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Individual- and Census Tract-Level Factors Associated with Arrest among Men Who Have Sex with Men

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Master of Public Health

Epidemiology

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# Abstract

Individual- and Census Tract-Level Factors Associated with Arrest among Men Who Have Sex with Men By Joshua E. Betts

Introduction: Black/African American men make up more than 60% of the incarcerated male population, despite making up approximately 13% of the US male population. Among men who have sex with men (MSM), black MSM accounted for 36% of new HIV infections in 2010. The authors analyzed baseline data from InvolveMENt, a prospective HIV/STI incidence cohort, to determine if individual-level factors such as education and income, and census tract-level characteristics such as violent crime rate and percentage of black residents are associated with arrest in the past 12 months, and if these associations are augmented by race.

Methods: The authors analyzed baseline data from a prospective cohort study conducted among black and white MSM in the metropolitan Atlanta, GA area. MSM were recruited from June 2010 to December 2012 via time-space venue sampling at gay venues and via Facebook, and 803 men met the inclusion criteria and entered the study. Data on arrest in the past 12 months, risk behaviors, and demographic information were collected via computer-assisted survey. 99.3% of men's provided home addresses were geocoded and assigned to 2010 US Census Tracts. Bivariate associations between individual/census tract-level variables and history of arrest were assessed, and those that were significant (p<0.10) were eligible to compete in the final multivariate logistic model. All two-way interactions with race were also assessed for inclusion.

Results: Black MSM were not significantly more likely to have reported arrest in the past 12 months compared to white MSM. The odds of arrest were higher among MSM who reported being homeless in the past 12 months (adjusted odds ratio (aOR)= 2.4; 95% confidence interval (CI)= 1.3-4.5); also, the odds of arrest were higher among men who lived in census tracts with higher percentages of adults with a high school degree or less (aOR=6.9; CI=1.7-27.8). Additionally, some individual-level demographic and behavioral characteristics were associated with increased odds of history of arrest.

Conclusion: According to our data, black MSM in Atlanta were not more likely than white MSM in Atlanta to report a history of recent arrest. This is contrary to the results of studies reported from other cities in the United States. This secondary analysis went a step further than previous studies by including both individual-level and census tract-level characteristics as potential covariates for history of arrest among MSM. This analysis gives evidence that, although individual-level characteristics affect one's likelihood of reporting arrest, characteristics of the area in which one lives may have a stronger association with one's odds of arrest. Individual- and Census Tract-Level Factors Associated with Arrest among Men Who Have Sex with Men

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A thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in partial fulfillment of the requirements for the degree of Master of Public Health in Epidemiology 2014 Dedication: I would like to dedicate this thesis to my mom. I wish she could have been alongside me during the struggles, triumphs, and celebrations of graduate school, although I know was with me in spirit.

Acknowledgements: I would like to acknowledge all the people who contributed large and small to this thesis and to my time in graduate school. First, I would like to thank my thesis advisor, Patrick Sullivan, for his guidance and support through this process. I would also like to thank Eli Rosenberg, for his guidance along the way. This also would not have been possible without the love and support of my family and friends. The unconditional love of my partner Jason, my Aunt Cindy, and my dog Emma helped to keep me grounded.

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## Background

In 2010, men who have sex with men (MSM) accounted for an estimated 63% of new HIV infections in the United States (CDC, 2013), yet make up approximately 2% of the population. Among MSM, black MSM (BMSM) accounted for 36% of new infections, with a large portion of these in the 13-24 age range (CDC, 2013). One hypothesis is that the high incarceration rate of black men compared to white men in the US causes BMSM to be differentially affected by HIV because of high risk sex that occurs in prison (Millett, Peterson, Wolitski, & Stall, 2006), but few studies among MSM have studied the relationship between incarceration and HIV. Black men make up more than 40% of the estimated 2 million people currently incarcerated in the US, and black men make up more than 60% of the incarcerated male population, despite making up 13% of the US male population (Brewer et al., 2014a). Additionally, the HIV prevalence in US state prisons is 4 to 5 times higher than that of the general population (Khan et al., 2009). An estimated 25% of the HIV positive population goes through the US correctional system annually (Epperson, El-Bassel, Gilbert, Orellana, & Chang, 2008). The majority of HIV positive men in prison come into prison with HIV (Taussig et al., 2006), and the factors associated with both HIV infection and with incarceration are likely highly correlated and subject to confounding. Further, these potential risk factors for MSM contracting HIV may occur before, during or after incarceration, or at multiple time points.

Some theories explaining the differential incarceration by race are that black men are committing more crimes than white men, that black men are getting caught and prosecuted more often, or both (Wakefield & Uggen, 2010). One theory that

addresses criminal behavior is problem behavior theory. This theory attributes things such as risky and deviant behaviors to an underlying disposition towards committing crime. This disposition is attributed to psychosocial risk factors such as low self-esteem, low motivation, and lacking social support (Stephens & Braithwaite, 2007). An additional theory about what predisposes some people to criminal activity is Gottfredson and Hirschi's general theory of crime, which attributes criminal behavior to poor self-control and impulsivity (Rolison, Hanoch, & Gummerum, 2013). A third theory that explains one's predisposition to criminal behavior is social control theory, which states that individuals commit crimes to fulfill unmet needs, but that connections to traditional social institutions, such as via employment or education, can reduce deviant behaviors because the organizations find deviant behavior unacceptable (Ferguson et al., 2011). Impulsivity may also influence HIV risk behaviors, such as drug use and unprotected anal intercourse (UAI). Impulsive people may have difficulty delaying gratification and considering long-term consequences of their actions, which could lead someone to have sex without a condom in the moment, despite the potential for contracting HIV (Rolison et al., 2013).

Black men who commit crimes may also be arrested or incarcerated more often than their white offender counterparts. There could be differential police surveillance in traditionally black neighborhoods, they could be charged with things more likely to garner conviction, or they may be subject to differential sentencing patterns (Wakefield & Uggen, 2010). Decomposing what the differential incarceration is attributable to is beyond the scope of this paper. There are certain things that have been found to be associated with arrest or incarceration, though, which are as follows.

Incarceration in the general (male and female) population has been associated with homelessness, needle sharing (Weiser et al., 2009), unsafe sexual behavior (Khan et al., 2009), illegal substance use (Weiser et al., 2009), childhood and adult victimization (Brewer et al., 2014b), exchange sex (Weiser et al., 2009), and mental health issues (Brewer et al., 2014b; Greenberg & Rosenheck, 2014; Weiser et al., 2009). Incarceration has also been associated with high-risk sexual partnerships and partner concurrency (Khan et al., 2009), young age, black race, male sex (Roy, Crocker, Nicholls, Latimer, & Ayllon, 2014), lower education, and unemployment (Greenberg & Rosenheck, 2014). Some of these factors have also been found to be associated with incarceration among the general male population (Turney, Lee, & Comfort, 2013) and BMSM (Brewer et al., 2014a); and with arrest among MSM (Fisher, Milroy, Reynolds, Klahn, & Wood, 2004; Kurtz, 2008). In regards to incarceration, Jones et al. (2008) found that it was associated with insertive UAI; and Lim et al. (2011) found that arrest in the past 12 months was associated with insertive UAI. In addition, substance use, psychological distress, childhood and adult victimization, and lack of peer norms for condom use were found to be associated with sexual risk behavior among MSM (Kurtz, 2008). The difficulty with most studies is the lack of temporality—to know whether or not these things preceded arrest/incarceration.

Research shows the deleterious effects of incarceration. Firstly, prisons tend to house those with the least human, financial, and social capital, and incarceration

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reinforces existing inequalities (Wakefield & Uggen, 2010). Incarceration takes people out of the labor market and puts them in prison, where they may gain no marketable skills, end up with gaps in employment, and they are removed from valuable social networks that could help them find employment (Wakefield & Uggen, 2010). Incarceration is thought to influence future employment by selection (people who go to prison would not have gotten jobs anyway), transformation (prison weakens job skills), or reverse credentialing (prison does not change the inmates, but confers stigma to future employers) (Wakefield & Uggen, 2010). Incarceration is also associated with infectious diseases, mental illness, and can have potentially deleterious effect the inmates' family and children (Wakefield & Uggen, 2010).

## Introduction

In 2010, men who have sex with men (MSM) accounted for an estimated 63% of new HIV infections in the United States (CDC, 2013), yet made up approximately 2% of the total population. Among MSM, black MSM (BMSM) accounted for 36% of new infections, with a large portion of them aged 13-24 (CDC, 2013). One hypothesis for the differential HIV infection of BMSM is the high incarceration rate of black men compared to that of white men (Millett et al., 2006), yet few studies among MSM have studied the relationship between incarceration and HIV. Black men make up more than 60% of the incarcerated male population, despite making up approximately 13% of the US male population (Brewer et al., 2014a). Incarceration in the general (male and female) population has been associated with homelessness, needle sharing (Weiser et al., 2009), unsafe sexual behavior (Khan et al., 2009), illegal substance use (Weiser et al., 2009), childhood and adult victimization (Brewer et al., 2014b), exchange sex (Weiser et al., 2009), and mental health issues (Brewer et al., 2014b; Greenberg & Rosenheck, 2014; Weiser et al., 2009).

Being incarcerated has also been shown to have deleterious effects. Incarceration can affect people's future employment, can contribute to the spread of infectious diseases, concentrate mental illness, and have negative consequences on the inmates' family and children (Wakefield & Uggen, 2010).

Given the differential HIV infection and incarceration of black men, and the potential effects of incarceration, we analyzed baseline data from the InvolveMENt MSM cohort (Sullivan et al., 2014) to determine if individual-level factors such as education and income, and census-tract level characteristics such as violent crime rate and percentage of black residents are associated with arrest in the past 12 months, and if this association is augmented by race. Specifically, I hypothesize that black MSM are no more likely than white MSM in our sample to report a history of arrest in the past 12 months, that individual- and census tract-level characteristics are equally associated to black and white arrest, and that MSM with a history of arrest are no more likely to engage in UAI than those without.

#### Methods

The analysis was a secondary analysis of data from MSM who participated in the InvolveMENt study in Atlanta, Georgia. Recruitment was discussed previously (Sullivan et al., 2014). Briefly, black and white non-Hispanic MSM were recruited from June 2010 to December 2012 in Atlanta, GA via time-space venue sampling, which was supplemented by convenience sampling through a Facebook banner advertisement. Venues sampled from included places where MSM frequent, such as bars, clubs, retail stores, community organizations, and through other special events.

Individuals who were potentially eligible were screened at recruitment and again at the first study visit. Eligible participants were male at birth, self-reported black or white non-Hispanic race, could complete study forms and communicate in English, lived in the Atlanta metropolitan statistical area and did not plan to move out in the next two years, had at least one male sex partner in the preceding three months, and provided at least two modes of contact. Men were excluded if they were in a mutually monogamous relationship. HIV status was not used for eligibility. Initially, men were considered eligible if they were at least 18 years old; and three months after enrollment began, men were restricted to ages less than 40 years. The study protocol was reviewed and approved by the Emory University Institutional Review Board (IRB).

### Data source:

At the initial study visit, participants completed an approximately 1.5 hour computer assisted questionnaire. The collected information included demographics, psychosocial scales, community characteristics, individual-level HIVrelated behaviors, and a dyadic inventory of the most recent 5 sex partners in the previous 6 months (Sullivan et al., 2014).

## Biological measures:

Blood and urine specimens were collected for all participants. All participants were screened with an FDA-approved rapid HIV antibody test. Preliminary positive results were verified with confirmatory western blots. Participants were also tested for syphilis, urethral *Neisseria gonorrheae* (GC), and *Chlamydia trachomatis* (CT). Rectal swab specimens were collected from participants starting in October 2011, which were used to test for rectal GC and CT. Participants who tested positive for HIV and/or STI(s) were referred to care. All participants' urine specimens were tested for recent marijuana (THC), cocaine, morphine, amphetamine, and methamphetamine use.

## Place-based characteristics:

Participants' home addresses were geocoded and assigned to 2010 US Census Tracts. Tract characteristics were retrieved from several administrative sources for the 99.3% of addresses that were geocoded.

Participants who were confirmed HIV-negative at baseline were followed prospectively for 2 years, but the present analysis utilizes solely baseline data.

## Analysis

Variables analyzed included items from the baseline questionnaire (Appendix A; Sullivan et al., 2014) that were potentially associated with history of arrest in the past 12 months. These included the demographic characteristics of race, age, sexual identity, and education. Participants were asked in the questionnaire to describe their current work situation. Employment was coded as "Full-Time Student" if participant chose this, regardless of other employment options selected. People who said that they were unemployed for less than or more than one year were coded as "Unemployed" if they did not also answer that they currently had a full-time or part-time paid job. All other participants who said that they had a paid job before were coded as "Employed." This was done because the unemployed and full-time student answer options were thought to be more sensitive than the other employment answer choices. "Below Poverty Threshold" was calculated based on participants' self-reported household income ranges, the number of people who depended on that income (including themselves), and the 2011 US Poverty Thresholds (U.S. Census Bureau, 2011). Participants who were missing the number of dependents were assumed to have 1.

Sexual behavior variables assessed for the past 12 months included at least one main male partner, at least one male unprotected anal intercourse (UAI) partner, number of male partners, at least one female partner, and any exchange sex. Other variables included homelessness in the past 12 months, currently having health insurance, and baseline HIV test results. Any drug use in the past 12 months was calculated as the union of self-reported drug use and drug screening. Participants were coded as "yes" if they reported using any injection or noninjection drugs that were not prescribed to them in the past 12 months, or if they tested positive for any drugs in the urine test. Participants were considered "Problem Alcohol Drinkers" if they had two or more affirmative answers to the CAGE questionnaire (Ewing, 1998). Census tract-level characteristics are listed in Table 2.

To determine whether to leave continuous variables (age at baseline, number of male partners, and census tract characteristics) as continuous or to categorize them in the multivariate logistic regression analysis, we produced estimated logit plots. Variables that did not have a clearly non-linear relationship with the estimated logit were considered as continuous in the analyses. To determine if Black and White MSM differed for non-normally distributed continuous variables, we performed the Wilcoxon rank-sum test. To determine if Black and White MSM differed for categorical variables, overall chi-square tests were performed. Bivariate associations were assessed with the outcome by calculating crude odds ratios and 95% confidence intervals (CIs) versus the respective reference groups. All variables were then assessed for collinearity. Individual-level variables that were associated with the outcome at p<0.10 and census tract-level variables that were associated with the outcome at p<0.10 were included in the initial logistic regression model. The violent crime rate per 1000 was not allowed to enter the initial model, because it was missing for over 15% of participants. Backwards elimination was performed to arrive at the final model. All possible two-way interactions among retained first-order variables were assessed, including all interactions between race and a retained variable, with terms significant at p<0.05 being added to the model. Race was included in all models, because it was the focus of a primary hypothesis. All statistical analyses were conducted using SAS version 9.3.

## Results

Tables 1 and 2 summarize the demographic and behavioral characteristics of respondents included in the analyses. The participants' ages ranged from 18 to 71 years with a mean of 27.9 years. There were a slightly higher percentage of black men (57%) than white men (43%) in the study. The majority of the men identified as homosexual and had some college education. Most of the men were employed, above the poverty threshold, and had at least one main male partner in the previous year. The average number of male sex partners in the preceding 12 months was 12.5 and the median was 6. Most men had not had any female partners, any

exchange sex, been homeless, or been arrested in the past year. Most men did not qualify as problem alcohol drinkers, and almost half had used any non-prescription drugs in the past year. Most men had health insurance at baseline screening, and tested negative for HIV. Table 2 summarizes the census tract-level characteristics.

Black and white MSM had significantly different ages, sexual identities, and levels of educational attainment. They also had significantly different levels of employment and poverty. They had significantly different numbers and presence of male UAI partners, problem alcohol drinking, any drug use, health insurance, and HIV positive screening results. They also differed significantly on all of the census tract-level characteristics.

Tables 3 shows results from the bivariate and multivariate analyses of factors associated with history of arrest in the past 12 months. Race was not significantly associated with history of arrest. Younger age, bisexual identity, lower education, poverty, having a male UAI partner, having any female sex partner, having had exchange sex, and being homelessness in the past 12 months were all associated with higher odds of being arrested in the past 12 months (p<0.05). The only census tract-level factors associated with arrest were median annual household income and the percentage of adults (25 or older) with a high school degree/GED or less, with a higher percentage being associated with reduced odds of history of arrest. Adjusted odds ratios were calculated for terms remaining in the final model. Table 3 shows that terms remaining in the final model retained their

directional relationships with history of arrest in the past 12 months. No two-way interaction with race was significant at p < 0.05.

## Discussion

### Main Findings

Our study sought to determine the association between individual- and census tract-level characteristics and history of arrest in the past 12 months. Our study found that MSM who had higher odds of history of arrest were significantly more likely to be younger, less educated, in poverty, to identify as bisexual, have had a male UAI partner, have had a female sex partner, have had exchange sex, and have been homeless in the past 12 months. We also found that current health insurance was associated with lower odds of arrest in our sample. The characteristics in the final model were race (forced to stay in), age, having a male UAI partner, being homeless, and census tract-level education. Potential key variables that were not significantly associated with arrest were past drug use and problem alcohol drinking.

# Race

Our study found that arrest prevalence did not significantly differ between races. This is in contrast to the general US population, where black men are disproportionately incarcerated compared to white men (Brewer et al., 2014a, 2014b; Turney et al., 2013; Wakefield & Uggen, 2010). The association between race and arrest in the general population may not be homogenous among MSM in

different communities or settings. First, it may be that any significant difference in arrest by race is more difficult to detect because MSM in general are not as likely to be arrested as the general population. For example, a study on substance using men in California found that men reporting sex with other men in the last 30 days were significantly less likely to have ever been arrested and charged than men who had sex with only women (Fisher et al., 2004). Second, it may be that there are no significant racial differences in arrest among MSM in Atlanta. However, there is evidence in the research of significant racial differences in arrest among MSM. Lim et al. (2011) found that MSM from 15 US cities, including Atlanta, who identified as black or Hispanic were more likely to report recent arrest than those who identified as white. A study of young MSM (Garofalo, Mustanski, Johnson, & Emerson, 2010) found that young BMSM were significantly more likely to report prior arrest/incarceration than white or Latino young MSM. Likewise, Magnus et al. (2010) reported that among MSM, BMSM were more likely to report having been to jail, prison, or juvenile detention than white or other race MSM. Given we were unable to detect differential arrest by race in our sample, it is possible that the men who frequented recruitment venues are more homogeneous than MSM in general. For instance, the men who frequented gay venues and agreed to participate in our research study may be homogeneous with respect to arrest and/or things associated with it, or the men may be systematically different from MSM in general.

UAI

Having a male UAI partner in the past 12 months was associated with greater odds of arrest in our analysis. Two studies found that UAI was associated with a history of arrest/incarceration. A study among MSM (Lim et al., 2011) found that MSM reporting arrest in the past 12 months had greater odds of insertive UAI; and a study of BMSM (Jones et al., 2008) found that MSM who had been incarcerated in the past 2 months had greater odds of insertive UAI. Yet Wohl et al. (2000) found that HIV risk decreased with increasing prison time, and that men reported more anal sex outside of prison than in prison regardless of sexual orientations. So arrest and UAI may appear to be associated because they have a common antecedent, such as impulsivity. The general theory of crime states that impulsivity and poor self control lead people to commit crime (Rolison et al., 2013), so perhaps these characteristics also cause people to have increased odds of UAI.

## Drug Use

There is generally increased substance use in criminal justice populations, and substance use is also associated with HIV risk behaviors (Epperson et al., 2008). Yet our inability to detect a significant association between drug use and arrest may be due to bias. Participants may have incorrectly answered that they had not used drugs in the past year because that is what they thought study staff wanted to hear (obsequiousness bias; Sackett, 1979) or was in general more socially desirable (Fernandes & Randall, 1992). In addition to self-reported drug use in the past 12 months, urine drug tests were run at baseline. The urine drug test used has estimated detection periods of 2–4 days for cocaine and opiates, 5–30 days for marijuana, 1–3 days for ecstasy, and 3–5 days for methamphetamine (White et al., 2014). The implementation of biological drug screening allowed us to correctly code 45 men who reported no drug use in the past 12 months as drug users, as their urine tests were consistent with recent drug use. Because of the short detection period, there is still likely systematic misclassification (under-reporting) of drug use.

## Age

History of arrest was associated with younger age in our sample. Previous studies have found differing associations between age and arrest. Brewer et al. (2014b) found that among BMSM (mostly age 35 or older), incarceration was associated with increasing age. This study may not be comparable to ours, because our sample had a mean age of 27.9. Greenberg and Rosenheck (2014) reported that people with a history of incarceration were more often younger, and a systematic review done by Roy et al. (2014) found that among homeless people, young age was a correlate of incarceration. So our analysis is consistent with these findings. The age of arrested MSM may be important in targeting interventions to that specific population.

## Homelessness

Being homeless in the past 12 months was associated with history of arrest in our study. It has been reported in the literature that homelessness is associated

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with incarceration, and incarceration can precipitate homelessness by disrupting existing social networks (Weiser et al., 2009). It is estimated that 48-67% of homeless people with severe mental illnesses are incarcerated at some point in their lives (Roy et al., 2014). It is also thought that homelessness itself may even be criminogenic, because homeless people have to survive on limited resources (Greenberg & Rosenheck, 2008). Greenberg and Rosenheck (2014) found in a nationally representative sample that a history of homelessness was associated with ever being incarcerated. Ferguson et al. (2011) found that among homeless youth, those who had been on the street longer had greater likelihood of being arrested. One explanation for this association is based on social control theory—that homeless people are often disengaged from traditional social institutions, which leads them to commit crime (Ferguson et al., 2011). Because homelessness could have occurred before or after arrest for men in our sample, and/or because of the association between homelessness and arrest in our sample, it is important for future studies to address the temporality, causes, and effects of homelessness.

### Socioeconomic Variables- High School Education, Employment, Income, and Poverty

In our sample, the socioeconomic measures of having low individual and census-tract level educational levels and being in poverty were associated with higher odds of history of arrest. It is difficult to determine the contribution of race versus socioeconomic measures like income and education on health, since they are often so intertwined. Also, they sometimes work in tandem, as blacks in the US are differentially impoverished and undereducated (Krieger, Williams, & Moss, 1997).

However, previous studies have shown that higher education and income decrease one's odds of incarceration. Fisher et al. (2004) found that among male drug users, having income from a paid job was protective against incarceration. Brewer et al. (2014a) found that incarceration during follow-up among BMSM was associated with having an income less than \$30,000 and having a high school education or less. Greenberg and Rosenheck (2014) found in a nationally representative sample, that being poorer and less educated was associated with incarceration history. The associations from our study support these previous studies, but also emphasize the potential role of census tract-level education. Perhaps the interactions people in our sample had with less educated people in their census tracts increased their odds of being arrested. A related explanation for these associations between lower socioeconomic status and incarceration utilizes the problem behavior theory (Stephens & Braithwaite, 2007). The theory would explain that inmates' psychosocial factors such as having unsupportive relationships and living in deprived neighborhoods predisposes them to social deviance, and subsequently to commit crimes (Stephens & Braithwaite, 2007).

#### Limitations

Although the InvolveMENt study was longitudinal, analyzing solely baseline data makes the analysis cross-sectional. Temporality, and therefore causality, cannot be addressed. If arrest had occurred in-between study visits, this would have been reported in a follow-up study visit, though it would still be impossible to assess temporality for history of arrest versus other events at baseline.

Additionally, the recruitment for this study occurred in the metropolitan Atlanta area, so the results obtained may not be generalizable to MSM populations in other cities. There were a low number of arrests in some of the covariate categories, so the sample size may have affected some of the confidence intervals. There is the potential for social desirability biased reporting of arrest and other indicators in our study, although data were collected via a computer-assisted survey, which can elicit more accurate responses to potentially sensitive behaviors (Perlis et al., 2004). Additionally, participants' health literacy may have impacted their ability to respond truthfully to questions, although colloquial terms were used alongside clinical terms throughout the survey. Arrest in the past 12 months was the outcome in this analysis, yet much of the literature discusses correlates of incarceration. This may be due to incarceration being a potentially lengthier or more intensive exposure than a singular arrest. Also, not every arrest results in incarceration. Additionally, people might have answered arrest/incarceration questions in this and other studies based on non-standard definitions of arrest and/or incarceration. Including census tract-level variables alongside individual-level variables in the model was not a clear-cut decision. We did not account for clustering within census tracts, because 797 men lived in 350 unique census tracts, suggesting that clustering was unlikely to play an important role, and that considering census-tract level variables as individual characteristics was reasonable. Additionally, despite previous findings that insertive UAI was associated with arrest/incarceration (Jones et al., 2008; Lim et al., 2011), this was not a research question of interest in our analyses, so it was not assessed in this analysis. Poverty was assessed using 2011 US Poverty

Thresholds (U.S. Census Bureau, 2011) and self-reporting of household income range and the number of dependents who relied on that income. Reported incomes may not be accurate, due to it being a sensitive question. Additionally, numbers of dependents that were missing were assumed to be 1, and all dependents were considered adults, because ages of or relationships between participants and dependents were not collected.

## Conclusion

Despite these limitations, this secondary analysis went a step further than previous studies by including both individual-level and census tract-level characteristics as potential covariates for history of arrest among MSM. Most literature on criminal justice involvement in the general population is on incarceration, but there are several studies that focus on arrest among MSM (Fisher et al., 2004; Kurtz, 2008; Lim et al., 2011). The findings of this study—that certain socioeconomic, demographic, and behavioral variables are related to history of arrest among MSM support some of the findings in existing literature. Additionally, individual-level education was not significant in this sample and dropped out of the final model, while the census tract-level variable for education was significant. This suggests that individual-level characteristics affect one's likelihood of reporting arrest, but that characteristics of the area in which one lives may have an even more dramatic effect on one's odds of arrest.

## **Public Health Implications**

Some future directions to take regarding our findings are interventions to increase the life opportunities of incarcerated people, and to reduce the disproportional incarceration of blacks in the US. Approximately 90% of the US adult general population have the equivalent to a high school diploma, compared to about 33% of incarcerated people (Wakefield & Uggen, 2010). This is a dramatic disparity, which could be reduced by better use of inmates' time during incarceration. Time in prison or jail could be more effectively used to increase education and skills-based training. This could improve individuals' lives by potentially reducing recidivism, and by increasing their chances of being hired for paid work. This increase in education could also have an effect on arrest/incarceration within their neighborhood/census tract, based on the association between census tract education level and history of arrest in our sample.

Additionally, any current differential sentencing or conviction by race (for equivalent crimes and previous offenses) should be addressed and mitigated. This should be reduced, to ensure that any differential incarceration by race is due to actual differences in criminality. Additionally, the stigma of arrest/incarceration for future employment needs to be lessened. One way to do this is to limit knowledge of applicants' arrest/incarceration. Only arrest charges that affect peoples' ability to do their job should be mandatorily reported. Also, the applicants' arrest/incarceration histories should be kept on a need-to-know basis. Human Resource departments in companies may need this information for initial screening for hiring purposes, but perhaps this should only be disclosed to hiring managers if absolutely necessary or at the discretion of the applicant. A manager's subconscious perception of applicants based on their arrest/incarceration histories could influence employment offers.

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	Black MSM 57% (n=454) <sup>*</sup>	White MSM 43% (n=349) <sup>*</sup>	p-value <sup>+</sup>
Characteristic	% (N)	% (N)	p talae
Age			
Mean (SD)	27.0 (6.1)	29.0 (7.3)	<.000
Sexual identity			
Homosexual/gay	51.9 (350)	48.1 (325)	<.000
Bisexual	82.5 (85)	17.5 (18)	
Heterosexual/Other	71.4 (15)	28.6 (6)	
Education			
College, post-graduate, or professional school	41.8 (135)	58.2 (188)	<.000
Some college, associate's degree, and/or technical school	61.8 (201)	38.2 (124)	
High school/GED or Some HS	76.2 (115)	23.8 (36)	
Employment			
Full-Time Student	53.3 (64)	46.7 (56)	0.021
Employed	53.9 (302)	46.1 (258)	
Unemployed	68.3 (71)	31.7 (33)	
Below Poverty Threshold <sup>‡</sup>			
Yes	71.4 (125)	28.6 (50)	<.000
No	50.5 (298)	49.5 (292)	
≥1 Main Male Partner <sup>§</sup> , past 12 months	58.5 (339)	41.5 (240)	0.0
Had male UAI partner <sup>  </sup> , past 12 months	52.8 (309)	47.2 (276)	0.000

**Table 1.** Demographic characteristics of Black and White Non-Hispanic MSM from the

 InvolveMENt study, Atlanta, 2010-2012.

Number of Male Partners, past 12 months Mean (SD)	11.0 (38.1)	14.4 (29.9)	<.0001
Any female partners, past 12 months	57.8 (26)	42.2 (19)	0.86
Any Exchange Sex <sup>¶</sup> , past 12 months	55.6 (30)	44.4 (24)	0.88
Homeless in Past 12 Months <sup>**</sup>	73.6 (67)	26.4 (24)	0.0005
History of Arrest, past 12 months	64.4 (56)	35.6 (31)	0.12
Problem Alcohol Drinking <sup>††</sup>	42.8 (89)	57.2 (119)	<.0001
Any Drugs, past 12 months <sup>‡‡</sup>	50.8 (190)	49.2 (184)	0.0021
Health Insurance, Currently <sup>**</sup>	45.9 (215)	54.1 (253)	<.0001
HIV-positive <sup>§§</sup>	81.1 (197)	18.9 (46)	<.0001

MSM: Men who have sex with men; SD: Standard Deviation

<sup>\*</sup>Numbers may not add to Total because of missing data

<sup>†</sup> Overall Chi-Square for categorical variables; Wilcoxon Rank Sum test for age and number of male partners

 $^{\ddagger}$  Calculated using income and number of dependents reported, according to 2011 US Poverty Thresholds

§ Someone referred to as a boyfriend, significant other, life partner, or husband

|| Where neither partner used a condom

 $\P$  Sex in exchange for money, drugs, food, or something else of value

\*\* Participants answering "don't know" were recoded as "no"

<sup>††</sup> Answered "yes" to  $\geq$ 2 questions on the CAGE questionnaire

<sup>‡‡</sup> screening Via self-report and urine drug

\$ Via rapid HIV antibody test

Charactoristic	Black MSM	White MSM	n value+
Characteristic	(n=448) Mean (SD)	(n=349) Mean (SD)	p-value <sup>†</sup>
	Wicun (SD)	Wicun (5D)	
Percent living in poverty	22.9 (13.3)	16.3 (12.8)	<.0001
Median annual household income	\$42,902 (\$18,142)	\$58,973 (\$22,742)	<.0001
Percent of adults with a high school degree/GED or less	41.7 (17.9)	26.5 (17.3)	<.0001
Percent of adults who are unemployed	12.1 (6.8)	7.2 (4.7)	<.0001
Alcohol outlet density, per square mile	6.8 (6.2)	9.1 (8.8)	0.0007
Violent crime rate, per 1000 residents	16.0 (19.8)	9.8 (10.0)	0.0034
Population density, <i>per</i> square mile	4,221 (3,465)	5,479.9 (4,547)	<.0001
Percent of residents who are non-Hispanic Black/African-American	62.2 (31.1)	27.7 (21.6)	<.0001
Percent of households containing a male same-sex couple	1.0 (1.1)	2.1 (1.7)	<.0001
Male:female sex ratio	98.4 (36)	117.9 (43.3)	<.0001
HIV diagnosis rate, per 100,000 residents mean (SD, n)	982 (759, 419)	1,185 (809, 289)	0.0005

**Table 2.** Census Tract-Level Characteristics by Race among black and white non-Hispanic MSM in the InvolveMENt study\*

MSM: men who have sex with men; SD: Standard Deviation

\*Calculated using 2010 US Census Tracts and various administrative sources

<sup>†</sup>Wilcoxon Rank Sum test, two-tailed Z
				1
	History of	No history of		
	arrest	arrest	Crude OR	Adjusted OR
	N=87 <sup>*</sup>	N=715 <sup>*</sup>	(95% CI)	(95% CI)
<u>Characteristic</u>	% (N)	% (N)		
Race				
Black	12.4 (56)	87.6 (397)	1.4 (0.9-2.3)	0.9 (0.5-1.5)
White	8.9 (31)	91.1 (318)	Ref	
Age <sup>†</sup>				
Mean (SD)	26.4 (5.9)	28.0 (6.7)	0.7 (0.4-1.0)‡	0.6 (0.4-1.0)‡
Sexual identity				
Homosexual/gay	9.5 (64)	90.5 (610)	Ref	
Bisexual Heterosexual/	17.5 (18)	82.5 (85)	2.0 (1.1-3.6)	
Other	19.0 (4)	81.0 (17)	2.2 (0.7-6.9)	
Education				
College§	7.4 (24)	92.6 (299)	Ref	
Some college <sup>  </sup>	12.0 (39)	88.0 (285)	1.7 (1.0-2.9)‡	
High school/GED or	- 4			
Some HS	15.9 (24)	84.1 (127)	2.4 (1.3-4.3)	
Employment				
Full-Time Student	12.5 (15)	87.5 (105)	1.4 (0.8-2.6)	
Employed	9.3 (52)	90.7 (508)	Ref	
Unemployed	15.5 (16)	84.5 (87)	1.8 (1.0-3.3)	
Below Poverty Threshold <sup>¶</sup>				
Yes	15.5 (27)	84.5 (147)	1.9 (1.1-3.1)	
No	9.0 (53)	91.0 (537)	Ref	
≥1 Main Male				
Partner <sup>**</sup> , past 12				
months	11.9 (69)	88.1 (509)	1.5 (0.9-2.6)	

Table 3. Associations between demographic factors and history of arrest in the past 12 months among Black and White Non-Hispanic MSM from the InvolveMENt study

Had male UAI <sup>††</sup> partner, past 12 months	12.3 (72)	87.7 (513)	2.3 (1.2-4.5)	2.3 (1.1-4.5)
Number of Male Partners, past 12 months Mean (SD)	11.4 (13.0)	12.6 (36.6)	1.0 (1.0-1.0)	
Any female partners, past 12 months	20.0 (9)	80.0 (36)	2.2 (1.0-4.7) <sup>‡</sup>	
Any Exchange Sex <sup>‡‡</sup> past 12 months	22.2 (12)	77.8 (42)	2.6 (1.3-5.1)	
Homeless in Past 12 Months <sup>§§</sup>	22.0 (20)	78.0 (71)	2.7 (1.6-4.8)	2.4 (1.3-4.5)
Problem Alcohol Drinking <sup>     </sup>	11.5 (24)	88.5 (184)	1.1 (0.7-1.9)	
Any Drug Use, past 12 months <sup>¶¶</sup>	12.6 (47)	87.4 (326)	1.4 (0.9-2.2)	
Health Insurance, Currently $^{\$\$}$	7.9 (37)	92.1 (430)	0.5 (0.3-0.8)	
HIV-positive***	12.4 (30)	87.6 (212)	1.2 (0.8-2.0)	
<u>Census Tract-Level</u> <u>Variables</u> <sup>†††</sup>	Mean (SD)	Mean (SD)		
Percent living in poverty	21.9 (14.6)	19.7 (13.3)	3.1 (0.6-15.1)	
Median annual household income	\$45,365 (\$21,097)	\$50,524 (\$21,815)	1.0 (1.0-1.0) <sup>‡</sup>	
Percent of adults with a high school degree/GED or less Percent of adults who are	42.5 (19.5)	34.1 (18.9)	9.5 (2.9-30.5)	6.9 (1.7-27.8)
unemployed	10.5 (6.6)	9.9 (6.4)	4.9 (0.2-141.8)	

Alcohol outlet density <i>, per square</i> <i>mile</i>	7.2 (6.3)	7.9 (7.7)	1.0 (1.0-1.0)	
Violent crime rate, per 1000 residents	16.7 (22.5)	13.0 (15.8)	1.0 (1.0-1.0)	
Population density, per square mile	4428.9 (3891.2)	4816.7 (4040.0)	1.0 (1.0-1.0)	
Percent of Black residents <sup>‡‡‡</sup>	53.4 (33.5)	46.3 (32.1)	2.0 (1.0-3.9)	
Percent of male				
same-sex households <sup>§§§</sup> Male:female sex	1.3 (1.6)	1.5 (1.5)	0.9 (0.8-1.1)	
ratio	105.4 (54.4)	107.1 (38.5)	1.0 (1.0-1.0)	
HIV diagnosis rate, per 100,000 residents mean (SD, n)	1,148.3 (825.7, 73)	1,054.3 (781.0, 634)	1.0 (1.0-1.0)	

MSM: Men who have Sex with Men; OR: Odds Ratio; CI: Confidence Interval; SD: Standard Deviation; Ref: Referent

\*Numbers may not add to Total because of missing data

<sup>†</sup>Odds Ratios calculated per 10 years

<sup>‡</sup>p<0.05

§ College, post-graduate, or professional school

||Some college, associate's degree, and/or technical school

 $\P$  Calculated using income and number of dependents reported, according to 2011 US Poverty Thresholds

\*\* Someone referred to as a boyfriend, significant other, life partner, or husband

<sup>††</sup> Where neither partner used a condom

<sup>‡‡</sup> Sex in exchange for money, drugs, food, or something else of value

<sup>§§</sup> Participants answering "don't know" were recoded as "no"

|| || Answered "yes" to  $\geq 2$  questions on the CAGE questionnaire

¶¶ Screening via self-report and urine drug test

\*\*\* Via rapid HIV antibody test

<sup>+++</sup> Calculated using 2010 US Census Tracts and various administrative sources

<sup>‡‡‡</sup> Percent of residents who are non-Hispanic Black/African-American

<sup>§§§</sup> Percent of households containing a male same-sex couple; OR calculated per 1% change

### Appendices

### Appendix A : InvolveMENt Questionnaire

Design, recruitment, and baseline characteristics of a prospective cohort study to understand racial HIV/STI disparities among black and white men who have sex with men in Atlanta, Georgia

Sullivan PS, et al.

### **Online supplement 1: Baseline survey instrument**

This supplement contains the survey instrument for the baseline visit of the *InvolveMENt study*. The survey may be broadly broken into two sections: participant-specific and sexual partnership and network questions. The latter section contains questions about partners in aggregate, as well as partner-by-partner dyadic questions for the most recent 5 partners in the previous 6 months. Skip patterns are indicated where appropriate and the document also includes a number of data dictionary elements, such as variable names and coded values.

Please note that the correct pagination is indicated by the page numbers at the bottom center of each page. Additionally, the question numbers are non-sequential and should be ignored.

Correspondence regarding questionnaire content should be addressed to Patrick Sullivan (<u>pssulli@emory.edu</u>) or Eli Rosenberg (esrose2@emory.edu).

#### involveMENt - Baseline survey - Participant-specific questions

\_\_\_\_\_

### **Contents**

#### **Demographic information**

- Education and employment
- o Income
- o Race and sexual orientation
- o Living situation
- o Healthcare
- o Arrest and incarceration

### Substances

- Alcohol use and abuse (CAGE)
- o Drug use and types
- Drug abuse screening test
- o Substance use treatment

### **Circumcision**

### Harm reduction scales

### **Condoms**

- o Attitudes (Kalichman et al), and venue attendance
- Usage beliefs scale
- Norms (Peterson et al)
- Errors scale (Grimley et al)
- o Condom skills for insertive sex scale

### <u>HIV</u>

- $\circ$  Knowledge
- o Testing
  - Testing history & results
  - o Details of last test
- o Care
  - o Usual sources for HIV care
  - HIV treatment history

### Perceived neighborhood scale (physical, social, services)

### Perceptions of local stigma and local community (belongingness)

**Resiliency** 

### Racism and Life Experience

### **Depression**

- o BDI
- o CESD

Sexual abuse (childhood and adulthood)

#### involveMENt - Baseline survey - sexual partnership and network questions

\_\_\_\_\_

### **Contents**

#### Partner metadata

- Partner genders, numbers, exchange sex
- Male partner metadata screen 2 (internet and sex acts)
- Male partner metadata screen 3 (UAI)
- o Partner name list
- Partner calendar
- o Concurrency clarification questions if calendar indicates temporal ambiguities

#### Partner-specific section - repeated for each recent sex partner named, up to 5

#### Beginning of partnership

- Partner demographics
- Partnership description
- o Geography
- o Disclosure of status
- Serosorting intent

### Partnership timing

- o Date of first sex
- o Date of last sex
- Ongoing relationship

#### Ongoing partnership questions

- Transgender partner anatomy
- Sex frequency in p6m
- Sexual agreements
- o Sexual activity outside of this relationship
- Group sex
- o STD diagnosis and treatment in p6m

#### Last sex

- Sexual activities
- Circumstances (location, drugs, HIV status)
- Last sex HIV status knowledge
- HIV status knowledge source
- Strategic positioning

#### Post partner-specific wrap up

- Relationships among partners (transitivity)
- o PrEP Usage
- Final screen

# involve[men]t - Baseline survey

## Staff login

InvolveMENt Staff:

Please log the participant in for his BASELINE visit by putting his full 7-digit study ID in the boxes below, including the dashes.

- 1. Study ID: (Required)
- 2. Repeat Study ID: (Required)

Кеу
Variable code names for SAS
Skip Patterns (#=question #)
Other skip pattern info
Hidden Question (participant does not see)
# = Question # for sections 2, 3
Format Name

We're glad you're going to complete our survey today.

Helpful tips:

Questions marked with are required questions that you must answer to move forward.

This is a forward-only survey. Proceed to the next page by clicking the "Next Page" button. Please don't use the back button on your browser as this may cause problems with your survey.

Your privacy is important to us! All information you provide today in this survey will be held confidentially.

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<ul> <li>5. What is the highest level in school that you</li> <li>College, post graduate, or profession</li> <li>Some college, Associate's degree, and</li> <li>High school or GED</li> <li>Some high school</li> <li>Less than high school</li> <li>Never attended school</li> <li>Don't Know</li> </ul>	al school	educ educ.
<ul> <li>6. Have you had a paid job before?</li> <li>1 Yes If yes, go to #7</li> <li>0 No If no, go to #8,</li> <li>7 Prefer not to answer If prefer, #7, #1</li> </ul>	, #9, #10 #10	baid_work_before Binary_prefernot.
<ul> <li>7. How would you describe you current work (Check all that apply)</li> <li>Full time paid job (&gt;30 hours/week)</li> <li>Part time paid job (&lt;30 hours/week)</li> <li>Home duties/child care</li> <li>Full time student Check = 1</li> <li>Part time student Unchecked = 0</li> <li>Voluntary/charitable work</li> <li>Have a job, but not at work due to exc</li> <li>Disabled</li> <li>Unemployed for less than one year</li> <li>Unemployed for more than one year</li> </ul>	paid_fulltime paid_parttime paid_home paid_fullstu paid_partstu paid_vol tended illness, family leave, paid_disable paid_nojob_less12m	Binary_prefernot.
<ul> <li>8. How would you describe you current work (Check all that apply)</li> <li>Home duties/child care</li> <li>Full time student Check = 1</li> <li>Part time student Unchecked = 0</li> <li>Voluntary/charitable work</li> <li>Disabled</li> <li>Unemployed for less than one year</li> <li>Unemployed for more than one year</li> </ul>	k situation? nopay_home nopay_fullstu nopay_partstu nopay_vol nopay_disable nopay_nojob_less1yr nopay_nojob_more1yr	show #8 if paid_work_before=no, prefer not to answer Binary_prefernot.
For Q 7 and 8: Output will be variable.	checked="1" (yes) and unc	

9. What kind of work do you If you do not currently have p	do at your main job? baid work, what kind of work did yo	work_type ou do at your last main job?
10. Do you make money fror prostitution )?	n the underground economy (e.g.	, scams, numbers, drug dealing,
· · · · · · · · · · · · · · · · · · ·	Binary_prefernot.	under_econ
1 Yes Skip to #11 0 No		)
s ins si	nown if under_econ (#10) = 1	
11. Briefly describe:	······	······································
	under_econ_desc	

(mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	١.
<b>QUESTION INACTIVE</b>	٢.
	٢.
· · · · · · · · · · · · · · · · · · ·	٢.
	/

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13. What was your household income last year from all sources before taxes?

(monthly / yearly)

- 00 0 to \$417 (monthly) / 0 to \$4,999 (yearly)
- 01 \$418 to \$833 (monthly) / \$5,000 to \$9,999 (yearly)
- 02 \$834 to \$1250 (monthly) / \$10,000 to \$14,999 (yearly)
- 03 \$1251 to \$1667 (monthly) / \$15,000 to \$19,999 (yearly)
- 04 \$1668 to \$2500 (monthly) / \$20,000 to \$29,999 (yearly)
- 05 \$2501 to \$3333 (monthly) / \$30,000 to \$39,999 (yearly)
- 06 \$3334 to \$4167 (monthly) / \$40,000 to \$49,999 (yearly)
- <sup>07</sup> \$4168 to \$6250 (monthly) / \$50,000 to \$74,999 (yearly)
- 08 \$6251 or more (monthly) / \$75,000 or more (yearly)
- 99 Don't know
- 14. Including yourself, how many people depended on this income? (must be at least 1)

dependent

Income

income.

### Race and Sexual Orientation

Please tell us a little bit about yourself.

15. Do 1 2	o you think of yourself as: Heterosexual or "Straight" Homosexual, Gay	orient.	orient
3	Bisexual		orient_other
4	Other		

16. There are different ways of referring to guys we know who have sex with men. We want to respect your preferences. During this survey, how would you like us to refer to men who have sex with other men? Please pick one of these choices:

Gay men Gay/bi men Same gender loving men Two-spirited men Queer men

callem

# Living Situation

17 1 2 3 4 5	. Do you rent, own or stay at the pla Rent Own Stay for nightly or monthly rate Stay for free Don't know	ace you rest at night?	living.
18 1 2 3 4 5	. How long have you lived or stayed Less than one year 1-3 years 4-6 years 7-10 years More than 10 years	at the place you res	at night?
19	. What is the zip code for the place	you stay at night?	zipcode
	. In the past 12 months, have you b		

20. In the past 12 months, have you been homeless at any time? By homeless, I mean you were living on the street, in a shelter, a Single Room Occupancy hotel (SRO), temporarily staying with friends or relatives, or living in a car?

homeless

homeless\_now

Binary\_prefernot

Binary\_prefernot.

- 1 Yes
- 0 No
- 9 Don't know

21. Are you currently homeless?

- 1 Yes
- 0 No
- 9 Don't know

### Healthcare

### 22. Do vou currently have health insurance? (This includes Medicare or Medicaid)

1Yesif yes, then #230Noif no, then #249Don't Know	
<ul> <li>23. What kind of health insurance or coverage do you currently have?</li> <li>Private health insurance or HMO</li> <li>Medicaid</li> </ul>	
3 Medicare insurance	>_other
<ul> <li>4 TRICARE (CHAMPUS) insurance_type</li> <li>5 Veterans Administration Coverage</li> <li>6 Some other insurance, please specify:</li> <li>7 Don't know</li> </ul>	
24. Do you know where to go to be seen by a doctor, nurse or healthcare provider if you	are sick?
<ul> <li>Always</li> <li>Most of the time healthwhere</li> </ul>	
2 Sometimes	
1     Not often       0     Never	

7 Don't know

25. Where do you primarily receive healthcare?

healthprimary

- Healthcare provider office Community clinic or health center 2
- 3 Hospital

1

- 4 Prison clinic
- 5 Commercial storefront clinic (ex. CVS, RiteAid, Walgreen's clinic)
- 6 Community-based organization
- 7 School clinic
- 8 Worksite health clinic
- 10 Local health department
- 9 Other

healthprimary\_other

health\_primary.

26. In the past 12 months, approximately how many times have you been treated for an illness or a condition by a healthcare provider?

- 0 times 0
- 1-4 times 1
- 2 5-9 times
- 3 10 times or more
- 7 Don't Know



27. How often do you have enough money to pay for your prescription drugs?

money4meds

- 4 Always
- 3 Most often
- 2 Sometimes
- 1 Not often
- 0 Never
- 7 I don't need to buy prescription drugs at this time

28. How often do you have enough money to pay for healthcare provider office visits?

- 4 Always
- 3 Most often
- 2 Sometimes
- 1 Not often
- 0 Never
- 7 Don't Know



money4meds.

# Arrest and Incarceration

29. Ha 1 0	Yes If yes, then #30 No If no, then #34	γd?	arrested_ever	Binary_prefernot.
30. In 1 0	the past 12 months have Yes If yes, then #31, No If no, then #34		arrested_p12m	Binary_prefernot.
31. Ho 1 2 9	ow many days did you spo Under 30 days Over 30 Days Don't know	end in jail or prison the arrested_jaildays	ne last time you were h arrested_jaildays.	)
32. Th 1 0 9	ne last time you were held Yes No <mark>If no, then #34</mark> Don't know	in jail or prison did y	vou get a test for HIV?	Binary_prefernot.
33. Di 1 0 9	d you get the results of th Yes arrested No Don't know		nary_prefernot.	

S O

### Alcohol use and abuse (CAGE)

# 34. During the past 12 months, have you had at least one drink of any alcoholic beverage such as beer, wine, a malt beverage or liquor?

1 Yes If yes, then #35

If no, then #36

0

No

drink\_p12m

Binary\_prefernot.

35. Please check the one response to each item that best describes how you have felt and behaved over your whole life

			– e	ž
Have you ever felt you should cu	It down on your drinking?	k_cut	0	$\bigcirc$
Have people annoyed you by cri	ticizing your drinking?	k_critic	$\bigcirc$	$\bigcirc$
Have you ever felt bad or guilty a	about your drinking?		$\bigcirc$	$\bigcirc$
Have you ever had a drink first t	ning in the morning to steady your nerves	or get rid of a hangover (eye-opener)?	$\bigcirc$	$\bigcirc$
	$\wedge$		1	0
L_drink_guilt	drink_morning	$\sim$	$\sim$	$\sim$
		Sin:	arv prefer	not 🦂

7

36. In the past 12 months, since [%%1742:month\_11 %%], have you used any non-injection drugs, other than those prescribed for you?

ourie	i than those prescribed for you?		
1	Yes If yes, then #37, #38	noninjection	Binary_prefernot.
0	No		hun

37. In the past 12 months, since [%%1742:month\_11 %%], how often did you use the following drugs? 0 1 2 3 4 5 6

	drugfreq.	Didn't use	More than once a day	Once a day	More than once a week	Once a week	More than once a month	Once a month	Less than once a month
Crystal meth (tina, crank, or ice)	crystalmeth		$\overline{)}$	$\bigcirc$	$\sim$	Ŏ	$\sim$	0	
Crack cocaine	crack	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Powered cocaine that is smoked or snorted	cocaine	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Downers such as Valium, Ativan, or Xanax	downers	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Painkillers such as Oxycontin, Vicodin, or Perco	<sub>cet</sub> painkillers	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Hallucinogens such as LSD or mushrooms	hallucinogen	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
X or Ectasy	ectasy	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Special K (ketamine)	specialk	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
GHB	ghb	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Heroin that is smoked or snorted	heroin	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Marijuana	maryjane	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Poppers (amyl nitrate)	poppers	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
		0	1	2	3	4	5	6	7

38. In the past 12 months, since [%%1742:month\_11 %%], have you used any other non-injection drugs not listed above?

1	Yes	If yes, then #39, 40	
---	-----	----------------------	--

noninject\_other

Binary\_prefernot.

39. Specify the non-injection drug you used, other than those listed above:

noninject\_specify

0

No

40. H	ow often did you use [%%1958:Specify the non %%] ?
1	More than once a day noninject_often
2	Once a day
3	More than once a week
4	Once a week
5	More than once a month
6	Once a month
/ 0	Less than once a month
8 9	Refused to answer
-	the past 12 months, since [%%1742:month_11 %%], have you used Viagra, Levitra or Cialis?
1	Yes viagra_p12m
0	No Binary_prefernot.
42. In iniect	the past 12 months, since [%%1742:month_11 %%], have you used any drugs that you ed with a needle, other than those prescribed for you?
1	Yes inject
0	No Binary_prefernot.

1 1 1

## Drug abuse screening

# 43. Please check the one response to each item that best describes how you have felt over the past 12 months (since [%%1742:month\_11 %%])

	drug_noprescript	Yes	°Z
Have you used drugs other than those required for medical reasons?	drug_abuse_prescript	$\sim$	$\sim$
Have you abused prescription drugs?	drug_multi	$\overline{\bigcirc}$	$\bigcirc$
Do you abuse more than one drug at a time?	drug_week	Õ	Õ
Can you get through the week without using drugs?	drug_stop	$\bigcirc$	$\bigcirc$
Are you always able to stop using drugs when you want to?	drug_blackout	$\overline{\bigcirc}$	$\bigcirc$
Have you had "blackouts" or "flashbacks" as a result of drug use?	drug_guilt	$\bigcirc$	$\bigcirc$
Do you ever feel bad or guilty about your drug use?	drug_complain	$\bigcirc$	$\bigcirc$
Does your partner (or parents) ever complain about your involvement with drugs?	- ·	$\bigcirc$	$\bigcirc$
Has drugs created problems between you and people close to you?	drug_prob	$\overline{\bigcirc}$	$\bigcirc$
Have you lost friends because of your use of drugs?	drug_friend	$\overline{\bigcirc}$	$\bigcirc$
Have you neglected people close to you because of your use of drugs?	drug_neglect	$\overline{\bigcirc}$	$\bigcirc$
Have you been in trouble at work because of your use of drugs?	drug_trouble	$\overline{\bigcirc}$	$\bigcirc$
Have you lost a job because of drug abuse?	drug_fired	$\bigcirc$	$\bigcirc$
Have you gotten into fights when under the influence of drugs?	drug_fights	$\bigcirc$	$\bigcirc$
Have you engaged in illegal activities in order to obtain drugs?	drug_legal	$\bigcirc$	$\bigcirc$
Have you been arrested for possession of illegal drugs?	drug_arrest	$\bigcirc$	$\bigcirc$
Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs	drug_withdrawal	$\bigcirc$	$\bigcirc$
Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, o	arug_medicai	$\bigcirc$	$\bigcirc$
Have you gone to anyone for help for a drug problem?	drug_help	$\bigcirc$	$\bigcirc$
Have you been involved in a treatment program especially related to drug use?	drug_program	$\bigcirc$	$\bigcirc$
	mm	1	0
	🕨 Binary_prefernot. 🧹	<u>'</u>	0
	Jun		

## Substance use treatment

### 44. Have you ever participated in an alcohol or drug treatment program?

1	Yes If yes, then #	<i>‡</i> 45	drug_alcprogram	
0	No			Binary_prefernot.
<b>45.</b> ⊦	lave you participated	in an alcohol	or drug treatment p	rogram in the past 12 months?
1	Yes	drug_program	np12m	
0	No	0=1 0		Binary_prefernot.
Ŭ				and
46. Ir	n the past 12 months	s, did vou trv to	get into an alcohol	or drug treatment program but were
	le to?	, <b>,</b> ,	0	5 1 5
1	Yes			
0	No	drug_i	noprogram_p12m	Binary_prefernot.
Ŭ				

### Circumcision



# Harm reduction I

http://journals.lww.com/jaids/Fulltext/2001/12150/Influence\_of\_a\_Partner\_s\_HIV\_Serostatus,\_Use\_of.11.aspx Suarez at al

### 60. If my partner tells me his HIV status is the same as mine:

	HR_concordant_unsafe.	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I am more likely to have unprotected sex with him	HR_concordant_unsafe	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Then I worry less about HIV	HR_concordant_worry	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	HR_concordant_worry.	1	2	3	4	5	6

# Harm Reduction II

http://journals.lww.com/jaids/Fulltext/2001/12150/Influence\_of\_a\_Partner\_s\_HIV\_Serostatus,\_Use\_of.11.aspx Suarez at al

48. You have met a man with whom you want to have sex and you don't know his HIV status .

Please rate how safe/unsafe you personally consider each of these sexual practices to be for you. Below are a number of sexual practices and a scale from 1 (completely safe) to 10 (completely risky). Please indicate the number that represents your view of how safe or risky each practice is for your health.

	Completely safe 1	2	e	4	5	9	7	8	6	Completely risky 10
You are the insertive partner during anal intercourse without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the insertive partner during condom-protected anal intercourse	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the receptive partner during anal intercourse without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the receptive partner during condom-protected anal intercourse	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You perform oral sex on a partner who cums in your mouth without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You perform oral sex on a partner WHO doesn't cum in your mouth	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Partner performs oral sex on you	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You engage in non-penetrative sex (mutual masturbation) until you and your partner cum	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1	2	3	4	5	6	7	8	9	10



HR\_unk\_UIAI HR\_unk\_PIAI HR\_unk\_URAI HR\_unk\_PRAI HR\_unk\_UOS HR\_unk\_OS\_nocum HR\_unk\_ROS HR\_unk\_ROS

# Harm Reduction III

http://journals.lww.com/jaids/Fulltext/2001/12150/Influence\_of\_a\_Partner\_s\_HIV\_Serostatus,\_Use\_of.11.aspx Suarez at al

53. Earlier we asked you some questions about how safe some activities would be with a partner whose HIV status you did not know.

Now, please imagine that you have met a man with whom you want to have sex and he is HIV-negative.

Please rate how safe/unsafe you personally consider each of these sexual practices to be for you.

Below are a number of sexual practices and a scale from 1 (completely safe) to 10 (completely risky). Please indicate the number that represents your view of how safe or risky each practice is for your health.

	Completely safe 1	2	e	4	5	9	7	8	6	Completely risky 10
You are the insertive partner during anal intercourse without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the insertive partner during condom-protected anal intercourse	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the receptive partner during anal intercourse without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the receptive partner during condom-protected anal intercourse	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You perform oral sex on a partner who cums in your mouth without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You perform oral sex on a partner who doesn't cum in your mouth	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Partner performs oral sex on you	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You engage in non-penetrative sex (mutual masturbation) until you and your partner cum	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1	2	3	4	5	6	7	8	9	10

HR\_neg\_UIAI HR\_neg\_PIAI HR\_neg\_URAI HR\_neg\_PRAI HR\_neg\_UOS HR\_neg\_OS\_nocum HR\_neg\_ROS HR\_neg\_mutualmast



# Harm Reduction IV

http://journals.lww.com/jaids/Fulltext/2001/12150/Influence\_of\_a\_Partner\_s\_HIV\_Serostatus,\_Use\_of.11.aspx Suarez at al

58. Earlier we asked you some questions about how safe some sexual activities would be with partners who were HIV-negative or whose HIV status you did not know.

Now the question changes a litte.

Now, please imagine that you have met someone with whom you want to have sex and is HIV-positive, but taking antiretroviral medications that reduced his viral load to an undetectable level.

Please rate how safe/unsafe you personally consider each of these sexual practices to be for you.

Below are a number of sexual practices and a scale from 1 (completely safe) to 10 (completely risky). Please indicate the number that represents your view of how safe or risky each practice is for your health.

	Completely safe 1	2	e	4	5	9	7	8	6	Completely risky 10
You are the insertive partner during anal intercourse without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the insertive partner during condom-protected anal intercourse	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the receptive partner during anal intercourse without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the receptive partner during condom-protected anal intercourse	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You perform oral sex on a partner who cums in your mouth without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You perform oral sex on a partner who doesn't cum in your mouth	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Partner performs oral sex on you	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You engage in non-penetrative sex (mutual masturbation) until you and your partner cum	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1	2	3	4	5	6	7	8	9	10

HR\_pos\_arv\_UIAI HR\_pos\_arv\_PIAI HR\_pos\_arv\_URAI HR\_pos\_arv\_PRAI HR\_pos\_arv\_UOS HR\_pos\_arv\_OS\_nocum HR\_pos\_arv\_ROS HR\_pos\_arv\_mutualmast



# Harm Reduction V

http://journals.lww.com/jaids/Fulltext/2001/12150/Influence\_of\_a\_Partner\_s\_HIV\_Serostatus,\_Use\_of.11.aspx Suarez at al

61. Earlier we asked some questions about how safe you think some sexual activities are with different kinds of partners.

We have one more scenario to ask about.

This time, please imagine that you have met a man with whom you want to have sex and he is HIV-positive and not taking antiretroviral medications.

Please rate how safe/unsafe you personally consider each of these sexual practices to be for you.

Below are a number of sexual practices and a scale from 1 (completely safe) to 10 (completely risky). Please indicate the number that represents your view of how safe or risky each practice is for your health.

	Completely safe 1	2	e	4	5	9	7	8	0	Completely risky 10
You are the insertive partner during anal intercourse without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the insertive partner during condom-protected anal intercourse	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the receptive partner during anal intercourse without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You are the receptive partner during condom-protected anal intercourse	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You perform oral sex on a partner who cums in your mouth without a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You perform oral sex on a partner who doesn't cum in your mouth	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Partner performs oral sex on you	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
You engage in non-penetrative sex (mutual masturbation) until you and your partner cum	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1	2	3	4	5	6	7	8	9	10

HR_pos_noarv_UIAI
HR_pos_noarv_PIAI
HR_pos_noarv_URAI
HR_pos_noarv_PRAI
HR_pos_noarv_UOS
HR_pos_noarv_OS_nocum
HR_pos_noarv_ROS
HR_pos_noarv_mutualmast

harmreduction.
mm

Kalichman SC, Kelly JA, Rompa D. Continued high-risk sex among HIV seropositive gay and bisexual men seeking HIV prevention services. Health Psychol.1997; 16(4): 369-373.

### Condom Attitudes, and venue attendance

### 49. The following statements ask much you agree or disagree with some ideas about condoms.

	<center>Strongly disagree<center></center></center>	<center> Moderately disagree<center></center></center>	<pre><center>Slightly disagree<center></center></center></pre>	<center>Neutral&lt; center&gt;</center>	<center>Slightly agree<center></center></center>	<center> Moderately agree<center></center></center>	<center>Strongly agree<center></center></center>
The use of condoms can make sex more stimulating	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Condoms can be pleasurable	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Condoms go against my values or religious beliefs	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
condom_att_stimulate condom_att_pleasure condom_att_religious	1	2	3	4	5	6	7

50. Which of these websites have (select all that apply)	you visited in the last month?	onlinevenue_myspace onlinevenue_facebook	
<ul> <li>MySpace</li> <li>Craigslist</li> <li>Manhunt</li> <li>FindFred</li> <li>Black Gay Chat / BGCLive.com</li> <li>51. In the last month, in Atlanta, hat</li> </ul>		onlinevenue_craigslist onlinevenue_adam4adam onlinevenue_manhunt onlinevenue_dlist onlinevenue_findfred onlinevenue_friendster onlinevenue_BGC onlinevenue_OKC	Binary_Prefernot Check = 1 Unchecked = 0
			No Yes

bars/restaurants such as Joe's on Juniper, Marys, Gilberts, Django, Blake's, BJ Roosters, Burkharts, or Las Margaritas?			0
gyms such as Gravity, Urban Body Fitness, LA Fitness, or the Colony Square Athletic	Club?	0	0
clubs such as Club Primal, The Jungle, Club Boi?	realworldvenue_bar	0	0
social gatherings such as Atlanta Executive Network, YouthPride, or private parties?	realworldvenue_gym	0	0
outdoor locations such as Piedmont Park or 10th & Piedmont?	realworldvenue_club	0	0
bath houses such as Manifest, Club Eros, or Flex?	realworldvenue_social	O	0
	realworldvenue_outdoor realworldvenue_bath	0	1 -
		1	

Binary\_Prefernot

Online Supplement 1: Page 25 of 91

# Condom usage beliefs

50. The following statements ask how much you approve or disapprove of some ideas about condom use.

	Strongly disapprove	Disapprove	Neutral	Approve	Strongly approve
Abstaining from sexual intercourse if condoms are not used by a new partner	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Insisting on condom use even if your new partner does not want to use a condom	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Not using a condom during sexual intercourse with a new partner	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1	2	3	4	5

condom\_use\_abstain condom\_use\_insist condom\_use\_nocondom

Condom\_Use.

### 51. Please choose one answer for each statement.

	None of my friends	Less than half of my friends	About half of my friends	More than half of my friends	All of my friends
How many of your [%%3194:CALLEMmerged %%] friends always use condoms when having anal sex with a new partner?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How many of your [%%3194:CALLEMmerged %%] friends think you should avoid unsafe sex?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How many of the [%%3194:CALLEMmerged %%] men you know only engage in safe sex practices?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How may of your [%%3194:CALLEMmerged %%] friends think you should always have safe sex?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1	2	3	4	5

52. How important do your [%%3194:CALLEMmerged %%] friends think it is to use a condom when having anal sex with a new partner?

- 1 Not important at all
- 2 Slightly important
- 3 Moderately important
- 4 Very important
- 5 Extremely important

	∖norms_condom
	norms_avoid
	norms_onlysafe
	norms_yousafe
normal_PAI_new	$\sim$
	Norms. 🚽
Vorms_PAI.	Lu

1 2 3

### Condom Errors

No

0

Grimley DM, Annang L, Houser S, Chen H. Prevalence of condom use errors among STD clinic patients. AM J Health Behav. 2005; 29(4): 324-330.

### 54. Have you used a condom in the last 6 months?

1 Yes if yes, then #55, #56

condomp6m

mm



55. In the last 6 months, when you used a condom, did you:

		_	Yes	Ŷ	Kno/
Squeeze air from the tip of condom before putting it on?	condom_err_air		$\bigcirc$	$\bigcirc$	$\bigcirc$
Experience a condom breaking?	condom_err_break		$\bigcirc$	$\bigcirc$	$\bigcirc$
Hold the base of the condom during withdrawal?	condom_err_base		$\bigcirc$	$\bigcirc$	$\bigcirc$
Leave space at the tip of condom?	condom_err_space		$\bigcirc$	$\bigcirc$	$\bigcirc$
Completely unroll the condom before putting it on?	condom_err_unroll		$\bigcirc$	$\bigcirc$	$\bigcirc$
Start having sex, then put the condom on during intercourse?	condom_err_during		$\bigcirc$	$\bigcirc$	$\bigcirc$
Put condom on inside out, then flip it over to use?	condom_err_flip		$\bigcirc$	$\bigcirc$	$\bigcirc$
Re-use a condom?	condom_err_reuse		$\bigcirc$	$\bigcirc$	$\bigcirc$
	mm		1	0	9
	Binary_prefernot.				

### Condom Skills for Insertive Sex

Complete this section only if: "CONLAST" matches: '1'

a.k.a.: if #54 (condom6mo)=1(yes), then continue to #56

### 56. In the last 6 months, have you had anal sex as the insertive partner (top) and used a condom?

1 Yes if yes, then #55, #56 0 No

condom\_err\_analp6m

Binary\_prefernot.

57. During the last six months when you used a condom for anal sex as a "top" did any of the following occur, even once?

				C.	S S		
	Annang L, Houser S, Chen H. F		۸s	Offe	etime	×	L
errors among	STD clinic patients. AM J Hea	lth Behav. 2005; 29(4): 324-330.	Always	Very Often	Sometimes	Rarely	Never
Did you let a condom you	u were using touch sharp jewelry	, fingernails or teeth?		$\sim$	$\odot$		$\overline{\bigcirc}$
-		up and then have to flip it over before you could	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you completely unrol	II the condom before putting it on	your penis?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you hold the tip of the	e condom to leave a space, then	roll it down to the base of your penis?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you use a dry condo KY jelly)	m? (i.e. the condom was non-lub	ricated and you did not add any lubricant like	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you add lubricant to	the condom?		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you use an oil-based	l lubricant such as Vaseline, bab	y oil, massage oil?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you have any proble	ms with losing an erection while	putting on a condom?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you have any proble	ms with losing your erection once	e the condom was on and sex had begun?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you start having sex	Did you start having sex without a condom and then pull out and put one on?		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you start having sex	with a condom on and then take	it off before sex was over?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
-	e using break during sex?		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	e using slip off during sex?		$\bigcirc$	0	$\bigcirc$	$\bigcirc$	0
-	e using slip-off after sex, as you		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Did you have a problem or too large, it was the w anything with it on)?	with the way a condom fit or felt of rong shape, it caused irritation of	on you? (for example, you felt it was too small f your skin or you/your partner couldn't feel	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
[	con_IAI_sharp		5	4	3	2	1
	con_IAI_flip						
	con_IAI_unroll		ſ	YY		)	
	con_IAI_base		7	Like	rtFive	e. 🥤	
	con_IAI_dry						
	con_IAI_lube						
	con_IAI_oil						
	con_IAI_oil con_IAI_edputon						
C							
	con_IAI_edputon						
	con_IAI_edputon con_IAI_edsex						
	con_IAI_edputon con_IAI_edsex con_IAI_during						
	con_IAI_edputon con_IAI_edsex con_IAI_during con_IAI_remove						
	con_IAI_edputon con_IAI_edsex con_IAI_during con_IAI_remove con_IAI_break						
	con_IAI_edputon con_IAI_edsex con_IAI_during con_IAI_remove con_IAI_break con_IAI_slip						

## HIV Knowledge

Carey, MP., Schroder, KE. Development and psychometric evaluation of the brief HIV knowledge questionnaire. AIDS Educ Prev. 2002; 14(2): 172-182

59. The next set of questions ask about your HIV knowledge. For each statement, please click "True", "False", or "I don't know." If you do not know, please do not guess; instead, please click the button: "I don't know."

	True	False	Don Knov
Coughing and sneezing DO NOT spread HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
A person can get HIV by sharing a glass of water with someone who has HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
Pulling out the penis before a man climaxes/cums keeps his partner from getting HIV during sex.	$\bigcirc$	$\bigcirc$	$\bigcirc$
A woman can get HIV if she has anal sex with a man.	$\bigcirc$	$\bigcirc$	$\bigcirc$
Showering, or washing one's genitals/private parts, after sex keeps a person from getting HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
All pregnant women infected with HIV will have babies born with AIDS.	$\bigcirc$	$\bigcirc$	$\bigcirc$
People who have been infected with HIV quickly show serious signs of being infected.	$\bigcirc$	$\bigcirc$	$\bigcirc$
There is a vaccine that can stop adults from getting HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
People are likely to get HIV by deep kissing (putting their tongue in their partner's mouth), if their partner has HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
A woman cannot get HIV if she has sex during her period.	$\bigcirc$	$\bigcirc$	$\bigcirc$
There is a female condom that can help decrease a woman's chance of getting HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
A natural skin condom works better against HIV than does a latex condom.	$\bigcirc$	$\bigcirc$	$\bigcirc$
A person will NOT get HIV if he is taking antibiotics.	$\bigcirc$	$\bigcirc$	$\bigcirc$
Having sex with more than one partner can increase a person's chance of becoming infected with HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
Taking a test for HIV one week after having sex will tell a person if she or he has HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
A person can get HIV from oral sex.	$\bigcirc$	$\bigcirc$	$\bigcirc$
Using Vaseline or baby oil with condoms lowers the chance of getting HIV.	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1	0	9

HIVedu sneeze HIVedu\_water HIVedu\_pullout HIVedu\_ladyanal HIVedu\_douche HIVedu\_pregnant HIVedu\_quickill HIVedu\_vaccine HIVedu\_french HIVedu\_period HIVedu femalecon HIVedu\_skin HIVedu\_antibio HIVedu\_multiple HIVedu\_window HIVedu hottub HIVedu\_oral HIVedu\_babyoil



## **HIV Testing History and Results**



63. In what month and year did you have your most recent HIV test?

Month: January February March April May June July August September October November December	=1 =2 =3 =4 =5 =6 =7 =8 =9 =10 =11	t_month.	
64. Year: 65. What was	HIVtest_year the result of your most recen	t HIV test? HIVtest_result	HIVtest_result.
0 Negativ	e If positive, then hide #67, #7		
r rusitive		e,,	

- 2 Indeterminant/Inconclusive
- 3 Didn't get the results of my last HIV test

### Details of Last HIV Test

Complete this section only if: "EVERTEST" matches: '1'

If "ever_tested" = 1(yes), then show
this page

HIVtest\_where

HIVtest\_where.

66. When you got tested in [%%1901: %%] [%%1902: %%], where did you get tested?

- 1 Private doctor's office (including HMO)
- 2 Community health center/public health clinic
- 3 HIV counseling and testing site
- 4 HIV/AIDS street outreach program/Mobile Unit
- 5 Hospital (inpatient)
- 6 Emergency room
- 7 Sexually transmitted disease clinic
- 8 Drug treatment program
- 9 Correctional facility (jail or prison)
- 10 Blood bank/Plasma center
- 11 Military
- 12 At home
- 13 Other

HIVtest\_where\_other

67. How likely is it that you'll get tested for HIV in the next 12 months?

- 1 Very likely
- 2 Somewhat likely
- 3 Somewhat unlikely
- 4 Very unlikely

HIV\_next12mo


Binary\_prefernot.

# Usual Sources of Care for HIV

Complete this section only if: "HRESULT" matches: '1'

68. In the past 12 months, is there one place in particular, like a doctor's office or clinic, where you usually go for most of your HIV care, like CD4 tests, viral load tests, or prescriptions for HIV medicines?

1 Yes

No If no, then #69

0

HIVcare\_oneplace

69. What are the reasons you don't have a usual source of care for HIV? [Check all that apply]

•	-	
<ul> <li>Couldn't afford a usual source of care</li> <li>Didn't know where to find regular HIV care</li> </ul>	nocare_cost	Binary_prefernot.
Couldn't get a regular appointment anywhere	nocare_findcare	and
	nocare_appt	
No HIV doctors in my area	nocare_nodoc	Check = 1
Didn't think it was necessary	nocare_neces	Unchecked = 0
Thought it was necessary, but never tried to get or	ne nocare_notry	Onchecked = 0
Didn't know where to find a regular doctor who spectrum	eaks the same langua	ge as me < 🔤
Have just recently been diagnosed		nocare_language
Other (specify)		······································
		nocare_newdiag
hocare_other		$\sim$
		Binary_prefernot.

# HIV Treatment History

Complete this section only if: "HRESULT" matches: '1'

70. Have you ever taken any known as ART, HAART, or th 1 Yes If yes, then #72		s to treat your HIV	√? These m	edicines a	are also
0 No lif no, then #71	arv_eve	er Binary_	_prefernot.		
71 What are the receive you	have nover taken on		diainaa?		
71. What are the reasons you Doctor advised to delay	•	noarv_eve		1	
Recently into medical of		noarv_eve	r_notime		
CD4 count and/or viral	•		r_cd4_good r_feelgood		
Feel good, don't need t Worried about side effective		noarv_eve	er_sidefx	$\sim$	
Drinking or using drugs		noarv_eve noarv_eve		Binar	y_prefernot.
Didn't want to think abo		noarv_eve		$\sim$	
No money		noarv_eve noarv_eve	_	Chec	k = 1
<ul> <li>No insurance</li> <li>Worried about ability to</li> </ul>	adhere/often forget	noarv_eve	r_homeless	Unch	ecked = 0
Living on the street		noarv_eve	r_altmed r_dontknow		
Taking alternative/com	plementary medicines	noarv_eve			
<ul> <li>Don't know</li> <li>Other (specify)</li> </ul>			noarv_e	- ver_othe	r
					_
<ul><li>72. Are you currently taking a</li><li>1 Yes</li></ul>	ny antiretroviral medic	ines to treat your	HIV?	~~~~	
0 No lif no, then #73	arv_cu	irrent	Binary_pre	efernot.	)
73. What are the reasons you apply]	aren't currently taking	any antiretrovira	I medicines'	? [Check a	all that
Doctor advised to delay	•	noarv_now_doct			
Recently into medical of		noarv_now_notin noarv_now_cd4			
<ul> <li>CD4 count and/or viral</li> <li>Feel good, don't need to</li> </ul>	•	noarv_now_feel	-		
Worried about side effe		noarv_now_side			$\sim$
Drinking or using drugs		noarv_now_drug noarv_now_den		Binary_p	orefernot.
Didn't want to think abo	out being HIV positive	noarv_now_cost			
No money No insurance		noarv_now_noin		Check =	1
Worried about ability to	adhere/often forget	noarv_now_adh noarv_now_hom		Uncheck	ed = 0
Living on the street		noary now altm			
<ul> <li>Taking alternative/com</li> <li>Other (specify)</li> </ul>	plementary medicines		noarv_now	other	

# Perceived Neighborhood

# 74. Please rate your neighborhood's physical environment as it is now with the regard to the following:

			Excellent	Above average	Average	Below average	Poor
Affordable and comfortable housing	hood_housing		$\bigcirc$	0	$\circ$		$\bigcirc$
Public parks or open spaces	hood_parks		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Noise	hood_noise	hood.	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Crowdedness	hood_crowd		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Air quality	hood_air		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
			1	2	3	4	5

# 75. Please rate your neighborhood's social environment as it is now with regard to the following:

	-	_	Excellent	Above average	Average	3elow average	oor
Friendliness/helpfulness of neighbors	hood_friendly		$\bigcirc$		$\overline{\mathbf{O}}$		
Residents' attachment to the neighborhood	hood_attach		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Self-esteem and morale of the residents	hood_morale 🛛 🖌 hood. 🚽		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Personal safety	hood_safety	,	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Opportunity to participate in local government	hood_citizenship		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Ability to have access to city councilman/alderman	hood_govaccess		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
			1	2	3	4	5

## 76. Please rate your neighborhoods' service environment as it is now with regard to the following:

		Excellent	Above average	Average	Below average	Poor
Quality of schools	hood_school	$\bigcirc$				
Policing	hood_police	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Access to hospital/medical care	hood_healthcare	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Shopping	hood_shopping	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Lighting	hood_light hood.	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Garbage pickup/snow removal	hood_garbage	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
		1	2	3	4	5

# Perceptions of Local Stigma & Local Community Perceptions

### 77. Please answer each of the following items by checking the box that best fits your response.

	Strongly	Disagre	Neutral	Agree	Strongl) agree	Not Applicabl
Most people in my city/town believe that a [%%3194:CALLEMmerged %%] man is just as trustworthy as the average heterosexual citizen	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Most employers in my city/town will hire a [%%3194:CALLEMmerged %%] man if he is qualified for the job	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Most people in my city/town feel that homosexuality is a sign of personal failure	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Most people in my city/town would not hire a [%%3194:CALLEMmerged %%] man to take care of their children	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Most people in my city/town think less of a person who is [%%3194:CALLEMmerged %%]	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Most people in my city/town would treat a [%%3194:CALLEMmerged %%] man just as they would treat anyone	0	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Most people in my city/town will willingly accept a [%%3194:CALLEMmerged %%] man as a glose friend	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1	2	3	4	5	8

## 78. Please answer each of the following items by checking the box that best fits your response.

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not Applicabl
l f	el that I am a member of my city/town gay community	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Ιp	an to stay in my city/town for a long time	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
۱h	ave many [%%3194:CALLEMmerged %%] male friends in my city/town	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
۱h	ave many lesbian/bisexual women in my city/town	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
١v	vish that I could live someplace with a stronger gay/bisexual community than the place I live	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
l r	egularly attend gay events and meetings in my city/town	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
M	y town/city is a bad place for me to live as a [%%3194:CALLEMmerged %%] man	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
l f	eel at home in my city/towns' gay community	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
As	a [%%3194:CALLEMmerged %%] man, I enjoy living in my city/town	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
		1	2	3	4	5	8

# Question 77 -Variable Names

comm.

comm\_trust comm\_hire comm\_failure comm\_child comm\_opinion comm\_treat comm\_friend

#### Question 78 - Var Names

comm\_member comm\_stay comm\_gayfriends comm\_lesbian comm\_bettercom comm\_events comm\_badplace comm\_athome comm\_enjoy

comm.

# Resiliency

http://www.resiliencescale.com/en/rstest/rstest\_14\_en.html

## 79. Please check the box indicating how much you disagree or agree with each statement

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not Applicable	
I usually manage one way or another	res_manage	$\bigcirc$	$\overline{\bigcirc}$	$\overline{\bigcirc}$	Õ	$\bigcirc$	$\bigcirc$	
I feel proud that I have accomplished things in my life	res_proud	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
I usually take things in stride	res_stride	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
I am friends with myself	res_selflove	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
I am determined	res_determined	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
I keep interested in things	res_interest	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
My belief in myself gets me through hard times	res_persevere	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
My life has meaning	res_meaning	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
When I am in a difficult situation, I can usually find my way out of it	res_getout	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
I have enough energy to do what I have to do	res_energy	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
		1	2	3	4	5	NA	
	resiliency.							

Luu

# Racism and Life Experience I

80. Please answer each of the following items by checking the box that best fits your response.

In the past 12 months.....

	Never	Rarely	Sometimes	Fairly Often	Very Ofter
How often have your civil rights been violated (i.e., job or housing discrimination due to racism, racial discrimination, or racial prejudice?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have others said or acted as if you are over-sensitive or paranoid about racism?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have you witnessed prejudice or discrimination directed at someone else because of their race/ethnic group?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have you heard about someone else's experiences of racially-motivated discrimination or prejudice?	$\circ$	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have others reacted to you as if they were afraid or intimidated of you because of your race/ ethnic group?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
racism_rights	1	2	3	4	5



racism\_rights racism\_paranoid racism\_witness racism\_another racism\_fear 81. Please answer each of the following items by checking the box that best fits your response.

In the past 12 months.....

	Never	Rarely	Sometimes	Fairly Often	Very Often	Prefer Not to Answer
How often have you been observed or followed while in public places because of your race/ ethnic group?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have you been treated as if you were "stupid" or "talked down to" because of your race/ethnic group?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have your ideas or opinions been minimized, ignored, or devalued because of your race/ethnic group?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have you heard (or been told) a racially offensive or insensitive comment or joke?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have you been mistaken for someone who serves others (i.e., janitor, bellboy, maid) because of your race/ethnic group?	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
How often have you been mistaken for someone else of your same race (who may not look like you at all)?	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$
recipm stored	1	2	3	4	5	7



racism\_stared racism\_stupid racism\_ignored racism\_insensitive racism\_service racism\_mistaken This next section contains groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST TWO WEEKS, INCLUDING TODAY. Select the box beside the statement you picked. If several statements in the group seem to apply equally well, select each one.

Be sure to read all the statements in each group before making your choice.

82. Describe the way you have been feeling for the past two weeks, including today.

I do not feel sad       Check = 1         I feel sad       Unchecked = 0         I am sad all the time and I can't snap out of         I am so sad or unhappy that I can't stand it		1 2	Binary_prefernot.
	future neck = 1 nchecked = 0	bdi_fu bdi_fu bdi_fu	ture0 ture1 ture2 Binary_prefernot.
<ul> <li>84. Describe the way you have been feeling for the like a failure</li> <li>I do not feel like a failure</li> <li>I feel I have failed more than the average p</li> <li>As I look back on my life, all I can see are a</li> <li>I feel I am a complete failure as a person</li> </ul>	Check erson <mark>Unche</mark>	=1 cked=0 bd	iding today. li_failure0 li_failure1 li_failure2 li_failure3
<ul> <li>85. Describe the way you have been feeling for the second secon</li></ul>	used to bdi_ bdi_ e bdi_		n0 n1 n2 Binary_prefernot.
<ul> <li>86. Describe the way you have been feeling for the line of the line o</li></ul>	e past two w bdi_disap bdi_disap bdi_disap bdi_disap	pointed0 pointed1 pointed2	
<ul> <li>87. Describe the way you have been feeling for th</li> <li>I don't feel I am any worse than anybody el</li> <li>I am critical of myself for my weaknesses of</li> <li>I blame myself all of the time for my faults</li> <li>I blame myself for everything bad that happ</li> </ul>	se k r mistakes k bens k	veeks, inclu odi_faults0 odi_faults1 odi_faults2 odi_faults3	Binary_prefernot.
	eck = 1 checked = 0		

- 88. Describe the way you have been feeling for the past two weeks, including today.
  - I don't have any thoughts of killing myself
  - bdi\_suicide0 I have thoughts of killing myself, but I would not carry them out bdi\_suicide1 Binary\_prefernot. I would like to kill myself

- Check = 1
- I would kill myself if I had the chance
- Unchecked = 0

bdi\_suicide2 bdi\_suicide3

## 89. Please choose the answer that best fits how you have felt and behaved during the past week

		Rarely or none of the time (<1 day)	Some or little of the time <br br>(1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	Most or all of the time <br br>(5-7 days)
I was bothered by things that don't usually bother me	cesd_bother	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I had trouble keeping my mind on what I was doing	cesd_concentrate	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I felt depressed	cesd_depressed	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I felt everything I did was an effort	cesd_effort	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I felt hopeful about the future	cesd_hopeful	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I felt fearful	cesd_fearful	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
My sleep was restless	cesd_badsleep	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I was happy	cesd_happy	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I felt lonely	cesd_lonely	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I could not get "going"	cesd_getgoing	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	CESD.	0	1	2	3

Se O

90. The following questions deal with topics that are often difficult to talk or think about. They are questions about physical and sexual abuse that you may have experienced early in your life. When the question says, "child," it means when you were age 16 or younger.

The a billing, were yea ever beaten, physically attached, or physically ababea.	abuse_child_physabuse		$\sim$
The doma, were you ever berduny diabled, raped, or berduny abused:	abuse_child_sexabuse	$\bigcirc$	$\bigcirc$
The arradad, have you over board board, prijeroany allaenea, er prijeroany abaoba.		$\bigcirc$	$\bigcirc$
As an adult, have you ever been sexually attacked, raped, or sexually abused?	abuse_adult_sexabuse	$\bigcirc$	$\bigcirc$
		1	0

Binary\_prefernot.

521. You are almost finished with our survey!

We understand that having a forward-only survey can be frustrating because it does not allow you to make corrections to previous responses.

If you would like to change something that you've told us, please describe the question(s) and what the response(s) should be, using the space below. survey\_changes

#### involveMENt - Baseline survey - sexual partnership and network questions \_\_\_\_\_

#### **Contents** (repeated for convenience)

#### Partner metadata

- Partner genders, numbers, exchange sex 0
- Male partner metadata screen 2 (internet and sex acts) 0
- Male partner metadata screen 3 (UAI) 0
- Partner name list
- Partner calendar
- o Concurrency clarification questions if calendar indicates temporal ambiguities

#### Partner-specific section - repeated for each recent sex partner named, up to 5

#### Beginning of partnership

- Partner demographics
- Partnership description
- Geography
- Disclosure of status
- Serosorting intent

#### Partnership timing

- Date of first sex
- Date of last sex
- o Ongoing relationship

#### Ongoing partnership questions

- Transgender partner anatomy
- Sex frequency in p6m
- Sexual agreements
- Sexual activity outside of this relationship
- Group sex
- STD diagnosis and treatment in p6m

#### Last sex

- Sexual activities
- Circumstances (location, drugs, HIV status)
- Last sex HIV status knowledge
- HIV status knowledge source
- Strategic positioning

#### Post partner-specific wrap up

- Relationships among partners
- PrEP usage 0

#### ÁÁÁÁÁÁÁÁ Final screen

Partner genders and numbers – p12m (Baseline only) \_\_\_\_\_\_ Thank you for all that you have told us so far. These next questions ask about people you've had sex with during the last 12 months, since the beginning of [%%1742:month\_11 %%]. Binary\_prefernot. During the last 12 months, did you have sex with a person who was: 73 (mark all that apply) Check = 1if male, then #94, #95 sexp12m m Male () Unchecked = 0sexp12m f if female, then #96, #97 Female () sexp12m\_mtf () Transgender: male to female if trans mtf=#98, #99 () Transgender: female to male sexp12m\_ftm if trans ftm=#100, #101 If 'male': During the last 12 months, with how many men did you have anal or oral sex?: 94 male howmanyp12m Were any of these male sex partners an exchange partner -- that is a partner that you have sex with in exchange for money, drugs, food, or something else of value? () Yes 1 95 () No 0 male exchangep12m Binary prefernot. () Don't know q If 'female': During the last 12 months, with how many women did you have vaginal or anal sex?: 96 female howmanyp12m Were any of these female sex partners an exchange partner -- that is a partner that you have sex with in exchange for money, drugs, food, or something else of value? () Yes 1 () No female\_exchangep12m Binary prefernot. () Don't know If 'Transgender: male to female': 98 During the last 12 months, with how many male to female transgender individuals did you have sex?: mtf\_howmanyp12m Were any of these male to female transgender sex partners an exchange partner -- that is a partner that you have sex with in exchange for money, drugs, food, or something else of value? 1 () Yes **(**) No mtf exchangep12m Binary prefernot () Don't know g If 'Transgender: female to male' During the last 12 months, with how many female to male transgender individuals did you have sex?: 100 ftm\_howmanyp12m Were any of these female to male transgender sex partners an exchange partner -- that is a partner that you have 101 sex with in exchange for money, drugs, food, or something else of value? 1 () Yes 0 () No ftm exchangep12m Binary\_prefernot. () Don't know a 2

------

Of the [%%45:%%] male partners you had anal or oral sex with in the last 12 months, how many were:
[] main partners? (someone that you feel committed to above all others -- this is someone you might call your boyfriend, significant other, life partner, or husband)
male\_mainp12m

[] casual partners? (someone that you do not feel committed to above all others)

male\_casualp12m

[continuous sum shows total]

Please ensure that the total number of main + casual partners equals [%%45:During the last %%]. Your current total equals [%%249:total msp %%]. if male\_totalp12m=0, then #108 male\_totalp12m

======================================
Of the [%%45:During the last %%] male partners you had anal or oral sex with in the last 12 months, how many did you meet on the Internet?
The total number of sex partners met on the Internet cannot be more than the total number of male sex partners ([%%45:During the last %%]).
104 Of the [%%45:During the last %%] male partners you had sex with in the last 12 months, how many did you have         anal sex with?       if male_analp12m (#104)=0, then #108         if male_analp12m=>1, skip #107       male_Alp12m         if male_analp12m=1, #107       if male_analp12m=1, #107
<sup>105</sup> Of the [%%45:During the last %%] male partners you had sex with in the last 12 months, how many did you have
oral sex with?

male\_OSp12m

The total number of anal sex partners cannot be more than the total number of male sex partners ([%%45:During the last %%]).

Male partner metadata screen 3 - p12m (Baseline only)

### *If >1 male AI partner:*

Of your [%%49:Of the [%% %%] partners you had anal sex with in the last 12 months, how many did you have unprotected anal sex with? (This means that you or your partner did not use a condom at any point during sex, at least one time that you had anal sex)

males\_UAlp12m

ERROR: The number of male partners you had unprotected anal sex with can't be more than the total number of anal sex partners ([%%49:Of the [%% %%]).

### If 1 male <u>AI p</u>artner:

**107** In the last 12 months, did you have unprotected anal sex with your male anal sex partner? (This means that you or your partner did not use a condom at any point during sex, at least one time that you had anal sex)

- 1 () Yes
- 0 () No
- g () Don't know

male_UAlp12m	
Binary_prefernot.	く
hun	J

#### \_\_\_\_\_

Transition from p12m to p6m metadata recall (Baseline only)

Thank you for telling us about your partners in the last 12 months.

Next, we'd like to ask you about your partners in the last 6 months (since the beginning of XXX).

Some of these questions will be very similar to earlier ones, but please keep in mind that they are now referring to partners you had since the beginning of [XXX]

Click Next Page to continue.

(mark all tha		ve sex with a person who v	vas:	
(mark all tha ( ) ( ) ( ) ( )	Male Female Transgender: male f Transgender: female		sexp6m_m sexp6m_f sexp6m_mtf sexp6m_ftm	if male=#109, #110 if female=#111, #11 if trans mtf=#113, #1 if trans ftm=#115, 11
lf 'male':		Binary_preferm	iot.	
	ng the last 6 months, wi	th how many men did you h	nave anal or oral sex?:	
	ma	le_howmanyp6m	if 0=#123	
lf 'female':	9 Don't know [if "yes" selected the they are off)]	n all <u>male</u> partner-specific	exchange questions are s	uddenly visible ( <u>set default</u> to
	ng the last 6 months, wi	th how many women did yc		x?:
112 Was for m	noney, drugs, food, or so 1 Yes 0 No 9 Don't know	omething else of value?	Binary_pre	····
	[if "yes" selected the they are off)]	n all <u>temale</u> partner-specifi	ic exchange questions are	suddenly visible <u>(set default</u> to
	ler: male to female':			
lf 'Transgend	ng the last 6 months, wi	th how many male to femal	e transgender individuals	did you have sex?:
_	0		mtf_howmanyp	6m
_				
113 Durin	any of these [%%45:Di	uring the last %%] transgen /e sex with in exchange for		artners an exchange partner omething else of value?

During the last 6 months, with how many female to male transgender individuals did you have sex?: 115

ftm\_howmanyp6m

116 Was any of these [%%45:During the last %%] transgender: female to male sex partners an exchange partner -- that is a partner that you have sex with in exchange for money, drugs, food, or something else of value? 1 Yes

0 No

9

Don't know

ftm\_exchangep6m



[if "yes" selected then all transgender: female to male partner-specific exchange questions are suddenly visible (set default to they are off)]

Partner classification and numbers – non-transgender male partners p6m

Of the [%%45:%%] male partners you had anal or oral sex with in the last 6 months, how many were:
 [] main partners? (someone that you feel committed to above all others -- this is someone you might call your boyfriend, significant other, life partner, or husband) male\_mainp6m

[] casual partners? (someone that you do not feel committed to above all others.) male\_casualp6m

[continuous sum shows total]

Please ensure that the total number of main + casual partners equals [%%45:During the last %%]. Your current total equals [%%249:total msp %%].

Partner metadata screen 2 - p6m

\_\_\_\_\_

**118** Of the [%%45:During the last %%] male partners you had anal or oral sex with in the last 6 months, how many did you meet on the Internet?

male\_internetp6m

The total number of sex partners met on the Internet cannot be more than the total number of male sex partners ([%%45:During the last %%]).

119 Of the [%%45:During the last %%] male partners	you had sex with in the last 6 months, how ma	any did you have <u>anal</u>
sex with?	if #119=0, then #123	male_Alp6m
	if #119=>1=#121, skip #122	
	if #119=1, then #122	
120 Of the [%%45:During the last %%] male partners y sex with?	you had sex with in the last 6 months, how ma	any did you have <u>oral</u>
<u></u>	male_OSp6m	

The total number of anal sex partners cannot be more than the total number of male sex partners ([%%45:During the last %%]).

Partner metadata screen 3 – p6m

### If >1 male AI partner:

121 Of your [%%49:Of the [%% %%] partners you had anal sex with in the last 6 months, how many did you have unprotected anal sex with? (This means that you or your partner did not use a condom at any point during sex, at least one time that you had anal sex).

males\_UAlp6m

ERROR: The number of male partners you had unprotected anal sex with can't be more than the total number of anal sex partners ([%%49:Of the [%% %%]).

#### If 1 male AI partner:

122 In the last 6 months, did you have unprotected anal sex with your male anal sex partner? (This means that you or your partner did not use a condom at any point during sex, at least one time that you had anal sex)

()Yes

( ) No

() Don't know

male\_UAlp6m

This next section will be about some of your recent sex partners, regardless of gender.

In order to do that, we will ask you to provide nicknames for your recent sex partners. We will then use these nicknames to customize the questions so that they are specific to your partners.

It is important that you choose a nickname that will best help you remember the person. The names you provide are meant to help you only and should not reveal your partner's full identity. We do not want to know who your partners actually are.

Some examples of nicknames that you might choose are: a partner's first name, a nickname you call the partner by, the place where you both met or an online screen name.

Please give a nickname for each of your <u>most recent</u> sex partners over the last 6 months (since the beginning of [%%432:month\_5 %%]).

Male, female, and transgender sex partners may be in this list:

For male partners, we mean people you had oral or anal sex with.

For female partners, we mean people you had vaginal, or anal sex with.

123 Space for 5 partners is provided, but you only need to fill in as many spaces as you need or can remember.

If you had more than 5 sex partners in the previous 6 months, we would like nicknames for the most recent 5. Partner 1 (most recent)

> p1 p2 p3 p4 p5

Partner 2	· · · · ·		
Partner 3			
Partner 4			
Partner 5			
_			

name\_count

#### Partner calendar

\_\_\_\_\_

**124** For each sex partner listed, indicate, each month you had sex with that partner

#### Calendar created as follows:

Each names partner has a row Each of the last 6 months is provided in a column Response is required in each row

	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10
<partner_name_1></partner_name_1>	[]	[]	[]	[]	[]	[]
<partner_name_2></partner_name_2>	[]	[]	[]	[]	[]	[]
<partner_name_3></partner_name_3>	[]	[]	[]	[]	[]	[]
<partner_name_4></partner_name_4>	[]	[]	[]	[]	[]	[]
<partner_name_5></partner_name_5>	[]	[]	[]	[]	[]	[]

p1m5, p1m4, p1m3....p2m5, p2m4...etc.

#### If there are no ambiguous partnerships with one-month overlaps:

Proceed to partnership-specific questions

Thank you for telling us the months in which you had sex with your partners.

Click Next to continue

skip to "Intro. to partner-specific questions"

If there are ambiguous partnerships with one-month overlaps: Proceed to concurrency clarification questions

Thank you for telling us the months in which you had sex with your partners.

The next page will ask some questions to help us better understand what you just told us about your sexual partnerships.

Click Next to continue

#### -----

Concurrency clarification questions

For each ambiguous partnership that has a one-month overlap, this question is provided:

You indicated that you had sex with both [partner X] and [partner Y] in the month of [Month Z].

125 Which of these statements about [Month Z] is most correct?

concurrency\_clarify

- 1 I last had sex with [partner X] before I had sex with [partner Y]
- 2 I last had sex with [partner Y] before I had sex with [partner X]
- $\overline{3}$  I was having sex with both [partner X] and [partner Y] during the same time period
- 9? Don't know

#### \_\_\_\_\_

Intro. to partner-specific questions

On the next pages, we would like to ask you some questions about the sex partners for whom you gave nicknames.

For each partner you named, you will be asked similar questions. Some questions will be about the partner in general and some will be about your relationship with the partner.

The first questions will be about [%%403\_O0:Space for 10&nb %%].

Click Next Page to begin.







217 Pleas	e rat	e the strength	f your relationship with [%%454:cur_partner_nam %%] or	n a scale from 1 (weak) to 10
			relstrengthp1	

2	2
	3
3	4
4	5
5	6
6	7
7	8
	9
8	10 (very strong)
9	
10	

				98
	Geography: #1			
218	Where did you first meet [%%454:cur_partner_nam wheremeetP1 – P5	<u>ייין 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, </u>	wheremeetP1	
	<pre>() Through friends () School or work () Circuit party or Rave () At church () Online () Through a personal ad in a newspaper () On a telephone chat line or dating line () Bar/Club () Cruising area () On the street () Adult bookstore () Bath house () Sex club () Sex resort () Private sex party () Sports club or gym () Vacation or cruise () Social organization () Other wheremeet_P118 219 if "Internet" Through which online service did you first r 2 () MySpace 3 () Facebook 4 () CraigsList 5 () Adam4Adam 5 () Manhunt 6 () D-list 7 () FindFred 8 () Friendster 9 () Other, please specify: 20 onlineserviceP1 – P5 if the partnership type was not "anonymous"(\$2000) if the partnership type was not "anonymou</pre>	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 20 meet [%%	eservice P1N9	onlineservice P1
220	Did you and [%%454:cur_partner_nam %%] live to [%%432:month_5 %%])?			
				livetogethern1

livetogetherp1

1 Yes 0 No

livetogetherP1 – P5

if #213=yes, then phrasing 1 if #213=no, then phrasing 2 Disclosure of status

99

#### if had sex "more than once" above:

Did you and [%%454:cur\_partner\_nam %%] share both of your HIV statuses before you first had sex?

### if had sex "once" above:

Did you and [%%454:cur\_partner\_nam %%] share both of your HIV statuses before you had sex?



If participant and his partner discussed their HIV statuses and partner was positive or negative, this page is shown. Otherwise skipped to next page:

Serosorting intent

223

### if had sex "more than once" above:

statusimpP1

100

How important was the knowledge that [%%454:cur\_partner\_nam %%] was [partner's HIV status] in deciding to first have sex with [%%454:cur\_partner\_nam %%]?%%]?

## if had sex "once" above:

How important was the knowledge that [%%454:cur\_partner\_nam %%] was [partner's HIV status] in deciding to have sex with [%%454:cur\_partner\_nam %%]?

- 1 Not important at all
- 2 Slightly important
- 3 Moderately important
- 4 Very important
- 5 Extremely important

### statusimpP1 – P5

### 224 <u>Online involveMENt pilot only. Done for ONLY first partner:</u> if answers the above question:

We are trying to develop new questions to help understand the decisions that men make when choosing their sex partners.

Was this question clear to you? statisimpclearP1

- 1 Yes
- No, please explain and feel free to offer any suggestions: \_\_\_\_\_

statusimpclearP1

if #213=once, then #234 if #213=more than once, then #225 [If had sex "more than once", then the participant next completes the sections pertaining to dates of first and last sex]. [If had sex "once", then the participant is skipped to the "Ongoing relationship" section"].

Date of first sex: #1

76. When did you first have sex with [%%454:cur partner nam %%]?

You may enter just the month and year, but if you know the exact date, please enter that instead.

If you are unsure of when you first had sex, try to select a time that you think is close.

It is OK if you first had sex with [%%454:cur\_partner\_nam %%] longer than 6 months ago; we still would like to know when you first had sex.



(drop-down box with months. "don't know the month" is provided as option) firstsexmoP1 (drop-down box with years) "don't know the year" is provided as option) firstsexyrP1 [firstsexyrp1

OR

227 <u>MM/DD/YYYY</u> (calendar button) *firstsexdtP1* 

firstsexdtP1

[ERROR: The time you first had sex with [%%454:cur\_partner\_nam %%] cannot be in the future. Please correct the date.]

[ERROR: Please select either the month and year OR the date you first had sex with [%%454:cur\_partner\_nam %%]]

if don't know then #228,#229
\_\_\_\_\_

Date of first sex - unknown month or year: #1

\_\_\_\_\_



#### if year is selected as "don't know the year"

firstsexyearsP1

It's OK if you can't remember the exact year.

Can you remember about how many years ago you first had sex with [%%454:cur partner nam %%]?

- 1 Less than 1 year ago
- 2 1 – 2 years ago
- 2 5 years ago 3
- 5 10 years ago
- 4 more than 10 years ago
- 5

tirstsexyearsP1 - P5 (REQ)

29

if month is selected as "don't know the month" (but year is known)

It's OK if you can't remember the exact month.

Think back to the time in [Year of first sex] when you first had sex with [%%454:cur\_partner\_nam %%].

Perhaps you had sex around a special time of the year such as your birthday, or a holiday like July 4th or Halloween. Maybe you can remember that it was warm outside or it was after a trip you took.

firstsexmonthsP1

Based on what you can recall, try to select what time during [Year of first sex] you first had sex with [%%454:cur partner nam %%]:

1 January - March 2

April - June

- 3 July - September
- 4 October December
- (don't know when during the year) 9

[ERROR: The time during the year you indicated for when you first had sex with [%%454:cur\_partner\_nam %%] is in the future. Please correct this.]

firstsexmonthsP1 – P5 (REQ)

[ERROR: The date you gave for the last time you had sex with [%%454:cur\_partner\_nam %%] comes before the time you first had sex with [%%454:cur\_partner\_nam %%] . Please correct this date.]

[ERROR: The month you gave for the last time you had sex with [%%453:cur\_partner\_num %%] comes before when you first had sex with [%%453:cur partner num %%]. Please correct this.]

[ERROR: The time period you gave for the last time you had sex with [%%453:cur partner num %%] comes before when you first had sex with [%%453:cur partner num %%]. Please correct this.]

Completed only for non-one-time partners

-----

Date of last sex: #1

Month of last sex is captured from partnership calendar in a hidden variable.

Earlier, you indicated that you last had sex with [%% <i>calendar]</i> . Is this correct?	%454:cur_partner_nam %%] in the	month of [month of last sex from
1 Yes 0 No	lastsexmocorrectP1	if no then #234
lastsexmocorrectP1 – P5 (REQ)		
U NO if n	ast had sex with [%%454:cur_partr es then #232 to then #233	ner_nam %%]? lastsexknowdtP1
lastsexknowdtP1 – P5 (REQ)		
If 'Yes'Please enter the date:MM/DD/YYYYIastsexdtP1 – P5(REQ)	lastsexdtP1	
If 'No' That's OK. The information that you End of page. Participant clicks 'Nex		mely helpful.

That's OK. Please correct our records about when you last had sex with [%%454:cur\_partner\_nam %%] using the spaces below.

You may pick one of the last 6 months, but if you know the exact date, please enter that instead. If you are unsure of when you last had sex, try to select a time that you think might be close.

(drop-down box with the last 6 months. "don't know the month" is now not provided as option *lastsexmoP1 – P5* 

OR

same date field as above: <u>MM/DD/YYYY</u> (calendar button) lastsexdtP1 (one of the two fields is REQ)

[ERROR: The date you last had sex with [%%454:cur\_partner\_nam %%] cannot be in the future. Please correct the date.]

[ERROR: Please select either the month and year OR the date you last had sex with [%%454:cur\_partner\_nam %%]]

[ERROR: The date you gave for the last time you had sex with [%%454:cur\_partner\_nam %%] is more than 6 months ago (before [%%432:month\_5 %%]). Please correct the date.

#### if the partnership type was not "anonymous"

Ongoing Relationship: #1 ------

234 Do you think you will have sex with [%%454:cur\_partner\_nam %%] again?

- Yes 1
  - No
- 0 Not sure
- 9

ongoingp1

ongoingP1 – P5

if #93=mtf or ftm, then #235

If partner is either transgender type:

Transgender partner anatomy: #1

ľ

-----

You indicated that [%%454:cur\_partner\_nam %%] is transgender.

235 Does [	1	454:cur_partner_nam %%] have a penis′ Yes No Don't know	? haspenisP1
Ľ	ha	aspenisP1 – P5	
		(if #235=no) or (#93=mtf or ftm if #213=more than once, then # If #213=once, then #236	

## [If had sex "once, the participant is skipped to the "Group sex" page] [If had sex "more than once" and the partner is male or transgender & has a penis, then the participant completes this section].

Sex frequency - male partner, or transgender partner with penis: #1

Now we'd like to ask you a few questions your relationship with [%%454:cur\_partner\_nam %%] in the last six months (since the beginning of [%%432:month\_5 %%])

36 In the last six months, how many times have you had anal or oral sex with [%%454:cur\_partner\_nam %%]? [Pull-down menu of choices:]



- g Don't know
- AImpP1 P5

107 [If had sex "more than once" and the partner is female or is transgender and has no penis (or "don't know" to having a penis) , then the participant completes this section].

Sex frequency - female partner, or transgender partner without penis: #1

Now we'd like to ask you a few questions about your relationship with NAME in the last six months (since the beginning of [%%432:month\_5 %%])

<u>In the last six months</u>, how many times have you had vaginal or anal sex with [%%454:cur\_partner\_nam %%]? [Pull-down menu of choices:]





\_\_\_\_\_

Sexual agreements / negotiated safety: #1

-----

What is the most recent agreement you and [%%454:cur partner nam %%] have/had about sexual encounters outside of 246 your relationship? (Please choose only one.)

- Both of us cannot have any sex with an outside partner. 1
- We can have sex with outside partners, without any conditions or restrictions. 2

We can have sex with outside partners, but with some conditions or restrictions.

lagreementP1

3 We do not have an agreement. 4

agreementP1 – P5

r if #246=1 or 2, then #248 if #246=3 or 4, then #250

if had an agreement that permits outside partners (choices 2 and 3):

Does/did your agreement permit unprotected (i.e. without a condom) receptive (bottom) or insertive (top) anal sex 247 with outside partners?

1 Yes

agreementUAIP1

0 No

### agreementUAIP1 – P5

#### if had an agreement (first 3 choices):

How long were you in a relationship with [%%454:cur partner nam %%] before you made your most recent 248 agreement?

- 0-5 months 1
- 6-11 months 2
- 1-2 years 3
- agreementYearsP1
- 3-4 years
- 4 More than 4 years
- 5 Don't Know

9 reementYearsP1 - P5

249 Did you and [%%454:cur\_partner\_nam %%] explicitly or directly discuss your most recent agreement?

Yes 1 No 0

agreementdiscussP1

agreementDiscussP1 - P5

Sexual activity outside of this relationship: #1

-------

In the last 6 months, during the time when you were sexually involved with [%%454:cur\_partner\_nam %%], with how many other people did you have sex?

othersexparticipantP1

#### othersexparticipantP1-P5

In the last 6 months, during the time you were sexually involved with [%%454:cur\_partner\_nam %%], did [%%454;cur\_partner\_nam %%] have sex with anyone else?

1 Yes 0 No

othersexpartnerP1

9 Don't know

othersexpartnerP1-P5

\_\_\_\_\_

Group sex: #1

In the last 6 months (since *[current month - 6]*), did you and [%%454:cur\_partner\_nam %%] ever have sex with other people at the same time? (Threesome or group sex)

- 1 Yes 0 No groupsexP1
- 9 Don't know

groupsexP1 – P5



stdtrtP1 – P5



Last sex – sexual activities – male partner, or transgender partner with penis: #1

RAIIIsP1

#### [If had sex "once", then the phrase "The last time" is replaced with "When"]

The last time you had sex with [%%454:cur\_partner\_nam %%], did you have receptive anal sex? (This means that you were the bottom)

- 1 Yes
- 0 No
  - Don't know
- 9 IlsP1 P5

<u>If 've</u>s'

Did [%%454:cur\_partner\_nam %%] use a condom the last time you had receptive anal sex (when you were the bottom)?

- 1 [%%454:cur\_partner\_nam %%] did not use a condom 1
- 2 [%%454:cur\_partner\_nam %%] used a condom part of the time 2
- [%%454:cur\_partner\_nam %%] used a condom the whole time 3
- <sup>3</sup> [%%454:cur\_partner\_nam %%] used a condom, but it broke **4**
- 4 Don't know 9
- **9** AllscondomP1 P5

#### If "did not use a condom":

257 What was the <u>main</u> reason why a condom was not used the last time you had receptive anal sex with [%%454:cur partner nam %%]?

1 A condom wasn't available. 1

whynoRAllscondomP1

RAllscondomP1

- A condom was available, but I didn't want to use one. 2
  A condom was available, but [%%454:cur partner nam %%] didn't want to use one. 3
- 4 Other reason, please specify: 4 whynoRAllscondomP1N3 whynoRAllscondomP1 P5

The last time you had sex with [%%454:cur\_partner\_nam %%], did you have insertive anal sex? (This means that you were the top).

- 1 Yes
- IAlsp1
- 0 No Don't know

### <u>If 've</u>s'

259 Did you use a condom the last time you had insertive anal sex with [%%454:cur\_partner\_nam %%] (when you were the top)?

IAlscondomP1

- 1 I did not use a condom 1
- 2 I used a condom part of the time 2
- 3 I used a condom the whole time 3
- I used a condom, but it broke 4
- Don't know 9
- 9 IlscondomP1 P5

#### If "did not use a condom":



[If had sex "once", then the phrase "The last time" is replaced with "When"]
261       The last time you had sex with [%%454:cur_partner_nam %%], did you have vaginal sex?         1       Yes         0       No         9       Don't know         1sP1 - P5
If 'ves'         262       Did you use a condom the last time you had vaginal sex?         Choose one.       VIIscondomP1         1       I did not use a condom         2       I used a condom part of the time         1       used a condom the whole time         1       used a condom, but it broke         4       Don't Know         9       IscondomP1 - P5
<pre>// "did not use a condom":     What was the main reason why a condom was not used the last time you had anal sex with     [%%454:cur_partner_nam %%]?     A condom wasn't available. 1     A condom was available, but I didn't want to use one. 2     A condom was available, but [%%454:cur_partner_nam %%] didn't want to use one. 3     Other reason, please specify:4     whynoVlcondomP1N3</pre>
264       The last time you had sex with [%%454:cur_partner_nam %%], did you have anal sex?         1       Yes         0       No         9       Don't know         1sfpP1 - P5
<pre>//f 'ves' 265 Did you use a condom the last time you had anal sex with [%%454:cur_partner_nam %%]? Choose one. 1 I did not use a condom 2 I used a condom part of the time 3 I used a condom the whole time 1 used a condom, but it broke 4 Don't Know 9 IsfpcondomP1 – P5</pre>
I a condom was available, but I didn't want to use one. 2 A condom was available, but [%%454:cur_partner_nam %%]? A condom was available, but I didn't want to use one. 2 A condom was available, but [%%454:cur_partner_nam %%] didn't want to use one. 3 Other reason, <i>please specify</i> :4 AllsfpcondomP1N3

\_\_\_\_\_\_ Last sex – circumstances: #1 \_\_\_\_\_\_ [If had sex "once", then the phrase "The last time" is replaced with "When"] We'd next like to ask some questions about the situation in which you and [%%454:cur partner nam %%] last had sex. 267 Where were you and [%%454:cur\_partner\_nam %%] the last time you had sex? My home 1 1 [%%454:cur\_partner\_nam %%]'s home 2 locationIsP1 2 Bath house 3 3 Sex club 4 4 Sex resort 5 5 On vacation in a different city 6 Local hotel room 7 6 Circuit party or rave 8 7 Public restroom 9 8 Park 10 9 Car 11 10 Other, please specify \_\_\_\_\_ 20 locationIsP1N11 cationIsP1 - P5 11 20 268 The last time you had sex with [%%454:cur\_partner\_nam %%], were you buzzed on alcohol? Yes 1 alcohollsP1 No 0 Don't know 9 cohollsP1 - P5 <sup>69</sup>The last time you had sex with [%%454:cur\_partner\_nam %%], were you high on drugs? 1 Yes No drugslsP1 0 Don't know 9 rugslsP1 – P5 if #269=1, then #270 If 'yes': 270 You indicated that you were high on a drug. Please indicate which ones: Is meth noinject (Select all that apply) ls\_meth\_inject Amphetamine, meth, speed, crystal, crank, ice - not injected 1 Is downers 2 Amphetamine, meth, speed, crystal, crank, ice – injected 2 ls\_painkiller 3 Downers (Valium, Ativan, Xanax) 3 ls Isd 4 Pain killers (Oxycontin, Percocet) 4 ls x Hallucinogens such as LSD 5 ls\_clubdrugs 5 Ecstasy 6 ls weed 6 Club drugs such as GHB, ketmamine 7 ls\_poppers 7 Marijuana 8 Poppers (amyl nitrite) 9 ls\_crack\_noinject 8 Crack - not injected 10 ls crack inject 9 Crack – injected 11 ls\_coke\_smoke 10 Cocaine - smoked or snorted 12 ls coke inject 11 Cocaine - injected with no other drugs 13 ls\_heroin\_smoke Heroin, smoked or snorted but not injected 14 Heroin - injected with no other drugs 15 ls\_heroin\_inject <sup>13</sup>Heroin and cocaine - *injected together (speedballs)* **16** ls speedball ls\_otherdrug 14 15 Other drugs: 50 ls knowstatus whicha

50

[If had sex "once", then the participant skips this page, since the answers provided in "Disclosure of status" apply to last sex]

Last sex – HIV status knowledge: #1

The last time you had sex with [%%454:cur\_partner\_nam %%], did you know his/her HIV status? 1 Yes

HIVstatlsP1

0 No

9

Don't know

VstatknowlsP1 - P5

If yes:

272 What was [%%454:cur\_partner\_nam %%]'s HIV status at that time?

() HIV-negative () HIV-positive *HIVstatIsP1 – P5*  "HIV-negative" "HIV-positive"

HIVstatsourcelsP1

Last sex – HIV status knowledge source

\_\_\_\_\_

[273] How did you know that [%%454:cur\_partner\_nam %%]'s was [partner status] when you last had sex?

HIVstatsourcelsP1

1 I already knew [%%454:cur\_partner\_nam %%] was [partner status] from previous contact with

- 2 %454:cur\_partner\_nam %%] 1
- I asked and [%%454:cur\_partner\_nam %%] told me 2
- [%%454:cur\_partner\_nam %%] volunteered the information 3
- 4 I didn't ask, he didn't say, but I assumed [%%454:cur\_partner\_nam %%] was [partner status] 4

HIVstatsourcelsP1 – P5

#### [If the current partner is male, the two had UAI at last sex, then the participant completes this section]. [Otherwise the participant is skipped to the next section]

\_\_\_\_\_

Last sex - strategic positioning: #1

[If had sex "once", then the phrase "When you last had sex" is replaced with "When you had sex"]

274

#### if had unprotected receptive anal sex:

When you last had sex, how important was this knowledge in deciding to have receptive anal sex (be a bottom) with [%%454:cur\_partner\_nam %%]?

From what you've told us so far, when you last had sex with [%%454:cur partner nam %%], your HIV status was

- <sup>1</sup> Not important at all **1**
- stratposURA

[participant's HIV status] and [%%454:cur partner nam %%]'s HIV-status was [partner's HIV status].

- 2 Slightly important 2
- 3 Moderately important 3
- 4 Very important 4
- Extremely important 5
- 5 atposURAIlsP1 P5

#### if had unprotected insertive anal sex:

275

When you last had sex, how important was this knowledge in deciding to have insertive anal sex (be a top) with [%%454:cur\_partner\_nam %%]?

- 1 Not important at all 1
- 2 Slightly important 2
- 3 Moderately important 3
- Very important
- 4 Extremely important 5

4

5 *utposUIAIIsP1 - P5* 

stratposUIAIsP1

# Partner transition: #1 to #2

\_\_\_\_\_

Thank you for telling us about [%%403\_O0:Space for 10&nb %%].

Next, we'd like to ask you about [%%403\_O1:Space for 10&nb %%].

Click Next Page to continue.

### Partner 1 section replicated for partners 2-5, but excluded here for brevity.

Relationships among partners (transitivity)

\_\_\_\_\_

#### if 2 partner named:

Did [%%403\_00:Space for 10&nb %%] and [%%403\_01:Space for 10&nb %%] have sex with each other in the last 6 months, or do you think they probably have?



#### *if >2 partners named:*

[277] If you know that two of these partners had sex with each other in the last 6 months, or think they probably have, click the box that matches both partners' nicknames on the grid.

#### which\_partners

[partner #1 nickname] [partner #2 nickname] [partner #3 nickname] [partner #4 nickname]

[p #1]	[p #2]	[p #3]	<u>[p #4]</u>	<u>[p #5]</u>
	[]	[]	[]	[]
		[]	[]	[]
			[]	[]
				[]

278 Have you ever taken medication to prevent getting HIV?				
278 <sup>H</sup>	ave you ever taken medication to prevent ge	ting HIV?		
1	Yes	arvprevent_ever		
0	No			
9	Don't know			
<b>279</b> A	re you currently taking this medication to p	event getting HIV?		
1	Yes	arvprevent_current		
0	No			
9	Don't know			
279 w	hen did you first start taking this medicatio	to prevent getting HIV?		
Mon	th:			
	Please Select	arvprevent_month		
280	Year:			
	Please Select	arvprevent_year		
ļ				
281 w	'hen you take this medication, do you take i	every day?		
1	Yes	arvprevent_daily		
0	No			
9	Don't know			

Before you have sex	Check = 1 Unchecked = 0	arv_beforesex arv_aftersex
After you have sex		arv_beforeaftersex arv_other
Both before and after	you have sex	
Other times, <i>please s</i>	pecify:	

Which medication(s) are you currently taking to prevent getting HIV? *Please type the name(s) of the medication:* 

	<b>A</b>	meds_preventHIV
4	× F	

284 People sometimes take this medication to prevent HIV infection from some recent past exposure to HIV or from some future potential

exposure to HIV. Please tell us which reason(s) applies to why you are currently taking this medication:

Exposure in the recent past	Check = 1	whyarv_past whyarv_future
Potential exposure in the future	Unchecked = $0$	whyarv_both whyarv_other
Both		
Other, please specify:		

How did you get the medication you're currently taking to prevent getting HIV? *Select one response that applies the best:* 

Select	me response mui applies me besi.	
		arv_where
$\square$	By prescription from a doctor's office	
	A friend or relative	
	A partner you have sex with	
	Don't know	
C	Some other place, please specify:	

Final screen

Closing message for survey.

Instructions for telling staff that they have completed their Baseline survey.

```
libname my lib "H:\Thesis";
libname library "H:\Thesis"; * so datasets can find formats;
data my lib.my data;
                  my_lib.status
      merge
                  my lib.participants survey baseline;
      by study id;
      if (met behav crit = 1) & (double enroll = 0) then output;
run;
proc sort data=my_lib.my_data;
by study id;
run;
proc sort data=my lib.josh;
by study id;
run;
proc contents data=my lib.josh;
run;
data my lib.my data1;
merge my_lib.my_data
      my lib.josh;
      by study id;
run;
data temp;
      set my lib.my data1;
run;
*Creating new variables;
data temp1;
set temp;
*Making new unemployment variable;
      if paid nojob less12m=1 or paid nojob more12m=1 then unemp=1;
      else if paid nojob less12m=0 and paid nojob more12m=0 then
unemp=0;
*Making new education variable;
      if educ=1 or educ=2 then college=1;
      else if educ=9 then college=.;
      else college=0;
*Creating new arrest variable;
      if arrested ever=0 then arrested12m=0;
      if arrested p12m=1 then arrested12m=1;
      if arrested p12m=0 then arrested12m=0;
*Making any exchange sex p12m variable;
```

```
if male exchangep12m=1 or female exchangep12m=1 or mtf exchangep12m=1
or ftm exchangep12m=1 then exchsex=1;
else exchsex=0;
*Creating binary variable for at least one main male partner, p12m,
excluding those who didn't answer male howmanyp12m;
if male howmanyp12m ne . and male mainp12m ge 1 then do;
      main1=1;
end;
else if male howmanyp12m=. then main1=.;
else if male mainp12m=. or male mainp12m=0 then main1=0;
*Creating new variable for at least 1 UAI partner p12m;
if males uaip12m ge 1 or male uaip12m eq 1 then unprot=1;
else if males uaip12m=0 or male uaip12m=0 then unprot=0;
else if male AIp12m=0 then unprot=0;
*Creating probdrink variable, to assess how many CAGE vars are "yes";
if drink pl2m ne . then do;
probdrink=0;
end;
if drink p12m=0 then probdrink=0;
if drink p12m=1 and drink cut=1 then do;
probdrink=1;
end;
if drink p12m=1 and drink critic=1 then do;
probdrink=probdrink+1;
end;
if drink p12m=1 and drink guilt=1 then do;
probdrink=probdrink+1;
end;
if drink p12m=1 and drink morning=1 then do;
probdrink=probdrink+1;
end;
*Creating CAGE variable from probdrink variable;
*This is comparing problem drinkers to all non-problem drinkers (ppl
who drink but don't have a problem and ppl who don't drink);
if probdrink ge 2 then cage=1;
else if 0<=probdrink<2 then cage=0;</pre>
else if probdrink=. then cage=.;
*Combining Some HS with HS or GED;
if educ=4 then educ1=3;
else educ1=educ;
*Setting heterosexual=4, same as Other. Homo=2, Bi=3;
if orient=1 then orient1=4;
else orient1=orient;
*Creating variable for people who aren't full-time students, aren't
full-time or part-time employed, and are ill or disabled;
if paid fullstu=0 and paid fulltime=0 and paid parttime=0 and
paid nojob less12m=0 and paid nojob more12m=0 and paid ill=1 then
illdis=1;
```

```
else if paid fullstu=0 and paid fulltime=0 and paid parttime=0 and
paid nojob less12m=0 and paid nojob more12m=0 and paid disable=1 then
illdis=1;
else illdis=0;
*Creating variable, if full or pt employed;
if paid fulltime=1 or paid parttime=1 then empl1=1;
else if paid fulltime=0 and paid parttime=0 then empl1=0;
if paid fullstu=1 then paid2=1; *FT students;
else if paid fullstu=0 and unemp=1 and paid fulltime ne 1 and
paid parttime ne 1 then paid2=3; *Unemployed-said unemployed, said
weren't FT or PT employed;
else if paid fullstu=0 and unemp=0 and paid fulltime ne 1 and
paid parttime ne 1 and illdis=1 then paid2=.;
else if illdis ne 1 then paid2=2; *Employed-people who aren't FT
students, and didn't say unemployed (unless also said FT/PT employed);
*Setting dependent=. to one dependent, implausible set to missing;
if dependent=. then dependent1=1;
else dependent1=dependent;
if dependent1>100 then dependent1=.;
*Pov1 is using poverty guidelines;
if income=. or income=99 or dependent1=. then pov1=.;
else if dependent1=1 and income in (00,01) then pov1=1;
else if dependent1=2 and income in (00,01) then pov1=1;
else if dependent1=2.5 and income in (00,01,02) then pov1=1;
else if dependent1=3 and income in (00,01,02) then pov1=1;
else if dependent1=4 and income in (00,01,02,03) then pov1=1;
else if dependent1=5 and income in (00,01,02,03) then pov1=1;
else if dependent1=6 and income in (00,01,02,03) then pov1=1;
else pov1=0;
*Pov2 is using poverty thresholds;
if income=. or income=99 or dependent1=. then pov2=.;
else if dependent1=1 and income in (00,01) then pov2=1;
else if dependent1=2 and income in (00,01,02) then pov2=1;
else if dependent1=2.5 and income in (00,01,02) then pov2=1;
else if dependent1=3 and income in (00,01,02) then pov2=1;
else if dependent1=4 and income in (00,01,02,03) then pov2=1;
else if dependent1=5 and income in (00,01,02,03) then pov2=1;
else if dependent1=6 and income in (00,01,02,03,04) then pov2=1;
else pov2=0;
*Calculating crime per 1000;
if ~(crime10den in (-99999)) then do; * dont exclude 0;
crime per 1000 = ((crime10den * areaSQMI) / pop0a) * 1000;
end;
*Dummy variables for insurance and homeless;
if insurance=7 then insurance1=.;
else insurance1=insurance;
if homeless=9 then homeless1=.;
```

```
else homeless1=homeless;
*Combining insurance or homeless "don't know" with "no.";
if insurance=7 then insurance2=0;
else insurance2=insurance;
if homeless=9 then homeless2=0;
else homeless2=homeless;
 * drug usage;
                        * self-reported drug use;
if (noninjection = 1) | (inject = 1) then any drugs survey b = 1;
* 0 and 1 are flipped for injectio drug use!;
else if (noninjection = 0) & (inject = 0) then any drugs survey b = 0;
* answered NO to both questions;
if (noninjection = 1) then do;
     if (maryjane = 0) then report THC b = 0;
     else if (maryjane in (1,2,3,4,5,6,7)) then report THC b = 1;
     if (crack = 0) \& (cocaine = 0) then report coc b = 0;
     else if (crack in (1,2,3,4,5,6,7)) | (cocaine in (1,2,3,4,5,6,7))
then report coc b = 1;
     if (crystalmeth = 0) then report meth b = 0;
     else if (crystalmeth in (1,2,3,4,5,6,7)) then report meth b = 1;
    if (poppers = 0) then report poppers b = 0;
     else if (poppers in (1,2,3,4,5,6,7)) then report poppers b = 1;
     if (downers = 0) & (painkillers = 0) &
               (hallucinogen = 0) & (ecstacy = 0) & (specialk = 0) &
(ghb = 0) \& (heroin = 0) then report othernoninj b = 0;
    else if (downers in (1,2,3,4,5,6,7)) | (painkillers in
(1,2,3,4,5,6,7)) | (hallucinogen in (1,2,3,4,5,6,7)) | (ecstacy in
(1,2,3,4,5,6,7)) | (specialk in (1,2,3,4,5,6,7)) | (ghb in
(1,2,3,4,5,6,7)) | (heroin in (1,2,3,4,5,6,7)) then
report othernoninj b = 1;
      end;
      else if (noninjection = 0) then do;
         report THC b = 0;
         report COC b = 0;
         report meth b = 0;
         report poppers b = 0;
         report othernoninj b = 0;
                        end;
* drug testing;
*any pos drug screens;
if posdrug coc=1 | posdrug thc=1 | posdrug mamp=1 | posdrug opi=1 |
posdrug mdma=1 then posdrug any=1;
else if posdrug coc=. & posdrug thc=. & posdrug mamp=. & posdrug opi=.
& posdrug mdma=. then posdrug any=.;
else posdrug any=0;
```

```
* combined indicator of any drug use;
if (any drugs survey b = 1) | (posdrug any = 1) then
any drugs survey test = 1;
else if (any drugs survey b = 0) & (posdrug any = 0) then
any drugs survey test = 0;
* combined self-report and testing indicators for marijuana and
cocaine;
if (posdrug THC = 1) | (report THC b = 1) then any THC = 1;
else if (posdrug THC = 0) & (report THC b = 0) then any THC = 0;
if (posdrug COC = 1) | (report COC b = 1) then any COC = 1;
else if (posdrug COC = 0) & (report COC b = 0) then any COC = 0;
run;
*Creating formats for proc freqs;
proc format;
value aaa
0="2-No"
1="1-Yes"
.="Missing";
value bbb
4="1-Hetero/Other"
2="2-Gay"
3="1-Bi";
value ccc
1= "2-College"
2="1-Some college"
3="1-HS or Some HS"
4="1-Some HS"
5="1-Less than HS"
6="1-Never attended"
9="1-Don't know";
value ddd
0="2-Negative"
1="1-Positive"
2="1-Indeterminant"
3="1-Didn't get results"
4="1-Never tested";
value eee
1="2-Negative"
2="1-Positive";
value fff
1="1-FT Student"
2="2-Employed"
3="1-Unemployed";
run;
proc freq data=temp1;
      tables race inc*arrested ever;
run;
*Race and non-injection drugs;
```

```
proc freq data=temp1;
```

```
tables race inc*noninjection;
run;
proc freq data=temp1;
      tables race inc*college;
run;
*Race by orientation;
proc freq data=temp1;
      tables race_inc*orient;
run;
proc freq data=temp1;
      tables race inc*orient*arrested ever;
run;
*Unemployment by student status;
proc freq data=temp1;
      tables unemp*paid fullstu*paid partstu;
run;
*Race by homeless;
proc freq data=temp1;
      tables race inc*homeless;
run;
proc univariate data=temp1;
      var age1;
run;
proc freq data=temp1;
      tables race inc*age1/chisq;
run;
*Mean age;
proc univariate data=temp;
      var age baseline;
      where race inc=1;
run;
proc freq data=temp;
      tables race inc;
run;
proc freq data=temp;
      tables race_inc*orient/chisq;
run;
proc freq data=temp1;
      tables race inc*arrested p12m/chisq;
```

```
run;
```

```
proc freq data=temp1;
      tables arrested12m*race inc/chisq;
run;
*Making logit plots to see if age should remain continuous;
proc rank data=temp1 groups=8 out=ranks;
      var age baseline;
      ranks bin;
run;
proc means data=ranks noprint nway;
      class bin;
      var arrested12m age baseline;
      output out=bins sum(arrested12m)=arrested12m
      mean(age baseline) = age baseline;
run;
data bins;
      set bins;
      logit=log ((arrested12m +1)/( freq -arrested12m+1));
run;
proc gplot data=bins;
      plot logit*age baseline;
      symbol v=star i=none;
      title "Estimated Logit Plot of Age";
run;
*Checking education variable;
proc freq data=temp1;
      tables race inc*educ/chisq;
run;
*Checking employment variables;
proc freq data=temp1;
      tables race inc*paid work before/missing;
run;
proc freq data=temp1;
      tables race inc*nopay1/missing;
run;
proc freq data=temp1;
tables paid2/missing;
run;
proc freq data=temp1;
tables paid2*race inc/chisq;
run;
proc freq data=temp1 order=formatted;
```

```
tables paid2*arrested12m/cmh;
      where paid2 in (2,3);
      format arrested12m aaa. paid2 fff.;
run:
*Checking income variable;
proc freq data=temp1;
tables income;
where paid fullstu=1 or paid partstu=1;
run;
proc freq data=temp1;
tables pov2*arrested12m/missing;
run;
proc freq data=temp1 order=formatted;
      tables pov2*arrested12m/cmh;
      format arrested12m aaa. pov2 aaa. ;
run;
proc freq data=temp1;
tables dependent1/missing;
run;
proc freq data=temp1;
tables dependent*race_inc/missing;
run;
 proc freq data=temp1;
 tables year1;
 run;
proc freq data=temp1;
 tables income*race inc/missing chisq;
 run;
*Checking normality of the income variable;
proc univariate data=temp1;
 var income;
where race inc=1;
 run;
 proc univariate data=temp1;
 var income1;
where race inc=4;
 run;
*Checking sex of partners in p12m;
proc freq data=temp1;
tables sexp12m m*sexp12m f*sexp12m mtf*sexp12m ftm/list missing;
```

```
where race inc=1;
run;
*Checking # of partners, p12m;
proc freq data=temp1;
tables male howmanyp12m/list missing;
where race inc=4;
run;
*Checking logits of # of partners p12m;
proc rank data=temp1 groups=8 out=ranks;
      var male howmanyp12m;
      ranks bin;
run;
proc means data=ranks noprint nway;
      class bin;
      var arrested12m male howmanyp12m;
      output out=bins sum(arrested12m)=arrested12m
      mean(male howmanyp12m) = male howmanyp12m;
run;
data bins;
      set bins;
      logit=log ((arrested12m +1)/( freq -arrested12m+1));
run;
proc gplot data=bins;
      plot logit*male howmanyp12m;
      symbol v=star i=none;
      title "Estimated Logit Plot of Age";
run:
proc univariate data=temp1;
var male howmanyp12m;
run;
*Checking exchange sex variables;
proc freq data=temp1;
tables
male exchangep12m*female exchangep12m*mtf exchangep12m*ftm exchangep12m
/list missing;
where race inc=4;
run;
proc freq data=temp1;
tables exchsex*race_inc/chisq;
run;
*Main vs. casual male sex partners;
proc freq data=temp1;
tables male mainp12m*male casualp12m/list missing;
run;
```

```
*Checking binary variable for at least one main male partner, p12m,
excluding those who didn't answer male howmanyp12m;
proc freq data=temp1;
tables male howmanyp12m*male mainp12m*main1/list missing;
run;
proc freq data=temp1;
tables main1*race inc/list chisq;
run;
*Checking anal sex variables;
proc freq data=temp1;
tables male aip12m/list missing;
run;
proc freq data=temp1;
tables males uaip12m*male howmanyp12m*male aip12m/list missing;
run;
proc freq data=temp1;
tables male uaip12m/list missing;
run;
proc freq data=temp1;
tables unprot*race inc/list chisq;
run;
*Look at homeless variables;
proc freq data=temp1;
tables homeless*race inc/chisq;
where homeless in (0,1);
run;
proc freq data=temp1;
tables homeless now*race inc/chisq;
where homeless now in (0,1);
run;
*Looking at health insurance variable;
proc freq data=temp1;
tables insurance*race inc/ chisq;
where insurance in (0,1);
run;
*Looking at drinking variables;
proc freq data=temp1;
tables drink p12m/missing;
run;
proc freq data=temp1;
tables
drink p12m*drink cut*drink critic*drink guilt*drink morning*probdrink/l
ist missing;
run;
```

```
proc freq data=temp1;
tables probdrink/list missing;
run;
proc freq data=temp1;
tables probdrink*race inc/ chisq;
where probdrink in (0,1);
run;
*Looking at non-inj drug variable;
proc freq data=temp1;
tables noninjection*race inc/missing chisq;
where noninjection in (0,1);
run;
proc freq data=temp2;
tables noninjection*drugs/missing;
run;
proc freq data=temp2;
tables noninject other/missing;
run;
proc print data=temp2;
var noninject specify;
where noninject other=1;
run;
*Looking at injection drugs;
proc freq data=temp2;
tables inject*race inc/chisq;
where inject in (0,1);
run;
proc freq data=temp1;
tables educ/missing;
run;
proc freq data=temp1;
tables any drugs survey test*race inc/missing;
run;
*Checking bivariate relationships;
proc freq data=temp1 order=formatted;
      tables race inc*arrested12m/cmh;
      format arrested12m aaa.;
run;
proc freq data=temp1 order=formatted;
      tables orient1*arrested12m/cmh;
      where orient1 in (4,2) and race inc=4;
      format arrested12m aaa. orient1 bbb.;
run;
```

```
proc freq data=temp1 order=formatted;
      tables educ1*arrested12m/cmh;
      where educ1 in (1,2) and race inc=4;
      format arrested12m aaa. educ1 ccc. ;
run;
proc freq data=temp1 order=formatted;
      tables paid2*arrested12m/cmh;
      where paid2 in (1,2) and race inc=4;
      format arrested12m aaa. paid2 fff.;
run;
proc freq data=temp1 order=formatted;
      tables pov2*arrested12m/cmh;
      where race inc=4;
      format arrested12m aaa. pov2 aaa.;
run;
proc freq data=temp1 order=formatted;
      tables main1*arrested12m/cmh;
      where race inc=4;
      format arrested12m aaa. main1 aaa.;
run;
proc freq data=temp1 order=formatted;
      tables unprot*arrested12m/cmh;
      where race inc=4;
      format arrested12m aaa. unprot aaa.;
run;
proc logistic data=temp1 descending;
model arrested12m=male howmanyp12m;
where race inc=4;
run;
proc freq data=temp1 order=formatted;
      tables sexp12m f*arrested12m/cmh;
      where race inc=4;
      format arrested12m aaa. sexp12m_f aaa.;
run;
proc freq data=temp1 order=formatted;
      tables exchsex*arrested12m/cmh;
      where race inc=4;
      format arrested12m aaa. exchsex aaa.;
run;
proc freq data=temp1 order=formatted;
      tables homeless2*arrested12m/cmh;
      where race inc=4;
      format arrested12m aaa. homeless2 aaa.;
run;
proc freq data=temp1;
tables cage*probdrink*drink p12m/list missing;
run;
```

```
proc freq data=temp1 order=formatted;
      tables cage*arrested12m/cmh;
      where race inc=1;
      format arrested12m aaa. cage aaa.;
run;
proc freq data=temp1 order=formatted;
tables cage*race inc/cmh;
tables cage*arrested12m/cmh;
format cage aaa. arrested12m aaa.;
run;
proc freq data=temp1 order=formatted;
      tables probdrink*arrested12m/cmh;
      where probdrink in (0,1);
      format arrested12m aaa. probdrink aaa.;
run;
proc freq data=temp1 order=formatted;
      tables noninjection*arrested12m/cmh;
      where noninjection in (0,1);
      format arrested12m aaa. noninjection aaa.;
run;
proc freq data=temp1 order=formatted;
      tables inject*arrested12m/cmh;
      where inject in (0,1);
      format arrested12m aaa. inject aaa.;
run;
proc freq data=temp1 order=formatted;
      tables any drugs survey test*race inc/chisq;
      format any drugs survey test aaa.;
run;
proc freq data=temp1 order=formatted;
      tables any drugs survey test*arrested12m/cmh;
      format arrested12m aaa. any drugs survey test aaa.;
run;
proc freq data=temp1 order=formatted;
      tables insurance2*arrested12m/cmh;
      where race inc=4;
      format arrested12m aaa. insurance2 aaa.;
run:
proc freq data=temp1;
tables baseline hiv*race inc/chisq;
run;
proc freq data=temp1 order=formatted;
      tables baseline hiv*arrested12m/cmh;
      format arrested12m aaa. baseline hiv eee.;
      where race inc=4;
run;
```

```
proc freq data=temp1;
tables posdrug none*race inc/missing;
run;
title;
proc univariate data=temp1 plot normal;
var age baseline;
histogram/normal;
run;
proc univariate data=temp1 plot normal noprint;
var male howmanyp12m;
histogram male howmanyp12m /normal midpoints=1 to 10 by 2;
where male howmanyp12m le 100;
run;
proc freq data=temp1;
tables male howmanyp12m;
run;
   proc npar1way data=temp1 wilcoxon median
         plots=(wilcoxonboxplot medianplot);
      class race inc;
      var male howmanyp12m;
   run;
 proc freq data=temp1;
 tables unprot*race_inc/chisq;
 run;
    proc npar1way data=temp1 wilcoxon median
         plots=(wilcoxonboxplot medianplot);
      class arrested12m;
      var age baseline;
   run;
proc npar1way data=temp1 wilcoxon median
      plots=(wilcoxonboxplot medianplot);
      class arrested12m;
      var male howmanyp12m;
run;
proc npar1way data=temp1 wilcoxon median
      plots=(wilcoxonboxplot medianplot);
      class race inc;
      var male howmanyp12m;
run;
proc univariate data=temp1;
var male howmanyp12m;
class race inc;
run;
```

```
proc univariate data=temp1;
var age baseline;
class arrested12m;
run;
proc univariate data=temp1;
var male howmanyp12m;
class arrested12m;
run;
proc freq data=temp1 order=formatted;
tables educ1*arrested12m/cmh;
where educ1 in (1,3);
format arrested12m aaa. educ1 ccc.;
run;
proc freq data=temp1 order=formatted;
tables orient1*arrested12m/cmh;
where orient1 in (2,4);
format arrested12m aaa. orient1 bbb.;
run;
proc logistic data=temp1;
class race inc orient1 educ;
model arrested12m=race inc age baseline orient1 educ
male howmanyp12m/keep=1 selection=backward;
run;
       proc means data = temp1 n mean std maxdec=3 fw=6;
            class arrested12m;
            var pop_density;
            run;
proc univariate data=temp1 plot normal;
var alc10dens
crime10den
hinc0a
mf1864total
phs0a
pmmhhtotal
pnhblk10
pop density
ppov0a
punemp0a;
histogram/normal;
run;
      proc ttest data = temp1 ;
            class race inc;
            var ppov0a;
      run;
*Npar1way for non-normally distributed CT variables;
      proc npar1way data=temp1 wilcoxon median
```

```
plots=(wilcoxonboxplot medianplot);
      class arrested12m;
      var ppov0a
alc10dens
crime10den
hinc0a
mf1864total
phs0a
pmmhhtotal
pnhblk10
pop density
punemp0a;
   run;
         proc means data = temp1 n mean std maxdec=3 fw=6;
            class race inc;
            var ppov0a
                  hinc0a
                  phs0a
                  punemp0a
                  alc10dens
                  pnhblk10
                  pmmhhtotal
                  mf1864total
                  pop density;
                  crime per 1000;
      run;
*Run logits for all CT vars, replacing with variable of interest;
      var pop density;
      ranks bin;
run;
```

```
proc rank data=temp1 groups=8 out=ranks;
proc means data=ranks noprint nway;
      class bin;
      var arrested12m pop density;
      output out=bins sum(arrested12m)=arrested12m
      mean(pop_density)=pop_density;
run;
data bins;
      set bins;
      logit=log ((arrested12m +1)/( freq -arrested12m+1));
run;
proc gplot data=bins;
      plot logit*pop density;
      symbol v=star i=none;
      title "Estimated Logit Plot of % M-M Partner Household";
run;
```

```
proc univariate data=temp1;
```

```
var male howmanyp12m;
class arrested12m;
run;
proc logistic data=temp1 descending;
class orient1 (ref="2")/param=ref;
model arrested12m=orient1 ;
run;
proc logistic data=temp1 descending;
model arrested12m=age baseline ;
where race inc=4;
run;
proc logistic data=temp1 descending;
model arrested12m=sexp12m f ;
where sexpl2m f in (0,1);
run;
proc freq data=temp1;
tables insurance/missing;
run;
*Crude ORs for continuous vars, including CT vars;
proc logistic data=temp1 descending;
model arrested12m=pmmhhtotal ;
run;
*Interaction-race;
proc logistic data=temp1 descending;
class race inc orient1 educ1 paid2 insurance ;
model arrested12m=race inc age baseline unprot homeless2 phs0a
race inc | age baseline unprot homeless2 phs0a / include=5 slentry=0.05
selection=forwards;
run;
proc freq data=temp1;
tables homeless1*homeless/missing;
run;
proc freq data=temp1;
tables insurance1*insurance/missing;
run;
*Model with crime per 1000;
ODS RTF FILE='H:\Output1.RTF'style=htmlblue;
proc logistic data=temp1 descending;
class race inc orient1 educ1 paid2 ;
model arrested12m=race inc age baseline orient1 educ1 paid2 unprot
homeless2 exchsex insurance2 sexp12m f pov2 hinc0a phs0a crime per 1000
pnhblk10/ include=1 selection=backwards;
run;
```

```
ODS RTF CLOSE;
```

```
*Model without crime per 1000;
ODS RTF FILE='H:\Output1.RTF'style=htmlblue;
proc logistic data=temp1 descending;
class race inc orient1 educ1 paid2 ;
model arrested12m=race inc age baseline orient1 educ1 paid2 unprot
homeless2 exchsex insurance2 sexp12m f pov2 hinc0a phs0a phblk10/
include=1 selection=backward;
run;
ODS RTF CLOSE;
*Finding OR estimate for age at baseline, per 10yr unit change;
proc logistic data=temp1 descending;
class race inc orient1 educ1 paid2 ;
model arrested12m=race inc age baseline orient1 educ1 paid2 unprot
homeless2 exchsex insurance2 sexp12m f pov2 hinc0a phs0a phblk10/
clodds=wald include=1 selection=backward;
units age baseline=10;
run;
proc logistic data=temp1 descending;
model arrested12m=age baseline / clodds=wald;
units age baseline=10;
run;
proc univariate data=temp1;
var crime per 1000;
run;
proc freq data=temp1;
tables homeless*homeless1;
tables insurance*insurance1;
run:
*Interaction-all possible 2-way combinations;
proc logistic data=temp1 descending;
class race inc orient1 educ1 paid2 insurance ;
model arrested12m=race_inc age baseline unprot homeless1 insurance1
race inc | age baseline | unprot | homeless1 | insurance1 @2/
include=5 selection=forwards slentry=0.0125;
run;
proc freq data=temp1;
tables homeless*arrested12m/missing;
where homeless=9;
run:
 %include 'S:\course\Epi740\MACRO\COLLIN 2011.sas'; run;
```

**PROC LOGISTIC** data=temp1 descending covout outest=info;

```
model arrested12m=race inc age baseline orient1 educ1 paid2 unprot
homeless2 exchsex insurance2 sexpl2m f pov2 hinc0a phs0a crime per 1000
pnhblk10 / covb link=glogit;
run;
%collin (covdsn=info, output=covcheck); run;
  %include 'S:\course\Epi740\MACRO\COLLIN 2011.sas'; run;
PROC LOGISTIC data=temp1 descending covout outest=info;
      Model arrested12m=race inc age baseline unprot homeless2 phs0a/
covb link=glogit;
RUN;
 %collin (covdsn=info, output=covcheck); run;
            proc means data = temp1 n mean std median q1 q3 maxdec=3
fw=6;
                  class arrested12m;
                  var crime per 1000;
            run;
            proc ttest data = temp1;
                  class race inc;
                  var crime per 1000;
            run:
            proc univariate data=temp1 plot normal;
var crime per 1000;
histogram/normal;
run;
            proc npar1way data = temp1 wilcoxon;
                  class arrested12m;
                  var crime_per_1000;
            run;
      * HIV prevalence;
            * cenyn = -9 means suppressed count. missing = not in ATL
MSA!;
            proc freq data = temp1;
                  tables race inc * cenyn / nopercent nocol missing;
            run;
            proc means data = temp1 n mean std median q1 q3 maxdec=3
fw=6;
                  where cenyn in (0, 1);
                  class arrested12m ;
                  var cenrate ;
            run;
            proc ttest data = temp1;
                  where cenyn in (0, 1);
                  class race inc ;
                  var cenrate ;
            run;
proc univariate data=temp1 plot normal;
```

var cenrate;

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```
proc freq data=temp1;
tables
arrested12m*race_inc*age_baseline*orient1*educ1*paid2*unprot*homeless*e
xchsex*insurance*sexp12m_f*pov2/list ;
run;
```