NYS Ending the Epidemic Metrics

Where we were, where we are, and where we need to be by the end of 2020

James Tesoriero, Ph.D
Division of HIV/STI Epidemiology,
Evaluation and Partner Services
NYSDOH AIDS Institute

Objectives

- Briefly Present
  - Update on core and supplemental ETE metrics through 2017
  - Highlight areas of success and areas of challenge
- Entertain Questions and Discussion

Ending the Epidemic Metrics

Core

New HIV Infections (Incidence)

By the end of 2020, reduce the number of new HIV infections to 750.

Year	Target	Actual –Old Methodology	Actual – New Methodology
2013	*	2,509	3,347
2014	*	2,497	3,273
2015	*	2,436	2,983
2016	2,050	2,115	2,732
2017	1,750	NA	2,269
2018	1,410	NA	
2019	1,060	NA	
2020	**750**	NA	

Measure: Incidence estimates are calculated using CDC statistical methods.

- **17% decrease 2016-2017**
- **32% decrease 2013-2017**

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Dat... es.
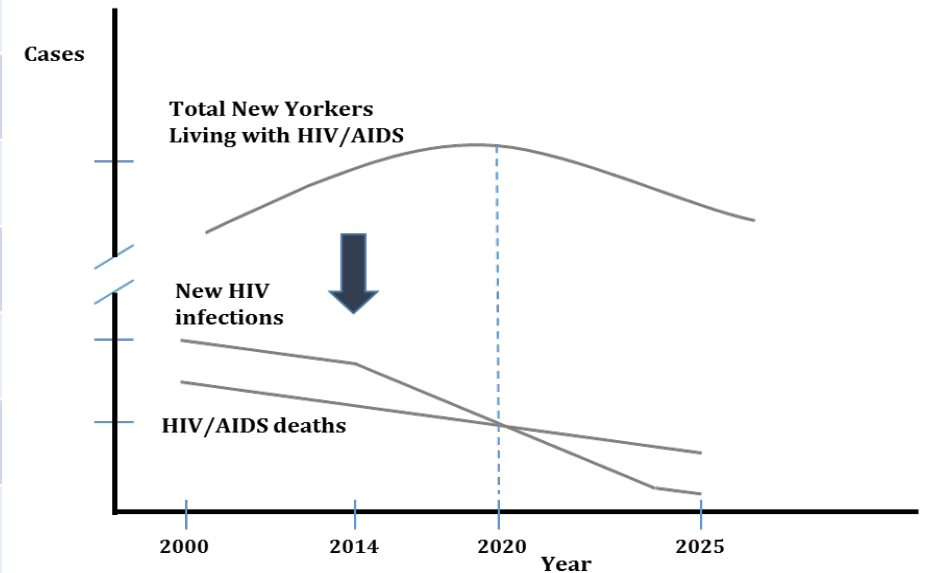2016 actual case data as of September 2017 and considered preliminary.

Bending the Curve (Ending AIDS)

By the end of 2020, achieve fewer new HIV infections than deaths, resulting in the first ever decrease in HIV prevalence and the end of AIDS as an epidemic in NYS.

Year	HIV Infections (New Methodology)	Deaths among PLWDHI	New Infections minus Deaths
2013	3,347	2,108	1,239
2014	3,273	2,063	1,210
2015	2,983	1,955	1,028
2016	2,732	1,974	758
2017	2,269	1,545	724
2018			500 (Target)
2019			250 (Target)
2020			**< 0 (Target)**

2016 actual case data as of September 2017 and considered <u>preliminary</u>.

Measure: HIV Incidence (using CDC estimation method) minus all deaths among Persons Living with Diagnosed HIV Infection (PLWDHI)

Bending the curve

HIV Status Aware

Increase the percentage of people living with HIV who know their serostatus to at least 98%.

Year	Target	Actual
2013	*	92%
2014	*	92%
2015	*	92%
2016	93%	93%
2017	**94%**	**91%**
2018	95%	*
2019	96%	*
2020	**98%**	*

2017
Target | 94%
Actual | 91%

Measure: Calculations are based on estimates from the CDC and seroprevalence studies.

Data Sources: NYS HIV Surveillance System. 2013 – 2015 data as of January 2017 to set target values. 2016 data as of September 2017. 2017 data as of June 2018.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

New HIV Diagnoses

By the end of 2020, reduce the number of new HIV diagnoses by 55%.

Year	Target	Actual
2013	*	3,391
2014	*	3,443
2015	*	3,155
2016	2,911	2,881
2017	**2,620**	**2,769**
2018	2,253	*
2019	1,870	*
2020	**1,515**	*

Measure: Number of newly diagnosed HIV cases reported.

Data Sources: NYS HIV Surveillance System. 2013 – 2015 data as of January 2017 to set target values.
2016 actual case data as of September 2017. 2017 actual case data as of July 2018.

- **4% decrease 2016-2017**
- **18% decrease 2013-2017**

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Persons Newly Diagnosed with HIV by Residence at Diagnosis,[1] NYS, 2016-2017*
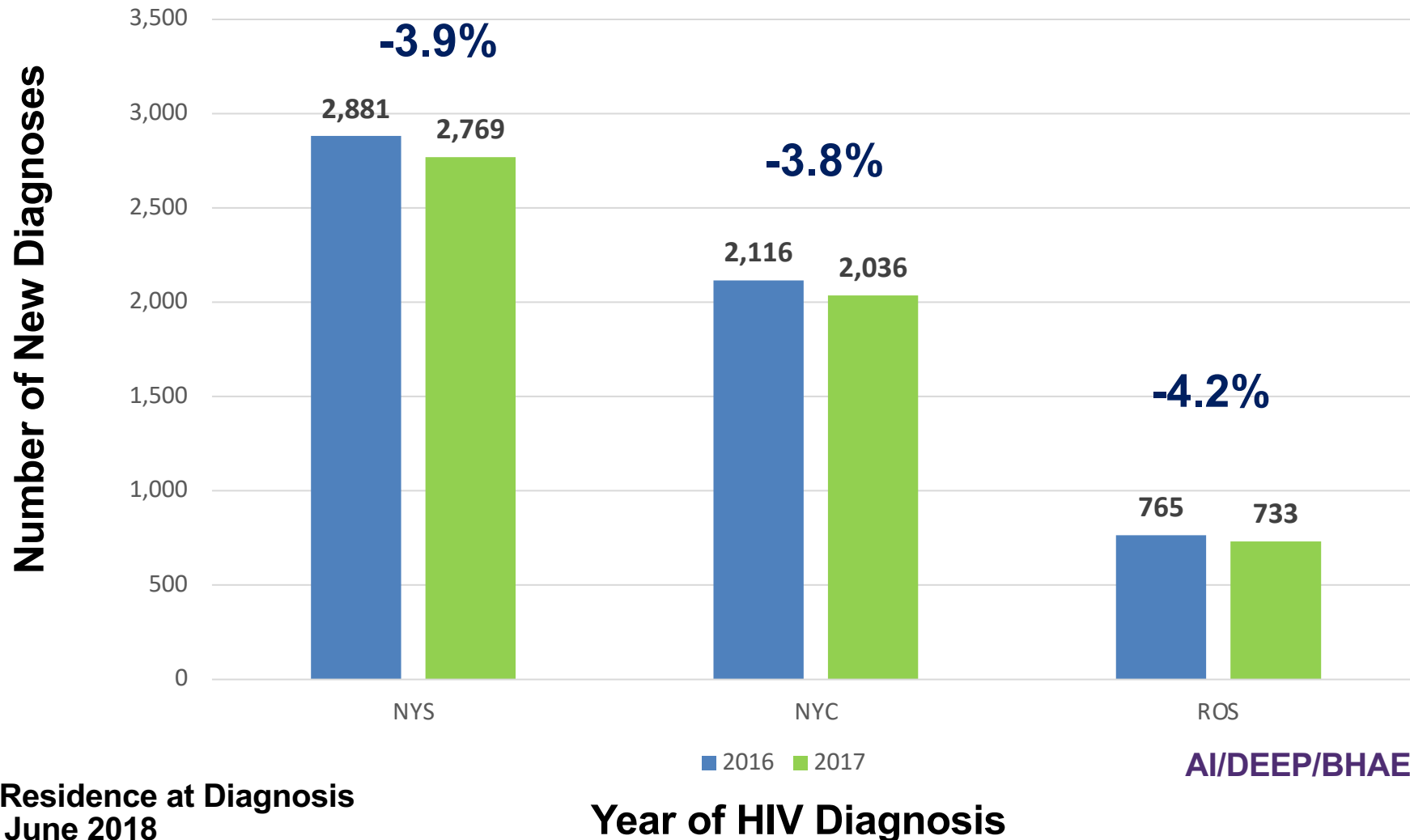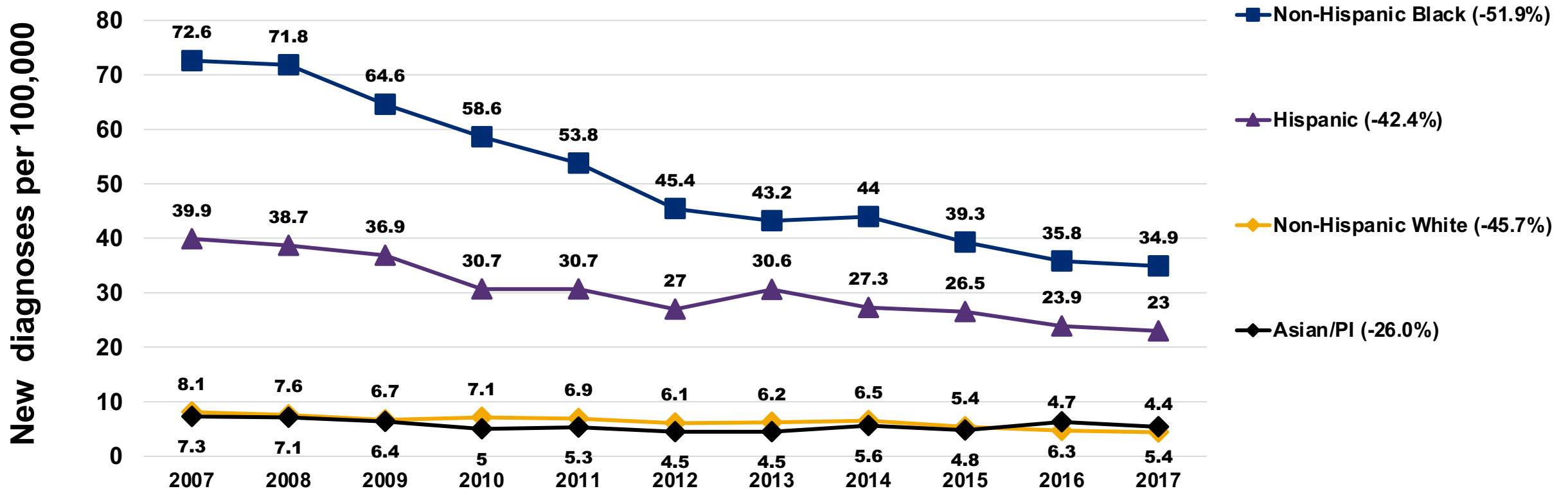

¹Region of Residence at Diagnosis
*Data as of June 2018

AI/DEEP/BHAE

Case Rate for People Newly Diagnosed with HIV by Race/Ethnicity: NYS, 2007-2017*

New diagnoses per 100,000

Legend:
- Non-Hispanic Black (-51.9%)
- Hispanic (-42.4%)
- Non-Hispanic White (-45.7%)
- Asian/PI (-26.0%)

Non-Hispanic Black: 72.6, 71.8, 64.6, 58.6, 53.8, 45.4, 43.2, 44, 39.3, 35.8, 34.9

Hispanic: 39.9, 38.7, 36.9, 30.7, 30.7, 27, 30.6, 27.3, 26.5, 23.9, 23

Non-Hispanic White: 8.1, 7.6, 6.7, 7.1, 6.9, 6.1, 6.2, 6.5, 5.4, 4.7, 4.4

Asian/PI: 7.3, 7.1, 6.4, 5, 5.3, 4.5, 4.5, 5.6, 4.8, 6.3, 5.4

Years: 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017

*Data as of June 2018. Limited to racial/ethnic groups with at least 50 new HIV diagnoses per year
Rate per 100,000 population. Rates are age adjusted to the Census Population.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Linkage to Care After Diagnosis

By the end of 2020, increase the percentage of newly diagnosed persons linked to HIV medical care within 30 days of diagnosis to at least 90%

Year	Target	Actual
2013	*	69%
2014	*	72%
2015	*	73%
2016	78%	75%
2017	**81%**	**81%**
2018	84%	*
2019	87%	*
2020	**90%**	*

Measure: Any CD4, VL or genotype test in NYSDOH HIV Surveillance system.

Data Sources: NYS HIV Surveillance System.
2013 – 2015 data as of January 2017 to set target values. 2016 actual case data as of September 2017. 2017 actual case data as of July 2018.

- **6 percentage point increase 2016-2017**
- **12 percentage point increase 2013-2017**

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Time to AIDS

By the end of 2020, reduce the rate at which persons newly diagnosed with HIV progress to AIDS by 50%.

Year	Target	Actual
2012	*	10.4%
2013	*	6.9%
2014	8.9%	7.1%
2015	**8.2%**	**6.9%**
2016	7.6%	*
2017	7.0%	*
2018	6.4%	*
2019	5.8%	*
2020	**5.1%**	*

Measure: CD4 <200 (Stage 3 HIV) within two years of diagnosis.

Data Sources: NYS HIV Surveillance System. 2013 – 2015 data as of January 2017 to set target values. 2014 actual data as of September 2017. 2015 actual data as of June 2018.

* Two year lag built into indicator definition.

- **0.2 percentage point decrease 2016-2017**
- **3.5 percentage point decrease 2013-2017**

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Receiving Any Care

By the end of 2020, increase the percentage of persons living with diagnosed HIV infection who receive any care to 90%.

Year	Target	Actual
2013	*	81%
2014	*	81%
2015	*	81%
2016	84%	80%
2017	86%	83%
2018	88%	*
2019	89%	*
2020	90%	*

2017
Target | 86%
Actual | 83%

Measure: Any VL, CD4 or genotype test in NYSDOH HIV Surveillance system in calendar year.

Data Sources: NYS HIV Surveillance System. 2013 – 2015 data as of January 2017 to set target values. 2016 actual case data as of September 2017. 2017 actual case data as of July 2018.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Viral Suppression – Receiving Any Care

By the end of 2020, increase the percentage of individuals living with diagnosed HIV infection and receiving any care with suppressed viral load to 95%.

Year	Target	Actual
2013	*	81%
2014	*	84%
2015	*	85%
2016	87%	87%
2017	**89%**	**87%**
2018	91%	*
2019	93%	*
2020	**95%**	*

Measure: Last VL test in calendar year is non detectable or <200 copies/ml in NYSDOH HIV Surveillance system.

Data Sources: NYS HIV Surveillance System. 2013 – 2015 data as of January 2017 to set target values. 2016 actual case data as of September 2017. 2017 actual case data as of July 2018.

- **0 percentage point change 2016-2017**
- **6 percentage point increase 2013-2017**

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Viral Suppression - PLWDHI

By the end of 2020, increase the percentage of individuals living with diagnosed HIV infection with suppressed viral load to 85%.

Year	Target	Actual
2013	*	66%
2014	*	68%
2015	*	67%
2016	73%	70%
2017	**76%**	**72%**
2018	79%	*
2019	82%	*
2020	**85%**	*

2017
Target | 76%
Actual | 72%

Measure: Last VL test in calendar year is non detectable or <200 copies/ml in NYSDOH HIV Surveillance system.

Data Sources: NYS HIV Surveillance System. 2013 – 2015 data as of January 2017 to set target values. 2016 actual case data as of September 2017. 2017 actual case data as of July 2018.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Concurrent AIDS Diagnosis

**By the end of 2020, reduce the proportion of persons with a diagnosis of AIDS within 30 days of HIV diagnosis to 15%.**

Year	Target		Actual	
	n	%	n	%
2013	*		736	21.7
2014	*		674	19.6
2015	*		612	19.4
2016	536	18.4	541	18.8
2017	**461**	**17.6**	**547**	**19.8**
2018	376	16.7	*	
2019	295	15.8	*	
2020	**225**	**15.0**	*	

- **1.0 Percentage point increase 2016-2017**
- **1.9 percentage point decrease 2013-2017**

Measure: CD4 <200 (Stage 3 HIV) w/ in 30 days of dx.

Data Sources: NYS HIV Surveillance System. 2013 – 2015 data as of January 2017 to set target values. 2016 data as of September 2017. 2017 data as of July 2018.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Concurrent Diagnoses among Newly Diagnosed Persons by NYS Region: 2017*
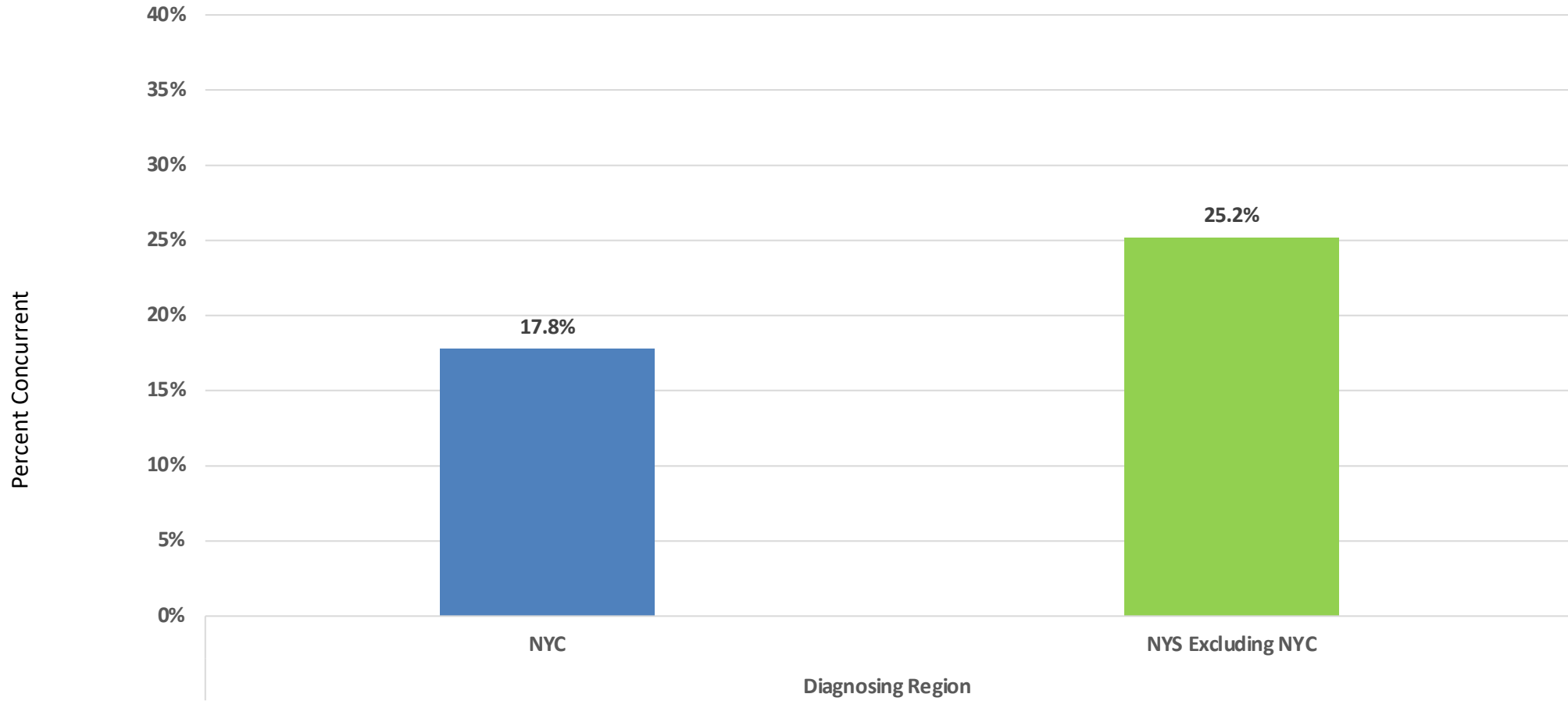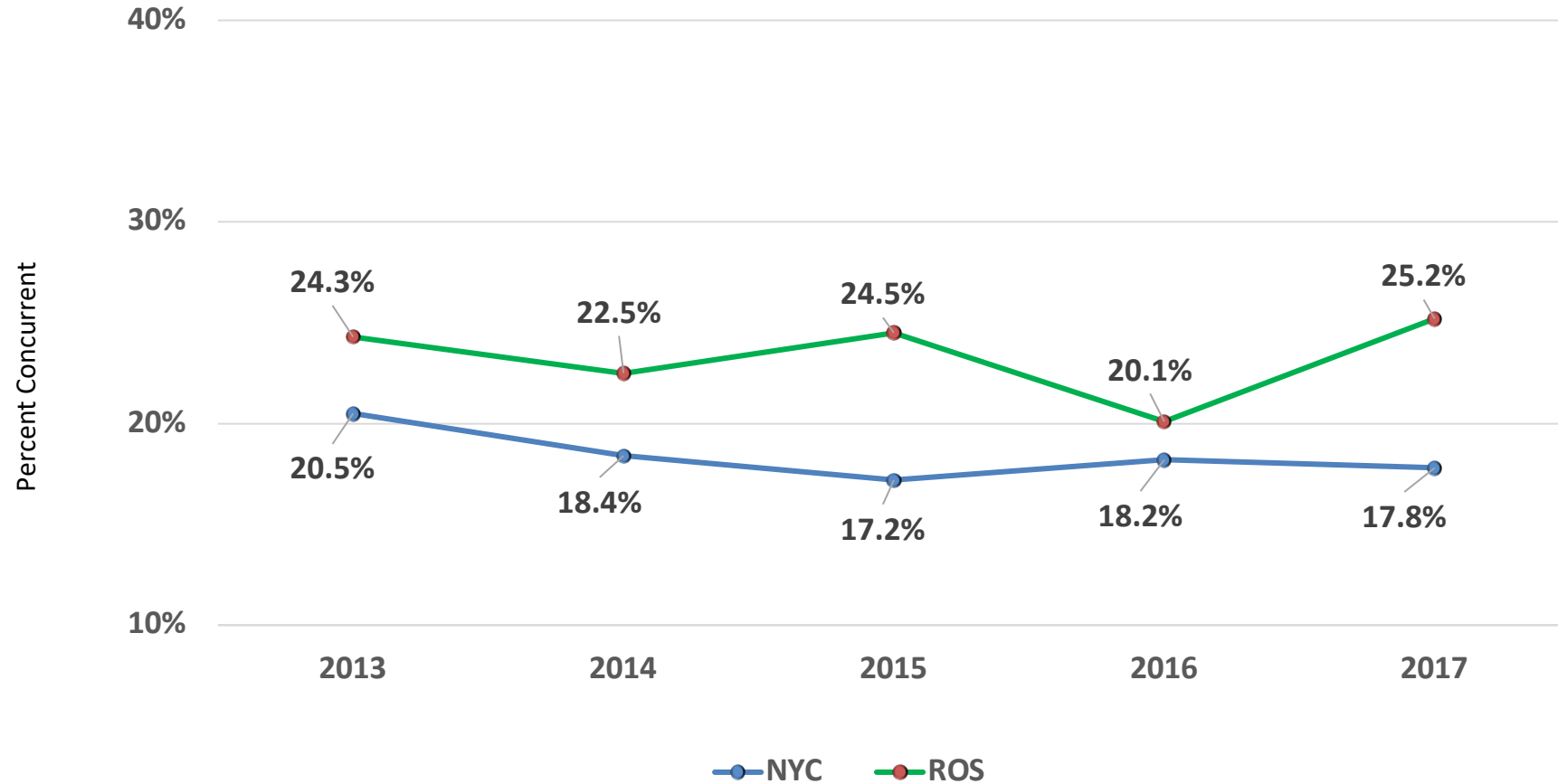

*Data as of June 2018

Concurrent Diagnosis among Newly Diagnosed Persons by Race/Ethnicity and Region of NYS: 2017*
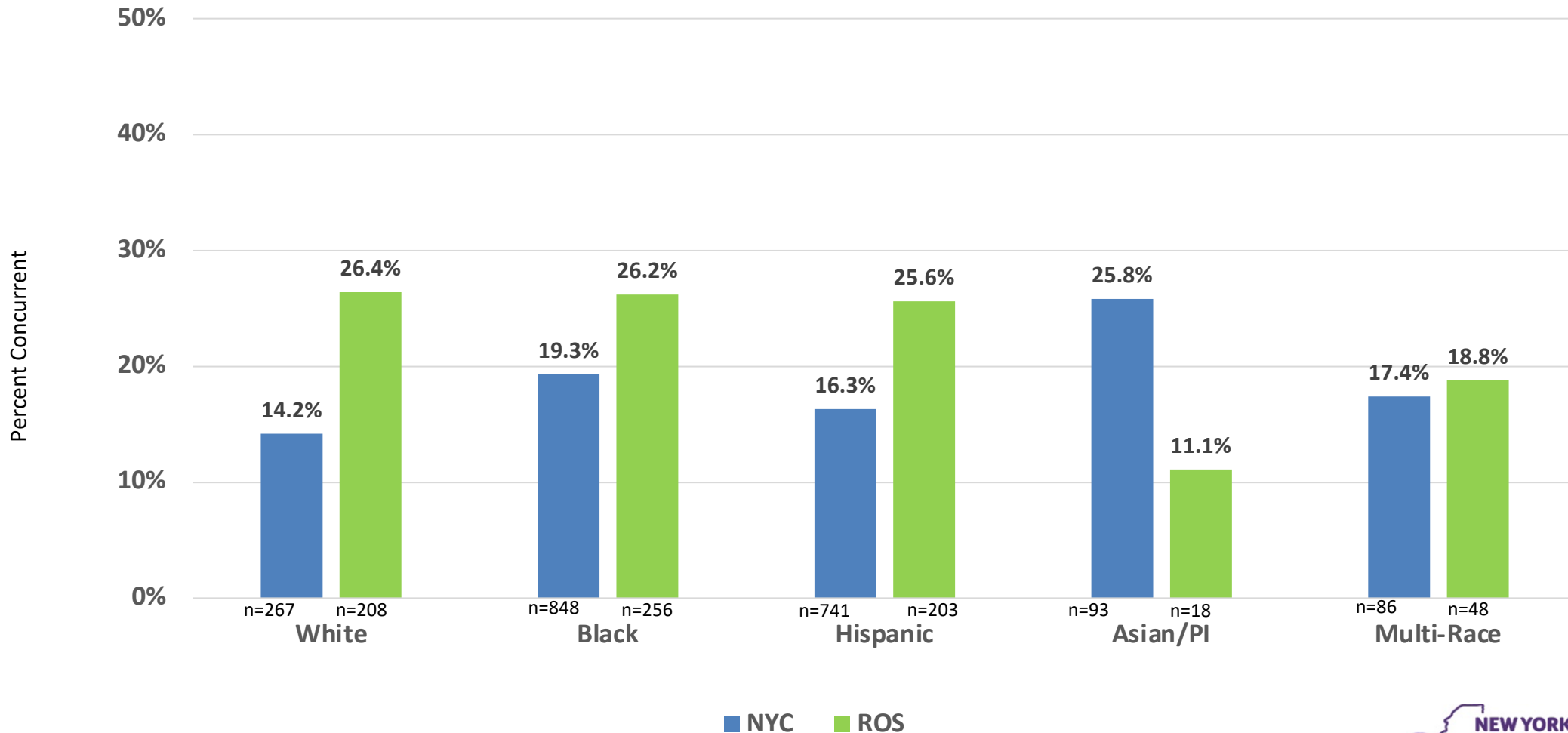
*Data as of June 2018

Concurrent Diagnoses among Newly Diagnosed Persons Over Time by NYS Region: 2013-2017*

*Data as of June 2018

Ending the Epidemic Metrics

Supplemental

Stigma Measure

Medical Monitoring Project

By the end of 2020, decrease stigma experienced among persons living with diagnosed HIV by at least 25 percent.

		Actual	Target
Baseline:	2015	33.9%	
	2016	34.7%	
	2017		31.4%
	2018		29.6%
	2019		27.5%
Target:	2020		25.4%
Source:	Medical Monitoring Project		

MMP Definition: Based on results of 10 question scale looking at four dimensions of stigma; personalized stigma, disclosure concerns, negative self-image, perceived public attitudes about people with HIV. Goal is to reduce the median score of these questions by 25%.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Viral Load Suppression - Newly Diagnosed HIV

By the end of 2020, increase the percentage of persons newly diagnosed who reach viral load suppression within three months of diagnosis to 75%.

	Year	Actual	Target
Baseline:	2013	22.7%	
	2014	28.5%	
	2015	32.3%	
	2016	39.1%	
	2017	48.1%	47%
	2018		56%
	2019		65%
Target:	2020		75%
Source:	NYS HIV Surveillance System		

Definition: The percent of persons newly diagnosed with HIV who had a viral load test that was suppressed (<200 copies/mL) within 91 days from the date of HIV diagnosis.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Sustained Viral Load Suppression

By the end of 2020, increase the percentage of persons living with diagnosed HIV with sustained viral load suppression to 75%.

		Actual	Target
Baseline:	2013	53.8%	
	2014	58.2%	
	2015	61.6%	
	2016	63.5%	
	2017	64.9%	66.3%
	2018		69.2%
	2019		72.1%
Target:	2020		75%
Source:	NYS HIV Surveillance System		

Definition: The percentage of people living with diagnosed HIV (PLWDH) who were virally suppressed (<200 copies/mL) on all viral load tests in the previous two years, among those with at least two viral load tests in the previous two years.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

Newly Diagnosed HIV
Persons Who Inject Drugs

By the end of 2020, reduce the percentage of persons newly diagnosed with HIV who indicate a history of injection drug use to 2.8%.

		Actual	Target
Baseline:	2013	4.8%	
	2014	4.4%	
	2015	4.2%	
	2016	3.9%	
	2017	4.0%	4.2%
	2018		3.7%
	2019		3.2%
Target:	2020		2.8%
Source:	NYS HIV Surveillance System		

Definition : The number of persons newly diagnosed with HIV who indicate a history of injection drug use (IDU). Includes persons who indicate IDU and MSM/IDU history.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

HIV Related Deaths

By the end of 2020, reduce the percentage of deaths due to HIV to zero.

		Actual	Target
Baseline:	2016		
	2017		
	2018		
	2019		
Target:	2020		0
Source:	NYS HIV Surveillance System / SPARCS / IPRO Reviews		

Definition: Annual medical chart reviews, performed by IPRO, conducted on a representative sample of deaths occurring in NYS among PLWDH. Results will produce the proportion of deaths due to HIV/AIDS. IPRO chart reviews began with 2016 deaths.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

PrEP Utilization

By the end of 2020, increase the number of individuals filling prescriptions for PrEP to 65,000.

		Actual	Target
Baseline:	2014	3,388	
	2015	9,324	
	2016	17,368	
	2017	24,284	
	2018		34,000
	2019		48,000
Target:	2020		65,000
Source:	Symphony Health data with Medicaid Adjustment		

Definition: Number of individuals filling at least one prescription for Truvada within the calendar year.

NEW YORK STATE OF OPPORTUNITY. | Department of Health

PrEP Utilization
Medicaid

By the end of 2020, increase the number of Medicaid recipients filling prescriptions for PrEP to 30,000.

		Actual	Target
Baseline:	2013	251	
	2014	650	
	2015	2,244	
	2016	4,226	
	2017	6,026	
	2018		16,000
	2019		22,000
Target:	2020		30,000
Source:	NYS Medicaid Data Mart (Vertica)		

Definition: Number of Medicaid recipients filling at least one prescription for Truvada within the calendar year.

NEW YORK STATE OF OPPORTUNITY. | Department of Health