

Sexually Transmitted Infections Surveillance Report, 2022

Bureau of Hepatitis, HIV, and Sexually Transmitted Infections

Envisioning a New York City without transmission or illness related to viral hepatitis, HIV, and sexually transmitted infections.

Executive Summary

Sexually transmitted infections (STIs) reported to the New York City Department of Health and Mental Hygiene (NYC Health Department) continued to increase and remained a public health concern in 2022. The NYC Health Department observed increases in chlamydia and gonorrhea rates in 2022 compared with 2021. After reduced levels of STI screening during the first two years of the COVID-19 pandemic, improved access to and increased use of sexual health services likely contributed to increased detection of STIs in 2022. In 2022, NYC was also impacted by the outbreak of mpox (formerly known as monkeypox), which was predominantly transmitted through sexual contact and likely led to increases in sexual health care seeking and screening for other STIs. Inequities persisted among people with reported cases of chlamydia, gonorrhea and syphilis, underscoring the need to improve access to timely, high-quality sexual health services for all New Yorkers.

This report presents 2022 data for NYC residents. Select data are accompanied by comparisons with other years, including six-year trends data from 2017 through 2022 and preliminary case numbers for the first half of 2023.

Key highlights include:

- Primary and secondary (P&S) syphilis rates in NYC increased 3.0% from 2021 to 2022, with a 35.5% increase among people reported as female (women) and virtually no change among people reported as male (men).¹
- There were 19 reported cases of congenital syphilis in 2022 in NYC, a decrease from 2021. Case numbers were relatively low prior to 2018 but increased significantly from 2018 to 2021. The rise in congenital syphilis cases in recent years corresponded to surges in reported P&S syphilis cases among women.
- From 2021 to 2022, the chlamydia rate among men increased by 5.2% and the rate among women increased by 1.0%. In recent years, chlamydia case rates among men have increased to levels that are comparable to those among women in NYC.
- Among women, teenagers and young adults continued to be disproportionately affected by chlamydia in NYC. In 2022, women ages 15 to 24 years accounted for approximately 58% of all chlamydia cases among women and had a case rate five times higher than the rate for women overall.
- From 2021 to 2022, the gonorrhea rate among men in NYC increased by 10.5%, whereas the rate among women decreased by 15.2%.
- In 2022, chlamydia, gonorrhea and early syphilis (including P&S and early latent) case rates among residents of Chelsea-Clinton were the highest of all United Hospital Fund (UHF) neighborhoods in NYC. Other UHF neighborhoods with high STI case rates were Hunts Point-Mott Haven and Crotona-Tremont (chlamydia), Central Harlem-Morningside Heights and Williamsburg-Bushwick (gonorrhea), and East Harlem and Crotona-Tremont (early syphilis).

¹ For more information, see the Technical Notes section on reported sex and gender.

- In 2022, chlamydia and gonorrhea disproportionately affected people living in very high poverty neighborhoods (≥30% of population below federal poverty level) in NYC, with case rates approximately two times higher than rates among people living in low poverty neighborhoods (<10% of population below federal poverty level).
- Racial and ethnic inequities in the distribution of STIs persisted in NYC. In 2022, the rate of reported P&S syphilis cases among Black men was 2.4 times the rate among white men (71.5 and 29.2 cases per 100,000 population, respectively).
- In 2022, there was a total of 3,822 mpox cases in NYC, mostly among people ages 25 to 34 years (74.6%), Black or Hispanic/Latin(o/a)² people (27.5% and 34.8%, respectively), men (93.8%) and LGBQ+ people (64.3%).
- In 2022, the NYC Health Department opened 14,340 syphilis investigations based on positive syphilis tests reported by laboratories, completing 81.4% of investigations within the recommended 14 days. There were 3,785 syphilis cases assigned for follow-up interviews, with a completion rate of 82.8%.

² For more information, see the Technical Notes section on reported race and ethnicity.

Table of Contents

Description	Page
Table 1. Reported STI Case Numbers and Rates, by Sex, NYC, 2021 to 2023 (Half Year 2023, Preliminary)	4
Panel 1. Reported Chlamydia, Gonorrhea, Primary and Secondary Syphilis, and Early Latent Syphilis Case Rates, by Sex, NYC, 2017 to 2022	5
Panel 2. Reported Chlamydia, Gonorrhea, Primary and Secondary Syphilis, and Early Latent Syphilis Case Rates, by Borough, NYC, 2017 to 2022	6
Table 2. Reported Chlamydia Case Numbers, Rates and Ranks, by UHF Neighborhood, NYC, 2022	7
Table 3. Reported Gonorrhea Case Numbers, Rates and Ranks, by UHF Neighborhood, NYC, 2022	8
<u>Table 4</u> . Reported Early Syphilis (Primary, Secondary, Early Latent) Case Numbers, Rates and Ranks, by UHF Neighborhood, NYC, 2022	9
Panel 3. Reported Chlamydia, Gonorrhea, Primary and Secondary Syphilis, and Early Latent Syphilis Case Rates, by ZIP Code of Residence, NYC, 2022	10
Table 5. Reported Chlamydia Case Numbers and Rates, by Sex and Age, NYC, 2022	11
Table 6. Reported Gonorrhea Case Numbers and Rates, by Sex and Age, NYC, 2022	11
Figure 1. Reported Rectal Chlamydia and Gonorrhea Case Numbers Among Men, NYC, 2017 to 2022	12
Figure 2. Reported Chlamydia and Gonorrhea Case Rates, by Area-Based Poverty Level, NYC, 2022	12
Figure 3. Reported Primary and Secondary Syphilis Case Numbers Among Women, NYC, 2017 to 2022	13
Figure 4. Reported Congenital Syphilis Case Numbers, by Vital Status, NYC, 2017 to 2022	13
Figure 5. Reported Primary and Secondary Syphilis Case Numbers Among Men, and Proportion of Cases Among Men Who Are Living With HIV, NYC, 2017 to 2022	14
Figure 6. Reported Primary and Secondary Syphilis Case Rates Among Men, by Race and Ethnicity, NYC, 2017 to 2022	14
Figure 7. Case Investigations and Partner Services for Syphilis, NYC, 2022	15
Figure 8. Potential Congenital Syphilis Cases Averted, NYC, 2022	16
Panel 4. Reported Mpox Case Numbers, NYC, May 19, 2022, to December 31, 2022	17
Technical Notes	18
Additional Resources	21
Acknowledgments	21

Table 1. Reported STI Case Numbers and Rates (per 100,000 Population), by Sex, ^{3,4} NYC, 2021 to 2023(Half Year 2023, Preliminary)

Infection	2021		20	2023 (Half Year, Preliminary)	
	Number	Rate	Number	Rate	Number
Chlamydia					
Citywide	62,011	732.34	63,842	753.96	32,911
Women	33,051	750.59	33,366	757.74	16,925
Men	28,860	710.11	30,370	747.26	15,934
Gonorrhea					
Citywide	28,162	332.59	29,307	346.11	14,631
Women	7,126	161.83	6,040	137.17	2,801
Men	20,941	515.26	23,148	569.56	11,766
Primary and Secondary Syphilis					
Citywide	2,230	26.34	2,300	27.16	872
Women	186	4.22	252	5.72	87
Men	2,027	49.87	2,025	49.83	778
Early Latent Syphilis					
Citywide	4,526	53.45	4,481	52.92	1,873
Women	384	8.72	378	8.58	199
Men	4,096	100.78	4,017	98.84	1,616
Unknown Duration or Late Syphilis					
Citywide	3,209	37.9	3,293	38.89	1,643
Women	601	13.65	701	15.92	417
Men	2,584	63.58	2,551	62.77	1,197
Congenital Syphilis					
Citywide	24	27.67	19	21.90	16
Lymphogranuloma Venereum					
Citywide	4	0.05	6	0.07	1
Women	0	0.00	0	0.00	0
Men	4	0.09	6	0.15	1
Neonatal Herpes			·		
Citywide	10	11.53	9	10.38	3
Women	3	7.05	3	7.05	0
Men	6	13.58	6	13.58	3

³ For more information, see the Technical Notes section on reported sex and gender.

⁴ Distribution of gender identity (derived) among syphilis cases in 2022: P&S syphilis — women 235 (10.2%); men 1,973 (85.8%); transgender, gender-nonconforming or nonbinary (TGNCNB) people 92 (4%); early latent syphilis — women 321 (7.2%), men 3,835 (85.6%), TGNCNB 325 (7.3%); latent syphilis of unknown duration or late latent syphilis — women 671 (20.4%), men 2,448 (74.3%), TGNCNB 174 (5.3%).

Chlamydia Gonorrhea Citywide -Women — Men Citywide - Women ------Men 1,000 1,000 878.2 813.2 757.7 740.0 754.0 750 750 747.3 569.6 500 500 433.7 346.1 266.5 250 250 137.2 112.5 0 0 2017 2018 2020 2021 2017 2018 2019 2020 2021 2022 2019 2022 **Primary and Secondary Syphilis Early Latent Syphilis** Citywide -Women -Men Citywide Women -Men 125 125 98.8 100 100 74.8 75 75 52.9 49.8 50 50 40.7 37.9 27.2 20.4

Panel 1. Reported Chlamydia, Gonorrhea, Primary and Secondary Syphilis, and Early Latent Syphilis Case Rates (per 100,000 Population), by Sex, NYC, 2017 to 2022^{5,6}

2020

2021

2019

25

0

1.5

2017

2018

5.7

2022

25

0

3.3

2017

2018

2019

2020

2021

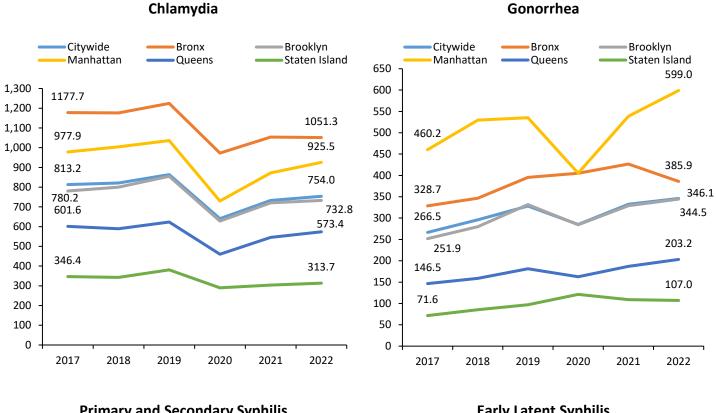
8.6

2022

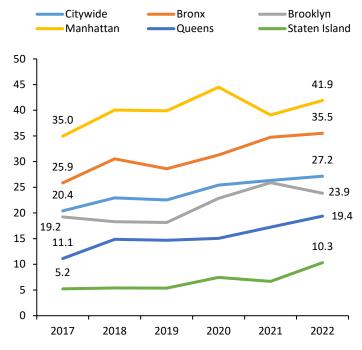
⁵ For more information, see the Technical Notes section on reported sex and gender.

⁶ Distribution of gender identity (derived) among syphilis cases in 2022: P&S syphilis — women 235 (10.2%); men 1,973 (85.8%); transgender, gender-nonconforming or nonbinary (TGNCNB) people 92 (4%); early latent syphilis — women 321 (7.2%), men 3,835 (85.6%), TGNCNB people 325 (7.3%).

Panel 2. Reported Chlamydia, Gonorrhea, Primary and Secondary Syphilis, and Early Latent Syphilis Case Rates (per 100,000 Population), by Borough, NYC, 2017 to 2022







Early Latent Syphilis

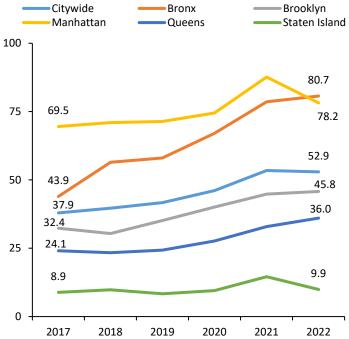


Table 2. Reported Chlamydia Case Numbers, Rates (per 100,000 Population) and Ranks, by UHF Neighborhood, NYC, 2022^{7,8}

	All Ages			Teens and Young Adults (15-24 Years)			
UHF Neighborhood	All Reported Sexes ⁷			N	len	Women	
	Number	Rate	Rank	Number	Rate	Number	Rate
Bronx	14,980	1,051.27		2,285	2,340.88	5,796	6,160.78
Kingsbridge-Riverdale (101)	470	510.77	30	55	1,099.45	159	3,048.49
Northeast Bronx (102)	1,843	894.97	14	331	2,754.53	708	5,825.87
Fordham-Bronx Park (103)	2,722	1,027.03	10	439	2,274.10	997	5,213.69
Pelham Bay-Throggs Neck (104)	2,215	735.10	20	325	1,665.25	843	4,687.83
Crotona-Tremont (105)	2,821	1,335.01	3	382	2,499.75	1,140	7,393.42
Highbridge-Morrisania (106)	2,750	1,279.84	5	415	2,758.85	1,085	7,199.30
Hunts Point-Mott Haven (107)	1,950	1,406.30	2	291	2,772.01	770	7,797.81
Brooklyn	19,353	732.78		2,898	2,011.83	5,785	3,928.45
Greenpoint (201)	950	661.36	22	72	909.59	137	1,592.98
Downtown-Brooklyn Heights-Park Slope (202)	1,400	524.76	27	166	1,660.31	289	2,487.17
Bedford Stuyvesant-Crown Heights (203)	4,469	1,316.04	4	704	3,717.84	1,422	6,788.34
East New York (204)	2,374	1,203.92	7	430	3,331.80	888	6,517.28
Sunset Park (205)	634	524.76	28	69	949.60	203	3,062.18
Borough Park (206)	741	219.85	39	77	382.70	195	1,035.92
East Flatbush-Flatbush (207)	2,942	986.25	11	478	3,081.93	935	5,705.66
Canarsie-Flatlands (208)	1,589	766.44	15	308	2,795.51	584	5,055.90
Bensonhurst-Bay Ridge (209)	448	212.33	40	53	523.11	115	1,240.74
Coney Island-Sheepshead Bay (210)	907	306.29	36	138	922.24	287	2,000.61
Williamsburg-Bushwick (211)	2,600	1,164.61	8	339	2,218.08	628	4,061.91
Manhattan	14,594	925.50		1,703	2,244.66	3,247	3,554.62
Washington Heights-Inwood (301)	2,417	926.25	12	264	1,653.02	635	4,166.24
Central Harlem-Morningside Heights (302)	2,205	1,236.97	6	344	3,055.52	647	4,923.87
East Harlem (303)	1,270	1,150.06	9	170	2,514.63	417	6,174.82
Upper West Side (304)	1,098	515.57	29	130	1,722.34	223	2,333.40
Upper East Side (305)	785	380.08	33	71	1,217.71	136	1,771.56
Chelsea-Clinton (306)	2,884	1,924.24	1	206	, 3,711.58	262	3,134.49
Gramercy Park-Murray Hill (307)	887	690.00	21	104	2,002.70	165	2,051.44
Greenwich Village-SoHo (308)	575	749.87	17	51	1,717.68	90	2,223.90
Union Square-Lower East Side (309)	1,640	906.03	13	229	2,115.73	432	3,192.69
Lower Manhattan (310)	365	622.43	24	41	1,351.94	87	2,158.12
Queens	13,367	573.41		2,059	1,676.89	3,833	3,183.11
Long Island City-Astoria (401)	1,538	752.74	16	147	1,539.06	270	2,762.95
West Queens (402)	3,436	744.98	19	659	2,375.27	767	3,257.50
Flushing-Clearview (403)	831	320.71	35	77	674.47	199	1,769.47
Bayside-Little Neck (404)	203	220.56	38	22	535.15	51	1,328.69
Ridgewood-Forest Hills (405)	909	343.65	34	100	836.48	219	1,839.73
Fresh Meadows (406)	299	299.02	37	42	788.05	100	1,857.53
Southwest Queens (407)	1,322	467.43	32	152	911.03	466	2,837.65
Jamaica (408)	2,417	746.56	18	409	2,164.83	872	4,579.43
Southeast Queens (409)	1,354	621.08	25	245	2,140.99	485	4,096.46
Rockaway (410)	869	647.79	23	165	2,187.61	357	4,678.31
Staten Island	1,548	313.68		252	828.81	614	2,093.21
Port Richmond (501)	407	563.10	26	70	1,341.24	163	3,243.84
Stapleton-St. George (502)	618	481.07	31	97	1,194.26	258	3,189.83
Willowbrook (503)	197	208.02	41	37	680.54	71	1,368.72
South Beach-Tottenville (504)	297	149.96	42	41	352.63	107	969.86

⁷ For more information, see the Technical Notes section on reported sex and gender.

⁸ The rank assigned to each UHF neighborhood (total 42 UHF neighborhoods) is based on the overall case rate per 100,000 population.

Table 3. Reported Gonorrhea Case Numbers, Rates (per 100,000 Population) and Ranks, by UHF Neighborhood, NYC, 2022^{9,10}

	All Ages			Teens and Young Adults (15-24 Years)			
UHF Neighborhood	All Reported Sexes		Men		Women		
	Number	Rate	Rank	Number	Rate	Number	Rate
Bronx	5,499	385.91		1,060	1,085.92	1,061	1,127.78
Kingsbridge-Riverdale (101)	139	151.06	31	19	379.81	24	460.15
Northeast Bronx (102)	685	332.64	21	156	1,298.21	134	1,102.64
Fordham-Bronx Park (103)	1,056	398.43	16	185	958.34	160	836.70
Pelham Bay-Throggs Neck (104)	796	264.17	22	159	814.69	142	789.65
Crotona-Tremont (105)	984	465.67	12	188	1,230.24	197	1,277.63
Highbridge-Morrisania (106)	1,076	500.77	9	206	1,369.45	211	1,400.05
Hunts Point-Mott Haven (107)	718	517.81	8	142	1,352.66	175	1,772.23
Brooklyn	9,099	344.52		1,421	986.48	1,026	696.73
Greenpoint (201)	688	478.97	11	53	669.56	14	162.79
Downtown-Brooklyn Heights-Park Slope (202)	910	341.10	20	99	990.19	51	438.91
Bedford Stuyvesant-Crown Heights (203)	2,202	648.45	4	362	1,911.73	285	1,360.53
East New York (204)	962	487.86	10	199	1,541.93	162	1,188.96
Sunset Park (205)	168	139.05	34	27	371.58	18	271.52
Borough Park (206)	250	74.17	38	38	188.87	25	132.81
East Flatbush-Flatbush (207)	1,268	425.07	15	209	1,347.54	158	964.16
Canarsie-Flatlands (208)	444	214.16	26	89	807.79	95	822.45
Bensonhurst-Bay Ridge (209)	140	66.35	39	15	148.05	18	194.20
Coney Island-Sheepshead Bay (210)	291	98.27	35	45	300.73	64	446.13
Williamsburg-Bushwick (211)	1,694	758.79	2	260	1,701.18	130	840.84
Manhattan	9,445	598.97		1,122	1,478.86	515	563.79
Washington Heights-Inwood (301)	1,397	535.36	7	145	907.91	62	406.78
Central Harlem-Morningside Heights (302)	1,344	753.96	3	203	1,803.11	128	974.12
East Harlem (303)	631	571.41	5	116	1,715.87	90	1,332.70
Upper West Side (304)	757	355.45	18	90	1,192.39	33	345.30
Upper East Side (305)	500	242.09	25	66	1,131.96	15	195.39
Chelsea-Clinton (306)	2,705	1,804.81	1	174	3,135.03	50	598.19
Gramercy Park-Murray Hill (307)	459	357.06	17	58	1,116.89	10	124.33
Greenwich Village-SoHo (308)	425	554.25	6	34	1,145.12	24	593.04
Union Square-Lower East Side (309)	814	449.70	13	144	1,330.42	66	487.77
Lower Manhattan (310)	203	346.17	19	27	890.30	15	372.09
Queens	4,736	203.16		818	666.19	489	406.09
Long Island City-Astoria (401)	886	433.63	14	69	722.42	27	276.30
West Queens (402)	1,207	261.70	23	223	803.77	68	288.80
Flushing-Clearview (403)	203	78.34	37	38	332.86	21	186.73
Bayside-Little Neck (404)	44	47.81	41	7	170.28	5	130.26
Ridgewood-Forest Hills (405)	368	139.12	33	62	518.62	24	201.61
Fresh Meadows (406)	83	83.01	36	13	243.92	13	241.48
Southwest Queens (407)	417	147.44	32	70	419.55	55	334.92
Jamaica (408)	815	251.74	24	172	910.39	145	761.49
Southeast Queens (409)	388	177.97	30	89	777.75	69	582.80
Rockaway (410)	275	205.00	27	64	848.53	54	707.64
Staten Island	528	106.99		136	447.29	105	357.96
Port Richmond (501)	132	182.63	29	41	785.58	25	497.52
Stapleton-St. George (502)	239	186.04	28	57	701.78	51	630.55
Willowbrook (503)	58	61.24	40	16	294.29	12	231.33
South Beach-Tottenville (504)	87	43.93	42	19	163.41	13	117.83

⁹ For more information, see the Technical Notes section on reported sex and gender.

¹⁰ The rank assigned to each UHF neighborhood (total 42 UHF neighborhoods) is based on the overall case rate per 100,000 population.

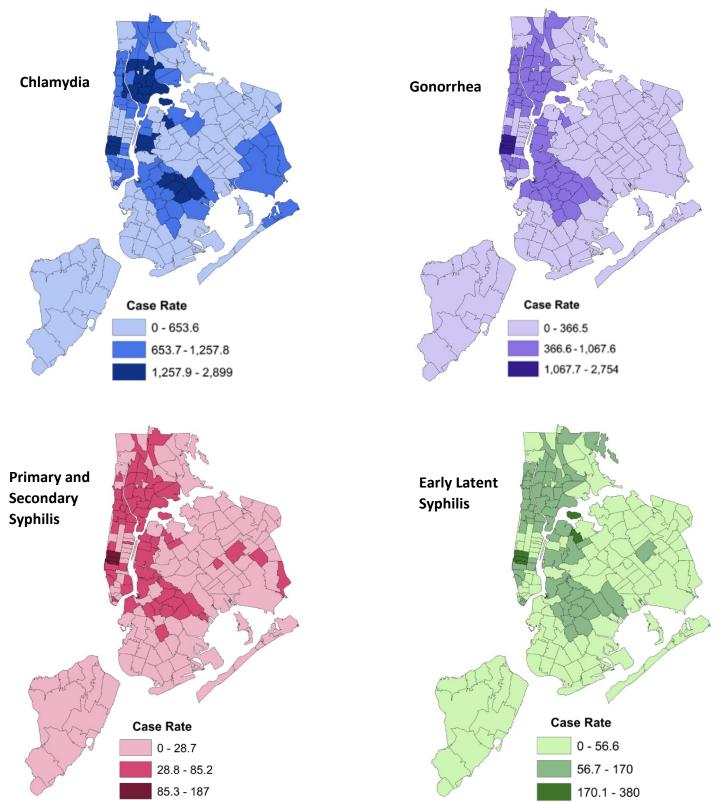
Table 4. Reported Early Syphilis (Primary, Secondary, Early Latent) Case Numbers, Rates (per 100,000 Population) and Ranks, by UHF Neighborhood, NYC, 2022^{11,12}

UHF Neighborhood	All			Men		Women	
	Number	Rate	Rank	Number	Rate	Number	Rate
Bronx	1,656	116.21		1,386	205.12	223	29.76
Kingsbridge-Riverdale (101)	42	45.64	26	36	85.90	6	11.98
Northeast Bronx (102)	166	80.61	16	135	143.19	26	23.29
Fordham-Bronx Park (103)	370	139.60	7	334	263.02	27	19.55
Pelham Bay-Throggs Neck (104)	216	71.69	21	173	120.79	37	23.40
Crotona-Tremont (105)	342	161.85	3	288	288.07	45	40.42
Highbridge-Morrisania (106)	297	138.22	8	242	238.26	44	38.84
Hunts Point-Mott Haven (107)	221	159.38	4	176	264.34	38	52.72
Brooklyn	1,839	69.63		1,640	130.4	178	12.87
Greenpoint (201)	106	73.80	19	101	142.19	4	5.50
Downtown-Brooklyn Heights-Park Slope (202)	138	51.73	23	120	95.31	15	10.65
Bedford Stuyvesant-Crown Heights (203)	478	140.76	6	444	284.49	33	17.98
East New York (204)	220	111.57	11	190	207.38	27	25.57
Sunset Park (205)	49	40.55	30	42	67.80	7	11.89
Borough Park (206)	81	24.03	37	72	43.01	6	3.54
East Flatbush-Flatbush (207)	312	104.59	13	272	198.83	38	23.53
Canarsie-Flatlands (208)	88	42.45	28	70	75.12	17	14.90
Bensonhurst-Bay Ridge (209)	42	19.91	38	37	35.87	4	3.71
Coney Island-Sheepshead Bay (210)	73	24.65	36	64	45.40	9	5.80
Williamsburg-Bushwick (211)	248	111.09	12	225	205.41	17	14.95
Manhattan	1,894	120.11		1,784	237.81	89	10.77
Washington Heights-Inwood (301)	342	131.06	9	323	254.66	17	12.67
Central Harlem-Morningside Heights (302)	283	158.75	5	262	314.66	17	17.90
East Harlem (303)	179	162.10	2	158	299.40	18	31.22
Upper West Side (304)	183	85.93	15	169	172.07	14	12.2
Upper East Side (305)	95	45.99	25	90	97.47	4	3.50
Chelsea-Clinton (306)	481	320.93	1	468	604.07	6	8.29
Gramercy Park-Murray Hill (307)	102	79.35	17	97	161.28	3	4.39
Greenwich Village-SoHo (308)	55	71.72	20	53	137.55	2	5.24
Union Square-Lower East Side (309)	135	74.58	18	126	146.47	7	7.37
Lower Manhattan (310)	28	47.75	24	28	97.17	0	0.00
Queens	1,292	55.42		1,142	100.26	131	10.99
Long Island City-Astoria (401)	231	113.06	10	212	208.06	17	16.60
West Queens (402)	401	86.94	14	369	154.83	23	10.32
Flushing-Clearview (403)	66	25.47	35	61	49.14	4	2.96
Bayside-Little Neck (404)	11	11.96	41	8	18.16	3	6.25
Ridgewood-Forest Hills (405)	97	36.67	32	95	74.35	2	1.46
Fresh Meadows (406)	16	16.00	39	12	25.06	4	7.68
Southwest Queens (407)	124	43.85	27	108	76.87	12	8.43
Jamaica (408)	211	65.18	22	163	105.80	45	26.52
Southeast Queens (409)	74	33.94	33	64	62.02	10	8.70
Rockaway (410)	56	41.74	29	47	73.08	9	12.89
Staten Island	100	20.26		90	37.27	9	3.57
Port Richmond (501)	28	38.74	31	24	67.62	4	10.88
Stapleton-St. George (502)	37	28.80	34	32	50.99	4	6.09
Willowbrook (503)	11	11.62	42	11	23.85	0	0.00
South Beach-Tottenville (504)	24	12.12	42	23	23.68	1	0.99

¹¹ For more information, see the Technical Notes section on reported sex and gender.

¹² The rank assigned to each UHF neighborhood (total 42 UHF neighborhoods) is based on the overall case rate per 100,000 population.

Panel 3. Reported Chlamydia, Gonorrhea, Primary and Secondary Syphilis, and Early Latent Syphilis Case Rates (per 100,000 Population), by ZIP Code of Residence, NYC, 2022^{13,14}



¹³ Maps cannot be compared directly because data groupings are determined by natural Jenks (breakpoints) in the data and therefore vary by pathogen. The Jenks algorithm seeks to find where large changes in value occur and create as little variance as possible within a grouping and as much variance as possible between groupings.

¹⁴ Maps display STI case rates (per 100,000 population) by Modified ZIP Code Tabulation Areas (MODZCTA). For more information, see the Technical Notes section on reported geography.

A = -	W	Women		Vlen
Age	Number	Rate	Number	Rate
≤ 9 years	8	1.64	2	0.39
10-14 years	318	136.7	61	24.88
15-19 years	7,886	3,465.49	2,865	1,232.39
20-24 years	11,389	4,468.45	6,332	2,657.75
25-29 years	6,686	1,894.16	6,836	2,099.68
30-34 years	3,325	908.1	6,175	1,721.68
35-39 years	1581	503.47	3,548	1,151.42
40-44 years	851	302.31	1,981	740.84
45-49 years	458	172.98	952	387.44
50-54 years	357	129.6	725	281.93
55-59 years	263	93.64	493	191.16
60-64 years	144	53.51	252	105.35
65+ years	93	11.68	142	24.47

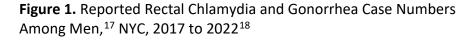
Table 5. Reported Chlamydia Case Numbers and Rates (per 100,000 Population), by Sex¹⁵ and Age, NYC,2022

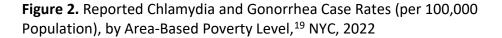
Table 6. Reported Gonorrhea Case Numbers and Rates (per 100,000 Population), by Sex¹⁶ and Age, NYC,2022

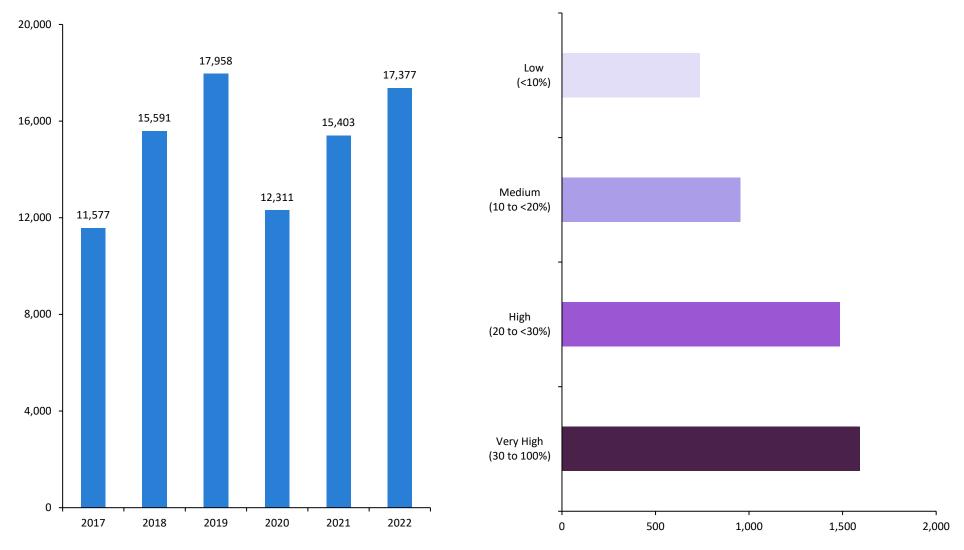
A = -	Wo	men	η	Vien
Age	Number	Rate	Number	Rate
≤ 9 years	1	0.21	1	0.2
10-14 years	72	30.95	10	4.08
15-19 years	1,331	584.91	1,091	469.3
20-24 years	1,865	731.73	3,466	1,454.79
25-29 years	1,154	326.93	5,301	1,628.2
30-34 years	775	211.66	5,637	1,571.68
35-39 years	371	118.15	3,344	1,085.21
40-44 years	204	72.47	1,825	682.5
45-49 years	99	37.39	929	378.08
50-54 years	85	30.86	721	280.38
55-59 years	38	13.53	501	194.26
60-64 years	25	9.29	213	89.04
65+ years	20	2.51	103	17.75

¹⁵ For more information, see the Technical Notes section on reported sex and gender.

¹⁶ For more information, see the Technical Notes section on reported sex and gender.







¹⁷ For more information, see the Technical Notes section on reported sex and gender.

¹⁸ Defined as chlamydia and gonorrhea cases reported with at least one positive test from a rectal specimen.

¹⁹ For more information, see the Technical Notes section on reported poverty groups.

Figure 3. Reported Primary and Secondary Syphilis Case Numbers Among Women,²⁰ NYC, 2017 to 2022

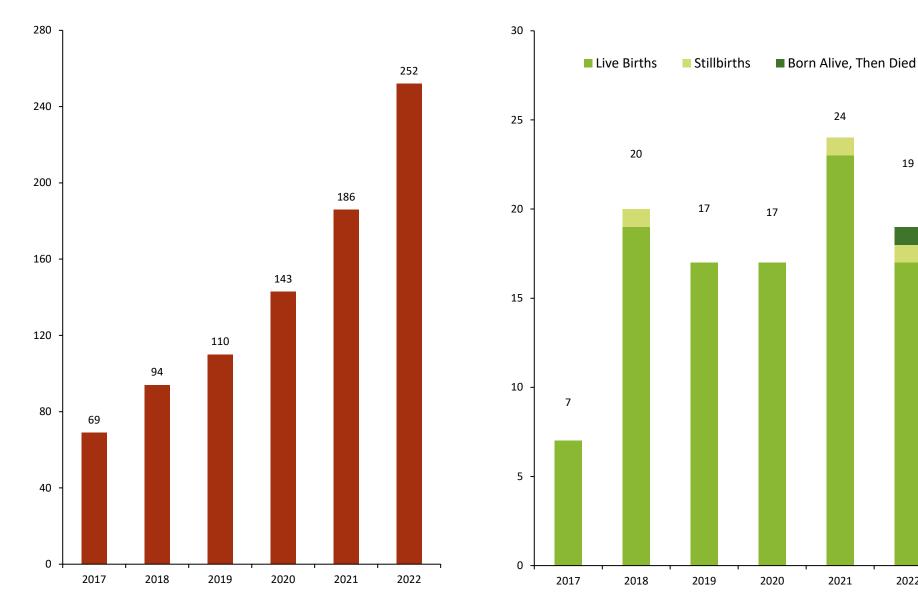


Figure 4. Reported Congenital Syphilis Case Numbers, by Vital Status, NYC, 2017 to 2022

24

2021

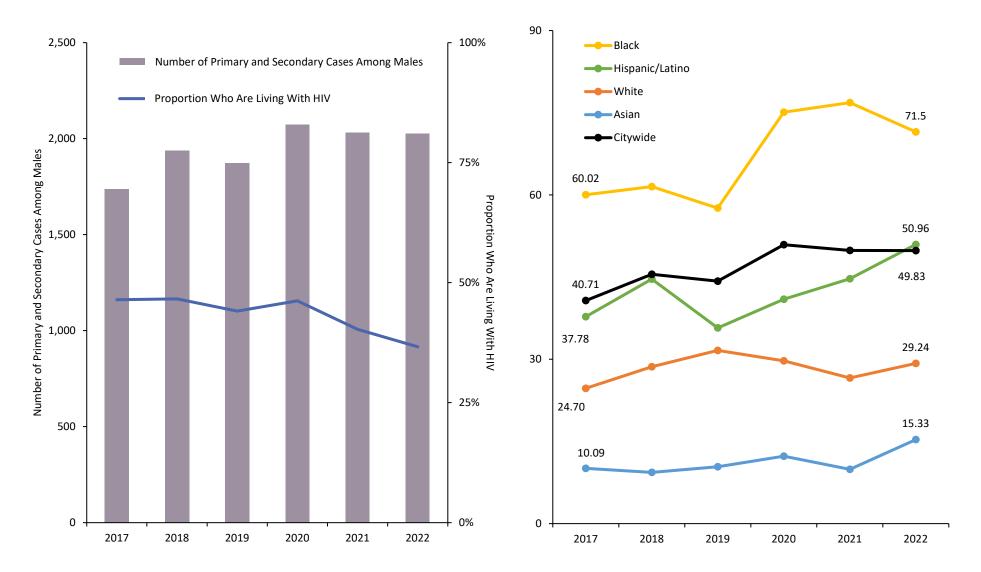
2022

19

²⁰ For more information, see the Technical Notes section on reported sex and gender.

Figure 5. Reported Primary and Secondary Syphilis Case Numbers Among Men,²¹ and Proportion of Cases Among Men Who Are Living With HIV, NYC, 2017 to 2022

Figure 6. Reported Primary and Secondary Syphilis Case Rates (per 100,000 Population) Among Men,²² by Race and Ethnicity,²³ NYC, 2017 to 2022

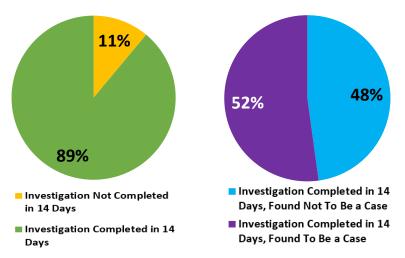


²¹ For more information, see the Technical Notes section on reported sex and gender.
²² For more information, see the Technical Notes section on reported sex and gender.
²³ For more information, see the Technical Notes section on reported race and ethnicity.

Figure 7. Case Investigations and Partner Services for Syphilis, NYC, 2022^{24,25,26}

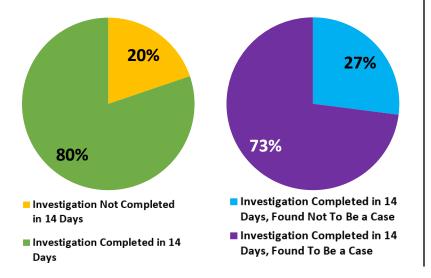
<u>Women</u>

Investigations²⁷: 2,431 investigations based on positive syphilis laboratory tests among women were conducted; 2,162 were completed within 14 days.

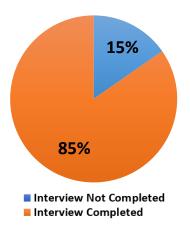


Men

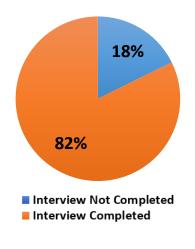
Investigations²⁷: 11,710 case investigations based on positive syphilis laboratory tests among men were conducted; 9,393 were completed within 14 days.



Interviews: 1,117 cases among women were assigned for interview.



Interviews: 2,636 cases among men were assigned for interview.



²⁴ The NYC Health Department's team of STI Disease Intervention Specialists work to find people who need treatment for STIs, help determine stage of disease, and assist in notifying partners who may have been exposed to an STI and linking them to STI testing and treatment.

²⁵ For more information, see the Technical Notes section on Disease Intervention Specialists.

²⁶ For more information, see the Technical Notes section on reported sex and gender.

²⁷ For more information, see the Additional Resources section for Council of State and Territorial Epidemiologists (CSTE) case definitions.

Figure 7 (Continued). Case Investigations and Partner Services for Syphilis, NYC, 2022^{28, 29, 30}

Transgender People

Investigations³¹: 196 case investigations based on positive syphilis laboratory tests among transgender individuals were conducted; 163 were completed within 14 days.

Interviews: 32 cases among transgender individuals were assigned for interview.

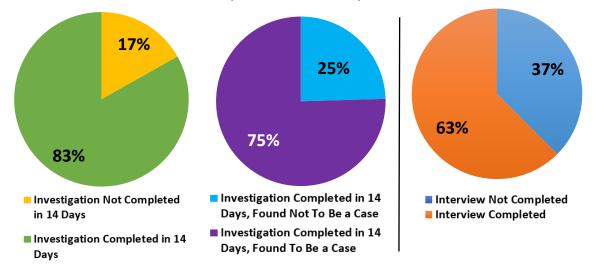
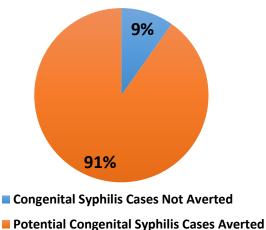


Figure 8. Potential Congenital Syphilis Cases Averted, NYC, 2022 ³¹



<u>Pregnant People With Syphilis</u> — 196 cases of syphilis were identified in pregnant people.

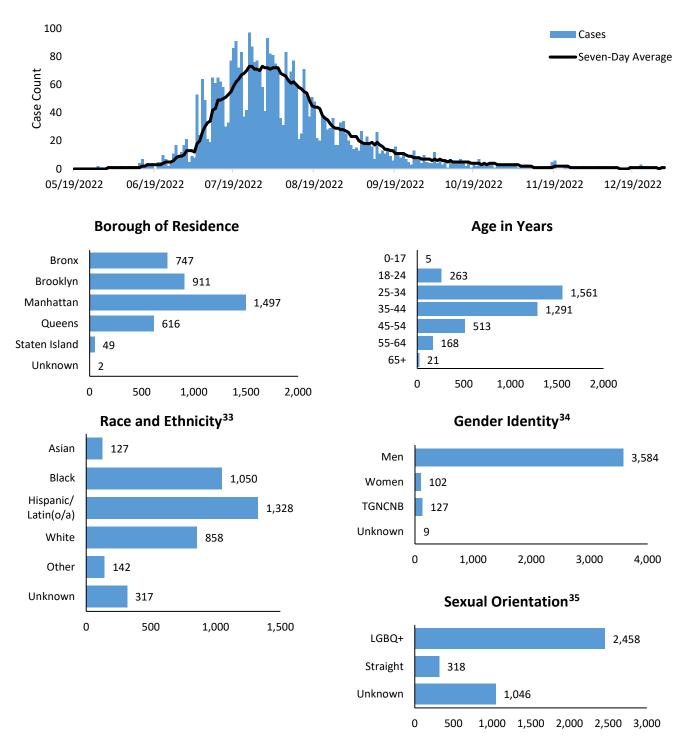
²⁸ The NYC Health Department's team of STI Disease Intervention Specialists work to find people who need treatment for STIs, help determine stage of disease and assist in notifying partners who may have been exposed to an STI and linking them to STI testing and treatment.

²⁹ For more information, see the Technical Notes section on Disease Intervention Specialists.

³⁰ For more information, see the Technical Notes section on reported sex and gender.

³¹ This measure reflects an estimate of the proportion of potential congenital syphilis cases averted, where a "congenital

syphilis case" is defined according to the current surveillance definition. This performance measure reflects the scale of public health intervention to prevent congenital syphilis in a project area.



Panel 4. Reported Mpox Case Numbers, NYC, May 19, 2022, to December 31, 2022³²

³² Unknown categories due to missing information in case investigation.

³³ For more information, see the Technical Notes on reported race and ethnicity.

³⁴ Gender identity (derived). TGNCNB stands for transgender, gender-nonconforming and nonbinary. For more information, see the Technical Notes section on reported sex and gender.

³⁵ LGBQ+ stands for lesbian, gay, bisexual, queer/questioning/not sure or other nonheterosexual identities.

Technical Notes

Cases of STIs in NYC — Case Numbers and Case Rates

The NYC Health Department reports both case numbers and case rates of certain STIs in NYC. We report rates to allow comparison between different groups — such as by sex — with different population sizes. For example, we may report that the rate of gonorrhea cases is 100 per 100,000 men in NYC. That means that for every 100,000 men in NYC, there are 100 men reported with a gonorrhea infection.

The NYC Health Department calculates STI rates using interpolated intercensal population estimates, updated in 2022 by the NYC Health Department's Bureau of Epidemiology Services. The NYC Health Department produced these population estimates based on estimates from the U.S. Census Bureau and NYC Department of City Planning. Population estimates are updated as new data become available. Therefore, rates in this report may differ from previously reported rates. Because of the schedule for releasing updated population estimates, both 2021 and 2022 rates per 100,000 were calculated using 2021 population estimates.

The NYC Health Department calculates congenital syphilis and neonatal herpes rates using the number of live births among NYC residents. Vital statistics data were available such that 2021 and 2022 rates per 100,000 were calculated with 2021 and 2022 live birth counts, respectively.

Cases of STIs in NYC — <u>Reporting Requirements</u>

The NYC Health Department receives reports from providers and laboratories for various infectious diseases, including certain STIs, as required by the NYC Health Code. Basic demographic information on the person being tested is reported to the NYC Health Department, including name, address and date of birth. Annual summary data are limited to people who are NYC residents at the time of STI diagnosis.

The following STIs are reportable to the NYC Health Department within 24 hours of diagnosis:

- Chancroid
- Chlamydia
- Gonorrhea
- Granuloma inguinale (donovanosis)
- Herpes, neonatal (infants ≤ 60 days)
- Lymphogranuloma venereum
- Mpox*
- Syphilis (all stages, including congenital)

*Reportable immediately upon suspicion

Disease Intervention Specialists (DIS)

DIS are trained public health advisers whose STI work includes conducting disease investigations, contact tracing and offering partner services to people with STIs, their partners and others at increased risk for infection. A disease investigation is an information-gathering process to determine whether reports to the NYC Health Department indicate a true case of an STI. This process may include locating a person, provider outreach and medical record reviews. DIS also conduct case interviews, which involve working with a person who has been diagnosed with an STI to provide counseling and link them to care, treatment and partner services.

Reported Geography of People Reported With STIs in NYC: ZIP Codes, Modified ZIP Code Tabulation Areas and UHF Neighborhoods

The NYC Health Department uses multiple levels of geography to report STI data. Each person reported with an STI is classified based on their ZIP code of residence at the time of report. People with a missing or inaccurate ZIP code are excluded from tables with geographic information.

It can be challenging to map data by ZIP code because a ZIP code does not refer to an area but rather to a collection of points that make up a mail delivery route. Therefore, the NYC Health Department uses ZIP Code Tabulation Areas (ZCTAs), which were created by the U.S. Census Bureau and are representative of geographic locations of populated areas. The Modified ZCTA (MODZCTA) geography combines census blocks with smaller populations to allow more stable estimates of population size for rate calculation.

To present data at the neighborhood level, people reported with an STI are assigned to a UHF neighborhood based on their ZIP code of residence at the time of report. This level of geography includes groups of contiguous ZIP codes and was created by the NYC Health Department, UHF and other City agencies in the 1980s. For more information about the different levels of geography, visit the <u>NYC Environmental and Health Data Portal</u>.

Reported Poverty Groups for People Reported With STIs in NYC

The NYC Health Department defines an area's poverty as the percentage of people earning below the federal poverty threshold (FPT) within a ZCTA, per the 2017-2021 American Community Survey. The standard cut points for describing the poverty level of a geographic area in NYC are:

- Low: < 10% of residents in ZCTA living below the FPT
- Medium: 10% to < 20% living below the FPT
- High: 20% to < 30% living below the FPT
- Very high: ≥ 30% living below the FPT

For more information on classification of area-based poverty groups, see the NYC Health Department's "<u>Selecting and Applying a Standard Area-Based Socioeconomic Status Measure</u> for Public Health Data: Analysis for New York City."

Reported Race and Ethnicity of People Reported With STIs in NYC

Race and ethnicity information is often missing in reportable disease surveillance, particularly when laboratory reporting is the predominant reporting mechanism, as it is for STI surveillance. Information for race and ethnicity also comes from provider reports, and, for people with specific infections (for example, syphilis), from interviews conducted as part of case investigation or partner services.

Starting in 2019, in alignment with federal Office of Management and Budget (OMB) standards, information on race and ethnicity was aggregated into the following mutually exclusive categories:

- American Indian or Alaska Native
- Asian
- Black
- Hispanic/Latin(o/a)

- Native Hawaiian or Pacific Islander
- Other
- Unknown
- White

The Hispanic/Latin(o/a) category includes people of any race, and all other categories exclude those who identified as Hispanic/Latin(o/a). Information on ethnicity is collected from multiple sources with varying categories of Hispanic/Latin(o/a). Population denominators are not calculated for people who identified as "Other" or "Unknown," and consequently, rates per 100,000 cannot be calculated; annual summary data include counts, but not rates, for these groups.

Racial and ethnic inequities in STI case numbers and rates can be attributed to long-term structural racism, not biological or personal traits. The disproportionate impact of STIs among people of color in NYC reflects existing structural racism, which prevents communities of color from accessing vital resources and opportunities, and negatively affects overall health and wellbeing. For more information on what the NYC Health Department is doing to better address racial health gaps and improve health outcomes for all New Yorkers, visit the NYC Health Department's <u>Race to Justice</u> webpage.

Reported Sex and Gender of People Reported With STIs in NYC

Information on the sex of people reported with an STI is based primarily on laboratory reports and provider reports received by the NYC Health Department. The following options are included on the report form: male, female and transgender. There is not yet an option for reporting sex assigned at birth or gender identity via routine reporting; therefore, the providers and facilities who order the STI testing are responsible for classifying transgender, gendernonconforming and nonbinary (TGNCNB) people into the "reported sex" categories. In this report, data on men and women, unless otherwise specified, are based on this reported field and cannot be parsed as sex assigned at birth, legal sex or gender identity.

Information on sex assigned at birth and gender identity are collected from case investigation or partner services interviews for specific infections (for example, syphilis). Thus, information on gender identity is only available for a subset of cases; furthermore, rates cannot be calculated for cases among TGNCNB people because accurate denominators are not known for these subpopulations. When deriving gender identity for this report, people who self-report their identity as transgender woman, transgender man, genderqueer or nonbinary, or whose current gender identity differs from their sex assigned at birth or reported sex, are categorized as TGNCNB people. If self-reported gender is not available, a person's reported gender may not reflect their current self-identification.

Additional Resources

New York City Department of Health and Mental Hygiene	<u>Hepatitis A, B and C in New York City: 2022</u> <u>Annual Report</u>
New York City Department of Health and Mental Hygiene	HIV Surveillance Annual Report, 2022
CDC STI Treatment Guidelines	cdc.gov/std/treatment-guidelines/
Case Definitions	ndc.services.cdc.gov/
Mpox resources	nyc.gov/site/doh/health/health- topics/mpox.page
NYC Sexual Health Clinics	nyc.gov/sexualhealthclinics
NYC Syphilis Registry	nyc.gov/assets/doh/downloads/pdf/std/hcp- syphilis-registry-check.pdf
Provider reporting of STIs, including HIV	nyc.gov/site/doh/providers/reporting-and- services/reporting-central.page nyc.gov/site/doh/data/data-sets/hiv-aids-how-
	to-report-a-diagnosis.page
Provider resources on STIs	nyc.gov/site/doh/providers/health- topics/stds.page
Request STI training and education for organizations and medical providers	stitraining@health.nyc.gov

Acknowledgments

Published by the Bureau of Hepatitis, HIV, and Sexually Transmitted Infections at the New York City Department of Health and Mental Hygiene.

42-09 28th Street, 20th Floor Long Island City, NY 11101 Tel: 347-396-7201 Fax: 347-396-7355

Thanks to all the staff of the STI Surveillance, Case Investigation, and Partner Services teams for collecting and collating the data presented in this report, and to the STI Epidemiology team for preparing and reviewing this report.

Suggested Citation:

New York City Department of Health and Mental Hygiene Bureau of Hepatitis, HIV, and Sexually Transmitted Infections New York City STI Surveillance Report, 2022