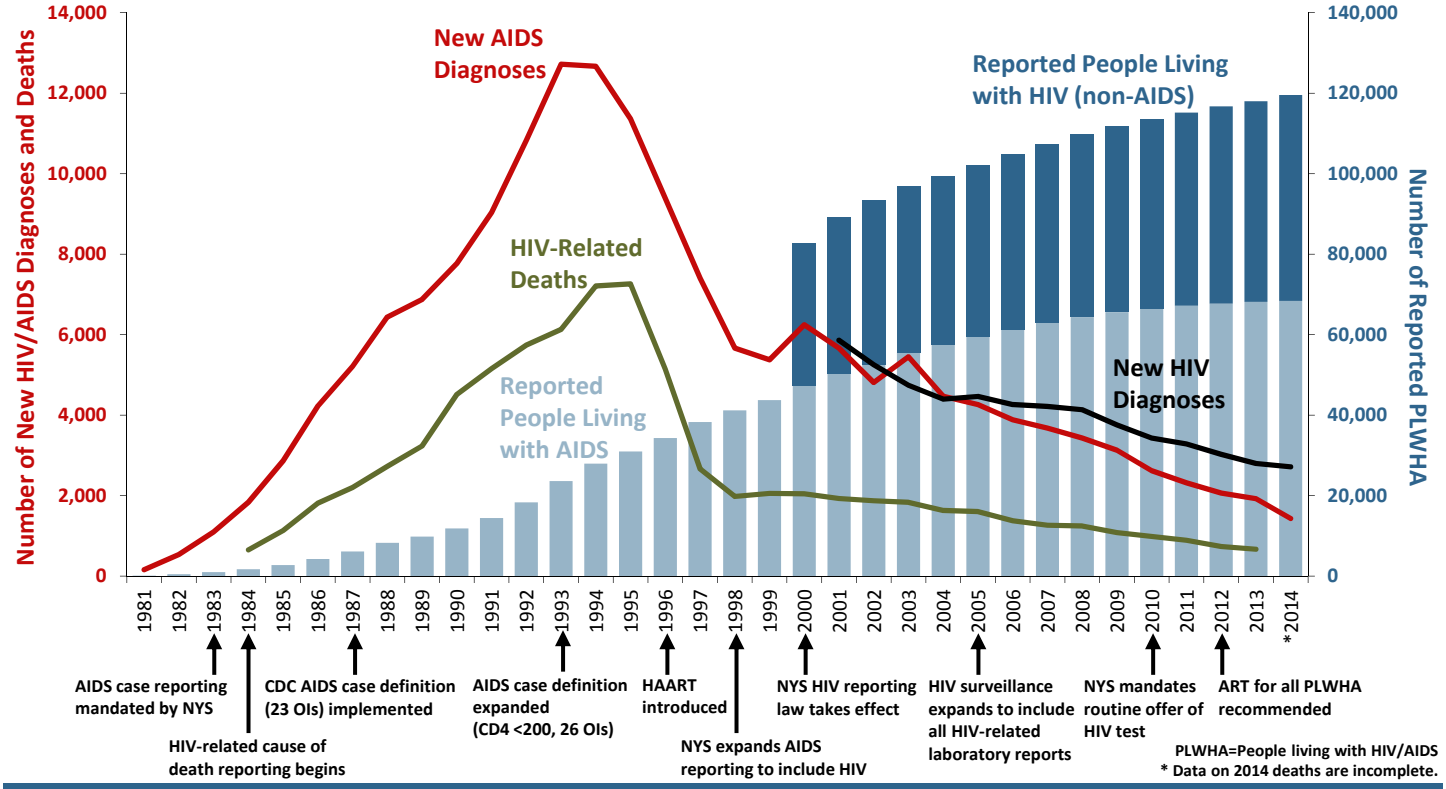
HISTORY OF THE EPIDEMIC

FIGURE 1.1: History of the HIV epidemic, NYC 1981-2014



HIV DIAGNOSES OVER TIME

FIGURE 2.1: Trends in HIV diagnoses, NYC 2001-2014

HIV Diagnoses	2001	2014	EAPC	*P* Value
Total	5,862	2,718	-5.25	<0.01
Sex at Birth				
Male	3,921	2,194	-3.80	<0.01
Female	1,941	524	-9.33	<0.01
Race/Ethnicity				
Black	3,073	1,193	-6.76	<0.01
Latino/Hispanic	1,766	875	-4.36	<0.01
White	893	500	-3.75	<0.01
Asian/Pacific Islander	113	117	0.62	0.33
Native American	13	7	-9.77	<0.01
Age Group (Years)				
0-12	85	5	-22.26	<0.01
13-19	190	104	-2.60	<0.01
20-29	1,110	915	-0.22	0.28
30-39	2,087	719	-8.63	<0.01
40-49	1,538	515	-7.55	<0.01
50-59	630	316	-4.69	<0.01
60+	222	144	-2.27	<0.01

HIV Diagnoses	2001	2014	EAPC	*P* Value
Borough of Residence				
Bronx	1,347	520	-6.94	<0.01
Brooklyn	1,632	747	-5.35	<0.01
Manhattan	1,532	668	-5.85	<0.01
Queens	760	464	-3.89	<0.01
Staten Island	105	45	-6.85	<0.01
Outside NYC	385	262	-0.93	<0.01
Transmission Risk				
MSM	1,713	1,620	0.09	0.59
IDU	845	54	-18.43	<0.01
MSM-IDU	125	38	-7.11	<0.01
Heterosexual	1,456	501	-6.26	<0.01
Perinatal	86	5	-21.93	<0.01

EAPC = Estimated annual percent change
IDU = Injection drug use history
MSM = Men who have sex with men

The number of new HIV diagnoses reported in New York City from 2001 to 2014 decreased overall and by sex, race/ethnicity, age at diagnosis, borough of residence at diagnosis, and transmission risk. This decrease is significant (*P* value <0.01) for all subgroups except Asian/Pacific Islanders, 20-29 year olds, and MSM.

DEMOGRAPHIC AND CLINICAL CHARACTERISTICS

TABLE 3.1: HIV/AIDS diagnoses and deaths occurring January 1, 2014 through December 31, 2014; and people diagnosed with HIV/AIDS, reported in New York City, and presumed to be living as of December 31, 2014

	HIV diagnoses[1]							AIDS diagnoses[3]		PLWHA as of 12/31/2014		Deaths[4]	
	Total		Without AIDS		Concurrent with AIDS diagnosis[2]								
	N	%	N	%	N	%	Row %	N	%	N	%	N	%
Total	2,718	100.0	2,230	100.0	488	100.0	18.0	1,432	100.0	119,550	100.0	1,473	100.0
Sex at birth													
Male	2,194	80.7	1,822	81.7	372	76.2	17.0	1,040	72.6	86,651	72.5	1,019	69.2
Female	524	19.3	408	18.3	116	23.8	22.1	392	27.4	32,899	27.5	454	30.8
Race/Ethnicity[5]													
Black	1,193	43.9	961	43.1	232	47.5	19.4	745	52.0	52,792	44.2	755	51.3
Latino/Hispanic	875	32.2	721	32.3	154	31.6	17.6	434	30.3	38,795	32.5	515	35.0
White	500	18.4	421	18.9	79	16.2	15.8	198	13.8	24,775	20.7	188	12.8
Asian/Pacific Islander	117	4.3	99	4.4	18	3.7	15.4	41	2.9	2,343	2.0	12	0.8
Native American	7	0.3	7	0.3	0	0.0	0.0	3	0.2	261	0.2	2	0.1
Multiracial	26	1.0	21	0.9	5	1.0	19.2	11	0.8	212	0.2	1	0.1
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	372	0.3	0	0.0
Age group (years)[6]													
0-12	5	0.2	5	0.2	0	0.0	0.0	2	0.1	142	0.1	0	0.0
13-19	104	3.8	101	4.5	3	0.6	2.9	16	1.1	802	0.7	0	0.0
20-29	915	33.7	833	37.4	82	16.8	9.0	228	15.9	9,488	7.9	34	2.3
30-39	719	26.5	594	26.6	125	25.6	17.4	342	23.9	17,177	14.4	91	6.2
40-49	515	18.9	382	17.1	133	27.3	25.8	394	27.5	31,084	26.0	258	17.5
50-59	316	11.6	221	9.9	95	19.5	30.1	320	22.3	38,727	32.4	562	38.2
60+	144	5.3	94	4.2	50	10.2	34.7	130	9.1	22,130	18.5	528	35.8
Borough of residence[7]													
Bronx	520	19.1	428	19.2	92	18.9	17.7	334	23.3	28,416	23.8	481	32.7
Brooklyn	747	27.5	593	26.6	154	31.6	20.6	386	27.0	29,111	24.4	411	27.9
Manhattan	668	24.6	554	24.8	114	23.4	17.1	294	20.5	31,776	26.6	303	20.6
Queens	464	17.1	386	17.3	78	16.0	16.8	194	13.5	17,613	14.7	157	10.7
Staten Island	45	1.7	33	1.5	12	2.5	26.7	25	1.7	2,301	1.9	57	3.9
Outside NYC	262	9.6	224	10.0	38	7.8	14.5	178	12.4	10,152	8.5	52	3.5
Unknown	12	0.4	12	0.5	0	0.0	0.0	21	1.5	181	0.2	12	0.8
Area-based poverty level[8]													
Low poverty (<10% below FPL)	258	9.5	204	9.1	54	11.1	20.9	124	8.7	12,509	10.5	97	6.6
Medium poverty (10 to <20% below FPL)	646	23.8	543	24.3	103	21.1	15.9	278	19.4	27,792	23.2	261	17.7
High poverty (20 to <30% below FPL)	846	31.1	685	30.7	161	33.0	19.0	415	29.0	35,099	29.4	449	30.5
Very high poverty (≥30% below FPL)	678	24.9	548	24.6	130	26.6	19.2	411	28.7	32,349	27.1	578	39.2
Area-based poverty level not available	290	10.7	250	11.2	40	8.2	13.8	204	14.2	11,801	9.9	88	6.0
Transmission risk													
Men who have sex with men (MSM)	1,620	59.6	1,387	62.2	233	47.7	14.4	580	40.5	46,153	38.6	271	18.4
Injection drug use history (IDU)	54	2.0	38	1.7	16	3.3	29.6	102	7.1	16,191	13.5	450	30.5
MSM-IDU	38	1.4	36	1.6	2	0.4	5.3	19	1.3	2,635	2.2	54	3.7
Heterosexual[9]	501	18.4	385	17.3	116	23.8	23.2	346	24.2	23,665	19.8	296	20.1
Perinatal	5	0.2	5	0.2	0	0.0	0.0	19	1.3	2,507	2.1	15	1.0
Other	0	0.0	0	0.0	0	0.0	0.0	0	0.0	209	0.2	3	0.2
Unknown	500	18.4	379	17.0	121	24.8	24.2	366	25.6	28,190	23.6	384	26.1
Clinical history													
HIV-only	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	51,170	42.8	270	18.3
Ever AIDS diagnosis	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	68,380	57.2	1,203	81.7

PLWHA=People living with HIV/AIDS; FPL=Federal Poverty Level; n/a=Not applicable. All percents are column percents unless otherwise indicated.
[1]Excludes people known to have been diagnosed outside of NYC. [2]HIV diagnosed concurrently with AIDS (within 31 days of HIV diagnosis). Row percent is percent of total HIV diagnoses that were concurrent with AIDS diagnoses. [3]AIDS was diagnosed in 2014 and includes concurrent HIV/AIDS diagnoses. [4]Includes deaths from any cause in people with HIV/AIDS. Death data for 2014 are incomplete. [5]For technical notes on race/ethnicity: http://www.nyc.gov/html/doh/html/data/hivtables.shtml#abbrev. [6]For HIV and AIDS diagnoses, age at diagnosis; for PLWHA, age as of December 31, 2014; and for deaths, age at death. [7]For HIV and AIDS diagnoses, residence at diagnosis. For PLWHA and deaths, residence based on most recent record available (most recent record is >5 years old for 26% of people with HIV/AIDS in 2014). [8]Area-based poverty based on NYC ZIP code of residence at diagnosis or most recent residence (*see footnote 7*). [9]Includes people who had heterosexual sex with a person they know to be HIV-infected, an injection drug user, or a person who has received blood products. For females only, also includes history of sex work, multiple sex partners, sexually transmitted disease, crack/cocaine use, sex with a bisexual male, probable heterosexual transmission as noted in medical chart, or sex with a male and negative history of injection drug use.

In 2014, there were 2,718 new HIV diagnoses and 1,432 new AIDS diagnoses in New York City. Among people newly diagnosed with HIV, 488 (18%) were diagnosed concurrently with AIDS. As of the end of 2014, 119,550 people had been diagnosed with HIV/AIDS and reported in New York City and were presumed to be living. In 2014, there were 1,473 deaths among people with HIV.

GEOGRAPHIC DISTRIBUTION OF HIV

FIGURE 4.1: Poverty level, NYC 2009-2013

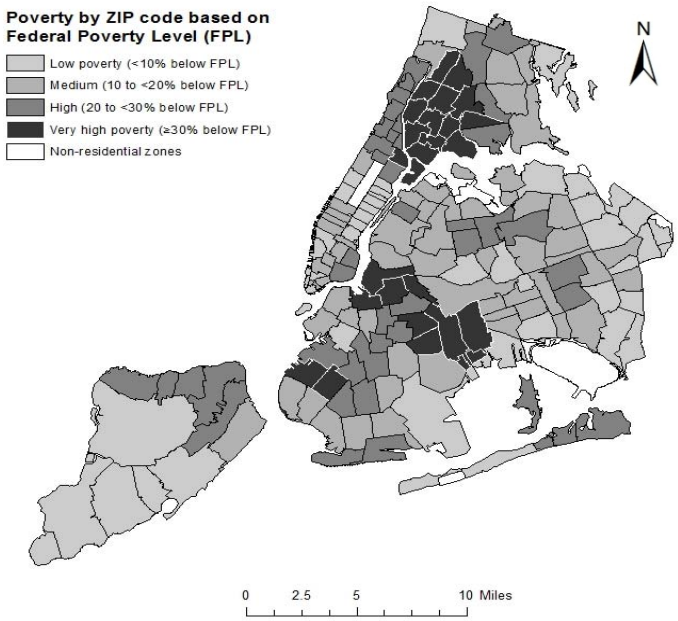
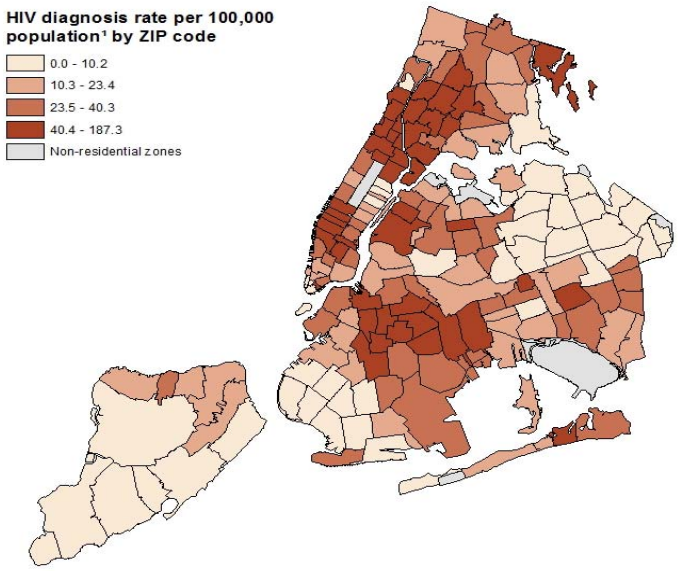


FIGURE 4.2: HIV diagnosis rates, NYC 2014



ZIP codes in the Chelsea-Clinton, Central Harlem-Morningside Heights and East Harlem neighborhoods had the highest HIV diagnosis rates in 2014 (Figure 4.2). In 2014, ZIP codes in Chelsea-Clinton, West Queens and Central Harlem-Morningside Heights had the highest HIV prevalence (Figure 4.3), and ZIP codes in the South Beach - Tottenville, Flushing-Clearview and Rockaway neighborhoods had the highest mortality among people with HIV (Figure 4.4). Many ZIP codes with high HIV diagnosis rates were also among those with highest poverty rates (Figure 4.1), including those in Central Harlem-Morningside Heights, East Harlem and East New York. However, ZIP codes in the Chelsea-Clinton neighborhood were the exception with the highest HIV diagnosis rates but relatively low poverty and mortality rates.

FIGURE 4.3: HIV prevalence, NYC 2014

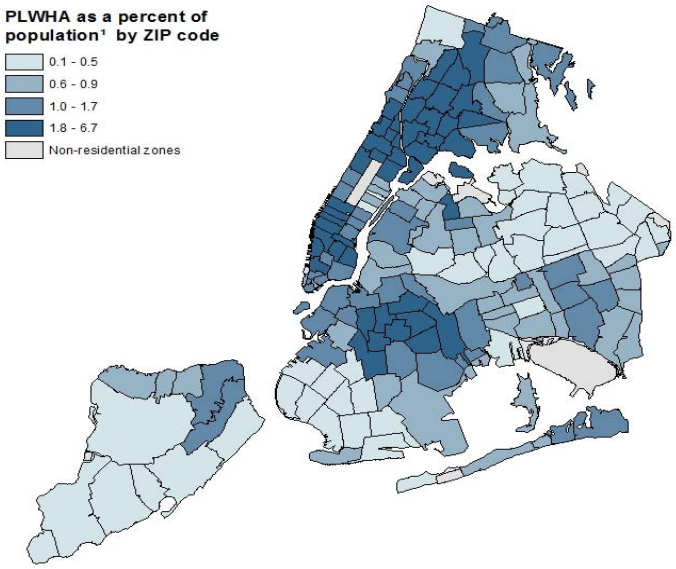
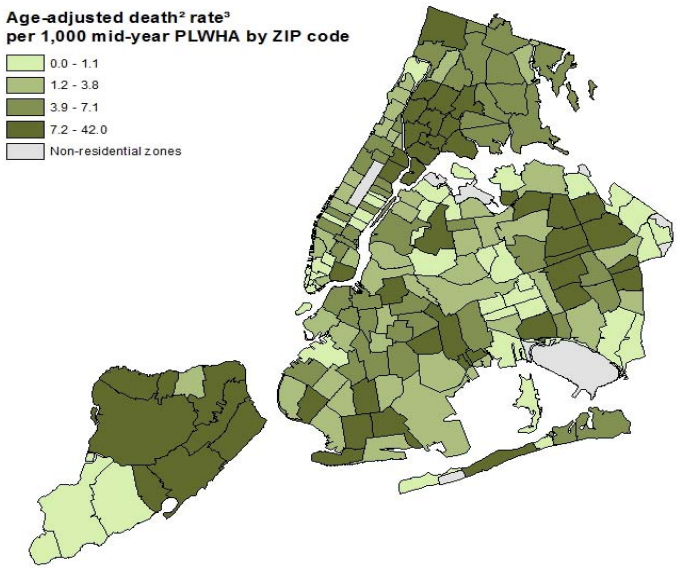


FIGURE 4.4: Age-adjusted death rates among people with HIV/AIDS, NYC 2014



PLWHA=People living with HIV/AIDS

[1]Rates calculated using the intercensal 2014 NYC population.

[2]2014 death data are incomplete.

[3]Age-adjusted to the NYC Census 2010 population. People newly diagnosed with HIV at death were excluded from the numerator.

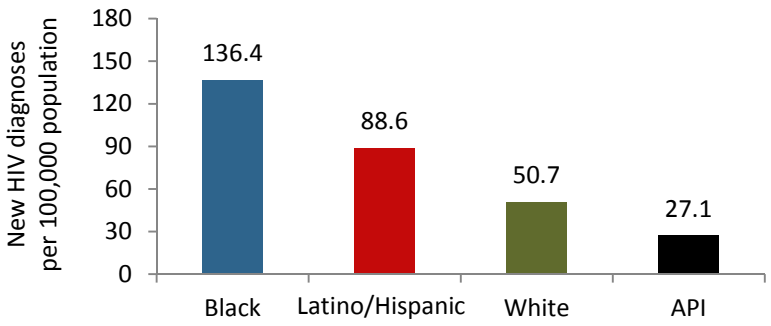
HIV AMONG MALES

TABLE 5.1: HIV/AIDS diagnoses and deaths among males[10], January 1, 2014 through December 31, 2014; and males diagnosed with HIV/AIDS, reported in New York City, and presumed to be living as of December 31, 2014

	HIV diagnoses[1]							AIDS diagnoses[3]		PLWHA as of 12/31/2014		Deaths[4]	
	Total		Without AIDS		Concurrent with AIDS diagnosis[2]								
	N	%	N	%	N	%	Row %	N	%	N	%	N	%
Total	2,194	100.0	1,822	100.0	372	100.0	17.0	1,040	100.0	86,651	100.0	1,019	100.0
Race/Ethnicity[5]													
Black	847	38.6	695	38.1	152	40.9	17.9	481	46.3	33,549	38.7	487	47.8
Latino/Hispanic	743	33.9	614	33.7	129	34.7	17.4	335	32.2	28,167	32.5	358	35.1
White	467	21.3	397	21.8	70	18.8	15.0	175	16.8	22,325	25.8	162	15.9
Asian/Pacific Islander	109	5.0	92	5.0	17	4.6	15.6	37	3.6	1,962	2.3	10	1.0
Native American	6	0.3	6	0.3	0	0.0	0.0	2	0.2	190	0.2	1	0.1
Multiracial	22	1.0	18	1.0	4	1.1	18.2	10	1.0	171	0.2	1	0.1
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	287	0.3	0	0.0
Age group (years)[6]													
0-12	4	0.2	4	0.2	0	0.0	0.0	2	0.2	67	0.1	0	0.0
13-19	81	3.7	79	4.3	2	0.5	2.5	13	1.3	415	0.5	0	0.0
20-29	815	37.1	740	40.6	75	20.2	9.2	192	18.5	7,439	8.6	25	2.5
30-39	586	26.7	490	26.9	96	25.8	16.4	254	24.4	12,928	14.9	57	5.6
40-49	387	17.6	283	15.5	104	28.0	26.9	272	26.2	21,998	25.4	178	17.5
50-59	229	10.4	168	9.2	61	16.4	26.6	225	21.6	27,490	31.7	376	36.9
60+	92	4.2	58	3.2	34	9.1	37.0	82	7.9	16,314	18.8	383	37.6
Borough of residence[7]													
Bronx	370	16.9	305	16.7	65	17.5	17.6	212	20.4	17,754	20.5	317	31.1
Brooklyn	568	25.9	462	25.4	106	28.5	18.7	272	26.2	19,329	22.3	274	26.9
Manhattan	592	27.0	497	27.3	95	25.5	16.0	237	22.8	26,749	30.9	233	22.9
Queens	395	18.0	330	18.1	65	17.5	16.5	148	14.2	12,934	14.9	112	11.0
Staten Island	32	1.5	26	1.4	6	1.6	18.8	19	1.8	1,510	1.7	35	3.4
Outside NYC	226	10.3	191	10.5	35	9.4	15.5	137	13.2	8,229	9.5	40	3.9
Unknown	11	0.5	11	0.6	0	0.0	0.0	15	1.4	146	0.2	8	0.8
Area-based poverty level[8]													
Low poverty (<10% below FPL)	227	10.3	185	10.2	42	11.3	18.5	99	9.5	10,558	12.2	72	7.1
Medium poverty (10 to <20% below FPL)	539	24.6	458	25.1	81	21.8	15.0	205	19.7	21,211	24.5	200	19.6
High poverty (20 to <30% below FPL)	680	31.0	561	30.8	119	32.0	17.5	306	29.4	24,815	28.6	296	29.0
Very high poverty (≥30% below FPL)	499	22.7	405	22.2	94	25.3	18.8	274	26.3	20,524	23.7	384	37.7
Area-based poverty level not available	249	11.3	213	11.7	36	9.7	14.5	156	15.0	9,543	11.0	67	6.6
Transmission risk													
Men who have sex with men (MSM)	1,620	73.8	1,387	76.1	233	62.6	14.4	580	55.8	46,153	53.3	271	26.6
Injection drug use history (IDU)	28	1.3	19	1.0	9	2.4	32.1	63	6.1	10,780	12.4	305	29.9
MSM-IDU	38	1.7	36	2.0	2	0.5	5.3	19	1.8	2,635	3.0	54	5.3
Heterosexual[9]	108	4.9	77	4.2	31	8.3	28.7	89	8.6	6,007	6.9	96	9.4
Perinatal	4	0.2	4	0.2	0	0.0	0.0	12	1.2	1,224	1.4	9	0.9
Other	0	0.0	0	0.0	0	0.0	0.0	0	0.0	110	0.1	2	0.2
Unknown	396	18.0	299	16.4	97	26.1	24.5	277	26.6	19,742	22.8	282	27.7
Clinical history													
HIV-only	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	37,649	43.4	181	17.8
Ever AIDS diagnosis	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	49,002	56.6	838	82.2

PLWHA=People living with HIV/AIDS; FPL=Federal Poverty Level; n/a=Not applicable. All percents are column percents unless otherwise indicated.
[1-9]Footnotes appear at the bottom of Table 3.1. [10]Male sex assigned at birth.

FIGURE 5.1: HIV[1] diagnosis rates[2] among 13-59 year old males[3] by race/ethnicity[4], NYC 2014



In 2014, the HIV diagnosis rate among Black males was 1.5 times higher than the rate among Latino/Hispanic males and over 2 times higher than the rate among White males.

API=Asian/Pacific Islander
[1]Includes diagnoses of HIV without AIDS and HIV concurrent with AIDS.
[2]Rates calculated using the intercensal 2014 NYC population.
[3]Male sex assigned at birth.
[4]Native American and multiracial groups not shown because of small numbers.

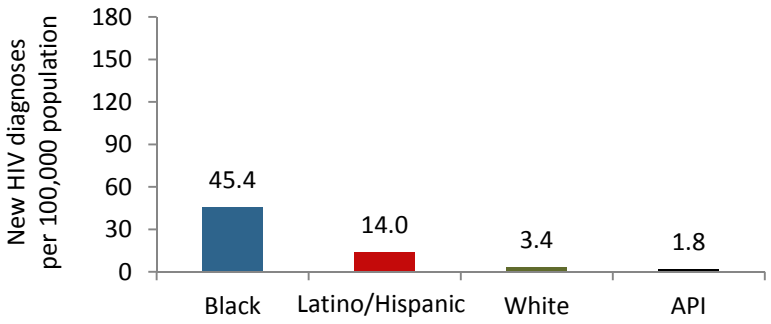
HIV AMONG FEMALES

TABLE 6.1: HIV/AIDS diagnoses and deaths among females[10], January 1, 2014 through December 31, 2014; and females diagnosed with HIV/AIDS, reported in New York City, and presumed to be living as of December 31, 2014

	HIV diagnoses[1]							AIDS diagnoses[3]		PLWHA as of 12/31/2014		Deaths[4]	
	Total		Without AIDS		Concurrent with AIDS diagnosis[2]								
	N	%	N	%	N	%	Row %	N	%	N	%	N	%
Total	524	100.0	408	100.0	116	100.0	22.1	392	100.0	32,899	100.0	454	100.0
Race/Ethnicity[5]													
Black	346	66.0	266	65.2	80	69.0	23.1	264	67.3	19,243	58.5	268	59.0
Latino/Hispanic	132	25.2	107	26.2	25	21.6	18.9	99	25.3	10,628	32.3	157	34.6
White	33	6.3	24	5.9	9	7.8	27.3	23	5.9	2,450	7.4	26	5.7
Asian/Pacific Islander	8	1.5	7	1.7	1	0.9	12.5	4	1.0	381	1.2	2	0.4
Native American	1	0.2	1	0.2	0	0.0	0.0	1	0.3	71	0.2	1	0.2
Multiracial	4	0.8	3	0.7	1	0.9	25.0	1	0.3	41	0.1	0	0.0
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	85	0.3	0	0.0
Age group (years)[6]													
0-12	1	0.2	1	0.2	0	0.0	0.0	0	0.0	75	0.2	0	0.0
13-19	23	4.4	22	5.4	1	0.9	4.3	3	0.8	387	1.2	0	0.0
20-29	100	19.1	93	22.8	7	6.0	7.0	36	9.2	2,049	6.2	9	2.0
30-39	133	25.4	104	25.5	29	25.0	21.8	88	22.4	4,249	12.9	34	7.5
40-49	128	24.4	99	24.3	29	25.0	22.7	122	31.1	9,086	27.6	80	17.6
50-59	87	16.6	53	13.0	34	29.3	39.1	95	24.2	11,237	34.2	186	41.0
60+	52	9.9	36	8.8	16	13.8	30.8	48	12.2	5,816	17.7	145	31.9
Borough of residence[7]													
Bronx	150	28.6	123	30.1	27	23.3	18.0	122	31.1	10,662	32.4	164	36.1
Brooklyn	179	34.2	131	32.1	48	41.4	26.8	114	29.1	9,782	29.7	137	30.2
Manhattan	76	14.5	57	14.0	19	16.4	25.0	57	14.5	5,027	15.3	70	15.4
Queens	69	13.2	56	13.7	13	11.2	18.8	46	11.7	4,679	14.2	45	9.9
Staten Island	13	2.5	7	1.7	6	5.2	46.2	6	1.5	791	2.4	22	4.8
Outside NYC	36	6.9	33	8.1	3	2.6	8.3	41	10.5	1,923	5.8	12	2.6
Unknown	1	0.2	1	0.2	0	0.0	0.0	6	1.5	35	0.1	4	0.9
Area-based poverty level[8]													
Low poverty (<10% below FPL)	31	5.9	19	4.7	12	10.3	38.7	25	6.4	1,951	5.9	25	5.5
Medium poverty (10 to <20% below FPL)	107	20.4	85	20.8	22	19.0	20.6	73	18.6	6,581	20.0	61	13.4
High poverty (20 to <30% below FPL)	166	31.7	124	30.4	42	36.2	25.3	109	27.8	10,284	31.3	153	33.7
Very high poverty (≥30% below FPL)	179	34.2	143	35.0	36	31.0	20.1	137	34.9	11,825	35.9	194	42.7
Area-based poverty level not available	41	7.8	37	9.1	4	3.4	9.8	48	12.2	2,258	6.9	21	4.6
Transmission risk													
Injection drug use history	26	5.0	19	4.7	7	6.0	26.9	39	9.9	5,411	16.4	145	31.9
Heterosexual[9]	393	75.0	308	75.5	85	73.3	21.6	257	65.6	17,658	53.7	200	44.1
Perinatal	1	0.2	1	0.2	0	0.0	0.0	7	1.8	1,283	3.9	6	1.3
Other	0	0.0	0	0.0	0	0.0	0.0	0	0.0	99	0.3	1	0.2
Unknown	104	19.8	80	19.6	24	20.7	23.1	89	22.7	8,448	25.7	102	22.5
Clinical history													
HIV-only	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13,521	41.1	89	19.6
Ever AIDS diagnosis	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	19,378	58.9	365	80.4

PLWHA=People living with HIV/AIDS; FPL=Federal Poverty Level; n/a=Not applicable. All percents are column percents unless otherwise indicated.
[1-9]Footnotes appear at the bottom of Table 3.1. [10]Female sex assigned at birth.

FIGURE 6.1: HIV[1] diagnosis rates[2] among 13-59 year old females[3] by race/ethnicity[4], NYC 2014



In 2014, the HIV diagnosis rate among Black females was over 3 times higher than the rate among Latino/Hispanic females and over 13 times higher than the rate among White females.

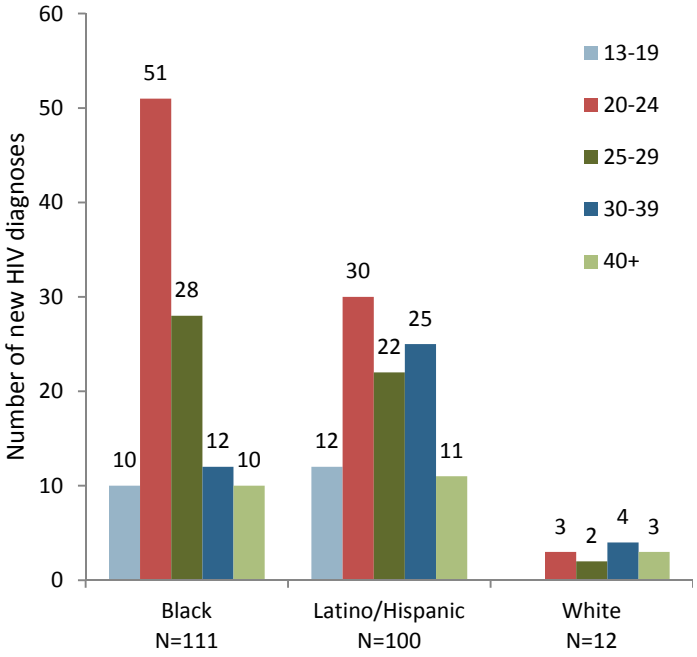
API=Asian/Pacific Islander
[1]Includes diagnoses of HIV without AIDS and HIV concurrent with AIDS.
[2]Rates calculated using the intercensal 2014 NYC population.
[3]Female sex assigned at birth.
[4]Native American and multiracial groups not shown because of small numbers.

HIV AMONG TRANSGENDER PEOPLE

TABLE 7.1: HIV/AIDS diagnoses among transgender people and transgender PLWHA, NYC 2014

	HIV diagnoses		AIDS diagnoses[1]		PLWHA as of 12/31/2014	
	N	%	N	%	N	%
Total[2]	49	100.0	15	100.0	1,017	100.0
Transgender women	48	98.0	15	100.0	1,007	99.0
Transgender men	1	2.0	0	0.0	10	1.0
Race/Ethnicity						
Black	24	49.0	9	60.0	483	47.5
Latino/Hispanic	21	42.9	4	26.7	421	41.4
White	3	6.1	2	13.3	77	7.6
Other/Unknown[3]	1	2.0	0	0.0	36	3.5
Age group (years)[4]						
13-19	4	8.2	0	0.0	7	0.7
20-24	24	49.0	1	6.7	83	8.2
25-29	10	20.4	6	40.0	172	16.9
30-39	9	18.4	7	46.7	327	32.2
40+	2	4.1	1	6.7	428	42.1
Risk category[5]						
Sexual contact	45	91.8	14	93.3	867	85.3
Injection drug use history	3	6.1	0	0	126	12.4
Other/Unknown	1	2	1	6.7	24	2.4

FIGURE 7.1: HIV diagnoses among transgender people by race/ethnicity and age at diagnosis, NYC 2010-2014



[1]AIDS diagnoses includes concurrent HIV/AIDS diagnoses; PLWHA=People living with HIV/AIDS
[2]Includes people identified as transgender by self-report, diagnosing provider, or medical chart review. Transgender women were assigned male sex at birth and currently identify as female. Transgender men were assigned female sex at birth and currently identify as male.
[3]Includes Asian/Pacific Islander, Native American, and multiracial people. These groups excluded from Figure 7.1 due to small numbers.
[4]For HIV and AIDS diagnoses, age at diagnosis. For PLWHA, age as of December 31, 2014.
[5]"Risk category" differs from "transmission risk" presented elsewhere. For more information on transgender HIV surveillance, see Technical Notes on page 12.

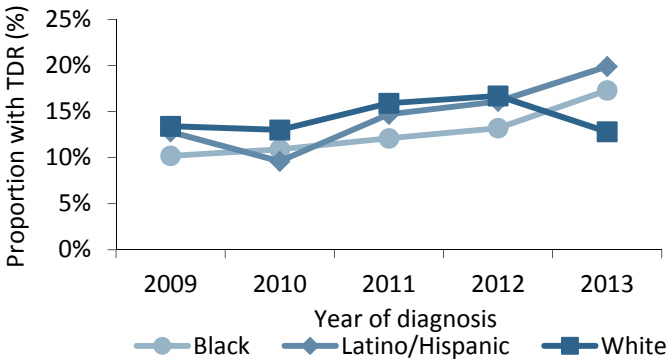
In NYC in 2014, 49 transgender people were diagnosed with HIV and 15 were diagnosed with AIDS. From 2010-2014, 234 transgender people were diagnosed with HIV; 26% (N=61) were Black transgender people aged 13-24 (Figure 7.1). Compared to all NYC HIV diagnoses 2010-2014 (N=15,262), transgender people with HIV were more likely to be Black or Latino/Hispanic (90% vs. 77%) and 13 to 24 years old at diagnosis (48% vs. 21%).

TRANSMITTED DRUG RESISTANCE

TABLE 8.1: New HIV diagnoses with a genotype within 3 months of diagnosis, NYC 2010-2014

	Total Diagnoses	Tested within 3 months		Not tested within 3 months	
	N	N	Row %	N	Row %
Year of diagnosis					
2010	3,432	1,457	42.5	1,975	57.5
2011	3,286	1,508	45.9	1,778	54.1
2012	3,025	1,498	49.5	1,527	50.5
2013	2,801	1,639	58.5	1,162	41.5
2014	2,718	1,596	58.7	1,122	41.3

FIGURE 8.1: Proportion of new HIV diagnoses with transmitted drug resistance (TDR)[1] by race[2], NYC 2009-2013[3]

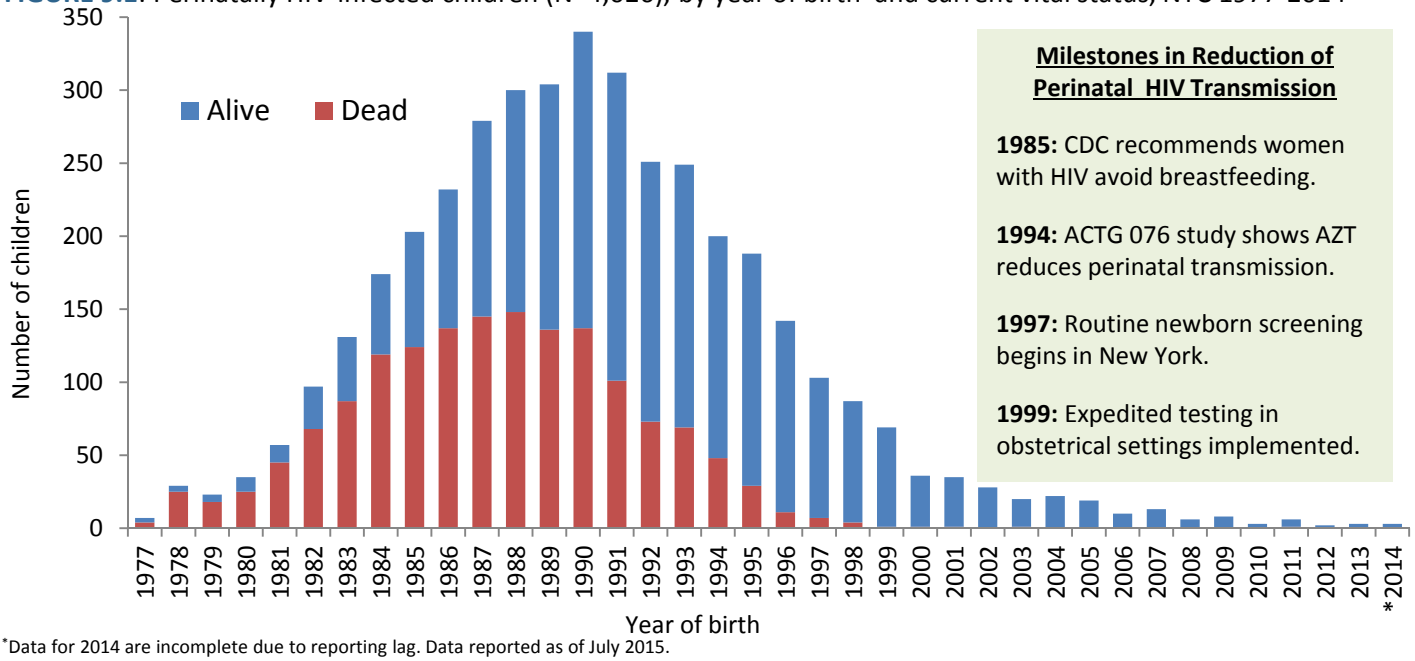


[1]Evidence of resistance to any antiretroviral (ARV) drug in a newly diagnosed, ARV-naïve individual. [2]Asian/Pacific Islander, Native American, and multiracial groups not shown because of small numbers. [3]Data for 2014 is not yet available due to a technical issue.

Despite federal guidelines recommending baseline genotyping, only 58.7% of people received a genotype within 3 months of a new HIV diagnosis in 2014 (Table 8.1). The proportion of cases with transmitted drug resistance has risen steadily since 2011, especially among people of color, mainly due to the growing number of people on antiretroviral treatment (Figure 8.1).

HIV AMONG CHILDREN

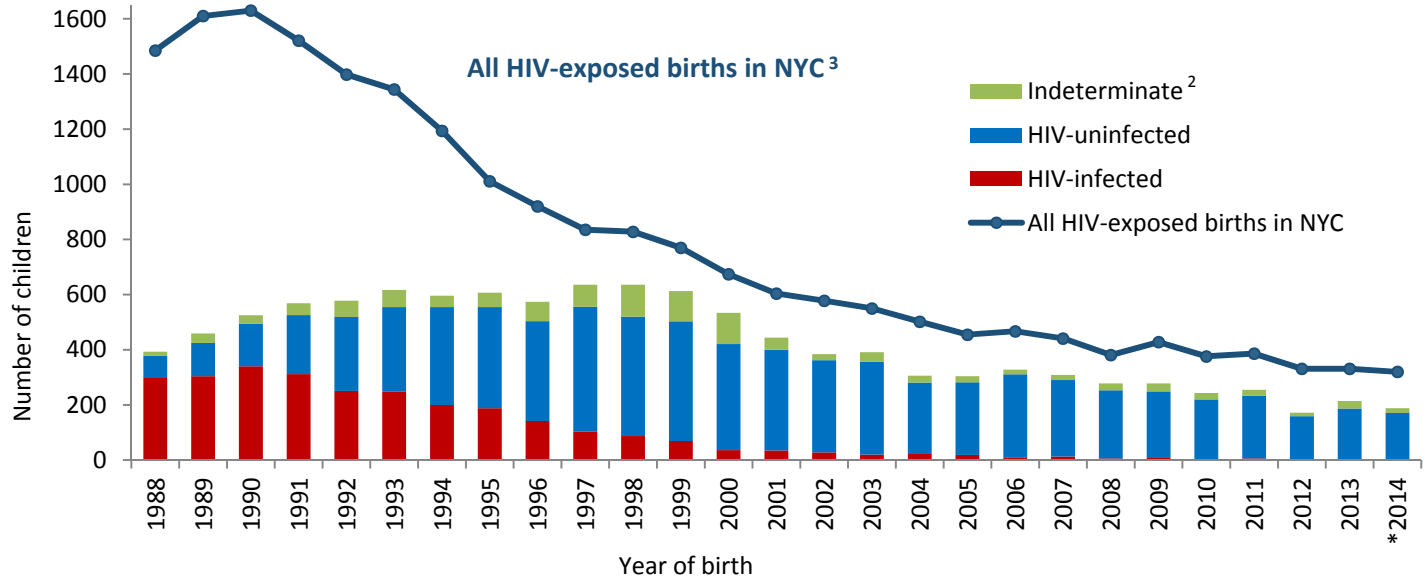
FIGURE 9.1: Perinatally HIV-infected children (N=4,026), by year of birth and current vital status, NYC 1977-2014*



*Data for 2014 are incomplete due to reporting lag. Data reported as of July 2015.

In NYC, the number of perinatally HIV-infected infants peaked in 1990 (n=340), and was followed by a steep decline in the annual number of new infections, with 3 cases reported in 2014 (Figure 9.1). During 2009-2013, there were 22 perinatally-infected infants born in NYC. The decrease since the early 1990s is attributed to a decrease in the number of HIV-infected women delivering, the introduction of antiretroviral therapies to prevent mother-to-child transmission, recommendations for universal counseling and voluntary HIV testing of pregnant women, and routine rapid testing at labor and delivery for women whose HIV status is unknown. At select NYC medical facilities, the number of children born to HIV-infected mothers has steadily decreased since 2006, with 328 births that year compared with only 214 births in 2013 (Figure 9.2). Since 2002, nearly 90% of infants born to HIV-infected mothers each year have remained HIV-uninfected.

FIGURE 9.2: All HIV-exposed births in NYC and current HIV status of children born to HIV-infected women at select NYC medical facilities[1], by year of birth, NYC 1988-2014*



*Data for 2014 are incomplete due to reporting lag. Data reported as of July 2015.
[1]Includes data collected at high-volume NYC medical facilities that care for the majority of HIV-exposed and infected children.
[2]Children born to HIV-infected mothers are followed for 2 years after birth to determine HIV status. HIV status is indeterminate if mother and/or child are lost to follow-up.
[3]Data from the New York State Comprehensive Newborn Screening Program.

HIV CARE

FIGURE 10.1: Timely linkage to HIV care[1] among newly diagnosed people, NYC 2010-2014

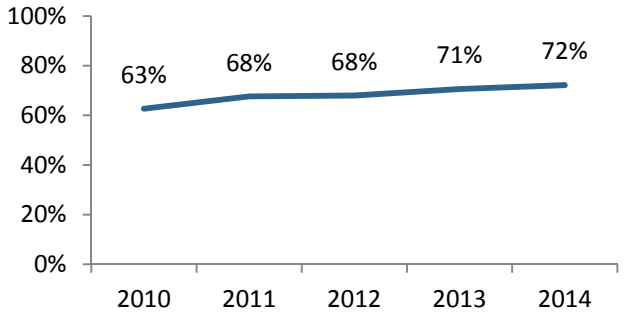
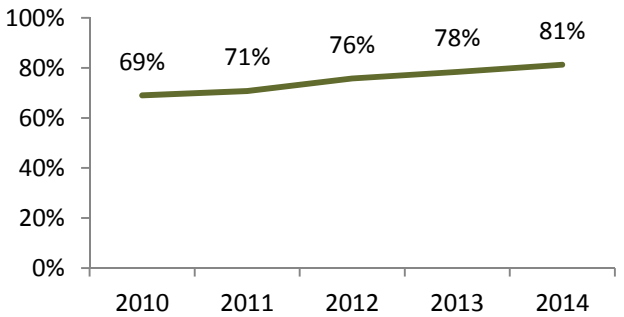


FIGURE 10.2: Viral suppression[2] among people in HIV medical care[3], NYC 2010-2014



Timely linkage to HIV care among newly diagnosed people and viral suppression among people in HIV medical care steadily increased in New York City from 2010 to 2014.

FIGURE 10.3: Timely linkage to HIV care[1] among newly diagnosed people, NYC 2014

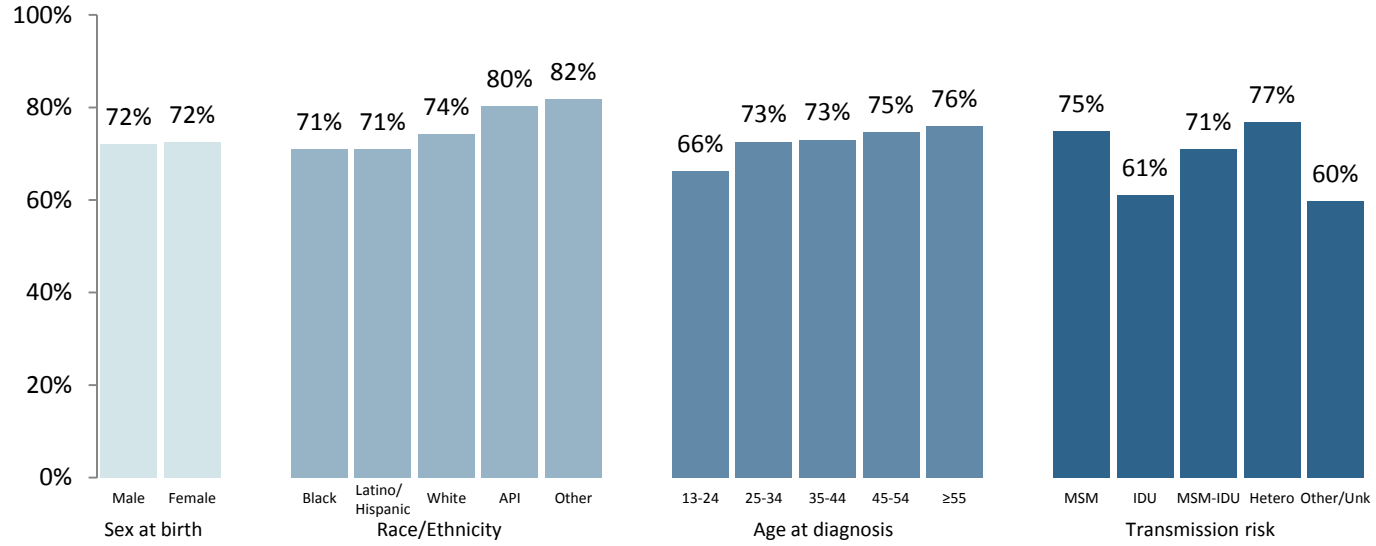
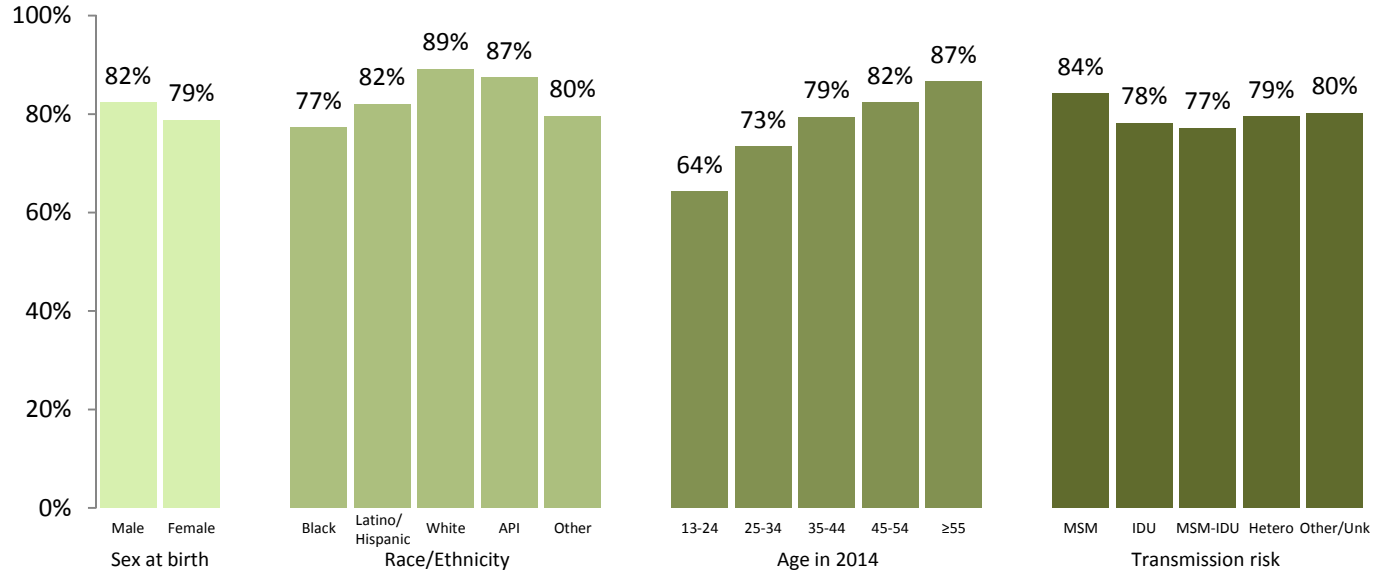


FIGURE 10.4: Viral suppression[2] among people in HIV medical care[3], NYC 2014



API=Asian/Pacific Islander; MSM=Men who have sex with men; IDU=Injection drug use history

[1]HIV viral load (VL) or CD4 test drawn within 3 months (91 days) of HIV diagnosis, following a 7-day lag.

[2]Last HIV VL value in 2014 was ≤200 copies/mL.

[3]At least one HIV VL/CD4 in 2014.

SURVIVAL AMONG PEOPLE WITH HIV

FIGURE 11.1: Survival among people newly diagnosed with HIV and residing in low-poverty areas[1], by race/ethnicity[2], NYC 2009-2013

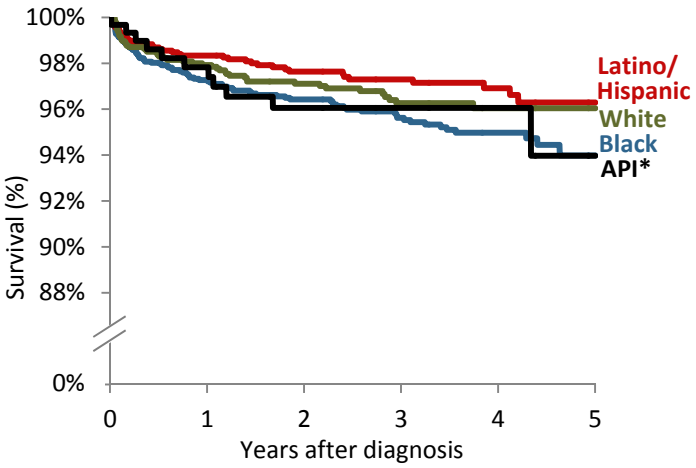
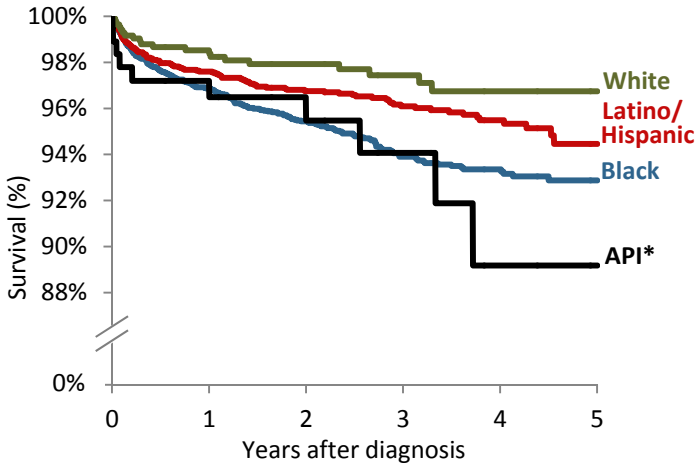


FIGURE 11.2: Survival among people newly diagnosed with HIV and residing in high-poverty areas[1], by race/ethnicity[2], NYC 2009-2013

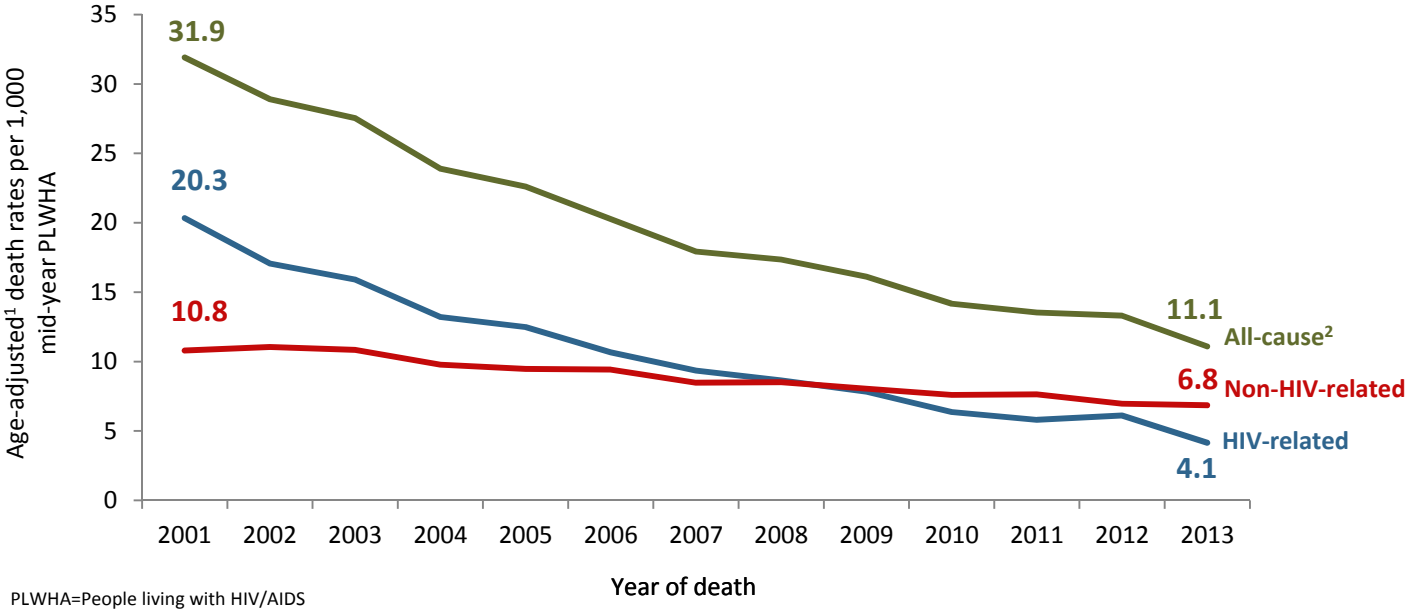


API=Asian/Pacific Islander; *Survival curves among API should be interpreted with caution due to small numbers.
[1]Poverty level based on NYC ZIP code of residence at diagnosis (if available). Curves include people diagnosed with HIV from 2009 through 2013 and followed through December 31, 2013; people not known to have died were censored on December 31, 2013. Low-poverty area defined as <20% of population below Federal Poverty Level; high-poverty area defined as ≥20% of population below Federal Poverty Level.
[2]Native American and multiracial groups not shown because of small numbers.

Disparities in survival by race/ethnicity persist in NYC, with Blacks and Asian/Pacific Islanders dying sooner after HIV diagnosis than Whites. Racial/ethnic disparities are evident in both low-poverty and high-poverty areas, but are pronounced among those living in high-poverty areas at the time of diagnosis ($p<0.05$).

MORTALITY AMONG PEOPLE WITH HIV

FIGURE 12.1: Age-adjusted death rates among people with HIV/AIDS, by HIV-related and non-HIV-related cause of death, NYC 2001-2013



PLWHA=People living with HIV/AIDS
[1]Age-adjusted to the NYC Census 2010 population. People newly diagnosed with HIV at death were excluded from the numerator.
[2]Includes people with unknown cause of death (1.8% of all deaths).

The overall death rate among people diagnosed with HIV/AIDS decreased by 65% from 2001 to 2013. Although the rates of both HIV-related and non-HIV-related deaths decreased during this time, the overall decrease was due to fewer deaths attributed to HIV (Figure 12.1).

ESTIMATED HIV INCIDENCE

FIGURE 13.1: Estimated HIV incidence[1] among men who have sex with men (MSM)[2] <30 years by race/ethnicity, NYC 2009-2013[3]

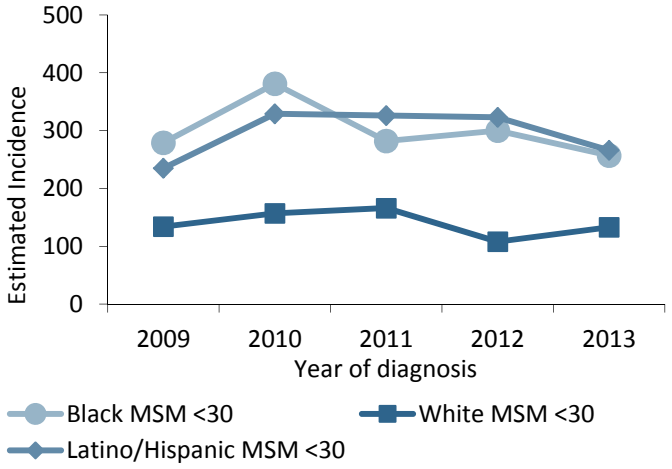
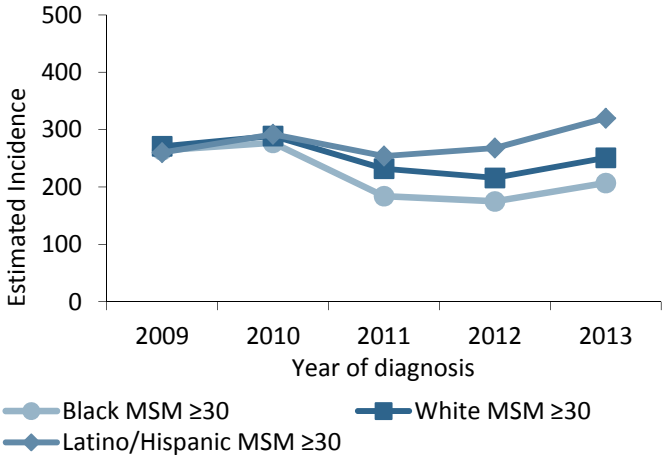


FIGURE 13.2: Estimated HIV incidence[1] among men who have sex with men (MSM)[2] ≥30 years by race/ethnicity, NYC 2009-2013[3]



[1]Estimates generated September 2015 by the CDC Stratified Extrapolation Approach (SEA). SEA combines results from the Serologic Testing Algorithm for Recent Seroconversion (STARHS) with data on demographic characteristics, risk factor, initial diagnosis date, testing and treatment history that are contained in the HIV surveillance registry. Unknown risk factor was imputed using the Multiple Imputation procedure in SAS v9.3. Surveillance data used in these estimates were reported through June 30, 2015.
[2]MSM includes persons reporting both MSM and injection drug use history.
[3]Data for 2014 is not yet available.

From 2009-2013, HIV incidence among young MSM, stratified by race, has alternately increased and decreased (Figure 13.1). Racial disparities were more pronounced among MSM <30 years compared with MSM ≥30. There was an upward trend in incidence among Latino/Hispanic MSM ≥30 years from 2009-2013 (Figure 13.2). No trends were statistically significant.

ACUTE HIV INFECTION

FIGURE 14.1: Acute HIV infection, by transmission risk category, NYC 2014

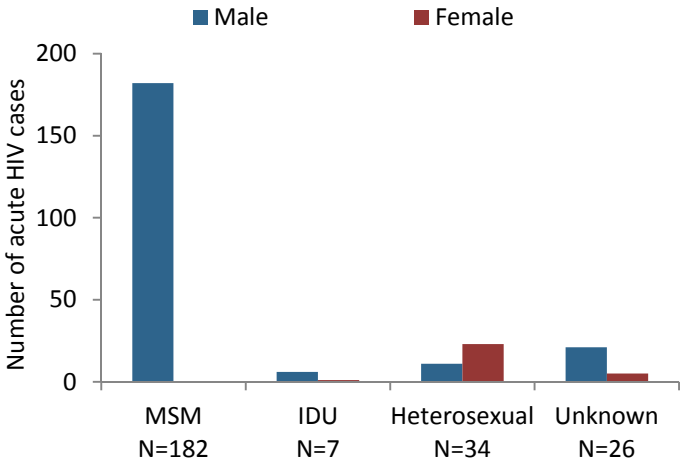
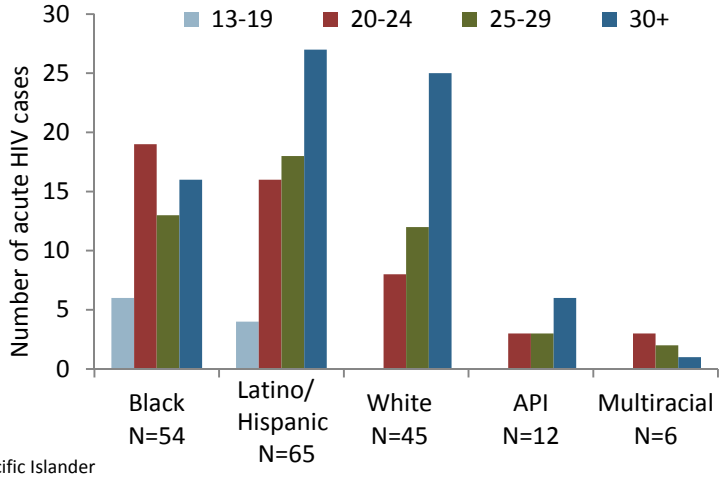


FIGURE 14.2: Acute HIV infection among MSM, by race/ethnicity[1] and age group, NYC 2014

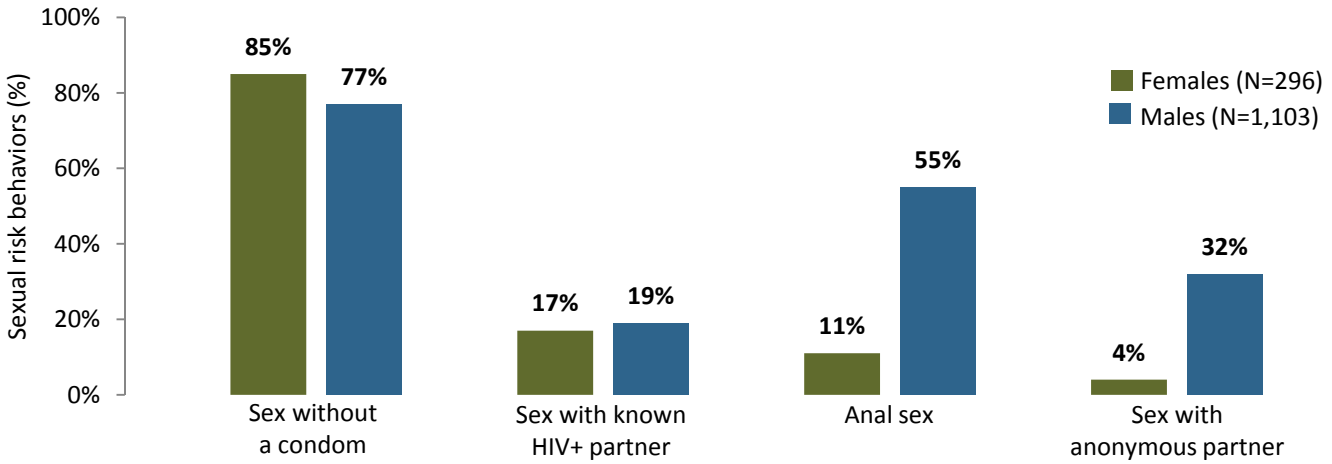


MSM=Men who have sex with men; IDU=Injection drug use history; API=Asian/Pacific Islander
[1]Native Americans not shown because of small numbers.

Acute HIV infection (AHI) is the early, highly-infectious phase of HIV infection. People diagnosed during the acute phase represent the leading edge of the HIV epidemic. In 2014, the majority of AHI cases were MSM, who are targeted for AHI screening at DOHMH Sexually Transmitted Diseases (STD) clinics (Figure 14.1). Out of 249 total AHI cases in 2014, 48 were diagnosed at DOHMH STD clinics. Among MSM with AHI, a greater proportion of Black MSM were young compared with Latino/Hispanic, White, and Asian/Pacific Islander MSM (Figure 14.2).

SEXUAL RISK BEHAVIORS AMONG PEOPLE WITH HIV

FIGURE 15.1: Sexual risk behaviors* among people newly diagnosed with HIV and interviewed by the Field Services Unit, NYC 2014

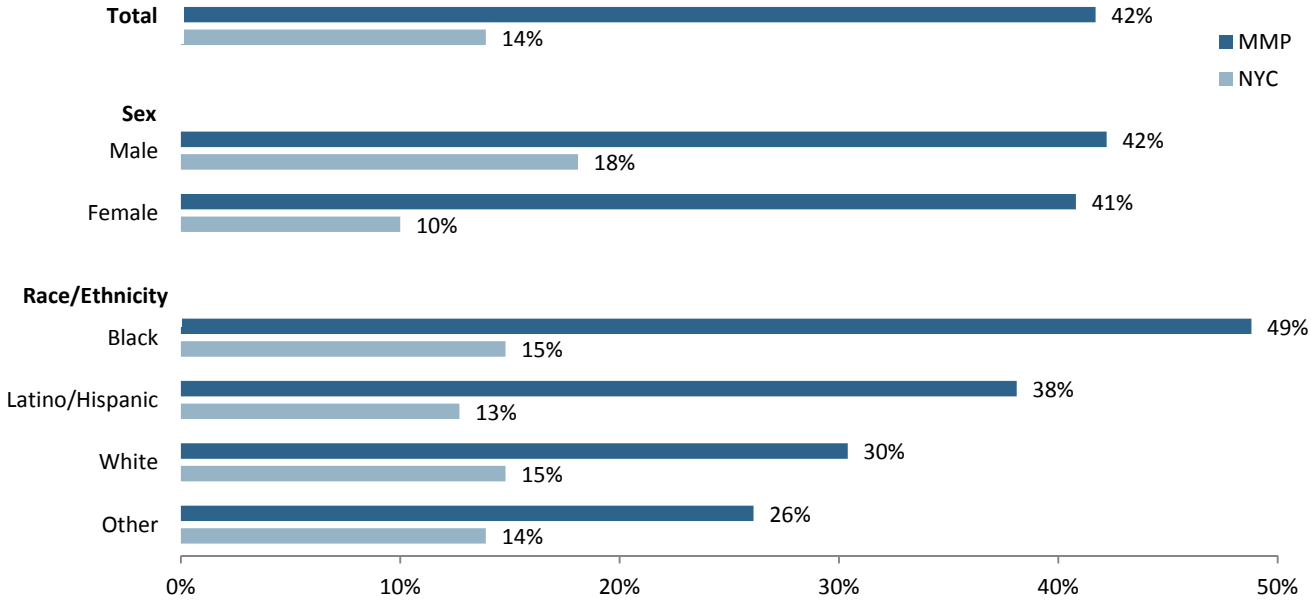


*Within the 12 months before interview. Data reported to the Field Services Unit as of October 16, 2015.

The Field Services Unit (FSU) was established in 2006 to assist HIV medical providers and patients diagnosed with HIV with partner services and linkage to care. In 2014, FSU interviewed 1,609 newly diagnosed patients and collected demographics and risk behavior data; 1,399 reported sexual risk behavior in the 12 months before interview. Males were more likely than females to report having sex with an HIV-positive partner, anal sex, and sex with an anonymous partner. Females were more likely to report having sex without a condom (Figure 15.1).

SMOKING STATUS AMONG PEOPLE WITH HIV

FIGURE 16.1: Current cigarette smoking among HIV-infected adults receiving care in NYC[1] vs. all NYC residents[2], 2014



[1]Data source is the Medical Monitoring Project (MMP). Rates are among adults 18+ and age-adjusted to the US 2000 Standard Population. See Technical Notes on page 12.
[2]NYC estimates based on the 2014 NYC Community Health Survey (CHS). Data are weighted to the NYC residential population per the 2013 American Community Survey. Rates are among adults 18+ and age-adjusted to the US 2000 Standard Population. See http://www.nyc.gov/html/doh/html/data/survey.shtml for more information.
[3]Helleberg, et. al., *AIDS* 2015; 29(2):221-229.

The Medical Monitoring Project (MMP) is a national, ongoing surveillance study of people with HIV who are receiving outpatient HIV medical care. For PLWHA engaged in care, lifestyle factors such as smoking have been linked to poor overall health and lower life expectancy.[3] In 2014, among 433 MMP participants who answered questions about smoking, 180 (42%) reported current cigarette smoking compared with only 14% among all New York City (NYC) residents. In the MMP sample, smoking rates among males and females were similar, while Black and Latino/Hispanic participants reported higher smoking rates than people from other racial/ethnic groups (Figure 16.1).

TECHNICAL NOTES

ABOUT THIS REPORT: This report provides an overview of the HIV epidemic in New York City using HIV surveillance data and presents highlights for the reporting period based on core surveillance activities. All data are based on information received by the NYC DOHMH as of June 30, 2015 and are for calendar year 2014 unless otherwise noted.

HIV SURVEILLANCE: The NYC HIV Epidemiology and Field Services Program (HEFSP) manages the HIV surveillance registry, a population-based registry of all people diagnosed with AIDS (since 1981) or HIV infection (since 2000) and reported to the NYC DOHMH according to standard Centers for Disease Control and Prevention (CDC) case definitions.[1] The Registry contains demographic, HIV transmission risk, and clinical information on HIV-diagnosed people, as well as all diagnostic tests, viral load tests, CD4 counts, and HIV genotypes reportable under New York State law.[2] For a list of surveillance definitions and technical notes see: http://www.nyc.gov/html/doh/html/data/hivtables.shtml#abbrev.

TRANSGENDER HIV SURVEILLANCE: People whose current gender identity differs from their sex assigned at birth are considered transgender. Classifying transgender people in surveillance requires accurate collection of both sex assigned at birth and current gender identity. Transgender status has been collected routinely since 2005 for newly reported cases. Reported numbers of new transgender HIV diagnoses and transgender PLWHA are likely underestimates. To avoid inappropriately labeling some transgender people as "men who have sex with men" or "heterosexual," "risk category" differs from "transmission risk" presented elsewhere. Among transgender people with HIV, those with a history of injecting drugs were assigned a risk of "injection drug use history". Non-injectors reporting a male or female sex partner were assigned "sexual contact." For more information, see the "HIV/AIDS among Transgender Persons in New York City" surveillance slide set available at: http://www.nyc.gov/html/doh/html/data/epi-surveillance.shtml.

PERINATAL AND PEDIATRIC HIV SURVEILLANCE: HEFSP collects data on HIV-exposed and -infected infants and children diagnosed with HIV before 13 years of age. Data are used to monitor the prevention of mother-to-child HIV transmission, to measure perinatal HIV transmission rates, and describe morbidity and mortality among HIV-infected children. In addition to routine HIV and AIDS case surveillance, perinatal and pediatric surveillance data are informed by a range of other activities and data sources, including longitudinal case follow-up, the New York State Department of Health's Comprehensive Newborn Screening Program, and CDC-funded special projects related to pediatric HIV.

ACUTE HIV INFECTION SURVEILLANCE: Since 2008, HEFSP has conducted routine surveillance and field investigation of individuals diagnosed in the acute stage of HIV infection (AHI) in New York City. For NYC's AHI case definition see: http://www.nyc.gov/html/doh/downloads/pdf/ah/definition-acute-hiv-infection.pdf.

DEATH DATA: Data on deaths occurring in NYC are from matches with the NYC Vital Statistics Registry, medical chart reviews, and provider reports via the Provider Report Form, including HIV-positive autopsies by the Office of the Chief Medical Examiner. Data on deaths occurring outside NYC are from matches with the Social Security Death Master File and National Death Index. Death data for 2014 are incomplete. Cause of death used for analyses in this report is a person's underlying cause of death. For deaths occurring in 1984-1986, ICD9 code 279.1 was used to denote AIDS-related deaths. For deaths occurring in 1987-1998, ICD9 codes 042-044 were used to denote HIV/AIDS-related deaths. For deaths occurring in 1999-2013, ICD10 codes B20-B24 were used to denote HIV/AIDS-related deaths. For technical notes on cause of death by the NYC DOHMH's Office of Vital Statistics see: http://www.nyc.gov/html/doh/downloads/pdf/vs/vs-appendix-b-2012.pdf.

AREA-BASED POVERTY: Area-based poverty is based on NYC ZIP code of residence and is defined as the percent of the population in a given ZIP code whose household income is below the Federal Poverty Level. This measure is not available for people missing ZIP code information or living outside NYC. Income data used for analyses in this report are from the 2007-2011 American Community Survey (ACS) for events occurring in 2006-2009, ACS 2008-2012 for events occurring in 2010, and ACS 2009-2013 for events occurring in 2011-2014. Cut-points for categories of area-based poverty in NYC were defined by a NYC DOHMH workgroup.[3]

MEDICAL MONITORING PROJECT: The Medical Monitoring Project (MMP) is a national, ongoing supplemental surveillance study sponsored by the Centers for Disease Control and Prevention and designed to understand more about the health behaviors, outcomes, and needs of people living with HIV/AIDS (PLWHA); NYC is one of 23 sites. A three-stage sampling design is used to obtain a probability sample of HIV-infected adults receiving HIV care at randomly selected HIV medical care facilities in the first four months of a study year. The project is cross-sectional and is conducted yearly. For more information on The Medical Monitoring Project see: http://www.cdc.gov/hiv/prevention/ongoing/mmp/index.html.

[1]Centers for Disease Control and Prevention. Revised surveillance case definition for HIV infection—United States, 2014. MMWR 2014; 63:1-10.
[2]State of New York Laws. HIV Testing and Counseling. Public Health Law Section 2130 et seq. Albany, NY: State of New York.
[3]Toprani A, Hadler JL. Selecting and applying a standard area-based socioeconomic status measure for public health data: analysis for New York City. New York City Department of Health and Mental Hygiene: *Epi Res Report*. May 2013; 1-12.

HIV PROVIDER REPORTING

All diagnostic and clinical providers (doctors, nurses, physician assistants, and all others diagnosing HIV or providing care to HIV-infected people) and laboratories are required by law to report specific HIV-related events.

REPORT HIV/AIDS CASES:

Providers are required by law to report cases of HIV/AIDS to the NYC DOHMH. The New York State Medical Provider Report Form (PRF) (DOH-4189 revised 03/09 and 8/05) must be completed for the following events: 1) new diagnosis of HIV (i.e., acute HIV infection or first report of an HIV antibody positive test result); 2) new diagnosis of AIDS (CD4<200 or opportunistic infection); or 3) patient with previously diagnosed HIV or AIDS during their first visit. Providers are required to report such events to the DOHMH within 14 days. In order to protect patient confidentiality, PRFs are not permitted to be mailed or faxed to the DOHMH. DOHMH staff are available to pick up PRFs from medical facilities at agreed-upon intervals. To arrange PRF pick-up, call the HIV Surveillance Provider line at **(212) 442-3388**.

DISCUSS PARTNER SERVICES AND REPORT PARTNERS:

Partner services (PS), a free program offered by the NYC DOHMH to all people diagnosed with HIV, helps people with HIV determine how to best notify their sex or needle sharing partners. As required by New York State Public Health Law, providers must report all known sex or needle sharing partners to the NYC DOHMH so that partners can be notified of their potential exposure to HIV.

To report partners, call the DOHMH's Contact Notification Assistance Program (CNAP) at **(212) 693-1419**, or complete the PRF whenever partner information is available (either at the time of the reportable event or at a follow-up visit). Key partner information to report includes: each partner's first/last name (alias, if applicable), date of birth/estimated age, gender, and domestic violence screening result.

For more information on HIV provider reporting, including how to obtain copies of the PRF, see:
http://www.nyc.gov/html/doh/html/data/hcpreporting.shtml

ADDITIONAL RESOURCES

NYC DEPARTMENT OF HEALTH AND MENTAL HYGIENE WEBSITE: www.nyc.gov/health

ADDITIONAL NYC DOHMH RESOURCES ON HIV IN NYC:

NYC HIV Epidemiology and Field Services Program: http://www.nyc.gov/html/doh/html/data/hivepi.shtml
- Surveillance Reports: http://www.nyc.gov/html/doh/html/data/epi-reports.shtml#quarterly
- Surveillance Statistics: http://www.nyc.gov/html/doh/html/data/hivtables.shtml
- Surveillance Slide Sets: http://www.nyc.gov/html/doh/html/data/epi-surveillance.shtml

Other information on HIV/AIDS, including HIV testing sites in NYC, condom distribution, and DOHMH STD clinics:
http://www.nyc.gov/html/doh/html/living/std-hiv.shtml

ADDITIONAL NYC DOHMH DATA RESOURCES:

Data & Statistics: http://www.nyc.gov/html/doh/html/data/data.shtml

EpiQuery, NYC Interactive Health Data System: http://www.nyc.gov/health/epiquery

Maps of ZIP codes by NYC borough: http://www.nyc.gov/html/doh/html/data/map-gallery.shtml

NATIONAL HIV RESOURCES:

National HIV surveillance, including CDC's case definitions for HIV surveillance: http://www.cdc.gov/hiv/statistics/

AIDSVu, including interactive online maps illustrating the prevalence of HIV in the United States: http://aidsvu.org/

SUGGESTED CITATION:

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HIV EPIDEMIOLOGY AND FIELD SERVICES PROGRAM
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