

# Sexual Orientation Questions in the National Survey on Drug Use and Health (NSDUH)

Grace E. O'Neill, Rachel Lipari, and David Dean, Jr.,  
Substance Abuse and Mental Health Services Administration  
1 Choke Cherry Road, Rockville, MD 20857

## Abstract:

The U.S. Department of Health and Human Services (HHS) intends to add sexual orientation questions to all HHS-funded surveys, where deemed appropriate, as they are redesigned. As part of the testing for the 2015 redesign of the National Survey on Drug Use and Health (NSDUH), two questions were added to the 2013 NSDUH Dress Rehearsal, one question collected information on sexual attraction and another on sexual identity. The inclusion of these items in the field test provides a limited opportunity to assess their impact on trends prior to adding them to the 2015 NSDUH. In this paper we discuss research conducted to identify which questions best fit the data needs of NSDUH, including initial placement and administration, the results of the NSDUH Dress Rehearsal, and the plans for placement of sexual orientation questions in future iterations of the survey.

**Key words:** Sexual attraction questions, sexual identity questions, NSDUH, behavioral health

## Introduction

Understanding how health disparities affect different facets of society has long been a goal of the public health community. To address this goal the U.S. Department of Health and Human Services (HHS) lead Healthy People 2020 initiative to provide science-based, 10 year national objectives for improving the health of all Americans and a model for outcome measurement. One of the Healthy People 2020 objectives is to increase the number of population-based data systems that include a core measure of lesbian, gay, bisexual, and transgender identity in the United States population. Sexual orientation is not a new social construct, however many federally-funded surveys are only beginning to measure this population on their data collections

It is important to expand the federal data collections on the lesbian, gay, bisexual, and transgender population not only as societal attitudes change and the need for this information increases, but also because sexual orientation is an important health predictor. A specific focus on this population is warranted because LGBT individuals are at greater risk for behavioral health issues, including mental health and substance use, than the majority population (McCabe, 2009). Nationally representative federal surveys typically have large sample sizes which would allow for comparisons of the LGBT populations to the non-LGBT population. At this time, there are only two large scale federal health surveys that collect information on the lesbian, gay, and bisexual population, the National Survey of Family Growth (NSFG) and the National Health Interview Survey. The addition of LGB items to the National Survey on Drug Use and Health (NSDUH) would provide the first nationally-representative, federally-collected information on the behavioral health of LGB and non-LGB adults.

The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The NSDUH collects information on the behavioral health of the civilian, noninstitutionalized population in the United States. It is the primary source of information on the use of illicit drugs, alcohol, and tobacco and it also includes measures of the mental health of respondents. Questions that ascertain substance use and mental health disorders are based on the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM IV) criteria. In 2015, the NSDUH will include two sexual orientation questions, one on sexual attraction and one on sexual identity, on the survey for all adults, age 18 and older.

### **NSDUH Survey Design**

The NSDUH is an annual nationally representative U.S. household survey that has been conducted by the Federal Government since 1971. Each year the NSDUH samples about 70,000 persons each year and employs a State-based design with an independent, multistage area probability sample within each State and the District of Columbia. In all States and the District of Columbia, the design oversampled youths and young adults; each State's sample was approximately equally distributed among three age groups: 12 to 17 years, 18 to 25 years, and 26 years or older. The survey collects data in-person, using Computer Assisted Personal Interview (CAPI) and Audio Computer-Assisted Self Interviewing (ACASI). On average the interview takes about 1 hour, and a \$30 incentive payment is given to each respondent upon completion of the interview. All survey procedures for the annual NSDUH fielding and for the 2013 NSDUH dress rehearsal were approved by RTI International's Committee for the Protection of Human subjects and the Office of Management Budget (OMB).

### **Measuring the lesbian, gay and bisexual population**

In 2013, the Ford foundation funded the Sexual Minority Assessment Research Team (SMART) to increase the quality and quantity of data on gay, lesbian, and bisexual people. This team of multidisciplinary experts worked directly with survey specialists to identify the best scientific approaches to gathering data on sexual orientation (SMART, 2009). This team outlined the three established components of sexual orientation:

1. Sexual attraction which measures an individual's sexual interest in another person – whether that's an attraction to men, women, or to both men and women
2. Sexual identity which measures how an individual thinks of themselves
3. Sexual behavior which measures whether an individual has sex partners who are of the same sex, of the opposite sex, or both.

These three components are necessary to measure sexual orientation, because an individual's sexual identity may or not parallel their sexual attraction and/ or their sexual behavior. Each of these components may have a different association with behavioral health issues and discrepancies across these measures could also impact behavioral health. Therefore, it is important to measure each component separately from each other and from gender identity (SMART, 2009).

### **Existing Sexual Orientation Measures**

Although there is a consensus across HHS that sexual orientation questions should be asked, there is no consensus on either which components of sexual orientation should be measured and on the exact wording of these questions. Currently, there are two federal nationally representative surveys that ask both sexual attraction and sexual identity: the National Survey of Family Growth (NSFG) and the National Health Interview Survey. Both surveys are administered by the National Center for Health Statistics.

#### 2006-2010 NSFG

The National Survey of Family Growth (NSFG) has been conducted seven times since 1973. The purpose of the survey is to produce national estimates of factors affecting pregnancy; medical care associated with contraception, infertility, and childbirth; factors affecting marital status; adoption and non-biological childcare; father involvement; and attitudes about sex, childbearing, and marriage. The NSFG is an in-person CAPI interview with a sample size of about 23,000. The interview averages 80 minutes for female and 60 minutes for male respondents, and there is a \$40 incentive.

The NSFG includes two sexual orientation questions, one on attraction and one on identity. While the NSFG surveys respondents 15 years and older, these two questions are only asked of adults, 18 years or older.

**People are different in the sexual attraction to other people. Which best describes your feelings? Are you...**

- Only attracted to males
- Mostly attracted to males
- Equally attracted to males and females
- Mostly attracted to females
- Only attracted to females
- Not Sure

Note: This is the question for female respondents. For male respondents, the response options, other than 'not sure' are reversed.

**Do you think of yourself as...**

- Heterosexual or straight
- Homosexual, gay, or lesbian
- Bisexual
- Or something else

If a respondent selects "or something else" they are provided with the following open-ended question:  
**When you say "something else," what do you mean?**

#### 2013 NHIS

The National Health Interview Survey (NHIS) has been conducted continuously since 1957. The purpose of the survey is to monitor the health of the United States population and collects information on a broad range of health topics. The NHIS interviews are in-person CAPI interview with a sample size of about 35,000. The interview averages about 1 hour.

The NHIS asks an in-depth version of the identity question of all adults, 18 years or older.

**Which of the following best represents how you think of yourself?**

- Lesbian or gay
- Straight, that is, not lesbian or gay
- Bisexual
- Something else
- I don't know the answer
- Refused

Note: This is the question for female respondents. For male respondents, they would only see "gay" for the first response option and "Straight, that is, gay" for the second response option.

If a respondent selects "something else" they are provided with the following question:

**What do you mean by something else?**

- You are not straight, but identify with another label such as queer, trisexuals, omnisexual, pan sexual
- You are transgender, transsexual, or gender variant
- You have not figured out or are in the process of figuring out your sexuality
- You do not think of yourself as having sexuality
- You do not use labels to identify yourself
- You mean something else
- Refuse
- Don't know

If a respondent says “don't know” to the first question, they are provided with the following question:

**What do you mean by don't know?**

- You don't understand the words
- You understand the words, but you have not figured out or are in the process of figuring out your sexuality
- You mean something else
- Refused
- Don't know

If a respondent selects “or something else” they are provided with the following open-ended question:  
**When you say “something else,” what do you mean?**

**NSDUH Sexual Orientation measures**

After reviewing the current literature and existing survey questions, we decided to use the NSFG questions as the basis for the NSDUH sexual orientation questions for several reasons. First, the NSFG questions provided a shorter and more concise set of instructions, questions, and response categories which were a better fit for the space constraints of the NSDUH survey. The NHIS questions, unlike the NSFG questions, were specifically designed to reduce misclassification of heterosexual or straight respondents as gay, lesbian or bisexual. While the NHIS may provide a better measure of sexual minorities, they only address sexual identity and their sexual orientation questions require several additional questions that require more questionnaire space than was available on the current NSDUH. Another drawback to the NHIS question was their conflation of sexual identity and gender identity into one question. While these constructs are related, we decided to keep the two constructs separate when administering survey questions on the NSDUH, since current research indicates this is more appropriate (SMART, 2009).

In addition, the NSDUH and the NSFG share several data collection methods. For example, both the NSFG and the NSDUH are predominately administered using ACASI, and while the NHIS is administered in-person, it is a CAPI-based survey. Also, the NHIS is a broader, more general health topic survey while the NSFG and NSDUH have more narrow focuses. These shared methods simplified adaptation of the items to the NSDUH instrument, which streamlined testing and survey administration.

We decided to include two sexual orientation questions on the NSDUH, one on sexual identity and one on sexual attraction. While we acknowledge a measure of sexual behavior is necessary in order to have a complete measure of sexual orientation, a sexual behavior question was not added to the NSDUH,

because it was not related to the core topic of the survey, and we desired a conservative approach to reduce the likelihood of breakoffs.

**People are different in their sexual attraction to other people. Which statement best describes your feelings?**

- I am only attracted to males
- I am mostly attracted to males
- I am equally attracted to males and females
- I am mostly attracted to females
- I am only attracted to females
- I am not sure

Note: This is the question for female respondents. This is the question for female respondents. For male respondents, the response options, other than 'I am not sure' are reversed. The NSDUH sexual attraction question varies only slightly from the NSFG questions.

**Which one of the following do you consider yourself to be?**

- Heterosexual, that is straight
- (If female respondent) Lesbian or Gay
- (If male respondent) Gay
- Bisexual

Note: The NSDUH sexual identity question varies more from the previous NSFG question.

Another methodological consideration related to adding sexual orientation items to the NSDUH was the decision on their placement within the existing NSDUH survey content. These questions fit best within the main demographic section; however, the main demographic section is interviewer-administered CAPI. Due to the sensitive nature of the questions, ACASI was the preferred administration mode. Thus, these questions were placed in the last section of the ACASI portion of the survey with questions about U.S. residency. Also, by placing the questions at the end of the ACASI, they are after core NSDUH sections on drug use and mental health which we determined would help reduce the potential effects of the questions on the overall NSDUH trends and response rate. These questions were also only asked of adult respondents, even though the NSDUH interviews youths age 12-17. The decision to restrict these items to adult respondents was due to additional IRB consent requirements that would be required if the questions were asked of minors and the potential effect on the NSDUH overall response rate. Questionnaire changes that would negatively impact youth respondents is especially concerning for NSDUH since a parent or guardian is required to provide consent for any selected youth respondents, and a breakoff due to the addition of sexual orientation questions may cause the loss not only of the youth interview but also any participating adults.

**2013 NSDUH Redesign Dress Rehearsal**

As part of the 2015 NSDUH redesign, SAMHSA conducted a dress rehearsal. The dress rehearsal yielded about 2,000 completed interviews. Of these completed interviews, about 185 were conducted in Spanish. The dress rehearsal interviews were conducted in the field with interviewers who were also responsible for administering the full NSDUH survey. This means that Field Interviewers knew they were a part of a test, but they were instructed to treat the dress rehearsal data collection like the main study. Respondents were unaware that they were participating in a field test rather than the main study. This methodology was used to enable comparisons between the data collected in the main study to the data collected as part of the concurrent dress rehearsal.

Once the dress rehearsal data were collected, SAMHSA used two main forms of assessment – comparison of the dress rehearsal results to other data sets that have similar modes and questions and assessment of missingness. For our purposes, missing data include selection of responses of either "don't know" or "refused" for the question. "Missing Data (weighted)" denotes the weighted percentage of missing data. Denominators for these percentages were based on the total number of cases (i.e., respondents) who were asked the question.

2013 NSDUH Dress Rehearsal Comparison of Sexual Identity among Adults, by Gender:  
Percentages and Standard Errors

<b>Sexual Identity by Gender and Age</b>	<b>2013 NSDUH DR Percent (SE)</b>	<b>2012 GSS Percent (SE)</b>	<b>2006 – 2010 NSFG Percent (SE)</b>
<b>All, 18 to 44</b>			
Heterosexual	94.8 (0.88)	95.7 (0.45)	—
Lesbian or Gay	1.9 (0.57)	1.8 (0.27)	—
Bisexual	3.4 (0.58)	2.5 (0.34)	—
<b>Males, 18 to 44</b>			
Heterosexual	96.6 (1.22)	96.6 (0.57)	95.6 (0.4)
Gay	1.9 (0.80)	1.9 (0.41)	1.8 (0.2)
Bisexual	1.5 (0.74)	1.5 (0.42)	1.2 (0.2)
<b>Females, 18 to 44</b>			
Heterosexual	92.9 (1.33)	94.9 (0.60)	93.6 (0.4)
Lesbian or Gay	1.8 (0.84)	1.7 (0.40)	1.2 (0.2)
Bisexual	5.3 (0.92)	3.4 (0.45)	3.9 (0.3)

When comparing the dress rehearsal results for sexual attraction and sexual identity questions there are only a few datasets that can be used to produce estimates comparable to the NSDUH. For our comparison we used two data sets – the 2006-2010 NSFG and the 2012 General Social Survey, both of which have similar sexual identity questions to the one used on NSDUH. NHIS data were not used because its estimates were not available at the time of the comparison. As noted earlier, the 2006-2010 NSFG sexual attraction question varied from the 2015 NSDUH question, so it was not used for comparison. The General Social Survey only includes a sexual identity question which is similar to both the NSFG and the NSDUH question.

In general, these estimates appear to be similar to each other which suggested that these items can be used to obtain valid estimates of sexual orientation among the adult U.S. population.

A second analysis of these new items was conducted to assess whether they appeared to operate in a similar fashion for respondents regardless of whether the NSDUH was completed in English or in Spanish. For this analysis, we were not concerned with whether there was higher or lower representation of sexual minorities across these two populations, rather we were assessing item missingness rates. A

higher missingness rate in one population over the other could indicate that the questions do not operate the same for both populations.

2013 NSDUH Dress Rehearsal Item Missingness Rates for English, non-Hispanic and Spanish Language Interviews among All Adults (weighted)

Instrument Item	2013 NSDUH DR	
	English language	Spanish language
People are different in their sexual attraction to other people. Which statement best describes your feelings? ( <i>Sexual Attraction</i> )	0.2	1.3
Which one of the following do you consider yourself to be? ( <i>Sexual Identity</i> )	0.3	7.8

For English language, non-Hispanic interviews, sexual attraction had a missingness rate of 0.2 and sexual identity had a missingness rate of 0.3. We considered this an acceptable amount of missingness rate. For Spanish language interviews, however the missingness rates are higher at 1.3 for sexual attraction and 7.8 for sexual identity. We were concerned about the missingness rate of these questions and plan to examine them closely as we get early data back from the 2015 NSDUH.

### Future Research

The analysis of the NSDUH dress rehearsal sexual orientation items gave HHS the confidence needed to place these items in the field for the 2015 NSDUH; however, there are additional dimensions available for further research. Addressing these additional dimensions was not within the scope of the 2015 redesign due to the complexity of the methodological concerns each dimension rates. These dimensions of future research are discussed below.

### Gender Identity

A key component to measuring the LGBT population is conceptualizing and measuring the transgender population in the United States. At present, no other major national federal survey has fielded gender identity questions. There are two issues associated with this area of research – accurately measuring the construct of gender identity and sample size – that acted as barriers to including this topic in the 2015 NSDUH redesign.

Gender identity is complicated because proper measurement involves both the biological concept of sex and the socially-based construct of gender. While the Williams Institute recommends that sex at birth and current gender identity be asked of separately, these two concepts are not necessarily mutually exclusive.

An equally complicating factor is that gender identity, like sexual identity, is a way of identification that sexual majority members may not think about regularly, unlike their sexual minority counterparts. For some respondents, a survey question on sexual orientation or gender identity may be the first time they have ever thought about or have been faced with labeling themselves in this manner, while a sexual minority member may have a much clearer idea what it means to identify as gay, lesbian, bisexual or transgender. This cognitive difference would likely have an impact on data quality and perhaps increase the likelihood of break-offs by the heterosexual majority respondents. In addition, transgender is a term that is still open for a measurement definition and understanding, even among the sexual minority community. This may lead someone who is in the transgender population to identify as gay, lesbian, or bisexual, and not all individuals who fit the constructed definition of transgender use the word “transgender” or “transsexual” to identify themselves. Currently, there is a limited number of surveys that include measures of gender identity which provides an additional level of difficulty with questionnaire development. Due to these concerns, it was beyond the scope of the 2015 NSDUH redesign to develop a measure of transgenderism.

While the actual size of the transgender community in the United States is unknown, it is reasonable to believe that it is small enough to prevent the use of a single year of NSDUH data to produce reliable annual national estimates for this population. Although the NSDUH is designed to enable pooling of multiple years of data to make reliable estimates of low prevalence behaviors, there are no subpopulations measured within the NSDUH that require pooling of years of data for basic statistics. These and other sampling concerns regarding the transgender population were too complex to adequately address in the 2015 redesign. As the national understanding and dialog regarding this population grows, it increases the feasibility of adding this construct to the NSDUH.

#### Sexual orientation question of adolescents

LGBT adolescents are at heightened risk for behavioral health concerns. As a result, we recognize it is important to find a mechanism for identifying these youth and their behavioral health issues. While there is a lot of interest in asking the sexual orientation questions of youth respondents (age 12-17) as mentioned earlier we are concerned about IRB consent requirements and the potential effect on response rate for both parents and youth. Currently, we ask informed consent of a parent before any interview is conducted if a youth is selected. If the IRB requires Field Interviewers to inform the parent that we are asking sexual orientation questions during the consent process, which is where we indicate other survey topics, then we could lose both interviews if the parents had issues with the concept. In addition, research would be needed to assess the appropriate language and components of sexual orientation that would work best for a youth population. For the 2015 NSDUH redesign, we believed the risk to both the NSDUH response rate and ability to trend NSDUH data was too great to include the sexual orientation items for the youth population. As research continues, SAMHSA will continue to revisit adding sexual orientation questions for youth respondents, however at this point in time we will first see how the questions are received by adult respondents before exploring the youth respondent option.

#### Topic Sensitivity

The decision to include sexual orientation items for adults is consistent with the HHS Healthy People 2020 initiative and appeared to have no impact on adult response rates in the NSDUH dress rehearsal. However, during the dress rehearsal, we were repeatedly contacted by field interviewers who were concerned that this topic is still too sensitive for collection in the NSDUH, even in the ACASI section of the survey. Some field interviewers felt that it was disingenuous that we were not informing respondents upfront about the sexual orientation questions and felt that respondents might breakoff at this point in the interview. While we did not see breakoffs or respondent questioning based on this question, it was a topic we were not prepared to address with the Field Interviewers during training. As we implement these items in the 2015 NSDUH data collection, we will monitor complaints from the field to assess whether we need to develop protocols or field materials related to collecting data on sexual orientation.



Spanish Language research

SAMHSA will continue to work with Spanish language experts and other survey experts to continue to develop a better working sexual orientation question in Spanish. One of the primary findings from the Field Interviewers and our Spanish language experts is that Spanish speakers often have issues with the phrase “heterosexual” and often think it means attracted to individuals of the same sex rather than how they identify themselves. This cultural difference in language may require a revision to the sexual orientation items, additional field testing, or caveats to our reporting of sexual orientation related information. We did not have time to conduct additional testing prior to finalizing the 2015 NSDUH survey instrument and have deemed the risk associated with fielding the current Spanish-language sexual orientation items to be minimal.

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