

CHAIN 2018-1a Report



Service Needs and Utilization
New York City:
2015-2017

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C.H.A.I.N. REPORT

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Introduction

The CHAIN Project collects information on various aspects of an individual's life, including use of social and medical services, as well as demographic, behavioral, and well-being measures relevant to need for those services. This CHAIN report updates an earlier series of service gaps and utilization reports (2004-1, 2005-3) and service needs and utilization reports (2008-1, 2011-1a, 2013-5a), with results from the most recent round of interviews (Round 9: 2015-2017). One to four measures of need and a parallel measure of utilization are applied to the following service areas/domains: health care, case management, mental health, alcohol or drug (AOD) treatment, transportation, food and nutrition, and housing. In this report, previously defined ARV treatment support services and medical referral case management services are combined to better reflect the medical case management service category in the Ryan White Part A Program. This report includes several changes in definitions that affect various measures: the service utilization measure for HIV primary care, and the service need measures for non-medical case management, medical case management, and AOD treatment. As in the previous analysis, subgroup differences are examined by gender, race/ethnicity, mental health, substance use behavior, age, borough of residence, HIV medical care setting, housing status, and place of birth. In addition, the following subgroups have been added: MSM, education, employment status, HIV diagnosis year, and household composition. HIV medical care settings have been reduced from five to three categories (see Table 2), and the substance use behavior subgroup has been separated into hard drug use and problem drinking.

The aims of this report include:

1. To examine levels of cohort need for, and among those with need, and utilization of specific services that fall into Ryan White Part A categories.
2. To compare need and utilization of these services over time, for the current (2015-2017) vs. the prior (2013-2015) round of interviews.
3. To compare need and utilization of these services between the continuing cohort and the newly recruited younger cohort (age <40) during the current round of interviews (2015-2017).
4. To compare need and utilization of these services by different subgroups.
5. To identify service categories with high need and low utilization, for Ryan White planning purposes.

Key Findings

- From the 2013-2015 period to the 2015-2017 period¹:
 - HIV primary care utilization and AOD treatment declined significantly (Table 4)
 - Medical case management needs and utilization both declined significantly. Home care needs and utilization both declined, though not at statistically significant levels (Table 4)
 - Need for professional mental health declined, while utilization increased (Table 4)
 - Transportation and food service utilization declined, and permanent housing placement increased (Table 4)
- For the 2015-2017 period:
 - There are statistically significant differences between participants 40 years old and above and under age 40 in a number of areas of service needs and utilization:
 - Participants under age 40 have higher levels of service needs for non-medical and medical case management, professional mental health, and permanent housing placement services

¹ The comparison of the 2013-2015 to the 2015-2017 period is restricted to those recruited during 2009-2011. Those recruited during 2009-2011 were eligible for both 2013-2015 and 2015-2017 interviews.

- Participants 40 years old and above have higher levels of service needs for home care, nutrition counseling, and rental assistance services
 - Participants under age 40 have lower levels of service utilization for permanent housing placement
 - Participants 40 years old and above have lower levels of service utilization for medical case management services
- Among those 40 years old and above, food, and nutrition counseling services stand out as services with relatively high need (>50%) and relatively low levels of utilization (<50%; Table 6A)
- For those under age 40, food, nutrition counseling, and permanent housing placement services are the categories with relatively high need (>50%) and relatively low levels of utilization (<50%; Table 6B)
- Among those 40 years old and above, subgroups with higher levels of need in multiple service categories are participants who (Table 7):
 - Live with children (4 service categories)
 - Are Latino (3 service categories)
 - Are between age 40 and 49 (3 service categories)
 - Have poor mental health functioning (3 service categories²)
 - Are homeless (3 service categories²), and
 - Are foreign born (3 service categories)
- Among those under age 40, subgroups with higher needs in multiple service categories are participants who (Table 7):
 - Currently use hard drugs (6 service categories²)
 - Currently drink heavily (4 service categories²)
 - Are homeless (4 service categories²)
 - Live with children (4 service categories)
 - Are female (3 service categories)
 - Are unemployed and not looking for work (3 service categories)
 - Receive HIV primary care at community clinics (3 service categories)
 - Are unstably housed (3 service categories²)
- Among those 40 years old and above, subgroups with lower levels of utilization in more service categories in which they have need are participants who (Table 7):

² Participants who have poor mental health functioning, are homeless, currently use hard drugs, or currently drink heavily are in need of services for 2 service categories *by definition*

- Have poor mental health functioning (4 service categories)
 - Never used hard drugs (3 service categories)
 - Live in Brooklyn (3 service categories)
 - Were diagnosed between 1997 and 2004 (3 service categories)
- Among those under age 40, subgroups with lower levels of utilization in multiple service categories in which they have need are participants who (Table 7):
 - Currently drink heavily (4 service categories)
 - Are between age 18 and 29 (4 service categories)
 - Live with other adults (3 service categories)
- Overall, gender, household composition, employment status, housing status, substance use (hard drugs and alcohol), mental health functioning, educational attainment, and borough of residence are the variables most strongly associated with higher levels of service need. Mental health functioning, substance use (hard drugs and alcohol), and housing status are the variables most strongly associated with lower levels of service utilization (Table 7, Appendix II).

Methodology

New York City CHAIN Recruitment and Study Sample

Cohort Recruitment. The NYC CHAIN cohort was recruited in 2002 and augmented with a refresher sample recruited in 2009-2011. The sampling and recruitment protocols were similar for the NYC 2002 cohort and the NYC refresher sample. Agencies known to serve people living with HIV were randomly selected from a sampling frame stratified by type of agency (medical or social service agency) and borough. Then, clients from each participating agency were sampled either through random selection from a listing of the agency's HIV-infected clients or through onsite sequential enrollment. To protect the privacy of agency clients, agency staff made initial contact to determine interest in the study. The contact information of interested clients was provided to CHAIN staff for formal enrollment and

informed consent procedures.³ For the original recruitment, we enrolled 693 clients from 43 agencies. For the refresher sample, we enrolled 305 clients from 18 agencies. On average, the participants are interviewed every 18 months. By 2015, 8 rounds of interviews had been completed and there was an over-representation of older persons living with HIV in the cohort. Thus, it was agreed that all new recruitment should focus on individuals under 40, in order to achieve a more age-representative cohort overall.

In May 2015, a third NYC CHAIN cohort was initiated. It combines 266 continuing members who were recruited between 2009 and 2011 with a planned recruitment of 450 HIV-positive individuals under the age of 40. A first round of 526 interviews with the newly constituted 2015 NYC cohort was conducted between May 2015 and December 2017: 207 among the continuing cohort members and 319 among newly recruited individuals under 40.

Study Sample. Data for this study were obtained from 760 interviews completed between July 2013 and December 2017 with 568 NYC CHAIN cohort members, who were eligible for the CHAIN study as of May 2015. Individuals eligible for the CHAIN study at this time represent those who were recruited during the 2009-2011 recruitment period and those who would be recruited in the new cohort. To assess trends in service needs and utilization, we divided the study period into two: (1) interviews completed with 224 individuals between July 2013 and March 2015 (the 2013-2015, or “past,” period); and (2) 536 interviews completed with 344 additional individuals between May 2015 and December 2017 (the 2015-2017, or “current,” period). As mentioned above, the interviews completed

³ For a detailed description of the recruitment of the 2002 NYC cohort, see CHAIN Report 2004-4: Field Notes: Recruiting.

in the 2015-2017 period represent both continuing cohort members, recruited during 2009-2011, and newly recruited cohort members. The current recruitment, started in 2015 and ongoing, targets individuals under age 40, and thus the 2015-2017 interviews represent a different population from the one recruited in 2009-2011 and available for interviews during the 2013-2015 period. Therefore, we separated the 2015-2017 interviews into two groups based on the age cutoff of 40 years old (n=231 for age 40 and above, n=305 for under age 40).

Study Variables

The CHAIN Project collects information on various aspects of an individual's life, including use of social and medical services, as well as demographic, behavioral and well-being measures relevant to need for those services.

Service Need and Utilization Measures. NYC DOHMH and CHAIN staff developed fourteen pairs of service need and utilization measures for six service domains: health care, case management, behavioral health, transportation, food and nutrition, and housing services. Table 1 displays the operational definitions for service needs and utilization measures. A measure of need for a service often involved multiple criteria that took into account objective evidence based upon individual attributes such as health status and behavior, as well as an individual's perceived service need.

For some service categories, recent use of services was treated as a sufficient criterion—but not necessarily the only criterion—for recent need. Specifically, utilization was built into the need definition for service categories (such as rental assistance and food services) that base eligibility on recipients meeting objective need criteria. Utilization was

also incorporated into the definition of need for service categories (such as professional mental health or AOD treatment) in which enrollment indicates the presence of a condition that is often unrecognized or stigmatized to such a degree that individuals without the condition would generally not seek or accept the service. Documentation of a mental health or substance use disorder is increasingly required as a condition of client eligibility for these service models, both within and outside of the New York EMA Ryan White Part A Program. In the case of ARV treatment adherence support, utilization was incorporated into the definition of need because participation entails work for the client without any expected benefit to a client lacking the need. Finally, need definitions took into account whether a client would most likely revert to needing a service, in the event of termination/withdrawal of the service he or she had been receiving.

We instituted a few changes in the definition of service needs and utilization from previous reports, as listed below. For this report, we have revised the definition for HIV primary care utilization from having one visit to a primary care provider during the past six months to one visit during the past year (12 months). Social service case management is now called non-medical case management, and the definition for need, which includes but does not require recent hard drug use, now treats amphetamine and methamphetamine (vs. just crack/cocaine and heroin) as hard drugs use. The AOD treatment service need definition also now includes amphetamine use. To be consistent with other service needs and utilization measures, the current hard drug (crack/cocaine, heroin, and amphetamine) use definition is limited to the past 6 months, rather than the previously used 12-month period.

Subgroup Variables. Table 2 lists the categories for subgroup analyses. These includes gender, broken out by MSM vs. non-MSM sexual behavior among men,

race/ethnicity, age, education level, employment status, mental health functioning, hard drug use, heavy or problem drinking, borough of residence, HIV medical care setting (categorized into one of three types of primary care settings), perinatal infection status, year of HIV diagnosis, housing status, housing composition, and place of birth. The gender variable represents CHAIN respondents' self-identified gender, rather than sex at birth as in previous CHAIN reports.

Mental health functioning was measured using the Medical Outcomes Study (MOS) SF-12v2 Mental Component Summary score (MCS; Ware, et al. 2002). Following Medical Outcomes Trust guidelines, we coded a score below 37 (range 0-100) as having low mental health functioning. Employment status is categorized into 4 groups: employed full-time, employed part-time, unemployed looking for work, unemployed not looking for work. Participants are coded as employed full-time if they are regularly employed with 30+ hours per week or work multiple jobs totaling 30+ hours per week. Participants with irregular jobs who work fewer than 30 hours per week are categorized as employed part-time. Individuals without a paid job are considered unemployed, including individuals who volunteer, are retired or disabled, or are a home-maker or a student. Employed participants are divided into two groups based on their reported interest in obtaining or looking for a job.

In previous reports, HIV medical care setting had five categories. Due to small sample size, in this report, some of the previous categories were merged to create three categories: hospital clinic, community clinic, and private practice. Additionally, the previously used problem substance use subgroup is separated into hard drug use and heavy or problem drinking subgroups. Hard drug use now includes amphetamines

(including methamphetamine) in addition to crack/cocaine and heroin (see Table 2 for more details).

Table 1. Measuring Needs and Utilization – Definitions

SERVICE AREA	Need	Utilization
HEALTH CARE		
HIV Primary Care	Positive HIV serostatus	At least one visit to an HIV primary care physician in the last twelve months
Home Care	Report that (1) health limits “a lot” for moderate activities, like moving a table, carrying groceries, or pushing a vacuum cleaner AND (2) health limits “a lot” for climbing several flights of stairs	One or more of the following services in the last six months: (1) help or assistance at home including for medical problems, personal care, housekeeping, or other needs OR (2) services for home care to help with activities of daily living
CASE MANAGEMENT		
Non-medical Case Management	(1) Low mental health function [Mental Component Summary (MCS)<37.0] OR (2) an inpatient, emergency room, or mobile unit visit for a psychiatric or mental health reason in the last six months OR (3) heavy or problem drinking during ⁴ the past six months OR (4) crack/cocaine, amphetamine or heroin use during the past 6 months OR (5) homelessness or unstable housing ⁵ in the last six months	One or more of the following services from a case manager in the last six months: (1) care plan development or revision for dealing with needs OR (2) referrals for social services OR (3) help filling out forms for benefits or entitlements
Medical Case Management	(1) No HIV primary care in the last twelve months OR (2) cessation of care or no appointments for six or more months since the last interview OR (3) more than one missed appointment in the past six months OR (4) no CD4 or VL test in the past six months OR (5) incomplete adherence to ARV meds OR (6) adherence to ARV meds with support services	(1) Help from a case manager with access or referrals to medical services during the last six months OR (2) support services for taking ARVs from professional providers in the last six months

⁴ Definition of heavy or problem drinking, see Table 2

⁵ Participants who were incarcerated during the last six months were categorized as unstably housed

Table 1 (Continued). Measuring Needs and Utilization – Definitions

SERVICE AREA	Need	Utilization
BEHAVIORAL HEALTH		
Professional Mental Health	(1) Low mental health function (MCS<37.0) OR (2) an inpatient, emergency room or mobile unit visit for a psychiatric or mental health reason in the last six months OR (3) counseling from a mental health care professional or clinical social worker in the last six months	Counseling from a mental health care professional or clinical social worker in the last six months
AOD Treatment	(1) Crack/cocaine, amphetamine, or heroin use during the past 6 months OR (2) heavy or problem drinking ⁶ during the past six months OR (3) report that receiving AOD treatment was “considerably” or “extremely” important OR (4) any form of AOD treatment in last six months	Any form of AOD treatment in last six months
TRANSPORTATION		
Transportation	(1) Report of need for transportation assistance OR (2) report that a lack of transportation resulted in delayed or missed medical or social services in the past six months OR (3) need for home care services (see above definition based on physical limitations in ordinary activities)	Transportation services in the last six months
FOOD AND NUTRITION		
Food	(1) Not enough money in the household for food once in a while to very often in the last six months OR (2) a period without anything to eat in the last 30 days OR (3) receipt of food stamps OR (4) limited or no access to a kitchen OR (5) participation in a meal delivery program	One or more of the following services in the last six months: (1) Meals provided in a group setting, (2) prepared meals delivered to home, (3) food voucher, or (4) food from a food pantry
Nutrition counseling	(1) Low (≤ 18.5) or High (≥ 25.0) BMI OR (2) any history of diagnosis with nutrition-sensitive chronic illnesses (hypertension, heart problems, diabetes, high cholesterol, kidney disease, wasting syndrome, diarrhea for a month or more) OR (3) current pregnancy	One-on-one food and nutrition counseling in the last six months
HOUSING		
Permanent Housing Placement	Homelessness, temporary doubling up, or temporary/transitional housing for one or more days during the last 6 months	(1) Housing assistance or rental assistance during the past 6 months AND (2) current residence in stable housing
Rental Assistance	Current residence in stable housing AND (1) difficulty paying rent in the past 6 months OR (2) at risk for eviction and insufficient income to secure housing (FMR>50% of income) OR (3) current receipt of rental assistance (including living in public housing) OR (4) insufficient money for rent in much of the past 6 months OR (5) rent contribution over 50% of income	Rental assistance (including living in public housing) during the past 6 months

⁶ Definition of heavy or problem drinking, see Table 2

Table 2. Operationalization of Subgroup Variables

Subgroups	
Gender¹:	Men (MSM, non-MSM), women, transgender individuals
Race/Ethnicity:	White, Black, Hispanic/Latino, other
Age Groups:	18-29, 30-39, 40-49, 50+
Education:	Less than high school, high school or GED, more than high school
Employment:	Unemployed not looking for work, unemployed looking for work, employed part-time, employed full-time
Mental Health Functioning:	(Using SF-12v2) MCS<37(Poor MH functioning), MCS≥37(Good MH functioning)
Hard Drug Use:	Never used crack/cocaine, heroin, or amphetamine, Past use (+5 times), Current (during the past 6 months) crack/cocaine, heroin, or amphetamine use
Heavy or Problem Drinking	Yes=1 or more “yes” responses to the 4 CAGE questions ⁷ or drink weekly or more often and have five or more drinks on those days when drinking during the past 6 months No=“no” to all 4 CAGE questions and drink less than weekly and have fewer than five drinks on those days when drinking, during the past 6 months
Borough of Residence:	Bronx, Brooklyn, Manhattan, Queens, Staten Island
HIV Medical Care Setting:	Hospital Clinic, Community Clinic, Private MD
Perinatal Infection	Yes=perinatally infected, No=not perinatally infected
Year of Diagnosis²:	Before 1996, 1997-2004, 2005-2011, after 2011
Housing Status:	<ul style="list-style-type: none"> • Stable—individuals in permanent housing • Unstable—Individuals not currently in permanent housing but not literally homeless, including those in a transitional housing program, in AOD treatment housing with no other address, or temporarily doubled up with friends or family • Homeless—individuals who describe themselves as homeless or report sleeping on the street, in a shelter, or in an SRO or welfare hotel with no services in last six months
Household Composition	Live Alone, Live with other adults (no children), Live with children (with or without other adults)
Place of Birth:	U.S., Puerto Rico, Other Country

¹ Gender is based on self-identified gender.

² For those perinatally infected, the year of birth is used for the diagnosis year

⁷Ewing JA. Detecting Alcoholism: The CAGE questionnaire. JAMA. 1984; 252: 1905-1907.

Table 3 displays sample distributions for the subgroup of individuals listed in Table 2. In this and subsequent tables, findings are tabulated separately for (1) 2013-2015 interviews with the cohort members recruited in 2009-2011 who were eligible for 2015-2017 interviews, (2) 2015-2017 interviews with those age 40 and above, and (3) 2015-2017 interviews with those under age 40. The second group, 2015-2017 interviews with individuals age 40 and above, mostly (90%) overlaps with the first group.

Table 3. Sample Characteristics

	2013-2015 interviews (n=224)	2015-2017 interviews	
		Age 40 or above (n=231)	Age under 40 (n=305)
Gender***			
<i>Men</i>	57.6%	58.4%	67.9%
<i>MSM</i>	16.5%	16.5%	57.7%
<i>Non-MSM</i>	41.1%	42.0%	10.2%
<i>Women</i>	42.0%	41.1%	29.5%
<i>Transgender Individuals</i>	0.5%	0.4%	2.6%
Race/ Ethnicity**			
<i>White</i>	7.6%	6.5%	4.3%
<i>Black</i>	54.5%	53.3%	50.5%
<i>Hispanic/Latino</i>	34.4%	35.5%	38.4%
<i>Other</i>	3.6%	4.8%	6.9%
Age Group***			
<i>18-29</i>	2.2%	0.0%	47.9%
<i>30-39</i>	4.9%	0.0%	52.1%
<i>40-49</i>	33.5%	32.0%	0.0%
<i>50+</i>	59.4%	68.0%	0.0%
Education*			
<i>Less than high school</i>	38.8%	37.2%	30.5%
<i>High school or GED</i>	47.8%	46.3%	49.2%
<i>More than high school</i>	13.4%	16.5%	20.3%
Employment***			
<i>Unemployed not looking for work</i>	60.3%	58.3%	19.7%
<i>Unemployed looking for work</i>	25.5%	26.8%	51.8%
<i>Employed part-time</i>	9.8%	8.3%	18.7%
<i>Employed full-time</i>	4.5%	6.6%	9.8%
Mental Health Functioning***			
<i>Poor</i>	27.7%	28.1%	46.2%
<i>Good</i>	72.3%	71.9%	53.8%
Hard Drug Use***			
<i>Never Used</i>	41.1%	41.6%	65.6%
<i>Past Use</i>	47.8%	48.5%	17.7%
<i>Current Use</i>	11.2%	10.0%	16.7%
Current Problem Drinking			
<i>No</i>	91.5%	91.3%	88.5%
<i>Yes</i>	8.5%	8.7%	11.5%

Table 3. Sample Characteristics

	2013-2015 interviews (n=224)	2015-2017 interviews	
		Age 40 or above (n=231)	Age under 40 (n=305)
Borough of Residence***			
<i>Bronx</i>	26.3%	33.8%	42.0%
<i>Brooklyn</i>	33.9%	30.3%	28.2%
<i>Manhattan</i>	21.0%	20.8%	21.3%
<i>Queens</i>	10.3%	9.5%	7.5%
<i>Staten Island</i>	8.5%	5.6%	1.0%
HIV Medical Care Setting***			
<i>No HIV Provider</i>	0.0%	0.9%	1.6%
<i>Hospital</i>	67.0%	68.7%	56.2%
<i>Community Clinic</i>	29.9%	29.1%	40.8%
<i>Private MD</i>	3.1%	2.2%	3.0%
Perinatal Infection			
<i>Yes</i>	0.0%	0.0%	10.8%
<i>No</i>	100%	100%	89.2%
HIV Diagnosis Year***			
<i>Before 1996</i>	46.6%	48.0%	4.3%
<i>1997-2004</i>	40.7%	38.9%	22.9%
<i>2005-2011</i>	12.7%	10.9%	41.7%
<i>After 2011</i>	0.0%	2.2%	31.1%
Housing***			
<i>Stably housed</i>	89.7%	82.7%	49.2%
<i>Unstably housed</i>	7.1%	6.5%	19.3%
<i>Homeless</i>	3.1%	10.8%	31.5%
Household Composition			
<i>Live alone</i>	63.3%	66.7%	65.3%
<i>Live with other adults</i>	24.3%	20.2%	20.0%
<i>Live with children</i>	12.4%	13.2%	14.7%
Place of Birth			
<i>U.S.</i>	72.3%	69.7%	80.0%
<i>Puerto Rico</i>	5.8%	5.6%	4.3%
<i>Other Country</i>	21.9%	24.7%	15.7%

* $p < .05$, ** $p < .005$, *** $p < .001$

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews. Gray shades indicate cells with small sample size ($n < 25$).

Presentation of Findings and Analysis Plan

Table 4 compares the current (2015-2017) and the previous (2013-2015) rounds of interviews, with respect to the percentage of NYC CHAIN participants in need of each service, and among those in need, the percentage using the service. Table 5 compares the participants age 40 and above and the participants under age 40 with respect to the percentage of NYC CHAIN participants in need of each service and among those in need, the percentage using the service . Tables 6a and 6b cross-classifies service areas according to level of need and utilization. Service areas falling into the high need (>50%) and low utilization (\leq 50%) category are of particular interest for more detailed investigation. Table 6a represents level of need and utilization for 2015-2017 interviews with individuals age 40 and above, and table 6b represents level of need and utilization for 2015-2017 interviews with individuals under age 40.

Subgroup differences were investigated through both tabular and regression methodologies. Table 7 highlights the subgroups with service needs substantially above cohort average and those with levels of utilization substantially below the cohort average for the current period, for each service category examined. Table 7 lists subgroups that, by our definition, are in need (e.g. all participants with low mental health functioning need mental health services) and subgroups showing substantial departures (in general 5% or more difference) in the observed percentages presented in the later tables. Table 7 excludes subgroups that exhibited large but unreliable deviations because of very small sample sizes.

Tables with detailed findings that are the basis of Table 7 are placed in Appendix I of this report. The first series of tables in the Appendix I, Series A, Tables 8A through 18A, display the percentages of each subgroup with need for a given service area, and service

utilization among those in need. Data are separately summarized for the continuing cohort (recruited in 2009-2011), the new cohort (recruited in 2015-2017), for individuals age 40 and above and those age under 40.

Bivariate and multiple logistic regression models were estimated for a more rigorous identification of important subgroup differences for the current round of interviews (2015-2017). When subgroup variables were part of the definition of the service need measure, they were dropped from the regression model for that service need regression. For example, mental health, substance use behavior, and housing status were removed from the non-medical case management need regression model. Mental health was removed from the professional mental health service need regression; substance use behavior use was removed from the AOD treatment service need regression; and housing status was removed from the permanent housing placement need regression. Because of the small sample size, the two age groups are combined in these analyses. Detailed results for the logistic regression subgroup analysis are presented in the Series B tables in the report Appendix I, following their respective Series A tables.

We included a second way to explore subgroup differences in service needs and the services utilized. We constructed summary indices of need and underutilization. The first was a count of the number of service areas in which each CHAIN participant met the need criteria. The second was a count of the number of needed services for which a participant failed to meet the utilization criteria. These indices ranged between 0 and 12. We calculated the distribution of these indices and estimated multiple regression equations to identify subgroups most vulnerable in terms of needs and underutilization across multiple service areas. The results of this analysis can be found in Appendix II.

Results

Overall Service Needs and Utilization

Trends from 2013-2015. HIV primary care utilization and AOD treatment service utilization declined significantly when the 2015-2017 period was compared to the 2013-2015 period. Medical case management needs and utilization both declined significantly during the most recent round of interviews. Home care needs and utilization also declined though not at statistically significant levels. Need for professional mental health services declined, while its utilization increased among those in need. Transportation and food service utilization declined, and permanent housing placement increased (See Table 4).

Participants age 40 and above. Aside from the universal need for HIV health care, service areas with the highest need were food and nutrition counseling services at 94% and 92%, respectively. Service areas with the lowest need were home care and permanent housing placement services at 18% and 14%, respectively. Service areas with the lowest utilization (among those in need) were transportation, AOD treatment, and home care, at 18%, 20%, and 21%, respectively. Service areas with the highest utilization (among those in need) were HIV primary care and rental assistance at 97% and 77%, respectively (See Table 5).

Participants age under 40. For this age group, service areas with the highest need were food and non-medical case management at 93% and 75%, respectively. Service areas with the lowest need were transportation and home care service at 25% and 2%, respectively. Service areas with the lowest utilization were AOD treatment, transportation, and permanent housing placement services at 20%, 21%, and 23%, respectively. Service areas with the highest utilization were HIV primary care, non-medical case management, and rental assistance at 98%, 72%, and 71%, respectively (See Table 5).

Comparisons of age groups. There were statistically significant differences between participants 40 years old and above and those under age 40 in a number of areas of service needs and utilization. Participants under age 40 had higher levels of service needs for non-medical and medical case management, professional mental health, and permanent housing placement services, whereas participants age 40 years old and above had higher levels of service needs for home care, nutrition counseling, and rental assistance services. Participants under age 40 had lower levels of service utilization for permanent housing placement, while participants age 40 years old and above had lower levels of service utilization for medical case management services (See Table 5).

Tables 6A and 6B cross-classified service areas by level of need (above and below 50%) and level of utilization (above and below 50%) for 2015-2017 interviews. Table 6A represents results from the individuals age 40 and above, and Table 6B represents results from the individuals under age 40. Among those age 40 and above, food, and nutrition counseling services stood out as categories with relatively high need (94%, and 92%, respectively) and relatively low levels of utilization (42%, and 32%, respectively). For those under age 40, food, nutrition counseling, and permanent housing placement services were categories of relatively high need (93%, 70%, and 54%, respectively) and relatively low levels of utilization (48%, 30% and 22%, respectively).

Table 4. Trends in Service Need and Utilization: New York City

	Service Needs			Utilization ^a		
	2013-2015	2015-2017	Trend	2013-2015	2015-2017	Trend [#]
HIV Primary Care	100%†	100%†	N/A	99.5%	96.6%	↓*
Home Care	20.5%	14.5%	↓	32.6%	23.3%	↓
Non-Medical CM^b	45.5%	45.9%	—	62.8%	63.4%	—
Medical CM^b	56.2%	45.8%	↓*	73.7%	47.5%	↓*
Professional MH^c	58.0%	49.8%	↓	65.4%	75.8%	↑
AOD^d Treatment	37.5%	33.4%	—	40.5%	19.1%	↓*
Transportation	26.3%	23.2%	—	37.3%	20.8%	↓
Food	95.1%	93.7%	—	48.8%	41.6%	↓
Nutrition Counseling	91.1%	92.8%	—	34.8%	32.3%	—
Permanent Housing Placement	10.8%	13.2%	—	33.3%	44.4%	↑
Rental Assistance	86.6%	87.4%	—	75.8%	80.6%	—

This analysis is restricted to those recruited during 2009-2011. Those recruited during 2009-2011 were eligible for both 2013-2015 and 2015-2017 interviews.

* Statistically significant trend

†By definition

^aAs a percentage of those with a need for the service

^bCM=Case Management

^cMH=Mental Health

^dAOD=Alcohol or Drug

Table 5. Service Need and Utilization by Age: New York City (Current Interviews 2015-2017)

	Service Needs			Utilization ^a		
	>=40 years old	<40 years old	Statistical Significance	>=40 years old	<40 years old	Statistical Significance
HIV Primary Care	100%†	100%†	N/A	97.0%	98.0%	--
Home Care	14.3%	2.0%	*	21.2%	33.3%	--
Non-Medical CM^b	48.5%	75.4%	*	68.8%	71.7%	--
Medical CM^b	45.5%	60.1%	*	53.6%	69.5%	*
Professional MH^c	51.5%	67.9%	*	75.2%	65.1%	--
AOD^d Treatment	34.1%	38.1%	--	19.7%	20.4%	--
Transportation	26.0%	24.9%	--	18.3%	21.1%	--
Food	93.5%	92.8%	--	46.3%	48.4%	--
Nutrition Counseling	91.3%	69.2%	*	33.2%	29.4%	--
Permanent Housing Placement	18.0%	52.6%	*	41.0%	22.8%	*
Rental Assistance	85.7%	56.3%	*	77.2%	71.2%	--

* Statistically significant difference between the two age group

†By definition

^aAs a percentage of those with a need for the service

^bCM=Case Management

^cMH=Mental Health

^dAOD=Alcohol or Drug

**Table 6A. Cross-Classification of Service Areas by Level of Need and Utilization:
New York City CHAIN 2015-2017 Interviews, Age 40 and above**

		Service Utilization Level	
		High (>50%)	Low (≤50%)
Service Need	High (>50%)	HIV Primary Care Professional MH ^b Rental Assistance	Food Services Nutrition Counseling
	Low (≤50%)	Non-Medical CM ^a Medical CM ^a	Home Care AOD ^c Treatment Transportation Permanent Housing Placement

^aCM=Case Management

^bMH=Mental Health

^cAOD=Alcohol or Drug

**Table 6B. Cross-Classification of Service Areas by Level of Need and Utilization:
New York City CHAIN 2015-2017 Interviews, Age under 40**

		Service Utilization Level	
		High (>50%)	Low (≤50%)
Service Need	High (>50%)	HIV Primary Care Non-Medical CM ^a Medical CM ^a Professional MH ^b Rental Assistance	Food Services Nutrition Counseling Permanent Housing Placement
	Low (≤50%)		Home Care AOD ^c Treatment Transportation

^aCM=Case Management

^bMH=Mental Health

^cAOD=Alcohol or Drug

Subgroup Differences

Subgroup differences revealed a complex pattern that is not easily summarized. The interested reader may review the detailed findings in Appendices I and II. Among those 40 years old and above, subgroups with higher levels of needs in multiple service categories included those who were: living with children (4 service categories), Latino (3 service categories), ages 40 and 49 (3 service categories), having poor mental health functioning (3 service categories), homeless (3 service categories), and foreign born (3 service categories; See Table 7). Among those under age 40 years old, subgroups with higher needs in more service categories included those who were: currently use hard drugs (6 service categories), currently drink heavily (4 service categories), homeless (4 service categories), living with children (4 service categories), female (3 service categories), unemployed and not looking for work (3 service categories), receiving HIV primary care at community clinics (3 service categories), and unstably housed (3 service categories; See Table 7).

Among those 40 years old and above, subgroups with lower levels of utilization in multiple service categories included those who were: having poor mental health functioning (4 service categories), never using hard drugs (3 service categories), living in Brooklyn (3 service categories), and diagnosed in 1997 – 2004 (3 service categories; See Table 7). Among those under age 40, subgroups with lower levels of utilization in more service categories included those who were: currently drinking heavily (5 service categories), ages 18 and 29 (4 service categories), and living with other adults (3 service categories; See Table 7).

Overall, gender, household composition, employment status, housing status, substance use (hard drug and alcohol), mental health functioning, educational attainment, and borough of residence were the variables that were most strongly associated with higher levels of service needs. Mental health functioning, substance use (hard drug and alcohol),

and housing status were most strongly associated with lower levels of service utilization (See Table 7, Appendix II).

Number of Needs and Underutilized Services

Number of service needs. CHAIN cohort members typically had need for services in multiple areas. Out of eleven service areas, participants from the current cohort (2015-2017), among both age groups, expressed need for an average of 6 service areas, ranging from one to ten.⁸ Among those age 40 and above, 17% of participants had eight or more needs, and they accounted for 24% of the total number of needs across all eleven service areas. Among those under age 40, 27% of participants had eight or more service needs, and they accounted for 28% of the total number of needs across all eleven service areas.

Service underutilization. Out of eleven service areas, participants from the current cohort, both age 40 and above and under age 40, reported underutilization of services for an average of 2 service areas, ranging from zero to eight. For those age 40 and above, among those in need, 6% of participants had five or more underutilized service areas and accounted for 17% of all instances of underutilization. For those under 40 years of age, among those in need, 9% of participants had five or more underutilized service areas and accounted for 18% of all instances of underutilization. See Appendix II for more detailed findings.

⁸ Everyone has at least one needs by definition (for HIV primary care services). Individuals with low mental health functioning current hard drug use and heavy drinking problems, and homeless and unstably housed persons have 2 additional needs by definition, for social service case management and for mental health, AOD treatment, or permanent housing placement services, respectively.

Table 7. Summary of Subgroups with Above Average Service Needs & Below Average Utilization: New York City Current Interviews (2015-2017)

SERVICE AREA	Subgroups with higher levels of service need		Subgroups with lower levels of utilization	
	Age 40 and Above	Age under 40	Age 40 and Above	Age under 40
HEALTH				
HIV Primary Care	By definition need is universal		<ul style="list-style-type: none"> • Employed part-time • Employed full-time • Bronx residents 	<ul style="list-style-type: none"> • Employed part-time
Home Care	<ul style="list-style-type: none"> • Latinos • Unemployed not looking for work • Bronx residents 	<ul style="list-style-type: none"> • Diagnosed between 1997 and 2004 • Live with children • Foreign-born 	[Samples too small for reliable comparisons]	
CASE MANAGEMENT (CM)				
Non-Medical CM	<ul style="list-style-type: none"> • Poor mental health functioning† • Current hard drug users† • Current heavy drinkers† • Unstably housed† • Homeless† • MSM • Age 40-49 • Employed part-time 	<ul style="list-style-type: none"> • Poor mental health functioning† • Current hard drug users† • Current heavy drinkers† • Unstably housed† • Homeless† • HIV care at community clinic • Diagnosed after 2011 • Live with other adults 	<ul style="list-style-type: none"> • Never used hard drugs • Brooklyn residents • Diagnosed between 1997-2004 	<ul style="list-style-type: none"> • Age 18-29 • More than HS education • HIV care at hospital clinic • Not perinatally infected • Unstably housed
Medical CM	<ul style="list-style-type: none"> • Women • Employed full-time • Poor mental health functioning • Live with children 	<ul style="list-style-type: none"> • Employed part-time • Current hard drug users • Current heavy drinkers • Perinatally infected • Diagnosed between 1997-2004 	<ul style="list-style-type: none"> • Women • Less than HS or HS education • Poor mental health functioning • Brooklyn residents • Diagnosed between 1997-2004 	<ul style="list-style-type: none"> • Less than HS education • Current hard drug users • Foreign born

†Included by definition

Table 7 (Continued). Summary of Subgroups with Above Average Service Needs & Below Average Utilization: New York City Current Interviews (2015-2017)

SERVICE AREA	Subgroups with higher levels of service need		Subgroups with lower levels of utilization	
	Age 40 and Above	Age under 40	Age 40 and Above	Age under 40
BEHAVIORAL HEALTH				
Professional MH	<ul style="list-style-type: none"> • Latino • Age 40-49 • More than HS education • Employed part-time • Poor mental health functioning • Live with children • Foreign born 	<ul style="list-style-type: none"> • Women • More than high school education • Poor mental health functioning† • Current hard drug users 	<ul style="list-style-type: none"> • More than HS education • Employed full-time • Poor mental health functioning • Diagnosed 2005-2011 	<ul style="list-style-type: none"> • Employed full-time • Poor mental health functioning† • Current hard drug users • Brooklyn residents • Homeless
AOD Treatment	<ul style="list-style-type: none"> • More than HS education • Unemployed looking for work • Current hard drug users† • Current heavy drinkers† • Homeless 	<ul style="list-style-type: none"> • Non-MSM men • Current hard drug users† • Current heavy drinkers† • HIV care at community clinic • Homeless 	<ul style="list-style-type: none"> • Employed part-time • Poor mental health functioning • Diagnosed 2005-2011 	<ul style="list-style-type: none"> • Black • Age 18-29 • Less than HS education • Good mental health functioning • Current heavy drinkers • Bronx residents • HIV Care at hospital clinic
TRANSPORTATION				
Transportation	<ul style="list-style-type: none"> • Women • Latino • Bronx residents • Live with children • Foreign born 	<ul style="list-style-type: none"> • Latino • Unemployed not looking for work • Unstably housed • Live with children • Foreign born 	<ul style="list-style-type: none"> • Live alone 	<ul style="list-style-type: none"> • Age 18-29 • High school education • Live alone

†Included by definition

Table 7 (Continued). Summary of Subgroups with Above Average Service Needs & Below Average Utilization: New York City Current Interviews (2015-2017)

SERVICE AREA	Subgroups with higher levels of service need		Subgroups with lower levels of utilization	
	Age 40 and Above	Age under 40	Age 40 and Above	Age under 40
FOOD				
Food Service	<ul style="list-style-type: none"> • Unemployed looking for work 	<ul style="list-style-type: none"> • Less than HS education • Unemployed not looking for work • Current hard drug users • Homeless 	<ul style="list-style-type: none"> • Women • Less than HS education • Never hard drug users • Brooklyn residents • Diagnosed 1997-2004 • Live with other adults • Live with children 	<ul style="list-style-type: none"> • Age 18-29 • Brooklyn residents • Perinatally infected • Unstably housed • Live with other adults
Nutrition Counseling	<ul style="list-style-type: none"> • Live with other adults • Foreign born 	<ul style="list-style-type: none"> • Non-MSM men • Women • Unemployed not looking for work • Live with children 		<ul style="list-style-type: none"> • Current heavy drinkers • Live with other adults
HOUSING				
Permanent Housing Placement	<ul style="list-style-type: none"> • Age 40-49 • Manhattan residents • Unstably housed† • Homeless† 	<ul style="list-style-type: none"> • MSM • Current hard drug users • Current heavy drinkers • HIV care at community clinic • Diagnosed after 2011 • Unstably housed† • Homeless† • Live with other adults 	[Samples too small for reliable comparisons]	<ul style="list-style-type: none"> • Current heavy drinkers
Rental Assistance	<ul style="list-style-type: none"> • Brooklyn residents • Live with children 	<ul style="list-style-type: none"> • Women • Live with children 	<ul style="list-style-type: none"> • Poor mental health functioning • Never hard drug users • Foreign born 	<ul style="list-style-type: none"> • Employed part-time • Diagnosed after 2011 • Live with other adults • Foreign born

†Included by definition

Appendix I

Notes on Tables

Series A Tables for Subgroup Differences in Services Needs and Utilization for interviews conducted in 2013-2015, in 2015-2017 for age 40 and above, and in 2015-2017 for age under 40.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes ($n < 25$).

Series B Tables: Subgroup Logistic Regression Analysis for Current Interviews (2015-2017).

Series B tables (8B to 18B) report odds ratios for single and multiple logistic regressions. The reference category for an independent variable is noted with a "1." Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes ($n < 25$).

Table 8A. New York City Subgroup Differences, HIV Primary Care

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	ALL	99.5%	ALL	97.0%	ALL	98.0%
Gender						
<i>Men</i>	ALL	99.2%	ALL	97.0%	ALL	97.6%
<i>MSM</i>	ALL	100%	ALL	97.4%	ALL	97.7%
<i>Non-MSM</i>	ALL	98.9%	ALL	96.9%	ALL	96.8%
<i>Women</i>	ALL	100%	ALL	96.7%	ALL	98.9%
<i>Transgender individuals</i>	ALL	100%	ALL	100%	ALL	100%
Race/ Ethnicity						
<i>White</i>	ALL	100%	ALL	100%	ALL	100%
<i>Black</i>	ALL	100%	ALL	95.9%	ALL	97.4%
<i>Hispanic/Latino</i>	ALL	98.7%	ALL	97.6%	ALL	98.3%
<i>Other</i>	ALL	100%	ALL	100%	ALL	100%
Age Group						
<i>18-29</i>	ALL	100%	--	--	ALL	95.9%
<i>30-39</i>	ALL	100%	--	--	ALL	100%
<i>40-49</i>	ALL	100%	ALL	100%	--	--
<i>50+</i>	ALL	99.2%	ALL	95.5%	--	--
Education						
<i>Less than high school</i>	ALL	98.8%	ALL	96.5%	ALL	96.8%
<i>High school or GED</i>	ALL	100%	ALL	96.3%	ALL	98.0%
<i>More than high school</i>	ALL	100%	ALL	100%	ALL	100%
Employment						
<i>Unemployed not looking for</i>	ALL	99.2%	ALL	97.7%	ALL	98.3%
<i>Unemployed looking for work</i>	ALL	100%	ALL	96.7%	ALL	98.7%
<i>Employed part-time</i>	ALL	100%	ALL	94.7%	ALL	94.7%
<i>Employed full-time</i>	ALL	100%	ALL	93.3%	ALL	100%
Mental Health Functioning						
<i>Poor</i>	ALL	100%	ALL	96.9%	ALL	97.9%
<i>Good</i>	ALL	99.4%	ALL	97.0%	ALL	98.2%
Hard Drug Use						
<i>Never Used</i>	ALL	98.9%	ALL	97.9%	ALL	98.0%
<i>Past User</i>	ALL	100%	ALL	96.4%	ALL	98.1%
<i>Current User</i>	ALL	100%	ALL	95.7%	ALL	98.0%
Current Problem Drinking						
<i>No</i>	ALL	99.5%	ALL	97.2%	ALL	98.1%
<i>Yes</i>	ALL	100%	ALL	95.0%	ALL	97.1%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 8A. New York City Subgroup Differences, HIV Primary Care

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	ALL	99.5%	ALL	97.0%	ALL	98.0%
Borough of Residence						
<i>Bronx</i>	ALL	100%	ALL	94.9%	ALL	96.9%
<i>Brooklyn</i>	ALL	100%	ALL	97.1%	ALL	100%
<i>Manhattan</i>	ALL	97.9%	ALL	97.9%	ALL	98.5%
<i>Queens</i>	ALL	100%	ALL	100%	ALL	95.7%
<i>Staten Island</i>	ALL	100%	ALL	100%	ALL	100
HIV Medical Care						
<i>No HIV Provider</i>	--	--	ALL	0.0%	ALL	0.0%
<i>Have HIV Provider</i>	ALL	99.5%	ALL	98.7%	ALL	100%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	ALL	99.3%	ALL	99.4%	ALL	100%
<i>Community Clinic</i>	ALL	100%	ALL	97.0%	ALL	100%
<i>Private MD</i>	ALL	100%	ALL	100%	ALL	100%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	ALL	100%
<i>No</i>	ALL	99.5%	ALL	97.0%	ALL	97.8%
HIV Diagnosis Year						
<i>Before 1996</i>	ALL	99.0%	ALL	97.3%	ALL	100%
<i>1997-2004</i>	ALL	100%	ALL	95.5%	ALL	100%
<i>2005-2011</i>	ALL	100%	ALL	100%	ALL	96.8%
<i>After 2011</i>	--	--	ALL	100%	ALL	97.9%
Housing						
<i>Stable</i>	ALL	99.5%	ALL	97.4%	ALL	98.7%
<i>Unstable</i>	ALL	100%	ALL	93.3%	ALL	98.3%
<i>Homeless</i>	ALL	100%	ALL	96.0%	ALL	96.9%
Household Composition						
<i>Live alone</i>	ALL	99.3%	ALL	96.7%	ALL	97.4%
<i>Live with other adults</i>	ALL	100%	ALL	95.7%	ALL	98.3%
<i>Live with children</i>	ALL	100%	ALL	100%	ALL	100%
Place of Birth						
<i>U.S.</i>	ALL	100%	ALL	96.3%	ALL	98.0%
<i>Puerto Rico</i>	ALL	100%	ALL	100%	ALL	100%
<i>Other Country</i>	ALL	97.9%	ALL	98.2%	ALL	97.9%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 8B. New York City Subgroup Differences, HIV Primary Care

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	ALL	ALL	1	
<i>Under 40</i>	ALL	ALL	1.56	
Gender and MSM Status				
<i>MSM</i>	ALL	ALL	1.35	
<i>Non-MSM</i>	ALL	ALL	1	
<i>Women</i>	ALL	ALL	1.46	
<i>Transgender</i>	ALL	ALL	--	
Race/ Ethnicity				
<i>White</i>	ALL	ALL	--	
<i>Black</i>	ALL	ALL	0.61	
<i>Hispanic/Latino</i>	ALL	ALL	1	
<i>Other</i>	ALL	ALL	--	
Age Group				
<i>18-29</i>	ALL	ALL	1.09	
<i>30-39</i>	ALL	ALL	--	
<i>40-49</i>	ALL	ALL	--	
<i>50+</i>	ALL	ALL	1	
Education				
<i>Less than high school</i>	ALL	ALL	0.81	
<i>High school or GED</i>	ALL	ALL	1	
<i>More than high school</i>	ALL	ALL	--	
Employment				
<i>Unemployed not looking for work</i>	ALL	ALL	1.07	
<i>Unemployed looking for work</i>	ALL	ALL	1.22	
<i>Employed part-time</i>	ALL	ALL	0.41	
<i>Employed full-time</i>	ALL	ALL	1	
Mental Health Functioning				
<i>Poor</i>	ALL	ALL	1.00	
<i>Good</i>	ALL	ALL	1	
Hard Drug Use				
<i>Never Used</i>	ALL	ALL	1	
<i>Past User</i>	ALL	ALL	0.67	
<i>Current User</i>	ALL	ALL	0.74	
Current Problem Drinking				
<i>No</i>	ALL	ALL	1	
<i>Yes</i>	ALL	ALL	0.62	
Borough of Residence				
<i>Bronx</i>	ALL	ALL	0.58	
<i>Brooklyn</i>	ALL	ALL	1.79	
<i>Manhattan</i>	ALL	ALL	1.30	
<i>Queens</i>	ALL	ALL	1	
<i>Staten Island</i>	ALL	ALL	--	

Table 8B. New York City Subgroup Differences, HIV Primary Care

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	ALL	ALL	--	
<i>Hospital Clinic</i>	ALL	ALL	3.47	
<i>Community Clinic</i>	ALL	ALL	1	
<i>Private MD</i>	ALL	ALL	--	
Perinatal Infection				
<i>Yes</i>	ALL	ALL	--	
<i>No</i>	ALL	ALL	1	
HIV Diagnosis Year				
<i>Before 1996</i>	ALL	ALL	1	
<i>1997-2004</i>	ALL	ALL	0.96	
<i>2005-2011</i>	ALL	ALL	0.92	
<i>After 2011</i>	ALL	ALL	1.21	
Housing				
<i>Stable</i>	ALL	ALL	1	
<i>Unstable</i>	ALL	ALL	0.75	
<i>Homeless</i>	ALL	ALL	0.61	
Household Composition				
<i>Live alone</i>	ALL	ALL	1	
<i>Live with other adults</i>	ALL	ALL	1.02	
<i>Live with children</i>	ALL	ALL	--	
Place of Birth				
<i>U.S.</i>	ALL	ALL	0.70	
<i>Puerto Rico</i>	ALL	ALL	--	
<i>Other Country</i>	ALL	ALL	1	

Table 10A. New York City Subgroup Differences, Home Care

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	20.5%	32.6%	14.3%	21.1%	2.0%	
Gender						
<i>Men</i>	15.5%	40.0%	11.9%	25.0%	1.0%	0.0%
<i>MSM</i>	10.8%	75.0%	10.5%	50.0%	0.6%	0.0%
<i>Non-MSM</i>	17.4%	31.3%	12.4%	16.7%	3.2%	0.0%
<i>Women</i>	27.7%	26.9%	17.9%	17.6%	3.3%	66.7%
<i>Transgender individuals</i>	0.0%	--	0.0%	--	12.5%	0.0%
Race/ Ethnicity						
<i>White</i>	17.6%	100%	6.7%	0.0%	0.0%	--
<i>Black</i>	17.2%	33.3%	12.2%	26.7%	0.6%	0.0%
<i>Hispanic/Latino</i>	26.0%	20.0%	19.5%	18.8%	3.4%	50.0%
<i>Other</i>	25.0%	50.0%	9.1%	0.0%	4.8%	0.0%
Age Group						
<i>18-29</i>	0.0%	--	--	--	0.7%	0.0%
<i>30-39</i>	9.1%	0.0%	--	--	3.1%	40.0%
<i>40-49</i>	20.0%	26.7%	10.8%	12.5%	--	--
<i>50+</i>	22.6%	36.7%	15.9%	24.0%	--	--
Education						
<i>Less than high school</i>	21.8%	21.1%	16.3%	14.3%	3.2%	33.3%
<i>High school or GED</i>	21.5%	39.1%	16.8%	27.8%	2.0%	33.3%
<i>More than high school</i>	13.3%	50.0%	2.6%	0.0%	0.0%	--
Employment						
<i>Unemployed not looking for</i>	28.1%	36.8%	20.3%	25.9%	3.3%	50.0%
<i>Unemployed looking for work</i>	10.5%	16.7%	3.3%	0.0%	1.9%	33.3%
<i>Employed part-time</i>	9.1%	0.0%	10.5%	0.0%	0.0%	--
<i>Employed full-time</i>	0.0%	--	13.3%	0.0%	3.3%	0.0%
Mental Health Functioning						
<i>Poor</i>	12.9%	25.0%	10.8%	14.3%	2.1%	33.3%
<i>Good</i>	23.5%	34.2%	15.7%	23.1%	1.8%	33.3%
Hard Drug Use						
<i>Never Used</i>	25.0%	43.5%	16.7%	31.3%	2.0%	25.0%
<i>Past User</i>	20.6%	22.7%	10.7%	8.3%	3.7%	50.0%
<i>Current User</i>	4.0%	0.0%	21.7%	20.0%	0.0%	--
Current Problem Drinking						
<i>No</i>	19.5%	35.0%	12.8%	18.5%	2.2%	33.3%
<i>Yes</i>	31.6%	16.7%	30.0%	33.3%	0.0%	--

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 10A. New York City Subgroup Differences, Home Care

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	20.5%	32.6%	14.3%	21.1%	2.0%	
Borough of Residence						
<i>Bronx</i>	28.8%	35.3%	19.2%	26.7%	1.6%	50.0%
<i>Brooklyn</i>	14.5%	27.3%	10.0%	28.6%	3.5%	0.0%
<i>Manhattan</i>	23.4%	36.4%	12.5%	0.0%	1.5%	100%
<i>Queens</i>	17.4%	25.0%	13.6%	0.0%	0.0%	--
<i>Staten Island</i>	15.8%	33.3%	15.4%	50.0%	0.0%	--
HIV Medical Care						
<i>No HIV Provider</i>	--	--	0.0%	--	0.0%	--
<i>Have HIV Provider</i>	20.5%	32.6%	14.5%	21.2%	2.0%	33.3%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	21.3%	34.4%	15.4%	20.8%	1.8%	33.3%
<i>Community Clinic</i>	16.4%	18.2%	9.1%	16.7%	1.6%	0.0%
<i>Private MD</i>	42.9%	66.7%	60.0%	33.3%	11.1%	100%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	0.0%	--
<i>No</i>	20.5%	32.6%	14.3%	21.2%	2.2%	33.3%
HIV Diagnosis Year						
<i>Before 1996</i>	19.4%	25.0%	16.4%	16.7%	0.0%	--
<i>1997-2004</i>	21.1%	42.1%	14.6%	30.8%	5.8%	50.0%
<i>2005-2011</i>	21.4%	33.3%	8.0%	0.0%	0.8%	0.0%
<i>After 2011</i>	--	--	0.0%	--	1.1%	0.0%
Housing						
<i>Stable</i>	19.9%	32.5%	15.2%	20.7%	2.7%	50.0%
<i>Unstable</i>	25.0%	0.0%	20.0%	33.3%	1.7%	0.0%
<i>Homeless</i>	28.6%	100%	4.0%	0.0%	1.0%	0.0%
Household Composition						
<i>Live alone</i>	20.3%	42.9%	13.8%	23.8%	1.0%	0.0%
<i>Live with other adults</i>	28.3%	20.0%	13.0%	0.0%	3.3%	0.0%
<i>Live with children</i>	11.1%	0.0%	16.7%	20.0%	4.5%	100%
Place of Birth						
<i>U.S.</i>	18.5%	33.3%	13.7%	9.1%	1.6%	50.0%
<i>Puerto Rico</i>	30.8%	25.0%	30.8%	0.0%	0.0%	--
<i>Other Country</i>	24.5%	33.3%	12.3%	71.4%	4.2%	0.0%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews. Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 10B. New York City Subgroup Differences, Home Care

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	1		1	
<i>Under 40</i>	0.12***		1.86	
Gender and MSM Status				
<i>MSM</i>	0.21**	0.58	3.67	
<i>Non-MSM</i>	1	1	1	
<i>Women</i>	1.07	1.44	1.83	
<i>Transgender</i>	1.11	7.47	1	
Race/ Ethnicity				
<i>White</i>	1	1	--	
<i>Black</i>	1.66	1.86	0.79	
<i>Hispanic/Latino</i>	3.02	3.79	1	
<i>Other</i>	1.80	4.88	--	
Age Group				
<i>18-29</i>	0.06**	0.10	--	
<i>30-39</i>	0.27*	0.48	4.67	
<i>40-49</i>	1	1	1	
<i>50+</i>	1.56	1.15	2.21	
Education				
<i>Less than high school</i>	10.39*	10.56	1.54	
<i>High school or GED</i>	8.81*	14.32*	1	
<i>More than high school</i>	1	1	--	
Employment				
<i>Unemployed not looking for work</i>	2.48	0.34	1	
<i>Unemployed looking for work</i>	0.33	0.05**	0.66	
<i>Employed part-time</i>	0.38	0.12*	--	
<i>Employed full-time</i>	1	1	--	
Mental Health Functioning				
<i>Poor</i>	0.53	0.93	0.79	
<i>Good</i>	1	1	1	
Hard Drug Use				
<i>Never Used</i>	--	1	1	
<i>Past User</i>	1.27	0.74	0.39	
<i>Current User</i>	1	1.95	0.58	
Current Problem Drinking				
<i>No</i>	1	1	1	
<i>Yes</i>	1.66	2.98	1.86	
Borough of Residence				
<i>Bronx</i>	1.23	2.62	0.42	
<i>Brooklyn</i>	0.94	1.22	0.25	
<i>Manhattan</i>	0.89	1.08	0.17	
<i>Queens</i>	1	1	1	
<i>Staten Island</i>	1.95	0.66	--	

Table 10B. New York City Subgroup Differences, Home Care

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	--	--	
<i>Hospital Clinic</i>	0.23*	0.07**	0.29	
<i>Community Clinic</i>	0.11**	0.04**	0.14	
<i>Private MD</i>	1	1	1	
Perinatal Infection				
<i>Yes</i>				
<i>No</i>				
HIV Diagnosis Year				
<i>Before 1996</i>	1	1	1	
<i>1997-2004</i>	0.70	1.18	2.72	
<i>2005-2011</i>	0.12***	0.33	-	
<i>After 2011</i>	0.06**	0.57	-	
Housing				
<i>Stable</i>	1	1	1	
<i>Unstable</i>	0.53	1.15	1.04	
<i>Homeless</i>	0.16*	0.25	--	
Household Composition				
<i>Live alone</i>	1	1	1	
<i>Live with other adults</i>	1.15	0.99	--	
<i>Live with children</i>	1.48	0.83	2.70	
Place of Birth				
<i>U.S.</i>	0.73	1.09	0.15*	
<i>Puerto Rico</i>	1.94	1.94	--	
<i>Other Country</i>	1	1	1	

Table 11A. New York City Subgroup Differences, Non-Medical Case Management

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	45.5%	62.8%	48.5%	68.8%	75.4%	71.7%
Gender						
Men	50.4%	63.1%	54.8%	67.6%	78.7%	69.9%
MSM	56.8%	66.7%	60.5%	65.2%	81.3%	69.9%
Non-MSM	47.8%	61.4%	52.6%	68.6%	64.5%	70.0%
Women	38.3%	63.9%	38.9%	70.3%	67.8%	75.4%
Transgender individuals	100%	0.0%	100%	100%	75.0%	83.3%
Race/ Ethnicity						
White	52.9%	33.3%	60.0%	44.4%	84.6%	72.7%
Black	41.0%	66.0%	42.3%	75.0%	74.0%	67.5%
Hispanic/Latino	54.5%	64.3%	56.1%	65.2%	76.1%	77.5%
Other	12.5%	100%	45.4%	80.0%	76.2%	68.8%
Age Group						
18-29	80.0%	50.0%	--	--	80.1%	65.0%
30-39	36.4%	50.0%	--	--	71.1%	78.8%
40-49	50.7%	63.2%	64.9%	72.9%	--	--
50+	42.1%	64.3%	40.8%	65.6%	--	--
Education						
Less than high school	31.0%	59.3%	46.5%	70.0%	74.2%	76.8%
High school or GED	52.3%	62.5%	44.9%	68.8%	76.7%	73.0%
More than high school	63.3%	68.4%	63.2%	66.7%	74.2%	60.9%
Employment						
Unemployed not looking for	48.1%	67.7%	42.9%	66.7%	68.3%	80.5%
Unemployed looking for work	36.8%	52.4%	57.4%	77.1%	75.9%	75.0%
Employed part-time	50.0%	63.6%	63.2%	58.3%	80.7%	69.6%
Employed full-time	50.0%	40.0%	46.7%	57.1%	46.7%	57.1%
Mental Health Functioning						
Poor	ALL	61.3%	ALL	69.2%	ALL	72.3%
Good	24.7%	65.0%	28.3%	68.1%	54.3%	70.8%
Hard Drug Use						
Never Used	42.4%	61.5%	43.8%	59.5%	69.5%	69.1%
Past User	35.5%	68.4%	42.0%	76.6%	74.1%	82.5%
Current User	ALL	56.0%	ALL	69.6%	ALL	70.6%
Current Problem Drinking						
No	40.5%	61.4%	43.6%	68.5%	72.2%	72.3%
Yes	ALL	68.4%	ALL	70.0%	ALL	68.6%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 11A. New York City Subgroup Differences, Non-Medical Case Management

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	45.5%	62.8%	48.5%	68.8%	75.4%	71.7%
Borough of Residence						
<i>Bronx</i>	50.8%	70.0%	47.4%	75.7%	74.2%	72.6%
<i>Brooklyn</i>	43.4%	57.6%	38.6%	55.6%	81.4%	68.6%
<i>Manhattan</i>	38.3%	61.1%	58.3%	71.4%	69.7%	71.7%
<i>Queens</i>	60.9%	57.1%	59.1%	69.2%	72.7%	81.3%
<i>Staten Island</i>	36.8%	71.4%	53.8%	71.4%	100%	66.7%
HIV Medical Care						
<i>No HIV Provider</i>	--	--	100%	50.0%	80.0%	75.0%
<i>Have HIV Provider</i>	45.5%	62.7%	47.6%	68.5%	75.6%	71.7%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	43.3%	61.5%	44.2%	68.1%	68.5%	64.3%
<i>Community Clinic</i>	49.3%	60.6%	57.6%	71.1%	86.1%	78.1%
<i>Private MD</i>	57.1%	100%	20.0%	0.0%	66.7%	100%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	76.5%	73.6%
<i>No</i>	45.5%	62.7%	48.5%	68.8%	66.7%	54.5%
HIV Diagnosis Year						
<i>Before 1996</i>	41.7%	62.8%	47.3%	78.8%	69.2%	55.6%
<i>1997-2004</i>	51.1%	63.0%	48.3%	55.8%	72.5%	76.0%
<i>2005-2011</i>	42.9%	58.3%	48.0%	58.3%	69.8%	69.3%
<i>After 2011</i>	--	--	100%	100%	87.2%	73.2%
Housing						
<i>Stable</i>	39.3%	64.6%	37.7%	66.7%	50.0%	66.7%
<i>Unstable</i>	ALL	37.5%	ALL	53.3%	ALL	57.6%
<i>Homeless</i>	ALL	100%	ALL	84.0%	ALL	84.4%
Household Composition						
<i>Live alone</i>	42.0%	67.2%	52.6%	73.8%	75.0%	74.1%
<i>Live with other adults</i>	50.9%	48.1%	45.7%	47.6%	85.0%	68.6%
<i>Live with children</i>	48.1%	69.2%	33.3%	70.0%	63.6%	71.4%
Place of Birth						
<i>U.S.</i>	45.7%	62.2%	47.8%	66.2%	76.2%	72.0%
<i>Puerto Rico</i>	61.5%	62.5%	46.2%	66.7%	92.3%	83.3%
<i>Other Country</i>	40.8%	65.0%	50.9%	75.9%	66.7%	65.6%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 11B. New York City Subgroup Differences, Non-Medical Case Management

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	1		1	
<i>Under 40</i>	3.26***		1.15	
Gender and MSM Status				
<i>MSM</i>	2.78***	1.07	1.01	1.20
<i>Non-MSM</i>	1	1	1	1
<i>Women</i>	0.90	0.65	1.24	1.96
<i>Transgender</i>	2.81	0.79	2.69	5.39
Race/ Ethnicity				
<i>White</i>	1	1	1	1
<i>Black</i>	0.60	0.55	1.55	2.36
<i>Hispanic/Latino</i>	0.84	0.74	1.83	2.43
<i>Other</i>	0.76	0.47	1.67	1.97
Age Group				
<i>18-29</i>	2.19*	1.06	0.69	1.29
<i>30-39</i>	1.33	1.17	1.38	1.89
<i>40-49</i>	1	1	1	1
<i>50+</i>	0.37***	0.34**	0.71	0.71
Education				
<i>Less than high school</i>	0.67	0.89	1.71	1.27
<i>High school or GED</i>	0.74	0.76	1.50	1.50
<i>More than high school</i>	1	1	1	1
Employment				
<i>Unemployed not looking for work</i>	0.52	0.90	3.0*	4.18**
<i>Unemployed looking for work</i>	1.21	1.23	3.52**	5.28***
<i>Employed part-time</i>	1.61	1.30	2.35	3.83**
<i>Employed full-time</i>	1	1	1	1
Mental Health Functioning				
<i>Poor</i>	--		1.07	1.24
<i>Good</i>	1		1	1
Hard Drug Use				
<i>Never Used</i>	1		1	1
<i>Past User</i>	0.70		1.91*	1.97
<i>Current User</i>	--		1.17	1.20
Current Problem Drinking				
<i>No</i>	1		1	1
<i>Yes</i>	--		0.91	0.68
Borough of Residence				
<i>Bronx</i>	0.92	0.67	0.88	0.63
<i>Brooklyn</i>	0.85	0.78	0.59	0.45
<i>Manhattan</i>	0.96	0.82	0.80	0.56
<i>Queens</i>	1	1	1	1
<i>Staten Island</i>	0.86	1.33	0.74	0.79

Table 11B. New York City Subgroup Differences, Non-Medical Case Management

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	5.75	--	0.22
<i>Hospital Clinic</i>	1.31	1.76	0.32	0.33
<i>Community Clinic</i>	3.18*	3.15*	0.53	0.46
<i>Private MD</i>	1	1	1	1
Perinatal Infection				
<i>Yes</i>	1.14	0.68	0.47	0.86
<i>No</i>	1	1	1	1
HIV Diagnosis Year				
<i>Before 1996</i>	1	1	1	1
<i>1997-2004</i>	1.45	1.03	0.65	0.39*
<i>2005-2011</i>	2.00**	0.69	0.69	0.33*
<i>After 2011</i>	7.37***	1.70	0.96	0.70
Housing				
<i>Stable</i>	1		1	1
<i>Unstable</i>	--		0.66	0.50
<i>Homeless</i>	--		2.68**	2.89**
Household Composition				
<i>Live alone</i>	1	1	1	1
<i>Live with other adults</i>	1.13	1.04	0.59	0.91
<i>Live with children</i>	0.56*	0.70	0.86	1.30
Place of Birth				
<i>U.S.</i>	1.34	1.38	0.99	0.61
<i>Puerto Rico</i>	1.62	2.12	1.47	0.43
<i>Other Country</i>	1	1	1	1

Table 12A. New York City Subgroup Differences, Medical Case Management

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	56.2%	73.7%	45.5%	53.6%	60.1%	69.5%
Gender						
Men	44.5%	82.2%	36.0%	62.5%	61.1%	73.3%
MSM	52.9%	80.0%	41.2%	60.0%	62.8%	74.4%
Non-MSM	41.2%	83.3%	34.1%	63.6%	51.7%	66.7%
Women	71.1%	66.0%	58.6%	44.4%	56.5%	63.9%
Transgender individuals	100%	100%	36.0%	62.5%	75.0%	40.0%
Race/ Ethnicity						
White	47.1%	80.0%	46.7%	50.0%	81.8%	57.1%
Black	54.0%	73.1%	44.8%	50.0%	58.7%	66.2%
Hispanic/Latino	61.1%	73.7%	46.5%	59.1%	62.5%	74.5%
Other	62.5%	75.0%	45.5%	66.7%	45.0%	75.0%
Age Group						
18-29	80.0%	100%	--	--	58.7%	65.6%
30-39	55.6%	60.0%	--	--	61.5%	73.1%
40-49	64.3%	65.8%	43.3%	62.5%	--	--
50+	50.8%	79.6%	46.6%	48.9%	--	--
Education						
Less than high school	57.3%	76.2%	45.0%	46.4%	60.2%	58.3%
High school or GED	55.4%	71.1%	49.5%	46.9%	60.3%	71.2%
More than high school	55.6%	75.0%	36.1%	100%	59.6%	79.3%
Employment						
Unemployed not looking for	56.7%	71.2%	44.4%	50.0%	58.9%	61.5%
Unemployed looking for work	59.3%	73.1%	48.1%	61.1%	59.7%	69.7%
Employed part-time	50.0%	88.9%	41.2%	60.0%	68.5%	77.4%
Employed full-time	44.4%	66.7%	53.3%	40.0%	48.1%	62.5%
Mental Health Functioning						
Poor	69.0%	69.7%	57.6%	44.4%	63.0%	66.1%
Good	51.3%	75.8%	40.9%	59.5%	57.9%	72.2%
Hard Drug Use						
Never Used	60.7%	78.6%	48.8%	54.8%	57.4%	69.5%
Past User	51.0%	68.8%	41.0%	53.3%	60.8%	79.2%
Current User	63.6%	77.8%	54.5%	50.0%	70.2%	60.0%
Current Problem Drinking						
No	52.9%	70.2%	42.3%	55.4%	58.8%	70.1%
Yes	89.5%	93.3%	78.9%	46.2%	71.0%	64.3%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 12A. New York City Subgroup Differences, Medical Case Management

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	56.2%	73.7%	45.5%	53.6%	60.1%	69.5%
Borough of Residence						
<i>Bronx</i>	65.5%	80.6%	46.5%	56.5%	61.5%	71.7%
<i>Brooklyn</i>	51.4%	70.4%	46.9%	36.4%	58.7%	70.0%
<i>Manhattan</i>	48.8%	83.3%	38.3%	75.0%	60.0%	64.3%
<i>Queens</i>	66.7%	81.8%	65.0%	55.6%	61.9%	66.7%
<i>Staten Island</i>	50.0%	14.3%	27.3%	66.7%	33.3%	100%
HIV Medical Care						
<i>No HIV Provider</i>	--	--	ALL	0.0%	ALL	0.0%
<i>Have HIV Provider</i>	56.2%	73.7%	44.5%	56.1%	59.3%	72.0%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	56.4%	79.4%	43.4%	52.4%	60.1%	71.2%
<i>Community Clinic</i>	57.1%	64.7%	47.5%	59.1%	58.4%	72.9%
<i>Private MD</i>	42.9%	50.0%	40.0%	100%	55.6%	75.0%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	66.7%	61.9%
<i>No</i>	56.2%	73.7%	45.5%	53.6%	59.3%	70.9%
HIV Diagnosis Year						
<i>Before 1996</i>	56.3%	83.0%	45.2%	67.6%	61.5%	71.4%
<i>1997-2004</i>	58.1%	68.3%	47.5%	39.3%	71.2%	65.7%
<i>2005-2011</i>	52.0%	50.0%	50.0%	33.3%	60.5%	72.2%
<i>After 2011</i>	--	--	20.0%	100%	52.9%	68.6%
Housing						
<i>Stable</i>	56.1%	74.7%	47.1%	48.3%	63.1%	63.5%
<i>Unstable</i>	50.0%	75.0%	35.7%	75.0%	52.8%	76.0%
<i>Homeless</i>	71.4%	50.0%	40.0%	100%	59.8%	74.4%
Household Composition						
<i>Live alone</i>	51.1%	79.6%	42.7%	61.0%	59.8%	68.3%
<i>Live with other adults</i>	66.0%	72.4%	41.9%	35.7%	60.0%	76.9%
<i>Live with children</i>	62.5%	61.5%	62.5%	41.7%	61.9%	65.0%
Place of Birth						
<i>U.S.</i>	56.1%	73.6%	44.4%	56.5%	60.1%	71.8%
<i>Puerto Rico</i>	41.7%	60.0%	60.0%	0.0%	66.7%	83.3%
<i>Other Country</i>	60.5%	77.3%	46.0%	52.4%	58.7%	54.5%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 12B. New York City Subgroup Differences, Medical Case Management

Total		2015-2017 Interviews			
		Need		Utilization	
		OR	AOR	OR	AOR
Age Cohort					
	<i>40 and above</i>	ALL	ALL	1	
	<i>Under 40</i>	ALL**	ALL	1.97*	
Gender and MSM Status					
	<i>MSM</i>	2.32***	2.47**	1.45	0.79
	<i>Non-MSM</i>	1	1	1	1
	<i>Women</i>	2.18**	1.80	0.64	0.43
	<i>Transgender</i>	5.63*	4.74	0.55	0.37
Race/ Ethnicity					
	<i>White</i>	1	1	1	1
	<i>Black</i>	0.69	0.71	1.30	2.16
	<i>Hispanic/Latino</i>	0.80	0.77	1.99	4.58*
	<i>Other</i>	0.51	0.56	2.29	2.26
Age Group					
	<i>18-29</i>	1.86*	1.90	1.15	0.81
	<i>30-39</i>	2.09*	2.26*	1.63	1.08
	<i>40-49</i>	1.14	1	1	1
	<i>50+</i>	1	1.45	0.57	0.73
Education					
	<i>Less than high school</i>	1.10	1.02	0.21**	0.26*
	<i>High school or GED</i>	1.24	1.23	0.32*	0.42
	<i>More than high school</i>	1		1	1
Employment					
	<i>Unemployed not looking for work</i>	0.96	1.18	1.03	1.36
	<i>Unemployed looking for work</i>	1.31	1.32	1.81	2.38
	<i>Employed part-time</i>	1.63	1.79	2.57	3.82
	<i>Employed full-time</i>	1	1	1	1
Mental Health Functioning					
	<i>Poor</i>	1.61*	1.57*	0.70	0.78
	<i>Good</i>	1	1	1	1
Hard Drug Use					
	<i>Never Used</i>	1	1	1	1
	<i>Past User</i>	0.75	1.06	0.97	1.03
	<i>Current User</i>	1.55	1.40	0.72	0.36
Current Problem Drinking					
	<i>No</i>	1	1	1	1
	<i>Yes</i>	2.66*	3.13**	0.67	0.53
Borough of Residence					
	<i>Bronx</i>	0.73	0.59	1.30	0.73
	<i>Brooklyn</i>	0.66	0.54	0.88	0.52
	<i>Manhattan</i>	0.59	0.49	1.32	0.71
	<i>Queens</i>	1	1	1	1
	<i>Staten Island</i>	0.23*	0.22	1.91	1.68

Table 12B. New York City Subgroup Differences, Medical Case Management

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	--	--	--
<i>Hospital Clinic</i>	1.09	1.04	0.36	0.90
<i>Community Clinic</i>	1.21	1.09	0.44	1.40
<i>Private MD</i>	1	1	1	1
Perinatal Infection				
<i>Yes</i>	1.77	2.02	0.90	0.83
<i>No</i>	1	1	1	1
HIV Diagnosis Year				
<i>Before 1996</i>	1	1	1	1
<i>1997-2004</i>	1.57	1.12	0.54	0.48
<i>2005-2011</i>	1.61	0.72	1.00	0.56
<i>After 2011</i>	1.18	0.51	1.06	0.46
Housing				
<i>Stable</i>	1	1	1	1
<i>Unstable</i>	0.82	0.59	2.46	3.35
<i>Homeless</i>	1.05	0.71	2.63*	4.23*
Household Composition				
<i>Live alone</i>	1	1	1	1
<i>Live with other adults</i>	0.99	0.94	0.86	1.04
<i>Live with children</i>	1.50	1.41	0.67	1.46
Place of Birth				
<i>U.S.</i>	1.07	1.09	1.77	2.53
<i>Puerto Rico</i>	1.61	1.76	1.45	0.79
<i>Other Country</i>	1	1	1	1

Table 13A. New York City Subgroup Differences, Professional Mental Health

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	58.0%	65.4%	51.5%	75.2%	67.9%	65.1%
Gender						
<i>Men</i>	54.3%	70.0%	49.6%	72.9%	65.7%	62.2%
<i>MSM</i>	56.8%	76.2%	55.3%	60.0%	68.2%	61.6%
<i>Non-MSM</i>	53.3%	67.3%	47.4%	79.5%	51.6%	66.7%
<i>Women</i>	62.8%	61.0%	53.7%	77.8%	74.4%	68.8%
<i>Transgender individuals</i>	100%	--	100%	100%	50.0%	100%
Race/ Ethnicity						
<i>White</i>	70.6%	41.7%	60.0%	50.0%	84.6%	60.0%
<i>Black</i>	46.7%	68.4%	40.7%	72.9%	66.2%	63.9%
<i>Hispanic/Latino</i>	71.4%	65.5%	67.1%	81.8%	72.6%	67.5%
<i>Other</i>	75.0%	83.3%	45.5%	80.0%	42.9%	62.5%
Age Group						
<i>18-29</i>	80.0%	75.0%	--	--	65.8%	58.4%
<i>30-39</i>	36.4%	50.0%	--	--	69.8%	70.8%
<i>40-49</i>	65.3%	73.5%	62.2%	70.7%	--	--
<i>50+</i>	54.9%	60.3%	46.5%	78.1%	--	--
Education						
<i>Less than high school</i>	52.9%	69.6%	48.8%	72.2%	64.5%	69.6%
<i>High school or GED</i>	57.0%	62.3%	46.7%	90.9%	67.3%	62.4%
<i>More than high school</i>	76.7%	65.2%	71.1%	52.0%	74.2%	65.2%
Employment						
<i>Unemployed not looking for</i>	57.0%	64.9%	52.6%	81.3%	70.0%	76.9%
<i>Unemployed looking for work</i>	54.4%	67.7%	45.9%	78.3%	69.0%	65.4%
<i>Employed part-time</i>	72.7%	62.5%	63.2%	60.0%	64.9%	68.6%
<i>Employed full-time</i>	60.0%	66.7%	53.3%	37.5%	63.3%	29.4%
Mental Health Functioning						
<i>Poor</i>	ALL	45.2%	ALL	51.9%	ALL	50.0%
<i>Good</i>	42.0%	83.8%	32.5%	98.1%	40.2%	95.4%
Hard Drug Use						
<i>Never Used</i>	60.9%	55.4%	58.3%	69.4%	65.5%	65.3%
<i>Past User</i>	51.4%	70.9%	42.9%	88.1%	66.7%	73.5%
<i>Current User</i>	76.0%	78.9%	65.2%	57.1%	78.4%	56.8%
Current Problem Drinking						
<i>No</i>	56.1%	67.0%	51.7%	74.5%	68.1%	65.9%
<i>Yes</i>	78.9%	53.3%	50.0%	85.7%	65.7%	59.1%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 13A. New York City Subgroup Differences, Professional Mental Health

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	58.0%	65.4%	51.5%	75.2%	67.9%	65.1%
Borough of Residence						
<i>Bronx</i>	67.8%	72.5%	51.3%	77.1%	64.8%	67.9%
<i>Brooklyn</i>	55.3%	54.8%	48.6%	78.1%	68.6%	50.9%
<i>Manhattan</i>	46.8%	72.7%	52.1%	66.7%	74.2%	76.1%
<i>Queens</i>	78.3%	55.6%	72.7%	71.4%	63.6%	71.4%
<i>Staten Island</i>	42.1%	87.5%	30.8%	100%	66.7%	50.0%
HIV Medical Care						
<i>No HIV Provider</i>	--	--	50.0%	0.0%	80.0%	33.3%
<i>Have HIV Provider</i>	58.0%	65.4%	52.0%	76.0%	67.9%	65.6%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	59.3%	62.9%	48.7%	76.5%	67.9%	67.9%
<i>Community Clinic</i>	56.7%	68.4%	59.1%	72.7%	70.5%	63.0%
<i>Private MD</i>	42.9%	100% ^s	60.0%	100%	33.3%	50.0%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	72.7%	70.8%
<i>No</i>	58.0%	65.4%	51.5%	75.2%	67.3%	64.3%
HIV Diagnosis Year						
<i>Before 1996</i>	56.3%	69.0%	47.3%	80.9%	69.2%	88.9%
<i>1997-2004</i>	62.2%	57.1%	57.3%	73.8%	69.6%	70.2%
<i>2005-2011</i>	50.0%	78.6%	48.0%	66.7%	64.3%	62.2%
<i>After 2011</i>	--	--	60.0%	33.3%	70.2%	59.7%
Housing						
<i>Stable</i>	58.2%	65.8%	54.5%	76.7%	67.3%	69.5%
<i>Unstable</i>	68.8%	63.6%	46.7%	71.4%	74.6%	66.7%
<i>Homeless</i>	28.6%	50.0%	32.0%	62.5%	64.6%	56.9%
Household Composition						
<i>Live alone</i>	58.7%	67.9%	53.3%	76.7%	68.4%	66.1%
<i>Live with other adults</i>	50.9%	63.0%	41.3%	58.8%	63.3%	57.9%
<i>Live with children</i>	70.4%	57.9%	60.0%	92.9%	75.0%	67.7%
Place of Birth						
<i>U.S.</i>	53.7%	65.5%	53.7%	65.5%	45.3%	77.3%
<i>Puerto Rico</i>	92.3%	66.7%	92.3%	66.7%	69.2%	100%
<i>Other Country</i>	63.3%	64.5%	63.3%	64.5%	64.9%	66.7%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 13B. New York City Subgroup Differences, Professional Mental Health

Total		2015-2017 Interviews			
		Need		Utilization	
		OR	AOR	OR	AOR
Age Cohort					
	<i>40 and above</i>	1		1	
	<i>Under 40</i>	1.99***		0.61	
Gender and MSM Status					
	<i>MSM</i>	2.06**	1.49	0.50	0.79
	<i>Non-MSM</i>	1	1	1	1
	<i>Women</i>	1.87**	1.90*	0.83	0.58
	<i>Transgender</i>	1.33	1.19	--	--
Race/ Ethnicity					
	<i>White</i>	1	1	1	1
	<i>Black</i>	0.49	0.49	1.62	1.51
	<i>Hispanic/Latino</i>	0.95	0.84	2.12	1.75
	<i>Other</i>	0.31*	0.29*	1.80	2.43
Age Group					
	<i>18-29</i>	1.17	1.32	0.58	0.82
	<i>30-39</i>	1.41	1.54	1.00	2.66
	<i>40-49</i>	1	1	1	1
	<i>50+</i>	0.53*	0.59	1.48	0.96
Education					
	<i>Less than high school</i>	0.49**	0.53*	1.57	1.76
	<i>High school or GED</i>	0.53*	0.56*	1.64	1.41
	<i>More than high school</i>	1	1	1	1
Employment					
	<i>Unemployed not looking for work</i>	0.92	1.23	8.30***	6.83**
	<i>Unemployed looking for work</i>	1.11	1.00	4.46**	3.52*
	<i>Employed part-time</i>	1.21	0.94	4.25**	5.06*
	<i>Employed full-time</i>	1	1	1	1
Mental Health Functioning					
	<i>Poor</i>	--		0.36***	0.03***
	<i>Good</i>	1		1	1
Hard Drug Use					
	<i>Never Used</i>	1	1	1	1
	<i>Past User</i>	0.60**	0.77	2.23*	2.70*
	<i>Current User</i>	1.69	1.95*	0.66	0.51
Current Problem Drinking					
	<i>No</i>	1	1	1	1
	<i>Yes</i>	0.96	0.85	0.85	0.74
Borough of Residence					
	<i>Bronx</i>	0.69	0.74	0.97	0.76
	<i>Brooklyn</i>	0.69	0.85	0.62	0.34
	<i>Manhattan</i>	0.86	0.95	1.09	0.67
	<i>Queens</i>	1	1	1	1
	<i>Staten Island</i>	0.28	0.50	1.60	0.49

Table 13B. New York City Subgroup Differences, Professional Mental Health

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	5.57	--	0.05*
<i>Hospital Clinic</i>	1.89	2.10	0.62	0.47
<i>Community Clinic</i>	2.64	2.96	0.48	0.57
<i>Private MD</i>	1	1	1	1
Perinatal Infection				
<i>Yes</i>	1.77	1.49	1.12	1.18
<i>No</i>	1	1	1	1
HIV Diagnosis Year				
<i>Before 1996</i>	1	1	1	1
<i>1997-2004</i>	1.71*	1.26	0.56	0.69
<i>2005-2011</i>	1.63*	0.73	0.37*	0.71
<i>After 2011</i>	2.34**	1.02	0.31**	0.86
Housing				
<i>Stable</i>	1	1	1	1
<i>Unstable</i>	1.47	1.21	0.76	0.97
<i>Homeless</i>	0.91	0.67	0.50*	0.45
Household Composition				
<i>Live alone</i>	1	1	1	1
<i>Live with other adults</i>	0.72	0.49*	0.59	0.68
<i>Live with children</i>	1.37	0.84	1.32	1.05
Place of Birth				
<i>U.S.</i>	0.70	0.79	1.37	1.38
<i>Puerto Rico</i>	1.67	1.79	1.05	0.69
<i>Other Country</i>	1	1	1	1

Table 14A. New York City Subgroup Differences, AOD Treatment

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	37.5%	40.5%	34.1%	19.7%	38.1%	20.4%
Gender						
Men	38.0%	42.9%	38.0%	17.4%	38.0%	17.4%
MSM	32.4%	33.3%	33.3%	0.0%	46.2%	19.4%
Non-MSM	40.2%	45.9%	40.0%	23.5%	33.3%	50.0%
Women	36.2%	38.2%	27.9%	25.0%	20.0%	14.3%
Transgender individuals	100%	0.0%	100%	0.0%	57.1%	0.0%
Race/ Ethnicity						
White	29.4%	20.0%	23.1%	66.7%	66.7%	87.5%
Black	45.9%	33.9%	38.4%	16.3%	33.9%	9.5%
Hispanic/Latino	26.0%	55.0%	26.0%	21.1%	41.2%	21.4%
Other	37.5%	100%	60.0%	16.7%	31.6%	0.0%
Age Group						
18-29	60.0%	0.0%	--	--	37.0%	12.8%
30-39	27.3%	0.0%	--	--	39.2%	27.5%
40-49	34.7%	42.3%	35.8%	16.7%	--	--
50+	39.1%	44.2%	33.3%	21.3%	--	--
Education						
Less than high school	43.7%	44.7%	38.2%	20.7%	34.6%	14.3%
High school or GED	33.6%	38.9%	28.0%	14.3%	40.5%	26.5%
More than high school	33.3%	30.0%	43.8%	28.6%	38.2%	14.3%
Employment						
Unemployed not looking for	36.3%	49.0%	30.8%	16.7%	30.8%	16.7%
Unemployed looking for work	42.1%	33.3%	43.9%	24.0%	40.5%	26.4%
Employed part-time	40.9%	22.2%	33.3%	0.0%	40.4%	9.5%
Employed full-time	20.0%	0.0%	23.1%	66.7%	25.0%	0.0%
Mental Health Functioning						
Poor	32.3%	35.0%	35.0%	9.5%	39.2%	27.5%
Good	39.5%	42.2%	33.8%	24.0%	37.0%	12.8%
Hard Drug Use						
Never Used	12.0%	27.3%	9.6%	0.0%	16.3%	4.0%
Past User	44.9%	50.0%	36.6%	24.4%	41.5%	31.8%
Current User	ALL	28.0%	ALL	17.4%	ALL	23.5%
Current Problem Drinking						
No	31.7%	46.2%	27.1%	23.5%	28.4%	28.6%
Yes	ALL	21.1%	ALL	10.0%	ALL	5.7%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 14A. New York City Subgroup Differences, AOD Treatment

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	37.5%	40.5%	34.1%	19.7%	38.1%	20.4%
Borough of Residence						
<i>Bronx</i>	40.7%	54.2%	33.3%	16.7%	43.1%	12.8%
<i>Brooklyn</i>	28.9%	22.7%	29.5%	27.8%	29.7%	18.2%
<i>Manhattan</i>	44.7%	42.9%	40.9%	22.2%	36.4%	30.0%
<i>Queens</i>	26.1%	16.7%	21.1%	0.0%	50.0%	50.0%
<i>Staten Island</i>	57.9%	54.5%	58.3%	14.3%	33.3%	0.0%
HIV Medical Care						
<i>No HIV Provider</i>	--	--	50.0%	0.0%	50.0%	0.0%
<i>Have HIV Provider</i>	37.5%	40.5%	33.8%	20.3%	38.1%	20.8%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	37.3%	35.7%	32.6%	24.4%	29.9%	12.2%
<i>Community Clinic</i>	37.3%	48.0%	33.9%	14.3%	48.6%	26.9%
<i>Private MD</i>	42.9%	66.7%	75.0%	0.0%	37.5%	33.3%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	16.0%	25.0%
<i>No</i>	37.5%	40.5%	34.1%	19.7%	40.5%	20.2%
HIV Diagnosis Year						
<i>Before 1996</i>	39.8%	43.9%	30.8%	21.9%	36.4%	25.0%
<i>1997-2004</i>	34.4%	41.9%	38.7%	24.1%	28.1%	31.3%
<i>2005-2011</i>	35.7%	20.0%	37.5%	0.0%	43.9%	17.0%
<i>After 2011</i>	--	--	0.0%	--	38.7%	19.4%
Housing						
<i>Stable</i>	35.8%	40.3%	29.2%	22.0%	33.3%	19.5%
<i>Unstable</i>	56.3%	55.6%	35.7%	0.0%	32.7%	29.4%
<i>Homeless</i>	42.9%	0.0%	69.6%	18.8%	48.8%	17.5%
Household Composition						
<i>Live alone</i>	39.9%	38.2%	37.0%	23.5%	41.8%	17.4%
<i>Live with other adults</i>	35.8%	47.4%	31.7%	15.4%	43.4%	26.1%
<i>Live with children</i>	25.9%	42.9%	23.1%	0.0%	16.7%	33.3%
Place of Birth						
<i>U.S.</i>	44.4%	41.7%	40.8%	19.4%	38.9%	18.3%
<i>Puerto Rico</i>	23.1%	66.7%	20.0%	50.0%	58.3%	57.1%
<i>Other Country</i>	18.4%	22.2%	15.2%	14.3%	26.5%	11.1%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 14B. New York City Subgroup Differences, AOD Treatment

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	1		1	
<i>Under 40</i>	1.19		1.04	
Gender and MSM Status				
<i>MSM</i>	1.24	1.09	.50	0.15*
<i>Non-MSM</i>	1	1	1	1
<i>Women</i>	0.51*	0.59	0.67	0.81
<i>Transgender</i>	2.66	2.00	--	--
Race/ Ethnicity				
<i>White</i>	1	1	1	1
<i>Black</i>	0.72	0.81	0.03***	0.00***
<i>Hispanic/Latino</i>	0.68	0.74	0.06***	0.01***
<i>Other</i>	0.90	1.10	0.02**	0.00***
Age Group				
<i>18-29</i>	1.05	0.69	0.73	2.43
<i>30-39</i>	1.16	0.74	1.89	2.69
<i>40-49</i>	1	1	1	1
<i>50+</i>	0.90	0.85	1.35	0.41
Education				
<i>Less than high school</i>	0.85	0.92	0.85	0.51
<i>High school or GED</i>	0.79	0.72	1.13	2.78
<i>More than high school</i>	1	1	1	1
Employment				
<i>Unemployed not looking for work</i>	1.49	1.60	0.80	0.24
<i>Unemployed looking for work</i>	2.21	1.91	1.21	0.51
<i>Employed part-time</i>	1.95	2.22	0.28	0.04*
<i>Employed full-time</i>	1	1	1	1
Mental Health Functioning				
<i>Poor</i>	1.12	1.10	1.25	0.45
<i>Good</i>	1	1	1	1
Hard Drug Use				
<i>Never Used</i>	1		1	
<i>Past User</i>	3.74***		11.46*	
<i>Current User</i>	-		8.55*	
Current Problem Drinking				
<i>No</i>	1		1	1
<i>Yes</i>	--		0.22**	0.13*
Borough of Residence				
<i>Bronx</i>	1.24	0.97	0.33	0.20
<i>Brooklyn</i>	0.81	0.69	0.58	0.61
<i>Manhattan</i>	1.19	0.96	0.71	0.49
<i>Queens</i>	1	1	1	1
<i>Staten Island</i>	2.19	1.80	0.29	0.67

Table 14B. New York City Subgroup Differences, AOD Treatment

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	0.71	--	--
<i>Hospital Clinic</i>	0.46	0.40	1.14	2.05
<i>Community Clinic</i>	0.76	0.50	1.52	2.20
<i>Private MD</i>	1	1	1	1
Perinatal Infection				
<i>Yes</i>	0.32*	0.48	1.33	
<i>No</i>	1	1	1	
HIV Diagnosis Year				
<i>Before 1996</i>	1	1	1	1
<i>1997-2004</i>	1.14	1.21	1.27	0.98
<i>2005-2011</i>	1.64	1.33	0.58	0.12*
<i>After 2011</i>	1.31	1.05	0.84	0.22
Housing				
<i>Stable</i>	1	1	1	1
<i>Unstable</i>	1.12	0.95	1.11	0.23
<i>Homeless</i>	2.55***	1.80*	0.82	0.49
Household Composition				
<i>Live alone</i>	1	1	1	1
<i>Live with other adults</i>	0.95	1.29	1.14	1.02
<i>Live with children</i>	0.37**	0.65	0.80	0.41
Place of Birth				
<i>U.S.</i>	2.63**	2.82**	1.62	1
<i>Puerto Rico</i>	2.77*	3.02	8.75*	1.04
<i>Other Country</i>	1	1	1	49.69**

Table 14A. New York City Subgroup Differences, Transportation

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	26.3%	37.3%	26.0%	18.3%	24.9%	21.1%
Gender						
Men	21.7%	28.6%	21.5%	10.3%	23.2%	22.9%
MSM	16.2%	50.0%	21.1%	25.0%	23.9%	23.8%
Non-MSM	23.9%	22.7%	21.6%	4.8%	19.4%	16.7%
Women	33.0%	45.2%	32.6%	25.8%	27.8%	20.0%
Transgender individuals	0.0%	--	0.0%	--	37.5%	0.0%
Race/ Ethnicity						
White	17.6%	66.7%	13.3%	0.0%	23.1%	33.3%
Black	24.6%	46.7%	17.9%	27.3%	18.2%	25.0%
Hispanic/Latino	31.2%	25.0%	41.5%	14.7%	35.0%	19.5%
Other	25.0%	0.0%	18.2%	0.0%	19.0%	0.0%
Age Group						
18-29	0.0%	--	--	--	23.3%	14.7%
30-39	9.1%	0.0	--	--	26.4%	26.2%
40-49	25.3%	52.6%	24.3%	16.7%	--	--
50+	29.3%	30.8%	26.8%	19.0%	--	--
Education						
Less than high school	31.0%	44.4%	27.9%	16.7%	28.0%	26.9%
High school or GED	24.3%	34.6%	29.0%	16.1%	27.3%	14.6%
More than high school	20.0%	16.7%	13.2%	40.0%	14.5%	33.3%
Employment						
Unemployed not looking for	34.8%	40.4%	30.1%	22.5%	36.7%	18.2%
Unemployed looking for work	15.8%	33.3%	18.0%	18.2%	25.9%	26.8%
Employed part-time	13.6%	0.0%	26.3%	0.0%	19.3%	9.1%
Employed full-time	0.0%	--	20.0%	0.0%	6.7%	0.0%
Mental Health Functioning						
Poor	21.0%	53.8%	30.8%	15.0%	29.1%	19.5%
Good	28.4%	32.6%	24.1%	20.0%	21.3%	22.9%
Hard Drug Use						
Never Used	29.3%	37.0%	28.1%	18.5%	23.0%	19.6%
Past User	26.2%	32.1%	23.2%	15.4%	29.6%	31.3%
Current User	16.0%	75.0%	30.4%	28.6%	27.5%	14.3%
Current Problem Drinking						
No	24.9%	39.2%	25.1%	17.0%	25.2%	19.1%
Yes	42.1%	25.0%	35.0%	28.6%	22.9%	37.5%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 14A. New York City Subgroup Differences, Transportation

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	26.3%	37.3%	26.0%	18.3%	24.9%	21.1%
Borough of Residence						
<i>Bronx</i>	37.3%	31.8%	32.1%	24.0%	28.1%	19.4%
<i>Brooklyn</i>	21.1%	37.5%	18.6%	38.5%	24.4%	14.3%
<i>Manhattan</i>	27.7%	23.1%	29.2%	0.0%	19.7%	46.2%
<i>Queens</i>	21.7%	60.0%	27.3%	0.0%	27.3%	0.0%
<i>Staten Island</i>	15.8%	100%	15.4%	0.0%	0.0%	--
HIV Medical Care						
<i>No HIV Provider</i>	--	--	50.0%	0.0%	40.0%	0.0%
<i>Have HIV Provider</i>	26.3%	37.3%	26.0%	18.6%	24.7%	21.6%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	28.7%	39.5%	27.6%	18.6%	21.4%	16.7%
<i>Community Clinic</i>	19.4%	38.5%	19.7%	23.1%	27.0%	21.2%
<i>Private MD</i>	42.9%	0.0%	60.0%	0.0%	55.6%	60.0%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	15.2%	40.0%
<i>No</i>	26.3%	37.3%	26.0%	18.3%	26.1%	19.7%
HIV Diagnosis Year						
<i>Before 1996</i>	28.2%	37.9%	24.5%	18.5%	23.1%	33.3%
<i>1997-2004</i>	24.4%	31.8%	30.3%	22.2%	20.3%	50.0%
<i>2005-2011</i>	25.0%	57.1%	24.0%	0.0%	29.4%	18.9%
<i>After 2011</i>	--	--	0.0%	--	23.4%	4.5%
Housing						
<i>Stable</i>	26.4%	37.7%	27.2%	19.2%	23.3%	17.1%
<i>Unstable</i>	25.0%	25.0%	33.3%	20.0%	30.5%	22.2%
<i>Homeless</i>	28.6%	50.0%	12.0%	0.0%	24.0%	26.1%
Household Composition						
<i>Live alone</i>	27.5%	31.6%	25.7%	12.8%	24.5%	14.6%
<i>Live with other adults</i>	32.1%	52.9%	21.7%	20.0%	23.3%	28.6%
<i>Live with children</i>	14.8%	25.0%	33.3%	30.0%	31.8%	35.7%
Place of Birth						
<i>U.S.</i>	24.7%	42.5%	20.5%	21.2%	20.9%	29.4%
<i>Puerto Rico</i>	30.8%	25.0%	61.5%	0.0%	46.2%	0.0%
<i>Other Country</i>	30.6%	26.7%	33.3%	21.1%	39.6%	5.3%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews. Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 14B. New York City Subgroup Differences, Transportation

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	1		1	
<i>Under 40</i>	0.95		1.19	
Gender and MSM Status				
<i>MSM</i>	1.14	1.48	3.95	12.08
<i>Non-MSM</i>	1	1	1	1
<i>Women</i>	1.62	2.13*	3.78	1.78
<i>Transgender</i>	1.87	3.36	--	--
Race/ Ethnicity				
<i>White</i>	1	1	1	1
<i>Black</i>	1.01	1.01	1.41	0.33
<i>Hispanic/Latino</i>	2.78*	2.14	0.84	0.13
<i>Other</i>	1.06	1.12	--	--
Age Group				
<i>18-29</i>	0.94	1.11	0.86	0.56
<i>30-39</i>	1.12	1.14	1.77	2.39
<i>40-49</i>	1	1	1	1
<i>50+</i>	1.14	1.10	1.18	4.31
Education				
<i>Less than high school</i>	2.38**	2.23*	0.51	0.33
<i>High school or GED</i>	2.39**	3.08**	0.32	0.12
<i>More than high school</i>	1	1	1	1
Employment				
<i>Unemployed not looking for work</i>	3.79**	3.40*	1	1
<i>Unemployed looking for work</i>	2.49	1.89	1.26	1.55
<i>Employed part-time</i>	2.13	1.60	0.25	0.23
<i>Employed full-time</i>	1	1	--	--
Mental Health Functioning				
<i>Poor</i>	1.42	1.37	0.81	0.95
<i>Good</i>	1	1	1	1
Hard Drug Use				
<i>Never Used</i>	1	1	1	1
<i>Past User</i>	1.03	1.11	1.15	1.17
<i>Current User</i>	1.21	1.55	0.99	0.95
Current Problem Drinking				
<i>No</i>	1	1	1	1
<i>Yes</i>	1.11	1.01	2.25	2.49
Borough of Residence				
<i>Bronx</i>	1.12	1.77	0.95	1.09
<i>Brooklyn</i>	0.74	1.14	1.08	1.32
<i>Manhattan</i>	0.83	1.17	1	1
<i>Queens</i>	1	1	--	--
<i>Staten Island</i>	0.38	0.57	--	--

Table 14B. New York City Subgroup Differences, Transportation

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	0.32	--	--
<i>Hospital Clinic</i>	0.24*	0.20*	0.36	0.37
<i>Community Clinic</i>	0.24*	0.18**	0.46	0.66
<i>Private MD</i>	1	1	1	1
Perinatal Infection				
<i>Yes</i>	0.51	0.54	2.83	5.36
<i>No</i>	1	1	1	1
HIV Diagnosis Year				
<i>Before 1996</i>	1	1	1	1
<i>1997-2004</i>	1.09	1.19	1.86	1.86
<i>2005-2011</i>	1.23	1.33	0.78	0.53
<i>After 2011</i>	0.89	1.04	0.19	0.06
Housing				
<i>Stable</i>	1	1	1	1
<i>Unstable</i>	1.32	1.81	1.23	3.38
<i>Homeless</i>	0.80	0.85	1.33	1.06
Household Composition				
<i>Live alone</i>	1	1	1	1
<i>Live with other adults</i>	0.88	0.70	2.08	2.71
<i>Live with children</i>	1.44	0.85	3.13*	5.72
Place of Birth				
<i>U.S.</i>	0.46**	0.41**	2.34	1.81
<i>Puerto Rico</i>	2.06	1.12	--	--
<i>Other Country</i>	1	1	1	1

Table 15A. New York City Subgroup Differences, Food

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	95.1%	48.8%	93.5%	46.3%	92.8%	48.4%
Gender						
Men	94.6%	57.4%	90.4%	56.6%	92.3%	49.7%
MSM	89.2%	63.6%	84.2%	62.5%	90.9%	51.2%
Non-MSM	96.7%	55.1%	92.8%	54.4%	100%	41.9%
Women	95.7%	37.8%	97.9%	32.3%	93.3%	45.2%
Transgender individuals	100%	0.0%	100%	100%	100%	50.0%
Race/ Ethnicity						
White	82.4%	42.9%	80.0%	50.0%	100%	69.2%
Black	97.5%	54.6%	95.1%	43.6%	91.6%	44.7%
Hispanic/Latino	94.8%	38.4%	93.9%	46.8%	94.9%	48.6%
Other	87.5%	71.4%	90.9%	70.0%	85.7%	61.1%
Age Group						
18-29	80.0%	0.0%	--	--	92.5%	37.8%
30-39	100%	45.5%	--	--	93.1%	58.1%
40-49	93.3%	45.7%	93.2%	44.9%	--	--
50+	96.2%	52.3%	93.6%	46.9%	--	--
Education						
Less than high school	95.4%	48.2%	97.7%	39.3%	97.8%	47.3%
High school or GED	97.2%	48.1%	94.4%	51.5%	94.7%	51.4%
More than high school	86.7%	53.8%	81.6%	48.4%	80.6%	42.0%
Employment						
Unemployed not looking for	97.0%	48.1%	96.2%	44.5%	98.3%	55.9%
Unemployed looking for work	96.5%	50.9%	98.4%	53.3%	97.5%	50.0%
Employed part-time	95.5%	52.4%	84.2%	43.8%	91.2%	42.3%
Employed full-time	60.0%	33.3%	60.0%	22.0%	60.0%	27.8%
Mental Health Functioning						
Poor	88.7%	45.5%	95.4%	51.6%	91.5%	51.9%
Good	97.5%	50.0%	92.8%	44.2%	93.9%	45.5%
Hard Drug Use						
Never Used	93.5%	40.7%	91.7%	35.2%	90.5%	43.1%
Past User	97.2%	50.0%	94.6%	49.1%	96.3%	48.1%
Current User	92.0%	73.9%	95.7%	77.3%	98.0%	68.0%
Current Problem Drinking						
No	94.6%	47.9%	92.9%	43.9%	92.9%	46.6%
Yes	100%	57.9%	100%	70.0%	97.1%	61.8%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 15A. New York City Subgroup Differences, Food

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	95.1%	48.8%	93.5%	46.3%	92.8%	48.4%
Borough of Residence						
<i>Bronx</i>	100%	55.9%	96.2%	46.7%	97.7%	48.0%
<i>Brooklyn</i>	96.1%	41.1%	91.4%	31.3%	83.7%	38.9%
<i>Manhattan</i>	93.6%	45.5%	95.8%	63.0%	95.5%	61.9%
<i>Queens</i>	78.3%	61.1%	86.4%	47.4%	90.9%	50.0%
<i>Staten Island</i>	100%	52.6%	92.3%	58.3%	100%	0.0%
HIV Medical Care						
<i>No HIV Provider</i>	--	--	100%	50.0%	100%	20.0%
<i>Have HIV Provider</i>	95.1%	48.8%	93.4%	45.8%	92.6%	48.7%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	95.3%	46.9%	94.2%	44.2%	91.7%	40.3%
<i>Community Clinic</i>	94.0%	50.8%	90.9%	46.7%	93.4%	58.8%
<i>Private MD</i>	100%	71.4%	100%	80.0%	100%	66.7%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	93.9%	32.3%
<i>No</i>	95.1%	48.8%	93.5%	46.3%	92.6%	50.4%
HIV Diagnosis Year						
<i>Before 1996</i>	97.1%	57.0%	96.4%	51.9%	100%	69.2%
<i>1997-2004</i>	95.6%	43.0%	92.1%	39.0%	92.8%	50.0%
<i>2005-2011</i>	85.7%	37.5%	84.0%	42.9%	94.4%	48.7%
<i>After 2011</i>	--	--	100%	80.0%	89.4%	45.2%
Housing						
<i>Stable</i>	95.5%	47.9%	92.7%	43.5%	90.0%	45.2%
<i>Unstable</i>	87.5%	42.9%	93.3%	42.9%	89.8%	34.0%
<i>Homeless</i>	100%	85.7%	100%	68.0%	99.0%	61.1%
Household Composition						
<i>Live alone</i>	96.4%	55.6%	94.1%	57.3%	94.4%	55.7%
<i>Live with other adults</i>	92.5%	44.9%	89.1%	26.8%	88.3%	30.2%
<i>Live with children</i>	96.3%	19.2%	96.7%	17.2%	93.2%	41.5%
Place of Birth						
<i>U.S.</i>	96.9%	51.0%	95.0%	49.0%	94.3%	47.8%
<i>Puerto Rico</i>	92.3%	25.0%	100%	23.1%	100%	46.2%
<i>Other Country</i>	89.8%	47.7%	87.7%	44.0%	83.3%	52.5%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 15B. New York City Subgroup Differences, Food

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	1		1	
<i>Under 40</i>	0.89		1.09	
Gender and MSM Status				
<i>MSM</i>	0.50	0.88	1.08	1.54
<i>Non-MSM</i>	1	7.06*	1	1
<i>Women</i>	1.28	1	0.59*	1.03
<i>Transgender</i>	--	--	1.19	3.10
Race/ Ethnicity				
<i>White</i>	1	1	1	1
<i>Black</i>	1.63	3.10	0.53	0.76
<i>Hispanic/Latino</i>	2.05	5.51	0.61	0.96
<i>Other</i>	0.84	0.42	1.20	2.37
Age Group				
<i>18-29</i>	0.89	0.82	0.74	0.91
<i>30-39</i>	0.97	1.21	1.70	2.38*
<i>40-49</i>	--	1	1	1
<i>50+</i>	1.07	0.42	1.08	1.41
Education				
<i>Less than high school</i>	10.26***	10.23**	0.96	1.50
<i>High school or GED</i>	4.07***	6.62**	1.32	2.08*
<i>More than high school</i>	1	1	1	1
Employment				
<i>Unemployed not looking for work</i>	20.78***	28.05***	2.65*	3.86*
<i>Unemployed looking for work</i>	38.53***	55.66***	2.97*	3.62*
<i>Employed part-time</i>	5.67***	9.43**	--	3.08
<i>Employed full-time</i>	1	1	1	1
Mental Health Functioning				
<i>Poor</i>	0.91	2.30	1.33	1.31
<i>Good</i>	1	1	1	1
Hard Drug Use				
<i>Never Used</i>	1	1	1	1
<i>Past User</i>	1.98	1.10	1.40	1.17
<i>Current User</i>	3.61	4.34*	3.56***	2.80**
Current Problem Drinking				
<i>No</i>	1	1	1	1
<i>Yes</i>	4.37	3.09	2.22**	1.92
Borough of Residence				
<i>Bronx</i>	4.27*	6.59	0.95	0.91
<i>Brooklyn</i>	0.87	1.00	0.57	0.48
<i>Manhattan</i>	1.79	5.82*	1.75	1.48
<i>Queens</i>	1	1	1	1
<i>Staten Island</i>	1.92	0.88	0.92	0.79

Table 15B. New York City Subgroup Differences, Food

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	--	--	0.09*
<i>Hospital Clinic</i>	1.05	2.35	0.29*	0.26*
<i>Community Clinic</i>	1	1	0.48	0.35
<i>Private MD</i>	--	--	1	1
Perinatal Infection				
<i>Yes</i>	1.16	0.36	0.51	1.55
<i>No</i>	1	1	1	1
HIV Diagnosis Year				
<i>Before 1996</i>	1	1	1	1
<i>1997-2004</i>	0.41	0.29	0.67	0.41**
<i>2005-2011</i>	0.43	0.24*	0.79	0.35*
<i>After 2011</i>	0.30*	0.24	0.77	0.37*
Housing				
<i>Stable</i>	1	1	1	1
<i>Unstable</i>	0.89	0.62	0.70	0.92
<i>Homeless</i>	11.15*	29.01*	2.10***	1.81*
Household Composition				
<i>Live alone</i>	1	1	1	1
<i>Live with other adults</i>	0.48	0.30*	0.31***	0.36**
<i>Live with children</i>	1.07	0.16	0.35***	0.52
Place of Birth				
<i>U.S.</i>	2.90**	1.21	1.02	0.73
<i>Puerto Rico</i>	--	--	0.58	0.38
<i>Other Country</i>	1	1	1	1

Table 16A. New York City Subgroup Differences, Nutrition Counseling

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	91.1%	34.8%	91.3%	33.2%	69.2%	29.4%
Gender						
Men	87.6%	35.4%	88.9%	32.5%	63.3%	29.0%
MSM	73.0%	29.6%	73.7%	39.3%	61.9%	25.7%
Non-MSM	93.5%	37.2%	94.8%	30.4%	71.0%	45.5%
Women	95.7%	34.4%	94.7%	34.4%	84.4%	31.6%
Transgender individuals	100%	0.0%	100%	0.0%	50.0%	0.0%
Race/ Ethnicity						
White	100%	41.2%	93.3%	28.6%	69.2%	11.1%
Black	88.5%	34.3%	91.9%	34.5%	67.5%	27.9%
Hispanic/Latino	94.8%	32.9%	93.9%	28.6%	71.8%	32.1%
Other	75.0%	50.0%	63.6%	71.4%	66.7%	35.7%
Age Group						
18-29	80.0%	0.0%	--	--	57.5%	26.2%
30-39	54.5%	0.0%	--	--	79.9%	31.5%
40-49	93.3%	31.4%	89.2%	30.3%	--	--
50+	93.2%	39.5%	92.4%	34.5%	--	--
Education						
Less than high school	92.0%	32.5%	91.9%	31.6%	69.9%	29.2%
High school or GED	89.7%	33.3%	92.5%	33.3%	67.3%	29.7%
More than high school	93.3%	46.4%	86.8%	36.4%	72.6%	28.9%
Employment						
Unemployed not looking for	91.1%	29.3%	92.5%	32.5%	83.3%	44.0%
Unemployed looking for work	86.0%	40.8%	90.2%	41.8%	69.0%	24.8%
Employed part-time	100%	50.0%	94.7%	16.7%	57.9%	24.2%
Employed full-time	100%	40.0%	80.0%	25.0%	63.3%	26.3%
Mental Health Functioning						
Poor	93.5%	31.0%	90.8%	30.5%	71.6%	29.7%
Good	90.1%	36.3%	91.6%	34.2%	67.1%	29.1%
Hard Drug Use						
Never Used	89.1%	28.0%	91.7%	28.4%	69.5%	25.9%
Past User	90.7%	37.1%	92.0%	33.0%	75.9%	39.0%
Current User	100%	48.0%	87.0%	55.0%	60.8%	32.3%
Current Problem Drinking						
No	90.7%	36.6%	91.0%	31.8%	68.9%	31.7%
Yes	94.7%	16.7%	95.0%	47.4%	71.4%	12.0%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 16A. New York City Subgroup Differences, Nutrition Counseling

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	91.1%	34.8%	91.3%	33.2%	69.2%	29.4%
Borough of Residence						
<i>Bronx</i>	94.9%	46.4%	88.5%	43.5%	69.5%	31.5%
<i>Brooklyn</i>	88.2%	28.4%	92.9%	32.1%	66.3%	26.3%
<i>Manhattan</i>	87.2%	36.6%	91.7%	34.1%	71.2%	31.9%
<i>Queens</i>	91.3%	28.6%	90.9%	30.0%	68.2%	26.7%
<i>Staten Island</i>	100%	26.3%	100%	30.8%	100%	0.0%
HIV Medical Care						
<i>No HIV Provider</i>	--	--	100%	50.0%	60.0%	0.0%
<i>Have HIV Provider</i>	91.1%	34.8%	91.2%	33.3%	69.2%	29.5%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	91.3%	34.3%	89.7%	29.3%	68.5%	29.6%
<i>Community Clinic</i>	91.0%	36.1%	93.9%	40.3%	68.9%	28.6%
<i>Private MD</i>	85.7%	33.3%	100%	60.0%	88.9%	37.5%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	69.9%	30.0%
<i>No</i>	91.1%	34.8%	91.3%	33.2%	63.6%	23.8%
HIV Diagnosis Year						
<i>Before 1996</i>	91.3%	38.3%	90.0%	35.4%	69.2%	0.0%
<i>1997-2004</i>	92.2%	34.9%	92.1%	31.7%	76.8%	28.3%
<i>2005-2011</i>	85.7%	20.8%	92.0%	34.8%	72.2%	33.0%
<i>After 2011</i>	--	--	100%	20.0%	59.6%	26.8%
Housing						
<i>Stable</i>	92.0%	34.1%	92.7%	36.2%	72.7%	33.9%
<i>Unstable</i>	87.5%	42.9%	93.3%	14.3%	62.7%	29.7%
<i>Homeless</i>	71.4%	40.0%	80.0%	20.0%	67.7%	21.5%
Household Composition						
<i>Live alone</i>	89.9%	35.5%	90.8%	31.9%	68.4%	32.8%
<i>Live with other adults</i>	96.2%	37.3%	95.7%	34.1%	66.7%	17.5%
<i>Live with children</i>	88.9%	33.3%	86.7%	38.5%	79.5%	31.4%
Place of Birth						
<i>U.S.</i>	90.1%	33.6%	89.4%	31.9%	69.3%	29.0%
<i>Puerto Rico</i>	100%	30.8%	92.3%	25.0%	69.2%	55.6%
<i>Other Country</i>	91.8%	40.0%	96.5%	38.2%	68.8%	24.2%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 16B. New York City Subgroup Differences, Nutrition Counseling

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	1		1	
<i>Under 40</i>	0.21***		0.84	
Gender and MSM Status				
<i>MSM</i>	0.22***	0.29**	0.80	1.03
<i>Non-MSM</i>	1	1	1	1
<i>Women</i>	1.07	1.78	0.99	1.29
<i>Transgender</i>	0.15*	0.19	--	--
Race/ Ethnicity				
<i>White</i>	1	1	1	1
<i>Black</i>	0.79	0.70	1.64	2.70
<i>Hispanic/Latino</i>	0.92	0.87	1.58	2.04
<i>Other</i>	0.42	0.37	3.27	6.01*
Age Group				
<i>18-29</i>	0.16***	0.31*	0.82	0.92
<i>30-39</i>	0.481	0.72	1.06	1.25
<i>40-49</i>	1	1	1	1
<i>50+</i>	1.465	0.98	1.21	1.23
Education				
<i>Less than high school</i>	1.16	0.55	0.93	0.95
<i>High school or GED</i>	0.99	0.82	0.97	1.01
<i>More than high school</i>	1	1	1	1
Employment				
<i>Unemployed not looking for work</i>	3.91***	2.40	1.61	1.34
<i>Unemployed looking for work</i>	1.35	1.96	1.26	0.94
<i>Employed part-time</i>	0.92	1.42	0.79	0.47
<i>Employed full-time</i>	1	1	1	1
Mental Health Functioning				
<i>Poor</i>	0.90	1.28	0.91	1.00
<i>Good</i>	1	1	1	1
Hard Drug Use				
<i>Never Used</i>	1	1	1	1
<i>Past User</i>	1.99*	1.00	1.45	1.71
<i>Current User</i>	0.67	0.58	1.90*	2.31*
Current Problem Drinking				
<i>No</i>	1	1	1	1
<i>Yes</i>	1.09	2.17	0.81	0.86
Borough of Residence				
<i>Bronx</i>	0.85	0.99	1.45	1.69
<i>Brooklyn</i>	0.92	1.00	0.82	0.78
<i>Manhattan</i>	1.02	0.95	1.23	1.40
<i>Queens</i>	1	1	1	1
<i>Staten Island</i>	--	--	0.83	0.67

Table 16B. New York City Subgroup Differences, Nutrition Counseling

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	0.29	--	0.51
<i>Hospital Clinic</i>	0.38	0.20	0.49	0.42
<i>Community Clinic</i>	0.37	0.29	0.59	0.58
<i>Private MD</i>	1	1	1	1
Perinatal Infection				
<i>Yes</i>	0.45*	0.36	0.67	0.64
<i>No</i>	1	1	1	1
HIV Diagnosis Year				
<i>Before 1996</i>	--	1	1	1
<i>1997-2004</i>	0.82	1.39	0.91	1.32
<i>2005-2011</i>	0.43*	1.49	1.04	1.29
<i>After 2011</i>	0.22***	1.01	0.74	1.42
Housing				
<i>Stable</i>	1	1	1	1
<i>Unstable</i>	0.43**	0.74	0.63	0.79
<i>Homeless</i>	0.45**	0.67	0.49*	0.45*
Household Composition				
<i>Live alone</i>	1	1	1	1
<i>Live with other adults</i>	1.07	1.32	0.74	0.64
<i>Live with children</i>	1.31	0.72	1.10	0.91
Place of Birth				
<i>U.S.</i>	0.66	0.85	0.89	0.70
<i>Puerto Rico</i>	0.81	0.54	1.25	1.13
<i>Other Country</i>	1	1	1	1

Table 17A. New York City Subgroup Differences, Permanent Housing Placement

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	10.8%	33.3%	18.0%	41.0%	52.6%	22.8%
Gender						
Men	13.2%	41.2%	22.4%	39.3%	59.1%	20.9%
MSM	13.5%	60.0%	23.7%	28.6%	61.1%	22.9%
Non-MSM	13.0%	33.3%	21.9%	42.9%	48.4%	7.1%
Women	7.5%	14.3%	11.8%	45.5%	34.1%	28.6%
Transgender individuals	0.0%	--	0.0%	--	87.5%	38.6%
Race/ Ethnicity						
White	11.8%	50.0%	26.7%	75.0%	75.0%	22.2%
Black	12.4%	33.3%	19.8%	30.4%	51.7%	23.6%
Hispanic/Latino	9.1%	28.6%	12.3%	50.0%	54.0%	24.6%
Other	0.0%	--	27.3%	50.0	36.8%	0.0%
Age Group						
18-29	0.0%	--	--	--	54.4%	21.1%
30-39	18.2%	50.0%	--	--	51.0%	24.3%
40-49	8.0%	16.7%	27.0%	33.3%	--	--
50+	12.1%	37.5%	13.6%	47.6%	--	--
Education						
Less than high school	9.2%	37.5%	14.3%	41.7%	53.8%	29.8%
High school or GED	12.3%	23.1%	18.9%	47.4%	53.5%	17.8%
More than high school	10.0%	66.7% ^s	23.7%	25.0%	48.3%	24.0%
Employment						
Unemployed not looking for	15.6%	33.3%	18.3%	47.8%	52.5%	20.7%
Unemployed looking for work	3.6%	50.0%	20.0%	45.5%	56.7%	25.9%
Employed part-time	4.5%	0.0%	10.5%	0.0%	47.2%	17.4%
Employed full-time	0.0%	--	20.0%	0.0%	41.4%	16.7%
Mental Health Functioning						
Poor	14.5%	22.2%	14.1%	37.5%	58.2%	21.9%
Good	9.3%	40.0%	19.5%	41.9%	47.8%	23.6%
Hard Drug Use						
Never Used	8.8%	25.0%	17.0%	50.0%	48.1%	22.4%
Past User	11.2%	33.3%	18.0%	35.0%	52.9%	25.9%
Current User	16.0%	50.0%	21.7%	40.0%	68.6%	21.2%
Current Problem Drinking						
No	10.3%	38.1%	17.8%	42.9%	50.0%	24.6%
Yes	15.8%	0.0%	20.0%	25.0%	71.4%	13.0%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 17A. New York City Subgroup Differences, Permanent Housing Placement

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	10.8%	33.3%	18.0%	41.0%	52.6%	22.8%
Borough of Residence						
<i>Bronx</i>	17.2%	0.0%	23.4%	43.8%	52.5%	23.7%
<i>Brooklyn</i>	3.9%	100%	7.2%	60.0%	52.9%	22.2%
<i>Manhattan</i>	12.8%	50.0%	27.7%	30.8%	47.5%	19.2%
<i>Queens</i>	13.0%	0.0%	18.2%	25.0%	59.1%	25.0%
<i>Staten Island</i>	10.5%	100%	7.7%	100%	100%	33.3%
HIV Medical Care						
<i>No HIV Provider</i>	--	--	0.0%	--	100%	0.0%
<i>Have HIV Provider</i>	10.8%	33.3%	17.4%	43.2%	51.9%	23.6%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	8.1%	50.0%	16.0%	43.5%	38.1%	28.8%
<i>Community Clinic</i>	16.4%	9.1%	22.2%	42.9%	69.8%	20.8%
<i>Private MD</i>	14.3%	100%	0.0%	--	66.7%	0.0%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	29.0%	0.0%
<i>No</i>	10.8%	33.3%	18.0%	41.0%	55.4%	24.3%
HIV Diagnosis Year						
<i>Before 1996</i>	13.6%	38.6%	17.8%	31.6%	45.5%	20.0%
<i>1997-2004</i>	4.5%	50.0%	14.6%	50.0%	41.2%	14.3%
<i>2005-2011</i>	17.9%	40.0%	16.0%	50.0%	49.6%	31.6%
<i>After 2011</i>	--	--	100%	50.0%	68.6%	18.2%
Housing						
<i>Stable</i>	NONE	--	NONE	--	NONE	--
<i>Unstable</i>	ALL	35.3%	ALL	50.0%	ALL	23.8%
<i>Homeless</i>	ALL	28.6%	ALL	29.4%	ALL	22.0%
Household Composition						
<i>Live alone</i>	11.6%	31.3%	22.7%	40.6%	56.6%	23.0%
<i>Live with other adults</i>	5.7%	33.3%	11.1%	60.0%	62.3%	18.9%
<i>Live with children</i>	11.5%	33.3%	3.3%	0.0%	22.7%	40.0%
Place of Birth						
<i>U.S.</i>	11.8%	36.8%	20.9%	34.4%	55.4%	23.1%
<i>Puerto Rico</i>	15.4%	0.0%	0.0%	--	53.8%	42.9%
<i>Other Country</i>	6.1%	33.3%	14.0%	71.4%	38.3%	11.8%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Table 17B. New York City Subgroup Differences, Permanent Housing Placement

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	1		0.42*	
<i>Under 40</i>	5.06***		1	
Gender and MSM Status				
<i>MSM</i>	2.98***	0.74	0.76	
<i>Non-MSM</i>	1	1	1	
<i>Women</i>	0.73	0.51	1.25	
<i>Transgender</i>	8.84**	1.86	1	
Race/ Ethnicity				
<i>White</i>	1	1	1	
<i>Black</i>	0.64	0.57	0.54	
<i>Hispanic/Latino</i>	0.62	0.60	0.63	
<i>Other</i>	0.54	0.31	0.20	
Age Group				
<i>18-29</i>	3.22***	2.80*	0.54	
<i>30-39</i>	2.81***	2.44*	0.64	
<i>40-49</i>	1	1	1	
<i>50+</i>	0.43*	0.33**	1.82	
Education				
<i>Less than high school</i>	0.85	1.07	1.48	
<i>High school or GED</i>	0.85	0.89	0.98	
<i>More than high school</i>	1.00	1	1	
Employment				
<i>Unemployed not looking for work</i>	0.79	1.81	3.16	
<i>Unemployed looking for work</i>	1.66	1.63	2.56	
<i>Employed part-time</i>	1.16	0.85	1.24	
<i>Employed full-time</i>	1	1	1	
Mental Health Functioning				
<i>Poor</i>	1.57*	1.15	0.75	
<i>Good</i>	1	1	1	
Hard Drug Use				
<i>Never Used</i>	1	1	1	
<i>Past User</i>	0.67	0.81	1.19	
<i>Current User</i>	1.94*	1.03	0.87	
Current Problem Drinking				
<i>No</i>	1	1	1	
<i>Yes</i>	2.02*	1.47	0.43	
Borough of Residence				
<i>Bronx</i>	1.11	0.91	1.17	
<i>Brooklyn</i>	0.76	0.75	1.05	
<i>Manhattan</i>	1.01	0.91	0.90	
<i>Queens</i>	1	1	1	
<i>Staten Island</i>	0.53	0.64	3	

Table 17B. New York City Subgroup Differences, Permanent Housing Placement

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
HIV Medical Care Setting				
<i>No HIV Provider</i>	--	3.15	--	
<i>Hospital Clinic</i>	0.50	0.57	1.54	
<i>Community Clinic</i>	1.51	1.10	1	
<i>Private MD</i>	1	1	--	
Perinatal Infection				
<i>Yes</i>	0.67	0.48	--	
<i>No</i>	1	1	1	
HIV Diagnosis Year				
<i>Before 1996</i>	1	1	1	
<i>1997-2004</i>	1.38	0.83	0.81	
<i>2005-2011</i>	3.07***	0.85	1.18	
<i>After 2011</i>	9.28***	2.74	0.62	
Housing				
<i>Stable</i>				
<i>Unstable</i>				
<i>Homeless</i>				
Household Composition				
<i>Live alone</i>	1	1	1	
<i>Live with other adults</i>	0.89	0.86	0.86	
<i>Live with children</i>	0.25***	0.30**	1.52	
Place of Birth				
<i>U.S.</i>	2.12**	2.35*	0.83	
<i>Puerto Rico</i>	1.11	1.65	1.82	
<i>Other Country</i>	1	1	1	

Table 18A. New York City Subgroup Differences, Rental Assistance

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	86.6%	75.8%	85.7%	77.2%	56.3%	71.2%
Gender						
<i>Men</i>	85.3%	81.1%	83.7%	77.0%	51.5%	71.4%
<i>MSM</i>	86.5%	74.2%	84.2%	75.0%	52.0%	70.0%
<i>Non-MSM</i>	84.8%	84.0%	83.5%	77.8%	48.4%	80.0%
<i>Women</i>	89.4%	69.0%	89.4%	77.4%	68.9%	72.6%
<i>Transgender individuals</i>	0.0%	--	0.0%	--	37.5%	33.3%
Race/ Ethnicity						
<i>White</i>	76.5%	84.6%	86.7%	84.6%	46.2%	83.3%
<i>Black</i>	87.7%	80.0%	84.6%	83.7%	53.6%	69.5%
<i>Hispanic/Latino</i>	85.7%	66.2%	86.4%	65.7%	60.0%	72.5%
<i>Other</i>	100%	85.7%	90.9%	80.0%	61.9%	69.2%
Age Group						
<i>18-29</i>	80.0%	50.0%	--	--	50.7%	71.2%
<i>30-39</i>	72.7%	75.0%	--	--	61.4%	71.1%
<i>40-49</i>	88.0%	75.4%	81.1%	75.0%	--	--
<i>50+</i>	87.2%	77.0%	87.8%	78.1%	--	--
Education						
<i>Less than high school</i>	89.7%	71.1%	85.9%	75.3%	59.8%	74.5%
<i>High school or GED</i>	85.0%	83.1%	87.9%	77.7%	54.4%	70.4%
<i>More than high school</i>	83.3%	64.0%	78.9%	80.0%	55.7%	67.6%
Employment						
<i>Unemployed not looking for</i>	83.0%	74.3%	87.9%	81.0%	58.3%	82.9%
<i>Unemployed looking for work</i>	93.0%	80.8%	85.2%	73.1%	59.0%	69.6%
<i>Employed part-time</i>	90.9%	75.0%	84.2%	81.3%	55.4%	61.3%
<i>Employed full-time</i>	90.0%	66.7%	66.7%	50.0%	40.0%	75.0%
Mental Health Functioning						
<i>Poor</i>	80.6%	68.0%	85.9%	69.1%	52.5%	65.8%
<i>Good</i>	88.9%	78.6%	85.5%	80.3%	59.5%	75.3%
Hard Drug Use						
<i>Never Used</i>	88.0%	72.5%	86.5%	67.5%	57.8%	69.6%
<i>Past User</i>	86.0%	79.8%	84.7%	86.2%	59.6%	80.6%
<i>Current User</i>	84.0%	71.4%	87.0%	75.0%	47.1%	66.7%
Current Problem Drinking						
<i>No</i>	87.3%	76.7%	86.2%	79.6%	58.8%	71.3%
<i>Yes</i>	78.9%	64.3%	80.0%	50.0%	37.1%	69.2%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 18A. New York City Subgroup Differences, Rental Assistance

	2013-2015 interviews		2015-2017 interviews			
			Age 40 or above		Age under 40	
	Need	Utilization	Need	Utilization	Need	Utilization
Total	86.6%	75.8%	85.7%	77.2%	56.3%	71.2%
Borough of Residence						
<i>Bronx</i>	79.7%	69.6%	81.8%	73.0%	57.9%	75.3%
<i>Brooklyn</i>	93.4%	80.0%	92.9%	83.1%	48.2%	63.4%
<i>Manhattan</i>	80.9%	81.1%	81.3%	79.5%	63.6%	69.0%
<i>Queens</i>	82.6%	68.4%	77.3%	64.7%	59.1%	76.9%
<i>Staten Island</i>	100%	72.2%	100%	76.9%	33.3%	100%
HIV Medical Care						
<i>No HIV Provider</i>	--	--	100%	0.0%	0.0%	--
<i>Have HIV Provider</i>	86.6%	75.8%	86.3%	77.9%	57.1%	71.0%
HIV Medical Care Setting						
<i>Hospital Clinic</i>	90.7%	76.7%	89.1%	78.4%	63.9%	72.6%
<i>Community Clinic</i>	76.1%	76.0%	78.5%	76.5%	47.9%	69.0%
<i>Private MD</i>	100%	57.1%	100%	80.0%	55.6%	60.0%
Perinatal Infection						
<i>Yes</i>	--	--	--	--	60.6%	80.0%
<i>No</i>	86.6%	75.8%	85.7%	77.2%	55.8%	70.0%
HIV Diagnosis Year						
<i>Before 1996</i>	86.4%	79.1%	85.3%	82.8%	69.2%	66.7%
<i>1997-2004</i>	88.9%	72.2%	86.5%	71.4%	58.8%	80.0%
<i>2005-2011</i>	82.1%	73.9%	88.0%	77.3%	64.8%	76.5%
<i>After 2011</i>	--	--	0.0%	33.3%	40.9%	52.6%
Housing						
<i>Stable</i>	92.0%	75.7%	94.2%	77.8%	82.7%	77.4%
<i>Unstable</i>	37.5%	83.3%	50.0%	57.1%	36.8%	52.4%
<i>Homeless</i>	42.9%	66.7%	40.0%	80.0%	26.3%	56.0%
Household Composition						
<i>Live alone</i>	88.4%	80.7%	84.9%	79.1%	55.6%	73.5%
<i>Live with other adults</i>	81.1%	64.3%	84.4%	76.3%	43.9%	60.0%
<i>Live with children</i>	92.6%	72.0%	93.3%	71.4%	77.3%	70.6%
Place of Birth						
<i>U.S.</i>	85.8%	77.0%	85.0%	84.6%	54.8%	73.5%
<i>Puerto Rico</i>	84.6%	81.8%	76.9%	60.0%	69.2%	88.9%
<i>Other Country</i>	89.8%	70.5%	89.5%	60.8%	60.4%	55.2%

2013-2015 interviews include those recruited in 2009-2011 who were eligible for 2015-2017 interviews.

Gray shaded cells indicate that caution should be taken when interpreting proportions of these independent variables because of very small sample sizes (n<25).

Table 18B. New York City Subgroup Differences, Rental Assistance

Total	2015-2017 Interviews			
	Need		Utilization	
	OR	AOR	OR	AOR
Age Cohort				
<i>40 and above</i>	1		1	
<i>Under 40</i>	0.22***		0.73	
Gender and MSM Status				
<i>MSM</i>	0.46**	1.68	0.70	1.00
<i>Non-MSM</i>	1	1	1	1
<i>Women</i>	1.28	2.15	0.86	0.84
<i>Transgender</i>	0.17*	1.41	0.14	0.79*
Race/ Ethnicity				
<i>White</i>	1	1	1	1
<i>Black</i>	0.98	0.58	0.64	0.74
<i>Hispanic/Latino</i>	1.16	0.77	1	0.68
<i>Other</i>	1.21	1.30	0.53	0.88
Age Group				
<i>18-29</i>	0.24***	0.35*	0.83	1.87
<i>30-39</i>	0.37**	0.48	0.82	1.38
<i>40-49</i>	1	1	1	1
<i>50+</i>	1.68	1.67	1.19	0.81
Education				
<i>Less than high school</i>	1.43	1.37	1.09	1.07
<i>High school or GED</i>	1.18	1.30	1.04	0.87
<i>More than high school</i>	1	1	1	1
Employment				
<i>Unemployed not looking for work</i>	3.85***	3.55*	2.51	2.87
<i>Unemployed looking for work</i>	2.06*	5.17**	1.39	1.46
<i>Employed part-time</i>	1.75	4.10*	1.22	1.85
<i>Employed full-time</i>	1	1	1	1
Mental Health Functioning				
<i>Poor</i>	0.64*	1.00	0.57*	0.71
<i>Good</i>	1	1	1	1
Hard Drug Use				
<i>Never Used</i>	1	1	1	1
<i>Past User</i>	1.61*	1.12	2.54**	2.49**
<i>Current User</i>	0.72	1.00	1.09	1.04
Current Problem Drinking				
<i>No</i>	1	1	1	1
<i>Yes</i>	0.46**	0.53	0.45*	0.49
Borough of Residence				
<i>Bronx</i>	0.95	0.79	1.24	0.89
<i>Brooklyn</i>	1.00	0.67	1.32	1.26
<i>Manhattan</i>	1.15	1.01	1.22	0.76
<i>Queens</i>	1	1	1	1
<i>Staten Island</i>	3.27	3.05	1.57	0.80

HIV Medical Care					
	<i>Have HIV provider</i>	1	1		
	<i>No HIV Provider</i>	0.174*	0.09**	1	--
HIV Medical Care Setting					
	<i>Hospital Clinic</i>	1.27	0.80	1.35	1.59
	<i>Community Clinic</i>	0.57	0.57	1.13	1.63
	<i>Private MD</i>	1	1	1	1
Perinatal Infection					
	<i>Yes</i>	0.67	1.31	1.40	2.38
	<i>No</i>	1	1	1	1
HIV Diagnosis Year					
	<i>Before 1996</i>	1	1	1	1
	<i>1997-2004</i>	0.57	0.92	0.66	0.87
	<i>2005-2011</i>	0.43**	1.62	0.75	0.71
	<i>After 2011</i>	0.14***	0.78	0.24***	0.27*
Housing					
	<i>Stable</i>	1	1	1	1
	<i>Unstable</i>	0.80***	0.10***	0.33**	0.36*
	<i>Homeless</i>	0.05***	0.06***	0.49	0.52
Household Composition					
	<i>Live alone</i>	1	1	1	1
	<i>Live with other adults</i>	0.75	0.70	0.71	0.72
	<i>Live with children</i>	2.39**	1.40	0.75	0.54
Place of Birth					
	<i>U.S.</i>	0.63	0.91	2.66***	2.60**
	<i>Puerto Rico</i>	0.85	0.44	1.97	3.21
	<i>Other Country</i>	1	1	1	1

Appendix II

Table 19. Regression Analysis of Number of Service Needs (2015-2017)

	NYC ALL			NYC Older			NYC Younger		
	Coef.	95% CI		Coef.	95% CI		Coef.	95% CI	
Gender and MSM Status									
<i>MSM</i>	0.223	-0.113	0.559	-0.215	-0.766	0.336	0.516	0.022	1.009
<i>Non-MSM Men</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
<i>Women</i>	0.525	0.204	0.847	0.644	0.220	1.068	0.620	0.129	1.111
<i>Transgender</i>	0.503	-0.296	1.302	-1.029	-2.391	0.333	0.849	-0.126	1.824
Race/ Ethnicity									
<i>White</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
<i>Black</i>	-0.100	-0.683	0.484	-0.003	-0.733	0.726	-0.062	-0.899	0.775
<i>Hispanic/Latino</i>	0.157	-0.434	0.749	0.256	-0.545	1.056	0.162	-0.681	1.004
<i>Other</i>	-0.174	-0.906	0.558	0.250	-1.066	1.565	-0.318	-1.301	0.665
Age Group									
<i>18-29</i>	-0.313	-0.799	0.172	--	--	--	-0.301	-0.648	0.047
<i>30-39</i>	-0.004	-0.383	0.374	--	--	--	<i>(Reference Category)</i>		
<i>40-49</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			--	--	--
<i>50+</i>	-0.014	-0.393	0.365	-0.061	-0.499	0.378			
Education									
<i>Less than high school</i>	0.141	-0.191	0.473	0.366	-0.140	0.873	0.042	-0.385	0.469
<i>High school or GED</i>	0.267	-0.027	0.561	0.398	-0.084	0.880	0.238	-0.143	0.619
<i>More than high school</i>									
Employment									
<i>Unemployed not looking for work</i>	0.870	0.365	1.375	0.346	-0.476	1.168	1.213	0.582	1.843
<i>Unemployed looking for work</i>	0.703	0.247	1.159	0.095	-0.757	0.947	0.973	0.438	1.509
<i>Employed part-time</i>	0.689	0.154	1.223	-0.040	-1.007	0.927	1.021	0.382	1.660
<i>Employed full-time</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Mental Health Functioning									
<i>Poor</i>	1.270	1.043	1.496	1.620	1.202	2.038	1.123	0.840	1.406
<i>Good</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Hard Drug Use									
<i>Never Used</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
<i>Past User</i>	0.152	-0.140	0.445	0.119	-0.314	0.551	0.354	-0.069	0.777
<i>Current User</i>	1.117	0.785	1.449	1.101	0.351	1.852	1.093	0.714	1.472
Current Problem Drinking									
<i>No</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
<i>Yes</i>	1.119	0.738	1.500	1.743	0.910	2.577	0.835	0.404	1.265
Borough of Residence									
<i>Bronx</i>	0.117	-0.294	0.527	0.039	-0.675	0.754	0.311	-0.174	0.796
<i>Brooklyn</i>	-0.191	-0.625	0.243	-0.067	-0.828	0.695	-0.063	-0.590	0.465
<i>Manhattan</i>	-0.016	-0.451	0.419	-0.019	-0.734	0.696	0.037	-0.486	0.559
<i>Queens</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
<i>Staten Island</i>	-0.338	-0.991	0.315	-0.429	-1.385	0.527	-0.348	-1.644	0.947
HIV Medical Care Setting									
<i>No HIV Provider</i>	-0.553	-1.322	0.216	-0.691	-2.468	1.086	-0.481	-1.300	0.338
<i>Hospital Clinic</i>	-0.928	-1.507	-0.350	-1.339	-2.735	0.057	-0.735	-1.397	-0.072
<i>Community Clinic</i>	-0.946	-1.549	-0.343	-1.393	-2.831	0.046	-0.671	-1.360	0.019
<i>Private MD</i>	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		

	NYC ALL			NYC Older			NYC Younger		
	Coef.	95% CI		Coef.	95% CI		Coef.	95% CI	
Perinatal Infection									
Yes	0.045	-0.420	0.511	--	--	--	0.148	-0.370	0.666
No	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
HIV Diagnosis Year									
Before 1996	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
1997-2004	0.060	-0.251	0.372	0.187	-0.200	0.575	-0.647	-1.294	0.000
2005-2011	-0.127	-0.498	0.244	-0.010	-0.652	0.633	-0.740	-1.372	-0.108
After 2011	-0.436	-0.869	-0.003	0.062	-0.965	1.089	-1.056	-1.748	-0.363
Housing									
Stable	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Unstable	1.084	0.754	1.414	1.230	0.567	1.893	1.007	0.614	1.401
Homeless	0.826	0.543	1.110	1.000	0.368	1.632	0.791	0.439	1.144
Household Composition									
Live alone	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Live with other adults	-0.272	-0.558	0.014	-0.531	-0.991	-0.071	-0.156	-0.510	0.197
Live with children	-0.100	-0.494	0.293	-0.456	-1.150	0.238	0.076	-0.429	0.582
Place of Birth									
U.S.	-0.048	-0.353	0.256	-0.058	-0.591	0.475	-0.050	-0.460	0.360
Puerto Rico	0.325	-0.285	0.935	0.191	-0.795	1.176	0.382	-0.394	1.157
Other Country	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Constant	5.061	3.971	6.150	5.685	3.734	7.637	4.911	3.574	6.247
		N=517 F(35, 481)=12.83 R ² =0.469			N=221 F(31, 188)=. R ² =0.498			N=296 F(33, 262)=8.48 R ² =0.498	

Table 19. Regression Analysis of Number of Underutilized Services among Those in Need (2015-2017)

	NYC ALL			NYC Older			NYC Younger		
	Coef.	95% CI		Coef.	95% CI		Coef.	95% CI	
Gender and MSM Status									
MSM	-0.157	-0.512	0.197	-0.248	-0.819	0.323	-0.203	-0.764	0.357
Non-MSM Men									
Women	0.114	-0.245	0.474	0.191	-0.263	0.645	-0.129	-0.731	0.473
Transgender	0.100	-0.845	1.045	-2.620	-4.098	-1.142	0.328	-0.782	1.437
Race/ Ethnicity									
White	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Black	-0.010	-0.540	0.520	0.046	-0.653	0.746	0.168	-0.405	0.741
Hispanic/Latino	0.019	-0.517	0.555	0.018	-0.723	0.758	0.126	-0.459	0.710
Other	-0.289	-0.954	0.376	-0.571	-1.588	0.447	-0.092	-0.819	0.635
Age Group									
18-29	-0.190	-0.665	0.286	--	--	--	0.260	-0.104	0.623
30-39	-0.389	-0.778	0.001	--	--	--	<i>(Reference Category)</i>		
40-49	<i>(Reference Category)</i>			<i>(Reference Category)</i>			--	--	--
50+	-0.041	-0.420	0.338	-0.107	-0.546	0.333			
Education									
Less than high school	0.124	-0.222	0.471	0.630	0.058	1.202	-0.114	-0.548	0.319
High school or GED	0.042	-0.254	0.339	0.324	-0.236	0.884	-0.115	-0.482	0.252
More than high school	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Employment									
Unemployed not looking for work	-0.251	-0.811	0.416	-0.572	-1.497	0.352	-0.001	-0.646	0.643
Unemployed looking for work	-0.317	-0.842	0.208	-0.738	-1.678	0.200	0.060	-0.549	0.669
Employed part-time	-0.147	-0.709	0.309	-0.295	-1.274	0.684	0.029	-0.643	0.700
Employed full-time	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Mental Health Functioning									
Poor	0.715	0.460	0.970	1.013	0.519	1.507	0.671	0.368	0.975
Good	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Hard Drug Use									
Never Used	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Past User	-0.154	-0.450	0.142	-0.305	-0.711	0.102	-0.067	-0.518	0.384
Current User	0.531	0.130	0.933	-0.042	-0.908	0.823	0.682	0.215	1.150
Current Problem Drinking									
No	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Yes	0.903	0.458	1.349	1.213	0.192	2.234	0.907	0.445	1.369
Borough of Residence									
Bronx	0.060	-0.365	0.485	-0.261	-0.972	0.449	0.358	-0.119	0.835
Brooklyn	0.175	-0.290	0.639	-0.184	-0.931	0.563	0.451	-0.074	0.976
Manhattan	-0.062	-0.523	0.399	-0.186	-0.913	0.541	0.074	-0.479	0.627
Queens	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Staten Island	-0.150	-0.892	0.593	-0.656	-1.699	0.387	0.748	0.612	2.109
HIV Medical Care Setting									
No HIV Provider	2.685	1.669	3.701	2.223	-0.108	4.554	2.999	1.960	4.038
Hospital Clinic	-0.137	-0.778	0.505	-0.714	-1.777	0.349	0.093	-0.652	0.837
Community Clinic	-0.289	-0.942	0.365	-0.869	-1.950	0.213	0.073	-0.672	0.817
Private MD	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		

	NYC ALL			NYC Older			NYC Younger		
	Coef.	95% CI		Coef.	95% CI		Coef.	95% CI	
Perinatal Infection									
Yes	0.007	-0.576	0.590	--	--	--	0.112	-0.518	0.742
No	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
HIV Diagnosis Year									
Before 1996	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
1997-2004	0.255	-0.083	0.592	0.476	0.075	0.877	-0.178	-1.925	0.569
2005-2011	0.298	-0.099	0.695	0.560	-0.109	1.228	-0.066	-0.798	0.667
After 2011	0.202	-0.272	0.677	-0.077	-1.282	1.128	-0.157	-0.939	0.626
Housing									
Stable	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Unstable	0.570	0.235	0.905	0.895	0.162	1.629	0.378	-0.019	0.775
Homeless	0.408	0.086	0.729	0.837	0.116	1.559	0.264	-0.119	0.648
Household Composition									
Live alone	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Live with other adults	0.343	0.016	0.671	0.355	-0.154	0.863	0.386	-0.012	0.783
Live with children	0.052	-0.355	0.459	0.223	-0.386	0.832	0.194	-0.362	0.750
Place of Birth									
U.S.	-0.093	-0.426	0.239	0.345	-0.160	0.850	-0.498	-0.965	-0.032
Puerto Rico	0.219	-0.430	0.868	0.869	-0.068	1.806	-0.601	-1.466	0.263
Other Country	<i>(Reference Category)</i>			<i>(Reference Category)</i>			<i>(Reference Category)</i>		
Constant	2.181	0.957	3.405	2.523	0.660	4.385	1.813	0.226	3.400
		N=517			N=221			N=296	
		F(35, 481)=6.12			F(31, 188)=.			F(33, 262)=5.66	
		R ² =0.264			R ² =0.320			R ² =0.309	