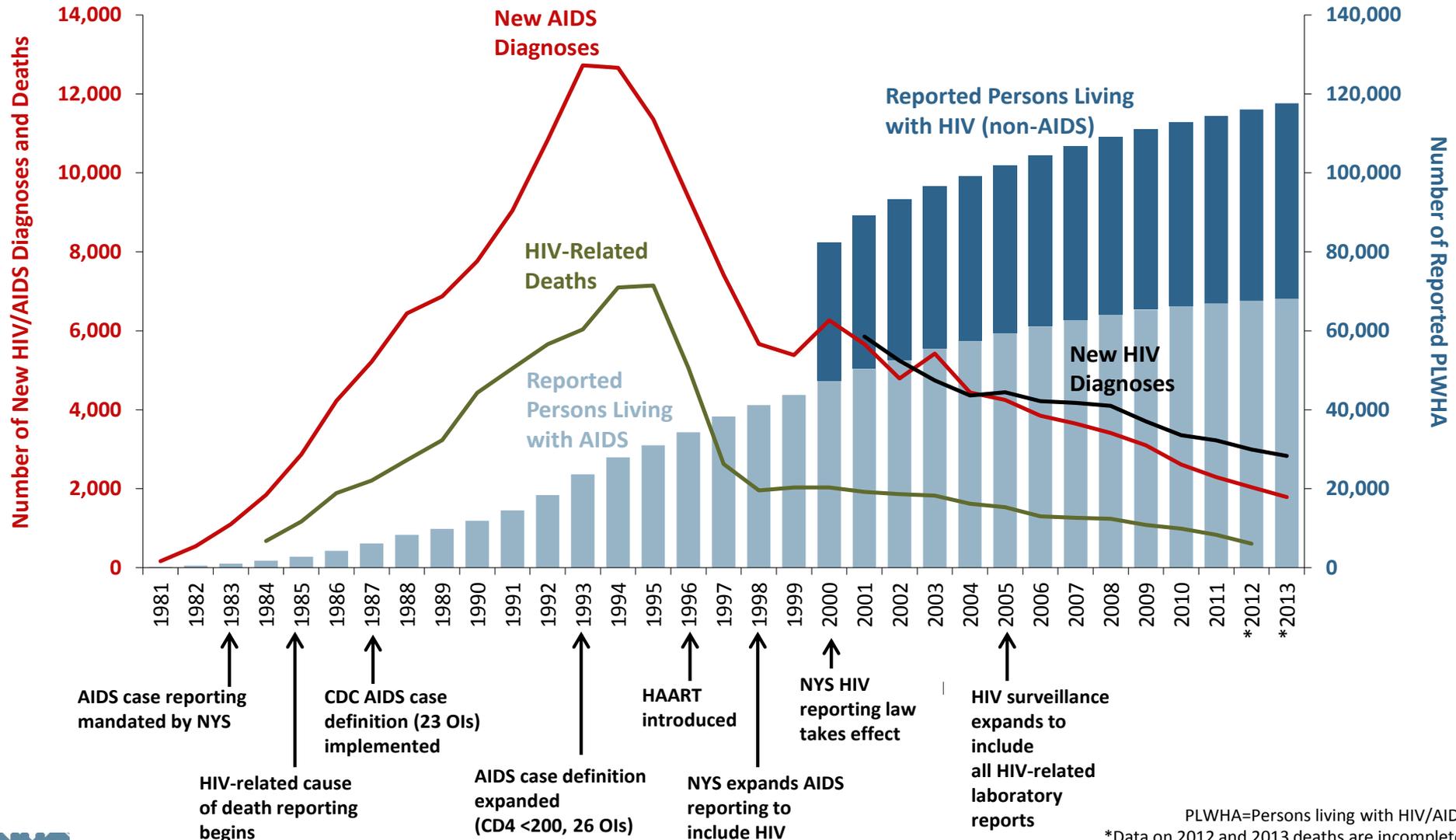


Monitoring progress toward the end of the HIV epidemic in New York State: *HIV Epidemiology in NYC*

Sarah L. Braunstein, PhD MPH

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New York City Department of Health and Mental Hygiene

HIV in NYC, 1981-2013

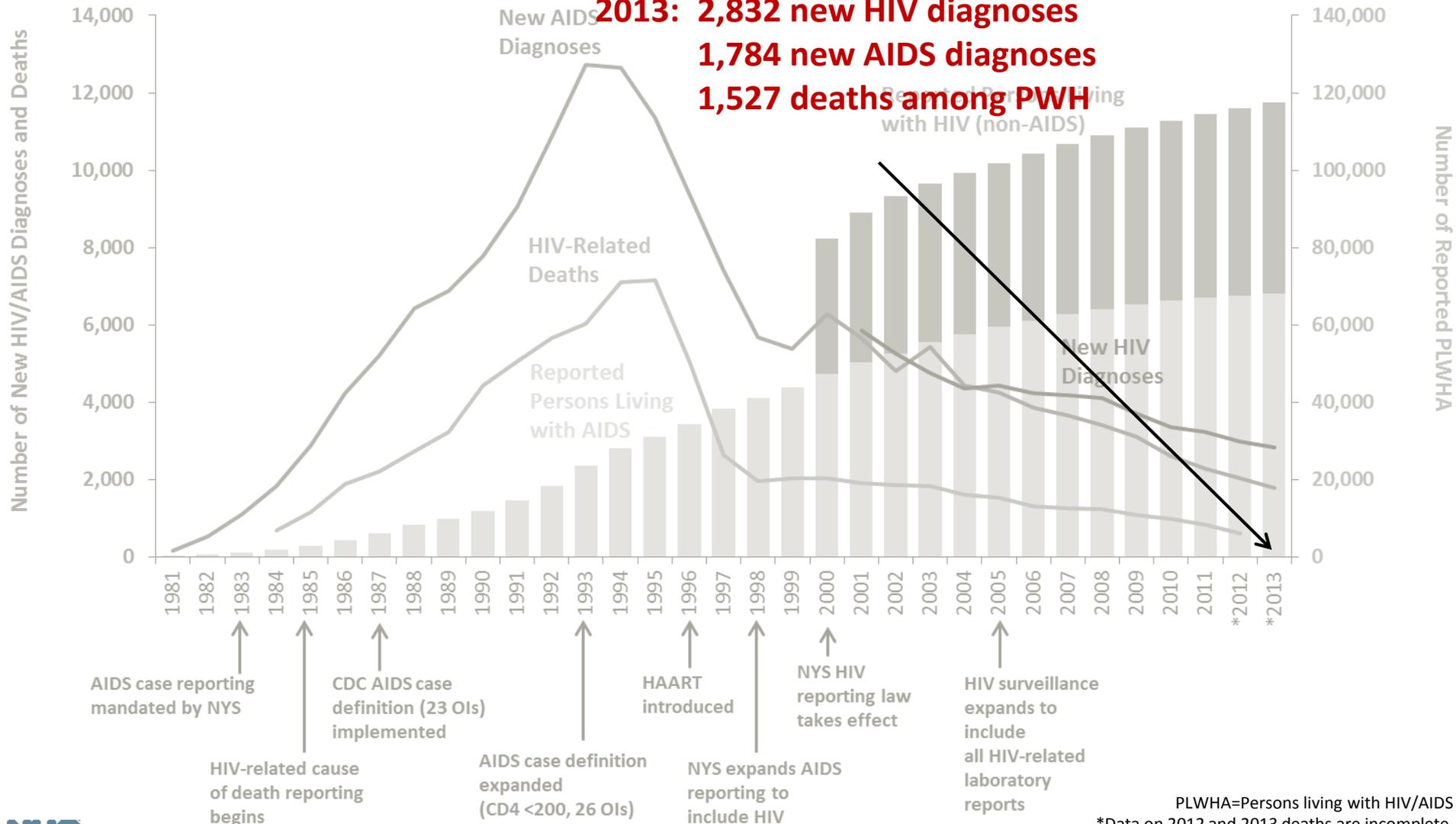


PLWHA=Persons living with HIV/AIDS

*Data on 2012 and 2013 deaths are incomplete.

Data as reported to NYC DOHMH by June 30, 2014.

HIV in NYC, 1981-2013



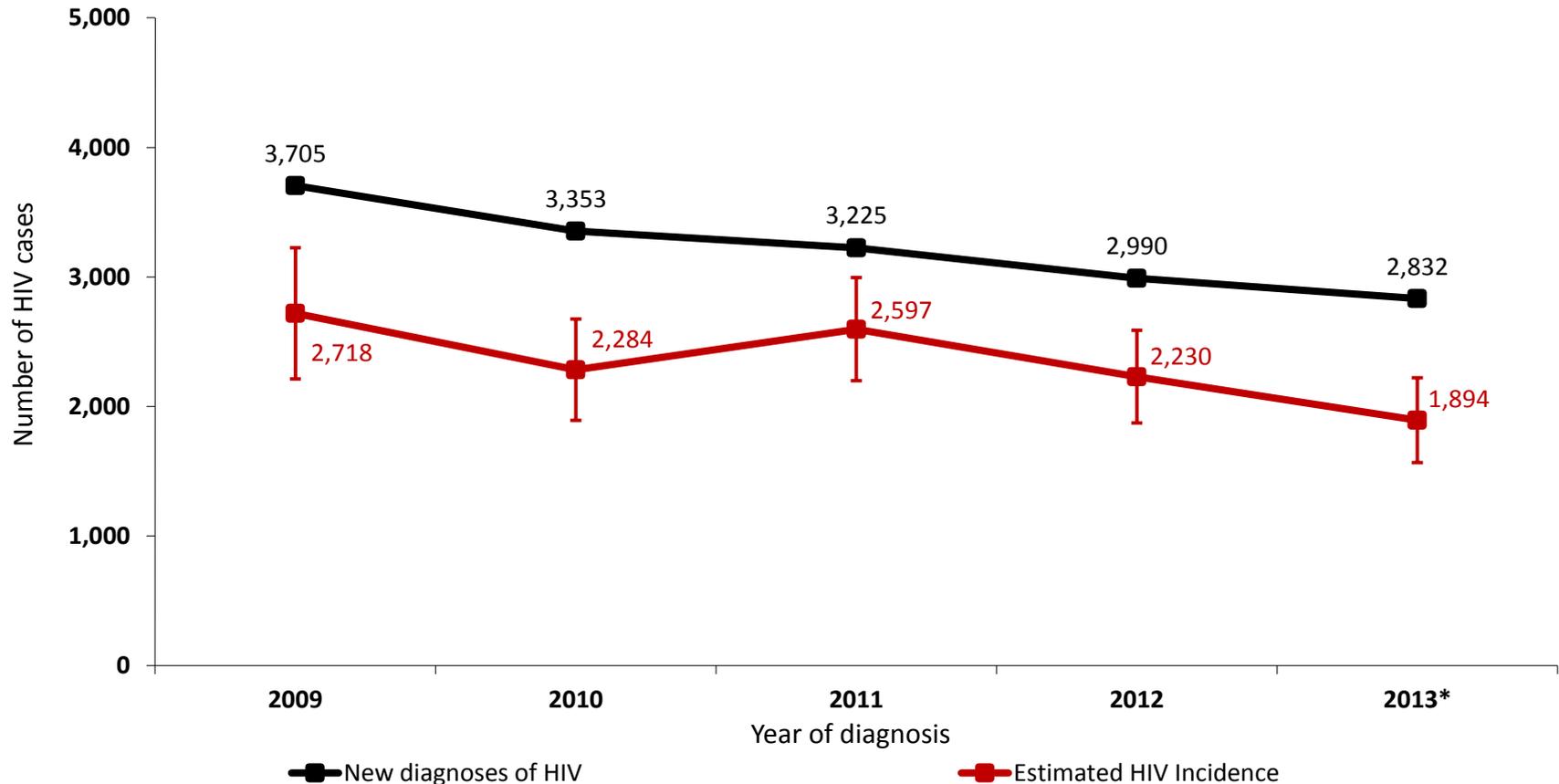
HIV Diagnoses, 2001-2013

HIV Diagnoses	2001	2013	EAPC	P Value
Total	5,852	2,832	-5.28	<0.01
Sex				
Male	3,901	2,280	-3.76	<0.01
Female	1,951	552	-9.40	<0.01
Age Group (Years)				
0-12	85	2	-24.11	<0.01
13-19	183	114	-1.81	<0.01
20-29	1,106	1,006	0.09	0.69
30-39	2,089	662	-9.09	<0.01
40-49	1,538	589	-7.30	<0.01
50-59	629	307	-4.66	<0.01
60+	222	152	-2.22	<0.01

HIV Diagnoses	2001	2013	EAPC	P Value
Race/Ethnicity				
Black	3,071	1,191	-6.77	<0.01
Hispanic	1,762	955	-4.36	<0.01
White	888	517	-3.69	<0.01
Asian/Pacific Islander	115	113	0.17	0.81
Native American	13	5	-10.40	<0.01
Transmission Risk				
MSM	1,689	1,609	0.06	0.74
IDU	844	49	-18.73	<0.01
MSM & IDU	120	40	-8.32	<0.01
Heterosexual	1,450	520	-6.02	<0.01
Perinatal	86	2	-23.48	<0.01

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

New HIV Diagnoses and Estimated Incidence in NYC, 2009-2013

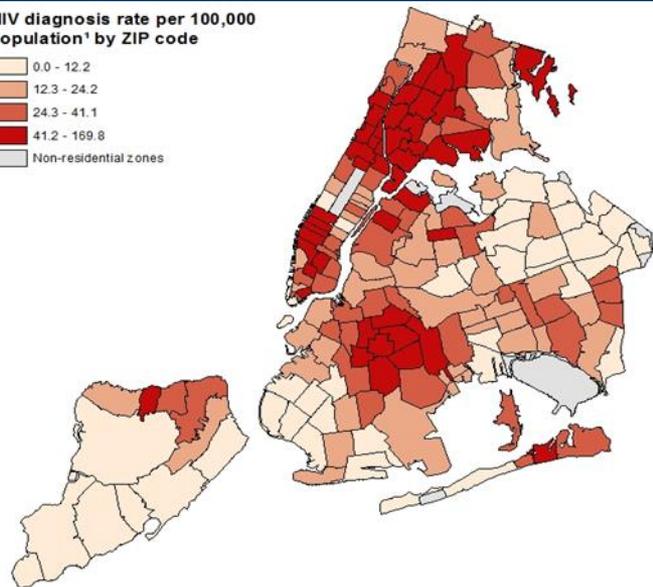
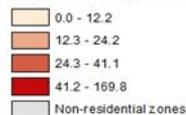


*2013 incidence data are preliminary.

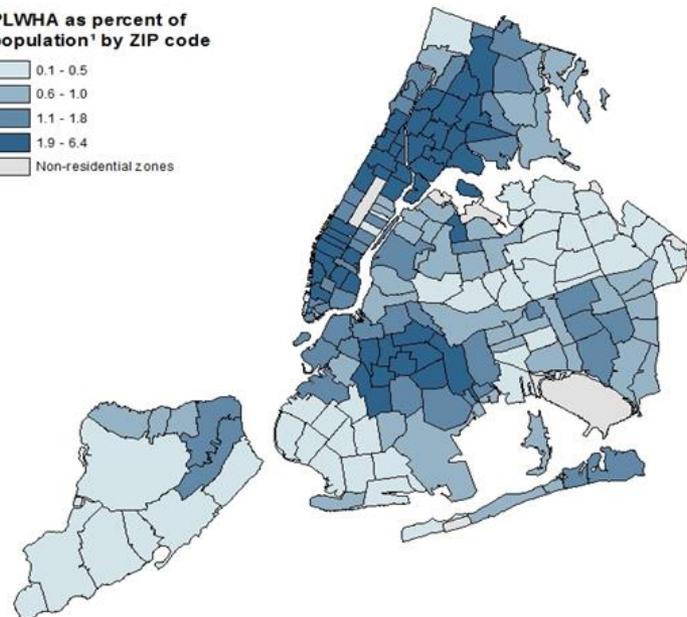
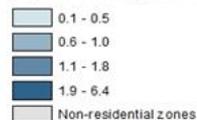
¹Estimates generated September 2014, by the CDC Stratified Extrapolation Approach (SEA). SEA combines results from the Serologic Testing Algorithm for Recent Seroconversion (STARHS) with data on demographic characteristics, risk factor, initial diagnosis date, testing and treatment history that are contained in the HIV surveillance registry. Unknown risk factor was imputed using the Multiple Imputation procedure in SAS v9.2. Surveillance data used in these estimates were reported through June 30, 2014.

Geographic Distribution of HIV in NYC, 2013

HIV diagnosis rate per 100,000 population¹ by ZIP code

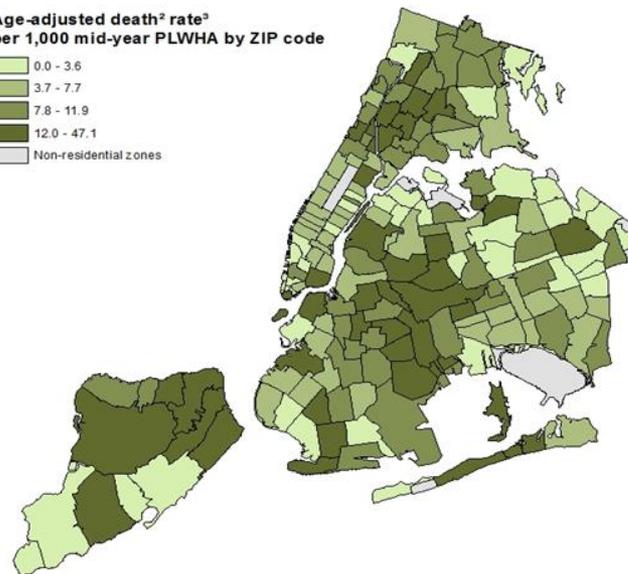
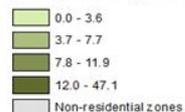


PLWHA as percent of population¹ by ZIP code



- ZIP codes in the Central Harlem-Morningside Heights, Chelsea-Clinton, and Williamsburg-Bushwick neighborhoods had the highest HIV diagnosis rates.
- ZIP codes in Chelsea-Clinton, West Queens, and East Harlem had the highest HIV prevalence.
- ZIP codes in Lower Manhattan, Stapleton-St. George, and Willowbrook had the highest mortality among persons with HIV.

Age-adjusted death² rate³ per 1,000 mid-year PLWHA by ZIP code



Data as reported to NYC DOHMH by June 30, 2014.

HIV diagnoses includes diagnoses of HIV without AIDS and HIV concurrent with AIDS.

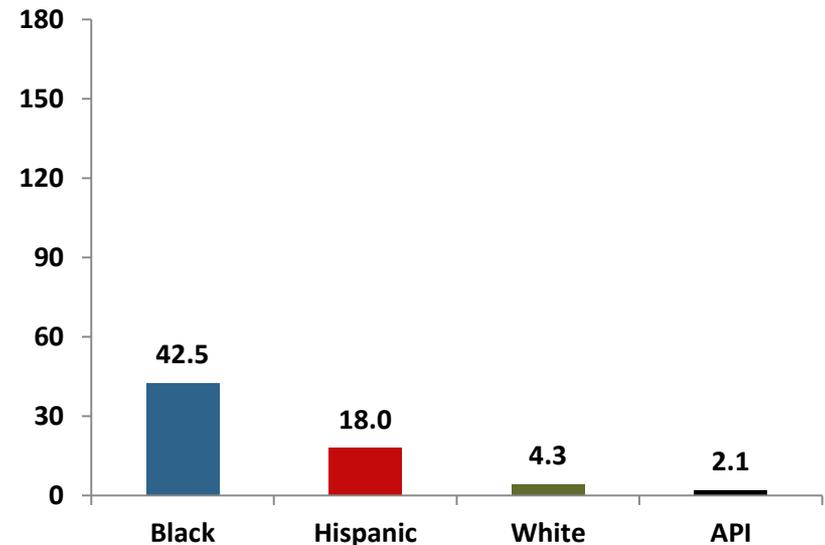
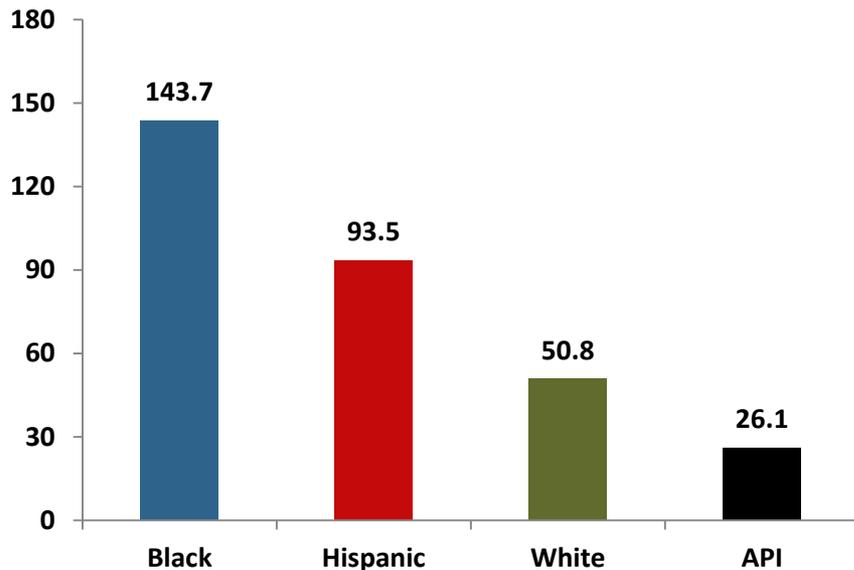
¹Diagnosis rates and percentages calculated using the intercensal 2013 NYC population.

²2013 death data are incomplete. ³Death rates are age-adjusted to the NYC Census 2010 population.

HIV Diagnosis Rates¹ Among Males and Females in NYC by Race/Ethnicity², 2013

The HIV diagnosis rate among black males was 1.5 times higher than the rate among Hispanic males and over 2 times higher than the rate among white males.

The HIV diagnosis rate among black females was over 2 times higher than the rate among Hispanic females and over 9 times higher than the rate among white females.



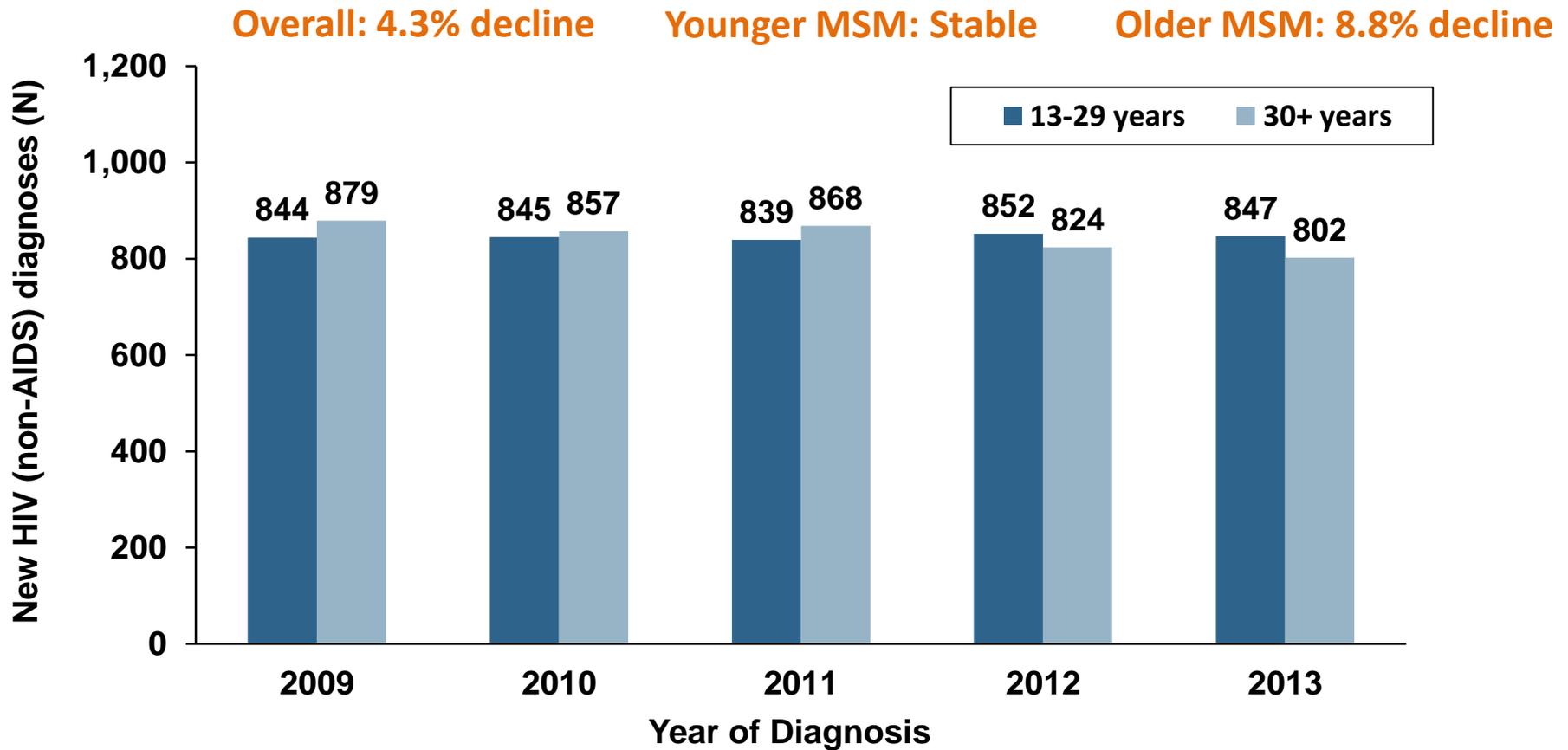
Data as reported to NYC DOHMH by June 30, 2014.

API=Asian/Pacific Islander

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

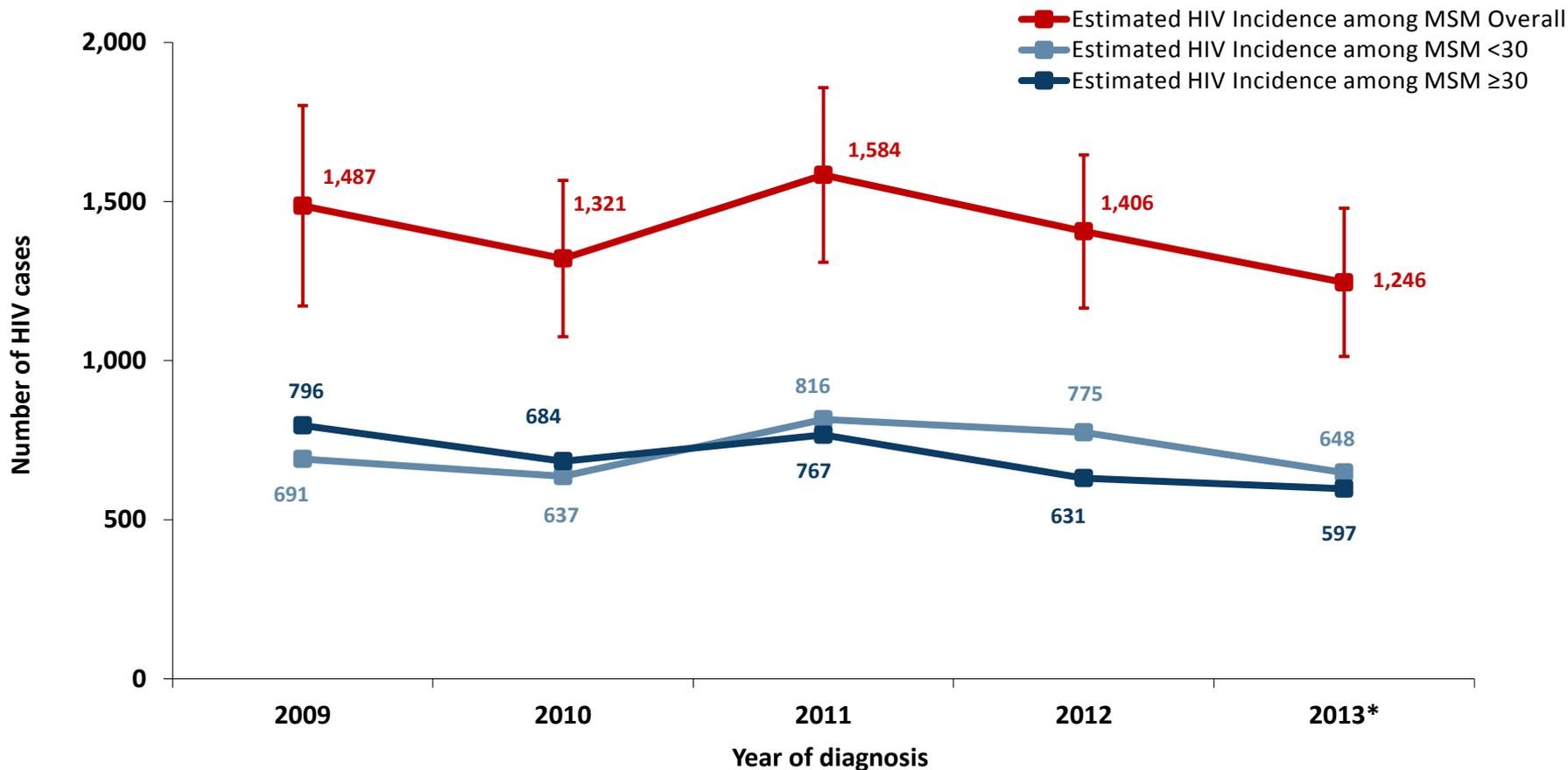
²Native American and multiracial groups not shown because of small numbers.

New HIV Diagnoses Among MSM in NYC, 2009-2013



Since 2012, the number of new HIV diagnoses is higher among MSM under age 30 than among those in older age groups

Estimated HIV Incidence Among MSM in NYC, 2009-2013

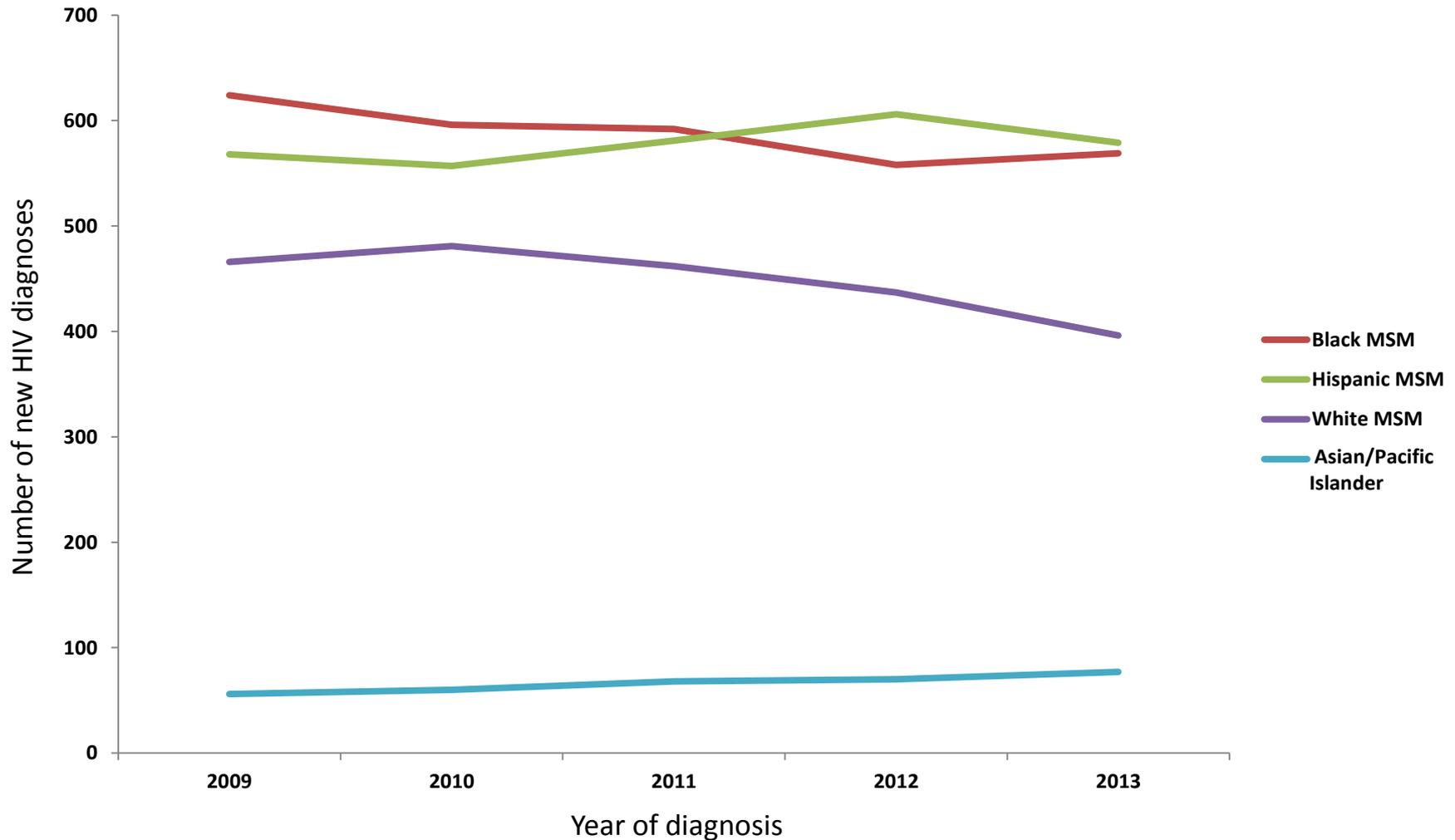


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¹Estimates generated September 2014, by the CDC Stratified Extrapolation Approach (SEA). SEA combines results from the Serologic Testing Algorithm for Recent Seroconversion (STARHS) with data on demographic characteristics, risk factor, initial diagnosis date, testing and treatment history that are contained in the HIV surveillance registry. Unknown risk factor was imputed using the Multiple Imputation procedure in SAS v9.2. Surveillance data used in these estimates were reported through June 30, 2014.

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

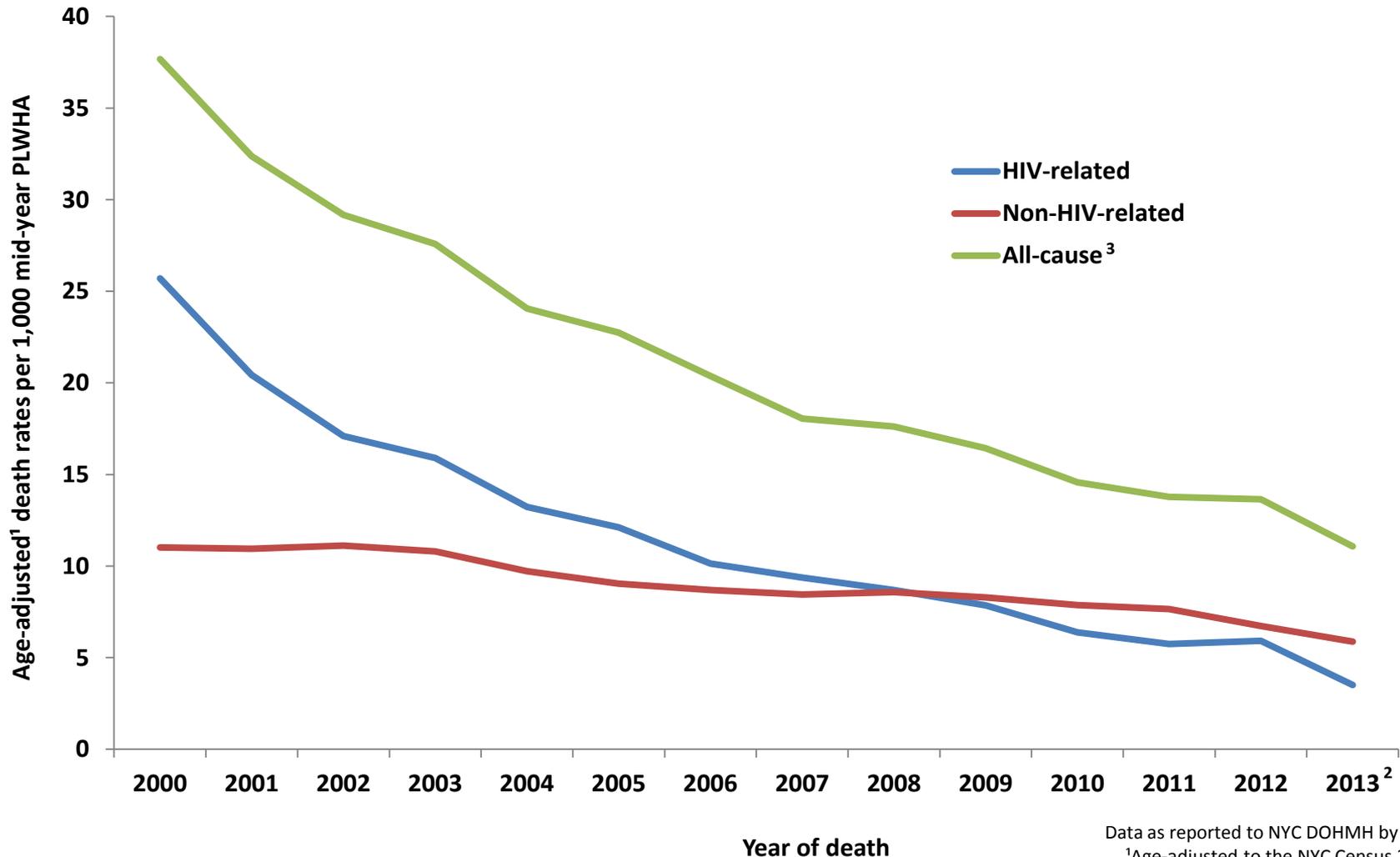
New HIV Diagnoses Among MSM by Race/Ethnicity* in NYC, 2009-2013



Data as reported to NYC DOHMH by June 30, 2014.

*Native American and multiracial groups not shown due to small numbers.
MSM risk category includes men who have sex with men and inject drugs (MSM-IDU).

Age-adjusted Death Rates Among Persons with HIV in NYC, 2000-2013



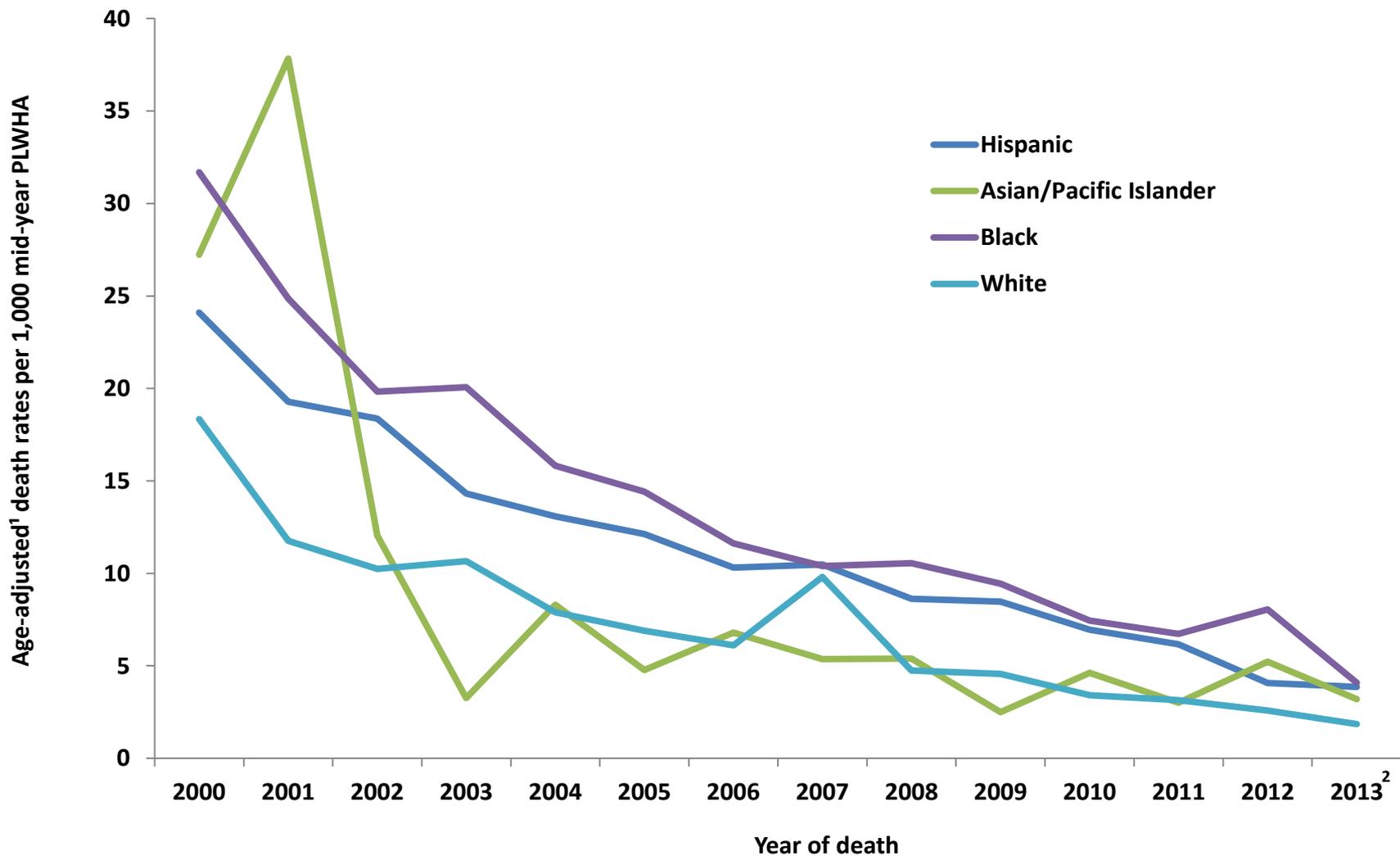
Data as reported to NYC DOHMH by March 31, 2015.

¹Age-adjusted to the NYC Census 2010 population.

²2013 deaths outside NYC are incomplete.

³Includes persons with unknown cause of death.

Age-adjusted HIV-related Death Rates in NYC by Race/Ethnicity, 2000-2013

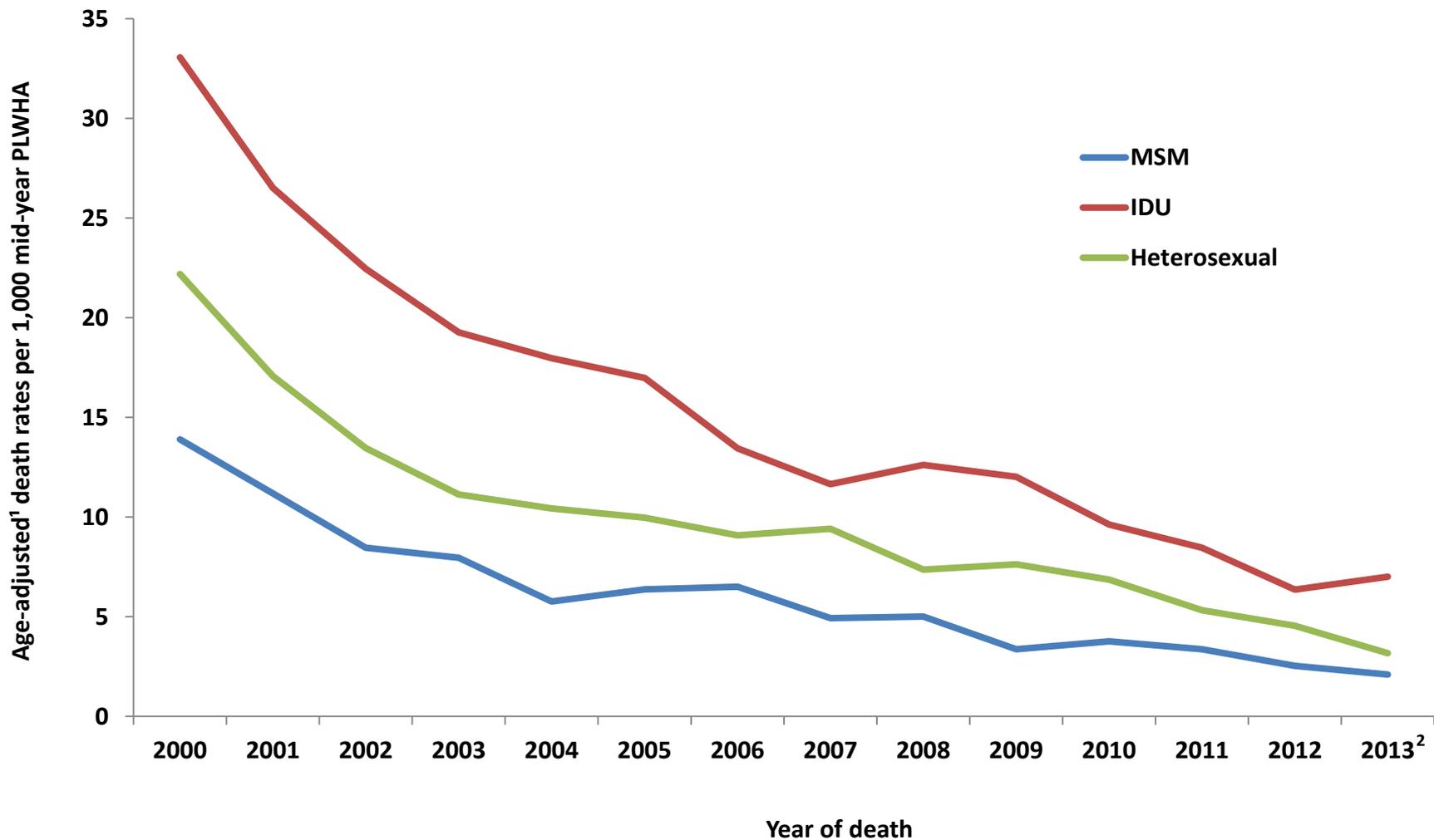


Data as reported to NYC DOHMH by March 31, 2015.

¹Age-adjusted to the NYC Census 2010 population.

²2013 deaths outside NYC are incomplete.

Age-adjusted HIV-related Death Rates in NYC by Transmission Risk Category, 2000-2013

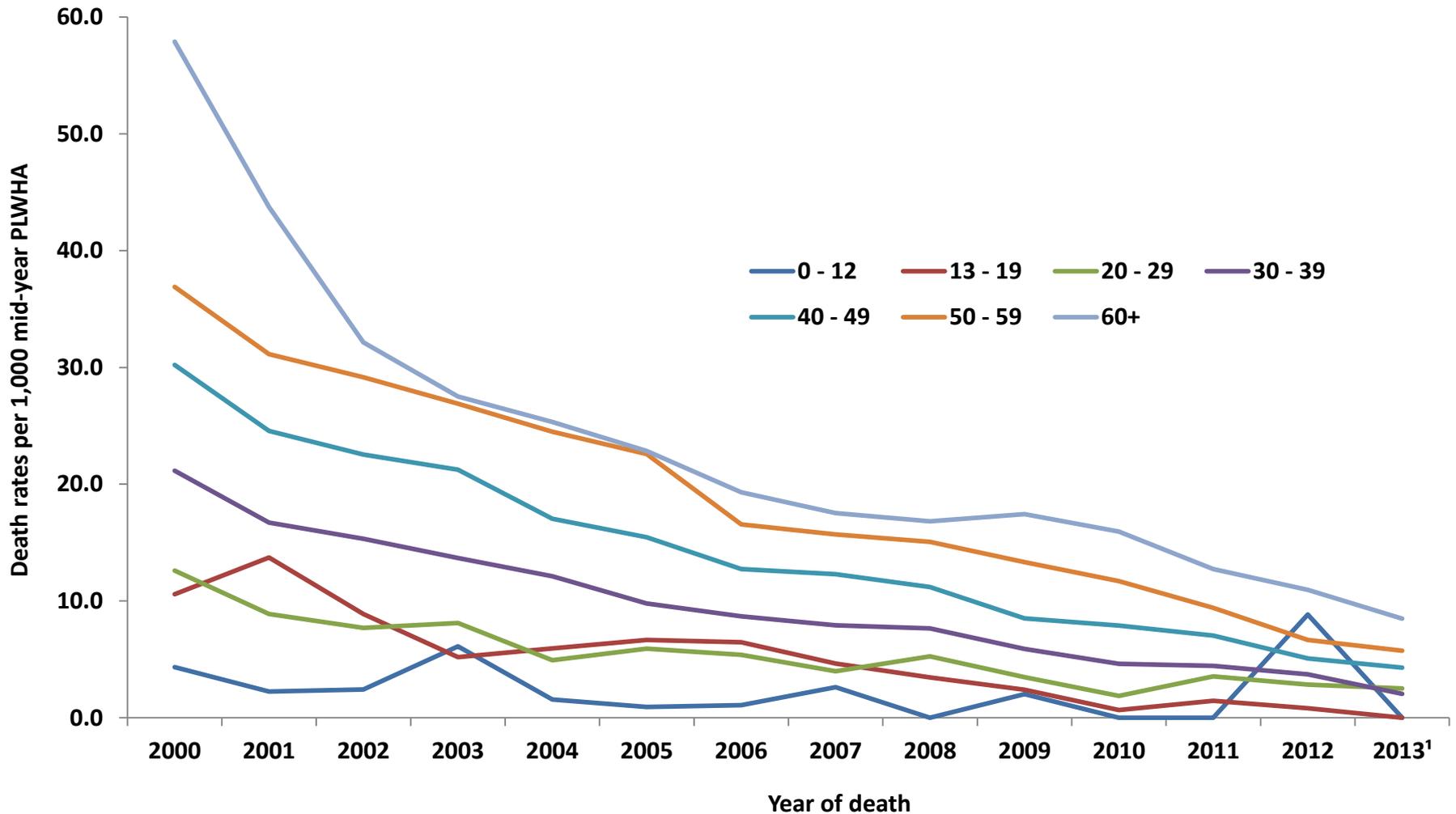


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²2013 deaths outside NYC are incomplete.

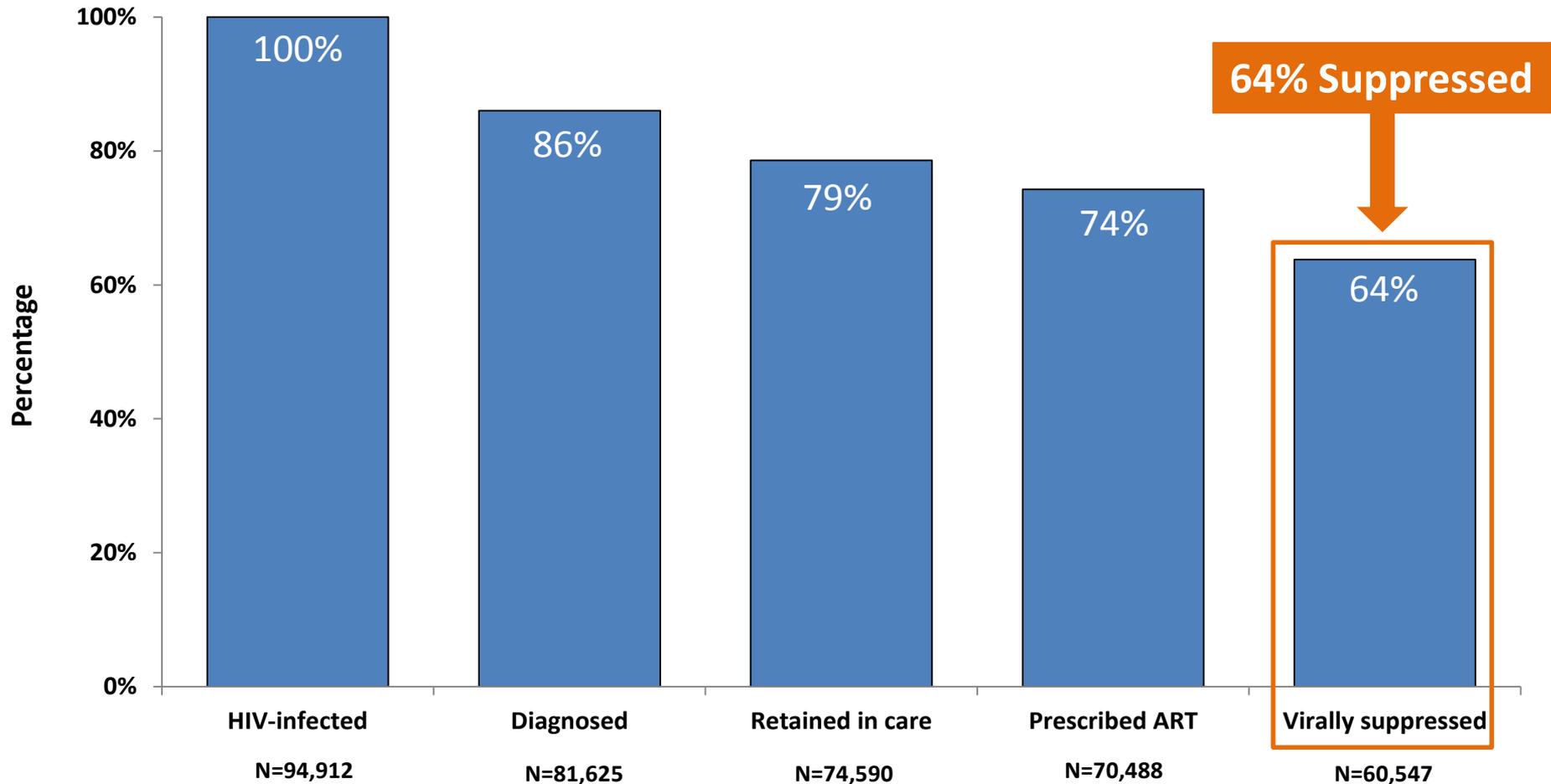
HIV-related Death Rates in NYC by Age Group, 2000-2013



Data as reported to NYC DOHMH by March 31, 2015.

¹2013 deaths outside NYC are incomplete.

Number and Proportion of Persons with HIV in New York City Engaged in Selected Stages of the Continuum of HIV Care in 2013

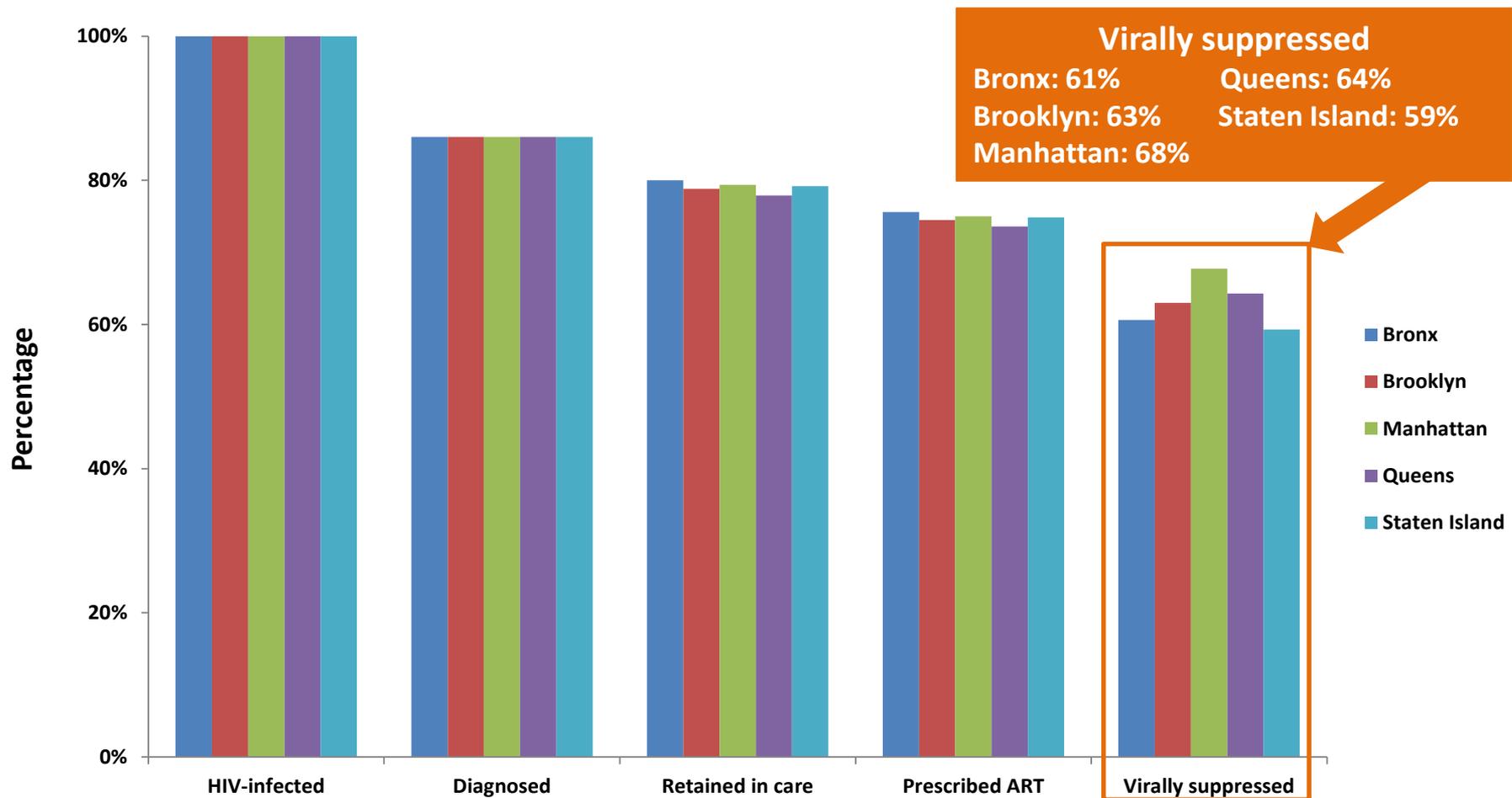


Includes patients receiving care in NYC but living outside of NYC (N=4,794).
14% of PLWH undiagnosed.

Xia Q, Kersanske LS, Wiewel EW, Braunstein SL, Shepard CW, Torian LV. Proportions of patients with HIV retained in care and virally suppressed in New York City and the United States. *J Acquir Immune Defic Syndr.* 2015;68(3):351-358.

Retained in care: ≥ 1 care visit in 2013.
94.5% of patients who were retained in care prescribed ART (source: MMP 2012).
Viral suppression defined as VL ≤ 200 cc/mL.
Data as reported to NYC DOHMH by June 30, 2014.

Number and Proportion of Persons with HIV in New York City Engaged in Selected Stages of the Continuum of HIV Care in 2013 by Borough

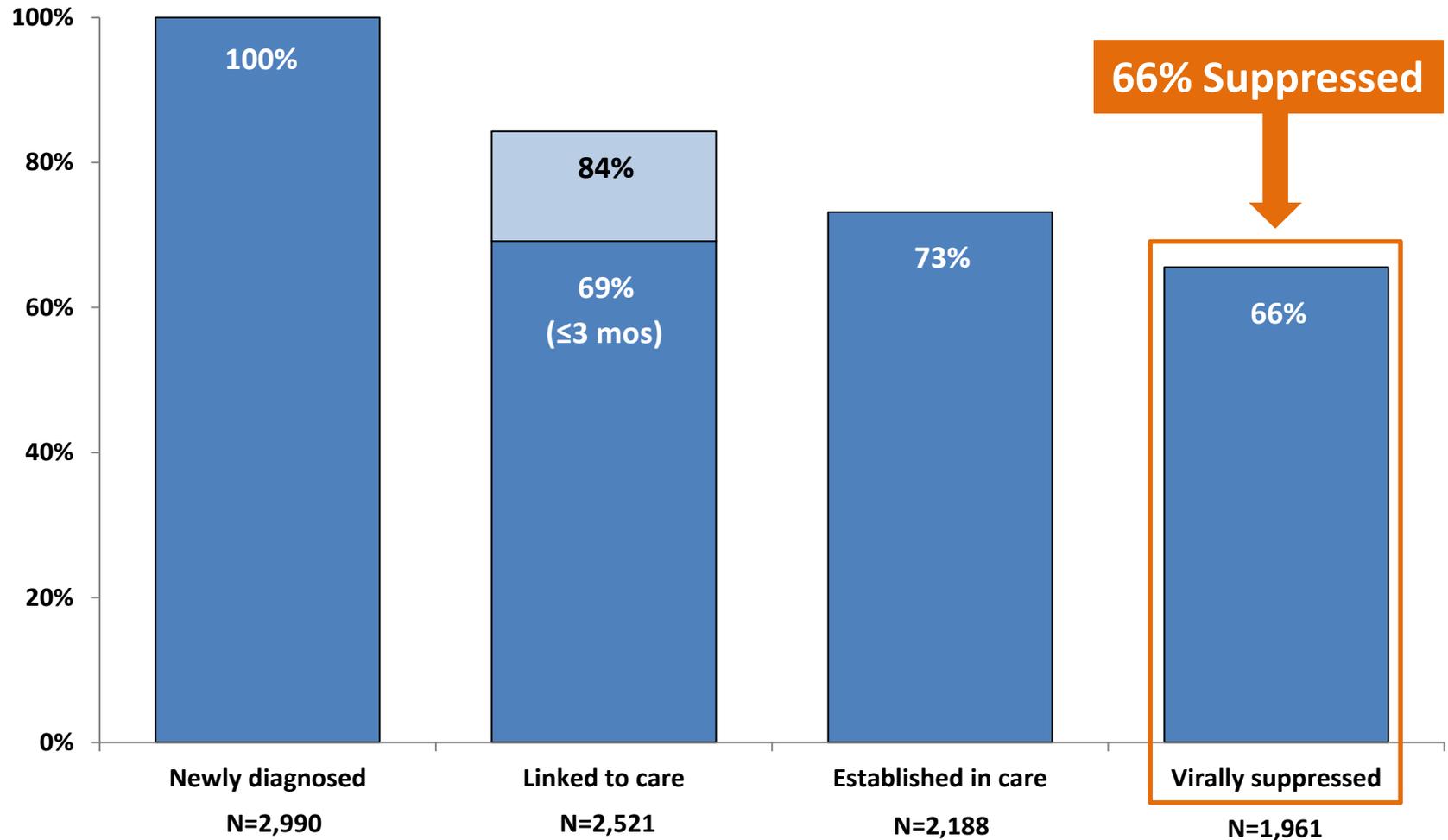


Xia Q, Kersanske LS, Wiewel EW, Braunstein SL, Shepard CW, Torian LV. Proportions of patients with HIV retained in care and virally suppressed in New York City and the United States. *J Acquir Immune Defic Syndr.* 2015;68(3):351-358.

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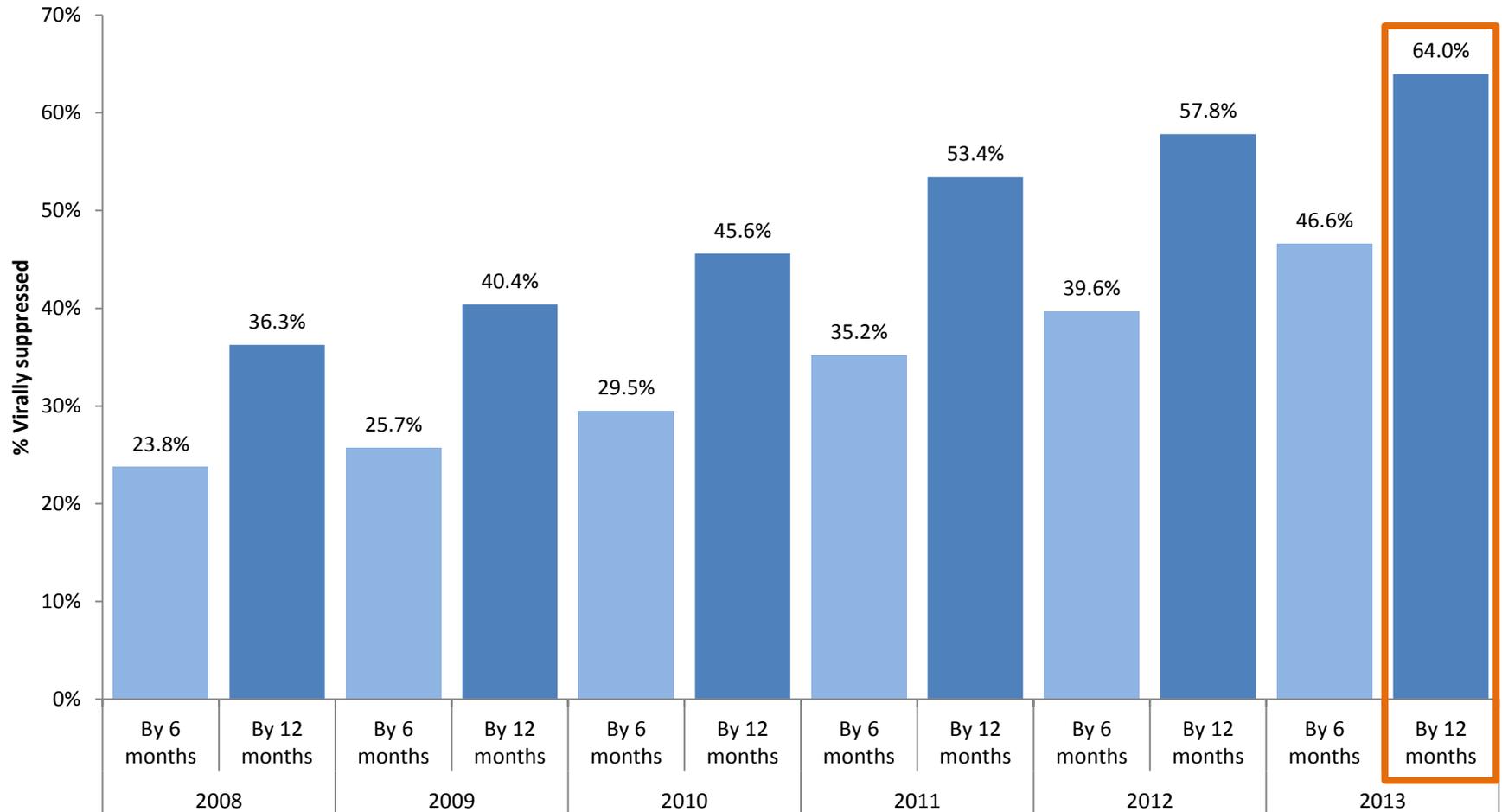
Number and Proportion of Persons Newly Diagnosed with HIV in New York City in 2012 Engaged in Selected Stages of the Continuum of HIV Care



Wiewel EW, Braunstein SL, Xia Q, Shepard CW, Torian LV. Monitoring outcomes for newly diagnosed and prevalent HIV cases using a care continuum created with New York City surveillance data. *J Acquir Immune Defic Syndr.* 2015;68(2):217-226.

Linked to care: ≥ 1 lab after a 7-day lag within 18 months of diagnosis.
Established in care: ≥ 2 labs ≥ 3 months apart within 18 months of diagnosis.
Virally suppressed: ever achieved viral suppression (≤ 200 cc/mL) within 18 months of diagnosis.
Data as reported to NYC DOHMH by June 30, 2014.

Viral suppression* at 6 and 12 months after HIV diagnosis, NYC, 2008-2013



Data as reported to NYC DOHMH by March 31, 2015.

*Viral suppression is defined as an HIV RNA level ≤ 200 copies/mL following HIV diagnosis.

Thank you

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