



HIV SURVEILLANCE ANNUAL REPORT, 2015

NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE

EXECUTIVE SUMMARY

This report presents 2015 surveillance data on the HIV epidemic in New York City (NYC). It includes graphic trends in HIV diagnoses over time for key populations, maps displaying the distribution of HIV in NYC, and measures of specific key outcomes such as linkage to care, viral suppression, and mortality among people with HIV (PWH). New features include the presentation of primary epidemiologic data by gender instead of sex at birth, a section focused on HIV among Black and Latino/Hispanic people, data on Hepatitis C infection among PWH in care, and a comparison of select characteristics among newly diagnosed men who have sex with men and transgender women.

The NYC Department of Health and Mental Hygiene continues to intensify and accelerate efforts to end the HIV epidemic in New York in partnership with the New York State (NYS) Department of Health and the NYC communities affected by HIV¹.

- For the first time in the history of the NYC epidemic, the annual number of new HIV diagnoses dropped below 2,500, to 2,493 in 2015 (an 8.3% decline from 2014²).
- New HIV diagnoses among men who have sex with men and among women both declined³ substantially in 2015 (a 10.5% decline and an 8% decline from 2014², respectively). Also in 2015, the number of new HIV diagnoses among people aged 20-29 reached a significant new low since 2001.
- There were no HIV infections diagnosed among infants born in NYC in 2015, a major achievement within the overall elimination of mother-to-child-transmission of HIV in NYS⁴.
- The all-cause mortality rate and rate of HIV-related deaths among PWH have continued to fall dramatically since 2001.
- The proportion of people in HIV care who achieved viral suppression increased in 2015 (83% compared to 81% in 2014²).

Despite these successes, disparities by gender, race/ethnicity, HIV transmission risk, geography, and area-based poverty level persist. Black and Latino/Hispanic people in NYC continue to be disproportionately affected by HIV. In 2015, 42% of all newly diagnosed HIV infections in NYC were among Blacks, while Blacks comprised only 22% of the city's population; 36% of all newly diagnosed HIV infections were among Latinos/Hispanics, while Latinos/Hispanics comprised only 29% of the NYC population. Outcomes including HIV diagnosis rates, short-term survival after HIV diagnosis, and viral suppression among PWH in care were also worse for Black and Latino/Hispanic people with HIV.

Co-infection with Hepatitis C virus (HCV) is a significant clinical and public health concern for PWH. Among PWH in care, over half (58%) had recently been screened for HCV, and 21% had a recent positive test result.

¹New York State Department of Health. *2015 Blueprint to End the AIDS Epidemic*, State of New York: Albany, NY. March 2015.

²HIV Epidemiology and Field Services Program. *HIV Surveillance Annual Report, 2014*. New York City Department of Health and Mental Hygiene: New York, NY. December 2015.

³These declines include the new classification of transgender women as women in this report.

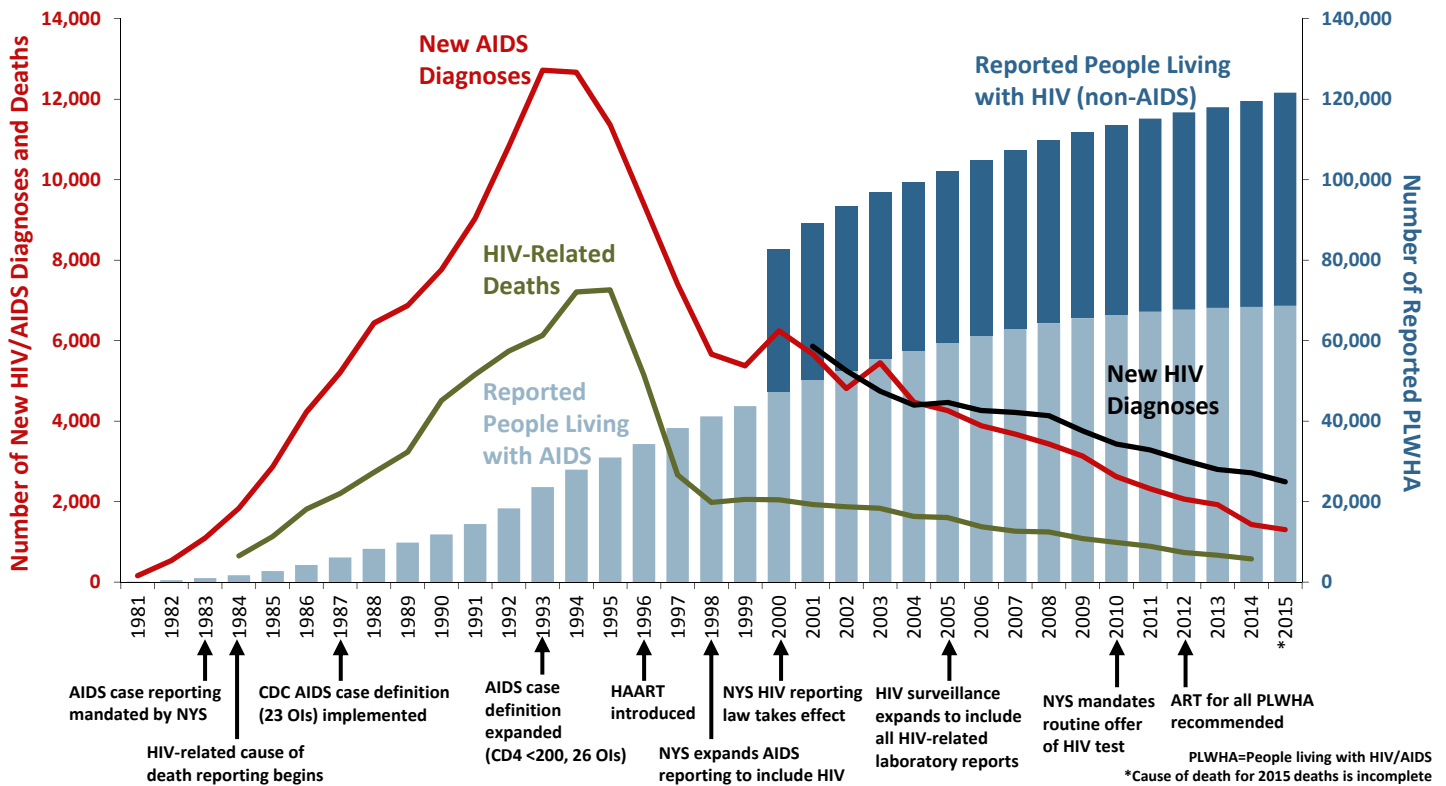
⁴New York State Department of Health. *Governor Cuomo Announces All HIV-Positive Individuals in New York City to Become Eligible for Housing, Transportation and Nutritional Support*, State of New York: Albany, NY. June 2016. <https://www.governor.ny.gov/news/governor-cuomo-announces-all-hiv-positive-individuals-new-york-city-become-eligible-housing>

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HISTORY OF THE EPIDEMIC

FIGURE 1.1: History of the HIV epidemic, NYC 1981-2015



HIV DIAGNOSES OVER TIME

FIGURE 2.1: Trends in HIV diagnoses, NYC 2001-2015

HIV Diagnoses	2001	2015	EAPC	P Value
Total	5,902	2,493	-5.23	<0.01
Gender				
Male	3,913	2,010	-3.86	<0.01
Female	1,946	441	-9.39	<0.01
Transgender	43	42	-0.04	0.97
Race/Ethnicity				
Black	3,093	1,040	-6.80	<0.01
Latino/Hispanic	1,781	902	-4.22	<0.01
White	897	413	-3.92	<0.01
Asian/Pacific Islander	114	115	0.83	0.15
Native American	13	3	-9.55	<0.01
Age Group (Years)				
0-12	87	3	-22.57	<0.01
13-19	193	83	-3.43	<0.01
20-29	1,126	896	-0.41	0.02
30-39	2,099	637	-8.27	<0.01
40-49	1,542	420	-7.81	<0.01
50-59	633	308	-4.75	<0.01
60+	222	146	-2.24	<0.01

HIV Diagnoses	2001	2015	EAPC	P Value
Borough of Residence				
Bronx	1,345	500	-6.86	<0.01
Brooklyn	1,632	649	-5.46	<0.01
Manhattan	1,532	583	-6.08	<0.01
Queens	761	446	-3.89	<0.01
Staten Island	103	46	-6.58	<0.01
Outside NYC	419	219	-1.33	<0.01
Transmission Risk				
MSM	1,704	1,450	-0.18	0.22
IDU	853	43	-18.36	<0.01
MSM-IDU	122	33	-6.62	<0.01
Heterosexual Contact	1,468	412	-6.63	<0.01
TG-SC	33	41	0.91	0.32
Perinatal	86	3	-21.93	<0.01

EAPC = Estimated annual percent change
 IDU = Injection drug use history
 MSM = Men who have sex with men
 TG-SC = Transgender people with sexual contact

The number of new HIV diagnoses reported in New York City from 2001 to 2015 decreased overall and by gender, race/ethnicity, age at diagnosis, borough of residence, and transmission risk. This decrease is significant (P value <0.01) for all subgroups except transgender people, Asian/Pacific Islanders, MSM, and transgender people with sexual contact.

DEMOGRAPHIC AND CLINICAL CHARACTERISTICS

TABLE 3.1: HIV/AIDS diagnoses and deaths occurring January 1, 2015, through December 31, 2015; and people diagnosed with HIV/AIDS, reported in New York City, and presumed to be living as of December 31, 2015

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWHA as of 12/31/2015		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Total	2,493	100.0	2,050	100.0	443	100.0	17.8	1,307	100.0	121,616	100.0	1,678	100.0
Gender													
Male	2,010	80.6	1,661	81.0	349	78.8	17.4	979	74.9	87,493	71.9	1,184	70.6
Female	441	17.7	351	17.1	90	20.3	20.4	309	23.6	33,027	27.2	484	28.8
Transgender	42	1.7	38	1.9	4	0.9	9.5	19	1.5	1,096	0.9	10	0.6
Race/Ethnicity⁵													
Black	1,040	41.7	834	40.7	206	46.5	19.8	670	51.3	53,462	44.0	867	51.7
Latino/Hispanic	902	36.2	753	36.7	149	33.6	16.5	401	30.7	39,590	32.6	521	31.0
White	413	16.6	353	17.2	60	13.5	14.5	176	13.5	25,198	20.7	256	15.3
Asian/Pacific Islander	115	4.6	92	4.5	23	5.2	20.0	50	3.8	2,490	2.0	25	1.5
Native American	3	0.1	3	0.1	0	0.0	0.0	3	0.2	270	0.2	4	0.2
Multiracial	20	0.8	15	0.7	5	1.1	25.0	7	0.5	245	0.2	5	0.3
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	361	0.3	0	0.0
Age Group (years)⁶													
0-12	3	0.1	3	0.1	0	0.0	0.0	0	0.0	117	0.1	0	0.0
13-19	83	3.3	77	3.8	6	1.4	7.2	25	1.9	660	0.5	0	0.0
20-29	896	35.9	828	40.4	68	15.3	7.6	220	16.8	9,656	7.9	36	2.1
30-39	637	25.6	518	25.3	119	26.9	18.7	327	25.0	17,647	14.5	106	6.3
40-49	420	16.8	310	15.1	110	24.8	26.2	323	24.7	29,145	24.0	285	17.0
50-59	308	12.4	214	10.4	94	21.2	30.5	279	21.3	39,877	32.8	587	35.0
60+	146	5.9	100	4.9	46	10.4	31.5	133	10.2	24,514	20.2	664	39.6
Borough of Residence⁷													
Bronx	500	20.1	403	19.7	97	21.9	19.4	290	22.2	29,089	23.9	453	27.0
Brooklyn	649	26.0	526	25.7	123	27.8	19.0	345	26.4	29,332	24.1	400	23.8
Manhattan	583	23.4	500	24.4	83	18.7	14.2	235	18.0	32,041	26.3	313	18.7
Queens	446	17.9	349	17.0	97	21.9	21.7	236	18.1	17,891	14.7	158	9.4
Staten Island	46	1.8	36	1.8	10	2.3	21.7	23	1.8	2,366	1.9	40	2.4
Outside NYC	219	8.8	186	9.1	33	7.4	15.1	150	11.5	10,601	8.7	59	3.5
Unknown	50	2.0	50	2.4	0	0.0	0.0	28	2.1	296	0.2	255	15.2
Area-Based Poverty Level⁸													
Low poverty (<10% below FPL)	188	7.5	157	7.7	31	7.0	16.5	86	6.6	11,061	9.1	87	5.2
Medium poverty (10 to <20% below FPL)	698	28.0	565	27.6	133	30.0	19.1	349	26.7	31,568	26.0	282	16.8
High poverty (20 to <30% below FPL)	594	23.8	482	23.5	112	25.3	18.9	306	23.4	28,761	23.6	355	21.2
Very high poverty (≥30% below FPL)	735	29.5	602	29.4	133	30.0	18.1	385	29.5	37,879	31.1	640	38.1
Area-based poverty level not available	278	11.2	244	11.9	34	7.7	12.2	181	13.8	12,347	10.2	314	18.7
Transmission risk⁹													
Men who have sex with men (MSM)	1,450	58.2	1,248	60.9	202	45.6	13.9	557	42.6	47,432	39.0	366	21.8
Injection drug use history (IDU)	43	1.7	39	1.9	4	0.9	9.3	63	4.8	15,918	13.1	453	27.0
MSM-IDU	33	1.3	31	1.5	2	0.5	6.1	21	1.6	2,651	2.2	70	4.2
Heterosexual contact	412	16.5	320	15.6	92	20.8	22.3	262	20.0	24,002	19.7	339	20.2
Transgender people with sexual contact	41	1.6	37	1.8	4	0.9	9.8	18	1.4	928	0.8	6	0.4
Perinatal	3	0.1	2	0.1	1	0.2	33.3	35	2.7	2,513	2.1	18	1.1
Other	0	0.0	0	0.0	0	0.0	0.0	0	0.0	205	0.2	4	0.2
Unknown	511	20.5	373	18.2	138	31.2	27.0	351	26.9	27,967	23.0	422	25.1

PLWHA=People living with HIV/AIDS; FPL=Federal Poverty Level. All percents are column percents unless otherwise indicated. ¹Excludes people known to have been diagnosed outside of NYC. ²HIV diagnosed concurrently with AIDS (within 31 days of HIV diagnosis). Row percent is percent of total HIV diagnoses that were concurrent with AIDS diagnoses. ³AIDS was diagnosed in 2015 and includes concurrent HIV/AIDS diagnoses. ⁴Includes deaths from any cause in people with HIV/AIDS. ⁵For technical notes on race/ethnicity: http://www1.nyc.gov/assets/doh/downloads/pdf/ah/new_race_def_dec2010.pdf. ⁶For HIV and AIDS diagnoses, age at diagnosis; for PLWHA, age as of December 31, 2015; and for deaths, age at death. ⁷For 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 2015). ⁸Area-based poverty based on NYC ZIP code of residence at diagnosis or most recent residence (see footnote 7). ⁹“Heterosexual contact” 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. “Transgender people with sexual contact” includes people identified as transgender by self-report, diagnosing provider, or medical chart review with sexual contact reported and negative history of injection drug use. “Other” includes people who received treatment for hemophilia, people who received a transfusion or transplant, and children with a non-perinatal transmission risk.

In 2015, there were 2,493 new HIV diagnoses and 1,307 new AIDS diagnoses in New York City. As of the end of 2015, 121,616 people had been diagnosed with HIV/AIDS and reported in New York City and were presumed to be living. In 2015, there were 1,678 deaths among people with HIV.

GEOGRAPHIC DISTRIBUTION OF HIV

FIGURE 4.1: Poverty level, NYC 2010-2014

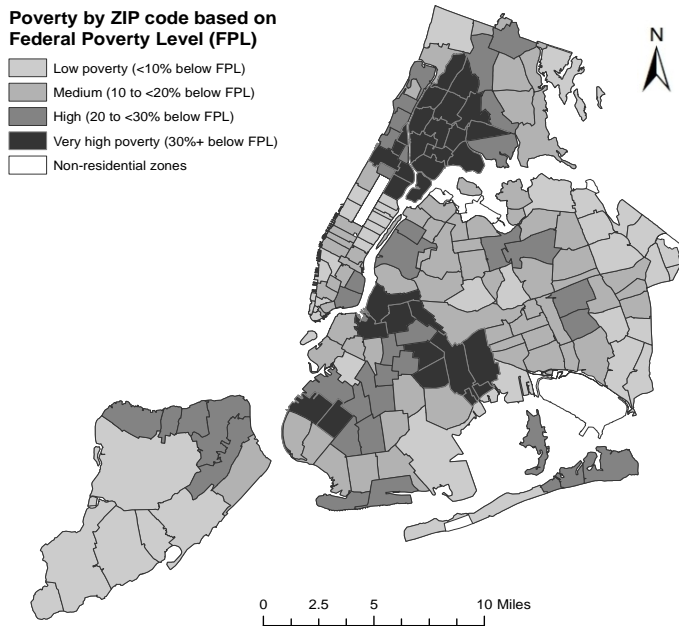
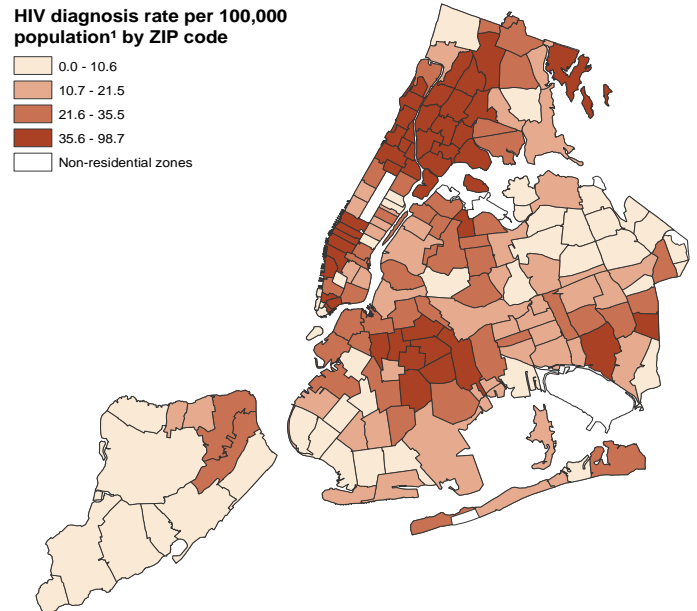


FIGURE 4.2: HIV diagnosis rates, NYC 2015



ZIP codes in the Chelsea-Clinton, Central Harlem-Morningside Heights, and East Harlem neighborhoods had the highest HIV diagnosis rates in 2015 (Figure 4.2). In 2015, ZIP codes in West Queens, Chelsea-Clinton, and Central Harlem-Morningside Heights had the highest HIV prevalence (Figure 4.3); ZIP codes in the Long Island City-Astoria, Stapleton-St. George, and Southeast Queens 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 2015

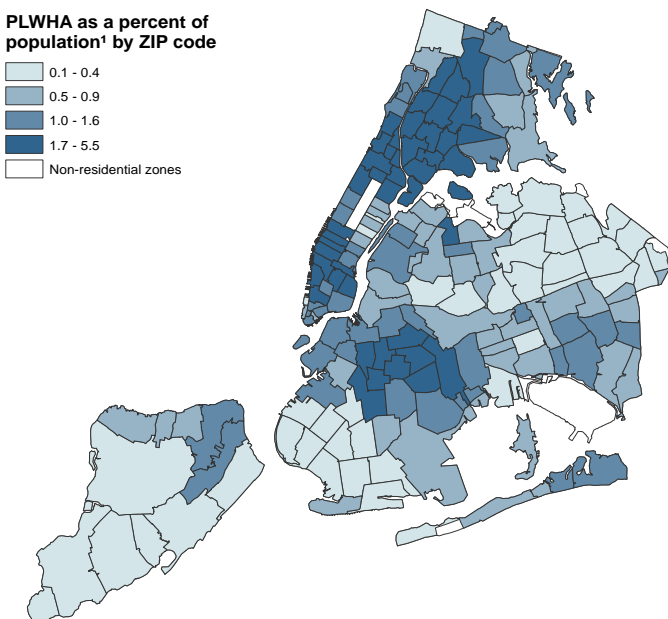
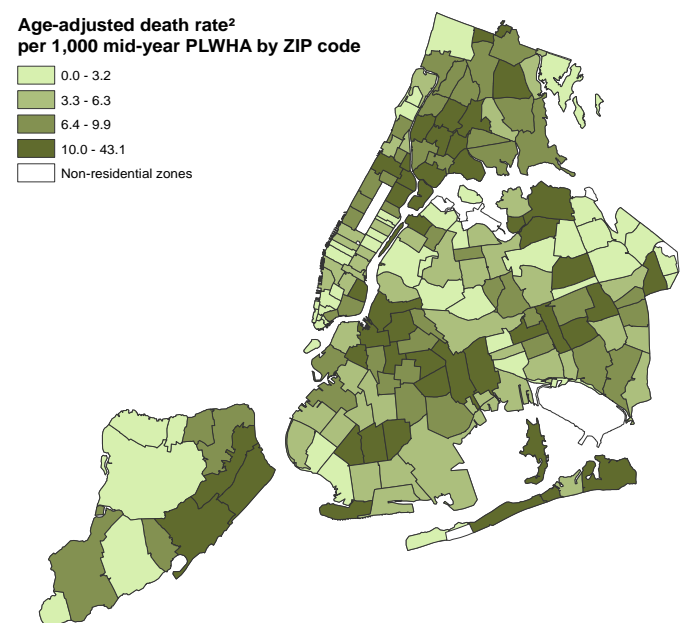


FIGURE 4.4: Age-adjusted death rates among people with HIV/AIDS, NYC 2015



PLWHA=People living with HIV/AIDS

¹Rates calculated using the intercensal 2015 NYC population.

²Age-adjusted to the NYC Census 2010 population. People newly diagnosed with HIV at death were excluded from the numerator.

HIV AMONG MALES

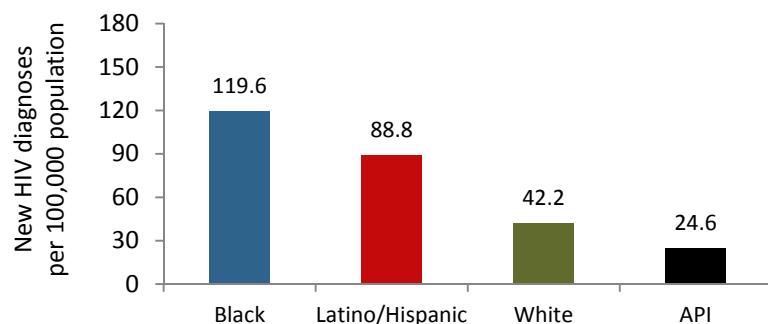
TABLE 5.1: HIV/AIDS diagnoses and deaths among males¹⁰, January 1, 2015, through December 31, 2015; and males diagnosed with HIV/AIDS, reported in New York City, and presumed to be living as of December 31, 2015

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWHA as of 12/31/2015		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Total	2,011	100.0	1,662	100.0	349	100.0	17.4	979	100.0	87,505	100.0	1,185	100.0
Race/Ethnicity⁵													
Black	745	37.0	602	36.2	143	41.0	19.2	452	46.2	33,633	38.4	584	49.3
Latino/Hispanic	759	37.7	636	38.3	123	35.2	16.2	313	32.0	28,466	32.5	361	30.5
White	386	19.2	329	19.8	57	16.3	14.8	161	16.4	22,679	25.9	213	18.0
Asian/Pacific Islander	101	5.0	80	4.8	21	6.0	20.8	44	4.5	2,064	2.4	20	1.7
Native American	2	0.1	2	0.1	0	0.0	0.0	3	0.3	194	0.2	3	0.3
Multiracial	18	0.9	13	0.8	5	1.4	27.8	6	0.6	192	0.2	4	0.3
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	277	0.3	0	0.0
Age Group (years)⁶													
0-12	3	0.1	3	0.2	0	0.0	0.0	0	0.0	61	0.1	0	0.0
13-19	70	3.5	65	3.9	5	1.4	7.1	18	1.8	346	0.4	0	0.0
20-29	770	38.3	709	42.7	61	17.5	7.9	177	18.1	7,355	8.4	26	2.2
30-39	529	26.3	430	25.9	99	28.4	18.7	249	25.4	13,210	15.1	69	5.8
40-49	317	15.8	235	14.1	82	23.5	25.9	235	24.0	20,478	23.4	192	16.2
50-59	228	11.3	155	9.3	73	20.9	32.0	212	21.7	28,148	32.2	393	33.2
60+	94	4.7	65	3.9	29	8.3	30.9	88	9.0	17,907	20.5	505	42.6
Borough of Residence⁷													
Bronx	350	17.4	282	17.0	68	19.5	19.4	193	19.7	18,027	20.6	282	23.8
Brooklyn	507	25.2	418	25.2	89	25.5	17.6	245	25.0	19,332	22.1	282	23.8
Manhattan	521	25.9	445	26.8	76	21.8	14.6	196	20.0	26,817	30.6	254	21.4
Queens	375	18.6	291	17.5	84	24.1	22.4	193	19.7	13,015	14.9	105	8.9
Staten Island	30	1.5	23	1.4	7	2.0	23.3	15	1.5	1,529	1.7	27	2.3
Outside NYC	186	9.2	161	9.7	25	7.2	13.4	115	11.7	8,554	9.8	44	3.7
Unknown	42	2.1	42	2.5	0	0.0	0.0	22	2.2	231	0.3	191	16.1
Area-Based Poverty Level⁸													
Low poverty (<10% below FPL)	160	8.0	134	8.1	26	7.4	16.3	67	6.8	9,278	10.6	63	5.3
Medium poverty (10 to <20% below FPL)	592	29.4	477	28.7	115	33.0	19.4	281	28.7	24,328	27.8	221	18.6
High poverty (20 to <30% below FPL)	481	23.9	392	23.6	89	25.5	18.5	237	24.2	19,855	22.7	239	20.2
Very high poverty (≥30% below FPL)	544	27.1	451	27.1	93	26.6	17.1	255	26.0	24,111	27.6	427	36.0
Area-based poverty level not available	234	11.6	208	12.5	26	7.4	11.1	139	14.2	9,933	11.4	235	19.8
Transmission Risk⁹													
Men who have sex with men (MSM)	1,450	72.1	1,248	75.1	202	57.9	13.9	557	56.9	47,432	54.2	366	30.9
Injection drug use history (IDU)	27	1.3	25	1.5	2	0.6	7.4	36	3.7	10,470	12.0	314	26.5
MSM-IDU	33	1.6	31	1.9	2	0.6	6.1	21	2.1	2,651	3.0	70	5.9
Heterosexual contact	87	4.3	57	3.4	30	8.6	34.5	75	7.7	6,032	6.9	99	8.4
Transgender people with sexual contact	0	0.0	0	0.0	0	0.0	0.0	0	0.0	8	0.0	0	0.0
Perinatal	2	0.1	2	0.1	0	0.0	0.0	18	1.8	1,222	1.4	10	0.8
Other	0	0.0	0	0.0	0	0.0	0.0	0	0.0	113	0.1	1	0.1
Unknown	412	20.5	299	18.0	113	32.4	27.4	272	27.8	19,577	22.4	325	27.4

PLWHA=People living with HIV/AIDS; FPL=Federal Poverty Level. All percents are column percents unless otherwise indicated.

¹⁻⁹Footnotes appear at the bottom of Table 3.1. ¹⁰Includes transgender men.

FIGURE 5.1: HIV¹ diagnosis rates² among 13-59 year old males³ by race/ethnicity⁴, NYC 2015



In 2015, the HIV diagnosis rate among Black males was 1.3 times higher than the rate among Latino/Hispanic males and almost 3 times higher than the rate among White males.

API=Asian/Pacific Islander

¹Includes diagnoses of HIV without AIDS and HIV concurrent with AIDS.

²Rates calculated using the intercensal 2015 NYC population.

³Includes transgender men.

⁴Native American and multiracial groups not shown because of small numbers.

HIV AMONG FEMALES

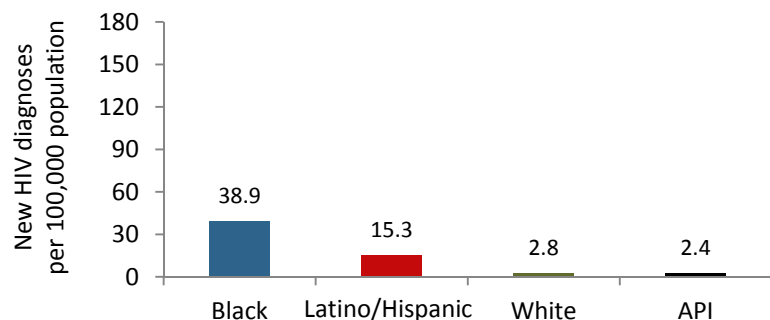
TABLE 6.1: HIV/AIDS diagnoses and deaths among females¹⁰, January 1, 2015, through December 31, 2015; and females diagnosed with HIV/AIDS, reported in New York City, and presumed to be living as of December 31, 2015

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWHA as of 12/31/2015		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Total	482	100.0	388	100.0	94	100.0	19.5	328	100.0	34,111	100.0	493	100.0
Race/Ethnicity⁵													
Black	295	61.2	232	59.8	63	67.0	21.4	218	66.5	19,829	58.1	283	57.4
Latino/Hispanic	143	29.7	117	30.2	26	27.7	18.2	88	26.8	11,124	32.6	160	32.5
White	27	5.6	24	6.2	3	3.2	11.1	15	4.6	2,519	7.4	43	8.7
Asian/Pacific Islander	14	2.9	12	3.1	2	2.1	14.3	6	1.8	426	1.2	5	1.0
Native American	1	0.2	1	0.3	0	0.0	0.0	0	0.0	76	0.2	1	0.2
Multiracial	2	0.4	2	0.5	0	0.0	0.0	1	0.3	53	0.2	1	0.2
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	84	0.2	0	0.0
Age Group (years)⁶													
0-12	0	0.0	0	0.0	0	0.0	0.0	0	0.0	56	0.2	0	0.0
13-19	13	2.7	12	3.1	1	1.1	7.7	7	2.1	314	0.9	0	0.0
20-29	126	26.1	119	30.7	7	7.4	5.6	43	13.1	2,301	6.7	10	2.0
30-39	108	22.4	88	22.7	20	21.3	18.5	78	23.8	4,437	13.0	37	7.5
40-49	103	21.4	75	19.3	28	29.8	27.2	88	26.8	8,667	25.4	93	18.9
50-59	80	16.6	59	15.2	21	22.3	26.3	67	20.4	11,729	34.4	194	39.4
60+	52	10.8	35	9.0	17	18.1	32.7	45	13.7	6,607	19.4	159	32.3
Borough of Residence⁷													
Bronx	150	31.1	121	31.2	29	30.9	19.3	97	29.6	11,062	32.4	171	34.7
Brooklyn	142	29.5	108	27.8	34	36.2	23.9	100	30.5	10,000	29.3	118	23.9
Manhattan	62	12.9	55	14.2	7	7.4	11.3	39	11.9	5,224	15.3	59	12.0
Queens	71	14.7	58	14.9	13	13.8	18.3	43	13.1	4,876	14.3	53	10.8
Staten Island	16	3.3	13	3.4	3	3.2	18.8	8	2.4	837	2.5	13	2.6
Outside NYC	33	6.8	25	6.4	8	8.5	24.2	35	10.7	2,047	6.0	15	3.0
Unknown	8	1.7	8	2.1	0	0.0	0.0	6	1.8	65	0.2	64	13.0
Area-Based Poverty Level⁸													
Low poverty (<10% below FPL)	28	5.8	23	5.9	5	5.3	17.9	19	5.8	1,783	5.2	24	4.9
Medium poverty (10 to <20% below FPL)	106	22.0	88	22.7	18	19.1	17.0	68	20.7	7,240	21.2	61	12.4
High poverty (20 to <30% below FPL)	113	23.4	90	23.2	23	24.5	20.4	69	21.0	8,906	26.1	116	23.5
Very high poverty (≥30% below FPL)	191	39.6	151	38.9	40	42.6	20.9	130	39.6	13,768	40.4	213	43.2
Area-based poverty level not available	44	9.1	36	9.3	8	8.5	18.2	42	12.8	2,414	7.1	79	16.0
Transmission Risk⁹													
Injection drug use history	16	3.3	14	3.6	2	2.1	12.5	27	8.2	5,448	16.0	139	28.2
Heterosexual	325	67.4	263	67.8	62	66.0	19.1	187	57.0	17,970	52.7	240	48.7
Transgender people with sexual contact	41	8.5	37	9.5	4	4.3	9.8	18	5.5	920	2.7	6	1.2
Perinatal	1	0.2	0	0.0	1	1.1	100.0	17	5.2	1,291	3.8	8	1.6
Other	0	0.0	0	0.0	0	0.0	0.0	0	0.0	92	0.3	3	0.6
Unknown	99	20.5	74	19.1	25	26.6	25.3	79	24.1	8,390	24.6	97	19.7

PLWHA=People living with HIV/AIDS; FPL=Federal Poverty Level. All percents are column percents unless otherwise indicated.

¹⁻⁹Footnotes appear at the bottom of Table 3.1. ¹⁰Includes transgender women.

FIGURE 6.1: HIV¹ diagnosis rates² among 13-59 year old females³ by race/ethnicity⁴, NYC 2015



In 2015, the HIV diagnosis rate among Black females was 2.5 times higher than the rate among Latino/Hispanic females and over 13 times higher than the rate among White females.

API=Asian/Pacific Islander

¹Includes diagnoses of HIV without AIDS and HIV concurrent with AIDS.

²Rates calculated using the intercensal 2015 NYC population.

³Includes transgender women.

⁴Native 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 2015

	HIV Diagnoses ¹		AIDS Diagnoses ²		PLWHA as of 12/31/2015	
	N	%	N	%	N	%
Total³	42	100.0	19	100.0	1,096	100.0
Transgender women	41	97.6	19	100.0	1,084	98.9
Transgender men	1	2.4	0	0.0	12	1.1
Race/Ethnicity						
Black	16	38.1	9	47.4	521	47.5
Latino/Hispanic	25	59.5	8	42.1	463	42.2
White	0	0.0	1	5.3	74	6.8
Other/Unknown ⁴	1	2.4	0	0.0	38	3.4
Age Group (years)⁵						
13-19	2	4.8	0	0.0	6	0.5
20-29	21	50.0	4	21.1	262	23.9
30-39	14	33.3	11	57.9	357	16.9
40+	5	11.9	4	21.1	471	43.0
Transmission Risk						
Sexual contact	41	97.6	18	94.7	928	84.7
Injection drug use history	0	0.0	0	0	128	11.7
Other/Unknown	1	2.4	1	5.3	39	3.6

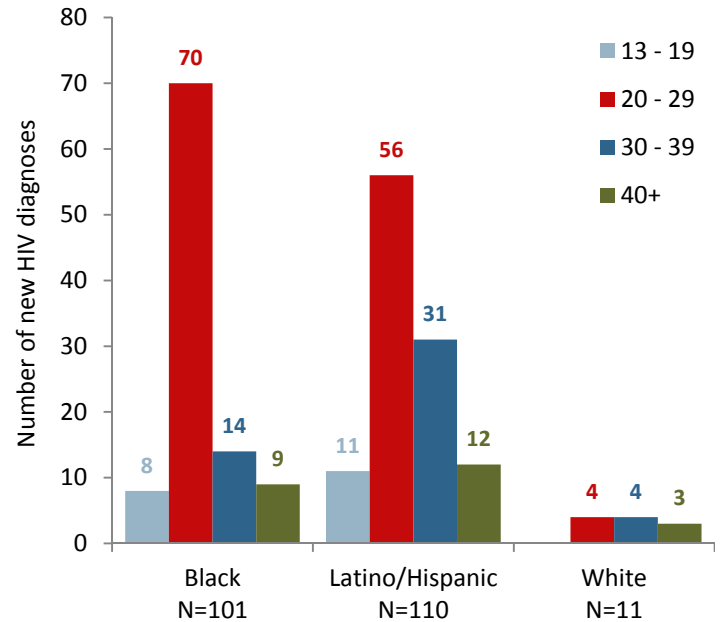
PLWHA=People living with HIV/AIDS

¹Excludes people known to have been diagnosed outside of NYC.

²AIDS was diagnosed in 2015 and includes concurrent HIV/AIDS diagnoses.

³Includes 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. For more information on transgender HIV surveillance, see Technical Notes on page 12. ⁴Includes Asian/Pacific Islander, Native American, and multiracial people. ⁵For HIV and AIDS diagnoses, age at diagnosis. For PLWHA, age as of December 31, 2015. ⁶Asian/Pacific Islander, Native American, and multiracial groups not shown because of small numbers.

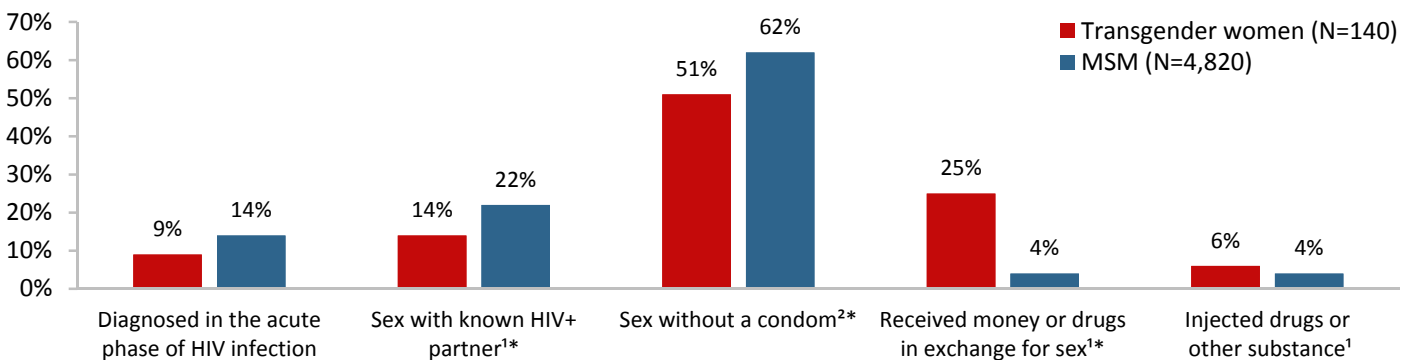
FIGURE 7.1: HIV diagnoses among transgender people by race/ethnicity⁶ and age at diagnosis, NYC 2011-2015



In NYC in 2015, 42 transgender people were diagnosed with HIV, and 19 were diagnosed with AIDS. From 2011 to 2015, 230 transgender people were diagnosed with HIV. Over half (55%) were Black or Latino/Hispanic people ages 20 to 29 years (Figure 7.1). Compared to all NYC HIV diagnoses from 2011 to 2015 (N=14,603), transgender people with HIV were more likely to be Latino/Hispanic (48% vs. 34%) and 20 to 29 years old at diagnosis (59% vs. 35%).

SELECT CHARACTERISTICS OF MSM AND TRANSGENDER WOMEN

FIGURE 8.1: Differences between newly diagnosed men who have sex with men (MSM) and transgender women served by the Field Services Unit (FSU), NYC 2011-2015



*Statistically significant difference

¹Ever.

²In the past 12 months. Data reported to the FSU as of October 04, 2016.

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. From 2011-2015, 4,820 newly diagnosed MSM and 140 transgender women were served by FSU. Compared to MSM, transgender women were less likely to have had sex with a known HIV-positive partner (14% vs. 22%) and less likely to have engaged in condomless sex (51% vs. 62%). Transgender women were more likely than MSM to have received money or drugs in exchange for sex (25% vs. 4%) (Figure 8.1).

HIV AMONG BLACK AND LATINO/HISPANIC PEOPLE

Figure 9.1: New HIV diagnoses among Black and Latino/Hispanic People, NYC 2015

Blacks and Latinos/Hispanics make up just over 50% of the NYC population¹



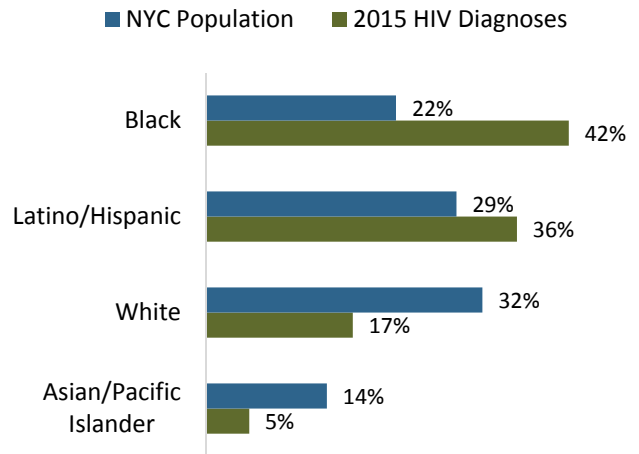
Yet almost 80% of new HIV diagnoses were among Blacks and Latinos/Hispanics



¹Intercensal 2015 NYC population.

²Native American and multiracial groups not shown because of small numbers.

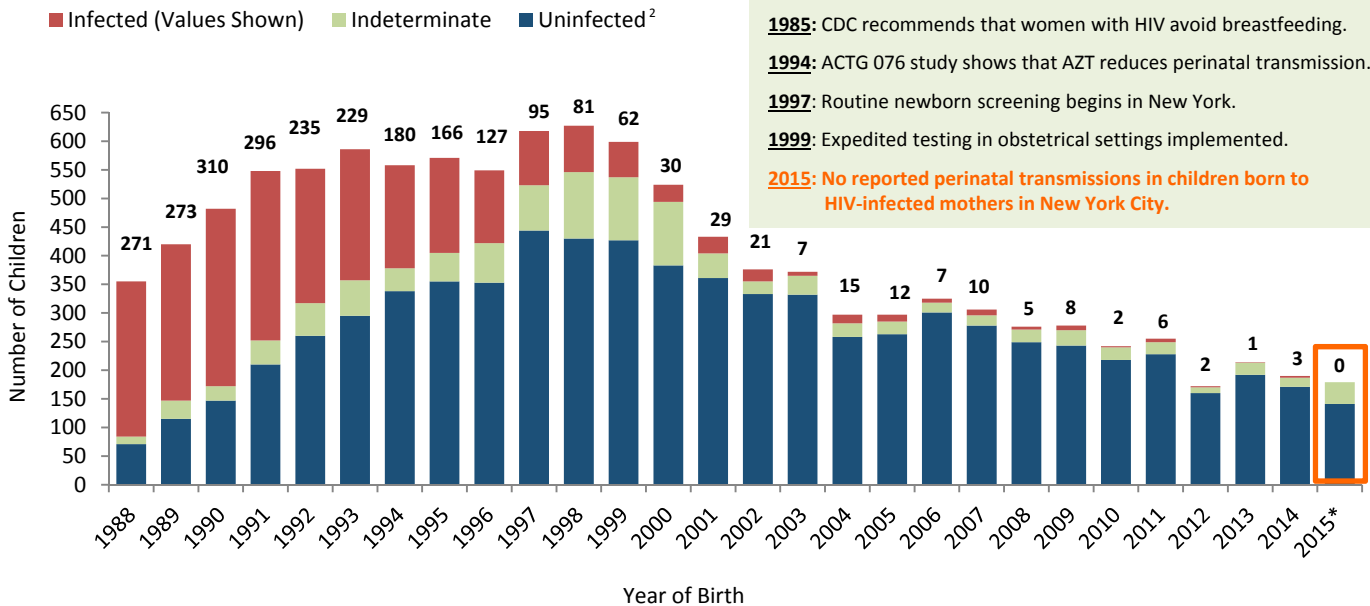
FIGURE 9.2: Percentage of HIV diagnoses vs. percentage of all NYC residents¹ by race/ethnicity², NYC 2015



Black and Latino/Hispanic people are disproportionately affected by HIV, accounting for the majority of new HIV diagnoses. In 2015, Blacks accounted for 42% of all newly diagnosed HIV infections in New York City, while only accounting for 22% of the city's population; Latinos/Hispanics and Whites accounted for 36% and 17% of new diagnoses, respectively.

HIV AMONG CHILDREN

FIGURE 10.1: All HIV-exposed births in NYC and current HIV status of children born to HIV-infected women at select NYC medical facilities¹, by year of birth, NYC 1988-2015*



Milestones in Reduction of Perinatal HIV Transmission

- 1985:** CDC recommends that women with HIV avoid breastfeeding.
- 1994:** ACTG 076 study shows that AZT reduces perinatal transmission.
- 1997:** Routine newborn screening begins in New York.
- 1999:** Expedited testing in obstetrical settings implemented.
- 2015:** No reported perinatal transmissions in children born to HIV-infected mothers in New York City.

¹Includes data collected at high-volume NYC medical facilities that care for the majority of HIV-exposed and infected children. Children born outside of NYC are not included in this figure.

²Children born to HIV-infected mothers are followed for 2 years after birth to determine HIV status. HIV status is indeterminate if child is lost to follow-up.

* Data reported as of July 2016.

In 2015, for the first time since the epidemic began, there were no reported mother-to-child HIV transmissions among children born in NYC, reflecting the success of interventions to prevent perinatal HIV infection.

HIV CARE

FIGURE 11.1: Timely linkage to HIV care¹ among newly diagnosed people, NYC 2011-2015

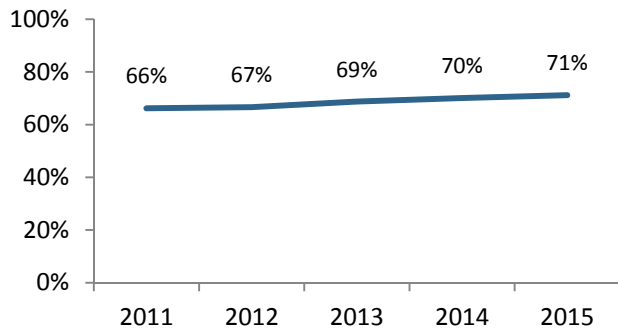
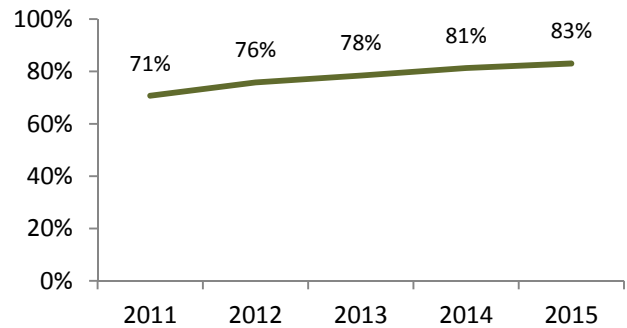


FIGURE 11.2: Viral suppression² among people in HIV medical care³, NYC 2011-2015



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 2011 to 2015.

FIGURE 11.3: Timely linkage to HIV care¹ among newly diagnosed people, NYC 2015

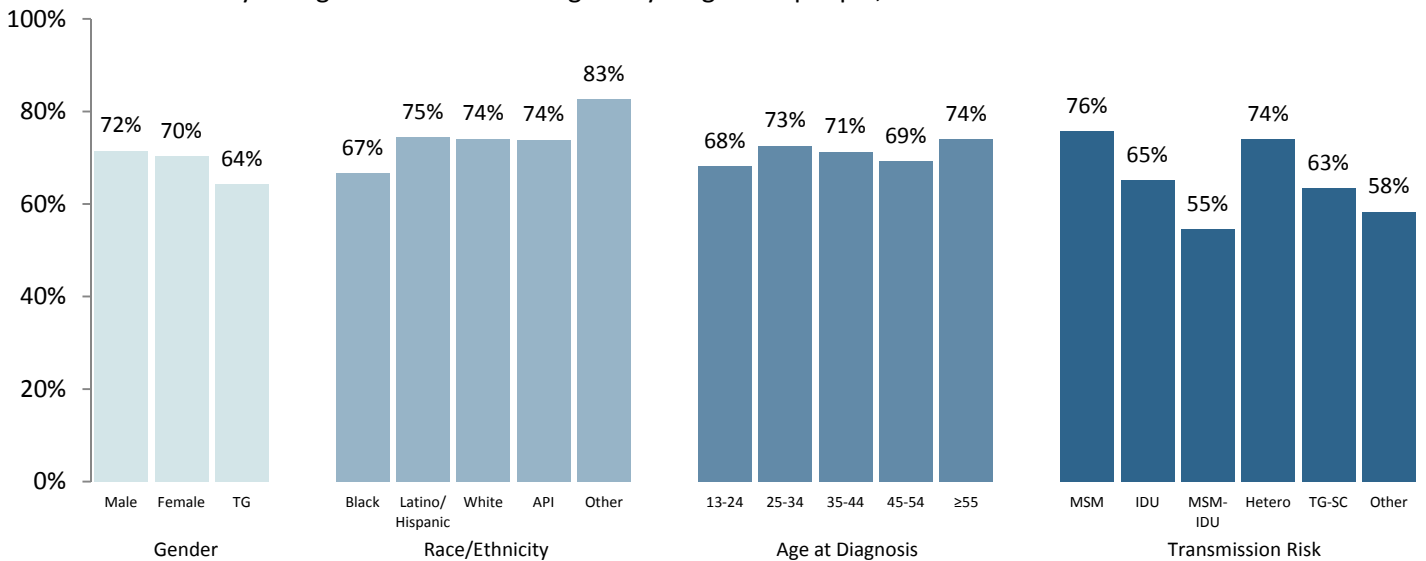
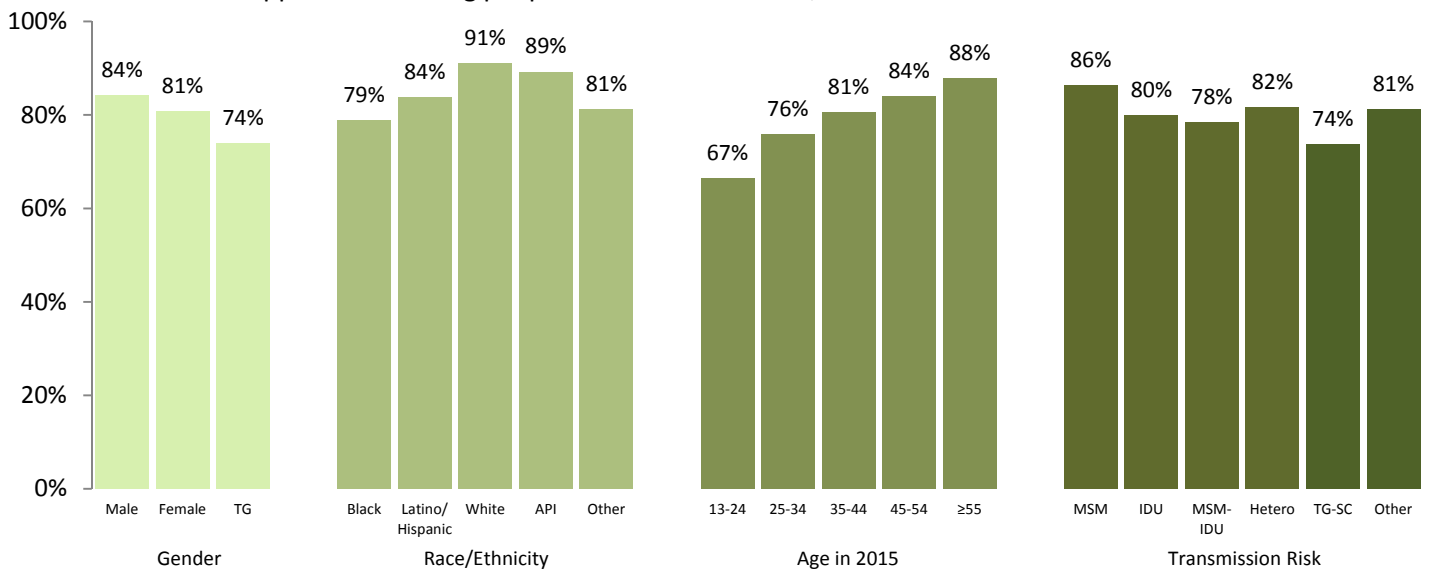


FIGURE 11.4: Viral suppression² among people in HIV medical care³, NYC 2015



TG=Transgender; API=Asian/Pacific Islander; MSM=Men who have sex with men; IDU=Injection drug use history; TG-SC=Transgender people with sexual contact

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

²Last HIV VL value in 2015 was ≤200 copies/mL.

³At least one HIV VL/CD4 in 2015.

SURVIVAL AMONG PEOPLE WITH HIV

FIGURE 12.1: Survival among people newly diagnosed with HIV¹ and residing in low-poverty areas², by race/ethnicity³, NYC 2010-2014

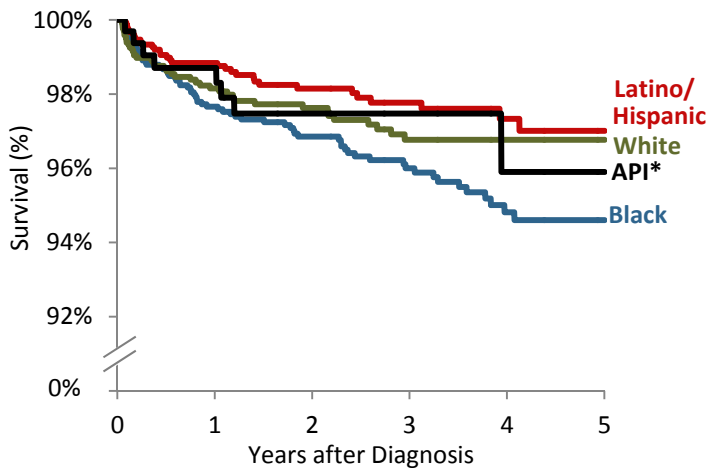
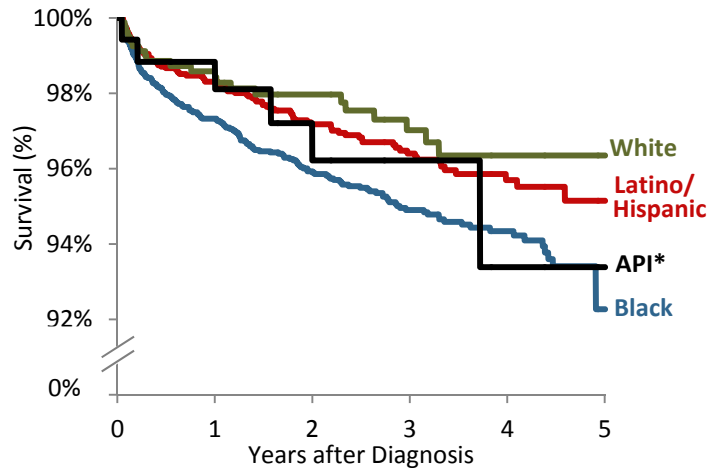


FIGURE 12.2: Survival among people newly diagnosed with HIV¹ and residing in high-poverty areas², by race/ethnicity³, NYC 2010-2014



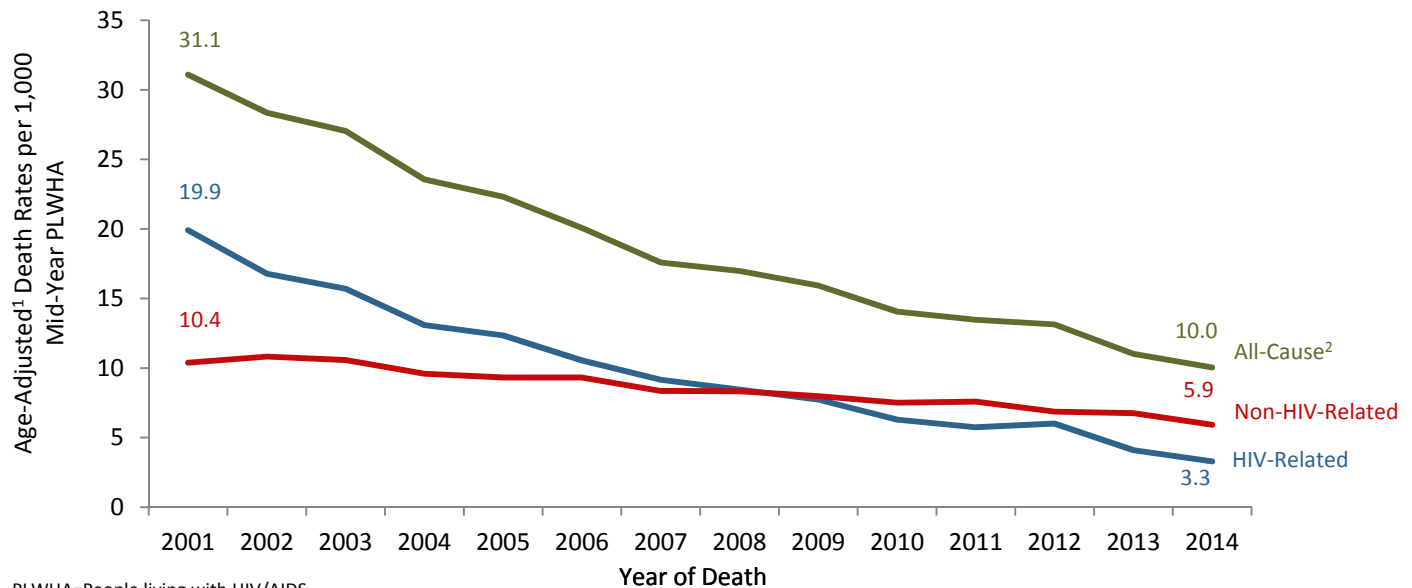
API=Asian/Pacific Islander; *Survival curves among API should be interpreted with caution due to small numbers.

¹People newly diagnosed with HIV at death were excluded from the analysis. Curves include people diagnosed with HIV from 2010 through 2014 and followed through December 31, 2014; people not known to have died were censored on December 31, 2014. ²Poverty level based on NYC ZIP code of residence at diagnosis (if available). Low-poverty area defined as <20% of population below Federal Poverty Level; high-poverty area defined as ≥20% of population below Federal Poverty Level. ³Native 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 more pronounced among those living in high-poverty areas at the time of diagnosis ($p < 0.05$).

MORTALITY AMONG PEOPLE WITH HIV

FIGURE 13.1: Age-adjusted death rates among people with HIV/AIDS, by HIV-related and non-HIV-related cause of death, NYC 2001-2014



PLWHA=People living with HIV/AIDS

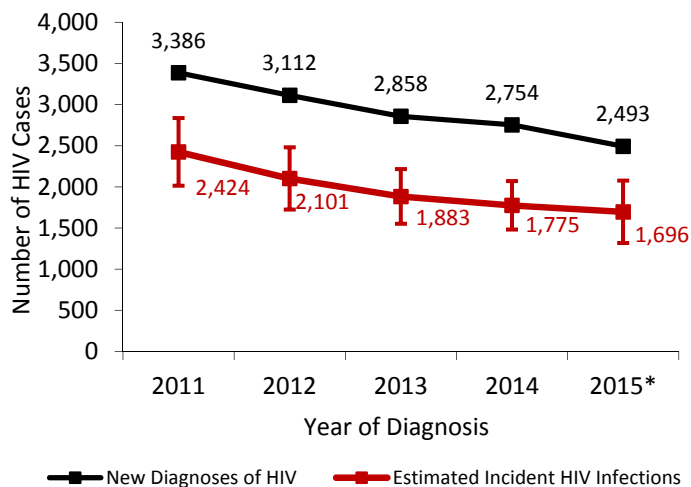
¹Age-adjusted to the NYC Census 2010 population. People newly diagnosed with HIV at death were excluded from the numerator.

²Includes people with unknown cause of death (2.2% of all deaths).

The overall death rate among people diagnosed with HIV/AIDS decreased by 68% from 2001 to 2014. Although the rates of both HIV-related and non-HIV-related deaths decreased during this time, the overall decrease was driven by fewer deaths attributed to HIV (Figure 13.1).

ESTIMATED HIV INCIDENCE

FIGURE 14.1: All new HIV diagnoses and estimated incident HIV infections¹, NYC 2011-2015

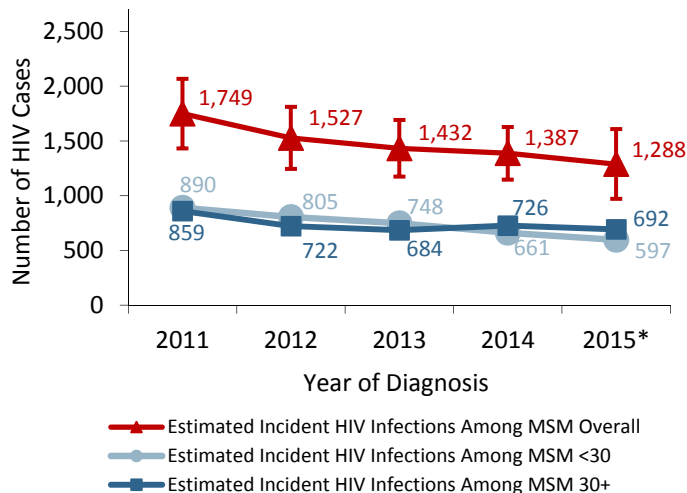


*2015 incidence data are preliminary.

¹Estimates generated September 2016 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, 2016.

²MSM includes people reporting both MSM and injection drug use history.

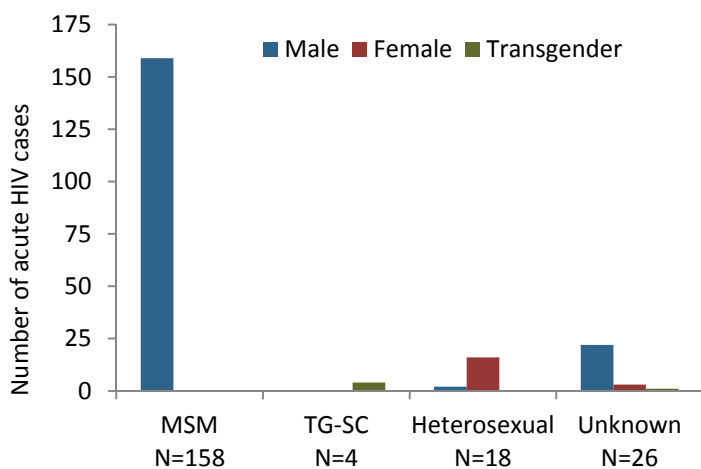
FIGURE 14.2: Estimated incident HIV infections¹ among men who have sex with men (MSM)² overall and by age group, NYC 2011-2015



New HIV diagnoses citywide are declining. Estimated incident HIV infections overall (Figure 14.1) and in MSM (Figure 14.2) declined significantly between 2011 and 2015. There were periods of alternating increase and decrease among older MSM and a statistically significant decline in younger MSM between 2011 and 2015 (Figure 14.2).

ACUTE HIV INFECTION

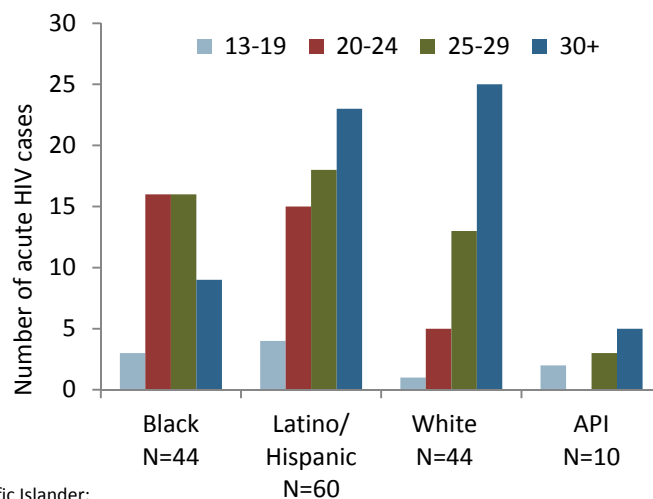
FIGURE 15.1: Acute HIV infection, by transmission risk category¹, NYC 2015



MSM=Men who have sex with men; IDU=Injection drug use history; API=Asian/Pacific Islander; TG-SC=Transgender people with sexual contact.

¹IDU and Native Americans not shown because of small numbers.

FIGURE 15.2: Acute HIV infection among MSM, by race/ethnicity¹ and age group, NYC 2015



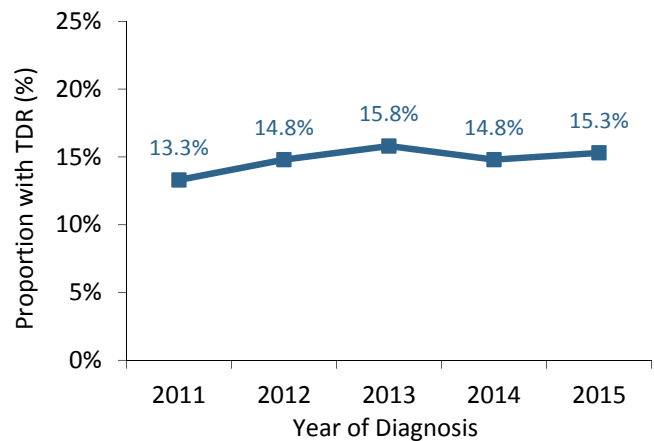
Acute HIV infection (AHI) is the early, highly infectious phase of HIV infection. People diagnosed during the acute phase represent the leading edge of the HIV epidemic. In 2015, the majority of AHI cases were MSM who received AHI screening at DOHMH STD clinics. Among MSM with AHI, a greater proportion of Black MSM were young compared with Latino/Hispanic, White, and API MSM with AHI (Fig 15.2).

TRANSMITTED DRUG RESISTANCE

TABLE 16.1: New HIV diagnoses with a genotype within 3 months of diagnosis, NYC 2011-2015

Year of diagnosis	Total Diagnoses		Tested within 3 months		Not tested within 3 months	
	N	Row %	N	Row %	N	Row %
2011	3,386		1,510	44.6	1,876	55.4
2012	3,112		1,495	48.0	1,617	52.0
2013	2,858		1,623	56.8	1,235	43.2
2014	2,754		1,552	56.4	1,202	43.6
2015	2,493		1,346	54.0	1,147	46.0

FIGURE 16.1: Proportion of new HIV diagnoses with transmitted drug resistance (TDR)¹, 2011-2015



¹Evidence of resistance to any antiretroviral (ARV) drug in a newly diagnosed, ARV-naïve individual.

Despite federal guidelines recommending baseline genotyping, only 54% of newly diagnosed people in 2015 received a genotype within 3 months of HIV diagnosis (Table 16.1). The proportion of cases in 2015 with transmitted drug resistance was 15.3% (Figure 16.1).

MEDICAL MONITORING PROJECT: HIV AND HEPATITIS C INFECTION

FIGURE 17.1: Hepatitis C virus (HCV) screening¹ and results among HIV-infected adults receiving care in NYC, 2014

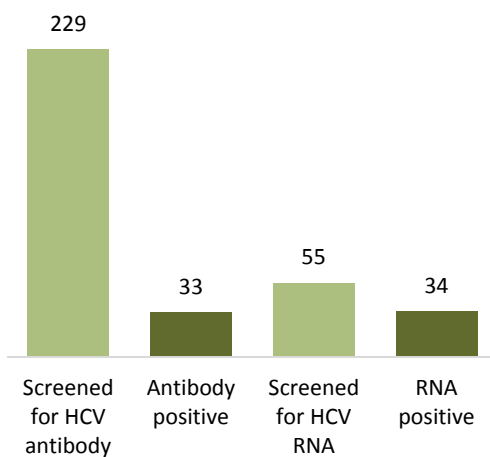
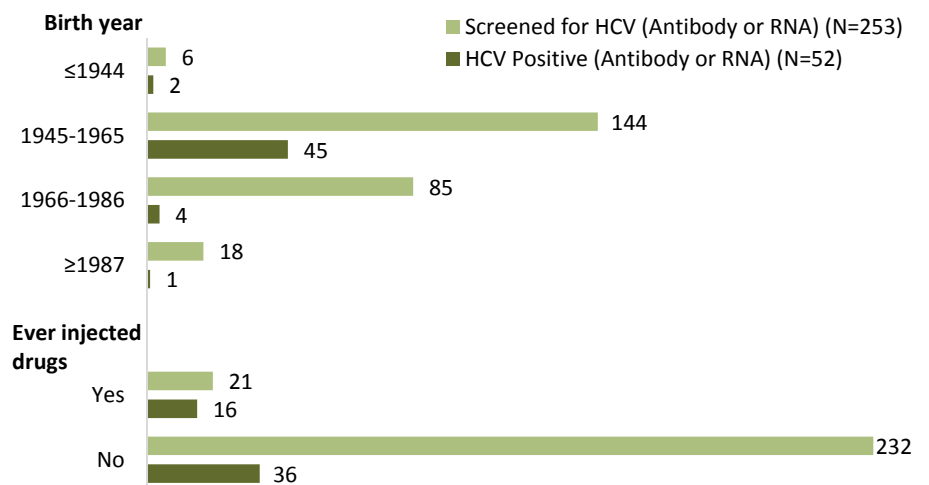


FIGURE 17.2: Risk factor status² among HIV-infected adults receiving care in NYC screened for and positive for HCV¹, 2014



¹All screenings performed within two years prior to MMP participant's interview date for the 2014 MMP cycle and documented in the medical record. Antibody and RNA screening and positive categories are not mutually exclusive; some patients were screened and/or positive for both antibody and RNA. ²All risk factor information obtained via participant self-report. ³Centers for Disease Control and Prevention. Testing Recommendations for Hepatitis C Virus Infection. <http://www.cdc.gov/hepatitis/hcv/guidelines.htm>

The Medical Monitoring Project (MMP) is a national, ongoing surveillance study of people with HIV who are receiving outpatient HIV medical care. In 2014, among 433 MMP participants whose medical records were reviewed, 253 (58%) were screened for anti-Hepatitis C virus (HCV) antibody and/or HCV RNA over a 2-year period. Thirty-three were antibody-positive, indicating past or present HCV infection; 34 were RNA-positive, indicating current HCV infection (Figure 17.1). The Centers for Disease Control and Prevention recommends HCV screening for all people with HIV infection, as well as people born between 1945-1965 and those who have ever injected drugs.³ Twenty-one percent of MMP participants who were screened for HCV tested positive for anti-HCV antibody, HCV RNA or both. Among screened participants who were born between 1945 and 1965, 31% tested positive for HCV. Among screened participants who ever injected drugs, 76% tested positive for HCV (Figure 17.2).

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, 2016, and are for calendar year 2015 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://www1.nyc.gov/site/doh/data/data-sets/hiv-aids-annual-surveillance-statistics.page>.

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. Sex and gender information are collected from people's self-report, their diagnosing provider, or medical chart review. This information may or may not reflect the individual's self-identification. Transgender status has been collected routinely since 2005 for newly reported cases. Reported numbers of new transgender HIV diagnoses and transgender PLWHA are likely to be underestimates. For more information, see the "HIV/AIDS among Transgender people in New York City" surveillance slide set available at: <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/hiv-in-transgender-persons.pdf>.

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 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://www1.nyc.gov/assets/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 2015 include deaths occurring outside NYC. Cause of death used for analyses in this report is a person's underlying cause of death. For deaths occurring between 1984 and 1986, ICD9 code 279.1 was used to denote AIDS-related deaths. For deaths occurring between 1987 and 1998, ICD9 codes 042-044 were used to denote HIV/AIDS-related deaths. For deaths occurring between 1999 and 2014, 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://www1.nyc.gov/site/doh/data/data-sets/vital-statistics-data.page>.

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 (e.g., diagnoses, deaths, care indicators) occurring in 2006-2009, ACS 2008-2012 for events occurring in 2010, ACS 2009-2013 for events occurring in 2011, and ACS 2010-2014 for events occurring in 2012-2015. 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/statistics/systems/mmp/>.

¹Centers for Disease Control and Prevention. Revised surveillance case definition for HIV infection—United States, 2014. *MMWR* 2014; 63:1-10.

²State of New York Laws. HIV Testing and Counseling. Public Health Law Section 2130 et seq. Albany, NY: State of New York.

³Toprani 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 may not 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://www1.nyc.gov/site/doh/data/data-sets/hiv-aids-how-to-report-a-diagnosis.page>

ADDITIONAL RESOURCES

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

ADDITIONAL NYC DOHMH RESOURCES ON HIV IN NYC:

NYC HIV Epidemiology and Field Services Program:

<http://www1.nyc.gov/site/doh/data/data-sets/aids-hiv-epidemiology-and-field-services.page>

Other information on HIV/AIDS, including HIV testing sites in NYC, condom distribution, and DOHMH STD clinics:

<http://www1.nyc.gov/site/doh/health/health-topics/aids-hiv.page>

ADDITIONAL NYC DOHMH DATA RESOURCES:

Data and Statistics: <http://www1.nyc.gov/site/doh/data/data-sets/data-sets-and-tables.page>

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

Geographical Information System (GIS) Center Map Gallery: <http://www1.nyc.gov/site/doh/data/health-tools/maps.page>

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/>

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