COMPREHENSIVE JURISDICTIONAL PLAN FOR HIV PREVENTION IN NEW YORK CITY

2012-2016

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NYC Health

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Citywide Goals and Objectives

Goal: To reduce new HIV infections in New York City by at least 25% by 2015

Objectives:

1. Reduce new HIV infections among priority populations by at least 25%.
2. Decrease risky sexual and drug-using behaviors among persons at high risk for transmitting or acquiring HIV.
3. Optimize health outcomes for populations at high risk of transmitting and acquiring HIV infection.
4. Reduce HIV-related health disparities.

EPIDEMIOLOGIC PROFILE

New York City has a large population of persons living with HIV/AIDS and an even larger population of uninfected persons at risk for acquiring HIV. There are continuing shifts within the epidemic; the most recent developments include a declining number of HIV diagnoses overall, an increasing proportion of diagnoses among young MSM and foreign-born persons, and increased survival of persons with HIV/AIDS. Multiple factors at different levels contribute to HIV transmission in a city as large and diverse as NYC, and disparities in rates of diagnosis persist. Prevention of HIV transmission is therefore a substantial and complicated undertaking. Fortunately, NYC is one of the best-equipped cities to address the HIV/AIDS epidemic. It has large networks of committed professionals, networks of infected and affected persons, an established community planning process, and the world's premier infrastructure for HIV-related medical treatment and care. Continued normalization and expansion of opportunities for HIV testing, coupled with continuous expansion and refinement of proven, scalable, culturally-sensitive and cost-effective HIV prevention interventions for the appropriate priority populations and highly impacted neighborhoods are key elements in the overall strategy that is intended to empower New York City residents to know their HIV serostatus, prevent secondary transmission, and obtain the care and services they need to maintain their health and quality of life.

COMMUNITY ENGAGEMENT PLAN

To maximize the involvement of HIV impacted individuals and at-risk communities in its discussions and decision-making processes, the HIV Planning Group (HPG) will implement new recruitment strategies beginning in the second half of 2012. Heightened efforts will be made to ensure that full, alternate and associate members of the HPG are equipped with the appropriate tools and have access to adequate resources that are essential to effective engagement in HPG discussions and full knowledge about the New York City Jurisdictional HIV Prevention Plan. Active discussions with other local planning bodies, including the New York City Planning Council and the New York State HIV Planning Group, have already begun and will continue on a regular basis for the remainder of this planning cycle.

GAPS AND SCALABILITY

Determination of gaps in New York City's HIV prevention services was completed through multiple steps including:

- Primary Planning Process. The DOHMH convened multiple internal and external working groups. Input was solicited on existing prevention goals and strategies that were included in the ECHPP interim plan. A brainstorming exercise was conducted among Internal Workgroup members. The core jurisdictional planning team vetted the list of ideas generated during brainstorming and reviewed the recently drafted Ryan White Comprehensive Plan for New York City to ensure alignment. These steps led to the completion of a draft plan, which was then reviewed and revised by all.

- Epidemiologic analyses. The DOHMH undertook a detailed review of epidemiologic data in NYC during the planning process. This was complemented by formative interviews with colleagues both within the Agency and in the community. This work, initially begun in early 2012, helped to highlight a number of key aspects of the epidemic in NYC, including the importance of reaching the following:
    - MSM and transgender women who have sex with men
    - Hard-to-reach drug users
    - Recently-arrived urban immigrants and migrants belonging to populations at high risk for HIV transmission or acquisition
    - Commercial sex workers (CSW) and their partners
    - Heterosexual black and Latina women in high-prevalence neighborhoods

- NYS Regional Gaps Analysis (RGA) – NYC Region. The NYS HIV Planning Group and the NYS AIDS Institute gathered information from AIDS Institute regional listening fora, opportunistic information gatherings, and membership surveys. The RGA concluded that populations most heavily impacted by HIV are already in severe need, and many structural issues contribute to disparities in HIV diagnoses and HIV outcomes. Additionally, youth-driven HIV prevention efforts are needed. Diversity can pose a challenge in designing programs. Stigma about HIV, but also about drug use and mental illness, remains an issue.

- Resource Allocation Modeling. BHIV partnered with an academic modeling group at the New York University (NYU) School of Medicine to construct an operations research model of HIV prevention in NYC. BHIV used the final validated model to enhance program planning and funding allocation decisions. This productive collaboration has suggested that the highest value interventions tend to focus on individuals who are already HIV-infected.

- Pre-Exposure Prophylaxis Planning. BHIV convened a Pre-Exposure Prophylaxis (PrEP) Work Group to discuss the possible ways the NYC DOHMH can support efforts to implement PrEP in NYC.

Consideration of the scalability of interventions in NYC is always a major consideration due to the size of the city and the diversity of the affected and at-risk populations. Issues related to scalability that inform program planning include:

- The size of the local epidemic;
- The diversity of the affected populations;.
- The growth of the affected populations (including the possible migration of HIV-positive persons to NYC for care).

Concerns about scalability have informed:

- The move towards community-level rather than individual- or group-level evidence-based interventions;
- The development of a pilot program for HIV prevention among HIV-positive individuals.

SITUATIONAL ANALYSES, GOALS, AND STRATEGIES

Key activities for each major program area are summarized below.

Testing

Key activities include jurisdictional HIV testing initiatives (e.g., *The Bronx Knows, Brooklyn Knows*), testing in clinical and non-clinical venues, free test kit distribution, testing of exposed partners (Partner Services), testing in correctional settings, testing of cofactors for HIV transmission. Implementation of the NYS HIV Testing Law of 2010 is also a key part of HIV testing efforts in NYC.

Comprehensive Prevention with Positives

Key activities include all aspects of the spectrum of engagement in care including linkage (e.g., through integration of ARTAS training into HIV testing programs), retention/re-engagement in care (e.g., through Care Coordination and the Field Services Unit), improved treatment (e.g., through assistance with access to HIV medications and clinical guidelines/trainings), and medication adherence/virologic suppression (e.g., through Care Coordination and the Positive Life Workshop). Interventions have also been introduced to support reduction of perinatal transmission (e.g., in collaboration with New York State), behavioral change (e.g., through the VIP Program in STD Clinics, the Prevention with Positives Pilot, and Partner Services) and harm reduction (e.g., through support for syringe service programs).

Condom Distribution

Key activities include condom distribution to HIV-positive persons, to high-risk, HIV-negative persons, and to persons in correctional settings as well as the use of social marketing/media to normalize correct and consistent condom use. NYC DOHMH will continue innovative uses of new media and social marketing (e.g. the Condom Availability smartphone application and the Condom Availability Program Facebook page) to help make condoms available, accessible, and acceptable.

Policy Initiatives

Key activities include the ongoing support for efforts to make HIV screening as routine as possible, to expand the use of data sharing to improve individual and public health outcomes, to continue to improve access to safe syringes, to expand the routine HIV testing sites to include dental practices/clinics, and to support legislative change that improves the care and treatment of cofactors of HIV transmission or acquisition (e.g., STDs, mental health). New activities in development through a request for proposals (RFP) process include programs to address structural and system-level change for HIV prevention.

Evidence-Based HIV Prevention Interventions for HIV-Negative Persons at Highest Risk of Acquiring HIV

Key activities include support for evidence-based interventions, with increasing emphasis on scalable community-level interventions, screening and treatment for cofactors of HIV, and harm reduction interventions (e.g., support for syringe access programs and drug treatment, promotion of buprenorphine). New activities in development through an RFP process include sexual and behavioral health programs, structural- and system-level change programs, community mobilization and/or community-level interventions, demonstration projects, and enhanced condom distribution.

Social Marketing, Media, and Mobilizaion

Key social marketing activities include campaigns directed to MSM, HIV-positive individuals, and other highly impacted populations through multiple channels (e.g., television, publications, websites, as well as local outdoor, transit and print media), and condom banner ads on mobile applications. Other social marketing activities include social marketing to promote routine HIV screening among providers and patients. Key social media activities include the use of popular internet-based platforms (e.g., Facebook, Twitter) to promote condom awareness and use. Social mobilization activities currently include the jurisdictional HIV testing initiatives, the activities of the HIV Planning Group, and the deployment of HIV Prevention Specialists assigned to each borough to work consistently on the group in the most heavily impacted neighborhoods. New activities in development through an RFP process include community mobilization programs.

nPEP and PrEP

Key activities include direct funding for uninsured persons with exposures of sufficiently elevated risk to receive nPEP (if determined appropriate after a clinical evaluation) and reimbursement for programs wishing to provide education about PrEP. nPEP and PrEP education will be offered alongside other sexual and behavioral health services starting in 2013. Work is also underway to explore other options for supporting PrEP in NYC.

BRIEF CONCLUSIONS

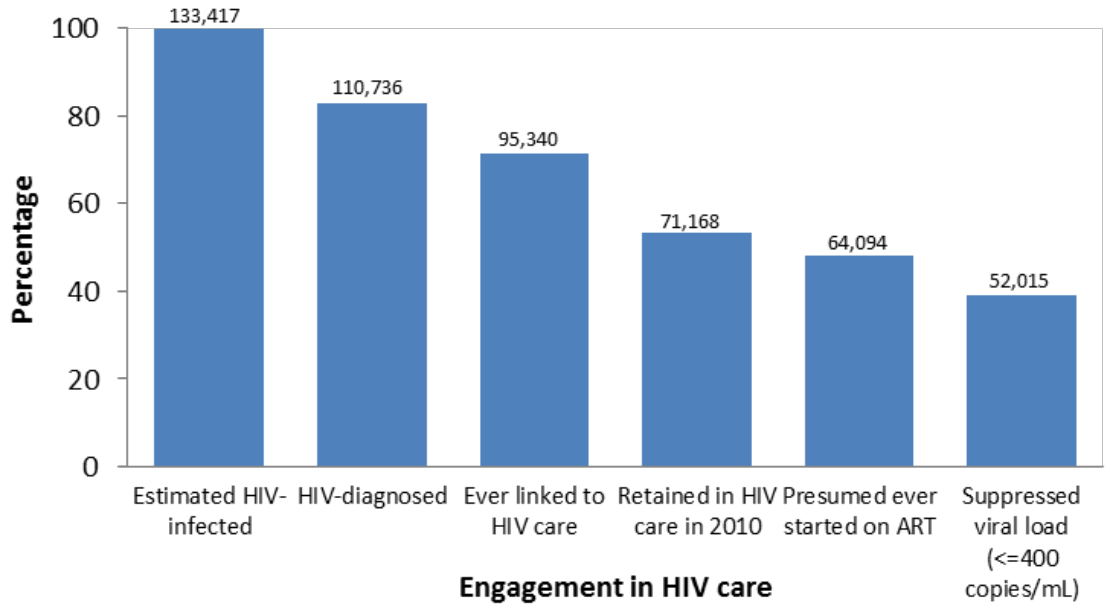
This is a unique time in HIV prevention in NYC. The National HIV/AIDS Strategy[1] (preventing new infections, increasing access to care, and reducing HIV-related health disparities) and the new focus of CDC's "High-Impact Prevention"[2] (to intensify the use of appropriately combined evidence-based prevention methods in the most highly affected geographic areas) clearly provide new momentum to prevention efforts in the United States. New tools and strategies have emerged or have been proven effective only recently,[3,4] and implementation remains far from complete. Selecting the best combination of interventions for priority populations and ensuring that they are employed effectively has never been more of a challenge. Further, given the size and diversity of NYC and the number of entities involved in HIV prevention efforts, strategic coordination citywide is particularly crucial. The development of a comprehensive plan for HIV prevention in the jurisdiction has never been more important.

Despite the significance of this document's existence, such a plan is inherently dynamic. New research and innovative technologies will undoubtedly emerge in the coming years that may cause priorities to shift. Changes in the local epidemic may also occur that warrant new approaches. But as long as there is a clear understanding of the HIV prevention goals, and an ongoing attempt to reassess needs, gaps, and scalability, this plan's utility will be maintained moving forward. It is hoped that through the activities outlined herein, and through the collaborations formed both through the planning process and through the plan itself, the core mission of the BHIV will be achieved: to reduce HIV-related illness and death by preventing HIV infections among New York City residents and improving HIV treatment and care for New York City residents already infected.

INTRODUCTION

In the past 15 years, major advances in treatment have transformed the HIV epidemic and dramatically reduced the death rate associated with HIV infection. Individuals who are appropriately treated for HIV live near-normal life spans compared to people of the same age who are uninfected.[5] Yet, despite success in HIV treatment, and important advances in prevention as well, New York City (NYC) remains highly impacted by HIV, with over 3,400 new diagnoses in 2010, and over 110,000 persons living with HIV in NYC.[6] Further, NYC data indicate that many individuals continue to drop off the 'treatment cascade,' starting with those that remain undiagnosed, those that are never linked to care, or, if linked to care, are not retained in care, and those who are not started on antiretroviral therapy (ART) (see **figure 1**). Taken together, only a minority of those who seek care ever achieve sustained virologic suppression (a goal of treatment) (see **figure 1**). Unfortunately, the burden of disease and death is shared unequally, with enduring racial/ethnic disparities in new diagnoses, disease prevalence, and HIV-related death rates.

Figure 1. Spectrum of engagement in HIV care in NYC, 2010.



Sources: NYC DOHMH surveillance data, including the NYC Health and Nutrition Examination Survey (NYC HANES)[7], jail serosurvey [8], and NYC HIV/AIDS Reporting System (NYC DOHMH unpublished data).

Since the beginning of the epidemic, evidence-based primary and secondary HIV prevention interventions and approaches have been developed. These include HIV testing and prompt linkage to care, ART, access to condoms and sterile syringes, prevention programs for people living with HIV and their partners, prevention programs for people at high risk of HIV acquisition or transmission, substance abuse treatment, and screening and treatment for other sexually transmitted infections. These interventions all form part of an approach called 'High Impact' HIV Prevention, a strategy that involves using these scientifically-proven approaches (as delineated above), ideally in their most impactful and least costly combination, to optimize prevention outcomes.[2] The approach also calls for the careful, strategic prioritization of communities ("the right populations in the right geographic areas"). "High Impact" Prevention is completely aligned with the 2010 National HIV/AIDS Strategy (NHAS)[1], an ambitious strategy for combating the epidemic released by the Office of National AIDS Policy (ONAP) in July 2010.

Overall, the core mission of the BHIV is to reduce HIV-related illness and death by preventing HIV infections and improving HIV treatment and care for people already infected among residents of New

York City's five boroughs. This mission is fully aligned with those of both the NHAS and CDC's High Impact Prevention approach.

Specifically, the City has adopted the following overall goal and objectives:

Goal: To reduce new HIV infections by at least 25% by 2015

Objectives:

1. Reduce new HIV infections among priority populations by at least 25%.
2. Decrease risky sexual and drug-using behaviors among persons at high risk for transmitting or acquiring HIV.
3. Optimize health outcomes for populations at high risk of transmitting and acquiring HIV infection.
4. Reduce HIV-related health disparities.

This Comprehensive Jurisdictional Plan for HIV Prevention in NYC for the 2012-2016 interval was developed by a broad group of interested parties, led by the Bureau of HIV/AIDS Prevention and Control. The plan describes all HIV prevention activities in NYC, including the complete implementation of the NHAS and High Impact Prevention in the jurisdiction. In addition to this brief introduction, the plan contains the following elements:

- **Epidemiologic Profile**: a description of the HIV epidemic in NYC, including a detailed account of the burden of disease among special populations.

- **Community Engagement Plan**: NYC's planned approach for enhancing broad stakeholder involvement in HIV prevention.

- **Scalability and Gaps Analysis**: a report on the jurisdictional planning process with a brief overview of the gaps and scalability issues identified and how they will be overcome.

- **Situational Analyses, Goals, Strategies**: situational analyses for each of the core prevention program components are presented, followed by an outline of all related goals and strategies.

- **Discussion**: a brief discussion of the expected outcomes and next steps toward achievement of the Comprehensive Jurisdictional Plan goals.

EPIDEMIOLOGIC PROFILE

NEW YORK CITY HIV/AIDS SURVEILLANCE

Data sources

Unless otherwise noted, all HIV/AIDS data presented in this Epidemiological Profile represent new diagnoses of HIV and AIDS, persons living with HIV/AIDS and deaths to persons with HIV/AIDS in New York City, as reported through September 30, 2010, to the HIV Epidemiology and Field Services Program of the New York City Department of Health and Mental Hygiene (DOHMH), which is responsible for conducting HIV/AIDS surveillance in New York City.

Other sources of HIV/AIDS data in this epidemiologic profile, which are referenced when they are cited, include results of behavioral research and matches with vital and other disease registries.

HIV/AIDS surveillance methodology

AIDS surveillance has been conducted in New York City since 1981 and HIV surveillance since June 1, 2000. Named reporting of HIV-related laboratory test results by laboratories and named reporting of new diagnoses of HIV and AIDS by diagnostic providers are required by the New York State Sanitary Code Section 24.1 and Article 21, Title III; and the New York City Health Code Section 11.05. The NYC DOHMH is authorized by the New York State Department of Health to conduct HIV/AIDS surveillance in NYC. The confidentiality of HIV/AIDS surveillance data is protected by law, with penalties for unauthorized disclosure, and is the central value that guides the protocols and procedures of the surveillance program.

Physicians are required to report diagnoses of HIV infection, HIV-related illness (i.e., HIV illness not meeting the AIDS case definition) and AIDS-defining conditions. As of June 1, 2005, the following laboratory tests were also electronically reportable: all positive Western Blot results; all viral load results, both detectable and undetectable; all CD4 test results; and all viral nucleotide sequence results obtained for monitoring resistance to antiretroviral drug therapy. In 2009, the NYC DOHMH received and processed over 700,000 laboratory test results, of which approximately one-third were viral loads and almost two-thirds CD4 test results. All incoming reports are matched to the HIV/AIDS Registry. Matching reports are added to the existing registry record. Non-matching reports are considered to represent possible new cases and are initiated for field investigation. The majority of all cases entered into the HIV/AIDS Registry are initiated through a laboratory report and confirmed by a comprehensive medical record review.

Other sources of HIV/AIDS surveillance data include active field surveillance, matching with registries, and personal interviews conducted by the Field Services Unit of the DOHMH. Active case investigation supplements surveillance information received through laboratory reporting and involves the active searching for possible missed or unreported cases at more than 100 hospitals, 600 free-standing clinics and 2,900 private physicians. This type of surveillance is performed by reviewing patient censuses and medical records, interviewing providers and patients, reviewing administrative databases, and actively seeking new cases within hospitals and clinics and through private physicians. Field surveillance staff also conduct investigations necessary to confirm, complete, or correct diagnosis and mortality data on people living with HIV (PLWH) in New York City. Facility and date of diagnosis, clinical status, self-reported or provider reported transmission risk, and demographic information including sex, race/ethnicity, date of birth, ZIP code and country of birth are among the data that are collected when cases are reported.

HIV/AIDS surveillance is population-based and legally mandated; it is therefore the most complete source of information about the HIV epidemic in New York City. Surveillance data are as accurate as the quality of documentation in medical records and laboratory reports, and as timely and complete as are the reports submitted to the health department. Persons who are infected, but remain undiagnosed and unreported because they have never been tested, are not included. How many infected but undiagnosed

persons are living in NYC? A household population survey in 2004 estimated that 4.8% of persons with HIV in New York City were unreported.[7] In contrast, CDC has estimated that 20% of persons living with HIV/AIDS in 2008 nationwide were undiagnosed,[9] and a 2003 estimate using direct subpopulation calculation observed an undiagnosed proportion of 26% in New York City.[10] More recently, HIV testing of all individuals who had blood drawn in a large emergency department in the Bronx from December 2009 to January 2010 found that 13.5% were undiagnosed.[11] Reporting of 2009 HIV cases in New York City was estimated to be over 90% complete within six months and over 95% within 12 months. The first tabulations of HIV/AIDS data for a given year are typically made available nine months after the close of the year.

Classification of demographic information

Demographic information is obtained from the initial laboratory report and verified through the medical record review conducted during the case investigation. A variety of personal identifiers is collected in order to verify the accuracy of the case report and assist with subsequent matching of laboratory and other reports. These identifiers include the first and last names, nickname, married name or alias(es), and social security number when available. The demographic variables collected include sex at birth, race/ethnicity, date of birth (for calculation of age at diagnosis and age at death), and country of birth. The information is obtained directly from the medical record; thus it is as accurate and complete as is the medical record.

Classification of race/ethnicity

Race and ethnicity are two separate, socially defined constructs that may be related to or independent of physical features, culture, language spoken, country of birth and/or ancestry. Race and ethnicity data for persons with HIV are collected from patient medical records, physician reports and other reporting sources. When presenting surveillance data, race and ethnicity categories are, by convention, collapsed: anyone classified as being of Hispanic ethnicity is classified as Hispanic, regardless of race, and all other persons are classified by race. Non-Hispanic persons with multiple races indicated are classified in a separate category from those for Hispanic or single-race persons. More than 99% of persons in HIV/AIDS surveillance have only a single race indicated or are classified as Hispanic.

Each racial/ethnic classification represents persons with diverse cultural, physical and linguistic traits. Persons classified as black, for example, may include US-born persons of African descent, African immigrants, Caribbean immigrants, and others classified in their medical records as being of black race and not as Hispanic. Persons classified as Hispanic are also identified from information present in the medical record, and they may have a race identified in addition to having Hispanic ethnicity identified. Persons classified as Hispanic may be of any race; may be native speakers of Spanish, English, or another language; and may have been born in the US, a Spanish-speaking country in Latin America or any other country. For example, a Spanish-speaking person who emigrated from the Dominican Republic to NYC and whose medical record indicates black race and Hispanic ethnicity will ultimately be classified as Hispanic. Someone whose grandparents were from Puerto Rico and who was born in the US, raised speaking only English, and whose medical record indicates white race and Hispanic ethnicity will also be classified as Hispanic. If either person's medical record did not document Hispanic ethnicity, he or she would be classified according to race only.

CDC has standardized the collection and classification of race/ethnicity information by HIV surveillance programs so that data can be combined and compared across jurisdictions. It is approximately consistent with the race and ethnicity categories used in the US Census, and it facilitates the calculation of population rates of HIV/AIDS. That this system simplifies people into broad categories is both a strength and a weakness. Unfortunately, it masks the diversity within categories of people and uses terminology that may not align with people's own words to describe themselves. At the same time, the broad categories contain sufficient numbers to provide relatively precise and reliable estimates of disparities between populations and suggest a course for a response.

Ascertainment and classification of HIV transmission risk

The HIV/AIDS surveillance registry does not contain the HIV transmission risk for many persons newly diagnosed with HIV or AIDS, persons living with HIV/AIDS, and persons with HIV/AIDS who have died. There are three main reasons for the absence of this important information for individual cases: narrowly-defined standard CDC risk categories, the absence of documentation of specific risk in some medical records, and situations where patients (even those who are interviewed) may genuinely not know or be able to describe their true risk in ways that allow the interviewer to assign them to a specific risk category. To the best of our knowledge, undocumented or missing risk does not represent a new or unknown risk category; instead, undocumented or missing risk means that a reliable transmission risk cannot be determined from the medical record or the interview. Efforts over many years have been made to improve documentation and ascertainment of risk, with varying degrees of success. It is still the case, in 2012, that the transmission risk remains unknown for many people with HIV/AIDS in New York City.

An effort is made to collect risk information by surveillance staff who investigate every new case of HIV as part of their comprehensive medical record review. As noted above, cases are typically investigated only at the time in which they are first reported. Since the fall of 2006, a subset of patients diagnosed at large city hospitals and other selected clinical and nonclinical facilities has been personally interviewed by staff of the DOHMH Field Services Unit (FSU), which was established in 2006. In the first half of 2010, patients reached by the FSU comprised 28% of all newly diagnosed cases. Risk ascertainment has improved over time; the fact that the increase in the proportion of all new HIV diagnoses reported with a transmission risk category began after the creation of the FSU program suggests that FSU contributed to this progress..[12] Other sources of risk information include New York State provider report forms (state-mandated forms in which medical providers document patient information such as partners/contacts, risk factors and HIV testing history for all reportable cases), matches with registries, such as those maintained by STD and TB Control; and special studies that collect supplemental risk information.

During chart review, surveillance staff search for documentation of the following information: the sex of the person's sex partner(s); the HIV serostatus and risk of these sex partner(s); whether the index case or partners have ever injected drugs or had sex with a same-sex partner; and other risk information. Transmission categories are assigned by an algorithm that takes into account the information collected from the medical record and other sources. For example, persons who are documented as having injected drugs are classified as injection drug users (IDU). Males without documentation of injection drug use and with documentation of having had sex with a male are classified as men who have sex with men (MSM). Persons with documentation of both risks are classified as MSM/IDU and typically grouped with IDU.

Persons not failing into the IDU or MSM categories, who have documentation of heterosexual sex, and whose heterosexual sex partner is documented to be HIV-positive, an injection drug user or a bisexual male are classified as cases that are heterosexually transmitted. Females may also be classified as heterosexual if they have documentation of probable heterosexual transmission, multiple sex partners, an STD, or prostitution or crack/cocaine use (because of its association with high-risk sex); females may also be classified as heterosexual if they have sex with a male and documentation exists that they have not injected drugs (which would otherwise qualify as criteria for the IDU category). Comparable expanded definitions of heterosexual transmission for females have been developed by numerous health departments nationwide to improve risk ascertainment among females who are likely to be heterosexual, even though they do not meet the more stringent criteria for the CDC definition of definitive heterosexual transmission because they do not know the risk of their male partners. Note that transgender status is considered a separate category of surveillance information, not as a subclassification of risk factor (or sex). Persons considered as transgender are those whose current gender identity differs from their sex at birth. For more information about HIV in transgender persons, please see page 23.

In the early 1990s, more than 90% of cases were reported with risk factor information sufficient to assign a transmission category. At that time, only AIDS was reportable, and most AIDS cases were diagnosed in inpatient settings. Today, HIV/AIDS surveillance is conducted at any New York City facility diagnosing or reporting a case of HIV/AIDS. As surveillance is no longer limited to persons who have already progressed to AIDS, and because of the large number of facilities reporting cases, approximately one-third of cases reported today have an unknown transmission category.

DOHMH continues to strive to improve risk ascertainment. Local efforts include training providers and DOHMH staff; creating materials to help providers ask and record risk; establishing the Field Services Unit (in 2006) and assessing the effect of direct patient interviews; expanding transmission categories beyond the more-stringent CDC risk definitions (e.g., improving assignment of heterosexual risk for females); and collaborating with other health departments to advocate for more inclusive CDC risk definitions nationwide. Risk ascertainment has improved locally: among persons newly diagnosed with HIV in 2004, it was at 72% for males and 57% for females, before many of these efforts were implemented. In 2010, risk ascertainment among newly diagnosed persons had improved to 73% among males and 79% among females.

SOCIODEMOGRAPHIC & BEHAVIORAL RISK CHARACTERISTICS OF THE GENERAL NEW YORK CITY POPULATION

New York City has the largest population of any city in the United States. With 8,175,133 residents in 2010 (**Table 1**), NYC has almost as many residents as Los Angeles, Chicago and Houston (the 2nd, 3rd, and 4th largest US cities) combined.[13] NYC is comprised of five boroughs: Manhattan, which is the economic hub; Brooklyn, which is the most populous; Queens, the most ethnically diverse county in the nation; the Bronx, which has some of the nation's poorest urban areas; and Staten Island, which is less populous than the other boroughs and is connected to them by bridge and ferry. NYC is the highest-density major city in the nation, with almost 27,000 residents per square mile.

The NYC population is composed of 4,292,589 females and 3,882,544 males (**Table 1**). Females outnumber males in every borough, every age group (except persons 0-19 years old), and every racial/ethnic group. Approximately half of the total population is 20-49 years old (46%). The largest racial/ethnic group is non-Hispanic whites, who comprise 33% of the population, followed by Hispanics (29%), non-Hispanic blacks (23%), Asian/Pacific Islanders (13%), American Indian/Alaska Natives (0.1%) and persons of other racial/ethnic groups (3%).

Table 1. New York City Population, 2010.

	Total		Male		Female	
Total	8,175,133		3,882,544		4,292,589	
Borough of residence						
Bronx	1,385,108	17%	649,633	17%	735,475	17%
Brooklyn	2,504,700	31%	1,181,378	30%	1,323,322	31%
Manhattan	1,585,873	19%	744,441	19%	841,432	20%
Queens	2,230,722	27%	1,079,803	28%	1,150,919	27%
Staten Island	468,730	6%	227,289	6%	241,441	6%
Age group						
0 to 14 years	1,459,037	18%	744,445	19%	714,592	17%
15 to 19 years	535,833	7%	271,815	7%	564,018	13%
20 to 29 years	1,372,775	17%	661,015	17%	711,760	17%
30 to 39 years	1,249,662	15%	606,205	16%	643,457	15%
40 to 49 years	1,132,972	14%	545,514	14%	587,458	14%
50 to 59 years	1,017,219	12%	473,195	12%	544,024	13%
60 years and over	1,407,635	17%	580,355	15%	827,280	19%
Race/ethnicity						
Black	1,861,295	23%	833,369	21%	1,027,926	24%
Hispanic	2,336,076	29%	1,130,684	29%	1,205,392	28%
White	2,722,904	33%	1,318,151	34%	1,404,753	33%
Asian/Pacific Islander	1,030,914	13%	495,042	13%	535,872	12%
American Indian/Alaska Native	17,427	<1%	8,235	<1%	9,192	<1%
Other	206,517	3%	97,063	2%	109,454	3%

Source: United States Census Bureau, 2010 Census.

Foreign-born persons and persons from US dependencies

New York City has a large, diverse and growing population of foreign-born persons. In 2000, the NYC population of over 8 million included 2.9 million foreign-born persons.[14] This constituted an increase of more than three-quarters of a million foreign-born persons since 1990, from 28% to 36% of the city's total population. The 2010 American Community Survey estimated a further increase in the foreign-born population to over 3.0 million foreign-born persons, or 37% of the total population.[15] About 43% of the city's foreign-born population arrived in the U.S. during the 1990s and 29% in the 1980s.

The most common countries of birth among NYC's foreign-born population are: the Dominican Republic (N=382,346), China (N=348,474), Mexico (N=183,205), Jamaica (N=173,814), Guyana (N=138,768), Ecuador (N=133,095) and Haiti (N=92,286).

Persons born in US dependencies are not considered to be foreign-born. Puerto Rico accounts for the largest number of dependency-born residents of NYC. Persons born in Puerto Rico, U.S. island areas, or born abroad to American parents numbered 309,774 in 2010.[13]

Poverty

More than 1.3 million NYC residents (20%) were living in poverty in 2010, of whom more than half a million were children 0-17 years old (30% of all children) (**Table 2**).[16] Poverty is defined by the federal government based on income, household size, and other factors including food stamp usage. Poverty rates were highest in the Bronx (30% of all persons, 42% of children) and Brooklyn (23%, 33%) (**Table 2**)**.** Poverty in New York City By Borough and Age, 2010.

Table 2. Poverty in New York City by Borough and Age, 2010.

	All ages		Children 0-17 years	
Total	1,616,990	20%	519,807	29%
Borough of residence				
Bronx	404,576	30%	152,072	42%
Brooklyn	568,239	23%	195,648	33%
Manhattan	25,740	17%	53.509	23%
Queens	333,299	15%	99,919	22%
Staten Island	56,136	12%	18.659	19%

Source: U.S. Census Bureau, 2010 Census, Small Area Estimates Branch.

Homelessness

The NYC Department of Homeless Services (DHS) provides shelter to the homeless population in all five boroughs through two systems: one that serves single adults and one that serves families.[17] Other city agencies provide shelter services to special populations, including individuals with advanced HIV infection and AIDS, teens, victims of domestic violence, and individuals facing a housing emergency such as a fire or a flood.

From 2001 through 2003, an average of 33,561 individuals resided in DHS shelters each night. DHS maintains electronic data systems to track homeless individuals in its shelter system, but there are currently no systems in place to track unsheltered homeless individuals. Annual street "census" surveys suggest that shelters probably house the majority of homeless persons in NYC.

According to the DHS 2012 Homeless Outreach Population Estimate (HOPE, an annual survey of homelessness in NYC), there was a 26% reduction in unsheltered homeless individuals between 2005 and 2012, with 3,262 unsheltered homeless persons found in one night in January 2012.[18] The ratio of unsheltered homeless to the total population was much lower in New York City (1 in 2,506) than in other

major US cities such as Chicago (1 in 1 in 1,565) and Los Angeles (1 in 292), and somewhat higher than that in Boston (1 in 3,393).

Drug use

The NYC Community Health Survey (CHS) is a telephone survey conducted annually by the NYC DOHMH.[19] The CHS uses random-digit-dialing to sample approximately 10,000 adults aged 18 and older from all five boroughs of NYC. It is a rich source of data on knowledge, attitudes and health-related behaviors of participating New York City residents. According to the 2004 CHS, 8.5% of New York City residents, or about 500,000 persons, have ever used cocaine, including crack or freebase, heroin, PCP, angel dust, or any other street drug, excluding marijuana.[20] Drug use was higher for males (11.5%) than females (5.6%) and increased with income (5.2% among persons at less than 100% poverty level vs. 14.7% among persons at more than 600% poverty level). It is anticipated that questions regarding non-prescription drug use will be repeated in the 2013 CHS for comparison to 2003 levels.

Incarceration

The NYC Department of Correction (DOC) operates 11 admission facilities: Rikers Island, consisting of nine facilities, and two borough facilities. During fiscal year (FY) 2010, there were 95,385 admissions, with an average daily inmate population of 13,049.[21] The median length of stay for detainees was 51 days. However, 50% of detainees leave the jail within one week.

DOHMH's Bureau of Correctional Health Services coordinates medical, mental health and dental services for all inmates in the NYC correctional system. This includes routine, voluntary health screening at intake for all newly admitted inmates. HIV rapid testing has been offered to new admissions since March 2004. HIV testing increased from 6,500 tests in 2003 to more than 35,000 tests in 2011.

HIV testing, HIV risk behavior, and sexually transmitted infections

According to the 2010 CHS, 59.6% of New York City residents 18 and older reported ever-testing for HIV. Additionally, 31.4% of New York City residents 18 and older had an HIV test in the past 12 months, with blacks (45.8%) and Hispanics (43.8%) more likely than whites (18.5%) and Asians or Pacific Islanders (16.4%) to have been tested in the past 12 months.[20] This prevalence of HIV testing is markedly higher than the national estimate; in 2010, 40.3% of U.S. adults reported ever-testing for HIV.[22]

Among 2010 CHS respondents, 14.6% had two or more sex partners in the last 12 months, translating to about 816,000 adults.[20] Men were more likely than women (21.0% vs. 8.9%) and young adults more likely than older adults (38.2% of those aged 18-24 years vs. 7.7% of those aged 45-64 years) to report two or more partners.

Sexually transmitted infections (STIs) (other than HIV) increase the risk of acquiring and transmitting HIV. Some STIs may also hasten the progression of HIV disease. Among New York City residents aged 13 and older who were newly diagnosed with HIV in 2009, 13% had documentation of a history of an STI. According to the 2003 CHS, 6.1% of all New York City residents 18-64 years old (i.e., with and without HIV) had even been diagnosed with genital herpes or genital warts, or had been diagnosed with Gonorrhea or Chlamydia in the last 12 months.[23]

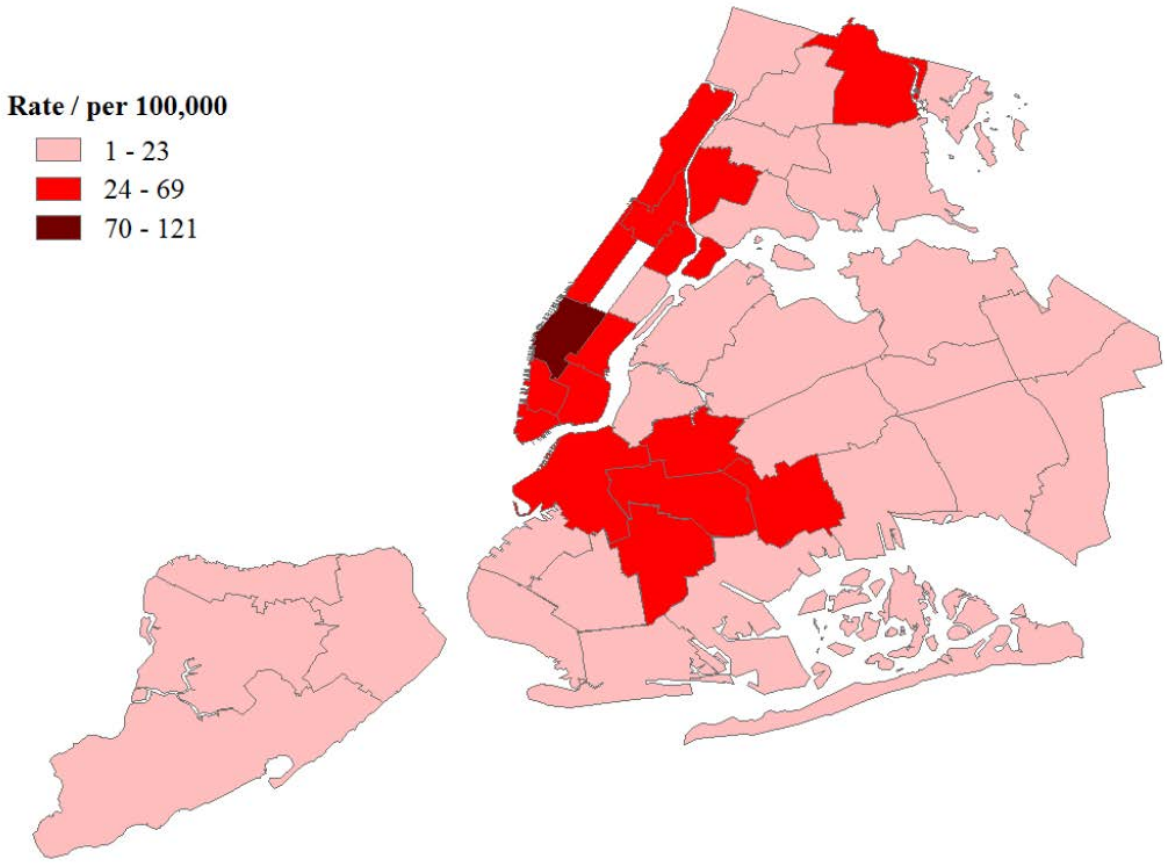
In 2010, Chlamydia was the most frequently diagnosed STI (63,544 cases) in NYC, followed by Gonorrhea (12,354 cases) (**Table 3**). STI diagnosis rates varied by sex and neighborhood (**Figure 2**). Females were more likely than males to be diagnosed with Chlamydia. Males were more likely than females to be diagnosed with primary or secondary (P&S) syphilis, with males in the Chelsea – Clinton UHF neighborhood having the highest P&S syphilis diagnosis rate in the city (171.9 per 100,000 population).

Table 3. Cumulative cases of sexually transmitted diseases reported to the New York City Department of Health and Mental Hygiene (NYC DOHMH) Bureau of STD Control (BSTDC) through fourth quarter 2010 (January 1 - December 31, 2010) and fourth quarter (January 1 - December 31, 2009), and number and case rate per 100,000 population for full year 2009.

	2010 through 4th quarter	2009 through 4th quarter	2009 Full Year	
	N	N	N	Case Rate/100,000
Chlamydia	63544	58353	58353	697.69
Female	42972	39888	39888	913.08
Male	20564	18449	18449	461.78
Gonorrhea	12354	108989	10898	130.30
Female	5423	4691	4691	107.38
Male	6930	6202	6202	155.24
P&S Syphilis	955	1056	1056	12.63
Female	35	48	48	1.10
Male	920	1008	1008	25.23

Sources: The New York City Department of Health and Mental Hygiene Bureau of Sexually Transmitted Disease Control Quarterly Report (Vol. 10, No. 1, March 2010).

Figure 2. P&S Syphilis Among Men in NYC Reported 01/01/2011 – 12/31/2011



Sources: The New York City Department of Health and Mental Hygiene Bureau of Sexually Transmitted Disease Control Quarterly Report (Vol. 10, No. 1, March 2012).

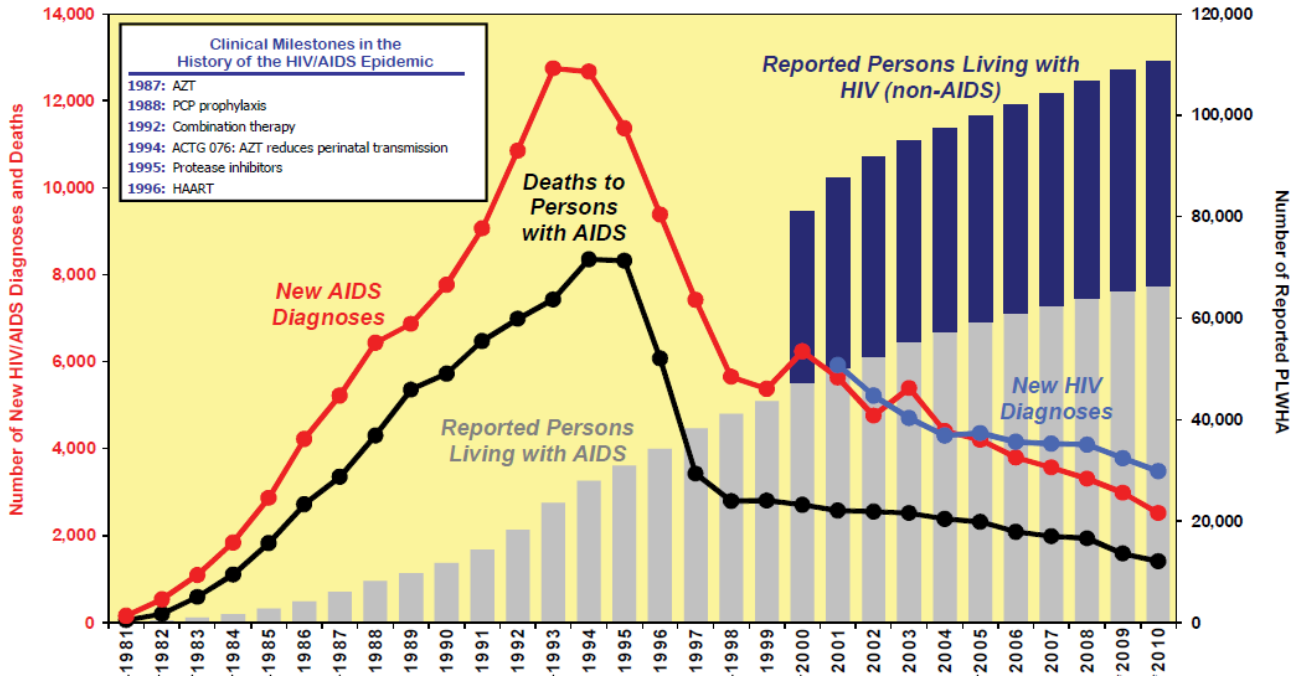
Health care access and health status

The 2010 CHS indicated that 79.1% of NYC adults rated their health to be, in general, good, very good or excellent.[20] A substantial minority (12.8%) of respondents reported that a doctor, nurse or other health professional had ever told them that they have depression. Among all NYC adults, 16.7% or about 1,028,000 persons are uninsured.

HISTORICAL OVERVIEW AND CURRENT STATE OF THE HIV EPIDEMIC IN NEW YORK CITY

New York City has the oldest and largest HIV epidemic in the Western world. Over 200,000 cumulative HIV/AIDS cases have been diagnosed since 1977. Our epidemic is also disproportionate to our population. More than 110,000 New York City residents are currently living with HIV/AIDS (**Figure 3**). Many more are infected but have never been tested, and thus remain undiagnosed, unreported, and unaware of their serostatus. The success of ART means that an increasing number of people in NYC are living with HIV rather than dying from it. Paradoxically, this success means that the task of HIV prevention becomes increasingly challenging each year as there are a growing number of people alive who might potentially transmit the virus to a sexual partner.

Figure 3. History of the HIV epidemic in NYC, 1981-2010.



Source: NYC surveillance data.

Twenty-nine years of continuous HIV and AIDS surveillance have allowed us to enumerate and describe this dynamically evolving epidemic. The most important recent development is that the widespread use of antiretroviral therapy (ART) has transformed HIV infection from an inevitably fatal disease into a chronic manageable condition. This means that many PLWH can expect to live long, productive lives. Mortality has steadily declined since it peaked at 8,309 deaths in 1995. One year after the introduction of ART, deaths declined to 6,074; deaths declined to 3,426 the following year and have continued to decline, albeit more gradually. AIDS diagnoses peaked at 12,695 in 1993, and had declined to 9,382 in 1996. Ten years later (2006) 3,672 AIDS cases were diagnosed. Another success is that perinatal transmission is within reach of elimination as a result of proactive prenatal testing, treatment during pregnancy and neonatal prophylaxis. Perinatal HIV diagnoses peaked at 334 cases in 1990 and subsequently declined to 179 cases in 1995 and 4 cases in 2008.[24] In 2010, 94% of the 112,900 women

giving birth and residing in New York City received a prenatal HIV test. There were 393 HIV-positive mothers residing in New York City who gave birth to a live infant in 2010. The New York State Department of Health reports that only 3 infants born in New York State (inclusive of New York City) were identified as having mother-to-child HIV transmission in 2010.

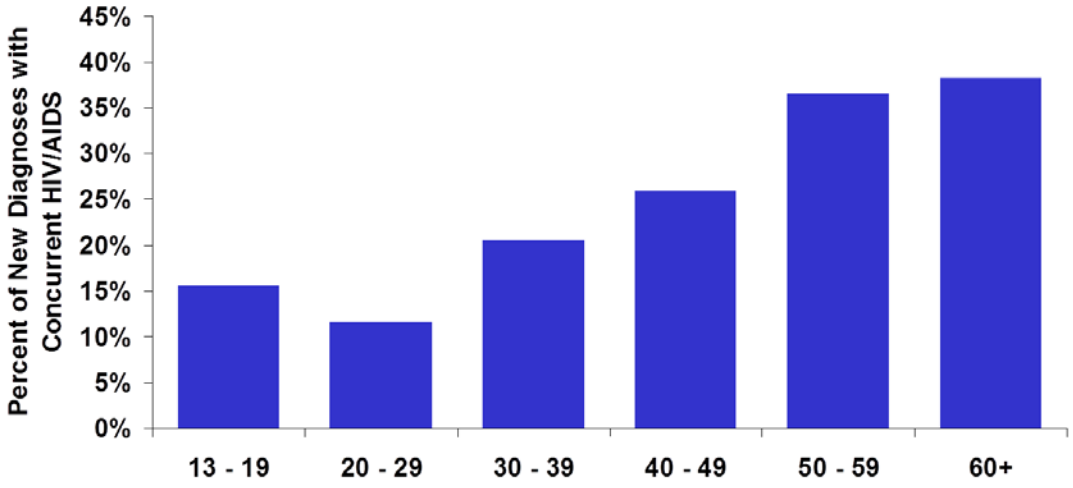
The HIV epidemic is a complex phenomenon that is in a state of constant evolution. It affects men, women and transgender persons, people of all races, ethnicities, cultural backgrounds, neighborhoods, ages and risk factors. While the number of overall diagnoses has declined in recent years, there are continuing shifts in epidemic patterns. For example, the proportion of cases occurring among injection drug users (IDUs) has declined dramatically, while the proportion of cases occurring in men who have sex with men (MSM) has steadily increased. As survival and quality of life with HIV have improved, the population of persons living with HIV has increased in number, has aged, and will continue to age. These shifts pose continuing challenges to HIV prevention, as well as to care and treatment, in New York City.

New York City now faces the challenges of eliminating HIV transmission and continuing to reduce HIV-related deaths. Most immediately, we must intensify our focus on reversing the growing number of new diagnoses among young MSM and on reducing the approximately 1,000 persons per year diagnosed with concurrent HIV/AIDS, considered a marker of late HIV diagnosis.

New diagnoses of HIV and AIDS

In 2010, 3,481 New York City residents were newly diagnosed with HIV. This represents an HIV diagnosis rate of 42.6 per 100,000 population. Of these 3,481 persons newly diagnosed with HIV, 2,722 (78.2%) were diagnosed with HIV only and 759 (21.8%) were diagnosed with concurrent HIV/AIDS (i.e., AIDS was diagnosed within 31 days of HIV). AIDS takes an average of 10 years to develop after HIV infection, so concurrent HIV/AIDS diagnoses are, most likely to be late diagnoses. Late diagnoses represent missed opportunities to prevent ongoing transmission through behavioral change[25] and to receive early medical care and antiretroviral therapy, which have been shown to improve individual health outcomes and reduce the risk of transmission as well.[3,26] The proportion of New York City residents diagnosed with concurrent HIV/AIDS increased with age – among the newly diagnosed, fewer than 12% of persons under 30 were diagnosed concurrently, compared with 38% of persons 60+ years old (**Figure 4**).

Figure 4. Percentage of New HIV Diagnoses Concurrent with an AIDS Diagnosis in NYC, by Age Group, 2010.



Source: NYC surveillance data.

If concurrent HIV/AIDS represents a late, or delayed diagnosis, how many New York City residents are diagnosed early in the course of their HIV infection, and what are their demographic characteristics and risk factors, i.e., who represents the “leading edge” of the epidemic? New York City currently uses a

CDC laboratory test, the serologic testing algorithm for recent HIV seroconversion (STARHS, formerly known as the "detuned assay") to distinguish between recent and established infection by assaying the antibody titer and affinity of the diagnostic Western blot. As of July 1, 2005, all laboratories are required by New York State to submit remnant serum from Western blot positive specimens for STARHS. NYC salvages 86% of all WB specimens. In 2009, the most recent year for which incidence data are available 25.5% (577/2265) of new diagnoses overall represented recent infections by STARHS. 35.8% (275/769) of newly diagnosed persons under 30 and 20.2% (302/1496) over 30 were recently infected, as were 34.7% (345/995) of MSM, 23.3% (21/90) of IDU and 18.7% (105/561) of persons with heterosexual transmission risk. From 2006 to 2009, estimated incidence decreased from 4216 (95%CI 3422 to 4990) in 2006, with an overall incidence rate of 64.1/100,000 population, to 3099 (95%CI 2547 to 3,651) in 2009 with an overall incidence rate of 47.1/100,000 population. Despite the apparent trend, this decline was not statistically significant.[27]

In 2010, 2,520 persons were diagnosed with AIDS. This total includes the 759 persons who were diagnosed with concurrent HIV/AIDS, as well as the 1,761 persons who had previously been reported to the registry as infected with HIV and who progressed to AIDS during 2010.

Persons living with HIV (PLWH)

At the end of 2010, 110,736 persons were diagnosed and reported in New York City and presumed to be living with HIV. This represents an HIV prevalence rate of 1.4%, or approximately 1 in 74 persons.

Deaths among persons with HIV

In 2010, 1,695 persons with HIV (PWH) died, of whom 1,413 (83.4%) had AIDS. Approximately half (49.1%) of the 1,695 died from HIV-related causes. In 2009, the last time a detailed analysis of death data was completed, the most common non-HIV-related causes of death were cardiovascular disease (10.9%), alcohol and substance use (9.1%) and non-AIDS-related cancers (7.8%). While 19.5% of persons living with HIV/AIDS at the end of 2009 were IDU, 38.5% of those who died were IDU, reflecting the increased risk of death to PWH who are IDU compared with other transmission categories. The median age at death was 52.

Late diagnosis of HIV is also a risk for death.[28] Among New York City residents 13 years and older diagnosed with AIDS between 2002 and 2005, those who had been first diagnosed with HIV in the month prior to their AIDS diagnosis had more than twice the risk of HIV-related death within four months of diagnosis.

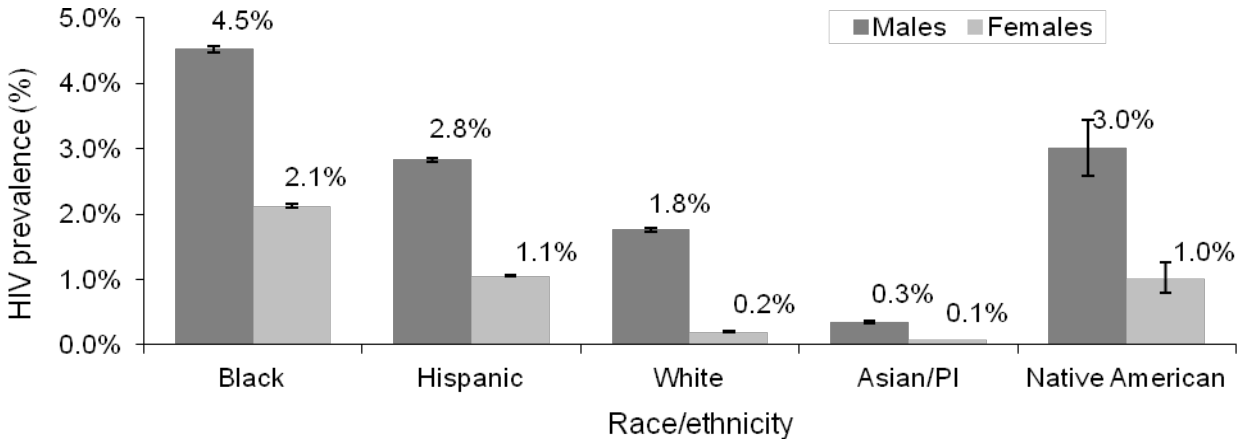
HIV IN SUBPOPULATIONS IN NEW YORK CITY

The HIV epidemic in New York City affects women, men and transgender persons, people of all races, ethnicities, cultural backgrounds, neighborhoods, ages and risk factors. Persons diagnosed with HIV in 2010 were more likely to be male than female, and more likely to be black or Hispanic than another race/ethnicity. Over half of persons diagnosed with HIV were in their 20s and 30s.

HIV by race/ethnicity and sex

Looking at New York City residents aged 13 and older, males have a higher HIV prevalence rate than females in every racial/ethnic group (**Figure 5**). HIV prevalence varies substantially by race/ethnicity, with the highest rates in blacks. At the end of 2010, 4.5% of black males and 2.1% of black females in New York City were living with HIV. Among Hispanics, 2.8% of males and 1.1% of females were living with HIV. In contrast, prevalence was 1.8% in white men, 0.2% in white women, and 1.4% in the city population overall.

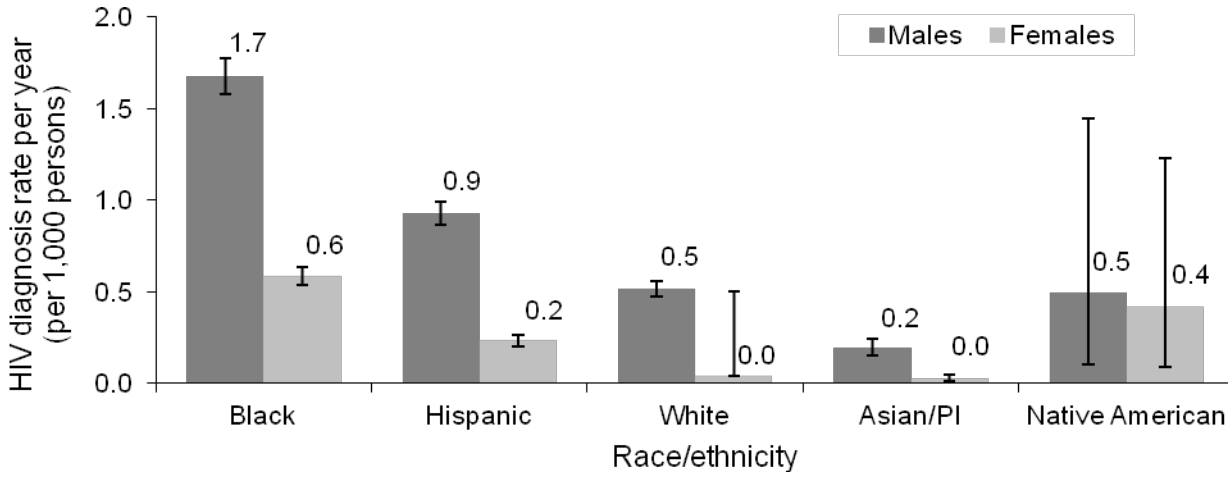
Figure 5. HIV prevalence among persons 13 years and older, by race/ethnicity and sex, New York City 2010.



Source: NYC surveillance data.

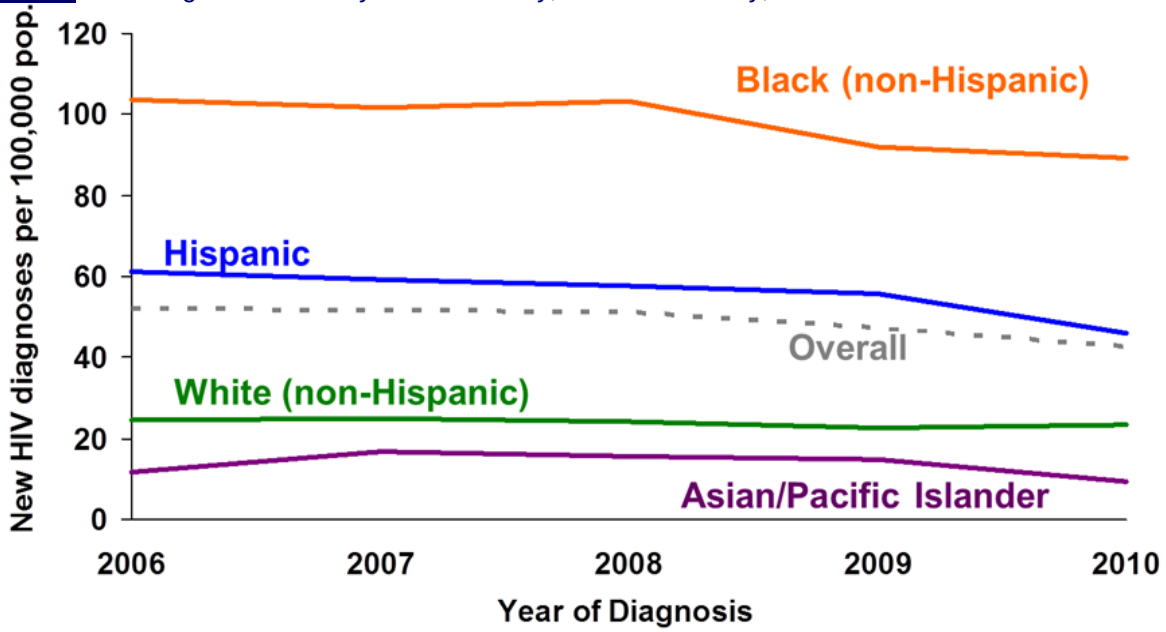
The rate of HIV diagnosis is higher in males than females in every racial/ethnic group (**Figure 6**). HIV prevalence varies substantially by race/ethnicity, with the highest rates in blacks. In 2010, 168 of every 100,000 black males and 59 of every 100,000 black females in New York City were newly diagnosed with HIV. Among Hispanics, 93 of every 100,000 males and 23 of every 100,000 females were newly diagnosed with HIV. While fewer HIV diagnoses in 2009 were among Native Americans (both male and female) than other racial/ethnic groups, the HIV diagnosis rate among Native American females (42 per 100,000) was second only to that among black females.

Figure 6. HIV diagnosis rate among persons 13 years and older, by race/ethnicity and sex, New York City 2010.



Source: NYC surveillance data.

Figure 7. HIV Diagnosis Rates by Race/Ethnicity, in New York City, 2006-2010.

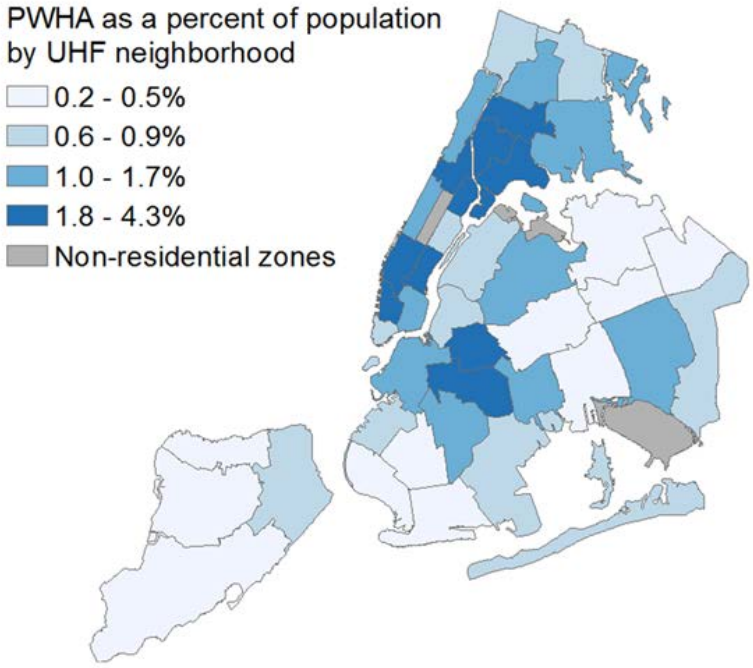


Source: NYC surveillance data.

HIV by borough and neighborhood of residence

United Hospital Fund (UHF) neighborhoods correspond to geographic areas within New York City that aggregate between 1 and 9 ZIP codes and that are smaller than a borough. UHF neighborhoods reflect catchment areas for certain health care facilities. The United Hospital Fund (UHF) neighborhoods with the highest proportions of persons with HIV/AIDS (PWHA; includes persons living with HIV/AIDS at end of year, as well as persons with HIV/AIDS who died during the year) are in the South Bronx, Central Brooklyn, lower Manhattan and Harlem (**Figure 8**). The highest-prevalence neighborhood in the city is Chelsea-Clinton, a mixed race/ethnicity and risk factor neighborhood where 4.3% of the population had been diagnosed and reported with HIV/AIDS in 2010. After Chelsea-Clinton, the two highest-prevalence neighborhoods, also in the borough of Manhattan, were Central Harlem-Morningside Heights and East Harlem (both 2.8%).

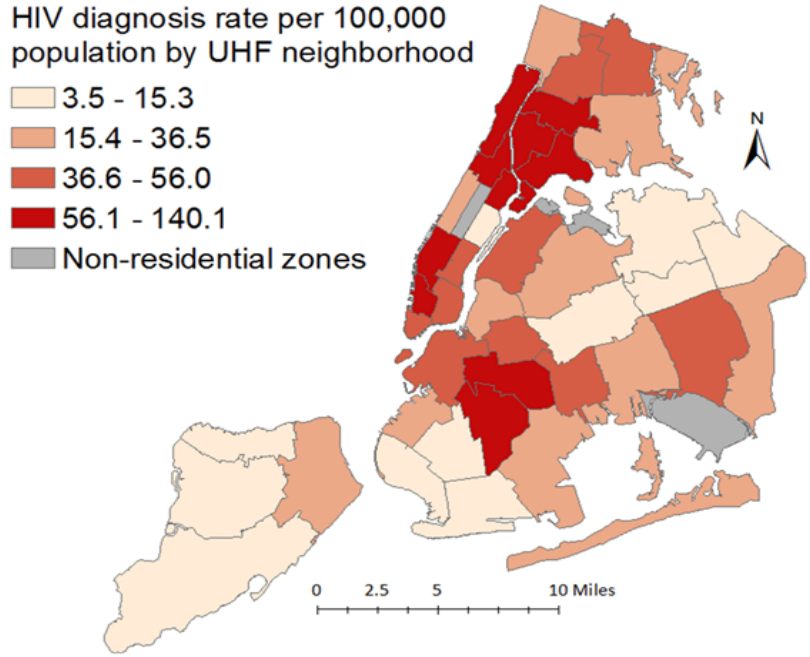
Figure 8. Map of HIV Prevalence in New York City, 2010.



Source: NYC surveillance data.

The UHF neighborhoods with the highest rates of HIV diagnoses are in the South Bronx, Central Brooklyn, central and lower Manhattan, and Harlem (**Figure 9**). The neighborhood of Chelsea-Clinton has the highest new diagnosis rate, 140.1 per 100,000 persons, followed by Central Harlem-Morningside Heights (98.4 per 100,000) and East Harlem (77.3 per 100,000).

Figure 9. Map of HIV Diagnosis Rates in New York City, 2010.

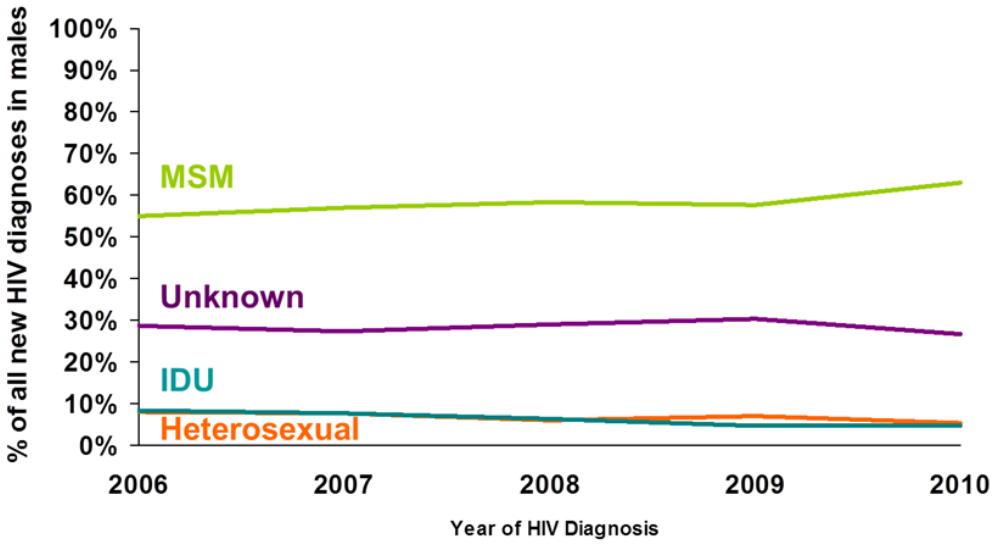


Source: HIV surveillance data.

HIV by transmission category

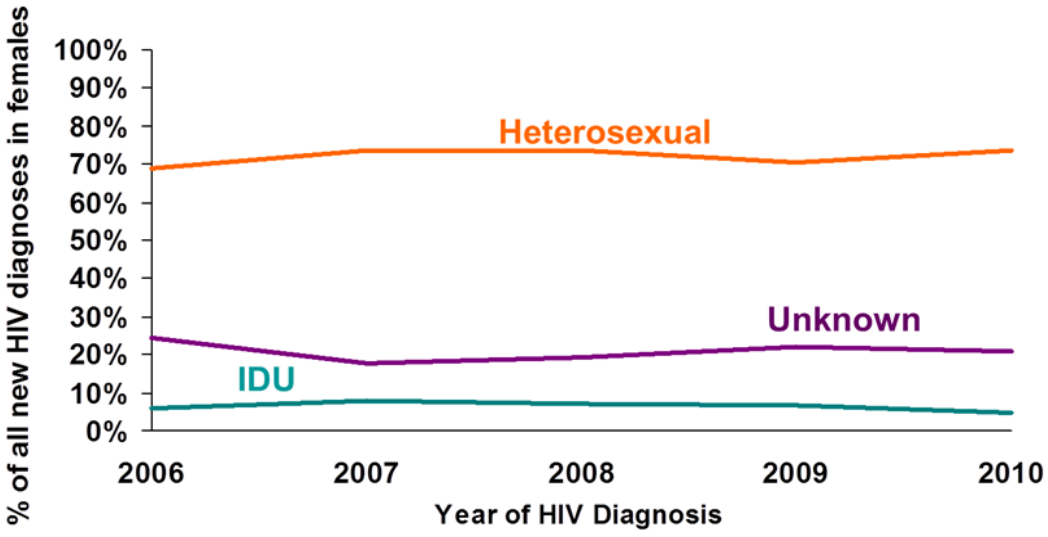
The most frequently observed transmission category among males newly diagnosed with HIV in 2010 was reporting sex with other men (MSM, at 63% of all newly-diagnosed men). The most frequently observed transmission category among females was heterosexual (74%). These proportions have been relatively stable over time (**Figures 10 and 11)**. These are the most frequently observed categories by sex nationally as well.[29]

Figure 10. New HIV Diagnoses among Males, by Transmission Risk, in NYC, 2006-2010.



Source: NYC surveillance data.

Figure 11. New HIV Diagnoses among Females, by Transmission Risk Category, in NYC, 2006-2010.



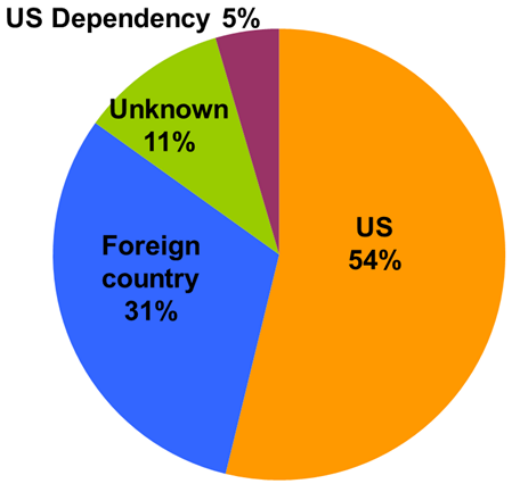
Source: NYC surveillance data.

MSM was the most frequently observed known risk category among New York City residents newly diagnosed with HIV, accounting for 1,683 of 3,481 newly diagnosed persons (48%). One quarter of males and females newly diagnosed with HIV in New York City did not have a known transmission category.

HIV by country of birth

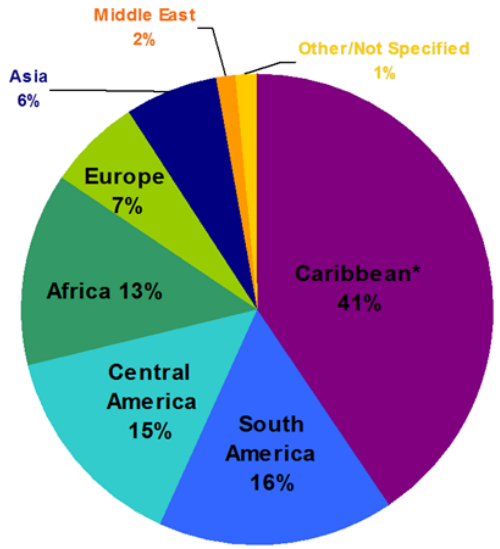
Just over half of persons newly diagnosed with HIV in New York City in 2010 were born in the United States (**Figure 12**). Five percent were born in a US dependency (mostly Puerto Rico). Country of birth could not be determined for 11% of persons who were newly diagnosed. Foreign-born persons accounted for 1,083 of the persons newly diagnosed with HIV, or 31%. The Caribbean was the birthplace of more foreign-born New York City residents diagnosed with HIV (41%) than any other region (**Figure 13**). Approximately one-sixth of the foreign-born were from each of Central America, Africa and South America. Persons born in Europe accounted for 7% of the foreign-born, while Asia accounted for 6% and the Middle East 2%.

Figure 12. New HIV Diagnoses by Area of Birth in NYC, 2010 (n=3,481).



Source: NYC surveillance data.

Figure 13. New HIV Diagnoses among Foreign-born by Region of Birth in NYC, 2010 (n=1,083).



Source: NYC surveillance data.

HIV among transgender persons

Transgender persons are those whose current gender identity differs from their sex at birth. They may receive hormone therapy, may have had surgery to change their anatomy, and may have any sexual orientation. Research studies on samples of transgender persons have demonstrated high rates of HIV in this population in the US and NYC.[30-32] Since 2005, surveillance for HIV/AIDS in NYC has routinely collected information about whether individuals with newly-reported HIV/AIDS are transgender based on direct report by a medical provider or on documentation of transgender status in the medical record.

Between 2006 and 2010, 183 transgender persons were documented to be newly diagnosed with HIV in NYC (1% of all new HIV diagnoses) (**Table 4**). Of these, 172 (94%) were transgender women, meaning they had male sex at birth and currently identify as women (also termed male-to-female, or MTF), and 11 (6%) were transgender men, meaning they had female sex at birth and currently identify as men (also termed female-to-male, or FTM). Twenty-eight of the 183 (15%) were diagnosed with AIDS within one month of their HIV diagnosis, suggesting late diagnosis.

Transgender persons newly diagnosed with HIV in 2006-2010 were more likely than non-transgender persons to be in their teens or 20s and born in the United States. Transgender and non-transgender persons were equally likely to have injected drugs.

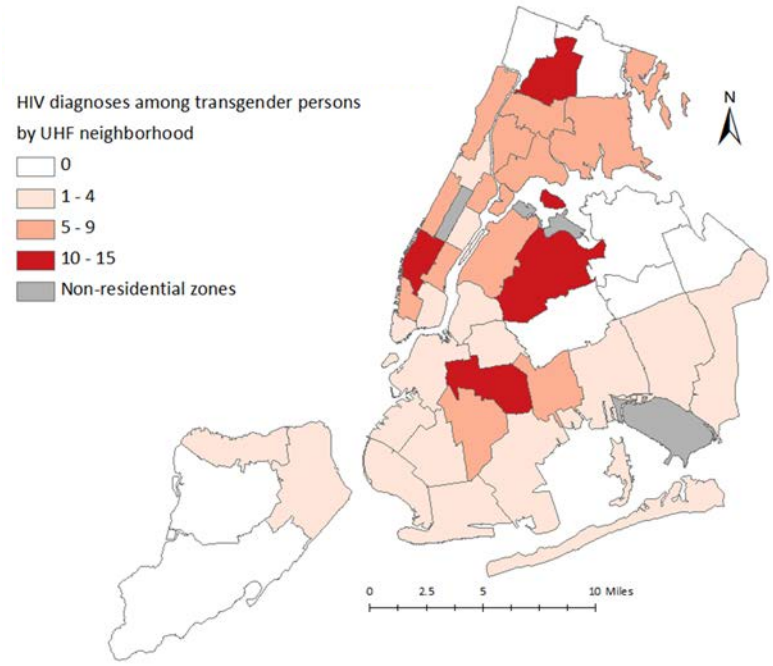
Table 4. Transgender and Non-transgender Persons Newly Diagnosed with HIV, by Age at Diagnosis, Area of Birth and Injection Drug Use, New York City, 2006-2010.

	Transgender (n=183)	Non-transgender (n=19,446)
Age at diagnosis		
0-12	0%	<1%
13-19	15%	4%
20-29	49%	28%
30-39	22%	26%
40-49	10%	25%
50-59	3%	12%
60+	1%	5%
Area of birth		
US	61%	54%
US dependency	8%	5%
Foreign country	22%	29%
Unknown	9%	12%
Injection drug use		
Yes	6%	6%
No	94%	94%

Source: NYC surveillance data.

The highest numbers of newly diagnosed transgender persons lived in West Queens, Bedford Stuyvesant-Crown Heights, Chelsea-Clinton, and Fordham-Bronx Park (areas shaded in dark red on the mapin **Figure 14**, below) at the time of their diagnosis.

Figure 14. HIV Diagnoses among transgender persons, 2006-2010.



Source: NYC surveillance data.

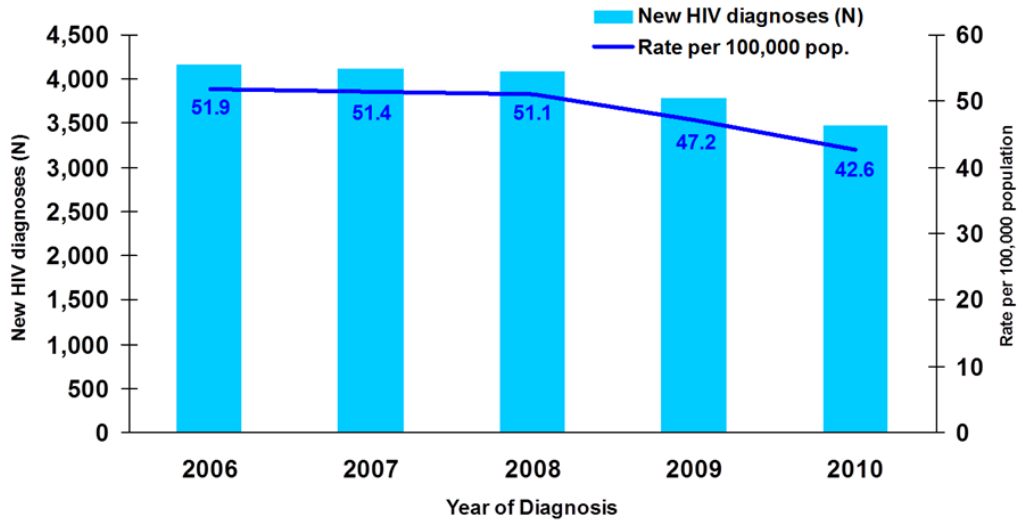
TRENDS IN NEW DIAGNOSES OF HIV/AIDS AND PERSONS LIVING WITH HIV/AIDS

Previous paragraphs in this epidemiologic profile have provided a brief summary of the current state of the epidemic. To interpret the 2010 data, we must view these data in context by observing trends over time.

New diagnoses of HIV

In 2001, 5,937 persons in New York City were diagnosed with HIV, a rate of 74.1 per 100,000 population. By 2010, that number had declined to 3,481, or 42.6 per 100,000 (**Figure 15**).

Figure 15. New HIV Diagnoses, NYC 2006-2010.

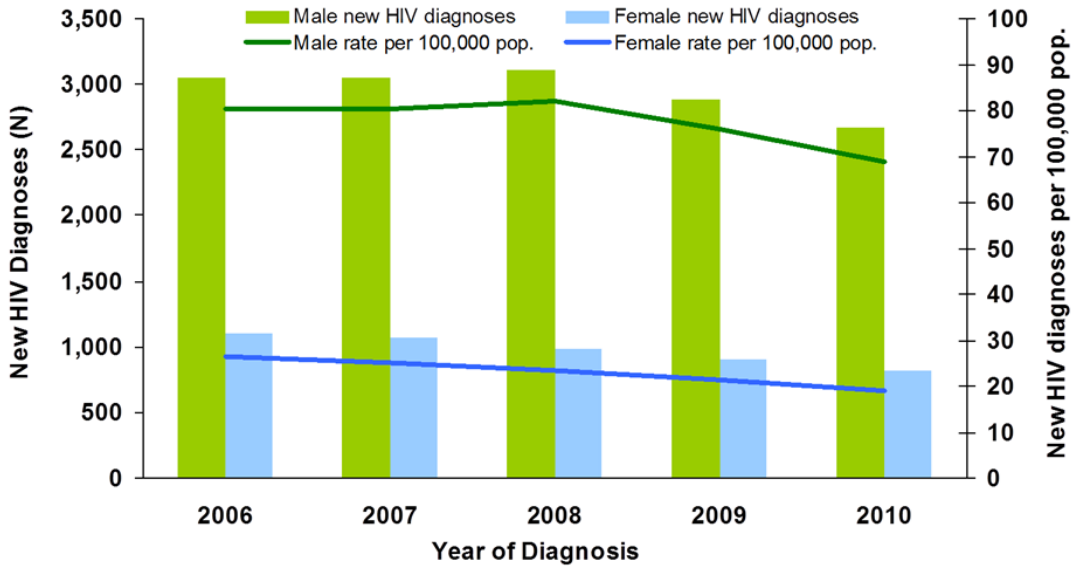


Source: NYC surveillance data.

New diagnoses of HIV by sex

The number of new HIV diagnoses declined modestly in both males and females between 2006 and 2010. Each year, 3 times more males than females have been diagnosed with HIV (**Figure 16**).

Figure 16. New HIV Diagnoses by Sex, NYC 2006-2010.

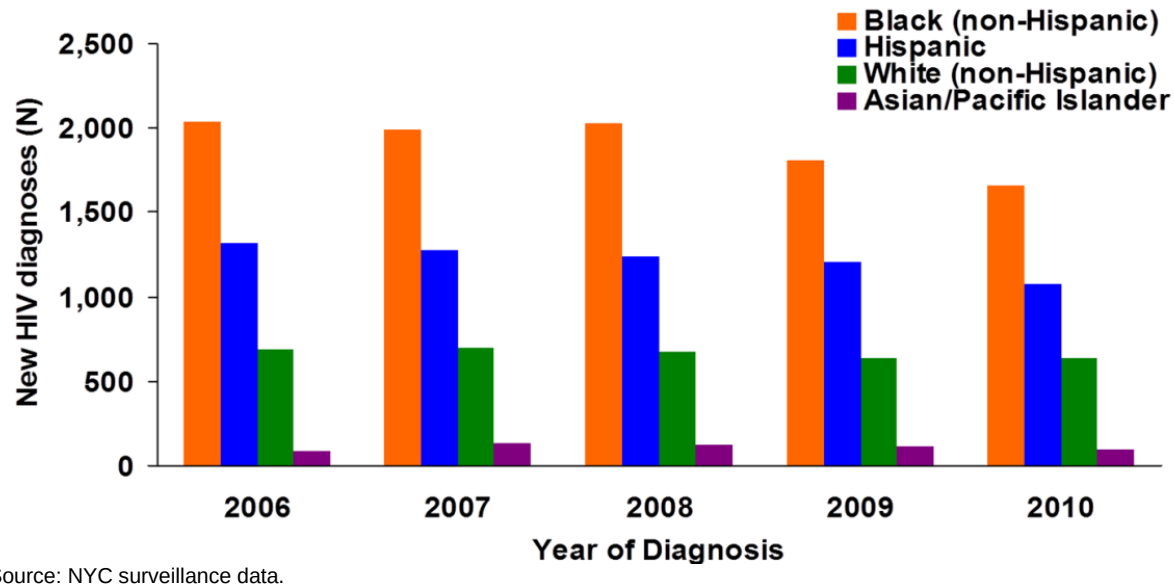


Source: NYC surveillance data.

New diagnoses of HIV by race/ethnicity

The number of HIV diagnoses declined across all racial/ethnic groups from 2006 through 2010 (**Figure 17)**. Blacks and Hispanics accounted for the majority of new diagnoses (78% in 2010).

Figure 17. Number of New HIV Diagnoses by Race/Ethnicity, NYC 2006-2010.

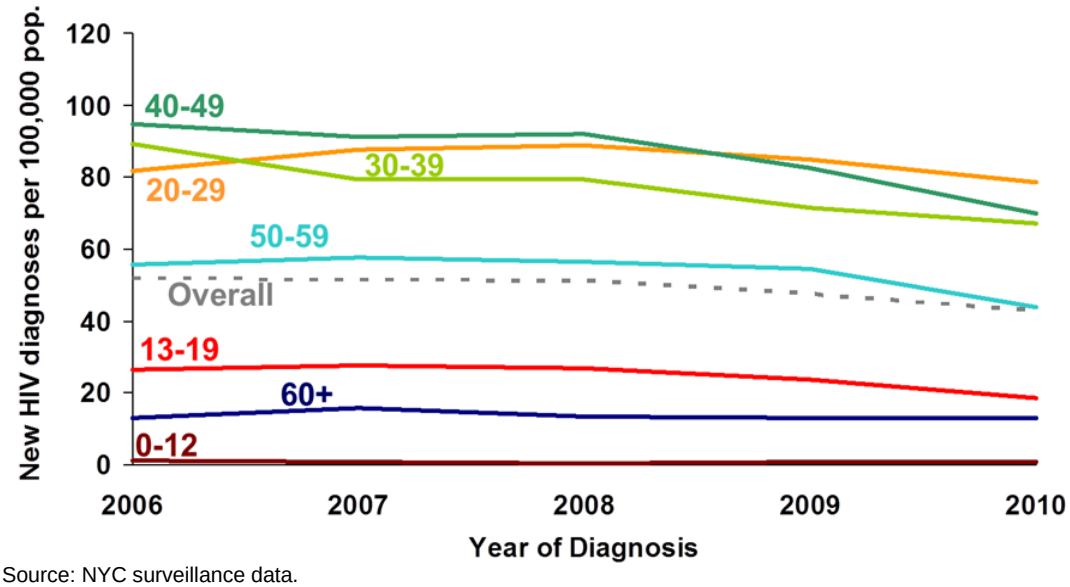


Source: NYC surveillance data.

New diagnoses of HIV by age

Between 2006 and 2010, HIV diagnosis rates were highest in those 20-29 and 40-49 years old and lowest in those 0-12 and 60+ years old. The rate of HIV diagnoses has declined overall since 2006, from 52 per 100,000 to 43 per 100,000 for all age groups (**Figure 18)**.

Figure 18. HIV Diagnosis Rates by Age, NYC 2006-2010.

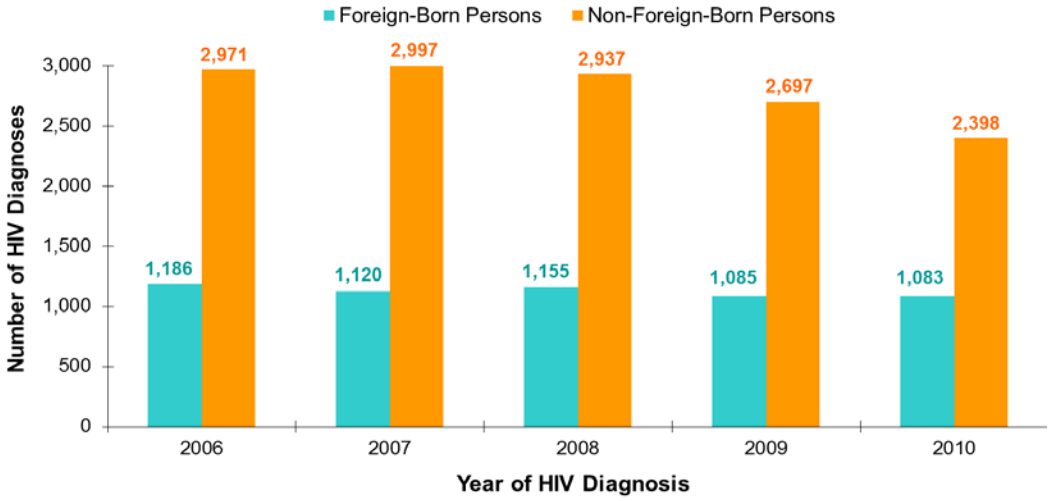


Source: NYC surveillance data.

New diagnoses of HIV by country of birth

While the number of persons overall who were diagnosed with HIV declined between 2006 and 2010, the number of foreign-born persons diagnosed with HIV was approximately stable between 2006 and 2010 **(Figure 19**). The proportion of all persons newly diagnosed with HIV who were foreign-born increased from 28.5% in 2006 to 31.1% in 2010.

Figure 19. New HIV Diagnoses in NYC in Foreign-Born Persons vs. Non-Foreign Born Persons, 2006-2010.

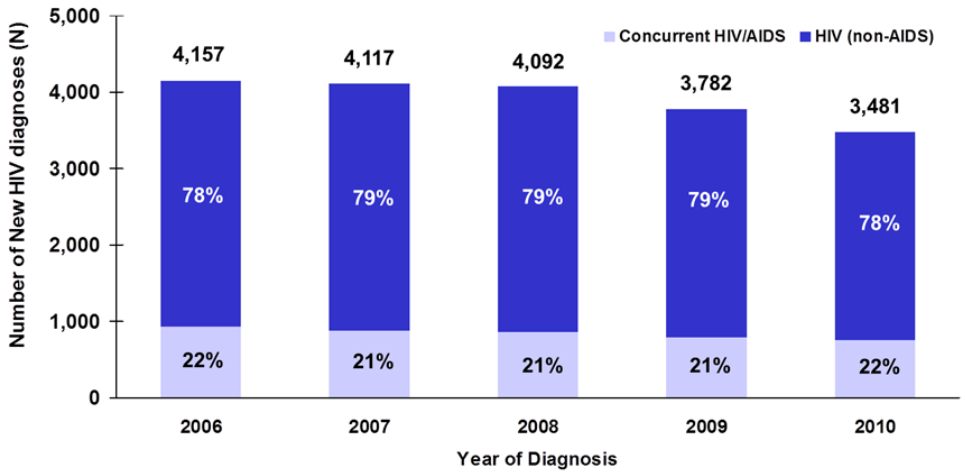


Source: NYC surveillance data.

New diagnoses of concurrent HIV/AIDS

Over one-fifth of persons diagnosed with HIV were concurrently diagnosed with AIDS, i.e., they were diagnosed with AIDS within 31 days of diagnosis of HIV. This proportion has been relatively stable over the 2006 to 2010 interval (**Figure 20**).

Figure 20. Concurrent HIV/AIDS Diagnoses as Percent of Total HIV Diagnoses, NYC 2006-2010.



Source: NYC surveillance data.

HIV-related medical care

The benefits of timely diagnosis of HIV can be fully realized only if diagnosis is followed by timely initiation of HIV-related medical care. Care provides opportunities for counseling, initiation of treatment, referral to supportive social and medical services, and prevention of ongoing transmission. It is important for both newly-diagnosed persons and persons living with a prevalent infection. CD4 count or percent and viral load tests for persons with HIV, all of which must be reported to the Department of Health, are incorporated into patients' registry records and are used as indicators of care, since these tests must be ordered by a physician. Of 68,918 persons who received care in 2009 and survived through 2010, 63,959 (93%) returned for care in 2010

The reporting of CD4 and viral load data permit assessment of the degree of a person's immunosuppression and the amount of HIV in a person's blood. The latter influences a person's health and determines the ability to transmit the virus to others. An analysis was recently conducted among 56,836 NYC PLWH in NYC with at least 2 viral loads from 1/1/2006 to 12/31/2007. Of these individuals, 18% had a peak viral load of ≥100,000, 38% had an undetectable (≤400) peak, and the peak viral load for the remaining 44% was between 400 and 100,000. Seven percent of the 56,836, or 4,210, had at least 2 consecutive viral loads ≥100,000, meaning that they had a persistently high viral load.[33]

Mathematical modeling has suggested that universal voluntary HIV testing and immediate treatment would result in a 95% reduction in new HIV cases in 10 years and decrease prevalence to 1% by 2050.[34] In addition to all programmatic efforts to increase routine HIV screening, linkage to and engagement/retention in care, NYC, Washington DC and five other cities around the country are participating in an NIH-CDC-sponsored study to evaluate the feasibility of an enhanced test, link to care, plus treat (TLC-Plus) approach for HIV prevention in the United States (NIH HPTN 065). Additional information about medical care for PLWH can be found in the situational analysis of the prevention with positives (PwP) section of this jurisdictional plan.

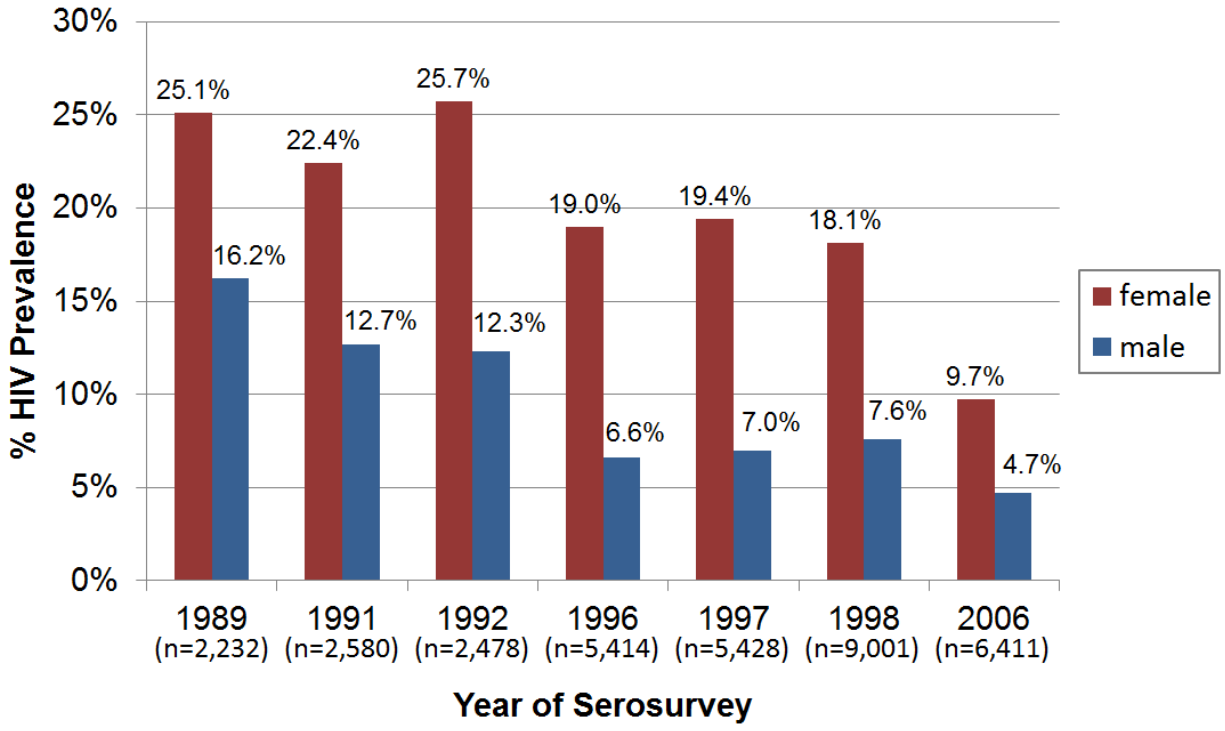
HIV PREVALENCE AND RISK IN SUBPOPULATIONS IN NEW YORK CITY: DATA FROM REGISTRY MATCHES AND SEROSURVEYS

Behavioral studies, registry matches, and serosurveys provide data to supplement HIV/AIDS surveillance in samples of populations of special interest, such as high-risk, incarcerated and homeless persons.

Persons admitted to the NYC correctional system

Inmates have an elevated HIV prevalence relative to the general population, making correctional facilities unique sites for HIV diagnosis and initiation of care. In 2005, the NYC correctional system reported more HIV diagnoses in NYC than any other medical provider in NYC.[35] In 2006, HIV prevalence and undiagnosed HIV infection were estimated using de-identified remnant serum from specimens originally drawn for routine syphilis screening at the medical intake of persons newly admitted to the NYC correctional system. HIV prevalence was 4.7% in males, 9.8% in females and 5.2% overall in new jail admissions.[8] This represented a decline from the previous NYC jail serosurvey, which was conducted in 1998 and observed a prevalence of 7.6% in males and 18.1% in females **(Figure 21**). In 2006, 28.1% of those testing positive appeared to have undiagnosed HIV infection, meaning that these inmates did not self-report being HIV-infected and/or were not in the HIV/AIDS surveillance registry. Most undiagnosed persons did not have documented HIV risk factors (over and above their detainee status), supporting routine voluntary testing for all jail entrants as opposed to targeted testing of jail entrants with known or disclosed risk factors. This serosurvey has not been repeated since 2006.

Figure 21. Findings from Past NYC Jail System HIV Serosurveys.



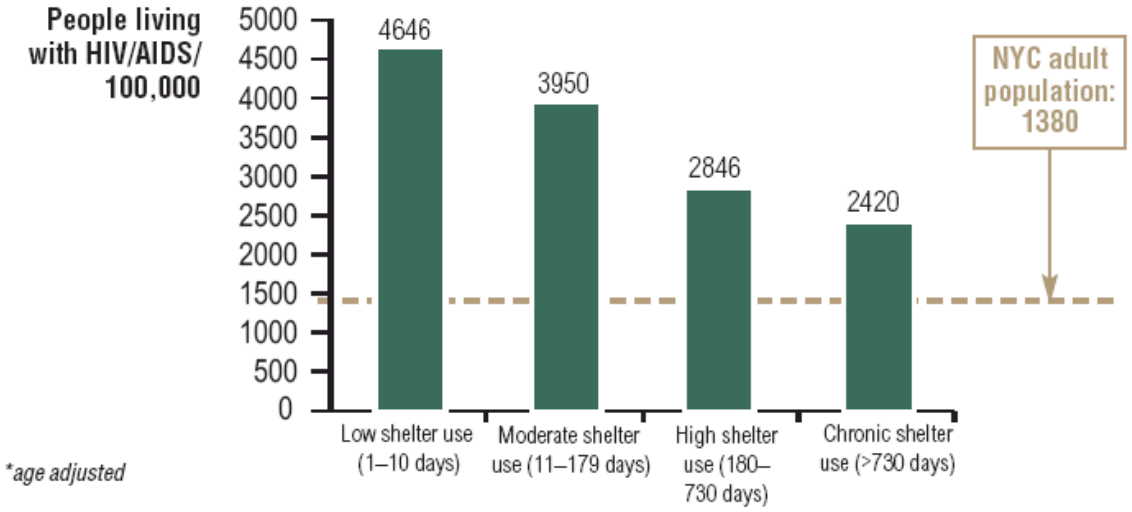
Source: NYC surveillance data.

Persons using the NYC shelter system

A previous analysis of both HIV and data from the Department of Homeless Services, not subsequently repeated, revealed a disproportionate burden of HIV among homeless persons. During 2001-2003, the diagnosis rates of adults using the single adult and family shelter systems were 16 and 8 times higher, respectively, than among the total population of adults in NYC.[20]

HIV prevalence varied by length of time in the shelter system (**Figure 22**); it was highest among persons using the system 1-10 days (4.6%) and lowest among those using it more than 730 days (2.4%). This may, in part, reflect the housing assistance that is available to persons with symptomatic HIV infection or AIDS through the NYC HIV/AIDS Services Administration (HASA).

Figure 22. Prevalence rates of HIV/AIDS among adults who used DHS single adult shelters, 2001-2003.



Source: Kerker B, Bainbridge J, Li W, Kennedy J, Bennani Y, Agerton T, Marder D, Torian L, Tsoi B, Appel K, Gutkovich A. The Health of Homeless Adults in New York City: A report from the New York City Departments of Health and Mental Hygiene and Homeless Services, 2005.

HIV TESTING AND HEALTH CARE FOR PERSONS LIVING WITH HIV IN NYC

NYC offers many settings for HIV diagnosis and expert care, as well as an extensive institutional support system for persons with HIV.[36] A change in New York State's Public Health Law that was implemented in September 2010 (Chapter 208 of the Laws of 2010) requires the offer of a voluntary HIV test to almost all patients 13-64 years old receiving health services at most medical facilities. For persons confirmed positive, HIV test providers must arrange an appointment for medical care. The city's 32 Designated AIDS Centers (DACs) are distributed throughout the five boroughs and accessible 24 hours a day by public transportation. Medical and prescription drug benefits are designed to assure that no person goes without care or ART because of lack of resources. Case management, housing and nutritional benefits are available. DACs and large medical facilities have the administrative capacity to reduce many traditional barriers to care by arranging entitlements and ensuring access to support services. Most private physicians treating patients with HIV have institutional relationships with hospitals offering these services.

The DOHMH is committed to ensuring that all persons are routinely offered voluntary HIV testing and that all persons newly diagnosed with HIV receive post-test counseling, assistance with partner notification, and prompt, proactive linkage to medical care. The department is equally committed to assisting diagnostic providers – ranging from individual physicians to large medical institutions and community-based organizations – to provide these services to patients, their contacts, and others at risk.

SUMMARY

New York City has a large population of persons living with HIV/AIDS and an even larger population of uninfected persons at risk for acquiring HIV. There are continuing shifts within the epidemic; the most recent developments include a declining number of HIV diagnoses overall, an increasing proportion of diagnoses among young MSM and foreign-born persons, and increased survival of persons with HIV/AIDS. Multiple factors at different levels contribute to HIV transmission in a city as large and diverse

as NYC, and disparities in rates of diagnosis persist. Prevention of HIV transmission is therefore a substantial and complicated undertaking. Fortunately, NYC is one of the best-equipped cities to address the HIV/AIDS epidemic. It has large networks of committed professionals, networks of infected and affected persons, an established community planning process, and the world's premier infrastructure for HIV-related medical treatment and care. Continued normalization and expansion of opportunities for voluntary HIV testing, coupled with continuous expansion and refinement of proven, scalable, culturally-sensitive and cost-effective HIV prevention interventions for the appropriate priority populations and highly impacted neighborhoods are key elements in the overall strategy that is intended to empower New York City residents to know their HIV serostatus, prevent secondary transmission and obtain the care and services they need to maintain their health and quality of life.

COMMUNITY ENGAGEMENT PLAN

To maximize the involvement of HIV impacted individuals and communities in its discussions and decision-making processes, the HIV Planning Group (HPG) will have begun implementing various recruitment strategies by the end of 2012. Heightened efforts will be made to ensure that full, alternate and associate members of the HPG are equipped with the appropriate tools and have access to adequate resources that are essential to effective engagement in HPG discussions and full knowledge about the New York City Jurisdictional HIV Prevention Plan. Active discussions with other local planning bodies, including the New York City Planning Council and the New York State HIV Planning Group, have already begun and will continue on a regular basis for the remainder of this planning cycle.

COMMUNITY ENGAGEMENT

Key Stakeholders

Under the guidance and direction of the HPG's Membership and Community Engagement Workgroup (MCE), a Key Stakeholders Committee will be developed. The Committee will be comprised of former HPG members. During this planning cycle, the MCE, in collaboration with the HPG Co-Chairs, will identify 40-50 former HPG members to be its first designated group of key stakeholders. The newly formed committee will be tasked with initiating discussions about the best ways for the HPG to conduct its community outreach efforts and committee members will be expected to help enlist other community members to become more actively involved with the HPG.

Panel Presentations

As in most recent planning cycles, to provide the HPG with the most up-to-date information about HIV prevention in New York City, the HPG Executive Committee will continue to ensure that full HPG meeting presentations draw upon the experience and expertise of local HIV prevention researchers, epidemiologists, program service developers, clinical providers, HIV prevention consumers and all other designated experts on topics critical to the HPG's efforts. Relevant DOHMH physicians, epidemiologists and other staff (e.g., from the Bureaus of STD, HIV, TB and the Office of Viral Hepatitis) will continue to be invited to make presentations about new and/or updated information relevant to the HPG's work.

Community Fora

The HPG's Executive Committee will regularly discuss and review HIV prevention gaps and emerging issues at each of its six annual meetings. Once gaps and issues have been identified, community fora will be organized in appropriate geographic areas for the purpose of gathering service needs and gaps information directly from impacted populations and communities.

HPG "Meet and Greet" Events

The MCE Workgroup will organize three "Recruitment Mixers" designed to identify individuals who may become either full or associate HPG members. These events will be held in venues frequented by representatives of the communities most impacted by HIV in NYC.

Using Electronic Media to Expand HPG Outreach

A Facebook Page has been developed by the HPG; the page is being managed by the MCE Workgroup. Efforts will be made to recruit 300-400 fans by the end of the year. The Facebook Page will allow the HPG to notify "fans" of upcoming meetings and other HPG related activities and will afford "fans" the opportunity to ask questions about the HPG and its work. The possible use of other social media/networks will be reviewed with further recommendations from the MCE by the end of the planning cycle.

HIV PLANNING GROUP MEMBERSHIP ENGAGEMENT

New Member Recruitment

The MCE Workgroup will organize a subcommittee composed of the Prevention Planning Group's former Rules and Membership Committee members to assist with the identification of new strategies for the recruitment and retention of full and associate HPG members. This subcommittee was formed prior to the new member recruitment "kick-off" that took place in July 2012.

The HPG will expand its annual recruitment efforts to ensure that CBOs directly funded by CDC have greater representation among the HPG membership. The HPG will contact Executive/Program Directors of directly-funded CBOs and will engage support from members of the newly formed Key Stakeholders Committee, some of whom are staff members of CBOs directly funded by CDC.

Member Orientations

Two new HPG member orientation sessions will be added in the second half of this planning cycle to prepare newly recruited and continuing members for the 2013 planning cycle. These additional sessions, organized in response to the identified need for additional advance preparation, will clarify the new CDC planning guidance and explain the role of HPG membership in the implementation of the Community Engagement Plan.

Also, in the second half of this planning cycle, the HPG will hold its annual orientation for alternate and associate members. This orientation will be expanded from a half to a full day and will cover a broad range of topics to enable alternate and associate members to fully engage and actively participate in the HPG's processes.

HIV PLANNING GROUP ENGAGEMENT WITH OTHER LOCAL PLANNING BODIES

New York City HRSA Ryan White Planning Council

Starting in January 2012, the NYC DOHMH organized a "Super Committee" comprised of the government and community co-chairs from the New York City HRSA Ryan White Planning Council, the New York City CDC HIV Planning Group and the New York State CDC HIV Planning Group, as well as the ECHPP management team and senior BHIV leadership from HIV prevention, care and housing units. The Committee has met monthly since February 2012 and will continue its regular formal meetings for the duration of this planning cycle.

New York City HIV Care Networks

After losing their New York State funding in 2011, the New York City HIV Care Networks have been reconstituted and continue to operate in 4 of the 5 New York City boroughs. In both instances, network members and their allies meet to further discussions begun prior to the loss of funding and to strategize regarding the continuation and development of newer initiatives of HIV Care Networks. Funding for these activities comes primarily from previous HIV Care Network community-based organization sponsors. HPG members are actively involved on all 4 networks and use their participation as an opportunity to maintain an ongoing dialogue between the networks and the HPG. The networks continue to serve as a source of new HPG full and associate members.

Other local planning bodies

Several CBOs have reached out to the HPG asking for its input on planning bodies they have constituted in response to program requirements of governmental funding sources. For example, SAMHSA has begun directly funding more local CBOs and requiring that they convene planning bodies with HIV prevention representation. The HPG has enthusiastically responded to these opportunities and continues to make itself available to any and all who need its input and collaboration.

GAPS AND SCALABILITY

GAPS

Primary Planning Process

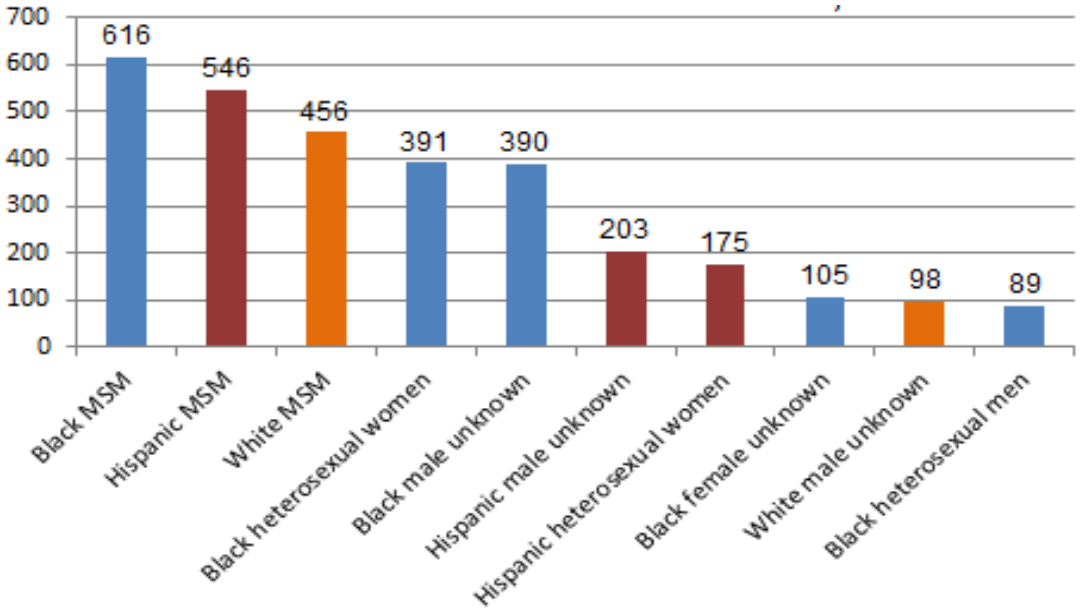
The initial jurisdictional planning process involved convening multiple internal and external working groups among individuals engaged in HIV prevention and care in NYC. First, as outlined in the Community Engagement Plan, BHIV organized a "Super-Committee" comprised of individuals representing the NYC HRSA Ryan White Planning Council, the NYC CDC HIV Planning Group and the NYS CDC HIV Planning Group. Members of this Super-Committee have included the government and community leadership of all 3 planning bodies as well as senior HIV prevention, treatment, care and housing staff from the NYC DOHMH. BHIV also organized an Internal Workgroup to participate in jurisdictional planning, comprised of leaders from both the Bureaus of HIV/AIDS Prevention and Control and STD Control. Additionally, the ECHPP management team has been central to the jurisdictional planning process.

Once these committees and workgroups were formed, the second step in the planning process consisted of soliciting specific input from both the Super-Committee and the Internal Workgroup on existing goals and strategies that were included in the ECHPP interim plan. Additionally, the Internal Workgroup was asked to participate in a brainstorming exercise to generate new project ideas related to the core prevention program components. The list of ideas generated during this exercise was vetted by the core jurisdictional planning team; all ideas were analyzed for their evidence-basis, feasibility, potential cost-effectiveness and scalability, and the most promising ideas were selected for exploration. Additionally, during this same period, the core jurisdictional planning team carefully reviewed the recently drafted Ryan White Comprehensive Plan for New York City to ensure alignment of this plan with the CDC Comprehensive Jurisdictional Plan. All of these steps led to the completion of a draft plan, which was then reviewed and revised by all parties in an iterative process over the next month, resulting in the final Comprehensive Jurisdictional Plan for NYC.

Demographic Gaps

Epidemiologic analyses. To ensure alignment of prevention efforts with burden of disease, in accordance with the principles of High Impact Prevention, the DOHMH undertook a detailed review of epidemiologic data in NYC during the planning process. This work, initially begun in early 2012, helped to highlight a number of key aspects of the epidemic in NYC. First, the top ten subpopulations by new HIV diagnosis in 2010 were reviewed (**Figure 23**). Importantly, the top 3 groups overall were black, Hispanic, and white men who have sex with men (MSM). Further, 3 of the top 5 groups were black men (MSM, heterosexual men, and men of unknown HIV risk), and 8 of the top 10 were black or Hispanic men and women. This very simple analysis helped to focus attention on both MSM and non-White racial/ethnic groups in NYC. While data on incidence may be somewhat different from data on new diagnoses, we suspect that there is substantial overlap, as less than 25% of all new diagnoses have concurrent HIV and AIDS diagnosis, a surrogate for late diagnosis.

Figure 23. NYC Subpopulations with the Largest Number of New Infections, 2010.



Source: NYC surveillance data.

In formative interviews with colleagues both within the Agency and in the community, several vulnerable populations with special HIV prevention needs have been identified. These groups, highlighted in the recent comprehensive HIV prevention request for proposals (RFP) released in June 2012 include, but are not limited to, the following:

Hard-to-reach drug users. Despite the significant, documented impact of syringe services on the HIV epidemic in NYC, geographic and racial/ethnic disparities in ongoing HIV transmission among IDUs and their sex partners persist. These ongoing gaps may be due to both limitations in syringe service coverage, as well as difficulties engaging some drug users who are unwilling/unable to access syringes from existing sources. Additionally, with the success of syringe services and the trend toward non-injectable narcotics, it is important to expand the current concept of HIV risk and drug use beyond injection alone to incorporate the sexual risk-taking induced by various types of drug use. Reaching highly marginalized groups of injection and non-injection drug users is an important priority given their high risk for HIV infection. Innovative programs to promote peer-delivered harm reduction services and provide social support to hard-to-reach drug users has been identified as a priority activity.

Recently-arrived urban immigrants and migrants belonging to populations at high risk for HIV transmission or acquisition. NYC has historically attracted great numbers of migrants, including men who seek sex with men in a more tolerant environment, and transgender persons in search of social environments that may be (relatively) accepting of their unique gender identity. These immigrants and migrants often arrive from places – within and outside the U.S. - where gay communities are smaller and HIV is less prevalent. As they encounter different social environments and navigate the challenges of a new city, they may be at increased risk for HIV infection. Although data are limited on the overall HIV incidence among recently-arrived MSM and TWSM, surveillance data show that 29% of all MSM diagnosed with HIV in 2010 were foreign-born and the number of diagnoses among foreign-born MSM increased 72% since 2001 (unpublished NYCDOHMH data). Providing tailored HIV prevention and social support services to this population is important to address their unique vulnerabilities.

Commercial sex workers (CSW) and their partners. There are limited data about the burden of HIV among CSW in NYC, but the multiple links evident between sex work and vulnerability to HIV

suggest that the prevalence may be high. Sex workers, who may be male, female or transgender, have a risk for HIV infection because of both the number of partners and their inability, particularly in places like NYC where sex work is illegal, to ensure safer sex in each encounter. Sex workers are especially likely to experience violence and coercive sex, both of which increase their risk of HIV acquisition or transmission. Prevention is paramount to protect both CSW as well as their clients who might serve as a "bridging population" (spreading HIV to the general population). Innovative, targeted HIV prevention programs may play an important role in reducing STD incidence and prevalence among CSWs and their clients.

Heterosexual black and Latina women in high-prevalence neighborhoods. Extensive epidemiologic data exist to document the tremendous burden of HIV borne by black and Latina women. In NYC in 2012, 92.3% of all new HIV diagnoses among women were among women of color. At least 75% of these women reported a heterosexual route of infection. Women accounted for more than 4 times the number of transmissions attributed to the heterosexual route (600 heterosexually transmitted infections among women compared with 145 among men). Although the etiology of these factors remains elusive, it is likely that both individual and social network characteristics play a role. Through their ability to influence social norms, provide support, and exert influence through a community, social networks may be particularly interesting and amenable targets for interventions. Further, social network-level approaches have been successful among other communities with very high risk for HIV infection (e.g., injection drug users) and may be adaptable to this population as well.

NYS Regional Gaps Analysis (RGA) – NYC Region.

The NYS HIV Planning Group and the NYS AIDS Institute used a multifaceted approach to complete a regional gaps analysis for the NYC region in 2010 to be incorporated into the NYS HIV Prevention Plan. Information was gathered from several sources, including AIDS Institute regional listening fora (held around the state to hear what consumers and providers believe to be important HIV/AIDS issues that need to be addressed in their communities), opportunistic information gatherings, and membership surveys (surveys conducted among individuals who live and/or work in communities of interest and who are not involved in HIV/AIDS work). This RGA ultimately outlines a number of general and population-specific issues related to HIV prevention in the five boroughs. The primary issues highlighted in this RGA, along with the needs and gaps identified, include the following:

- Populations most heavily impacted by HIV are in NYC and are already in severe need--suffering from unemployment/underemployment, immigration challenges, homelessness, domestic violence, and lack of support with child and elder care. These structural issues contribute to disparities in HIV diagnoses and HIV outcomes.
    - Interventions that target these structural issues, with an emphasis on collaborative approaches, are needed.
- Men who have sex with men (MSM) still experience discrimination; many such men do not identify as gay because they fear a lack of acceptance of their sexual identity.
    - Clear prevention messages are needed, especially for black MSM; such messages should address multiple health issues, including mental health issues, and should draw on the existing strength within the community (e.g., resiliency).
- Poverty, crime, and violence also contribute to the risk of HIV among young people, especially those who migrate to NYC from other areas of the country.
    - Youth-driven HIV prevention efforts are needed, including programs commencing inside juvenile correctional institutions and continuing after release.
- The diversity of NYC can pose a challenge.
    - Prevention efforts will need to address the many languages and cultures of some neighborhoods with specific outreach to immigrant communities.
- The size of NYC can pose a challenge.
    - Prevention efforts will also need to address the transportation needs of persons who live far from where needed services are located.
- Stigma and denial may hinder both HIV testing and engagement in care. Stigma may be concentrated in communities of color.

    - o Social media campaigns are needed, especially ones that encourage routine testing and reduce stigma associated with testing as well as stigma associated with HIV.
- Mental health disorders likely represent significant cofactors for HIV acquisition, especially in communities where mental health issues are stigmatized.
    - o Prevention interventions that target co-factors, such as mental health disorders, are needed. Services should be tailored to the specific needs of the communities.

A full description of the findings of the RGA is beyond the scope of this jurisdictional plan. When the NYS HIV Prevention Plan is published, it will be available online on the NYS Department of Health website.

Resource Allocation Modeling

As part of ECHPP Phase I activities, BHIV partnered with the Section on Value and Effectiveness (SOLVE) at the New York University (NYU) School of Medicine to construct an operations research model of HIV prevention in NYC. This model was designed to supplement and enhance BHIV planning activities by identifying the optimal combination of prevention strategies to reduce HIV transmission in New York City. BHIV has used the final validated model to enhance program planning and funding allocation decisions. This productive collaboration has suggested that the highest value interventions tend to focus on individuals who are already HIV-infected, rather than prioritizing the much larger number of individuals who are not known to be HIV-infected (unpublished data, NYC DOHMH and NYU SOLVE). This finding reinforces the work of other modelers using national data to help prioritize resource allocation at the federal level.[37]

Pre-Exposure Prophylaxis Planning

In addition to convening the above planning bodies and leading the brainstorming process, DOHMH BHIV staff sought input from additional sources. BHIV convened a Pre-Exposure Prophylaxis (PrEP) Work Group to discuss the possible ways in which the NYC DOHMH can support efforts to implement PrEP in NYC. The ideas generated in that planning group informed the components of the plan related to PrEP. NYC DOHMH participation in the NYS Biological Prevention Work Group also contributed to the development of key aspects of the plan related to PrEP.

SCALABILITY

Consideration of the scalability of interventions in NYC is always a major consideration due to the size of the city and the diversity of the affected and at-risk populations. The size of the local epidemic is well-known: there are approximately 110,000 persons living with HIV in NYC. While the epidemic has certain geographic foci, all neighborhoods are at least somewhat affected, with a 1.4% prevalence of HIV citywide in 2010. Although almost half of all new infections are among MSM (48%), 21% are among heterosexuals, and 5% are among IDUs. Even within risk groups, the communities are quite diverse. For example, up to 31% of all new diagnoses are foreign born, over half of whom are from the Caribbean or South America; approximately the same proportion of newly-diagnosed MSM is foreign born (29%), as well. Further complicating the ability to reach all at-risk New York City residents is the fact that, of the large population of MSM in NYC (estimated to be approximately 100,000, though good estimates are lacking), many men do not identify as openly gay. In a recent population-based study in NYC, up to 10% of men who identified as heterosexual reported having sex with another man in the past year.[38]

The population of persons infected with HIV is not only large, it is growing. Now that mortality has been dramatically reduced through the use of antiretroviral medications, all newly-infected individuals contribute to the overall growth of PLWH population. (They become prevalent cases). Additionally, and anecdotally, some PLWH diagnosed in other jurisdictions (or countries) migrate to NYC because of the generosity of HIV-related benefits, both at the state and local levels (e.g., Medicaid and AIDS Drug Assistance Program benefits) or because New York is a city (and a state) with a vibrant gay community, an overall acceptance of a gay sexual identity, and some legal protections for gays (e.g., the right to same sex marriage in NYS). Prevention efforts are particularly challenging among this migrant group because these individuals may not actually receive all of their clinical care here; this creates problems for

full engagement in care and prevention with positive interventions. Unfortunately, despite anecdotal evidence, accurate data about the impact of this type of HIV migration are not currently available.

Prevention planning in NYC is informed by both the size and diversity of the NYC population as described above, including the population of PLWH. For example, the use of evidence-based interventions that are primarily delivered to small numbers of individuals or groups (individual- or group-level interventions) is of limited utility in such a large city. Analysis of data from organizations conducting evidence-based interventions in NYC in the past few years show that community-level interventions reached approximately 37,000 individuals and cost only $40 per person served, whereas individual and group level interventions combined reached only approximately 2,300 individuals citywide and cost $1100-1300 per person served. Essentially, these data support a shift, where possible, toward community-level interventions in NYC.

Concerns about scalability have also guided the development of a pilot program for HIV prevention among HIV-positive individuals ('Prevention with Positives, or PWP). In selecting the various programmatic models to pilot, care was taken to consider how each model would work on a large scale, in a diversity of clinical settings. Scalability issues also informed the development of a new, comprehensive prevention request for proposals (RFP) released in June 2012, which includes service categories that focus on system-level interventions that are large-scale and institution-wide, with the goal of trying to improve HIV testing and treatment for vast populations that seek clinical care; as well as community-level interventions and community mobilization. The RFP also offers funding opportunities for entities to pursue structural interventions that focus on ameliorating or changing underlying causes of HIV infection, i.e., factors that might increase risk-taking among priority populations.

SITUATIONAL ANALYSES, GOALS AND STRATEGIES

The following section describes both existing resources for HIV prevention, care, and treatment services within New York City and related goals and strategies that outline NYC's planned HIV prevention activities through 2016. The goals and strategies for each of the core prevention program components incorporate many of the gaps described above; issues of scalability were also considered. While many of the core elements represent interventions that the NYC DOHMH has conducted for many years, attempts to explore new approaches, especially as they relate to the introduction of new technologies and the implementation of new research findings, were also included. Together, this section provides the heart of the jurisdictional plan and should be viewed as a roadmap to coordinating all HIV prevention activities and to achieving the shared citywide goals and the NHAS targets through the adoption of the High-Impact Prevention approach.

Throughout the plan, a broad interpretation of program components was adopted to best reflect the working definitions and classifications employed by the core planning team. Additionally, due to the comprehensive nature of HIV prevention efforts, with multiple approaches being pursued in tandem, descriptions of programs and goals are repeated in numerous relevant sections. However, wherever possible, specific strategies were not repeated. A placeholder was often left in one section referring to related strategies that appear elsewhere in the plan. The core prevention program components (situational analysis followed by related goals and strategies) appear in the following order:

1. **HIV testing**
2. **Comprehensive prevention with positives**
3. **Condom distribution**
4. **Policy Initiatives**
5. **Evidence-based HIV prevention interventions for HIV-negative persons at highest risk of acquiring HIV (including harm reduction/syringe services)**
6. **Social marketing, media, and mobilization**
7. **nPEP and PrEP**

SITUATIONAL ANALYSIS: HIV TESTING

The New York City Department of Health and Mental Hygiene (NYC DOHMH) has been actively working with clinical partners to promote and expand routine, opt-out screening for HIV in clinical settings since 2005. Currently, the NYC DOHMH uses several funding sources to provide HIV testing in clinical settings; these funds include CDC's Cooperative Agreement for HIV Prevention (PS12-1201, Categories A and B), HRSA (Ryan White Funding), and New York City (NYC) tax levy dollars.

The majority of the HIV testing activities provided by the NYC DOHMH are undertaken through contract funding or through direct service provision. The Bureau of HIV/AIDS Prevention and Control (BHIV) funds all contracted testing activities. Funding from the CDC Cooperative Agreement for HIV Prevention (PS12-1201 Categories A and B) also support staff in the three partner Bureaus (Bureau of STD Control, the Bureau of TB Control, and the Public Health Laboratories) that provide direct clinical services and offer routine HIV screening as part of those services, and, in the case of Public Health Laboratories, screening for acute HIV infection (pooled nucleic acid amplification testing). These funds also partly support the re-offer and testing of jail inmates who refuse HIV testing at medical intake. NYC tax levy dollars fund the majority of testing in NYC correctional facilities and some testing in City STD clinics.

In 2011, the NYC DOHMH rebid the majority of its HIV testing portfolio, in order to align funded programs to the National HIV/AIDS Strategy. At the end of the request for proposals process, a total of 55 contracts were awarded to 46 agencies, including hospitals, community health centers, and community-based organizations. A total of 25 clinical facilities were funded to conduct routine HIV screening in New York City. Additionally, New York City's correctional facilities have made a routine offer of HIV testing to all inmates on intake since 2004, with repeat offers made at more convenient times for those who refuse.

In addition to directly funding clinical sites providing routine HIV screening, the NYC DOHMH also provided 6,825 free test kits in 2011 to 21 clinical facilities, including hospitals, community health centers and one dental clinic.[1] These tests kits were earmarked for use with uninsured patients only or were used during special testing events where billing of medical services was not feasible (e.g., National HIV/AIDS Awareness Days). In 2011, approximately 238,649 HIV screening tests were conducted by clinical sites directly-funded by NYC DOHMH, NYC DOHMH clinics (nine STD clinics, five TB clinics and 11 correctional facilities/jails) and through the distribution of free test kits. The overall confirmed seroprevalence from these activities was 0.5%.

Jurisdictional HIV testing initiative. In addition to directly funding numerous clinical sites throughout New York City, the Department concluded its very successful jurisdictional testing initiative, *The Bronx Knows,* in June 2011. *The Bronx Knows* was a three-year, large-scale public health initiative that was launched on June 27, 2008 (National HIV Testing Day). The goal of *The Bronx Knows* was to increase voluntary HIV testing so that every Bronx resident learned his or her HIV status and had access to quality HIV primary care and prevention services. The DOHMH partnered with 78 agencies representing over 140 sites throughout the Bronx to carry out the initiative. Partners included all eight major hospitals, 22 community health centers, 21 community and faith-based organizations and 25 additional partners including colleges and universities, private physicians' offices, Health Department STD and TB clinics, and local businesses.

As part of *The Bronx Knows* initiative, the NYC DOHMH provided free HIV test kits for uninsured individuals testing in medical settings (upon request by the partner clinical site) and for some CBOs that did not have prior dedicated funds for testing; provided technical assistance on all relevant topics; coordinated a borough-wide social marketing campaign promoting routine HIV screening; supported and promoted partner testing events in the borough; provided a web-based system for data reporting; and coordinated all initiative activities. While some of the 78 *Bronx Knows* partners were directly-funded for testing in clinical settings, many were not. Testing partners (those that were directly funded and those that were not) reported their aggregate testing data for this initiative to better capture increases in testing throughout the borough. At the conclusion of the initiative, over 600,000 tests had been performed with over 4,800 HIV positive tests and at least 1,700 newly diagnosed individuals (0.3%). Of those newly diagnosed, more than three-quarters were linked to HIV primary care. In addition, the estimated proportion of persons aged 18-64 who report ever testing for HIV in the Bronx has increased from 72.3% in 2007 to 79.9% in 2010 (NYC DOHMH, Division of Epidemiology, Community Health Survey, 2007 and 2010), a statistically significant increase in trend.

Based on the success of *The Bronx Knows* HIV Testing Initiative, the *Brooklyn Knows* HIV Testing Initiative was launched on World AIDS Day (December 1), 2010. The *Brooklyn Knows* HIV Testing Initiative is one of the largest HIV testing efforts in the country, and aims to test Brooklyn residents who have never been tested for HIV and link HIV-positive individuals to quality care and supportive services. During the first year of the Initiative, DOHMH had hosted workshops for clinical organizations on routine screening, disseminated social marketing via "subway station saturation" in four large subway hubs in Brooklyn, and organized more than 10 community mobilization activities to normalize HIV testing and to increase awareness of the importance of HIV screening in Brooklyn. At the end of Year 1, over 85 community partners had already joined the Initiative. *Brooklyn Knows* partners conducted 145,878 HIV tests in clinical and non-clinical settings, a 28% relative increase from baseline. They identified 1,586 confirmed positive tests; of these, 587 were new HIV cases, and 73% of new cases were linked to medical care.

Implementation of the NYS HIV Testing Law of 2010. Effective September 1, 2010, the New York State Legislature amended its Public Health law (Chapter 308 of the Laws of 2010) to include a mandatory offer of HIV testing to persons aged 13-64 in emergency departments, inpatient and outpatient primary care settings with limited exceptions. The regulations for implementation of this law were released by New York State in February 2012. It is anticipated that this change will help to reduce barriers to HIV testing and shift the landscape further toward routine opt-out HIV screening. Since the enactment of the new law,

[1] Includes kits provided to *The Bronx Knows* and *Brooklyn Knows* partners.

BHIV has been working with clinical partners to increase the provision of routine, opt-out screening in emergency departments, outpatient clinics and inpatient settings. To build capacity among clinical sites in support of increasing testing volume, BHIV rewarded the use of multi-platform analyzers (MPAs) within large clinical sites in its rebid of the HIV testing portfolio in 2011. Random access MPAs allow clinical facilities to process over one hundred samples per hour, far higher volume than what several counselors can do. The MPAs allow agencies to better meet the demand of HIV screening in locations serving large numbers of patients, such as emergency departments. To date, eight funded clinical sites employ an MPA for HIV screening. In addition to promoting the use of MPAs, BHIV's HIV Testing Unit has been working with all funded clinical facilities to develop protocols to ensure that all patients between 13 and 64 years are offered an HIV test (except those receiving treatment for a life-threatening condition in a hospital). BHIV also worked with the NYS Department of Health on a report to evaluate the impact of the change in the HIV testing legislation, which will be delivered to the NYS Governor in September 2012. More information about the testing law evaluation can be found in the Policy section on page 67.

Testing in non-clinical venues. Since 2005, the NYC DOHMH has been actively working to improve targeted case-finding of HIV positive individuals through testing in non-clinical venues. Testing in non-clinical venues is essential for finding HIV positive individuals who do not routinely seek clinical care or who refuse an offer of HIV testing in clinical settings. Currently, the NYC DOHMH budget for testing in non-clinical settings comes from the CDC's Cooperative Agreement for HIV Prevention (PS12-1201 Categories A and B), HRSA (Ryan White Funding), and New York City tax levy dollars. Through the 2011 RFP, the NYC DOHMH funded 18 contracts to provide HIV testing to priority populations (e.g., men who have sex with men, transgender persons, high-risk youth) in high-yield, non-health care venues and 12 contracts to penetrate dense networks of risk using the Social Network Recruitment Strategy (SNS). These contracts were distributed across 28 agencies in four NYC boroughs: the Bronx (7), Brooklyn (6), Manhattan (13), and Queens (2). (No lead agency from Staten Island applied for a testing contract in 2011, however at least one consortium funded by DOHMH conducts HIV testing on Staten Island.) The social network recruitment strategy (SNS) enlists high-risk HIV-positive and HIV-negative individuals to encourage people in their network to be tested for HIV. CDC's Social Networks Demonstration Program funded nine CBOs in seven cities to recruit using the social network strategy. Data from that program yielded a testing positivity rate of 5.6%, significantly higher than other testing sites funded by CDC. [Kimbrough et al, 2009]. Through the testing contract re-bid, 5 SNS contracts were funded by PS12-1201 Category B funds and 7 SNS contracts were funded by Ryan White funds.

In 2011, 35,587 HIV tests were conducted in NYC DOHMH-funded non-clinical sites (**Table 5**). The overall preliminary seroprevalence from these activities was 1.2% and the overall confirmatory seroprevalence was 0. 5%. Seroprevalence by gender, age, race/ethnicity and transmission risk is presented in the table that follows. Of note, MSM and transgender persons had particularly high seroprevalence: 4.3% of MSM tested and 3.5% of transgender persons who underwent targeted testing were confirmed as HIV-positive. Please see the table below, highlighting seroprevalence by demographics and risk categories for non-clinical testing programs in 2011.

Table 5. Non-Clinical Testing by Funded Partners, 2011.

	Tests Conducted (n=35,587)	Seroprevalence	
		Preliminary %	Confirmatory %
Gender			
Female	12,659	0.81	0.28
Male	22,534	1.37	0.53
Transgender	145	7.59	3.45
Other/unreported	249	0.00	0.00
Age			
Under 18	586	0.00	0.00
18-29	8,879	1.21	0.54
30-39	6,082	0.81	0.36
40-49	8,086	1.51	0.46
50-59	5,961	1.41	0.29
60+	1,692	0.95	0.30
Missing	4,301	1.05	0.72
Race/Ethnicity			
Black	18,902	1.25	0.36
White	2,962	0.98	0.71
Hispanic	11,823	1.18	0.53
Asian	452	0.66	0.44
Native American	66	1.52	1.52
Native Hawaiian/Pacific Islander	49	0.00	0.00
More than 1 Race	307	1.95	1.30
Other	766	0.65	0.13
Unreported	260	1.15	0.00
Sexual Risk Factors			
Bisexual	700	3.14	2.00
Heterosexual	26,827	0.87	0.22
MSM	1,386	7.36	4.26
WSW	548	1.64	0.55
Transgender/Sex with Transgender	162	10.49	2.47
No Risk Identified	1,989	0.40	0.40
Refused	60	5.00	5.00
Not Asked/Missing	3,915	0.74	0.23

Free test kit distribution. In 2011, NYC DOHMH provided free test kits to six non-clinical facilities, including 2 CBOs and 1 agency that does outreach to the homeless, and also provided free test kits, as requested, to support special testing events (e.g. National HIV/AIDS Awareness Days, etc.). (This does not include *The Bronx Knows* and *Brooklyn Knows* partners.) Additionally, DOHMH provided free test kits to 12 non-clinical *Bronx Knows* and *Brooklyn Knows* partner agencies and provided technical assistance to 10 *Brooklyn Knows* non-clinical partners on the implementation of HIV testing in the Bronx. As part of the *Brooklyn Knows* jurisdictional scale-up, non-clinical testing partners conducted 19,014 HIV tests, with 147 confirmed positives (0.8%) in Year One (ending September 2011).

Testing of exposed partners (Partner Services). NYC DOHMH conducts field-based HIV testing within the Partner Services program of BHIV's Field Services Unit. An offer of HIV testing occurs following notification of sex or needle sharing partners of the index HIV-positive individual. Health department staff

collect oral swab specimens for HIV testing using Orasure HIV-1 testing technology. Four hundred and eighteen tests were performed in 2011 on 377 unique persons; 24 persons were determined to be newly diagnosed yielding a seroprevalence of 6%. Of these, 88% (21/24) were male and 42% (10/24) were under age 30. The overwhelming majority of tests conducted were among non-Hispanic blacks and Hispanics (88%). Starting in February 2010, the Field Services Unit began using the OraQuick Advance Rapid HIV-1/2 Antibody Test for testing exposed, notified partners in the field. Additionally, BSTD notifies the partners of index patients that it diagnoses in STD clinics. Some of these partners come into STD clinics for HIV testing.

Testing in Correctional Settings. Since 2004, the eleven correctional facilities and jails operated by the NYC Department of Corrections offer voluntary, rapid HIV screening to jail entrants at medical intake into the NYC jail system. The number of individuals screened for HIV in NYC jails has grown from 26,232 in 2005 to 35,725 in 2011, with 104 testing positive in 2011 (0.3%). While case finding has increased in NYC jails with routine HIV screening, a random serosurvey of blood specimens from jail entrants conducted in 2006 indicated that overall seroprevalence was much higher than the routine screening program would suggest. This finding implies that detainees who suspect they may be positive may refuse to test. As a result, beginning in 2009, the Bureau of Correctional Health Services began a 'refusal reversal' HIV testing pilot. In this pilot, DOHMH staff visit detainee residential areas, providing brief health information, including information about risks for HIV. Detainees are re-offered an HIV test during that visit, a time that may be less stressful than the 48 hour intake period.

Cofactors of HIV Transmission Testing. As part of its HIV Prevention Program, the DOHMH funded 10 agencies in 2011 to screen for cofactors of HIV transmission and link those who screen positive to appropriate treatment and/or supportive services. Clients from priority populations are screened and, if positive, linked to treatment for STIs (syphilis, gonorrhea, chlamydia and Hepatitis B/C), depression, and substance abuse. Treating these cofactors has been shown, in one study, to decrease the incidence of HIV.[39] In addition to linkage for treatment, all clients who screen positive for any one of the cofactors are offered an HIV test, with a confirmatory test and linkage to HIV primary care if the preliminary HIV test is positive. From February through December 2011, 845 tests were conducted by 4 agencies. 9 (1.1%) were preliminary positives, 5 were sent for confirmation, 4 (0.5%) were confirmed positive.

GOALS AND STRATEGIES: HIV TESTING

Goal 1: Increase the proportion of New York City residents, aged 13 to 64, who report ever having been tested for HIV.

Strategy 1: Work with clinical partners to increase the provision of routine, opt-out screening in emergency departments, outpatient clinics, and inpatient settings. Specific mechanisms to increase testing include both NYC DOHMH-delivered and peer-to-peer technical assistance, sharing of best practices, provision of performance data feedback to clinical sites, arranging meetings with administrative and program staff, presenting at grand rounds, and encouraging use of multi-platform analyzers.

Strategy 2: Work with DOHMH-funded clinical testing programs to ensure that billing departments and service providers are aligned and understand proper billing/reimbursement protocols for insured patients, including Medicaid and private insurance.

Strategy 3: Ensure that NYC DOHMH contract funding is used as a payer of last resort for all HIV tests conducted under DOHMH-funded clinical testing programs to maximally support testing for uninsured persons with grant funds.

Strategy 4: Promote HIV testing in non-traditional clinical settings, such as dental clinics and inpatient or outpatient drug treatment facilities.

Strategy 5: Promote HIV testing in non-traditional, non-clinical settings, such as consulates, DMVs, and alcohol sales outlets.

Goal 2: Reduce legislative and administrative barriers to true routine opt-out screening in New York.

Strategy 1: Work with New York State to notify providers of approved regulations for the revised HIV testing law (Chapter 308 of the Laws of 2010).

Strategy 2: Expand online tools and resources to clinicians to assist them in implementing routine HIV screening programs.

Strategy 3: Provide tools to clinical entities to ease the transition to routine-opt out screening, such as providing sample modified consent documents and work with each agency's central administration and billing departments to ensure buy-in at all levels.

Strategy 4: Publish and disseminate results of testing law evaluation to raise awareness of the impact of the legislative change, to generate recommendations for improved implementation, and to formulate plans for additional policies.

Strategy 5: Work collaboratively with NYS to develop a plan to increase both provider- and organizational-level accountability for fulfilling the new HIV testing mandate in NYS.

Strategy 6: Develop a workshop on routine HIV screening and linking of positive clients for providers who care for adolescents.

Goal 3: Increase the frequency of testing among persons at high risk of HIV acquisition (including MSM, transgender women, black and Latino heterosexuals, commercial sex workers, and persons with problem drug use, including IDUs)

Strategy 1: Work with non-clinical partners to focus non-clinical testing activities among persons at highest risk of HIV acquisition (including MSM, transgender women, black and Latino heterosexuals, commercial sex workers, and person with problem drug use, including IDUs) and among those who do not routinely access primary health care.

Strategy 2: Use effective and appropriate strategies that maximize testing seroprevalence, such as the social network recruitment strategy, for populations at highest risk of HIV acquisition (particularly for subpopulations with dense sexual, social or drug-using networks and for those who do not routinely seek medical care or refuse HIV testing in medical settings).

Strategy 3: Use program data from non-clinical sites employing the SNS strategy to optimize and enhance program performance.

Strategy 4: Work with HIV testing programs to create monitoring and evaluation strategies to help identify and engage the most highly impacted populations that do not routinely seek care.

Strategy 5: Determine factors associated with both never-testing and repeated refusal to obtain an HIV test among NYC residents; create a strategy to address these factors.

Goal 4: Increase the percentage of individuals confirmed to be newly diagnosed (among all those who test HIV-positive).

Strategy 1: Use relevant NYC DOHMH data to update sites on the percent of confirmed positives in their testing programs that are newly diagnosed (aggregate data).

Strategy 2: Enhance technical assistance to non-clinical testing agencies to minimize the use of inappropriate incentives for testing to avoid repeat testers.

Strategy 3: Provide training and technical assistance on program monitoring and evaluation, in order for testing programs to better find undiagnosed HIV-positive individuals.

Goal 5: Normalize HIV testing in New York City, especially among populations most heavily impacted by HIV.

Strategy 1: Work with medical students, medical residents, and attending staff to normalize routine HIV screening as standard of care in NYC.

Strategy 2: Use social marketing and media to both consumers/patients and providers to decrease stigma related to HIV testing and to normalize routine HIV screening.

Strategy 3: Explore continued public health detailing campaigns among health care providers to inform them of the routine HIV screening recommendations and the NYS mandate for the routine offer of HIV screening.

SITUATIONAL ANALYSIS: COMPREHENSIVE PREVENTION WITH POSITIVES

The Bureau of HIV/AIDS Prevention and Control (BHIV) has made significant progress toward achieving many of the National HIV/AIDS Strategy goals, including increasing access to care and improving health outcomes for people living with HIV. Specifically, over the past five years, BHIV has improved every aspect of the spectrum of engagement in care, also known as the treatment cascade: linkage, retention/re-engagement in care, improved treatment, and medication adherence/virologic suppression. Interventions have also been introduced to support behavioral change and harm reduction.

In addition to the programs described herein (all of which are underway), the new comprehensive HIV prevention request for proposals (RFP) includes several service categories that allow for funding additional activities related to prevention with positives. For example, new sexual and behavioral health programs can provide linkage and initial care to newly diagnosed persons before they are able to obtain health insurance. System-level change projects can help improve all aspects of clinical care for PLH, including linkage, retention, re-engagement, and adherence. A service category funding demonstration projects also allows for secondary prevention activities. Funded condom distribution programs will also facilitate condom acquisition for all persons in high prevalence neighborhoods and work to change norms around condom use, including condom use among those who are HIV positive.

Linkage to care

As of June 30, 2011, there were 111,949 persons diagnosed and presumed to be living with HIV in NYC. It is estimated that an additional 22,390 New York City residents are living with HIV and are currently unaware of their status. BHIV routinely analyzes HIV surveillance data to determine the epidemiologic profile of those who are HIV-infected, aware of their status, but not in care. This profile includes standard demographic variables, transmission risk and geographic distribution. Because all CD4 counts and viral loads for HIV positive individuals are reported to NYC DOHMH, the Bureau can ascertain the percent of individuals who have no CD4 and viral load for 9 months or more. This is the New York City definition for being out of care.

In total, there are 27 clinical and 44 non-clinical agencies funded through CDC's prevention grant (12-1201), New York City tax levy dollars and through HRSA's Ryan White (Early Intervention Services and Harm Reduction) portfolios to either test and link newly-diagnosed persons to care or link out-of-care persons back into care. These agencies all receive standardized, contractual instructions regarding linkage to care for those who test HIV positive, whether individuals are newly diagnosed or previously diagnosed and out of care. Beginning in July 2011, relevant staff at all agencies funded for HIV screening were required to undergo training on linkage to care based on the Antiretroviral Treatment Access Studies (ARTAS).[40] This training includes motivational interviewing, which has demonstrated improvement in linkage to care. All funded testing agencies are provided a list of care and treatment facilities. Enrollment forms into Ryan White Part A funded Care Coordination programs are provided to all funded testing sites, so that appropriate and immediate enrollment directly into these medical case management and HIV primary care programs can be made by a linkage navigator. Funded agencies also receive training on this enrollment process. As of June 30, 2012, 135 linkage navigation staff have received an ARTAS training. Also, beginning in July 2011, all agencies funded by BHIV for HIV testing were required to report the percent of newly diagnosed individuals that are linked to care and that receive partner services as well as other prevention services.

Agencies funded to conduct the social network recruitment strategy (SNS) for HIV screening among priority populations are also required to participate in an intensive, three-day CDC-developed training on the use of the social network strategy at the start of their contract year. This three-day training includes best practices and procedures for linking HIV positive clients to care. All new staff attend these required trainings. Additionally, agencies that are considering a shift from traditional outreach testing to the use of the social network strategy are also offered a half-day introductory course on SNS.

As described more comprehensively below, BHIV is actively working to change state laws that restrict the use of relevant data to find and return out-of-care clients back to care with their last provider of record.

The BHIV is working to reduce structural barriers, so that providers can be notified when a patient falls out of care or is not receiving the expected standard of care.

Retention/Re-engagement in HIV primary care

Under the medical case management program, HRSA's Ryan White funding supports 28 Care Coordination programs, six providers in the Riker's Island correctional care consortium who serve the incarcerated with pre-release planning and linkage to care, and five Transitional Care Coordination programs for homeless and unstably housed persons. Over $33 million in Ryan White funding is allocated to medical case management activities in NYC. The care coordination program provides care navigation and adherence services for PLWH who experience discontinuity of care, missed appointments, or have had sub-optimal treatment adherence and have no other payer for services.

The protocol-driven care coordination program offers health education, health promotion and coaching, HIV medication adherence support including directly observed therapy (DOT), patient navigation of the health care system with accompaniment to medical appointments and assistance accessing social services and benefits, through an interdisciplinary team of providers. The aim of the model is to maintain continuous engagement in primary care, improve medical outcomes and help patients achieve self-sufficiency, a key outcome of the chronic care model where persons learn to self-manage their illness. All funded programs must be a NYS licensed Article 28 HIV primary care provider or be formally affiliated with one, to ensure integration of case management services.

As a key component of a comprehensive, multi-disciplinary care coordination team, medical case managers (care coordinators) develop interdisciplinary treatment plans in close coordination with primary care providers. Care coordinators and patient navigators promote continuity of care through health system navigation and accompaniment to medical appointments; in addition, the programs provide health promotion, treatment adherence education, and linkages to support services. The case management team helps clients reduce barriers to adherence and periodically reassess treatment adherence levels using standard tools. This effort to improve coordination of care also serves to improve retention in care, as patients come to view their HIV primary care site as an integrated medical 'home.'

In addition, BHIV's Field Services Unit (FSU) interviews patients newly diagnosed with HIV and ensures that they enter HIV primary care within 3 months of their diagnosis (91% of newly-diagnosed patients who are interviewed by FSU make it to their first appointment). FSU also assists persons with existing HIV infection who are out of care for longer than nine months to offer them partner services in order to identify their partners and offer the partners HIV testing and linkage to care if needed. As part of a comprehensive partner services program, the FSU staff also assist the patients with re-engagement in care by making the first appointment for return-to-care and facilitating their attendance to the first return-to-care appointment, including providing transport by official passenger vehicle or re-imbursement of public transportation fare after they have kept an appointment. (Additionally, during the course of these encounters, various aspects of secondary HIV prevention are discussed and promoted, such as reduction of behavioral risk, and condom use.) This comprehensive partner services approach promotes re-engagement of out-of-care patients to HIV medical care to ensure that they receive optimal care (which can potentially reduce HIV transmission to their un-infected partners).

Technical Assistance to Providers. BHIV's HIV Care, Treatment and Housing program established its technical assistance unit in July 2008 to focus on improving the health and well-being of Ryan White Part A clients through optimizing program performance, increasing the accuracy of reporting and use of performance data, as well as enhancing the capacity of agencies to provide comprehensive services. Project Officers conduct site visits and conference calls, and participate in contract negotiation and program monitoring. They also organize provider meetings, workshops and trainings which serve as a useful tool in training providers on such topics as health promotion, field safety and DOT, and in exploring new service model delivery ideas. All Ryan White Part A services support improved access to care and health outcomes for PLWH. Clinical quality management and program evaluation data work in concert to measure whether Ryan White Part A clients are linked to care, have a medical provider, receive routine medical care (i.e., are retained in care) and have standard laboratory values (CD4 counts and VL) measured with appropriate frequency. Technical assistance is provided for care coordination, mental

health, harm reduction (substance abuse treatment), early intervention services, and supportive counseling (psychosocial support), and was expanded in 2011 to include the new transitional care coordination, and outreach to homeless youth contracts.

Each contractor funded by Ryan White Part A must collect and maintain client-level data in accordance with HRSA's reporting requirements for the eligible metropolitan area, or EMA (the EMA is the Ryan White designated area including the five boroughs of New York City, Westchester, Rockland and Putnam counties). The EMA now uses the new DOHMH web-based data system (e-SHARE) for client-level data to manage patient care and evaluate the effectiveness of programs. Contractors are expected to monitor the primary care status measures of clients on an ongoing basis (i.e., regular use of primary care, receipt of ARV medication, CD4 and VL testing) and to intervene, where indicated, to link (or re-link) clients to HIV primary care. This approach mobilizes providers from diverse service categories, including non-clinical social support services, to contribute to efforts to reduce the number of PLWH who are out-of-care and to maximize health care access.

Ryan White Clinical Quality Management Program (CQM). HRSA's Ryan White funds support the New York EMA's clinical quality management program. The four strategic goals of the CQM plan are to: 1) develop comprehensive performance measurement systems to assess the quality of Ryan White Part A services to achieve the goals of providing PLWH access to and maintenance in care; 2) assist Ryan White Part A providers in becoming and remaining skilled in using quality improvement tools and methods to enhance the quality of their services; 3) improve health outcomes and quality of life for PLWH by effectively using quality management tools; and 4) continually respond to the changing needs of the EMA. To achieve these goals, staff members from the NYS AIDS Institute, NYC DOHMH, and the two master contractors, Westchester County Department of Health and Public Health Solutions, meet monthly to review progress in quality management activities, review performance data to inform corrective action plans where needed, and plan and review CQM projects undertaken by Ryan White Part A programs. The CQM Program focuses on seven key service categories: early intervention services, outpatient and ambulatory health services, medical case management/care coordination, mental health, supportive counseling/family stabilization, substance abuse services, and food and nutrition services. Providers are also required to participate in service category specific Learning Networks (LN) to facilitate learning and share successes and challenges of their CQM activities. DOHMH and NYS AIDS Institute staff also provide targeted technical assistance to conduct organizational assessments, address identified quality improvement challenges, and build CQM capacity at individual agencies.

In addition to Ryan White funded interventions, the BHIV HIV Epidemiology and Field Services Unit continues to deploy Public Health Advisors (PHAs) at more than 75 primary locations, including 10 major hospitals in high prevalence neighborhoods throughout NYC to interview HIV-infected New York City residents for partner services, including some PLWH with long-standing HIV diagnosis who appear to be out-of-care based on an absence of CD4 or VL data for more than nine months. PHAs offer these individuals partner services and, as an integral part of partner services, assist them with their reengagement into HIV medical care.

Treatment and care for individuals infected with HIV

Access to HIV Medications. New York State's AIDS Drug Assistance Program (ADAP) covers a wide range of medications for the medical management of HIV disease for those without other coverage. The State's ADAP Plus program also pays for HIV-focused outpatient medical care for Medicaid ineligible persons. (ADAP provides $9.6 million in medications; ADAP-Plus provides $7.8 million in care). The success of the program is a direct result of the 20-year financial and programmatic partnership between the New York City Eligible Metropolitan Area (EMA) and NYS. PLWH in the EMA have access to all ART medications, therapeutic and preventive drugs for opportunistic infections, and medications for the treatment of mental illness and to manage alcohol and chemical dependence. Over $11 million in Ryan White Part A funds support HIV medications for NYC PLWH through NYS ADAP. Medicaid is also a key payor for medications to PLWH living in NYC. In fact, Medicaid (strategically complemented by targeted Part A medical initiatives) spent $2.3 billion on HIV-related services for PLWH in the EMA in fiscal year 2010. (This underestimates the actual costs because it doesn't include inpatient expenses.)

Clinical guidelines and trainings. On December 1, 2011, in response to mounting evidence that early ART benefits those living with HIV and their partners, the DOHMH announced a recommendation that health care providers offer antiretroviral therapy (ART) to any person living with HIV, regardless of the person's CD4 count. This local recommendation was followed four months later by the release of new U.S. DHHS guidelines for the use of antiretroviral treatment for HIV positive individuals.[41] In July 2012, the IAS-USA panel also shifted its recommendation to a universal early offer of ART. Early ART is now considered the standard of care both in NYC and in the United States as a whole.

The NYS DOH continually updates clinical guidelines for the prevention, care and treatment of HIV positive individuals. These guidelines are drafted through the Office of the Medical Director of the New York State AIDS Institute in collaboration with the Johns Hopkins University Division of Infectious Diseases with the assistance of NYC DOHMH staff who participate in the guidance committees. These clinical guidelines are available to all New York providers. They are posted on the NYS DOH website (http://www.hivguidelines.org/clinical-guidelines/). Additionally, the NYC DOHMH has developed a series of written protocols for funded agencies that provide prevention, care and treatment services for HIV positive individuals.

The Medical Director's office of the New York State AIDS Institute also provides a statewide training calendar that includes courses promoting primary care and treatment adherence for HIV positive individuals, addressing prevention with HIV positive clients, ensuring appropriate mental health services for HIV positive clients, and medical case management. NYC and NYS also collaborate on a Clinical Quality Management program for Ryan White Part A providers (see above).

Achievement of virologic suppression

Recognizing that poor adherence is the primary cause of HIV treatment failure, HRSA's Ryan White Part A funding provides intensive treatment adherence support through medical case management, or Care Coordination programs, all of which includes education, health promotion, treatment adherence and, where appropriate, directly observed therapy (DOT). Two major components of the $33 million NYC BHIV Care Coordination Program, first implemented in December 2009 and described earlier, are the health promotion and medication adherence support interventions. These activities are based on research-tested models. All 28 Care Coordination programs are either located in a medical setting or affiliated with a medical provider to ensure integration of services and to effect continuous engagement in HIV primary medical care and optimal medication adherence.

Care coordinators (medical case managers) follow a written protocol, use written treatment adherence guides and use standard tools to assess patient adherence with ARV medications. Recent analysis shows that, between March 2010 and February 2011, 75% of clients participating in Ryan White Part A programs reported antiretroviral medication adherence levels of 95% or greater at the time of their last assessment, compared to 63% in 2008. Citywide, in 2010, 70% of NYC PLWH with documented viral loads in the period had sustained viral load suppression.

From December 2009 to the present, the EMA provided base-funded, client-centered treatment adherence support to over 6,300 PLWH. In addition to 28 Care Coordination programs, HRSA's Ryan White funding for medical case management supports the Riker's Island Correctional Care Consortium for pre-release planning and linkage to care (6 providers) and began implementation of five Transitional Care Coordination programs for homeless and unstably housed persons in 2011.

Finally, the Positive life Workshop is a new NYC DOHMH-developed curriculum that provides HIV-positive individuals with skills for self-management of HIV. Through peer-delivered modules on treatment adherence and health promotion, participants gain a better understanding of how antiretroviral medications work and how to best engage their medical providers. Ultimately, the program aims to support individuals to achieve durable virologic suppression.

Prevention of perinatal transmission

The NYS DOH AIDS Institute continues its primary role in managing activities related to the prevention of perinatal HIV transmission statewide, including in New York City. New York State regulations govern prenatal HIV counseling and testing, and require expedited testing in obstetrical settings when a woman's HIV status is unknown on admission. In addition, New York State law authorizes a comprehensive newborn HIV screening program. Further, there are New York State standards and clinical guidelines for the care and treatment of HIV-positive pregnant women and their exposed newborns, as well as clinical guidelines for preconception counseling of HIV positive women. Finally, a NYS DOH "Health Alert" issued in February 2007 established policies related to repeat HIV testing in the third trimester to address acute HIV infection during pregnancy.

The prevention of perinatal HIV transmission has been integrated into the system of HIV care throughout New York State. The NYS DOH AIDS Institute strategy for the prevention of perinatal HIV transmission is a standard of care approach involving regulations, grant-funded programs, and a blend of funding, including State appropriations, federal grant funds, and third-party reimbursement. Because the prevention of perinatal HIV transmission is the standard of care in New York State, these activities include all NYS prenatal care providers and birth facilities; all HIV care providers serving adults; all pediatric providers caring for exposed infants; grant-funded programs providing outreach, counseling and testing, prevention, clinical, case management and supportive services to high-risk and HIV-positive women; and training programs providing perinatal prevention training to clinical and non-clinical providers.

In developing standards of care, policies, and specific activities related to the prevention of HIV perinatal HIV transmission, the NYS AIDS Institute has worked with health care organizations, such as the American Congress of Obstetricians and Gynecologists (ACOG), and expert provider committees, most recently the New York State Advisory Panel for the Prevention of Perinatal Transmission, which is comprised of experts in the care of HIV-positive pregnant women and exposed infants.

Support for perinatal prevention activities comes from a variety of sources, and this support is not always uniquely designated as perinatal HIV prevention funding. This support includes NYS and federal grant funds directed to contractors as part of a range of health and related initiatives, including but not limited to, programs for the HIV Uninsured/AIDS Drug Assistance Program (ADAP), Medicaid and other third-party reimbursement for care and treatment, and State funding for the Newborn Screening Program and the Pediatric HIV Diagnostic Laboratory.

The major funding sources supporting activities related to the prevention of perinatal HIV transmission throughout New York State – including New York City – are New York State appropriations, federal funds from HRSA, Medicaid, CDC and other third-party reimbursement.

In 2010, 94% of the 112,900 women giving birth and residing in New York City received a prenatal HIV test. There were 393 HIV-positive mothers residing in New York City who gave birth to a live infant in 2010. Of these, 66 mothers (17%) were newly identified as HIV positive during the pregnancy, and 307 (78%) were known to be HIV-positive prior to the pregnancy. (Another 10 women were diagnosed at or after delivery; information was not available on the timing of diagnosis for the other 10.) This is consistent with data from past years; in 2009, 16% of HIV-positive childbearing women in New York City were newly identified as HIV-positive during the pregnancy. During that year, newborn screening identified 399 infants born to 393 mothers residing in New York City as being HIV-exposed. The New York State Department of Health reports that only 3 infants born in New York State (inclusive of New York City) were identified as having mother-to-child HIV transmission in 2010. Note that elimination of perinatal HIV transmission is defined by CDC as a perinatal transmission rate of <1%) and <1 case of MTCT/100,000 live births. In 2010, New York State had 1.3 cases of MTCT per 100,000 live births.

Support for behavioral change among HIV positive persons to reduce ongoing transmission

The Bureau of STD Control (BSTDC) continues to offer screening to all HIV-infected patients for syphilis, chlamydia and gonorrhea and provide on-site treatment for those testing positive for (or reporting exposure to) an STD. The NYC DOHMH operates nine STD clinics in all five boroughs. These clinics have written guidelines on STD screening and treatment, including STD screening and treatment for HIV positive individuals. BSTDC clinics offer medical visits and treatment of STDs for symptomatic patients in

accordance with the CDC's most current STD treatment guidelines. Additionally, the STD clinics offer chlamydia and gonorrhea screening (CT/GC), syphilis screening and treatment, and hepatitis B vaccination for patients who are over 18 years old and foreign-born or born in the United States before 1987. Clinics also offer express visits which include screening for syphilis and CT/GC for asymptomatic people who meet specific risk criteria including a history of receptive anal intercourse.

In an effort to reduce the rate of STDs and duration of infection, BSTDC implemented a behavioral intervention for HIV-infected patients at all STD clinics starting in 2008 known as the VIP Program. Enrollment is offered based on a patient's risk. At present, eligibility criteria for HIV-infected clinic patients include: a new bacterial STD diagnosis, >6 sex partners in the previous three months, or exchange of sex for drugs or money. Eligibility for HIV-negative persons includes: diagnosis pf primary or secondary syphilis or diagnosis with gonorrhea on 2 or more clinic visits in 12 months. This program is a comprehensive intervention that provides behavioral health and HIV prevention services to potential core transmitters of HIV and other STDs. Program clients presently receive periodic counseling, using the motivational interviewing technique. They are also offered on-site counseling for substance use and mental health if they screen positive. The VIP Program also strives to decrease the duration of infectiousness for enrolled individuals via regular screening, early diagnosis and prompt treatment of STDs.

Note that VIP program interventions are shifting after a systematic review of process and outcome data. At present, the eligibility criteria are currently under review. And in the future, the program will likely add a complete menu of behavioral health interventions, including some or all of the following: psycho-education, peer counseling, cognitive behavioral therapy, contingency planning, crisis intervention, and referrals to social services. Ultimately, the aim is to integrate behavioral health services, substance use services and HIV prevention services to comprehensively address the cofactors of HIV acquisition.

One main challenge of the VIP program is patient retention; however, recent Substance Abuse and Mental Health Services Administration (SAMHSA) Minority AIDS Initiative Targeted Capacity Expansion (MAI-TCE) funding has enabled the hiring of additional staff and allocation of resources to both retain participants and provide a broader spectrum of services. Specifically, MAI-TCE funding allowed the hiring of two additional social workers. With combined SAMHSA funding (including both MAI-TCE as well as funding for SBIRT), it has been possible to increase the behavioral health team to five licensed social workers. Cross-training of staff in both SBIRT and MAI-TCE will ensure full behavioral health coverage at all clinics. The reduction of each social worker's caseload in the context of this larger team also enables the provision of up to 12 sessions of counseling to each patient enrolled in the program.

Because current clinical guidelines recommend that STD screening be integrated into routine primary care for HIV-infected individuals (see, for example, NYS guidelines on STD screening at www.hivguidelines.org), BHIV does not refer HIV-infected persons to outside agencies for STD screening and has not dedicated line item funds for this purpose. Through HRSA's Ryan White medical case management funds ($33 million), HIV-infected patients have access to medical case management, which helps ensure that all treatment plans outlined by the primary HIV medical provider, including STD screening, are carried out.

The BSTDC's Private Case Investigation Unit (PCIU) continues to cover field investigation and interview services for patients of private providers on a full-time basis. The PCIU primarily interviews patients diagnosed with syphilis; however, because syphilis and HIV are closely linked, this unit often performs HIV interviews and partner notification for both syphilis and HIV. Approximately 42% of all HIV cases assigned for interview to PCIU staff are co-infected patients (with syphilis and HIV) from private providers. In addition, the PCIU staff works to expedite interview appointments with patients at a convenient and confidential location. Working closely with private providers has impacted outcomes of interviews and has influenced patients to cooperate with the health department with regard to partner notification and disease intervention services.

"Ask, Screen, Intervene" is a provider education curriculum also offered by the BSTDC's Region II STD/HIV Prevention Training Center in partnership with BHIV's Training and Technical Assistance Program (T-TAP). This training curriculum provides information on STD screening, prevention

messaging, tailored risk reduction interventions and partner services and is designed for clinical providers caring for HIV+ individuals. The course was developed by the National Network of STD/HIV Prevention Training Centers (NNPTC) in collaboration with the AIDS Education Training Centers (AETC), and the AETC National Resource Center and is offered 2 to 4 times throughout the year.

In addition to screening and linkage activities within the BSTDC, BHIV conducts Ryan White supported outpatient bridge medical care services to provide transitional, time-limited HIV primary medical care for PLWH who are not prepared to engage in HIV primary care in a more traditional setting. During intake activities, each client is screened for their sexual risk. This includes questions about their current sexual activity and risk behaviors (e.g., condom use, number of sexual partners), history of STIs and sexual practices). At subsequent visits, the provider focuses on reducing barriers to safer sex and provides both an STI symptom assessment and a physical exam. If appropriate, the provider also links patients to specialty care including GYN services.

Implementation of ongoing partner services for HIV-positive persons

Ongoing partner services are provided for HIV-positive persons by both the Field Services Unit (FSU) within BHIV's Epidemiology and Field Services Program, the Contact Notification Assistance Program (CNAP) and through the Bureau of STD Control's (BSTDC) Case Investigation and Partners Services (CIPS) program. Each of these programs is described below.

BHIV Field Services Unit (FSU). Begun in 2006, BHIV's FSU was first developed to work with health care providers at clinical sites located in the neighborhoods most heavily impacted by HIV. The goal of the FSU is to assist providers with partner elicitation, partner notification, testing of partners and linking both newly diagnosed patients and their HIV positive partners to care. The FSU has policies and procedures that comply with CDC's 2008 recommendations for partner services. Written policies and protocols are posted on the NYC DOHMH intranet site for staff.

Sixteen FTEs were devoted to non-health department clinical and large non-clinical sites, including CBOs that diagnose individuals with HIV for partner services in 2011. This includes testing sites that do outreach to homeless persons and other priority populations. The 14 FTEs do not include NYC DOHMH staff that provides partner services at NYC DOHMH STD clinics. In 2011, 1,770 cases were reported to the Field Services Unit for assistance with partner services, including 1,385 newly diagnosed patients and 385 prevalent cases. From all reported cases, 671 partners were notified and 53 newly-diagnosed partners were identified among those partners who were tested after reporting a negative or unknown HIV status (seropositivity of 7.9%).

The impact of the FSU is substantial: from 2007 through 2009, 91% (70/77) of patients newly diagnosed as a result of partner notification initiated care within 3 months, compared with 76% (4,066/5,365) of newly diagnosed patients not interviewed by FSU for PS. Patients newly diagnosed as a result of FSU partner notification were also less likely to be concurrently diagnosed with AIDS than newly diagnosed patients not interviewed by FSU for PS (16% [12/77] vs. 25% [1,321/5,365], respectively). In addition, BHIV analyzed data on homeless persons and found that PS outcomes were comparable or better for homeless persons when compared to PS outcomes for the rest of the FSU sample. In addition, patients and partners diagnosed with HIV are counseled by FSU staff on behavioral risk reduction, especially sexual risk reduction, and offered condoms.

The FSU has undergone some transformative innovation recently. In December 2011, all field staff were given Blackberries so that they can send text messages to clients as well as look up information on the internet while in the field. Staff report that this change has facilitated an improvement in locating clients and that the frequency and timeliness of responses from clients also have markedly improved. In February 2012, the FSU successfully introduced rapid OraQuick testing into the field. The switch from OraSure to OraQuick was due to laboratory processing changes. Staff training and adaptation to the OraQuick technology has been successful. FSU staff and partners alike report that they appreciate the more timely test results with the new technology. The FSU has taken additional steps to improve the ability of staff to reach partners of index cases for whom location information (address, telephone number, birth dates, etc.) cannot be obtained. Staff are equipped with smart phones (e.g., Blackberry devices)

and trained on texting. Staff also received training on conducting internet outreach to patients and named partners on social network and internet dating sites.

BHIV has also received Category C funds from PS 12-1201 to pursue a demonstration project to offer partner services and assistance with re-engagement in HIV-related medical care for persons with sustained high viremia. Patients are identified by implementation of a novel electronic health record (EHR)-based reporting system. This project would allow providers of either newly- or previously-diagnosed HIV-positive persons to be able to quickly and electronically request partner services. Staffing and formative groundwork for this demonstration project is currently underway.

Contact Notification Assistance Program (CNAP). CNAP is a health department program that assists providers and their HIV-diagnosed patients to notify HIV-exposed sex or needle-sharing partners of their possible exposure to HIV and assist the partners with obtaining HIV test and linkage to care if indicated. Providers and case-patients can request CNAP assistance by calling the CNAP number or providers can submit a request using the provider report form. Partner notification is anonymous – the index patient's identifying information is not shared.

BSTDC Case Investigation and Partner Services Program (CIPS). The BSTDC Case Investigation and Partner Services (CIPS) unit routinely investigates and performs partner notification for all primary and secondary, early latent, latent syphilis of unknown duration, and high titer late latent cases (based on CDC case definitions), lymphogranuloma venereum (LGV) cases reported citywide, gonorrhea cases diagnosed in the Crown Heights clinic (a high morbidity area), as well as any confirmed HIV-positive case (newly-diagnosed cases, or prevalent cases with syphilis, LGV, CT or GC co-infection) or HIV cases referred to BSTDC CIPS for partner notification by the BHIV. The CIPS unit also investigates and interviews patients who test positive for CT or GC identified through our high school screening program, STEP-UP. BSTDC occasionally provides partner services for other STDs upon request of private providers, or upon request from other jurisdictions. In addition to standard notification efforts, explicit protocols have been developed for health department notification of partners via internet (e.g., using email, cruising sites, and social networking sites).

BSTDC partner services are performed by STD clinic and field service employees. The Private Case Investigation Unit (PCIU) is a field services program which investigates cases identified outside of the STD clinic system (see above).

All individuals diagnosed with HIV (acute and non-acute) in a NYC BSTDC STD clinic are interviewed for risk behavior(s) and partner information by STD clinic or STD field staff. In addition, all individuals who have a prior history of HIV infection documented in their STD electronic medical record who are diagnosed with a new syphilis infection are interviewed for partner information. As a result of recent changes to Chapter 308 of the Public Health Laws of 2010, BSTDC and BHIV are better able to share relevant data regarding individuals who are co-infected with HIV and syphilis. This improved data sharing has aided effective and efficient prioritization of investigations for newly diagnosed cases of syphilis and contact investigations for those persons that have known exposure to a diagnosed case of HIV. All newly hired BSTDC staff members in the title of Public Health Advisor (Senior, Level I, Level II, and Assistant PHA), as well as Community Coordinators and Public Health Educators, are required to complete core training contained in the CDC Employee Development Guide. This guide covers STD interviewing, STD case management, STD case management and analysis, and principles of field investigation. Upon completion of these training modules, staff shadow experienced PHAs for several months. BSTDC staff must also complete the CDC two week mandatory training entitled "Introduction to Sexually Transmitted Disease Interviewing" (ISTDI), which trains staff in the techniques used in STD interviewing, as well as STD case management and field investigations. Supplemental training for all BSTDC staff includes the CDC approved 3-day partner services training, and one day training on motivational interviewing to enhance disease intervention efforts. It is also the Bureau's recommendation that all supervisory staff attends the Advanced STD Interviewing (ASTDI) course after a minimum of six months on the job, and periodically thereafter to stay current with changes occurring within their field of work.

The CIPS Unit conducts a large number of field investigations and partner services interviews. In 2011, 1,158 interviews were conducted for 716 cases of primary and secondary syphilis and 442 cases of HIV. The 2011 contact index (number of partners named per index case) was 1.03 for syphilis and 1.7 for HIV.

NYC DOHMH's Region II STD/HIV Prevention Training Center also covers partner notification in both the STD Intensive Course and the STD Adolescent Intensive Course. Both courses are offered twice annually, and reach the target audiences of physicians, nurse practitioners, nurses, and physician assistants who provide clinical care.

Behavioral risk screening followed by risk reduction interventions for HIV-positive persons at risk of transmitting HIV

Prior to 2009, behavioral risk reduction screening and intervention programs funded by NYC DOHMH were almost exclusively focused on HIV-negative individuals. Beginning in 2008-2009, BHIV began to shift the balance of its risk reduction screening and intervention activities toward the highest prevalence populations, including HIV positive individuals, as internal modeling suggested that risk reduction programs focusing on high prevalence populations were relatively cost-effective.[42,43]

Beginning in 2009, BHIV funded five New York City community-based organizations to conduct behavioral interventions whose primary population of focus was HIV-positive individuals. These interventions included risk reduction programs for HIV positive individuals that form part of CDC's Compendium of Evidence-Based Interventions, including Healthy Relationships, Willow, and a home-grown intervention for HIV-positive MSM entitled "Men's Health." In 2010, BHIV transitioned three of its behavioral risk reduction programs serving high risk HIV-negative women to programs focusing on HIV-positive women of color. BHIV technical assistance coordinators assisted agencies with the implementation of the new intervention, including facilitating training, conducting teach-backs, piloting sessions of the intervention and providing on-site support. These interventions were jointly funded by CDC's Cooperative Agreement for HIV Prevention (PS10-1000) and New York City tax levy dollars.

Approximately 700 HIV-positive clients were served in dedicated behavioral risk screening and risk reduction programs in 2011. As part of routine outcomes evaluation for behavioral risk reduction interventions, all clients are given a comprehensive baseline behavioral risk assessment prior to starting the intervention and are followed for 1-3 months after the conclusion of the intervention. The baseline assessment for HIV-positive clients assesses sexual risk behavior within the last 30 days including: number and type of sexual partners, condom usage for vaginal and anal sex, sexual exchange, sex with a new sexual partner without disclosing his/her HIV status, and condom use during sex with a partner who did not know the client's status. The assessment also queries the likelihood of refusing unsafe sex after drinking or using drugs and the likelihood of disclosing to the client's next sexual partner. Additionally, all Ryan White Part A programs have standardized sexual risk and substance use (including injection behavior) questions available in eSHARE for client-level data collection and reporting. Both sets of risk questions are required for Medical Case Management, Mental Health, Harm Reduction, Supportive Counseling, Outreach to Homeless Youth, and Supportive Housing programs, at intake and reassessment. Specific health promotion trainings focused on risk reduction have been conducted within Care Coordination, Transitional Care Coordination and Outreach to Homeless Youth contractors. Further, specific evidence-based interventions (e.g., Seeking Safety, Healthy Living Project, Therapeutic Education System and Motivational Interviewing) are being implemented by Ryan White Harm Reduction providers, with services to begin September 2012.

Prevention with Positives Pilot Program. In 2010-2011, the NYC BHIV also developed a 'Prevention with Positives' (PwP) advisory group to develop and implement a provider-delivered pilot PwP program across six of the largest HIV primary care clinical sites in NYC. The overall aims of the pilot are to determine the most effective and feasible of three models of clinic-based risk assessment followed by risk reduction counseling (each of which includes a provider-delivered prevention component). During the planning and development phase, the advisory group identified the most effective and appropriate provider-delivered models to be adapted for the pilot program (including the models deployed in Partnership for Health, Options Project, and Positive S.T.E.P.S.[44-46] The pilot includes use of a behavioral risk screening tool administered to all HIV-positive patients seen at each participating clinic site. Individuals screening 'risk

behavior positive' using the screening tool will receive one of three interventions, depending on the clinic site: a brief provider-delivered risk-reduction intervention (arm 1), a brief provider-delivered risk reduction intervention plus an enhanced individual counseling intervention (arm 2), and a brief, provider-delivered risk reduction intervention plus a group counseling risk-reduction session that takes place at the clinical site (arm 3). To date, implementation of the arm 1, supported by Year 1 ECHPP and CDC 12-1201 funds, is underway. In the first 3 months of the pilot at two arm 1 sites, 836 patients were screened, 132 (15%) self-reported ongoing sexual risk, and 86 (65%) patients received provider counseling as documented in their electronic medical record. The PwP Advisory Group is also in the process of recruiting clinical sites already equipped with electronic medical records systems (EMRs) for arms 2 and 3, so that all data elements from the pilot can be entered and collected via EMR systems. Once recruited, each HIV clinic will be provided on-site training and technical assistance in properly implementing and integrating the PwP pilot into their clinic flow. Data analysis from the PwP pilot will be used to inform future RFP development for interventions focusing on secondary HIV prevention activities.

The Positive Life Workshop. Another recent development by the NYC DOHMH has been the Positive Life Workshop (PLW). This is a curriculum designed to enhance participant self-efficacy to manage HIV and to achieve four primary goal behaviors: (1) increased engagement in health care, (2) increased adherence to health routines, (3) reduced risk behavior, and (4) improved performance on bio-psycho-social drivers and determinants of health affecting health outcomes for persons living with HIV. Between October 1, 2011, and July 1, 2012, DOHMH implemented six Positive Life Workshop programs (five four-hour introductory classes, and one intensive two-day class). At least one workshop was held in every borough. The second year program development will incorporate a new participant recruitment strategy which will focus on development of HIV medical and support service provider partnerships to host workshops. Workshop materials will be translated into Spanish in 2012-13, enhancing bilingual staff and peer ability to reach Spanish speaking PLWH.

Collaboration and Integration

Launched in 2010, PCSI (Program Collaboration and Service Integration) is a new initiative funded by CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP). Based in the Office of the Deputy Commissioner of the Division of Disease Control, PCSI was developed to strengthen collaboration across HIV/AIDS, STD, tuberculosis (TB), and viral hepatitis programs. Additional goals include decreasing duplication of efforts across DOHMH programs, improving data sharing across programs to better understand co-occurrence and co-infection of disease, and facilitating delivery of integrated services to the public. PCSI facilitates coordination across all Disease Control programs as well as other DOHMH partners working with populations at risk for HIV, STDs, TB and viral hepatitis. Projects are organized into three main areas: data sharing, training/communication and service integration.

BHIV participates fully on several PCSI committees to facilitate collaboration, including the PCSI Steering Committee and the PCSI Data Advisory Committee. The latter works specifically on data sharing and integration and is comprised of the individuals responsible for core data reporting for each of the PCSI diseases, as well as representatives from Disease Control and the Division of Informatics and Information Technology leadership. The DOHMH Chief Privacy Officer, the Commissioner of Health's Public Health Consultant, and a representative from the Enhanced Comprehensive HIV Prevention Planning (ECHPP) management team also participate. Of note, there is also a PCSI Community Advisory Committee to establish direct communication with community service providers and to ensure that PCSI activities address the needs of impacted communities.

GOALS AND STRATEGIES: COMPREHENSIVE PREVENTION WITH POSITIVES

Linkage to Care Goals:

Goal 1: Promote prompt linkage to HIV care among newly diagnosed HIV-positive persons.

> **Strategy 1:** Provide training (motivational interviewing and ARTAS) and technical assistance (including peer technical assistance and best practice modules on linkage-to-care) for all DOHMH-funded HIV testing contractors.

Strategy 2: Continue to incentivize prompt linkage to care through HIV-testing contracts with clinical and non-clinical entities.

Strategy 3: Facilitate prompt and consistent linkage to care among persons tested and newly-diagnosed by public health advisors (PHAs) as a result of partner notification.

Strategy 5: Continue to support prompt linkage to care among individuals identified through Ryan White-funded harm reduction, outreach to homeless youth, and early intervention services.

Strategy 6: Ensure that all non-clinical testing programs have a memorandum of understanding (MOU) with an HIV primary care program to facilitate prompt linkage to care for all newly diagnosed patients.

Strategy 7: Use the contracting process to ensure that all DOHMH-funded Care Coordination contractors see any referred newly-diagnosed individual within 72 hours.

Retention/Re-engagement in Care Goals

Goal 2: Promote continuity of HIV care, especially among sociodemographic groups with poor HIV-related health outcomes.

Strategy 1: Continue support, as funding allows, for early intervention services that identify individuals who are out of care and support their re-engagement in HIV primary care (or first-time engagement if they are previously diagnosed but were never linked to HIV care).

Strategy2: Continue support, as funding allows, for medical case management services including the Care Coordination program and Transitional Care Coordination for homeless or unstably housed individuals, as well as programs following recent jail releasees for their connection to HIV medical care and other needed services in the community.

Strategy 3: Allocate resources for activities aimed at reducing gaps in care among sociodemographic groups with poorer HIV-related health outcomes (e.g., by race/ethnicity, risk factor, neighborhood).

Goal 3: Re-engage into primary HIV medical care persons out of care.

Strategy 1: Continue support, as funding allows, for key components of harm reduction, early intervention, and food and nutrition program activities that return out of care persons back to care.

ART Therapy/Treatment Goals

Goal 4: Promote optimal management of HIV infection, including early antiretroviral treatment in accordance with current treatment guidelines for HIV-positive persons.

Strategy 1: Support dissemination and education of NYC providers regarding optimal management of HIV infection, including early ART.

Strategy 2: Provide technical assistance to Care Coordination providers to support provision of antiretroviral treatment in accordance with current treatment guidelines.

Strategy 3: Continue to use program performance data within technical assistance and quality management activities for Care Coordination providers to improve program quality and service delivery in programs.

Goal 5: Integrate STD screening, mental health, substance abuse and other social services for HIV-positive persons.

Strategy 1: Maintain support, as funding allows, for medical case management Care Coordination programs that assess client need for medical and psychosocial services to support maintenance in HIV primary care, STD screening, and make all necessary referrals while coordinating the individual's care.

Strategy 2: Continue to allocate NYC DOHMH resources, as funding allows, to support a continuum of care model of medical and support services, including mental health treatment, substance use treatment, food and nutrition, housing, home care, legal, health education and supportive counseling programs to address the clinical and psychosocial needs of PLWH.

Strategy 3: Optimize mental health and substance use services for PLWH to reduce barriers to medication adherence and educate providers on the impact of mental health and substance use issues on ART medication adherence.

Viral Suppression Goals:

Goal 6: Increase the proportion of HIV-positive persons who achieve and maintain viral suppression.

Strategy 1: Maintain support, as funding allows, for protocol-driven medical case management Care Coordination programs that emphasize treatment adherence and expand capacity to address unmet need if additional funding is available.

Strategy 2: Improve sharing of Care Coordination program data back to Care Coordination programs.

Strategy 3: Use program performance data and quality management data from Care Coordination Program to guide the implementation of strategies for improving medication adherence.

Strategy 4: Offer evidence-based interventions to address ART adherence issues to clients within Ryan White harm reduction programs.

Goal 7: Reduce sociodemographic differences in achievement and maintenance of virologic suppression.

See **Strategies 1-4**, above.

Strategies 5: Continue support, as funding allows, for the AIDS Drug Assistance Program (ADAP) and ADAP Plus which fund antiretroviral therapy and outpatient medical care for those New York City residents without other insurance coverage.

Goal 8: Provide HIV-positive persons with skills for self-management of HIV to achieve virologic suppression .

Strategy 1: Develop new PwP patient materials for use in provider encounters.

Strategy 2: Enhance recruitment into Positive Life Workshop with a specific focus on newly diagnosed individuals, out of care and those in need of treatment adherence support.

Strategy 3: Translate Positive Life Workshop manual and materials into Spanish in a culturally competent manner.

Strategy 4: Develop partnerships with community-based organizations to expand reach of the workshops.

Perinatal Prevention Goals:

Goal 9: Eliminate perinatal HIV transmission in concert with the CDC definition for the elimination of perinatal HIV transmission.

Strategy 1: Continue to integrate the prevention of perinatal HIV transmission into routine prenatal and HIV primary care. Continue to maintain prevention of mother-to-child HIV transmission through a standard-of-care approach in New York State.

Strategy 2: Continue ongoing monitoring, review and analysis of all cases of HIV-exposed births. Conduct expedited medical record review for each perinatal transmission when identified by the Pediatric HIV Testing Service.

Strategy 3: Continue monitoring birth facility compliance with regulations by the New York State Department of Health AIDS Institute's Perinatal HIV Prevention Unit, and respond to emerging issues related to non-compliance.

Strategy 4: Continue to engage those who have expertise in the care of HIV-positive pregnant women and exposed infants, soliciting recommendations from the experts that would increase access to, and retention in, care for HIV-positive women and children, particularly those who are hard-to-reach, including pregnant women with a history of or active substance use.

Behavior Modification/Secondary Transmission Goals

Goal 10: Continue to offer STD screening for all HIV-positive BSTDC clinic patients and promote STD screening for all HIV-positive patients according to current treatment guidelines.

Strategy 1: Provide training, education and support to BSTDC staff and funded clinical agencies serving HIV-positive individuals to ensure that all HIV positive patients receive STD screening services according to current treatment guidelines.

Strategy 2: Enhance engagement with core transmitters of HIV and other STDs to decrease the duration of infectiousness via, early diagnosis and linkage to HIV primary medical care, early ART, regular screening and prompt treatment of STDs, and tailored behavioral interventions.

Goal 11: Normalize behavioral risk screening and risk reduction counseling for HIV-positive persons in clinical settings to decrease risky behavior.

Strategy 1: Continue recruiting HIV clinical sites/providers to implement PwP models as part of the PwP pilot program.

Strategy 2: Provide training, technical assistance, and logistical support to recruited clinical sites that are participating in the PwP Pilot.

Strategy 3: Compare three models of provider-delivered PwP intervention models to determine the most effective, appropriate, and scalable model to reduce high risk sexual behaviors among clinic patients city-wide.

Goal 12: Provide HIV-positive persons with education and motivation for behavior change to improve health outcomes and reduce ongoing risk of transmission of HIV.

Strategies 1-4: See Goal 8, strategies 1-4.

Strategy 5: Conduct health promotion sessions specifically focused on risk reduction and improved antiretroviral adherence with Care Coordination program enrollees.

Strategy 6: Train and begin enrolling clients in the Healthy Living Program and Seeking Safety, through those Ryan White Harm Reduction contractors that have elected to offer these evidence based interventions.

Goal 13: Increase HIV testing and linkage to care among partners of persons **previously diagnosed** with HIV who are newly referred because they are pregnant, have unresolved partner issues, or who are co-infected with STDs.

Strategy 1: Offer HIV rapid testing to notified partners of HIV positive persons who report HIV negative or unknown HIV serostatus.

Strategy 2: Use telephone, social network sites, emails and text messaging to increase the proportion of partners with negative or unknown HIV serostatus who are reached and notified.

Strategy 3: Continue development of electronic referral for partner services assistance (category C demonstration project).

Goal 14: Increase testing and linkage to care (for those who test positive) among partners of persons **newly diagnosed** with HIV at STD clinics and FSU sites.

Strategy 1: Offer HIV rapid testing to notified partners of previously diagnosed HIV positive persons who report HIV negative or unknown HIV serostatus. Ensure that those who test positive are promptly linked to HIV primary care.

Strategy 2: Use telephone, social network sites, emails and text messaging to increase the proportion of partners with negative or unknown HIV serostatus who are reached and notified.

Goal 15: Increase testing and linkage to care (for those who test positive) among partners of persons **newly diagnosed** with HIV at non-FSU sites.

Strategy 1: Promote referrals to the CNAP program from non-FSU sites by outreach to providers at non-FSU clinics throughout the city promoting services offered by CNAP.

Strategy 2: Develop streamlined referral to the CNAP program allowing providers to quickly and electronically request partner services for patients with ongoing risk.

Strategy 3: Use confirmatory HIV test reports submitted to NYC DOHMH to initiate partner services for patients tested at non-FSU sites.

Strategy 4: Offer HIV rapid testing to notified partners of newly diagnosed HIV positive persons who report HIV negative or unknown HIV serostatus.

Strategy 5: Use telephone, social network sites, emails and text messaging to increase the proportion of partners with negative or unknown HIV serostatus who are reached and notified

Goal 16: Foster development of innovative PwP interventions; such programs may address any behavioral risks or structural barriers to care or treatment.

Strategy 1: Solicit proposals for demonstration projects addressing secondary HIV prevention as part of a comprehensive HIV prevention portfolio re-bid.

Strategy 2: Provide training and technical assistance to programs newly funded for secondary HIV prevention.

Strategy 3: Use program performance data and quality management data to inform providers and guide program implementation.

Collaboration and Integration Goals:

Goal 17: Collaborate with other NYC DOHMH Division of Disease Control programs through the program collaboration service integration (PCSI) initiative to integrate testing, partner services, vaccination and treatment.

Strategy 1: Engage in data sharing between NYC DOHMH Bureaus to optimize individual and public health outcomes, as allowable by prevailing NYS law.

Strategy 2: Participate in PCSI Steering Committee and PCSI Data Advisory Committee meetings to discuss PCSI activities including ongoing plans for data sharing, data analyses, and dissemination of findings.

Strategy 3: Contribute to the development of integrated curricula for clinical and nonclinical agencies, where appropriate, to increase their competence screening for and efficiently managing PCSI diseases.

Strategy 4: Support the process of integrating partner services activities across disease areas to increase efficiency and improve client outcomes.

Strategy 5: Complete a detailed syndemic analysis of New York City using cross-matched data for PCSI diseases (HIV, STD, Hepatitis B and C, and TB).

Strategy 6: Disseminate findings from syndemic analysis to clinical entities, community-based organizations and other stakeholders.

Strategy 7: Conduct a community needs assessment with a focus on service integration based on results of the syndemic analysis.

Strategy 8: Continue to seek new opportunities for data-sharing between NYC DOHMH Bureaus to provide a more integrated picture of overlapping co-morbidities and to identify areas for more efficient coordination of services.

Goal 18: Promote system level change in clinical institutions that will improve all aspects of care for persons living with HIV.

Strategy 1: Solicit proposals for system-level change in clinical institutions as part of a comprehensive HIV prevention portfolio re-bid.

Strategy 2: Provide training and technical assistance to programs newly funded for secondary HIV prevention.

Strategy 3: Use program performance data and quality management data to inform providers and guide program implementation.

Strategy 4: Leverage results of system-level projects to inform potential scale up of system level change implementation city wide.

Goal 19: Promote innovative pilot projects, supported by data, to optimize care and risk-reduction among persons living with HIV.

Strategy 1: See strategies for goal 15.

SITUATIONAL ANALYSIS: CONDOM DISTRIBUTION

The NYC DOHMH has had a free male condom distribution program since 1971 and a free female condom distribution program since 1998. In the 1980s, the onset of HIV/AIDS led to the expansion of free male condom distribution to HIV/AIDS service organizations and organizations that served injection drug users. During the 1990s, the NYC DOHMH increased free condom distribution by expanding public outreach to traditional health and social service agencies, and in 2005, the Health Department further streamlined the condom distribution process by launching a condom website for online ordering. This website allowed community service organizations, community-based organizations, small businesses, clinics, and other venues to place standing orders to receive bulk shipments of free condoms at regular intervals. Following the advent of the web-based condom ordering system, average monthly condom distribution increased from 250,000 in May 2005 to 1.5 million in June 2006. In 2007, the agency set a national precedent by branding a standard Lifestyles® lubricated condom as the 'NYC Condom' to increase distribution and visibility and to normalize condom use. In the first year of branding the distinctly 'Gotham' NYC Condom, distribution increased by approximately 100% from an average of 1.5 million male condoms distributed per month to more than 3 million male condoms distributed per month. In fall 2008, in response to program survey feedback, the Health Department further expanded male condom distribution to include alternative male condom types (e.g., larger, ultra-sensitive, and ultra-strength). Total male condom distribution in 2011 exceeded 36 million condoms. Total female condom distribution in 2011 reached almost 1.3 million condoms. NYC Condoms can now be found at over 3,900 locations around the city.

Results from the previously described HIV prevention cost-effectiveness modeling project suggest that condom distribution is an effective and feasible strategy for reducing HIV transmission. While modeling results suggest that free condom distribution is cost-effective to both HIV-positive and HIV-negative individuals, condom distribution was found to be most cost-effective when distributed to high risk HIV-positive individuals. Based on the results of the cost-effectiveness modeling and epidemiologic data, condom distribution in New York City is focused on priority populations including HIV-positive persons, gay men and other men who have sex with men (MSM), transgender women who have sex with men, blacks, Latinos, and individuals struggling with drug addiction, including injection drug users. The following sections will describe condom distribution activities focused on each of these priority populations.

Condom Distribution to HIV-positive Persons

Starting in early 2011, the New York City Condom Availability Program began working with the HIV Care, Treatment and Housing Unit, the American Board of Medical Specialties, and the Division of Professional Licensing Services of the New York State Education Department to compile a complete listing of all HIV/ Infectious Disease (ID) medical providers and HIV primary care clinics in NYC. A Condom Recruitment Specialist was hired in March 2011 to actively recruit non-participating Infectious Disease clinics and medical providers to become condom distribution partners. By the end of 2011, all HIV primary care clinics and ID medical providers on the list had been systematically approached for enrollment in the NYC Condom Availability Program and 99% of clinics were either added as new distribution partners or confirmed as current distribution partners. In addition to condom distribution in clinical sites serving HIV-positive persons, HIV-positive individuals can obtain free male and female condoms at HIV service organizations, CBOs serving primarily HIV positive individuals, New York City STD clinics, and non-traditional sites distributing condoms in high prevalence areas within NYC.

The Field Services Unit (FSU) within BHIV routinely distributes condoms following interviews with HIV-positive persons or during notification of HIV-exposed partners. In September 2011, to ensure that all FSU staff had the proper knowledge of condoms, the Condoms & Materials Distribution Unit provided training to all FSU staff demonstrating proper condom use and providing a programmatic overview of the NYC Condom Availability Program. As a part of routine partner notification activities, FSU staff distribute "gift bags" containing male and female condoms and HIV prevention information, including a brochure explaining correct condom use and storage. In 2011, 100% of all HIV-positive persons and exposed partners interviewed by the FSU were offered condoms.

Additionally, condom distribution to HIV-positive persons is encouraged through the PwP Pilot Program, the novel clinic-based, provider-delivered risk reduction intervention described earlier. These clinical sites, all HIV primary care sites, receive condoms for distribution to their clinic population. Emphasis is placed ensuring that that condoms are easily accessible, even placed directly in exam rooms, so that providers can be sure to distribute them at the time of risk reduction counseling.

Condom distribution to high risk, HIV-negative persons in New York City

In 2011, the DOHMH funded three agencies to distribute male/female condoms and lubricant in neighborhoods of greatest health disparities. The goal of these contracts is to increase male and female condom access for the residents of neighborhoods most heavily impacted by HIV in NYC, including: East and Central Harlem, Washington Heights, the South Bronx, and Central Brooklyn. The program uses an active distribution model to promote program services and provide materials to non-traditional sites (e.g., hair salons, nails salons, barbershops), high-risk locations (e.g., private or commercial sex-on-site locations, sex solicitation locations, areas associated with drug use, premises of social service/drug treatment), health fairs, special neighborhood events and sex parties. All of these enhanced activities raise the profile of the NYC DOHMH Condom Availability Program in these prioritized communities. In 2011, these funded agencies distributed 4,423,308 condoms in high prevalence neighborhoods.

In addition to the three contracts funded to distribute condoms in high prevalence neighborhoods, BHIV contracts with one vendor specifically to distribute male/female condoms and lubricant to agencies, organizations, and businesses whose clientele is primarily gay/MSM or gay-friendly. A venue is defined as an 'MSM specific' venue if 50% or more of the clientele (as defined by management) are part of the Lesbian, Gay, Bisexual, or Transgender (LGBT) community. A venue is defined as an ‘MSM Friendly’ venue when 25-49% of the clientele (as defined by management) are part of the Lesbian, Gay, Bisexual or Transgender (LGBT) community, or if the venue has at least one designated Gay Night to attract members of the gay/LGBT community. At the end of 2011, the NYC Condom Availability Program had identified 196 MSM-specific venues, 175 (94%) of which are active condom distribution partners (receiving condoms on a weekly/biweekly basis, dependent on need). In 2011, 2,010,000 condoms were distributed to these venues.

In addition to active condom distribution through the MSM venue network and through the three agencies funded to distribute condoms among high risk populations, organizations serving high risk groups can order free male condoms and water-based lubricant by calling 311 or through the following website, www.nyc.gov/condoms. The NYC DOHMH website also provides information on where and how to obtain free condoms, the importance of condom use, how to correctly use condoms, and where and how to find other HIV/STD resources in the city. The website allows high risk individuals to access condoms in their community by searching for products by zip code or borough. Female condoms and alternative male condoms (e.g., larger, thinner, ultra-strength) are also made available to agencies or organizations serving high risk clients that would like to provide a variety of safer sex products by sending a direct email request to the Condoms and Material Distribution Unit. NYC Condom distribution partners include traditional public health agencies (e.g., clinics, hospitals, CBOs, shelters), schools, and businesses (e.g., health clubs, bars, barbershops, nail salons, clothing stores, colleges/universities, hotels).

Condom Distribution in Correctional Settings

In order to reduce the transmission of HIV infection and other STD’s, within the NYC jail system, the New York City Department of Corrections (DOC) has policies and procedures in place to ensure that condoms are made available to all patients at DOC medical clinics. Three male condoms per clinic visit are provided to male clinic patients by medical staff and public health educators. For security reasons, inmates are only allowed to carry three condoms at a time. Condoms are distributed to inmates upon request and each clinic is required to have signs posted to inform patients of condom availability. Policies are in place to ensure that clinic staff are educated on condom use, and to ensure condoms are distributed in a neutral, non-judgmental manner. Both male and female inmates receive condoms as part of a discharge kit: women receive three male and two female condoms with lube and men receive three male condoms.

Condom Distribution in NYC Public Schools

Condom distribution in public high schools in New York City occurs through a unique collaboration between the BHIV's NYC Condom Availability Program and the Office of Schools Health, a joint program of the NYC DOHMH and the New York City Department of Education (DOE). The NYC Condom Availability Program provides training for Health Resource Room staff and the supplies for condom distribution (both male and FC2 condoms and lubricant), while the Office of School Health coordinates delivery and distribution of these products through the schools' Health Resource Rooms.

Innovative uses of new media and social marketing

The NYC Condom Availability Program is dedicated to expanding the boundaries of conventional HIV Prevention programming by using new media and incorporating new technology into the program's educational and recruitment strategies. Beginning in February 2009, the NYC Condom Availability Program established a presence on social media platforms, allowing the program to have increased engagement with the public while expanding condom awareness, visibility, and customer service. The NYC Condom Availability Program became one of the first municipal programs in New York City to use Facebook's social media platform as a venue to address programmatic questions, concerns, and dispel misinformation. The NYC Condom Facebook page continues to thrive at nearly 20,000 fans. The page provides a forum to educate fans about safer sex and proper condom use, to inform fans about where they can locate free safer sex products in NYC, to promote the community presence of the NYC Condom Availability Program, and to dispel any misinformation about the NYC Condom and condom use in general.

On February 14, 2011 (National Condom Day), the Condom Availability program launched the *NYC Condom Finder*, a free smartphone application initially available on Apple and Android smartphones and designed to locate the five nearest venues that distribute free NYC Condoms. The application allows users to determine their location through use of either global positioning system (GPS) technology on their smartphone or by manually entering an address. The application also provides specific directions to each venue (the user can choose walking, driving or public transportation directions), the hours of operation for each location, the types of safer sex products available, and helpful tips on condom usage. Over 665 condom distribution locations throughout the five boroughs currently are accessible through the mobile application. One year after its initial debut, the program expanded its NYC Condom Finder smartphone application to Blackberry and Windows phones and also launched a newly designed mobile website. Since their launch, the smartphone applications have been downloaded over 29,500 times (on all platforms combined).

As a result of these innovative approaches to condom distribution, The NYC Condom Availability Program has been identified by CDC as a "model" condom distribution program and will be sharing lessons learned, best practices, and essential resources in CDC's upcoming structural intervention toolkit. Additionally, the New York City Condom Availability Program has provided technical assistance to many jurisdictions nationally and internationally, providing programmatic, marketing and social media data as requested. In 2011, the NYC Condom Availability Program provided technical assistance on general condom distribution, condom wrapper design, wrapper design contests, and condom smart phone applications to the following jurisdictions: Philadelphia, Pennsylvania; Baltimore, Maryland; Miami, Florida; Chicago, Illinois; Rockland County, New York; Washington State; Atlanta, Georgia; Belleville and Ottawa, Ontario; Los Angeles, California; Medellín, Colombia; and London and Liverpool, England.

Success/Impact of Condom Distribution Activities

Condom use among New York City residents is routinely evaluated using the annual NYC Community Health Survey (CHS) and the bi-annual BHIV High Risk Behavioral Surveillance survey. The New York City CHS is an annual, random-digit dial telephone survey of adult New York City residents designed to provide neighborhood, borough and citywide estimates. According to the CHS, condom use (as measured by condom use at last sex) among never-married New York City residents has been trending upward from 53% in 2002 to 54% in 2010.

Condom use among high-risk populations is evaluated utilizing BHIV's High Risk Behavioral Surveillance (HRSB) activity. The HRBS is a bi-annual survey of MSM (18-44) and Black women and Latinas (18-64). The HRBS provides a more frequent and focused means to monitor HIV risk behaviors among high risk groups New York City. The HRBS project was proposed in early 2008 and implemented by the HIV prevention program in early 2009. A convenience sample is obtained from online and in-person venues that specifically cater to gay men/MSM or women of color. Among MSM sampled in spring 2012, 91% (n=539) reported having seen the NYC condom and 48% reported having used an NYC condom in the past six months. Fifty-eight percent of online and 80% of in-person MSM respondents reported using a condom at last anal sex. Among sexually active women of color, 44% reported using a condom at last sex. The percentage increases to 52% when restricted to only non-married women.

Beginning in early 2013, BHIV plans on repeating a comprehensive survey evaluating the NYC Condom program that was originally conducted in 2007-8. The primary objectives of this evaluation activity are to (1) identify trends in usage and acceptability of the NYC Condom and free alternative condom among sexually active New York City residents; and (2) construct an estimate of individual engagement with the NYC Condom program (number of individuals taking at least 1 NYC condom per year); and (3) assess change in overall NYC condom awareness and NYC condom use since 2007. The secondary objectives of the evaluation are to identify trends in use of lubrication, determine demand for free lubricant, and determine exposure to and impact of condom-related social marketing and new media activities.

GOALS AND STRATEGIES: CONDOMS

Goal 1: Increase access to a variety of condoms, and normalize condom use for HIV-positive persons and their partners through targeted distribution.

> **Strategy 1**: Increase the number of HIV primary care clinics that are condom distribution partners and have standing orders for condoms through the NYC Condom Availability Program.
>
> **Strategy 2:** Work to ensure that all clinics participating in BHIV's Prevention with Positives pilot have condoms placed in all exam rooms for easy access to providers and patients during routine visits.
>
> **Strategy 3:** Maintain 100% free condom distribution to HIV-positive persons and HIV-exposed persons who receive partner services from the BHIV Field Services Unit.

Goal 2: Increase correct and consistent condom use among all sexually active HIV-positive persons in NYC.

> **Strategy 1:** Provide education and technical assistance regarding correct condom use to programs serving HIV-positive persons, including all Ryan White programs, partner services, and BSTD clinics.
>
> **Strategy 2**: Improve condom use knowledge among clinical and nonclinical providers by incorporating basic condom use training into all New York City STD/HIV Prevention Training Center (PTC) and BHIV Training and Technical Assistance Program (T-TAP) courses.
>
> **Strategy 3**: Update and/or enhance condom education materials for sexually active, HIV-positive persons.

Goal 3: Increase correct and consistent condom use among all sexually active MSM and other persons at increased risk for HIV in NYC.

> **Strategy 1:** Provide education and technical assistance regarding correct condom use and storage to all contracted HIV prevention programs, including HIV testing programs, syringe service programs, and programs currently in development through a comprehensive HIV prevention portfolio rebid.

Strategy 2: Through partnerships with community based organizations, conduct basic education about correct condom use to persons at highest risk of HIV.

Strategy 3: Update and/or enhance condom education materials for sexually active, persons at highest risk of HIV acquisition.

Strategy 4: Use data to further explore ways to measure and enhance acceptability of the New York City condom among persons at highest risk of HIV acquisition.

Strategy 5: Use innovative social marketing, media and health communication to increase condom visibility and knowledge of condom use among persons at highest risk of HIV acquisition.

Strategy 6: Provide condom education and demonstrations at a variety of settings (including, but not limited to health fairs, community events, street fairs, Gay Pride events) citywide to increase knowledge of condom use among sexually active MSM and other persons at increased risk for HIV in NYC.

Strategy 7: Reduce organizational barriers to condom availability and proper use among jail detainees.

Strategy 8: Explore opportunities to gain support for condom use and/or condom normalization by popular opinion leaders and public figures.

Goal 4: Establish and maintain organizational support for condom distribution and promotion activities among businesses and community-based organizations that serve persons at highest risk for HIV or that are located within high prevalence communities.

Strategy 1: Maintain the current number of traditional venues (e.g., CBOs, ASOs) that distribute free male and/or female condoms.

Strategy 2: Maintain condom distribution in at least 90% of non-traditional venues serving gay men and other MSM (e.g., bars, clubs).

Strategy 3: Increase the number of non-traditional venues in high prevalence neighborhoods (e.g., beauty salons, bodegas) that distribute free male and/or female condoms.

Strategy 4: Provide logistical support, training and technical assistance to staff and administrators at both traditional and non-traditional venues that partner with NYCAP in condom distribution.

Strategy 5: Conduct quality assurance visits to condom distribution sites (prioritizing distribution networks, such as HIV Primary care clinics, and MSM networks)to ensure that condoms and lubricant are being stored and distributed in accordance with manufacturers' standards.

Goal 5: Increase accessibility to condoms and normalize condom use for all sexually active New York City residents.

Strategy 1: Make condoms widely available citywide in commonly visited venues (e.g., hair salons, barbershops, restaurants, clubs, retail venues, clinical and social service agencies).

Strategy 2: Promote the use of the NYC Condom Facebook page and the *NYC Condom Finder*, BHIV's interactive smartphone application to enhance sexually-active New York City residents' ability to locate and access free condoms.

Strategy 3: Continue to provide condoms (male and FC2) and lubricant to the Office of School Health to facilitate distribution in the Health Resource Rooms of NYC public high schools.

Goal 6: Increase correct and consistent condom use among all sexually active New York City residents.

Strategy 1: Use innovative social marketing, media and health communication to increase condom visibility and knowledge of condom use among sexually active New York City residents.

Strategy 2: Provide condom education and demonstrations in a variety of settings (including, but not limited to, health fairs, community events, street fairs) citywide to increase knowledge of condom use among sexually active New York City residents.

Strategy 3: Continue to collaborate with the Office of School Health to train the staff of Health Resource Room of public high schools on correct condom use.

SITUATIONAL ANALYSIS: POLICY INITIATIVES

The NYC DOHMH is actively involved in activities to change structures, policies and regulations that are barriers to optimal HIV prevention, care and treatment.

Routine, Opt-out HIV Screening

Since 2006, the NYC DOHMH, in conjunction with the NYS DOH, has been working to change the laws that govern HIV testing and to eliminate the separate written consent process. In July 2010, these efforts were largely successful, as Governor David Patterson signed into law Chapter 308 of the Laws of 2010. This legislation simplifies the consent process for HIV screening, and includes a mandatory offer of an HIV test to all persons aged 13 to 64 in emergency departments, inpatient settings and outpatient primary care settings (with limited exceptions). The new law also requires linkage to care for all newly diagnosed individuals and allows for greater data sharing internally and within Departments of Health. A complete evaluation of the new law was conducted incorporating analyses of multiple data sources from NYC. That analysis indicates that the revised HIV testing law appears to have been associated with an overall increase in both HIV testing and linkage to care. The complete report is due to the New York State Governor by September 2012.

Expansion of use of data sharing to improve individual and public health outcomes

Expanded use of data to return out-of-care patients back into HIV primary care. The NYC DOHMH also supports changing New York State law to allow expanded uses of data to more efficiently return out-of-care patients back to care with their last provider of record. Approximately 25% of newly diagnosed HIV positive persons do not have a reportable CD4 count or viral load one year after an initial diagnosis. In addition, approximately 9% of HIV-positive persons are lost to care each year. Partner notification programs like NYC DOHMH's Field Services Unit spend considerable time and resources linking these persons who appear to be lost to care back into care. Without the ability to confirm which HIV positive individuals receive care elsewhere, have relocated, are deceased or incarcerated, NYC DOHMH misses the opportunity to maximize resource utilization and focus its effort on real opportunities to control and prevent HIV transmission. Although the DOHMH contracts with providers for return to and maintenance in care services, all relevant data cannot be shared with providers to help locate these individuals. Expanded data sharing would allow DOHMH to more effectively work with providers and funded agencies to retain patients to care, facilitate care coordination, reduce inefficiencies and greatly help improve patient health and quality of care, as well as help to reduce HIV incidence in NYC.

Retention of identifying data on HIV-negative partners. In 2010, NYC DOHMH supported a change in the New York State regulations that allowed BHIV to retain identifying information on HIV-negative partners of HIV-infected cases interviewed for partner services (PS) for longer than one year after the close of an investigation, which was the limit prior to 2010. Since the ultimate goal of HIV partner services is HIV prevention, tracking the extent to which HIV-negative partners remain HIV-negative, or conversely, the rate at which they become HIV-infected, is of paramount interest to public health, especially because a prior analysis had revealed that at least 2% of persons who were known to be HIV-negative at notification by partner services acquire HIV in the following year. With support from NYC DOHMH, NYS regulations for Ch. 308 of the Laws of 2010 (see routine, opt-out testing above), announced in February 2012, extended this retention time limit to three years.

Expanded Access to Safe Syringes

Studies of the NYS's Expanded Syringe Access Program (ESAP) demonstrate that access to sterile syringes does not increase drug use, criminal activity, or needle stick injuries. ESAP is a safe and effective mechanism for distributing and disposing of syringes and reducing the risk of disease transmission. In the 2011 legislative session, NYC DOHMH supported bill S.5312, which would eliminate the 10-syringe limit on the number of syringes that may be sold or furnished during one transaction, as

well as the prohibition against pharmacies advertising the availability of these syringes to the public. Lifting the ban on advertising will likely encourage broader usage of ESAP, particularly among racial and ethnic minorities who are disproportionately affected by injection-related HIV infection. Eliminating the quantity limit on syringes per sale will help to ensure that people who are currently unable to stop injecting drugs have one sterile syringe for every injection so that they do not share or reuse syringes. Additionally, the reinstatement of the ban on federal funding for syringe exchange further limits access to safe syringes and should be lifted.

Expansion of Clinical Sites for Routine HIV Testing Offer to include dental practices/clinics

Including dental care providers in the list of clinical venues required to offer HIV tests to all patients, ages 13 to 64, would complement legislation passed in July of 2010 which made routine HIV screening a reality in New York primary care settings, emergency departments and inpatient settings. Many New York City residents at risk for HIV visit a dentist more often than they do a physician. Nationally, among those who self-reported as being at HIV risk and who had never been tested or had not been tested in the prior 5 years, more than 70% had seen a dentist within the prior 2 years.[47] Moreover, 50% of individuals who had not visited a doctor in the prior year had visited an oral health provider during the same period. With increased use of oral fluid testing, the dental setting is a very natural site for routine HIV screening. A rapid oral fluid test could be administered at the start of a routine visit, with results available within 20 minutes. Additionally, oral health providers are becoming involved in other primary-care screening efforts (e.g., hypertension, oral cancer, glycosylated hemoglobin). Rapid HIV testing could be a logical extension of such activities. While we are unaware that any other state has such a mandate, the NYS Dental Association has shown some interest in HIV screening. A pilot project of HIV testing by dental providers is already underway.

Legislative change and cofactors of HIV transmission or acquisition

Legislative initiatives that improve the care and treatment of individuals with STDs will ultimately support HIV prevention goals. Improved care of mental health and substance abuse problems, either through increasing the number of providers able to prescribe buprenorphine for opioid dependence or through improved housing or care in an emergency situation for those with mental health issues should also help to reduce sexual risk taking behavior in the long term. These types of legislative initiatives are being led by partner bureaus within NYC DOHMH.

Structural and system-level change

Many funded activities, such as the high-profile jurisdictional scale up of HIV testing launched in 2008 as *The Bronx Knows*, may have contributed to structural change to optimize HIV prevention, care and treatment. Condom distribution and condom social media and marketing are also considered interventions to affect structural change by both expanding access to condoms and normalizing their use. Additionally, through a rebid of the comprehensive HIV prevention portfolio, the DOHMH is in the process of soliciting applications from organizations to support structural and system-level change in NYC. Specifically, structural approaches may influence the social, cultural, economic, legal or policy aspects of the environment that impact an individual's ability to avoid HIV risk or engage in safer sex or drug-using behaviors. Addressing the context that prevents the highest-risk individuals from engaging in safer sex behaviors and accessing appropriate care is a critical structural change that can help control HIV transmission among men who have sex with men (MSM), transgender women who have sex with men (TWSM) and other priority populations highly impacted by HIV in NYC. In addition to social determinants of HIV risk, it is also apparent that there are organizational constructs (barriers in an organization or health care system's operations or infrastructure, including technological capacity, efficient use of new technologies, staffing capacity, and organizational culture) that can influence linkage, prompt and efficient requests for PS, treatment adherence and the early offer of ART. Some of these organizational, "system-level" constructs can impede an agency's ability to provide optimal HIV prevention services and programs, including HIV testing and care. The new comprehensive prevention RFP, released June 25, 2012, will providing funding to local agencies for programs that support structural and system-level change for improved HIV prevention in NYC.

Condom access and availability among high risk populations

Beginning in 2009, the NYC DOHMH began receiving anecdotal reports of condom confiscation among commercial sex workers. Bills that would ban the use of condoms as evidence of prostitution have been introduced in previous New York State legislative sessions, including the 2009 legislative session, but have remained in committee. A similar bill was introduced during the 2011-2012 legislative session but did not pass.

In 2010, the Department of Health and its community partners conducted a small survey of 63 persons located in places known for street-based sex work who were suspected of engaging in exchange sex. The survey, conducted from August to October 2010, focused on experiences with condom confiscation and respondents' willingness to carry condoms. In this survey, 57% of respondents reported having condoms confiscated by the police, but the small study could not provide conclusive evidence that having condoms confiscated discouraged street-based sex workers from carrying condoms for fear of arrest. NYC DOHMH will continue to work for the support of broad and unrestricted access and availability of male and female condoms among NYC's highest risk populations, including commercial sex workers.

GOALS AND STRATEGIES: POLICY

Goal 1: Further reduce all barriers to routine, opt-out HIV screening in NYC health care settings.

> **Strategy 1:** Complete NYS HIV testing law evaluation and, when appropriate, disseminate results to raise awareness of the impact of the legislative change; generate recommendations for improved implementation, and continue to formulate plans for additional policies related to this issue.
>
> **Strategy 2:** Provide logistical support, training and technical assistance to staff and administrators in health care settings to decrease barriers to true routine, opt-out HIV screening.

Goal 2: Reduce legislative barriers that hinder relevant data sharing between DOHMH and providers of record to improve outcomes along the spectrum of engagement in care (e.g., linkage to care, retention in care) and to improve partner services.

> **Strategy 1:** Support changing NYS law to allow data sharing to more efficiently return out-of-care patients back to care with their last provider of record.

Goal 3: Expand access to safe syringes through legislative change.

> **Strategy 1:**.Support legislative change to eliminate the 10-syringe limit on the number of syringes that may be sold or furnished during one transaction as well as the prohibition against pharmacies advertising the availability of sterile syringes to the public.
>
> **Strategy 2:**.Support legislative change at the federal level to lift the federal ban on use of federal funds for syringe exchange in the U.S.

Goal 4: Expand HIV testing opportunities in NYS by requiring dentists to offer HIV testing.

> **Strategy 1:** Support legislative change to require dentists to offer HIV testing in NYS.
>
> **Strategy 2:** Work to allow reimbursement for routine HIV screenings in dental settings.

Goal 5: Support other NYC DOHMH bureaus in their efforts to pursue legislative change related to HIV prevention goals at the state and federal level.

Strategy 1: Support legislative change to allow for field-delivered therapy for STDs, enabling the sharing of STD case report information within state or local health departments, and allowing health departments to bill Medicaid for STD services.

Strategy 2: Support federal efforts to expand access to buprenorphine replacement therapy for opioid addiction, create affordable housing opportunities for people with mental illness, and expand federal emergency funding to include psychiatric treatment.

Goal 6: Support large-scale, institution-wide, system-level changes in clinical settings that address barriers to HIV prevention and care.

Strategy 1: Solicit proposals for system-level change projects as part of a comprehensive HIV prevention portfolio re-bid.

Strategy 2: Provide training and technical assistance to newly funded system-level change programs.

Strategy 3: Use program performance data and quality management data to inform providers and guide program implementation.

Goal 8: Support robust condom access and availability among all of NYC's highest risk populations, including commercial sex workers.

Strategy 1: Work with community partners to explore strategies to ensure condom access and availability to NYC's highest risk populations, including commercial sex workers.

SITUATIONAL ANALYSIS: EVIDENCE-BASED HIV PREVENTION INTERVENTIONS FOR HIV-NEGATIVE PERSONS AT HIGHEST RISK OF ACQUIRING HIV

Since 2007 BHIV has been funding targeted, evidence-based interventions for HIV-negative persons at highest risk for acquiring HIV. Three key areas include group-, individual- and community-level evidence based interventions, screening for cofactors of HIV infection, and prioritization of STD testing and HIV prevention services for frequent users of NYC STD clinics.

Evidence-Based Interventions: Current Status

The overall goals of the BHIV behavioral risk reduction portfolio are to decrease risky sexual and drug-using behavior among HIV-positive persons, and persons at high risk of acquiring HIV. In 2011 the BHIV funded 18 grantees to conduct 25 evidence-based, risk reduction interventions in New York City. The BHIV evidence-based prevention portfolio includes interventions selected from CDC's Compendium of HIV Prevention Interventions with Evidence of Effectiveness and locally-developed interventions that were tailored specifically to the NYC context. The portfolio consisted of 4 unique community-level interventions (7 programs), 10 unique group-level interventions (17 programs) and 1 individual-level intervention (2 programs) (**Table 6**). A full listing of funded interventions is provided below.

Table 6. List of funded interventions in NYC, 2011.

Intervention	Target Population	Intervention Type	# Contracts Funded
AIDS Test Training Initiative: Teach, Unite, Demystify, Educate (ATTITUDE)	Black and Latina Women	Group Level	1
Community PROMISE	High Risk Black and Latino men and women	Community Level	1
Comprehensive Risk Counseling and Services(CRCS)	Black women and Latinas	Individual Level	2
Healthy Relationships	HIV+ MSM & HIV+ Heterosexuals	Group Level	4
Men's Health	Black and Latino MSM	Group Level	1
Mpowerment	Latino MSM	Community Level	2
Pep It Up	Black and Latino Youth	Group Level	1
Popular Opinion Leader	Black and Latino MSM	Community Level	3
Project Future is Ours (FIO)	Black and Latina Women	Group Level	1
Residential Summer Camp Program	LGBTQ Youth	Group Level	1
Safety Counts	HIV+/HIV- IDU males and females	Group Level	1
Sisters Informing Sisters on Topics about AIDS (SISTA)	Black Women	Group Level	2
TwistEd	LGBTQ Youth	Group Level	1
Working it Out	LGBTQ Youth	Group Level	1
Willow	HIV+ Black women and Latinas	Group Level	3

All individual-, group-, and community-level behavioral risk reduction interventions focus on high priority populations – those identified by the BHIV and the NYC HIV Planning Group as being at high risk of acquiring or transmitting HIV. These high priority populations include men who have sex with men (MSM) (particularly black and Latino MSM), black and Latina women, substance users, and people known to be

HIV-positive. Since 2009, the emphasis of the behavioral risk reduction portfolio began to shift toward high prevalence populations, such as HIV-positive persons and MSM, particularly MSM of color. As a result of this shift, the proportion of total clients that participated in an MSM-focused interventions increased by 6% between 2009 and 2011, and the proportion of total clients participating in PwP interventions increased by 12% over the same interval.

All organizations implementing CDC-endorsed evidence-based behavioral risk reduction interventions are closely monitored for fidelity to protocol. In cases where a CDC-endorsed risk reduction intervention is modified to better suit the NYC environment, or a specific priority population, modifications are required to follow CDC-endorsed guidelines, and the agency is required to seek prior approval by BHIV. Interventions that are developed locally are required to submit a full curriculum and implementation protocol for review by BHIV and provide evidence of program effectiveness and/or a clear connection with the scientific theory upon which the intervention was based.

As part of ongoing programmatic monitoring activities, BHIV technical assistance coordinators conduct routine site visits and observe intervention sessions to ensure that (1) programs are being implemented according to established curriculum and protocol; (2) intervention facilitators are competent and suitably trained; and (3) programs are being provided in a culturally appropriate manner. Site visit reports are reviewed and provided to the agency concerned. Technical assistance coordinators are fully trained in the risk reduction interventions they monitor.

Individual- and Group-Level Evidence-Based Interventions

All organizations funded to conduct group- or individual-level behavioral risk reduction interventions are required to collect and report client level data to BHIV. These data include CDC-required health education and risk reduction information, additional client demographics, and baseline client-level HIV-related risk information based on a 30-day recall period. These data are collected at the time a client is enrolled into a program. All funded agencies are provided with full data collection forms and data are reported via a custom-built, web-based data reporting and management system. Data collected at client program enrollment are used by staff at BHIV to monitor both the number of new clients enrolled in each program and the demographic and risk characteristics of those clients. Following CDC-required reporting guidelines, funded providers collect and report ongoing data on intervention services and sessions, and client-level participation in those sessions. These data allow BHIV to assess, in an ongoing manner, the extent to which clients are completing each funded intervention. Once each specific intervention cycle is completed, funded providers are required to collect and report client-level follow-up data for all clients who have completed the intervention. These follow-up data provide a direct mechanism for evaluating the impact of each intervention on risk behaviors self-reported by clients.

As part of routine outcomes monitoring, a comprehensive behavioral risk assessment is conducted at enrollment prior to starting the intervention, and again at 3-6 months after the conclusion of the intervention. All clients are assessed for sexual risk behavior in the past 30 days (unprotected sex, unprotected sex with multiple partners, serodiscordant relationships, exchange sex, sex under the influence of drugs, and intent to use condoms and to refuse unsafe sex in the future). In addition to the basic sexual risk questions, HIV-positive clients are also asked about status disclosure with current and new sexual partners, condom use during sex with a partner who did not know the client's status, and future likelihood of disclosing and/or using a condom with a partner of a different or unknown status. Clients enrolled in substance use-related risk reduction interventions are asked about substance use in the past 30 days, needle sharing behavior, sex under the influence of drugs or alcohol, and likelihood of refusing sex while high in the future.

Funding for stand-alone individual- and group-level behavioral risk reduction interventions for HIV negative individuals will end in December 2012. Evidence-based education regarding risk and risk reduction will be incorporated into a variety of other combination services, including sexual and behavioral health services, community level interventions/community mobilization and social marketing.

Community Level Interventions

In 2011, as part of its evidence-based behavioral risk reduction portfolio, BHIV funded four unique community-level interventions (seven programs, total). The four funded community-level interventions were all part of CDC's Compendium of HIV Prevention Interventions with Evidence of Effectiveness, and in total reached over 36,000 persons in 2011. The majority of the community-level interventions (five of seven programs) prioritized men who have sex with men (MSM), specifically MSM of color and foreign born MSM. The remaining community-level intervention (one program) prioritized communities with a high prevalence of HIV. The primary objective of all community-level interventions is to mobilize high risk populations (in this case, primarily MSM of color) to reduce sexual risk taking, encourage regular HIV testing, build positive social connections, and use peers to promote safer behaviors. To achieve this goal, trained peers were used to deliver risk-reduction messages either through one-on-one conversations, community-level educational events, or dissemination of "role model stories" within the community.

Community-Level Interventions for Gay Men and other MSM at Highest Risk of HIV Acquisition

In 2011, five agencies were contracted to provide community-level interventions for high risk MSM/gay men. Popular Opinion Leader was conducted by three agencies; one agency conducted this intervention online. A total of 166 popular opinion leaders were trained in 2011 and conducted 3,677 conversations with their peers either in-person or online. Two agencies were contracted to conduct Mpowerment interventions targeting Hispanic/Latino men. A total of 522 men in prioritized communities attended an Mpowerment M-group in 2011. An additional 7,000 men were provided safer sex messages or information about Mpowerment during outreach activities and Mpowerment sponsored social events. Community-based evaluation of these programs in 2009 indicate that 42% of the prioritized population had heard of the Mpowerment program, and 31.6% reported that they had either attended an Mpowerment event, or attended a "safe sex" event hosted by one of the Mpowerment-contracted agencies.

As part of routine evaluation activities, agencies conducting Mpowerment were required to conduct venue-based surveys within their priority geographic location. Prior to the start of the program, agencies were required to identify the priority geographic location in which the intervention would be implemented. In order to maximize the effectiveness of the program, and to facilitate evaluation, all client recruitment and all key intervention activities occurred within the selected geographic area. Key intervention activities include sexual risk reduction community education groups called "M-groups", social events and formal outreach activities. Outcome assessment for community- level interventions was conducted by administering surveys within the prioritized community. Contractors were required to survey individuals within the targeted geographic area (with a goal sample size of 500 per program) once per contract year. The primary indicators of interest included (1) knowledge of/exposure to Mpowerment; (2) attendance at an Mpowerment sponsored event; and (3) reported sexual risk behavior (condom use and number of sexual partners). Results of surveys conducted in 2010 indicated that the majority (65%) of individuals surveyed had heard of the Mpowerment intervention. Approximately half of individuals surveyed (50%) had attended an Mpowerment sponsored event (social event or "M-group" in the past 6 months. Those who reported attendance at an Mgroup event were significantly more likely to use a condom at last sexual encounter than those who did not attend an M-group (88% vs. 80.0%, respectively, p=0.018). Attendance at an M-group was not associated with having only 1 sexual partner, but among those with multiple partners, M-group attendance was significantly associated with using a condom at last sexual encounter (96.5% vs. 89.3%, respectively, p=0.023). One of the main goals of Mpowerment is the dissemination of risk reduction messages (primarily about consistent condom use) beyond those who directly engage in Mpowerment events. An analysis of similar individuals (MSM who reported living in Queens) indicated that condom use among individuals in the Mpowerment catchment area was higher than that of general respondents (80.2% and 74.8%, respectively).

Community-Level Interventions for Persons of Color at High Risk of HIV Acquisition

One agency was funded to conduct Community PROMISE within predominately African-American and Hispanic/Latino neighborhoods of high HIV prevalence. The Community Promise Intervention centers on the distribution of role model stories and conversations with peer advocates in the community. The stories are real-life, personal accounts of how community members took steps to practice HIV/STD

prevention behaviors and the resulting positive effects on their lives. Peer advocates are trained to distribute the role model stories and prevention materials within their social networks. In 2011, over 23,000 role model stories were distributed within the target population. Community-based evaluation activities for Community PROMISE started in 2010. Preliminary analyses of these evaluation activities are underway.

In the summer of 2012, BHIV released an RFP to re-bid a large portion of its HIV Prevention portfolio. As part of that process, BHIV will fund programs that employ community-level behavioral interventions for risk reduction with demonstrated evidence of effectiveness for HIV prevention, or programs that mobilize communities for specific HIV prevention activities such as promoting awareness of HIV status and prompt linkage to care for HIV-positive persons, normalizing safer sex behaviors and providing HIV-negative community members with information, resources and support to stay negative. Programs will be selected through a competitive process; funded programs are slated to start in January of 2013.

Screening and treatment for cofactors of HIV

In 2011, BHIV funded nine community based organizations to implement the Cofactors of HIV screening program (COF). Through this program, individuals at high risk of HIV acquisition are screened for medical conditions that have been shown to increase the risk of HIV acquisition such as STIs, depression, and substance use. All individuals who screen positive for one of these cofactors are offered a rapid HIV test and linkage to appropriate services for the treatment of the identified cofactor. In 2011, 11,769 unique individuals were screened for at least one of 3 cofactors of HIV infection (STI, substance use and/or depression). Of those individuals, 29.4% (n=3,457) screened positive for at least one cofactor (STI, 11.8%; mental health, 14.9%; substance use, 28.9%).

All clients who screen positive for at least one cofactor are offered HIV rapid testing and linkage to HIV care if they test HIV-positive. In 2011, 53% of clients screening positive for a cofactor also received a rapid HIV test (n=1,835) through the cofactors program; many others reported they were tested elsewhere. Of those tested through the program, 1.0% of clients were found to be positive by a rapid HIV test and after confirmatory testing, 0.5 % were confirmed to be HIV-positive.

- Among those confirmed to be positive in 2011:
  - 91.7% of clients confirmed to be HIV-positive had their results provided to them and received post-test counseling.
  - 91.9% of clients confirmed to be HIV-positive had a documented linkage to HIV medical care.

In January 2011, agencies funded as part of the COF portfolio integrated the Screening, Brief Intervention, and Referral to Treatment (SBIRT) model into current substance abuse screening and linkage activities. SBIRT is an evidence-based public health approach to the delivery of early intervention and treatment services for persons with problem substance use and those at risk of developing substance use disorders. Primary care clinics, hospital emergency rooms, trauma centers, and other community settings provide opportunities for early intervention with at-risk substance users before more severe consequences occur. While the original COF program model included screening and linkage to mental health and substance use treatment services, the provision of SBIRT allowed COF agencies to focus on increasing insight and awareness among clients about their current level of substance use and to provide an opportunity to discuss their motivation toward behavioral change. As a result of implementing SBIRT, client refusal rates for substance use treatment decreased from 33.6% in 2010 to 12.9% in 2011.
In late 2011, the COF program received additional funding through the Substance Use and Mental Health Services Association (SAMHSA) to further integrate substance use and mental health services into HIV prevention programs. With the additional funding, COF agencies sought to achieve the following goals (1) increase access to mental health and substance use screening for individuals in priority populations, (2) reduce stigma and increase acceptance of mental health and substance use treatment, (3) integrate HIV testing and behavioral health services in community-based, low-threshold environments, and (4) reduce the impact of substance use and mental health disorders as barriers to accessing HIV primary care. As a result of obtaining this funding, BHIV was able to expand the scope of the COF program by implementing short-term (6-10 sessions) co-located mental health or substance use treatment for clients

who screened positive for mental health or substance use disorders. Agencies funded for the COF program will stop providing services in December 2012, with the bulk of current services being folded into a more comprehensive sexual and behavioral health service category that is part of the HIV prevention portfolio rebid.

STD Screening and HIV Prevention Services in DOHMH STD Clinics

As described in detail in the PwP section, there are several HIV prevention programs already in place in NYC DOHMH STD Clinics. Not all program enrollees are HIV-infected, so these interventions also provide another evidence-based HIV prevention intervention for HIV-negative persons at highest risk of acquiring HIV. Please see that section (page 70) for more information.

Planned Evidence-Based Activities for 2013.

BHIV is currently soliciting proposals for a competitive rebid of its comprehensive HIV prevention portfolio. BHIV seeks to fund proposals that provide direct services for persons at high risk of HIV acquisition or transmission and to address the social, community, organizational and structural factors that place individuals at risk to maximize the impact of HIV prevention efforts. These contextual factors can occur by either mobilizing communities for change or trying to impact the underlying causes that affect individual HIV risk and vulnerability as well as the organizational structures that impede HIV prevention. Five categories of service proposals will be solicited including, (1) sexual and behavioral health services for priority populations most heavily impacted by HIV (described below); (2) structural and system-level change to maximize HIV prevention (refer to Policy section, page 67 for additional detail); (3) community mobilization and/or community-level interventions for HIV prevention (described below); (4) demonstration projects for innovative, high impact HIV prevention interventions and strategies (described below); and (5) enhanced condom distribution among communities disproportionately impacted by HIV/AIDS (refer to Condom section, page 61 for additional detail).

Sexual and behavioral health services for priority populations most heavily impacted by HIV. BHIV seeks to fund programs that offer a high-impact approach to the health of MSM/ TWSM and other priority populations heavily impacted by HIV. All programs will be required to include core sexual and behavioral health services, social services assessments and resource linkages, and HIV prevention/risk reduction education. Programs will focus on serving those who are particularly vulnerable and underserved by the health care system, such as uninsured and underinsured individuals. BHIV maintains that funding such programs will create holistic service environments that encourage clients to routinely receive sexual and behavioral health care with a goal of both reducing HIV infection and transmission and promoting well-being.

Community Mobilization/Community-Level Interventions. BHIV also seeks to fund community level interventions prioritizing areas with high HIV prevalence and/or the highest priority populations impacted by HIV. Funded community-level interventions must combine community organization and social marketing and other innovative methods of disseminating HIV prevention messaging (such as community conversations and role model stories). Potentially funded interventions must be part of the CDC's Compendium of HIV Prevention Interventions with Evidence of Effectiveness and may include Mpowerment, Popular Opinion Leader (POL), D-up: Defend Yourself, Community PROMISE, or Real AIDS Prevention Project (RAPP).

Demonstration Projects. BHIV seeks to fund cost-effective and innovative "Demonstration Projects" that directly address key BHIV goals to reduce new HIV infections, increase access to care and reduce HIV-related disparities and health inequities. Funded programs will aim to impact high-priority populations by addressing one of following focus areas (1) biomedical or behavioral interventions, or a combination thereof, that will have a substantial impact in reducing HIV incidence; (2) innovative testing activities that will increase identification of those with undiagnosed HIV infections and/or improve the cost effectiveness of HIV testing activities; (3) enhanced linkage to and retention in care for persons with new or prior diagnoses of HIV infection; or (4) advanced use of technology (i.e., Internet or EMR). BHIV is committed to supporting novel approaches to reducing HIV transmission.

Harm Reduction Interventions

Support of syringe access programs. NYC DOHMH supports NYC's syringe access programs; these programs have had an important role in decreasing HIV transmission among injection drug users in NYC, from 939 new cases of HIV infection in 2001 attributed to injection drug use to 164 new cases attributed to injection drug use in 2010. Over this same interval, there were increases in the number of syringe exchange programs, the number of participants served annually, and the number of syringes dispensed. Last year, NYC's 14 syringe exchange programs dispensed over 2.3 million syringes to more than 14,000 individuals, the single largest year of distribution to date.

Syringe exchange programs also prevent HIV through HIV testing, education and a variety of supportive services. All programs provide HIV testing, and many also provide testing for hepatitis B and C and sexually transmitted infections. All provide education on both safer drug use, including safer injecting practices, and safer sex; the provision of injection equipment and female and male condoms is also universally offered. Syringe access programs also engage participants into care and provide links to services such as medical care, detoxification services and drug treatment, as well as housing and mental health care. NYC DOHMH promotes these activities through deliverable-based contracts which require agencies to provide prevention education and health care coordination.

Drug treatment as HIV prevention. NYC DOHMH's Bureau of Alcohol and Drug Use Prevention, Care and Treatment supports substance use treatment, including opioid treatment programs, through contracts with NYC's drug treatment programs. Opioid treatment programs have been well-documented to reduce HIV transmission by reducing the frequency of injection, and more recently, drug treatment has been linked to a reduction in sex-related risk behavior. Some drug treatment programs also offer HIV testing. In 2011, 49% of licensed substance abuse treatment programs in NYC provided testing on-site and 36% reported off-site referral for testing. Almost one-fifth (17%) did not offer HIV testing at all. Overall, including sites that did not offer testing, 80% had an established method for linking clients to HIV primary care, including 38% that linked to an on-site facility (NYC DOHMH, unpublished data).

Promotion of buprenorphine. The Bureau of Alcohol and Drug Use Prevention, Care and Treatment promotes opioid replacement therapy, including the prescribing of buprenorphine, the only medication to treat opioid dependence that can be offered in a physician's office. The Bureau provides physician certification courses, required for physicians who wish to prescribe buprenorphine, and other forms of support for physicians interested in prescribing buprenorphine. The Bureau also promotes buprenorphine awareness among potentially eligible patients and key nonclinical staff through a peer-delivered curriculum on buprenorphine. To date, this training has been delivered at a large number of housing programs, shelters, drug treatment centers and syringe exchange programs citywide.

Screening, brief intervention, and referral to treatment. The Bureau of Alcohol and Drug Use Prevention, Care and Treatment provides training and technical assistance to expand screening, brief intervention, and referral to treatment (SBIRT) services in order to identify persons at risk of substance use disorders in a variety of settings. Trainings have targeted primary care settings, STD clinics, emergency departments, mental health clinics, colleges, faith-based organizations and social service agencies.

Harm reduction education among incarcerated individuals with substance use disorders. In collaboration with the city's syringe exchange programs, the Bureau of Alcohol and Drug Use Prevention, Care and Treatment provides monthly harm reduction education sessions to inmates with identified substance use disorders at Rikers Island. These workshops discuss HIV risk reduction techniques, including both sexual- and drug-related risk.

School-Based Prevention Interventions

There is substantial cooperation between the BHIV and the Office of School Health, a joint program of the NYC DOHMH and the New York City Department of Education (DOE). Specific collaborations have arisen around the young MSM, condom distribution in schools, and curriculum content. Specifically, activities related to young MSM include DASH, a program working through school and community-based partnerships in three high prevalence cities (New York City, Philadelphia, and San Francisco) to increase

the number of black and Latino YMSM (ages 13-19) who are tested and treated for HIV and other STIs, decrease sexual risk behaviors among adolescent YMSM, and reduce absenteeism and school drop-out rates among this same group. The DOE and the DOHMH's Office of School Health and Bureau of HIV/AIDS are working together to provide technical assistance to school-based health centers (SBHCs), enhance professional development opportunities for school-based nurses, develop polices and protocols for SBHCs that facilitate linkage to care and referrals. Also, as described earlier (see the Condom Distribution section), condom distribution in public high schools in New York City is another unique area of collaboration: the BHIV's NYC Condom Availability Program provides training for Health Resource Room staff and the supplies for condom distribution (both male and FC2 condoms and lubricant), while the Office of School Health coordinates delivery and distribution of condoms and lube through the schools' Health Resource Rooms. Additionally, the BHIV partnered with DOE during the 2011-2012 academic year to revise the entire HIV prevention curriculum for all grade levels for all clinical and scientific content. The previous revision had occurred in 2005, so a great deal of new developments and emphases had emerged, both locally and nationally.

GOALS AND STRATEGIES: EVIDENCE-BASED HIV PREVENTION INTERVENTIONS FOR HIV-NEGATIVE PERSONS AT HIGHEST RISK OF ACQUIRING HIV

Goal 1: Reduce risky sexual and drug using behaviors among populations at highest risk of HIV acquisition.

> **Strategy 1:** Increase access to safer sex information among communities most heavily impacted by HIV through funded community mobilization programs.
>
> **Strategy 2:** Employ evidence-based community-level approaches to disseminating HIV prevention information such as social network strategy dissemination, role-model stories, and discussions with respected/popular opinion leaders.
>
> **Strategy 3:** Explore opportunities to provide brief HIV education for high risk individuals who test HIV-negative as part of combination strategies.
>
> **Strategy 4**: Collaborate with DOE and the Office of School Health to provide technical assistance to school-based health centers to facilitate HIV/STD testing and linkage to care for youth, including the development of a resource guide of youth/LGBT-friendly health care.

Goal 2: Increase HIV risk behavior screening and screening for conditions that place individuals at highest risk of acquiring HIV-infection at clinical sites serving individuals at highest risk of acquiring HIV-infection.

> **Strategy 1:** Support STD screening, diagnosis and treatment among MSM/TWSM and other priority populations heavily impacted by HIV in all funded sexual and behavioral health programs and in DOHMH-funded STD clinics; this includes special initiatives in STD clinics such as the VIP program.
>
> **Strategy 2:** Support routine screening for substance use and mental health disorders in all funded sexual and behavioral health programs and in DOHMH funded STD clinics; this includes special initiatives in STD clinics such as the VIP program.
>
> **Strategy 3:** Support structural change programs that provide education for clinical providers to increase provider willingness, comfort and success in assessing risk and providing physician-delivered risk reduction messages for those with non-heterosexual identities and other high risk populations.
>
> **Strategy 4:** Provide training and capacity building assistance, and use program performance data to inform ongoing technical assistance and training needs of newly funded structural change programs.

Goal 3: Reduce the impact of substance use and mental health disorders as a barrier to safer sex behavior and access to preventative care.

Strategy 1: Increase access to mental health and substance use treatment for uninsured/underinsured individuals at highest risk of acquiring HIV-infection through funded sexual and behavioral health programs.

Strategy 2: Decrease stigma of mental health and substance use treatment through training of providers and education of clients to increase treatment acceptance among communities of color and other high-risk communities.

Strategy 3: Use best practices to effectively integrate sexual-risk reduction counseling into substance use and mental health treatment.

Goal 4: Increase the availability of HIV prevention services and the ubiquity of messaging within high prevalence neighborhoods.

Strategy 1: Solicit proposals for community-level interventions as part of a comprehensive prevention portfolio re-bid.

Strategy 2: Provide training and technical assistance to newly funded community-level interventions.

Strategy 3: Use community-level intervention performance data and quality management data to inform providers and guide program implementation.

Goal 5: Increase access to clean syringes and injection equipment for persons who inject drugs in NYC.

Strategy 1: As funding allows, continue support for syringe access through contracts with licensed syringe exchange programs in NYC.

Strategy 2: Provide education and technical assistance to programs contracted to distribute syringes in NYC; topics should include how to increase syringe access.

Strategy 3: Educate injectors about the Expanded Syringe Access Program (ESAP).

Goal 6: Target syringe distribution to injectors who are hardest to reach.

Strategy 1: Continue to support the Peer Delivered Syringe Exchange Network.

Strategy 2: Provide technical assistance to agencies looking to build or grow their peer-delivered syringe exchange programs.

Goal 7: Increase access to and engagement in health care, including substance use services, for substance users.

Strategy 1: As funding allows, continue to support syringe exchange programs for the provision of health care coordination and case management, including the scheduling of and accompaniment to medical appointments.

Goal 8: Enhance the impact of legislative change rendering legal the possession of residue in used syringes.

Strategy 1: Work with BADUPACT and the New York City Police Department to ensure all officers are aware of the legislative change.

Strategy 2: Provide educational materials to injection drug users about the changes to the law.

SITUATIONAL ANALYSIS: SOCIAL MARKETING, MEDIA, AND MOBILIZATION

Social Marketing

Since 2007, BHIV has been striving to raise the profile of its HIV prevention social marketing activities in at least three key areas: HIV prevention messaging to MSM and other highly impacted populations, routine HIV screening in clinical settings, and condom awareness in NYC. Key aspects of these activities are described below. Funding for social marketing and sexual health communication activities comes primarily from the following federal grants: CDC's Cooperative Agreement for HIV Prevention (PS 12-1201) and the Enhanced Comprehensive HIV Prevention Plan (ECHPP). In the past, NYC DOHMH has also collaborated and jointly funded social marketing campaigns with NYS (on HIV testing and *HIV Stops with Me*, for example).

Social marketing to MSM and other highly impacted populations

Starting in 2007, BHIV researched and piloted several HIV prevention messaging strategies for gay men and MSM. Beginning in 2008 and extending through 2010, BHIV conducted at least eight focus groups with African-American and Latino MSM, aged 18-29, to solicit their input and reaction to various social marketing concepts. BHIV also consulted with community leaders, as well as clinicians caring for HIV-positive individuals, who reviewed concepts in development and provided feedback.

It's Never Just HIV

Using the results of this formative research, in December 2010, the BHIV launched the *It's Never Just HIV* campaign, a direct, hard-hitting PSA and print-driven campaign aimed at increasing condom use among young MSM in New York City. The campaign emphasized the comorbid medical conditions for which individuals diagnosed with HIV are at increased risk, including anal cancer, osteoporosis, and dementia. The campaign included televised PSAs, online PSAs, and subway advertisements.

The televised and online PSAs were launched on December 7, 2010. The 30-second, televised spots ran during gay-friendly programming on popular networks including Logo, the Travel Channel, the Style Network, and Bravo. Additional spots ran on more mainstream networks such as NBC, the Discovery Channel, the Food Network, and Comedy Central. Almost 2,000 television spots ran from December 2010 through January 2011. The online version of the PSA was launched on YouTube. Users were directed to the YouTube video via a DOHMH-issued press release which contained an embedded link to the video page. After the initial press release, *It's Never Just HIV* garnered a significant amount of earned media and was featured by bloggers and traditional journalists alike. As a result, much of the overall website traffic measured by YouTube was user-driven. Since its launch, the online video has accrued over 145,000 views. On February 11, 2011, BHIV launched the print phase of *It's Never Just HIV*. Campaign posters were featured in English and Spanish, and mirrored the creative used for the previously launched television campaign. Subway lines were chosen at random, and posters were placed in 20% of all subway cars (approximately 1,000 posters) from February 2011 through May 2011.

The *It's Never Just* HIV campaign was evaluated utilizing the bi-annual BHIV High Risk Behavioral Surveillance (HRBS) survey and the National HIV Behavioral Surveillance System (NHBS), as well as through monitoring of visits to the BHIV website and calls to "311", NYC's main telephone information number. The High Risk Behavioral Surveillance (HRSB) project is a surveillance activity conducted by BHIV that routinely monitors high risk sexual behavior among young MSM, and exposure to HIV prevention campaigns and activities. The HRBS occurs bi-annually and data collection occurs both in-person and online. The NHBS is a federally-supported surveillance activity that collects information about HIV-related behaviors among populations at high risk of HIV acquisition. Questions specific to *It's Never Just HIV* were added to both the HRBS and NHBS in spring and fall of 2011. The evaluation assessed exposure to the campaign as well as any behavioral impact. Results from the HRBS indicate that almost half of online respondents were exposed to *It's Never Just HIV,* and more than two-thirds of in-person respondents were exposed (45% and 65%, respectively). Respondents were also asked if their sexual risk-taking behavior had changed after seeing the advertisement. Approximately half of both online and in-person respondents reporting exposure *to It's Never Just HIV* indicated that the ad caused them to

alter their sexual behavior in some way (52% and 50%, respectively). Overall, the majority of respondents both online and in-person reported that they would use a condom more often when having sex after seeing *It's Never Just HIV* (57% and 66%, respectively).

Testing Makes Us Stronger

In early 2012, BHIV partnered with the CDC to successfully launch the *Testing Makes Us Stronger* (TMUS) social marketing campaign in New York City. The campaign encourages black men who have sex with men (MSM) to get tested for HIV and highlights the importance of knowing your HIV status. The BHIV and the CDC hosted a community launch event in Harlem during February 2012. The TMUS campaign artwork and accompanying marketing materials were placed throughout the five boroughs of NYC. Questions specific to TMUS were added to the Spring 2012 MSM HRBS in order to assess exposure to the campaign as well as any behavioral impact. Analysis of these data should be completed by late fall 2012.

Condom Banner Ads

In June 2012, the BHIV launched a series of banner ads on mobile applications and websites frequented by men who have sex with men (MSM). The goal of these ads is to encourage consistent condom use to avoid acquisition of HIV, particularly with sex partners met online.

The ads include three different versions of the banner, each with a call to "always use a condom." One version was developed for BHIV's *It's Never Just HIV* campaign and emphasizes the risk of comorbid medical conditions for those diagnosed with HIV. The second is an ad that emphasizes that no sexual position is safe from the risk of HIV transmission. The last banner ad stresses that HIV is both a serious and lifelong condition, noting that HIV could be "the catch of a lifetime." Similar to *It's Never Just HIV,* the condom banner ads will be evaluated using the Fall 2012 cycle of BHIV High Risk Behavioral Surveillance survey. The evaluation will assess exposure to the campaign, behavioral impact (condom use), and any change in attitudes or motivation regarding condom use with partners met online.

The condom banners have been placed on four large networks of websites popular with MSM: Gay Ad Network, Logo Online Network, Queerty and Gay Cities. Gay Ad Network, for example, is comprised of more than 300 individual websites that range from lifestyle sites to dating and 'hook-up' sites where men meet sexual partners. The ads have also been placed on some of Gay Ad Network's most popular mobile dating/'hook-up' applications, including Grindr, Scruff and Growlr. The chosen websites and applications cater to a diverse group of MSM of varying racial, ethnic and socioeconomic backgrounds.

The banner ads on traditional websites click-through to the NYC Condom Facebook page, where messaging about condom availability and awareness is posted on a consistent basis. The ads on mobile applications click-through to the mobile-friendly NYC Condom website, which includes pertinent information about the NYC Condom Availability Program, where to find condoms in NYC, and how to use them correctly and consistently.

Campaigns for other priority populations

Formative work has begun on two new social marketing campaigns during 2012. Messaging for the first campaign will prioritize black and Latino heterosexuals living in high prevalence neighborhoods. Messaging for the second campaign will focus on linkage to/engagement in care for HIV positive individuals, with an emphasis on reaching HIV positive MSM.

Social Marketing to Promote Routine HIV screening

As part of its jurisdictional scale up of HIV screening in the Bronx and Brooklyn, BHIV developed consumer-oriented campaigns that emphasize the importance of HIV screening in the context of routine medical care. With a goal of driving change by empowering patients to demand the health care that they deserve, these campaigns call on local residents to ask their clinical provider for an HIV test at their next clinical encounter. Primary taglines have included 'Any Body Can Get HIV' 'Man or woman, gay or

straight, young or old, everybody needs an HIV Test', and 'Ask for an HIV Test Today'. Various iterations of campaign materials have appeared as billboards in local neighborhoods (called 'bodega boards' in the Bronx) and in highly-traveled subway stations, door hangers, banners for participating partners, posters, palm cards, and electronic art for partner websites. In support of *The Bronx Knows*, the Bronx Borough President allowed NYC DOHMH to 'wrap' the borough's Clean Air Transport (CAT) vehicles that provide supplemental transportation in neighborhoods that lack frequent public transit. In the summer of 2009, BHIV conducted three "subway station domination" campaigns, placing *Bronx Knows* billboards on all advertising spaces within the most heavily trafficked subway stations in the Bronx: Fordham Road, 149th Street, and Yankee Stadium. The social marketing activities described here coincided with a significant scale up of HIV testing in the Bronx. To kick off *Brooklyn Knows,* BHIV launched "subway station domination" at Atlantic Ave Terminal, one of the most heavily trafficked transportation hubs in Brooklyn. *Brooklyn Knows* posters, palm cards and brochures are distributed widely through over 80 *Brooklyn Knows* partners both at their sites and at community events. As one of the most ethnically diverse boroughs of New York, BHIV recognized that Brooklyn would need foreign language translations of *Brooklyn Knows* materials. In response, *Brooklyn Knows* posters are now available in English, Spanish, Chinese, Haitian Creole, and Russian.

Social marketing directed at clinical providers has included HIV Testing Action Kits containing clinical tools, provider resources, and patient education materials to assist clinicians with expanding routine HIV screening at their sites. The kits included posters and easels for placement in clinical waiting rooms. A public health detailing campaign for private physicians in the Bronx using these materials ran from October 2010 through February 2011. A similar campaign was conducted in Brooklyn from November 2011 through April 2012. As part of this campaign, BHIV co-branded with New York State (NYS) a "Say Yes to the Test" poster which educates patients that New York State law now requires providers to offer the HIV test to patients 13-64 years old. The poster provides the key educational points required to be provided prior to testing and encourages patients to say "yes" to an HIV test. The poster has now been translated into the Spanish, Chinese, Haitian Creole, Hebrew, Korean, Russian, Urdu, and Yiddish. A graphic PSA was also developed in summer 2012 with similar messaging about the NYS law and the importance of getting tested. The graphic PSA is on display in customer waiting rooms, elevator banks and cashier booths, public library branches and community centers through New York City.

Anti-Stigma Social Marketing Campaigns

In 2011, three community-based organizations were funded to develop and disseminate HIV-related social marketing materials. The goal of this messaging was to decrease the stigma and discrimination associated with HIV among demographic groups and neighborhoods most directly impacted by the disease. Agencies used both traditional marketing approaches (posters, newspaper advertisements, online banner ads and palm cards), as well as more interactive marketing techniques (theater troupe performances, online discussions, presentations with community groups).

In 2011, online and print-based anti-stigma social marketing campaigns focused on reducing stigma associated with HIV-positive African-American MSM/gay men and HIV-positive individuals in New York City's African, African-American and Caribbean communities. Anti-stigma posters were placed throughout high-traffic transits hubs in Manhattan, Brooklyn and the Bronx. More than 500 transit posters (including posters placed on buses, bus shelters, and in subway stations) were displayed in 2011. In addition to transit posters, newspaper advertisements comprised the majority of campaign exposure. Four newspapers were selected for placements in 2011. Newspapers were selected based on readership demographics, and agencies selected newspapers whose readership was composed of their priority population. Newspaper advertisements garnered an estimate 1.4 million exposures, and transit posters generated an estimated 15.5 million exposures in 2011. (N.B. Exposures constitute one "viewing" of the campaign. For example, a person may pass a campaign poster twice in one day resulting in two exposures.) Additional measures to evaluate campaign exposure will be developed in 2012 and 2013.

In addition to traditional social marketing, one funded Brooklyn-based agency produced an anti-stigma theatre troupe that wrote and performed anti-stigma themed skits at health fairs, community centers, schools and other venues across Brooklyn. The theater troupe's skits specifically challenged HIV-related stigma among young MSM and young women of color, two populations disproportionately impacted by

HIV. Additionally, the troupe tackled the issue of stigma within the family, suggesting that family-based support is instrumental to disclosure. In 2011,117 theater troupe presentations were staged for over 3,645 individuals.

Starting in 2008, the BHIV began collecting outcome data to evaluate the impact of social marketing activities for all funded agencies. To determine the effect of the campaigns, street-intercept surveys were conducted in the targeted geographic areas. Surveys measured exposure to anti-stigma campaigns, expression of stigmatizing attitudes towards HIV (using a validated scale), and recent HIV testing. Evaluation of anti-stigma campaigns in 2011 revealed a moderate level of community exposure to NYC DOHMH-funded anti-stigma campaigns. Reported exposure varied between 15% and 50%, depending on the agency. There were no significant differences in stigma levels with respect to campaign exposure in 2011. However, when all data phases were collapsed (exposed vs. not exposed), exposed respondents reported significantly lower stigma levels than their non-exposed counterparts ($p<0.001$). (This trend was also true of respondents surveyed in Brooklyn.)

Social and New Media

NYC Condom Social Media and New Media:

Beginning in February 2009, the NYC Condom Availability Program established a presence on social media platforms, allowing the program to have increased engagement with the public while expanding condom awareness, visibility, and customer service. The NYC Condom Availability Program became one of the first municipal programs in New York City to use Facebook's social media platform as a venue to address programmatic questions, concerns, and dispel misinformation.

The NYC Condom Facebook page continues to thrive with nearly 20,000 fans. The page provides a forum to educate fans about safer sex and proper condom use, to inform fans about where they can locate free safer sex products in NYC, to promote the community presence and work of the NYC Condom Availability Program, and to dispel any misinformation about the NYC Condom and condom use in general.

On February 14, 2012 (National Condom Awareness Day), BHIV introduced its latest efforts to use innovative new media to promote condom use in New York City through the expansion of the *NYC Condom Finder* smartphone application and the development of a mobile friendly version of the NYC Condom website. Originally launched by BHIV in February 2011, the *NYC Condom Finder* mobile application is now available on all major smartphone platforms – Apple, Android, BlackBerry and Windows Phone – and has been downloaded over 29,500 times. The application uses the global positioning system (GPS) technology from a user's smartphone to determine the five closest NYC Condom distribution venues. The app provides directions to each participating venue (walking, driving or public transportation directions), each venue's operating hours, the types of safer sex products available, and helpful tips on correct condom usage. With almost 700 condom distribution locations throughout the five boroughs currently accessible through the mobile app, New York City residents now have an additional tool to ensure that they are protected from sexually transmitted infections (STIs), including HIV, and unintended pregnancy.

In February 2012, BHIV also launched a mobile-enabled NYC Condom website. When a user reaches the NYC Condom website (www.nyc.gov/condoms) from any mobile phone browser, he or she is automatically redirected to the site that has been optimized for mobile phone screens. BHIV condensed the information from the traditional NYC Condom website for the mobile version, making it easier for New York City residents to access the condom use and sexual health information most pertinent to someone on the go. Users can learn about the importance of using condoms, how to correctly use and store condoms, and how to find the free safer sex products offered by the NYC Condom Availability Program (NYC Condoms, alternative male condoms, female condoms and lube) in all five boroughs.

NYC Knows Facebook Page

In November 2010, BHIV launched the NYC Knows Facebook page to provide HIV testing, prevention and awareness messaging to New York City residents. With over 1,800 fans, the page functions as a resource for accurate, up-to-date information about these topics, programmatic activities and community events. The page also creates a platform to spotlight the hard work of partners of the *The Bronx Knows* and *Brooklyn Knows* routine HIV testing initiatives (both described in more detail below).

@nycHealthy Twitter Account

The NYC DOHMH maintains a Twitter account (@nycHealthy) in order to talk to New York City residents about health topics, events, and services offered through the Health Department programs. With over 10,500 followers, the DOH Twitter account has been a great tool for BHIV to promote the Bureau's activities. Tweets have included everything from promotion of the latest BHIV social marketing campaign, to sharing the locations where New York City residents can get tested for HIV or pick up free NYC Condoms, to cross-promotion of the NYC Condom and NYC Knows Facebook pages.

Social Mobilization

From the beginning of the HIV epidemic, the NYC DOHMH has recognized the need for collaborations between governmental and non-governmental partners and among the various entities and organizations that provide HIV prevention services to impacted populations throughout NYC. The NYC DOHMH currently supports many initiatives that mobilize and actively involve the community to advance HIV prevention. Three such activities are described below.

The Bronx Knows and *Brooklyn Knows:* HIV Testing Initiatives

On National HIV Testing Day in June 2008, the NYC DOHMH launched *The Bronx Knows*, the largest HIV testing initiative in New York City's history. The goal of this initiative was for all Bronx residents to learn their HIV status, and if diagnosed as HIV-positive, to be linked to quality care and supportive services. Over a three-year period, *The Bronx Knows* aimed to reach the 250,000 Bronx adults who had never been tested for HIV. The Health Department joined with more than 75 community partners, representing over 140 sites, to carry out this initiative. *The Bronx Knows* partners included hospitals, community health clinics, community-based organizations, faith-based groups, and educational institutions throughout the borough.

The Bronx Knows experienced great success over the three-year initiative (2008-2011). Partner agencies conducting over 607,000 tests, and more than 1,700 individuals were newly diagnosed with HIV, 75% of whom were linked to care. There was a 10.5% relative increase in testing among Bronx residents aged 18-64 between 2007 and 2010 (from 72.3% to 79.9%) (NYC DOHMH, unpublished data). In brief, *The Bronx Knows* showed that a coordinated, routine HIV screening initiative in health care settings throughout a jurisdiction, paired with increased targeted testing in the community, can effectively improve HIV case finding and linkage to care on a municipal scale.

Building on the success of *The Bronx Knows*, NYC DOHMH launched *Brooklyn Knows* on World AIDS Day 2010 (December 1). Like its precursor, *Brooklyn Knows* aims to test the estimated 580,000 Brooklyn residents who have never been tested for HIV over four years and to link HIV-positive individuals to quality care and supportive services. Now in its second year, *Brooklyn Knows* has over 90 community partners and an active steering committee with subcommittees working specifically on faith-based outreach, linkage to care, and event planning. Approximately 146,000 tests were conducted during year one of the initiative; this represents a 28% increase in HIV testing volume from baseline.

In addition to scaling up routine HIV screening within partner clinical agencies*, Brooklyn Knows* partners host large-scale community testing activities to attempt to decrease stigma, normalize the experience of getting tested, and reach individuals who, because they seldom interact with the health care community, may not otherwise receive the offer of an HIV test. To coincide with National HIV Testing Day on June 27, 2012, *Brooklyn Knows* community partners with mobile HIV testing units offered free HIV testing at three high-traffic locations across Brooklyn. Local step-dancing teams, outfitted in *Brooklyn Knows* t-shirts, performed an HIV awareness step routine at each site to attract attention and encourage people to

get tested. All step teams and testers came together at Brooklyn Borough Hall, welcomed by the Deputy Borough President, for a high-energy evening activity with music, dancing, speakers, and free HIV testing. *Brooklyn Knows* partners will be providing HIV testing at high-profile, borough-wide summer concerts, expos, and other community events throughout the summer of 2012. This fall, BHIV will host its second meeting with CEOs of Brooklyn clinical and nonclinical agencies, and will host a *Brooklyn Knows* community partner workshop with all hospitals, community health centers, community-based organizations, and faith-based groups sharing best practices and strategizing on overcoming barriers to HIV testing.

HIV Planning Group (HPG)

Community and governmental partners of the HPG are tasked with the responsibility of reviewing programmatic initiatives developed by DOHMH and providing feedback on them. The diverse and representative membership of the NYC HPG creates a local environment that supports HIV prevention through the involvement of a broad, diverse base of engaged community residents. Funding for this activity comes from the CDC HIV Prevention Cooperative Agreement (PS12-1201).

BHIV Prevention Specialists

BHIV now has HIV prevention specialists assigned to each of the five boroughs of New York City. These HIV prevention specialists are tasked with developing collaborative relationships with HIV prevention providers, clients, and other key stakeholders in the neighborhoods within each borough that are most heavily impacted by HIV.

Through the above initiatives, DOHMH has been able to provide support for local community mobilization around issues related to raising HIV awareness, and expanding the reach of services to those who are either HIV-infected or at highest risk of HIV acquisition.

GOALS AND STRATEGIES: SOCIAL MARKETING, MEDIA, AND MOBILIZATION

Goal 1: Increase consistent primary HIV prevention social marketing aimed at reducing risk behaviors and increasing HIV testing among highly-impacted vulnerable populations (MSM, transgender women, black and Latino heterosexuals, at-risk youth, and individuals struggling with substance abuse).

> **Strategy 1:** Develop and launch primary HIV prevention social marketing campaigns to reach high risk MSM via online and/or new media platforms.
>
> **Strategy 2**: Develop primary HIV prevention social marketing campaigns to reach highly-impacted vulnerable populations in addition to MSM through the exploration of optimal messaging, effective imagery, and efficient communication channels.
>
> **Strategy 3:** Explore use of new media and advanced technology as part of innovative social marketing campaigns for persons at highest risk of HIV acquisition.
>
> **Strategy 4:** Continue to enhance evaluation strategies to inform social marketing campaigns to maximize the campaigns' reach and impact.

Goal 2: Increase consistent secondary HIV prevention social marketing aimed at linkage to and engagement in care, and reducing secondary transmission by HIV-positive persons.

> **Strategy 1**: Develop a secondary HIV prevention social marketing campaign to reach HIV-positive persons through the exploration of optimal messaging, effective imagery, and efficient communication channels.
>
> **Strategy 2:** Work collaboratively with the NYS Department of Health on developing a new iteration of the *HIV Stops with Me* social marketing campaign for release in NYC.

Strategy 3: Explore use of new media and advanced technology as part of innovative social marketing campaigns for HIV-positive persons.

Strategy 4: Continue to enhance evaluation strategies to inform social marketing campaigns to maximize the campaigns' reach and impact.

Goal 3: Use social marketing to normalize HIV testing and linkage to care among medical providers, community-based organizations, and populations most heavily impacted by HIV.

Strategy 1: Work with medical students, medical residents, and health care providers to normalize routine HIV screening as standard of care in NYC.

Strategy 2: Develop and sustain social marketing and/or media campaigns for both consumers/patients and providers to decrease stigma related to HIV testing and to normalize routine HIV screening.

Strategy 3: Develop messaging and educational materials for providers caring for HIV-positive patients that emphasize the individual and public health benefits of early antiretroviral treatment.

Strategy 4: Explore continued public health detailing campaigns among health care providers to inform them of the routine HIV screening recommendations and the NYS mandate for the routine offer of screening.

Goal 4: Create local environments that support HIV prevention by actively involving community members in efforts to raise HIV awareness and provide evidence-based activities to reduce HIV incidence.

Strategy 1: Actively recruit faith-based, business, labor, and civic organizations in communities highly impacted by HIV to become involved in local HIV prevention efforts as NYC DOHMH partners.

Strategy 2: Provide data, training and technical assistance to recruited partner organizations to support and encourage increased involvement in local HIV prevention efforts.

Strategy 3: Foster productive relationships with community leaders, faith leaders, and philanthropists to advance HIV prevention goals.

SITUATIONAL ANALYSIS: nPEP and PrEP

nPEP

Since 2004, the NYC DOHMH and NYS DOH have promoted the appropriate use of nPEP in hospital emergency departments through the NYS clinical guidelines and education program. The Office of the Medical Director (OMD) at the New York State Department of Health's AIDS Institute is responsible for the development and dissemination of clinical and non-clinical guidelines regarding HIV/AIDS prevention and care. OMD, in collaboration with the NYC DOHMH, has issued and updated guidelines on post-exposure prophylaxis; these guidelines for occupational and non-occupational post-exposure prophylaxis are available online to NY State providers (http://www.hivguidelines.org/clinical-guidelines/post-exposure-prophylaxis).

The OMD is also responsible for the management of contracts providing clinical education through the Clinical Education Initiative (CEI). There is no specific amount NYS currently spends on nPEP education through CEI, but the NYS DOH AIDS Institute funds a center of excellence for testing and post exposure prophylaxis at approximately $277,000 per year. CEI provides funding to the National HIV/AIDS Clinicians' Consultation Center (NCCC) to staff a PEP hotline to provide consultation services to NY State providers in assessing risk of exposure, reviewing current NYS PEP guidelines, and discussing specific treatment and follow-up options for post-exposure prophylaxis. The hotline operates 24 hours a day, 7 days a week.

In 2007, the NYC DOHMH funded two clinical facilities to provide non-occupational post-exposure prophylaxis (nPEP) to uninsured individuals at greatest risk for HIV acquisition. These sites were chosen primarily because of the high prevalence communities in which they are located and the relatively high percentage of MSM served at these sites. Funding was reserved for uninsured individuals who could not afford nPEP through other types of insurance. In 2010, the NYC DOHMH began funding three clinical facilities to provide nPEP to the uninsured. As funding was reserved for uninsured individuals, these programs tended to be small. Of 227 clients at these three funded sites who underwent intake procedures to assess for eligibility, 161 initiated nPEP during 2011. Almost all (81%) of clients who initiated nPEP identified as MSM. Of the clients initiated on nPEP, 68 (42%) completed at least 90% of the full course of treatment (28 days). All clients who completed at least 90% of the nPEP regimen were found to be HIV antibody negative 25 or more days post-treatment.

In 2013, the NYC DOHMH will fold nPEP services into the new sexual and behavioral health service category of the HIV prevention rebid. Funded organizations will be able to provide nPEP free of charge to uninsured individuals. These contracts will begin in January 2013. Additionally, in June 2012, a bill was signed into law that enables survivors of sexual assault who have undergone a forensic rape exam to receive the full course of nPEP treatment regardless of ability to pay. DOHMH staff have also been active in promoting the use of nPEP by educating providers about guidelines for its use.

PrEP

Since the results of the iPrEx study were first announced in November 2010, interest in implementation of PrEP among MSM with a high risk of HIV acquisition has emerged and grown. Concerns about implementation still exist. Cost, intermittent/poor adherence, and the possibility that existing disparities will be exacerbated by this prevention modality are foremost among the concerns. In April 2012, the DOHMH assembled an Inter-borough PrEP workgroup to begin discussing possible actions that the Agency might take around PrEP. Exploratory data analysis related to estimating PrEP knowledge among MSM and identifying very high incidence populations was undertaken. Staff from BSTDC and BHIV are currently drafting a proposal for a PrEP demonstration project in STD clinics at this time. Dissemination of information about PrEP on the DOHMH website is also underway. Organizations funded to provided sexual and behavioral health services through the new request for proposals will also be able to provide brief educational sessions on PrEP (and nPEP) to their clients at highest risk for HIV acquisition.

GOALS AND STRATEGIES: NPEP AND PREP

Goal 1: Increase provider knowledge of and familiarity with nPEP/PrEP, particularly among providers/clinics that serve populations at highest risk of HIV acquisition.

Strategy 1: Include nPEP as a core competency in provider-focused HIV prevention education and training.

Strategy 2: Add nPEP/PrEP as a core topic for noon conferences, medical grand rounds, and webinar presentations given by BHIV physicians.

Strategy 3: Increase provider web-based content about nPEP/PrEP on the DOHMH website with links to clinical guidelines.

Strategy 4: Work with BSTD to offer nPEP/PrEP training and education for providers jointly through the BHIV Training and Technical Assistance Program and the STD/HIV Prevention Training Center.

Goal 2: Increase access to nPEP among appropriately exposed persons at HIV risk of HIV acquisition**.**

Strategy 1: Solicit proposals for nPEP provision as part of the sexual and behavioral health service category of the HIV prevention portfolio re-bid.

Strategy 2: Provide training and technical assistance to newly funded sexual and behavioral health programs.

Strategy 3: Use program performance data and quality management data to inform providers and guide nPEP program implementation.

Goal 3: Increase awareness of nPEP/PrEP and knowledge of their use among serodiscordant couples.

Strategy 1: Develop a focus group of serodiscordant couples to assess perceptions of nPEP/PrEP and to explore optimal messaging, effective imagery and efficient communication channels..

Strategy 2: Develop appropriate patient education about the use of nPEP/PrEP for serodiscordant couples.

Goal 5: Increase knowledge of PrEP among persons at highest risk of HIV acquisition.

Strategy 1: Support health education about PrEP by clinical providers through the newly created sexual and behavioral health service category in the HIV prevention portfolio rebid.

Strategy 2: Explore the development of social marketing and social media to inform patients about the appropriate use of PrEP.

Goal 6: Increase access to PrEP among persons at highest risk for HIV acquisition in NYC.

Strategy 1: Explore the development of a demonstration project involving the direct provision of PrEP by through STD clinics or with community clinical partners.

Strategy 2: Work with NYS to support efforts to pursue possible medical insurance reimbursement for PrEP.

Strategy 3: Use multiple data sources (e.g., Community Health Survey, data from the provider report form, data from partner services intake) to inform providers about the uptake of PrEP and the effectiveness of its use to further guide program implementation.

BRIEF CONCLUSIONS

This is a unique time in HIV prevention in NYC. The National HIV/AIDS Strategy[1] (preventing new infections, increasing access to care, and reducing HIV-related health disparities) and the new focus of CDC's "High-Impact Prevention"[2] (to intensify the use of appropriately combined evidence-based prevention methods in the most highly affected geographic areas) clearly provide new momentum to prevention efforts in the United States. New tools and strategies have emerged or have been proven effective only recently.[3,4] Selecting the best combination of interventions for priority populations and ensuring that they are employed effectively has never been more of a challenge. Further, given the size and diversity of NYC and the number of entities involved in HIV prevention efforts, strategic coordination citywide is particularly crucial. The development of this comprehensive plan for HIV prevention in the jurisdiction has never been more important.

Despite the significance of this document's existence, such a plan is inherently dynamic. New research and innovative technologies will undoubtedly emerge in the coming years that may cause priorities to shift. Changes in the local epidemic may also occur that warrant new approaches. But as long as there is a clear understanding of the HIV prevention goals, and an ongoing attempt to reassess needs, gaps, and scalability, this plan's utility will be maintained moving forward. It is hoped that through the activities outlined herein, and through the collaborations formed both through the planning process and through the plan itself, the core mission of the BHIV will be achieved: to reduce HIV illness and death by preventing HIV infections among New York City residents and improving HIV treatment and care for New York City residents already infected.

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