



HIV Surveillance Annual Report, 2020

New York City Department of Health and Mental Hygiene

There were ongoing improvements in the epidemiology of HIV in New York City (NYC) in 2020, and NYC remains on track to reach its goals related to ending the HIV epidemic. Inequities in HIV do persist, however, underscoring the need to increase access to HIV prevention services and to maintain and accelerate efforts to improve HIV-related outcomes for all groups of New Yorkers.

Key highlights from the 2020 report include:

- The annual number of new HIV diagnoses in NYC continued to decline, with 1,396 new HIV diagnoses made and reported in 2020. This is a 21% decrease from the 1,772 new HIV diagnoses reported in 2019, and a 76% decrease since 2001.
- The estimated number of new HIV infections in NYC decreased by 29% from 2016 to 2020.
- NYC saw declines in new HIV diagnoses from 2019 to 2020 among men, women, and transgender people; Black, Latino/Hispanic, White, Asian/Pacific Islander, and Native American people; all age groups ages 13 years and older; and nearly all transmission categories.
- 78% of all estimated people with HIV in NYC in 2020 were virally suppressed.
- 86% of all people with HIV receiving HIV medical care in NYC in 2020 were virally suppressed, up from 85% in 2016.

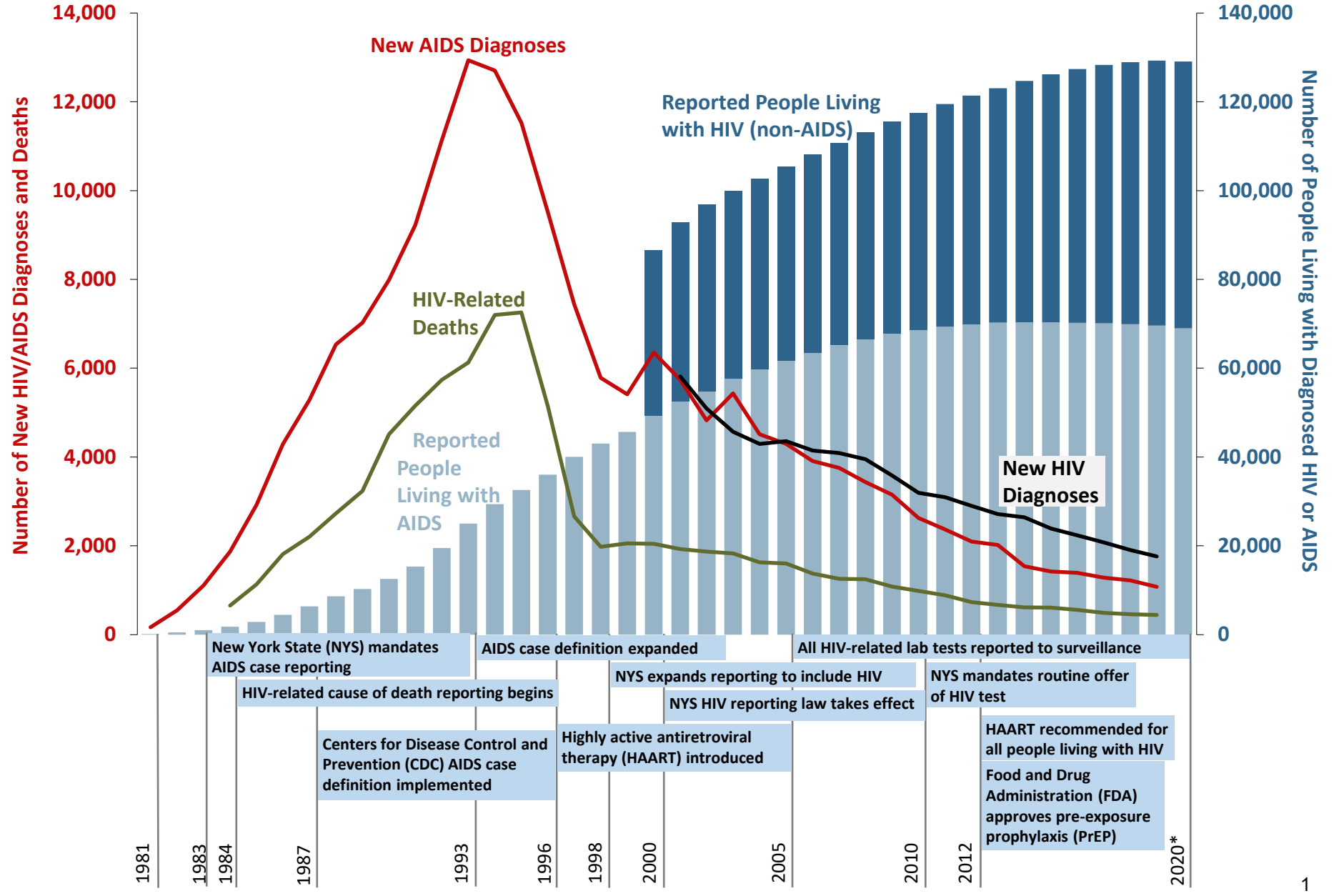
HIV surveillance data for 2020 reflect the impact of COVID-19 and should be interpreted accordingly, particularly in view of how COVID-19 affected access to ambulatory care and laboratory testing. NYC experienced reduced availability and uptake of HIV testing and prevention services, delays in diagnosis of HIV, delays in linkage to care, disengagement from care among people with HIV, interruptions in HIV pre-exposure prophylaxis (PrEP) and treatment, and reduced frequency of laboratory monitoring for HIV.

Generally, data for the NYC HIV surveillance system come from two sources: HIV-related laboratory tests ordered by NYC-based providers and then electronically and automatically reported to the surveillance system, and NYC Health Department-led surveillance investigations confirming whether positive tests for HIV indicate new or previous diagnoses. While laboratory-based surveillance continued uninterrupted during 2020, surveillance investigations were significantly curtailed, limited only to those that staff could complete remotely using electronic medical systems.

Despite the impact of COVID-19 on HIV services, NYC continues to make progress toward ending the HIV epidemic. As in previous years, these surveillance data will inform and drive the NYC Health Department's efforts to increase the number of people who know their HIV status; increase access to HIV prevention, care, and treatment services; sustain and improve health outcomes for people with HIV; and utilize an intersectional, community-driven approach to mitigate racism, sexism, homophobia, transphobia and other systems of oppression that create and exacerbate HIV-related health inequities.

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Figure 1.1: History of the HIV epidemic, NYC 1981-2020



*Data on 2020 deaths are incomplete.

Figure 2.1: Trends in HIV diagnoses, NYC 2001-2020

HIV Diagnoses	2001	2020	EAPC	P Value
Total	5,823	1,396	-6.03	<0.01
Gender				
Men	3,853	1,091	-5.08	<0.01
Women	1,906	256	-9.39	<0.01
Transgender	64	49	-0.47	0.33
Race/Ethnicity				
Black	3,021	661	-7.16	<0.01
Latino/Hispanic	1,766	474	-4.87	<0.01
White	897	187	-6.44	<0.01
Asian/Pacific Islander	122	64	-0.64	0.09
Native American	13	1	-8.36	<0.01
Age Group (Years)				
0-12	83	2	-20.49	<0.01
13-19	210	58	-6.04	<0.01
20-29	1,143	464	-2.67	<0.01
30-39	2,052	429	-7.66	<0.01
40-49	1,500	199	-8.99	<0.01
50-59	622	172	-5.51	<0.01
60+	213	72	-3.24	<0.01

HIV Diagnoses	2001	2020	EAPC	P Value
Borough of Residence				
Bronx	1,272	307	-6.14	<0.01
Brooklyn	1,572	411	-5.68	<0.01
Manhattan	1,488	282	-7.53	<0.01
Queens	710	276	-4.23	<0.01
Staten Island	100	25	-4.55	<0.01
Outside NYC	565	81	-6.86	<0.01
Transmission Risk				
Men who have sex with men (MSM)	1,703	643	-2.68	<0.01
Injection drug use history (IDU)	827	12	-17.79	<0.01
MSM-IDU	131	10	-7.44	<0.01
Heterosexual contact	1,435	193	-7.47	<0.01
Transgender people with sexual contact	51	47	0.14	0.79
Perinatal	82	2	-20.40	<0.01

EAPC=Estimated annual percent change.

The number of new HIV diagnoses reported in NYC from 2001 to 2020 decreased overall and among people of all genders, ages at diagnosis, and boroughs of residence, and most race/ethnicities and transmission categories. This decrease was significant (P value <0.01) for all subgroups except transgender people, Asian/Pacific Islander people, and transgender people with sexual contact.

Table 3.1: HIV/AIDS diagnoses and deaths occurring Jan. 1, 2020, through Dec. 31, 2020; and people diagnosed with HIV, reported in NYC and presumed to be living as of Dec. 31, 2020

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWH as of Dec. 31, 2020		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Total	1,396	100.0	1,128	100.0	268	100.0	19.2	917	100.0	129,061	100.0	1,933	100.0
Gender⁵													
Men	1,091	78.2	877	77.7	214	79.9	19.6	671	73.2	93,741	72.6	1,338	69.2
Women	256	18.3	203	18.0	53	19.8	20.7	227	24.8	33,107	25.7	567	29.3
Transgender	49	3.5	48	4.3	1	0.4	2.0	19	2.1	2,213	1.7	28	1.4
Race/Ethnicity⁶													
Black	661	47.3	535	47.4	126	47.0	19.1	449	49.0	55,790	43.2	998	51.6
Latino/Hispanic	474	34.0	389	34.5	85	31.7	17.9	306	33.4	42,740	33.1	666	34.5
White	187	13.4	147	13.0	40	14.9	21.4	120	13.1	26,165	20.3	220	11.4
Asian/Pacific Islander	64	4.6	49	4.3	15	5.6	23.4	32	3.5	3,248	2.5	27	1.4
Native American	1	0.1	1	0.1	0	0.0	0.0	3	0.3	299	0.2	7	0.4
Multiracial	9	0.6	7	0.6	2	0.7	22.2	7	0.8	503	0.4	15	0.8
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	316	0.2	0	0.0
Age Group (Years)⁷													
0-12	2	0.1	2	0.2	0	0.0	0.0	1	0.1	49	0.0	0	0.0
13-19	58	4.2	55	4.9	3	1.1	5.2	4	0.4	292	0.2	0	0.0
20-29	464	33.2	422	37.4	42	15.7	9.1	129	14.1	7,466	5.8	32	1.7
30-39	429	30.7	345	30.6	84	31.3	19.6	257	28.0	20,772	16.1	113	5.8
40-49	199	14.3	149	13.2	50	18.7	25.1	179	19.5	22,981	17.8	177	9.2
50-59	172	12.3	114	10.1	58	21.6	33.7	196	21.4	39,291	30.4	566	29.3
60+	72	5.2	41	3.6	31	11.6	43.1	151	16.5	38,210	29.6	1,045	54.1

PLWH=People living with HIV. All percentages are column percentages 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 percentage is percentage of HIV diagnoses that were concurrent with AIDS diagnoses. ³AIDS was diagnosed in 2020 and includes concurrent HIV/AIDS diagnoses. ⁴Includes deaths from any cause in people with HIV. Death data for 2020 are incomplete. ⁵For information on gender identity, see Technical Notes on Page 31. ⁶For information on race and ethnicity, see 3 Technical Notes on Page 31. ⁷For HIV and AIDS diagnoses, age at diagnosis; for PLWH, age as of Dec. 31, 2020; and for deaths, age at death.

Table 3.1 (Continued): HIV/AIDS diagnoses and deaths occurring Jan. 1, 2020, through Dec. 31, 2020; and people diagnosed with HIV, reported in NYC and presumed to be living as of Dec. 31, 2020

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWH as of Dec. 31, 2020		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Borough of Residence⁸													
Bronx	307	22.0	260	23.0	47	17.5	15.3	245	26.7	31,230	24.2	665	34.4
Brooklyn	411	29.4	316	28.0	95	35.4	23.1	248	27.0	30,642	23.7	512	26.5
Manhattan	282	20.2	230	20.4	52	19.4	18.4	201	21.9	32,790	25.4	372	19.2
Queens	276	19.8	220	19.5	56	20.9	20.3	126	13.7	18,888	14.6	223	11.5
Staten Island	25	1.8	21	1.9	4	1.5	16.0	15	1.6	2,547	2.0	50	2.6
Outside NYC	81	5.8	67	5.9	14	5.2	17.3	75	8.2	12,776	9.9	51	2.6
Unknown	14	1.0	14	1.2	0	0.0	0.0	7	0.8	188	0.1	60	3.1
Area-Based Poverty Level⁹													
Low poverty (<10% below FPL)	129	9.2	107	9.5	22	8.2	17.1	84	9.2	15,206	11.8	139	7.2
Medium poverty (10 to <20% below FPL)	506	36.2	397	35.2	109	40.7	21.5	306	33.4	43,060	33.4	584	30.2
High poverty (20 to <30% below FPL)	374	26.8	299	26.5	75	28.0	20.1	224	24.4	29,083	22.5	464	24.0
Very high poverty (≥30% below FPL)	287	20.6	240	21.3	47	17.5	16.4	214	23.3	27,170	21.1	629	32.5
Area-based poverty level not available	100	7.2	85	7.5	15	5.6	15.0	89	9.7	14,542	11.3	117	6.1

PLWH=People living with HIV; FPL=Federal Poverty Level. All percentages are column percentages unless otherwise indicated.

⁸For HIV and AIDS diagnoses, residence at diagnosis. For PLWH and deaths, residence based on most recent record available.

⁹Area-based poverty based on NYC ZIP code of residence at diagnosis or most recent residence (*see footnote 8*).

Table 3.1 (Continued): HIV/AIDS diagnoses and deaths occurring Jan. 1, 2020, through Dec. 31, 2020; and people diagnosed with HIV, reported in NYC and presumed to be living as of Dec. 31, 2020

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWH as of Dec. 31, 2020		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Transmission category¹⁰													
Men who have sex with men (MSM)	643	46.1	536	47.5	107	39.9	16.6	368	40.1	55,432	43.0	416	21.5
Injection drug use history (IDU)	12	0.9	10	0.9	2	0.7	16.7	62	6.8	13,875	10.8	495	25.6
MSM-IDU	10	0.7	10	0.9	0	0.0	0.0	15	1.6	3,224	2.5	73	3.8
Heterosexual contact	193	13.8	148	13.1	45	16.8	23.3	178	19.4	25,020	19.4	433	22.4
Transgender people with sexual contact	47	3.4	46	4.1	1	0.4	2.1	16	1.7	1,909	1.5	20	1.0
Perinatal	2	0.1	2	0.2	0	0.0	0.0	13	1.4	2,552	2.0	17	0.9
Other	0	0.0	0	0.0	0	0.0	0.0	2	0.2	193	0.1	7	0.4
Unknown	489	35.0	376	33.3	113	42.2	23.1	263	28.7	26,856	20.8	472	24.4

PLWH=People living with HIV. All percentages are column percentages unless otherwise indicated.

¹⁰“Heterosexual contact” includes people who had heterosexual sex with a person they know to be living with HIV, a person who has injected drugs or a person who has received blood products. For women only, it also includes history of sex work, multiple sex partners, sexually transmitted disease, crack/cocaine use, sex with a bisexual man, probable heterosexual transmission as noted in a medical chart or sex with a man and negative history of injection drug use. “Transgender people with sexual contact” includes people identified as transgender at any time by self-report, a medical provider or chart review or ongoing data collection 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, people with other health care-associated transmission and children with non-perinatal transmission category.

Figure 4.1: Poverty level, NYC 2015-2019

Poverty by ZIP code based on Federal Poverty Level (FPL)

- Low poverty (<10% below FPL)
- Medium (10 to <20% below FPL)
- High (20 to <30% below FPL)
- Very high poverty (30%+ below FPL)
- Non-residential zones

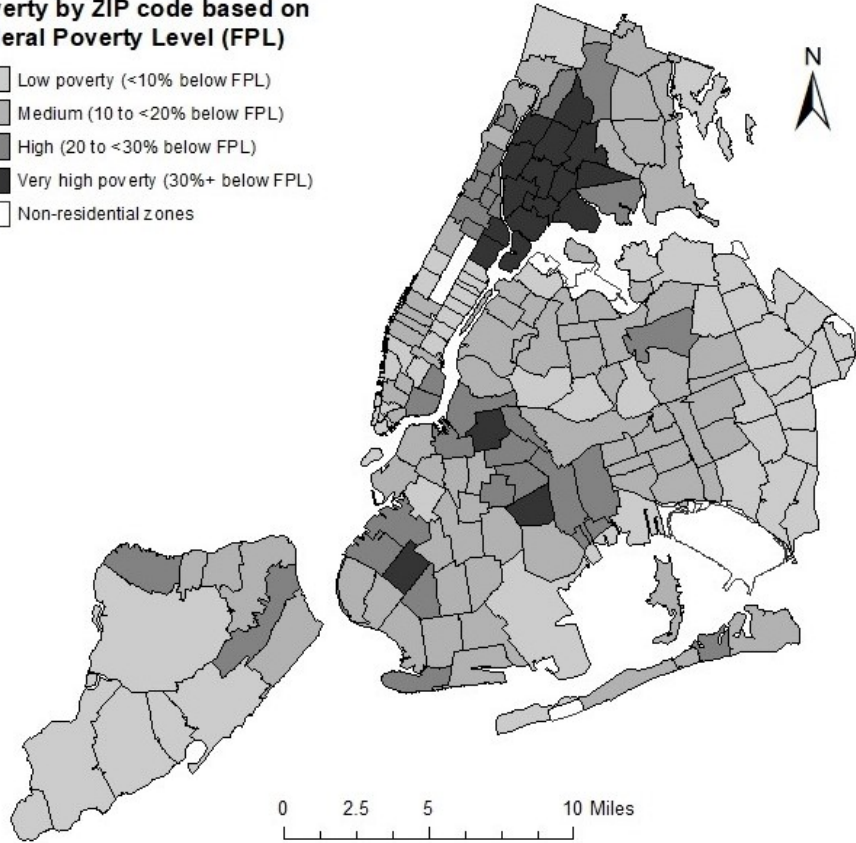
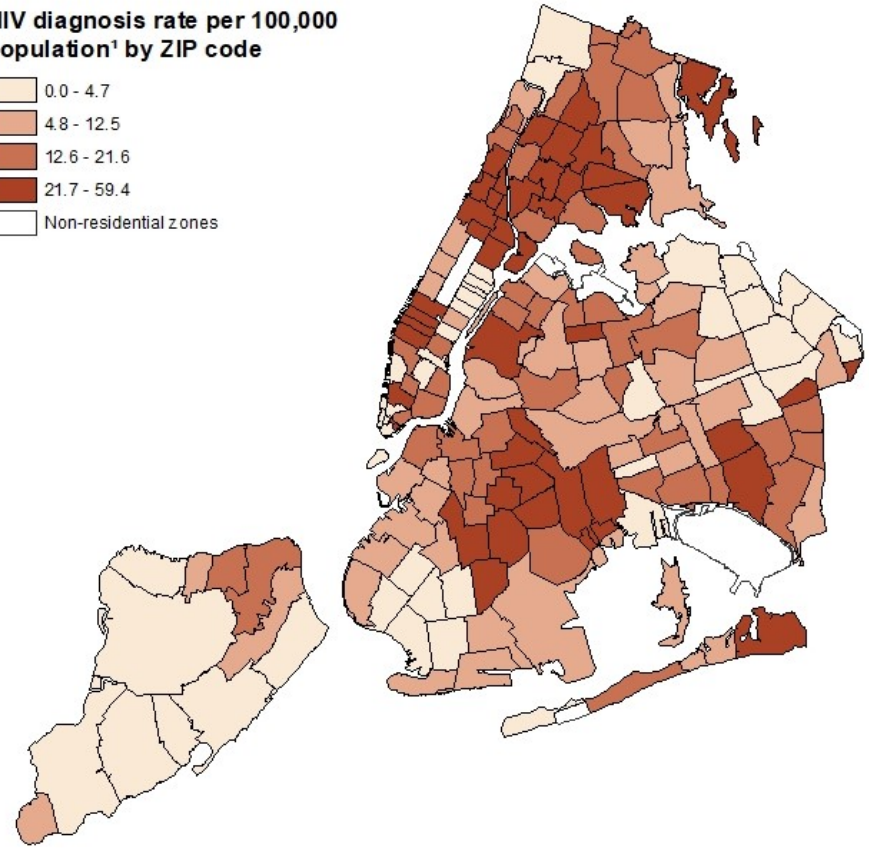


Figure 4.2: HIV diagnosis rates, NYC 2020

HIV diagnosis rate per 100,000 population¹ by ZIP code

- 0.0 - 4.7
- 4.8 - 12.5
- 12.6 - 21.6
- 21.7 - 59.4
- Non-residential zones



Many ZIP codes with the highest poverty rates (Figure 4.1) were also among those with high HIV diagnosis rates (Figure 4.2), including those in Bedford Stuyvesant-Crown Heights. ZIP codes in the Chelsea-Clinton, Bedford Stuyvesant-Crown Heights, Canarsie-Flatlands, and Central Harlem-Morningside Heights neighborhoods had the highest HIV diagnosis rates in 2020 (Figure 4.2).

Figure 4.3: HIV prevalence, NYC 2020

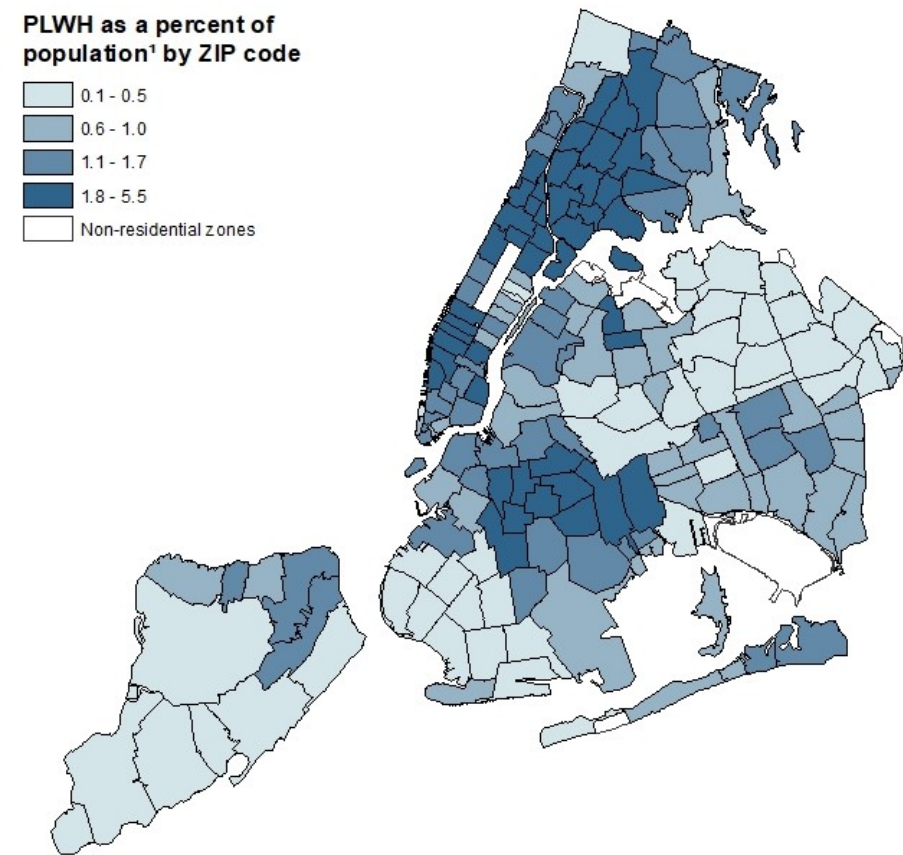
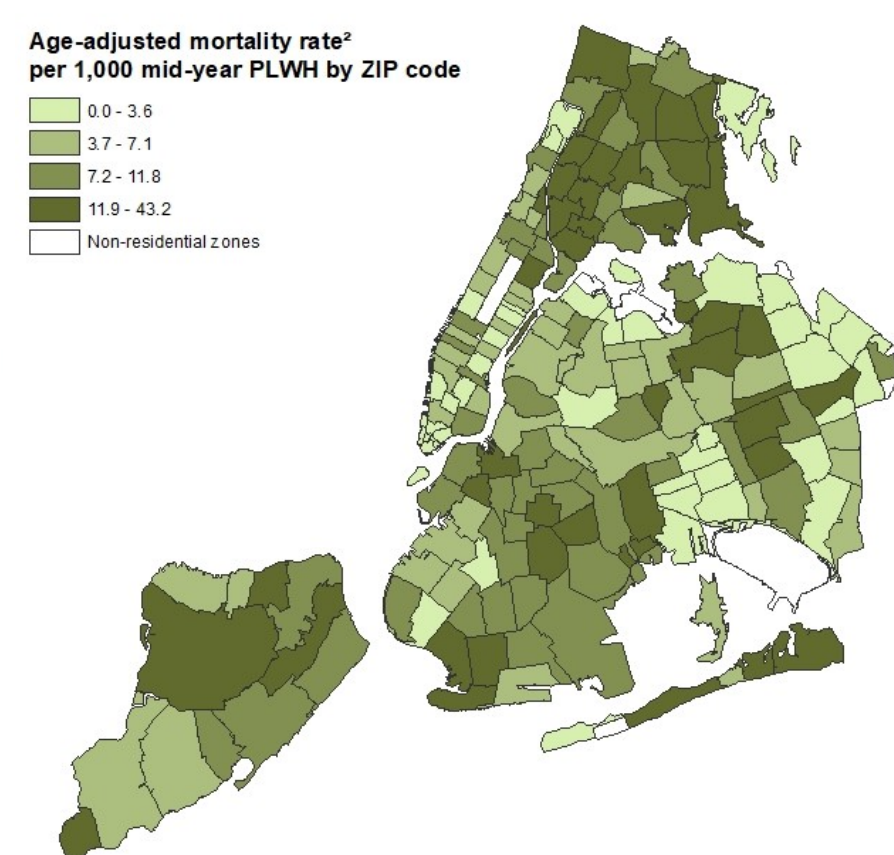


Figure 4.4: Age-adjusted mortality rates among people with HIV, NYC 2020



In 2020, ZIP codes in Chelsea-Clinton and West Queens had the highest HIV prevalence (Figure 4.3). ZIP codes in Fresh Meadows, Rockaway, and Flushing-Clearview neighborhoods had the highest mortality among people with HIV (Figure 4.4). However, ZIP codes in the Chelsea-Clinton neighborhood were the exception, with the highest HIV diagnosis rates but relatively low poverty and mortality rates.

PLWH=People living with HIV.

¹Rates calculated using Health Department 2019 population estimates, modified from U.S. Census Bureau intercensal population estimates, updated October 2020. 7

²Age-adjusted to the NYC Census 2010 population. People newly diagnosed with HIV at death were excluded from the numerator. Mortality data for 2020 are incomplete.

Table 5.1: HIV/AIDS diagnoses and deaths among men^{5,11}, Jan. 1, 2020, through Dec. 31, 2020; and men diagnosed with HIV, reported in NYC and presumed to be living as of Dec. 31, 2020

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWH as of Dec. 31, 2020		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Total	1,092	100.0	878	100.0	214	100.0	19.6	671	100.0	93,784	100.0	1,338	100.0
Race/Ethnicity⁶													
Black	478	43.8	389	44.3	89	41.6	18.6	304	45.3	35,401	37.7	636	47.5
Latino/Hispanic	379	34.7	307	35.0	72	33.6	19.0	224	33.4	31,184	33.3	480	35.9
White	172	15.8	135	15.4	37	17.3	21.5	106	15.8	23,615	25.2	184	13.8
Asian/Pacific Islander	56	5.1	42	4.8	14	6.5	25.0	27	4.0	2,721	2.9	22	1.6
Native American	1	0.1	1	0.1	0	0.0	0.0	3	0.4	227	0.2	6	0.4
Multiracial	6	0.5	4	0.5	2	0.9	33.3	7	1.0	394	0.4	10	0.7
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	242	0.3	0	0.0
Age Group (Years)⁷													
0-12	0	0.0	0	0.0	0	0.0	0.0	0	0.0	26	0.0	0	0.0
13-19	47	4.3	45	5.1	2	0.9	4.3	3	0.4	175	0.2	0	0.0
20-29	386	35.3	349	39.7	37	17.3	9.6	108	16.1	5,659	6.0	24	1.8
30-39	349	32.0	277	31.5	72	33.6	20.6	197	29.4	16,467	17.6	80	6.0
40-49	149	13.6	111	12.6	38	17.8	25.5	129	19.2	16,313	17.4	111	8.3
50-59	115	10.5	69	7.9	46	21.5	40.0	137	20.4	27,820	29.7	377	28.2
60+	46	4.2	27	3.1	19	8.9	41.3	97	14.5	27,324	29.1	746	55.8
Borough of Residence⁸													
Bronx	220	20.1	187	21.3	33	15.4	15.0	154	23.0	19,543	20.8	415	31.0
Brooklyn	315	28.8	245	27.9	70	32.7	22.2	171	25.5	20,648	22.0	352	26.3
Manhattan	234	21.4	191	21.8	43	20.1	18.4	158	23.5	27,671	29.5	292	21.8
Queens	226	20.7	173	19.7	53	24.8	23.5	106	15.8	13,901	14.8	165	12.3
Staten Island	20	1.8	16	1.8	4	1.9	20.0	15	2.2	1,650	1.8	31	2.3
Outside NYC	66	6.0	55	6.3	11	5.1	16.7	63	9.4	10,225	10.9	38	2.8
Unknown	11	1.0	11	1.3	0	0.0	0.0	4	0.6	146	0.2	45	3.4

PLWH=People living with HIV. All percentages are column percentages unless otherwise indicated.

¹⁻¹⁰Footnotes appear at the bottom of Table 3.1 on Page 3 to Page 5. ¹¹Includes transgender men.

Table 5.1 (Continued): HIV/AIDS diagnoses and deaths among men^{5,11}, Jan. 1, 2020, through Dec. 31, 2020; and men diagnosed with HIV, reported in NYC and presumed to be living as of Dec. 31, 2020

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWH as of Dec. 31, 2020		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Area-Based Poverty Level⁹													
Low poverty (<10% below FPL)	102	9.3	82	9.3	20	9.3	19.6	69	10.3	12,418	13.2	118	8.8
Medium poverty (10 to <20% below FPL)	408	37.4	313	35.6	95	44.4	23.3	241	35.9	32,208	34.3	425	31.8
High poverty (20 to <30% below FPL)	295	27.0	238	27.1	57	26.6	19.3	159	23.7	20,333	21.7	310	23.2
Very high poverty (≥30% below FPL)	205	18.8	175	19.9	30	14.0	14.6	130	19.4	17,223	18.4	398	29.7
Area-based poverty level not available	82	7.5	70	8.0	12	5.6	14.6	72	10.7	11,602	12.4	87	6.5
Transmission Category¹⁰													
Men who have sex with men (MSM)	643	58.9	536	61.0	107	50.0	16.6	368	54.8	55,432	59.1	416	31.1
Injection drug use history (IDU)	10	0.9	9	1.0	1	0.5	10.0	36	5.4	8,958	9.6	330	24.7
MSM-IDU	10	0.9	10	1.1	0	0.0	0.0	15	2.2	3,224	3.4	73	5.5
Heterosexual contact	23	2.1	15	1.7	8	3.7	34.8	38	5.7	5,931	6.3	170	12.7
Transgender people with sexual contact	1	0.1	1	0.1	0	0.0	0.0	0	0.0	26	0.0	0	0.0
Perinatal	0	0.0	0	0.0	0	0.0	0.0	6	0.9	1,243	1.3	11	0.8
Other	0	0.0	0	0.0	0	0.0	0.0	1	0.1	109	0.1	3	0.2
Unknown	405	37.1	307	35.0	98	45.8	24.2	207	30.8	18,861	20.1	335	25.0

PLWH=People living with HIV; FPL=Federal Poverty Level. All percentages are column percentages unless otherwise indicated.

¹⁻¹⁰Footnotes appear at the bottom of Table 3.1 on Page 3 to Page 5.

¹¹Includes transgender men.

Table 6.1: HIV/AIDS diagnoses and deaths among women^{5,11}, Jan. 1, 2020, through Dec. 31, 2020; and women diagnosed with HIV, reported in NYC, and presumed to be living as of Dec. 31, 2020

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWH as of Dec. 31, 2020		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Total	304	100.0	250	100.0	54	100.0	17.8	246	100.0	35,277	100.0	595	100.0
Race/Ethnicity⁶													
Black	183	60.2	146	58.4	37	68.5	20.2	145	58.9	20,389	57.8	362	60.8
Latina/Hispanic	95	31.3	82	32.8	13	24.1	13.7	82	33.3	11,556	32.8	186	31.3
White	15	4.9	12	4.8	3	5.6	20.0	14	5.7	2,550	7.2	36	6.1
Asian/Pacific Islander	8	2.6	7	2.8	1	1.9	12.5	5	2.0	527	1.5	5	0.8
Native American	0	0.0	0	0.0	0	0.0	0.0	0	0.0	72	0.2	1	0.2
Multiracial	3	1.0	3	1.2	0	0.0	0.0	0	0.0	109	0.3	5	0.8
Unknown	0	0.0	0	0.0	0	0.0	0.0	0	0.0	74	0.2	0	0.0
Age Group (Years)⁷													
0-12	2	0.7	2	0.8	0	0.0	0.0	1	0.4	23	0.1	0	0.0
13-19	11	3.6	10	4.0	1	1.9	9.1	1	0.4	117	0.3	0	0.0
20-29	78	25.7	73	29.2	5	9.3	6.4	21	8.5	1,807	5.1	8	1.3
30-39	80	26.3	68	27.2	12	22.2	15.0	60	24.4	4,305	12.2	33	5.5
40-49	50	16.4	38	15.2	12	22.2	24.0	50	20.3	6,668	18.9	66	11.1
50-59	57	18.8	45	18.0	12	22.2	21.1	59	24.0	11,471	32.5	189	31.8
60+	26	8.6	14	5.6	12	22.2	46.2	54	22.0	10,886	30.9	299	50.3
Borough of Residence⁸													
Bronx	87	28.6	73	29.2	14	25.9	16.1	91	37.0	11,687	33.1	250	42.0
Brooklyn	96	31.6	71	28.4	25	46.3	26.0	77	31.3	9,994	28.3	160	26.9
Manhattan	48	15.8	39	15.6	9	16.7	18.8	43	17.5	5,119	14.5	80	13.4
Queens	50	16.4	47	18.8	3	5.6	6.0	20	8.1	4,987	14.1	58	9.7
Staten Island	5	1.6	5	2.0	0	0.0	0.0	0	0.0	897	2.5	19	3.2
Outside NYC	15	4.9	12	4.8	3	5.6	20.0	12	4.9	2,551	7.2	13	2.2
Unknown	3	1.0	3	1.2	0	0.0	0.0	3	1.2	42	0.1	15	2.5

PLWH=People living with HIV. All percentages are column percentages unless otherwise indicated.

¹⁻¹⁰Footnotes appear at the bottom of Table 3.1 on Page 3 to Page 5. ¹¹Includes transgender women.

Table 6.1 (Continued): HIV/AIDS diagnoses and deaths among women^{5,11}, Jan. 1, 2020, through Dec. 31, 2020; and women diagnosed with HIV, reported in NYC, and presumed to be living as of Dec. 31, 2020

	HIV Diagnoses ¹							AIDS Diagnoses ³		PLWH as of Dec. 31, 2020		Deaths ⁴	
	Total		Without AIDS		Concurrent with AIDS Diagnosis ²			N	%	N	%	N	%
	N	%	N	%	N	%	Row %						
Area-Based Poverty Level⁹													
Low poverty (<10% below FPL)	27	8.9	25	10.0	2	3.7	7.4	15	6.1	2,788	7.9	21	3.5
Medium poverty (10 to <20% below FPL)	98	32.2	84	33.6	14	25.9	14.3	65	26.4	10,852	30.8	159	26.7
High poverty (20 to <30% below FPL)	79	26.0	61	24.4	18	33.3	22.8	65	26.4	8,750	24.8	154	25.9
Very high poverty (≥30% below FPL)	82	27.0	65	26.0	17	31.5	20.7	84	34.1	9,947	28.2	231	38.8
Area-based poverty level not available	18	5.9	15	6.0	3	5.6	16.7	17	6.9	2,940	8.3	30	5.0
Transmission Category¹⁰													
Injection drug use history (IDU)	2	0.7	1	0.4	1	1.9	50.0	26	10.6	4,917	13.9	165	27.7
Heterosexual contact	170	55.9	133	53.2	37	68.5	22	140	56.9	19,089	54.1	263	44.2
Transgender people with sexual contact	46	15.1	45	18.0	1	1.9	2.2	16	6.5	1,883	5.3	20	3.4
Perinatal	2	0.7	2	0.8	0	0.0	0.0	7	2.8	1,309	3.7	6	1.0
Other	0	0.0	0	0.0	0	0.0	0.0	1	0.4	84	0.2	4	0.7
Unknown	84	27.6	69	27.6	15	27.8	17.9	56	22.8	7,995	22.7	137	23.0

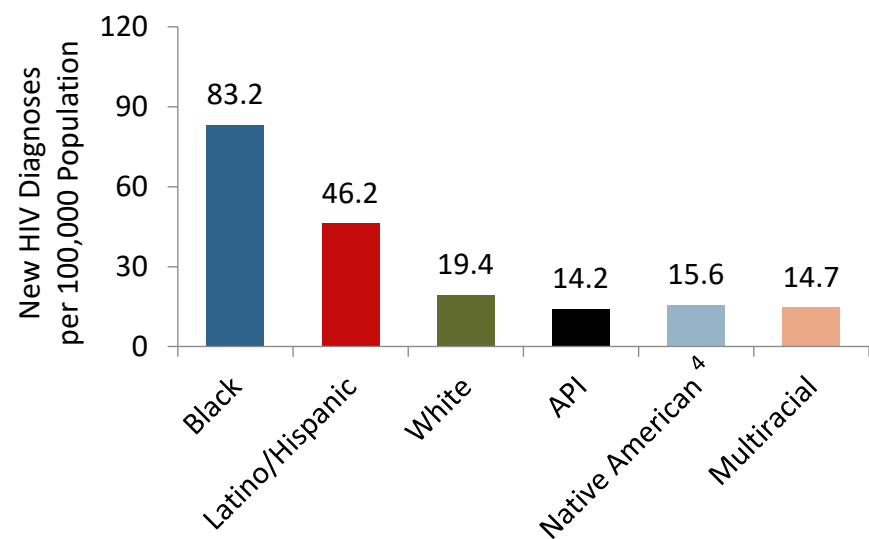
PLWH=People living with HIV; FPL=Federal Poverty Level. All percentages are column percentages unless otherwise indicated.

¹⁻¹⁰Footnotes appear at the bottom of Table 3.1 on Page 3 to Page 5.

¹¹Includes transgender women.

HIV Among Men

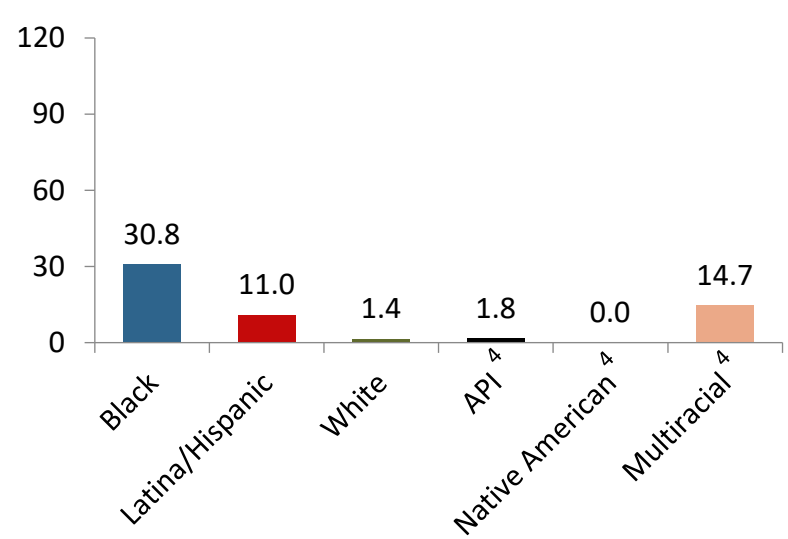
Figure 5.1: HIV¹ diagnosis rates² among 13- to 59-year-old men³ by race/ethnicity, NYC 2020



In 2020, the HIV diagnosis rate among Black men was 1.8 times higher than the rate among Latino/Hispanic men, more than four times higher than the rate among White men, and more than five times higher than the rates among API, Native American and multiracial men.

HIV Among Women

Figure 6.1: HIV¹ diagnosis rates² among 13- to 59-year-old women³ by race/ethnicity, NYC 2020



In 2020, the HIV diagnosis rate among Black women was more than two times higher than the rates among Latina/Hispanic and multiracial women, 22 times higher than the rate among White women, and more than 17 times higher than the rates among API women.

API=Asian/Pacific Islander.

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

²Rates calculated using Health Department 2019 population estimates, modified from U.S. Census Bureau intercensal population estimates, updated October 2020.

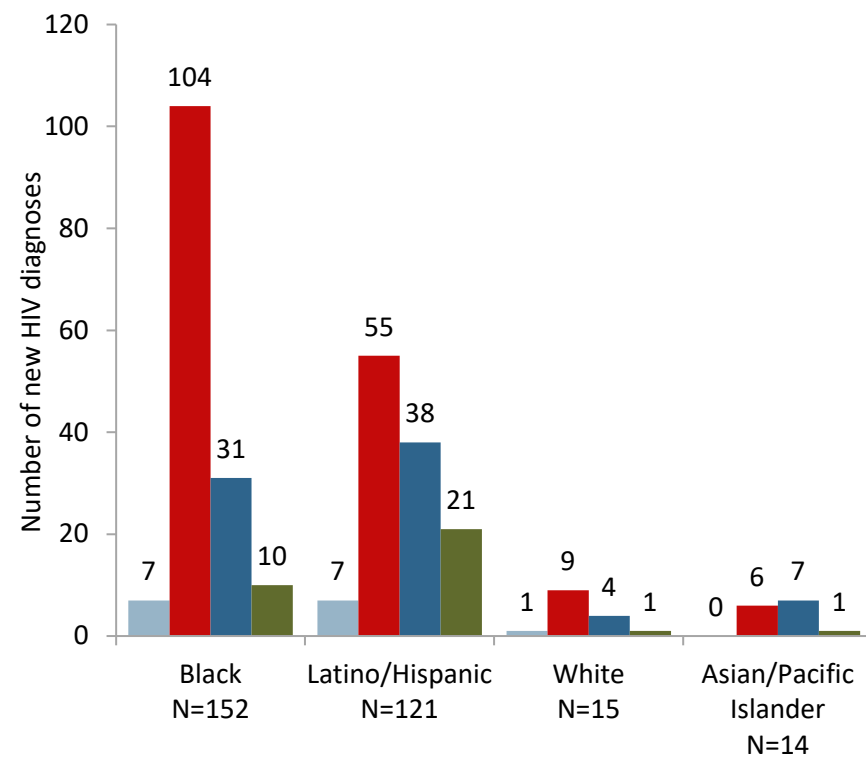
³Men includes transgender men, and women includes transgender women.

⁴Rate is based on a numerator ≤ 10 and should be interpreted with caution.

Table 7.1: HIV diagnoses among transgender people, transgender PLWH, and deaths, NYC 2020

	HIV Diagnoses ¹		PLWH as of Dec. 31, 2020		Deaths ²	
	N	%	N	%	N	%
Total³	49	100.0	2,213	100.0	28	100.0
Transgender women	48	98.0	2,170	98.1	28	100.0
Transgender men	1	2.0	43	1.9	0	0.0
Race/Ethnicity						
Black	26	53.1	1,108	50.1	13	46.4
Latino/Hispanic	21	42.9	882	39.9	14	50.0
White	1	2.0	141	6.4	1	3.6
Asian/Pacific Islander	1	2.0	47	2.1	0	0.0
Native American	0	0.0	8	0.4	0	0.0
Multiracial	0	0.0	27	1.2	0	0.0
Age Group (years)⁴						
13-19	2	4.1	5	0.2	0	0.0
20-29	29	59.2	417	18.8	1	3.6
30-39	10	20.4	813	36.7	11	39.3
40-49	6	12.2	512	23.1	6	21.4
50-59	2	4.1	349	15.8	9	32.1
60+	0	0.0	117	5.3	1	3.6
Transmission Category						
Sexual contact	47	95.9	1,909	86.3	20	71.4
Injection drug use history	0	0.0	220	9.9	5	17.9
Other/Unknown	2	4.1	73	3.3	2	7.1

Figure 7.1: HIV diagnoses among transgender people by race/ethnicity⁵ and age at diagnosis, NYC 2016-2020



In 2020, 49 transgender people were newly diagnosed with HIV and 28 deaths occurred among transgender people with HIV. About half (52%) of the 305 transgender people diagnosed with HIV from 2016 to 2020 were Black or Latino/Hispanic and age 20 to 29 (Figure 7.1). Compared to all NYC HIV diagnoses from 2016 to 2020 (N=9,375), higher proportions of transgender people were Latino/Hispanic (40% vs. 36%) or age 20 to 29 at diagnosis (57% vs. 36%) (Figure 7.1).

PLWH=People living with HIV.

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

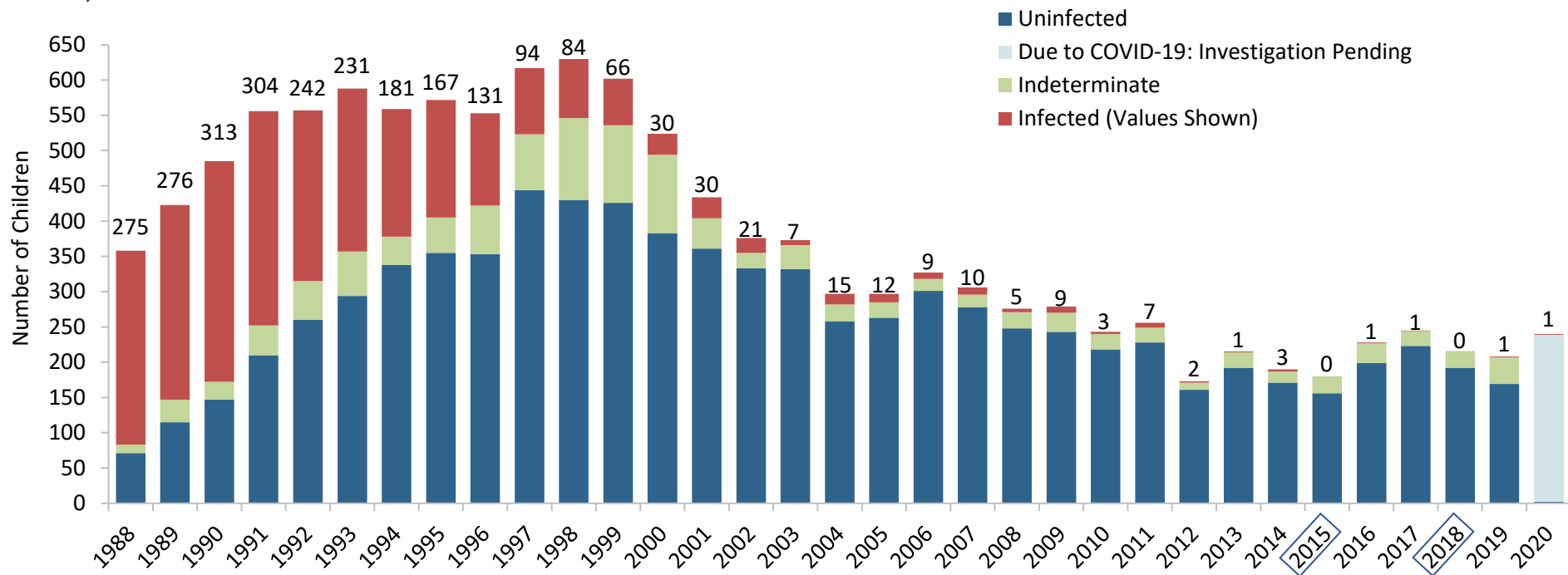
²Includes deaths from any cause in people with HIV. Death data for 2020 are incomplete.

³For information on gender identity, see Technical Notes on Page 31.

⁴For HIV diagnoses, age at diagnosis; for PLWH, age as of Dec. 31, 2020; for deaths, age at death.

⁵Native American (N=0) and multiracial (N=3) groups not shown.

Figure 8.1: All HIV-exposed births in NYC and current HIV status¹ of children born to HIV-positive women² at select NYC medical facilities³, by year of birth, NYC 1988-2020⁴



Milestones in Reduction of Perinatal HIV Transmission

1985: CDC recommends women with HIV avoid breastfeeding.

1994: ACTG 076 study shows AZT reduces perinatal transmission.

1997: Routine newborn screening begins in New York.

1999: Expedited testing in obstetrical settings implemented.

2015 and 2018: No reported perinatal transmission in children born in NYC.

2020: Due to COVID-19, exposure investigations were severely curtailed, however, all cases were identified.

From 2016 to 2020, less than 1% of infants born to HIV-positive women tested positive for HIV. The small number of HIV-positive infants reflects the success of interventions for perinatal HIV prevention.

¹Children born to HIV-positive mothers are followed for two years after birth to determine HIV status. HIV status is indeterminate if the child is lost to follow-up.

²In this figure, women refers to people with female sex at birth.

³Includes data collected at high-volume NYC medical facilities that care for the majority of HIV-exposed children and children living with HIV. Since 2017, the perinatal surveillance program has been conducted at 21 NYC medical facilities. Children born outside of NYC are not included in this figure.

⁴Includes cases diagnosed as of Dec. 31, 2020.

Figure 9.1: Acute HIV infection by transmission category¹, NYC 2020

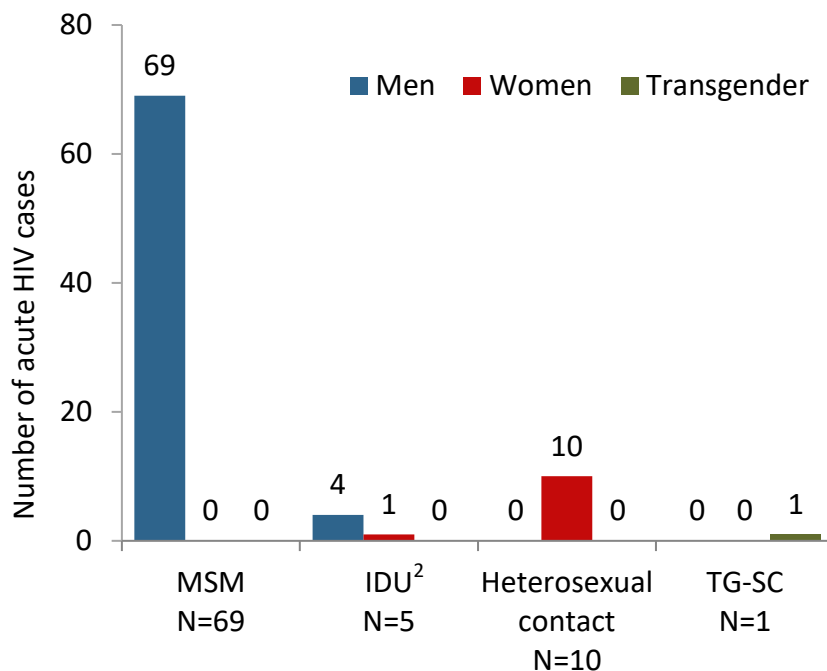
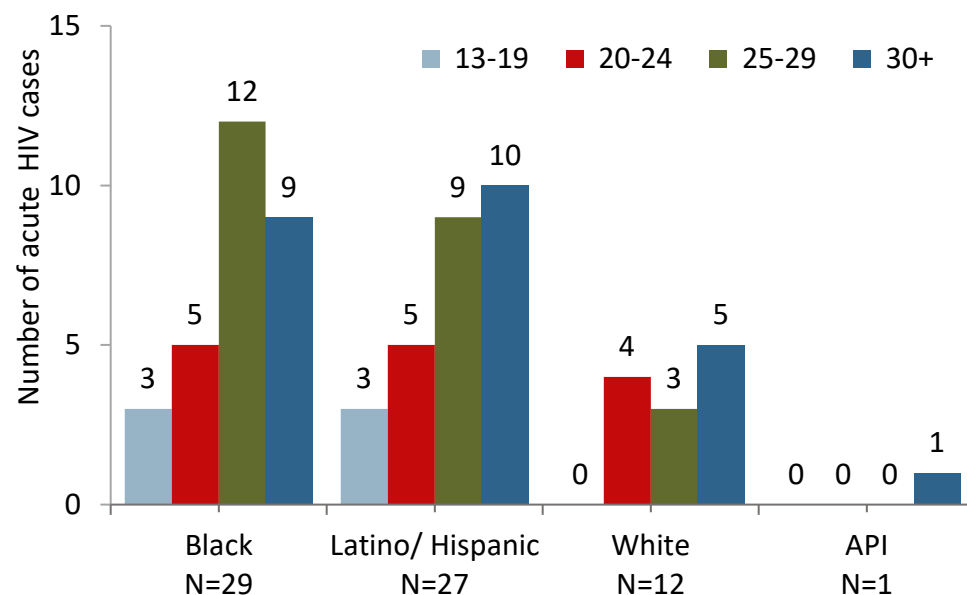


Figure 9.2: Acute HIV infection among MSM by race/ethnicity and age group, NYC 2020



Diagnosis of HIV in the acute phase (AHI) enables early treatment, which reduces onward transmission to exposed partners and reduces morbidity by minimizing immunologic damage. In 2020, 10% of newly diagnosed people had AHI, up from 7% of new diagnoses in 2016. MSM were overrepresented among AHI cases (Figure 9.1), in part due to higher testing frequency compared to other groups. Among MSM with AHI, a greater proportion were ≥25 years of age across all racial/ethnic groups (Figure 9.2).

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

¹There were N=33 acute HIV infection cases in 2020 that had an unknown transmission category (Figure 9.1).

²IDU Includes MSM also reporting IDU (MSM-IDU).

Figure 10.1: New HIV diagnoses and estimated incident HIV infections¹, NYC 2016-2020²

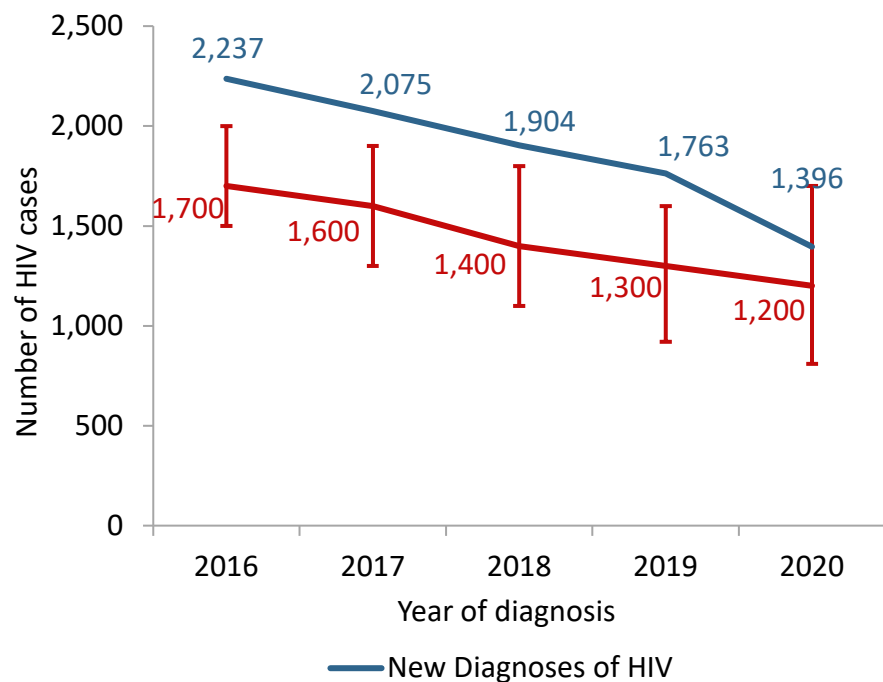
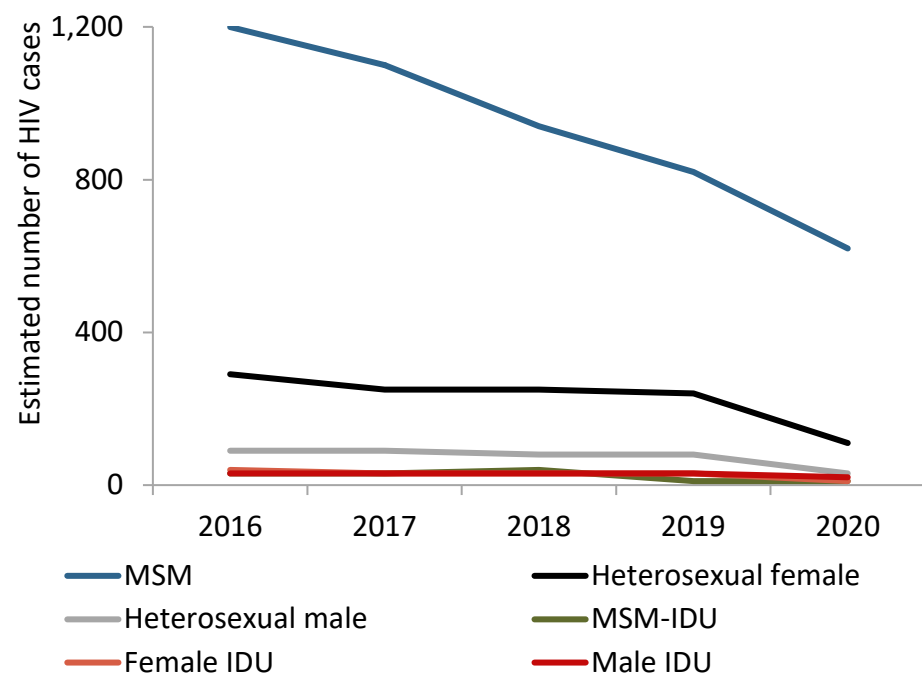


Figure 10.2: Trends in estimated incident HIV infections¹ by sex at birth³ and transmission category, NYC 2016-2020²



The current method being used nationally and locally to estimate incidence is based on the distribution of CD4 count at HIV diagnosis. Estimated HIV incidence overall (Figure 10.1) and by transmission category (Figure 10.2) declined in NYC between 2016 and 2020. MSM and heterosexual females experienced a particularly steep decline in estimated incidence.

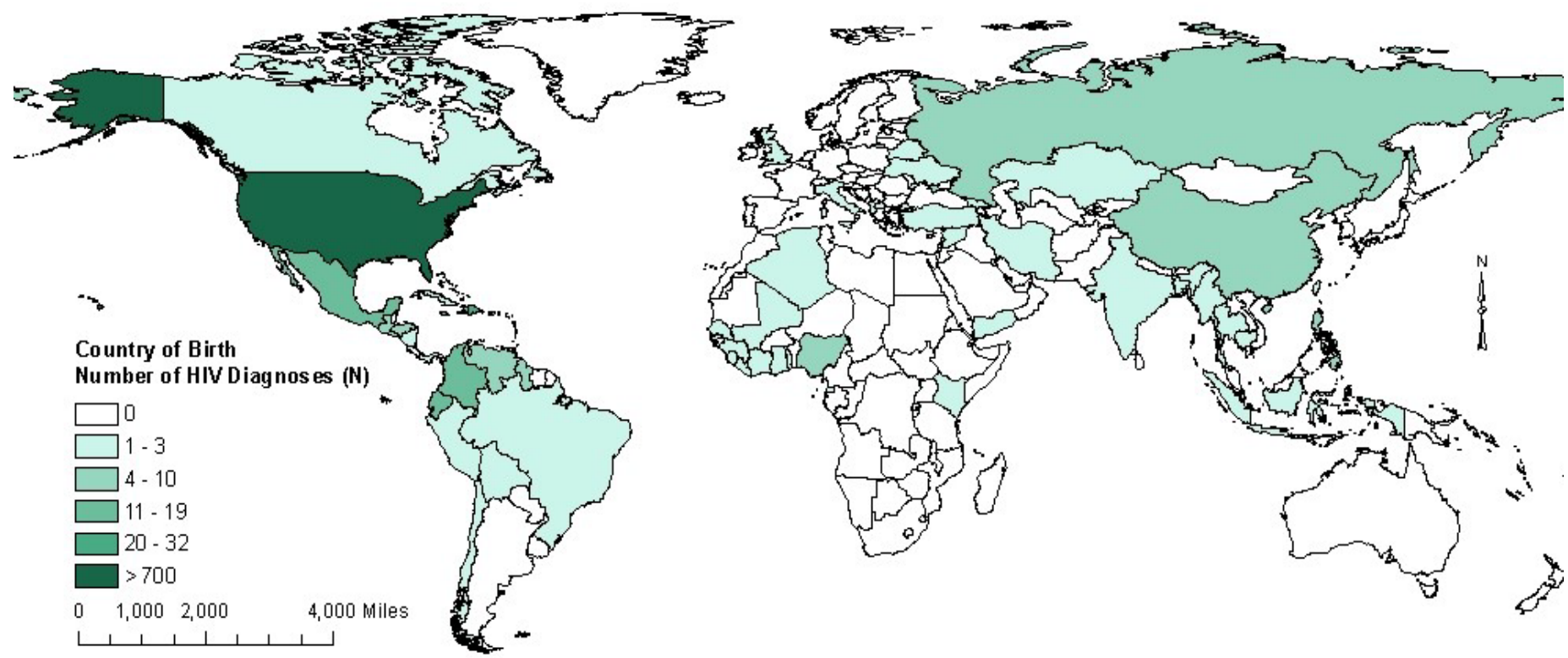
MSM=Men who have sex with men; IDU=Injection drug use history.

¹Using the method in: Song R, et al. Using CD4 data to estimate HIV incidence, prevalence, and percent of undiagnosed infections in the United States. *J Acquir Immune Defic Syndr* 2017;74(1):3-9.

²2020 incidence estimates are preliminary.

³CDC estimation methodology produces results by sex at birth and not gender identity.

Figure 11.1: HIV diagnoses by country of birth, NYC 2020



People born in the U.S. and U.S. territories made up 54.7% (N=762) of those newly diagnosed with HIV in NYC in 2020. The U.S. and the Caribbean as places of birth had the highest number of new diagnoses.

Figure 11.1 does not include people newly diagnosed with HIV in NYC in 2020 with an unknown country of birth. The number of new diagnoses with an unknown country of birth increased from N=266 in 2019 (12.8% of all people newly diagnosed) to N=388 (27.8% of all people newly diagnosed) in 2020.

Figure 11.2: Average annual HIV diagnosis rates¹ by subregion of birth, NYC 2016-2020

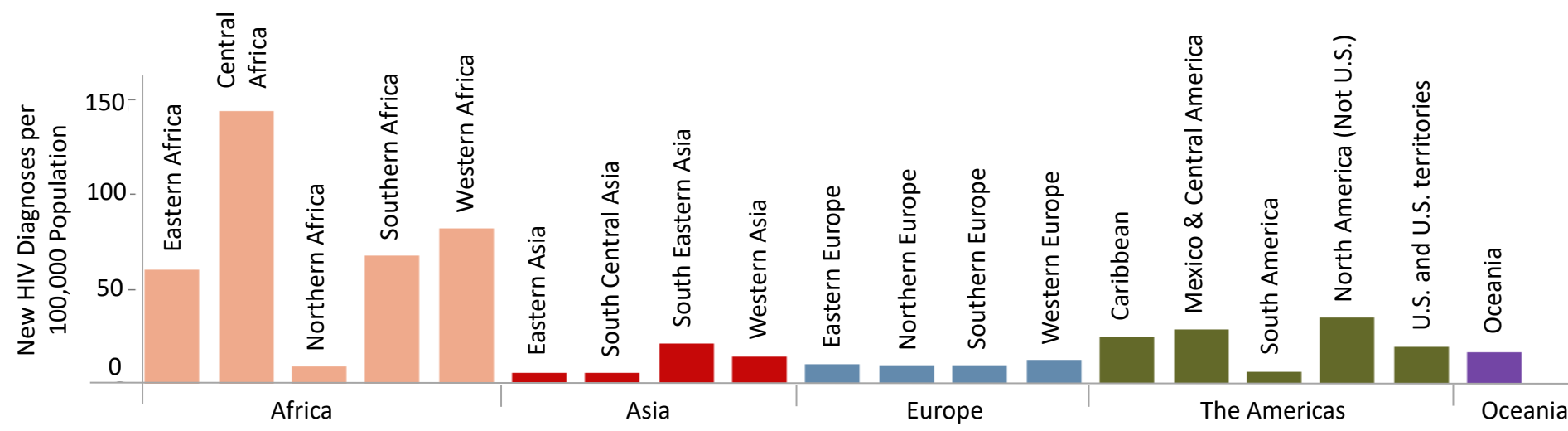
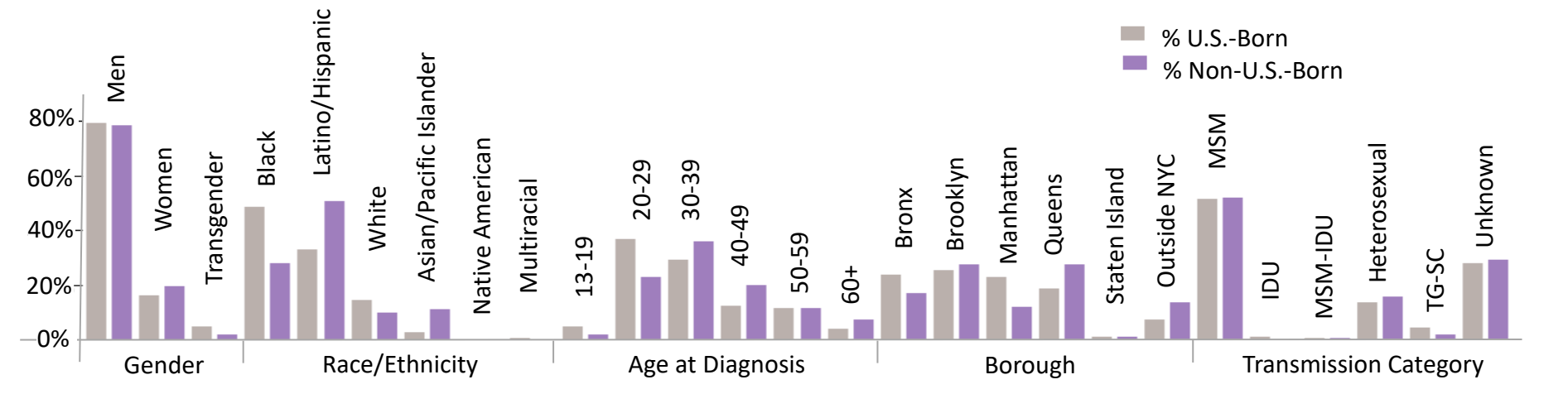


Figure 11.3: Demographic characteristics of people newly diagnosed with HIV by place of birth, NYC 2020



Most subregions of Africa as places of birth had the highest rates of new diagnoses (Figure 11.2). The demographic proportions of newly diagnosed people born in the U.S. (grey bars) and those born outside the U.S. (purple bars) differed in 2020 (Figure 11.3). For example, in 2020, 19% of U.S.-born newly diagnosed people resided in Queens, compared with 28% of those born outside the U.S.

Figures 11.2 and 11.3 do not include people newly diagnosed with HIV in NYC in 2020 with an unknown country of birth. The number of new diagnoses with an unknown country of birth increased from N=266 in 2019 (12.8% of all people newly diagnosed) to N=388 (27.8% of all people newly diagnosed) in 2020.

¹Rates calculated using 2015-2019 American Community Survey 5-Year Estimates of Subregional Populations. Names of subregions are those used by the Census Bureau. For a list of countries included in each subregion, see pages 96 to 104 of: https://www2.census.gov/programs-surveys/acs/tech_docs/code_lists/2019_ACS_Code_Lists.pdf.

Figure 12.1: Newly diagnosed clients, 2019-2020*

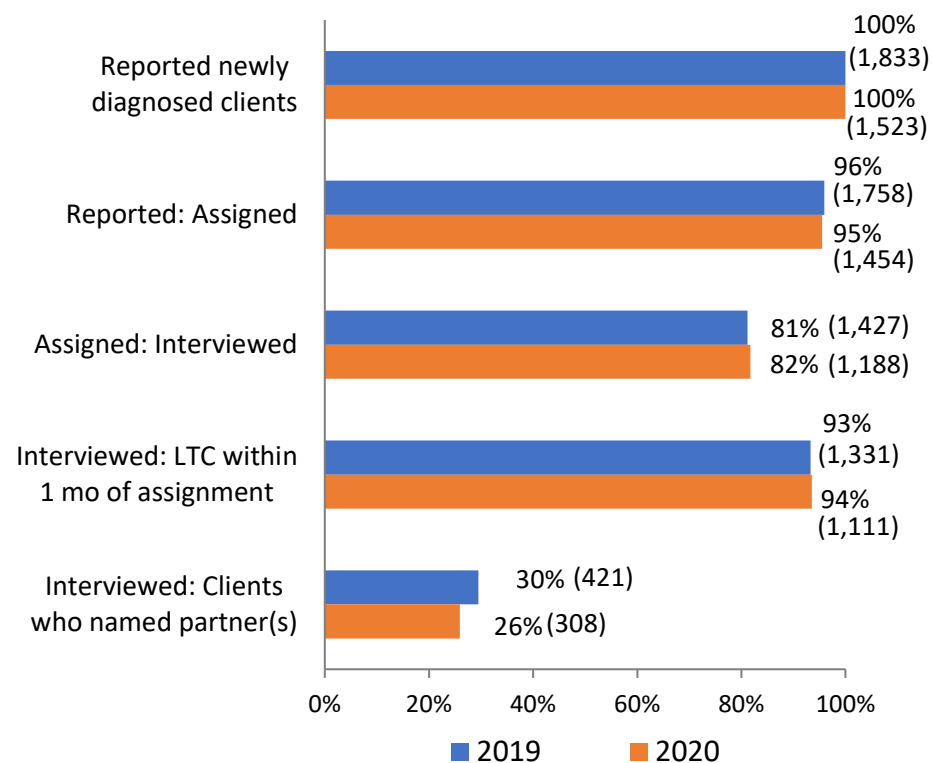
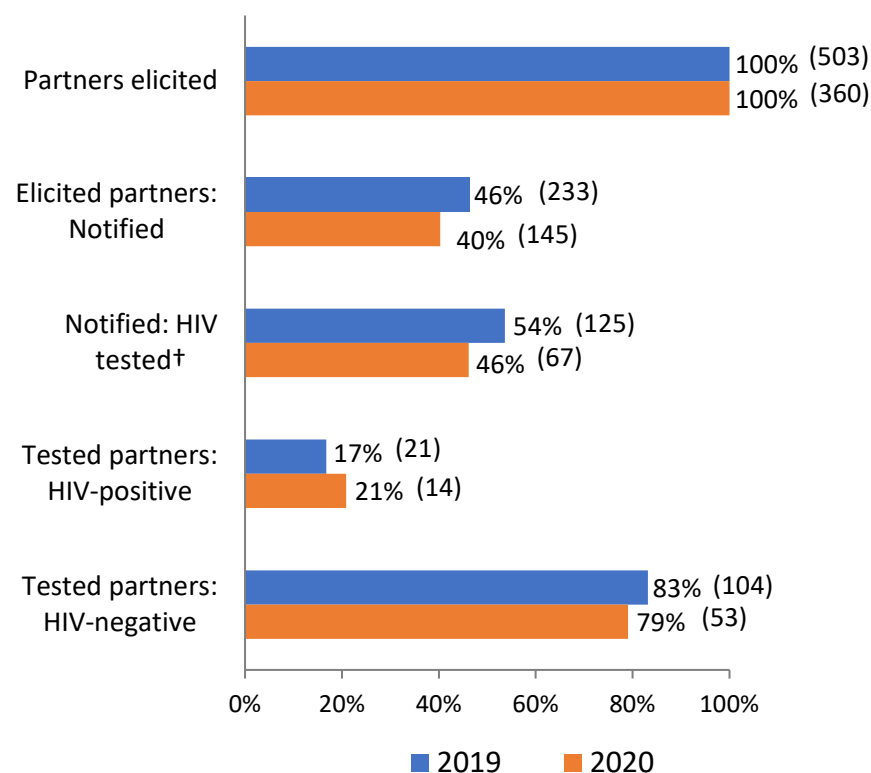


Figure 12.2: Partner services, 2019-2020*



In 2020, the ACE (Assess. Connect. Engage.) Team assigned 1,454 out of 1,523 people reported newly diagnosed with HIV, to be interviewed and offered HIV services. Compared to 2019, the number of newly diagnosed people reported to ACE dropped by 17% in 2020. The proportions assigned, interviewed and linked to care (LTC) remained consistent across the two years. The proportions of partners notified and tested for HIV were lower in 2020 than in 2019. In 2020, 40% of elicited partners were successfully notified of exposure and 46% of those notified received HIV testing. A greater proportion of partners tested HIV positive in 2020 (21%) than in 2019 (17%) (Figure 12.2).

LTC=Linked to HIV care within 1 month of assignment.

*See Executive Summary for effects of COVID-19 on 2020 data.

†Prior to March 17, 2020, the ACE Team provided OraQuick home test kits (HTK) via courier or in-person to partners who declined 4th generation testing by ACE. Due to the COVID-19 pandemic, community-based HIV testing was suspended as of March 17, 2020. Beginning June 22, 2020, ACE staff offered OraQuick coupon codes to 19 partners so they could receive HTKs directly from the company via mail.

Figure 13.1: Proportion of people genotyped within 3 months of HIV diagnosis, 2020*

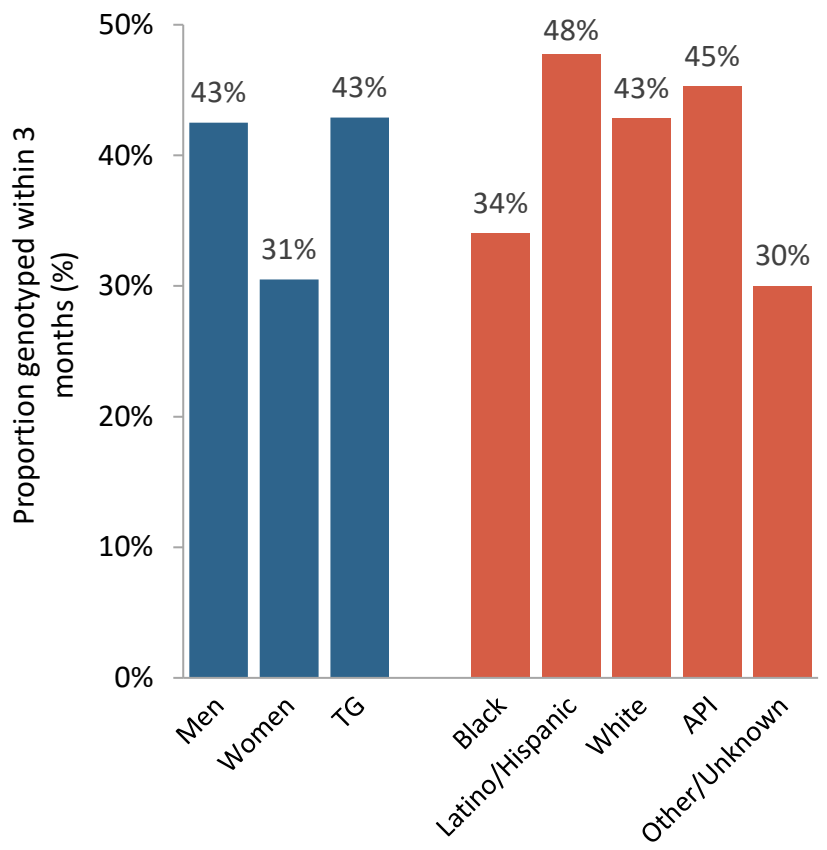
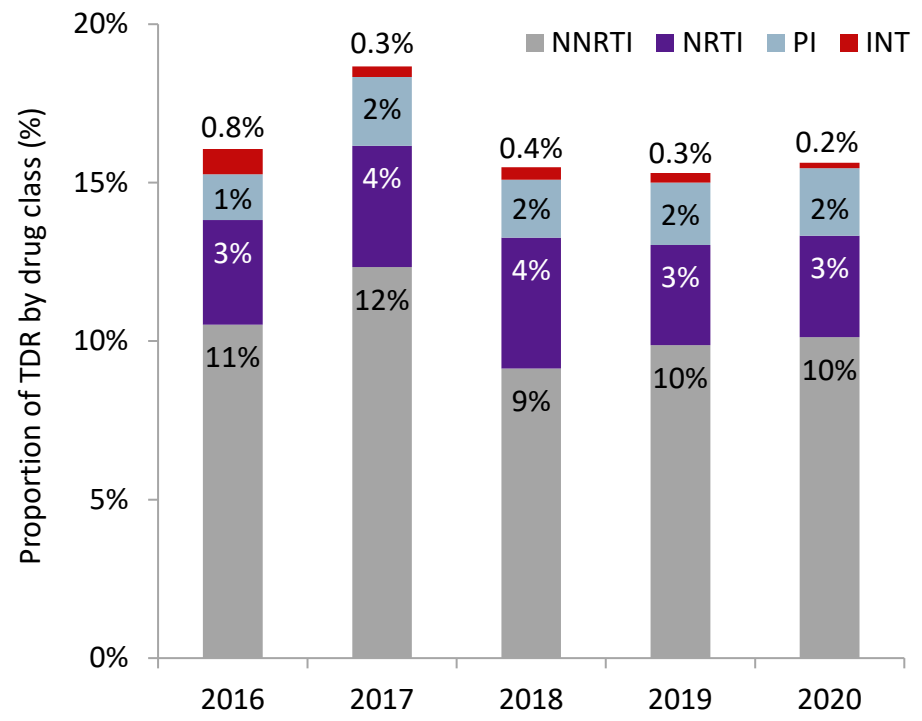


Figure 13.2: Transmitted drug resistance (TDR) by drug class¹ among people newly diagnosed with HIV, 2016-2020



Federal guidelines for the care and treatment of people with HIV recommend genotypic resistance testing at initiation of HIV care, both to establish a baseline and guide therapy. In 2020, 40.3% of newly diagnosed people received a genotype within three months of diagnosis (compared with 57.5% in 2019). Lower proportions of women and people identified as Black or other/unknown race/ethnicity received a genotype (Figure 13.1). In 2020, 13.7% of newly diagnosed people showed any evidence of resistance to one or more antiretroviral drugs, and transmitted drug resistance was highest towards drugs in the non-nucleoside reverse transcriptase inhibitor (NNRTI) class (Figure 13.2).

API=Asian/Pacific Islander; NRTI=Nucleoside Reverse Transcriptase Inhibitor; NNRTI=Non-nucleoside Reverse Transcriptase Inhibitor; PI=Protease Inhibitor; INT=Integrase Inhibitor. Other race includes Native American and multiracial people.

*See Executive Summary for effects of COVID-19 on 2020 data.

¹HIV can be resistant to more than one drug class; individuals may be represented more than once.

Figure 14.1: Linkage to HIV care¹ within 30 days among newly diagnosed people, NYC 2016-2020²

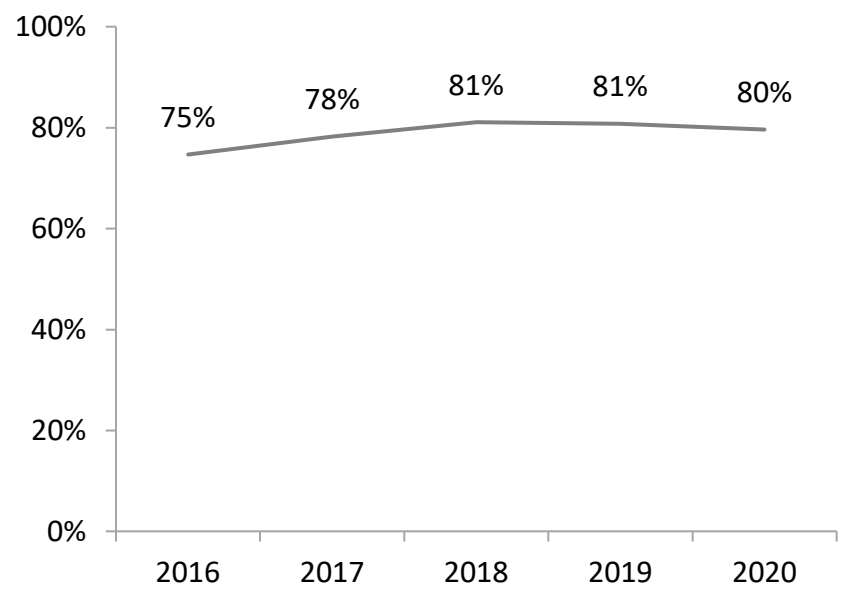
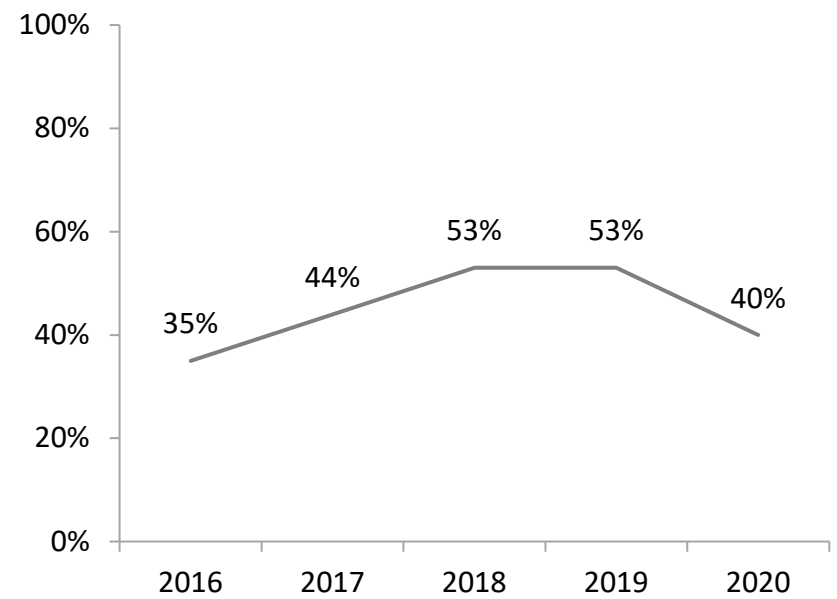


Figure 14.2: Viral suppression³ within three months among newly diagnosed people, NYC 2016-2020²



Timely linkage to HIV care (Figures 14.1 on Page 21 and 14.3 on Page 22) and timely viral suppression among (Figures 14.2 on Page 21 and 14.4 on Page 22) newly diagnosed people increased overall in NYC from 2016 to 2020.

¹HIV viral load (VL), CD4 count, or genotype test drawn within one month (30 days) of HIV diagnosis; includes those ages 13 and older. People newly diagnosed with HIV at death were excluded from linkage to care and timely viral suppression calculations.
²Data for 2020 should be interpreted with caution due to impact of COVID-19 pandemic on access to HIV testing, care-related services, and on case surveillance activities in New York City.
³At least one HIV VL within three months (91 days) of HIV diagnosis was <200 copies/mL; includes those ages 13 and older.

Figure 14.3: Linkage to HIV care¹ within 30 days among newly diagnosed people, NYC 2020²

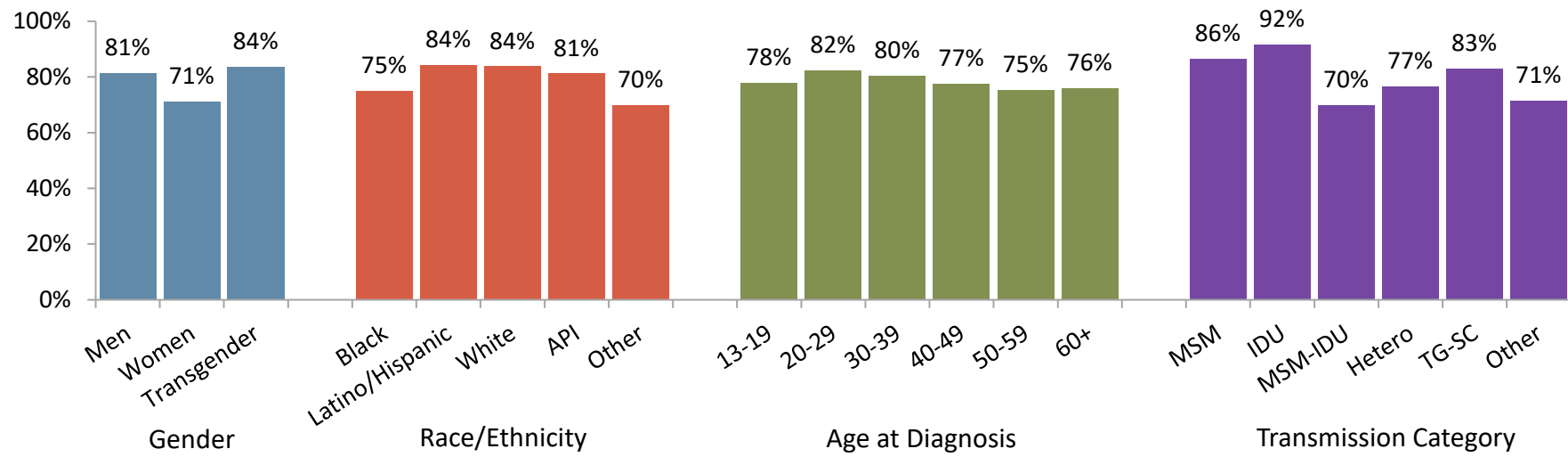
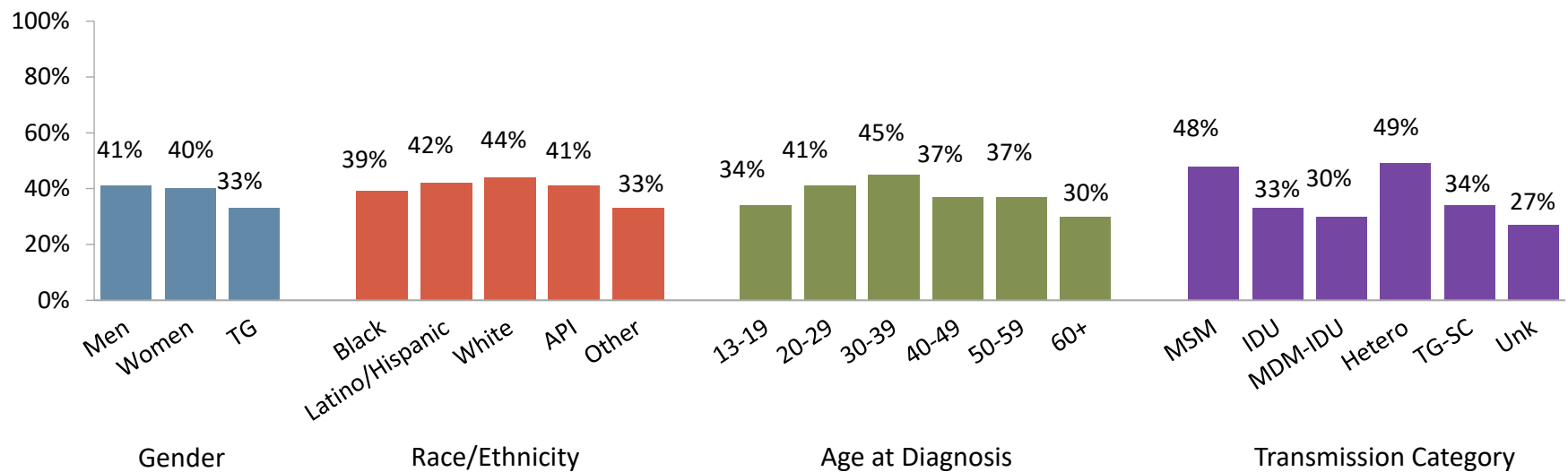


Figure 14.4: Viral suppression³ within three months among newly diagnosed people, NYC 2020²



API=Asian/Pacific Islander; MSM=Men who have sex with men; IDU=Injection drug use history; TG-SC=Transgender people with sexual contact; Unk=Unknown.
¹HIV viral load (VL), CD4 count, or genotype test drawn within one month (30 days) of HIV diagnosis; includes those ages 13 and older. People newly diagnosed with HIV at death were excluded from linkage to care and timely viral suppression calculations.
²Data for 2020 should be interpreted with caution due to impact of COVID-19 pandemic on access to HIV testing, care-related services, and on case surveillance activities in New York City.
³At least one HIV VL within three months (91 days) of HIV diagnosis was <200 copies/mL; includes those ages 13 and older.

Figure 15.1: Viral suppression¹ among people in HIV medical care², NYC 2016-2020

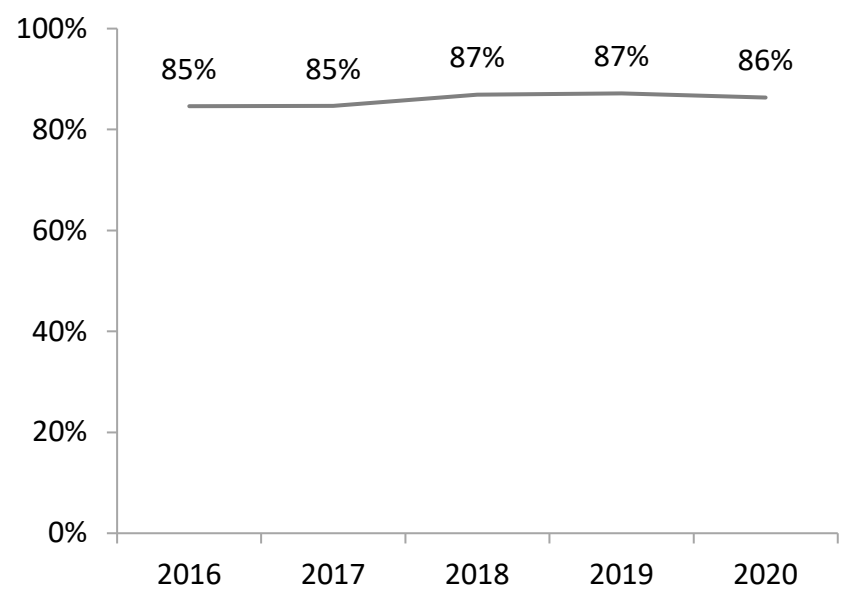
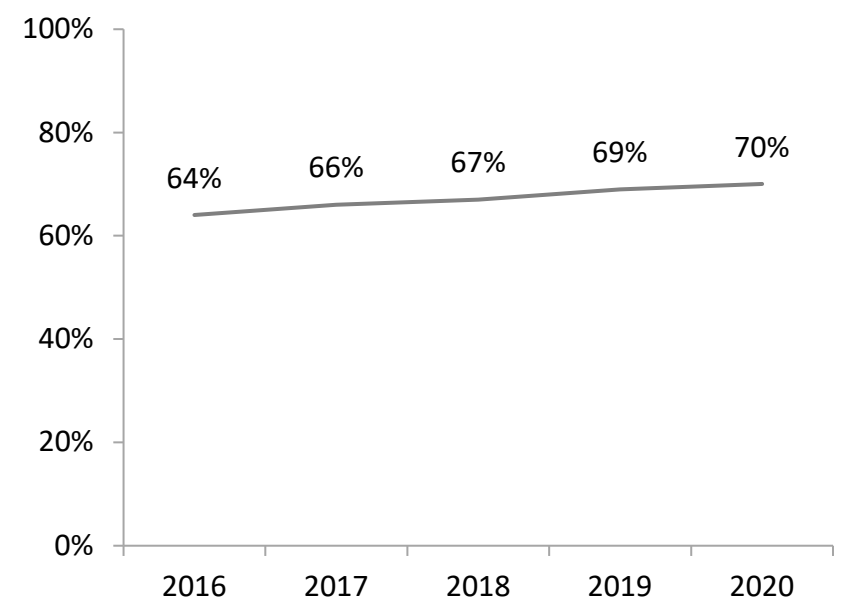


Figure 15.2: Sustained viral suppression³ among people established in HIV medical care⁴, NYC 2016-2020



Viral suppression among people in HIV medical care (Figures 15.1 on Page 23 and 15.3 on Page 24) and sustained viral suppression among people established in HIV medical care (Figures 15.2 on Page 23 and 15.4 on Page 24) increased overall in NYC from 2016 to 2020.

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

¹Last HIV viral load (VL) value in 2020 was <200 copies/mL.

²At least one HIV VL/CD4 in 2020; includes those ages 13 and older.

³At least two VL tests ≥14 months apart and all VLs <200 copies/mL in 2019 and 2020.

⁴At least two VL tests in 2019 and 2020; includes those ages 13 and older.

Figure 15.3: Viral suppression¹ among people in HIV medical care², NYC 2020

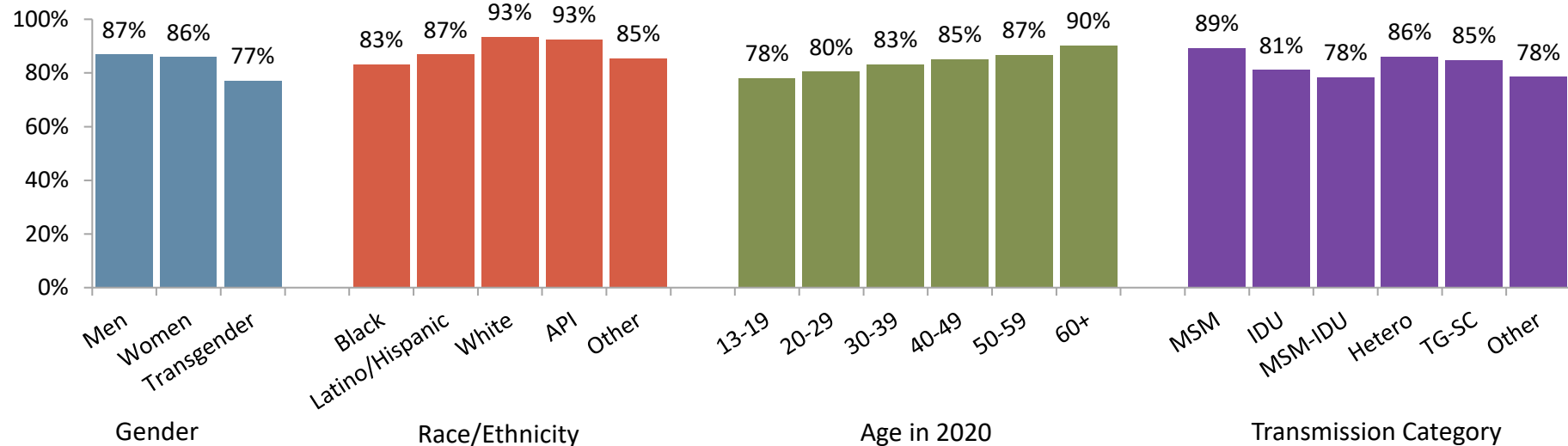
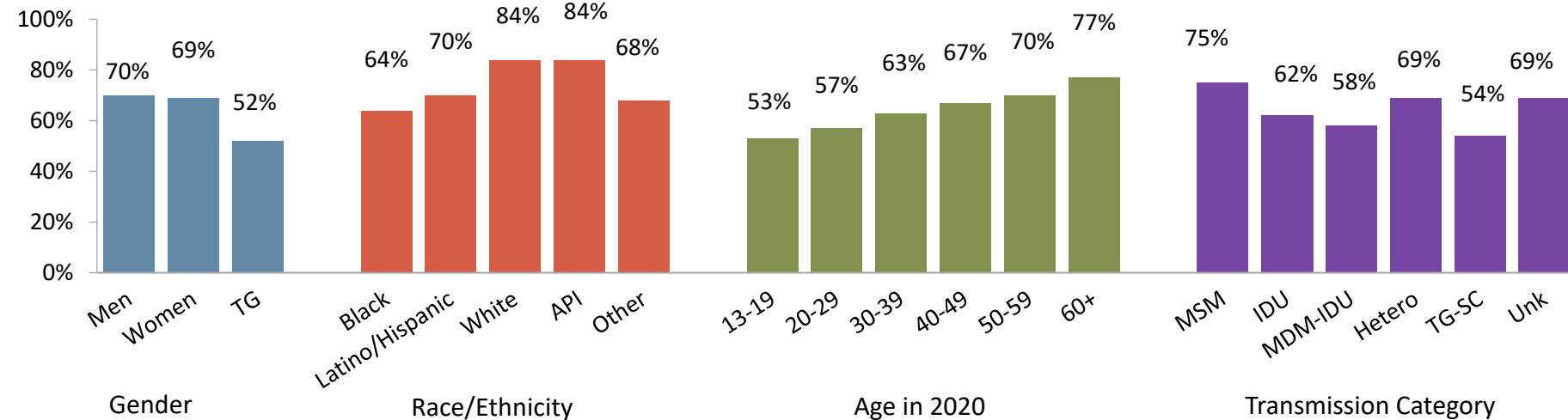


Figure 15.4: Sustained viral suppression³ among people established in HIV medical care⁴, NYC 2020



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

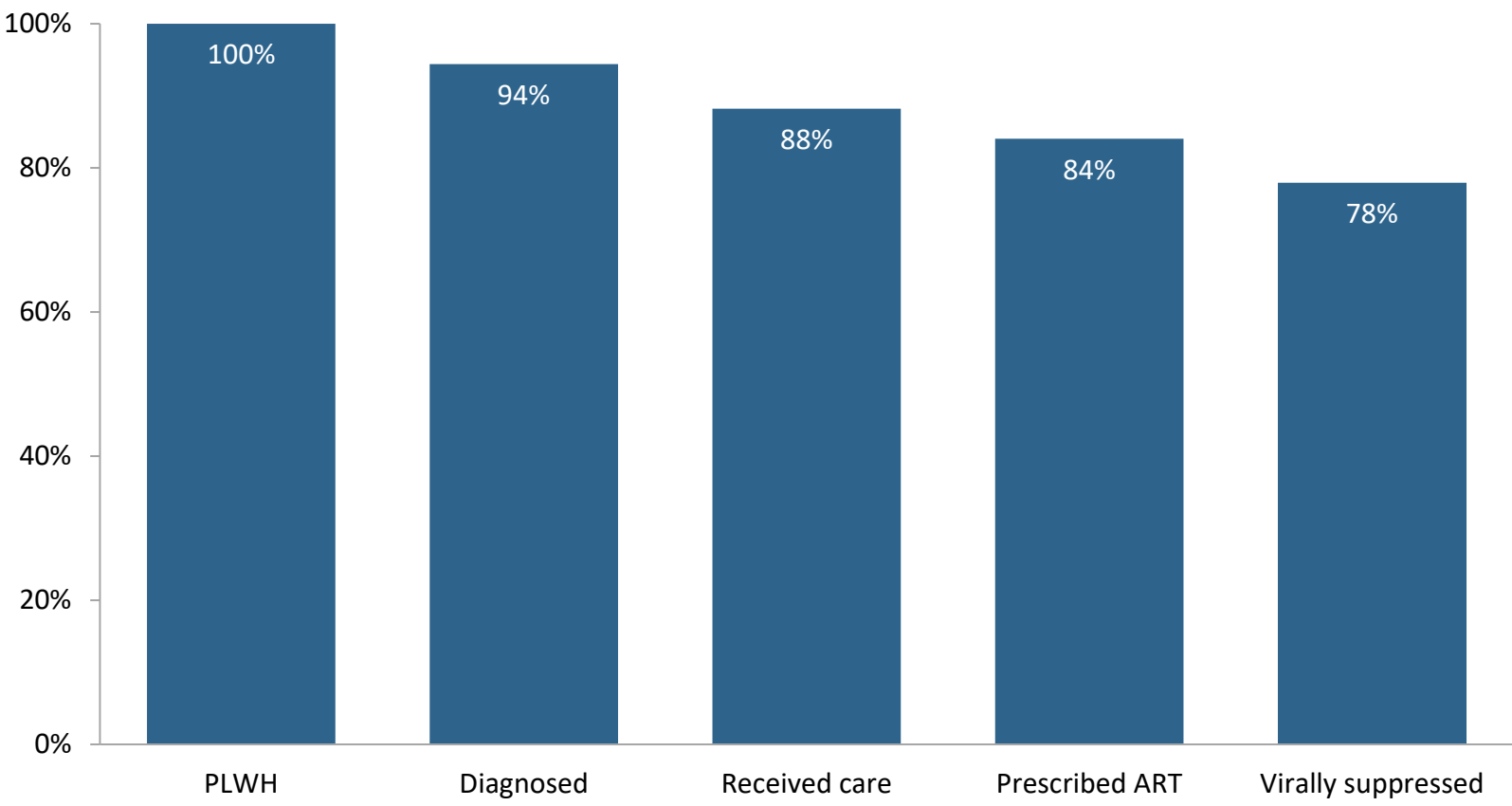
¹Last HIV viral load (VL) value in 2020 was <200 copies/mL.

²At least one HIV VL/CD4 in 2020; includes those ages 13 and older.

³At least two VL tests ≥14 months apart and all VLs <200 copies/mL in 2019 and 2020.

⁴At least two VL tests in 2019 and 2020; includes those ages 13 and older.

Figure 16.1: Proportion of PLWH in NYC engaged in selected stages of the HIV care continuum, NYC 2020



Of approximately 84,700 people living with HIV in NYC in 2020, 78% had a suppressed viral load (Figure 16.1).

PLWH=People living with HIV; ART=antiretroviral therapy.
For definitions of the stages of the continuum of care, see Technical Notes on Page 33.

Figure 17.1: Survival among women¹ newly diagnosed with HIV², by race/ethnicity³, NYC 2015-2019

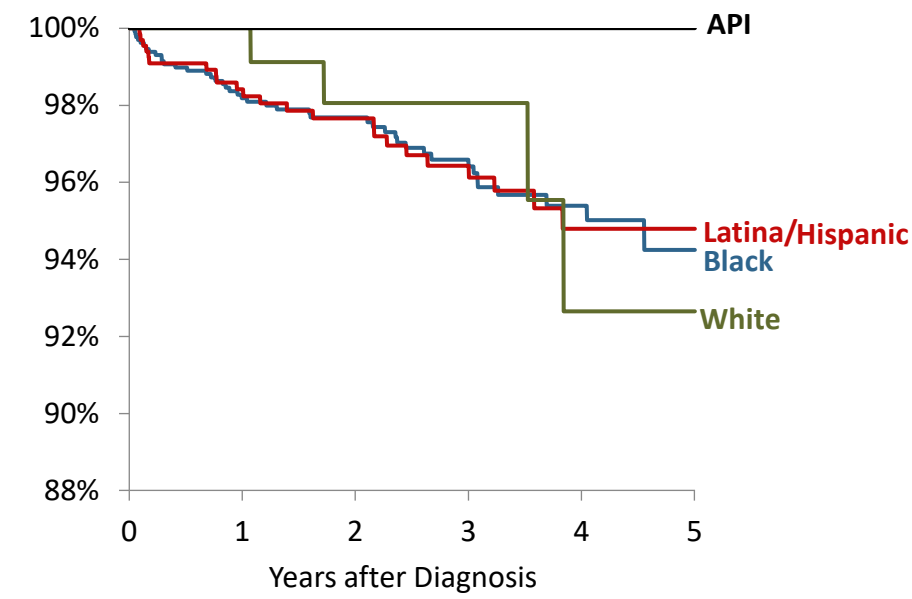
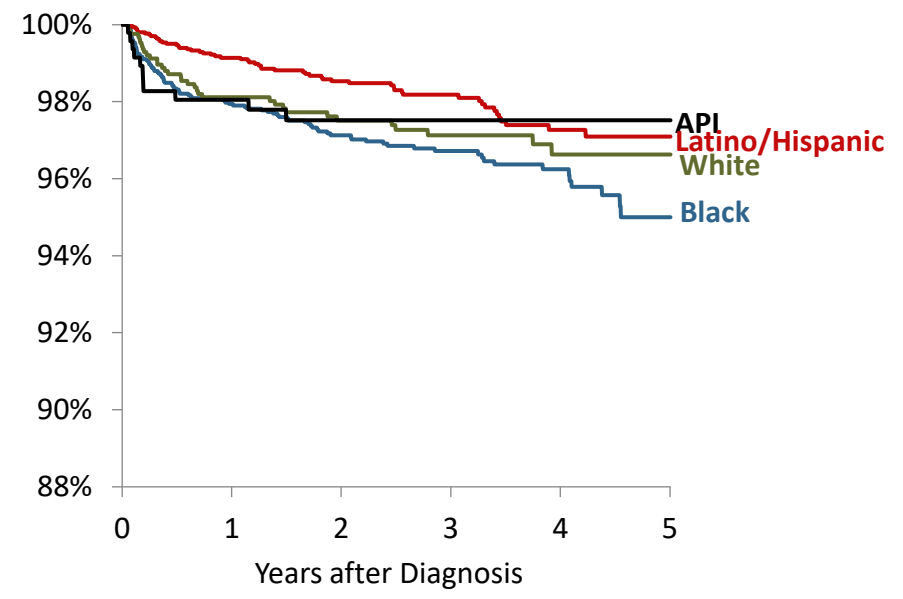


Figure 17.2: Survival among men¹ newly diagnosed with HIV², by race/ethnicity³, NYC 2015-2019



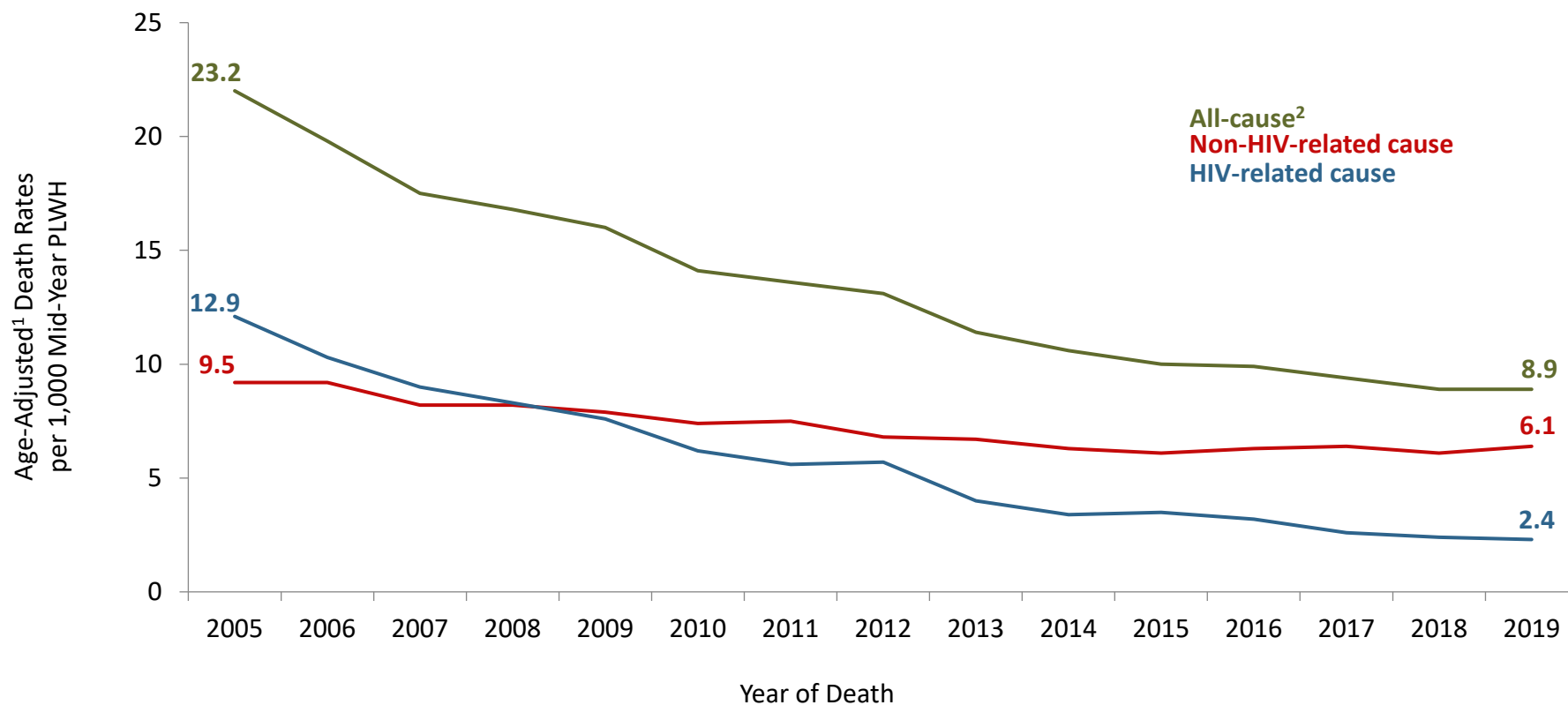
Figures 17.1 and 17.2 display the proportion of newly diagnosed women and men who were still alive (y-axis) by race/ethnicity over a 5-year period (x-axis). Each survival curve begins at 100% survival at HIV diagnosis and steps down as members of a race/ethnicity group die over the 5-year period. Inequities in survival by race/ethnicity and gender differences were apparent. Black and White women had the lowest survival probabilities compared to Latina and API women, while Black and Latina women had markedly higher numbers of deaths than White and API women. Differences in numbers of deaths across race/ethnicity groups among men were less pronounced, but Black men had the lowest survival probability followed by White, Latino, and API men.

API=Asian/Pacific Islander.

¹Women include transgender women and men include transgender men.

²People newly diagnosed with HIV at death were excluded from the analysis. Curves include people diagnosed with HIV from 2015 through 2019 and followed through Dec. 31, 2019.

³Number of new diagnoses (Dx) and deaths from any cause (Dth) among women from 2015-2019: Black (Dx =1,338; Dth=55), Latina/Hispanic (Dx=679; Dth=31), White (Dx=139; Dth=5), API (Dx=67; Dth=0), Native American (Dx=3; Dth=1; not shown), Multiracial (Dx=14; Dth=1; not shown). Number of new diagnoses (Dx) and deaths from any cause (Dth) among men from 2015-2019: Black (Dx=3,100; Dth=116), Latino/Hispanic (Dx=3,158; Dth=78), White (Dx=1,289; Dth=46), API (Dx=477; Dth=17), Native American (Dx=20; Dth=0; not shown), Multiracial (Dx=85; Dth=2; not shown).

Figure 18.1: Age-adjusted death rates among people with HIV by HIV-related and non-HIV-related cause of death, NYC 2005-2019

The all-cause death rate (8.9 per 1,000 in 2019) among people with HIV decreased by 60% from 2005 to 2019 but remained higher than the death rate for the overall NYC population (5.5 in 2017). Although the rates of both HIV-related and non-HIV-related causes of death decreased during this time, the decrease in the all-cause death rate was driven by fewer deaths attributed to HIV (Figure 18.1). During this time, the median age at death from all causes among PWH increased from 49 years in 2005 to 59 years in 2019 but was lower than the median age at death for NYC overall (77 years in 2017). Age at death increased by a similar amount for people with an HIV-related cause of death (by 8.4 years) and a non-HIV-related cause of death (by 8.8 years) from 2005 to 2019.

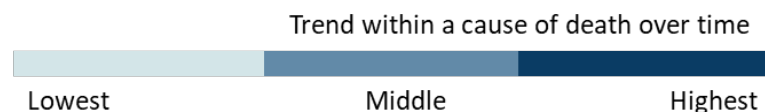
PLWH=People living with HIV.

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 (3.5% of all deaths).

Table 18.1: Trends in proportions of major causes of death among people with HIV, NYC 2005-2019

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Deaths (N)	(2,701)	(2,481)	(2,372)	(2,377)	(2,269)	(2,097)	(2,094)	(1,943)	(1,919)	(1,865)	(1,815)	(1,841)	(1,810)	(1,770)	(1807)
CAUSE OF DEATH¹															
HIV-RELATED (%)	59	55	53	52	48	47	42	38	35	33	34	30	27	26	25
NON-HIV-RELATED (%)	39	43	45	46	50	50	52	57	58	60	61	65	69	70	73
CVD	9	10	11	12	13	13	13	14	14	15	16	19	22	17	19
CANCER ²	10	11	12	13	14	13	14	16	16	15	17	16	17	18	18
ACCIDENTAL OD	0	1	5	3	4	3	3	5	3	4	5	7	8	5	0
INFECTIOUS DISEASES	4	4	5	3	4	5	4	5	5	6	5	5	3	5	3
EXTERNAL CAUSES	3	4	3	4	3	5	3	5	4	4	4	4	4	4	9
OTHER	13	13	9	11	12	11	15	12	16	16	14	14	15	21	24



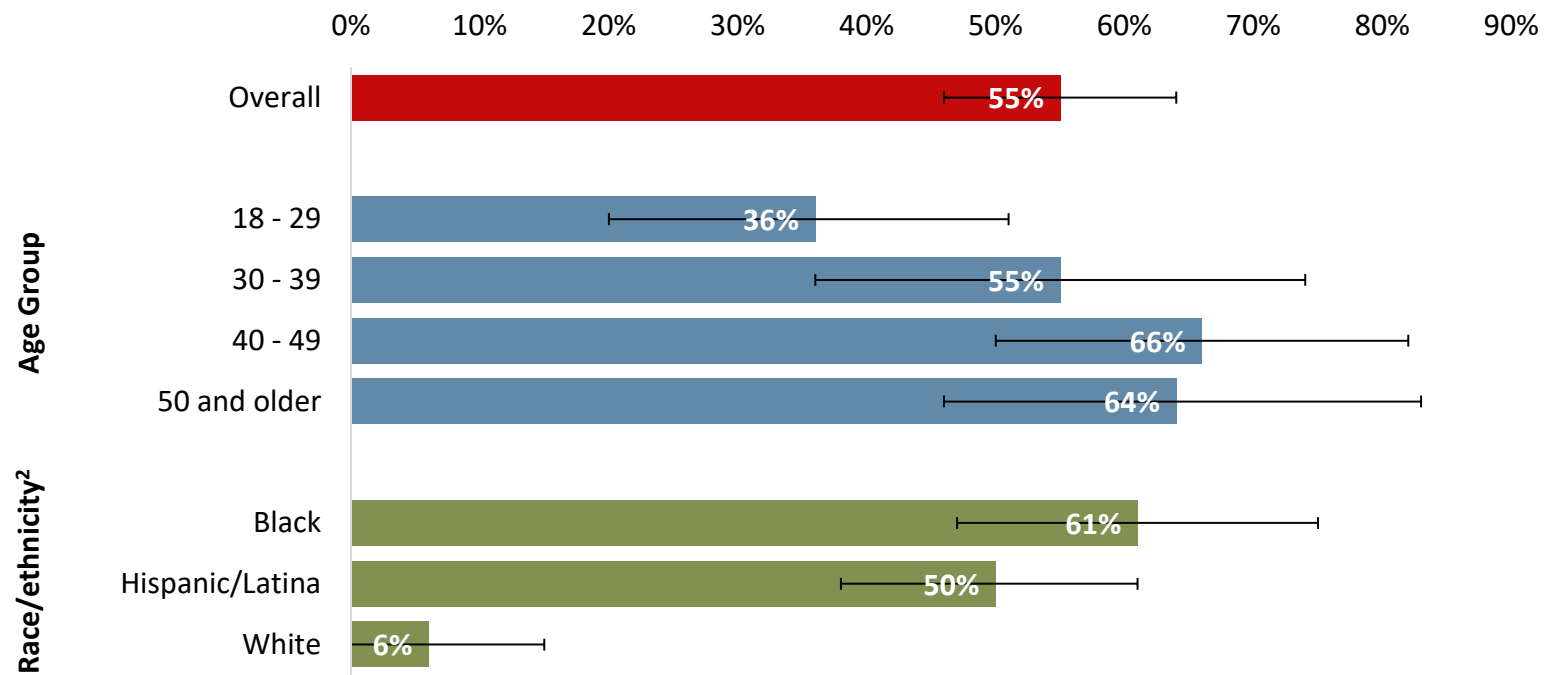
In 2005, the leading cause of death among people with HIV (PWH) was HIV, representing 59% of all deaths. At the end of 2019, although HIV was still the single leading cause of death among PWH, the majority (73%) of deaths were due to non-HIV-related causes. Since 2005, there have been substantial increases in the proportions of deaths due to cardiovascular diseases (19% of all deaths in 2019) and non-HIV-related cancers (18% of all deaths in 2019) among PWH (Table 18.1).

CVD=Cardiovascular diseases; OD=overdose.

¹For definitions of the causes of death, see Technical Notes on Page 32. Deaths due to unknown causes are not shown.

²Deaths due to HIV-related cancers are included in HIV-related cause of death.

Figure 19.1: HIV prevalence by race/ethnicity and age group among National HIV Behavioral Surveillance Study participants¹ (n=262), Transgender Women Cycle 2019



The National HIV Behavioral Surveillance (NHBS) Project is an ongoing, national study of people at increased risk for HIV. In 2019, a supplemental cycle was conducted among transgender women. Among participants tested for HIV (n=262), including those who self-reported a positive HIV status, 55% tested positive. By age group, those aged 40-49 years had the highest prevalence (66%). By race/ethnicity, Black participants had the highest prevalence (61%). Black and Hispanic/Latina participants had a higher HIV prevalence compared to White participants (Figure 19.1).

Black lines represent 95% confidence limits.

¹Eligible participants were assigned male sex at birth, reported a gender identity that included transgender woman or woman, were ≥18 years old at the time of the interview, and lived in the NYC metropolitan statistical area. Participants were recruited via respondent-driven sampling. Estimates are weighted using population weights, which account for differential recruitment network size. Participants not tested for HIV were excluded from the analysis.

²Participants who reported another race/ethnicity (n=5) were excluded. The White category includes 11 participants.

Figure 20.1: Employment, medical, and other service interruptions due to COVID-19 among NYC MMP participants (N=227), 2020

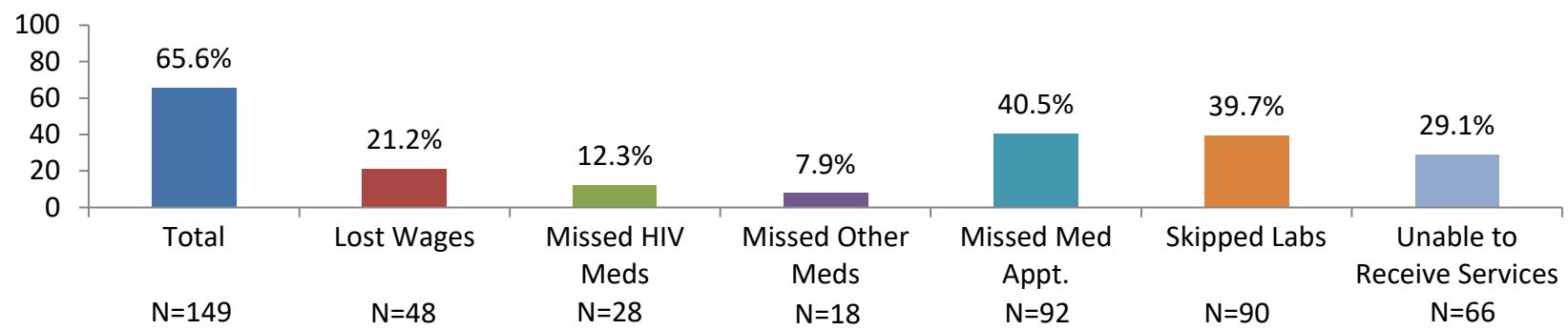
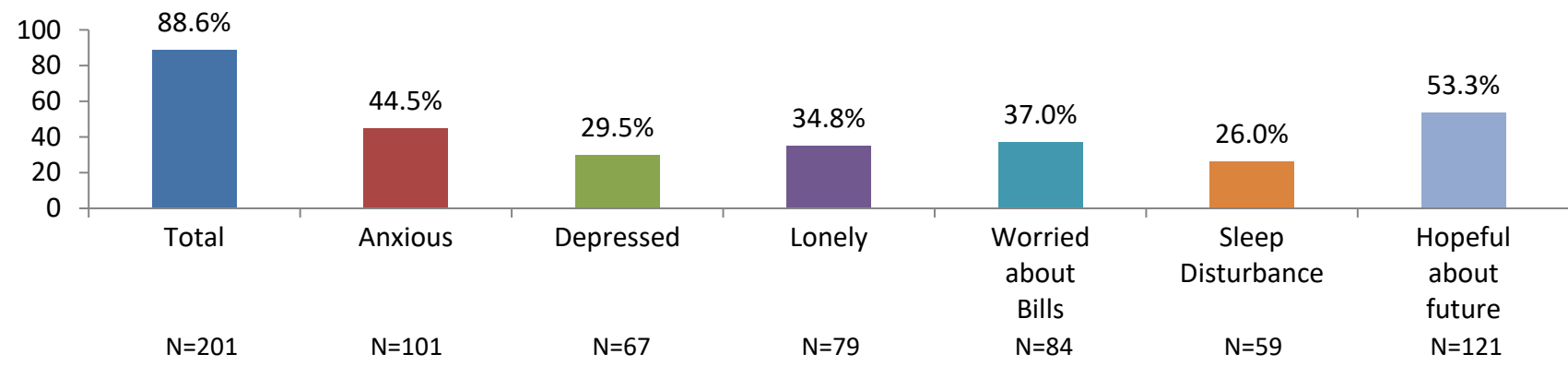


Figure 20.2: Mood and behavior responses associated with COVID-19 among NYC MMP participants (N=227), 2020



The Medical Monitoring Project (MMP) is a national surveillance study of people with HIV, conducted in conjunction with the Centers for Disease Control and Prevention (CDC). During the MMP 2020 cycle, among the 232 participants interviewed in New York City, 227 responded to locally developed questions related to the COVID-19 pandemic. Of these, 65.6% reported employment, medical, and other service interruptions with missed medical appointments, skipped labs, and inability to receive services ranking in the top 3, respectively. Eighty-nine percent reported changes in mood and/or behavior associated with COVID-19; 37% reported being worried about paying for basic necessities, 44.5% reported anxiousness, and 53.3% reported being hopeful about the future.

Participants were asked, “Since February 1, 2020, have you experienced any of the following...” “Lost Wages” is defined as lost wages from work for one week. “Missed Other Meds” is defined as other missed essential medications not for HIV. “Skipped or delayed Labs” is defined as skipped or delayed routine HIV-related laboratory tests such as CD4 and viral load tests. “Unable to Receive Services” is defined as being unable to receive services such as counseling, support group, housing assistance, and/or food and pantry assistance. “Sleeping issues” is defined as trouble falling or staying asleep or sleeping. “Depressed” is defined as feeling down, depressed, or hopeless. “Worried about Bills” is defined as being worried about basic necessities such as not being able to pay for rent, mortgage, food, and utilities.

¹Employment, medical, and other service interruptions questions and mood and behavior responses are not mutually exclusive. Participants could report more than one service interruption and more than one mood or behavior. ²Other race/ethnicity includes Asian/Pacific Islander, Native American and multiracial categories.

About This Report: This report provides an overview of the HIV epidemic in NYC 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 Department of Health and Mental Hygiene (NYC Health Department) as of May 27, 2021, and are for calendar year 2020 unless otherwise noted.

HIV Surveillance: The NYC HIV Epidemiology Program (HEP) manages the HIV surveillance registry, a population-based registry of all people diagnosed with AIDS (since 1981) or HIV (since 2000) and reported to the NYC Health Department according to standard CDC case definitions.¹ The Registry contains demographic, HIV transmission category 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 nyc.gov/site/doh/data/data-sets/hiv-aids-annual-surveillance-statistics.page. While surveillance data capture the entire population diagnosed with HIV in NYC, and they show the differential effect of HIV on sub-populations defined by age, race and gender, they do not assist us to explain the social and structural factors underlying the differences in impact and how those differences affect important outcomes such as timely initiation of care and viral suppression, which are known to affect long-term prognosis.

Gender Identity Ascertainment: Surveillance collects information about individuals' current gender identity, when available. This report displays the following gender categories: men, women and transgender. 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-reports, their diagnosing providers or medical chart reviews. This information may or may not reflect the individual's self-identification. Transgender identity has been collected routinely since 2005 for newly reported cases. Reported numbers of HIV diagnoses among transgender people and transgender PLWH are likely to be underestimates. For more information, see the "HIV among People Identified as Transgender in New York City" surveillance slide set available at nyc.gov/assets/doh/downloads/pdf/dires/hiv-in-transgender-persons.pdf. Surveillance collects information on other gender identity categories, including "Non-binary/Gender non-conforming." In this report, data for these individuals at the time of publication are displayed by sex assigned at birth.

Race/Ethnicity: Data on race/ethnicity are derived from multiple sources including patient medical charts, provider reporting, vital statistics records and patient interviews. Black, White, Asian/Pacific Islander, Native American, and Multiracial race categories exclude Latino/Hispanic ethnicity. Cases with the ethnicity Latino/Hispanic were grouped in the race/ethnicity category Latino/Hispanic, regardless of their race classification. For more information on race definitions, see nyc.gov/assets/doh/downloads/pdf/ah/new_race_def_dec2010.pdf.

Perinatal and Pediatric HIV Surveillance: HEP collects data on infants exposed to HIV or living with HIV and children diagnosed with HIV before 13 years of age. Data are used to monitor mother-to-child HIV transmission, measure perinatal HIV transmission rates and describe morbidity and mortality among HIV-positive 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.

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.

Acute HIV Surveillance: Since 2008, HEP has conducted surveillance and investigation of individuals diagnosed in the acute stage of HIV (AHI) in NYC. For NYC’s AHI case definition, see 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, including HIV-positive autopsies by the Office of the Chief Medical Examiner. Data on deaths occurring outside of NYC are from matches with the Social Security Death Master File and National Death Index. As of the time of publication of this report, death data for 2020 are incomplete. They include preliminary NYC death data, National Death Index data and partial Social Security Death Master File data.

Cause of Death: Cause of death used 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 2019, ICD10 codes B20-B24 were used to denote HIV/AIDS-related deaths. “Other” category includes anemia, chronic liver diseases, chronic lower respiratory diseases, diabetes mellitus and other known causes not otherwise listed. For technical notes on cause of death by the NYC Health Department’s Office of Vital Statistics, see nyc.gov/assets/doh/downloads/pdf/vs/2017sum.pdf. HIV infection and its management may contribute to causes of death classified as non-HIV-related, such as cardiovascular disease and certain cancers.^{3, 4}

Area-based Poverty: Area-based poverty is based on NYC ZIP code of residence and is defined as the percentage of the population in a ZIP code with a household income that is below the Federal Poverty Level. This measure is not available for people missing a ZIP code or living outside of NYC. Income data used in this report are from the 2007-2011 American Community Survey (ACS) for events (e.g., diagnoses, deaths, care indicators) occurring between 2006 and 2009, ACS 2008-2012 for events occurring in 2010, ACS 2009-2013 for events occurring in 2011, ACS 2010-2014 for events occurring in 2012, ACS 2011-2015 for events occurring in 2013, ACS 2012-2016 for events occurring in 2014, ACS 2013-2017 for events occurring in 2015, ACS 2014-2018 for events occurring in 2016, and ACS 2015-2019 for events occurring between 2017 and 2020. Cut-points for area-based poverty categories in NYC were defined by an NYC Health Department workgroup.⁵

Medical Monitoring Project: The Medical Monitoring Project (MMP) is a national, ongoing supplemental surveillance study sponsored by the CDC and designed to understand more about the health behaviors, outcomes and needs of PLWH; NYC is one of 23 sites. A two-stage sampling design is used to obtain a probability sample of in-care and out-of-care adults living with HIV known to the HIV surveillance registry. The project is cross-sectional and conducted yearly. For more information on MMP, see cdc.gov/hiv/statistics/systems/mmp.

³Petoumenos K, Worm SW. HIV infection, aging and cardiovascular disease: Epidemiology and prevention. *Sex Health*. 2011;8(4):465-473.

⁴Deeken JF, Tjen-A-Looi A, Rudek MA, et al. The rising challenge of non-AIDS-defining cancers in HIV-infected patients. *Clin Infect Dis*. 2012;55(9):1228-1235.

⁵Toprani 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.

National HIV Behavioral Surveillance: National HIV Behavioral Surveillance (NHBS) is a national, ongoing surveillance activity sponsored by CDC and collects data on behaviors related to HIV risk and HIV testing, and the receipt or use of prevention services and strategies. NYC is one of 22 NHBS sites. Surveillance is conducted in rotating annual cycles in three different populations: 1) gay, bisexual, and other men who have sex with men; 2) people who inject drugs (PWID); and 3) heterosexuals at increased risk for HIV. For more information on NHBS, see [cdc.gov/hiv/statistics/systems/nhbs/index.html](https://www.cdc.gov/hiv/statistics/systems/nhbs/index.html).

NYC HIV Care Continuum: “People living with HIV” is calculated as the number of HIV-diagnosed divided by the estimated proportion of PLWH who had been diagnosed (94.4%), based on a CD4 depletion model.⁶ “HIV-diagnosed” is calculated as the number of PLWH retained in care plus the estimated number of PLWH who were out of care, based on a statistical weighting method. This estimated number aims to account for migration out of NYC, and therefore is different from the total number of people diagnosed and reported with HIV in NYC.⁷ “Received care” is defined as PLWH with ≥ 1 VL or CD4 count or CD4 percent drawn in 2020 and reported to NYC HIV surveillance.⁸ “Prescribed ART” is calculated as the number of PLWH retained in care multiplied by the estimated proportion of PLWH prescribed ART in the previous 12 months (95.3%), based on the proportion of NYC MMP participants whose medical record included documentation of ART prescription.⁹ “Virally suppressed” is calculated as PLWH in care with a most recent viral load measurement in 2020 of < 200 copies/mL, plus the estimated number of out-of-care PLWH in 2020 with a VL < 200 copies/mL, based on a statistical weighting method.⁷

Notes About Care Continuum-specific Estimates: The number of PLWH (first bar of the care continuum) represents an estimate of all people living with HIV in NYC at the end of 2020. The number of PLWH presented elsewhere (Such as in Table 3.1) represents people ever diagnosed with HIV, reported in NYC and not known to have died as of Dec. 31, 2020. Viral suppression estimates in the care continuum are among all New Yorkers living with HIV. These differ from Figures 15.1 and 15.3, which show viral suppression among PLWH in care in 2020.

⁶Source: NYC HIV Surveillance Registry; method: Song R, et al. Using CD4 Data to Estimate HIV incidence, prevalence, and percent of undiagnosed infections in the United States. *J Acquir Immune Defic Syndr*. 2017 Jan 1;74(1):3-9.

⁷Source: NYC HIV Surveillance Registry; method: Xia Q, et al. Proportions of patients with HIV retained in care and virally suppressed in New York City and the United States. *JAIDS*. 2015;68(3):351-358.

⁸Source: NYC HIV Surveillance Registry.

⁹Source: NYC HIV Surveillance Registry and NYC MMP, 2018.

All diagnostic and clinical providers (For example, doctors, nurses, physician assistants and all others diagnosing HIV or providing care to HIV-positive 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 or AIDS to the NYC Health Department within 14 days. Provider report forms (PRFs) must be completed for the following events: 1) new diagnosis of HIV (That is, acute HIV 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. PRFs can be submitted electronically (ePRF) by accessing the New York State provider portal at commerce.health.state.ny.us. Instructions for accessing the portal are available here: health.ny.gov/diseases/aids/providers/regulations/partner_services/docs/partner_services_materials.pdf. For assistance with the provider portal or to request paper copies of the PRF (DOH-4189 rev 09/2016), please call 518-474-4284. To arrange for pickup of a completed paper PRF, call the NYC HIV Surveillance Provider line at 212-442-3388. In order to protect patient confidentiality, PRFs may not be mailed or faxed to the NYC Health Department.

Discuss Partner Services and Report Partners: The NYC Health Department's ACE (Assess. Connect. Engage.) team was established in 2006 to assist HIV medical providers and patients diagnosed with HIV with partner services and linkage to care. Partner services, a free program offered by the NYC Health Department to all people diagnosed with HIV, help 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 Health Department so that partners can be notified of their potential exposure to HIV.

To report partners, call the NYC Health Department'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 and last name (alias, if applicable), date of birth or estimated age, gender and domestic violence screening result.

For more information on HIV provider reporting, see nyc.gov/site/doh/data/data-sets/hiv-aids-how-to-report-a-diagnosis.page.

New York City Department of Health and Mental Hygiene Website: nyc.gov/health.

Care Status Reports: The Care Status Report (CSR) is a program designed to assist providers in identifying patients who are out of care in NYC. The CSR system is a secure, web-based application that enables facilities to electronically submit eligible out-of-care patients (less than six months) to the Health Department for a query against the HIV registry for return of limited outcome information on the patients' current HIV care status in NYC. The care status outcomes include: follow-up needed; possibly in care; established in care; no follow-up needed – deceased; non-case; or pending further investigation by the Health Department. The outcomes are based on HIV-related laboratory test data (CD4 counts and viral load tests) reported to the NYC HIV Surveillance system and information on vital status. For more information about the CSR, visit nyc.gov/site/doh/health/health-topics/aids-hiv-care-status-reports-system.page.

Care Continuum Dashboards: The HIV Care Continuum Dashboards (CCDs) use Health Department HIV surveillance data to show the performance of providers who give HIV care to the majority of New Yorkers living with HIV. The CCDs contain information on how quickly New Yorkers newly diagnosed with HIV are linked to care and how well their viral load is controlled. Currently, data are available for 62 NYC HIV care providers. The goal of the CCDs is to improve HIV care and accelerate efforts to end the HIV/AIDS epidemic in NYC. For more information about the CCDs, visit nyc.gov/site/doh/health/health-topics/care-continuum-dashboard.page.

Additional Health Department Resources on HIV in NYC:

NYC HIV Epidemiology Program: 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 Health Department Sexual Health Clinics:

nyc.gov/site/doh/health/health-topics/aids-hiv.page

Additional Health Department Data Resources:

Data and Statistics: nyc.gov/site/doh/data/data-sets/data-sets-and-tables.page

EpiQuery, NYC Interactive Health Data System: a816-health.nyc.gov/hdi/epiquery

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

Other HIV Resources:

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

New York State Ending the Epidemic (ETE) Dashboard System: etedashboardny.org

AIDSVu, including interactive online maps illustrating the prevalence of HIV in the U.S.: aidsvu.org

Fast-Track Cities Initiative, tracking progress against UNAIDS 90-90-90 targets: fast-trackcities.org

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