

INTRODUCTION

Pursuant to the Grant Year 2017 (GY17) HIV Emergency Relief Program Ryan White Part A (RWPA) Funding Opportunity Announcement, dated August 15, 2016, 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 GY17 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.

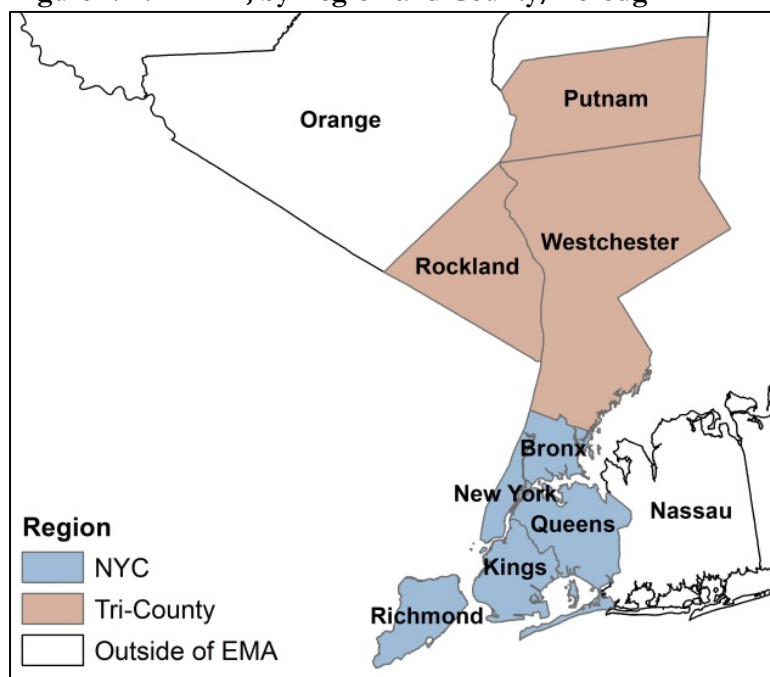
The GY17 plan is responsive to Governor Andrew M. Cuomo’s 2015 Blueprint for “Ending the Epidemic” (EtE), which sets forth recommendations to reduce the annual incidence of new HIV infections to 750 from the current 3,000 in New York State (NYS). The NYS *EtE Blueprint* is organized around three priorities: 1) identify PLWH who remain undiagnosed and link them to health care, 2) link and retain persons diagnosed with HIV 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.

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. 9-21*). 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 RWPA funds, but the NY EMA leverages other funds and, as appropriate, the Ryan White (RW) infrastructure to build consumer and provider awareness of PrEP and Post-Exposure Prophylaxis (PEP) and to increase community capacity to provide PrEP and PEP. The NY EMA’s service plan is described in this application.

NEEDS ASSESSMENT

A. Epidemiologic Overview.

Figure 1: NY EMA, by Region and County/Borough



1) Geographical Description. The NY EMA, which includes the five counties/boroughs of NYC and the adjacent Tri-County region of Westchester, Rockland, and Putnam counties (*see Figure 1*), is home to more than 9.9 million people (over 3% of the U.S. populationⁱⁱ). The NY EMA continues to have the largest HIV epidemic in the U.S., with approximately 13% of the nation’s PLWH in 2013 and 7% of all HIV diagnoses in 2014.ⁱⁱⁱ As of December 31, 2015, there were 125,386 reported PLWH in the NY EMA, representing 1.3% of the total EMA population (*see Table 1*). Of the 2,600 individuals diagnosed with HIV in the NY EMA in 2015, 18%

were concurrently diagnosed with AIDS, a percentage that has remained relatively stable over the

last five years.^{iv} From 2011 to 2015, there was a 26% decrease in HIV incidence in the NY EMA and a 5% 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, 2015*

	Population	HIV Diagnoses**	PLWH
Tri-County Region	1,401,475	107	3,770
Putnam	99,042	1	126
Rockland	326,037	17	601
Westchester	976,396	89	3,043
New York City	8,550,405	2,493	121,616
Kings (Brooklyn)	2,636,735	649	29,332
Bronx	1,455,444	500	29,089
New York (Manhattan)	1,644,518	583	32,041
Queens	2,339,150	446	17,891
Richmond (Staten Island)	474,558	46	2,366
Outside NYC/Unknown	N/A	269	10,897
Total	9,951,880	2,600	125,386

Sources: Population estimates: U.S. Census Bureau, American Fact Finder: Quick Facts –2015; New York, Kings, Queens, Bronx, and Richmond counties (NYC): NYC DOHMH, HIV Epidemiology and Field Services Program, data as of June 30, 2016; Putnam, Rockland, and Westchester counties: NYS Department of Health (NYS DOH), Bureau of HIV/AIDS Epidemiology, data as of July 2016. *Data for CY2015 are incomplete for Tri-County because of a reporting lag.

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

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

a-b) Demographic and Socioeconomic data. As the number of PLWH has risen, demands on the NY EMA’s service system and need for RWPA funding have grown. HIV infections remain concentrated in low-income communities of color where many individuals experience multiple challenges that severely impact health, such as substance use, mental health (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 living 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 2011/2012 Medical Monitoring Project (MMP) cycle, 47% reported receiving some sort of public assistance in the past 12 months, 11% reported recent homelessness, and 7% reported recent jail time.^{vi} Overall, 21% and 15% of NYC and Tri-County residents, respectively, live in poverty. Poverty rates are much higher in certain areas such as the Bronx (30.5%) where many HIV-positive and at-risk individuals reside.

Among new HIV diagnoses in 2015, 82% were male, 84% were non-White, 65% were younger than 40, and 62% were men who have sex with men (MSM). In NYC, 2% of new HIV diagnoses in 2015 were among transgender individuals, 98% of whom were transgender women. Although numerically small, these infections represent a significant epidemic among the relatively small number of transgender individuals in NYC. Roughly 98% of newly diagnosed transgender women

were non-Hispanic Black¹ or Hispanic, and nearly 50% were ages 20-29. In comparison, among PLWH in the NY EMA as of December 31, 2015, 73% were male, 79% were non-White, and 42% were MSM, with a greater proportion of individuals with a history of injection drug use (IDU) and likely transmission through heterosexual contact among PLWH than among the newly diagnosed. Unlike new diagnoses, which are concentrated among those younger than 40, people aged 40 and older accounted for 77% of PLWH, reflecting an increase over time in the median age of PLWH and underscoring the importance of addressing the complex service needs of older PLWH. See *Attachment 3* for the complete diagnoses and prevalence table.

3) HIV burden in the NYEMA. As stated above, as of December 31, 2015, there were 125,386 reported PLWH in the NY EMA, representing 1% of the total EMA population. Between 2001 and 2014, the number of new HIV diagnoses reported in NYC decreased significantly across sex, race/ethnicity, age, borough of residence, and transmission risk, with the exception of Asian/Pacific Islanders, 20-29 year olds, and MSM; diagnoses decreased among 20-29 year olds and MSM during this period, but the decline did not reach statistical significance. Among all cases of acute HIV infection diagnosed in NYC in 2014, 73% were among MSM, with a greater proportion of Black MSM under the age of 30 in comparison to MSM from other racial/ethnic groups.^{vii} A recent study among MSM attending NYC Sexually Transmitted Disease (STD) clinics recruited between 2007 and 2011 similarly showed that incidence of HIV among Black MSM was almost three times higher than among White MSM and nearly twice as high as among Hispanic MSM; MSM under the age of 20 had the highest incidence of HIV compared to other age groups. Condomless receptive anal sex, condomless insertive anal sex, and incident sexually transmitted infection (STI) diagnosis were significantly associated with a new HIV diagnosis.^{viii}

NYC neighborhoods with the highest rates of new HIV diagnoses include the Chelsea-Clinton, Central Harlem-Morningside Heights, East Harlem, and East New York neighborhoods; those with the highest HIV prevalence include West Queens, Chelsea-Clinton, and Central Harlem-Morningside Heights. With the exception of Chelsea-Clinton, these neighborhoods with high HIV diagnosis rates were also among those with highest poverty rates, including those in Central Harlem-Morningside Heights, East Harlem and East New York.

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 individuals newly diagnosed with HIV in NYC in 2014, those aged 13 to 29, and people who inject drugs (PWID) were the least likely to initiate care within three months and to achieve viral load suppression (VLS) within 12 months of diagnosis. In addition, VLS within 12 months of diagnosis was least likely among Blacks and most likely among individuals living in low-poverty areas.^{ix} Among all people newly diagnosed with HIV in NYC between 2009 and 2013, Blacks and Asian/Pacific Islanders were more likely to die sooner after HIV diagnosis than Whites; these disparities were more pronounced among those living in high-poverty areas.^x Although deaths attributed to HIV fell from 1,419 in 2005 to 523 in 2014, HIV was the seventh leading cause of premature death overall in 2014 among NYC residents under 65 years of age, the third leading cause of premature death for non-Hispanic Blacks, and the fifth leading cause for Puerto Ricans.^{xi}

4) Indicators of risk for HIV infection in the population. Data presented at the Conference on Retroviral Opportunistic Infections (CROI) showed that the overall lifetime risk of HIV diagnosis

¹ 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.”

for the U.S. population was 1 in 99. For NYS the risk was 1 in 69, more similar to states in the American South than to other states in the Northeast.^{xii}

Populations at highest risk for HIV in the NY EMA mirror national trends; as noted above, young MSM and low-income individuals of color are at highest risk for HIV infection. A geographical analysis of the co-occurrence of HIV, viral hepatitis, STIs and tuberculosis found that 33% of NYC zip codes were in the top quintile for multiple diseases and that co-occurrence of disease was more common in zip codes where a greater proportion of the population lived below the federal poverty level; the rate of HIV/HCV coinfection 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 coinfection.^{xiii}

As reported by the NYC DOHMH Field Services Unit (FSU), among the 1,399 individuals in NYC newly diagnosed with HIV in 2014 who were interviewed and reported on sexual risk behavior in the 12 months before the interview, 77% of men and 85% of women reported sex without a condom.^{xiv} According to the 2014 National Behavioral Health Study (NHBS) among MSM in NYC, participants aged 18-29 were most likely to report condomless anal intercourse in the past 12 months, with 58% reporting this behavior. 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.^{xv}

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. For the RWPA population, (according to data from the Electronic System for HIV/AIDS Reporting and Evaluation, eSHARE²) there was an increase in methamphetamine use among 18-29-year-old clients, with 37% of methamphetamine users being Black. In line with the *EtE Blueprint*, DOHMH has prioritized addressing the issue of methamphetamine use among New Yorkers affected by HIV.

According to the 2013 NYC Youth Risk Behavior Survey, youth who identified as lesbian, gay, bisexual or who weren't sure of their sexual orientation were more than twice as likely to report experiencing dating violence as individuals who identified as straight; victims of dating violence were four times as likely to report use of hard drugs, including cocaine, heroin and methamphetamines.^{xvi}

In addition, in spite of the success of sterile syringe access programs in NYC, 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 past 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.^{xvii}

HIV testing 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 NHBS cycle were tested in the past year compared to 66% of PWID interviewed as part of NHBS 2012 and 75% of MSM interviewed as part of NHBS 2011.^{xviii} *Table 2* below provides a breakdown among racial/ethnic lines of HIV testing during testing events throughout the NY EMA among the RWPA EIIHA population.

² 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.

Table 2: Newly Diagnosed Positive HIV Test Events (a-g):

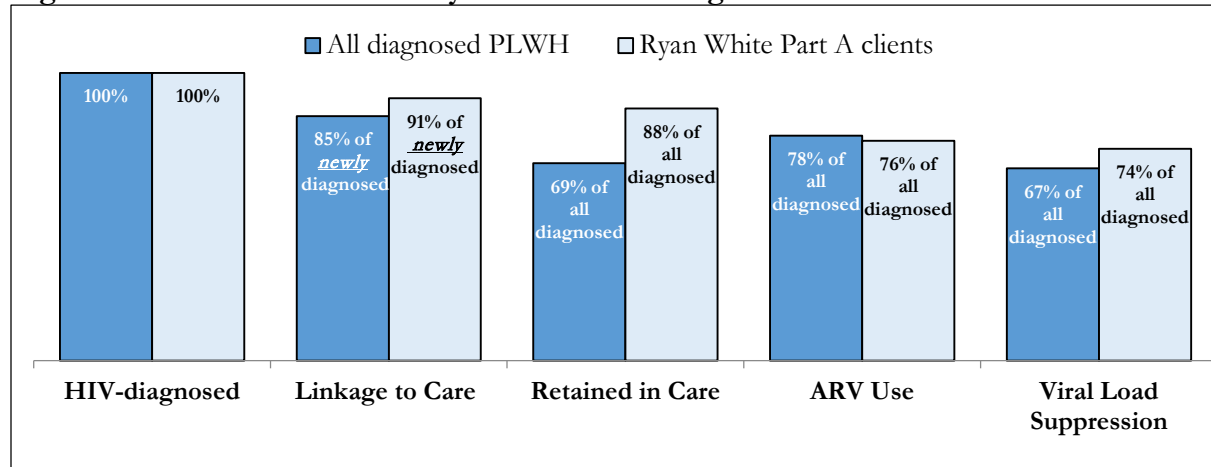
HIV Test Events: January 1-June 30, 2016		Black	Hispanic	MSM
a.	# Test events	13,590	17,680	1,469
b.	# Newly diagnosed positive test events	112	77	101
c.	# Newly diagnosed positive test events with client linked to HIV medical care	83	61	87
d.	# Newly diagnosed confirmed positive test events	98	68	97
e.	# Newly diagnosed confirmed positive test events with client referred for Partner Services ³	97	68	97
f.	# Newly diagnosed confirmed positive test events with client referred to prevention services	87	59	85
g.	# Newly diagnosed confirmed positive test events with CD4 cell count and viral load testing ⁴	Only available to report for 2015 – see below.		
Newly Diagnosed Positive Events: January 1-December 31, 2015 ⁵		Black	Hispanic	MSM
a.	# Newly diagnosed confirmed positive test events	216	171	214
b.	# Newly diagnosed confirmed positive test events with CD4 cell count and viral load testing	159	107	133

Notes: This data represents testing performed in NYC and the Lower Hudson Valley. The numbers reported are an underestimate of testing among MSM. Programs conducting targeted HIV testing collect risk information for clients regardless of the results. These numbers are reported here. 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 above.

B. FY 2017 HIV Care Continuum.

1) Graphic Representation and Narrative

Figure 2: New York EMA and Ryan White 2014 Diagnosis-based HIV Care Continuums



Sources: NYS DOH, Bureau of HIV/AIDS Epidemiology, data as of April 2016; NYC DOHMH, HIV Care and Treatment Program, data as of August 17, 2016; NYC DOHMH, Medical Monitoring Project (MMP), 2014.

Notes: “Ryan White Part A (RWPA) clients” include clients enrolled and served in 2014 by RWPA in NYC who matched to the HIV Registry or in the Tri-County region with Primary Care Status Measures status measures reported in eSHARE; “HIV-diagnosed”

³ FSU is prevented by NYS law from reporting whether a client was interviewed for partner services. The data reported represent referrals to partner services.

⁴ DOHMH matches HIV-positive persons identified through testing programs to the HIV Registry to determine the number of positives who were linked to care and accessed CD4/viral load testing. Providers and laboratories are required to report CD4 counts and viral loads to DOHMH. Providers vary in the timeliness of reporting. Most tests are reported to DOHMH within nine months of testing. Because of this data lag in reporting, the number of positives diagnosed or the proportion of them accessing CD4/viral load testing between January 1 and June 30, 2015 are unable to be determined.

⁵ This section includes testing events in NYC only.

includes those diagnosed by 12/31/2013 and living and residing in NYC or the Tri-County region as of 12/31/2014; “Linkage to care” includes those who were newly diagnosed with HIV in 2014 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 2014 that were at least 91 days apart; “ART use” is defined for all PLWH as participant report of engagement in care, current ART use, and have a documented ART prescription at time of interview, based on the 2013 NYC MMP cycle, and for RWPA clients as engagement in care and reported ART prescription during 2014; “Viral load suppression” includes those among the HIV-diagnosed whose most recent viral load in the year was <200 copies/mL.

For 2014, the NY EMA was able to produce a combined continuum for NYC and the Tri-County region, for all PLWH and for RWPA clients (*see Figure 2*). Information on all PLWH was obtained using the NYS Surveillance Registry. Due to the delayed availability of NYS surveillance data, 2014 was the most recent year available for reporting care continuum outcomes. Recent work has been done both in NYC and NYS to better account for unreported deaths and out-migration in the PLWH denominator.^{xix} Using NYS’s methodology, individuals diagnosed with AIDS with no evidence of care for five years and individuals with HIV (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. Information on RWPA clients can be obtained from the eSHARE system. In NYC, this information is matched to the NYC HIV Surveillance Registry to determine care measures; in the Tri-County region, both RWPA information and lab results are obtained from eSHARE, as a match with the NYS HIV Surveillance Registry is not, currently, possible. For RWPA clients, ART prescription status is obtained from eSHARE, while MMP provides an estimate for all PLWH. Given the desire to produce an EMA-wide HIV Care Continuum and the fact that there is no combined estimate of the proportion of PLWH in NYC and Tri-County who are undiagnosed, a diagnosis-based care continuum is presented. For further information on the development of the Care Continuum, see the NYS Integrated Plan “Data: Use Access, and Systems” section.

2) Disparities among key populations. The NY EMA consistently uses the HIV Care Continuum as a planning and monitoring tool, including using it to monitor disparities in access to and retention in care and VLS. Overall, in NYC there are levels of retention and suppression approaching the National HIV/AIDS Strategy 2020 (NHAS 2020) measures and has already surpassed the NHAS 2020 goal for knowledge of HIV status. At each stage of the RWPA HIV Care Continuum, the proportional distribution of demographic groups closely tracks the distribution among PLWH in the NY EMA. Surprisingly, differences across populations, including race/ethnicity, borough of residence, age, mode of transmission, and other characteristics, are slight and often not statistically significant; thus, the NY EMA takes a systematic approach to addressing gaps in the HIV Care Continuum. The disparities that are seen are described below.

Monitoring demographic differences along the NY EMA and RWPA HIV Care Continuums identifies health disparities. For example, as described in the Minority AIDS Initiative (MAI) section below, in 2014, rates of VLS were lowest among Blacks and Hispanics in the NY EMA, despite similar rates of retention in care and use of ART across race/ethnicity. A similar gap between retention and VLS can be seen among transgender women in RWPA, 65% of whom were virally suppressed in 2014 compared to 74% of cis-gendered men and women. On the other hand, those aged 20-29 were least likely to be suppressed compared to other age groups but were also the least likely to be retained in care. American Indian/Alaska Natives and those with unknown race/ethnicity also showed low VLS and retention, though it should be noted the number of people in these groups is small.

The NY EMA recognizes that PLWH in NYC and Tri-County face different challenges and barriers to care such as access to medical care, housing, public transportation and different rates of co-occurring conditions, so the NY EMA compares the NYC and Tri-County HIV Care Continuums to ensure all RWPA clients receive high quality and appropriate care. Among RWPA clients in care in NYC, ART use was similar across racial/ethnic groups but lower for individuals aged 25-39 and PWID. In comparison, among RWPA clients in care in Tri-County, ART use was lower among Blacks, individuals aged 20-29, and those with heterosexual transmission risk. In both NYC and Tri-County, VLS rates among RWPA clients were lowest among Blacks, individuals aged 20-29, and persons with likely exposure to HIV through IDU. Individuals aged 13-24, PWID, and those with unknown risk were least likely to be linked promptly to HIV medical care in NYC.

a) *Use of the Care Continuum.* The NY EMA has been using the HIV Care Continuum in planning, monitoring, and program design since the development of the Comprehensive Needs Assessment. Health disparities are identified by monitoring demographic differences along the NY EMA and RWPA HIV Care Continuums. These disparities are addressed by geographically targeting services to high prevalence, underserved neighborhoods and prioritizing service types that address structural inequity and basic survival needs (e.g., Housing, Food and Nutrition Services (FNS), and the Care Coordination Programs (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 VLS, and makes funding decisions to address these disparities, such as enhancing care navigation and supportive services.

b) *Systematic approaches to improve engagement and outcomes in the HIV Care Continuum.*

HIV diagnosis and linkage to care. The earliest stages of the HIV Care Continuum involve the diagnosis of individuals not previously known to be HIV-positive and linking them to care. HIV testing programs, including those funded by RWPA Early Intervention Services (EIS), are a key resource for this effort. Diagnosis is the first step to support linkage to primary HIV care that can lead to VLS, improved health outcomes among PLWH, and a reduction in the likelihood of onward HIV transmission. Knowledge and attitudes, including disbelief about HIV serostatus and lack of trust in healthcare providers, contribute to delayed linkage to care.^{xx} Routine testing in clinical settings, supplemented by CDC and RWPA-funded EIS programs, continues to identify undiagnosed individuals and link them to care. The NY EMA's efforts to reach undiagnosed PLWH are further described in the GY17 EIIHA Plan. The NY EMA's service category breakdown and reimbursement structure are directly linked to HIV diagnosis and linkage to care outcomes.

Retention in care, ART use, and viral load suppression. The last three stages of the HIV Care Continuum are intricately linked. Clients' success at each stage is dependent on their present needs and life circumstances. For example, clients may be retained in care but not virally suppressed because of barriers to medication adherence. Furthermore, PLWH who are not engaged in care face numerous barriers, including lack of insurance coverage, substance use, and unmet need for other services that facilitate retention in care (e.g., case management, housing, MH, and Harm Reduction (HR) services). An estimated 12% of HIV-diagnosed RWPA clients were not retained in care in 2014. Some people who initially access care in the NY EMA drop out for extended periods; 38% of the current Community Health Advisory and Information Network (CHAIN)⁶ longitudinal client cohort in NYC

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 EMA. More than 3,000 PLWH have completed interviews conducted by researchers at Columbia University. The cohort is broadly representative of the PLWH in the EMA, with modest over-representation of Black men and women and Hispanic men, so that participants more closely represent the EMA's Part A clients. Because the study samples from medical and HIV social service agencies, over 96% of CHAIN participants are connected to the HIV service system.

report dropping out of care for at least six months since their first HIV care visit (27% in Tri-County). Dropping out of care is associated with substance use, housing instability, MH issues, incarceration, denial of HIV diagnosis, stigma, and forgetfulness.^{xxi}

The NY EMA has sought to address the issues associated with dropping out of care through its comprehensive continuum of care. Since 2009, the NY EMA has funded comprehensive Medical Case Management (MCM)⁷ services that actively support early engagement, maintenance in care, and treatment adherence. Alongside MCM services, RWPA funds: Supportive Counseling and Family Stabilization (SCF)⁸ to reduce the negative effects of HIV stigma on clients through individual, group, and family psychosocial support; MH services to address barriers to engagement and retention in HIV treatment, including the provision of culturally appropriate services; HR⁹ services to reduce the harmful impacts of substance use and support well-being of substance users; and non-Medical Case Management (n-MCM) services specifically for those being released from NYC jails to support successful engagement in medical and social support services post-release. Helping PLWH address competing needs, including those related to housing instability, food insecurity, MH issues, and substance use, is associated with engaging in and returning to care.^{xxii} In addition, NYC DOHMH-funded (through RWPA and CDC funding) HIV testing programs work to re-engage PLWH who have not seen a medical provider in nine months or longer. These efforts have served as a catalyst to facilitate enrollment into CCPs. EIS funding also supports the FSU, which utilizes surveillance data to identify those out of care and facilitates their re-engagement in care through DOHMH, hospital, and clinic partnerships. RWPA also funds a multi-session peer-led self-management model called *The Positive Life Workshop* to address psychosocial health, improve patient-provider relationships, reduce risk behaviors, and build skills for self-care. The model is implemented through health education and risk reduction (HE/RR) contracts with community-based organizations (CBOs), where sessions are co-located with a range of healthcare and support services.

The drop-off between engagement in care and VLS among RWPA clients, due to a multitude of barriers to care including unmet health and social service needs, underscores the difficulty of moving RWPA clients along the HIV Care Continuum. Many programs in the NY EMA have additional enrollment criteria, which include being newly diagnosed, not retained in care, and/or not virally suppressed, to ensure that RWPA services are targeted to those most in need of additional support. To this end, the NY EMA focuses RWPA funds on evidence-based, client-centered programs that help PLWH remain in care, increase ART adherence, and develop self-management skills. The coordinated services provided to RWPA clients address the complex realities faced by PLWH in the NY EMA, including substance use, MH issues, food insecurity, and housing instability – known barriers to long-term adherence and sustained VLS.^{xxiii}

In 2014, as part of an effort to promote early ART initiation, consistent ART access, and improved VLS, the DOHMH Care and Treatment Program (CTP) began providing each RWPA provider agency with client-level reports, known as Treatment Status Reports (TSRs), every three to six months, depending on the program model. The TSRs are prepared using data reported by RWPA providers in eSHARE. Reports detail 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 technical assistance (TA) and facilitate communication and coordination between RWPA support service providers, clients, and their medical providers to

⁷ 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 EMA.

⁸ SCF are HRSA-defined psychosocial support services.

⁹ Harm reduction services are HRSA-defined substance use services - outpatient.

support ART initiation and adherence and VLS. TSRs are an integral component of the NY EMA's system-wide effort to ensure that each PLWH served has the appropriate resources and individualized support to achieve VLS.

c) *Evaluating the efforts that impact the HIV Care Continuum.* The NY EMA has been at the forefront of evaluating interventions across the portfolio of services. This includes obtaining funding from the National Institutes of Health, Health Resources Services Administration (HRSA), and CDC, among others, to work with academic and other partner institutions to conduct in-depth research and evaluation on outcomes within and across subpopulations of interest. One such example has been the work of the CHORDS (Costs, HIV Outcomes, and Real-world Determinants of Success) study to evaluate the CCP model of MCM. This multi-year, multi-phase project has evaluated care engagement and VLS outcomes among CCP clients overall and according to baseline 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.

d) *Information sharing and the HIV Care Continuum.* The HIV Care Continuum was a fundamental part of the Comprehensive Needs Assessment and one of the key planning tools used by the Planning Council (PC). The NY EMA regularly prepares updated and special continuums of interest for the work of the PC. In the past, this has included preparing continuums based on borough of residence, race/ethnic, and other key demographics. Recipient staff have also worked with the PC to ensure that members know what inferences can and cannot be made from the continuum and what supplemental materials will provide a more complete picture.

C. Demonstrated Need

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

FY2017 EIIHA Plan.

a) *Linkage plan for HIV-positive and negative individuals.* For both new and existing initiatives, HIV testing is the gateway that leads to HIV treatment and prevention services. In the past year, DOHMH has created and expanded programs and initiatives to support a status neutral approach, which ensures that all individuals receive appropriate care, regardless of HIV status. NYC, NYS, private funding, and CDC (PS15-1506) funding are being used to expand care and prevention services offered to HIV-positive and negative clients at DOHMH STD Clinics. These services include initiation of PrEP, expansion of PEP services, and rapid initiation of ART at the time of diagnosis. Other CDC funding (PS15-1509) is being used by DOHMH to build capacity among Brooklyn community providers to improve provision of care and prevention services to MSM of color, regardless of HIV status. Some of the activities supported by this grant include funding non-clinical CBOs to detect HIV infections earlier by using lab-based 4th generation HIV tests and funding status-neutral navigation of clients to HIV prevention and care services. Additional NYC funds for EtE support new and innovative services that the BHIV contracted community organizations provide, including a unique CBO-medical clinic partnership to provide HIV testing and prevention services and substance use treatment to methamphetamine-using MSM; organization capacity building for grassroots transgender-led organizations to help them develop infrastructure in order to scale up services to this highly impacted population; and a scale-up of the nationally recognized "Undetectables" model supporting VLS.

In addition, DOHMH plans to release a Request for Proposal (RFP) by early 2017 to re-bid HIV testing services supported by RWPA EIS and HIV prevention funds, with new contracts to start services in September 2017. The re-bid will allow DOHMH to fund agencies that can better target

populations at epidemiologic risk, such as MSM. The re-bid will also support referral to prevention services, especially PrEP and PEP, and will provide additional support to link individuals to care within 30 days of diagnosis (NHAS 2020 target) and encourage early ART initiation for those newly diagnosed.

Linking HIV-positive individuals to care. For subrecipients, DOHMH provides training and support to assist linking PLWH to care. Acknowledging the increased resources necessary to achieve prompt linkage to medical care, DOHMH provides training to subrecipients and other NYC agencies on Anti-Retroviral Treatment and Access to Services (ARTAS), an evidence-based intervention shown to increase linkage to and retention in HIV primary care. To better align with the goals updated to 2020, with the upcoming re-bid of HIV testing contracts, subrecipients will be expected to link clients to care with 30 days of HIV diagnosis. Further, in the CDC demonstration project, PS15-1509, DOHMH is promoting early linkage for acute and established HIV infections. Funded agencies will be reimbursed at a higher rate for linkage within 14 days of diagnosis and a lower rate for linkage within 30 days to incentivize earlier initiation of ART. Subrecipients will be required to collect proof of successful linkage and must provide such documentation for verification, as part of the NY EMA's fiscal and administrative duties.

DOHMH engages in Data to Care activities, using HIV surveillance data to reduce the drop-off along the HIV Care Continuum. DOHMH reviews the NYC HIV Surveillance Registry to identify PLWH who appear to have been out of care for at least nine months and checks other data sources to verify that these individuals have not died or moved out of the jurisdiction. FSU staff then seek to locate and engage them, and if they consent, offer to help link them to medical care. Westchester County, the largest in the Tri-County region, has a similar re-engagement program, funded by NYS, that also uses surveillance data. To support the broader HIV service system, DOHMH provides Care Continuum Dashboards (CCDs) to health care providers who give HIV care to the majority of New Yorkers living with HIV. The CCDs provide feedback to the providers on how well they are linking clients to HIV care and on how to help clients achieve VLS. For those providers that are most challenged with helping clients achieve VLS, DOHMH has formed a team to provide technical assistance to connect them to resources and address clinical quality management.

Innovations in the DOHMH STD Clinics are designed to improve linkage to care and prevention services. One innovation, the "JumpStART" program focusing on rapid ART initiation for individuals newly diagnosed with HIV will include enhanced navigation and social work services. Additionally, the DOHMH has also instituted point-of-diagnosis genotype testing for newly diagnosed individuals. This intervention will allow providers receiving these patients to have pre-therapy resistance data and will also be used by DOHMH for molecular epidemiology work to better understand transmission networks and prioritize FSU interventions to focus on unsuppressed individuals detected in these clusters.

Linking HIV-negative individuals to care. In 2014, DOHMH used a public health detailing model to educate providers on PrEP and PEP, with heavy emphasis on risk assessment, testing, and linkage. The program was further refined in 2016 with updated materials. Through new NYC EtE and CDC funding, the BHIV is creating and expanding a network of PrEP and PEP providers, branded as "the #PlaySure Network," named after the successful marketing campaign promoting PrEP and Treatment as Prevention in NYC. Within this network, individuals who test negative and are at risk for HIV exposure will be educated about and referred to prevention services, including PrEP and PEP. The #PlaySure Network joins current Sexual and Behavioral Health programs supported by the BHIV, using non-RWPA funds to provide sexual and behavioral health services, including HIV and STI testing, PEP, and now PrEP services to uninsured and underinsured clients. A small number of

adolescent PrEP sites have also been funded by DOHMH that will offer similar services to adolescents at-risk.

(1) Planned activities of the NY EMA EIIHA Plan for GY17. 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.

(a) 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 CDC's 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 people, 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.

In the last decade, NYS has passed several legislative amendments to ensure that HIV testing laws more closely align with the CDC's 2006 recommendations. In 2010, NYS passed into law legislation requiring HIV testing to be offered to all patients ages 13-64 years 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.^{xxiv} 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.

The NY EMA uses RWPA and other sources of 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 funded by RWPA is focused on clinical facilities that serve neighborhoods disproportionately affected by HIV and that are underserved, such as the South Bronx, Central Brooklyn, and East and Central Harlem. Additional CDC and City Tax Levy funds support social marketing campaigns to encourage routine testing. In the Tri-County region, Medicaid and private insurers are the primary payers supporting the implementation of the NYS routine testing law.

One approach the 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 targeting 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 HIV-positive individuals to care and support services, and connect HIV-negative individuals to comprehensive prevention services. Approximately 2.9 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 insurance reimbursements to support HIV testing efforts.

The NYC DOHMH Bureau of Sexually Transmitted Disease Control (BSTDC) is the main provider of direct HIV testing services at DOHMH since early in the HIV epidemic. HIV testing is routinely offered to all STD clinic clients. Beginning in 2008, the BSTDC, BHIV, and the Public Health Laboratory (PHL) launched a testing program using pooled nucleic acid amplification tests (pNAAT) to detect acute HIV infections. pNAAT testing is limited to those individuals who are part of demographic and/or high-risk groups that are likely to present to the DOHMH STD Clinics

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 diagnosed with acute HIV infections receive enhanced linkage to care services and enhanced partner services and will soon be offered access to rapid ART initiation on-site. From January 1 through June 30, 2016, 14 acute HIV infection cases were diagnosed in DOHMH STD Clinics via pNAAT. Of those individuals, 93% were linked to HIV primary care within 90 days.

(b) Tier 2. The second tier of the NY EMA's EIIHA approach aims to decrease disparities in health outcomes through targeted HIV testing services in non-clinical/community settings for underserved and high-risk populations that might be missed by routine screening in clinical settings. Targeted testing services include conducting testing in venues where people at high risk for HIV can be found, and using evidence-based recruitment practices such as the Social Network Strategy and Couples HIV Testing and Counseling. Given finite resources, DOHMH preferentially funds agencies that provide services and testing to priority populations identified in earlier parts of this application. Agencies providing these services must demonstrate cultural competency and have a history of working with the target 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 is exploring expanding the program by distributing the home HIV tests through community-based agencies and by providing the tests to other key populations.

(c) 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 ensure that individuals with a preliminary-positive test result receive confirmatory testing, DOHMH requires HIV testing programs testing in the field using rapid testing technologies to collect confirmatory specimens onsite. In addition, confirmatory testing is a discrete reimbursement point in HIV testing contracts. The specific reimbursement for confirmatory testing point and required onsite collection of specimens have resulted in a higher proportion of tested clients receiving confirmatory results among those who test preliminary-positive. Because DOHMH funds point-of-care and other rapid testing, very few individuals are not post-test counseled.

The FSU within the BHIV HIV Epidemiology, Field Services Program and the Tri-County region Health Departments provide partner notification services to PLWH diagnosed by providers. The NYC BHIV FSU Disease Intervention Specialists (DIS) elicit the names of potentially HIV-exposed partners, confidentially notify these partners of their possible HIV exposure, and offer HIV testing and linkage to care for persons who test positive. In 2015, FSU offered partner services to all newly diagnosed persons citywide. FSU interviewed 84% (1,565/1,856) of those newly diagnosed in NYC and elicited 1,109 HIV-exposed partners. Seventy-five percent (502/670) of partners with negative or unknown HIV status were notified, and 57% (286/502) were tested, of whom 16% (46) were newly diagnosed with HIV. 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, the FSU has expanded beyond partner services. For index PLWH 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. In 2015, FSU located 633 PLWH who were out of care or never in care, of whom 435 (69%) accepted appointments for return to care and 427 (67%) kept their return to care appointments.

(2) Major collaborations with other programs and agencies. Many DOHMH programs collaborate to identify individuals unaware of their HIV status, as detailed in the EIIHA Plan. Under the leadership of the BHIV Prevention Program's Diagnostics Unit, all HIV testing programs have standardized service models and data collection across funding sources, enforce Payer of Last Resort (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, the 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 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 VLS.

DOHMH is meeting with staff from federal agencies stationed at the regional Department of Health and Human Services (HHS) office to improve coordination. As part of DOHMH's grant funding from CDC (PS15-1509) to improve prevention and care services to MSM of color in Brooklyn, DOHMH staff met with staff from the Substance Abuse and Mental Health Services Administration (SAMHSA), the Department of Labor, and the Centers for Medicare and Medicaid Services. To follow-up on this meeting, the participants will work on identifying MH resources available in New York and will explore ways to collaborate on expanding access to MH and prevention services in NYC. BHIV is also working with the NYS AIDS Institute (NYS AI) on the continuation of the previously HRSA HIV/AIDS Bureau (HAB)-funded *NY Links*, a statewide project focused on improving linkage to and retention in care that also supports the delivery of routine, timely, and effective care. The BHIV is an active participant in regional collaboratives established under NY Links and is an implementing partner in a statewide scale-up of strategies shown to have promise, including ARTAS.

(3) Planned 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 being promptly linked to medical care, and increasing the proportion of populations at-risk for HIV infection receiving prevention services, including PrEP (*see pp.19-20 for specific objectives*) which directly align with the *EtE Blueprint* and EtE priorities. The NY EMA proposes to monitor testing outcomes through a variety of mechanisms. Funded programs report client-level testing data; clinical facilities from borough-wide initiatives report aggregate testing data to DOHMH. Funded programs are also expected to report the aggregate number of total HIV tests performed at their facilities,

regardless of funding source. DOHMH also monitors the testing data reported by testing programs in non-clinical settings that target high-risk populations.

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 the annual Community Health Survey¹⁰ (CHS), DOHMH tracks the percentage of NYC residents, aged 18 and older, who report ever testing for HIV. The 2014 survey found that 63.4% of adult NYC resident respondents have ever tested for HIV, up from 60% in 2010. DOHMH has also observed a decline in estimated HIV diagnosis. HIV surveillance data shows that between 2011 and 2015, the number of new HIV diagnoses in NYC dropped by 26%, from 3,386 diagnoses in 2010 to 2,493 diagnoses in 2015. This declining trend in number of new diagnoses is partly due to DOHMH's rigorous and comprehensive effort to support increasing HIV testing, linking persons diagnosed with HIV to care, and support to increase VLS. These efforts are reflected in DOHMH's recent announcement of the result of its serosurvey from an emergency department in the Bronx: the percent of those surveyed with undiagnosed infection was 6%, 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 increasing awareness, decreasing diagnoses, and decreasing proportion of persons with undiagnosed infections to continue with ongoing 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 days¹¹ 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 79% in 2015. DOHMH is in the process of aligning its HIV testing and linkage to care contracts with NHAS 2020; with the upcoming rebid of testing contracts, subrecipients will be expected to link clients to medical care within 30 days of HIV diagnosis.

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 transgender individuals, who are aware of and report using these services will increase. Data from the Spring 2015 Sexual Health Survey found a higher percentage of White MSM were aware of PrEP (91%) than Black MSM (78%) or Hispanic MSM (82%), with only 15% of MSM overall reporting use of PrEP in the past six months (18% of White MSM, 12% of Black MSM, and 16% of Hispanic MSM). The Fall 2014 Sexual Health Survey found that only 10% of women of color were aware of PrEP (data for women of color was not collected during the Spring 2015 survey). The disparities in awareness among key populations underscore the need for continued intensive social marketing and education efforts, which are underway at DOHMH using CDC and EtE resources.

b) GY17 EIIHA Plan contributions to achieving NHAS 2020 goals.

(1) Impact on the HIV Care Continuum. The NY EMA has employed the HIV Care Continuum as a tool to frame the planning and delivery of all services in the NY EMA to advance the goals of NHAS: 1) reduce new HIV infections; 2) increase PLWH access to care and improve health outcomes; 3) reduce HIV-related health disparities and health inequities; and 4) achieve a more coordinated

¹⁰ 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.

¹¹ The date range is set to account for time to complete lab draws, which the NY EMA does not count as linkage to care. All individuals must have a confirmation visit.

national response to the HIV epidemic. By increasing HIV testing and linkage to medical care or prevention services, the EIIHA Plan helps the NY EMA in achieving the first three goals. These activities address the initial stages of the HIV Care Continuum, increasing the number of PLWH who are aware of their status and linking them to HIV primary care or increasing the number of high-risk HIV-negative individuals and linking them to PrEP/PEP services. Because testing programs encounter people previously diagnosed with HIV who have fallen out of care, these programs also re-connect people to care and work to increase the number PLWH retained in care. These activities support the NY EMA's Integrated Plan. DOHMH also implements two capacity building assistance grants from the CDC, which involve sharing best practices with CBOs and health departments from around the country, and leads to better coordination of the national response (NHAS 2020 Goal 4).

(2) Innovative Approaches. In March 2015, Governor Cuomo released the NYS *EtE Blueprint*, which sets forth recommendations and strategies to advance his three-point plan to reduce new HIV infections to 750 by 2020: to identify persons with HIV, to link and retain persons diagnosed with HIV in health care, and to facilitate access to PrEP for persons at high risk for HIV infection to keep them HIV-negative. DOHMH Division of Disease Control Deputy Commissioner Dr. Jay Varma and BHIV Assistant Commissioner Dr. Demetre Daskalakis served as core members of the Governor's Task Force that developed the *EtE Blueprint*. Dr. Daskalakis also participated in the Task Force's Prevention Subcommittee and Dr. Sarah Braunstein, Director of BHIV's Epidemiology and Field Services Program, participated in its Metrics Subcommittee. Throughout 2015, BHIV worked to implement the *EtE Blueprint* recommendations through its prevention, care, treatment, and policy efforts, and tracked local and NYS EtE funding streams.

On December 1, 2015, World AIDS Day, NYC Mayor Bill de Blasio and NYC City Council Speaker Melissa Mark-Viverito announced the NYC EtE Plan, including \$23 million in funding to expand the NYC HIV/AIDS Services Administration (HASA) housing and supportive services program for low-income and homeless persons with HIV, increase access to PrEP and ensure early initiation of ART, enhance HIV surveillance efforts, and support expansion of services at DOHMH STD Clinics. DOHMH initiated an internal planning process to implement EtE goals, including hiring additional staff, consulting with communities most affected by HIV and with other local and NYS agencies, and identifying gaps in services. Beginning in 2015, DOHMH utilized NYC EtE funding to support new PEP and PrEP initiatives, HIV status neutral care coordination, harm reduction services for methamphetamine users, and support for transgender-led and -focused organizations. These initiatives will launch in late 2016. DOHMH will continue efforts started in 2015 to further integrate HIV prevention and care services through the incorporation of the status neutral approach.

(a) Status Neutral Navigation. Many HIV-positive and negative individuals need similar services, particularly with the expanded adoption of PrEP and PEP, which includes linkage to medical care, benefits navigation, and support to remain in care. DOHMH has awarded eight new EtE status neutral care coordination programs, which build upon the RWPA CCP infrastructure to support individuals in accessing combination prevention services including engagement in MH and substance use services and initiation of PrEP. Additionally, a new EtE award addressing the needs of methamphetamine users through a HR approach will be co-located and coordinated with RWPA-funded HR contractors to maximize outreach and services to this population at risk for HIV infection and, for those with HIV, unsuppressed viral loads.^{xxv}

As described previously, DOHMH is greatly expanding HIV prevention and care services provided at DOHMH STD Clinics. Whether a person has a positive or negative HIV test result, they will receive similar navigation and access to PrEP, PEP or immediate ART, as appropriate. DOHMH

has begun providing a complete 28-day course of PEP for individuals possibly exposed to HIV; the DOHMH STD Clinics will also soon begin to initiate PrEP in clinics and navigate patients for longer term management, and will provide immediate ART on-site to individuals testing HIV-positive. The new service also includes expanded patient navigation and linkage to medical and social support services as well as assistance with benefits enrollment and appointment reminders. DOHMH will continue this project in FY17.

(b) Health Equity. The NY EMA understands that specific subpopulations need tailored and culturally competent services in order to be engaged and retained in care, as well as resources to address basic life challenges such as those related to educational and income inequality. Using a health equity lens, the NY EMA is focusing on LGBTQ communities, especially MSM of color and transgender women and men. DOHMH is developing resources and trainings for providers to address income as a determinant of health. In addition, DOHMH has developed an LGBTQ Patient Bill of Rights that was disseminated citywide, and developed and facilitated a series of provider trainings on sexual and gender-related health issues, which are required for all subrecipients. In addition, DOHMH implemented a clinical symposium series to address MSM and transgender health issues and a half-day symposium to increase provider knowledge and proficiency in sexual health care; DOHMH also coordinated the medical track for the Community Healthcare Network's 2016 Transgender Health Conference. Community engagement efforts include funding the LGBTQ Health Equity Coalition, a partnership of more than 50 LGBTQ and HIV organizations working to end HIV and advance health equity for LGBTQ New Yorkers, and hosting listening sessions with transgender men and women and young gay, bisexual, and other MSM of color. DOHMH also conducted structured focus groups for LGBTQ community members and their providers regarding LGBTQ patients' health and rights in settings where health care and other social support services are offered. DOHMH launched funding opportunities to promote the development and sustainability of grassroots transgender-focused organizations, so that these organizations may increase their ability to broadly promote the well-being of transgender New Yorkers by addressing social exclusion and health inequities. DOHMH is currently developing a similar funding opportunity to support organizational growth and development of Black MSM-led and focused organizations. This work will continue into 2017.

(c) Social Determinants of Health and Workforce Development. DOHMH partnered with the National Working Positive Coalition in 2016 to develop a series entitled "Considering Work" to address income as a determinant of health and employment needs with a focus on MSM of color in Brooklyn supported by CDC funding. The intent of the series is to provide education and resources to community providers to better link persons who test negative and persons living with HIV to workforce development and vocational rehabilitation services. The series included two webinars and culminated with a full-day in-person meeting for HIV service providers. The webinars provided detail on how and when working would affect benefits such as: financial (SSI, SSDI), medical (Medicaid, Medicare, ADAP), and housing (HASA, HOPWA); and provided an introduction to services, training/education, resources and strategies to meet employment needs of clients. Following the successful webinars, the NYC DOHMH hosted a full-day meeting for HIV prevention and care service providers to expand upon content discussed in the webinars. Including BHIV staff and panelists, 104 participants attended the meeting.

(3) Collaborations. As described previously, DOHMH collaborates with partners at the local, state, and federal level to implement EIIHA activities, all of which focus on achieving high retention across the HIV Care Continuum. Through *New York Knows*, DOHMH collaborates with over 200 NYC-based agencies to enhance coordination of HIV testing, prevention, and care. Further,

DOHMH is actively involved in *EtE Blueprint* planning and implementation meetings with HIV providers across the state and city. DOHMH has also looked to new collaborations to meet its EtE goals, which include ensuring that the social determinants of health, are addressed. For example, DOHMH worked closely with the National Working Positive Coalition to develop an income- and employment-focused training series for providers and will seek to develop new partnerships with agencies that provide job skills and vocational rehabilitation services.

(4) Gap analysis. DOHMH uses the first two stages of the HIV Care Continuum (HIV-diagnosis and linkage to care) as a means of targeting services and implementing continuous quality improvement in all testing programs (*described on p. 7*). Over the last few years, the percentage of individuals unaware of their status has decreased (a serosurvey in the Bronx found that undiagnosed infection was 6%, well below national and state estimates), while the percentage of concurrent HIV/AIDS diagnosis has remained stable. Ultimately, most patients begin ART and achieve VLS (67% of all diagnosed and 74% of RWPA clients in 2014, based on the Care Continuum); however, preliminary analysis of surveillance data shows that linkage rates within 30 days are low, compared to 90 days. This finding indicates that while fewer people remain undiagnosed PLWH in the NY EMA, are well engaged in care, more must be done to link people to care earlier. To address the gap between diagnosis and engagement in care, DOHMH STD Clinics will begin an immediate ART program in November 2016, where newly diagnosed patients will be offered ART immediately after diagnosis. DOHMH also plans to re-bid EIS testing services in 2017 and will expect subrecipients to link clients to care within 30 days of diagnosis. Finally, DOHMH has begun to analyze retrospective data on PLWH who died to better understand system-wide barriers to testing, treatment, and VLS.

d) Unmet need estimate and activities and relation to EIIHA planned activities. According to the New Unmet Need Methodology, based on the NYC HIV Care Continuum (*p. 5*), 31% of PLWH have unmet need. The NY EMA's Unmet Need data are used to inform the EIIHA Plan's activities including the geographic distribution of EIS programs, how the FSU engages those out of care, and the CCPs return-to-care activities for clients disengaged from HIV primary care. Findings from the Unmet Need estimate also helped to identify populations for targeted testing (Tier 2) (*pp. 21-22*).

e) Influence of GY16 EIIHA Plan on development of the GY17 EIIHA Plan. The implementation of the GY16 EIIHA Plan and its outcomes were critical to the development of the GY17 EIIHA Plan. The *EtE Blueprint* promotes the use of innovative combination prevention strategies. The availability of new funding (EtE and CDC grants) in late 2015 and 2016, resulted in modifications of the original GY16 EIIHA Plan and allowed DOHMH to expand prevention and care services at DOHMH STD Clinics on a large scale and to create the #PlaySure Network. Much of GY16 was spent in planning the infrastructure changes, creating the policies, and hiring the staff to enable the DOHMH STD Clinics to expand services offered. Likewise, GY16 was used to create and issue the concept paper and RFPs to fund agencies as part of the #PlaySure Network. The latter part of 2016 and GY17 will entail the implementation of these activities.

In evaluating its funded testing programs, taking into account changes in HIV prevention and care interventions since the last rebid in 2010, DOHMH has found many funded clinical facilities have implemented programs to better provide testing services to uninsured clients, but not to implement facility-wide HIV screening programs. In addition, with the implementation of the Affordable Care Act (ACA) and with Medicaid expansion, many clinical facilities have lower numbers of uninsured clients. For funded CBOs to target testing services in the community, some of the populations targeted for testing, such as homeless persons and heterosexuals of color, are not yielding many persons with HIV diagnoses. However, some of these agencies do not have any experience working with MSM and transgender women and are not positioned to begin offering services to these

communities. In addition, testing programs were not initially funded to refer clients to PrEP services, since Truvada had not yet been approved by the FDA for PrEP. In addition, contracted agencies are expected to link PLWH to care within 90 days of diagnosis.

Therefore, in GY17, DOHMH will be rebidding its CDC and RWPA funded testing programs to better support routine testing, prompt linkage to care and linkage to PrEP and PEP services. DOHMH proposes to use CDC funds to support clinical facilities to enact system-level changes to implement facility-wide routine HIV testing. RWPA funds will be used to support linking PLWH to care in hospitals and clinics. The rebidding will allow DOHMH to fund CBOs that are able to target testing services to key populations, especially MSM and transgender persons. Testing programs will be expected to link PLWH to care within 30 days of diagnosis and to link at-risk person who test negative to prevention services, especially PrEP and PEP.

f) *Planned efforts to remove legal barriers to routine HIV testing.* The NY EMA continues to work with the NYS DOH, NYS legislators, and regulatory agencies to remove legal barriers to routine HIV testing. In June 2016, the NYS Assembly and Senate passed A10724/S8129 which, once signed into law by Governor Cuomo, will streamline HIV testing by requiring, at a minimum, that patients be advised that an HIV test will be performed; require the offer of an HIV test to anyone age 13 years and older; allow nurses to screen persons at increased risk for syphilis, gonorrhea, and chlamydia per non-patient specific orders; and allow pharmacists to dispense up to seven days of PEP also per non-patient specific orders. The Governor is expected to sign this legislation into law imminently.

In June 2016, Governor Cuomo announced a Policy Statement expanding NYC Human Resources Administration's HASA program so that any NYC resident with HIV who meets the financial need requirements is eligible for housing assistance and other services, even if they have had no HIV-related illnesses.

The NY EMA will continue to advocate with NYS AI and NYS elected officials to advance legislation to grant minors with the capacity to consent the right to PrEP and HIV treatment without parental involvement and to prohibit unauthorized disclosure of their confidential HIV-related information; legislation to allow HIV-related information to be shared with care coordinators and other health information entities to enhance linkage and retention to care efforts; and legislation to remove any remaining barriers to routine screening in the HIV testing law.

g) *GY17 EIIHA Plan Target Populations.* The three selected distinct target populations are: 1) transgender men and women; 2) MSM, particularly MSM of color and young MSM (YMSM); and 2) Black and Hispanic men and women.

(1) Populations targeted. The three populations were chosen to align with national and local priorities. They constitute three of the six targeted populations highlighted in the NHAS 2020. In NYC, 2% of new HIV diagnoses in 2015 were among transgender individuals, 98% of whom were transgender women. In 2015, Blacks and Hispanics accounted for 78% (42% and 36%, respectively) of all new HIV diagnoses in the NY EMA. MSM, including Black and Hispanic MSM, made up 61% of all new HIV diagnoses in the NY EMA. In total, these groups accounted for 95% of the 2,600 new HIV diagnoses reported in the NY EMA in 2015.

(2) Specific challenges with or opportunities for working with the targeted populations.

(a) Transgender men and women. Although numerically small, the prevalence rate among transgender populations represents a significant epidemic for this relatively small community. Roughly 98% of newly diagnosed transgender women were Black or Hispanic, and nearly 50% were ages 20-29. 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. In addition to elevated risk, transgender individuals face increased barriers to care,^{xxvi} and subsequently, lower rates of VLS.^{xxvii}

(b) MSM. Sixty-one percent of new HIV diagnoses in the NY EMA in 2015 were among MSM, more than any other transmission risk group. National data indicate that MSM of color and YMSM aged 13-24 years old, particularly YMSM of color, are at the highest risk for acquiring HIV. This holds true in the NY EMA, making them a targeted subpopulation of the overall EIIHA Plan. 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.^{xxviii} Further, some YMSM experience homelessness/housing instability, lack of family support, and limited access to healthcare.

(c) Black and Hispanic men and women. According to the 2014 CHS, only 47% of Black adults and 45% of Hispanic adults in NYC were estimated to have had an HIV test in the past 12 months. In 2015 in the NY EMA, Black and Hispanic men and women made up 78% of the new HIV diagnoses, more than any other racial/ethnic group. These proportions indicate a continued need for targeted EIS including HIV testing services. The Black and Hispanic 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 being diagnosed with HIV. Some of the challenges experienced by Blacks and Hispanics include stigma associated with HIV, cultural and language differences, and low self-perceived risk for HIV. People who are foreign-born, especially those who are undocumented, may 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.

(3) Specific activities that will be utilized with the target population. The NY EMA's GY17 EIIHA Plan was designed to ensure that services provided to the target 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 plans to support its enhanced two-tiered HIV testing approach in an upcoming RFP (*p. 9*), along with several innovative programs that are aligned with the NHAS 2020 and DOHMH's *EtE Blueprint* for NYC (*pp. 14-16*) to achieve these objectives. As a result of Medicaid-funded and other third party-funded HIV screening in clinical settings and EMA programs supported by RWPA, 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 RWPA 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, Hispanic, MSM and/or transgender clients.

Funded CBOs use innovative approaches, such as Social Network Strategy testing, couples counseling, and testing are utilized to reach at-risk populations. A recent qualitative study^{xxix} of barriers and facilitators to HIV primary care among vulnerable populations (YMSM, African immigrants, recently released prisoners, and transgender women) in NYC, highlighting 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.

(4) Specific objectives for each component of EIIHA.

(a) IDENTIFY: Testing programs targeting MSM, Black and Hispanic women and men, and transgender individuals in non-clinical settings will achieve at least a 1% testing positivity rate for GY17. As noted previously, the NY EMA is experiencing an ongoing trend of declining HIV diagnoses. In addition, there is much effort to increase usage of PrEP services. As a result, expecting a 1% testing positivity rate may not be a reasonable expectation. The NY EMA is exploring modifying this objective in the future to take these factors into account.

(b) INFORM: At least 95% of MSM, Black and Hispanic women and men, and transgender clients who test positive for HIV in GY17 will receive their HIV test result.

(c) REFER:

1. At least 85% of MSM, Black and Hispanic women and men, and transgender clients who test positive for HIV in GY17 will be referred to partner services and prevention services.

2. Fourteen percent of MSM and transgender of individuals who have not been diagnosed with HIV and have had sex with a man in the last 12 months will have used PrEP in the last 12 months.

(d) LINK TO CARE: At least 52% of MSM, Black and Hispanic women and men, and transgender clients who test positive for HIV in clinical settings and non-clinical settings in GY17 will be linked to medical care within 30 days of diagnosis. Increasing this measure by 12% each year will ensure the NY EMA reaches the NHAS 2020 goal.

(5) Responsible parties. Multiple individuals and partners are responsible for the coordination and/or monitoring of the EIIHA Plan activities described below.

(a) DOHMH. The Deputy Director of HIV Prevention, in consultation with the Director of Care and Treatment, oversees NYC testing-related activities within BHIV across all funding streams. Members of the Prevention Programs Unit and Contract Managers (CMs) from DOHMH's Master Contractor Public Health Solutions-Contracting and Management Services (PHS) follow up on coordination, program implementation, and program evaluation. The Director of Testing TA within the Prevention Programs Unit oversees the provision of TA to funded agencies and monitors program activities. The Director of Testing TA coordinates with CMs to ensure funded programs are meeting contractual and programmatic requirements. BHIV POs and PHS CMs conduct joint visits to funded agencies in the NY EMA to verify that services are provided as contractually prescribed. The data analyst within the HIV Prevention Program team works with the Deputy Director of Prevention to create and implement a data monitoring and evaluation plan, engaging the PO team in its work with funded agencies. Members of the PO team coordinate with NYC H+H Correctional Health staff on testing services provided to NYC jails. The PO team monitors data reported in eSHARE and reviews it with Correctional Health to ensure that eSHARE correctly captures services provided. Similarly, POs coordinate with the BSTDC and the FSU and monitor services provided. BHIV staff regularly meets with STD programs to facilitate communication and TA provision.

For the borough-wide testing initiative *New York Knows*, the Deputy Director of Prevention and the *New York Knows* team coordinate with community partners to promote routine and targeted HIV testing. The *New York Knows* team tracks the performance of these initiatives and provides TA as needed.

(b) Tri-County region. Tri-County EIS services are monitored by PHS (*see p. 59*) with one Full-Time Equivalent (FTE) onsite at Westchester County Department of Health (WCDOH) responsible for quality management (QM) and service planning, with access to eSHARE linkage data. Tri-County service providers participate in region-wide linkage activities through the NYS *NY Links* program, which seeks to improve linkage and retention in care through regional learning collaboratives.

(c) NYS. The BHIV regularly coordinates with the NYS AI on efforts to engage PLWH unaware of their status. DOHMH works with the NYS AI to provide TA to agencies that want to provide testing

services in NYC. DOHMH was also an active participant in crafting the Governor's *EtE Blueprint*. In addition, the Tri-County health departments coordinate with the NYS AI to implement the *EtE Blueprint* in the NY EMA outside of NYC.

(6) Planned outcomes for target populations resulting from EIIHA Plan activities. As a result of implementing the EIIHA Plan activities, the NY EMA expects to achieve outcomes, including increased awareness of HIV status and improved linkage to care among the target populations, both HIV-positive and HIV-negative. CHS data will provide DOHMH with an estimate of the percentage of Black, Hispanic, MSM, and transgender residents in NYC who have ever tested for HIV. The percentage ever tested for HIV should increase each year for these target populations. Using HIV surveillance data on CD4 cell count and viral load test dates as proxies for medical visits, DOHMH can assess the outcome of linkage to care/initiation of care, retention in care, and VLS. DOHMH expects the percentage of those newly diagnosed who initiate care within 30 days to increase for each of the target populations. The Sexual Health Survey will provide DOHMH with an estimate of PrEP awareness and utilization among MSM and transgender women.

h) Data utilization. EIIHA data is utilized to inform prevention and care activities for HIV-positive and HIV-negative individuals. DOHMH reviews HIV and STI testing and diagnosis data across NYC and uses the information to target PrEP/PEP services as well as EIS services including linkage to care and navigation support, and to inform service needs among specific populations.

i) Evaluation. Strategies implemented to impact the EIIHA population are routinely evaluated through multiple data sources, including: surveillance data; data from contracted testing and linkage programs, CHS data (i.e., percentage of individuals ever tested); serosurvey data to estimate the percentage of individuals who are unaware of their status; Medicaid and clinics' electronic health record data regarding HIV testing; PrEP, PEP, and ART prescription; and VLS. The data is used to inform changes in implementation, including targeted populations, locations, and services delivered, as well as TA to providers.

j) Plans to present, discuss, and/or disseminate the EIIHA Plan and outcomes to planning bodies and others. DOHMH actively presents and disseminates data and outcomes related to its EIIHA Plan. DOHMH authored an article in the Jan-Feb 2016 issue of *Public Health Reports* on lessons learned in routinizing HIV testing through modifying electronic health records in a group of Federally Qualified Health Centers in NYC. Most recently, BHIV presented on current trends and associations with PrEP use among MSM and home HIV test giveaways in NYC at the 2016 CROI and the 2015 and 2016 American Public Health Association conferences. BHIV also participated on a panel at the 2016 US Conference on AIDS to describe its efforts implementing the *EtE Blueprint* as well as PrEP navigation and service implementation. BHIV also presented several sessions at the 2015 National HIV Prevention Conference including PrEP awareness and scale-up, providing TA to improve HIV testing and achieving VLS among others.

In 2015, through a review of EIIHA Plan outcomes and subsequent discussion with the PC, it was determined that RWPA-funded and prevention-funded testing programs be re-bid in 2016. The GY17 EIIHA Plan and outcomes will be presented to the PC and the NYC HIV Prevention Planning Group (HPG).

2) Unmet Need.

Current Methodology.

a) Unmet Need Narrative.

(1) Estimation Methods. The Current Methodology defines unmet need as the lack of any evidence of care in the past year. Data was provided jointly for NYC and the Tri-County region by NYS, using State surveillance data and the revised methodology used above for the HIV Care Continuum to

better estimate the total number of PLWH living and residing in the NY EMA. Based largely on this change in denominator, estimates of unmet need decreased from the estimates provided last year using both the Current and New Methodology. While last year the Unmet Need estimate for 2014 was 36% using the Current Methodology, it is now estimated to be 19% for 2014. This change in methodology makes comparison of unmet need from one year to the next challenging, though DOHMH will be able to assess trends going forward. See *Attachment 4* for information on how the new estimates are calculated.

(2) Assessment of Unmet Need.

(a) Demographics. The Unmet Need estimate using the Current Methodology was similar for the NYC and Tri-County regions (19% and 20%, respectively). Among those aware of their HIV status in the NY EMA in 2014, those aged 20-39 were less likely to be in care (25%), as were MSM (19%). Blacks and Hispanics were more likely to be in care, as were women.

(b) Trend analysis. As noted above, due to the change in methodology, the NY EMA is unable to conduct a trend analysis for the last five years. The Unmet Need estimate has remained consistent over the last three years due largely to a data lag on those who have died or incomplete data on those who have moved and are receiving care out of the jurisdiction. See *Attachment 4* for information on how the estimate is calculated.

(c) Service, need, and gap analysis. One of the most perplexing gaps is those believed to be engaged in care but not virally suppressed. Understanding the patterns in engagement, and the associated facilitators and barriers to VLS is an important part of the planning process for the NY EMA. An analysis of NYC 2014 population-based surveillance data showed greater RWPA vs. non-RWPA retention (90% vs. 81%) among those with any care in the year, but lower VLS among those retained in HIV care: 78% of retained RWPA clients, compared to 87% of non-RWPA PLWH. An HIV Care Continuum outcomes comparison of 2012-2014 data showed consistent VLS gains (RWPA and non-RWPA) and even some reduction in the RWPA vs. non-RWPA disparity, without concurrent gains in retention. This suggests the VLS trend relates more to treatment behaviors than to care engagement. Among RWPA clients retained in care in 2014, 80% had been prescribed ART in the year, and 80% of those with ART were suppressed as of their last viral load reported to surveillance in 2014. For comparison, among HIV patients who reported a current ART prescription in MMP 2014 interviews, 84% were suppressed as of their last viral load reported to surveillance in 2014, suggesting a smaller gap between ART use and VLS in the general population in NYC HIV medical care than in the retained RWPA population. Understanding the resources necessary to bridge this gap has become an increasingly important area of planning and service implementation for the NY EMA.

New Methodology: Unmet Need Estimate based on the HIV Continuum of Care Framework

a) Estimate comparison between Current and New Methodology. The Unmet Need estimate derived from the New Methodology is higher than that derived using the Current Methodology (31% vs. 19%, respectively). The difference between the two estimates suggests that a higher percentage of PLWH are not consistently engaged in care (per the HHS definition for the HIV Care Continuum), though they may be receiving care sporadically, as captured in the Current Methodology estimate. As described above, both estimates are lower than the estimates provided for 2014 based on changes to the methodology used to estimate the total PLWH population in the NY EMA. People who have been excluded from the denominator due to long periods being out of care would likely have inflated estimates of unmet need in past years.

b) Comparison of new methodology estimates for FY16 and FY17. While the Unmet Need estimate for 2014 was 48% using the New Methodology last year, it is now estimated to be 31% for

2014. This difference is largely due to the change in the denominator using methods developed by surveillance staff to better estimate the number of PLWH currently residing in the NY EMA.

c) *Data used in Unmet Need for HIV Care Continuum framework.* Data to derive the Unmet Need estimates for both the Current and New Methodologies were pulled from the NYS HIV Surveillance Registry. In both cases, laboratory (CD4 and viral load) test dates are used as proxies for medical care visits.

d) *Difference in definitions of retention in care.* The Current Methodology defines unmet need as the lack of any evidence of care in the past year. The New Methodology defines unmet need as those who have had less than two medical visits three months apart within the past year. Data was provided jointly for NYC and the Tri-County region, using NYS surveillance data. The revised methodology used above for the HIV Care Continuum better estimates the total number of PLWH living and residing in the NY EMA.

e) *Challenges in using retention in care measure.* Clients with well-managed HIV may visit the doctor less often. Thus, using retention to estimate Unmet Need may provide an overestimate if individuals with VLS and more sporadic care are counted among those with unmet need. Modifying an Unmet Need estimate to include those without evidence of any care in a 12-month period, or those who were not virally suppressed at the end of the year would allow for a more focused approach to identifying those most in need.

f) *Impact on approach to unmet need.* The NY EMA has used the HIV Care Continuum to assess unmet need and continually revise its strategy for several years. In the Needs Assessment, approved by the PC in March 2014, the NY EMA moved from defining unmet need and target populations based on demographic and behavioral risk groups towards exploring the needs of groups who had not moved to the next stage of the HIV Care Continuum and assessing what approaches would be needed to link and address the needs of these populations. This is one of the many reasons the NY EMA has continued to seek a Core Medical Services (CMS) Waiver and to allocate more resources to support services such as SCF, FNS, and Housing services to meet basic survival needs of PLWH who have access to primary care services and ART through ADAP or Medicaid but have other barriers that prevent the consistent and sustained engagement in care and ART adherence that leads to VLS.

g) *Utilizing unmet need data to plan for services.* As stated above, the NY EMA uses the HIV Care Continuum stages to prioritize populations for service system planning, instead of traditional target 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 (*see pp. 7-8 for a description of this strategy for moving people along the HIV Care Continuum*).

h) *Evaluating Unmet Need strategies and interventions.* As stated on p. 8, 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 VLS. This includes evaluating the program outcomes in different populations as well as conducting extensive investigation of the changing needs of those who are not enrolled (*see Service Gaps* below).

i) *Dissemination of unmet need data.* The HIV Care Continuum is regularly disseminated in a variety of venues. It is used for both internal as well as external presentations to providers, consumers, colleagues, planning groups, and other key stakeholders. The HIV Care Continuum has become a tool for helping audiences understand the goals and intended outcomes of new and existing services and interventions. As a component of the Needs Assessment, the PC was briefed on the latest data on unmet need for HIV primary care. The PC also received reports on unmet need in 2015.

3) Service Gaps.

a) Identification of service gaps. Service needs and gaps in service utilization among CHAIN participants are assessed on an ongoing basis. Data from interviews conducted between 2011 and 2013 were analyzed for an updated (2014) report and presented to the PC. The data found that 100% and 93% of participants stated a high need for standard HIV medical care and food services, respectively; however, only 42% and 43% respectively, received these services. Utilization of HIV medical care is lowest in Bronx, Staten Island, and Manhattan (35%, 38%, and 38%) and highest in Queens (56%). Further, 30% of the NY EMA's PLWH reported housing instability, 42% experience food insecurity¹², and 24% are unemployed and looking for work. Co-morbidities also remain prevalent: 60% of NYC participants and 49% of Tri-County participants report four or more co-occurring conditions; hypertension, asthma, and high cholesterol are most common. According to CHAIN, of the 59% of sampled PLWH in NYC who indicated a need for MH services, 25% were not receiving such services; further, of the 33% of PLWH in need of substance use treatment, only 66% were receiving these services.

b) Prioritization of service gaps. The PC triangulates findings from multiple data sources: HIV surveillance, eSHARE reporting on service category performance, eSHARE-surveillance merged analyses on outcomes overall and by service category and client subgroup, service utilization data from the RWPA annual Service Category Scorecards¹³; geographic mapping of funded service sites by service category (superimposed on the NYC HIV prevalence map), updates to the *POLR Tool*; CHAIN and DOHMH-conducted consumer surveys, and consumer focus groups. Comparing these diverse and complementary data sources, and through dialogue with the analysts providing these reports, the PC is able to identify trends and service gaps that could be filled by RWPA. This process is used to identify service priorities to reduce unmet need. As part of a multi-year effort to address unmet need, the PC has taken steps in its GY17 Plan to improve linkage to and continuity of care.

c) Description of plan to address gaps. The PC's Integration of Care Committee (IOC) 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 Medicaid expansion and the ACA. The RWPA services portfolio is carefully designed to meet needs identified through surveillance, RWPA program evaluation, CHAIN data, and changes in the NY EMA's healthcare 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, as described based on the stages of the HIV Care Continuum, cover:

- ***Individuals diagnosed but not linked to care.*** EIS programs work to identify and link newly diagnosed individuals to medical care. In 2014, PWID were less likely to be linked promptly to HIV medical care in NYC compared to people in other transmission risk groups. The NY EMA will dedicate almost 8.6% of RWPA funding to meet the needs of substance users through HR programs in GY17. MH advocacy services also assist with engaging and keeping vulnerable clients in care. These programs address challenges of PLWH less likely to be linked to care, including stigma and other competing issues.

¹² Food insecurity is defined as the (1) report of need for transportation assistance, or (2) report that a lack of transportation resulted in delayed or missed medical or social services in the past six months, or (3) need for home care services (see above definition based on physical limitations in ordinary activities).

¹³ The RW Service Category Scorecards are annual summary reports that provide three years of data on spending, services, and client demographics in tabular and graphical format.

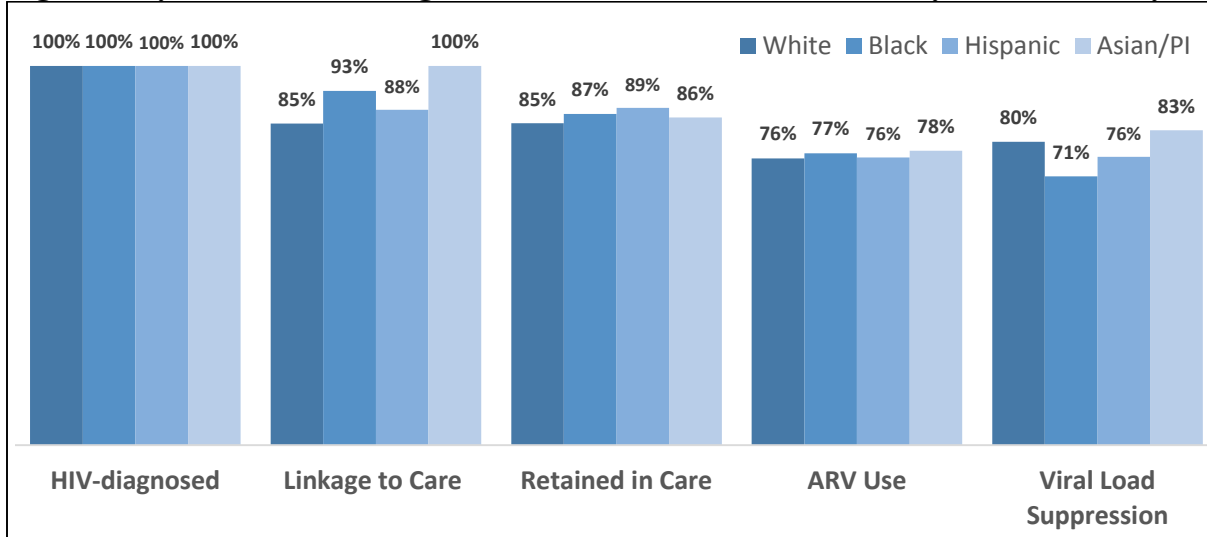
• Individuals not previously retained in care and individuals who are not currently virally suppressed. Among both RWPA clients in NYC (2014) and in Tri-County (2013), Blacks and Hispanics were more likely to be retained in care, while individuals aged 20-29 were less likely to be retained in care. In both NYC and Tri-County, VLS rates among RWPA clients were lowest among Blacks, individuals aged 20-29, and persons with likely exposure to HIV through IDU (*see pp. 27-30 for unique challenges for these populations*). Through successful tailoring and placement of services, these groups are highly represented among RWPA clients in the NY EMA. For example, in GY15, 52% of MCM clients were Black. 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, 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 GY16, the PC allocated 34% of funding to support MCM (which includes several medical case management models) and n-MCM services. Navigation services are also offered through FNS, SCF, n-MCM, and EIS programs, which conduct re-engagement activities on those previously diagnosed and disengaged from care. Newly awarded 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.

4) Minority AIDS Initiative (MAI).

a) Identification of minority populations. As described earlier, 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, Hispanic, and Asian men and women. In 2015, the HIV-positive individuals served by the MAI program were 52% Black, 41% Hispanic, and approximately 1% Asian/Pacific Islander. It should be noted that the entire RWPA grant in the NY EMA could be considered an MAI grant – over 90% of HIV-positive RWPA clients in the NY EMA served in 2015 identified as Black, Hispanic, Asian/Pacific Islander, Native American/Alaskan Native, and/or multi-race. The NY EMA strives to use its resources to address HIV health disparities associated with race/ethnicity, particularly among Black and Hispanic populations, who experience the greatest disparities, and account for 88% of all HIV-positive people served by RWPA, while constituting Black and Hispanic populations constitute 76% of all PLWH in the NY EMA.

Comparing outcomes for the largest racial/ethnic groups among individuals who were enrolled and served by RWPA in 2014, even within low-income communities, the racial/ethnic disparity in VLS rates between Blacks, Hispanics, and Whites persists; 71% of Black RWPA clients were virally suppressed in 2014, compared to 76% of Hispanics, 80% of Whites, and 83% of Asian/Pacific Islanders. This disparity was in spite of similar rates of retention and ART use across racial/ethnic groups (*see Figure 3*). Racial and ethnic disparities were compounded by disparities by age and gender. For example, transgender women who received RWPA services in NYC in 2014 had the lowest rates of VLS across racial/ethnic groups, but VLS rates were lower for transgender Black and Hispanic women (56% and 74%, respectively) than for transgender White women (80%). Similarly, VLS rates were lowest among those aged 20-29, regardless of race or ethnicity, but rates were lower among Blacks and Hispanics (60% and 64%, respectively) than among Whites (70%).

Figure 3: Ryan White 2014 Diagnosis-based HIV Care Continuum, by Race/Ethnicity



Sources: NYC DOHMH, HIV Epidemiology and Field Services Program, data as of June 30, 2016; NYC DOHMH, HIV Care and Treatment Program, data as of August 17, 2016.

b) Identified MAI populations.

(1) Approaches for MAI populations. Due to the large proportion of racial/ethnic minorities served by the entire RWPA 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 and instead focuses on those who are not achieving the goals of each stage of the HIV Care Continuum in 2014. By doing this, the PC focuses on the unique barriers at each stage of the continuum.

(2) MAI activity descriptions. The GY16 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 RWPA program portfolio; rather, the MAI program prioritizes communities where disproportionately burdened minority populations live. All contracted RWPA services in the NY EMA, including MAI, are required to adhere to the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (The National CLAS Standards).^{xxxx} 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 target 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 targeted populations; and
- Demonstrate that at least 75% of its current active clients who receive HIV/AIDS services are from the MAI target populations.

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

(3) *Impact and evaluation of interventions.* The agencies/programs located in NYC that receive MAI dollars are particularly well situated to provide services to MAI populations and have historic ties to the communities they serve. This is evident in the outcomes reported among these providers on standard measures. In GY15, MAI MCM clients showed high levels of VLS, with the most recent viral load less than 200 copies/mL for 76% of clients with a documented viral load. An even higher proportion of clients (81%) receiving MAI housing services were virally suppressed. In GY15, MAI EIS programs linked 91%, and Base EIS programs linked 85%, of newly diagnosed clients to HIV primary care within three months of diagnosis.

5) Special Populations and Complexity of Providing Care. 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 2014-2015 CHAIN cohort in NYC, 93% percent suffer from at least one non-HIV-related chronic condition, and 77% report at least two additional conditions, such as hypertension, heart disease, or Hepatitis C (HCV). Having one or more co-morbid conditions increases the 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.^{xxxi}

a) Emerging Populations. 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 RWPA services, over the past decade or more. The Recipient and 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 YMSM 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 known to the NY EMA, none could be considered emerging. Thus, the NY EMA has sought other ways to understand emerging issues, such as co-occurring conditions and co-morbidities. The PC spent much of GY15 and early GY16 exploring how to support PLWH who are co-infected with HCV (*see pp. 27-28, for more details*) and to understand any disparities in access to HCV treatment caused by the high cost and coverage gaps of the new Direct Acting Agents (DAA) that cure HCV. Upon analysis, it was determined that access to and utilization of the DAAs was low among all groups, regardless of insurance status and instead issues of access to HCV care and pre-treatment diagnostics were the greater issues. In GY17, the Recipient and the PC will continue to explore how to use the success of the RWPA system to support co-infected people to be linked and retained in HCV care, with the ultimate goal of curing their HCV. The RWPA service providers will provide additional case management and HR services to navigate and support this population through treatment. Increased investments may be necessary to ADAP to support drug coverage for the un- and underinsured, the additional cost could be significant and upwards of several million dollars.

b) Populations Under-Represented in RW System. In 2015, Whites accounted for almost 21% of all PLWH in the NY EMA but represented less than 9% of all HIV-positive RWPA clients. Additionally, the RWPA population includes a lower proportion of males, residents of Manhattan or Queens, and PLWH with likely MSM transmission, as compared with the overall NY EMA PLWH population. The NY EMA has determined that these utilization patterns likely reflect socio-demographic differences in need and eligibility for local RWPA services, rather than gaps in the care

system. White PLWH have greater average household income and healthcare access resulting from coverage by other payers of HIV medical care services. Ongoing work through *New York Knows*, coordinated with NYS, seeks to further engage Manhattan and Queens PLWH through regional testing, linkage, retention and adherence efforts coordinated with the RWPA program.

c) Profile of PLWH with co-morbidities (see Attachment 5).

d) Effect of co-morbidities and co-factors on cost and complexity of HIV care.

(1) Hepatitis C Virus (HCV). Incidence and prevalence of HCV are difficult to estimate because of the asymptomatic nature of the disease; an estimated 50% of people with HCV are unaware of their infection. However, 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.^{xxxiii} The majority of new infections occur among people in high-risk groups with tenuous connections to healthcare, including PWID and MSM who are co-infected with HIV. Roughly 16% of PLWH (16,000/100,000) and 23% of RWPA clients in NYC are co-infected with HCV.¹⁴ 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 who's HIV is not well-managed. The newer, HCV medications (DAAs) that are able to provide individuals with a cure are prohibitively expensive (upwards of \$60,000-\$80,000 for a course of treatment) for many middle and low-income individuals, even those with insurance. Currently, Medicaid is covering the drug with very few limitations and coverage under insurance varies widely. For those who are uninsured, NYS ADAP covers only the older HCV treatments for HIV/HCV co-infected individuals and none of the newer medications, leaving coverage for the newer, more effective HCV treatments to drug company assistance programs. The PC has been studying the HIV/HCV co-infection issues and is working with DOHMH to develop a plan to increase access to new HCV medication. Components of the plan include provider education and training, client navigation services, and review of payers available to help cover HCV treatment costs. The NY EMA also received a HRSA/HAB Special Projects of National Significance (SPNS) grant to address HIV/HCV co-infection among PLWH of color.

(2) Sexually Transmitted Infections (STIs). Untreated STIs increase the risk of sexual HIV transmission. In 2015, NYC's STI case rates were highest in neighborhoods with high HIV prevalence; Central Harlem and Chelsea have high rates of gonorrhea and primary and secondary syphilis, and chlamydia rates are high in the South Bronx. Key STIs are on the rise in NYC. In 2015, approximately 63,000 new chlamydia diagnoses were reported in NYC. There were almost 17,000 new diagnoses of gonorrhea reported in 2015; the highest case rates were seen among young adult men of color. Since 2000-2001, primary and secondary syphilis has increased seven-fold in NYC; in 2015, 96% (1,464 of 1,521) of primary and secondary syphilis diagnoses were among men, 79% of which were among MSM. Among MSM with syphilis whose HIV status was known, 49% were HIV-positive. Average lifetime treatment costs are estimated at \$709 (range, \$355-\$1,064) for each case of syphilis and for gonorrhea, \$79 (range, \$40-\$119) for each male case and \$354 (range, \$177-\$531) for each female case. STIs increase future HIV treatment costs by facilitating the spread of HIV; further complicating treatment is the risk of resistant gonorrhea infection. There are marked increases in the number of gonorrhea isolates with reduced susceptibility to Azithromycin, and three instances of possible treatment failure to Azithromycin, though that drug is not recommended as sole treatment. Luckily, decreased susceptibility to ceftriaxone has been relatively uncommon. The PHL and BSTDC have invested in new technology to continue to detect and monitor resistance trends in NYC.

¹⁴ HIV/HCV co-infections data was derived from a CDC-funded Program Collaboration and Service Integration (PCSI) match between HIV, viral hepatitis, STI, TB, and A1C (diabetes indicator) registries.

(3) Prevalence of 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.^{xxxiii} A steady decline in the number of affordable rental apartments in NYC has been recorded in recent years. Between 2010 and 2014, median rents in low-income neighborhoods increased 26%, while real median household incomes fell by 7%.^{xxxiv} 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.^{xxxv} Less than 4% of units with rents less than \$2,000 per month were vacant, and vacancy was less than 2% for the subset of units less than \$800 per month.^{xxxvi} More than 109,000 unique individuals accessed the NYC shelter system in 2015, a number 90% higher than ten years ago.^{xxxvii} Data from the annual Homeless Outreach Population Estimate Street Survey in 2016 suggests that more than 2,700 homeless individuals may be unsheltered on any given night.^{xxxviii} Studies show that the large majority of street homeless New Yorkers are individuals living with MH issues or other severe health problems.^{xxxix} Blacks and Hispanics are disproportionately affected by homelessness; 58% of NYC homeless shelter residents are Black and 31% are Hispanic.^{xl} 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.^{xli}

The prevalence of homelessness among PLWH is especially high. In the most recent CHAIN cohort surveyed (2008-2012), 26% of NYC and 18% of Tri-County respondents were homeless or unstably housed, and 30% of respondents reported needing housing assistance. Further, 43% experienced housing instability during the year prior to being diagnosed with HIV.^{xlii} Housing instability and homelessness were even more prevalent among HIV-positive RWPA clients served in 2015; 33% of those assessed reported unstable housing during the year, and 27% met the definition of homelessness. Among those engaged in HIV medical care, 70% of unstably housed clients were virally suppressed in 2015, compared to 80% of those with stable housing. When hospitalized, homeless individuals in NYC have hospital stays 36% longer than other hospital patients.

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 80% following the provision of housing, substance use treatment, and other needed support services.^{xliii} 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.^{xliv} A recent study demonstrated that NY EMA HOPWA clients enrolled in supportive housing programs experienced improved retention in care and VLS.^{xlv} Additional funding for RWPA Housing services was requested in GY16, and will be requested in GY17, to support engagement and maintenance in care and improve health outcomes.

(4) Formerly incarcerated individuals. From 2012-2014, approximately 240,000 people were released from NYS prisons and local jails to the NY EMA (80,000 in 2014 alone). Of those released, an estimated 14,000 were PLWH (3,760 in 2014 alone). Over two-thirds of NYS inmates return to NYC and reside in seven ZIP codes located in Central Brooklyn, Central and East Harlem, and the South Bronx, where new diagnoses and HIV prevalence are high.^{xlvi} Nearly half (52% in NYC, 45% in Tri-County) of CHAIN participants report having ever been in jail or prison, with 9% in NYC (9% in Tri-County) experiencing incarceration during the year in which they were diagnosed with HIV. Among RWPA clients in NYC enrolled and served in 2015, 17% had ever received services through the NY EMA's jail-specific programming, while 11% had received these services specifically in 2015.

In addition, 32% of active RWPA clients assessed in 2015 reported an incarceration history. Among those assessed and in HIV medical care, 74% of clients with a history of incarceration were virally suppressed in 2015, compared to 81% of those who had never been incarcerated. Individuals released from jails and prisons experience more chronic diseases and drug use compared to those who have not been incarcerated.^{xlvii}

From 2012-2015, an annual average of over 2,500 people living with HIV were incarcerated in NYC jails; 2,100 received a discharge plan and over 60% were released to the community with a plan. Consistent with historic trends,^{xlviii} over 70% were linked to primary care after incarceration.^{xlix} In 2015, over 80% of those linked to care were maintained in care for at least 90 days. Three NYC districts identified as having the highest number of people returning home from NYC jail are the same areas identified by DOHMH as having among the highest rates of new HIV diagnoses: Central Brooklyn, Central and East Harlem in Manhattan, and the South Bronx. 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 the same areas listed previously.

A recent cost analysis found that the mean annual cost to achieve HIV viral suppression among formerly incarcerated individuals is \$8,432.¹ These high costs may be attributable to the challenges that formerly incarcerated people often face when released, including high rates of recidivism, 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.

(5) Mental health issues. Approximately 24% of NYC CHAIN participants surveyed during 2014 and 2015 had very low scores on a standardized MH functioning measure (indicating MH issues). Among NYC RWPA clients enrolled and served in 2015, 29% of those assessed in the year had at least one very low MH functioning score (<37.0 out of 100), while 49% scored below the diagnostic cutoff for depression (<42.0 out of 100). In GY16, RWPA allocated \$4.2 million on MH services for PLWH, a reduction from \$4.4 million GY15. This reduction was not due to a decrease in MH service needs but, instead, an increase in services billable to Medicaid. In GY16 and in the spending plan for this application, the PC reduced the allocation to MH services, acknowledging the significant investment by Medicaid of over \$430 million for MH services for PLWH on Medicaid. SAMHSA also contributed \$16.4 million in funding for MH services into the NY EMA's healthcare system, with several million dollars more coming from RW Parts B and C (*see Attachment 7*).

(6) Substance use. The NY EMA's efforts to manage its HIV epidemic are complicated by a high prevalence of drug and alcohol use (an estimated average of 8% in the NY EMA's general population).ⁱⁱ This appears to be higher in the RWPA population, which has a significant impact on clinical outcomes. Among RWPA clients enrolled and served in 2015, 18% of those assessed in the year reported recent hard drug use; among RWPA clients with some evidence of HIV medical care, 62% of those who reported recent hard drug use during the year were virally suppressed, compared to 80% of those who did not report recent hard drug use. RWPA funding supports HR services to engage those actively using substances, with the goal of reducing the harmful effects of substance use. In GY15, RWPA spent just over \$8 million on HR services for PLWH in the NY EMA. SAMHSA, Medicaid, and RW Parts B, C, and D supported substance use services in the NY EMA during the same period (*see Attachment 7*).

(7) Tobacco Dependency. Despite a record low prevalence of smoking in NYC (less than 14%), pockets of heavy tobacco use and dependency persist among several populations, including PLWH.ⁱⁱⁱ 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% (5,942) of a sample of 14,713 PLWH enrolled in RWPA programs 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.^{liii} 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.^{liv}

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 RWPA-funded MH or HR services. However, among RWPA clients enrolled and served in FY15, those receiving HR services had the highest rate of recent smoking, at 61%. 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 and GY16 and will continue in GY17 by encouraging providers to screen and refer PLWH to appropriate tobacco dependency services and allow for the treatment of tobacco dependency concurrently with MH and HR services to ensure the full needs of the client are met.

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

METHODOLOGY

A. Impact of Funding.

1) Impact of and Response to Reduction in RW HIV/AIDS Program Formula Funding.

a) Impact and extent of decline in funding on services. After a reduction of 1.6% in GY15 (two years after a historic 14.75% reduction in GY13), the NY EMA once again received a reduction of 1.3% in GY16. 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 PC responded by eliminating a service category and making upfront reductions of approximately \$300,000 to MH and HR (*see below for details*), with plans to restore funding if available through reprogramming. The elimination of Home and Community-Based Services (HOM) resulted in the elimination of four contracts that served 364 clients in GY15 and provided 5,024 units of service. The majority of the service types in HOM are funded elsewhere in the portfolio, such as home-based MH and home-delivered food. The Recipient worked with all of the providers to ensure transition of clients to other programs, as appropriate. The upfront reductions to medical transportation and ADAP necessitated calculated decisions by programs that could result in lower service levels earlier in the year as they wait for additional funds to come during the reprogramming period.

b) Response of the PC. To accommodate the 1.3% percent reduction in GY16, the PC examined detailed service category fact sheets for the entire portfolio of services. The PC had been poised to recommend eliminating one of the lowest ranked service categories, HOM, from the portfolio in the GY17 application plan. With the cut in the GY16 award, the Priority Setting and Resource Allocation (PSRA) Committee recommended bringing this action forward to GY16. HOM was originally intended to provide skilled nursing in the home and had not been re-bid since 1997. It was reclassified from Home Health Care to Home and Community-based Health Care Services several years ago as part of the implementation of the National Monitoring Standards (NMS), reflecting its drift to home-based supportive and personal services. In addition, the HOM allocation had been

decreasing yearly, the number of clients was shrinking primarily due to expanding benefits under Medicaid, and several programs had consistently under-performed. Eliminating HOM in GY16 allowed the PC to absorb the reduction in the award without permanently cutting any additional programs.

2) Impact of the Changing Health Care Landscape. Prior to implementation of the ACA, NYS Medicaid covered non-disabled adults with incomes below 100% of the federal poverty level (FPL). Expanded health insurance coverage options provide further opportunities for PLWH. These changes affect health insurance coverage options in the jurisdiction, as well as RWPA service needs and how those services are provided. In addition, these new options require specific outreach and enrollment activities to ensure that people eligible for healthcare coverage are expeditiously enrolled and coverage is maintained.

a) Table 3: NY EMA Uninsured and Poverty

Diagnosed and reported PLWH in NY EMA (N =125,386)	# of PLWH	% of PLWH
<i>a1.</i> PLWH in the NY EMA enrolled in Medicaid	40,638	32.4%
<i>a2.</i> PLWH in the NY EMA enrolled in Medicare and Medicaid/Medicare (dual eligible)	13,546	10.8%
<i>a3.</i> PLWH in the NY EMA enrolled in marketplace exchanges	5,776	4.6%
<i>b.</i> PLWH in the NY EMA without any insurance coverage	12,027	9.6%
Active RW Clients in the NY EMA, GY15 (N=16,349)		
<i>c1.</i> PLWH in the NY EMA living at or below 138% of 2016 FPL	14,362	87.8%
<i>c2.</i> PLWH in the NY EMA living at or below 400% of 2016 FPL	15,870	97.1%
<i>c3.</i> PLWH in the NY EMA living at or below 435% of 2016 FPL*	15,889	97.2%

Sources: Data in sections a. and c. provided by NYS DOH 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 RW services. This requirement for RW in the NY EMA remains unchanged. There are no income restrictions for EIS services or HE/RR.

b) Impact of Insurance Expansion. 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 CTP dedicated one staff person to assist providers and develop consistent communications, including notices to providers, presentations, and a biweekly policy newsletter, on ACA-Medicaid related issues relevant to RWPA-funded providers. In light of the RWPA POLR requirement and RWPA provider requirements to ensure clients are appropriately enrolled in coverage, major provisions of the ACA and Medicaid expansion were reviewed to assess whether they might impact the insurance status and/or the services available to consumers in the NY EMA at intake and reassessment (every six months).

Regional breakdowns of Medicaid spending are available but based on the State's economic development areas. For the NY EMA, data are available for NYC; information for Westchester, Rockland, and Putnam is combined with information from other counties that comprise the Mid-Hudson Valley. Through March 2016 of the current state fiscal year (SFY15-16), Medicaid state and county spending in NYC was \$594.4 million higher than the previous state fiscal year and \$91.3 million higher in Mid-Hudson Valley.^{lv} This increase is consistent with projections and trends among states that expanded Medicaid eligibility.^{lvi}

In FY15 Medicaid reimbursed core service care for 59,901 PLWH, at a total cost of \$3,678,985,198, and reimbursed outpatient medical care visits for 52,226 PLWH, at a cost of \$613,335,185.

(1) 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 CMS Waiver application and directives for n-MCM and SCF service categories. Early predictions, since proven accurate, were that there would continue to be demand for RWPA and ADAP to fill gaps in Medicaid coverage for PLWH in need.^{lviii} As such, additional shifts were made in funding allocations to Housing, FNS, and SCF to increase support services and address the anticipated increase in coverage of medical services through other payers. Provisions of the ACA led to some increased insurance access for RWPA clients in two ways: 1) through Medicaid expansion and 2) through the availability of health insurance plans for purchase on the NYS of Health (also known as the Health Plan Marketplace), the healthcare exchange of Qualified Health Plans (QHPs) operated by NYS (nystateofhealth.ny.gov). Although there was greater access to insurance coverage due to Medicaid expansion, increases were relatively modest because NYS Medicaid previously covered people with income up to 100% of the FPL. However, as anticipated, fewer people were served by the State's HIV Uninsured Care Program (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 Homes replaced the long-time COBRA case management program for PLWH, and COBRA clients were automatically transferred to Health Homes. The ACA transition to Health Homes required expanded caseloads and affected the way Health Home care management agencies serve HIV-positive members. Care Management Agencies (CMAs) are working on ways to preserve HIV expertise of care managers, as their knowledge base must expand to serve persons with multiple chronic illnesses and serious mental illness. CMAs, now, 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.

(2) Changes in allocations. The NYS AI's HUCP continues to be a resource for those who need financial assistance with health insurance premiums and copays. Approximately 3,242 participants have insurance coverage purchased through the NYS of Health. The PC and the Recipient continue to communicate with the HUCP to determine whether RWPA funding is needed for this service; no funding is needed at this time.

(3) Costs. Through the CMS Waiver, the NY EMA allocates additional resources to support social services, such as food and housing, to meet clients' basic needs. Redirecting funding from provision of core medical services to supportive services enhances the Recipient's efforts to maintain, engage, and retain clients in care who receive primarily medical services and medications from other payers (ADAP, Medicaid). Barriers in 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 VLS, improving their quality and length of life, and drastically reducing transmission.

The NY EMA EIS program to be re-bid in GY17, will increase focus on navigation to PrEP, if appropriate for those who test HIV-negative and rapid linkage of clients who test positive for HIV. This leverages evidence that earlier access to care and treatment provides greater health benefit for those who are newly diagnosed with HIV, while significantly reducing the likelihood of HIV transmission. Enhancing linkages to HIV primary care are an important component of reducing new

HIV infections in the NY EMA. Screening coupled with immediate linkage has been shown to have the greatest public health benefit, prevention HIV infections, AIDS related deaths and cost savings since poor retention in care continues to be a large barrier to prevention.^{lviii}

c) Outreach and Enrollment.

(1) *Outreach Efforts.* DOHMH worked closely with all providers to update them on *Policy Clarification Notices (PCN) #13-01 and 13-04*, which require subrecipients to pursue health insurance enrollment (including Medicaid) for all clients at intake assessment and reassessment (every six months) and to document enrollment efforts for all eligible clients. DOHMH prepared a *Dear Colleague* letter advising providers that clients may be newly eligible for Medicaid, requiring clients to be referred to state-funded navigator programs to assist with enrollment, and reminding providers to re-enroll eligible clients to ensure continued coverage. The letter was followed by presentations at all RWPA service provider meetings. The letter and presentations highlighted that non-enrollment could result in tax penalties for clients and provided information on open enrollment and special enrollment periods. Finally, provisions requiring RWPA providers to assess possible client eligibility for expanded Medicaid and either assist clients with enrollment or refer clients to a navigator were added to all contracts, per HAB policy.

(2) *Coordination efforts.* In order to keep abreast of available outreach and enrollment resources, DOHMH keeps close contact with NYS partners who were administering the NYS-funded navigator programs and trainings for Certified Application Counselors, as well as managers of the NYS of Health website. As enrollment into expanded Medicaid and QHPs purchased on the NYS of Health continues, the Recipient will continue to monitor RWPA client health insurance coverage and its effect on RWPA-funded services.

(3) *Major Challenges.* Consumers, and some providers, had difficulties understanding insurance terminology and navigating the application process. There continues to be a need for assistance with understanding the eligibility for and interactions among insurance services. For instance, cost-sharing is a feature of many insurance plans, so clients seeking to minimize out-of-pocket costs may need help by negotiating access to out-of-network providers, for example.

Providers must be up-to-date on health insurance providers' changing participation in the NYS of Health in order to connect clients to appropriate, and sometimes alternative, plans. For example, Health Republic, an individual market insurance provider, was open to all counties in the NY EMA in 2015 but is no longer participating in the NYS of Health. Further, as provider decisions to accept insurance products are subject to change, clients are encouraged to consult their current healthcare provider to determine if a plan they are considering is accepted.

In 2015, the NYS of Health announced the availability of dental plans for individuals as either part of existing health plans or as a separate, stand-alone dental plan. Dental coverage historically has been a concern for providers and consumers needing oral care, due to the lack of options available from NYS of Health. A new challenge will be to encourage enrollment in these plans since dental coverage is not required by law under the ACA for adults, despite being important in maintaining overall good health. This challenge is further exacerbated for clients for whom HUCP is paying their premiums as RWPA funds cannot pay for stand-alone dental plans.

(4) *Major Facilitators.* The NYS Medicaid program had more generous eligibility requirements than most states before implementation of the ACA, and has always been the dominant payer of care for PLWH. HUCP continues to bridge the gap between Medicaid coverage and private insurance for PLWH in NYS, with the goal of providing universal access to medications and outpatient care for PLWH. The NYS of Health offers Medicaid and commercial health plans with access to a wide

range of experienced safety net providers. The NY EMA instructed providers to ensure eligible clients were re-enrolled on time to avoid gaps in coverage.

From 2015 to 2016, the NYS of Health conducted approximately 1,400 community outreach events and distributed over 1.7 million pieces of educational outreach material in cooperation with community partners.^{lx} The NYS of Health hosts several outreach events across the counties to reduce the number of New Yorkers who face a tax penalty for not having coverage. NYS of Health has created online resources including tools where consumers can evaluate and compare health plan options to best meet their needs, offer support in 24 languages (five additional languages became available in 2016), and navigators who provide in-person application assistance to individuals and their families (including evenings and weekends). In addition to existing educational videos on the NYS of Health site, an educational video introducing a new Basic Health Plan (BHP) for low income individuals and families was added in 2016. These videos have been viewed 1.4 million times, disseminating important information to support individuals and families in renewing and enrolling in health plans.^{lx}

Beginning in January 2016, health care consumers were able to enroll in an HIV Special Needs Plan (SNP) through the NYS of Health website. HIV SNPs are Medicaid Managed Care plans that specialize in HIV care and offer enhanced care management services for PLWH. Previously, HIV SNPs required paper enrollment via local districts rather than the immediate enrollment provided by the NYS of Health. The transition to online enrollment is one of the most significant facilitators to increased outreach and enrollment efforts.

d) Marketplace Options. Eligible New Yorkers may enroll in QHPs through the NYS of Health website. Consumers with incomes between 138% and 250% of the FPL may be eligible for some premium and cost-sharing assistance. In January 2016, NYS began to offer BHPs, also known as Essential Plans, which are available to New Yorkers with incomes up to 200% FPL. This plan includes all essential health benefits required of QHPs in the marketplace. The BHP premium is substantially lower than that for a QHP. The NY EMA will monitor the effects of the BHP rollout on PLWH in the jurisdiction.

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. *Table 4* provides an overview of the plans available by county.

Table 4: 2016 NYS of Health Plan Availability by County – Individual Market^{lxi}

County	Affinity Health Plan	EmblemHealth	Empire BlueCross-BlueShield	Fidelis Care	Healthfirst New York	MetroPlus Health Plan	MVP Health Plan	North Shore LIJ	Oscar Insurance	United Healthcare	Wellcare
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	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	x
Westchester	x	x	x	x			x	x	x	x	

Note: Double Xs (xx) indicates that the plan began in 2016.

(1) Provider Accessibility. QHPs are required to contract with “Essential Community Providers”, including RWPA providers, who care for medically underserved populations and ensure a level of appropriate geographic distribution. 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 (Putnam, Rockland and Westchester counties). MetroPlus (a health insurance company that also offers a SNP) was newly added as an available option for consumers in Richmond County (Staten Island) in 2016. The SNPs are expected to begin enrollment in Westchester in the next year.

(2) Effect on Access to Care and Medication. Both consumers and providers find medication benefits navigation difficult. The NYS AI directs both to resources to better navigate drug formularies. 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 recent national study found that only 16% of silver exchange plans, the second highest tier of exchange plan, in 2015 covered all top HIV drug regimens with cost sharing less than \$100/month/regimen.^{lxiii} In NYS a majority of plans were moderately accessible, defined as coverage of 7-9 ART regimens out of 10 or up to \$200/month/regimen, which is a significant barrier to medication access. However, in NYS HUCP copay assistance is available for these copays for those with an income up to 435% FPL.

The introduction of BHPs to NYS of Health will likely address this concern 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. Those with incomes at 200% of the FPL will have a monthly premium of \$20. Enrollment for BHPs began in late 2016, after publication of the report cited above.

3) Planning and Resource Allocation.

a) *Description of the Community Input Process.*

(1) Overall Structure of the Community Input Process. Consistent with legislative requirements, the NY EMA in GY16 used a systematic, evidence-driven, representative, and inclusive planning process to prioritize services and allocate resources for GY17. The PC and its committees continued a multi-year process to reassess and re-bid the RWPA 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 DOHMH BHIV CTP throughout the planning process. 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;
- Allocated 63% of RWPA and MAI funding to CMS for GY17;
- Continued funding for MCM, including the CCPs, TCC programs, and Tri-County MCM, to optimize medical outcomes;

- Allocated 5% of the GY17 portfolio to reduce the number of PLWH unaware of their HIV status, to promote access to 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 guidance for Legal Services in the NY EMA and for all the service categories funded in the Tri-County region;
- Approved targeted increases to Housing and Food Bank/Home-delivered Meals in order to address ongoing needs of PLWH, a decision based on data demonstrating the correlation between supportive housing, food security, and VLS.^{lxiii}

Needs Assessment Committee (NAC). The NAC built on the previous work conducted to complete comprehensive formal needs assessment for HIV services in the NY EMA. In GY16, the NAC identified several key areas of further focus to aid in the RWPA priority setting and resource allocation process: 1) housing need (especially in the Tri-County region); 2) the impact of income as a determinant of health and financial hardship, including unemployment and economic disparities experienced by transgender clients; and 3) HIV/HCV co-infection and access to curative DAAs for HCV treatment. The NAC held a community briefing on these topics for all PC and committee members, out of which several recommendations were developed and forwarded to other PC committees for consideration and action.

Integration of Care Committee (IOC). The IOC guided the PC in defining individual service categories, reaffirming continuing models of care, and creating new evidence-based service category directives. The IOC amended the Client Advocacy (Legal Services) directive to allow eligible PLWH to access free tax preparation services to ensure that clients file tax returns as required under the ACA. The IOC, in collaboration with the Tri-County Steering Committee, also created new service directives for all funded categories in the Tri-County region. All Tri-County directives are now in alignment with directives for services in the NYC portion of the NY EMA, as appropriate, while remaining aligned with the needs of suburban and rural PLWH in the region.

The IOC also developed a master service directive that will be used EMA-wide in all new procurements and during renewals, as appropriate. The master directive strengthens the requirement that all RWPA service providers must refer clients as appropriate to entitlements and benefits specialists with experience navigating the health care system in order to support access to clients' unmet medical and social service needs. The master directive also strengthens the requirement that all providers must follow up with individuals who are more likely to become lost to care. The directive also ensures services are client centered, guided by HR principles, are culturally and linguistically appropriate, and support access to people with disabilities, including physical, visual, and hearing impairments, and assures active alcohol and substance use or a criminal justice history does not preclude client eligibility for and maintenance in services.

The IOC also followed-up on the NAC community briefing recommendations, agreeing to work with the Recipient to develop an implementation plan to require RWPA providers to have enhanced training on benefits and entitlements in order to broaden access for clients to employment and educational programs. Further, the IOC recommended the Recipient prepare a strategic plan to address HCV medication access, e.g., through provider and patient education, and help with the patient assistance program and insurance enrollment, approval, and appeal processes.

Priority Setting and Resource Allocation (PSRA) Committee. Using data assembled by the NAC, 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 priority) for assigning scores to each service category, as described below.

(a) Payer of Last Resort (POLR)/Alternate Providers of Services (weight=15%). The PSRA Committee assessed each service to determine if RWPA 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 RWPA and where existing provider capacity was found to be inadequate to serve PLWH. In planning for GY17, 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 RWPA services in the NY EMA. The continued addition of new sources of funding in NYS for HIV CMS through Medicaid expansion, health insurance exchanges, and the continued implementation of NYS Medicaid Health Homes was a critical factor in the PC's approval of the 2017 request for a waiver to the CMS requirement.

(b) 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. Highest value was assigned to services that have, as their primary goal, either direct provision of primary medical care or promotion of access to and maintenance in care through direct referral and linkage to medical services. In addition, housing and FNS were deemed high priority services due to their essential support role in retention in care and VLS.

(d) 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. Highest value was assigned to services that promote health care 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.

(e) 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. 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 was used in the PSRA Committee's scoring of each criterion for every service category in the RWPA portfolio, as well as in allocation decisions, resulting in ranked priorities based on the criteria described above. *(See p. 47 for complete list of funded categories in order of PC-ranked priority.)*

Tri-County Steering Committee. In the GY17 Plan, the Tri-County region receives 4.8% of the annual RWPA award. A local Steering Committee functioning as a committee of the PC conducts service planning and makes resource allocation recommendations to the PC. Tri-County's 40-member Steering Committee includes 15 PLWH and a representative from the NYS DOH. All Committee members received an orientation on the RW 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 GY17, 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.

(2) Description of Specific Prioritization and Allocation Process.

(a) Population needs considered.

Needs of PLWH not retained in care. Identifying PLWH not retained in care and linking them to consistent outpatient primary medical care is a priority for all services in the NY EMA. Previously, the PC received the report on the needs of PLWH not in care through a study by DOHMH, *Gaps in Primary Care: Client Perspectives from the Return to Care Survey*. The study reported on interviews with PLWH who had recently been re-connected to care after a lengthy absence. Through the study, the PC learned about key factors that contribute to discontinuity of care including depression, not experiencing symptoms, forgetting or accidentally missing appointments, not wanting to think about HIV, not wanting to take HIV medications, and using alcohol or other drugs. The study found that 69% of participating PLWH who recalled having a recent gap in care had used health and social services while out of HIV primary care, including at least half who required either hospitalization or emergency room services. The survey found sharp drops in self-reported feelings of hopelessness, denial, and aversion to HIV medications after PLWH returned to care. It also identified outreach services as one of the top mechanisms through which clients return to care. These findings supported the PC's decision to prioritize EIS case-finding and linkage services. Study findings correlating depression and substance use with gaps in primary care influenced the PC's decision to prioritize MH and HR services, allocating \$4.3 million and \$7.8 million, respectively. In addition, the PC ensured that navigation to medical care services for FNS and housing clients disengaged from medical care are included in the service models for those categories.

The effort to reduce unmet need supported the prioritization of coordination of care under the MCM program, n-MCM programs for the formerly incarcerated, and TCC for homeless or unstably housed PLWH. As housing instability, food insecurity, substance use, and mental illness have been shown to contribute to care discontinuity, the PC's prioritization of housing, FNS, HR, n-MCM, and MH services also demonstrates a strong commitment to reduce unmet need. The PC's high priority for n-MCM services, especially for those PLWH soon to be/recently released from correctional facilities, is based on the efficacy of those services in reducing unmet need.

The CHAIN cohort study analyses on food and nutrition needs also demonstrated that food insecurity is widespread among PLWH in the NY EMA. The study showed that food-insecure PLWH report significantly more missed appointments for HIV primary care and more emergency room visits compared to those who do not report food insecurity. The food-insecure are also less likely to receive medical care that meets minimum clinical practice standards.^{lxiv} The PC, thus, arrived at a data-driven decision to assign a high priority to FNS, allocating \$6.6 million.

Data from the CHAIN cohort identified housing insecurity as a barrier to accessing HIV primary medical care. Ninety-five percent of the CHAIN cohort reports needing some housing support due to housing instability (e.g., facing eviction due to inability to pay rent, living doubled-up on a friend's couch, living in a single-room occupancy hotel, or living on the street). The unstably-housed and homeless PLWH in the CHAIN cohort (30% of study participants) stand out as a subgroup with above average levels of service needs across multiple service areas, including ART support. The PC assigned a very high priority to housing services (having previously developed a strengthened service model that includes short-term rental assistance, transitional housing services, and housing placement assistance) and allocated \$13 million for those services.

Needs of people unaware of their HIV status. The PC continued its commitment to identifying individuals unaware of their HIV status and linking them to care. The PC uses several sources of data regarding people unaware of their HIV status, including epidemiologic and serosurvey data. DOHMH analyzes geographic and demographic changes in new infections and concurrent HIV diagnoses to identify

populations unaware of their status. In the first half of 2015, several populations in NYC were disproportionately concurrently diagnosed with HIV and AIDS, including foreign-born people, individuals with heterosexually acquired HIV or unknown transmission risk, Blacks, people living in areas of low poverty (ZIP codes with $\leq 10\%$ of the population below FPL)^{lxv} and high poverty (ZIP codes with $\geq 20\%$ of the population below the FPL), and people aged 40 and older. The data were used by the PC to determine EIS and MAI allocations as well as to develop the NY EMA's EIIHA strategy. Significant non-RWPA resources directed to HIV testing, combined with implementation of a NYS law expanding availability of testing as a routine part of medical care, prompted the PC to revise the EIS service directive to focus RWPA testing resources only to non-clinical settings such as jails and CBOs and allocating most EIS resources to programs that promote access to and retention in care for those who are newly diagnosed or already know their HIV status. The PC's EIS program also strengthens navigation and linkage to care for positive people, as well as adding referrals to PEP and PrEP. The GY17 plan's EIS component allocates \$4.4 million in RWPA funding, including \$1.7 million in MAI funding targeting high-risk Black and Hispanic individuals. This allocation is supported by data the PC received on the availability of other testing resources, routinization of HIV testing, and low positivity rates in some RWPA testing programs that were discontinued in GY14. Despite these shifts in the HIV testing landscape, the \$4.4 million allocated to EIS for populations and areas with highest rates of undiagnosed individuals shows the PC's commitment to continue case-finding undiagnosed individuals living with HIV in the NY EMA.

Needs of historically underserved populations. 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 with mapping of RWPA services. These analyses informed the PC's decisions to prioritize services along the HIV Care Continuum for low-income PLWH of color through MAI. Continued funding was allocated to the MCM-funded CCP on the basis of outcome data indicating statistically significant improvements in care engagement and VLS for high-need minority PLWH in that program.

For GY17, as part of its priority-setting process, the PSRA Committee reviewed available data on service utilization by key underserved populations, including women of color, YMSM of color, PLWH aged 50 or older, immigrants, substance users, and transgender individuals. Service category scorecards that track trends in utilization of different services enabled PSRA Committee members to identify services that are heavily used by traditionally underserved populations. The PC also reviews HUCP demographic reports, which offer programmatic insight. For example, these reports provided evidence that many MSM of color depend on the HUCP for health care access, which influenced the PC's decision to prioritize support for ADAP.

(b) 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 2016, PLWH constituted 40% of the PC's 45 members. At the beginning of the planning cycle, one-third of members were PLWH who are un-aligned consumers (in the course of the year, one un-aligned consumer became employed by a RWPA agency). The overwhelming majority of the PC's un-aligned PLWH are people of color. PLWH actively serve on all PC committees and make up 31% of the Tri-County Steering Committee. The PC conducted a special recruitment phase to increase the percentage to at least 33%; new, un-aligned consumers are expected to be approved by the Mayor's office within the next month. The governmental co-chair is a hearing-impaired PLWH, and the community co-chair is an un-aligned PLWH. PLWH were closely involved in feedback on service

quality, needs, and priorities through RWPA Client Satisfaction Surveys (CSS) and the ongoing CHAIN study. In GY16, the Consumers Committee also provided input into the development of the goals and objectives of the Integrated Plan.

The PC's Consumers Committee provides a forum for PLWH (PC and committee members, as well as other unaffiliated 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 ACA and its effects on RWPA services. Training is available during the planning cycle aimed at maximizing informed participation and decision-making. The committee plays a key role in recruiting new members, engaging consumers in the planning process, and in the training and mentoring of new PC members.

To develop the GY17 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 NYS DOH HIV Quality of Care Committee.

In GY16, the Consumers Committee also provided ongoing input into the development of the Integrated Plan through Borough/Regional-based committee reviews of the Regional Discussions convened by NYS in Fall 2015 and Winter 2016, generating additional recommendations on the plan's goals and objectives regarding client outreach, education, engagement, identification/coordination/collaboration of community partners and resources, linkage to and retention in care, prevention, and PEP and PrEP availability.

(c) Community input in addressing funding increases or decreases. The PC's data-driven planning tool allows for more objective advance scenario planning for funding increases or decreases. The tool includes built-in weighted formulas, based on the prioritization ranking of services that allow for automated calculations of funding increases or decreases for each service category based on the actual award. For GY16, there was a decrease of \$1.3 million. After examination of the service category fact sheets the PSRA Committee recommended eliminating HOM from the portfolio in GY16 due to the reduction in the award. The PSRA Committee implemented this cut in the GY 2017 Plan. Eliminating HOM in GY16 allowed the PC to absorb the reduction in the award without cutting any additional programs. Should the RWPA award be further reduced in GY17, 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, critical service levels will most certainly be additionally impacted if further reductions in the RWPA award occur in GY17.

(d) MAI Funding. Planning, including prioritization and allocation, for MAI funding is integrated into service planning for RWPA funds since more than 90% of the people served by RWPA are racial/ethnic minorities. MAI funds are concentrated in three core medical service 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 ongoing targeted programs. In particular, the PC sought to ensure that MAI funds were distributed to impact target populations at multiple stages across the HIV Care Continuum.

(e) 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 GY17 consistent with the revised goals in the NYS Integrated Plan. Data consulted included surveillance data, the NY EMA RWPA Service Category fact sheets, CHAIN data, HUCP

data, outcome data for MCM programs from the CHORDS Study, HOPWA data, eSHARE data, and other sources.

Service gaps and other findings from longitudinal cohort study. Evidence of service gaps from the CHAIN study and HIV/AIDS surveillance supported the PC's allocation of \$24.5 million for MCM and \$5.7 million allocation to n-MCM in GY17. CHAIN cohort members were defined as needing MCM if they reported interrupted HIV medical care, missed HIV medical care appointments, had no CD4 or viral load tests in the last six months, or if they reported any of those issues in the prior interview wave and were receiving MCM as of the current interview. In 2014 interviews, 39% of CHAIN participants in NYC met the criteria for MCM services and 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. These gaps also justify the NY EMA's allocation to n-MCM 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 GY17.

Outcomes Data. The PC examined DOHMH-reported outcomes data from the CHORDS Study, which assessed short and long-term CCP effectiveness by comparing care engagement and VLS among CCP participants with those of similar PLWH in HIV care who do not receive the CCP intervention. This was achieved by matching CCP programmatic data (eSHARE) with NYC HIV Registry data. CHORDS showed program achievements with respect to VLS, immunological improvement, and treatment adherence. Significant engagement into care and VLS increases occurred in all subgroups examined. Findings suggest a link between support to reduce psychosocial barriers (e.g., substance use and unstable housing) and greater improvement on 12-month engagement into care /VLS outcomes. The CCP analysis showed strong promise for increasing health and survival opportunities among those at highest risk for suboptimal HIV health outcomes. This information was utilized by the PC when considering the need for targeted support services and continued investment in the CCP.

Populations with special needs. Data on unmet need and utilization of MH services among PLWH in NYC, along with barriers that PLWH with MH diagnoses face with respect to accessing care, persuaded the PC to: continue supporting an MH service model that provides navigation to MH services, treatment and care to PLWH with mental illness, including those currently using substances; to improve quality of life and MH functioning; to overcome barriers to MH care; 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 \$4.3 million to MH services for GY17. The PC also allocated \$975,000 under HE/RR to support HIV self-management peer-led education programs for people newly diagnosed with HIV and those with barriers to maintaining care.

Trends in health care financing and delivery. The PC continues to prioritize investments in CMS in the GY17 plan during the ongoing implementation of NYS Medicaid Health Homes, NYS of Health, and expanded Medicaid coverage. Through discussions with the HUCP on service utilization and projections for uninsured care programs, PC members learned that continued gaps in care for these programs remain, even with implementation of the ACA and Medicaid expansion. Active NYS ADAP enrollment at the end of February 2016 was about 18,000 (down only slightly from a high of 20,500 in November 2012). While a high proportion of ADAP enrollees moved onto Medicaid and a growing number are insured, many are in a transition period (e.g., eligible for insurance but missed the open enrollment period). The PSRA Committee also learned from the NYSDOH ADAP director that the rollout of the ACA has left many patients confused and some missing opportunities to enroll

in exchange plans (e.g., some plans required a change in primary care provider). The PC's prioritization of these services was also supported by results from consumer focus groups identifying HIV medications as the top priority for CMS.

For GY17, the PC recommended that all funding for Outpatient Medical Care that had been allocated to the HUCP ADAP-Plus program be folded into the ADAP program. Along with the increase in insurance coverage, the growth of exchanges, and HUCP's Insurance Continuation Program, ADAP Plus requires reporting on clinical measures in HRSA's RW Services Report (RSR), but ADAP Plus only provides reimbursement for clinical care, making data collection a challenge. By shifting the entire RWPA allocation for the HUCP into ADAP, NYS DOH can move Part B or NYS funds into ADAP Plus, increasing the NY EMA's ability to report on RWPA funded services and increasing the NY EMA's contribution for drug reimbursement.

(f) Changes and trends in HIV/AIDS epidemiology. Epidemiologic data played an essential role in the development of the GY17 plan. Comparing epidemiologic mapping with service mapping, the PC directed RWPA services to be strategically placed in the most heavily affected neighborhoods. Concurrent HIV/AIDS diagnoses still comprised 18% of new HIV diagnoses in the NY EMA in 2014 (a decrease from 22% in 2009-2010^{kvi}). The NY EMA's \$4.4 million (\$1.7 of which is MAI) for EIS, including funding to identify and return to care individuals previously diagnosed with HIV infection who are not currently in care, responds to this finding. Additionally, the PC EIS allocation includes programs in response to an increase in HIV diagnoses and poor outcomes across the HIV Care Continuum among YMSM.

(g) Cost Data. The PC reviews unit costs in the scorecards for each RWPA 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 delivered. The PC also reviewed unit costs for key services as they developed prioritized services for the GY17 spending plan. When considering allocations for ADAP, the PC considered cost data from the HUCP, which administers these services. The average cost for a prescription covered with RWPA funds (ADAP) is \$503. Investing in this service aims to improve health outcomes, thereby reducing the costs for preventable hospitalization and emergency department visits.

When considering the allocation for HOM services, the PSRA Committee reviewed data on the average cost per client served, particularly for custodial visits (home assistance with activities of daily living, escort to medical appointments and essential services, homemaker services to provide chore services to provide support to the family), the one service type that was not covered under another category in the NY EMA's RWPA service portfolio. Twenty-three clients received custodial visits under the HOM programs, of which 21 were insured (18 through Medicaid, which has similar services through a Long Term Managed Care program). In addition, NYS HUCP Home Care is available for the uninsured. The PSRA Committee factored in the low utilization of HOM services and availability of other resources, when deciding to eliminate this service category. The PC also develops an annual plan to reallocate anticipated unspent funds based on need and service costs.

(h) Other federally funded HIV/AIDS programs. (See Attachment 7.) The PC and PSRA Committee use the service category fact sheets, which include data on other payers of services in the NY EMA and systems-level considerations, such as changes in Medicaid and other federal, NYS and local programs, such as NYC EtE funding, to make RWPA funding allocation decisions. The PSRA Committee also received an update from NYC DOHMH on reductions to the NY EMA's HOPWA award (approximately \$4 million dollars over the last two years) and coming changes to the HOPWA formulary, which will result in a new influx of clients into RWPA-funded short-term housing programs, informing the PC's decision to increase the allocation for these programs. The NYS DOH

reported to the PC on changes in its HUCP program as a result of the implementation of health insurance exchanges and Medicaid expansion. These reports informed the PC's priorities, including allocating 63% of the grant award for CMS in GY17. A CMS waiver will be submitted separately from this grant application.

(i) The Changing Health Care Landscape. ACA-specific presentations have been made to several planning committees, while discussion of the potential effects of changes from the ACA was incorporated into all relevant service category presentations. The PC also received data from the NYS HUCP on the impact of the ACA on utilization of ADAP and ADAP Plus. Increases in insurance coverage continued due to Medicaid expansion and access to the essential health plan for people under 200% of FPL. With the implementation of web-based expanded Medicaid access, fewer people were served by the HUCP during the past year than in previous years because they achieved more rapid Medicaid enrollment. Approximately 3,242 additional clients obtained insurance coverage purchased on the NYS Marketplace between February 2015 and January 2016. As noted earlier, average HUCP enrollment has only slightly decreased, and while early implementation of the ACA left many falling through the cracks in the exchange plans, as challenges with insurance coverage decrease, a growing number will be successfully insured. In addition, the cost of drugs is expected to rise (77% of ADAP funds pay for ARTs). As enrollment into expanded Medicaid and QHP purchases on the NYS Marketplace continue, the Recipient will continue to monitor RWPA client health insurance coverage and its effect on RWPA-funded services. These factors led the PC to continue to prioritize ADAP as the highest ranked service category.

The PC allocated \$5.7 million to n-MCM in GY17, \$1.6 million of which is for general navigation assistance for clients not receiving more intensive MCM services. This allocation increases the NY EMA's capacity to provide assistance with enrollment in expanded Medicaid and the NYS Marketplace. With significant shifts in the system of care, the PC has funded this service to minimize confusion that could result in discontinuity of care for PLWH.

In May 2013, the U.S. Preventive Services Task Force gave routine HIV screening in clinical settings a grade 'A' recommendation, ensuring coverage at no cost to those who purchased QHPs. In addition, Medicaid has reimbursed HIV testing in routine care since before the US Preventative Services Task Force recommendation. Thus, the PC has focused its EIS services on testing in settings that are not reimbursable as part of routine medical visits (i.e., at CBOs and in correctional settings) and on ensuring entry into care and retention in care in its new guidance which will culminate in an RFP in GY17.

(j) Integration of prevention and care planning. The PC's primary goal of maximizing VLS, in addition to keeping PLWH healthy, has the public health benefit of reducing transmission of HIV. The chair and staff of the PC meet regularly with the chair and staff of the CDC-funded NYC HPG. The grantees of the HRSA- and CDC-funded programs, respectively the Director of Care and Treatment and the Director of HIV Prevention Programs in the BHIV also coordinate funding and services. The Prevention and Care Programs and Planning bodies discuss collaboration and coordination between planning for prevention and care and they collaborated on the NYS Integrated Plan. The PC is also kept abreast of developments in prevention, such as services to support the implementation of PrEP and Prevention with Positive initiatives that are coordinated with RW services and the *EtE Blueprint*.

BHIV is beginning work on a plan to integrate the PC and the HPG in order to break the silos of HIV planning, based on NHAS 2020, and HRSA and CDC recommendations. Coordinating the jurisdictional response to HIV will avoid duplication of efforts, be more economical by sharing resources, increase collaboration and communication, and facilitate linkages to care for both HIV-

positive and negative people. A full HIV status neutral care continuum of care, from epidemiological risk to VLS was presented to the PC as a model for considering the spectrum of planning for all aspects of care and prevention. An Integration Working Group made up of PC and HPG members will meet monthly this fall to develop a plan to present to the membership of both bodies.

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

c) Coordination of Services and Funding Streams. The flexibility of RWPA 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.

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

(a) Jurisdictional HIV Resources Inventory. As shown in Attachment 7, nearly \$3.5 billion were available for HIV services in the NY EMA in 2016. 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 care.

(b) How funds are used to ensure continuity of HIV services. By maximizing coordination among diverse service systems and funding streams, the NY EMA is able to provide a comprehensive and flexible system of HIV/AIDS care. The PC annually assesses available resources in all RWPA service categories to identify key gaps in the HIV care system. For development of the GY17 Plan, this assessment was facilitated by a comprehensive *POLR Tool* (as described on pp. 37-38) that identifies and describes HIV-related services provided by non-RWPA sources. Documenting 130 programs in 17 service categories funded by nearly 40 different sources, this tool helped the PC to ensure that RWP serves as the POLR for services while filling gaps in the system of care. Further, the PC includes representatives from numerous NYC and NYS agencies, as well as providers of a broad range of services funded by multiple sources, bringing expertise on the full array of sources for HIV-related services. Ongoing coordination between DOHMH and the NYS DOH increases efficiency, maximizes the number and accessibility of services available, reduces duplication, and facilitates implementation of innovative strategies to address service gaps.

Services funded by other federal and local sources. Core medical and support services for PLWH are supported by funding from the sources outlined in Attachment 7. 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 VLS and other positive health outcomes by systematically coordinating services with the myriad of payers in the jurisdiction. The NY EMA has designed a system that: ensures RWPA 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.

- ***RW HIV/AIDS Program funding.*** The NY EMA coordinates extensively with the NYS AI, which administers Medicaid services as well as more than \$250 million in ADAP, RW Part B funds, and NYS tax dollars. Senior staff from NYS AI have been active participants on the NY EMA's PC since the beginning of the RW CARE Act. Close cooperation between the NY EMA and NYS is reflected in the NYS AI's collaboration on EtE, joint HIV service planning, and the Integrated Plan.

Gaps filled by RWPA: Each year, the PC collaborates with NYS DOH to help ensure the financial sustainability of the HUCP, including ADAP, by using unobligated and carryover funds to provide ADAP support for NY EMA-residing PLWH without any other source of reimbursement for HIV-related medications. The PC also includes members who are Parts C, D, and/or F Recipients and consideration is given to these resources during prioritization and allocation.

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

- *Medicaid (HIV medical services)*. With an investment of over \$2.5 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 RWPA*: The NY EMA funds service categories, service models, and/or individuals that are not Medicaid reimbursable. Goals include increasing the proportion of the award that is allocated to essential support services that have been shown to increase retention in care, such as Housing, FNS, SCF, Legal, and n-MCM. The NY EMA also funds models within core service categories that are not billable to Medicaid but that the Recipient and PC have determined to meet the needs of PLWH, such as HR services for active substance users and MH readiness, and engagement/re-engagement services. The NY EMA has continued its commitment to CMS such as ADAP, oral health, and MCM because, despite increases in Medicaid enrollment, a segment of the RW eligible population continues to be ineligible for Medicaid. 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.

- *CDC (HIV testing)*. CDC-funded testing resources are particularly well coordinated with EIS through the 2015 directive approved by the PC. The EIS directive process reviewed both CDC and RWPA EIS service guidance to develop an overall plan to identify those unaware of their status. *Gaps filled by RWPA*: Through this process, the PC approved EIS funding to support targeted testing in CBO facilities and linkage and re-engagement activities in hospitals and clinics. CDC resources will be utilized to support clinical system transformation resulting in increased routinized testing in hospitals and clinics and increased compliance with NYS law which requires an offer of a test to anyone 13 years of age or older.

- *HOPWA (housing)*. DOHMH ensures coordination with HOPWA through collaborative planning and administration within DOHMH, which also oversees the programs. Coordination between RWPA and HOPWA grants focuses on improving health and housing outcomes and increasing access to and maintenance in permanent, stable housing. The HOPWA grant supports permanent housing, housing placement assistance, and rental assistance. *Gaps filled by RWPA*: RWPA funding supports transitional short-term housing as well as housing placement assistance and rental assistance. HOPWA and RWPA housing programs are overseen by the DOHMH Housing Services Unit, and resource allocations and services are coordinated between the two sources of funding to ensure optimal use of housing resources.

(c) Needed Resources, and steps taken to secure them. As stated previously, the cost, care coordination, and social support needed to support someone who is co-infected with HIV and HCV from HCV diagnosis through cure are significant. To begin to 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, it will not pay for the extremely expensive HCV DAAs.

Additional resources needed to fulfill the goals of the *EtE Blueprint* have been secured through City funding allowing for contracts to increase the availability of PEP/PrEP, support VLS, provide harm reduction support for MSM and Transgender women using methamphetamine, and increase the capacity of transgender-led CBOs. Additional funding is currently being sought to increase the capacity of Black MSM-led organizations. In the coming year, the Recipient will work with the PC to develop guidance for immediate initiation of ART upon diagnosis through coordination with EIS

and MCM funded providers. Discussions with the NYS HUCP have also been initiated to determine how to best coordinate resources to provide immediate ART and related medical and laboratory services.

WORKPLAN

A. Funding for Core and Support Services. As a result of a public planning process conducted by the PC and documented availability of CMS from the NYS AI (the authority for NYS Medicaid services for PLWH) the NY EMA received a CMS Waiver for GY14 through GY16. (*A GY17 CMS Waiver will be submitted to HRSA separately from this application.*)

1) GY 2017 Service Category Plan

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

b) Narrative. The GY17 Plan continues and strengthens support for RWPA services that have helped the NY EMA achieve reductions in AIDS-related mortality, increases in VLS, and improvements in service utilization. As in prior years, the GY17 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 RWPA 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 GY17 Plan, the PC, with DOHMH support, assessed and scored all services for their impact on access to and maintenance in HIV primary care. 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 GY17 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 GY17 Plan, 63% 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 (*see p. 37 for additional details*), the PC prioritized the following services for GY17 (listed in order of priority with CMS italicized): *ADAP*, Housing Services, FNS; n-MCM, *MCM*; *Substance Abuse Services – Outpatient (HR)*; *MH Services*; Psychosocial Support Services (SCF); Legal Services; HE/RR; *EIS*; *Oral Health Services*; and Medical Transportation.

(1) *Unfunded Core Medical Services.* The NY EMA's RWPA plan prioritizes key services to address obstacles to healthcare access and favorable medical outcomes. Based on this approach, the GY17 Plan does not include the following CMS:

- *Outpatient/Ambulatory Health Services.* This service is covered by Medicaid, and for those not eligible for Medicaid, it is covered by state and RW Part B funds through the NYS HUCP.
- *Local AIDS Pharmaceutical Assistance Program (LPAP).* The NY EMA has no LPAP, but instead provides funding to NYS-administered ADAP.
- *Health Insurance Premium and Cost Sharing Assistance.* The NYS HUCP offers comprehensive assistance for insurance premium and cost sharing for PLWH (including those on the health insurance exchange) with incomes below 435% of FPL, obviating the need for the NY EMA to allocate RWPA funds for this purpose. In addition, insurance premium assistance for coverage purchased on the NYS health insurance exchange is available for PLWH with incomes between 138-400% of the FPL. PLWH with incomes between 138% and 250% of FPL are also eligible for reduced cost sharing for plans on the exchange.

- *Home Health Care.* Medicaid and a NYS HUCP Home Health Program comprehensively cover services under this category.
- *Home and Community-based Health Services.* In response to reductions (*see p. 31 for additional details*), this service category was eliminated half-way through GY16 as these services are covered by Medicaid as well as home-based services being available throughout the RWPA portfolio for eligible clients.
- *Hospice Services.* Medicaid comprehensively covers hospice services, the demand for which has significantly declined because of reduced end-stage disease and mortality.
- *Medical Nutrition Therapy.* Although not separately prioritized, the GY17 Plan supports nutrition counseling in the broader category of FNS. In addition, the NYS Medicaid and ADAP programs cover a range of medical nutritional therapy services.

(2) *Promoting parity of services.* In GY17, as in previous years, RWPA services will be clustered in high-need, underserved minority communities, with consideration given to geographic distribution of Medicaid and RW-funded Parts B, C, D, and F 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 have access to clinically-relevant information and participate in joint case conferences. RWPA-funded initiatives will continue to be complemented by targeted MAI programs that promote early diagnosis and linkage, adherence to treatment, and stable housing for PLWH of color. Historically and presently, RWPA serves Blacks, Hispanics, and women at a proportion higher than their representative portion of the NY EMA's population. To inform service quality, service category- and agency-level results of a 2014 CSS were reported to providers to assist in the development of QM plans. Additional service category-based quality indicators developed through the use of eSHARE data, in collaboration with funded providers, serve as an objective means to measure quality improvement (QI) on core service elements (linkage to medical care or housing, for instance). Additional information on the quality of services can be found in the description of the NY EMA's QM program.

(3) *Ensuring cultural and linguistic appropriateness.* The NY EMA contractually requires all RWPA-funded agencies to demonstrate that they have policies, procedures, and training in place that ensure access to care in a culturally and linguistically appropriate manner. The NY EMA promotes cultural competency by contractually requiring all providers to adhere to National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (The National CLAS Standards), guiding providers on program model design, recruitment of culturally and linguistically-diverse staff, and related QI initiatives. RWPA funds an array of services in more than 50 languages, and all RWPA programs are required to have interpretation services available for non-English-speaking clients. Program materials for HE/RR and HR services have been translated to Spanish (the second most common language for RWPA clients in the NY EMA), and Care Coordination materials have additionally been translated into Mandarin Chinese and Haitian-Creole (other common languages in the NY EMA). SCF and n-MCM services that are provided with language interpretation are reimbursed at a higher level than those that are not, acknowledging the increased time and cost of delivering services that require interpreter services. MH and SCF services are especially tailored to the unique needs of key populations, such as women, MSM, unstably-housed individuals, and others who need specialized interventions. In addition, a large proportion of programs have experience working with specific demographic groups, including immigrants, individuals recently released from jails and prisons, homeless individuals, and members of the LGBT community.

(4) *Factors contributing to changes in service category funding.* The greatest factor affecting service category funding has been Medicaid redesign and ensuring that RWPA remains the POLR. As described

previously, HOM services were eliminated as a service category in response to changes in Medicaid long-term managed care and opportunities for expedited enrollment for these services. With declining awards and, thus, declining administrative funds, reducing administrative burden has also increasingly been a factor in decisions; this year the NYS HUCP and the Recipient asked the PC to eliminate the Outpatient Ambulatory Health Services (OAHS) allocation and reallocate to ADAP to reduce the reporting burden related to the RSR and contract monitoring.

(5) *Women, Infants, Children and Youth*. As Medicaid provides comprehensive coverage for HIV-affected WICY populations, the NY EMA will again join NYS to submit a retrospective WICY Waiver. Medicaid expenditures for outpatient services for WICY populations in the NY EMA was over \$703 million in GY15, exceeding the NY EMA’s required \$33.3 million set-aside.

(6) *Links with Needs Assessment and Unmet Need Analysis*. The PC finalized its Needs Assessment in March 2014, which was drawn from a wealth of information in a range of reports and presentations made available to members of the PC NAC between 2009 and 2014. Information included epidemiological summaries, survey results on service needs and utilization, findings from studies of clients’ service experiences, and routine reports on key HIV health outcome indicators, among other data sources. These documents provided insight into the intersection between program and policy and summarized the most recent quantitative and qualitative data regarding the profile and needs of PLWH in the NY EMA.

The NY EMA’s GY17 estimate of Unmet Need led the PC to continue support for its highest funded category, MCM, providing patient navigation and adherence support to promote continuity of care. The persistence of unmet need also prompted the PC to develop service models that verify engagement in primary care for those previously out of care. The NY EMA also developed strategic reimbursement points for performance-based providers who link clients to care. Funding was continued for EIS, which also brings out of care PLWH into care.

c) *Core Medical Services Waiver*. The NY EMA plans to submit the complete GY17 CMS Waiver separate from this application, in accordance with *Policy Number 13-07*. The approved Allocation Table does not differ from the Service Category Plan (*Attachment 8*).

B. 2017 HIV Care Continuum Work Plan (see Attachment 10).

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 RW legislation and accompanying policies. In GY16 the Recipient worked to resolve a number of challenges through collaboration with the PC, consumers, funded providers, PHS, and NYS AI colleagues. Below is a table highlighting the most salient resolved challenges.

Table 5. Resolution of Challenges

Challenges	Resolutions	Outcomes	Status for RW Program/Care Continuum
Development of the first NYS Integrated HIV Prevention and Care Plan	In alignment with the <i>EtE Blueprint</i> , the NY EMA fully participated in the development of the NYS Integrated HIV Prevention and Care Plan	Submission of a single, aligned NYS Integrated Plan with common indicators for Prevention and Care services in all funded jurisdictions	Improved ability to measure progress in diagnoses, linkage, retention, and VLS across NYS
Separate administrative mechanisms for NYC and Tri-County	The Master contract for Tri-County was transferred to PHS on December 1, 2015.	All contracts now managed by PHS; RFP with performance-based	Aligned administrative expectations across RWPA funded services, allowing for

	Renewed GY16 contracts were fully managed by PHS	reimbursement for Tri-County services will be released in GY17 for services to start in GY18	increased compliance with NMS and reduced administrative burden
Separate HIV Care Continuums for NYC and Tri-County	One consolidated HIV Care Continuum based on NYS AI data	One consolidated HIV Care Continuum allows for increased ability for planning services across EMA	Consolidated HIV Care Continuum allows for monitoring gaps improvements for each bar across the NY EMA
Increased access to Direct Acting Agents (DAA) for HCV/HIV Co-infected persons	A grant to address the needs of HCV-infected PLWH has been awarded by HRSA, funding began September 30, 2016	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	Improved health outcomes for HIV/HCV co-infected persons through increased access to DAA treatment
As stated on p. 24 recent CHAIN and eSHARE data underscore the need for increased engagement for those with MH challenges as well as those currently using substances	Newly contracted MH and HR services include a strong outreach component which seeks to engage persons with untreated MH diagnoses and persons currently using substances in care	New programs will be monitored for progress in their ability to engage persons with MH diagnoses and current substance use in care.	Increased ability of RWPA program to reach underserved PLWH and link and retain them in care

EVALUATION AND TECHNICAL SUPPORT CAPACITY

A. Clinical Quality Management (CQM). The CQM program is a collaborative effort that involves the DOHMH CTP Quality Management & Technical Assistance Unit (QM/TA) and the Research and Evaluation Unit (REU), NYS AI, WCDOH, PHS, the PC, consumers, and RWPA providers.

In late 2013, the CQM program was restructured to prepare providers for changes in the healthcare system resulting from implementation of the ACA and the NYS Medicaid Redesign. Both the ACA and the NYS Medicaid Redesign require health and service providers to collaborate and coordinate care more effectively across funding streams to address the needs of PLWH. The RW Technical Assistance Unit was realigned as QM/TA and more fully integrated into the CQM program in order to: (a) strengthen RWPA providers’ quality efforts; (b) support the needs of RWPA providers and the consumers they serve by aligning programmatic TA more closely with QM support; and (c) more effectively address improving care across the continuum. The objectives of the CQM program are to build capacity for QM among RWPA providers, to increase collaboration between RW and Medicaid-funded providers, to provide opportunities for peer learning among RWPA providers, and to ensure the continuation of quality services for PLWH. These objectives are consistent with NHAS 2020 Goal 2 (Step 2.B), in terms of their focus on increasing the capacity of systems of care for PLWH that include diverse service providers.

Also consistent with NHAS, BHIV is expanding its efforts to support VLS citywide by drawing on NY HIVQUAL and the NYC surveillance-based HIV Care Continuum Dashboards (CCDs) to address care quality at the clinic level. The CQM program will collaborate on these efforts by ensuring RWPA services support engagement and retention in high-quality clinical care to achieve VLS (NHAS 2020 Goal 2, Step 2.A).

1) Description of the CQM Program Infrastructure.

a-b) CQM FTEs, Staff roles and responsibilities. A total of 22.05 FTEs, are funded with QM dollars at DOHMH with an additional 2.1 FTE funded through the NYS AI-QM contract. Together these resources provide a comprehensive QM program for RWPA subrecipients. Several processes

are in place to support the assessment of the NY EMA's CQM program. First, the CTP QM/TA Director (1.0 FTE) oversees the CQM program, including the CQM contract with NYS AI, ensuring deliverables are met, identifying gaps in the RWPA system, developing strategies to address gaps and evaluating the program. The QM/TA Director also oversees the CTP QM/TA team (9.1 FTE funded by QM) comprised of two Program Managers who support providers in their QM work. QM/TA POs, with REU staff (10.29 FTE supported with QM funding), and NYS AI staff are responsible for improving the coordination of CQM activities and providing DOHMH-led TA with an emphasis on using data and QI tools to improve care, in collaboration with funded providers. More specifically, the QM/TA Director and the DOHMH TA team develop and implement trainings for RWPA providers to: improve service quality and support QM activities; plan and implement provider meetings to facilitate peer learning among RWPA providers; provide one-on-one TA in program implementation and QI; and work with NYS AI staff to plan and deliver an annual QI conference for the NY EMA. These activities support NHAS 2020 Goal 2, Steps 2.B and 2.C through capacity building to provide client-centered care to PLWH that meets their basic needs. Capacity-building efforts also support Goal 3 (Reducing HIV-Related Disparities and Health Inequities) by providing support to diverse service providers serving vulnerable communities. Additional Clinical QM efforts are coordinated with Clinical Operations and Provider Communication (COPC) (1.25 FTE in QM funding) to focus on clinical quality improvement and to increase coordination between the RWPA program and non-RWPA funded outpatient ambulatory care services. A *NY Knows* position (1.0 FTE) is funded to support regional QM, which is coordinated with the previously SPNS-funded *NY Links* regional QM effort through the NYS AI.

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 help identify disparities in HIV-related health outcomes, consistent with Goal 3 of NHAS, that may be addressed through QA/TA efforts.

In GY16, the QM/TA team assumed responsibility for activities formerly undertaken by NYS AI staff (known as QM Leads). The transition improved efficiencies in the delivery of DOHMH TA by incorporating QI principles into TA activities. The NYS AI continues the CQM work of the National Quality Center while strengthening the collaborative system-wide effort between NYS AI and DOHMH to increase linkage to and retention in care and VLS across the HIV healthcare system. The NYS AI also provides peer learning support through the Power of QI Conference, coordinates Part B and Medicaid clinical organizational assessments with the RWPA program, participates in a cross-part QM committee, supports regional QM efforts across the NY EMA, and assists with ongoing QM trainings for providers.

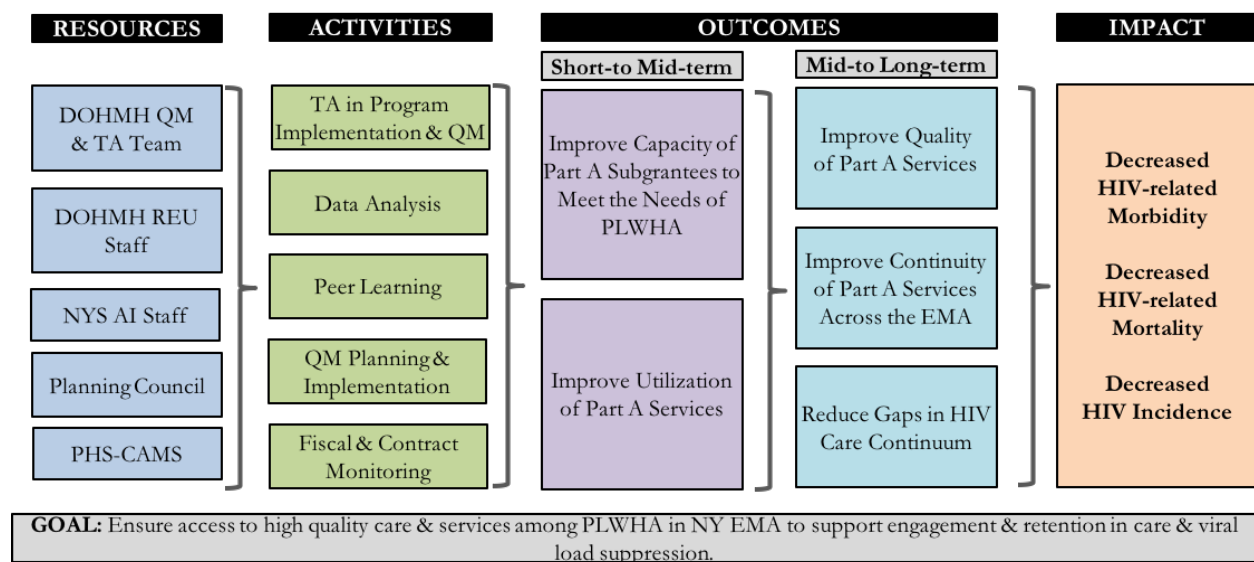
With the QM/TA team, the NYS AI co-facilitates the NY EMA QM committee which was re-launched earlier this year to replace the interagency steering committee. The committee provides guidance to the NY EMA to ensure that quality activities reflect current needs and priorities, including addressing gaps in the HIV Care Continuum through better integration of clinical and supportive services to contribute to ending the epidemic in New York. Currently the committee is developing an inventory of RWPA QM efforts with a plan for continued improvement. This process will culminate in a revised QM plan to be released in GY17. The committee includes representatives from CTP, COPC, HIV testing, WCDOH, the PC, PHS, and NYS AI.

CTP REU staff manage eSHARE specifications, testing/troubleshooting of modifications, documentation of reporting requirements, data quality assurance, end user training (in collaboration with BHIV Administration Program eSHARE staff), and general data support for all RW programs.

REU Analysts also conduct routine reporting across service categories, and provide service category-level and agency-level analysis and reporting of quality performance measures for monitoring, evaluation, QM, and TA purposes. In addition, REU staff, along with eSHARE TA based in the BHIV Administration Program, coordinate RSR submissions, and ensure that eSHARE remains aligned with federal reporting requirements. eSHARE Programmer Analysts (supported by 1.41 FTEs in QM funding) oversee eSHARE administration, manage system configuration and maintenance, and provide technical application support/TA to external users. Between March 31 and September 27, 2016, staff led 23 eSHARE training sessions for 185 individuals from 43 organizations.

The NY EMA has multiple systems in place to monitor and assess the CQM program: 1) the NY EMA QM committee meets bi-monthly to analyze the CQM program and develop strategies for improvement; 2) the DOHMH QM/TA team engages in QM planning for the CQM program and monitors performance of both the QM/TA program and funded providers; 3) CTP staff present CQM data and progress reports to the PC; 4) the DOHMH QM/TA team reviews funded providers' QM plans and provides opportunities for peer learning; and 5) PHS monitors DOH AI contractual and fiscal requirements. *Figure 4* shows the logic model for the CQM program.

Figure 4: CQM Program Logic Model



c) QM Contractors. The GY17 Plan allocates \$3 million to CQM, of which just over \$312,000 will support the NYS AI QM contract. In August 2016, the DOHMH TA team assumed the TA activities previously provided by the NYS AI QM Leads. NYS AI staff are led by a Medical Director who works with the DOHMH CTP to ensure that the NYS AI QM contract supports the RWPA QM program's goals. The NYS AI Project Director, who reports to the NYS AI Medical Director, is responsible for guiding the contract's activities, and oversees the administrative staff. NYS AI fiscal staff oversee all fiscal aspects of the contract.

NYS AI provides support for the development and implementation of the annual Power of QI Conference. This includes working with the QM/TA team to develop the conference theme and agenda; issuing the call for, evaluating, and selecting abstracts; facilitating sessions and panels as needed; and coordinating all logistics. NYS AI staff will also continue to coordinate NYS AI and BHIV QM efforts, including comparing NYS's clinical quality data (eHIVQUAL) with the CCDs (which are based on NYC surveillance data on engagement in care and VLS for those clinics with 150

patients or more). The NYS AI and BHIV have begun a system-wide CQM effort to address the lowest performing city clinics as measured by population-based VLS and engage clinic staff in identifying improvement strategies. This work covered under the NYS AI QM contract includes coordinating with the BHIV Director of COPC, who is responsible for clinical organizational assessments, participation in a cross-part QM committee, and work with the NYLinks Regional QM effort.

d) Efforts to coordinate CQM activities with other RW Recipients in the jurisdiction.

DOHMH’s relationship with NYS AI facilitates a coordinated response to HIV in the NY EMA that contributes to NHAS 2020 Goal 4. In addition to the NYS AI collaboration, the CQM program continues to explore ways to improve the delivery of QI training and coaching. Collaborative models, like regional groups that combine clinical and non-clinical providers across multiple funding streams to focus on the area’s broad public health needs in order to improve the continuum of care. These groups foster a collaborative approach to addressing current regional challenges in HIV care and develop strategies to meet or exceed the NHAS 2020 and Integrated Plan goals. CTP and WCDOH staff participate in regional groups facilitated by the NYS AI in the Lower Hudson Valley, Brooklyn, Queens, and Lower and Upper Manhattan; and the focus on linkage to and retention in care and VLS. DOHMH’s *New York Knows* regional efforts in the Bronx, Brooklyn, Queens, Manhattan and Staten Island focus on scale-up of PEP/PrEP, testing and linkage to care (*see p. 11*) and include Part B, C, and D Recipients.

2) Description of CQM Program Performance Measures.

a) Performance measures for each service category. In general, performance is evaluated based on linkage to care, retention in care, ART utilization and VLS proportions, which demonstrate how well services in the NY EMA address the latter stages of the HIV Care Continuum (*Table 6*).

Table 6: GY17 Performance Indicators by Service Category

Service category	Indicator	Stage of HIV Care Continuum			
		Linkage	Retention	ART	VLS
EIS	Increase in linkage to care among PLWH who know their status (%)	X			
HE/RR	Increase in clients prescribed ARTs at most recent status report (%)	X	X	X	X
Legal Services			X	X	X
n-MCM			X	X	X
ADAP				X	X
Oral Health Care	Increase in clients with suppressed viral load at most recent measurement (%)		X	X	X
MH			X	X	X
MCM		X	X	X	X
FNS			X	X	X
HR			X	X	X
Housing Services			X	X	X
Medical Transportation			X	X	X
SCF			X	X	X

Outcomes indicator data on funded programs are drawn primarily from client-level Primary Care Status Measures (PCSMs) which are collected in eSHARE at each RWPA agency that serves PLWH beyond the stage of linkage to care. PCSMs record client utilization of primary care, AIDS diagnosis status and date (if applicable), receipt of ARTs, and viral load and CD4 count tests and values. By the start of GY17, the PCSM data will also routinely include a brief validated self-report adherence assessment (the visual analog scale) for clients on ARTs. DOHMH QM/TA staff routinely review PCSM data to identify areas for TA and to monitor client linkage, engagement in care, ART initiation,

and VLS. In GY17, DOHMH will further address VLS by improving the capacity of providers to use PCSM data for population health management. QM/TA staff distribute client TSRs to providers every three to six months depending on program model, so that they are better able to monitor and address VLS, timeliness of ART, and viral load data updates among clients.

REU staff provide eSHARE-derived reports that show aggregate performance across the service category as well as reports for each provider. Using eSHARE data allows the Recipient to measure performance among all eligible RW clients based on data elements collected consistently across service categories and funded agencies. This gives a more complete population-based picture of performance, which creates buy-in for evaluation and QI activities at the provider level and informs QM-related TA activities. Separate indicators are used to measure service delivery and utilization; enrollment patterns and demographics; and outcomes from the MAI Plan, Implementation Plan, and Integrated Plan. The standardization of eSHARE forms and data entry screens facilitates appropriate reporting and recognition of indicator results. More specific information on MCM performance measures and data collected are provided on pp. 54-55.

b) Frequency of performance measure data collection. Data are collected and entered in eSHARE by providers throughout the contract year, with mid-month deadlines for reporting on prior month activities. DOHMH REU analyzes and reports quality indicator data on each service category at least annually, and provides more frequent updates as requested. Many providers track their quality indicator data more frequently as a part of their QM work plan.

c) Ambulatory medical care and MCM performance and quality measures.

Ambulatory medical care. The NY EMA does not fund Outpatient/Ambulatory Health Services.

Medical Case Management – CCP. Developed in Spring 2012 and revised in Spring 2014, the NYC MCM (CCP) program quality indicators cover four measures of service quality: 1) Health Promotion: Percent of CCP clients who received the appropriate number of health promotion services in a quarter as indicated by track¹⁵ assignment (see Figure 5); 2) Case Conferences: Percent of CCP clients with at least one case conference service (defined as a face-to-face meeting between the CCP staff and the Primary Care Provider) in a quarter (see Figure 6); 3) Adherence Assessments: Percent of CCP clients who received at least one adherence assessment in a quarter (see Figure 7); and 4) Home/Field Visits: Percent of CCP clients who received the appropriate number of home-or-field-based services in a quarter as indicated by track assignment (see Figure 8).

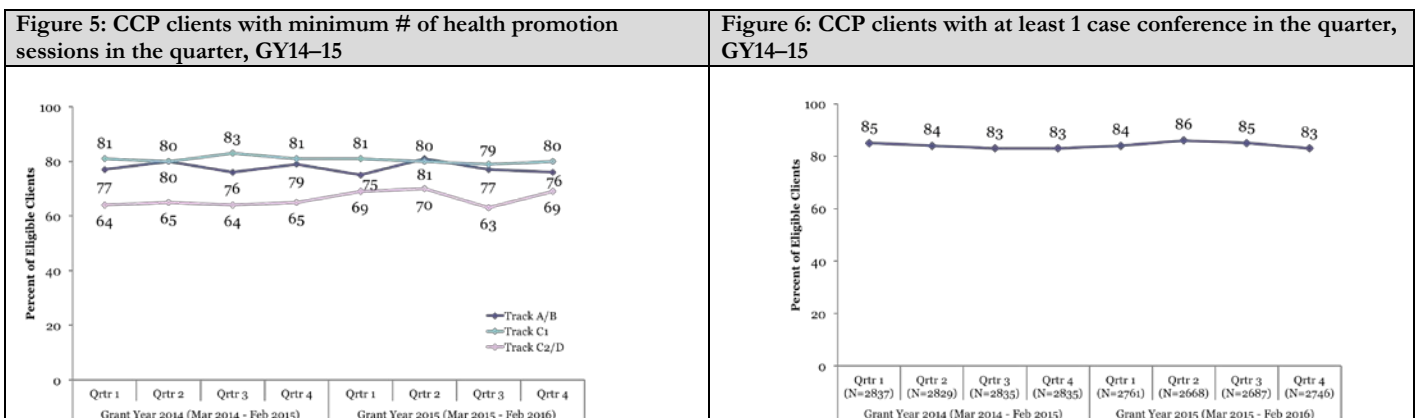


Figure 7: CCP Clients with at least 1 adherence assessment in the quarter, GY14–15

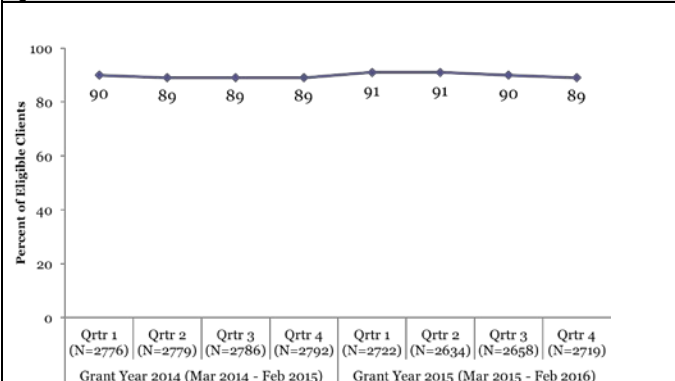
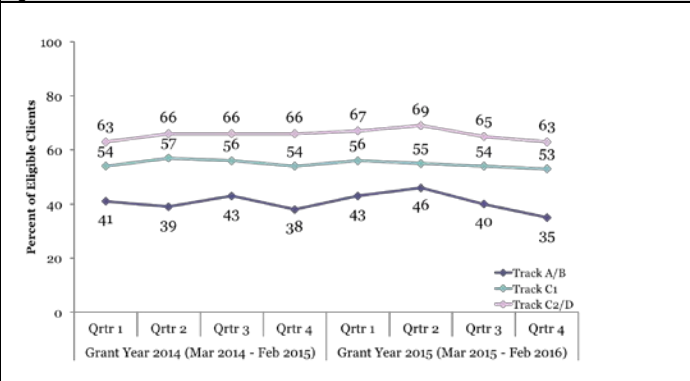


Figure 8: CCP clients with minimum # of home/field visits in the quarter, GY14–15



Source: NYC DOHMH. HIV Care and Treatment Program. eSHARE data as reported by April 18, 2016.

Transitional Care Coordination (TCC). The four measures of service quality are: 1) the percentage of clients who received a housing linkage; 2) the percentage of clients who received a case management linkage; 3) the percentage of clients who received a primary care linkage; and 4) the percentage of clients who received three health promotion services within the first three months of enrollment. In GY15, 46% of TCC clients were successfully linked to a housing program, and 29% of clients were linked to a case management program, up from 25% in GY14. Primary care linkage increased slightly from 58% in GY14 to 62% in GY15. Among clients enrolled within the first nine months of GY15, 76% received at least three health promotion sessions within the first three months.

Medical Case Management –Tri-County. Tri-County MCM quality indicators cover: 1) Assessments: the percentage of clients receiving an intake assessment or reassessment (e.g., needs assessment), 2) Adherence Assessments: the percentage of clients receiving at least one treatment adherence assessment, 3) Care Planning: the percentage of clients receiving at least one care plan/service plan, and 4) Health Promotion: the percentage of clients receiving one health education/health promotion service. Two review periods were selected to compare MCM indicators in the Tri-County region: September 1, 2014 – February 28, 2015 and March 1, 2015 – August 31, 2015. Providers received indicator data in February 2016. In comparison to the last six months of GY14, fewer clients received a needs assessment during the first six months of GY15 (82% vs. 77%); the proportion of clients receiving at least one adherence assessment was slightly lower for the second period, 82% versus 85%; and the proportion of clients who received at least one care plan in a six-month period was slightly higher for the first half of GY15 than for the last half of GY14 (75% vs. 71%).

d) Use of performance measures to evaluate disparities in care. Data collected on clients include demographic, health, and service utilization data. Thus, in support of NHAS 2020 Goal 3, the NY EMA is able to evaluate a range of disparities in care, including those related to race/ethnicity, gender, age, transmission risk category, and geographic location, among others. As previously discussed, the NY EMA does not see significant disparities (based on traditional demographics) among those served in RWPA, primarily due to the fact that over 90% of those served identify as part of a racial/ethnic minority group. Thus, we take a systematic approach to improve care and outcomes for those served by our program, including a CSS and other activities previously described.

In late 2014, a web-based CSS gathered standardized client services feedback, including barriers and facilitators to service utilization. The web-based Audio Computer-Assisted Self-Administered Interview (ACASI) tool was revised from the 2012 pilot paper-based survey to be more accessible to all literacy levels and focused on the client-provider relationship. The survey was available in English, Spanish, and French and was offered in a confidential format (allowing linkage to eSHARE

and the HIV Registry) and an anonymous format. The survey was administered across 80 service providers. More than 4,100 survey responses were received, yielding a 49% response rate. Ninety-two percent of clients surveyed were very or mostly satisfied with services overall. Agency-specific quantitative findings were shared in March 2015 and service category-specific findings were shared at provider meetings in May 2015 to inform QI projects. Narrative responses to open-ended questions were analyzed by early 2016, with agency-level reports available to QM/TA staff, and qualitative service category-level reports shared in 2016 provider meetings. Agency-level reports were not directly shared with agencies due to the need to protect client confidentiality. In early 2017, the CTP REU will distill topics from CSS analyses to develop discussion guides for focus groups in 2017.

e) Stakeholder involvement in the selection of performance measures. As previously described, DOHMH staff, in collaboration with NYS AI and providers, used the Nominal Group Technique (NGT) to develop service category quality indicators for ongoing service delivery standard monitoring. Analysis is based on eSHARE data reported by providers, which facilitates provider buy-in to evaluation and promotes a greater sense of ownership of the data and the results. Bi-monthly NY EMA QM committee meetings with key representatives from DOHMH, WCDOH, NYS AI, PHS, and the PC (which will include PC consumer members) will allow for presentation and discussion of performance on quality indicators to improve the CQM program, TA, and service delivery.

3) Description of CQM Program Quality Improvement.

a) Methodology to Determine Priorities for QI Projects. The CQM program is inspired by the Institute for Healthcare Improvement's (IHI) Model for Improvement (MFI). This year's NY EMA QM committee work plan applies the MFI to key domains consistent with the NHAS: community engagement (Goal 3); collaboration and coordination (Goals 1, 2, and 4); capacity building (Goals 2 and 3); service integration (Goals 1 and 2); and service quality (Goals 2 and 3). CTP staff is undergoing training in the IHI model to more fully integrate this work into the provision of TA and the development of quality metrics for RWPA services.

b) Specific QI activities currently being implemented in EMA. RWPA providers work with their DOHMH POs to prioritize areas for performance improvement, examining available data, and considering service impact and project feasibility. QM/TA staff provide a two-part training in QM and QI to providers which is guided by the MFI. In GY16, 20 staff from RWPA programs received basic training in QM and QI using the MFI framework and 21 staff received more advanced training in using plan, do, study, act (PDSA) cycles to accelerate change. Further, providers within each service category meet to review and discuss performance and present QI projects to share successes and challenges in performance improvement, which promotes peer learning. For example, the MCM providers workgroup, facilitated by QM/TA staff, is meeting during GY16 to address caseload management.

Providers across the NY EMA are implementing QI projects developed in their QM plans and work plans. Below are examples presented at the 2nd Annual Power of QI conference in November 2015:

- Improving the utilization and implementation of Directly Observed Therapy services in CCPs.
- Improving VLS through case conferences, health literacy, MH advocacy and other strategies (SCF, HR, and MCM).
- Improving the client experience for new patients and transgender clients.
- Using EMRs to develop QI dashboards and promote population health management for PLWH.

- Enhancing organizational capacity for QI and better coordinating QM for RWPA and non-RWPA programs across service categories.

The NY EMA will host its 3rd Power of QI conference in November 2016, which will allow RWPA programs to engage in peer learning and share their QI projects. The Power of Quality Improvement: Promoting Health Equity through RWPA Services conference will have 14 poster presentations and 21 workshop presenters, representing a dozen RWPA service categories, focusing on themes of collaboration, service and program improvement, and new approaches to health promotion and health equity. This year's presentations will cover a variety of topics including; improving awareness of PrEP, involving peers in QM, and integrating principles of trauma informed care into routine practice.

The CQM program reviews PCSMs as a means of assessing clients' utilization of primary care, receipt of ARTs, disease progression, viral load tests and values, and CD4 count tests and values. The PCSMs, reported on each active client at least every 120 days by all service categories providing post-linkage services, enable DOHMH to: 1) evaluate whether specific services increase access to and continuity of primary care for RWPA clients; 2) track virologic and immunologic outcomes over time; and 3) assist providers in improving service quality and clinical outcomes. Data entry forms in eSHARE reinforce RWPA program expectations by guiding timely assessments and services for improved service quality. Other EMA initiatives also leverage RWPA data and services to impact clinical outcomes. For example, as mentioned previously, the Recipient's QM/TA staff use TSRs to work with all providers to identify clients reported as virally unsuppressed and, among those, clients not prescribed ARTs. In GY16, QM/TA staff is reviewing these data quarterly with providers to promote population health management.

c) Use of CQM data to inform service delivery. Trends identified through the CQM program enable the PC to assess RWPA services over time. Indicators are often used to inform provider QM plans, which serve to improve service delivery. As the indicator data mature, the data can be reviewed for trends to inform long-range service delivery planning. CQM data reviewed and discussed in the NY EMA QM committee meeting allow the PC to incorporate data-driven changes in the service system upon careful consideration with the Recipient.

d) Stakeholder involvement in the selection of quality improvement activities. As noted above, the CQM program utilized NGT to develop service model-specific indicators, which are reported to providers at least annually, with adjustments to the indicators as appropriate. This enables QM/TA staff to address program performance and provide TA to address QI. CQM data are reviewed per service category in NY EMA QM committee meetings, which includes PC members. This monthly meeting allows time for policy-level discussions on service delivery improvements. In addition, CQM data (including client feedback through surveys or focus groups) and program progress are presented annually to the PC and committees. This year's presentation will focus on the CQM program's plans to expand its efforts to support VLS citywide, to address clinical QM, and to improve referral pathways between medical care, RWPA, and services funded by other payers.

Providers are required to incorporate input from consumers into their QM programs through Consumer Advisory Boards, ensuring that consumers are involved in quality activities, and verifying that each QM plan incorporates consumer input.

4) Data for Program Reporting. All RWPA providers are contractually required, trained and prepared to collect standardized data with forms for each client profile, intake/baseline assessment, PCSM update, reassessment, and service encounter in eSHARE. RWPA eligibility in the NY EMA is based on HIV status, income, residency, and medical insurance status. DOHMH eligibility protocols

require documentation at enrollment and each six-month reassessment in the client's chart and in eSHARE. Data reporting elements are closely monitored each reporting year.

a) Information/Data System. All RWPA programs report client-level data in eSHARE, which has been designed with skip patterns, auto-populations, validations, and update rules to streamline and guide data entry for end users. With eSHARE, BHIV has the ability to: 1) ensure client eligibility; 2) evaluate program impact; 3) monitor service delivery according to standards of care; 4) de-duplicate and track clients across RWPA programs; and 5) match clients with the BHIV Surveillance Registry and other databases for merged analyses, drawing the best data from each source (e.g., outcomes data from surveillance or client experience data from client surveys). Regularly required PCSMs form the basis for several core indicators that allow BHIV to evaluate programs in accordance with the NHAS, EIIHA, and the Integrated Plan. In CY15, 1,218 users at 118 agencies used eSHARE to enter approximately 1,125,102 RWPA, Prevention, or HIV testing forms representing services provided to 109,410 clients.

b) RSR. In 2016, all RWPA client-level data were reported from eSHARE. Beginning in May 2015, preparations were made for the CY15 RSR, including presentations at provider meetings and regular email communications to designated RSR contacts at each subrecipient agency, as well as webinars to assist subrecipients with correction of data in eSHARE. In late 2015, the RSR Validations Report within eSHARE was updated to correct issues identified during the 2014 reporting period. The code to create the RSR client-level data files from eSHARE (in XML format) was also modified to correct issues identified in CY14 reporting, including reporting of all medical insurances in the reporting period for each RSR client. For the CY15 RSR, the NY EMA reported 109 subrecipients, 99 of which were required by HRSA to submit client-level data in the RSR. All 109 subrecipients used the XML generator feature in eSHARE to create the client-level file for upload to the HRSA website.

Preliminary analysis comparing CY14 and CY15 shows a significant decrease (from 5% to 1%) in the proportion of subrecipients exceeding the 10% threshold for missing data on at least one of HRSA's five targeted (core) RSR indicators. This 1% represents one service provider who had missing values for housing status, due to a set of clients for whom the collection of housing data was challenging. This provider submitted a satisfactory explanation of the missing data to HRSA. Regarding the most recent HRSA-added data elements, including sex at birth and Hispanic and race subgroups, for which there was a substantial percentage of missing data in the CY14 RSR, the percentage of missing data decreased significantly in 2015. Percentages missing for Hispanic and race subgroups were also significantly lower than HRSA's published national averages for these indicators in CY15.

The CY16 RSR process will be informed by results of an RSR survey sent out to subrecipients in August 2016, which solicited comments and suggestions on how to improve the RSR process. Results of the survey will be used to improve the 2016 RSR submission and will be shared with RWPA subrecipients at provider meetings. Individual subrecipient RSR reports were distributed to all subrecipients by email in May 2016, including RSR Data Completeness Reports. In addition, instructions were provided to subrecipients on importing RSR client-level data from eSHARE-generated XML files to Microsoft Excel, enabling subrecipients to access and review or further analyze actual RSR data independently.

ORGANIZATIONAL INFORMATION

A. Grant Administration. Through the rigorous monitoring and accountability measures described below, the NY EMA ensures that RWPA funds are used effectively to address the country's largest and most complex HIV epidemic. Eighty percent of the NY EMA's FY16 RWPA contacts are paid based

on performance, with subrecipients being paid for meeting service thresholds on a fee-for-service basis and 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 RWPA serves as the POLR.

1) Program Organization. With over 25 years of experience as a RWPA Recipient, the NY EMA is committed to efficient program administration, aiming to maximize the effectiveness of HIV services. In GY15, the NY EMA spent more than 99% of its RWPA formula award and 98% of its MAI award.

a) RWPA Administration (see Attachment 11). 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 RWPA. As *Attachment 10* illustrates, the NY EMA's RWPA program is administered by CTP in DOHMH BHIV. BHIV is headed by an Assistant Commissioner, who oversees 276 staff of large HIV Prevention, Care, and Surveillance programs which includes 40.02 FTEs under the RWPA grant.

The Director of CTP oversees all staff responsible for service planning, TA, QM, research and evaluation, and RWPA grant administration, as well as RWPA fiscal oversight in collaboration with the Director of Administration. The Deputy Director of CTP collaborates with fiscal, 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 and one Project Coordinator and serves as an alternate to the Director of CTP for PC business. The Director of QM/TA oversees two Program Managers, five POs, and an Implementation Specialist. The Deputy Director of HIV Prevention oversees the TA provided (RWPA contributes 1.0 FTE for a PO) to the EIS providers, in coordination with HIV Prevention. The Director of Housing oversees two Housing Analysts and a Housing Coordinator (3.0 FTE) who oversee RWPA 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 Housing Evaluation (.5 FTE) coordinates with the Director of Housing and the Director of REU to address issues of housing services monitoring and evaluation. The Deputy Director of Business Systems, under the leadership of the Director of Administration, oversees contract administration and procurement, including eSHARE data system implementation across Prevention and RW.

RWPA funds 11.13 FTEs 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 RWPA client and program needs, service utilization, and health outcomes. REU staff track progress on Integrated 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 RSR completeness.

The PC Director reports to the DOHMH Deputy Commissioner for the Division of Disease Control and oversees staff who support the planning and administrative functions of the PC. 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.

PHS employs 44.63 FTEs to help administer the RWPA program, including 22.98 FTE monitoring staff, 4.94 FTE contract administration staff, and 16.71 FTE planning and administrative staff. DOHMH facilitates a monthly coordination meeting and a monthly Data Workgroup with PHS. As of December 2015, PHS assumed responsibility as the Tri-County Master Contractor, the role formerly held by the WCDOH, for the Tri-County RWPA portfolio of contracts. The

expectation of the Recipient and PHS is to incrementally bring the entire NY EMA portfolio into alignment under one administrative infrastructure with consistent contract monitoring and management for maximum efficiency. The transition has been fairly seamless; PHS is well-integrated with the provider community and significant synergies have been accomplished. In order to ensure continuity of services and provision of local services planning and support to the Tri-County Steering Committee, 1 FTE will remain in WCDOH and function in this capacity.

Recruitment for vacant Recipient positions, involving widely distributed postings and a competitive process, is in progress and will be completed at the start of GY17.

b) *Avoiding service duplication.* eSHARE generates the electronic Unique Client Identifier required by HRSA for the annual RSR and for the purpose of de-duplication across RWPA program parts. In addition, the NY EMA's performance-based reimbursement system ensures that programs are paid for discrete services provided by the RWPA subrecipient. Currently, 80% of subcontracts in the NY EMA are paid on the basis of performance (with the balance based on submitted expenditures). POLR monitoring ensures that RWPA services are not reimbursed by other payers – including other RW programs within the same organization. Some clients may be served by multiple RW program parts if services are not duplicative and are consistent with the client's treatment plan. For example, a client may receive Part C-funded MCM services and RWPA-funded FNS. All RWPA providers are required to describe how they assess for, identify, and resolve any duplication of services in their Scope of Service. The Recipient reviews all information to ensure that RWPA is the POLR.

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

a) *Program Oversight.* PHS CMs are responsible for both fiscal and programmatic monitoring, ensuring that costs and activities are allowable and appropriate within the contract's budget and scope of services. In addition, providers are assigned a DOHMH PO (or in Tri-County, a WCDOH staff person) with expertise in the relevant programmatic content. POs provide one-on-one technical support and convene provider meetings to facilitate peer-led discussions of best practices. CMs and DOHMH POs 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 program challenges. While DOHMH POs focus on QM and the programmatic elements of services, CMs at PHS monitor contract deliverables and service documentation, conduct fiscal monitoring, and ensure compliance with relevant eligibility and administrative requirements, including client-level reporting. POs and CMs collaborate and ensure that consistent guidance is provided to RWPA subrecipients through joint site visits.

(1) *National Monitoring Standards (NMS).* The NY EMA is compliant with all aspects of the NMS. After the initial release of the NMS, DOHMH, PHS, and WCDOH met regularly to review policies and ensure compliance with all NMS with specific attention to client eligibility, Medicaid certification, and contract advances. The Deputy Director of CTP is responsible for ensuring that the NMS and associated HRSA and HHS policies are addressed throughout the NY EMA portfolio. The NMS are incorporated into contract language and into the service directives developed by the PC. In addition, the Recipient develops EMA-wide policies, as necessary; examples include policies on the *use of incentives, program income, and the use of indirect rates.* To date in GY16, the Recipient has undertaken the following activities to further implement the NMS and other federal policies:

- *Implementation of New Office of Management and Budget (OMB) Circular.* To ensure that the NY EMA is compliant with the new, uniform administrative requirements codified by HHS in 45 CFR 75, the Deputy Director of CTP attended all grants management and fiscal compliance related sessions at the RW Conference and has brought those issues back to the NY EMA to be incorporated into a new policy guide for subrecipients that will be released in early 2017 as part of grant renewals. Contract language has also been updated throughout EMA contracts and further updates will be made, as necessary, after the release of the revised NMS and HHS Grants Policy Statement.

- *Implementation of HLAB Policy Notice #16-02.* After for the release of *Policy Notice #16-02*, the Recipient and Master Contractor acted swiftly to implement any necessary changes or clarifications. The main change was to encourage the PC to add tax preparation services to their recently released Legal Services directive. Also, due to the addition of vocational therapy to the Rehabilitation Services category, the Recipient released a statement to the PC and other stakeholders stating that vocational therapy was not the same as employment services and employment services were still expressly prohibited under RW, however, benefits and entitlements counseling under several service categories could be used to help those returning to work understand the impact on their benefits.

(2) *Program Monitoring.* Each RWPA 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 RWPA services must have operational grievance procedures in place (including whistleblower policies) and a defined mechanism for garnering consumer input. Each subrecipient must collect and maintain client-level data in accordance with the NY EMA's reporting requirements. Using eSHARE, subrecipients collect demographic information, HIV status, primary exposure category, sexual risk information, co-morbid conditions, income, residency, insurance status, housing status, service utilization, clinical outcomes, and other information on RWPA clients. Documentation of semi-annual assessments of residency, income, and insurance status are maintained in the client record, as is client HIV status at intake and program-specific eligibility criteria; all are documented in eSHARE. Client-level data are used for program monitoring, evaluation, and reimbursement of performance-based contracts.

(3) *Number of subrecipients in 2015 and 2016 and site visits.* In GY16, RWPA funding supports 201 contracts in the NY EMA at 93 different agencies. In NYC, 29% of contracts received site visits between March 2016 and July 2016. By the end of GY16, all NYC and Tri-County contracts will have had at least one site visit (most will have two) from PHS and/or DOHMH, with most receiving a joint PHS and DOHMH TA visit. In Tri-County, all providers receive one programmatic and one fiscal site visit for each contract annually and, in cases where corrective action plans are required, a follow-up visit may be scheduled. In Tri-County, 91% of contracts have received a programmatic site visit thus far in GY16. The NY EMA plans to conduct approximately 270 site visits in GY16.

Fiscal and program monitoring process and frequency of reports. 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. While the emphasis is on requirements for payment, it also covers requirements for contract compliance, provides information on reporting, and outlines staff credentialing requirements. The current version is available on the PHS website.

The NY EMA's multi-faceted contract monitoring process includes monthly electronic data submissions, comprehensive semi-annual reviews (quarterly reviews are held as needed), at least two on-site visits each year, documentation reviews, frequent telephone and email contact, and other meetings as necessary. All RWPA 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. CMs review reported spending and withhold reimbursement if subrecipients fail to submit required monthly programmatic reports, external audit packages, and/or if reports are incomplete or contain unbudgeted or unallowable costs.

To ensure subrecipient information is shared between PHS and DOHMH, PHS CMs and DOHMH POs hold regular joint monitoring meetings to review progress and discuss subrecipient concerns, including reviews of corrective actions. In addition, PHS CMs prepare a comprehensive report twice per year on any significant subrecipient contracting issues, including programmatic, fiscal, and administrative challenges and successes.

Fiscal monitoring: performance-based contracts. Performance-based subrecipients are paid a reimbursement rate for each reported unit of service, making monthly client-level service data the basis for reimbursement. Reimbursement rates are developed by DOHMH and PHS, factoring in the cost of providing the services, as well as assumptions about staff productivity. CCP contracts are paid a per-member, per-day rate for each enrollment, which serves as a summary of required activities; each day of enrollment is automatically assessed to ensure that required services have taken place. At the contract level, monitoring focuses on on-site verification of claimed services and adherence to contractual requirements; payment is withheld if subrecipients fail to submit required documentation. PHS staff conduct a review of services reported from three different months. Two months are reviewed during reimbursement-focused site visit and a third month is reviewed as part of the routine site visit. During the site visit, staff review documentation of reported services. The documentation reviewed is sampled using a methodology that conforms to the NMS. PHS conducts thorough reviews of subrecipients' audited financial statements, single audit reports (formerly A-133), and management letters, securing written responses regarding any problem identified by auditors. Delinquent audit packages are cause for withholding of reimbursement and can be cause for termination, which has occurred in past grant years.

PHS continues standardized collection of contract expenses to inform the process of reimbursement rate adjustments. Such information is obtained through the year end cost reports, which provides PHS with the actual cost of running the individual contracts and the total cost associated with providing the contracted services. In addition, beginning in 2015, PHS resumed the biennial submission of the Infrastructure Self-Assessment Questionnaire. Performance-based subrecipients are required to complete the questionnaire outlining their fiscal policies and procedures. The questionnaire is an effective tool that is used to determine whether subrecipients' internal controls are adequate and identifies any possible internal control challenges that should be corrected. Subrecipients that identify infrastructural deficiencies are referred for fiscal TA. Certain deficiencies, such as outstanding tax liability, are cause for further investigation and may result in withholding of payment and other disciplinary action.

Fiscal monitoring: cost-based contracts. For contracts that remain cost-based, PHS requires subrecipients to submit monthly line-item expenditure reports. Written protocols direct CMs on how to handle incomplete or inappropriate submissions of support documentation. PHS conducts annual fiscal site visits for all RWPA cost-based contracts to review subrecipients' fiscal and administrative operations. During the site visit, staff review documentation for at least three months of reported

expenditures. The support documentation reviewed is sampled using a methodology that conforms to the NMS. The fiscal site visit also includes review of personnel files, allocation methodologies for shared costs, time and effort recordkeeping, and, as required, a review of equipment inventories and single audit report submissions. Subrecipients with a history of fiscal monitoring deficiencies are required to submit supporting documentation of reported expenses with greater frequency.

Frequency of fiscal and program monitoring site visits. CMs and Contract Coordinators (CCs) make at least one routine site visit each year per contract, and more for under-performing contracts or contracts on conditional (disciplinary) status. During routine site visits, monitoring staff review documentation to verify that services have been delivered in accordance with the contract's scopes. Monitoring activities undertaken during site visits include: client chart reviews to verify that eligibility has been ascertained, services are documented and consistent with the approved scope of services, and staff are appropriately credentialed; reviews of quality assurance documentation; observation of service delivery documentation of staff training; and review of grievances, if applicable. All new contracts have an initial site visit in the first three months of operation, to monitor start-up activities and provide TA, which is one of two visits for the year. For service categories that have a DOHMH PO assigned, DOHMH and PHS jointly conduct the annual routine site visit for each program. At annual, routine site visits, subrecipients attend an entrance conference. Following the conference, activities are divided between POs conducting TA and CMs conducting contract monitoring and ends with all staff attending an exit conference. PHS staff summarize findings and recommendations from site visits in written reports and provide the reports to subrecipients within 60 days.

(4) Corrective action. Corrective action may be required in response to findings from site visits, review of monthly reports or audited financial statements, or semi-annual compliance reviews. Examples of matters requiring programmatic corrective action plans include: low service levels; failure to adhere to required program elements; or persistent failure to document services, serve the target population, or follow POLR regulations. Issues that require corrective action are clearly outlined in materials provided to subrecipients. When corrective action is warranted, the CM sends the contract's senior administrator a letter detailing deficiencies that must be addressed. Subrecipients must present a corrective action plan within 15 (NYC) or 30 (Tri-County) days, clearly specifying the actions to be taken, responsible parties, timeline, and anticipated outcomes. PHS and DOHMH approve all corrective action plans.

DOHMH and PHS conduct a comprehensive compliance review panel twice a year for all contracts. Contracts are placed on conditional status when they, persistently, fail to achieve satisfactory performance on key indicators, or fail to successfully implement the agreed-on corrective action. In such cases, senior management of the agency must meet with contract monitoring staff and submit a compliance plan within 15 business days. In the current fiscal year, three contracts were placed on conditional status. Failure of contracts on conditional status to correct deficiencies may result in contract reduction or termination. To ensure effective use of RWPA funds, the NY EMA maintains guidelines for the termination or reduction of under-performing contracts. These guidelines ensure that all contracts on conditional status for four or more quarters, and whose compliance plan has not been successfully completed in the required timeframe, are considered for reductions or termination. The most prevalent types of non-compliance among NYC contracts were low levels of service or related programmatic issues (74% of non-compliant contracts) and issues with reporting client-level data (11% of non-compliant contracts). Contracts may be cited for more than one problem area.

Improper charges or other findings and corrective actions. Contracts requiring corrective action are assessed at the end of semi-annual review periods, although egregious findings can initiate corrective action at

any time. The first review for the current year (GY16), covering the period March through August, will take place in October 2016. In 2015, four NYC contracts were on conditional for low service levels. In 2015, 19 NYC RWPA contracts, had corrective action or compliance plans in place for some part of the contract year; no Tri-County contracts were on conditional during GY15.

(5) Technical Assistance. The DOHMH QMQM/TA staff, especially the POs, work with contracted providers in key service categories to improve the health and well-being of RWPA clients through the provision of programmatic TA. Programmatic TA optimizes program performance and quality, improves the accuracy of reporting and utilization of performance data for QI, and enhances the capacity of programs to provide services in line with the contracted model (e.g., CCP, EIS, etc.). In the 2013 HRSA Comprehensive Site Visit Report, the HRSA/HAB site visit team acknowledged the TA team as a best practices model. DOHMH POs conduct site visits, conference calls, provider meetings, workshops and trainings, and participate in contract negotiation and program monitoring.

In GY15, all RWPA programs covered by QM/TA had at least two site visits. QM/TA conducted eight additional site visits to address specific program concerns, introduce new QM/TA staff, and observe program activities and 24 site visits to kick-off new SCF and n-MCM contracts. In addition, six site visits to address specific program concerns and observe program activities have already taken place; 18 initial site visits for the new HR contracts and 11 for the new MH contracts have been scheduled for FY16. To date in GY16, programmatic TA has been provided to CCP, TCC, MH, HR, n-MCM, SCF, HE/RR and FNS providers; 23 of the 95 assigned contracts received TA during 34 initial, routine and/or targeted TA site visits dedicated to ensuring fidelity to service models, and improving quality of program services and accuracy of eSHARE reporting processes. A total of nine provider meetings have been held thus far in GY16, and an additional one is scheduled for the remainder of the year.

In GY15, all RWPA programs covered by QM/TA had at least two site visits. All had reimbursable site visits (by PHS) and routine site visits (most of which were conducted jointly by PHS and QM/TA). QM/TA conducted eight additional site visits to address specific program concerns, introduce new QM/TA staff, and observe program activities and 24 site visits to kick-off new supportive counseling and non-medical case management contracts. In GY16, all RWPA programs covered by QM/TA will also have at least two site visits (reimbursable and routine). In addition, six additional site visits to address specific program concerns and observe program activities have already taken place and 18 initial site visits for the new HR contracts and 11 for the new MH contracts have been scheduled. To date in GY16, programmatic TA has been provided to CCP, TCC, MH, HR, n-MCM, SCF, HE/RR and FNS providers; 23 of the 95 assigned contracts received TA during 34 initial, routine and/or targeted TA site visits dedicated to ensuring fidelity to service models, and improving quality of program services and accuracy of eSHARE reporting processes. A total of nine provider meetings have been held thus far in GY16, and an additional one is scheduled for the remainder of the year. In addition, in GY16 QM/TA conducted a MCM implementation training, EBI trainings in MH and HR (Seeking Safety and Health Living Project), and an orientation to clinical supervision for all RWPA-funded programs.

In 2015, the HIV Prevention Programs Diagnostics Unit conducted 120 site visits to 31 EIS contracts. Funded agencies conducted testing under three different models: routine testing, priority populations testing, and Social Network Strategy testing. Six provider meetings were held. In GY16, to date, 80 EIS site visits have been conducted, and three provider meetings have been held. In addition to quarterly site visits, POs conduct monthly check-in calls to each agency.

b) Fiscal Oversight.

(1) 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 quarterly spending reports to DOHMH, as well as the PC, for review. Formula, Supplemental, MAI, and Carryover funds and expenditures are tracked and reported separately. On a quarterly basis, PHS and DOHMH staff meet with the PC Finance Committee 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 NY EMA's aggregate program income and costs covered by program income are then reported to HRSA in the Federal Financial Report (FFR). The Director of Finance and Operations at PHS manages fiscal tracking and reporting and reports directly to the Vice President of CAMS, who is part of PHS's senior management team. At DOHMH, the Grant Fiscal Administrator, a Fiscal Analyst, 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 RWPA grant, including implementation of the NMS.

Roles and responsibilities of fiscal staff. With the NY EMA's use of performance-based reimbursement, PHS's organizational fiscal monitoring of programs primarily takes place through the review, by a Fiscal Manager, of the organization's audited financial statements and single audit reports. CMs are responsible for fiscal monitoring of cost-based contracts. CMs verify that expenditures adhere to subrecipients' approved budgets.

DOHMH fiscal staff and the CTP Deputy Director, in collaboration with the Master Contractor, prepares and submits the following information to HRSA: administrative budgets, allocation and expenditure tables, OMB forms such as the SF424A and the FFR, unobligated balance and carryover requests, and other fiscal documents required under the conditions of award. In addition, the Grant Fiscal Administrator 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 RWPA 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 RWPA contracts.

Fiscal Staff Organizational Chart (see Attachment 10).

(2) 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 presented to the PC to monitor expenditures, allocate funding for the following year's spending plan as well as develop a carryover plan for unspent funds at closeout.

(3) Timely monitoring and redistribution of unexpended funds. DOHMH and PHS continuously monitor subrecipient spending and projected underspending. Underspent contracts are considered for reduction based on their rate of year-to-date and projected spending for the remainder of the contract. Underspent funds are redirected pursuant to the PC's reprogramming plan.

The discrete financial value of reported services in performance-based contracts facilitates PHS's ability to identify programs that are not performing as projected. Likewise, reported over-performance makes clear which subrecipients are suitable candidates for enhancements. Such enhancements reimburse subrecipients for any incremental costs associated with the provision of additional services and allow for efficient use of RWPA funding. In GY15, 104 RWPA contracts were reduced (a total of \$3.17 million) and 84 high-performing contracts received budget enhancements (for a total of \$4.264 million). PHS is able to amend contracts quickly to reflect these changes. In GY15, the NY EMA spent more than 99.6% of its award, a remarkable achievement in a grant exceeding \$102 million.

(4) Subrecipient compliance with audit requirements. Consistent with the new Uniform Administrative Requirements, RWPA subrecipients are contractually required to submit a single audit report, if applicable. 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 NYS reporting requirements. The NYS Nonprofit Revitalization Act as well as federal OMB updates are the topic of an upcoming "Newsflash" for subrecipients, as PHS seeks to ensure compliance with up-to-date audit rules. Subrecipients that fail to adhere to the NY EMA's audit submission requirements are immediately deemed to be out of compliance, and their reimbursements are placed on hold until the appropriate submission is made. PHS staff carefully review all audit reports. In GY15, PHS contracted with 93 subrecipients; however, only 80 audit packages were required to be submitted. In these cases, the financials of the agencies were consolidated into one audit package. All 80 audit packages were submitted in GY15; 45 (56%) were submitted late. Delinquent audit reports result in delayed payments, at a minimum. In the Tri-County region, all 14 fiscal organizations submitted audit reports in 2015 with 7% received late.

(5) Addressing subrecipient audit findings. Thirty-three percent of NYC RWPA subrecipients' audit reports contained issues noted in GY15. Issues ranged from general observations to auditor recommendations, some of which were unrelated to the RWPA programs or the agencies' infrastructure. Of the issues noted, only 5% 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 OMB 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. No Tri-County audits had findings in GY15 that required corrective actions. 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 requests a corrective action or compliance plan to resolve the audit deficiency, during which time agency reimbursements are placed on hold.

(6) 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 RW 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. Many of these rules are enforced electronically, through the payment system database, while others are found only through site visits.

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 correctable while others may result in recoupment during closeout.

Reimbursements may be withheld despite complete monthly reports. Reasons for withholding include expired insurance policies, delinquent audit 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 Program Managers, 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.

All Tri-County programs are reimbursed on a cost or line-item budget basis. A monthly expense report is due 15 days after the month of services reported for actual costs incurred. A final report is due from each subrecipient at the end of the year. At that time, cost-based subrecipients may request budget or service modifications. 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 GY16 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.

3) Administration Assessment. Consistent with legislative mandates, the PC assesses the efficiency of the administrative mechanism in timely allocation and distribution of RWPA funds to areas of greatest need in the NY EMA.

a) Assessment of Recipient's activities. The PC's Finance Committee is charged with assessing the efficiency of the administrative mechanism in the timely allocation and contracting of RWPA funds according to the PC's priorities and allocations. The Finance Committee receives quarterly commitment and expenditure reports for all Base and MAI funded service categories. The Finance Committee produced a checklist of measures, which includes: contract executions and renewals,

procurement, subrecipient payments, and spending. The Finance Committee reports its findings to the PC's Executive Committee and to the full Council.

b) Deficiencies. The Finance Committee determined that there were no deficiencies in the administrative mechanism and no corrective action was needed for GY15.

4) Third Party Reimbursement. During GY16, the NY EMA expanded its already robust process to ensure that all RWPA funds serve as the POLR. As previously discussed, the PC undertakes a comprehensive analysis of all other 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 criterion being "POLR/Alternate Providers of Service." This tool helped the PC to specifically design the GY17 RWPA Spending Plan to address gaps, especially those in Medicaid.

Beginning in GY11 and continuing through GY16, DOHMH and PC staff has been engaged in ongoing monitoring of changes due to the ACA and related NYS Medicaid Redesign efforts. 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 a policy newsletter. 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.

a) Monitoring Third Party Reimbursement. Contractual provisions define RW 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. Each service category RFP expressly provides that RWPA is the POLR. As mandated in the RFP and in the eventual contract, all RWPA programs 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 explore 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 RWPA 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 RWPA. These statements, ultimately part of the subrecipient's contract, expressly prohibit the use of RWPA funding for otherwise covered activities. PHS monitors contracts against their statements. 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.

In 2010, PHS introduced a new level of verification to ensure that services billed to RWPA 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.

b) 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 and effective date of coverage.

Many PLWH with incomes between 138 and 400% of FPL are eligible for discounted premiums for plans on the NYS health insurance exchange (with exceptions based on insurance and

immigration status), 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 accessing the RWPA care system, and that PLWH are receiving enrollment assistance from application counselors who understand the HIV care system.

c) *Tracking and use of program income.* DOHMH and PHS began implementing program income requirements in 2012 with subrecipients of the EIS category. Sliding fee schedules and caps on charges as well as full implementation of program income began in June 2013 for all service categories with potential program income, the program income policy was further updated in 2016 to bring the program income policy for RWPA housing in line with the HOPWA housing program income policy. In addition to reporting the amount of program income earned, programs also report how they have or will use the income to improve RWPA programs. The most common use of program income is to pay for administrative costs that were not covered under the 10% administrative cap. The NY EMA reports aggregate program income to HRSA on its annual FFR.

Because of the safeguards designed to ensure that RW funds remain the POLR, there are very few instances when a program might earn program income from RW activities or clients. The primary instance, leading to why program income reporting was implemented in EIS first, is when a clinical program performs an HIV test on an uninsured person, after which the individual becomes enrolled in Medicaid; the clinical provider is allowed to back-bill Medicaid for any service, including HIV testing, which occurred during the three months prior to enrollment. The payment from Medicaid is considered program income and is reported to the Recipient as explained above.

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- 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 –2015.
- ⁱⁱⁱ CDC. (2015). Diagnosis of HIV Infection in the United States and Dependent Areas, 2014; HIV Surveillance Report 2014; vol. 26.; NYC DOHMH Surveillance data as reported by June 30, 2016; NYS DOH Surveillance data as reported by July 2016.
- ^{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*.
- ^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} Medical Monitoring Project (MMP): Results from the MMP survey of people receiving HIV care in 2011-2012 in NYC; HIV Epidemiology and Field Services Program, BHIV, DOHMH, March 2015; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/mmp-2011to2012-presentation-march-2015.pdf>.
- ^{vii} New York City HIV/AIDS Annual Surveillance Statistics. New York: NYCDOHMH, 2016. Accessed [9/7/2016] at <https://www1.nyc.gov/assets/doh/downloads/pdf/ah/surveillance2014-table-all.pdf>.
- ^{viii} Pathela P, Jamison K, Braunstein SL, Schillinger JA, Varma JK, Blank S. (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.”
- ^{ix} Care and Clinical Status of People Newly Diagnosed with HIV and People Living with HIV/AIDS in NYC, 2014; HIV Epidemiology and Field Services Program, BHIV, DOHMH, Jan 2016; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/hiv-related-medical-care.pdf>.
- ^x *Ibid.*
- ^{xi} NYC DOHMH. (2016). *Summary of Vital Statistics, 2014*.
- ^{xii} CDC, (February, 23 2016). Lifetime Risk of HIV Diagnosis, Press Release. [Accessed October 1, 2016, <http://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html>].
- ^{xiii} 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>.
- ^{xiv} New York City HIV/AIDS Annual Surveillance Statistics. New York: NYCDOHMH, 2016. Accessed [9/7/2016] at <https://www1.nyc.gov/assets/doh/downloads/pdf/ah/surveillance2014-table-all.pdf>.
- ^{xv} 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>
- ^{xvi} NYC DOHMH (2016). Epi Brief, Dating Violence Among NYC Youth, Accessible: <http://www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief67.pdf>
- ^{xvii} 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>
- ^{xviii} HIV Risk and Prevalence among Heterosexuals at Increased Risk for HIV in New York City: 2013 National HIV Behavioral Surveillance Study, BHIV, DOHMH, December 2014 ; <http://www1.nyc.gov/assets/doh/downloads/pdf/dires/nhbsht-2013.pdf>
- ^{xix} Xia et al. (2015). Proportion of Patients with HIV Retained in Care and Virologically 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*.
- ^{xx} Liao A, et al. (2013). Interventions to Promote Linkage to and Utilization of HIV Medical Care Among HIV-diagnosed Persons: A Qualitative Systematic Review, 1996-2011. *AIDS and Behavior*; 17(6), 1941-1962.
- ^{xxi} Pecoraro, et al. (2013). Factors contributing to dropping out from and returning to HIV treatment in an inner city primary care HIV clinic in the United States. *AIDS Care*; 25(11): 1399-1406.
- ^{xxii} Crawford, TN. (2012). Evaluating Retention in Medical Care and its Impact on the Health Outcomes of Individuals Living with Human Immunodeficiency Virus. Theses and Dissertations--Epidemiology and Biostatistics. Paper 1. http://uknowledge.uky.edu/epb_etds/1
- ^{xxiii} Aidala AA, et al. (2012). Housing Status and the Health of People Living with HIV/AIDS: A Systematic Review. Poster presented at the XIX International AIDS Conference. Washington DC, July 2012; Aidala AA, et al. Food Insecurity, Medical Care, and Health Outcomes among PLWH in a High Resource Setting: The Importance of Food and

Nutrition Services. Poster presented at the XIX International AIDS Conference. Washington DC, July 2012. 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.

^{xxiv} NYS/NYC Joint Analysis of Routine HIV Screening.

^{xxv} Felman (2014), Crystal methamphetamine use and HIV medical outcomes among HIV-infected men who have sex with men accessing support services in New York. *Drug and Alcohol Dependence*, volume 147. October 2014.

^{xxvi} Roberts TK, Fantz CR. (2014). Barriers to quality health care for the transgender population. *Clinical Biochemistry*; 47 (10–11): 983–987.

^{xxvii} Mixuno Y et al. (2015). Characteristics of transgender women living with HIV receiving medical care in the United States. *LGBT Health*, online edition.

^{xxviii} 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.

^{xxix} 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.

^{xxx} Office of Minority Health. *The National CLAS Standards*. Available online at <http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53>.

^{xxxi} CHAIN. *Mortality Experience Study*. CHAIN 2009-1 Report.

^{xxxii} DOHMH (2016). Hepatitis B and C in New York City, 2015 Annual Report.

^{xxxiii} NYC Department of City Planning. *Consolidated Plan: 2015-19 Needs Assessment and Marketing Analysis*. Page 4.

^{xxxiv} NYC. (2014). Housing New York A Five-Borough, Ten-Year Plan.

^{xxxv} 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>.

^{xxxvi} *Ibid*.

^{xxxvii} Coalition for the Homeless. (2016). *New York City Homelessness: The Basic Facts*. August 2016.

^{xxxviii} 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>].

^{xxxix} Coalition for the Homeless. (2016). *New York City Homelessness: The Basic Facts*. August 2016.

^{xl} *Ibid*.

^{xli} 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>]

^{xlii} CHAIN. *Housing Need and Housing Assistance in NYC and Tri-County Region*. 2016-1 Report. [Accessed September 29, 2016: <http://www.nyhiv.org/pdfs/chain/CHAIN%202016-1%20NYC%20TRI%20Co%20Housing%20Final.pdf>].

^{xliii} 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.

^{xliv} CHAIN. *Housing Need, Housing Assistance, and Connection to HIV Medical Care*. CHAIN 2006-5 Report.

^{xlv} 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.

^{xlvi} 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.

^{xlvii} 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.

^{xlviii} 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.

^{xlix} *NYC Correctional Health Services electronic Health Record reports*.

¹ Spaulding, et al (2013). Cost Analysis of Enhanced Linkage to HIV Care Following Jail: A Cost-Effective Intervention. *AIDS Behavior*; 17(2); 220-226. Published online November 9, 2012.

ⁱⁱ SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2010, 2011, and 2012 (2010 Data - Revised March 2012).

ⁱⁱⁱ Tesoriero JM, et al. (2010). Smoking among HIV positive New Yorkers: Prevalence, frequency, and opportunities for cessation. *AIDS Behav*; 14:824-835.

-
- ^{liii} 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.
- ^{liv} 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.
- ^{lv} New York State Department of Health's Regional Global Cap Updates - Current State Fiscal Year (SFY) 2015 - 2016. June 2015 report, accessed at:
http://www.health.ny.gov/health_care/medicaid/regulations/global_cap/regional/sfy_2015-2016/
- ^{lvi} Rudowitz R, et al. (October 2015). Medicaid Enrollment and Spending Growth: FY 2015 and 2016. Kaiser Commission on Medicaid and the Uninsured. Kaiser Family Foundation.
- ^{lvii} 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.
- ^{lviii} Shah, M., Risher, K., Berry, S.A., and Dowdy, D.W. (2015). The epidemiologic and economic impact of improving HIV testing, linkage, and retention in care in the United States. *Clinical Infectious Diseases*, 62(2): 220-9
- ^{lix} New York State of Health: The Official Health Plan Marketplace. (2016). 2016 Open Enrollment Report. Accessed at:
<http://info.nystateofhealth.ny.gov/2016OpenEnrollmentReport>
- ^{lx} <https://www.youtube.com/user/NYStateofHealth>
- ^{lxi} New York State of Health: The Official Health Plan Marketplace. (2015). 2016 Qualified Health Plan Map: Individual Market QHP Participation by Insurer by County. Accessed at:
http://info.nystateofhealth.ny.gov/sites/default/files/2016%20Individual%20Marketplace%20Plans%20by%20county_0.pdf
- ^{lxii} 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
- ^{lxiii} Rojas, J. & Hollod, L. (2014, March). 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.
- ^{lxiv} Aidala A, Yomogida M, Vardy Y (2015). Food Insecurity, Food & Nutrition Services and HIV Care and Health Outcomes. Community Health Advisory Fact Sheet. New York: Mailman School of Public Health, Columbia University.
- ^{lxv} NYC DOHMH. (2015). HIV Epidemiology & Field Services Surveillance Statistics Mid-year Report, 2014.
- ^{lxvi} NYC DOHMH (2015). Surveillance data.