OMB Attachment B2: Justifications for Sensitive Questions in the Self-Administered (ACASI) part of the Survey

ALPHABETICAL LIST OF ACRONYMS

ACASI	Audio Computer-Assisted Self Interviewing (also Audio CASI)
CDC	Centers for Disease Control and Prevention, DHHS
DHAP	Division of HIV/AIDS Prevention (of CDC/NCHHSTP)
DHHS	Department of Health and Human Services
DSTDP	Division of STD Prevention (of CDC/NCHHSTP)
NCHHSTP	National Center for HIV/AIDS, Viral Hepatitis, STD, and Tuberculosis
	Prevention
NCHS	National Center for Health Statistics (of CDC)
NICHD	Eunice Kennedy Shriver National Institute of Child Health and Human
	Development (of National Institutes of Health, DHHS
STD or STI	Sexually Transmitted Disease(s) or Infection(s)

OVERVIEW

This attachment provides detailed information about why topics are included in the NSFG ACASI questionnaire, and explains how the data are used. Most of these topics have been covered in previous cycles of the NSFG, and this attachment gives particular attention to the justification for questions that are new or refined for the ACASI questionnaire in the 2011-2015 NSFG. For further information on the uses and rationale for data collected in the interviewer-administered portion of the NSFG, please see:

- Section 2 in PART A of the main text ("Purpose and Use of Information Collection")
- Authorizing legislation (attachments A1-A8)
- Lists of publications from the 2002 and 2006-2010 NSFG (attachment D1 & D2)
- Memoranda of support from other government offices (attachment E)

The questionnaire to be fielded for interviewing beginning in September 2011 is largely the same as the one fielded in 2006-2010. Following some background on the NSFG and brief outlines of the female and male surveys, the remainder of this attachment discusses topics in the ACASI section of the questionnaires (female J and male K), emphasizing their program and policy uses.

Background of the NSFG

Since its inception in 1973, the mission of the National Survey of Family Growth (NSFG) has been to collect information on pregnancy, childbearing and maternal and reproductive health. In 1973-1995 (Cycles 1-5), the survey interviewed only females, and its focus was primarily on factors related to birth and pregnancy rates, including marriage, divorce, contraception, and infertility. Beginning with the 2002 NSFG ("Cycle 6"), data were also

collected from males to help provide more complete information related to public health concerns about sexually transmitted diseases (STDs), including HIV.

The most sensitive questionnaire content is collected using Audio Computerized selfadministered interviewing (ACASI) (Female Section J and Male Section K). ACASI affords respondents greater privacy when answering the questions, and the audio component helps respondents of lower literacy participate in the survey. Respondents in the 2002 and 2006-2010 NSFG's have generally liked ACASI -- in part because it gave them control over the interview. ACASI has been found to improve the reporting of sensitive, private, or potentially stigmatizing behaviors such as abortions, substance use, HIV/STD risk behaviors, and same-sex sexual activity (Fu et al., 1998; Hamilton et al., 2010; Turner et al. 1998).

The ACASI data are made available in separate public use data files from the main public use data files. Researchers wishing to use the ACASI data describe their proposed use of the data and sign a User Agreement stating that they will uphold NCHS standards for protecting the confidentiality of NSFG respondents. The NCHS reports already prepared based on the ACASI data from the 2002 and 2006-2008 NSFG (Anderson et al., 2005, 2006; Chandra et al., 2011; Mosher et al., 2005), as well as the range of analyses by other researchers thus far with the NSFG ACASI data, provide a strong demonstration of the value and usefulness of the ACASI data. For example, several researchers are using the ACASI information on substance use, STD experience, and HIV risk behaviors to study infertility among African-American women. Others are using the data to examine contraceptive method choice. The questions on sexual activity other than vaginal intercourse are being used to understand better the risks faced by all persons 15-44 for HIV and other STD.

Brief Outline of the Female Questionnaire

Section A:	Background and demographic information, foster care experience
Section B:	Pregnancy history; care of nonbiological children, including adoption
Section C:	Marital and relationship history; first sexual intercourse; recent sexual nartners
Section D:	Sterilizing operations and impaired fecundity
Section E:	Contraceptive history, intendedness of pregnancies
Section F:	Family planning and medical services
Section G:	Desires and intentions for future children
Section H:	Infertility services and reproductive health; disability status; cancer experience; HIV testing, HPV vaccine
Section I:	More background including access to health care, more demographic information, & attitude questions
Section J:	General health status measures; pregnancy reporting; substance use;
	STD/HIV-risk behaviors; nonvoluntary intercourse; same-sex sexual
	experience; sexual identity; income

Brief Outline of the Male Questionnaire

Section A:	Background and demographic information, foster care experience (same as female A)
Section B:	Sex education, vasectomy & infertility, sexual intercourse, enumeration and relationship with up to 3 recent (or last) sexual partners
Section C:	Current wife or cohabiting partner: key dates of marriage, cohabitation, and sex with her; contraception with her; biological and nonbiological children
Section D:	Recent (or last) sexual partner(s) (up to three in last year): similar
	information collected as in Section C; 1 st sexual partner ever
Section E:	Former wives and first cohabiting partner: similar information collected as in Section C, except for contraception
Section F:	Other biological and nonbiological children he has had; other pregnancies that did not end in live birth
Section G:	Fathering: Activities with R's children – using 1 focal child he lives with and 1 focal child he doesn't live with
Section H:	Desires and intentions for future children
Section I:	Access to health care, receipt of health services; disability status; cancer experience; HIV testing
Section J:	More background, more demographic information, & attitude questions
Section K:	General health status measures; pregnancies fathered; substance use; STD/HIV-risk behaviors; nonvoluntary intercourse; same-sex sexual experience; sexual identity; income

JUSTIFICATION OF THE NSFG AUDIO CASI QUESTIONS, BY TOPIC

For the most part, the same questions are asked in ACASI for both male and female respondents, and these are described first. Then we provide justification for the questions asked only for males or only for females.

Height and Weight

All respondents are asked in ACASI for their height and weight, which can be used to define body mass index (BMI). While these data were only available on the 2002 ACASI files, the NCHS Disclosure Review Board approved the inclusion of a collapsed version of height, weight, and BMI as part of the main 2006-2010 public use files that were released in October 2011. The User's Guide for 2006-2010 explains the definition of BMI and why it is defined only for adult men and non-pregnant adult women. Several studies have been published with 2002 NSFG data to document the prevalence of overweight and obesity among women of childbearing age (Vahratian, 2009), as well as the association of BMI with oral contraceptive failure, unintended pregnancy, sexual behavior, and family planning practices (Boehmer et al., 2007; Brunner & Hogue, 2005; Brunner-Huber & Toth, 2007; Kaneshiro et al., 2008a,b; Vahratian, 2009; Eisenberg, 2010). Further analyses are in progress with the 2006-2008 ACASI

data. The 2006-2010 ACASI data will be released in the first half of 2012.

School Suspension and Expulsion

The 2011-2015 NSFG includes two questions on school suspension and expulsion asked of males and females 15-24 years of age. These questions were previously deleted from the 2002 NSFG ACASI due to interview length. Suspension or expulsion from school is an adverse experience that may indicate academic and social problems. It is a measure appropriate for young people who have not finished school. It is well-documented that school performance and educational attainment have important effects on a host of outcomes measured by the NSFG: the effectiveness of contraceptive use, the timing of first sexual intercourse, age at the first birth, the occurrence of unwanted pregnancies, the use of reproductive health services, and risk of contracting STIs (Bankole et al., 1999; Brown et al., 2003; Ford et al., 2005; Santelli et al., 2000). However, since adolescents and some young adults have not yet completed schooling, "amount of education attained" is not meaningful for them in the way it is for older persons. Suspension or expulsion may be accompanied by lifestyles that include risk-taking and substance use among individuals in need of greater intervention.

Alcohol and Other Substance Use

The focus of the series on substance use is frequency of use within the last 12 months, as this has been shown to be most closely correlated with other risk behaviors and adverse outcomes. All respondents 15-44 years of age are asked about alcohol, including questions on binge drinking. For the 2011-2015 NSFG, our questions have been made more comparable to the Behavioral Risk Factor Surveillance System (BRFSS), including items focused on drinking during the past 30 days, to allow better measurement of the female population potentially at risk of an alcohol-exposed pregnancy.

All respondents are then asked about use of marijuana, cocaine, crack, crystal meth (methamphetamines), and illegal injected drugs. Studies with the NSFG as well as other data sources have illustrated associations between use of alcohol and other substances and behavioral risk for STDs including HIV (Adimora et al., 2011; Anderson et al., 2005, 2006; Fryer et al., 2007; vanGelder et al., 2011).

Age of Sexual Partner at First Vaginal Intercourse, for minor respondents

Sexual intercourse between minors and non-minors is of interest to the research and public policy community because of well-documented associations with negative outcomes for the younger female or male (Ryan et al, 2008; Manlove et al., 2006). In addition, the Department of Justice and other data consumers are concerned with the prevalence of, and circumstances surrounding statutory rape (with the exact ages and age differences varying from state to state). The age of the first partner (females only), as well as the ages of any current

sexual partners (males and females), is asked in the ACASI portion of the interview for minor respondents (those aged 15-17 years) in order to address concerns about the potential reportability of these age differences.

Nonvoluntary Sexual Intercourse

In addition to knowing when sexual intercourse is initiated, it is important to understand the circumstances surrounding the initiation of sexual intercourse. Starting in 1995, the NSFG has included questions to assess whether first intercourse was nonvoluntary and/or unwanted. An analogous series was included in the male questionnaire when males began to be interviewed in 2002. Thus this time series has allowed monitoring of the prevalence of nonvoluntary or unwanted first intercourse for females and unwanted first intercourse for males. These series have shown that a nontrivial proportion of first sexual experiences are non-voluntary or unwanted. For example, 11% of females and 5% of males aged 18-24 reported their first intercourse was unwanted, according to data from the 2002-2010 NSFG (Martinez et al., 2011). For females, it remains strongly related to young age at first sex (Martinez et al, 2011; Abma et al., 1998, 2004), and older age of the male partner (Manlove et al., 2006; Moore et al. 1989). Nonvoluntary sexual intercourse increases the risk of adolescent pregnancy and the acquisition of STIs, including HIV (Kirby, 2005; Boyer & Fine, 1992; Stockman et al., 2010). Women who have experienced nonvoluntary intercourse are also at greater risk of marital dissolution (Bramlett & Mosher, 2002) and unintended first birth (Williams et al., 2009).

A related measure, which augments the information on first intercourse, is whether the respondent has <u>ever</u> been forced to have sexual intercourse by a member of the opposite sex (females and males) or a member of the same sex (males). Given its high prevalence (Child Trends, 2008), it remains important to monitor this basic history of forced intercourse, and to document its associations with subsequent adverse outcomes.

Experts were consulted to help develop these series for the 1995 NSFG and again to make improvements for the 2002 NSFG. In addition to asking whether the first intercourse was voluntary or not (females only), to what degree it was wanted (males and females), and whether the respondent has ever been forced to have intercourse, the series asks for the age at the first forced intercourse and includes items asking about the type of force used, if any. The sensitive nature of these series warrants their placement in ACASI. Preceding the fieldwork for the 2002 NSFG, the NSFG staff obtained legal advice from the CDC Office of General Counsel about these series. To avoid any concerns about the reporting of these events to state authorities, the General Counsel recommended that we limit all of the questions on nonvoluntary sexual intercourse to respondents 18 years and older, and we have done so ever since.

Sexually Transmitted Disease (STDs)

STDs affect almost 12 million Americans each year, 86 percent of whom are aged 15 through 29. About one-fifth of all young people, by the time they reach 21, have needed treatment for an STD. In addition to increasing the risk of HIV infection and AIDS, the most serious complications of STDs are PID, sterility or impaired fecundity, ectopic pregnancy, blindness, and cancer associated with human papilloma virus (e.g., cervical cancer). STDs are also related to fetal and infant death, birth defects, blindness, and mental retardation in babies born to infected mothers. For new cases of STDs occurring among 15-24 year olds alone in 2000, the total estimated burden was \$6.5 billion (Chesson et al., 2004); the total for all age groups was probably about double that figure. The health and economic consequences of STDs continue to be a major concern (Eng & Butler, 1997).

At the request of CDC's STD Division and NICHD, questions were included in the 1988 and 1995 NSFG on whether the woman had ever been told by a doctor that she had gonorrhea, Chlamydia, genital herpes, or syphilis. These items have been further refined since then and included in the ACASI section for males and females. Despite the probable under-reporting of STDs in self-reported surveys, these infections have been found to be significantly associated with a number of important variables measured in the NSFG, including:

- Pelvic inflammatory disease (PID) and infertility (Andersen et al., 2005; Aral et al., 1991;
 Cates et al., 1990, 1994; Hillis et al., 1997; Petersen et al., 1991);
- Health screening (Hewitt et al., 2002; Wilcox & Mosher, 1993);
- Testing for HIV and STD (Anderson et al., 2005; Mosher et al., 2005; Jeffries, 2010; Nearns et al, 2009); and,
- HIV/STD risk behaviors (Anderson et al., 2006; CDC, 2011; Chandra et al., 2011; Miller et al., 1999; Mosher et al., 2005)

These uses have convinced NCHS and the cosponsors that questions on STDs should be continued in the NSFG. These questions are asked in ACASI to enhance privacy for the respondents. In keeping with the focus in ACASI on behaviors within a recent period, these questions on STDs are generally limited to the last 12 months. Due to the chronic nature of certain STDs, respondents are asked about genital herpes, genital warts, and syphilis over their lifetimes. A question on testing for Chlamydia in the past year was added in 2007 in order to track progress towards a national health objective that all sexually active women be tested annually for this often-asymptomatic infection, which is linked to reproductive health problems, including PID and infertility (Tao et al., 2007).

STD/HIV Risk-related Behavior

DHHS programs, including the co-sponsors of the NSFG, need timely information on the number and characteristics of people who are potentially exposed to the risk of HIV infection because of their sexual behavior or drug use (Anderson et al., 2006; Chandra et al., 2011, 2012; Mosher et al., 2005; The White House Office of National AIDS Policy, 2010). Data for HIV/AIDS cases (in 37 states with confidential name-based reporting) in 2008 suggest that 54% of HIV cases diagnosed in 2008 were transmitted by same-sex sexual contact among males, and

another 32% by heterosexual sexual contact. Therefore, approximately 86% of HIV cases were acquired through sexual behavior (CDC, 2010).

HIV Testing and Risk-related Behavior: In the NSFG since 1988, questions on specific sexual and drug-related behaviors that affect the risk of contracting HIV were asked at the request of the NICHD and the CDC's Divisions of STD and HIV Prevention. (Questions on HIV testing were included for the first time in the 1990 Telephone Reinterview, and retained in the main interviewer-administered portion of the survey since 1995.) These data on HIV testing in relation to HIV risk behavior have been published in several reports (Abma et al., 1997; Anderson et al., 1996, 2000, 2005, 2006; Chandra et al, 2011; Chandra et al., 2005; Leichliter & Aral, 2009; Mosher et al., 2005; Mosher & Pratt, 1993; Wilson, 1993). The series of questions on HIV testing have been expanded for the 2011-2015 NSFG. These changes include new questions on the main reason for never having had an HIV test, as well as a question on the reasons for not obtaining the test result if the respondent reported not receiving the test result once they were tested. These questions were added to reflect evolving data needs of the CDC, NCHS, and NICHD, and to improve the precision and usefulness of the behavioral risk data.

Oral and Anal Sex: Previous research, with the NSFG and other data sources (Anderson et al., 2006; Baggaley et al., 2008; Leichliter et al. 2007; Lindberg et al, 2008; Mosher et al., 2005), indicates that sexual activity other than vaginal intercourse is an important component of risk for STI, including HIV, among heterosexuals. Since the 2002 NSFG, the survey has included questions in ACASI to monitor the prevalence of oral and anal sex with opposite-sex partners. The relatively high prevalence of these behaviors and their association with STI acquisition suggest that it is important to know not just lifetime prevalence but recent experience.

Given the variability of STI-preventive behaviors (such as condom use) in connection with different sexual behaviors and with different partners, the NSFG, upon request of our funding partners at CDC's Division of HIV-AIDS Prevention (DHAP) and Division of Sexually Transmitted Disease Prevention (DSTDP), has added separate questions in ACASI to ask the number of opposite-sex partners in the last 12 months, by type of sexual contact - specifically, the numbers with whom the respondent has engaged in vaginal, oral, or anal sex in the last 12 months. In addition, the survey now also includes 2 follow-up questions asked only of those respondents how reported having a non-monogamous, opposite-sex sexual partner in the last 12 months. Each respondent who answered yes to this question about non-monogamous partners was first asked how many non-monogamous partners they had within the past 12 months, and then, to the best of their knowledge, how many other sexual partners their partners had around the same time as they were having sex with the respondent. These data further strengthen the NSFG's ability to obtain a more current measure of HIV and STI risk in the general population, as well as the risk of acquisition and spread of STI due to one's partners' sexual behaviors (Adimora et al., 2007, 2011; Aral & Leichliter, 2010; Darroch et al., 1999; Finer et al., 1999; Leichliter et al., 2010).

Educational campaigns in recent years have encouraged teenagers to delay sexual activity, and some concern has been raised that teenagers may be responding to this message by engaging in oral or anal sex, which they may view as a means of retaining their virginity and preventing pregnancy. NSFG data have been used to examine these issues (Brewster & Tillman,

2008; Child Trends, 2005; Halpern-Felsher et al., 2005; Mosher et al., 2005; Remez, 2000; Sanders & Reinisch, 1999; Schuster et al., 1996). Certain diseases can be transmitted through oral sex, however, including gonorrhea, Chlamydia, chancroid, syphilis, and herpes (ACOG, 2008; Cherpes, 2005; Edwards & Carne, 1998; Hawkins, 2001), and some groups may also be at elevated risk of HIV transmission through oral sex, including men who have sex with men and certain drug users (Brewer et al., 2007; Freeman et al., 2011; Rothenberg et al., 1998; Xu et al., 2010).

While questions on oral and anal sex were included since the 2002 NSFG, it was not possible from those questions to determine to what extent oral sex may occur before the young person has ever had vaginal intercourse. Therefore in 2007, a question was added for all persons 15-24 years of age who have had both vaginal intercourse and oral sex to determine which occurred first. This information helps gauge potential exposure to STIs prior to first sexual intercourse and exposure to the risk of pregnancy.

Sexual Attraction and Sexual Identity/Orientation

Questions on sexual attraction and sexual identity or sexual orientation are placed near the end of the ACASI section of the questionnaire, after all questions are asked about specific sexual behaviors. Previous research by Laumann, Michael, and others (1994; see also Bauer & Jairam, 2008; Bauer et al., 2010; Chandra et al., 2011; Gates, 2010; Jeffries, 2011; Mosher et al, 2005; Turner et al., 2005) suggests that sexual orientation, attraction, and behavior are correlated but not perfectly correlated dimensions, and that it is valuable in surveys to collect all three to get accurate measures of sexual behavior and their related risk groups.

Thus, these questions on sexual attraction and identity are asked, in conjunction with sexual behavior, for several reasons:

- First, to provide national estimates of populations (15-44 years of age) that are at increased risk of STI (including HIV) (Chandra, 2011; Anderson et al., 2006).
- Second, they are asked as a correlate or explanatory factor for the sexual behavior data collected in the rest of the questionnaire (Institute of Medicine, 2011; Jeffries, 2007, 2009, 2011; Jeffries & Dodge, 2007; Tao, 2008).
- Third, they are asked to provide data that will help to assess the adequacy of HIV testing, STI testing, health insurance coverage, and other factors (Anderson et al., 2005; Chandra et al., 2005; Martinez et al., 2006; Mosher et al, 2005, AD 362, tables 18-22). For example, a number of Healthy People 2020 objectives have been specified for groups based on sexual orientation, and these measures could also respond to some of those data needs.

Detailed reports on sexual behavior, sexual orientation/identity, and sexual attraction, based on the 2002 and 2006-2008 NSFG were published by NCHS (Mosher et al, 2005; Chandra et al., 2011). Based on our own study of the sexual orientation data from 2002 and 2006-2008, and some research in the NCHS Questionnaire Design Research Laboratory, the response choices for the sexual identity question have been revised to offer the following response categories:

"Heterosexual or straight", "Homosexual, gay or lesbian" (for men, "homosexual or gay"), or "Bisexual."

Income

Income (expressed as a percentage of the poverty level) is one of the most important socio-economic characteristics collected in the NSFG. It is critical to all co-sponsors of the NSFG, as well as from a policy and program point of view, to be able to classify respondents by their household income level because it relates to a number of behaviors and outcomes measured in the survey. For example, income has been used as a socio-demographic indicator to examine these topics: contraceptive choice (Mosher and Jones, 2010); men's use of reproductive health care services (Chabot et al., 2011); HIV and other STI risk, testing, and treatment (Anderson et al., 2005; Chandra et al., 2012; Ford, 2011); patterns of marriage and cohabitation (Bramlett & Mosher, 2002; Goodwin et al., 2010); and fertility and family formation (Chandra et al., 2005; Martinez et al., 2006) as well as others. Because of the sensitive nature of the income questions, they were moved into ACASI in the 2002 NSFG and remained there for the 2006-2010 NSFG. Moving the income questions to ACASI in 2002 reduced the level of missing data among female respondents by one-third, indicating greater respondent comfort with this mode. While the questions are asked in ACASI, the income items were included as part of the main 2006-2010 public use files.

Questions on the respondent's own earnings (to complement information on family income) are included, as had been done in most previous cycles. These questions on earnings and income were adapted from the Current Population Survey's series of questions on income and public assistance. Updates have been made in consultation with the National Health Interview Survey to maintain comparability between the NSFG and the NHIS.

ACASI Questions Asked Only for Females

Pregnancy Reporting: Under-reporting of abortion has long been a challenge facing fertility surveys such as the NSFG (Fu et al., 1998; Jagannathan, 2001; Jones & Forrest, 1992; Jones & Kost, 2007). In addition, women may be reluctant to report to an interviewer that she placed a child for adoption.

The 2011-2015 NSFG continues the approach taken in the 2006-2010 NSFG. We include a series of questions that ask about the respondent's number of pregnancies in a recent period (last 5 years), by each type of pregnancy outcome:

- live birth
- spontaneous pregnancy loss (miscarriage, stillbirth, ectopic pregnancy)
- induced abortion

The series is designed to give each respondent an opportunity, in a non-punitive and private manner, to report other pregnancies she may not have reported to the interviewer.

The choice of a recent timeframe for these questions is intended to a) minimize recall errors, and b) facilitate comparison with annual benchmark data on births and abortions. Lessons learned from earlier cycles of the NSFG, as well as advice from key users of these data, have been incorporated with the expectation of improving reporting of abortions in particular.

Cigarette Smoking: Tobacco use has been the leading preventable cause of premature death in the United States, accounting for over 400,000 deaths each year (CDC, 2005). Smoking is a risk factor for infertility, PID, cervical cancer, and other health problems (Chollat-Traquet, 1992), particularly when combined with use of hormonal birth control (Hatcher et al., 2007. Smoking in pregnancy significantly increases the likelihood of low birthweight, miscarriage, and pregnancy complications. In the context of adolescence, tobacco is also considered a "gateway" drug to use of potentially more dangerous, more addictive and illegal substances (U.S. DHHS, 1994).

NSFG data have been used for the Healthy People 2000 and 2010 Objectives on smoking among reproductive age women, teen women, oral contraceptive users, and currently pregnant women. Questions on cigarette smoking are asked in the context of a series on substance use in the ACASI, including a question on age at first cigarette smoking. Questions about cigarette smoking *during pregnancy* are in Section B's pregnancy history, and, as in the 2002 and 2006-2010 surveys, these will be asked in the 2011-2015 NSFG for all recent pregnancies (i.e., those within the last 5 years). Data from the 2002 survey on these topics have been published in several reports (Chandra et al., 2005; Gillum & Sullins, 2008; Page et al., 2009).

Sexual Activity with Same-Sex (Female) Partners: While there is less direct risk of STI associated with same-sex activity among women, the NSFG does include questions on sexual activity between female partners. Analyses of 2002 and 2006-2008 NSFG data show that same-sex activity among women is correlated with having multiple male partners (Chandra et al., 2011; Mosher et al., 2005). Questions on same-sex activity are asked in order to better characterize same-sex exclusivity as well as experience with male partners, which may impact overall risk of disease and unintended pregnancy. Women are asked whether they have given or received oral sex with a female partner, or engaged in any other sexual activity with a female partner are asked their age when this first occurred, as well as the approximate age and race/ethnicity of their first female partner.

ACASI Questions Asked Only for Males

Pregnancy and Abortion: Male respondents are re-asked in ACASI about the total number of pregnancies they have fathered, including those that ended in induced abortion. Each respondent younger than 25 years is also asked if he was ever told that he made a female pregnant and what happened the last time that occurred.

Significant Events: Male respondents are asked in ACASI about 2 key life events that may greatly change a person's social network or environment or may constitute a stressful life event that affects attitudes or behaviors:

- being homeless in the last 12 months
- spending time in jail, prison, or detention center (in last 12 months and in lifetime)

Homelessness and incarceration are important in the context of the NSFG because these behaviors may be accompanied by lifestyles that include risk-taking and substance use among individuals in need of greater intervention. Also, these questions, along with questions on military service from the main interviewer-administered portion of the survey, will help to provide a rough estimate of the percentage of men who may be missed in a household-based sample of males aged 15-44. In the 2006-2010 NSFG sample, 2% of men reported being homeless in the past 12 months, and 27% of men reported spending time in a jail, prison, or detention center at some point in their lives.

Sexual Activity, Nonvoluntary Sexual Intercourse, and STD/HIV Risk Behaviors with Males (same-sex partners): Because of the greater disease risk associated with male-male sexual behavior, and because exclusive male-male sexual activity may influence fertility rates and heterosexual family formation patterns, men are asked in ACASI about same-sex sexual experience in greater detail than are women. Similar to the series about sex with females, men are asked whether they have engaged in oral or anal sex with another male, and whether they used a condom the last time they had oral or anal sex with a male. These questions were asked separately for insertive and receptive anal sex due to differences the associated disease risk.

Also similar to the series about sex with females, men are asked whether they had ever experienced nonvoluntary sexual activity with a male and whether various types of force, if any, were used. As for the female same-sex question series, all men who reported any sexual activity with a male partner are asked their age when this first occurred, as well as the approximate age and race/ethnicity of their first male partner.

For men reporting any same-sex activity within the last 12 months, several additional questions have been added at DSTDP request in order to better characterize the HIV/STD risk status of this subgroup of the population. Questions are asked about non-monogamous recent sexual relationships; using the internet to find sexual partners; choosing sexual partners based on HIV status; whether medical care providers asks about sexual orientation/behavior, number of sexual partners, condom use or sexual behavior; recent rectal douching; pharyngeal or rectal STD testing in the past year. Several reports have been published on male same-sex sexual activity and related behaviors and health experiences based on the 2002 and 2006-2008 NSFG data (Adimora et al., 2007; Chandra et al., 2011; Jeffries, 2007, 2009, 2010, 2011; Jeffries & Dodge, 2007, McCabe et al., 2011).

REFERENCES

Abma J, Chandra A, Mosher W, Peterson L, Piccinino L. 1997. Fertility, Family Planning, and Women's Health: New Data from the 1995 National Survey of Family Growth. Vital and Health Statistics 23(19). Hyattsville, MD: National Center for Health Statistics.

Abma J, Driscoll A, Moore K. 1998. Differing Degrees of Control over First Intercourse and Young Women's First Partners: Data from the 1995 National Survey of Family Growth. <u>Family</u> <u>Planning Perspectives</u> 30(1):12-18.

Abma J, Martinez G, Mosher W, Dawson B. 2004. Teenagers in the United States: Sexual Activity, Contraceptive Use, and Childbearing, 2002. Vital and Health Statistics 23(24). Hyattsville, MD: National Center for Health Statistics.

Adimora AA, Schoenbach VJ, Doherty IA. 2007. Concurrent sexual partnerships among men in the United States. <u>American Journal of Public Health</u> 97(12):2230-2237.

Adimora AA, Schoenbach VJ, Taylor EM, Khan MR, Schwartz MJ. 2011. Concurrent Partnerships, Nonmonogamous Partners, and Substance Use Among Women in the United States. <u>American Journal of Public Health</u> 101 (1): 128-136.

American College of Obstetrics & Gynecology, 2008. Press release "ACOG directs attention to health risks of noncoital sexual activity."

http://www.acog.org/from_home/publications/press_releases/nr09-01-08-2.cfm (accessed 10/3/08).

Andersen BA, Ostergaard L, Puho E, MV Skriver & HC Schonheyder. 2005. Ectopic Pregnancies and Reproductive Capacity after Chlamydia Trachomatis Positive and Negative Test Results: A Historical Follow-Up Study. <u>Sexually Transmitted Diseases</u> 32(6):377-381.

Anderson JE, Brackbill R, Mosher W. 1996. Condom Use for Disease Prevention among Unmarried U.S. Women. <u>Family Planning Perspectives</u> 28(1):25-28.

Anderson JE, Carey JW, Taveras S. 2000. HIV Testing among the General US Population and Persons at Increased Risk: Information from National Surveys, 1987-1996. <u>American Journal of Public Health</u> 90(7):1089-1095.

Anderson JE, Chandra A, Mosher WD. 2005. HIV Testing in the United States, 2002. <u>Advance Data</u> No. 363. Hyattsville, MD: National Center for Health Statistics.

Anderson JE, Mosher WD, Chandra A. 2006. Measuring HIV Risk in the US Population aged 15-44: Results of the 2002 NSFG. <u>Advance Data</u> No. 377. Hyattsville, MD: National Center for Health Statistics.

Anderson JE, Sansom S. 2006. HIV Testing Among U.S. Women During Prenatal Care: Findings from

the 2002 National Survey of Family Growth. <u>Maternal and Child Health Journal</u> 10(5):413-417.

Aral SO, Leichliter JS. 2010. Non-monogamy: risk factor for STI transmission and acquisition and determinant of STI spread in populations. <u>Sexually Transmitted Infections</u> 86(3):29-36.

Aral S, Mosher W, Cates W Jr. 1991. Self-reported Pelvic Inflammatory Disease in the United States, 1988. Journal of the American Medical Association 266(18):2570-2573.

Baggaley RF, White RG, Boily MC. 2008. Systematic review of orogenital HIV-1 transmission probabilities. International Journal of Epidemiology. 37(6):1255–65.

Bauer GR, Jairam JA. 2008. Are lesbians really women who have sex with women (WSW)? Methodological concerns in measuring sexual orientation in health research. <u>Women and Health</u> 48(4):383-408.

Bauer GR, Jairam JA, Baidoobonso SM. 2010. Sexual Health, Risk Behaviors, and Substance Use in Heterosexual-Identified Women with Female Sex Partners: 2002 US National Survey of Family Growth. <u>Sex Transm Dis</u> 37(9):531-537.

Boehmer U, Bowen DJ, Bauer GR. 2007. Overweight and Obesity in Sexual-Minority Women: Evidence from Population-Based Data. <u>American Journal of Public Health.</u> 97(6): 1-7.

Boyer D, Fine D. 1992. Sexual Abuse as a Factor in Adolescent Pregnancy and Child Maltreatment. <u>Family Planning Perspectives</u> 24:4-11, 19.

Bramlett MD, Mosher WD. 2002. Cohabitation, Marriage, Divorce, and Remarriage in the United States. Vital and Health Statistics, 23(22). Hyattsville, MD: National Center for Health Statistics.

Bankole A, Darroch JE, Singh S. 1999. Determinants of Trends in Condom Use in the United States, 1988-1995. <u>Family Planning Perspectives</u> 31(6):264-271.

Brewer, T. H., Zhao, W., Metsch, L. R., Coltes, A., & Zenilman, J. High-risk behaviors in women who use crack: Knowledge of HIV serostatus and risk behavior. <u>Annals of Epidemiology</u>. 17: 533–539. 2007.

Brewster KL, Tillman KH. 2008. Who's Doing It? Patterns and Predictors of Youths' Oral Sexual Experiences. Journal of Adolescent Health 42(1): 73-80.

Brown JW, Villarruel AM, Oakley D, Eribes C. 2003. Exploring Contraceptive Pill Taking Among Hispanic Women in the United States. <u>Health Education and Behavior</u> 30(6):663-682.

Brunner LR, Hogue CJ. 2005. The role of body weight in oral contraceptive failure: results from the 1995 national survey of family growth. <u>Annals of Epidemiology</u> 15(7):492-9, Jan 2005.

Brunner-Huber LR, Toth JL. 2007. Obesity and Oral Contraceptive Failure: Findings from the 2002 National Survey of Family Growth. <u>American Journal of Epidemiology</u> 166(11):1306-1311.

Cates W Jr, Rolfs RT Jr, Aral SO. 1990. Sexually Transmitted Diseases, Pelvic Inflammatory Disease, and Infertility: An Epidemiologic Update. <u>Epidemiologic Reviews</u> 12:199-220.

Cates W Jr, Wasserheit JN, Marchbanks PA. 1994. Pelvic Inflammatory Disease and Tubal Infertility: The Preventable Conditions. <u>Annals of the NY Academy of Sciences</u> 709:179-95.

Centers for Disease Control and Prevention. 2011. Characteristics associated with HIV infection among heterosexuals in urban areas with high AIDS prevalence – 24 Cities, United States, 2006-2007. <u>MMWR</u>. 60(31):1045-1049.

Centers for Disease Control and Prevention. HIV surveillance report, 2008. 2010. vol 20.

Centers for Disease Control and Prevention. 2005. Annual smoking-attributable mortality, years of potential life lost, and productivity losses - United States, 1997-2001. <u>MMWR</u> 2005; 54(25):625-8.

Chabot MJ, Lewis C, de Bocanegra HT, Darney P. 2011. Correlates of Receiving Reproductive Health Care Services Among U.S. Men Aged 15 to 44 Years. <u>American Journal of Men's Health</u> 5(4):358-366.

Chandra A, Billioux VG, Copen CE, Sionean C. HIV Risk-related Behaviors in the United States Household Population aged 15-44: Data from the National Survey of Family Growth, 2002 and 2006-2010. National Health Statistics Report, forthcoming from National Center for Health Statistics. Forthcoming in 2012.

Chandra A, GM Martinez, WD Mosher, JC Abma & J Jones. 2005. Fertility, Family Planning, and Reproductive Health of U.S. Women: Data from the 2002 National Survey of Family Growth. Vital and Health Statistics 23(25). Hyattsville, MD: National Center for Health Statistics.

Chandra A, Mosher WD, Copen CE, Sionean C. 2011. Sexual Behavior, Sexual Attraction, and Sexual Identity in the United States: Data from the 2006-2008 National Survey of Family Growth. National Health Statistics Report. No. 36. Hyattsville, MD: National Center for Health Statistics.

Cherpes TL, Meyn LA, Hillier SL. 2005. Cunnilingus and vaginal intercourse are risk factors for herpes simplex virus type 1 acquisition in women. <u>Sexually Transmitted Diseases</u>. 32(2):84–9.

Chesson HW, Blandford JM, Gift TL, Tao G. Irwin KL. 2004. The Estimated Direct Medical Cost of Sexually Transmitted Diseases among American Youth, 2000. <u>Perspectives on Sexual and Reproductive Health</u> 36(1):11-19.

Child Trends, Inc. 2005. New Data on Oral Sex Among Teens. Child Trends DataBank Indicator. Child Trends, Inc., Washington, DC.

Child Trends, Inc. 2008. E-Newsletter: Nearly One in Five Young Women Have Experienced Forced Intercourse. (research conducted by Child Trends for Know More initiative that examines the reproductive health consequences of sexual coercion and violence). Sep 2008. <u>http://www.childtrends.org/_docdisp_page.cfm?LID=C3C22FC4-C67A-49BB-</u> <u>AB6D3670DAFD48B3</u>

Chollat-Traquet C. 1992. <u>Women and Tobacco</u>. Geneva: World Health Organization.

Darroch, D Landry D, Oslak S. 1999. Sexual Partnership Patterns as a Behavioral Risk Factor for Sexually Transmitted Diseases. <u>Family Planning Perspectives</u> 31(5):228-236.

Edwards S, Carne C. 1998. Oral Sex and the Transmission of Non-viral STIs. <u>Sexually</u> <u>Transmitted Infections</u> 74:95-100.

Eisenberg ML, Shindel AW, Smith JF, Breyer BN, Lipshultz LI. 2010. Socioeconomic, Anthropomorphic, and Demographic Predictors of Adult Sexual Activity in the United States: Data from the National Survey of Family Growth. <u>Journal of Sexual Medicine</u> 7(1):50-8.

Eng TR & WT Butler, eds. 1997. The Hidden Epidemic: Confronting Sexually Transmitted Diseases. Washington, DC: Institute of Medicine and National Academy Press.

Finer L, JE Darroch & S Singh. 1999. Sexual Partnership Patterns as a Behavioral Risk Factor for Sexually Transmitted Diseases. Family Planning Perspectives 31(5):228-236.

Ford C, Pence BW, Miller WC, Resnick MD, Bearinger LH, Pettingell S, Cohen M. 2005. Predicting Adolescents' Longitudinal Risk for Sexually Transmitted Infection: Results from the National Longitudinal Study of Adolescent Health. <u>Archives of Pediatrics and Adolescent Medicine</u>. 159(July).

Ford JL. 2011. Racial and Ethnic Disparities in Human Papillomavirus Awareness and Vaccination among Young Adult Women. <u>Public Health Nursing</u> 28(6):485-93.

Freeman P, Walker BC, Harris DR, Garofalo R, Willard N et al. Methamphetamine use and risk for HIV among young men who have sex with men in 8 US cities. <u>Archives of Pediatric and</u> <u>Adolescent Medicine</u>. 165(8):736-740. 2011.

Fryer CD, Hirsch R, Porter KS et al. 2007. Drug use and sexual behaviors reported by adults: United States, 1999–2002. <u>Advance Data</u>, No. 384. Hyattsville, MD: National Center for Health Statistics.

Fu H, Darroch JE, Henshaw SK, Kolb E. 1998. Measuring the Extent of Abortion Underreporting in the 1995 NSFG. <u>Family Planning Perspectives</u> 30(3):128-33, 8.

Gates GJ. Sexual minorities in the 2008 General Social Survey: Coming out and demographic characteristics. The Williams Institute. 2010.

Gillum RF, Sullins DP. 2008. Cigarette smoking during pregnancy: Independent associations with religious participation. <u>Southern Medical Journal</u> 101(7):686-692.

Goodwin PY, Mosher WD, Chandra A. 2010. Marriage and cohabitation in the United States: A statistical portrait based on Cycle 6 (2002) of the National Survey of Family Growth. National Center for Health Statistics. Vital Health Stat 23(28).

Halpern-Felsher BL, Cornell JL, Kropp KY,Tschann JM. 2005. Oral versus Vaginal Sex among Adolescents: Perceptions, Attitudes, and Behavior. <u>Pediatrics</u> 115:845-851.

Hamilton DT, Morris M. 2010. Consistency of self-reported sexual behavior in surveys. <u>Archives</u> of Sexual Behavior. 39(4):842-60.

Hatcher RA, Trussell J, Nelson AL, Cates W Jr, Stewart FH, Kowal D. 2007. <u>Contraceptive</u> <u>Technology</u>. 19th revised ed. New York, NY: Ardent Media, Inc.

Hawkins DA. 2001. Oral Sex and HIV Transmission. <u>Sexually Transmitted Infections</u> 77:307-308.

Hewitt M, Devesa S, Breen N. 2002. Papanicolaou Test Use Among Reproductive-Age Women at High Risk for Cervical Cancer: Analyses of the 1995 National Survey of Family Growth. <u>American</u> <u>Journal of Public Health</u> 92(4):666-669.

Hillis SD, Owens LM, Marchbanks PA, Amsterdam LF, MacKenzie WR. 1997. Recurrent Chlamydial Infections Increase the Risks of Hospitalization for Ectopic Pregnancy and Pelvic Inflammatory Disease. <u>American Journal of Obstetrics and Gynecology</u> 176 (1 Pt 1):103-7.

Institute of Medicine. 2011. The health of lesbian, gay, bisexual and transgender people: Building a better understanding. The National Academies Press. Washington , D.C.

Jagannathan R. 2001. Relying on Surveys to Understand Abortion Behavior: Some Cautionary Evidence. <u>American Journal of Public Health</u> 91(11):1825-1831.

Jeffries WL. 2009. Sociodemographic, sexual and HIV and other sexually transmitted disease risk profiles of nonhomosexual-identified men who have sex with men. <u>American Journal of Public Health</u> 99(6):1042-1045.

Jeffries WL. 2010. HIV Testing Among Bisexual Men in the United States. AIDS <u>Education and</u> <u>Prevention</u> 22(4):356-70.

Jeffries WL. 2011. The Number of Recent Sex Partners Among Bisexual Men in the United States. <u>Perspect Sex Reprod Health</u> 43(3):151-7.

Jeffries WL, Dodge B. 2007. Male Bisexuality and Condom Use at Last Encounter: Results from a National Survey. Journal of Sex Research 44(3): 278-289, Aug 2007.

Jeffries WL 4th. 2007. A comparative analysis of homosexual behaviors, sex role preferences, and anal sex proclivities in Latino and non-Latino men. <u>Archives of Sexual Behavior</u> 2007 Oct 30 Epub.

Jones E, Forrest JD. 1992. Underreporting of Abortion in Surveys of U.S. Women: 1976 to 1988. <u>Demography</u> 29(1):113-126.

Jones RK, Kost K. 2007. Underreporting of Induced and Spontaneous Abortion in the United States: An Analysis of the 2002 National Survey of Family Growth. <u>Studies in Family Planning</u> 38(3): 187-197.

Kaneshiro B, Edelman A, Carlson N, Nichols M, Jensen J. 2008a. The relationship between body mass index and unintended pregnancy: Results from the 2002 National Survey of Family Growth. <u>Contraception</u> 77:234-238.

Kaneshiro B, Jensen JT, Carlson NE, Harvey SM, Nichols MD, Edelman AB. 2008b. Body mass index and sexual behavior. <u>Obstetrics and Gynecology</u> 112(3): 586-592.

Kirby D, G Lepore & J Ryan. 2005. Sexual risk and protective factors: Factors affecting teen sexual behavior, pregnancy, childbearing, and sexually transmitted disease—Which are important? Which can you change? Washington, DC: The National Campaign to Prevent Teen Pregnancy.

Laumann EO, Gagnon JH, Michael RT, and Michaels S. 1994. <u>The Social Organization Sexuality:</u> <u>Sexual Practices in the United States</u>. Chicago: University of Chicago Press.

Leichliter J, Aral S. 2009. Black women in the United States decrease their number of recent sex partners: temporal trends from the national survey of family growth. <u>Sexually transmitted</u> <u>diseases</u> 36(1):1-3.

Leichliter JS, Chandra A, Liddon N, Fenton KA, Aral SO. 2007. Prevalence and Correlates of Heterosexual Anal and Oral Sex in Adolescents and Adults in the United States. <u>Journal of Infectious Diseases</u> 196 (15 December): 1852-1859.

Leichliter JS, Chesson HW, Sternberg M, Aral SO. 2010. The concentration of sexual behaviours in the USA: a closer examination of subpopulations. <u>Sex Transm Infect</u> 86(3):45-51.

Lindberg LD, Jones R, Santelli JS. 2008. Noncoital sexual activities among adolescents. <u>Journal of Adolescent Health</u>, 43(3): 231-238.

Manlove J, Terry-Humen E, Ikramullah E. 2006. Young Teenagers and Older Sexual Partners: Correlates and Consequences for Males and Females. <u>Perspectives on Sexual and Reproductive</u> <u>Health</u> 38(4):197-207.

Martinez GM, Chandra, A, Abma JC, Jones J, Mosher WD. 2006. Fertility, Contraception, and Fatherhood: Data on Men and Women from the 2002 National Survey of Family Growth. <u>Vital and Health Statistics</u>, 23(26). Hyattsville, MD: National Center for Health Statistics.

Martinez GM, Copen CE, Abma JC. 2011. Teenagers in the United States: Sexual Activity, Contraceptive Use, and Childbearing, 2006-2010 National Survey of Family Growth. Vital and Health Statistics, 23(31).

McCabe J, Brewster KL, Tillman KH. 2011. Patterns and Correlates of Same-Sex Sexual Activity among U.S. Teenagers and Young Adults. <u>Perspect Sex Reprod Health</u> 43(3):142-50.

McNally J, Mosher W. 1991. AIDS-Related Knowledge and Behavior among Women 15-44 Years of Age: United States, 1988. <u>Advance Data</u> No. 200. Hyattsville, MD: National Center for Health Statistics.

Miller HG, Cain VS, Rogers DM, Gribble JN, Turner CF. 1999. Correlates of Sexually Transmitted Bacterial Infections among US Women in 1995. <u>Family Planning Perspectives</u> 31(5):228-236.

Moore KA, Nord C, Peterson J. 1989. Nonvoluntary sexual activity among adolescents. <u>Family</u> <u>Planning Perspectives</u>, 21(3): 110-114.

Mosher W, Chandra A, Jones J. 2005. Sexual Behavior and Selected Health Measures: Men and Women 15-44 Years of Age, United States, 2002. <u>Advance Data</u>, No. 362. Hyattsville, MD: National Center for Health Statistics.

Mosher WD, Jones J. 2010. Use of contraception in the United States: 1982–2008. National Center for Health Statistics. Vital Health Stat 23(29).

Mosher WD, Pratt WF. 1993. AIDS-related Behavior among Women 15-44 Years of Age: United States, 1988 and 1990. <u>Advance Data No. 239</u>. Hyattsville, MD: National Center for Health Statistics.

Nearns J, Baldwin JA, Clayton H. 2009. Social, behavioral, and health care factors associated with recent testing among sexually active non-Hispanic black women in the United States. <u>Women's Health Issues</u> 19(1):52-60.

Page R, Ellison C, Lee J. 2009. Does religiosity affect health risk behaviors in pregnant and postpartum women? <u>Maternal and Child Health Journal</u> 13(5):621-32.

Petersen H, Walker CK, Kahn JG, Washington AE, Eschenbach DA, Faro S. 1991. Pelvic Inflammatory Disease: Key Treatment Issues and Options. <u>Journal of the American Medical</u> <u>Association</u> 266(18):2605-11.

Remez L. 2000. Oral Sex Among Adolescents: Is it Sex or is it Abstinence? <u>Family Planning</u> <u>Perspectives</u> 32(6):298-304.

Rothenberg RB, Scarlett M, del Rio C, Reznik D, O'Daniels C. 1998. Oral Transmission of HIV. <u>Acquired Immune Deficiency Syndromes</u> 12:2095-2105.

Ryan S, Franzetta K, Manlove J, Schelar E. 2008. Older Sexual Partners During Adolescence: Links to Reproductive Health Outcomes in Young Adulthood. <u>Perspectives on Sexual and</u> <u>Reproductive Health</u> 40(1):17-26.

Sanders SA, Reinisch JM. 1999. Would You say You 'Had Sex' if...? <u>Journal of the American</u> <u>Medical Association</u> 281:275-277.

Santelli J, Lindberg LD, Finer LB, Singh S. 2000. The Association of Sexual Behaviors with Socioeconomic Status, Family Structure, and Race/Ethnicity among U.S. Adolescents. <u>American</u> <u>Journal of Public Health</u> 90(10):1582-1588.

Schuster MA, RM Bell & DE Kanouse. 1996. The Sexual Practices of Adolescent Virgins: Genital Sexual Activities of High School Students Who Have Never Had Vaginal Intercourse. <u>American</u> <u>Journal of Public Health</u> 86(11):1570-1576.

Stockman JJ, Campbell JC, Celentano DD. 2010. Sexual violence and STD risk behaviors among a nationally representative sample of heterosexual American women: The importance of sexual coercion. Journal of Acquired Immune Deficiency Syndromes 53(1):136-143.

Tao G. 2008. Sexual Orientation and Related Viral Sexually Transmitted Disease Rates among US Women Aged 15 to 44 Years. <u>American Journal of Public Health</u> 98 (6): 1007-1009

Tao G, Tian LH, Peterman TA. 2007. Estimating Chlamydia Screening Rates by Using Reported Sexually Transmitted Disease Test for Sexually Active Women aged 16 to 25 Years in the United States. <u>Sexually Transmitted Diseases</u> 34(3): 180-2.

The White House Office of National AIDS Policy. 2010. National HIV/AIDS Strategy for the United States. Washington, DC: White House, July 13 2010.

Turner C, Ku L, Rogers S, Lindberg L, Pleck JH, Sonenstein FL. 1998. Adolescent Sexual Behavior, Drug Use and Violence: New Survey Technology Detects Elevated Prevalence among U.S. Males. <u>Science</u> 280:867-73.

Turner CF, Villarroel M, Chromy J et al. 2005. Same-Gender Sex among US Adults: Trends across the 20th Century and During the 1990s. <u>Public Opinion Quarterly</u>, 69(3):439-62.

U.S. Department of Health and Human Services. 1994. Preventing Tobacco Use among Young People: A Report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Vahratian A. 2009. Prevalence of overweight and obesity among women of childbearing age: results from the 2002 National Survey of Family Growth. <u>Maternal and Child Health Journal</u> 13(2):268-73.

van Gelder MMHJ, Reefhuis J, Herron AM, Williams ML, Roeleveld N. 2011. Reproductive Health Characteristics of Marijuana snd Cocaine Users: Results from the 2002 National Survey of Family Growth. <u>Perspectives on Sexual and Reproductive Health</u> 43(3):164-72.

Williams CM, Brett KM, Abma JC. 2009. Coercive first intercourse and unintended first births. <u>Violence Victims</u> 24(3):351-63.

Wilson JB. 1993. Human Immunodeficiency Virus Antibody Testing in Women 15-44 Years of Age: U.S., 1990. <u>Advance Data</u>, No. 238. Hyattsville, MD: National Center for Health Statistics.

Xu F, Sternberg MR, Markowitz LE. 2010. Men who have sex with men in the United States: Demographic and behavioral characteristics and prevalence of HIV and HSV-2 infection: Results from National Health and Nutrition Examination Survey, 2001–2006. <u>Sexually Transmitted</u> <u>Diseases</u>. 37(6):399–405.