

INTRODUCTION

Pursuant to the Grant Year 2018 (GY18) HIV Emergency Relief Program Ryan White HIV/AIDS Program Part A (RWHAP Part A) Funding Opportunity Announcement, dated August 30, 2017, the New York City (NYC) Department of Health and Mental Hygiene (DOHMH), as the Grant Recipient (Recipient) for the New York Eligible Metropolitan Area (NY EMA), respectfully submits this application for grant funding. The application describes the GY18 Plan to promote a comprehensive continuum of high-quality care and treatment through the support of core medical and support services that address gaps in the HIV care continuum for eligible people living with HIV (PLWH) in the NY EMA.

The GY18 Plan is responsive to Governor Andrew M. Cuomo's 2015 Blueprint for "Ending the Epidemic" (EtE) and the NYS "Integrated HIV Prevention and Care Plan" which set forth recommendations to reduce the annual incidence of new HIV infections to 750 from the current 3,000 in New York State (NYS). The NYS *EtE Blueprint* is organized around three priorities: (1) identify PLWH who remain undiagnosed and link them to healthcare, (2) link and retain persons who have diagnosed HIV infections in care to maximize virus suppression so they remain healthy and prevent further transmission, and (3) provide access to Pre-Exposure Prophylaxis (PrEP) for persons at high-risk for HIV infection to keep them HIV-negative. On World AIDS Day December 1, 2016, the Governor also announced several new initiatives to End the Epidemic including zero HIV-related mortality, and no new infections related to injection drug use by 2020.¹

The NY EMA continues to align its services with the *EtE Blueprint* priorities.ⁱ The NY EMA's efforts to identify PLWH and link them to care are described in the Early Identification of Individuals with HIV/AIDS (EIIHA) Plan (*pp.* 13-22). All HIV care services in the NY EMA support the second priority, to link and retain PLWH in care, improve access to antiretroviral treatment (ART), and decrease viral load. PrEP is not purchased with RWHAP Part A funds, but the NY EMA leverages other funds and, as appropriate, the RWHAP infrastructure to build consumer and provider awareness of PrEP and Post-Exposure Prophylaxis (PEP) and to increase community capacity to provide PrEP and PEP. With the addition of EtE initiatives related to HIV-related mortality and elimination of new infections of people who inject drugs (PWID), the NY EMA has initiated work with funded providers to reduce preventable mortality and increased efforts to reduce new HIV infections among persons who inject drugs. The NY EMA's service plan is described in this application.

NEEDS ASSESSMENT

A) Demonstrated Need.

1) Epidemiologic Overview.

a) Summary of the HIV epidemic in the EMA geographic area. The NY EMA, which includes the five counties/boroughs of NYC and the adjacent Tri-County region of Westchester, Rockland, and Putnam counties, is home to more than 9.9 million people (3% of the U.S. population).ⁱⁱ The NY EMA continues to have the largest HIV epidemic in the U.S., with approximately 12% of the nation's PLWH in 2014 and 7% of all HIV diagnoses in 2015.ⁱⁱⁱ As of December 31, 2016, there were 127,910 reported PLWH in the NY EMA, representing 1.3% of the total NY EMA population (*see Table 1*). Of the 2,401 individuals diagnosed with HIV in the NY EMA in 2016, 18% were

¹ NYS Governor's Office, Press Release, December 2016. Accessible at: <https://www.governor.ny.gov/news/governor-cuomo-announces-series-groundbreaking-new-initiatives-end-aids-epidemic-new-york-state>.

concurrently diagnosed with AIDS (within 31 days of their HIV diagnosis), a percentage that has remained relatively stable over the last five years.^{iv} From 2012 to 2016, there was a 29% decrease in HIV diagnoses in the NY EMA, while there was a 6% increase in the number of PLWH. These figures demonstrate both the success of the NY EMA’s service system and the ongoing need for early intervention and care services to fulfill the goals of the *EtE Blueprint*.

Table 1: NY EMA Population and HIV Diagnoses/Prevalence by Region and County/Borough, 2016

	Population	HIV Diagnoses*	PLWH
New York City	8,537,673	2,279	123,887
Kings (Brooklyn)	2,629,150	581	29,738
Bronx	1,455,720	520	29,803
New York (Manhattan)	1,643,734	468	32,476
Queens	2,333,054	415	18,307
Richmond (Staten Island)	476,015	61	2,398
Outside NYC/Unknown	N/A	234	11,165
Tri-County Region	1,400,222	122	4,023
Putnam	98,900	1	147
Rockland	326,780	24	621
Westchester	974,542	79	3,255
Total	9,937,895	2,401	127,910

Sources: Population estimates: U.S. Census Bureau, American Fact Finder: Quick Facts –2016; New York, Kings, Queens, Bronx, and Richmond counties (NYC): NYC DOHMH, HIV Epidemiology and Field Services Program, data as of March 31, 2017; Putnam, Rockland, and Westchester counties: NYS Department of Health (NYS DOH), Bureau of HIV/AIDS Epidemiology, data as of September 3, 2017.

*HIV diagnoses include those who were concurrently diagnosed with HIV and AIDS.

b) Socio-demographic characteristics of newly diagnosed, PLWH, and persons at high risk.

i-ii) Demographic and socioeconomic data. In 2016, among new HIV diagnoses in the NY EMA, 78% were male, 84% were non-White, 65% were younger than 40, and 55% were men who have sex with men (MSM). In NYC, 2% of new HIV diagnoses in 2016 were among transgender individuals, 100% of whom were transgender women; data on transgender persons is not available for the Tri-County region. Roughly 91% of newly diagnosed transgender women were non-Hispanic Black² or Latino, and 61% were ages 20-29.

Compared to newly diagnosed cases, there was a greater proportion of individuals with a history of injection drug use (IDU) and likely transmission through heterosexual contact among PLWH. Unlike new diagnoses, which are concentrated among those younger than 40, people aged 40 and older accounted for 77% of PLWH in 2016, reflecting the aging of PLWH in the EMA and underscoring the importance of addressing the complex service needs of older PLWH.

HIV prevalence is highest in low-income communities of color where many individuals experience multiple challenges that severely impact health, such as substance use, mental health

² From this point forward, non-Hispanic Blacks will be referred to as Blacks, and non-Hispanic whites will be referred to as whites. The term “Blacks” is used throughout this document rather than “African Americans” because NYC has substantial numbers of people of Caribbean origin who do not identify as “African Americans.”

(MH) issues, food insecurity, and housing instability. Based on a match between client-level Medicaid data from the Salient Interactive Miner data system and the HIV Surveillance Registry, 47% of PLWH diagnosed and reported in NYC as of January 1, 2012 were enrolled in Medicaid between 2012 and 2014. In comparison, 39% of all NYC residents were enrolled in Medicaid in 2013.^v Among PLWH in care who were interviewed as part of the 2013/2014 Medical Monitoring Project (MMP) cycle, 49% reported receiving some sort of public assistance in the past 12 months, 13% reported recent homelessness, and 6% reported recent jail time.^{vi} Though individuals residing in neighborhoods where at least 30% of residents were living below the federal poverty level (FPL) represented 30% of all PLWH, they represented 41% of all deaths among HIV-positive individuals in 2016 in the EMA. See *Attachment 3* for the complete diagnoses, prevalence, and mortality table.

c) Rates of increase in HIV diagnosed cases within new and emerging populations.

i) Identifying emerging populations, unique challenges, and estimated costs to RWHAP Part A. As a jurisdiction with a widespread and mature epidemic, the NY EMA has a population of PLWH that has remained relatively stable demographically, including those in need of RWHAP Part A services, over the past decade or more. The Recipient and Planning Council (PC) regularly monitor HIV surveillance trends, service utilization trends, and other data sources that continue to show that HIV disproportionately affects low-income communities of color; gay, bisexual, and other MSM (with increased disparities among young MSM and MSM of color of all ages); and transgender women, particularly transgender women of color. As the impact of HIV on the above populations has been persistent within the NY EMA, none could be considered emerging. Thus, the NY EMA has sought other ways to understand emerging issues. One way of understanding this is to look at unique challenges to optimal HIV outcomes and what modifiable factors influence these outcomes.

Looking at modifiable risks involves addressing access to basic necessities for the most vulnerable individuals, so that people can attend to their HIV health-related needs. Thus, the NY EMA allocates 38.1% of GY18 funds to support services, including \$13.1 million to housing services and \$7.4 million to food services. The NY EMA further invests in legal services (\$3.8 million) and non-medical case management (n-MCM) services (\$5.8 million).

To support retention of those most at risk for falling out-of-care and to address their unique challenges, the largest investment on the part of the NY EMA has been in Medical Case Management (MCM) (\$24.7 million), of which there are three models – Care Coordination (CCP), Transitional Care Coordination (TCC), and Tri-County MCM. Each of these programs serve to engage and retain PLWH in medical care and to address barriers to viral suppression.³ CCP, in particular, has medical eligibility criteria that ensure these resources are prioritized for those who most need them, including those with a history of falling out care, those who are not virally suppressed, and those who are newly diagnosed. PLWH who have Hepatitis C virus (HCV) and/or are perinatal women who need additional adherence support are also eligible.

ii) Increased need for HIV-related services. As the number of PLWH has risen, demands on the NY EMA's service system and need for RWHAP Part A funding along the entire care continuum have grown. The 2015 Community Health Survey (CHS)⁴ survey found that only 62.9% of adult NYC resident respondents have ever tested for HIV, up from 59.7% in 2010. HIV testing

³ Three subcategories are included under the MCM category: NYC Care Coordination, NYC TCC for the Homeless and Unstably Housed, and Tri-County MCM. Note that from here forward the term "Care Coordination Programs (CCP)" refers specifically to NYC Care Coordination efforts, while MCM describes the general category for the entire NY EMA.

⁴ Since 2002, DOHMH has conducted the NYC CHS, an annual telephone survey of approximately 10,000 adults (18 and older) from all five boroughs of NYC, in order to better understand the health and risk behaviors of New Yorkers and to track key indicators over time.

frequency continues to be lowest among those who report sex with an opposite sex partner; 50% of high-risk heterosexuals interviewed as part of the 2013 National HIV Behavioral Surveillance Study (NHBS) cycle, were tested in the past year, compared to 75% or above among all racial/ethnic groups of MSM interviewed as part of NHBS 2014.^{vii} *Table 2* below provides a breakdown by race/ethnicity of HIV testing during testing events throughout the NY EMA among the contracted providers. In GY16, the number of HIV tests was particularly high among Blacks and Latinos, with a higher proportion of Blacks and MSM, receiving a newly diagnosed confirmed positive test.

In an analysis of individuals who received care at the Montefiore Medical Center's Emergency Room in 2015, 4.8% of HIV-positive individuals were unaware of their status.^{viii} The proportion of undiagnosed cases of HIV represents the lowest in the history of serosurveys in NYC Emergency Rooms. This serosurvey mirrors trends in new diagnoses. Between 2001 and 2016, the number of new HIV diagnoses reported in NYC decreased significantly across gender, race/ethnicity, age at diagnosis, borough of residence, and transmission risk. This decrease is significant for all subgroups, with the exception of transgender people and Asian/Pacific Islanders.

While new diagnoses are down, data presented at the Conference on Retroviral Opportunistic Infections (CROI) showed that NYS has the sixth-highest lifetime risk of HIV diagnosis of any state and is the only Northeastern state other than New Jersey to appear among states with the highest risk, a list largely dominated by states in the American South. The overall lifetime risk of HIV diagnosis for NYS was one in 69, compared to one in 99 for the U.S. population.^{ix}

NYC zip codes with the highest rates of new HIV diagnoses in 2016 included those in the Chelsea-Clinton, Central Harlem-Morningside Heights, and East Harlem neighborhoods; those with the highest HIV prevalence included zip codes in West Queens, Chelsea-Clinton, and Central Harlem-Morningside Heights. With the exception of Chelsea-Clinton, neighborhoods with high HIV diagnosis and prevalence rates were also among those with the highest poverty rates, with at least 30% of residents living below the FPL. In addition, in 2015, a suppressed viral load (SVL) within 12 months of diagnosis was least likely among individuals living in high-poverty neighborhoods.^x A geographical analysis of the co-occurrence of HIV, viral hepatitis, sexually transmitted infections (STIs), and tuberculosis (TB) found that 33% of NYC zip codes were in the top quintile for multiple diseases. Additionally, co-occurrence of disease was more common in zip codes where a greater proportion of the population lived below the FPL; the rate of HIV/HCV co-infection was four times higher in high-poverty neighborhoods than in low-poverty neighborhoods. A similar pattern was seen for HIV/hepatitis B and HIV/TB co-infection.^{xi}

Despite gains made in identifying PLWH in the NY EMA and linking them to medical care, HIV still causes significant morbidity and mortality, particularly in racial/ethnic minority communities. Among all people newly diagnosed with HIV in NYC between 2011 and 2015, Blacks were more likely to die by December 31, 2015 than Whites; these racial/ethnic disparities were more pronounced among those living in high-poverty areas at the time of diagnosis. In addition, in a study assessing pre-death care patterns among PLWH in NYC, lack of viral suppression was associated with increased HIV-related mortality; rates of SVL were lowest among Blacks and Latinos.^{xii} Although deaths attributed to HIV fell from 1,603 in 2005 to 603 in 2015, among NYC residents under 65 years of age, HIV was the seventh leading cause of premature death overall, the fourth leading cause of premature death for Blacks, and the fifth leading cause of premature death for Puerto Ricans.^{xiii}

Among all individuals who were newly diagnosed with HIV in NYC in 2015, people aged 20-29, as well as transgender individuals, Blacks, those with a history of injection drug use, and MSM

who inject drugs (MSM-IDU) were the least likely to initiate care within three months and to achieve an SVL within 12 months of diagnosis.^{xiv} A recent study among MSM attending NYC Sexually Transmitted Disease (STD) clinics recruited between 2007 and 2011 showed that incidence of HIV among Black MSM was almost three times higher than among White MSM and nearly twice as high as among Latino MSM; MSM under the age of 20 had the highest incidence of HIV compared to other age groups.^{xv} Additionally, condomless receptive anal sex, condomless insertive anal sex, and incident STI diagnosis were significantly associated with a new HIV diagnosis.^{xvi} According to the 2014 NHBS among MSM in NYC, participants aged 18-29 were most likely to report condomless anal intercourse in the past 12 months compared to their older counterparts, with 58% reporting this behavior.^{xvii}

Drug and alcohol use during sex is also fairly prevalent; among those interviewed as part of the 2014 NHBS cycle among MSM in NYC, 53% of White MSM and 49% of MSM of color reported drug or alcohol use at the time of their last sexual encounter.^{xviii} Data recently reviewed by the Bureau of HIV/AIDS Prevention and Control (BHIV) also highlight an increase in methamphetamine use by MSM; according to the 2015 NYC Sexual Health Survey, 5% of MSM are using methamphetamines, with young and Black MSM more likely to be using methamphetamines than their counterparts. According to data from the Electronic System for HIV/AIDS Reporting and Evaluation (eSHARE),⁵ recent methamphetamine use among MSM in the RWHAP Part A population increased from 3% in 2012 to 6% in 2016. Previous work by the DOHMH found crystal meth use to be associated with unsuppressed viral load.^{xix}

A recent study found that men who inject drugs in NYC had a significantly decreased odds of PrEP/PEP awareness compared to MSM.^{xx} While a decline in HIV prevalence among PWID in NYC has been associated with an increase in the use of syringes from syringe exchanges or pharmacies,^{xxi} use of unsterile syringes is still a concern; 50% of PWID interviewed as part of the 2012 NHBS cycle among PWID in NYC who were HIV-negative or with unknown HIV status reported reusing a syringe in the past 12 months. Many PWID face structural barriers that may increase their risk for HIV infection; 45% of individuals interviewed as part of the 2012 NHBS cycle had experienced homelessness in the preceding 12 months, 38% had been jailed for more than 24 hours in the past 12 months, and 74% reported an annual income of less than \$10,000.^{xxii} In 2016, individuals with a history of injection drug use were disproportionately represented among deaths, making up only 13% of PLWH but 30% of deaths among HIV-positive individuals in the NY EMA.

Table 2: Newly Diagnosed Positive HIV Test Events March 1, 2016 - February 28, 2017

		Black		Latino		MSM‡		Transgender	
		Clinical	Non-Clinical	Clinical	Non-Clinical	Clinical	Non-Clinical	Clinical	Non-Clinical
<i>a.</i>	# Test events	19,031	7,134	25,672	6,469	114	2,828	283	488
<i>b.</i>	# Newly diagnosed positive test events	140	65	80	55	109	107	6	6
<i>c.</i>	# Newly diagnosed confirmed positive	118	42	61	38	94	78	4	4

⁵ eSHARE is a web-based platform for HIV service provider reporting that permits enhanced information-sharing between programs within agencies and real-time access to demographic, services, and outcomes data at DOHMH.

		Black		Latino		MSM‡		Transgender	
		Clinical	Non-Clinical	Clinical	Non-Clinical	Clinical	Non-Clinical	Clinical	Non-Clinical
	test events with client linked to HIV medical care								
d.	# Newly diagnosed confirmed positive test events	130	58	73	46	104	100	4	5
e.	# Newly diagnosed confirmed positive test events with client referred for Partner Services	130	58	73	46	104	100	4	5
f.	# Newly diagnosed confirmed positive test events with client referred to prevention services	118	42	64	40	95	77	4	4
g.	# Newly diagnosed confirmed positive test events with CD4 cell count and viral load testing * ± ¥	95	32	45	24	65	57	2	2

Note: This data represents contracted testing performed in NYC and the Lower Hudson Valley.

‡ The numbers reported are an underestimate of testing among MSM in clinical settings. Programs conducting targeted HIV testing collect risk information for clients regardless of the results. These numbers are reported in the Non-Clinical section. However, testing programs in clinical settings, consistent with the routine testing model, do not collect risk information on clients unless the client tests positive for HIV. As a result, clinical programs cannot determine the percentage of MSM tested among those with a negative test result. MSM clients who test negative served in clinical programs are, therefore, not captured.

* De-duplicated by clientsysid, an eSHARE system ID that is assigned upon first enrollment at an agency and is unique to the client at that agency.

± Includes clients with lab test(s) occurring on or after confirmatory test date. Restricted to confirmatory test dates from 03/01/2016 to 12/31/16 and lab tests that occurred in 2016.

¥ CD4 and viral load data as of December 2016; data may not be complete due to reporting lag.

2) Co-occurring Conditions (see Attachment 4).

a) Hepatitis C Virus (HCV). Incidence and prevalence of HCV are difficult to estimate because of the asymptomatic nature of the disease; an estimated 19% of people with HCV in NYC are unaware of their infection according to a serosurvey conducted at a medical center in The Bronx. Based on 2012-2015 case reports, DOHMH estimates that the HCV prevalence rate in NYC is 1,139/100,000 in NYC, and 62/100,000 in Tri-County.^{xxiii} Roughly 14% of PLWH and 20% of RWHAP Part A clients in NYC were living and diagnosed with HCV by December 31, 2015. HIV/HCV co-infection can lead to higher viral loads and accelerate the onset of HCV-related complications, including cirrhosis and end-stage liver failure, particularly among those whose HIV is not well-managed. Facilitating engagement in HCV treatment is vital; according to preliminary findings from a DOHMH analysis of mortality among RWHAP Part A clients who were enrolled and served in at least one long-term RWHAP program from 2013-2015, RWHAP Part A clients with an HCV diagnosis had significantly higher odds of death than individuals without this condition.

Currently, Medicaid covers the new Direct Acting Agents (DAAs) that cure HCV with very few limitations, but coverage under other forms of insurance varies widely. For those PLWH who are

uninsured, or who need assistance with co-pays and deductibles, NYS AIDS Drug Assistance Program (ADAP) added most DAAs, with the exception of those made by one drug manufacturer, to the formulary in November 2016. Despite the availability of effective, well-tolerated treatments and some remaining insurance-related treatment restrictions in NYS, 28% of co-infected individuals appear to have initiated HCV treatment by the end of 2015, indicating that, like with ARTs, insurance coverage alone is insufficient to support engagement in care and adherence to treatment. The NY EMA received a Health Resources Service Administration (HRSA) HIV/AIDS Bureau (HAB) Special Projects of National Significance (SPNS) grant (Project SUCCEED) to address HIV/HCV co-infection among PLWH of color in September 2016. Components of the implementation plan include clinical and non-clinical provider education and training, case investigation, and linkage to care.

b) Sexually Transmitted Infections (STIs). STIs increase the risk of sexual HIV transmission.^{xxiv} In 2015, NYC's STI case rates were highest in neighborhoods with high HIV prevalence; Central Harlem and Chelsea have high rates of primary and secondary syphilis, gonorrhea, and chlamydia rates are high in Central Harlem and the South Bronx. Since 2001, the number of primary and secondary syphilis cases has increased nine-fold in NYC; in 2016, 94% (1,830 of 1,939) of primary and secondary syphilis diagnoses were among men, 78% of which were among MSM. Among MSM with syphilis whose HIV status was known, 47% were HIV-positive. In 2016, almost 67,000 new chlamydia diagnoses were reported in NYC. There were also approximately 19,000 new diagnoses of gonorrhea reported in 2016; the highest case rates were seen among young adult men of color. Gonorrheal infections with decreased susceptibility to azithromycin have continued to increase; however, there is little evidence yet of the emergence of drug resistance to cephalosporins.

c) Mental illness. In surveys conducted between 2015 and 2017, approximately half (47%) of the continuing NYC Community Health Advisory & Information Network (CHAIN)⁶ cohort, 43% of the Tri-County cohort, and two-thirds of the new NYC cohort, had low scores on a standardized MH functioning measure, indicating MH issues. Among NYC RWHAP Part A clients enrolled and served in 2016, 48% of those assessed in the year had at least one low MH functioning score (<42.0 out of 100), while 28% had at least one very low MH functioning score (≤ 37.0), indicating more severe MH issues.

d) Substance use disorder. Among CHAIN participants surveyed between 2015 and 2017, 12% of the continuing NYC cohort, 18% of the new NYC cohort, and 3% of the Tri-County cohort reported hard drug use (i.e. cocaine/crack, heroin, methamphetamine, or prescription drugs to get high) in the past six months. Additionally, 13% of the continuing NYC cohort, 10% of the new NYC cohort, and 16% of the Tri-County cohort reported ever using drugs intravenously. Among RWHAP Part A clients served in 2016, 18% of those assessed in the year reported recent hard drug use. Of RWHAP Part A clients with some evidence of HIV medical care in 2016, 65% of those who reported recent hard drug use during the year were virally suppressed, compared to 81% of those who did not report recent hard drug use.

⁶ The CHAIN cohort study, in place since 1994, provides ongoing information on the characteristics, co-morbidities, and care needs and patterns of PLWH in the NYEMA. More than 3,000 PLWH have completed interviews conducted by researchers at Columbia University. The cohort is broadly representative of the PLWH in the NY EMA, with modest over-representation of black men and women and Latino men, so that participants more closely represent the NY EMA's RWHAP Part A clients. In 2015, the CHAIN study started its third NYC cohort recruitment, focusing on PLWH under the age 40 (the 2015 new cohort). The study continues to follow-up a portion of the previous cohort recruited during 2008-2010 (the continuing cohort). The continuing cohort's age distribution represents more closely to the NYC surveillance age distributions of PLWH. The recruitment of the 2015 new cohort is on-going, and two-thirds of target enrollment has been completed. Because the study samples from medical and HIV social service agencies, over 98% of current CHAIN participants are connected to the HIV service system.

e) Homelessness. The NY EMA has a longstanding history of a high prevalence of homelessness and housing instability, and a real estate market with an extremely low vacancy rate, creating an affordable housing shortage for those most in need.^{xxxv} Between 2010 and 2014, median rents in low-income neighborhoods increased 26%, while real median household incomes fell by 7%.^{xxxvi} Rent burden is high; in 2014, 56% of NYC renters paid more than one-third of their incomes to rent and utilities, and 34% paid more than one-half of their incomes for rent and utilities.^{xxxvii}

More than 129,000 unique individuals accessed the NYC shelter system in 2016, which is 75% higher than ten years ago.^{xxxviii} Data from the annual NYC Homeless Outreach Population Estimate Street Survey in 2016 suggests that more than 2,700 homeless individuals may be unsheltered on any given night.^{xxxix} Blacks and Latinos are disproportionately affected by homelessness; 58% of NYC homeless shelter residents are Black and 31% are Latino.^{xxx} Further, studies show that the large majority of street homeless New Yorkers have a MH illness and/or other chronic conditions.^{xxxi} As a response to this problem, NYC released its “Housing New York Plan” in 2014, which has already provided financing for 52,936 units of affordable housing.^{xxxii}

The prevalence of homelessness among PLWH is especially high. During the most recent CHAIN survey period (2015-2017), 15% of NYC’s continuing cohort, 57% of the new NYC cohort, and 13% of the Tri-County cohort were homeless or unstably housed. Additionally, 22% of NYC’s continuing cohort, 53% of the new NYC cohort, and 21% of the Tri-County cohort, reported needing housing assistance at the time of their interview.^{xxxiii} Housing instability and homelessness were also prevalent among HIV-positive RWHAP Part A clients served in 2016; 33% of those assessed reported unstable housing during the year, and 26% met the definition of homelessness. Among those engaged in HIV medical care in 2016, 71% of unstably housed clients were virally suppressed, compared to 81% of those with stable housing.

The provision of housing assistance and support services significantly reduces the costs associated with homelessness and improves health outcomes. One study observed that the average monthly healthcare and public service costs for chronically homeless individuals fell more than 53% following the provision of housing, substance use treatment, and other needed support services.^{xxxiv} Out-of-care PLWH enrolled in CHAIN who receive housing assistance were 2.5 times more likely to enter HIV primary care than those not receiving assistance and were 1.9 times as likely as other unstably housed PLWH to remain in care that meets clinical practice standards.^{xxxv} A recent study demonstrated that NY EMA Housing Opportunities for Persons with AIDS (HOPWA) clients enrolled in supportive housing programs experienced improved retention in care and viral suppression.^{xxxvi}

f) Formerly incarcerated individuals. Over two-thirds of NYS inmates return to NYC and reside in seven zip codes located in Central Brooklyn, Central and East Harlem in Manhattan, and the South Bronx, where new diagnoses and HIV prevalence are among the highest in NYC.^{xxxvii} In 2014, approximately 80,000 people were released from NYS prisons and local jails to the NY EMA. Of those released, an estimated 3,760 (5%) were PLWH and primarily returned to these three districts.

Individuals released from jails and prisons experience more chronic diseases and drug use compared to those who have not been incarcerated.^{xxxviii} From 2014-2016, an annual average of 2,100 people living with HIV were incarcerated in NYC jails; over 1,700 received a discharge plan and over 60% were released to the community with a plan. Consistent with historic trends,^{xxxix} 70% were linked to primary care after incarceration.^{xl} In 2016, over 80% of those linked to care were maintained in care for at least 90 days. Twenty-nine percent of active RWHAP Part A clients assessed in 2016 reported an incarceration history. Among those assessed and in HIV medical care

in 2016, 71% of clients with a history of incarceration were virally suppressed, compared to 83% of those who had never been incarcerated.

A cost analysis found that the mean annual cost to achieve HIV viral suppression among formerly incarcerated individuals is \$8,432.^{xli} These high costs may be attributable to the challenges that formerly incarcerated people often face when released, including high rates of re-incarceration, homelessness, MH issues, substance use/addiction, joblessness, and other chronic conditions. The presence of these challenges can undermine continuity of care and linkage to case management, housing, financial assistance, and other services.

g) Tobacco dependency. Despite a record low prevalence of smoking in NYC (less than 14%), heavy tobacco use and dependency persist among several populations, including PLWH.^{xlii} In addition to the commonly known negative health effects of tobacco use, PLWH are at additional risk for HIV-specific negative health outcomes. An analysis conducted by evaluators at DOHMH found that recent tobacco smoking was reported by 40% of PLWH enrolled in RWHAP Part A programs between 2010 and 2013 in NYC. Recent tobacco smoking was independently associated with low CD4 cell counts and unsuppressed viral load, even after controlling for several clinical and socio-demographic characteristics, including substance use and ART prescription status.^{xliii} Further, previous studies have found increased risk for some cancers and HIV opportunistic infections related to tobacco use, regardless of viral load and CD4 count. In studies exploring tobacco dependency and behavioral health, tobacco use is associated with worse substance use treatment outcomes and increased depressive symptoms.^{xliv}

Despite mounting evidence of the poor health outcomes among PLWH who smoke, studies show that tobacco smoking is not routinely addressed by HIV service providers, including support service providers such as those in RWHAP Part A-funded MH or harm reduction (HR) services. Among RWHAP Part A clients enrolled and served in GY16, those receiving HR services had the highest rate of recent smoking, at 63%. Treating tobacco dependency along with medical and behavioral health can increase the cost and complexity of treatment but provides significant short- and long-term health benefits. To this end, the NY EMA prioritized smoking cessation for PLWH in GY15, GY16, and GY17, and will continue in GY18 by encouraging providers to screen and refer PLWH to appropriate tobacco dependency services and support the treatment of tobacco dependency concurrently with MH and HR services to ensure the full needs of the client are met.

3) Complexities of Providing Care. In addition to the conditions previously described, many PLWH in the NY EMA have co-morbid conditions that compromise health and increase the cost and complexity of their HIV care. Among PLWH in the 2015-2017 round of CHAIN interviews, 97% of the continuing NYC cohort and 70% of the new NYC cohort suffer from at least one non-HIV-related chronic condition. Additionally, 87% of the continuing NYC cohort and 40% of the new NYC cohort reported having at least two conditions, such as hypertension, heart disease, and/or HCV. Having one or more co-morbid conditions has been found to be associated with a higher average number of annual ambulatory clinical and acute care visits (both inpatient and emergency department) among CHAIN participants, increasing the costs of healthcare. In a CHAIN mortality study, heart disease, substance use, and cancer were among the leading non-HIV-related causes of death. Non-HIV-related death rates in the CHAIN cohort remained in excess of those in the uninfected general population matched by age, gender, and race/ethnicity.^{xlv}

a) Impact and response to a reduction of RWHAP Part A funding.

Impact. Since GY13, the NY EMA has seen reductions totaling more than 20 million dollars, including a reduction of 1.9%, or \$1,881,164, in GY17. During this period of reductions, the PC and the Recipient have acted to preserve, to the greatest extent possible, those services that most

directly impact the health of PLWH. The impact has hit the Recipient’s commitment to ADAP and Early Intervention Services (EIS) the hardest, and resulted in the elimination of two service categories – Home and Community-based Health Services (HOM) and Outpatient/Ambulatory Health Services. By ensuring the services delivered under those contracts were included in other service categories or by other available sources, the NY EMA preserved services for clients. Existing clients were transitioned to other contractors as appropriate and services, such as MH and Food and Nutrition Services (FNS), were permitted and encouraged to provide home-based services to meet client needs. To ensure client transition each HOM contractor was required to submit a client transition plan for closeout, and each contractors’ plan was monitored by Public Health Solutions (PHS). With the elimination of Outpatient/Ambulatory Health Services through negotiations with the NYS HIV Uninsured Care Program (HUCP), the NY EMA moved resources within the RWHAP Part A system of care to preserve service delivery while reducing administrative burden by having fewer service categories to monitor. The NYS HUCP assured the NY EMA that these services would continue to be available.

The Tri-County region has been especially hit by the continued reductions because the service system does not have the same economy of scale to absorb contract level and service category level reductions. With each year’s reduction the PC and the Recipient has been strategic in its response and has begun to proactively plan to ensure the impact does not begin to erode the NY EMA’s successes in viral suppression and morbidity and mortality reduction.

Response. To address the reduction in funding, the PC’s Priority Setting and Resource Allocation Committee re-assessed each category through an extensive review of service category-specific fact sheets. The fact sheets compiled up to five years of data on allocations, expenditures, service utilization (by service unit) and client demographics. The fact sheets also summarized data on payer of last resort (POLR) issues and systems-level considerations (e.g. changes in federal, state, and local funding and policies). The NY EMA was able to offset the GY17 cut through minor savings in the carrying cost of three service categories—MCM, Legal and Health Education/Risk Reduction (HE/RR)—as well as through \$572,325 that had been left uncommitted after the elimination of the HOM category in GY16 (which was partially funded into GY17 to allow for program close-out). Additionally, the PC used information from a community briefing conducted by the PC on housing need in the NY EMA and data on waiting lists and housing insecurity to recommend a stabilizing of resources in the Tri-County region specifically to preserve housing services. The PC also worked closely with the New York State Department of Health (NYSDOH) to agree on a reduction of \$894,718 to the NY EMA’s allocation to ADAP, based on an assessment of State and RWHAP Part B resources and projections of ADAP enrollment. The reduction to ADAP will be partially restored through reprogramming dollars in the course of the year and there will be no effect on the availability of medications for ADAP enrollees.

b) Table 3: NY EMA Uninsured and Poverty

Diagnosed and reported PLWH in NY EMA (N =91,455)	# of PLWH	% of PLWH
<i>a1.</i> PLWH in the NY EMA enrolled in Medicaid	60,006	65.6%
<i>a2.</i> PLWH in the NY EMA enrolled in Medicare and Medicaid/Medicare (dual eligible)	17,162	18.8%
<i>a3.</i> PLWH in the NY EMA enrolled in marketplace exchanges	6,139	6.7%
<i>b.</i> PLWH in the NY EMA without any insurance coverage	9,410	10.3%

Active RWHAP Clients in the NY EMA, GY16 (N=15,471)		
<i>c1.</i> PLWH in the NY EMA living at or below 138% of 2017 FPL	13,399	86.2%
<i>c2.</i> PLWH in the NY EMA living above 138% and at or below 400% of 2017 FPL	1254	8.0%
<i>c3.</i> PLWH in the NY EMA living above 400% and at or below 435% of 2017 FPL*	18	0.1%

Sources: Data in sections a. and c. provided by NYSDOH to NYC DOHMH. The numbers and corresponding percentages reflect insurance program enrollment and FPL available through June, 2016.

* Residents with income under 435% FPL are eligible for RWHAP services. This requirement for RWHAP in the NY EMA remains unchanged. There are no income restrictions for EIS services or HE/RR.

c) Barriers to accessing healthcare.

Geographic variation. NYC is well known for its extensive subway system that transects Manhattan, Bronx, and Brooklyn but many parts of the outer boroughs, especially Queens and Staten Island, are more like less densely populated cities and suburban areas with inadequate access to public transportation. Furthermore, the NY EMA also includes three counties north of NYC that are suburban and rural and lack many of the resources of NYC. Not only do the outer boroughs and non-NYC counties lack the density to support robust mass transit, they also do not have as many other resources that support access to and retention in healthcare.

Thus, while New Yorkers are a highly insured population, access to healthcare and providers can be impacted by people’s access to transportation services and by the lack of specialists and service providers that meet their needs. To increase access to services, the NY EMA considers geographic distribution of contractors during procurement and contracting and has allocated \$350,238 to medical transportation to provide access to taxi and gas vouchers, as appropriate, and to Metrocards and mass transit options where available. The medical transportation program ensures that clients are able to attend appointments for services related to their HIV primary care including medical care, MH appointments, and to pick up prescriptions.

Adequacy of health insurance coverage. Prior to implementation of the Affordable Care Act (ACA), NYS Medicaid covered non-disabled adults with incomes below 100% of the FPL. Expanded health insurance coverage options provide further opportunities for PLWH (*see pp. 22-25 for details*). These changes affect health insurance coverage options in the jurisdiction, as well as RWHAP Part A service needs and delivery. In addition, these new options require specific outreach and enrollment activities to ensure that people eligible for health care coverage are enrolled and coverage is maintained.

Language barriers. NYC is home to an estimated 200 plus languages – with half of New Yorkers speaking a language other than English, which includes mono-lingual and multi-lingual individuals. Within the RWHAP Part A population, 25% of non-EIS clients in GY16 report a language other than English as their primary language. Of clients reporting a primary language other than English, most speak Spanish (81%), followed by Haitian Creole/French Creole (6%), French (5%), and African languages (4%). RWHAP Part A clients also speak Russian, Portuguese, Mandarin-Chinese, Arabic, Tagalog, and Thai, among others.

To address these diverse language needs, the NY EMA prints materials in the most common languages of the jurisdiction – English, Spanish, and French/Haitian-Creole. In addition, providers will often adapt and translate materials to meet the needs of their client populations, for example, the translation of the CCP materials into Mandarin-Chinese by an agency with expertise in serving Chinese clients. Further, the Recipient has taken steps to implement Culturally and Linguistically Appropriate Services in Health and Health Care (CLAS Standards), and all RWHAP Part A providers

are contractually required to implement the standards. An internal workgroup has been working on operationalizing the CLAS Standards into actionable items to ensure that implementation of the standards is meaningful to the service system.

Service gaps and plans to address them. The PC's Integration of Care Committee has worked diligently to continually update models of care to meet the needs of NY EMA PLWH, address gaps in the HIV care continuum, and adjust to changes in the healthcare system resulting from the changing healthcare landscape. The RWHAP Part A services portfolio is carefully designed to meet needs identified through surveillance, RWHAP Part A program evaluation, CHAIN data, and changes in the NY EMA's health care landscape. Identified needs are addressed through the incorporation of best practices and evidence-based interventions in service models to support effective diagnosis, linkage to and retention in care, and adherence to ARTs. Activities to address service gaps in the NY EMA, based on the stages of the HIV care continuum, cover:

Individuals diagnosed but not currently engaged in care. Medical center-based and community-based EIS programs work to identify and provide linkage services to newly diagnosed individuals to medical care, as well as re-engage those previously diagnosed and who have been lost to medical care. The RWHAP Part A program also provides funding to the nationally recognized BHIV Field Services Unit (FSU) at DOHMH which uses a data-to-care model to identify PLWH who, according to surveillance data, are lost to care. FSU staff then work to locate those PLWH identified, and link them to HIV primary medical care. In 2016, FSU located 1,093 PLWH who were out-of-care or never in care, of whom 701 (64%) accepted and attended return to care appointments.

Individuals not previously retained in care and individuals who are not currently virally suppressed. Among PLWH in the NY EMA who were diagnosed by the end of 2015 and living as of the end of 2016, 33% were not retained in care (defined as two HIV-related labs at least 91 days apart) in 2016. The proportion of PLWH with unsuppressed viral load in 2016 was slightly lower, at 30%. The NY EMA's CCP model provides a comprehensive set of services, including social services and benefits assistance, health promotion, care navigation and accompaniment to appointments, medication adherence support, modified Directly Observed Therapy (DOT), and re-engagement in care procedures, to ensure engagement in care and ART adherence for those presenting to the program as newly diagnosed, disengaged from care, and/or virally unsuppressed. For GY18, the PC allocated 32.5% of funding to support MCM (which includes CCP and TCC in NYC and MCM programs in Tri County) and n-MCM services. Navigation services are also offered through FNS, Supportive Counseling and Family Stabilization (SCF), n-MCM, and EIS programs, which conduct re-engagement activities on those previously diagnosed and disengaged from care. MH and HR contracts include specific outreach elements to engage PLWH at risk of being lost to care due to MH challenges or substance use.

In GY18, as in previous years, RWHAP Part A services will be clustered in high-need, underserved minority communities, with consideration given to geographic distribution of Medicaid and RWHAP Parts B, C, D, and F-funded services and providers' capacity to address health disparities. CCP clients obtain services co-located or closely linked with primary care providers, ensuring that case managers and primary care providers both have access to clinically-relevant information and participate in joint case conferences as integral members of the care team. RWHAP Part A-funded initiatives will continue to be complemented by targeted Minority AIDS Initiative (MAI) programs that promote early diagnosis and linkage, adherence to treatment, and stable housing for PLWH of color. Historically and presently, Part A serves Blacks, Latinos, and women at a proportion higher than their representative portion of the NY EMA's population.

The NY EMA supports HR services under the HRSA defined Substance Abuse Treatment service category. Through the provision of HR services, the NY EMA is able to fill a gap in care since the vast majority of Medicaid-funded Substance Abuse Treatment programs do not include engagement of active substance users in their service provision. The RWHAP Part A HR programs include a focused outreach component to engage those currently using substances in high-risk environments. In line with the *EtE Blueprint*, DOHMH has prioritized addressing the issue of methamphetamine use among New Yorkers living with and affected by HIV through Part A-funded HR providers and city-funded contracts paying for harm reduction and clinical support services, including access to PrEP and PEP, to those at risk for HIV.

Additional efforts to retain PLWH in care and support adherence to ART and SVL include the RWHAP Part A MH programs, which seek to engage persons with MH issues in MH care through navigation, education on MH issues, coordination of care between MH and medical care providers, treatment adherence support, and provision of individual, family, and group MH services for those without another payer.

Lastly, as described on *page 40* in the Quality Management (QM) section, each NY EMA RWHAP Part A provider receives client level reports of those reported to eSHARE as not virally suppressed in an effort to ensure that these clients have an opportunity to receive or be referred to services that address barriers to SVL. Additional reports on each agency's RWHAP Part A population's viral suppression were developed for distribution to each agency's leadership team in 2017.

Early Identification of Individuals with HIV/AIDS (EIIHA).

1) Planned Activities of the NY EMA EIIHA Plan for GY18.

a) Primary activities. The primary activities in the NY EMA's EIIHA Plan for GY18 are (1) to promote and increase HIV testing, (2) to improve timely linkage of persons who have newly diagnosed HIV infections to medical care, and (3) to increase awareness of and referral to prevention services, including PrEP, PEP, and condoms.

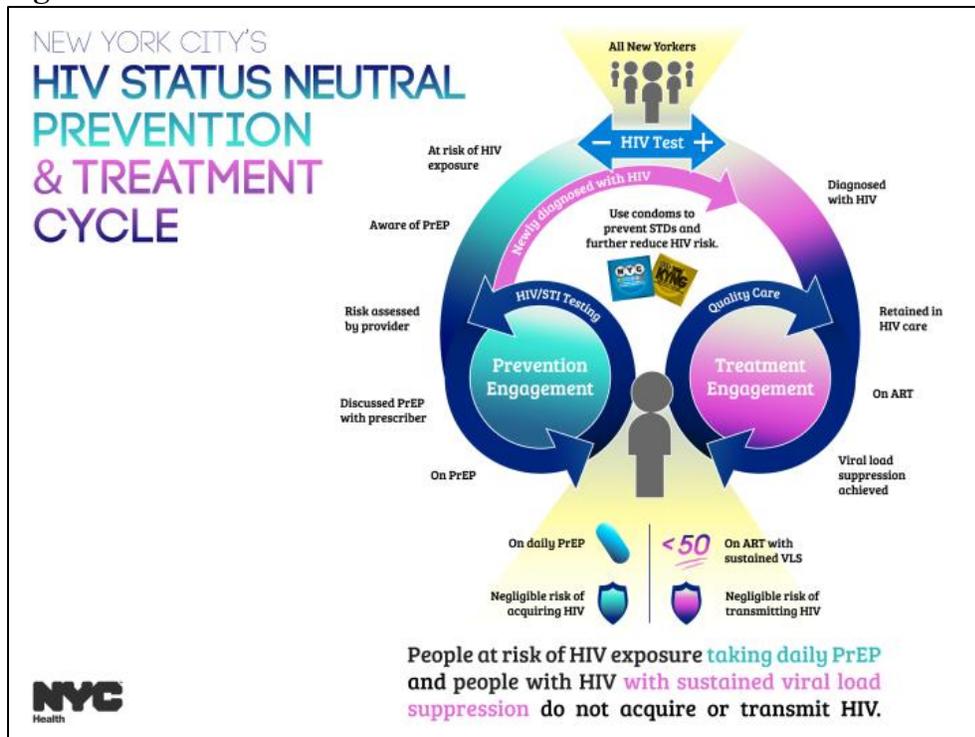
Testing. The NY EMA uses a two-tier approach to pursue the EIIHA goal to increase status awareness and reduce the number of undiagnosed and late diagnosed individuals.

Tier 1. The first tier supports sustainable access to HIV testing services for the general population citywide by promoting and funding routine HIV screening programs in healthcare facilities. The first-tier approach is consistent with the Center of Disease Control & Prevention's (CDC) 2006 *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings*. Routine screening enables large numbers of people to be tested by taking advantage of established systems for service provision and provides HIV testing to all, regardless of risk, including those who do not perceive themselves to be at risk or whose providers do not perceive them to be at risk for HIV.

The NY EMA uses CDC and RWHAP Part A funding to support, but not supplant, routine HIV testing programs in healthcare settings and to support the implementation of community-level initiatives that promote HIV testing and normalize the testing experience. To maximize the impact of funding, routine screening funding is focused on clinical facilities that serve neighborhoods disproportionately affected by HIV and are underserved, such as the South Bronx, Central Brooklyn, and East and Central Harlem. In 2016, DOHMH rolled out a "status neutral" approach to HIV prevention and care services that simultaneously addresses the needs of HIV-positive and HIV-negative persons (*see Figure 1*). To align with its new approach as well as new testing regulations and guidelines, in 2017, DOHMH issued a Request for Proposals for HIV Testing and Status

Neutral Navigation Services (Status Neutral Testing RFP), which includes funding from both CDC and RWHAP Part A. The solicitation, which re-bids the NY EMA’s HIV testing portfolio, includes three categories: (1) systems-level change for scaling up routine HIV testing in clinical settings, (2) status neutral linkage and navigation services in clinical settings, and (3) targeted HIV testing among priority populations. The intent of the first service category is to increase the routine offer of HIV testing (preferably using the opt-out approach) by strengthening clinical agencies’ capacity to implement a systems approach, as opposed to individual services, and further integrate HIV testing with culturally competent status neutral HIV prevention and care services among those at highest risk. Contracts are slated to begin January 1, 2018. In the Tri-County region, Medicaid and private insurers are the primary payers supporting the implementation of the NYS routine testing law with RWHAP Part A support for targeted testing among uninsured individuals, and linkage to care for those testing positive for HIV.

Figure 1. DOHMH Status Neutral Care Plan



Beyond directly contracting for testing services, another approach DOHMH has taken to engage hospitals and community health centers in routine HIV screening is through the citywide HIV testing initiative, *New York Knows*, which began in 2008 targeting the Bronx (*Bronx Knows*), in 2010 extended to Brooklyn (*Brooklyn Knows*), and subsequently expanded on World AIDS Day 2014 to all boroughs of NYC. *New York Knows* engages community providers to conduct routine screenings in clinical settings and targeted testing of high-risk populations in the community, link individuals with HIV to care and support services, and connect HIV-negative individuals to comprehensive prevention services. Approximately 3.6 million HIV tests have been performed collectively since 2008 through all three initiatives combined. The *New York Knows* initiative is a public-private collaboration using RW, CDC, Medicaid, and other insurance reimbursements to support HIV testing efforts.

The DOHMH Bureau of Sexually Transmitted Disease Control (BSTDC) is the main provider of direct HIV testing services at DOHMH. In February 2017, the DOHMH announced an effort to significantly expand sexual health services citywide and rebranded the DOHMH STD Clinics as Sexual Health Clinics (SHCs). The overall goal of the rebranding is to transform the STD clinics into “Destination Clinics” for sexual health services. The SHCs offer opt-out rapid HIV testing to clients who present for STD screenings. For nearly ten years, the SHCs have performed pooled nucleic acid amplification testing (pNAAT) to detect acute HIV infections. pNAAT testing is limited to those individuals who are most likely to present to the SHCs with acute infection, including MSM, people who have shared injection drug equipment, and people who exchange sex for money (or other material goods). To prevent transmission during the high-viral load stage of acute HIV infection, persons who are diagnosed with acute HIV infections receive enhanced linkage to care services and enhanced partner services and are offered (iART) in the SHC. In 2016, 22 acute HIV infection cases were diagnosed in SHCs via pNAAT. Of those individuals, 95% were linked to HIV primary care within 91 days.

Tier 2. The second tier of the NY EMA’s EIIHA approach aims to decrease disparities in health outcomes by targeting HIV testing services in non-clinical settings. The NY EMA uses surveillance data to identify the key populations and communities for these services. Targeted testing services include conducting testing in venues where people at high-risk for HIV can be found, using evidence-based recruitment practices, such as the Social Network Strategy. Through the new HIV Testing and Status Neutral Navigation Services solicitation’s third service category, selected community-based agencies will focus on gay, bisexual and other MSM and transgender and gender nonconforming (TGNC) persons and their partners, with particular attention to those who are Latino or Black and under age 29; heterosexual women of color, particularly those over 30 or living in areas with high prevalence of STIs; and other vulnerable populations. Funding will be prioritized to applicants whose patient population resides in zip codes with high HIV prevalence and documented health disparities and/or that have a history of outreaching to key populations. Agencies providing these services must also demonstrate cultural competency, follow CLAS Standards, and have a history of successfully engaging with the priority populations.

To further increase access to HIV testing for key populations, in November 2015, DOHMH launched a home HIV test giveaway pilot for MSM. The giveaway was advertised on location-based social networking/dating mobile phone applications. Among the 2,493 participants recruited for the pilot program, 71% redeemed their code for a free home test kit that was sent to their residence. Preliminary data analysis from a follow-up survey of those who received a discount code found that 13% had never been previously tested for HIV. Based on its initial success, DOHMH continues to provide home HIV test kits via online applications, and is currently piloting a Community Based Organization (CBO)-driven home test giveaway for MSM and other key populations and includes in-person distribution of kits to unstably-housed clients.

Linkage to medical services. The NY EMA promotes linkage to medical services for those who have diagnosed HIV infections through various strategies. All funded HIV testing programs are required to link newly diagnosed persons to care, as well as those previously diagnosed that have fallen out-of-care. To meet the revised national goal of earlier linkage to care, subrecipients receive higher reimbursement rates for linkage to care within 14 and 30 days of diagnosis.

The SHCs continue to routinely offer HIV testing to all clinic clients, along with new and expanded programs including JumpstART, which initiates antiretroviral treatment immediately upon a new HIV diagnosis, the launching of PrEP navigation and initiation services, and further augmentation of PEP services.

Through the new HIV Testing and Status Neutral Navigation Services solicitation's second service category, the NY EMA will fund clinical facilities to expand linkage to care services. Subrecipients will also be required to partner with iART programs to increase access to rapid ART initiation, with higher reimbursement for those linked the same day. The program leverages NYSDOH's Rapid Access to HIV Medications and Treatment Program (Rapid Tx). iART is modeled after several national and international programs, as well as the SHCs' JumpstART program. Referral to PrEP and PEP services. In 2016, using CDC and city funds, the NY EMA funded the *PlaySure* Network, a network of over 50 CBOs and healthcare facilities to provide education on PrEP and PEP, navigation and linkage to clinical providers, and PrEP and PEP initiation with adherence support and clinical follow-up. As noted above, in 2017, the SHCs started to provide PrEP services and to provide full 28-day courses of PEP. Staff from the SHC also provide status-neutral navigation services to PrEP/PEP providers and HIV medical care. In GY18, the NY EMA will continue to support and expand these services. The NY EMA will be launching a public health detailing campaign to providers of healthcare to women to further encourage PrEP education and prescribing among women, particularly women of color. The NY EMA will also launch an associated social marketing campaign on PrEP for women.

The Westchester County Department of Health (WCDOH) has implemented several programs through NYS funding to expand PrEP coverage in the Tri-County region. WCDOH has concentrated its focus on at-risk populations, expanding its PrEP outreach to priority populations including MSM, transgender women, PWID, sex workers, homeless individuals, and formerly incarcerated individuals. Additionally, in 2016 WCDOH implemented a PrEP education and treatment program in STD clinics. Since implementation, the five funded medical programs have connected 400 individuals to PrEP medications. In GY18 the Tri-County region will increase resources to reach young MSM of color. Additionally, WCDOH provides policy and programmatic leadership for PrEP initiatives throughout the Tri-County region. WCDOH is a voting member of the NYS HIV Advisory Board within the Hudson Valley region, and serves as the EtE co-chair in the Upper and Lower Hudson Valley (which includes the Tri-County region). In this capacity, the WCDOH oversees HIV education, testing, and PrEP/PEP referral programs, and holds monthly provider meetings focused on training and program strategy.

Other Activities. For all DOHMH-funded testing programs in both tiers, DOHMH recommends the use of HIV testing technologies that allow for detection of acute and early HIV infections, such as combination antigen-antibody (4th and 5th generation) HIV tests. To support testing programs, DOHMH provides trainings and TA for providers and publishes testing and prevention resources online. To promote receipt of confirmatory testing among individuals with a preliminary-positive test result, DOHMH provides a discrete reimbursement point for confirmatory testing among HIV testing contracts. The specific reimbursement for confirmatory testing and recommended onsite collection of specimens have resulted in a higher proportion of tested clients receiving confirmatory results among those who test preliminary-positive.

To support the primary activities in the EIIHA Plan, the BHIV has created social marketing campaigns over the past several years to promote improvements in sexual health city-wide. The *BeSure* campaign aims to increase awareness of HIV status. The *PlaySure* campaign encourages individuals to choose the combination of safer sex practices that work for them. As noted above, the NY EMA has funded the *PlaySure* Network to provide prevention services, including PrEP and PEP. The *StaySure* campaign emphasizes initiation and adherence to HIV medications and biomedical prevention interventions. Finally, the *Bare It All* campaign encourages consumer and provider communications to improve sexual health and wellness, especially to LGBTQ New Yorkers.

The FSU within the BHIV HIV Epidemiology, Field Services Program and the Tri-County Region's Health Departments provide partner notification services to PLWH diagnosed by providers. The NYC BHIV FSU and Tri-county Health Department Disease Intervention Specialists elicit the names of potentially HIV-exposed partners, confidentially notify these partners of their possible HIV exposure, and offer HIV testing to these partners and linkage to care for persons who test positive. In 2016, FSU offered partner services to all newly diagnosed persons citywide. FSU interviewed 86% (1,725/2,008) of those newly diagnosed in NYC and elicited 1,025 HIV-exposed partners. Seventy-four percent (517/698) of partners with negative or unknown HIV status were notified, and 41% (211/517) were tested, of whom 17% (36) have newly diagnosed HIV infections. If those newly diagnosed do not return to receive their test results, FSU can assist testing providers in locating patients, notifying them of their results, and offering partner services.

In recent years, FSU has expanded beyond partner services. For PLWH engaged through FSU and their partners, FSU assists in linking them to medical care and social service agencies. FSU also assists with re-engaging PLWH, using NYC surveillance data, who have been out-of-care for at least nine months or were never in care for at least six months from the date of HIV diagnosis.

b) Major collaborations with other programs and agencies. Many DOHMH programs collaborate to identify individuals unaware of their HIV status. Under the leadership of the BHIV Prevention Program, all HIV testing programs in the NY EMA have standardized service models and data collection across funding sources, enforce POLR requirements, eliminate duplication of services across funding streams, and coordinate monitoring and evaluation activities. BHIV programs practice a unified approach, collaborating with clinical operations, prevention, surveillance, and care and treatment programs. The BHIV also collaborates with other DOHMH programs and city agencies that provide services to populations heavily impacted by HIV, such as the Division of Mental Hygiene, BSTDC, Bureau of Tuberculosis Control, PHL, Office of School Health, and NYC Health + Hospitals (H+H). DOHMH also works with NYC H+H Correctional Health to coordinate comprehensive medical, MH, and dental services for inmates in NYC correctional facilities, including HIV testing and discharge planning to support linkage of inmates to community-based medical care within 30 days of release.

The *New York Knows* initiative collaborates with over 200 partner agencies that have pledged to support the goals of the initiative to: test every resident for HIV, link HIV-positive individuals to care, link HIV-negative individuals to prevention services including PrEP, and make HIV testing a routine part of healthcare in NYC. Steering committees have been created in each borough and citywide, and these committees meet regularly throughout the year to improve retention in care and viral suppression.

BHIV also collaborates with the NYS AIDS Institute (NYS AI) on the continuation of the previously HRSA/HAB-funded *NY Links*, a statewide project focused on improving linkage to and retention in care that supports the delivery of routine, timely, and effective care. The BHIV is an active participant in regional collaboratives established under NY Links and is implementing a partner in a statewide scale-up of strategies that have been shown to have promise, including Anti-Retroviral Treatment and Access to Services. BHIV also worked closely with the NYS AI to develop the *EtE Blueprint*, and the development and implementation of EtE key strategies. The *EtE Blueprint* served as the foundation for the NYS (and NYC) *Integrated HIV Prevention and Care Plan*.

c) Anticipated outcomes of overall EIIHA strategy. The primary goals of the NY EMA's overall strategy include increasing the number of people aware of their HIV status, increasing the proportion of PLWH promptly linked to medical care, and increasing the proportion of populations at-risk for HIV infection receiving prevention services, including PrEP and PEP (*see pp. 21-22 for*

specific strategies) which directly align with the *EtE Blueprint* and the *NYS Integrated HIV Prevention and Care Plan*. This “status neutral” approach to HIV prevention and care services addresses the needs of HIV-positive and HIV-negative persons. The success of the status neutral approach requires coordination between providers of testing, prevention and care services, and seamless linkages to culturally responsive and linguistically appropriate services, regardless of an individual’s HIV status.

The NY EMA proposes to monitor testing outcomes through a variety of mechanisms. Programs funded to provide direct services, in clinical or non-clinical settings, report client-level testing data; clinical facilities funded to institute system-level change and those from borough-wide initiatives report aggregate testing data to DOHMH. As the NY EMA continues to promote and fund testing programs, the proportion of residents in the NY EMA that have ever been tested for HIV continues to increase. Through CHS, DOHMH tracks the percentage of NYC residents, aged 18 and older, who report ever testing for HIV. As discussed on *pp.* 3-6, as the number of NYC residents being tested for HIV has increased in the last five years, the number of HIV diagnoses has decreased. This declining trend in the number of new diagnoses is partly due to DOHMH’s rigorous and comprehensive effort to increase HIV testing, link persons who have diagnosed HIV infections to care, and support increased viral suppression within the first 12 months of care. These efforts are reflected in DOHMH’s recent announcement of the result of its serosurvey^{xlvi} from an emergency department in the Bronx: the percent of those surveyed with undiagnosed infection was 4.8%, which is substantially lower than the 14% undiagnosed prevalence estimated in 2010 from a similar serosurvey, conducted in a different Bronx emergency department. The NY EMA expects these trends of increased percentages of NYC residents reporting to have ever received an HIV test and a decrease in new HIV diagnoses to continue with on-going implementation of the EIIHA strategy.

The NY EMA recommends and promotes prompt linkage to medical care. A planned outcome is an increased percentage of people with new HIV diagnoses initiating care. Currently, DOHMH tracks this indicator using HIV surveillance data and defines timely linkage as the first CD4 count or viral load drawn between eight and 91 days⁷ after HIV diagnosis. Since 2006, there has been a steady increase in timely care initiation among the newly diagnosed in NYC, from 63% in 2010 to 86% in 2016.

As the NY EMA continues to promote and fund PrEP and PEP referral and care services, the proportion of at-risk residents, including MSM and TGNC individuals and women of color (Black and/or Latino), who are aware of and report using these services will increase. This outcome indicator will be measured through the Sexual Health Survey (SHS). Already, among sexually active NYC MSM aged 18-40 surveyed through the SHS in Spring 2016, 95% were aware of PrEP, with no significant variation by race/ethnicity. Overall, 27% had taken PrEP in the past six months and this also did not significantly vary by race/ethnicity.^{xlvii} Among sexually active women of color aged 18-64, surveyed through the SHS in Fall 2016, only 24% were aware of PrEP and less than 1% had taken PrEP in the past six months.^{xlviii} The disparities in awareness among key populations and uptake across all populations underscore the need for continued intensive social marketing and education efforts, which are underway at DOHMH.

2) Planned efforts to remove legal barriers to routine HIV testing. In the last decade, the NY EMA worked with the NYSDOH and State legislators to enact legislative amendments to remove legal barriers to routine HIV testing, consistent with the CDC’s 2006 recommendations. In 2010, NYS passed into law legislation requiring HIV testing to be offered to all patients aged 13-64 years

⁷ The date range only applies to NYC, and is set to account for time to complete lab draws, which NYC does not count as linkage to care. NYS include labs between days 1-91 as evidence of linkage to care.

in primary care settings, emergency departments, and inpatient settings, with limited exceptions. The legislation also streamlined consent for HIV testing, allowing patients to grant consent through signing a general consent for medical care form or through documented oral exchange. A 2012 evaluation of this change found that testing volume increased by 13% across NYS.^{xlix} In 2014, amendments to the law eliminated the requirement for written consent for HIV testing, allowing oral consent to be sufficient in all settings except correctional facilities. The following year, further amendments eliminated the requirement for written consent in correctional facilities. In 2016, NYS expanded current regulations to require providers to offer HIV tests to anyone over age 13 in the routine setting, thus removing the upper age limit. The NY EMA will continue to work with NYSDOH and other state agencies to implement legislative and regulatory changes related to HIV that occurred during the last legislative session.

In addition to these legislative changes to support HIV testing, other legislative and regulatory amendments have significantly expanded access to HIV services. In June 2016, the NYS legislature passed A10724/S8129 which expands STI testing by allowing physicians and nurse practitioners to issue non-patient specific orders for nurses to screen persons at increased risk for syphilis, gonorrhea, and chlamydia; and expands access to PEP by allowing physicians and nurse practitioners to issue non-patient specific orders to pharmacists to dispense up to seven days of PEP.

In December 2016, NYSDOH proposed amendments to state regulations classifying HIV as a Group B STD and clarifying that local health departments must provide diagnosis and treatment, including prevention services, either directly or through referral to persons with or at risk of a listed Group B STD. Taken together, the amendments allow a minor to consent to HIV prophylaxis and treatment if parental/guardian notification or consent is not available, and prohibit the release of medical and billing records containing information related to these services to their parent/guardian without the minor's consent. NYSDOH finalized the changes in April 2017. Also in December 2016, NYSDOH proposed regulatory amendments that expand data sharing to allow care coordinators access to HIV-related information for the purpose of linkage to and retention in care. The agency finalized the changes in May 2017. NYSDOH will work with NY EMA stakeholders in drafting provider- and consumer-facing materials to ensure that all New Yorkers are aware of these important regulatory changes.

3) *GY18 EIIHA Plan target populations.* The three selected distinct target populations are: (1) newly diagnosed individuals; (2) MSM and TGNC persons; and (3) Black and Latino men and women living in high prevalence neighborhoods.

a) *Populations targeted.* The three populations were chosen to align with national and local priorities. They constitute three of the six priority populations highlighted in the national goals to end the HIV epidemic. In the NY EMA in 2016, Blacks and Latinos accounted for 77% (43% and 34%, respectively) of all new HIV diagnoses. MSM, including Black and Latino MSM, made up 55% of all new HIV diagnoses in the NY EMA; women make up one in five new diagnoses, and among that group, over 90% are women of color. In 2016 TGNC individuals made up 2% of new HIV diagnoses in NYC.

b) *Specific challenges with or opportunities for working with the targeted populations.*

a) Newly diagnosed. The NY EMA continues to make steady improvement in access to and engagement in HIV prevention and care services. Partly because of these efforts, the overall number of HIV diagnoses in the NY EMA is on the decline. In 2016, 2,401 individuals were newly diagnosed with HIV, an 8% decline from 2015. DOHMH now recommends that clinicians immediately offer ART to all persons who have diagnosed HIV infections. Immediate treatment and prompt viral

suppression reduces the damaging effects of the virus on the body and immune system and effectively eliminates the possibility of transmission to a sexual partner. However, according to the NYC care continuum, there continues to be disparities in linkage to care within 91 days among specific populations including MSM, transgender persons, Black men and women, and those who live in poverty. Increasing support of the data-based observation that “Undetectable = Untransmittable” (U=U) provides an opportunity to reduce HIV-related stigma by affirming that for those with sustained viral suppression, the risk of sexual transmission of HIV is effectively zero. The CDC has issued a statement that concurs with this initiative by stating “people who take ART daily as prescribed and achieve and maintain an undetectable viral load have effectively no risk of sexually transmitting the virus to an HIV-negative partner.”^{vi} In line with U=U, the NY EMA further encourages PLWH to get in care, initiate treatment, and achieve and maintain viral suppression. The Status Neutral Testing RFP’s services categories will provide opportunities to support linkage to care and iART for persons who have newly diagnosed HIV infections.

b) MSM and TGNC persons. Fifty-five percent of new HIV diagnoses in the NY EMA in 2016 were among MSM (including those who also inject drugs), more than any other transmission risk group. National data indicate that MSM of color and young MSM (YMSM) aged 13-24 years old, particularly YMSM of color, are at the highest risk for acquiring HIV. The CDC estimates that one in six MSM will have diagnosed HIV infections in their lifetime, including one in two among Black MSM and one in four among Latino MSM.^{vi} This holds true in the NY EMA, making them a high priority of the overall EIIHA Plan. In 2016, YMSM accounted for 14% of the new diagnoses in the NY EMA; of which, 89% were among YMSM of color. Research has shown that stigma and discrimination due to race and sexual orientation and lack of access to culturally competent services among MSM of color are barriers to HIV testing and medical services.^{vii} Further, some YMSM experience homelessness/housing instability, lack of family support, and limited access to healthcare.

TGNC persons are also a key population. In 2016, 2% of new HIV diagnoses in NYC were among transgender individuals, 100% of whom were transgender women. Roughly 91% of newly diagnosed transgender women were Black or Latina, and 61% were ages 20-29. No local estimates of prevalence exist, but national estimates of prevalence are 27.7% among transgender females and 11.8% among transgender males. The *EtE Blueprint* notes that stigma and discrimination contribute to HIV risk among transgender persons, which is amplified by related contextual factors such as poverty, unemployment, homelessness, violence, undocumented status, sex work and condom confiscation, MH, substance use, and poor access to healthcare and affirming providers.

The NY EMA has several opportunities to reach and engage MSM and TGNC individuals. BHIV is currently implementing a CDC-funded demonstration project, Project THRIVE, which provides an opportunity to improve linkage and treatment support for MSM of color who have diagnosed HIV infections. Further, the U=U initiative described above, in combination with the Status Neutral Testing RFP, provides an opportunity for partners to conduct targeted outreach and testing to these groups and link them to care and immediate ART. City-funded EtE contracts also support TGNC- and Black MSM-led organizations to build capacity and infrastructure, supported with experienced technical assistance providers, to increase culturally appropriate services to these communities in NYC. Additional efforts to increase competency include trainings for SHC and BHIV staff to increase their knowledge and competency in working with TGNC persons.

c) Black and Latino men and women. In 2016 in the NY EMA, Black and Latino men and women made up the majority (77%) of new HIV diagnoses. These proportions indicate a continued need for targeted EIS, including HIV testing services. Further, previous analyses by DOHMH have demonstrated that HIV diagnoses and prevalence are more likely to overlap with areas of poverty,

high health disparities, and poor health outcomes; these are areas where Black and Latino heterosexual persons typically reside.

The Black and Latino communities are highly diverse, and several subpopulations within these communities, including low-income individuals, substance users, MSM, transgender women, and individuals who are foreign-born, have a higher risk of contracting HIV.

Other challenges experienced by Blacks and Latinos include stigma associated with HIV, cultural and language differences, and low self-perceived risk for HIV. For example, many Black and Latino individuals in the NY EMA live in high prevalence neighborhoods that place them at increased risk due to their social and sexual network, even though their own behaviors would not be perceived as “high-risk” and thus they have low self-perceived risk for HIV which may delay or prevent them from presenting themselves for testing. People who are foreign-born, especially those who are undocumented, may also delay seeking HIV testing and care services because of stigma associated with HIV, isolation, fear of exposure, and potential deportation, in addition to differences in culture and language.

The NY EMA aims to improve testing and linkage to care among Black and Latino men and women, including high-risk subpopulations, through the Status Neutral Testing RFP. Funded agencies will outreach to individuals who live in high-poverty areas, where HIV risk is higher, and will immediately link individuals to care and ART. Provider incentives for prompt linkage and initiation will be built into the contracts. In addition, BHIV will continue its public health detailing campaign to promote PrEP and PEP among Black and Latino men and women. The PrEP and PEP Action Kit includes patient and provider resources to increase knowledge about PrEP and PEP and support initiation and retention. BHIV will also continue to implement its *BeSure, PlaySure, StaySure, and Bear It All* social marketing campaigns to improve sexual health and wellness among its target populations.

c) Specific strategies that will be utilized with the target populations. The NY EMA’s GY18 EIIHA Plan was designed to ensure that services provided to priority populations result in a reduction of the number of undiagnosed and late-diagnosed individuals, and that those newly diagnosed promptly access HIV care and treatment. The NY EMA will continue to support its enhanced two-tiered HIV testing approach in its contracts beginning in 2018 (p. 13), along with several innovative programs that are aligned with the national goals, the *EtE Blueprint*, and the *NYS HIV Prevention and Care Integrated Plan (p. 1)* to achieve these objectives. As a result of Medicaid-funded and other third party-funded HIV screening in clinical settings and NY EMA programs supported by RWHAP Part A, CDC, and other funds, the NY EMA promotes and supports routine HIV screening in all healthcare settings. To maximize the use of funds and to comply with POLR requirements, with the rebid of testing services, DOHMH prioritizes RWHAP Part A EIS funds to support services to link PLWH to HIV medical care. CDC funds will support system-level changes in clinical facilities to implement routine screening at healthcare agencies that serve high numbers of Black, Latino, MSM, and/or transgender clients. This includes optimizing the use of electronic medical records for improving patient flow and care, collecting and monitoring pertinent HIV testing data, and building capacity to provide real-time quality assurance. Further, under the new testing contracts, agencies whose service sites are located in and/or whose patient population resides in zip codes with high HIV prevalence and documented health disparities will be prioritized.

Funded CBOs use innovative approaches, such as behavioral risk screening for PEP and PrEP, brief intervention, status neutral navigation activities (i.e. to iART, PrEP, or PEP), social marketing and new media outreach on dating apps and hook-up sites, and other targeted testing efforts are utilized to reach at-risk populations. A recent qualitative study^{liii} of barriers and facilitators to HIV primary care among vulnerable populations (YMSM, African immigrants, recently released prisoners,

and transgender women) in NYC highlights the essential role of CBOs in engaging vulnerable populations in care, specifically referencing their tailored and culturally competent services. DOHMH is also using private foundation funding to work with various Federally Qualified Health Centers in NYC to modify electronic health records and work flows to integrate HIV screening with other healthcare services.

C) Local Pharmaceutical Assistance Program (LPAP). The NY EMA does not fund an LPAP.

METHODOLOGY

A) Impact of the Changing Healthcare Landscape

1) Description of Healthcare Options for PLWH. Eligible New Yorkers may enroll in Qualified Health Plans (QHPs) (see Table 4 below), including Medicaid, through the NYS of Health website (nystateofhealth.ny.gov). Consumers with incomes between 138% and 250% of the FPL may be eligible for some premium and cost-sharing assistance. In January 2016, NYS introduced Essential Plans, which are plans available to low-income people who don't qualify for Medicaid or Child Health Plus (see Table 5 below). The Essential Plan is for New Yorkers with incomes up to 200% of the FPL and have very low monthly premiums (maximum of \$20 per person per month) and no deductibles. As of March 2017, there were 679,643 enrollees statewide in the Essential Plans (43% of enrollees were previously eligible for Medicaid and 57% were previously eligible for a QHP with tax credit assistance).

Individual plans vary in terms of in-network providers and pharmacy benefits. Clients are encouraged to check availability of their desired plan and the plan website to determine if their current medications are covered, and at which level. Tables 4 and 5 provide an overview of the QHPs and Essential Plans available by NY EMA county.

Table 4: 2017 NYS of Health Plan Availability by County – Individual Market^{liv}

County	Affinity Health Plan	CareConnect	EmblemHealth	Empire BlueCross-BlueShield	Fidelis Care	Healthfirst New York	MetroPlus Health Plan	MVP Health Plan	Oscar Insurance	United Healthcare
Bronx	x	x x	x	x	x	x	x		x	x
Kings	x	x x	x	x	x	x	x		x	x
New York	x	x x	x	x	x	x	x		x	x
Putnam			x	x	x			x		x
Queens	x	x x	x	x	x	x	x		x	x
Richmond	x	x x	x	x	x	x	x		x	x
Rockland	x		x	x	x			x	x	x
Westchester	x	x x	x	x	x			x	x	x

Note: Double Xs (xx) indicate that the plan began in 2017.

Table 5: 2017 NYS of Health Essential Plan Availability by County

County	Affinity Health Plan	EmblemHealth	Empire BlueCross-BlueShield	Fidelis Care	Healthfirst New York	MetroPlus Health Plan	MVP Health Plan	United Healthcare	WellCare
Bronx	x	x	x	x	x	x		x	x
Kings	x	x	x	x	x	x		x	x
New York	x	x	x		x	x		x	x
Putnam			x	x					
Queens	x	x	x	x	x	x		x	x
Richmond	x	x	x	x	x	x		x	
Rockland	x			x			x	x	x
Westchester	x	x		x			x	x	

QHPs are required to contract with “Essential Community Providers,” including many RWHAP Part A provider sites who care for medically underserved populations, and ensure a level of appropriate geographic distribution. Medicaid Special Needs Plans (SNPs) offer additional coordination of care and include providers who are familiar with the needs of PLWH. Current networks for NYS SNPs do not include the Tri-County region. There are some changes in plans since 2016, but there are still ten QHPs and nine Essential Plans available in the NY EMA. SNP eligibility has recently been expanded to include transgender individuals, regardless of HIV status, in order to better address the needs of this underserved population. NYC is also developing an Innovator Accountable Care Organization specifically for PLWH. The goals of the IACO will be in line with EtE goals, and aims to promote HIV prevention, improve PLWH health outcomes, and decrease costs associated with poor health outcomes.”^{lv} The lead SNP, Amida Care, is working with providers to participate in a pilot in the current year. Initially coverage will be limited to NYC, but it is expected to expand to state-wide and high-risk negative coverage.

In the lead-up to the effective dates for provisions of the ACA and Medicaid Redesign efforts, DOHMH underwent extensive work to assess which provisions might affect consumers and providers in the NY EMA and how to help them adapt to the changes. The Care and Treatment Program (CTP) dedicated one staff person to assist providers and develop consistent communications, including notices to providers, presentations, and a policy newsletter, on ACA/Medicaid related issues relevant to RWHAP Part A-funded providers. In light of the RWHAP Part A POLR requirement and Part A provider requirements to ensure clients are appropriately enrolled in coverage, Part A client assessment and reassessment expectations were clarified through written communication, contractual language, and data entry requirements to ensure clients had support to engage in NYS of Health Marketplace plans and Medicaid expansion should they be eligible.

a) Effect on access to healthcare services and health outcomes. Both consumers and providers find medication benefits navigation difficult. The NYS AI directs both to resources to better navigate drug formularies, but during webinars and trainings presented by the NYS AI on ACA implementation, providers and consumers have voiced several concerns regarding increased out-of-

pocket expenditures for co-pays. A 2015 national study found that only 16% of silver exchange plans in 2015 covered all top HIV drug regimens with cost sharing less than \$100/month/regimen.^{lvi} A follow-up study in 2016 concluded that exchange plans had improved access to medicines from previous years,^{lvii} in that plans were less likely to place all drugs in a class on the highest cost-sharing tier. In 2015, 14% of plans placed protease inhibitors in the top tier, while 10% did so in 2016. The percentage of plans charging more than 40% coinsurance for them dropped from 9% in 2015 to 6% in 2016.

In NYS, a majority of QHPs were moderately accessible, defined as coverage of 7-9 ART regimens out of 10 or up to \$200/month/regimen. Essential Plans, which cover 2.7 times more New Yorkers than QHPs, help to address this issue for New Yorkers with the lowest incomes, since the plans include inpatient and outpatient care, physician services, diagnostic services and prescription drugs with no annual deductible and low out-of-pocket costs. Also, consumers with incomes up to 150% of the FPL will have no monthly premium and an annual out of pocket payment limit of \$200. Those with incomes at 200% of the FPL will have a monthly premium of \$20 and an annual out of pocket payment limit of \$2,000. To help with these costs, the NYS HUCP copay assistance is available for those with an income up to 435% FPL.

The NY EMA has seen steady increases in ART usage (from 78% of all diagnosed in 2014 86% in 2016),^{lviii} and as a result increased viral suppression (from 67% to 70% of all diagnosed).^{lix} While it is difficult to attribute improved healthcare outcomes to a single policy or funding change, especially in the context of EtE efforts in the jurisdiction, enrollment in QHP coverage has been significantly associated with achieving viral suppression in at least one study.^{lx} This is consistent with research findings regarding prescription drug coverage and health outcomes: low-income adults are less likely to take medicines as prescribed due to cost,^{lxi} while, conversely, adults with chronic medical conditions are more adherent when they have prescription drug coverage.^{lxii, lxiii}

2) Effects of the changing healthcare landscape on service provision and RWHAP Part A allocations.

a) Service provision and complexity of providing care to PLWH. The PC began work to address changes in the healthcare system beginning in 2011, with the development of its first Core Medical Services (CMS) Waiver application and directives for n-MCM and SCF service categories. As such, additional shifts were made in funding allocations to Housing, FNS, and SCF to increase services that support engagement in medical services that are funded through other payers. Increasing support for these services also helped address inequities in access to medical care due to the burdens of poverty, homelessness, and food insecurity. Provisions of the ACA led to some increased insurance access for RWHAP Part A clients through: (1) Medicaid expansion and (2) the availability of health insurance plans for purchase on the NYS of Health (also known as the Health Plan Marketplace), the healthcare exchange of QHPs and Essential Plans operated by NYS. Although there was greater access to insurance coverage due to Medicaid expansion, increases were relatively modest because NYS Medicaid previously covered single adults with income up to 100% of the FPL. Early predictions, since proven accurate, were that there would continue to be demand for RWHAP Part A and ADAP to fill gaps in Medicaid and insurance coverage for PLWH in need.^{lxiv} However, fewer people were served by the NYS HUCP during the past year than in previous years because NYS achieved more rapid Medicaid enrollment through web-based expanded Medicaid access and, thus, had shorter gaps in Medicaid coverage.

As part of NYS Medicaid redesign and ACA implementation, the Medicaid Health Home program replaced the long-time COBRA case management program for PLWH, and COBRA clients were automatically transferred to Health Homes. The transition to Health Homes required

expanded caseloads and affected the way care management agencies serve HIV-positive members. Care Management Agencies (CMAs) have worked to preserve HIV expertise of care managers and expand their knowledge base to serve persons with multiple chronic illnesses and serious mental illness. In the current era, CMAs act more as coordinators and integrators of services for their HIV-positive members and must rely on the array of grant-funded programs available to HIV-positive population to provide direct service to these members.

b) Changes in RWHAP Part A allocations. The NYS AI HUCP continues to be a resource for those who are unable to access public or private insurance and those who need financial assistance with health insurance premiums and copays (for the year ending September 30, 2017, 6,295 HUCP participants in NYS had insurance premiums and/or co-pays covered). The PC and the Recipient continue to contribute to the ADAP prescription access program, paying directly for medications. The PC and Recipient also coordinate with the HUCP to assess whether RWHAP Part A funding is needed for other services, including health insurance premium assistance and cost-sharing assistance. Through the CMS Waiver, the NY EMA has continued to allocate funding to further support social services, such as food and housing, to meet clients' basic needs. Redirecting funding from the provision of CMS to supportive services enhances the Recipient's efforts to maintain, engage, and retain clients in care who receive medical services and medications from other payers (Medicaid, NYS of Health Plans). Barriers to accessing basic necessities can have adverse health effects and offset progress from adherence to ART. Investing in non-core services aligns with the NY EMA's goal to support clients in achieving viral suppression, improving their quality and length of life, and drastically reducing transmission.

B) Planning Responsibilities.

1) Planning and Resource Allocation.

a) Description of the community input process. Consistent with legislative requirements, the NY EMA in GY17 used a systematic, evidence-driven, representative, and inclusive planning process to prioritize services and allocate resources for GY18. The PC and its committees continued a multi-year process to reassess and rebid the RWHAP Part A portfolio, with the aim of ensuring that the NY EMA's service system addresses current needs and service delivery challenges. All PC sub-committees include a diverse range of consumers, providers, and other stakeholders and provide extensive opportunity for public comment, as described throughout this section.

The PC works closely with the Recipient and other DOHMH staff throughout the planning process, including having a dedicated staff liaison from the BHIV HIV Surveillance Unit assigned to the PC to provide up-to-date epidemiological data for planning purposes. This year, the PC accomplished the following:

- Utilized a data-driven planning tool to develop service priorities and determine funding allocations based on up-to-date information regarding PLWH needs, service utilization and gaps, including the NY EMA's Needs Assessment, the NYS *Integrated HIV Prevention and Care Plan*, Service Category fact sheets with multiple years' historical utilization data (Scorecards), and data analyses from the NY EMA's CHAIN study;
- Allocated 61.9% of RWHAP Part A and MAI funding to CMS for GY18;
- Continued funding for MCM, including the CCP and TCC programs, to optimize medical outcomes;
- Allocated 4.8% of the GY18 portfolio to reduce the number of individuals who are unaware of their HIV status, and planned these resources in conjunction with the NYC HIV Prevention Program taking into account other testing resources;

- Allocated substantial resources to promote access to and maintenance in care for newly diagnosed individuals and to re-engage people who had fallen out-of-care;
- Took further steps to reduce unmet need and address the needs of emerging populations by revising the program service directive for CCP Services in NYC;
- Approved targeted increases to Housing and FNS in order to address ongoing needs of PLWH, a decision based on data demonstrating the correlation between supportive housing and FNS and entry/retention in care and viral suppression.

A breakdown of the PC's committees and corresponding activities are provided below:

Needs Assessment Committee (NAC). NAC built on its previously developed comprehensive formal needs assessment for HIV services in the NY EMA. That assessment, produced with the assistance of the Recipient, reviewed a range of reports and presentations by DOHMH surveillance analysts, the CHAIN researchers, and the CTP Research and Evaluation Unit (REU) staff, including the latest estimate of PLWH unaware of their status, estimated numbers of PLWH not in care, accessibility and quality of services, service barriers, geographic patterns in HIV burden and distribution of resources, the impact of co-morbid conditions on HIV care, service utilization trends, unmet need, and provider capacity and capability, with special attention given to the HIV care continuum in order to identify populations that fall off the continuum at each stage of care and treatment. In GY17, NAC identified housing as a key area of further focus to aid in the RWHAP Part A priority setting and resource allocation process. NAC sponsored a community briefing on housing for all PC and committee members. Data from DOHMH and HOPWA were supplemented by consumer and provider perspectives. The briefing resulted in several recommendations that were developed and forwarded to other PC committees for consideration and action in GY18, most notably an increase in allocations for housing services in the NY EMA. Within this allocation, \$300,000 was dedicated to the Tri-County region to help meet client needs.

Integration of Care Committee (IOC). The IOC guides the PC in defining individual service categories, reaffirming continuing models of care, and creating new evidence-based service directives. In GY17, the IOC developed new service directive for the CCP service category, the largest in the NY EMA's service portfolio. The CCP service category directive was developed by the IOC as a result of a collaborative decision-making process involving consumers and providers, which sought to address gaps in care that have persisted in the changing healthcare landscape. The NYS *Integrated HIV Prevention and Care Plan's* goals and objectives (decreased delays in diagnosis, increased early linkage to HIV primary care, continued high engagement in primary care, increased treatment adherence, increased viral suppression, improved immunological health, decreased reliance on acute care, and diminished sociodemographic disparities) are used for developing all RWHAP Part A service models in the NY EMA, and were key guideposts in the development of the CCP directive. To be eligible for RWHAP Part A funding, all services must be shown, based on funded provider efforts, to ensure each client is linked and retained in care with routine viral load monitoring. This data is entered in eSHARE and is used to promote improved health outcomes and address gaps in the care continuum.

The new CCP directive allows the service to best meet evolving client needs. Language from the IOC's previously developed master service directive (applicable to all service categories in the NY EMA) was expanded to emphasize person-centered care, where patients are included in decision making whenever possible, and support for the use of peers in service delivery is included in all applicable service areas. This builds on the elements of the master directive developed in the previous year to provide trauma informed care (e.g. for survivors of domestic and sexual violence) and the needs of people with sensory impairments. Specifically, for the new CCP directive, Clinical Care Navigation was expanded to ensure appointment reminders, accompaniment, and re-

engagement in care services are comprehensive. The Patient Assessment was modified to emphasize the development and evaluation of patient capacity to self-manage and the medical eligibility criteria loosened to allow agencies to provide services for a grace period in order to address temporary barriers like housing instability that might lead to reduced adherence or other poor health outcomes. Treatment adherence was expanded to incorporate technological applications for use with DOT, as well as added tools that CCP programs can use to encourage adherence (e.g. video DOT, and self-reported text check-ins). Health promotion was strengthened to emphasize the use of motivational interviewing and allowing for the use of technological applications to conduct portions of that service element. The new directive clearly outlines expectations for case finding and provides reimbursement for the activity. The directive strongly encourages including the patient in formal case conferences, and patients must agree to all changes in their care plans. Additional language also addresses the need for providers to ensure competent care for TGNC persons with HIV. This language was developed as a result of a consultation with transgender and gender non-conforming consumers advocating for improvements in medical care to this population. Finally, the CCP staffing model promotes equity in hiring, placing value on lived experience with regard to populations served.

Priority Setting and Resource Allocation Committee (PSRA). Using data assembled by the NAC and service model definitions and eligibility criteria established by the IOC, the PSRA Committee used an objective, evidence-based tool to determine service priority rankings and financial allocations, forwarding its recommendations to the full PC for consideration. The tool requires the committee to use data to score service categories on a prioritization grid, with four criteria (individually weighted) for assigning scores to each service category, as described below.

1) *Payer of Last Resort (POLR)/ Alternate Providers of Services* (weight=15%). The PSRA Committee assessed each service to determine if RWHAP Part A is the primary funding source and whether other sources provide identical or equivalent services to PLWH in the NY EMA. Highest value was assigned to services funded only by RWHAP Part A, and where existing provider capacity was found to be inadequate to serve PLWH. In planning for GY18, the PSRA Committee examined service category fact sheets produced by the Recipient that examined each service category in depth. The fact sheets included POLR data and system-level considerations that examined other payers of Part A services in the NY EMA. The addition of continued funding in NYS for HIV CMS through Medicaid expansion, health insurance exchanges, and the implementation of NYS Medicaid Health Homes was a critical factor in the PC's approval of the GY18 request for a waiver to the CMS requirement.

2) *Access to Care/Maintenance in Care* (weight=35%). The PSRA Committee assessed each service to determine the degree to which it contributes to access to or continuity of HIV primary care, including identifying people who do not know their HIV status. The highest value was assigned to services that have, as their primary goal, either direct provision of primary medical care or promote access to and maintenance in care through direct referral and linkage to medical services. Housing and FNS were deemed high priority services due to the importance of their role in addressing gaps in retention in care and suppressed viral load.

3) *Specific Gaps/Emerging Needs (Demographic/Special Population)* (weight=25%). The PSRA Committee assessed each service to determine the degree to which it reduces documented service gaps or meets the needs of special populations. The PSRA Committee reviewed data from the CHAIN study documenting the unmet need for key services in the study's representative cohort. The highest value was assigned to services that promote healthcare access and re-engagement for out-of-care or

underserved populations, including those who fail to engage in later stages of the HIV care continuum.

4) *Consumer Priority* (weight=25%). The PSRA Committee scored services based on consumer input, as provided by the PC Consumer Committee and the CHAIN cohort study. The highest value was assigned to services identified by PLWH as (1) significantly contributing to access to or maintenance in primary medical care, and (2) representing a key consumer priority.

The service category fact sheets also provided data on historical performance and service utilization by service type, which were used in the PSRA Committee's scoring of each criterion for every service category in the RWHAP Part A portfolio, as well as in allocation decisions, resulting in ranked priorities based on the criteria described above.

Tri-County Steering Committee. A local Steering Committee functioning as a sub-committee of the PC conducts service planning and makes resource allocation recommendations to the PC for Rockland, Putnam, and Westchester County services. Tri-County's 38-member Steering Committee includes 16 PLWH and a representative from the NYSDOH. All Committee members received an orientation on the RWHAP legislation and the community-planning process. The committee utilizes the same PSRA tool that is described above to rank service priorities for the region. The Steering Committee reports to the Executive Committee and full PC to obtain final approval of its spending plan. For GY18, the Steering Committee, using information from the NAC's community briefing and data on waiting lists and housing insecurity, recommended an increase in resources to housing services in the Tri-County region.

i) Involvement of PLWH. The active, informed engagement of PLWH is essential to the planning process and helps ensure that PC decisions address the needs of consumers. In 2017, PLWH constituted 40% of the PC's 45 members. At the beginning of the planning cycle, after a concerted outreach and recruitment effort by PC staff, one-third of members were PLWH who are not aligned with a RWHAP Part A agency (in the course of the year, one non-aligned consumer became employed by a RWHAP Part A-funded agency and another passed away). Efforts to continue to engage the 33% non-aligned PLWH have continued in the new planning cycle, with an increase in PLWH members to be approved by the Mayor's office in November 2017. The overwhelming majority of the PC's non-aligned PLWH are people of color. PLWH actively serve on all PC committees and make up 44% of the Tri-County Steering Committee. The governmental co-chair is a hearing-impaired PLWH, and the community co-chair and finance officer are both non-aligned PLWH. PLWH from outside the PC and its committees were closely involved in feedback on service quality, needs, and priorities through Part A Client Satisfaction Surveys (CSSs) and the ongoing CHAIN study.

The PC's Consumers Committee provides a forum for PLWH (PC and committee members, as well as other stakeholder community members) to be actively engaged in the planning process. HIV-positive PC members and HIV-positive PC staff assist community members in understanding the priority setting and resource allocation process, HIV epidemiology, the HIV care continuum, community planning, group dynamics and decision-making, QM, and the changing healthcare landscape and its effects on RWHAP services. The committee plays a key role in recruiting new members, advocating for consumer engagement in the planning process, and training and mentoring new PC members (trainings to maximize informed participation and decision-making is available during the planning cycle). In addition, the PC has included trauma informed care to its Master Directive, which has led to regular updates to PC members on the needs of service issues needs and barriers related to the prevention of domestic and sexual violence and its effect on service provision across the continuum of care.

To develop the GY18 Plan, the PC sought the Consumers Committee's input regarding special populations and geographic areas of the NY EMA that remain disproportionately affected by HIV. Members of the Consumers Committee serve on all committees of the PC, as well as on the Consumer Advisory Committee of the NYSDOH HIV Quality of Care Committee and the NY EMA Quality Management Committee, ensuring consumer input and guidance is incorporated across the service system.

ii) Addressing funding increases or decreases. The PC's data-driven planning tool allows for more objective, advance planning for funding increases or decreases. The tool includes built-in weighted formulas based on the prioritized ranking of the services that automatically calculate funding increases or decreases for each service category contingent upon the actual award. The PSRA Committee and PC also review data from the Recipient on service category spending in order to consider targeted reductions in the case of a funding decrease. For GY17, there was a decrease of \$1.88 million in the NY EMA's total grant award. The NY EMA was able to offset the cut through savings in the carrying cost of several service categories, as well as \$572,325 that had been left uncommitted after the close-out of the HOM category, which had been eliminated in GY16 (*see pp. 10*). To account for the remaining funding reduction, the PC worked closely with the NYSDOH to agree on a reduction to the NY EMA's allocation to RWHAP Part A ADAP, based on an assessment of State and RWHAP Part B resources and projections of ADAP enrollment. The ADAP reduction also allowed the PC to maintain services at their current level in the Tri-County region. The reduction to ADAP will be partially restored through reprogramming dollars in the course of the year and there will be no effect on the availability of medications for ADAP enrollees. Should the RWHAP Part A award be further reduced in GY18, the PC will adjust allocations based on expected need, but the PC is requesting additional funding to maintain services in the face of increased cost of service provision, and to address unmet needs. Given the historic reduction in the NY EMA's award in GY13 and on-going smaller reductions since, critical service levels will most certainly be negatively impacted if further reductions in the RWHAP Part A award occur in GY18.

iii) MAI funding. Planning, including prioritization and allocation, for MAI funding is integrated into service planning for RWHAP Part A funds. MAI funds are concentrated in three CMS categories (ADAP, MCM, and EIS) and one support service category (Housing), all of which target the most heavily-affected, minority, high-need communities. Data showed continued gaps in these services for these populations, justifying the need for continued targeted programs. In particular, the PC sought to ensure that MAI funds were distributed to impact priority populations at multiple stages across the HIV care continuum.

iv) Use of data in the priority setting and allocation process. The PC and committees considered all available and relevant data to assess need, develop service models, prioritize services, and allocate resources for GY18, consistent with the goals in the NYS *HIV Integrated Prevention and Care Plan*. The PC utilized multiple data sources, including surveillance reports, the NY EMA RWHAP Service Category Fact Sheets (Scorecards), CHAIN data, HUCP data, HOPWA, eSHARE RWHAP Part A program data, and outcomes data for MCM programs from the Costs, HIV Outcomes, and Real-world Determinants of Success (CHORDS) study, which evaluates outcomes of the NY EMA CCP.

In an effort to increase access to CMS and reduce disparities in access to HIV care, the PC examined evidence of service gaps from the CHAIN study and HIV/AIDS surveillance, which supported the PC's allocation of \$24.7 million for MCM in GY18. CHAIN cohort members were defined as needing MCM services if they reported interrupted HIV medical care, missed HIV medical care appointments, or had no CD4 or viral load tests in the last six months. In interviews conducted

between 2011 and 2013, 39% of CHAIN participants in NYC met the criteria for need of MCM services, of those, only 17% reported adequate utilization of the service, defined as receiving referrals to medical services through a case manager during the past six months. Evidence also shows sizable service utilization gaps for n-MCM services. These gaps justify the NY EMA's allocation of \$1.6 million in n-MCM funding to link people to medical and support services to remove barriers to optimal HIV primary care and to assist enrollment of PLWH eligible for the NYS health insurance exchange and expanded Medicaid in GY18. An additional \$4.2 million allocation to n-MCM for currently or recently incarcerated PLWH ensures linkage to care upon release for this marginalized population.

The overwhelming majority of the MCM program is the CCP component. CCP is a core component of promoting retention in medical care and medication adherence. In revising the CCP service directive, the IOC examined DOHMH-reported outcomes data from the CHORDS Study, which assessed short- and long-term CCP effectiveness by comparing care engagement and viral suppression among CCP participants with those of similar PLWH in HIV care who do not receive the CCP intervention by matching CCP programmatic data (from eSHARE) with NYC HIV Registry data. CHORDS showed program achievements with respect to viral suppression, immunological improvement, and treatment adherence. Significant increases in entry into care (EiC) and viral suppression occurred in all subgroups examined, including those with key barriers to HIV care and treatment adherence. Findings showed a link between support for reducing psychosocial barriers and greater improvement on 12-month EiC/viral suppression outcomes.^{lxv} CCP had a strong correlation with increasing health and survival opportunities among those at highest risk for suboptimal HIV health outcomes. In comparisons of CCP clients' 12-month viral suppression to the SVL achieved among similar PLWH, CCP-enrollees demonstrated higher rates of SVL overall, with particular benefits over usual care for individuals who were newly diagnosed or who had no evidence of SVL in the year prior to enrollment.^{lxvi} Evidence of CCP effectiveness over usual care suggests the public health value of intervention scale-up, focusing on PLWH with the greatest need. Continued funding was allocated to CCP on the basis of the CHORDS outcome data indicating statistically significant improvements in care engagement and viral suppression for high-need PLWH in that program.

The PC reviewed data highlighting the needs of historically underserved populations, including racial and ethnic minorities. Needs of PLWH of color were assessed through an analysis of epidemiologic trends, utilization patterns by race/ethnicity, disproportionate service needs documented in the CHAIN cohort, and comparison of geographic distribution of HIV/AIDS cases through mapping RWHAP Part A services. Through the aforementioned Scorecards, the PC reviews service utilization data specifically by gender and age as well as by several special populations, including women of color, YMSM of color, PLWH 50 or older, immigrants, substance users, and transgender individuals. The Scorecards have shown that women make up a far larger percentage of RWHAP Part A clients in the NY EMA (44%) than their proportion of the local epidemic (27%). Youth aged 19 and under are similarly over-represented as a proportion of Part A clients (3.8%) compared with their proportion of the local epidemic (0.5%).

The PC uses these data to prioritize specific service categories that promote access to care for women, such as SCF services, where 60% of the clients are female, and which provides family-focused services that aim to remove barriers to care. The PC also promotes the meaningful participation of women living with HIV on the Council and its committees, where they bring an invaluable perspective on the barriers to care for women. The NY EMA ensures adequate and continued support of core medical services for women, infants, children, and youth (WICY) through ongoing collaboration with the NYS Medicaid program. In FY16, Medicaid expended more than

\$653,266,406 to fund core medical services for WICY populations more than meeting the NY EMA's required set-aside of \$32,253,041. In addition, the NY EMA is home to 10 RWHAP Part D grantees, many of them multi-site consortiums, which specialize in serving WICY populations and sub-populations such as LGBT teens, pregnant and perinatal women, women of color, perinatally infected youth, and YMSM.

The PC reviewed evidence on disparities in timely EiC for newly diagnosed people. In response, the PC, as described above, revised and strengthened the CCP program. In addition, the PC allocated \$4.4 million to EIS in GY18 (including \$1.7 million in MAI funding) for targeted outreach and testing, and for return-to-care services targeting individuals found to be out-of-care for at least six months. The PC also allocated \$914,000 under HE/RR to support HIV self-management education programs for people who have newly diagnosed HIV infections and those with barriers to maintaining care. The PC also reviews HUCP demographic reports. For example, these reports provided evidence that many MSM of color depend on the HUCP for healthcare access, which influenced the PC's decision to continue to prioritize support for ADAP.

Data on unmet need and utilization of MH services among PLWH in NYC, along with barriers that mentally ill PLWH face with respect to accessing care, led the PC to continue supporting a MH service model that seeks to increase engagement in MH services, provides treatment and care to PLWH with mental illness, including those with co-occurring substance use disorders, to improve quality of life and MH functioning; to facilitate ongoing involvement in bio-psychosocial care and treatment, including adherence to ART and/or psychotropic medications; and to reduce use of emergency care. The PC directed a total of \$4.4 million to MH services for GY18.

The PC reviews unit costs for each RWHAP Part A service category, considering the original funding allocations and modifications for each service category over a three-year period along with client utilization, expenditures, and service units. When considering allocations for ADAP, the PC considered cost data from the HUCP, which administers these services. The average cost for a prescription is \$602. Investing in this service aims to improve health outcomes, thereby reducing the costs for preventable hospitalization and emergency department visits. The PC also developed an annual plan for anticipated unspent funds, reallocating funds based on need and service costs and prioritizing reallocated funding to ADAP as these funds become available to the NY EMA RWHAP Part A portfolio.

v) Changes in the prioritization and allocation process. In developing its GY18 Plan, the PC and its committees, used the same well-established priority setting tools and process as the previous year. Updated data was incorporated to reflect a greater understanding of the local epidemic, the needs of PLWH, gaps in services, disparities in access to HIV care, and the ongoing effects of the changing healthcare landscape. The major change was the use of the NYS *Integrated HIV Prevention and Care Plan*, which superseded the NY EMA's previous Comprehensive Plan. For example, the goals and objectives of the revised CCP service directive were specifically mapped to the goals and objectives of the *Integrated HIV Prevention and Care Plan*, including reducing new infections by increasing SVL through enhanced adherence to care and treatment services for people with HIV and enhanced activities to re-engage in care those patients living with HIV who are lost to care. Additional attention to mortality was also included in the directive, based on recent analyses of RWHAP Part A clients which found that persons co-infected with HCV and those with substance use issues were more likely to die than their peers.

2) Administrative Assessment. Consistent with legislative mandates, the PC assesses the efficiency of the administrative mechanism in timely allocation of RWHAP Part A funds to areas of greatest need in the NY EMA.

a) Assessment of Recipient's activities. The PC's Finance Committee (FC) is charged with assessing the efficiency of the administrative mechanism in the timely allocation and contracting of RWHAP Part A funds according to the PC's priorities and allocations. The FC received and reviewed quarterly commitment and expenditure reports for all Base- and MAI-funded service categories in NYC and the Tri-County region. Recipient staff was present at all meetings to answer any inquiries in regards to increases or lags in spending by service category as well as in the Administration and QM lines. The FC also assessed all legislatively required aspects of the assessment of the administrative mechanisms, including contract executions and renewals, procurement, timeliness of sub-contractor payments and spending. The FC reported its findings to the PC's Executive Committee and to the full Council in July 2017.

b) Deficiencies. The FC determined that there were no deficiencies in the administrative mechanism, and no corrective action was needed for GY16.

3) Letter of Assurance from Planning Council Chair(s). (See Attachment 6.)

4) Resource Inventory

a) Coordination of services and funding streams. The flexibility of RWHAP Part A funding has enabled the NY EMA to develop a range of innovative programs and service delivery strategies that respond to the specific access barriers faced by the NY EMA's PLWH most in need of services.

i) Financial and Human Resources Inventory (Excluding HIV Workforce Capacity section).

As shown in Attachment 5, more than \$2.8 billion was available for HIV services in the NY EMA in 2017. As this figure does not include amounts spent on inpatient medical services and services funded through private insurance, Medicare, and the Department of Veterans' Affairs, it understates the total expenditures for HIV medical care.

How funds are used to address gaps. The NY EMA ensures that low-income, under and uninsured PLWH have the tools and resources necessary to fully engage in their medical care, and achieve SVL and other positive health outcomes by coordinating services with the myriad of payers in the jurisdiction. The NY EMA has designed a system that: ensures RWHAP Part A resources are used as the POLR; is coordinated with other local, state, and federal funding streams; and ensures a continuum of services that is responsive to the needs of communities most heavily impacted by HIV.

RWHAP Part B funding. The NY EMA coordinates extensively with the NYS AI, which administers ADAP, RWHAP Part B funds, and state tax dollars, in addition to \$2.2 billion for Medicaid services. *Gaps filled by RWHAP Part A:* Each year, the PC collaborates with NYSDOH to help ensure the financial sustainability of ADAP using unobligated and carryover funds to provide ADAP support for NY EMA-residing PLWH without any other source of reimbursement for HIV-related medications.

Medicaid (HIV medical services). With an investment of over \$2 billion, Medicaid is the largest single payer of medical care for PLWH in the NY EMA. The NY EMA coordinates services and ensures POLR by designing a system that works in concert with, but does not supplant, Medicaid services. *Gaps filled by RWHAP Part A:* The NY EMA funds service categories, service models, and/or individuals that are not Medicaid reimbursable. This includes increasing the proportion of the award that is allocated to essential support services that evidence has shown to increase retention in care – such service categories include Housing, FNS, SCF, Legal, and n-MCM. The NY EMA also funds models within core service categories that are not billable to Medicaid, such as HR services in substance use and MH outreach, readiness, and re-engagement. The NY EMA has continued its commitment to core medical services such as ADAP, oral health, and MCM because a segment of the RWHAP eligible population continues to be ineligible for medical services available

from other payers. POLR is further enforced through contractual language that requires reassessment of client eligibility for Medicaid coverage and facility certification to bill Medicaid-eligible services to NYS with POLR site visits to ensure services are billed appropriately.

Federal, state and local funding. The NY EMA further coordinates with other federal programs funded through HRSA, SAMHSA, HOPWA, and CDC.

ii) Needed resources, and steps taken to secure them. As stated previously, the cost, patient navigation, and social support needed to support someone who is co-infected with HIV and HCV from HCV diagnosis through cure are significant. To further develop the infrastructure necessary to provide this enhanced service, the NY EMA applied for and was awarded a SPNS grant from HRSA to address HIV/HCV co-infection among people of color, of whom there are over 11,000 in the NY EMA. The grant is \$650,000 a year for three years; while it will increase training and materials development capacity, as well as provide limited direct service to those identified as out of care according to the HCV registry. The SPNS grant does not include coverage for the extremely expensive HCV DAAs, however HCV DAA coverage has expanded through Medicaid and several DAAs are covered by the NYS HUCP.

Additional resources needed to fulfill the goals of the *EtE Blueprint* have been secured through DOHMH funding, allowing for contracts to increase the availability of PrEP/PEP, support viral suppression, provide clinical services, pharmacotherapy, and HR support for MSM and transgender women using methamphetamines, and increase the capacity of transgender-led and Black MSM-led CBOs. In GY17, the Recipient worked with the NYS HUCP to support immediate initiation of ART upon diagnosis through coordination with RWHAP Part A EIS and MCM-funded providers. The NYS HUCP provides iART and related medical and laboratory services through its Rapid Tx program while RWHAP Part A EIS and CCP resources will serve to provide support services to newly diagnosed clients in need of iART.

WORKPLAN

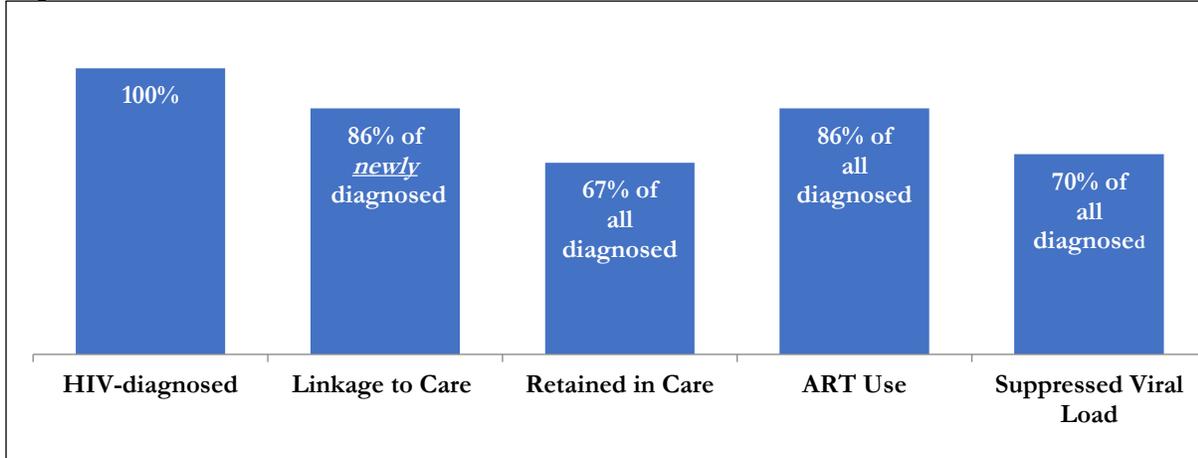
A) HIV Care Continuum Table and Narrative.

1) HIV Care Continuum Table (see Attachment 7).

2) HIV Care Continuum Narrative.

a) Utilizing the HIV Care Continuum in resource planning. The NY EMA uses the HIV care continuum stages to prioritize populations for service system planning, instead of traditional priority populations based on demographics. Because of this, the NY EMA takes a strategic systems-level approach to planning for services for those with unmet need. For 2016, the NY EMA was able to produce a combined continuum for NYC and the Tri-County region, for all PLWH (*see Figure 2*). Information on all PLWH was obtained using the NYS Surveillance Registry. Recent work has been done both in NYC and NYS to better account for unreported deaths and out-migration in the PLWH denominator.^{lxvii} Using NYS's methodology, individuals who have diagnosed AIDS infections with no evidence of care for five years and individuals with diagnosed HIV infections (non-AIDS) with no evidence of care for eight years are excluded from the total number of diagnosed PLWH. This approach yields a better estimate of the number of PLWH who are still living and residing in the NY EMA, and allows for better estimation of progress along the HIV care continuum. MMP in NYC provides an estimate of ART prescription status for all PLWH.

Figure 2: 2016 NY EMA HIV Care Continuum



Sources: ART use: NYC DOHMH, Medical Monitoring Project (MMP), 2016; All other: NYS DOH, Bureau of HIV/AIDS Epidemiology, data as of September 3, 2017.

Notes: “HIV-diagnosed” includes those diagnosed by 12/31/2015 and living and residing in NYC or the Tri-County region as of 12/31/2016; “Linkage to care” includes those who were newly diagnosed with HIV in 2016 with one or more viral load or CD4 count within 91 days of diagnosis; “Retained in care” includes those among the HIV-diagnosed with at least two VL or CD4 counts in 2016 that were at least 91 days apart; “ART use” is defined as the proportion of NYC MMP participants who reported ART use during the 12 months prior to MMP interview date (interview date range June 3, 2015 - April 27, 2016); “Suppressed Viral Load” includes those among the HIV-diagnosed whose most recent viral load in the year was <200 copies/mL.

The NY EMA has been using the HIV care continuum in planning, monitoring, and program design since the development of the Comprehensive Needs Assessment in GY14. Health disparities are identified by monitoring demographic differences along the NY EMA and RWHAP Part A HIV care continuums. These disparities are addressed by geographically targeting services to high prevalence, underserved neighborhoods and prioritizing service types that address structural inequity, access to and engagement in care, support for adherence to ART, and basic survival needs (e.g. Housing, FNS, and CCPs). The NY EMA also uses the HIV care continuum to identify steps within the HIV care continuum which require particular focus, such as retention in care and viral suppression, and makes funding decisions to address these disparities, such as enhancing care navigation and supportive services.

Overall, in NYC there are levels of retention and suppression approaching national goals to end the HIV epidemic, and the national goal for knowledge of HIV status has already been surpassed. At each stage of the RWHAP Part A HIV care continuum, the proportional distribution of demographic groups closely tracks the distribution among PLWH in the NY EMA.

b) Evaluating efforts to impact the HIV care continuum. The NY EMA is invested in evaluating the strategies and interventions necessary to address unmet need and move PLWH along the HIV care continuum to viral suppression. As such the NY EMA has been an engaged participant in the HRSA-funded Care Continuum Learning Collaborative, where the NY EMA Recipient staff share their project plans to address gaps in the continuum with peers (Memphis and San Antonio) in their assigned workgroup. The NY EMA focused on specific disparities in care continuum gaps through developing analyses to better understand specific subpopulations, including TGNC, people using substances, and the implementation of Trauma Informed Care for MH and HR providers.

The NY EMA has been at the forefront of evaluating interventions across the portfolio of services. This includes utilizing resources from the National Institutes of Health, HRSA, and CDC, among others, to work with academic and other partner institutions to conduct in-depth research and evaluation of outcomes within and across subpopulations of interest. One such example has been

the work of the CHORDS study to evaluate the CCP model of MCM. This multi-year, multi-phase project has evaluated care engagement and viral suppression outcomes among CCP clients overall and according to baseline viral load, housing, MH, and substance use status. The initial work of the CHORDS study has resulted in CCP being listed as an evidence-informed intervention on the CDC Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention under the Linkage to, Retention in, and Re-engagement in HIV Care chapter. In addition, this study has highlighted the impact of resolution of psychosocial needs on HIV outcomes; CCP clients reporting cessation of hard drug use post-enrollment showed significantly greater improvement in engagement in care from the period prior to enrollment than those with continuing hard drug use, and clients obtaining stable housing post-baseline showed significantly greater improvement in SVL than those remaining in unstable housing.^{lxviii}

Other work has demonstrated the need in the NY EMA for supportive services that reduce barriers to viral suppression. As noted above, previous work by the DOHMH among HIV-positive MSM enrolled in RWHAP Part A programs in the NY EMA found crystal meth use to be associated with unsuppressed viral load.^{lxix} In a separate analysis, controlling for sociodemographic and clinical characteristics, recent tobacco smoking was also found to be associated with unsuppressed viral load.^{lxx} In an analysis of NYC RWHAP Part A FNS program, among clients analyzed between 2011 and 2013, controlling for sociodemographic characteristics, consistent food insufficiency was found to be associated with unsuppressed viral load.^{lxxi} The CHAIN study has also demonstrated a relationship between unmet needs and poorer health outcomes, including analyses of the relationship between housing need and retention in HIV medical care,^{lxxii} and has shown that services to address these unmet needs reduce the likelihood for poor outcomes. For example, in a longitudinal analysis comparing individuals who were food insecure at one interview and receiving food and nutrition services and were then not food insecure by the next interview with individuals who continued to be food insecure, those with resolved food insecurity were less likely to have missed appointments, to have a detectable viral load, and to have had an emergency room visit or an inpatient stay compared to those who remained food insecure.^{lxxiii}

B) Funding for Core and Support Services.

1) Service Category Plan.

a) Service Category Plan Table (see Attachment 8).

b) Service Category Plan Narrative. The GY18 Plan continues and strengthens support for RWHAP Part A services that have helped the NY EMA achieve reductions in AIDS-related mortality, increases in viral suppression, and improvements in service utilization. As in prior years, the GY18 Plan is focused on factors that support favorable health outcomes for the populations most in need. The plan reflects continued steps in a comprehensive, multi-year review and re-competition of the RWHAP Part A portfolio. The NY EMA's portfolio reassessment is intended to ensure that services respond to emerging needs and are based on the latest scientific and public health evidence.

To develop the GY18 Plan, the PC, with DOHMH support, assessed and scored all services for their impact on access to and maintenance in HIV primary care (*see pp. 27-28 for a description*). This process was undertaken using HIV surveillance data, program evaluation data, QM performance data, consumer survey results, including CHAIN, and published studies.

To bridge service gaps and meet clients' needs, the GY18 Plan allocates funding to services that have been proven effective in promoting equitable healthcare access, initiating engagement and sustained retention in care, and addressing medical and social co-morbidities. In the GY18 Plan, 61.9% of program costs are allocated toward CMS. The CMS Waiver will be submitted separately

from this application. Using an objective planning tool informed by local NY EMA data, the PC prioritized the following services for GY18 (listed in order of priority with CMS italicized): *ADAP*, Housing Services, FNS; n-MCM, *MCM*; Medical Transportation; *Oral Health Care*; *Substance Abuse Services – Outpatient (HR)*; *MH Services*; SCF; Legal Services; HE/RR; and *EIS*.

MAI Initiatives. Low-income communities of color are disproportionately affected by HIV in the NY EMA. The NY EMA strategically uses MAI funding to reduce health disparities, increase service access, and improve health outcomes for underserved minority PLWH, including Black, Latino, and Asian men and women. In GY16, 93% of HIV-positive clients served by the MAI program are persons of color: 51% were Black, 41% Latino, and approximately 1% Asian/Pacific Islander. The NY EMA strives to use its resources to address HIV health disparities associated with race/ethnicity, particularly among Black and Latino populations who account for 88% of all HIV-positive people served by RWHAP Part A, who experience the greatest disparities, and constitute 77% of all PLWH in the NY EMA.

Among RWHAP Part A clients served in NYC in 2016, the racial/ethnic disparity in viral suppression rates persists; 73% of Black RWHAP Part A clients were virally suppressed in 2016, compared to 77% of Latinos, 82% of Whites, and 90% of Asian/Pacific Islanders. This disparity was in spite of similar rates of retention and ART use across racial/ethnic groups. Among transgender women, viral suppression rates were lower for transgender Black and White women (60% and 71%, respectively), than for transgender Latino women (81%). Similarly, viral suppression rates were low among those aged 20-29, regardless of race or ethnicity, but rates within this age group were lower among Blacks and Latinos (64% and 68%, respectively) than among Whites (76%).

Approaches for MAI populations. Due to the large proportion of racial/ethnic minorities served by the entire RWHAP Part A program, as noted above, the PC and the Recipient work to develop strategies and interventions throughout the portfolio, not just in MAI-funded programs, which will support positive health outcomes for people of color living with HIV. Thus, there are not separate planning processes for racial/ethnic minority populations or for MAI funding. The PC moved away from planning based on traditional demographic target populations in 2014 and instead focuses on those who are not achieving the goals of each stage of the HIV care continuum. By doing this, the PC focuses on barriers that contribute to disparities at each stage of the continuum.

MAI activity descriptions. The GY18 MAI funds have been allocated to program services in four service categories to reduce barriers to care among minority populations and engage them in care: ADAP, EIS, MCM, and Housing Services. These four service categories were selected by the PC to receive MAI dollars because of their combined ability to make an impact along each stage of the HIV care continuum. The MAI program service models do not vary from the same service categories in the RWHAP Part A program portfolio; rather, the MAI program prioritizes communities where disproportionately burdened minority populations live. All contracted Part A services in the NY EMA, including MAI, are required to adhere to CLAS Standards.^{lxxiv} The NY EMA applies the eligibility criteria below to ensure that MAI funds are directed to high-need communities. Each MAI-funded agency/program must:

- Direct its services to residents of zip code areas with 150 or more reported living HIV/AIDS cases among the MAI prioritized populations;
- Have the majority of its program and administrative sites located in zip codes with 150 or more reported living HIV/AIDS cases among the MAI prioritized populations; and
- Demonstrate that at least 75% of its current active clients who receive HIV/AIDS services are from the MAI prioritized populations.

ADAP is exempted from this policy and instead exclusively serves Black, Latino, and Asian clients from the NY EMA who are eligible for ADAP with MAI funds.

c. Core Medical Services waiver. A CMS waiver will be submitted separately from this grant application.

RESOLUTION OF CHALLENGES

The NY EMA continues to strive to deliver the best possible services aimed at increasing the health of PLWH in its concerted effort to end the epidemic while adhering to the RWHAP legislation and accompanying policies. In GY17, the Recipient has worked to resolve a number of challenges through collaboration with the PC, consumers, funded providers, PHS/Contracting and Management Services (CAMS), and NYS AI colleagues. Table 6 below highlights the most salient resolved challenges.

Table 6. Resolution of Challenges

Challenges/Barriers	Proposed Resolutions	Intended Outcomes	Current Status for RWHAP Part A Program/Care Continuum
NYS Integrated HIV Prevention and Care Plan Implementation of the NYS HIV Prevention and Care Integrated Plan.	NYS plans to work with all Planning bodies in the jurisdiction to update them on <i>Integrated HIV Prevention and Care Plan</i> goal progress so that the NY EMA can continue to improve the service system to address gaps in the care continuum. The NY EMA is preparing to contribute data to inform the update.	Use of a single, aligned <i>Integrated HIV Prevention and Care Plan</i> with common indicators for Prevention and Care services in all funded jurisdictions with standardized reporting for all contributing jurisdictions in order to improve care and prevention outcomes across NYS.	HRSA/CDC review was received by all jurisdictions. Initial effort to engage planning bodies and report on essential measures is underway.
Increased Ability to Diagnose and Link to Care The NY EMA is seeking to increase clinical capacity to follow HIV testing law requiring offer of HIV test to anyone 13 or over in clinical settings, increase ability to support targeted testing providers to engage newly diagnosed in care, and support immediate initiation of ART.	Issue combined CDC and RWHAP Part A RFP to address HIV testing and linkage in NYC (and use translatable content for Tri-County EIS RFP) in order to increase offer of HIV testing in line with NYS law, navigation to PrEP for those who test HIV-negative, and linkage to care and immediate initiation of ART.	Increase ability to: <ul style="list-style-type: none"> • Prevent HIV through navigation to PrEP; • Identify undiagnosed HIV infection through improved implementation of the routine offer of testing in clinical settings; and • Increase linkage to medical care and initiation of ART for persons newly diagnosed or out-of-care. 	Continue to increase number and percentage of PLWH who are aware of their status, link newly diagnosed and out-of-care PLWH to care, increase timely initiation of ART. Awards from RFP to be imminently announced, RWHAP Part A-funded EIS services to begin January 1, 2018.
Mortality Recent surveillance and eSHARE analyses of mortality have highlighted the need to work across the system to address this issue. In the NY EMA, RWHAP Part A clients, especially those with HCV and AIDS diagnoses, represent many	DOHMH conducted a preliminary analysis of factors associated with mortality among HIV-positive clients enrolled in the RWHAP Part A. The mortality rate of the study population was similar to that of PLWH in NYC. Clients who were US-born or reported having an HCV or an	Reduce preventable mortality through a concerted effort across the RWHAP Part A portfolio to address the needs of those at risk of preventable mortality.	Continue to work to increase engagement in care, increase viral suppression, and increase cure rate for those infected with HCV.

Challenges/Barriers	Proposed Resolutions	Intended Outcomes	Current Status for RWHAP Part A Program/Care Continuum
<p>of the subgroups that have poorer health outcomes despite wide availability of effective treatment.</p>	<p>AIDS diagnosis had higher odds of being deceased. The Recipient will conduct expanded analyses using surveillance data and work with RWHAP Part A-funded providers to uncover gaps in the service system to reduce preventable mortality. Recipient QM/TA staff is also working with funded providers to discuss opportunities to prevent illness and premature death among clients at provider meetings and the annual Power of QI conference.</p>		
<p>Culturally Competent Care Increase provision of culturally responsive care to effectively meet the needs of a diverse population of clients in RWHAP Part A services.</p>	<p>The PC's master directive includes the following language: <i>Services should be client-centered, nonjudgmental, guided by harm reduction principles, trauma informed, culturally and age-appropriate, sensitive to physical and sensory impairments, and tailored to the population served.</i> In GY16, the Recipient worked with providers to implement the CLAS Standards to address the needs of a diverse client population across the RWHAP Part A-funded services. In GY17 and GY18, the Recipient will pilot and implement a CLAS Standards training for RWHAP Part A providers and support implementation of a CLAS Standards self-assessment across the service system.</p>	<p>Increase the provision of culturally competent care to meet the needs of a diverse population so that all persons served with RWHAP Part A funds can have access to quality care and services.</p>	<p>Work to better meet the needs of a diverse client population so that all have the tools to become virally suppressed.</p>
<p>HIV and Aging As more of the NY EMA's PLWH benefit from the improved health outcomes and longevity associated with SVL, additional comorbidities associated with HIV and aging must be incorporated in the system of care. As of December 31, 2016, 55% of</p>	<p>The Recipient will convene providers across the NY EMA to share research, assess service resources for PLWH over 50, and develop initial recommendations to improve care for this population.</p>	<p>Reduce the effect of comorbidities on PLWH over 50 in order to improve health outcomes and reduce preventable mortality.</p>	<p>Work to improve the quality of care and reduce preventable mortality for PLWH over 50.</p>

Challenges/Barriers	Proposed Resolutions	Intended Outcomes	Current Status for RWHAP Part A Program/Care Continuum
<p>PLWH are over 50. Among RWHAP Part A clients active in GY16, 51% were over 50.</p>			
<p>Youth and Young Adults Between January 1 and December 31, 2016, 38% of new diagnoses were in persons between 13 and 29 years of age. Given that young people are less likely to be linked in a timely way to HIV care and less likely to be virally suppressed than older PLWH, addressing the needs of youth is essential to reducing disparities in HIV outcomes in the NY EMA.</p>	<p>The PC and Recipient are working together to monitor the needs of youth across the care continuum. Youth and young adults were a focus of HIV testing initiatives. Also, in GY16, persons under 29 represented 10% of all HIV-positive active clients in the NY EMA; a greater proportion were served in NYC in EIS, Housing, Care Coordination, MH, n-MCM, and TCC. However, gaps in care continue to persist. The latest CHAIN cohort refreshes effort is focusing on recruiting participants under age 40 to better gauge the needs of youth living with HIV.</p>	<p>Increase understanding of the care patterns and needs of youth with HIV, in collaboration with the PC. The Recipient will work with providers to engage youth in services and adequately meet their needs.</p>	<p>The NY EMA will continue to work to increase youth engagement in care, increase support for adherence and support services, and increase viral suppression for PLWH aged 13-29.</p>
<p>NY EMA Funding Need to increase NY EMA program efficiency in light of continued formula funding reductions, resulting from increased HIV prevalence in the South and Midwest.</p>	<p>The PC, supported by the Recipient, will continue to review all service categories to determine how to continue to address the needs of PLWH in the NY EMA with reduced resources.</p>	<p>Determine the most valuable RWHAP Part A models of service by continuing to review all payers of services, monitor contracts for POLR, and review impact of services.</p>	<p>Will seek to preserve and build on the continued progress of reduced new infections and increased viral suppression even in the face of reduced resources. Additionally, the Recipient will review and plan for reductions in the administrative costs of the program.</p>
<p>Tri-County Administration and Compliance Increase the responsiveness and ability to move money to where it is most needed within the Tri-County Portfolio.</p>	<p>The Recipient will transition the majority of the Tri-County region contracts to performance-based contracts, as appropriate.</p>	<p>Ensure that the region is better able to respond and adapt to future funding decreases and system changes. This effort also supports compliance with POLR as fundable services under Medicaid change.</p>	<p>An RFP for the Tri-County region is being drafted now for the entire portfolio except for Legal Services, which has already moved to performance-based contracting. New contracts for the remaining service categories are estimated to begin March 2019, which gives sufficient time to procure services and provide technical assistance.</p>
<p>HIV/HCV Co-infection Increase access to DAAs for HCV/HIV co-infected persons. In 2015, only 28% of PLWH infected with</p>	<p>A HRSA SPNS grant supports Project SUCCEED, now in its second year. The needs assessment and implementation plan for</p>	<p>In Year 2, train providers, share data on which patients have not achieved a cure, and increase patient knowledge of DAAs across</p>	<p>Will work to improve health outcomes for HIV/HCV co-infected persons through increased access to DAA treatment resulting in HCV</p>

Challenges/Barriers	Proposed Resolutions	Intended Outcomes	Current Status for RWHAP Part A Program/Care Continuum
HCV in NYC had initiated HCV treatment.	addressing the needs of HIV/HCV co-infected in the NY EMA have been completed.	the jurisdiction. Grant resources will allow the Recipient to focus efforts on those clinics with the most HIV/HCV co-infected persons who have not accessed DAA.	cure.

EVALUATION AND TECHNICAL SUPPORT CAPACITY

A. Clinical Quality Management (CQM). The CQM program is a collaborative effort that is overseen by the Program Director and involves the DOHMH CTP Quality Management & Technical Assistance Unit (QM/TA) and Clinical Operations and Provider Communication (COPC) Program, the REU, EIS, Housing, NYS AI, WCDOH, PHS, the PC, consumers, and RWHAP Part A providers.

Through TA, the CQM program seeks to: (1) strengthen RWHAP Part A providers’ quality efforts; (2) build providers’ capacity for QM while also providing guidance in program model implementation; and (3) to improve care across the continuum. The objectives of the CQM program are to build capacity for QM among RWHAP Part A providers, to increase collaboration between RWHAP and Medicaid-funded providers, to provide opportunities for peer learning among Part A providers, and to ensure the continuation of high-quality services for PLWH. These objectives are consistent with national goals, in terms of their focus on increasing the capacity of HIV systems of care that include diverse service providers.

Several processes are in place to provide TA and capacity-building assistance. The CTP QM/TA team members, under the supervision of the CTP QM Director, identify gaps in the RWHAP Part A system and develop strategies to address gaps and assess quality. Quality Management Specialists (QMSs) on the CTP QM/TA team along with REU staff provide TA to RWHAP Part A providers with an emphasis on using data and QI tools to improve care. More specifically, the QM Director and the CQM Program members listed above develop and implement trainings for Part A providers to improve service quality and support QM activities; plan and implement provider meetings to facilitate peer learning among Part A providers; provide one-on-one TA in program implementation and quality improvement (QI); and work with NYS AI staff to plan and deliver an annual QI conference for the NY EMA. Additional Clinical QM efforts are shared with the COPC Program, to increase coordination between the RWHAP Part A program and non-RWHAP Part A-funded outpatient ambulatory care services.

WCDOH staff support QM efforts with Tri-County providers. DOHMH REU Evaluation Specialists are responsible for analyzing eSHARE data, as well as consumer survey and supplemental evaluation data, to produce and present service category- and agency-level quality performance indicator reports. Additional analyses (e.g., care continuum measures disaggregated by demographic, clinical and/or psychosocial characteristics) help identify disparities in HIV-related health outcomes that may be addressed through QM/TA efforts.

CTP draws on the expertise of the NYS AI to provide peer learning support through the annual Power of QI Conference. The NYS AI also coordinates RWHAP Part B and Medicaid clinical organizational assessments with COPC. CTP and COPC also participate in a cross-part QM committee led by NYS AI and collaborates with them on regional QM efforts across the NY EMA.

In addition, consistent with national goals, BHIV is expanding its efforts to support viral suppression citywide by drawing on NY HIVQUAL and the NYC surveillance-based HIV Care Continuum Dashboards to address care quality at the clinic level. The CQM program has collaborated in these efforts by ensuring that RWHAP Part A services support engagement and retention in high-quality clinical care and treatment to achieve a SVL. The QM/TA Unit meets monthly with BHIV colleagues in the COPC Program, who are evaluating HIV primary care facilities in NYC to assess client characteristics, clinical and support service capacity, and HIV care outcomes. These data can be used to determine how RWHAP Part A services may better support clinical services, including healthcare settings that receive Part A funding through subawards. For example, as part of an effort to promote early ART initiation, consistent ART access, and improved viral suppression, CTP began providing each Part A provider agency with client-level reports, known as Treatment Status Reports (TSRs) in 2014. The TSRs are prepared every three to six months (depending on the program model) using data reported by Part A providers in eSHARE. Reports list clients who do not appear to be virally suppressed, distinguishing whether or not the clients are currently prescribed ARTs. These client-level, custom reports are used to focus programmatic TA and facilitate communication and coordination between RWHAP support service providers, clients, and their medical providers to support medical and ART adherence. In 2017, CTP launched Part A Agency-level Viral Suppression Reports (AVSR). Reports are prepared for each organization receiving funding from the Part A program and show the proportion of each organization's Part A clients who were classified as virally suppressed at their last viral load test of the calendar year, for multiple years (thus tracking trends over time). Organizations can also see how their annual rate of viral suppression compares to that for all Part A clients in NYC. The AVSR uses viral load data reported to the NYC HIV Surveillance Registry.

The CQM program currently engages the NY EMA Quality Management Committee in the work of updating the QM plan to be completed in the first quarter of GY18. The committee includes key stakeholders from CTP, the PC (both consumers and staff), NYS DOH, Tri-County, Housing, HIV Prevention, COPC, and other areas as needed. The updated plan outlines the CQM program's activities in five domains: consumer engagement, collaboration and coordination, capacity building, service engagement, and service quality.

1) Use of performance measure data to evaluate disparities in care. Data collected routinely from RWHAP Part A providers include client-level sociodemographic, psycho-social and health outcomes information, as well as service utilization information. In support of national goals, these data – particularly when merged with comprehensive laboratory data from HIV surveillance – enable the NY EMA to evaluate a range of disparities in care, including those related to race/ethnicity, gender, age, transmission risk category, and geographic location, among other factors (e.g., housing stability). Over 90% of those served in the RWHAP Part A program identify as part of a racial/ethnic minority group. As a result, our results do not necessarily reflect conventional/general-population racial or ethnic disparities. However, since the sociodemographic subgroups over-represented in the local Part A program tend to experience disparities in health outcomes, the NY EMA takes a system-wide approach to improving care and outcomes for those served by the Part A program, including drawing on a centralized CSS, as well as other activities. These approaches ensure that each client served has the appropriate resources and individualized support to achieve a SVL. To further address disparities, DOHMH is also ensuring that subrecipients provide services consistent with CLAS Standards. QM/TA staff are leading CTP's efforts to (1) design a tool that Part A-funded organizations may use to assess and improve compliance with CLAS Standards, and

(2) pilot and implement a training to build their capacity to provide services consistent with the standards.

The CTP has made addressing preventable causes of death among PLWH a priority for 2017, and will continue to do so in 2018. In February 2017 and at Spring 2017 RWHAP Provider meetings, DOHMH surveillance staff presented findings from an analysis of mortality among PLWH in NYC while CTP staff presented data drawn from eSHARE on mortality among clients enrolled in selected RWHAP Part A services. The presentations generated discussions among providers about preventable causes of death among PLWH and how RWHAP Part A services may intervene to address factors such as social isolation, substance use, and co-morbid conditions like HCV treatment, liver disease, diabetes, and cardiovascular disease. Building upon this, QM/TA staff will facilitate a workshop session at the NY EMA's annual Power of QI conference for Part A-funded programs. The workshop will engage a broad spectrum of stakeholders in the development of strategies to address preventable causes of death among PLWH.

In November 2017, the fourth annual Power of QI conference will also support peer learning to address barriers to care for those with disabilities, work with the PC consumer committee to engage consumer input into the system of care, provide a forum for providers to share the results of their QM projects through oral and poster presentations. Last year, over 200 service providers, consumers and other stakeholders across the NY EMA attended the Power of QI conference.

2) Use of CQM data to inform service delivery. Trends identified through the CQM program enable key stakeholders to assess RWHAP Part A service quality and fidelity to service model guidance over time. Quality indicators, developed in collaboration with RWHAP Part A-funded providers, are often used to inform provider QM plans, which are designed to improve service delivery. As the indicator data mature, the data can be reviewed for trends to inform long-range service delivery planning and to review the impact of related quality improvement projects. CQM data are one of several resources that allow the PC to incorporate data-driven changes in the service system upon careful consideration with the Recipient.

CQM findings have also informed the changes planned for the MCM program portfolio. During TA site visits and provider meetings, staff from organizations funded to provide MCM services reported that some health promotion topics (covered as part of the health education component of the MCM program) were redundant, an observation supported by eSHARE data. As a result, the health promotion aspect of the intervention is being updated to combine topics and introduce new ones (covering HCV, for example). To improve utilization of DOT, CCP may opt to provide modified DOT using videoconferencing. To better engage clients in the management of their own care, CTP is developing a self-management assessment to guide CCP staff in coaching clients and to ensure that building capacity for self-management is an aspect of case conferencing and service planning, including decision-making regarding service intensity and program graduation. Reimbursement for MCM services is also undergoing change. Under the new solicitation, reimbursement will be fee-for-service. Under the current model, programs are reimbursed at a per-member-per-day rate with rates varying by track that correspond to a level of service frequency. Staff from organizations funded to provide MCM services reported that, under this reimbursement model, they devoted substantial time and effort to monitoring service frequency in order to maintain the levels required for each track. This sometimes detracted from the actual delivery of services to clients according to their needs. It also may have led to programs underreporting service utilization when the threshold for payment was reached. Reimbursing fee-for-service makes it more likely that services reported will reflect true utilization.

Further, in collaboration with Project SUCCEED, QM/TA will also expand training in HCV care navigation to include providers of RWHAP Part A-funded HR and CCP. HCV co-infection was also added to the list of criteria for CCP enrollment eligibility.

ORGANIZATIONAL INFORMATION

A. Grant Administration. Through the rigorous monitoring and accountability measures described below, the NY EMA ensures that RWHAP Part A funds are used effectively to address the country's largest and most complex HIV epidemic. Eighty percent of the NY EMA's GY17 RWHAP Part A contracts are paid based on performance, with subrecipients paid for meeting service thresholds on a fee-for-service basis and/or for achievement of specific deliverables. Transforming the portfolio into a results-oriented reimbursement model has increased efficiency and contributed to effective resource management with timely reallocation of dollars to highly utilized services and minimal carryover. Through multi-pronged efforts, the NY EMA ensures Part A serves as the POLR.

1) Program Organization. With over 25 years of experience as a RWHAP Part A Recipient, the NY EMA is committed to efficient program administration, aiming to maximize the effectiveness of HIV services. In GY16, the NY EMA spent more than 99.63% of its RWHAP Part A formula award and 99.99% of its MAI award.

a) RWHAP Part A Administration (see Attachment 10). The Mayor of the City of New York serves as the CEO of the NY EMA. The Mayor has designated DOHMH as the administrative and fiscal agent for RWHAP Part A. As *Attachment 10* illustrates, the NY EMA's RWHAP Part A program is administered by CTP in DOHMH BHIV. The BHIV is headed by an Assistant Commissioner, who oversees 287 staff of HIV Prevention, Care, and Surveillance programs which includes 40.02 full-time equivalents (FTE) under the RWHAP Part A grant.

The Director of CTP (.75 FTE) oversees all staff responsible for service planning, TA, QM, research and evaluation, and RWHAP Part A planning and grant administration, as well as RWHAP Part A fiscal oversight in collaboration with the Director of Administration (.5 FTE). The Deputy Director of CTP (.85 FTE) collaborates with the Grant Fiscal Administrator (1.0 FTE), and program and administrative staff to ensure adherence to all applicable HRSA grant reporting and monitoring requirements. The Deputy Director oversees and coordinates the activities of one Program Planner (1.0 FTE) and one Project Coordinator (1.0 FTE) and serves as an alternate to the Director of CTP for PC business and communications with HRSA. The Director of QM/TA (1.0 FTE) oversees a total of 8.0 FTE including: two Program Managers (PMs), four QMSs, and one Project Coordinator. The Deputy Director of HIV Prevention (in-kind) oversees the TA provided to the EIS providers (Part A contributes 1.0 FTE for a Project Officer (PO)), in coordination with HIV Prevention. The Director of Housing (in-kind) oversees two Housing Analysts and a Housing Coordinator (3.0 FTE total) who oversee Part A housing subrecipient activities to ensure that housing services and resources are monitored and implemented in a coordinated manner with HOPWA across the NY EMA. The Director of Research and Evaluation for the Housing Services Unit (.5 FTE) coordinates with the Director of Housing and the Director of REU (.75 FTE) for housing services monitoring and evaluation. The Deputy Director of Business Systems (.8 FTE), under the leadership of the Director of Administration (.5 FTE), oversees contract administration and procurement, including eSHARE data system implementation across Prevention and RWHAP.

RWHAP Part A funds 8.5 FTE in the CTP REU overseen by the Director of REU. Using multiple methods, including merged analyses of provider-reported, HIV surveillance, and survey data, REU staff evaluate RWHAP Part A client and program needs, service utilization, and health outcomes. REU staff track progress on *Integrated HIV Prevention and Care Plan* goals, analyze and

prepare eSHARE data for site visits and provider meetings, report on QM performance indicators at the service category and agency levels, elicit consumer input through surveys and focus groups, and improve Ryan White Services Report completeness.

The PC Director (1.0 FTE) reports to the DOHMH Deputy Commissioner for Disease Control and oversees staff who support the planning and administrative functions of the PC (5.0 FTE total). The PC and Recipient meet weekly to coordinate planning activities and ensure work is conducted in alignment with the Memorandum of Understanding approved by HRSA in 2012.

There are currently several vacant Recipient positions. The Program Planner, one Evaluation Specialist, and the Clinical Operations QM Analyst (1.0 FTE) positions have been filled, but these candidates are still in the human resources hiring process. One additional Evaluation Specialist position is vacant and posted and is expected to be filled soon. Recruitment for vacant Recipient positions, involving widely distributed postings and a competitive process, is in progress. Candidates are generally named within 90 days of when a job is posted and usually start 6-12 weeks after being named. BHIV administration has worked with DOHMH Central Human Resources to improve recruitment and on-boarding processes for new applicants. This includes streamlining approval processes and posting positions more quickly after vacancies occur. Human Resources also now sends an automated message at select intervals alerting hiring managers to how long job announcements have been posted and reminds them to check the hiring portal with a 90 day expectation from posting to naming a hire. Despite this, vacancies remain as the job market in New York is currently in the applicant's favor in the health and IT sectors. DOHMH also has an emphasis on recruiting and hiring candidates that are racially and ethnical diverse which has required a change in the way DOHMH advertises and recruits for positions. Positions may remain open in order to give hiring managers the opportunity to meet with a diverse candidate pool. The Assistant Commissioner (.20 FTE) for BHIV is also vacant due to Dr. Demetre Daskalakis's promotion to Deputy Commissioner; recruitments for senior DOHMH commissioner positions are extensive and is expected to be completed by the end of 2017. Further the position of Assistant to the Assistant Commissioner (.5 FTE) is also vacant and will not be filled until a new Assistant Commissioner is named and can hire for this vacancy.

b) Staffing, SOW, and evaluation of contractor or fiscal agent. PHS, DOHMH's Master Contractor, assists in the administration of the RWHAP Part A program in the NY EMA (NYC and Tri-County). Under the direction of the Chief Strategy Office and Vice President for CAMS (CSO), VP of Informatics and three Directors – a Senior Director for Programs and Contract Management, a Director of Finance and Operations, and a Director of Business System, PHS administers 162 Ryan White Part A-funded contracts in GY17. The CSO ensures PHS adheres to the terms of the Master Contract with DOHMH and has ultimate responsibility for all operations. The Senior Director for Programs and Contract Management oversees programmatic and fiscal monitoring of subrecipients and develops procedures, policies and standards for contract negotiation and monitoring of subcontractor program performance. The VP of Informatics is responsible for development and management of PHS's information systems. The VP is responsible for developing policies and procedures for data collection and ensuring integrity of data for contract payment and monitoring. The Director of Finance and Operations is responsible for developing, implementing and monitoring fiscal policies and administrative procedures, and for the portfolio's fiscal compliance. The Director of Business Systems is responsible for guiding the procurement process and leads the coordination of cross-unit project management and continuous quality improvement efforts to ensure compliance with all relevant regulations and terms of the Master Contract.

PHS, under direction from DOHMH, manages the procurement process for RWHAP Part A funds, contract administration including development of subrecipients' contract scopes and budgets, compliance monitoring, TA, subrecipient payment including performance-based reimbursement, fiscal and data management, and external reporting. PHS employs 18.51 FTE monitoring staff, 4.98 FTE contract administration staff, and 13.71 FTE planning and administrative staff for a total of 37.20 FTE. DOHMH facilitates a monthly coordination meeting and a monthly Data Workgroup with PHS, to ensure compliance with contractual and HRSA policy requirements, address challenges in the administrative mechanism, including procurement and contracting, and to facilitate communication between DOHMH and CAMS leadership.

The Tri-County RWHAP Part A Master Contract and monitoring responsibilities fully transitioned to PHS in GY16. The transition has been highly successful; PHS coordinated and conducted negotiations with Tri-County providers for the Legal Services portfolio-the first re-procured service category since the transition. PHS is well-integrated with the provider community; attending provider meetings, implementing monitoring activities, conducting site visits, issuing payments, and contracts closeout among other activities. To ensure the continuity of services and local services planning, 1.0 FTE remained in WCDOH and functions in this capacity.

Monitoring of Master Contract. The Master Contractor reports directly to BHIV on all aspects of its administrative and fiscal processes as outlined in the contractual agreement. BHIV monitors the Master Contractor for compliance with the terms of the contractual agreement by conducting site visits, tracking receipt of required reports, and reviewing performance via the Program Progress Report.

BHIV's program and fiscal monitoring staff conduct a minimum of two site visits per contract period for the Master Contract. Generally, site visits occur on the following schedules for the following review periods:

Table 7. Master Contract Review Schedule

Site Visit	Site Visit Month	Review Period
1	June	9/1 to 2/28
2	December	3/1 to 8/31

The site visits consist of a program and fiscal review for a sample of subrecipients. The Master Contract site visits include (1) an entrance interview to discuss changes since the last site visit and the procedure for the current site visit as well as (2) an exit interview to discuss findings from the current site visit. BHIV reserves the right to conduct additional site visits or adjust site visit dates if necessary.

DOHMH Master Contract Subrecipient Sampling Methodology. BHIV staff review at least 10% of RWHAP subrecipients, and BHIV staff review all subrecipients that were on a contract status (“concern” or “corrective” or “conditional”) during the site visit review period. If this selection is less than 10% of all subcontracts, then the remaining subcontracts are randomly selected to complete a 10% sample of all subcontracts.

The program and fiscal monitoring staff evaluate documents and files to ensure contractual requirements are being met by the Master Contractor. The program and fiscal monitoring staff complete a site visit report that includes the material reviewed, findings, and recommendations to the Master Contractor to remedy findings identified during the site visit.

2) Grant Recipient Accountability. Close and continual monitoring of RWHAP Part A contracts ensures compliance with all applicable federal requirements and maximizes the return on RWHAP Part A investments. As described below, monthly contract-level reports and annual site visit reports are reviewed and kept onsite at PHS and the DOHMH.

a) Monitoring. The NY EMA's multi-faceted contract monitoring process includes monthly electronic data submissions, comprehensive semi-annual reviews, at least two on-site visits each year, documentation reviews, frequent telephone and email contact, and other meetings as necessary. All RWHAP Part A providers are required to maintain standardized client-level data records with de-identified client-level extracts reviewed monthly by PHS for reimbursement and by DOHMH for service utilization analysis. Using eSHARE, subrecipients finalize client-level data entry by the 15th of each month, the point at which PHS and DOHMH consider subrecipient-reported data to be ready for assessment for reimbursement and performance. In addition, PHS requires the submission of a monthly Program Narrative Report, which details successes and challenges of the previous month and identifies staff vacancies and changes in program operations. These reports are reviewed by PHS in advance of reimbursement. PHS Contract Managers (CMs) review reported spending and withhold reimbursement if subrecipients fail to submit required monthly programmatic reports, external audit reports, and/or if reports are incomplete or contain unbudgeted or unallowable costs.

PHS CMs are responsible for both fiscal and programmatic contractual monitoring, ensuring that costs and service activities are allowable and appropriate within a contract's budget and scope of services. In addition, providers are assigned a DOHMH QMS with expertise in the relevant programmatic content. QMSs provide one-on-one technical and QM support and convene provider meetings to facilitate peer-led discussions of best practices. CMs and QMSs meet at least twice a year per service category to share data on contract performance, review qualitative information on services, and develop action plans to address challenges. While QMSs focus on QM and the programmatic elements of services, CMs monitor contract deliverables and service documentation, conduct fiscal monitoring, and ensure compliance with relevant eligibility and administrative requirements, including client-level reporting.

QMSs and CMs collaborate and ensure that consistent guidance is provided to RWHAP Part A subrecipients through joint site visits. Site visit findings may be successfully addressed within two weeks post site visit and, thus, may not lead to formal corrective action. Each RWHAP Part A contract specifies the nature of services to be delivered, eligibility requirements for clients, licensing or other requirements for staff, and contractual expectations. Contracts specify the number of clients to be served and service delivery targets. Each subrecipient providing Part A services must have operational grievance procedures in place (including whistleblower policies) and a defined mechanism for consumer input. Each subrecipient must collect and maintain client-level data in accordance with the NY EMA's reporting requirements for enrolled clients.

i) Common program and fiscal subrecipients' monitoring findings and corrective action process. The three most common fiscal and program monitoring findings are documentation issues, data inaccuracies, and insufficient client engagement. Documentation issues, including the need for information consistent with standards of a service type or model as well as missing or incomplete documentation of services, may result in recoupment for services and low service levels. TA is then provided within a defined timeframe, usually one quarter, to facilitate improvement. For providers with persistent performance concerns, PHS implements a progressive process for corrective action in coordination with DOHMH. This process initiates with provision of targeted technical assistance with an expected timeframe for improvement. Should that not occur, corrective

measures are implemented which require a written plan with timeframes for specific metrics of required performance. An example of data inaccuracy and insufficient client engagement was seen with one FNS subrecipient identified as having inconsistent reporting of reassessment and treatment plan updates and failure to document elements of a service type consistent with the service model. The program was required to submit a corrective action plan outlining measures for re-training key staff on eSHARE reassessments and utilization of an alert system to remind staff when reassessments were due. It also outlined plans to use a tool to capture duration of sessions and specific elements of the nutritional counseling service type to ensure documentation reflected the model's integrity. The contract was performance-based and, without these corrective measures, reimbursement for nutritional counseling sessions would not have been possible. Within two quarters of the compliance period, the subrecipient was able to successfully track and implement necessary changes and was removed from compliance status. In addition, the subrecipient recognized the need to reduce projections and modified targets for the nutritional counseling service type. Generally, providers are expected to achieve compliance within two quarters of the contract year. If compliance is not exhibited after four quarters, a contract is put on conditional status and reimbursement is impacted.

In the most egregious cases, a contract may be terminated for failure to achieve defined performance levels. An example reflecting this scenario was seen with a CCP subrecipient. The program had been on corrective action in the prior year for documentation issues and, with assistance, those were successfully addressed. However, the subrecipient continued to experience a myriad of issues, including general infrastructure and leadership challenges of the medical facility. Multiple meetings with senior leadership and options for potential community partnerships and improved clinical oversight for the program were attempted without lasting improvement throughout the year. The subrecipient had persistent low services levels, as well as challenges with clinical supervision and staff grievances. They were plagued by staffing vacancies as the facility faced closure. Although the hospital remained opened, client enrollment was severely impacted and the award for the contract was significantly reduced to right-size the program. Resignation of the key physician for the program was a determining factor in the ability to continue this contract. Though contract termination is relatively rare; this contract was terminated in GY16. It is noteworthy that the majority of providers are able to achieve acceptable performance levels, with a minority receiving the support of some combination of the above interventions.

ii) Process for ensuring compliance with the single audit requirement. Consistent with the Health and Human Services Uniform Administrative Requirements (45 CFR 75), RWHAP Part A subrecipients are contractually required to submit a single audit report, when applicable, within thirty days after its completion, but no later than nine months after the end of the audit period. A subrecipient is deemed out of compliance if it fails to submit its audit reports by the required due date. Written notification of the delinquency is sent to the subrecipient and payments may be placed on hold pending full compliance. If a single audit is not applicable, the subrecipient must submit a letter of explanation from its auditor or CEO. The letter of explanation must be accompanied by a list showing all of the subrecipient's federal grant revenue and expenses in order to support its claim that they are exempt from preparing the single audit report. PHS communicates any material changes in federal and state audit requirements as they occur to ensure compliance with up-to-date audit rules. In GY16, PHS contracted with 93 subrecipients; however, only 81 audit packages were required to be submitted. In these cases, the financials of the agencies were consolidated into one audit package. All 81 audit packages were submitted in GY16; 31 (38%) were submitted late. PHS's Fiscal Manager (FM) and Fiscal Analyst (FA) ensure audit reporting compliance of all subrecipients,

conduct a detailed review of audits; and follow up on findings identified in the audit as well as management letter, if issued. Satisfactory responses from subrecipients are a condition of ongoing compliance, and in some instances, their ability to draw down funds.

iii) Addressing subrecipient audit findings. Twenty-eight percent of the EMA's RWHAP Part A subrecipients' audit reports contained issues noted in GY16. Issues ranged from general observations to auditor recommendations, some of which were unrelated to the RWHAP Part A programs or the agencies' infrastructure. Of the issues noted, only 4% were identified as material weaknesses. Issues cited included: lack of written methodology for expenses allocated to government grants, lack of full compliance with federal and Office of Management and Budget guidelines, lack of an updated financial policy and procedures manual, lack of time and effort record keeping, insufficient back-up documentation supporting purchases, lack of accounts analysis and bank reconciliation performance, inadequate segregation of duties, deficiencies in internal controls, and net assets deficits. For subrecipients with audit findings, PHS requests quarterly updates on corrective measures implemented. In cases where management provides an inadequate or lack of response, the agency may be placed on corrective or conditional status and PHS then requests a corrective action or compliance plan to resolve the audit deficiency, during which time agency reimbursements are placed on hold.

b) Third Party Reimbursement. During GY16, the NY EMA expanded its already robust process to ensure that all RWHAP Part A funds serve as the POLR. As previously mentioned, the PC undertakes a comprehensive analysis of all available resources and service delivery systems in the process of establishing priorities and allocations for funding. The PC uses an objective priority-setting tool, with one of four criteria being 'POLR/Alternate Providers of Service.' This tool helped the PC to design the GY18 RWHAP Part A Spending Plan to address gaps, especially those in Medicaid.

Beginning in GY11 and continuing through GY18, DOHMH and PC staff have been engaged in implementing the National Monitoring Standards and ongoing monitoring of the changing healthcare landscape. This includes review and analysis of resources released by HRSA/HAB and the NYS Medicaid Redesign Team, as well as items published by national policy organizations and the media. This information was shared with stakeholders through presentations to committees of the PC and Recipient staff. Information gleaned through these efforts was incorporated into the *POLR Tool*. The NY EMA requires agency certification to bill Medicaid in all applicable service categories (MCM, MH, Oral Health, and Medical Transportation).

i) Monitoring third party reimbursement. Contractual provisions define RWHAP Part A reimbursement as "last dollar funds pursuant to federal law," mandating that payments cannot duplicate reimbursement that has already been made or can reasonably be expected to be made by other payer sources. Contracts require subrecipients to carefully monitor third party reimbursement. As mandated in the RFP and in the eventual contract, all RWHAP Part A providers must participate in applicable NYS Medicaid and NYS-funded uninsured care programs for those services reimbursed by those payers.

During contract negotiations, PHS identifies all potentially reimbursable services and explores all sources of third party payment. Providers must submit Reimbursement Worksheets with the projected number of reimbursable services for the budget period and the amount of RWHAP Part A funding that may be offset by third party payment. Providers are required to articulate why such services are not reimbursable from a source other than RWHAP Part A. These statements, ultimately part of the subrecipient's contract, expressly prohibit the use of Part A funding for otherwise covered activities. PHS monitors contracts against their statements.

PHS conducts single payer verification activities to ensure that services billed to RWHAP Part A have not been billed elsewhere. Contracts that include services that are potentially reimbursable by Medicaid and other payers are subject to an annual review of all billing records associated with a patient visit. This review forces coordination between grants management and Medicaid billing staff.

MCM service design and contracts have expressly taken into account other case management services such as those reimbursed through Medicaid, mandating coordination with NYS-funded case management programs and providing lower reimbursement for dually enrolled patients based on services that are *not* covered by Medicaid.

ii) Documentation of client screening and ensuring POLR. All subrecipients are required to document the screening of every client for Medicaid, Medicare, the NYS health insurance exchange, or other third-party insurance eligibility and to help eligible clients apply at intake and reassessment, every six months. eSHARE requires input of insurance status for both new and continuing clients, prohibiting submission of reporting forms until such questions are answered. The reporting software captures insurance provider type at time of assessment.

Many PLWH with incomes between 138 and 400% of FPL are eligible for discounted premiums for plans on the NYS health insurance exchange, resulting in more PLWH with health insurance. All service providers who provide benefits counseling and enrollment services are required to become Certified Application Counselors, as training capacity allows, or establish a referral relationship with designated navigator agencies. This helps to ensure that PLWH who are eligible for other sources of assistance access those resources before the RWHAP Part A care system, and that PLWH are receiving enrollment assistance from application counselors who understand the HIV care system.

iii) Tracking and use of program income. DOHMH and PHS require subrecipients to establish a sliding fee schedule and caps-on-charges policy. Subrecipients are required to track and report program income for all service categories. In addition to reporting the amount of program income earned, programs also report how they have or will use the income to improve RWHAP Part A programs. The most common use of program income is to pay for administrative costs that were not covered under the 10% administrative cap. Because of the safeguards designed to ensure that RWHAP funds remain the POLR, there are very few instances when a program might earn program income from RWHAP activities.

c) Fiscal oversight.

i) Fiscal staff accountability. The NY EMA ensures the efficient use of funds for their intended purpose through fiscal monitoring and accountability protocols. Fiscal staff is supervised by senior managers at PHS and DOHMH. Spending is recorded and tracked in the PHS data and payment management systems, which are reconciled with the PHS financial accounting system on a quarterly basis. PHS staff prepare and submit detailed quarterly spending reports to DOHMH, as well as a report by service category to the PC. On a quarterly basis, PHS and DOHMH staff meet with the PC's FC to review and discuss the NY EMA's spending rate. Unobligated balances are tracked continuously and funds are reprogrammed as necessary in order to maximize services and spending by redirecting funds to high-priority services in accordance with the PC-approved reprogramming plan. At the end of the contract term, subrecipients are required to calculate and report the aggregate amount of program income generated and costs covered by it. The Director of Finance and Operations at PHS manages fiscal tracking and reporting and reports directly to the Chief Strategy Officer and Vice President of CAMS, who is part of PHS's senior management team. At DOHMH, the Grant Fiscal Administrator, an FA, and the Deputy Director of CTP, all overseen by the Director of CTP and the Director of Administration in the BHIV, are responsible for fiscal oversight and

reporting on the RWHAP Part A grant, including implementation of the HRSA/HAB National Monitoring Standards.

Roles and responsibilities of fiscal staff. With the NY EMA's use of performance-based reimbursement, PHS's organizational fiscal monitoring of programs is a combination of efforts that includes agency on-site fiscal review by the CM who is responsible for fiscal monitoring of cost-based contracts and who verifies expenditures are adherent to subrecipients' approved budgets and the Contract Coordinator (CC) who verifies the appropriateness of documentation for services for which the subrecipient received performance-based payment. The CM and CC's work is supervised by a PM. An FM and FA conduct an additional review of the subrecipient's audited financial statements and single audit reports.

DOHMH fiscal staff and the Deputy Director of CTP, in collaboration with the Master Contractor, prepares and submits the following information to HRSA: administrative budgets, allocation and expenditure tables, Office of Management and Budget forms such as the SF424A and the Federal Financial Reports, unobligated balance and carryover requests, and other fiscal documents required under the conditions of award. In addition, the GPA and the Deputy Director of CTP interpret and summarize the fiscal monitoring standards into policies and procedures for the NY EMA, seeking clarification from HRSA as necessary.

Coordination of program and fiscal staff. The assignment of a CM for RWHAP Part A contracts ensures that a single staff member develops an understanding of each contract's program and fiscal operations. In addition to site visits, CMs review expenditure reports for cost-based contracts and services data for performance-based contracts, and authorize payments, which are processed by Accounting Associates, as outlined in the attached staff organizational chart (*see Attachment 10*). In addition, semi-annual reviews of the portfolio for compliance with contract terms include the audit review, so that CMs and their supervisors are aware of organizational findings that may affect RWHAP Part A contracts.

ii) Tracking funds. DOHMH separately tracks Formula, Supplemental, MAI, and Carryover funds through the PHS data system, PAMS, and AMS Advantage. As part of standard quarterly reports, PHS reports expenditures to DOHMH in each funded service category, outline funding commitments per service category, and summarizes spending rates. These reports are combined with separately tracked DOHMH program fiscal spending data and presented to the PC to monitor expenditures, and allocate funding for the following year's spending plan as well as develop a carryover plan for unspent funds at closeout.

iii) Subrecipient reimbursement. PHS reimburses subrecipients on a monthly basis. The PHS contract management system logs and time-stamps receipt of monthly reports and automatically uploads expenditure data. In addition, DOHMH extracts data from the client-level database (eSHARE) on the 16th of each month, transmitting it to PHS for payment processing and compliance monitoring.

CMs review reports to determine payment. For cost-based contracts, reported expenditures must be consistent with approved budgets and allowable per the RWHAP program. For performance-based contracts, client-level data correspond to approved service types for payment. Services exceeding approved amounts for each class are disallowed unless a contract is modified to shift projected services between service types or a request for enhancement funding is approved. In addition, many services have utilization restrictions for payment, such as frequency limits, minimum group size, or prerequisites. When possible these rules are enforced electronically, through the payment system database, others are found only through site visits. PHS and DOHMH developed and provided subrecipients with the *Guide to Requirements for Services: Payability and Data Reporting* (the Payability

Guide), which PHS updates routinely. The Payability Guide provides guidance on submitting data for performance-based contracts. The current version is available on the PHS website.

In the second half of each month, PHS emails subrecipients an electronic report called the Master Itemization Report, which summarizes and itemizes all services recognized by the systems to date. Particular services may be flagged for a number of reasons, including incomplete data entry, duplicate client entries, and failure to meet programmatic requirements. Such problems are identified through a combination of automated data checks and site visits by CMs and CCs. Some problems may be correctible while others may result in recoupment during closeout.

Reimbursements may be withheld despite complete monthly reports. Reasons for withholding include expired insurance policies, delinquent reports, or previously identified disallowances in excess of outstanding contract balances. All withheld reimbursements are discussed with supervisory staff and are documented in subrecipient files and the PHS contract management database.

The PHS contract management database computes the payment and notes any disallowances. CMs print a payment authorization form, sign, and forward it to PHS accounting staff for entry into the accounts payable module. Payment is then forwarded to PMs, who supervise the CMs, for final review and approval. Accounting staff reconcile payments to ensure back-up documents support payment. Upon approval, the PHS Accounts Payable Department issues payments once a week, via check or electronic transfer (as selected by the subrecipient). Accounting staff log payment dates in the payment system and reconcile all payments through the accounts payable system. PHS pays subrecipients within 30-45 days of receipt of all required reports, with the exception of payment withheld pending receipt of any delinquent report.

In addition, over-performing performance-based contracts may be eligible for enhancements to reimburse them for services if unobligated funding is available and modified service category allocations adhere to the PC's reprogramming plan, which for GY17 has allowed for reallocation between service categories up to 20%. Such enhancements reimburse subrecipients for any incremental costs associated with the provision of additional services.

PHS administers the Year End Cost Report (YCR) for performance-based contracts to inform the process of reimbursement rate adjustments. The YCR provides PHS and DOHMH with the actual annual costs of running funded programs. Total actual annual costs include both direct personnel and other than personnel expenses, as well as, any in-kind costs and/or the value of volunteers and donated other than personnel expenses costs (e.g. supplies, space). PHS requires subrecipients to submit the YCR after the completion of the closeout process. PHS initiates disciplinary action including holding payments and request the completion of a Corrective Action Plan for organizations that do not submit a completed YCR by the established due date.

PHS also requires the submission of the Infrastructure Self-assessment Questionnaire (ISAQ). Performance-based subrecipients are required to complete the ISAQ outlining their fiscal policies and procedures and identifying any internal control challenges. Subrecipients that identify infrastructural deficiencies are referred for TA. Certain deficiencies, such as outstanding tax liability, are cause for further investigation and may result in withholding of payment and other disciplinary action.

Maintenance of Effort. *See Attachment 11.*

ⁱ http://www.health.ny.gov/diseases/aids/ending_the_epidemic/docs/blueprint_summary.pdf

ⁱⁱ U.S. Census Bureau, American Fact Finder: Quick Facts –2016 estimate.

ⁱⁱⁱ CDC. (2016). Diagnosis of HIV Infection in the United States and Dependent Areas, 2015; HIV Surveillance Report 2015; vol. 27.; NYC DOHMH Surveillance data as reported by March 31, 2017; NYS DOH Surveillance data as reported by September 3, 2017.

-
- ^{iv} Xia et al. (2014). The high proportion of late HIV diagnoses in the USA is likely to stay: Findings from a mathematical model. *AIDS Care*; 27(2):206-212.
- ^v U.S. Census Bureau, American Fact Finder (2014 Estimate of NYC total population); and NYSDOH, Medicaid Expenditures and Enrollees by County, https://www.health.ny.gov/statistics/health_care/medicaid/eligible_expenditures/.
- ^{vi} Results from the MMP survey of people receiving HIV care in 2013-2014 in NYC; HIV Epidemiology and Field Services Program, BHIV, DOHMH; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/mmp-report-2013-2014.pdf>
- ^{vii} HIV Risk and Prevalence among NYC Men Who Have Sex with Men: Results from the 2014 National HIV Behavioral Surveillance Study; HIV Epidemiology and Field Services Program, BHIV, DOHMH, June 2015; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/nhbsmsm4-june2015.pdf>
- ^{viii} Torian et al. Undiagnosed HIV and HCV in a New York City Emergency Room, 2015. Accessed [10/13/2017] at <https://www1.nyc.gov/assets/doh/downloads/pdf/dires/serosurvey-croi.pdf>.
- ^{ix} CDC. (February, 23 2016). Lifetime Risk of HIV Diagnosis, Press Release. [Accessed October 1, 2016] at <http://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html>]; https://www.cdc.gov/nchhstp/newsroom/images/2016/CROI_lifetime_risk_state.jpg
- ^x Care and Clinical Status of People Newly Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015; HIV Epidemiology and Field Services Program, BHIV, DOHMH, Dec 2016; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/hiv-related-medical-care.pdf>.
- ^{xi} NYC DOHMH PCSI Data (2012, 2013), accessible: <http://www1.nyc.gov/assets/doh/downloads/pdf/epi/epiresearch-PCSI.pdf>; <https://www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief20.pdf>.
- ^{xii} Braunstein et al. (2017). Missed Opportunities: Adapting the HIV Care Continuum to Reduce HIV-Related Deaths. *J Acquire Immune Defic Syndr*; 76(3); p 231–240.
- ^{xiii} NYC DOHMH, (2016). *Summary of Vital Statistics, 2015*. Accessed [09/19/17] at <http://www1.nyc.gov/assets/doh/downloads/pdf/vs/2015sum.pdf>
- ^{xiv} Care and Clinical Status of People Newly Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2015; HIV Epidemiology and Field Services Program, BHIV, DOHMH, Dec 2016; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/hiv-related-medical-care.pdf>.
- ^{xv} Pathela et al. (2016). Incidence and Predictors of HIV Infection Among Men Who Have Sex with Men Attending Public Sexually Transmitted Disease Clinics, New York City, 2007-2012. *AIDS and Behavior*; 21(5):1444-1451.
- ^{xvi} *Ibid*.
- ^{xvii} HIV Risk and Prevalence among NYC Men Who Have Sex with Men: Results from the 2014 National HIV Behavioral Surveillance Study; HIV Epidemiology and Field Services Program, BHIV, DOHMH, June 2015; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/nhbsmsm4-june2015.pdf>
- ^{xviii} *Ibid*.
- ^{xix} Feldman et al. (2015). Crystal methamphetamine use and HIV medical outcomes among HIV-infected men who have sex with men accessing support services in New York. *Drug Alcohol Dependence*; 147:266-71.
- ^{xx} Walters et al. (2017). Differences in Awareness of Pre-exposure Prophylaxis and Post-exposure Prophylaxis among Groups At-Risk for HIV in New York State: New York City and Long Island, NY, 2011-2013. *J. Acquire Immune Defic. Syndr.*; 75(Suppl 3): S383-91.
- ^{xxi} Neaigus et al. (2017). Trends in HIV and HCV Risk Behaviors and Prevalent Infection Among People Who Inject Drugs in New York City, 2005-2012. *J Acquir Immune Defic Syndr.*; 75(Suppl 3): S325–S332.
- ^{xxii} HIV Risk and Prevalence among New York City Injection Drug Users: 2012 National HIV Behavioral Surveillance Study, BHIV, DOHMH, June 2013; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/nhbsidu3-ppg-6-2013.pdf>
- ^{xxiii} DOHMH (2016). Hepatitis B and C in New York City, 2015 Annual Report.
- ^{xxiv} Pathela et al. (2015). The High Risk of an HIV Diagnosis Following a Diagnosis of Syphilis: A Population-level Analysis of New York City Men. *Clin Infect Dis*; 61(2):281-7; Pathela et al. (2013). HIV Incidence Among Men With and Those Without Sexually Transmitted Rectal Infections: Estimates From Matching Against an HIV Case Registry. *Clin Infect Dis.*; 57(8):1203-9.
- ^{xxv} NYC Department of City Planning. *Consolidated Plan: 2015-19 Needs Assessment and Marketing Analysis*. Page 4.
- ^{xxvi} NYC. (2014). Housing New York A Five-Borough, Ten-Year Plan.

-
- ^{xxvii} NYC Department of Housing Preservation and Development. Selected Initial Findings of the 2014 New York City Housing and Vacancy Survey. 2015. Available online at <http://www1.nyc.gov/site/hpd/about/nyc-housing-vacancy-report.page>.
- ^{xxviii} Coalition for the Homeless. (2017). *New York City Homelessness: The Basic Facts*. October 2017.
- ^{xxix} NYC Office of the Mayor. (2016). *Press Release: 2016 Federally- Mandated Count Finds 12 Percent Decline in Street Homelessness on the Night of the Count*. [Accessed September 20, 2016: <http://www1.nyc.gov/office-of-the-mayor/news/408-16/2016-federally-mandated-home-count-finds-12-percent-decline-street-homeless-the-night-the>].
- ^{xxx} *Ibid*.
- ^{xxxi} Kuhn et al. (1998). Applying Cluster Analysis to Test a Typology of Homelessness by Pattern of Shelter Utilization. *American Journal of Community Psychology*; 26(2):9; Levitt et al. (2009). Health and Social Characteristics of Homeless Adults in Manhattan Who Were Chronically or Not Chronically Unsheltered. *Psychiatric Services*; 60(7):978-81.
- ^{xxxii} NYC Office of the Mayor (July 26, 2016). *Press Release: NYC Sets Affordable Housing Record, Highest Production since 1989*. [Accessed 9/20/16: <http://www1.nyc.gov/site/hpd/about/press-releases/2016/07/07-26-16.page>]
- ^{xxxiii} CHAIN Study, unpublished data, 2017.
- ^{xxxiv} Larimer ME, et al. (2009). Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems. *JAMA*; 301(13): 1349-1357.
- ^{xxxv} CHAIN. *Housing Need, Housing Assistance, and Connection to HIV Medical Care*. CHAIN 2006-5 Report.
- ^{xxxvi} Rojas J and Hollod L. (2014). Combining data sources to evaluate HIV housing programs: Examples from New York City HOPWA. Oral presentation at the Eastern Region Supportive Housing Conference, Philadelphia, PA.
- ^{xxxvii} NYSDOH & Health Research (2010). Request for Application: HIV/STI & Hepatitis C Prevention & Support Services for Inmates & Individuals Returning to the Community from NY State Correctional Facilities.
- ^{xxxviii} Jordan A, et al. (2013). Transitional Care Coordination in New York City Jails: Facilitating Linkages to Care for People with HIV Returning Home from Rikers Island. *AIDS and Behavior*; 17(S2): S212-219.
- ^{xxxix} Jordan A, et al. (2013). Transitional Care Coordination in New York City Jails: Facilitating Linkages to Care for People with HIV Returning Home from Rikers Island. *AIDS and Behavior*; 17(S2): S212-219.
- ^{xl} NYC Correctional Health Services *Electronic Health Record Reports*.
- ^{xli} Spaulding, et al (2013). Cost Analysis of Enhanced Linkage to HIV Care Following Jail: A Cost-Effective Intervention. *AIDS Behavior*; 17(2); 220-226.
- ^{xlii} Tesoriero JM, et al. (2010). Smoking among HIV positive New Yorkers: Prevalence, frequency, and opportunities for cessation. *AIDS Behav*; 14:824-835.
- ^{xliii} Hile, SJ, et al. (2016). Recent tobacco smoking is associated with poor HIV medical outcomes among HIV-infected individuals in New York. *AIDS and Behavior*, 20(8): 1722-1729.
- ^{xliv} Prochaska, J. (2010). Failure to treat tobacco use in mental health and addiction treatment settings: A form of harm reduction? *Drug and Alcohol Dependence*; 110: 177–182.
- ^{xlv} CHAIN. *Mortality Experience Study*. CHAIN 2009-1 Report.
- ^{xlvi} ETE Dashboard (2016). *Bronx Serosurvey finds decline in undiagnosed HIV prevalence rate since 2010 among emergency department attendees*. Accessed at: <http://etedashboardny.org/bronx-serosurvey-finds-decline-in-undiagnosed-hiv-prevalence-rate-since-2010-among-emergency-department-attendees/>
- ^{xlvii} Scanlin K, Edelstein ZR, Findlater C, Salcuni P, Daskalakis D, Myers J. Trends in PrEP Awareness and Use and Associations with Use among Men who Have Sex with Men, New York City, 2012-2016. Poster presented at the 12th International Conference on HIV Treatment and Prevention Adherence, June 2017, Miami, FL. Abstract #184.
- ^{xlviii} Gandhi A, Appel E, Scanlin K, Myers J, Edelstein Z. PrEP Awareness, Interest, and Use Among Women of Color in New York City, 2016. Poster presented at the 12th International Conference on HIV Treatment and Prevention Adherence, June 2017, Miami, FL. Abstract #378.
- ^{xlix} NYS/NYC Joint Analysis of Routine HIV Screening.
- ¹ CDC (2017). Dear Colleague: September 2017. Accessed at: <https://www.cdc.gov/hiv/library/dcl/dcl/092717.html>
- ⁱⁱ CDC (2016). Lifetime Risk of HIV Diagnosis. <https://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html>
- ⁱⁱⁱ Levy ME, et al. (2014). Understanding Structural Barriers to Accessing HIV Testing and Prevention Services Among Black Men Who Have Sex with Men (BMSM) in the United States. *AIDS Behav*; 18:972–996.; Chiu CCJ and Young SD. (2015). The Relationship Between Online Social Network Use, Sexual Risk Behaviors, and HIV Sero-Status Among a Sample of Predominately African American and Latino Men Who have Sex with Men (MSM) Social Media Users. *AIDS Behav*; 19:S98–S105.

-
- ^{liii} Remien R, et al. (2015). Barriers and Facilitators to Engagement of Vulnerable Populations in HIV Primary Care in New York City. *J Acquir Immune Defic Syndr*; 69:S16–S24.
- ^{liv} NY State of Health. 2017 NYSOH QHP Individual Market Participation by Plan By County. Accessible at: <https://info.nystateofhealth.ny.gov/sites/default/files/2017%20Individual%20Marketplace%20Plans%20by%20county.pdf>
- ^{lv} Podder, Api (2016). Amida Care Spearheads New NYC Innovator Accountable Care Organization. Accessed at: <http://mysocialgoodnews.com/amida-care-spearheads-new-nyc-innovator-accountable-care-organization/>
- ^{lvi} Avalere. (2015). Patient access to HIV drugs in exchange plans in limited compared to other sources of coverage. Accessed at: http://avalere-health-production.s3.amazonaws.com/uploads/pdfs/1447260444_20151111_HIV_Rx_Access_Release.pdf
- ^{lvii} Pearson, Caroline (April 19, 2016). 2016 Exchange Plans Improve Access to Medicines Used to Treat Complex Diseases. Accessed at: <http://avalere.com/expertise/managed-care/insights/2016-exchange-plans-improve-access-to-medicines-used-to-treat-complex-disea>
- ^{lviii} NYC DOHMH, Medical Monitoring Project (MMP), 2014 and 2016.
- ^{lix} NYS DOH, Bureau of HIV/AIDS Epidemiology, data as of September 3, 2017.
- ^{lx} McManus, KA et al. (2016). Affordable Care Act Qualified Health Plan Coverage: Association with Improved HIV Viral Suppression for AIDS Drug Assistance Program Clients in a Medicaid Nonexpansion State. *Clin Infect Dis*; 63(3):396-403. Accessed at <https://www.ncbi.nlm.nih.gov/pubmed/27143661>
- ^{lxi} Mojtabei, R., and M. Olfson. (2003). Medication Costs, Adherence, and Health Outcomes Among Medicare Beneficiaries. *Health Affairs*; 22(4):221–229.
- ^{lxii} Huttin, C., J. Moeller, and R. Stafford. (2000). Patterns and Costs for Hypertension Treatment in the United States. *Clinical Drug Investigation*; 20(2):151–156.
- ^{lxiii} Bernstein, J., Chollet, D., and S. Peterson. “How Does Insurance Coverage Improve Health Outcomes?” Mathematic Policy Research, Inc. Issue Brief #1. April 2010. Accessed at file:///J:/Reformhealthcare_IB1.pdf
- ^{lxiv} Center for Health Law and Policy Innovation of Harvard Law School and the Treatment Access Expansion Project (2013). *State Health Reform Impact Modeling Project: New York*.
- ^{lxv} Irvine et al (2016). Come as You Are: Improving Care Engagement and Viral Load Suppression Among HIV Care Coordination Clients with Lower Mental Health Functioning, Unstable Housing, and Hard Drug Use. *AIDS and Behavior*; 21(6): 1572-1597. Available online at: <https://link.springer.com/article/10.1007/s10461-016-1460-4>.
- ^{lxvi} Nash et al. A Comparison Group Analysis Aimed at Assessing HIV Care Coordination Program Effectiveness. Accessed at: http://www.iapac.org/AdherenceConference/presentations/ADH11_OA48.pdf
- ^{lxvii} Xia et al. (2015). Proportion of Patients with HIV Retained in Care and Virally Suppressed in New York City and the United States: Higher than We Thought. *J Acquir Immune Defic Syndr*; 68:351-358; Xia et al. (2016). Persons living with HIV in the United States: Fewer than we thought. *JAIDS*; 72(5): 552-7.
- ^{lxviii} Irvine et al. (2017). Come as you are: Improving care engagement and viral load suppression among HIV care coordination clients with lower mental health functioning, unstable housing, and hard drug use. *AIDS Behavior*; 21:1572-9.
- ^{lxix} Feldman et al. (2015). Crystal methamphetamine use and HIV medical outcomes among HIV-infected men who have sex with men accessing support services in New York. *Drug Alcohol Dependence*; 147:266-71.
- ^{lxx} Hile et al. (2016). Recent tobacco smoking is associated with poor HIV medical outcomes among HIV-infected individuals in New York. *AIDS and Behavior*; 20(8):1722-29.
- ^{lxxi} Feldman et al. (2015). The association between food insufficiency and HIV treatment outcomes in a longitudinal analysis of HIV-infected individuals in New York City. *J. Acquir. Immue Defic. Syndr*; 69(3):329-37.
- ^{lxxii} Aidala et al. (2007). Housing need, housing assistance, and connection to HIV medical care. *AIDS Behavior*; 11:S101-S115.
- ^{lxxiii} Aidala et al. (2015). CHAIN 2012-3 Report: Food Insecurity, Food and Nutrition Services, and HIV Care and Health Outcomes. Available online at: <http://www.nyhiv.org/pdfs/chain/CHAIN%202012-3%20Food%20Insecurity%20FN%20Services%20Outcomes%20Combined%20FINAL.pdf>
- ^{lxxiv} Office of Minority Health. *The National CLAS Standards*. Available online at <http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53>.