

# National Survey on Drug Use and Health: SUD Module Cognitive Interview Study

## SUPPORTING STATEMENT

### B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

#### 1. Respondent Universe and Sampling Methods

The Contractor will recruit up to 44 participants (30 English-speaking, 12 Spanish-speaking, and 2 additional of either language as needed) from a nonprobability-based sample to reach the targeted final sample size of 42 completed interviews. All 44 participants will consist of volunteers who are screened and determined to meet recruitment criteria.

**English-Speaking Participants.** A total of 30 cognitive interviews will be conducted with English-speaking participants in each of the following four geographic areas: Research Triangle Park (RTP), NC; Washington, DC; Baltimore, MD; and Portland, OR.

The objectives mentioned previously for the cognitive interviewing require the study to include people who match selected characteristics of the target population that NSDUH is trying to reach. Specifically, all participants must meet the criteria for alcohol use, marijuana use, or at least one other substance in the past 12 months in order to ensure that participants will be routed to all items during the interview. Table 3 shows the sample targets for English- and Spanish-speaking participants in each round of cognitive interviewing.

**Table 3. Targeted Final Sample Sizes per Cognitive Interview Round, by Language, Age Group, and Substance Use Type**

Age Group/ Substance	Round 1	Round 2		Round 3	
	English	English	Spanish	Spanish	Total
By Age Group					
12-17	8	7	0	0	15
18+	7	8	6	6	27
By Substance					
Alcohol	4	4	4	4	16
Marijuana	4	4	1	1	10
Other Substances	7	7	1	1	16
<b>Total</b>	<b>15</b>	<b>15</b>	<b>6</b>	<b>6</b>	<b>42</b>

**English-Speaking Youth Participants.** English-speaking participants aged 12 to 17 years old will be recruited from two sources, first from outpatient drug treatment centers in the relevant geographic areas surrounding Research Triangle Park, NC; Washington, DC; Baltimore, MD; and Portland, OR. Contractor staff will contact the treatment centers via e-mail, telephone, or in person. Staff will explain the purpose of the study, provide a letter of support from CBHSQ explaining the importance of the study (Attachment K), and provide any additional details about NSDUH, SAMHSA, or the cognitive interviews as

requested. Contractor staff will ask treatment center staff to identify adolescents who meet the eligibility criteria (past 12-month users of alcohol, marijuana, or other drugs) and provide these individuals with a copy of the advertisement (Attachment A), which references the \$40 incentive.

Second, English-speaking adolescents will be recruited through their parents. Parents attending support groups for family members of substance users (e.g. Al Anon) will be recruited using advertisements that explain the effort to recruit adolescents with past 12-month substance use (Attachment A), which references the \$40 incentive.

Interested adolescents recruited through both routes can then call the number provided and complete a brief telephone screener to verify eligibility (Attachment C). Prior to completing the telephone screener with the adolescents, recruiters will obtain consent to complete the screener from a parent or guardian. Because adolescents are required to have parental consent to participate and must have used substances in the past 12 months, all adolescents will be recruited through these two avenues to allow access to a population where parents are aware of the youth's illicit substance use.

Contractor staff will also ask if a private room can be provided at the facility to conduct interviews. Adolescents will be required to have a parent or guardian accompany them to the interview.

**English-Speaking Adult Participants.** English-speaking adult participants will be recruited from a variety of sources, including outpatient drug treatment centers in the relevant geographic areas, and from advertisements posted in the classified sections of Internet sites (Attachment A). All recruitment advertisements reference the \$40 incentive. Participants who are recruited from outpatient substance abuse treatment programs will be given the option to be interviewed onsite at the outpatient facility, at a nearby Contractor's office (in Research Triangle Park, NC; or Washington, DC;), or in a private location, such as a private room in a public library or community center.

If these methods fail to produce adequate numbers of adult participants specified in Table 3, the Contractor will place newspaper advertisements or distribute flyers in other locations (e.g., medical clinics, student unions) after having received appropriate permissions. Participants who are recruited from these sources will be interviewed at the Contractor's offices or a private location, such as a private room in a public library or community center.

Individuals who responded to the recruitment in Round 1 or Round 2 but were placed on a waiting list could still be eligible to be interviewed in a subsequent round. They will be rescreened to verify they meet the past 12-month substance use criteria.

**Spanish-Speaking Adult Participants.** Spanish-speaking adult participants will be recruited from outpatient treatment centers, Hispanic community center organizations, and via word of mouth. If these methods fail to produce adequate numbers as described in Table 3, the Contractor will place newspaper advertisements or distribute flyers in other locations (e.g., medical clinics, student unions) after having received appropriate permissions. These advertisements will reference the \$40 incentive for participation.

Interviews with Spanish-speaking participants will be recruited only for Rounds 2 and 3. The Contractor will conduct Spanish-language interviews in the Research Triangle Park,

NC, area; Miami, FL; and Houston, TX. Participants will be interviewed at the Contractor's offices or a private location, such as a private room in a public library or community center.

Spanish-speaking participants must meet the criteria for alcohol use, marijuana use, or at least one other substance in the past 12 months (see Table 3).

## 2. Information Collection Procedures

**Recruitment and Screening.** Potential English-speaking adult participants recruited from online advertisements will complete a web screener (Attachment B), and adults recruited from other means (outpatient treatment center, flyer) will complete an online or telephone screener to determine eligibility. Potential participants will be screened for demographic information (age, gender, race/ethnicity, and education), the presence of any physical limitation that would preclude effective participation, and past alcohol, marijuana, or illegal drug use in the past 12 months. A recruiter will contact eligible adults to schedule a 60- to 75-minute interview at the treatment center (for those recruited there), at one of the Contractor's private offices, or at another private setting, such as a private room in a public library or community center. Callers will be notified they will receive \$40 upon completing the interview.

Spanish-speaking adults may either complete the screening over the telephone or in person. A recruiter will schedule eligible participants for a 60- to 75-minute interview at the Contractor's private offices or at another private setting agreed upon by the cognitive interviewer and participant (such as a private room in a public library). Screening respondents will be notified they will receive \$40 upon completing the interview.

Potential adolescent participants or adults calling for their adolescent child will be directed to call into the study line to verify eligibility rather than complete a web screener. For adolescent callers, the consent of a parent or guardian will be required before the adolescent can be asked any screening questions. Potential participants will be screened for demographic information (age, gender, race/ethnicity, and education), and the presence of any physical limitation that would preclude effective participation (using Attachment C). The recruiter will inform potential participants that a parent or guardian must accompany the adolescent to the interview to sign the consent form in person prior to the start of the interview. Eligible adolescent participants will then be scheduled for a 60- to 75-minute interview to be held at the treatment center or at one of the Contractor's private offices. Callers will be notified they will receive \$40 upon completing the interview.

Potential participants who call the Contractor's designated telephone number or complete the screener online after the requisite number of participants have been recruited will be placed on a wait list with their permission, but only for the duration of the three rounds of cognitive interviewing in this study. Individuals on the "wait list" may be called to ask if they are available, such as if one or more originally scheduled participants did not arrive for a scheduled interview. Recruitment and contact information will be kept in locked cabinets and via password-protected electronic files and not shared except with those who are assigned to complete the interviews.

**Interview Process.** Cognitive interviews will be conducted by Contractor staff who are survey methodologists trained in conducting cognitive interviews. Prior to the first round, a cognitive interviewer training will be held to discuss the goals of the project and train interviewers on the procedures specific to this study.

When each participant arrives for an interview, he or she will be greeted and asked to listen to instructions and informed consent/assent information from the interviewer and parental permission when applicable (Attachments D and E). All cognitive interviews will be audio/screen recorded upon consent of each participant, and a subset may be observed by authorized project staff (in person or remotely), again upon consent of each participant. Participants will have the right to decline to be recorded and/or observed without being excluded from participation.

Before the interview begins, the participant will be read the Participant Informed Consent/Assent Form (Attachment E). The interview will commence after the participant has given his or her consent. The interviewer will begin by asking the participant for demographic information (to determine how the interview program should route the participant through questions in the interview), then the interviewer will show each respondent how to navigate through the interview program. Participants will next complete a tutorial to learn how to complete the ACASI portion of the survey. Only one new ACASI tutorial question was added to the SUD module, which explains how participants should answer grid-style survey questions.

Following the tutorial, participants will complete an abridged version of the 2018 NSDUH main study's core drug screening modules for alcohol, marijuana, cocaine, heroin, and methamphetamines, as well as medical use and misuse of prescription drugs. These modules will include the same questions that are used in the 2018 NSDUH, except that some questions not necessary for cognitive testing (age at first use) have been removed. No new questions were added to these modules for cognitive testing. Answers that participants give to questions about use of substances will determine whether they are asked more detailed questions about substance dependence and withdrawal.

Cognitive interviews will be iterative with changes made to the questionnaire after each of the first two rounds based on the findings from that previous round. For all rounds, participants will complete the core drug screening modules via ACASI. For the SUD module, participants will be given the option of having the questions played over the computer's speakers or turning off the sound and reading the questions aloud. These procedures are required so the interviewers can ask cognitive interview probes to a participant after certain questions. Providing participants the option of hearing the questions or reading them allows the cognitive interview process to more closely mimic an actual interview where participants can turn down the volume and read the questions if desired.

Interviewers will be provided with a series of probes and questions that will further explore the quality of responses and whether these responses are meeting the researchers' goals (Attachment F, Protocol for Cognitive Interviews). Interviewers are instructed to use the probes as a guideline, but are not required to use all of them, be limited by them, or to read them exactly as written (Beatty, 2004). Interviewers may probe based upon the content of the interview and participant responses. Examples of the types of pre-scripted

probes that will be administered are found in Attachment F (with the probes highlighted to differentiate them from the rest of the questionnaire). Interviewers may ask spontaneous probes based on the content of the interview and participant responses. Spontaneous probes (e.g., “Can you tell me more about that?”) will be used as needed to further assess whether potential issues with question comprehension, recall, interpretation, and mapping their answer to the response categories.

After the interview, participants will be thanked and given \$40 cash and a participation receipt form (Attachment G).

At any point, if respondent exhibits signs of distress or agitation, or indication of imminent danger of harm to oneself or another based on indirect and direct statements, the interviewer will follow the distressed respondent protocol (Attachment J).

**3. Methods to Maximize Response Rates**

To ensure the participation of recruited participants, each selected person will receive a reminder telephone call the day before the interview by Contractor staff. The call will include directions to the interview location and an opportunity to ask any questions about the purpose or logistics of the study. The \$40 incentive will also help ensure participation.

**4. Tests of Procedures**

The activities to be conducted under this approval are in themselves tests of procedures.

**5. Statistical Consultants**

The basic NSDUH design was reviewed by statistical experts, both within and outside SAMHSA. Statistical experts reviewing portions of prior NSDUH designs include William Kalsbeek, Ph.D., University of North Carolina; Robert Groves, Ph.D., Georgetown University; and Michael Hidioglou, Ph.D., Statistics Canada.

Monroe Sirken, Ph.D., National Center for Health Statistics (NCHS) (retired); James Massey, Ph.D., (deceased) also of NCHS; Douglas Wright, CBHSQ, SAMHSA (retired); Joseph Gfroerer, CBHSQ, SAMHSA (retired); and Arthur Hughes, CBHSQ, SAMHSA (retired) were consulted on the 1992 and subsequent survey designs.

Peter Tice, CBHSQ, SAMHSA, is the Government Project Officer, (240) 276-1254. Jonaki Bose, Chief, Population Surveys Branch, CBHSQ, SAMHSA, is the primary mathematical statistician responsible for overall project management, (240) 276-1257. RTI senior statisticians contributing to the design are Paul Biemer, Ph.D.; James Chromy (retired), Ph.D.; Ralph Folsom, Ph.D. (retired); and Rachel Harter, Ph.D.

## **Attachments**

Attachment A	Recruitment Flyers
Attachment B	Web Recruitment Screener
Attachment C	Telephone Recruitment Screener
Attachment D	Parental Permission Form
Attachment E	Participant Informed Consent/Assent Forms
Attachment F	Protocol for Cognitive Interviews
Attachment G	Cognitive Interview Receipt for Participation
Attachment H	Federalwide Assurance
Attachment I	Cognitive Interview Survey Questions
Attachment J	Distressed Respondent Protocol
Attachment K	SAMHSA Letter of Support

## References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Beatty, P. (2004). The dynamics of cognitive interviewing. In S. Presser, J. Rothgeb, M. Couper, J. Lessler, E. Martin, J. Martin, & E. Singer (Eds.), *Methods for testing and evaluating survey questionnaires* (pp. 45-66). New York, NY: John Wiley & Sons.
- Forsyth, B. H., & Lessler, J. T. (1991). Cognitive laboratory methods: A taxonomy. In P. P. Biemer, R. M. Groves, L. E. Lyberg, N. A. Mathiowitz, & S. Sudman (Eds), *Measurement error in surveys* (pp. 393-418). New York, NY: Wiley.